

# Mosque Architecture in Malaysia: Classification of Styles and Possible Influence

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**ABSTRACT** *The main purpose of the research is to set up an initial framework of architectural description of Muslim architecture in Malaysia within the context of the architectural concern of 'style'. The main concern is to elucidate clearly the different architectural styles of Muslim architecture and suggest hypotheses for future studies in relation to the forces which might have been instrumental in the conception of these styles. The research is important in order to project the message that much of what we understand as 'Islamic Architecture' in the present literature comes from various artistic and political agendas that have questionable merits compared to an analytical approach of Islamic architecture from the Qur'an and the Sunnah of the Prophet Muhammad (peace be upon him). The research is also important for practicing architects to understand that the present syntax of 'Islamic Architecture' with its references in Middle Eastern, Mid Asian and African models are not necessarily the best precedence to project the architectural message of Islam. As opposed to the three classification of Traditional, Colonial and Modern styles of mosque architecture, the research has identified seven main styles with a suggestion of the rationale and influences of those styles.*

## 1. Introduction

### 1.1 The Idea of Islamic Architecture

There are many questions that are related to the idea of what constitute 'Islamic Architecture'. The most prevailing view seems to be that Islamic architecture possess a set of architectural vocabulary that is indisputable. The most consistent perception of Islamic architectural vocabulary is represented by the many monumental state and community mosque that uses the Middle Eastern or Central Asian architectural garb as dutifully exemplified in its lavish splendor as in the Wilayah Mosque in Kuala Lumpur and Putra Mosque in Putrajaya. The present research seeks to establish that this idea of a consistent architectural vocabulary is not what Islamic architecture is all about. We wish to show that Islamic Architecture has embraced many forms and vocabularies throughout the centuries in response to climatic, technological and socio-political concerns. The focus of this study is in Malaysia and we have identified

eight different major styles of architecture each with its probable socio-political rationales. This study is important to pave the way of a more enlighten intellectual discourse towards a progressive theoretical construction of the idea of 'Islamic Architecture'.

## **1.2 Research Scenario on Mosque Architecture**

There is not an abundant literature on the subject of mosque Architecture in Malaysia. However there are five types of writings and concerns surrounding the meaning and description of mosque architecture in this country.

The first type of writing is more concerned with historical description of mosques in Malaysia. Foremost in this area is the writings of the late Abdul Halim Nasir. He was an avid traveler and a prolific writer attached to the National Museum of Malaysia. He has traveled widely in the Malay World and have taken many photographs and provided quite a number of sketches, oral traditions and his own observations of mosques in this region. There are generally two problems in his writings. Firstly, being trained not in the field of architecture, much of his analysis, description and classification particularly that of the modern mosques are wanting in the aspect of modern architectural theory. Secondly, his academic rigors in presenting comparative analysis of typologies and description is limited to a learned persons first hand account and not a systematically and scholarly exercise. We wish not to belittle his work because his contribution to the foundation of Malay architecture is monumental and indisputable.

The second type of study is a more rigorous form of architectural description as found in our writing 'The Architectural Heritage of The Malay World: The Traditional Mosques'. This book contains measured drawings and detailed oral traditions of six traditional mosques with a comparison of their architectural styles. All of the empirical data was taken from the Center of Built Environment in the Malay World or KALAM (Pusat Kajian Alam Bina Melayu) based in the Faculty of Built Environment, Universiti Teknologi Malaysia. However this book is lacking in the examination of the many the historical sources in the Malay World.

The third type of study is related more to a cursory historical description and a tinge of modern theory construction as found in the works of the architect David Mizan Hisham. As a practicing architect, Hisham writes well in relation to a typological approach in his description but lacks sorely in the historical and religious backing of many of his statements. The problem of typological writings is that it schemes the surface of architectural design and merely looks at the outward form as a conclusion without knowing its content.

The fourth type of writing is concerned primarily with determining the iconography of mosques in Islam and thus attempts to establish a theoretical design idea for that building. One author that is famous for his esoteric suggestions of the meaning of mosques come from Nakula. We feel that he relies too much on Sufistic ideas at the expense of other interpretation of Islam. His works suffers much the same problems of Syed Hussein Nasir and Titus Butckhardt simply because he seems to rely much of his foundation research on these two scholars.

The fifth genre of writing comes from our work in attempting to establish a design formula for mosques by using the socio-political analysis of the religious sources of the hadiths and the Qur'an. In our books, 'The Mosque As A Community Development Center' and the book 'Peranan, Kurikulum dan Reka Bentuk Masjid Sebagai Pusat Pembangunan Masyarakat' (Role, Curriculum and Design of Mosques as a Community Development Center) we have shown how Western architectural and historiographical perspectives have wreaked havoc on our understanding of the mosque in relation to its role and architecture. We have also hinted at the problem of Sufistic and Shia'istic framework in many writings of mosque architecture that have blindly been accepted by clients and architects in their justification of any design ideas. In our work we have relied solely on the religious sources of the hadiths and the Qur'an interpreted within the sunni perspective of Islam and have derived the eternal idea of the mosque in Islam. This idea is then combined with the considerations of the contemporary societal problems of Muslim communities to produce an activity and an architectural blueprint of mosque development.

The present research attempts to fill in many of the gaps left in the five writing genres as stated above. What we seek is merely a more detailed classification and a suggestion of probable reasons that might have led to the decision to design mosques as such in its own historical period.

### **1.3 Method and Scope**

In order to describe fully the various kinds of Muslim architecture in Malaysia, it is important to adequately sample the different typology of spaces and buildings. The research began by collecting pictures, drawings and photographs of spaces and buildings from books, actual settings and the archive of KALAM. The types of buildings concerned are houses, palaces, mosques, madrasas, centers of administration, offices, pavillions, tombs and cemeteries. It began to dawn on the researcher that there the work of documenting and sorting was too much for a short term project and thus the decision was made to scope the classification by using only mosques.

Even though the documentation of mosques have resulted in several classification of styles being identified, this does not represent an exhaustive survey of the styles of the building type. Of the Traditional Vernacular and Sino-Eclectic style, there is every confidence that the ones documented are quite exhaustively representative. This could also be said of the mosque with the styles of Post-Modern Revivalism, Modernistic Expressionism, European Classicism and North Indian Muslim architecture. The most varied style comes from the Modern Vernacular. The style which I term as Modern Vernacular is the one to focus on in future research since it is the greatest in number and most varied in design. It is very likely that this classification can be broken down into more sub-styles.

## **2. The Idea of Styles and Mosque Architecture**

### **2.1 Introduction**

The main purpose of this section is to clarify the meaning of 'style' and the various intellectual contexts which it has been debated. The chapter then describes the

mosque within the perspective of these contexts. The chapter also gives an idea of the functions and roles of the mosque in the Muslim world.

## **2.2 The Question of 'Style' in Architecture**

One of the major problems in the discourse of Islamic architecture is the relevance of the idea of a 'style' as opposed to the more fundamentalist approach of vernacular revivalism or the radical approach of interpreting the Sunnah of the Prophet Muhammad. First and foremost, it is important to describe Muslim architecture rather than Islamic architecture because the former can be the latter but not necessarily vice versa. In the context of the field of architectural theory and history, one must establish the latter in order to derive ideas of the former. Historical description and classification are the building blocks of architectural theory. In architecture, theory is denoted as an approach to design, not as a hypothesis to be proven as in the other sciences.

The idea of an architectural style is another matter of strong debate. The question of the use of an architectural style as a valid approach to design was hotly debated by the early modernist in Europe and America about one hundred years ago. In his 'Towards a New Architecture', Le Corbusier attacks the Ecole de Beaux arts approach of stylization as frivolous and wasteful. Louis Sullivan and Frank Lloyd Wright both warned against the futility and artificiality of reviving classical styles for American buildings. James Ferguson, about 150 years ago mentioned in his writings that the Greeks, and Egyptian 'style' of architecture were the only true styles and other kinds were merely imitation or adaptation of the original. Laugier's and Viollet le Duc's discourses on architecture both call for a return to the fundamentals of architecture to be the answer to an original architecture rather than the revivalism or eclecticism prevalent at the time. About the same time as the modernist were criticizing the idea of a style, the move towards identifying vernacular architecture as the most honest approach to architecture was heard in the musings of John Ruskin and William Morris who was said to be the proponents of the Art and Craft movement in Europe. Wright took up the call and displayed a unique language of materials he said were more organically suited for the America.

