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The Role of Mosque in Urban Design: A Case Study of Malaysia

Ahmad Bashri Sulaiman

Shuhana Shamsuddin

Urban Design Unit, Faculty of Built Environment,

Universiti Teknologi Malaysia

Johor Bahru, Malaysia

Abstract: Traditionally Malaysian urban areas were dominated by migrant Chinese and majorities of the Malays who are Muslims were rural based in villages. But increasingly the Malays migrate to the urban areas where better jobs and services could be found. The mosque, which is the main feature of the Malay settlement, was adopted in the urban communities. Couple with the aspiration of the government (majority led by Malays) and the need of the Muslims, the mosque not only become the major public building in Malaysian townscape but also a focal point that creates a sense of unity to the whole ensemble. This phenomenon can be experienced in many old towns and villages. However, recent development in planning and design of townships, the location of mosque were seen in residential areas or in less centrally located parts of the town centers.

This paper will highlight the positive contribution of the mosques in the traditional urban settlement and the newly conceived towns and cities. Its contribution is not only in terms of its function as a community center but also as symbolic phenomenon and driving towards architectural excellence. The mosque in terms of function is a place for prayer and other religious and community activities. Symbolically the mosque portrays the nations' beliefs and the general basis of the community behavioral pattern. Architecturally it contributes towards creating a sense of place and meaning of the built environment. These roles are in danger of erosion if formal theories and methods are not put in place for future development. Based on studies and research made on towns and cities in Malaysia some guidelines are proposed for future urban planning and design where the role of the mosque once again contributes towards community development, identity, sense of place, architectural excellence and sense of unity.

Introduction

The mosque has always been one of the key buildings in Malaysian towns and cities. In all Malay settlement in the country either in the form of villages or towns, the mosque acts as the community center, uniting the villagers in their daily social and spiritual activities. It is a setting of great event such as the daily, Friday and 'Eid' (celebration at the end of the fasting month and the Haj) prayer where a large number of people congregate. Since the mosque is one of the central facilities, it is normally located centrally with more attention given towards its design. At the national level the key role played by the mosque is slightly different. As Islam is the official religion of Malaysia and a significant proportion of its population are Muslim, it is also used symbolically to portray the government and society spiritual aspiration, apart from being a public building.

The mosque has been playing a central role in the communal activities of the Muslim since the time of the Prophet in Al-Madinah. The mosque has been associated with the seat of government, a school, communal hall and many other functions. Due to this physical, symbolic and activity setting the

mosque is an influential factor in the organization of the settlement in relation to time and urban form. Al-Bayati [1] suggested that the mosque is considered to be the spiritual and cultural center of the Arab-Islamic cities where it is the place of honor and around it the town grows naturally. He further suggested that the status of the mosque in the city express the extent of the people's adherence to the Islamic faith as a religion and as a system of life. Therefore the role of mosque in urban design especially in Islamic countries will be paramount not only in supporting the daily religious needs of the people but also reflects the social and cultural well being of the Islamic community symbolically.

The paper also explores the idea of urban design as put forward by Amos Rapoport,[2] who suggested urban design as an organization of space, time, meaning and communication. This concept relates to the definition of space as consisting of different types such as the public and private types of space. Since spaces and places are the result of man action to fulfill their behavioral needs, the influence of mosque in forming urban spaces will be significant. Time on the other hand relates to tempos, rhythm and activities that could be in the past or the future. Meaning may relates to the iconic or symbolic aspects of the built environment. This is closely related to culture and the way people see the environment. Finally, communication not only relates to movement and transportation system but also face to face human communication that is controlling interaction. This concept, coupled with the symbolic and functional characteristic of the mosque will be argued to constitute a major driving force in the formation of the Malaysian urban form.

This paper intends to discuss the role of mosque in urban design by analyzing its influence on the morphological development of the town in terms of their spaces, communication system, activity-time relationship, meanings and their contribution towards identity of place through the public's perception. The research techniques adopted are morphological analysis, townscape appraisal, content analysis, questionnaire and in-depth interviews.

The Influence of Mosque in the Towns' Morphological Development

The mosque as a public building is considered to be one of the most important buildings in the development of a town in Malaysia. This is evident by their role and the strategic location occupied by the mosque in many of the major towns studied. This is further emphasized by the planning standards, which require a mosque to be provided for every 41 to 100 population or 100 acres area of development site [3]. Islam demands that a place where Friday prayer can be performed for a Muslim community population consisted of adult male of forty (40) people or more. This requirement is however, peculiar to the Shafiee Mazhab, which is followed by the Malaysian Muslim. In an urban design study of several towns in Malaysia, it was observed that the mosque is always located within the central area of the town center. The methodology adopted in these studies was by tracing the morphology of the town and looking at the urban pattern together with the spaces created. A literature search involving content analysis of major documents and historical data were done to establish the morphology of the town. Townscape appraisal and visual survey were also conducted to assess the visual qualities of the town or city centers. In addition to that, a building survey was conducted to study the location of key buildings, their architectural features, condition, use and historical significance of the buildings in the town center. Finally, a questionnaire survey and focussed interview were conducted to gather the socio-cultural data that will reflect the local residents' perception of the place.

It was observed that in most of the major towns studied, the mosque is always located in close proximity to the main commercial and institutional area. In three major town centers of the East Coast of Malaysia (Kuantan, Kuala Trengganu and Kota Bahru) studied, there is a close relationship between the mosque and the market place. At the same time it is located within the civic precinct of the town.

In two of the towns, the Malays (who are predominantly Muslim) dominated the trading activities of the market and thus the close proximity of the market can be concluded to facilitate their daily business activities and their religious obligations (Fig. 1). Thus the mosque is almost always closely associated to a market place that is a close resemblance to the pattern of many other cities in the Arab-Islamic world.

