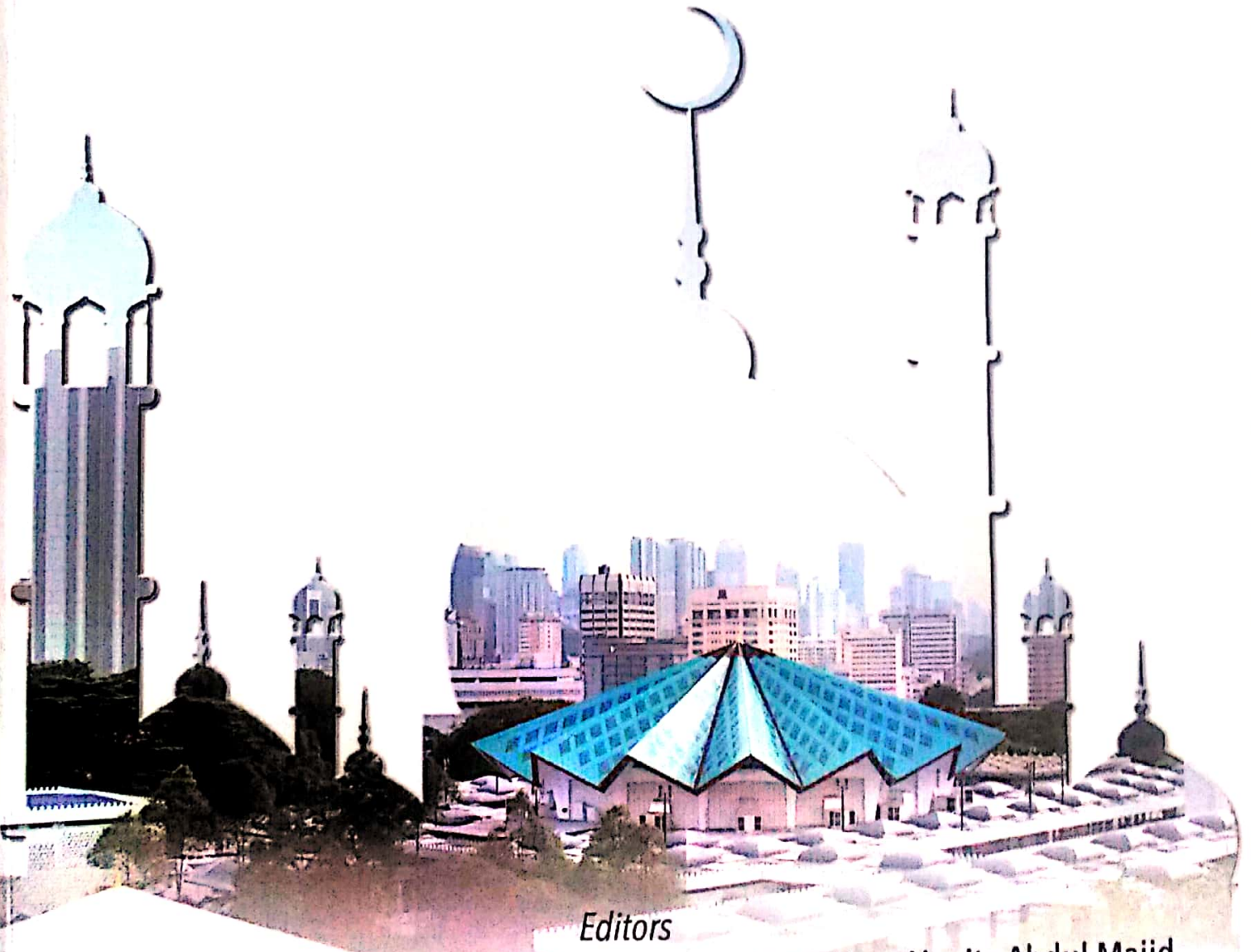


MOSQUE ARCHITECTURE

PRESENT ISSUES AND FUTURE IDEAS

عمارة المسجد:
قضايا الحاضر و أفكار المستقبل



Editors

Prof. Mashary A. Al Naim | Dr. Hani M Al Huneidi | Dr. Noor Hanita Abdul Majid



الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
وئسبرسي: الإسلام والتقدم والتفكير

جائزة عبد اللطيف الفوزان
Abdullatif Al Fozan Award

for Mosque Architecture



المؤتمر العالمي الثاني لعمارة المساجد
Second International Conference on
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Al Fozan Tower
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Corniche Road POBox 38
Al Khobar 31952
Kingdom of Saudi Arabia