Up until the 1950's, the idea of following a style was dead and the practice of the Renaissance, Rococo, Baroque, Palladianism, Mannerism, Revivalism, Eclecticism and Picturesque were mostly discontinued. The 1960's saw a reaction against the machine approach of the modernist masters by persons such as Robert Venturi, Charles Moore and Alvar Aalto towards a more humanistic architecture with references and messages. From the idea of architecture as a mere engineering shelter, we have now architecture as an emotional construct. Charles Jencks and Michael Graves entered the scene and ushered in a Pandora Box of 'anything goes' in relation to delving the past for architectural semantics, syntax and vocabulary to suit specific messages in architecture. Inadvertently, this phenomenon of Post-Modern architecture was interpreted simplistically by architects as a 'free-for-all and grab anything' you want attitude of stylistic imitation, adaptation and eclecticism.

After a long lull in architectural development, Muslim countries came back into the global scenario perhaps because of the discovery of oil and the resurgence of so called 'Islamic fundamentalism'. The period of rapid urbanisation in many Muslim countries came during a time of self governance which coincided with the questioning of the internationalization principles of modernism and the dehumanization of buildings as mere machines. The energy crisis, the spirit of nationalism, the rediscovery of the idea of Islam as a complete way of life from the sunnah and the rise of local academic scholarship and rediscovery of the validity of vernacular architecture fuel a call for a 'new' kind of Islamic architecture.

This research seeks to place the development of Muslim architecture within the perspective of architectural discourse and also suggest possible hypotheses of social and political concerns.

### **2.3.1 An Overview of the History and Functions of Mosques**

The following section presents a short discussion of the history and functions of the mosque in Islam. Much of the writings are adapted from our previous work *The Mosque as a community Development Center* (Penerbit UTM, 1998).

### **2.3.1 A Brief History of the Mosque**

Before the Revelation of the Qur'an to the Prophet Muhammad (peace be upon him) had commenced in the year 610 of the Common Era, the mosque referred to in Arabic literature would indicate any of their temples and includes specifically the Ka'ba. When the Prophet began preaching Islam he had met secretly at houses and in the desert to teach Islam and pray together in the early form of Muslim prayer. The Prophet had migrated to Madina in the year 622 and had established a prayer place at Quba'. Although this is considered as the first mosque of Islam, it is the mosque of the Prophet in Madina which was to become the most renowned mosque in the history of Islam.

The mosque of the Prophet at Madina had served many different functions. It was where he built his residence which comprised of several rooms aligned in a single row for his wives. The mosque was used as the meeting place for the Muslims and for the congregational prayers. The mosque was also used as an education centre, a courthouse, a military camp, a hospital, a shelter for the homeless and a place of celebration. Jews and Christians frequent the mosque in their dealings and debates with the Prophet. The mosque then was truly the centre of the Muslim life.

After the death of the Prophet, the first four caliphs who were his closest companions had continued to use the mosque as he had done during his lifetime. During the time after his demise Islam had expanded greatly to other territories outside the realm of Arabia. Military camps were established at Kufa, Fustat and Basra. The first act of the generals was to establish a mosque huge enough to contain the army. The generals had houses for themselves built adjacent to the mosque and created spaces for the storage of arms and the treasury. Almost everything concerning the community was done in the mosque from administrative affairs to the Friday Prayers. In the old towns conquered by the Muslims such as Damascus and Jerusalem, churches, palaces and temples were converted into mosques for the use of the caliph and the Muslims. In every Muslim city, at that early time, there was a single huge mosque for all the Muslims used as a gathering place for the caliph to address the people and for daily business and administrative activities. New caliphs and

governors of provinces had to be sworn in at the mosque where the practice of officially offering fealty by the people to the leaders was strongly adhered to with precedence from the tradition of the Prophet Muhammad (peace be upon him) and the first four caliphs.

Sunni historians has classified the period between the death of the Prophet and the death of the fourth caliph as the period of the 'Rightly Guided Caliphs'. It was during their time that mosques were simple and humble in architectural expression but were utilised within the tradition of the Prophet Muhammad (peace be upon him).

The Umayyad reigned for a century after the end of the period of the Rightly Guided Caliphs. The reign of the Umayyad saw the mosque becoming more isolated and specialized in purpose. The ruler had separated his living quarters from the mosque and had established private dwellings in the form of palaces and retreats. It was also during this period that the *madrassa* mosque came into being. At this time the majority of Muslims had lost faith in the caliphs as guardians of the true way of Islam and had convened in great numbers at the residences of the Muslim scholars who were perceived as the keepers of the traditions of the Sunna. The Sufi masters who believed in removing the worldly ties in religious life had established mosques for their communities. Amidst all these developments in mosques, the big city mosque still held unswerving hold over the political affairs of the empire and was very much the center of Muslim life. These great mosques retained their roles as the administrative center, the financial center, the courthouse, the place of official state audience, the place for religious celebrations and the center of learning.

Further development and specialization of mosques had occurred during the 'Abbasid' period. Most of these developments in mosque types were the direct result of the 'Abbasid concept of Islam and the caliphate. The 'Abbasid' and the Shi'a Muslims were the first to venerate their dead leaders who were from the family of 'Ali. This veneration was in excess of the practice of Islam where the Prophet had strictly forbidden against lamenting and showing excessive emotion for the dead. The cult of venerating the dead resulted in the proliferation of numerous tomb mosques and mausoleums of the Shi'a leaders and saints. The 'Abbasid caliphs were also the first



to order the building of their tombs in mosques and close to the saints in the hope of being in the shade of these 'friends of Allah' in the World of the Dead or *Barzakh* and during the Day of Judgment. The 'Abbasid were also the first to establish the great palace with the great mosque adjacent to it as the symbol of central authority in Muslim cities . The architectural message clearly established that the mosque had no longer symbolized the power and strength of Islam but that Islam was in total submission to the caliphate. The 'Abbasid period also saw the removal of the caliphs from the office of the *imam* where he no longer represented the unity of Islam in spiritual and worldly matters. The post of *imams* was established and financed by the machinery of the caliph. Aside from the small private mosques of scholars and saints, these monumental mosques were little more than the propaganda machines of the 'Abbasid caliphate. It was also at this time that the mosque no longer functioned as the courthouse of the Muslims and was replaced by the Dar-al-Hakam. Thus, with the presence of the palace and governor's residence as the administrative and political centers, the *madrasas* as educational institutions and the presence of special courthouses to administer the laws, the mosque was stripped of all these roles and had become the place of ritual prayer, the place of *i'tikaf* or seclusion and the place of public announcement. Its most important purpose had seemed to be the symbol of the domination of Islam over other cultures in the conquered territories.

### **2.3.2 Present Functions of the Mosque**

This section contains a general description of the main activities and events of the mosque that occur in a single year.

The main activity of the mosque is the performance of congregational prayers. The mosque also acts as an important education center for the formal teaching of religious education. It also serves as the administration center for the mosque officials and caters for Muslim religious celebrations.

On Fridays Muslims gather at the mosque for the Friday congregational prayer that occur as a substitute to the mid- afternoon prayer. The Muslims listen to a short sermon and perform the prayer immediately after that. The Friday Prayers and the

five daily prayers are the fixed daily and weekly activities in the mosque. Another type of congregational prayer occurs during the month of Ramadhan when Muslims fast in the day time for twenty nine or thirty days.

