

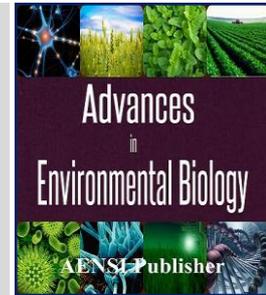


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## Application of Islamic Architecture at Sultan Abdul Samad Building, Kuala Lumpur

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### ABSTRACT

This paper discusses the analysis on the architecture of Sultan Abdul Samad (SAM) building in Kuala Lumpur. Specifically it will look at application of Islamic Architecture elements on the building. SAM was built during under British colonization. Designing the existing building took into consideration some of the features of buildings in several Islamic countries. The predominantly Moorish appearance of the building suitably reflects the cultural background of Malaysia. SAM is one of Malaysian Heritage list. It is important to revisit the principles behind it. What are the significant to local culture and how it being accepted towards Malay community.

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## INTRODUCTION

In the middle of 19th century, when Sultan Abdul Samad ruled Selangor, the Resident of British had welcomed many Chinese to Malaya which the main reason was the attraction of the tin mines opened in Malaya. One of the states, Selangor had mines near the area where Gombak and Klang Rivers met. In 1863, came a man named Yap Ah Loy, who is a brave and genius man, who built a village which has developed to be a city, Kuala Lumpur (meaning madly confluence). Under Yap Ah Loy, this village grew and prospered with a small population of 4054 in 1884 to 25,000 in 1896, marking a six-fold increase in just 12 years. In 1896, the area was not larger than ½ sq miles and the river separated the administration and business section, this gives a good idea of how Kuala Lumpur looked like during that time.

Sultan Abdul Samad building which is one of Malaysia's heritage building and a famous and historic landmark in the Federal Capital. It is situated right at the heart of Kuala Lumpur. Directly opposite the building are the famous Royal Selangor Club and the Independence Square (Dataran Merdeka) which acquired its name because it was at that very spot that the Union Jack flag was lowered down on August 31, 1957 and the new flag of the Federation of Malaya was hoisted. This marked the passing of an era and the birth of a newly independent nation, the Federation of Malaya (Persekutuan Malaya).

The Sultan Abdul Samad building was constructed at the end of the last century and the site was chosen because of its central position. A.C. Norman, a British architect who worked for the Public Works Department in Kuala Lumpur, in designing the existing building took into consideration some of the features of buildings in several Islamic countries. The predominantly Moorish appearance of the building suitably reflects the cultural background of Malaysia.

#### Location:

SAM was built between Gombak and Klang Rivers. On one side of the Sultan Abdul Samad building, across the Gombak River, are the Subordinate Courts, the former High Court building and the Jamek Mosque (Masjid Jamek). On the other side is the former General Post Office (Pejabat Pos) building which is now houses the Court of Appeal Registry (Infokraft, Textile Museum; originally Department of Public Works); next to it is the Malaysian Handicraft Centre and further down is the Dayabumi Building which is the first Malaysian "Turnkey System" building.

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*Application of Islamic Architecture in Sultan Abdul Samad Building***Table 1:** The Features adopted for Sultan Abdul Samad building.**1. Dome:**

The dome was one of the most prominent features of mosque and as to this building. The three domes originally made of timber and bricks and painted black now are replaced with copper cladded domes. The central dome is, however, unusual and it was actually an integration of two traditional features the dome and the kiosk. It is placed on top of the clock tower flanked by two smaller domes with descending spiral staircase. He adapted the design of classical domes where they usually had lantern to crown the domes. Here, the domes are painted gold in color to give attraction and symbolic our riches country.



Three domes originally made of timber and bricks and painted black now are replaced with copper cladded domes.

**2. The way of expressing the materials on the Wall:**

The external walls were mainly made of with colored bricks while the interior walls were rendered. Two parts of the façade as have horizontal bonding in alternate course of bricks and white painted plastered strips like those found in later Cairo mosque , who borrowed from the Byzantines , like mosque , this building also has crests all around.

**3. Internal courtyard:**

Strong expressing the symmetrical axial just like Taj Mahal building.