Tel.: +966 (0) 13 895 9725
E-mail: info@alfozanaward.org Website: alfozanaward.org

and

INSTITUT TERJEMAHAN & BUKU MALAYSIA BERHAD

(Company No.: 276206-D)
Wisma ITBM, No. 2, Jalan 2/27E
Seksyen 10, Wangsa Maju
53300 Kuala Lumpur
Malaysia

Tel.: 603-4145 1800 Fax: 603-4142 0753
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PHYSICAL DIMENSION OF *MASJID* – TOWARDS CHILDREN FRIENDLY *MASJID*

Aniza Abu Bakar

Zur Atiqa Zulkifely

Noor Hanita Abd Majid

Kulliyyah of Architecture and Environmental Design, IIUM

Mohd Burhan Ibrahim

Kulliyyah of Education, IIUM

MASJID AS THE CENTRE FOR COMMUNITY

THIS study emphasis on the *masjid* as the centre for the Muslim community and the physical design of the *masjid* shall complement the purpose of the *masjid*. Thus it should address all walks of life, including children as they are part of the community and users of the *masjid*. The presence of children at *masjid* has been discussed by many particularly during the month of Ramadan as more families will bring their children to the *masjid* and for a more extended period than other months. Some perceived it as positive while others may not be comfortable with the presence of children at *masjid* as it is said as distracting the focus of other *jama'ah* (congregational) members. This shows a different level of acceptance and tolerance of the *jama'ah* members towards children in the *masjid*. Sabri¹ in his writing expressed his great concerned that if this issue is not well addressed, children may not be in *masjid* anymore. Should this happen, the future generation is at high risk. He also outlined a few suggestions that require physical design considerations, including the provision of a nursery to ensure the safety of children, and the provision of specific prayer area for parents/guardians with small children. From his comments and suggestions, it can be seen that the approach of the physical design of *masjid* needs to be revisited. The existing guidelines concerning *masjid* and *surau/musolla* which are the Malaysian Standard (MS) 2577:2014) – Architecture and Asset Management of Masjid – Code of Practice; by the SIRIM Malaysia², the *Draf Garis Panduan Perancangan Masjid dan Surau* by the Jabatan Perancangan Bandar dan Desa (JPBD), Semenanjung Malaysia³; and *Garis Panduan dan Peraturan bagi Perancangan Bangunan – 2015 Edition* by the Economic Planning Unit, Prime Minister Department⁴ may have overlooked on the needs of families with young children physically.

Masjid and the Muslim cannot be separated. It is clearly outlined in the Islamic regulations as a significant place, and thus, it has become an indispensable part of any Muslim settlement all over the world. The Muslim men particularly must try their level best to perform the obligated five daily prayers in congregation in *masjid*. Not only due to its multiplied rewards (twenty-seven times more)⁵: "*Prayer in congregation is superior to prayer alone by twenty-seven degrees*" (*Sahih Bukhari*, Book 11, No. 621), moreover this is where the members of the society shall get the opportunity to meet and know each other. Taking care of each other is among the fundamental teachings in Islam. Moreover, the *masjid* is the best place to nurture this among Muslims, particularly. Hence, *Masjid* – as the House of God, has an exceptional place in the life of the Muslims⁶.

The importance of *masjid* for the people to know and love Allah SWT, empower and unite the *ummah* (community) cannot be denied. Besides as the place for worship, the functions of *masjid* has been evolved since the era of the Prophet Muhammad (PBUH) as a centre of spiritual contents, a platform of communication, and it develops the unity and brotherhood among the Muslim communities. Besides that many studies shown that *masjid* had served many functions such as the centre for the community, educational institution, the economic hub, healthcare institution, and accommodation centre for Muslim community^{6, 7, 8, 9}.