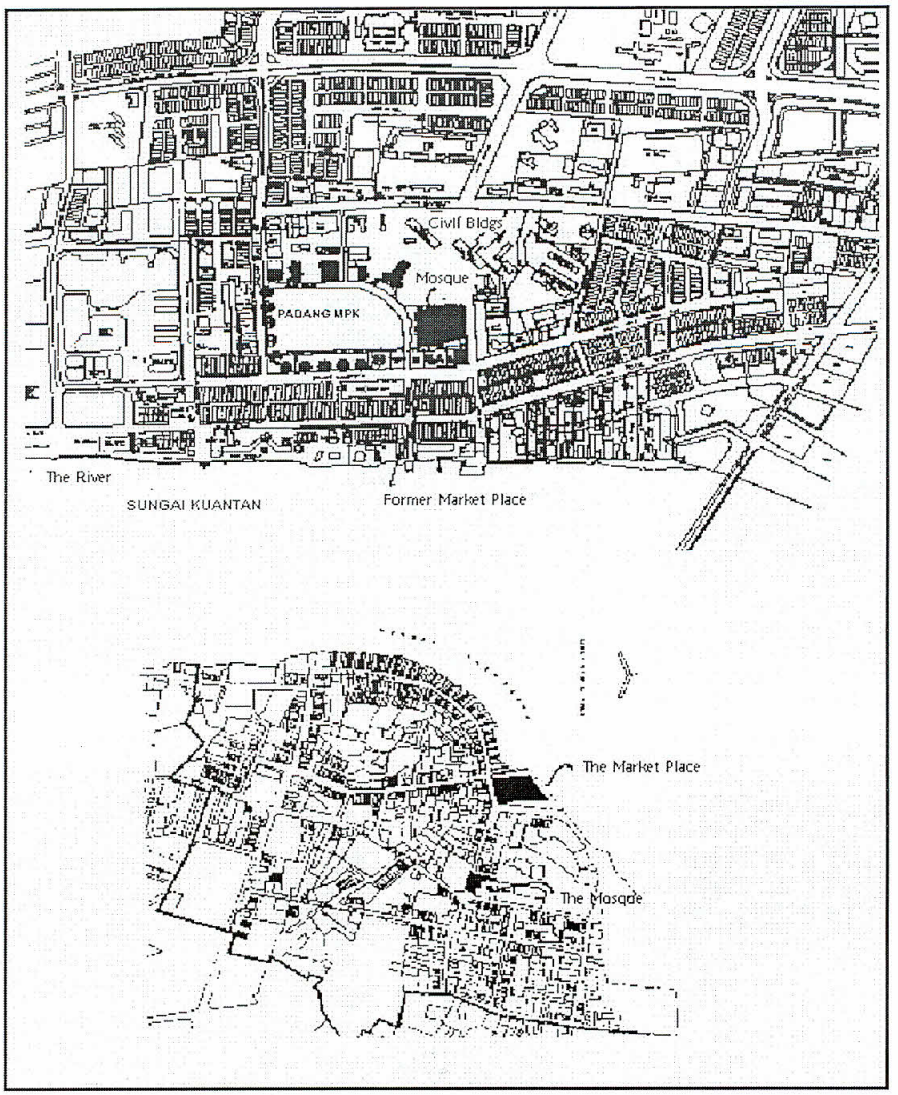


Fig. 1: The Tale of Two Towns.

The study also found that the mosques are located in the central parts of the town center together with other public buildings such as the town hall, railway station, city hall and other government buildings. In these cases the mosque is not only dominant in term of their activities but also architecturally. Their physical presence emphasizes by the scale of the building and their decorative feature usually creates a focal point. In a way it creates a sense of unity and giving them a sense of place. In this instance it can be concluded that the mosque functions as an activity setting (prayer place for the civil servant) and gives the expression as a major public institution. In the case of Kuantan town the ensemble also creates a major public space that acts as the heart of the town.

It is also a common feature to discover the mosque as being part of the commercial sectors of the towns and cities, where commerce and retailing activities surround the urban mosque. This is best illustrated by the urban mosques of Georgetown (Penang Island), Kuala Lumpur (the capital city) and the Historical City of Malacca. The mosque in these cities becomes part of the urban street frontage and a place for peace and recluse for the urban dwellers amidst the hustle bustle of retailing activities (Fig. 2 & 3). In these cases, the mosques are not only dominant in terms of their activities but also dominant architecturally.

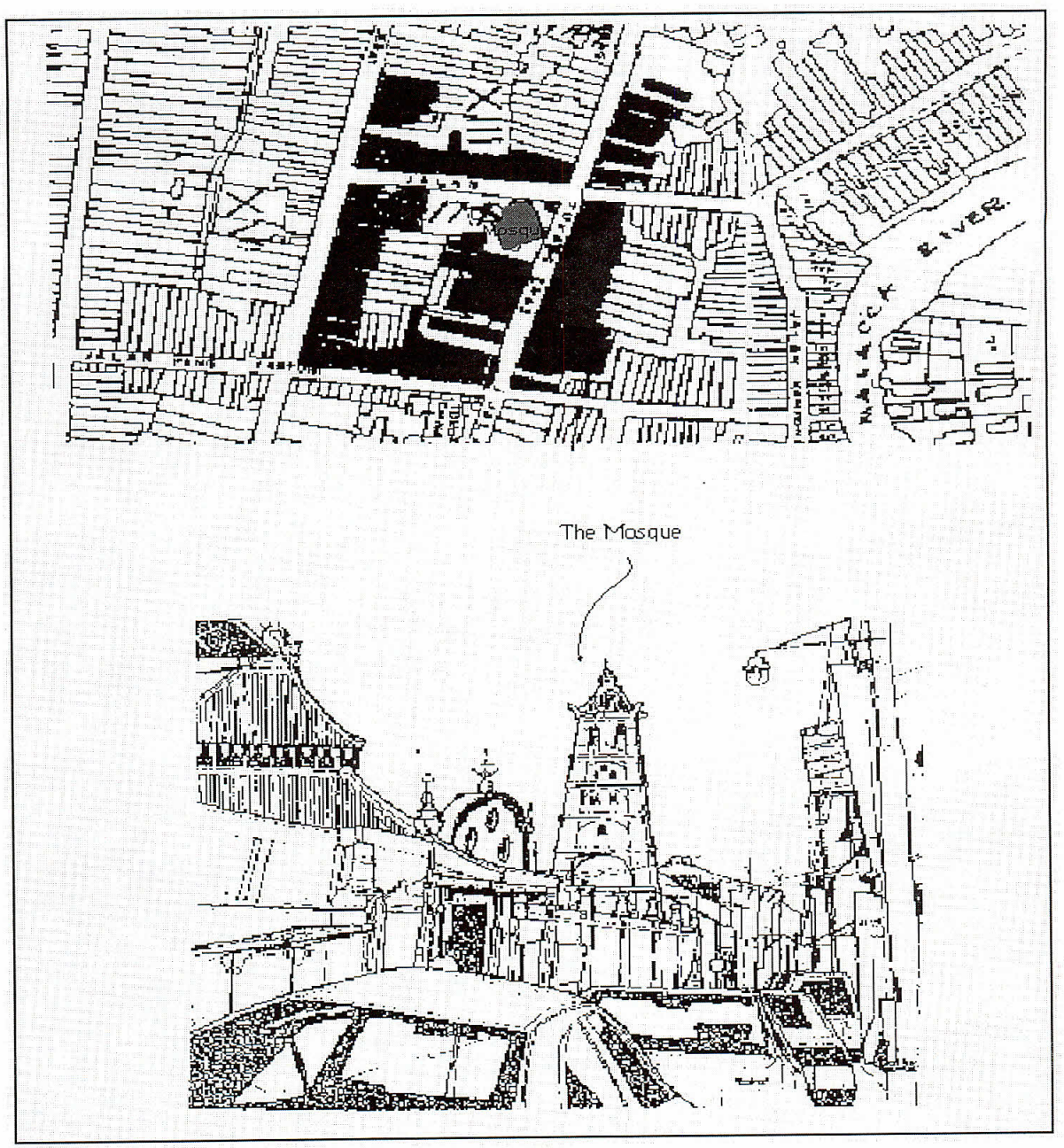


Fig. 2: The urban mosque of Malacca.