**MOORISH ISLAMIC ARCHITECTURE**

One of the main features of Moorish architecture is the consistent use of arches in many of the most important buildings. The *Mezquita* in Cordoba and *Alhambra Palace* in Granada, feature this style. Arab arches built during the Caliphal era (when Arab rulers in Andalus decided to have their own Caliph) were built in a horseshoe design, with bricks and stone laid alternately within the arch and giving it a striped pattern. As time went by the horseshoe shape made way for intricate arches that curved to a point.

**Application in Sultan Abdul Samad Building:****Arches**

The architect used arcade extensively throughout the building. This Feature can also be found abundantly in mosque. The arches found in this building are of the arches were made of bricks and white painted plastered blocks. The arches are of pointed horseshoe type with varying spans.

**POST-MOORISH ISLAMIC ARCHITECTURE**

The Christians re-conquered the peninsula in the 15th century and set about removing many of the Arab buildings, converting the mosques into Christian churches by adding the steeples, arches and bell towers of Northern European Gothic styles. The intermingled styles of Islamic and Christian led to the creation of a style called *Mudejar*. Some of the best examples of this can be seen in the *Mezquita* in Cordoba where the Arab Minaret has been replaced by a Christian bell tower.



The Torre de Alminar

#### Application in Sultan Abdul Samad Building A Clock tower

The clock tower on the axis seems to be balanced by the two turrets. Without the turrets, the design might not be successful as the central tower look too tall and not of place. The location of the clock tower at the central of the building shows the symbolic of our country as democratic, Islamic and stability economic country.

Whether it was dome on purpose or by accident the spiral staircases in the turrets, tend to point up to the tower, thus accentuate the important of it. The turrets and both projecting ends help to break up a flat façade.



In the front elevation, the horseshoe arches are bricks and stone laid alternately within the arch and giving it a striped pattern. The ground floor arcades have a much wider span than those upstairs showing that Norman gave the building a feeling of proportion. Relief arches were also used in the interior.



#### INDO-ISLAMIC ARCHITECTURE:

The Imperial Style developed under the patronage of the Sultans of Delhi. The Provincial Rulers who were mostly Muslims patronized the Provincial Style. Though the Imperial Style influenced this style yet it had its own individuality. The Hindu Architecture evolved under the Hindu kings of Rajasthan and Vijayanagara Empire with an influence of the Imperial style. The Mughal Architecture was a blend of the Islamic Architecture of Central Asia and the Hindu Architecture of India.

The development of the Muslim Style of Architecture of this period can be called the Indo-Islamic Architecture or the Indian Architecture influenced by Islamic Art. This style was neither strictly Islamic nor strictly Hindu. The Muslims provided spaciousness, massiveness and breadth to the Hindu architecture. They added mere or arch, dome and minaret to the indigenous architecture. The Muslims borrowed the design of kalash on the top of the Hindu temple by placing a dome on the top of their buildings. The Hindu style of decoration was applied by the Muslims to decorate their arches.

The Quila-I-kunha Mosque is an example of Indo Islamic architecture. The prayer hall of the Quila-i-Kunha mosque doorways with the 'true' horseshoe-shaped arches. The styles favor ornamentation and buildings of both styles are marked by the presence of an open court encompassed by chambers or colonnades



#### Application in Sultan Abdul Samad Building

##### Ornament and space

These are few ornaments except that in the tower like the Agee Arc. The four small domes that crown the supporting pier for the porch resemble these from India mosque.



The interior is a bit disappointed compared to the exterior. The long corridors were divided up for offices which require artificial lighting the whole day because the corridors are too wide.



It could be seen that the section below the tower is more interesting than the rest of the interior. It has “flow-out”. Staircase is out of symmetry to improve the space. The void gives a sense of a large open space as one enters the building. The ceiling height is the highest above the void it gets lower as one moves on to the corridors and rooms. Thus, the spaces were designed according to their importance. The porch at the main entrance is quite impressive, being so, with number of wide arches and piers.

#### *Principles and elements of Design:*

It was the first group of building or similar design, all built around the turn of the century by the newly formed Public Works Department, that were to become major landmarks of the future city, Kuala Lumpur.