Besides these fixed prayers there are also occasional prayers that may be performed according to special circumstances. The next important function of the mosque is as the center for religious education. Muslim children are usually sent to the mosque for a period of one or two hours for a certain number of days to learn to recite the Qur'an and practice the ablution and prayer rituals. The education of adults usually takes the form of formal lectures delivered in the mosque. The mosque is also the place where celebrations to commemorate important events in Islam are held. The 'Id celebrations are held in mosques. Some Sunni Muslims such as those in Malaysia and Singapore celebrate the event of the Hijra or Migration of the Prophet to Madina, the *Isra'* and *Mi'raj* or the Ascent and Journey of the Prophet and also the *mawlid* or celebration of the Prophet's birthday. For these purposes, the mosque is usually equipped with several types of spaces. The main space is obviously for the prayer ritual. The space is also used for the delivery of religious lectures and sometimes for feasts during the time of breaking the fast in Ramadhan and during certain occasions. Some mosques in the tropical countries possess a verandah space which is similar to a covered porch surrounding the main prayer space. This space is meant as to cater for the overflow of worshippers during congregational prayers and as a place for eating and leisure so as not to 'defile' the sanctity of the prayer space. Attached to the main prayer space are those for ablution, toilet, kitchen, storage and for the children's religious education. The exterior spaces are mainly for parking and mostly landscaped as gardens. Mosques are usually constructed in the present time as free standing monuments whether they are in the urban or village contexts.

#### 2.4 Summary

The present section presents the differences in the meanings of 'styles' of architecture in order to clarify the forces shaping its language. The development of the mosque from its early time indicates the changing roles throughout history. Much

of the styles in mosque architecture can be seen to be affected by the use and perceptions of the religious significance of this typology. The next section presents the various traditional mosque typology that has existed in the world.

### **3. The Traditional Architectural Typologies of Mosques**

#### **3.1 Introduction**

There are six traditional typology of mosques renowned in the whole world. They are the Arabian type, the Turkish type, the Iranian type, the Indian type, the Chinese type and the south East Asia type. This section describes the main characteristic features of the typologies. The purpose of this section is to draw a correlation between the description of the mosques in Malaysia as presented in the next chapter and the traditional typology found throughout the Muslim world.

#### **3.2 Six Typological Styles**

The earliest reconstruction of the idea of the mosque in Medina shows a rectangular building of adobe mud construction that has four walls with two opposite roof sections (see Figure 1). The first roof section is of date palm trees as its columns and is situated adjacent to the rooms belonging to the Prophet Muhammad and his wives. The other roofed section is at the opposite end of the mosque where the suffa people spent the night. The suffa people are those poor immigrants and also those who have dedicated their lives in learning and serving the Prophet. The whole impression of the mosque can be described as a building with a flat hypostyle roof with a generous compound. This typology was religiously adhered to by many of the latter day mosques but there is no religious evidence concerning the sanctity of the form.

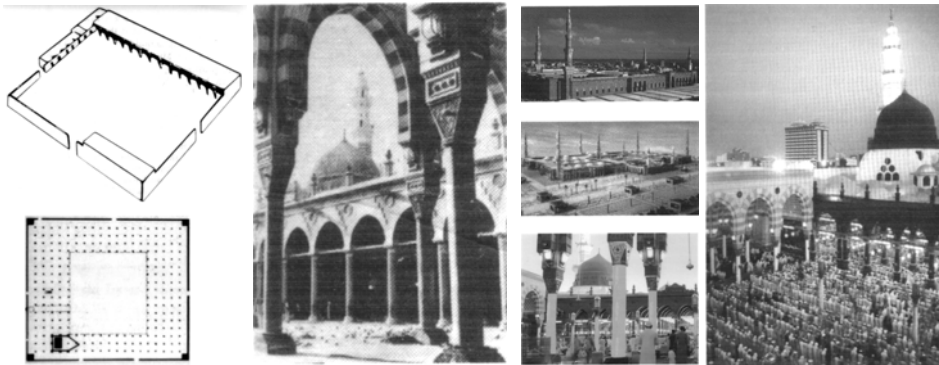


Figure 1.

It was thus that the Arabian, Spain and North African typology took on the most imitative form of a hypostyle flat roof with the occasional small domes roofing the *mihrab* and entrance (see Figure 2). This typology also comes with a perimeter *sahn* that forms a linkage around the whole mosque form. The term 'hypostyle' is used to describe a room with a forest of columns similar to that of the Egyptian temples of old. Most of the mosque in this typology would have a single massive minaret whilst the early Prophet's mosque was without one.

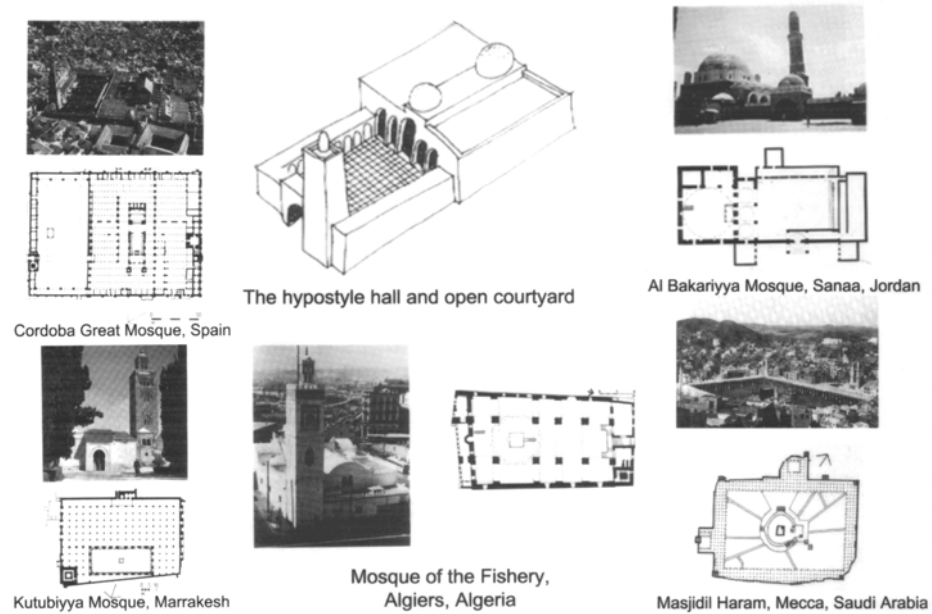


Figure 2

The prominent use of domes came with the Ottoman (see Figure 3) and Central Asian type mosques that has precedence in the central domed Churches of the Roman Catholic world This typology carries one or usually many minarets of the most slender proportion. The main prayer space is crowned by a huge semi circular dome with half domes on its sides to counter the huge thrust of the spanning system. This mosque typology would also feature the perimeter sahn covered with many small domes.

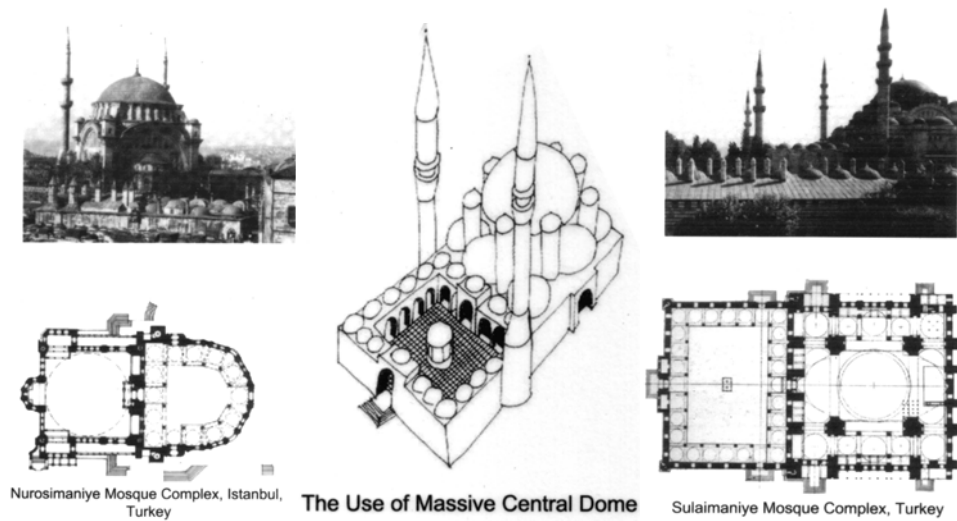


Figure 3

The Iranian typology introduces the massive iwan gateways from the sahn entrance and the entrance gateway to the great hall (see Figure 4). Since many of the mosques in this region are also used as madrasa and other facilities, it is common to find three massive iwan gateways opening from the inner courtyard into specific spaces. These mosques are covered by the pointed domes that rises vertically and turn sharply to the apex. The arches and domes seem to be reminiscent of the Gothic pointed arch system.