ISSUES, AIMS, AND BACKGROUND OF THE STUDY

Issues and Aim of the Study

Many studies show the *Masjid* design in Malaysia is focuses on the space functions and its architectural influences instead on the needs of the users^{10, 11, 12}. Some of the *masjids* in Malaysia have a tall fence and even being locked. It is so to safeguard the *masjid*. However, at the same time it conveys the message to the society that *masjid* is very exclusive and only for specific purposes mean while during the Prophet (PBUH) era, *masjid* was physically open to welcome all¹¹. It is also said that a very big-sized *masjid* will lead to a degree of individuality of the *jama'ah*, and also unutilized space. It is perceived that a small-sized *Masjid* will encourage the community in the *kariah* to strengthen their brotherhood as they are likely to bump into each other more, and space would be fully utilized as a community centre. It can be observed that the various issues highlighted all these while might have not to address the needs of specific physical space design for young children. Therefore, there is a need to study the current physical design of *masjid* in an attempt to identify the inclusiveness criteria

of *masjid* that address the needs of children and their families. This is set as the aim of this study. To investigate the spatial configuration of spaces in the *masjid*. It is to relate the needs of children and their families as part of the users.

Background of the Study

Masjid's Architecture

Islam came to Malaya (named as Malaysia following the independence declaration in 1957) since the late 7th century. Since then, *Masjid* has evolved dynamically from architectural design to a rich range of vocabulary in its designs. The earliest *masjid* typology was believed to be built from timber. The roof is pyramidal in shape consists of two or three-tier with a long gable house type. It is the influence of the Nusantara archipelago coming from Java Land (Indonesia)¹¹. The earliest living *Masjids* were (18th century) the Masjid Tengkeru (Melaka) and Masjid Kampung Laut (Kelantan). They have fewer columns and more clearly defined open space for prayers focusing on the *qiblah* (the direction of the Ka'bah). The interior space is deliberately oriented towards the *mihrab* and *qiblah* wall developing a strong axis as a datum collecting the three areas; portal, veranda (intermediate space), and praying area spearheaded by the *mihrab* (a niche in the wall of a mosque, at the point nearest to Mecca towards which the congregation faces to pray). Most of them are categorized under vernacular Malay design.

In the middle of the 19th century, the construction material, and the appearance of *masjids* began to change as a result of the colonization. It is stated on the information board outside Masjid Pengkalan Kakap (Kedah) that the building of the *masjid* was built using limestone mixed with clay, coarse salt, egg yolk, and honey¹². Even though the overall look is different from other *masjids*, the interior organization is almost similar, with the exception that the floor level is not raised on stilts. It is also explained that *masjid* in Malaysia was built with three basic elements – the entrance, the prayer hall, and the veranda (shaded space provided to cool off outdoor air before entering the building). During the early 20th century, the British started using bricks as a base material for buildings. Thus, the architecture of *masjid* also started to change. In 1909, a British architect, A.B. Hubbock built Masjid Jamek Sultan Abdul Samad in full bricks that came from Brickfield. The design is influenced by Moorish and Mughal architecture¹². This shows that culture influenced the development of *Masjid* in Malaysia and has changed the architectural language. The evolution of Malaysia's *masjid* architecture is illustrated in Figure 1.

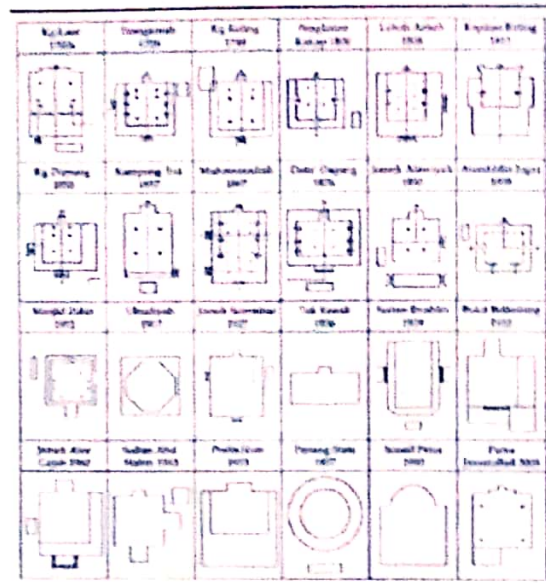


FIGURE 1

The evolution of *masjid* in Malaysia.

(Source: Othman, 2007)

Spatial Design

Based on the three existing design guidelines in Malaysia^{2, 3, 4}, the basic spatial requirement for *masjid* development can be summed up in the following Table 1.

Main Component	Islamic Perspectives
Qiblah direction	One of the valid condition in prayer
Prayer Hall	Clean, tranquil, can perform congregational prayer
Ablution	Obligatory – cleanliness before pray
Mimbar	For <i>khutbah</i> (sermon), sense of authority
Mihrab	Indicates the direction of Ka'bah
Minaret	Call to perform prayer and symbol of Islam

TABLE 1

Basic needs in *masjid*.