The building was designed in the Saracenic Style with fully Islamic features, principles and elements. This style was more in keeping with tropical environment and was approved by the colonial secretary. The length of the building is 470feet.

#### *Elements of Design:*

##### 1) *Form:*

Islamic building cannot always be clearly identified by their form because each form is not restricted to any other purpose; on the contrary, each form implies multiplicity of purpose and flexibility of space. The same structural combinations, the arcades, the domes, the vaulted iwans, the high portals, can be applied to buildings as diverse as a palace, a stable, a school or a mosque. The same true is the themes of their decoration, which can be interchangeable.

The shape of Sultan Abdul Samad Building is a hybrid product of a creative interaction between diverse architecture forms. Islamic form has been used in this country for a building type and social form.

The building is surrounded by the Horseshoe arch to perform the repetition. The minarets constructed in square and circle to supported the domes on top, this constructed at the façade of the building make it unity in designed and represented certain meaning in Islamic religious.



**Fig. 1:** Sultan Abdul Samad Building at present.

#### 2) *Space:*

The decoration in Islamic architecture is not limited to the covering of surfaces; it also helps to transform space. Space is defined by surface and since surface is articulated by decoration, there is an intimate decoration. It is the variety and richness of the decoration, with its endless permutations, that characterizes the buildings rather than their structural elements, which are often disguised. Many devices typical of Islamic architectural decoration – for example, the muqarnas – are explained by a desire to dissolve the barriers between those elements of the buildings that are structural (load-bearing) and those that are ornamental (non-load-bearing)

The Sultan Abdul Samad building with the length 470feets was used to divide into the different components to suite the certain activities. The rectangular spaces are erected into different types of shapes.

The space such as gallery, offices, hall, space in the minarets and other chamber are divided to use for certain activities.

#### 3) *Light and Shadow:*

Light is a mystical symbolism has been attributed by some authors to the careful control of the sources and play of light in Islamic architecture. For those writers, light is the symbol of divine unity, and they believe that ‘the Muslim artist seeks to transform the very stuff he is fashioning into a vibration of light’. In addition to having a religious dimension, light has in Islamic architecture a decorative function which is two fold: it modifies other elements of decoration and it originated patterns.

Architectural elements in Islamic buildings and the materials chosen for their decoration are often shaped so as to reflect, refract and be transformed by light and shade. There is a subtle use of glossy floor and wall surfaces to catch light and often throw it over the facets of diamond-shaped ceilings, which in turn reflect it back. The muqarnas trap light and refract it; ribbed domes appear to rotate according to the time of day. Facades appear to be made of lace-like materials and become transparent screens when the sun strikes their stucco decoration – deliberately pierced and fashioned to create this effect of disembodiment. Mirrors, luster tiles, gilt wood and polished marble all shine, glitter and reflect in the strong, harsh light of the Islamic countries.

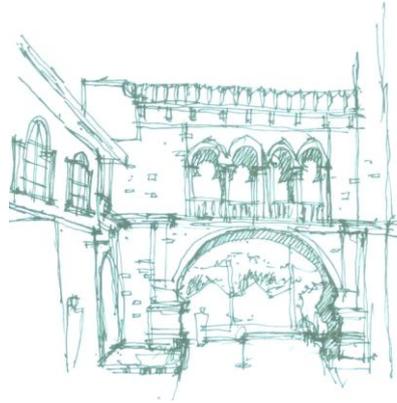
The different designed of the structures of the High Court at the Sultan Abdul Samad Building, made the form change according to the angles of light and shade. Light and Shade create strong contracts of planes and give texture to sculpted stone and brick surface. The artificial lighting is used to complement the areas where the natural light cannot reach.

#### 4) *Texture and color:*

Color: The universal application of glazed tiles marks the third phase of Islamic architectural decoration, together with an emphasis on color rather than on texture. In the western Islamic world of Spain and North Africa, tiles are generally confined to the lower parts of walls and are mostly geometric in design. Sharp contrasts of dark and light colors – in the Alhambra, for example – are counterposed to produce star-shaped and chequered patterns of great visual complexity. Alternatively, harmonically related colors are used to define the geometric patterns of tile-mosaic panels and dados.