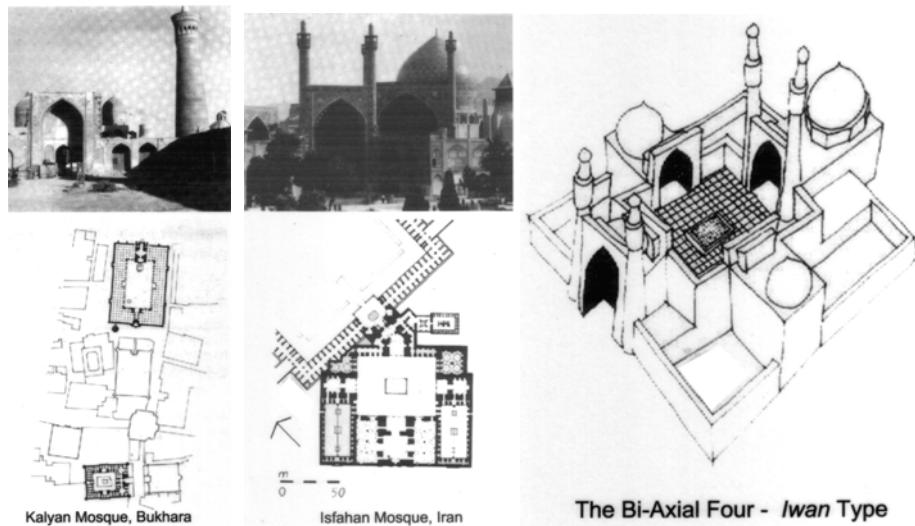


Figure 4

The Indian subcontinent usually model its mosques after that of the Iranian with huge gateways but it is the Indian mosques are distinguishable in its preference for the bulbous onion domes and arches. Another feature of interest is its generous courtyard space with the usual sahn (see Figure 5).

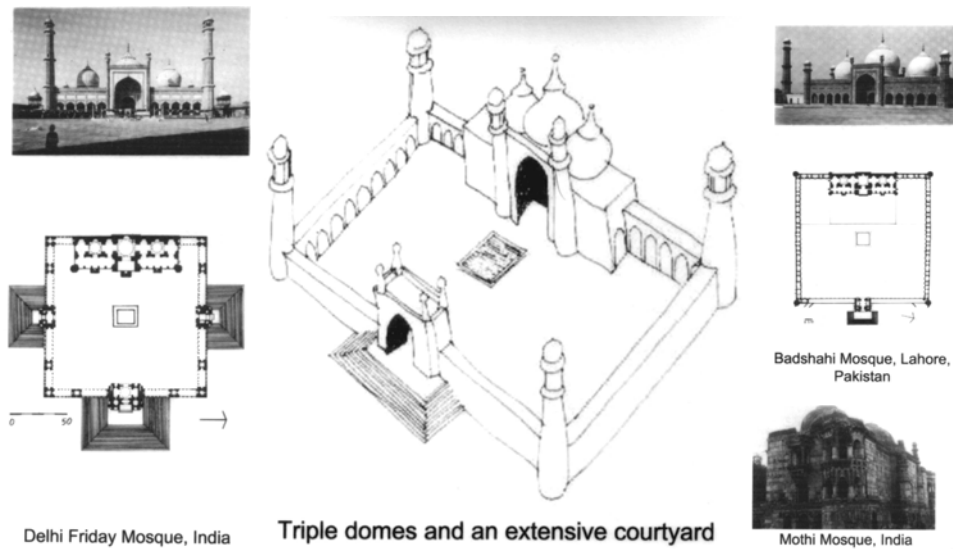


Figure 5

The Chinese mosque typology takes after the house, temple and palace form (see Plate 6 ). The whole complex is walled and there is a series of inner courtyards serving as the outdoor spaces with gable roof structures of timber as the walls of the building. The Nusantara typology found in the South East Asian region presents a similar set up with the exception that it uses the pyramidal two tiered or three tiered roof (see Figure 7). Mosque of the early mosques do not possess a minaret but that architectural element appeared a few decades later.

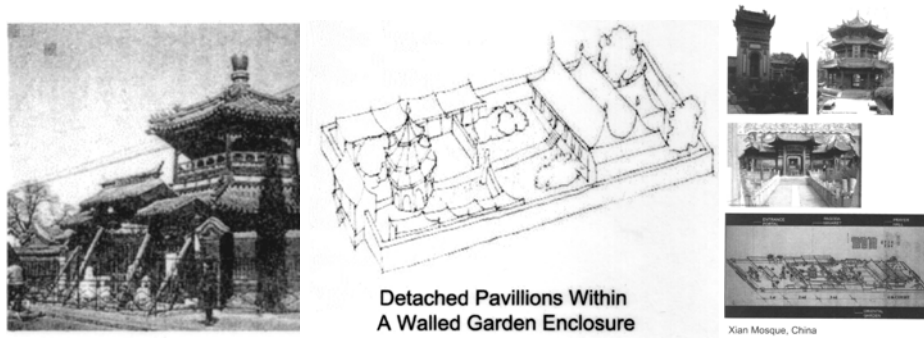


Figure 6

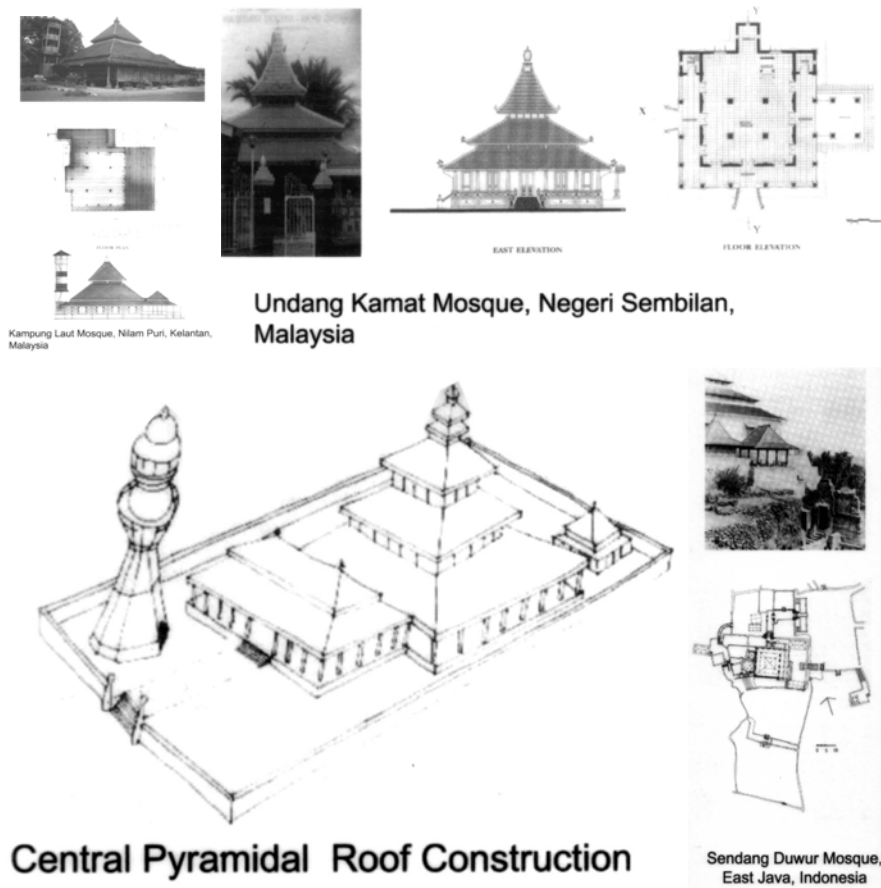


Figure 7



## **4. Mosque Architecture in Malaysia: Classification of Styles and Possible Influence**

### **4.1 Introduction**

There are seven styles of mosque architectural language that can be classified. They are the Traditional Vernacular, the Sino-Eclectic, the Colonial, the North Indian, the Modern Vernacular, the Modernistic Expressionism, the Post-Modern Revivalism. This section describes the range of characteristics of each style together with the rationale for the choice of names used. The section also contains suggestions of socio-political influences that might have made significant impression on the choice of styles used.