In terms of spatial organization, JPBD has outlined the appropriate spatial arrangement for the *masjid*, which is for 1,000 *jama'ah* capacity, the prayer hall/space need to be 1,000m² which is equal to 1m² for each person¹⁶. Below is the illustration of spatial arrangement in *masjid* prepared by JPBD in Figure 2.

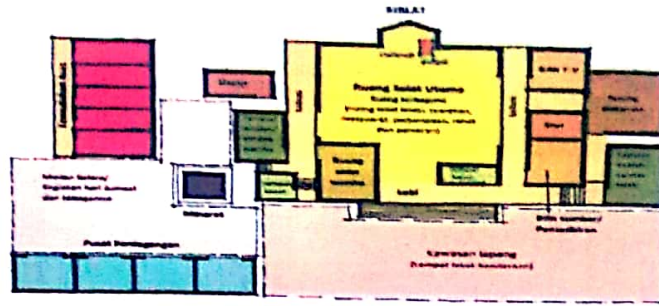


FIGURE 2

Concepts of Spatial Relation and *masjid*'s Components.

(Source: JPBD)

Personal Space in Masjid

As mentioned, the ideal personal space for each *jama'ah* is 1m^2 . This can be considered as sufficient as the approximate size of a standard prayer matt is 0.77m^2 . This would be the personal space of a person while praying as it is required for everyone to stand close while the shoulder is touching one and another. The primary activity of *masjid*, which is the congregational prayer, is aimed to develop unity and brotherhood among Muslims, and this is well translated in the manner of Muslims standing side by side. However, beyond congregational praying, the personal space of a person would be bigger. The personal space is important as one of the primary purpose for people going to the *masjid* is to perform *ibadah* in tranquillity in order to be focused/*khusyu'*.

METHODOLOGY

In studying the physical attributes of the *masjid*, which include spatial configuration and space functions, site inventory and analysis, and observation techniques, are adopted. Seven *masjids* in the urban area of Kuala Lumpur were identified with the help of the Jabatan Agama Islam Wilayah Persekutuan, namely – Masjid Al-Akram (AA), Masjid Ar-Rahimah (AR), Masjid Abu Ubaidah Al-Jarrah (AU), Masjid Saidina Abu Bakar As-Siddiq (SAB), Masjid Muadz bin Jabal (MBJ), Masjid Imam Al-Ghazali (IAG), and Masjid Jamek Kg. Baru (KGB). The other two *masjid* selected *masjids* in Selangor are Masjid Al-Khairiyyah (AK) and Masjid Sultan Haji Ahmad Shah (SHAS), UIAM, Gombak. The former is well known for being very active in conducting various activities for society, while the latter is said to be liked by families with young children. All eight *masjids* are in the residential area while Masjid Sultan Haji Ahmad Shah is located in a campus setting. The site inventory includes identifying the spaces, and

their layout/spatial configuration, – indoor and outdoor. The observation helped to identify the space functions. The layout of these *masjids* has to be drawn diagrammatically due to unavailability of the floor plan at the *masjids'* office, except for the Masjid SHAS. These diagrams are sufficient to study space configurations. The dimension of the main praying area and other areas where it is also used to pray like the adjacent corridor was also measured to calculate the width using Laser Distance Meter (Leica DISTO, A2) – Figure 3. This is done to double-check the width of areas meant for praying.



FIGURE 3
Laser Distance Meter equipment used in the study.

FINDINGS AND DISCUSSION

Figure 4-12 shows the layout of the case studies *masjids*, including the width of the floor area, *jama'ah* capacity, and the calculated personal space of a person based on approximation (floor area/*jama'ah* capacity).

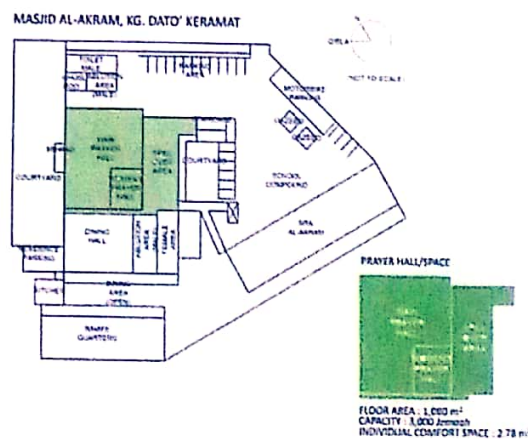


FIGURE 4
The layout of Masjid Al-Akram.