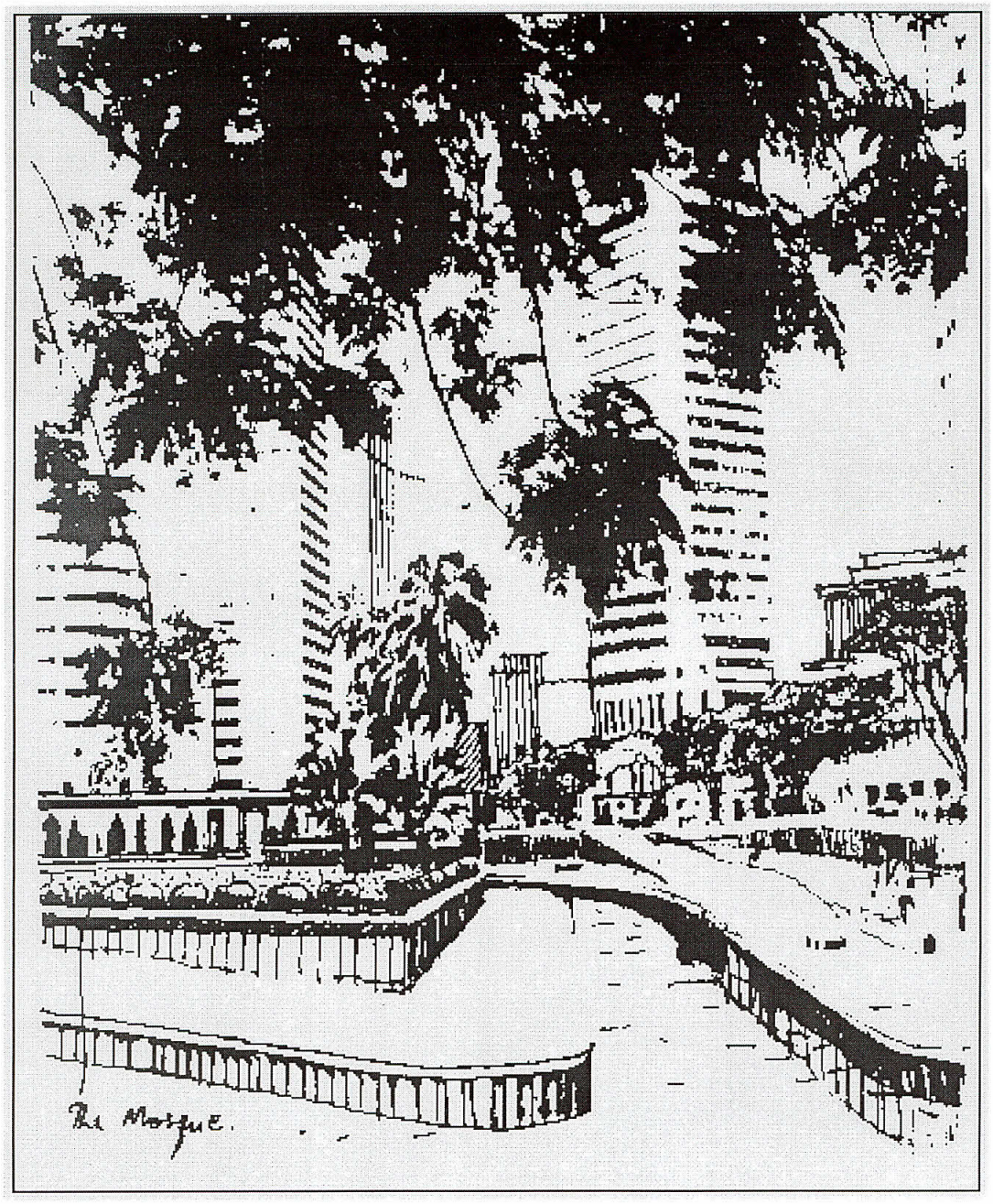
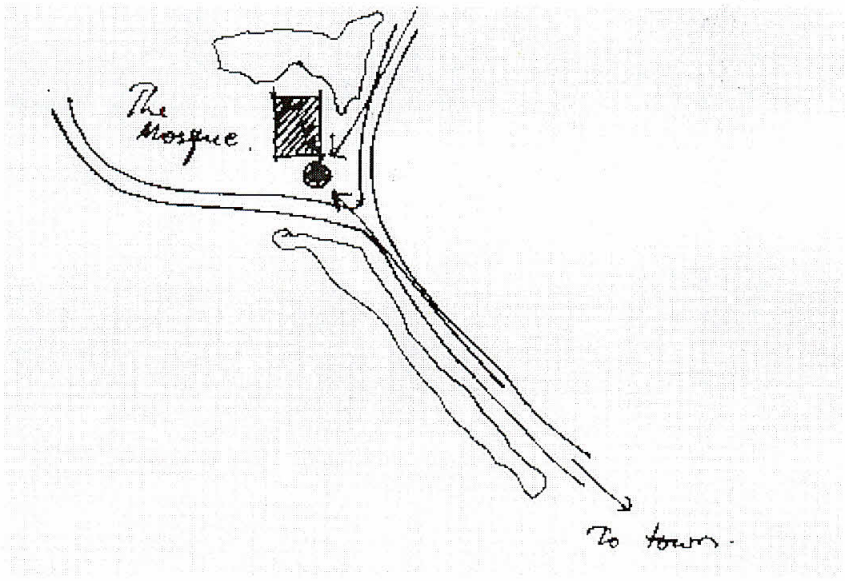


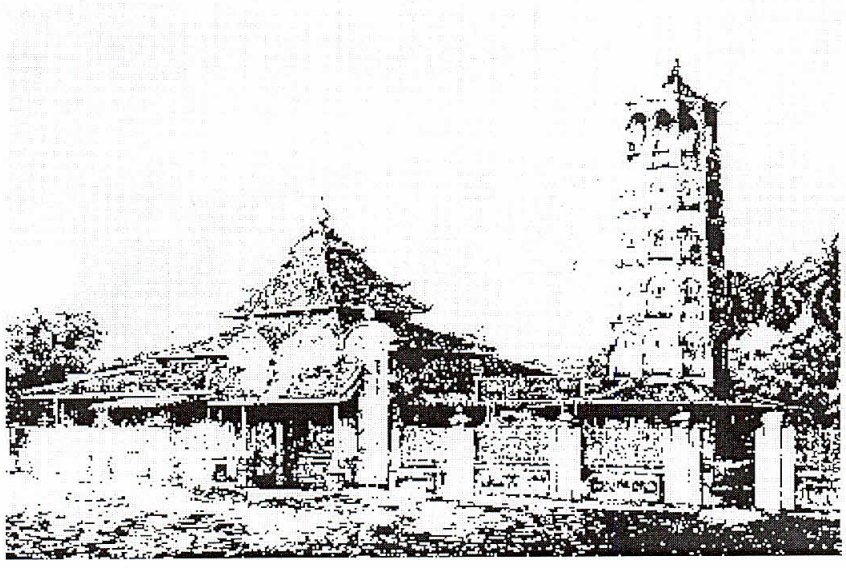
Fig. 3: An oasis within the concrete jungle, Kuala Lumpur.

In another major town in the East Malaysia (Borneo), called Kuching in the state of Sarawak, the State Mosque is located by the river. This reflects the close relationship between the mosque and the main transportation route since the river is still the most important transportation system linking the capital city and the interior towns and villages. The use of the waterway is due to the lack of road networks and the vastness of the state where land based transport system is still in its infancy. This type of setting for the mosque is very common in Malaysia where it provides convenient place for prayer and resting to the traveler. At the same time the minaret acts as a means of orientation to the user of the main transportation route where it suggests the general direction of the path. Many of the examples

can be found in the state of Malacca where the old mosque's minaret acts as a beacon for the general direction of the route. From afar the traveler will be led towards the ornate minaret before being deflected to continue the journey (Fig. 4). Acting as a focal point, the minaret also fulfills a similar function in a more compact urban environment acting as a reference point and providing orientation.



The route



The mosque

Fig. 4: The directional feature of rural mosque in Malacca.