### **4.2 Traditional Vernacular Style**

The word traditional used in this context represents practices and ideas of Malays before the colonialist came to the country. The word vernacular denotes the availability of materials, craftsmanship and technology of the pre-colonial period.

There are three types of mosques in this category which can be distinguished mainly from the use of the roof form. The first is the three tier pyramidal roof form as in that of Kampung Laut and Kampung Tuan believed to be built between the sixteenth and the seventeenth century (see Plate 8). From the tip of the pyramid to the bottom of the columns, the mosques can be inscribed into an almost perfect cube. The second type is the two tier pyramidal roof forms such as that of the Papan and Lengeng Mosques (see Figure 9). They are built between the eighteenth and nineteenth century. The third kind is the gable roof form which is similar to that of the house (see Figure 10). There are the single or double tier roof form in this typology. All of the mosques are raised from waist to shoulder height.



Figure 8

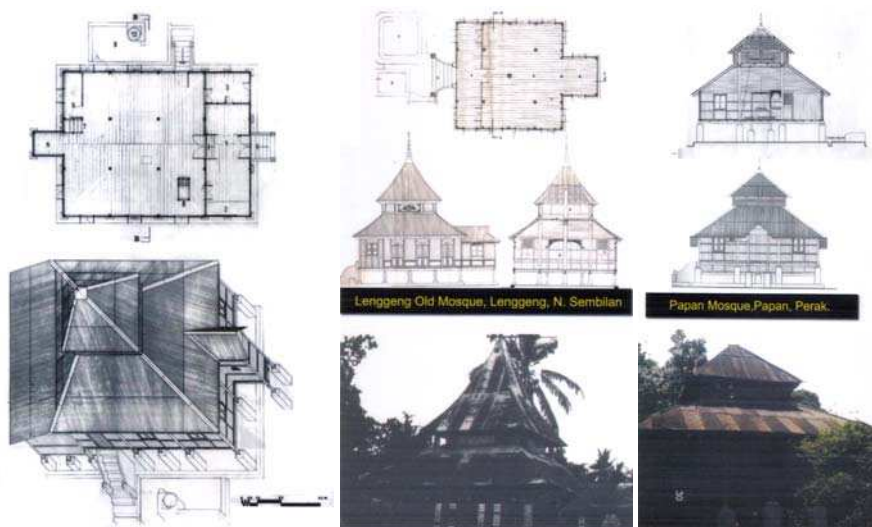


Figure 9

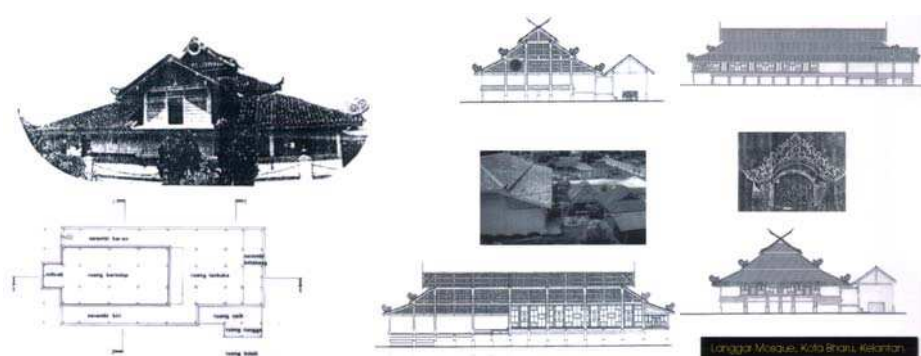


Figure 10

All of the mosques in this stylistic classification are made of timber. All of the mosques originally possess no serambi area. Many of the serambi or verandah came later. An interesting feature of these mosques is that they do not come equipped with a minaret. All are added later whilst some mosques are still without any minaret. All of the mosques display only a single space layout and no indication of subdivision can be found. Since many of the mosques are built close to a river for ablution purposes few of them have wells for preparation of prayer. There is no indication that these early mosques were fenced up and isolated from the villages.

All of the mosques use the traditional timber post and beam system. Columns on the exterior and the interior are common features except in the Kampung Tuan Mosque. In this particular mosque, there are only exterior column without the traditional four or five internal pillars. A close examination reveal that this particular mosque uses a unique timber 'space frame structure but known locally as the tiang gantung system. It is a fact that all the traditional Malay construction do not use any form of truss system except the occassional king post which is denoted as the 'tiang gantung'.

Since the strongest debate about how Islam came to this region is from the Aceh route or that of Pattani, it follows that the three tier form might be influenced by the sacred form of the pagoda. This hypothesis can be reinforced by the fact that many building craftsmen are actually Chinese and if there were Malay craftsmen, they might have inherited their skills from the Chinese. Since Buddhism and Hinduism flourished before Islam, it is believed that the iconography of their temples had served as a form most befitting for the new religion. There have been reports that the nine Wali Songo of Java had used the idea of religious assimilation rather than revolution in attracting converts to the new religion. The early religious scholars had encouraged the rewriting and invention of new songs, poems, dances and chants to include the subject matter of the new faith. It is therefore not difficult to assume the temple form to be assimilated into the birth of a new house of worship. The early patrons of mosques were religious scholars and there may have more say in what the mosque should look like. Since many of them had one time or another studied in many centers in the Asian region, they must have brought along their architectural influence.

Although there is another hypothesis that the form is a result of Sufi mysticism of the ascendancy of the spiritual passage, there is no strong evidence except the simple conjecture of anthropometric association or physical ascension.

#### **4.3 Sino-Eclectic Style**

The term Sino Eclectic is derived from two aspects of the phrase. The term Sino indicates a Chinese influence and eclectic which denotes a combination of two or more influence of architectural language.

There are two types of mosques in this category. The first is the three tiered pyramidal roof form and the second is the double tier pyramidal roof form. Both types are similar in a majority of other features. The first type is characterised firstly by the three tiered pyramidal roof form similar in proportion to that of the traditional vernacular style (see Figure 11). The differences between the two styles lie in the prominent curvature of the roof ridges which is made of cement. The mosques of this

style are such as the Kampung Hulu Mosque, the Tengkerah Mosque and the Kampung Keling Mosque which are all in Melaka. There is also the Undang Kamat Mosque and a few others similar to it scattered in Negeri Sembilan. The Lebuah Aceh Mosque in Penang is also of this style. The mosque of this style sits on the ground and are not raised like the traditional vernacular ones. They all have slabs on grade which are raised about half a metre high with stone stairways accessing to the main floor plan. The plan of the mosque proper consists of the enclosed prayer area and the *serambi* or verandah surrounding either three parts of the square plan or all around it. These mosques are all located in the dense urban areas and the building is surrounded by a masonry fence with sometimes a roofed gateway like almost reminiscent of Chinese temples. The ablution area is taken care of by a masonry pool and there is almost always a cemetery patch as part of the mosque compound. In later times madrasah or religious schools and imam's residences are built flanking the mosque proper. The mosque compound presents a pleasant contained environment with seating and shady trees for users to sit and converse while waiting for prayers or relaxing after prayers. The roof ridges and fascia boards are sometimes decorated with plant motifs and the roofs are crowned with a *mastaka* which is a bulbous pointed sculpture reminiscent of the Buddhist head dress. The double tiered roof form of the mosque is basically similar in all aspects with the exception of the number of roof tiers. This can be seen in the Undang Serun Mosque in Negeri Sembilan.



Figure 11

The roof structure is made of timber rafters purlins and sometimes simple trusses. The roof materials is of clay tiles. The whole roof is supported primarily by four central column and nine or twelve perimeter columns. The walls are of masonry with timber door and window frames. The floor is made of concrete on grade and usually tiled. There are at least three doors on the non-Qibla walls with stone stairways to match the entrances.