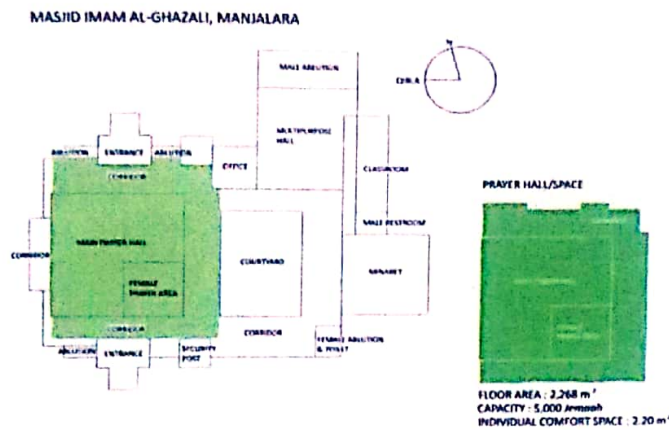


FIGURE 5
The layout of Masjid Imam Al-Ghazali.

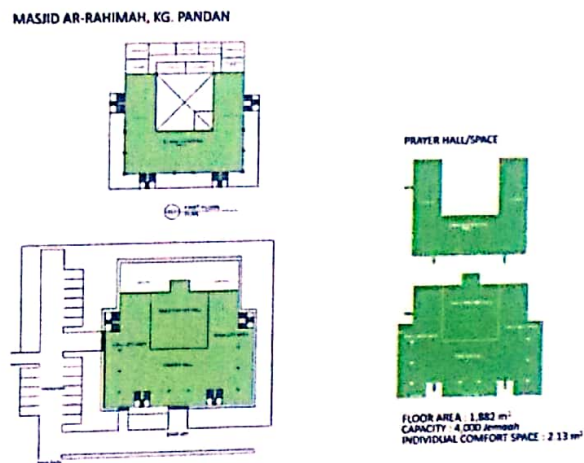


FIGURE 6
The layout of Masjid Ar-Rahimah.

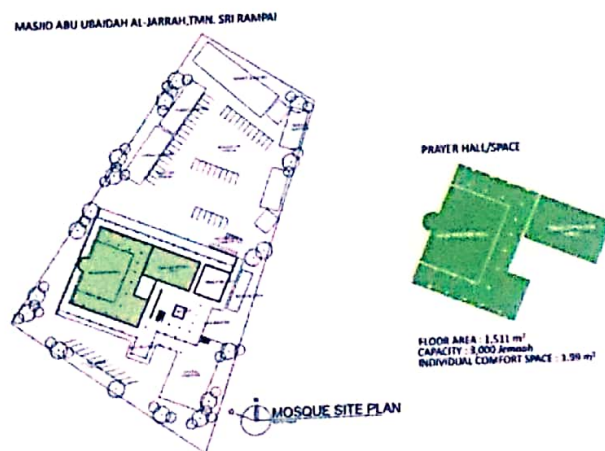


FIGURE 7
The layout of Masjid Abu Ubaidah Al-Jarrah.

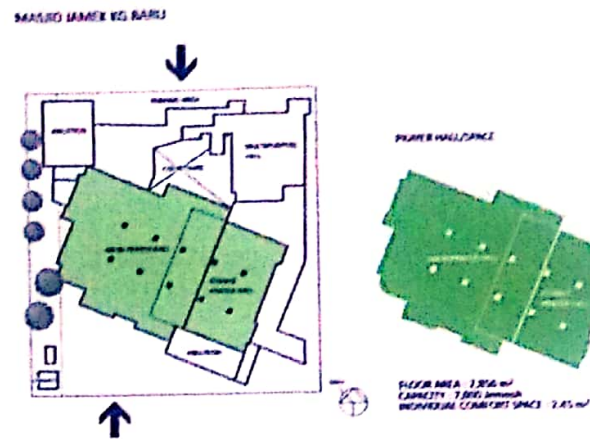


FIGURE 8
The layout of Masjid Jamek Kg. Baru.