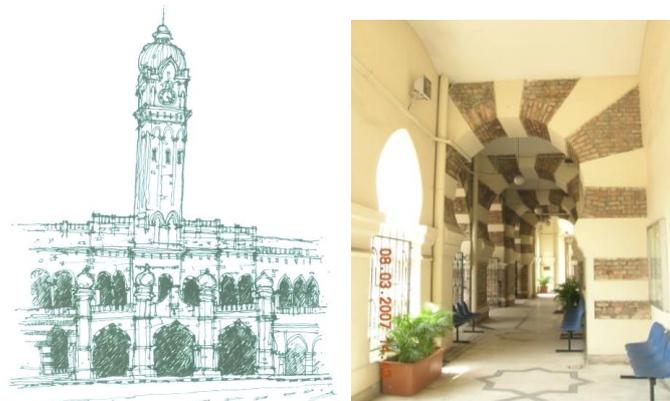
Mughal buildings in India, although they rarely have tile decoration, reflect the same principles of decoration as those in Iran: they too aim at an overall effect, at total impact where there are no sharp contrasts of texture and the same type of design covers the whole building. In India, the effect is achieved with more

precious materials, marble inlaid with hard and semiprecious stones. The result, however, is more sober than in Iran because the range of color is limited, and the general effect sought is monochromatic, with an emphasis on white marble or red sandstone backgrounds.



**Fig. 2:** This element in Islam buildings and the materials chosen for their decoration are often shaped so as to reflect, refract and be transformed by light and shade.

The Sultan Abdul Samad Building which is widely used the facing brick, with the natural color to suite environment. The bricks widely used for wall surfaces minarets and columns. The arches, posts and sculptures are constructed by concrete. The hardwood are used for doors opening and window frames. The glass used windows is to give more natural light to flow into the rooms.



**Fig. 3:** Color is to give the hue, intensity and total value of form's surface. The natural red brown colors bricks are widely used to comfort the views.

#### *Principles of Design:*

The building is designed base on the Islamic and few British colonial styles. They are 6 principles of designed to create in this building.

##### 1) *Unity:*

The Sultan Abdul Samad building has unity of plan, elevation, and section. It is so arranged in plan and so studied in the shape and volume of its interior spaces and have its exterior composition 50 conceived and detailed. The building achieved the unity of simple geometrical form, all felt to be unified wholes.

##### 2) *Repetition:*

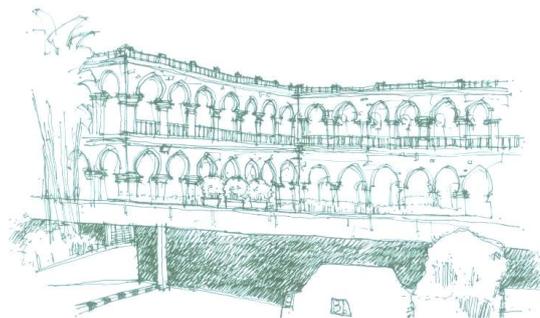
The curved lines, space and texture of the Sultan Abdul Samad Building are repeated through out the design to tie the structure together to form aesthetical and to achieve unity. Repetition can see very clearly in the Sultan Abdul Samad Building, the lines joint repeatedly to create a geometrical forms or shapes. The brick wall pasted so repeatedly arrange, making the building more successfully achieve unity and rhythmical.

By the 10<sup>th</sup> century, the continuous arabesque with ogee motifs, half-palmettes and overlapping stems was well established in the stucco, marble and mosaic decoration of the Great Mosque of Cordoba. By the 11<sup>th</sup> century, mature arabesque decoration was widely used on architecture in both Spain and Egypt. The classic arabesque of this period is that used in square panels on the façade of the Great Mosque of al-Hakim in Cairo,

where interlacing are built up on geometric principles. By the 13<sup>th</sup> century, examples of arabesque are known in India in the Quwwat al-Islam in Delhi, combined with motifs from the Hindu tradition, the lotus scroll in particular.