As opposed to the *ulama* sponsored patronage of the traditional vernacular style, the sino eclectic mosques have Chinese Muslim Merchants as their patrons. The rise of the merchant class saw the country in a situation where these wealthy people wield considerable influence over the socio-political affairs of their community. Since many of the mosque were built by Chinese craftsmen, there I the possibility of suggesting the similarity of Chinese architecture. The gateways are also elements that reinforce the notion of architectural language transfer from the Chinese religious architecture.

#### 4.4 European Classical Style

European Classicism refers to the High Renaissance architecture that was derived from the Greco-Roman heritage (see Figure 12).



Figure 12

The main characteristic features are the use of the definitive tripartite division of base middle and top with double column supporting semi circular arches or walls with pilasters. A strong symmetrical composition of the massing and space is also an identifying feature. The Sultan Abu Bakar Mosque in Johor Bahru is equipped with four stout minarets with small domes crowning the top. The main prayer hall has a closed hipped roof. The European Classical style is distinguished by its elaborate exterior cornice work forming a continuous band around the building. The windows are also framed by plastered cornice work. The Pasir Pelangi Mosque uses a deep pyramidal roof form reminiscent of the traditional vernacular mosques of the past but without any dividing tiers.. The minaret is heavy in proportion and capped not by a dome by by a smal pyramid roof. The Sultan Ibrahim Mosque in Muar, Johor uses a hipped gable roof which covers a large central portion of the prayer space. This part of the mosque protrudes above the rest of the roofed area to form clerestory windows reminiscent of the basilican type churches of early Christianity in Rome.

The main columns are of masonry and so are the semi-circular or flat arches spanning the columns, doorways and windows. The concrete floor is raised less than

a meter above ground and tiled. The roof structures are of timber trusses in the best English tradition.

It is most curious to note that all the mosque sampled are from Johor. One hypothesis might be that the colonial masters wishes to present an idea of a more sedate and rational Islam as opposed to the radical voices of fundamentalist Islam calling for the ouster of the colonial rule. However, a stronger hypothesis might be derived from the simple fact that the Sultanate of Johor shows no secret for their desire to be culturally Western from the English Cottage architecture chosen for the royal palace and residence of Johor at Bukit Sirin. A more glaring clue is the other palace fronting the Lido beach in downtown Johor Bahru with is dressed purely in 18<sup>th</sup> century Classical garb. There may perhaps be the idea of 'westernizing' Islam to be more like the English understanding of Christianity.

#### **4.5 North Indian Style**

The term is used to describe the imitative Moghul type architecture that once flourished colonial Malaya (see Figure 13).

The North Indian style is easily distinguished from any others due to its generous use of small and large onion domes, multitude of spires and small domed canopies, more than one minaret, horse shoe or multifoil arches over decorated columns. The Ubudiah Mosque in Perak, the Kapitan Keling Mosque in Penang, the Jame' Mosque and Masjid India in Kuala Lumpur are prime examples of this style. The plans of the mosques are similar to the mosques of any other style with its central domes and arched verandah way. The mosque compound is fenced up at the full perimeter with the usual parking and grass area.





Figure 13

The early twentieth century mosques were built of masonry structure and enclosure system. The roofs are covered with masonry domes and others are of corrugated asbestos sheets.

There are two possible reasons for the proliferation of this style. The first is the colonialist choice of 'Islamic Architecture' to perhaps pacify the people into accepting their version of ritualistic Islam. This is evident in the government buildings such as the courthouse and railway stations having the same architectural language. Since the British had a strong hold over India, it seems a natural choice for them to help define Islamic Architecture from that region of the world. There is also another possibility that England during the 19<sup>th</sup> century was also bitten by the Picturesque bug. The residence of the great English architect, John Nash was built of the same North Indian Moghul style. This exotic preference might have been an obvious choice to frame the idea of a non-rational or exotic religion as opposed to the strict rationality of the Classical language reserved for the Churches and public buildings in England.

The second probable reason for the proliferation of this style is the rise of the Indian Muslim merchant class. In Taiping and Penang, for instance, much of the city's commercial power was not also held by the Chinese but by the Indian Muslim

merchant community. As these merchants prospered, they went back to their motherland and that might explain why the North Indian style is no longer favored for mosques since the rise of the Malay middle class saw no reason to associate Islam with native India.

#### **4.6 Modern Vernacular Style**

The term modern vernacular is used to refer to buildings which are constructed using mainly reinforced concrete structural frame with plastered brick infill. It is considered 'vernacular' because the practice and availability of these new materials and construction technique is the norm in this country presently.

With respect to the building form and architectural language, mosques in this category would usually portray a gable or pyramidal roof with a small dome or the more expensive ones would find a larger single dome over the main prayer space (see Figure 14). These types of mosques are the ones used in most of the modern housing estates in this country. Mosque within a 'modern village' or a squatter village with timber or semi timber houses would usually have a simple gable roofed mosque of timber or partly built of masonry. The verandah would be enclosed by a series of arches. The plans of these mosques usually contain a single prayer space with the women area being screened off on the rear part of the space with a curtain or movable partitions. It is obvious to notice that the women space seems to be an after thought in most of these housing estate mosques. Most of these mosque would have one or two minarets with sometimes a grand portal gateway where the communities there are well off or have close political connections with the ruling party.

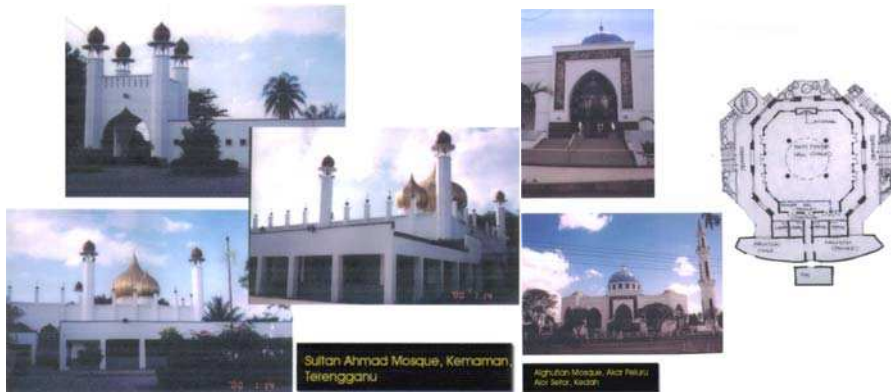


Figure 14

With respect to the facilities and expression of the mosque compound, there are two types of planning that can be ascertained. The normal practice of planning the mosque compound would be to fence off the whole perimeter of the land with a significant part of it being used as a paved parking lot. The other part is left as grass with sculptural landscapes. The back portion of the compound is located near the kitchen area for the slaughter of animals during the Qurban festival. The Haji Abdul Hadi or Rusila Mosque in Terengganu (see Figure 15) and The Nik Aziz Mosque in Kelantan differs in that they are used as madrasah or religious schools where the two Chief Ministers teach the people daily. These mosques possess an aura closer to that of the Prophet Muhammad's early mosque as they are used as community centers and places for travelers to rest overnight. The facilities include libraries, shops, student dormitories, travelers' lodgings and administration center. It is also important to note that these two mosques do not possess a definite fence but the grounds and that of the surrounding houses seemed to be shared.

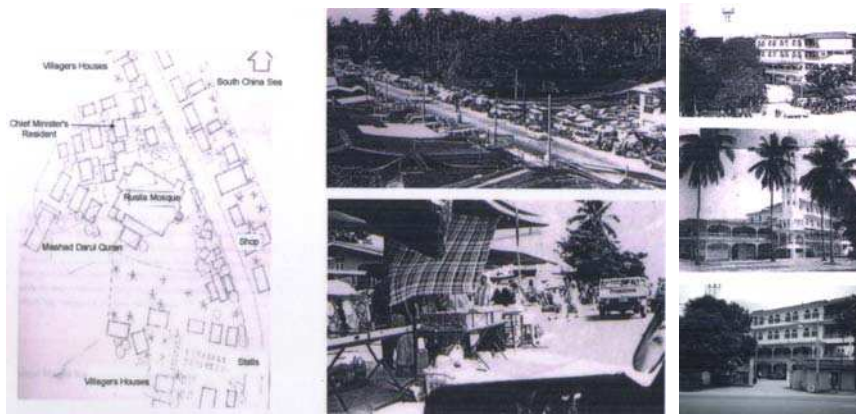


Figure 15

As noted earlier, the main structural system used is reinforced concrete post and beam system with plastered brick or block infill. The roofs are of asbestos corrugated decks, clay tiles or metal decking. The roof structure is of timber or metal trusses. Floors are mostly tiled and windows are mostly of aluminum frame.