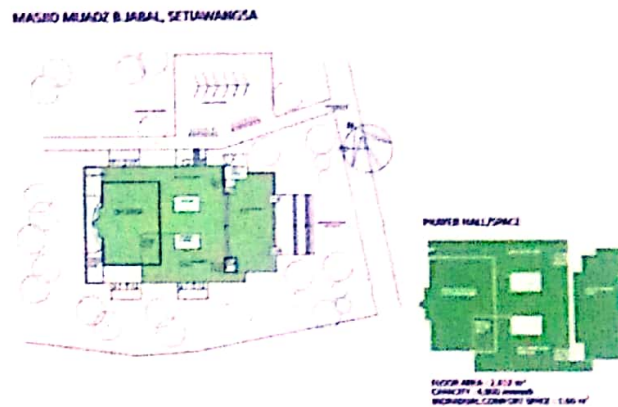


FIGURE 9
The layout of Masjid Muadz bin Jabal.

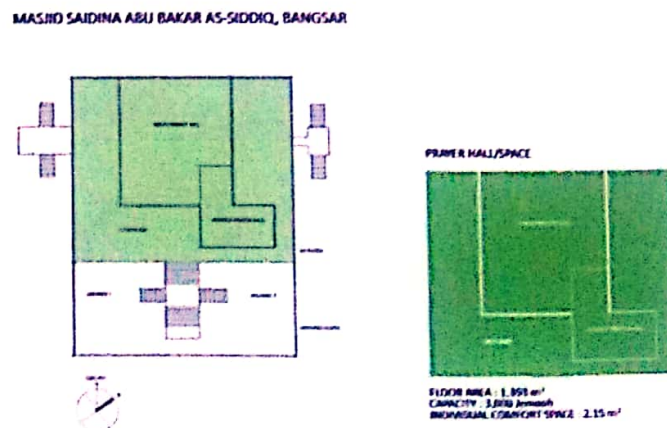


FIGURE 10
The layout of Masjid Saidina Abu Bakar As-Siddiq.

MASJID AL-KHAIRIYAH, TMN SRI GOMBAK

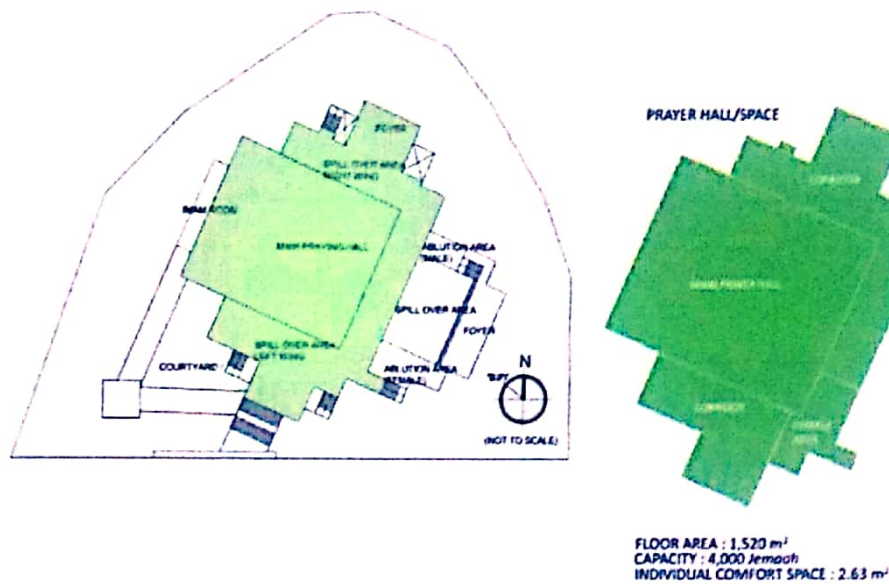


FIGURE 11
The layout of Masjid Al-Khairiyah.

MASJID SULTAN HJ.AHMAD SHAH, UIAM GOMBAK

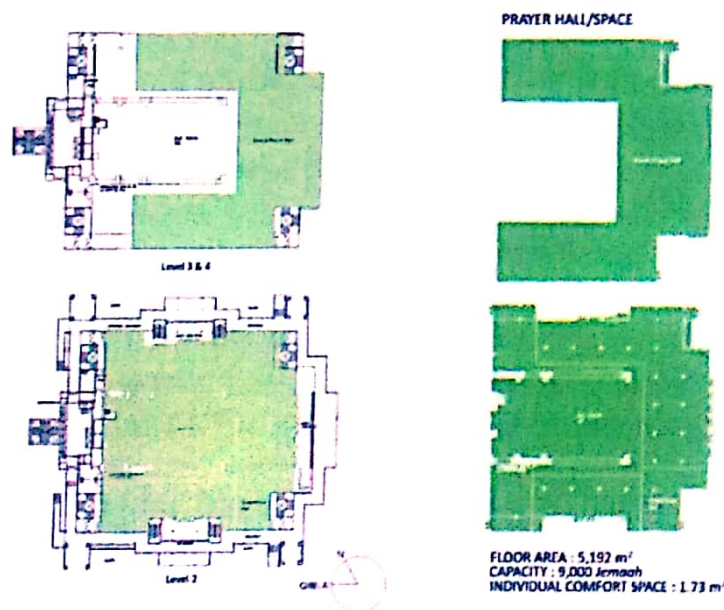


FIGURE 12
The layout of Masjid Sultan Hj. Ahmad Shah, UIAM Gombak.