The state mosque in Kuantan, best illustrates the importance of the mosque in terms of influencing the urban pattern and the overall structure of the town center. Here, the mosque is located in the center addressing a major green open space, locally known as the 'padang' (Fig. 5). This 'padang' is strategically located in the town and bounded by the main thoroughfares and other civic and

commercial buildings. The buildings that surround the 'padang' in a sense of enclosure are the High Court, the Religious Department Building, the District Office, rows of shops, schools and a Hotel. Previously the wet market and the post office were also located nearby to complete the organization creating a sense of enclosure to the green. Together with the mosque as the main focal point the ensemble created an interesting urban space. The sheer size of the Mosque dominating the skyline, makes it a memorable landmark to the town, according to the social survey done with the residents. The pattern generated from this arrangement spread outward to create the overall organization of the urban form. The town developed into a gridiron pattern that emphasizes the centrality of the mosque parallel to the strong edge created by the riverbank. The green space (padang) carved into the urban form also acts as a setting for private or public activities such as independence day celebration, football games etc. that took place in the central area. Underneath the shadowy trees on the perimeter are the settings for medicine man plying their trades and a stage for travelling magician. It is also a place for interaction for the old and the young alike. Krier [4] suggested a similar characteristic of the square (which the Padang really is) where it is not simply a leftover space but is a structural organisation of the space itself, thus acting as a framework for human activities.

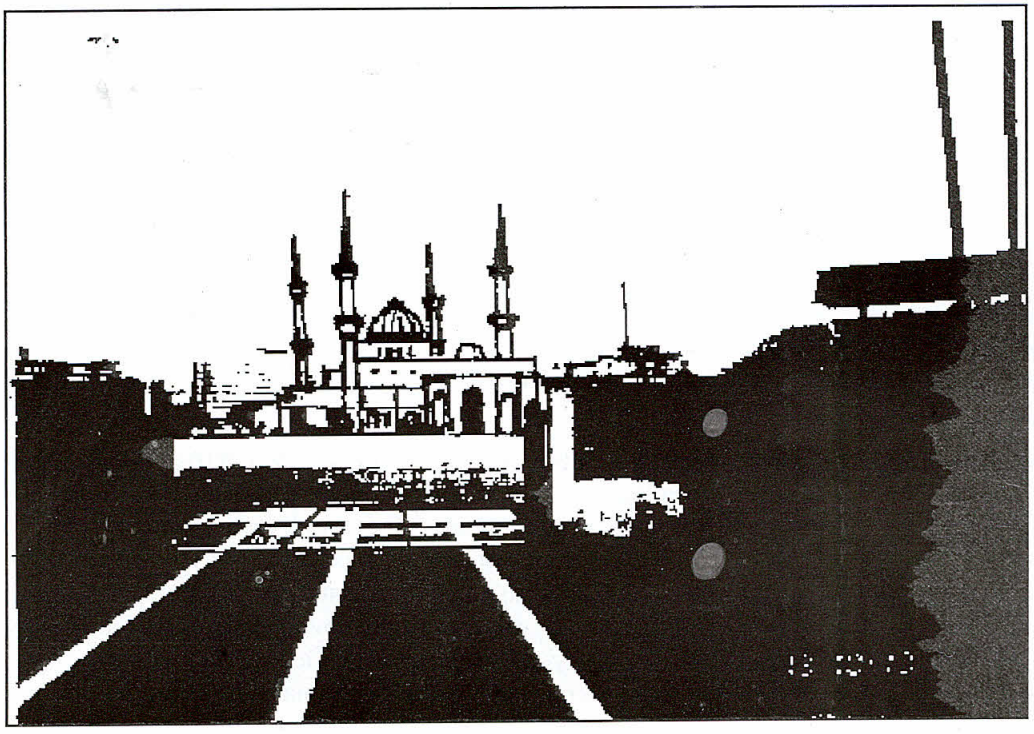


Fig. 5: The State Mosque of Kuantan.

There are two types of setting for these urban mosques that could be found in Malaysian townscape. The first type is where the mosque is a free-standing structure set within its own compound, usually surrounded by open space defined by walls. In this case, the mosque usually becomes a landmark due to its prominence and singularity in the urban setting. There is also a trend observed in which the mosque due to its strategic location and grand scale, becomes the landmark for their towns or cities such as the State Mosque of Shah Alam, National Mosque in Kuala Lumpur and the Sultan Abu Bakar Mosque in Johore Bahru. These mosque are located on a prominent site sets apart from the settlement or the center of the community. The other type of setting is when the mosque becomes part of the street frontage where it is directly accessible from the street serving the immediate community. This type of setting is commonly seen in Arab-Islamic cities where the mosque forms part of the

continuing bazaar or 'souk'. In this second type of mosque, the setting is less formal than the former. Lately, a new trend is also emerging in the location of urban mosques as can be observed in Johor Bahru, the capital city of the most southern state Johor, in Peninsula Malaysia. The Masjid An-Nur (which is a Friday prayer mosque) is uniquely located in one of the major shopping complex in the city center where the mosque is one of the facilities provided in the shopping complex. The provision enables the Muslim who went shopping or working in the shopping mall to perform their daily prayer or weekly Friday prayer when the time calls for it. This is important because the hot humid climate in Malaysia meant that it is more comfortable to visit the shops in the city center during the evening when it is slightly cooler. However, due the limited time available to perform the 'Maghrib' prayers, many Muslim find it difficult to perform their prayer when they are out in the city center. Hence, this new trend is much welcomed as it eliminates the dilemma faced by many Muslim when they are out hopping in the town center in the evening.

Role of Mosque in the Townscape

As mentioned earlier traditionally, the mosque plays an important role in the townscape of the older towns and cities in Malaysia. From a study done by Shuhana Shamsuddin and Ahmad Bashri Sulaiman[5] it was observed that the older town centers have a more interesting townscape than the newer town center, which was built during the post independence period. The elements that contribute to the townscape are building design, urban spaces and the human activities. the mosque plays an important role in the townscape of Kuantan due to its location that addresses the 'padang' (green field) and its architectural presence. The 'padang' acts as the green lungs of the town center and thus becomes a node and the mosque acts as the focal point. This is due to the space being visible from various parts of the town center that give a grand setting to the mosque. The mosque also acts as a visual stop to many of the views into the center, especially from two of the major streets looking into the 'padang' where a similar drama is unfold in the urban mosque of Kuala Trengganu (Fig. 6). The intricacy of its façade design, the choice of color, the height of its minarets and size of dome as opposed to the surrounding buildings, make the mosque appears as the jewel of the crown in the town center.

The minaret is the most important feature of the mosque that contributes to the Malaysian townscape where as discussed earlier it acts a reference point giving direction and position. The juxtaposition of the urban mosque in the streets of the old town center creates a contrast that further emphasizes their role as a focal point. This effect is further heightened by their height and vertical emphasis as compared to the horizontal plane of the old 'shop-houses' (shops on the ground floor and living accommodation above). The existence of the mosque in the central area of the Historical City of Malacca and Georgetown, Penang Island shows how these structures enrich the urban scene and townscape qualities as opposed to the newer town centers (Figs. 7-9).

The Role of Mosque in the Public's Perception and Image of the Urban Areas

The definition of perception given by many scholars suggests that it is a form of environmental knowing in which the information presented by the environment is sorted and categorized by the individual in his mind.[6-9] This process is affected by the person's appraisal or feeling towards the environment [10] and this aspect is of utmost significance to urban design. Discussion on Perception cannot be devoid of cognition because the difference between the two is one of degree and focus and that there is only a subtle difference between them. In urban areas, public perception is usually related to image because of the close relationship between them. Image and perception are important because the environment is what the people think it is and that they have important implications for urban design.