On the one hand most of the mosques were built purely from the most presently economic way of construction and that is with the use of reinforced concrete frame with brick infill. The basic square or rectangle form derived from the construction system is then 'decorated' with the accepted language of 'mosque architecture which is the use of arches and small or large domes. The intention thus borders purely on economic concerns and an easily identifiable image. The image chosen are those which has been sanctioned by the present ruling authority. Of late, however the three tiers pyramidal roof form is making a come back. This is probably due to the response to the call of a more local identity to replace the borrowed foreign one. With regard to the fenced up mosque type and the non-fenced up ones, it would seem that the latter is more expressive of the idea that Islam is a total way of life with the administrator more responsible to the people. The fenced up mosque projects the idea of separation between daily lives hen that of the ritualistic ones.

#### 4.7 Modernistic Style

The term 'modernistic' is derived from the ideas and main principles that govern the early revolution of architecture in Europe in the early twentieth century. Much of these ideas relate to notion that a true architecture is one that rejects historic revivalism in any form, that rejects ornamentation in any form, that celebrates abstraction in forms and that celebrate the structural expression in architecture. There are two types of modernistic styles in mosques of Malaysia; the Modernistic Expressionism (see Figure 16) and Modernistic Structuralism (see Figure 17) .

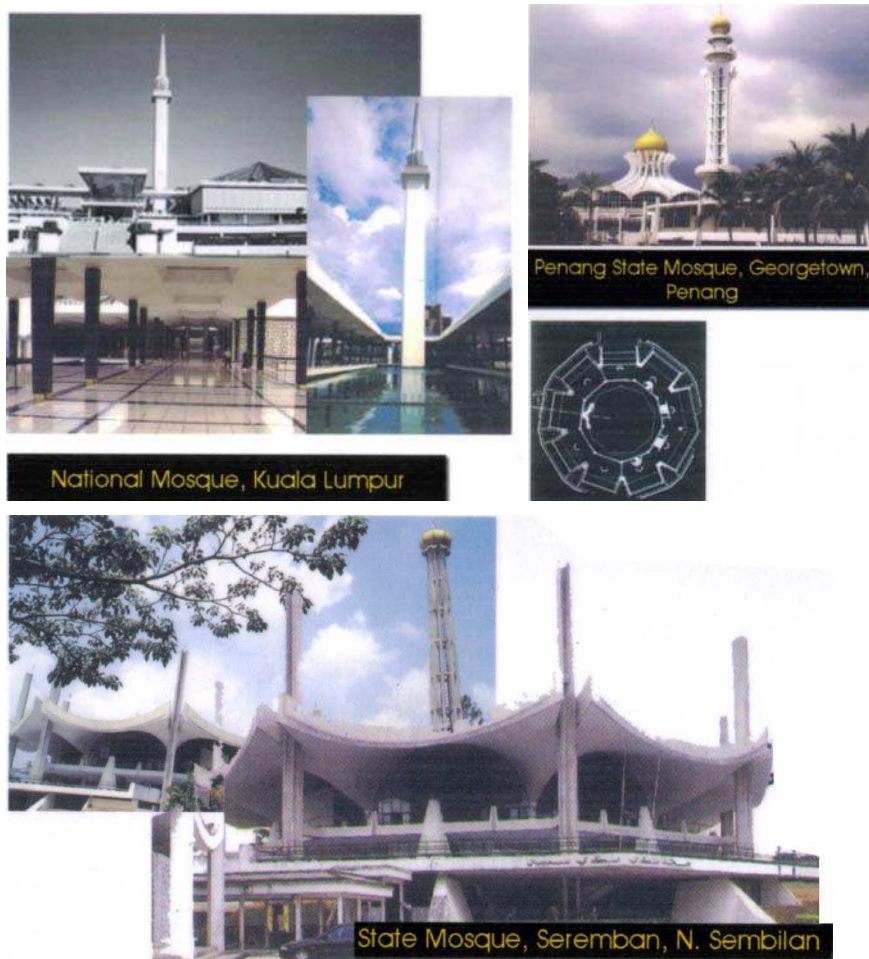


Figure 16



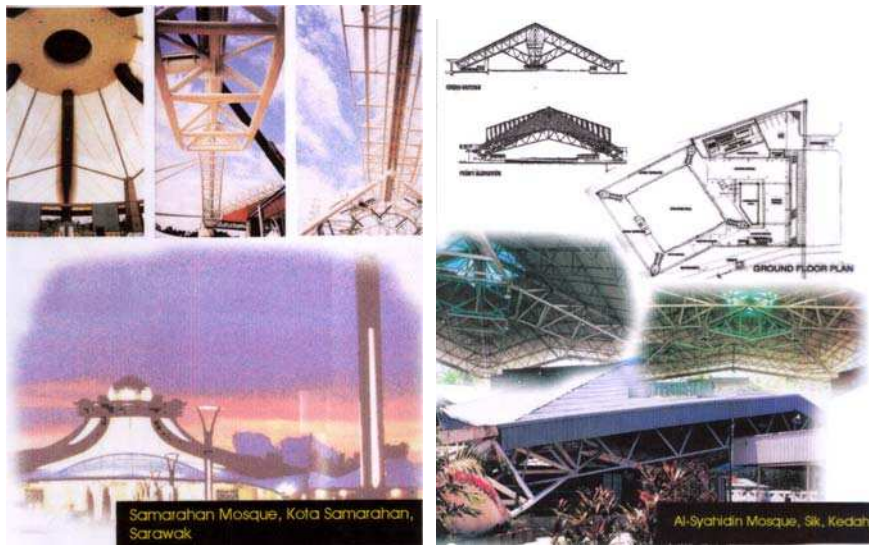


Figure 17

The phrase 'modernistic expressionism' is derived from William J. Curtis' classification of 'expressionism' as any form of architecture that carries a metaphoric message through the use of structurally expressive form. Eric Mendhelson's Einstein Tower as well as Eero Saarinen's TWA Airport Terminal are examples of these kind of architecture. I have added the word modernistic because in some buildings only one part has the expressive qualities whilst the other parts are those that subscribe to the general modern architectural language. There are two mosques in this category in Malaysia. The Masjid Negara and the Negeri Sembilan State Mosque are the only two examples of this style. The Masjid Negara is the best example of the combination of a modernistic reinterpretation of traditional Malay Architecture with a folded plate 'dome' with a metaphor of a royal umbrella signifying the importance of the building as a national monument. The Masjid Negara uses an extensive set of serambi or verandah space with light courts and air wells to provide ample daylighting and passive cooling to the building. It is by far the best example of a building imbued with the technological and spiritual qualities of an architecture with a true Malaysian identity. The Negeri Sembilan State mosque uses a series of intersecting reinforced concrete conoid to refer to the horn-like gable roofs of the Minang traditional architecture. The reference to the 'bumbung gonjong' is uniquely expressed in the structural play of the conoids. The architect had not resorted to the simplistic

revivalism alternative of the traditional roof but has reinterpreted it in an abstract but creative way.

The other type of style within this category is the Modernistic Structuralism Style. This is the classic Miesien tradition of treating the building as a mere machine of structural expression, nothing more, nothing less. The dictum of 'less is more' echoes through the buildings of this style. The Penang State Mosque presents a concentric ring of curved reinforced concrete ribs. The tip of the rib is crowned with an awkward dome to give its 'Islamic' signature. The Kota Samarahan Mosque in Sarawak has an identical form with the exception that it uses steel delta trusses with stretched teflon tensile fabric as the roofing material. The Al-Syahidin Mosque in Sik uses a folded space frame structural system anchored at four points to the ground. The roof spans a space totally and uniquely devoid of any solid wall. The Qibla wall is a free standing structure whilst the whole floor is ringed with a meter high railing. These mosque speak no particular meaning other than a simple expression of basic shelter.