The following Table 2 is the analysis on the space dimension concerning the carrying capacity of the *masjids* as informed by the imam or obtained from the webpage of the *masjids*.

	AA	IAG	AR	AU	KGB	MBJ	SAB	AK	SHAS
Width of praying area (m ²)	1,080	2,268	1,882	1,511	2,856	1,900	1,393	1,520	5,192
Ratio of the praying area	0.21:1.0	0.44:1.0	0.36:1.0	0.29:1.0	0.55:1.0	0.37:1.0	0.27:1.0	0.29:1.0	1.0:1.0
Floor level	2	1	3	2	3	2	3	3	4
Maximum carrying capacity	3,000	5,000	4,000	3,000	7,000	4,000	3,000	4,000	9,000
Ratio of carrying capacity	0.28:1.0	0.56:1.0	0.44:1.0	0.33:1.0	0.78:1.0	0.44:1.0	0.33:1.0	0.44:1.0	1.0:1.0
Width/person (m ²)	0.36	0.45	0.47	0.50	0.41	0.48	0.46	0.38	0.58

TABLE 2

Analysis of space dimension of the case studies *masjids*.

Most of the studied *masjids* have two and more floor levels except for Masjid Imam Al-Ghazali. Such a situation is typical for *masjids* in urban area due to the high population while the land area is somewhat restricted. Based on the width of the praying area and maximum carrying capacity, SHAS Masjid can be said as the largest *masjid* among all while Masjid Al-Akram is the smallest although its carrying capacity is similar to Masjid Abu Ubaidah al-Jarrah and Masjid Saidina Abu Bakar As-Siddiq. In order to relatively compare and contrast the width, ratio of the praying area is calculated by dividing the width of the praying area of each masjid with the width of SHAS masjid. Masjid Jamek Kg. Baru seems to have the second-largest ratio (after SHAS Masjid) while Masjid Al-Akram demonstrates the smallest ratio. In other words, the width of the praying area of Masjid Jamek Kg. Baru and Masjid Al-Akram is about 55% and 21% from the width of SHAS Masjid, respectively.

It was mentioned earlier that the JPBD proposed 1m² per person for the personal space. Based on the measurement and calculation of the praying areas, when it is divided with the carrying capacity of the *masjids*, the result indicates smaller personal space for every case studies masjid except for SHAS Masjid. Referring to the human anthropometric (Figure 13), on average, the shoulder width is about 500mm (0.5m). When a person prostrates, the length is 1.0m (this is also the typical length of a praying matt). Hence, the width needed for a person would be about 0.5m². Thus, it is suspected that the maximum carrying capacity is based on human anthropometric rather than referring to the proposal by the JPBD.

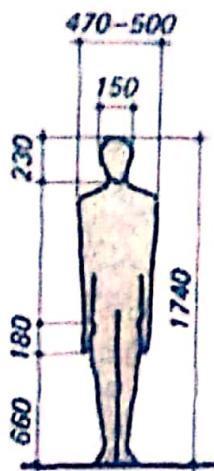


FIGURE 13

Human anthropometric.

(<https://i.pinimg.com/originals/c6/7f/c2/c67fc25c3ef8369c2d1f9e5f8f2b2b33.jpg>)

Thus, it can be concluded that the selected masjid are providing a comfortable space for their *jama'ah*. The overall layout of the nine *masjids* as shown in the Figure 4-12 and it also aligned with the guideline from JPBD, thus it can be seen that the layout of each masjid is according to the spatial arrangement of an ideal masjid.

CONCLUSION

Studying the space dimensions of these *masjids* and relating it to the human scale/anthropometric is very important as it is about the personal space of a person particularly when a person is trying to be focused on his/her *ibadah* at the *masjid*. It is fascinating to see that when the praying area is further compared with the maximum carrying capacity, the result indicates that the human anthropometric might be the basis in calculating the maximum carrying capacity, rather than following the proposal by the JPBD. However, it is worth to be noted that typically *masjids* would be reaching their maximum capacity when the Friday prayer is performed – that is once a week.