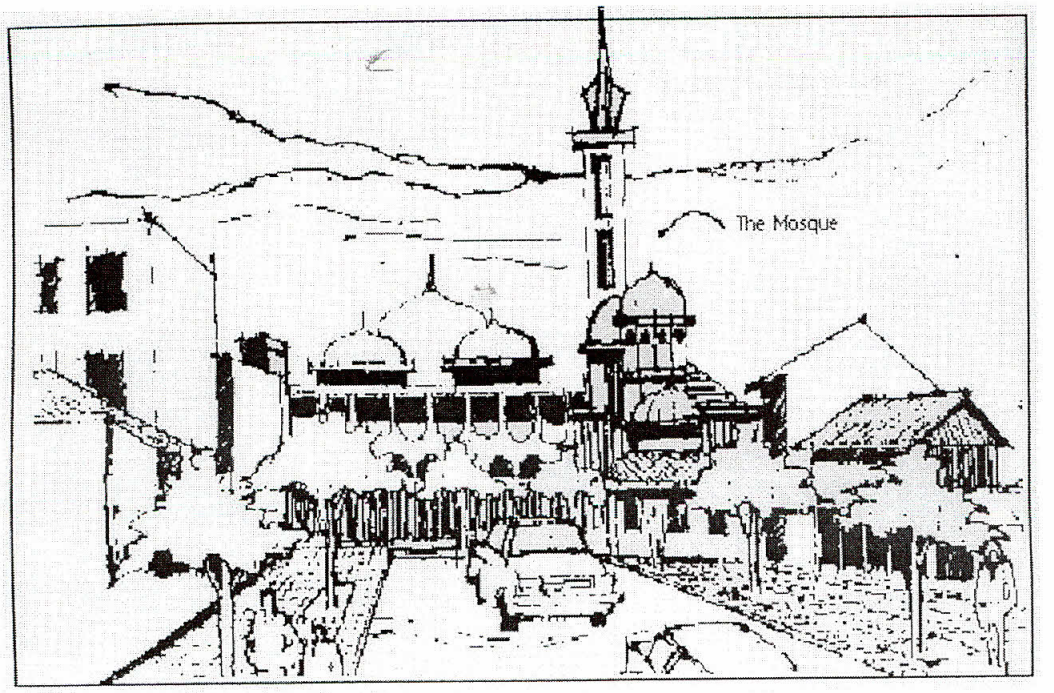


Fig. 6: The urban mosque of Kuala Terengganu : visual stop.

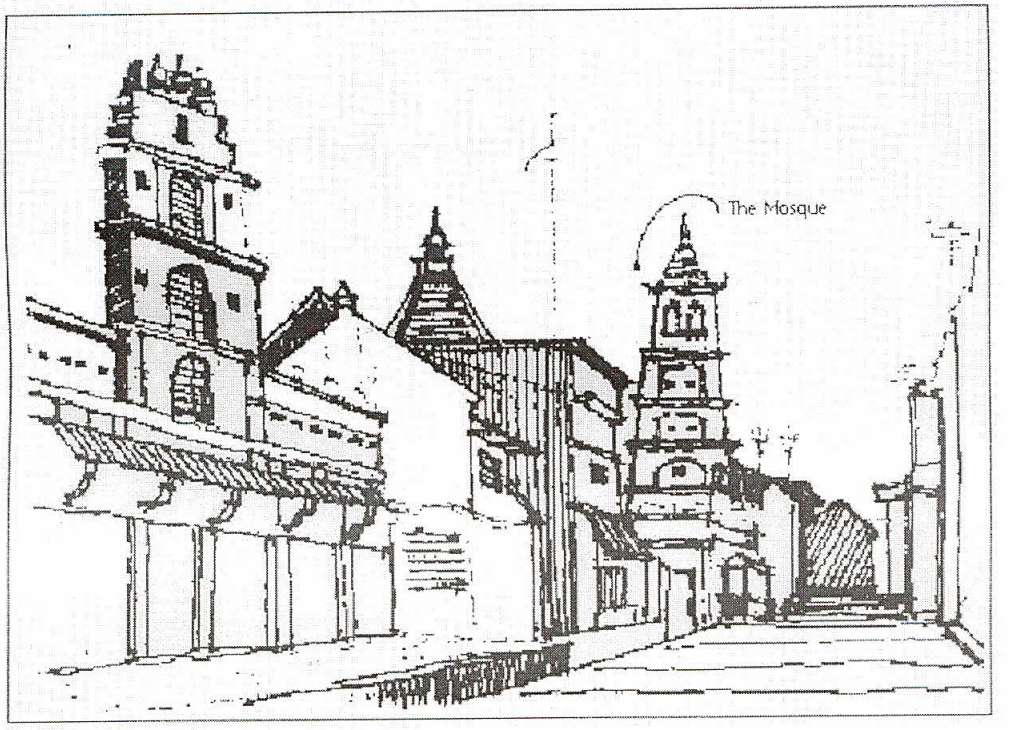


Fig. 7: Malacca urban mosque: Masjid Kling.

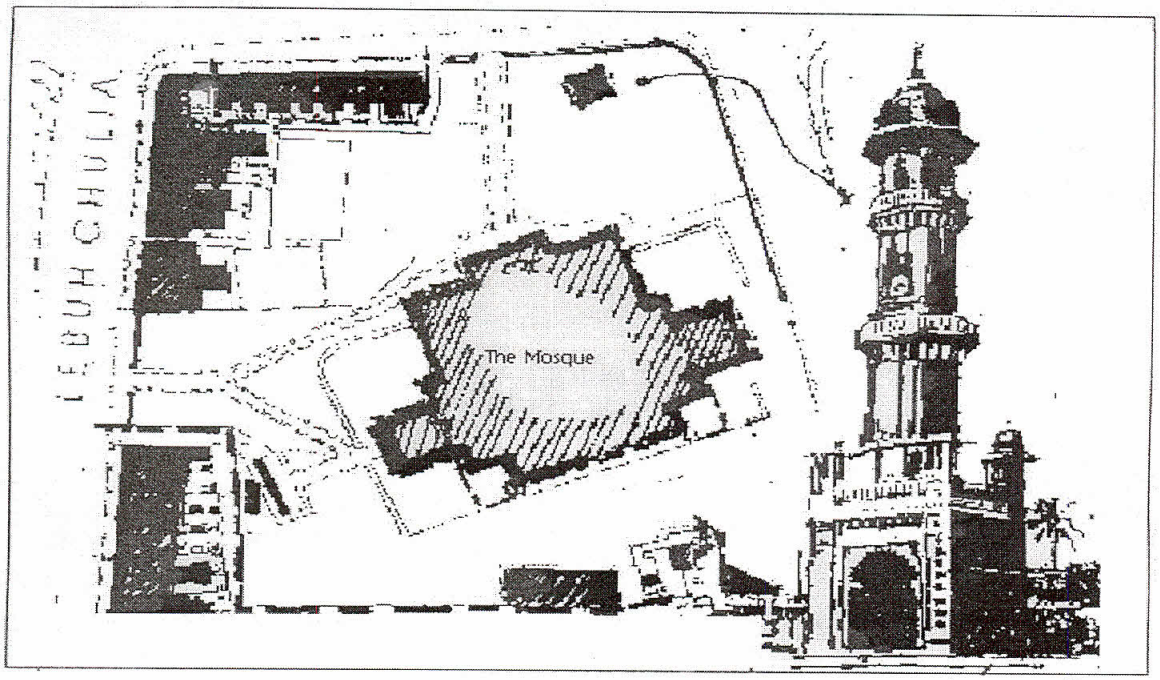


Fig. 8: Penang Urban Mosque: Masjid Capitan Kling.