**Fig. 4:** At the centre of the internal courtyard, we can clearly see there is a central axis line separates both the two buildings.



**Fig. 5:** The arches are repeated throughout the whole building.



**Fig. 6:** The brick walls are nicely pasted and it is repeated throughout the whole building.

### 3) *Rhythm:*

There are many types of rhythm which are of special importance in the Sultan Abdul Samad Building. First, there is the repetition of shapes- windows, columns, wall areas and arches. Second, there is the repetition of dimensions, such as the dimension of between supports or those of bay spacing. Third, is about the progressive vertical rhythm of the window that implies a strong sense of motion, either from the small to the large and from the large to the small.

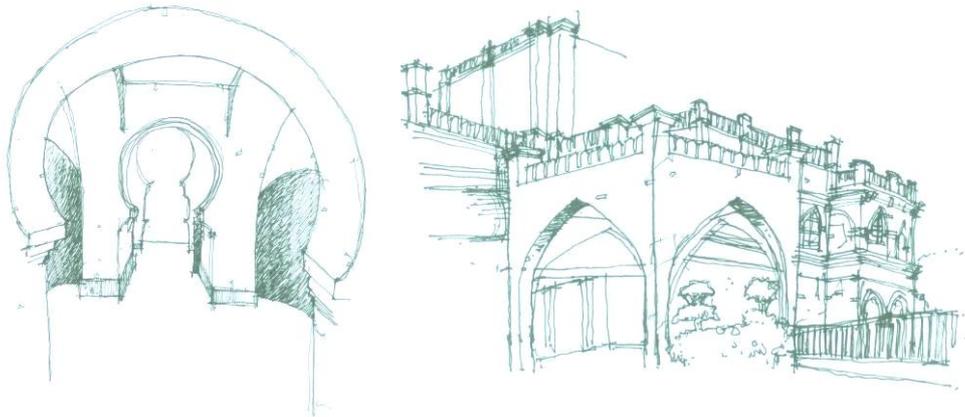
#### 1) *Variety:*

The front view of the Sultan Abdul Samad Building, it is full of variety in forms, light and shade, shadow, window and arches. It gives different appearance and pattern to reduce the dull and tiresome to the viewer.

#### 2) *Emphasis:*

The building here are covered with entire brick work with old structures and materials but created in modern design. The white color line work shows clearly the line across and repeatedly through the building.

The most principle of emphasis is a taller cylindrical clock tower that standing at centre, to perform a power, balancing, ideas of function and feeling of beauty. It is to give the attraction to the building.



**Fig. 7:** Rhythm.



**Fig. 8:** The staircase of SAM building.

### 3) *Balance:*

The building is well balanced work of art, because of the emphasis cylinder clock tower on the center of balance, to complete satisfactory and legible. And at the four corner of the building, there are four projecting cylinder tower with hemisphere dome on top, they are constructed to give balancing to the building.

### *Conclusion:*

The Sultan Abdul Samad Building in Jalan Raja is one of the most well known landmarks in the city. It was recommended that an oriental style would be more suitable with the tropical and cultural environment here and hence the Moorish style which was a mixture of European function and Islamic form were chosen for the exterior of the building. This style was later adopted for the design of most public buildings in Kuala Lumpur built in the period that followed.

It is constructed of red brick with imitation stone dressing with a tiled roof. The exposed red brick with the white plaster lined arches and striped courses became known as the blood and bandages style.

The plan of the building is asymmetrical with an F-shaped plan form. The verandahs which surround the building are arcaded and several forms of arches were used such as pointed arch, ogee arch, Horse-shoe arch, multifoil arch and four-centered arch were all emphasized by the imitation stone dressing. Indian patent stone with Islamic geometrical patterns was used in the flooring.

The building has three towers, that is the central clock tower which is square in plan and two shorter circulation towers with outer stairways that climb the towers in a spiraled fashion. All three towers have onion shaped domes with copper coverings.

Although this building is a century old, it still retains an imposing presence in Kuala Lumpur. Today, this building is the focus of thousands of Malaysian from all walks of life to gather in front of the building to user in every New Year on the stroke.

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