Personal space of a person at masjid should be studied more in the future in order to identify the optimum size of the area. It is anticipated that the larger the personal space, the lesser the person would be feeling disturbed. Moreover, this is particularly important to be investigated

when it comes to having young children who are commonly active at the *masjid*.

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AUTHORS

First Author: **ANIZA ABU BAKAR**, Assistant Professor at International Islamic University Malaysia [e-mail: aaniza@iium.edu.my].

Second Author: **ZUR ATIQA ZULKIFELY**, Student at International Islamic University Malaysia. [e-mail: zuratiqa@gmail.com].

Third Author: **NOOR HANITA ABD MAJID**, Associate Professor at International Islamic University Malaysia [e-mail: hanita@iium.edu.my].

Fourth Author: **MOHD BURHAN IBRAHIM**, Associate Professor at International Islamic University Malaysia [e-mail: mburhan@iium.edu.my].

Correspondence Author: **ANIZA ABU BAKAR**, Assistant Professor at International Islamic University Malaysia [e-mail: aaniza@iium.edu.my].

MOSQUE ARCHITECTURE

PRESENT ISSUES AND FUTURE IDEAS

عمارة المسجد: قضايا الحاضر و أفكار المستقبل

Future of Mosque Architecture

Within the framework and objectives of the Abdullatif Al Fozan Award for Mosque Architecture in the development of mosque architecture at the local, regional and international levels, the General Secretariat of the Award has initiated this global conference of mosque architecture to be an international scientific platform for architects, researchers and specialists in mosque architecture, as well as to become a scientific tool supporting the award. In this context, in 2016 the Award organized the First International Conference on Mosque Architecture in cooperation with the Imam Abdul Rahman bin Faisal University in Dammam, Saudi Arabia, and the Abdullatif Al Fozan Award for Mosque Architecture will be organizing the second conference in Kuala Lumpur on 25th-27th November 2019, in cooperation with the International Islamic University of Malaysia and various partners in Saudi Arabia, Malaysia and relevant international organizations.

The General Secretariat of the Abdullatif Al Fozan Award for Mosque Architecture has selected the theme of "Future Mosque Architecture" as the general theme of the Second World Conference on Mosque Architecture, in order to raise a series of important architectural issues such as the future of the mosque's relationship with its urban and social environment, or the mosque's accordance with smart buildings applications and digital technology, and in conclusion, how far the classical forms of mosques may adapt with those contemporary and futuristic theories of architecture.

عمارة المسجد في المستقبل

في إطار أهداف جائزة عبد اللطيف الفوزان لعمارة المساجد في تطوير عمارة المساجد على الصعيد المحلي و الإقليمي و الدولي، بادرت الأمانة العامة للجائزة في تنظيم مؤتمر عالمي لعمارة المساجد ليكون منصة علمية دولية للباحثين و المتخصصين في عمارة المساجد و لتصبح ذراعا علميا مساندا للجائزة. و في هذا السياق قامت الجائزة في العام 2016 بتنظيم المؤتمر العالمي الأول لعمارة المساجد بالتعاون مع جامعة الإمام عبد الرحمن بن فيصل في الدمام، و إستكمالا لهذا المشروع العلمي الهام تقوم الأمانة العامة للجائزة بتنظيم المؤتمر العالمي الثاني لعمارة المساجد في متحف الفن الإسلامي في العاصمة الماليزية "كوالالامبور" خلال الفترة من 25-27 نوفمبر 2019، و ذلك بالتعاون مع مختلف الشركاء في المملكة العربية السعودية و ماليزيا و المنظمات الدولية ذات العلاقة.

و قامت الأمانة العامة لجائزة عبد اللطيف الفوزان لعمارة المساجد باختيار موضوع "عمارة المسجد في المستقبل" موضوعا عاما للمؤتمر العالمي الثاني لعمارة المساجد، و ذلك لطرح عدد من القضايا العمرانية و المعمارية المهمة مثل مستقبل علاقة المسجد مع جواره العمراني، أو إستيعاب المسجد للتقنيات الرقمية و المستقبلية و أخيرا تواءم نظريات العمارة المعاصرة و المستقبلية مع الأفكار التقليدية للمسجد.