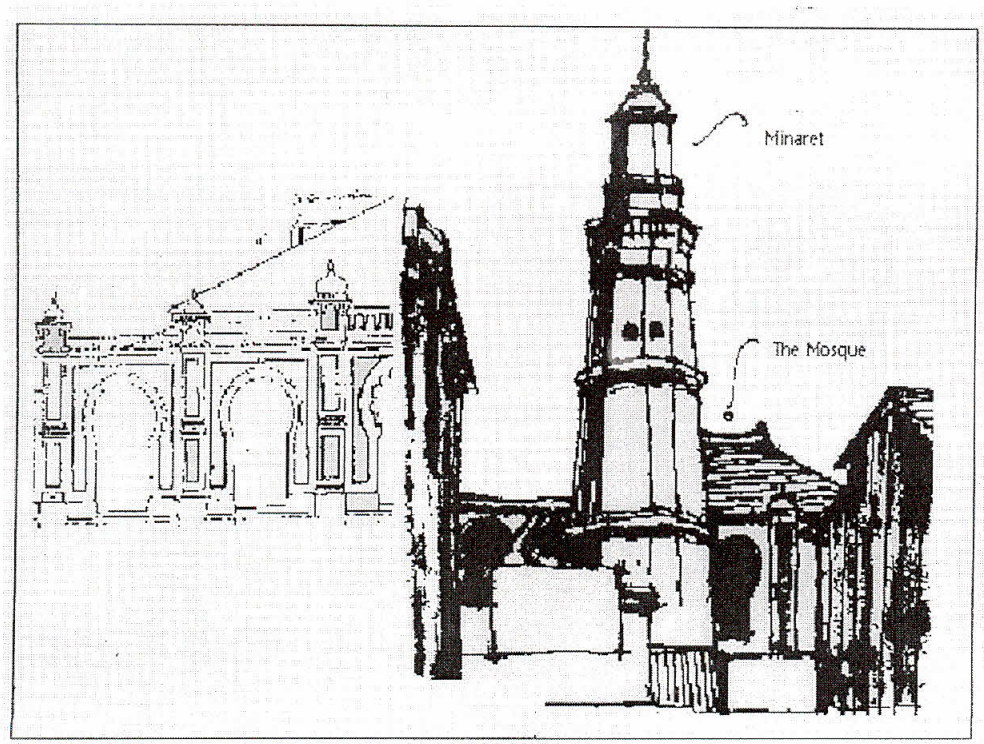


Fig. 9: Penang Urban Mosque: Masjid Lebuh.

Many research done in the west have discovered that urban perception is responsive to the configuration of the environment, apart from the social meanings attached by people to their physical environment.

Shuhana Shamsuddin study on the residents' perception of identity of Kuantan town center also highlighted that the distinctive elements associated with identity fall into three broad categories: physical structures, urban spaces and landscape features.[11] The study which involves a questionnaire survey of 330 respondents and a focused interview of 30 respondents was aimed towards identifying elements and qualities associated with identity. In the study, residents' perception of the qualities associated with identity are divided into seven categories; namely appearance, location in context, types and amount of vegetation, traffic system and street design, design of landscape elements, quality of views and lighting quality. Of all these qualities, appearance of the physical elements especially buildings play an important role in the residents' recognition process.

The mosque was mentioned by the highest number of respondents in the survey, as the most unique feature of the town center. This suggests the distinctiveness of the mosque compared to other buildings in the town center despite the differences in the respondents' socio-cultural background. One respondent who kept mentioning the mosque in her description of the town center was not even a Muslim and has never been inside the mosque. Yet, her description of the mosque is full of pride and sentiments. The ability of the mosque to draw strong attachments by the public from all background can be seen as the importance of the mosque as an important public building in the town center.

The mosque of Kuantan was also one of the most important landmarks in the town center. Of the thirty respondents interviewed, twenty of them included the mosque as one of the major landmarks in their mental maps of the town center. The mosque was considered to be very outstanding in terms of its appearance by the respondents because of its size and the tall minarets that are visible from far. In addition, its design is clearly distinguished from the rest of the buildings surrounding it. A photo recognition task conducted with the focused interview also highlighted the importance of the mosque in the people's recognition of a place. All the thirty respondents who participated in the interview were able to identify the mosque correctly. It was the only building or element, recognized by all the respondents in the interview.

The clues given to their ability to recognize the mosque relate to its physical characteristics and meanings. None of the clues mentioned relating to activities suggests that the mosque activities, namely praying is not that significant to ensure its distinctiveness to the residents. However, the environmental factor such as traffic congestion due to the Friday prayers makes the surrounding area prominent to the public.

The Influence of the Mosque in Campus Design

Campus design is one of the scopes of work of urban design and in this study it will be used to demonstrate how the mosque contributed towards the overall design of the ensemble. It is one of the most important elements that is the basis of the overall organization and created a sense of unity. In Malaysia, there is a growing concern to establish the country as a regional center for higher education. This is partly triggered by the economic situation, which forced Malaysian students to study locally instead of going overseas. Thus, this witnessed a growth in the number of higher institutions being set up, especially, that of the private universities and colleges. Many of these private universities campus are situated in the built up areas, whereas the public universities that were sponsored by the government are usually located in its own large area like a township. From a study on the typology of campus design in

Malaysia by the authors, it was observed that the mosque plays an important role in determining the planning and organizational concept of buildings within the site especially for the campus type public universities. The mosque, together with the other important buildings such as the Great Hall, administrative office, library etc. becomes the main organizing force either to generate lines of forces or as central focus to the whole ensemble. The mosque is usually located in an area addressing the main axis or the major open space of the place.

In the later generation of public universities such as International Islamic University (UIA), Universiti Teknologi Malaysia (UTM), Universiti Utara Malaysia (UUM), the mosque was used to define major spaces and becomes a landmark to the university (Fig. 10 & 11). In UIA and UTM, the mosque was located at the center of the campus , with the other buildings revolving around it. It creates a sense of unity with its minarets dominating the campus skyline. The importance and the symbolic nature of the mosque at UTM is reflected by its vantage position at the crest of the hill where the academic core was sited and together with the Great Hall (Dewan Sultan Iskandar), the main library and the faculties created the central open space. From this central space the whole campus is organized in a radial manner outward (Fig. 12).

In the UUM, however, the whole campus was designed revolving around the two main axis linking the administrative building, main library, great hall and the mosque (Fig. 13). In these arrangements the mosque do not only serves as a prayer place but also acts as a symbolic gesture making statement about their religious stance. This trend was not observed in the older generation of public universities such as Universiti Sains Malaysia (USM) and Universiti Malaya (UM) where the mosque are located at the fringe of the campus (Fig. 14), usually near the main roads for easy access to the outsiders to use the mosque. Thus the mosque did not become the organizing force or landmark to these universities but rather acting as the public building linking the university community with the surrounding community.