As indicated the main structural system used reinforced concrete frames and shell. The folded plate and intersecting conoidal shells are seen as progressive images that can be attached to the dynamism of Islam. There is also a number of buildings of steel as the main structure with metal decks or Teflon stretched tents as the roofing.

The form of the structures can be said to be borne solely by the architects because clients at whichever level of society are unable to understand or converse in the structural language and intricacies of structural metaphors. However, inherent in the form, I suspect a desire on the part of the architect to impress upon the client the flexibility of Islam in its contemporary adaptation to the problems of modern day living and a strong urge to present a progressive image of the religion.

#### **4.8 Post Modern Revivalism**

The term post modern denotes an approach that contradict the principles and edicts of what was understood as the modern style. The term revivalism denotes one of the many ways which the post modernist attempts to create an architecture of meaning for the general public rather than for the elite few.

There are two kinds of Post Modernist Revivalism in this category of style (see Figure 18). The first is the Foreign Revivalism and the second is the Vernacular Revivalism. Foreign Revivalism in mosque architecture seems to be the order of the day with such examples as the Putra Mosque, the Shah Alam Mosque, the Wilayah Mosque, the UTM Mosque in Johor, the Sarawak State Mosque and many others. These grandiose statements of so called 'Islamic Glory' is the preferred language by state and federal governments to express their 'deep concern' over the important symbol of Islam. The use of an eclectic array of Iranian and Turkish domes, Egyptian and Turkish minarets, Persian Iwan gateways, lavish courtyards surrounded by the sahn, and an Arabian hypostyle planning composition and pointed or semi circular arches bathed in sumptuous classical 'Islamic' decorations are the vocabulary of mosque design. The Vernacular Revivalism calls for a slightly less monumental approach with its use of the three tiered pyramidal roof form built either of concrete or timber. The Melaka State Mosque represents the gradiose extreme whilst Jimmy Lim's ASPA mosque for the villages of Pahang represents the other more humbler version. The Melaka State Mosque combines the use of arches and gateways along with its neo-vernacular imagery whilst the ASPA mosque caters more strictly to the scale of modern timber construction without the flavour of any Middle Eastern or Central Asian touches. With the exception of the ASPA mosque, the others are fenced up complexes with lavish compounds filled with fountains, paved grounds and grass lawns with much sculptural landscaping.

The siting of these mosque are on top of the highest points, in the middle of man made lakes or isolated from the urban fabric.



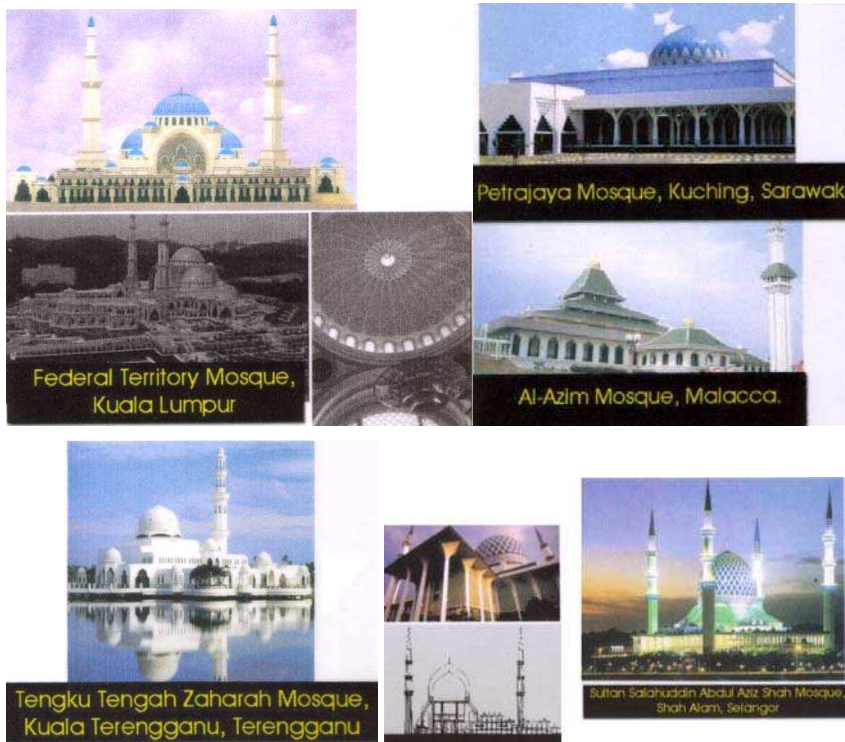


Figure 18

The mosques are mainly of reinforced concrete with steel ribbed domes. Marble and precious imported tiles envelope the whole mosque. The ASPA mosque is refreshing in its use of modern timber trusses and louvered walls with a perimeter railing guarding the surrounding *serambi* space. It does not have any fences and blends humbly with its surrounding village atmosphere.

An interesting question about the Foreign Revivalism style concerns the departure from the British lead Moghul venture. It may be the desire of the politicians and architecture elite to depart from any reminders of British colonialism. It may also be the idea of Pan Islamic resurgence as in the rise of the Iranian Revolution and various revivalist movements in Egypt. It would certainly be easier for the ruling party to show its appreciation for the revivalist fundamentalist movement of Islamic resurgence in the form of masonry, concrete and steel rather than its actual realization of these movements in respect of moral values and political models. The construction of the Melaka State Mosque is actually a response to the historical site

of the state where the Melaka Mosque model is obvious. However, the construction of the ASPA mosque is one of the first inklings of a criticism against the status quo mosques in preference of a regional identity of Islam. It is strange that whilst most Muslim leadership in the country were under the pressure of their inferiority complex against the Middle East, a non-Muslim was brave enough to remind them that Islam is not necessarily any one races' monopoly.

#### **4.9.1 Summary**

It can be seen that the seven mosque styles are all derived mainly from the six traditional typology with the exception of the modernistic style. This reflect the perceived inherent sanctity of typological forms of the traditional past towards Muslims. However the strength of the modernist revolution had forced the traditionalist to rethink an reinterpret the idea of the mosque in relation to its architectural language. Thus it clearly show that there is no one preferred form or a type which is considered more 'sacred' than another.

### **5. Conclusion and References**

#### **5.1 Conclusion**

There is a varied architectural style for mosque design in Malaysia. One glaring conclusion is that the idea of a definitive 'Islamic Architecture' vocabulary leaves much to be desired since there does not seem to be a preference for any one particular style that is repeated. The advocates of Middle Eastern revivalism must admit that though Islam may have been given birth there, that fact is in no way a strong support for the style's monopoly over Islam. If anything, one can conclude that Islam allows the variety in architectural language because of its principle religious tenets that is beyond racism or parochialism. The varied style is a testament to the adaptability of Islam to the various cultures and belief system that does not contradict its main focus of worshipping one God.

Another conclusion that can be drawn is that almost all of the style are in one way or another imitative of outside influences where Islam had flourished and had

become a strong political force. For instance, the use of the pyramidal roof form may be construed as the imitation of Javanese mosques where Islam had become a strong political force. The use of the North Indian style again testifies to the revolutionary spirits of Islam in that region that ultimately led it to the setting up of the Islamic republic of Pakistan. The Iranian and Egyptian architectural preference in contemporary state mosques are symbols of the success of Islam as an awakening force in the two countries. The Modernistic Structuralist style does not seem to possess whatever political agenda other than a mere whimsical play of new toys as in the space frames and tent structures. However the wall less Al-Syahidin Mosque is a brave attempt of reinterpreting the idea of the mosque in its basic and pristine form...that of a temporary shelter in this world.

The final conclusion that can be drawn from the survey and classification is the undoubted fact that the Masjid Negara holds a unique and inspiring position as the Mosque that does not have any inferiority complex about which place and culture does Islam seem to be best represented. Its honest effort at interpreting a progressive identity whilst answering the call for a building of humble cost and not of astronomical extravagance, the mosque displays a tropical composition to be proud of. It would be fitting to end on the note that architects and politicians should be aware of the remarkable achievement of this national monument in order to properly present Islam in its true form without the baggage of intellectual regressivism, inferiority complex and parochialism.

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