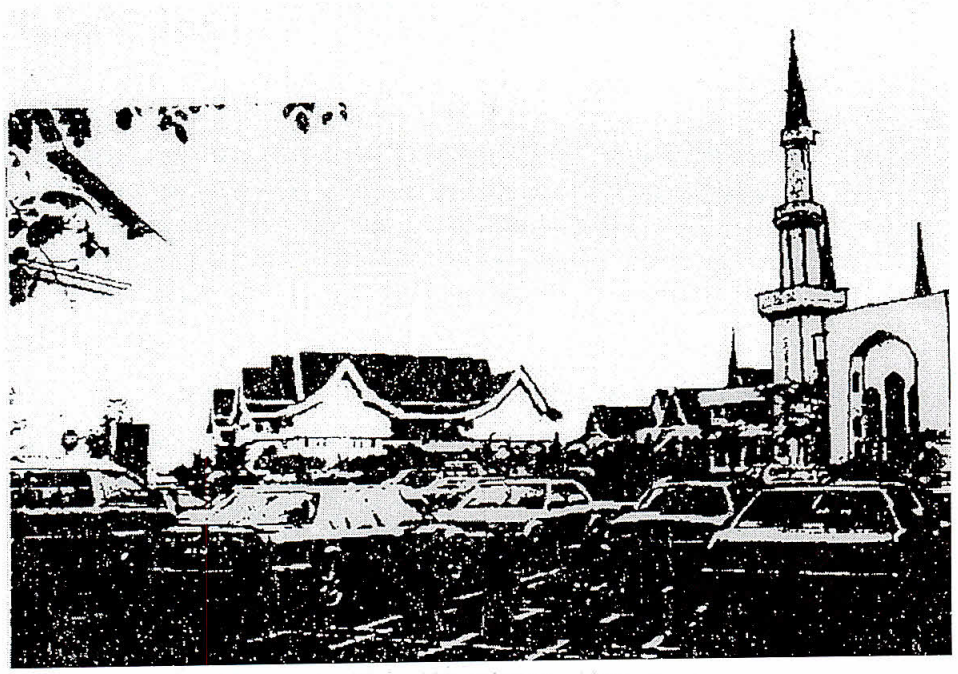


Fig. 10: The mosque of Universiti Teknologi Malaysia.

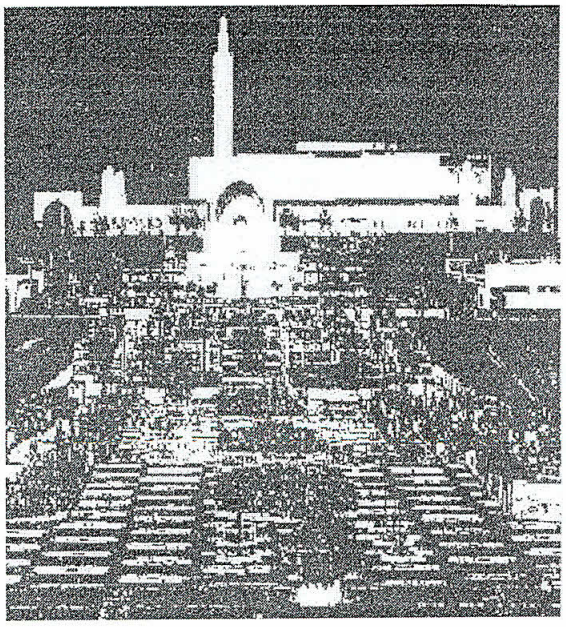


Fig. 11: The mosque of Universiti Utara Malaysia.

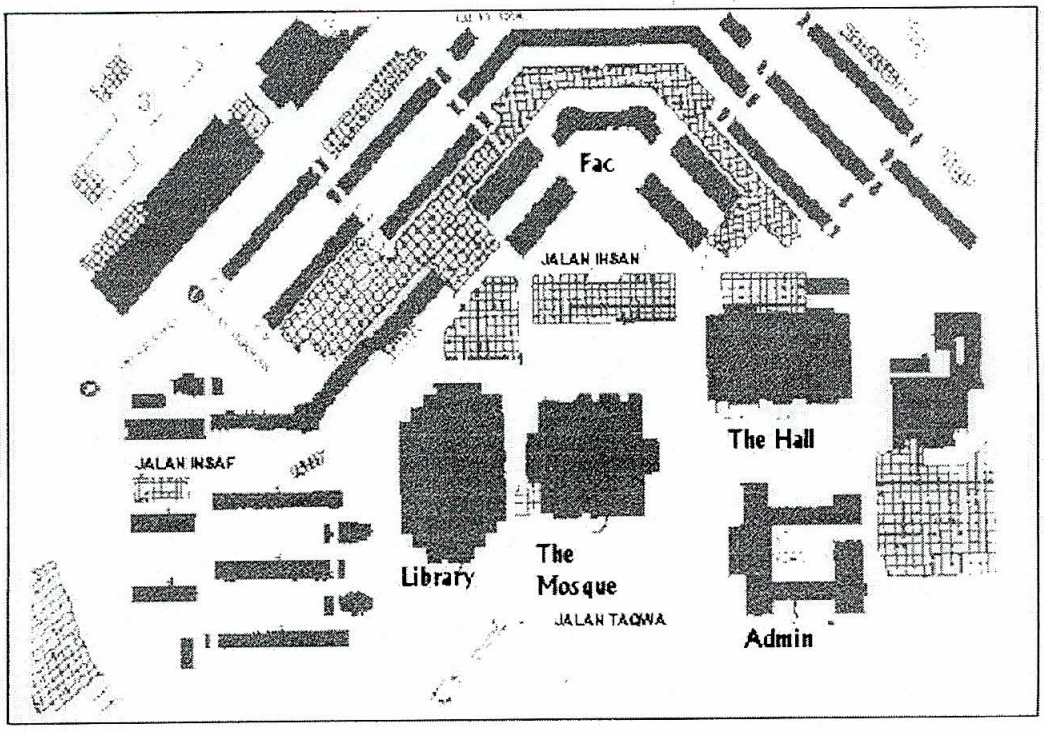


Fig. 12: The organizing feature of Universiti Teknologi Malaysia.

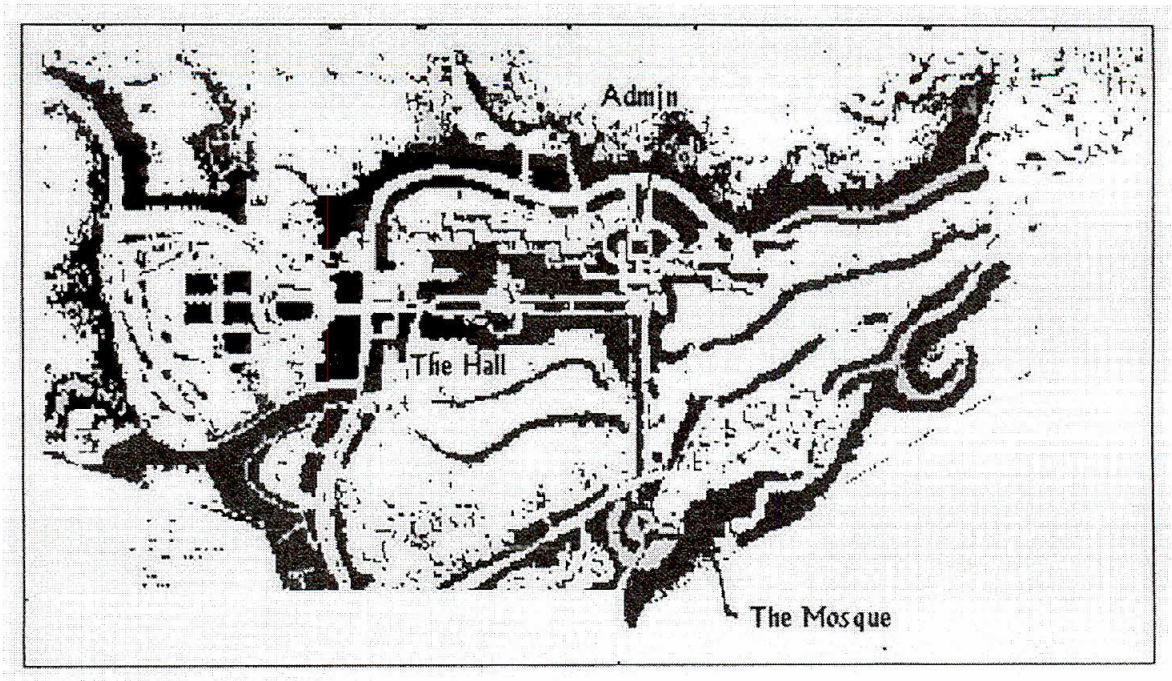


Fig. 13: Universiti Utara Malaysia Campus.

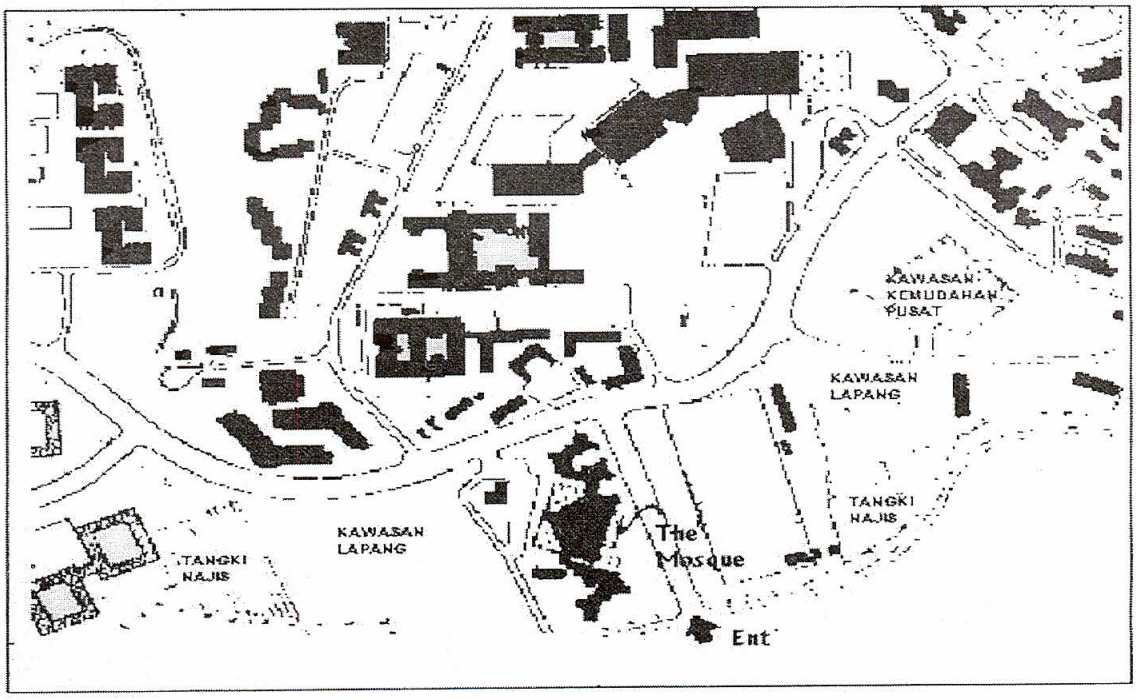


Fig. 14: Universiti Sains Malaysia Campus.

Conclusion

This paper has highlighted the contribution of the mosque in the design and planning of major urban centers in Malaysia. The role of the mosque in urban design can be seen as generating the growth and pattern of the towns and cities apart from contributing towards the sense of unity in a form of a focal point and landmarks for these areas. In urban design, the mosque can be seen as performing five functions. It is seen as organizing meanings of the urban environment and symbolic of the Islamic faith. The mosque also can be seen as organizing the space and overall pattern of the urban structure. The mosque is also acting as one of the element that organizes the different types of activities and time. The 'azan' or call for prayer by 'Bilal' (the caller) can be seen as a form of time management. The other activities relating to time and associated with the mosque are the Friday prayers, daily prayers, 'Eid' prayers and Qur'an recital events. Finally, the mosque is seen as organizing the channel of communication such as emphasizing the axis and the pedestrian linkages seen in some campus design.

Thus, this paper concludes that the mosque has an important role in urban design in the Malaysian context. It is an important organizing structure in Malaysian towns and cities and could again be the main organizing element like that seen in many campus designs. It also portrays the physical and spiritual well being of a place thus generating a great sense of place. This sense of place can be seen from two aspects i.e. spiritually through government, religious, community, society and cultural needs and physically as a landmark, sense of unity, and organizing principles for future urban pattern and form.

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دور المسجد في التصميم العمراني : حالة دراسية – ماليزيا

أحمد بشيري سليمان

شوهانا شمس الدين

وحدة التصميم العمراني ، قسم البيئة المبنية، جامعة ماليزيا للتكنولوجيا

جوهور باهرو، ماليزيا

ملخص البحث: لقد سيطرت على التجمعات الحضرية الماليزية مجموعات من المهاجرين الصينيين، وأكثرية من الماليزيين الأصليين المسلمين الذين نزحوا من القرى الريفية إلى المناطق الحضرية في المدن لرغبتهم في الحصول على فرص للعمل وخدمات أفضل. وقد شغل المسجد الذي كان عنصرا" رئيسيا" في التجمعات الماليزية مكانا" هاما" في المناطق الحضرية. وقد كان ذلك تعبيرا" عن تطلعات الدولة وحاجة المسلمين (الذين يشكلون الأغلبية الحاكمة) حيث أصبح المسجد ليس فقط مرفقا" رئيسيا" في البيئة الماليزية بل بؤرة تمثل وحدة كافة التجمعات الحضرية. وقد حكمت هذه الصفة جل المدن التاريخية وقرى الملايو العديدة ، ما عدا في الأزمنة الأخيرة عندما وضع المسجد ضمن الأبنية السكنية أو بعيدا" في مراكز المناطق العمرانية في مراكز المدن.

وسوف يوضح هذا البحث المساهمة الإيجابية للمساجد في التجمعات الحضرية التقليدية وفي المدن والعواصم التي بنيت حديثا"، كما يبين أن المسجد لم يؤد فقط الغرض الوظيفي كمركز اجتماعي بل أصبح رمزا" خاصا" لدفع عجلة التميز المعماري حوله. يعمل المسجد كبناء وظيفي للصلاة ونشاطات المجتمع الدينية، ومن الناحية الرمزية يؤكد إيمان الأمة ويوضح نموذجا" لسلوكها الاجتماعي أما من الناحية المعمارية فيساهم في إيجاد ارتباط حسي بالمكان ومعان أخرى عديدة في البيئة المبنية. واليوم تقع هذه الأدوار في خطر الانهيار إن لم يتم ترسيخ النظريات وتحديد طرق التطور المستقبلي. وانطلاقا" من متابعة الدراسات والأبحاث على مدن الملايو. وانطلاقا" من الدراسات والأبحاث التي أجريت على المدن الماليزية فقد اقترحت بعض القواعد الإرشادية للتخطيط والتصميم العمرانيين بحيث تعطى الأهمية مرة أخرى لدور المسجد في تطوير المجتمع وهويته، وكذلك تطوير الإحساس بالمكان والتميز المعماري والشعور بالوحدة.