

Mosque Institution and Building: Evaluating Sustainable Space, Function, Program, and Activities



Nayeem Asif, Nangkula Utaberta, Sumarni Ismail, Xin Yan, and Yijiao Zhou

Abstract It was the norm for Muslim armies during the early period that whenever a new territory was conquered, the first establishment would be a mosque. That mosque served simultaneously as the military base, administrative office, and place for congregational prayers. However, in present time, the function of the mosque institution becomes more diversified and flexible. This paper aims to study the historical precedence of a mosque's function as well as the current perception of the programs of a mosque. The paper adopts qualitative method through reviewing existing literature and analyze the data by descriptive analysis. Recommendations are made based on the findings which show that diversification of mosque's functions is highly needed in present time as the Muslim community is facing rapid sociocultural changes. Moreover, inclusiveness of mosque institutions is significant to ensure participation from all strata of the community. Further research on these aspects can be done to study specific mosques in selected contexts.

Keywords Mosque's function · Inclusive Mosque · Contemporary Mosque · Mosque architecture

N. Asif

Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia, Jalan Gombak, 53100 Kuala Lumpur, Selangor, Malaysia

N. Utaberta (✉) · X. Yan · Y. Zhou

School of Architecture and Built Environment, FETBE, UCSI University, UCSI Heights, 1, Jalan Puncak Menara Gading, Taman Connaught, Cheras, 56000 Wilayah Persekutuan Kuala Lumpur, Malaysia

e-mail: Nangkula@ucsiuniversity.edu.my

S. Ismail

Architecture Department, Faculty of Design and Architecture, Universiti Putra Malaysia, UPM Serdang, Serdang, Selangor, Malaysia

© The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd. 2023

139

E. M. Nia et al. (eds.), *Advances in Civil Engineering Materials*,

Lecture Notes in Civil Engineering 310,

https://doi.org/10.1007/978-981-19-8024-4_11

1 Introduction

Islam started with a philosophy and doctrine that encouraged solidarity and integration of people into one community. According to Islamic principles, Muslims are required to gather at one common place five times a day and also occasionally several times within a year [1].

The concept of the mosque, both as a place for communal gathering as well as prostration evolved in Islam not only out of the needs for religious rituals but also for social necessities of the community [1].

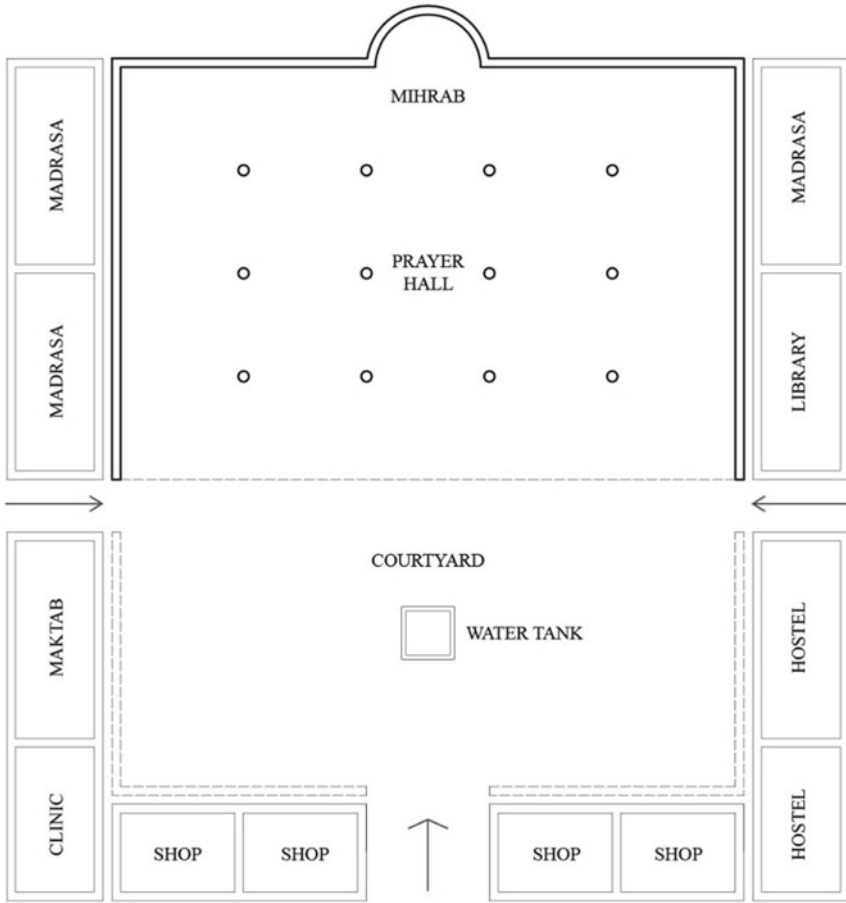
Drawing lessons from the mosque of Prophet (PBUH), it should be noted that Prophet's (PBUH) mosque was the center of the wide range of the activities and aspirations of the fast emerging Muslim community. The impact of the mosque was so significant in the lives of the Muslim community of Madinah that the city grew eventually in a ring shape centering on the mosque complex [2]. This clearly shows how the mosque and the community were interconnected in such a manner that the day to day activities, which were mostly secular in character was centered on none other institution than the mosque.

2 Activities Concerning Mosque Form Historical Precedence

Stated by Desai [3], "from the humble beginning at Medina, through development at Kufa, Fustat, and Jerusalem up to the completed form of the congregational mosque built at Damascus, ninety years later it took about three generations to evolve a unified and balanced architectural expression of the Islamic needs."

Then, in later years, many other community functions started to evolve in and around the mosque. Of these, the facilities for education, health, shopping were important. Hamid [1] reported from Grabar, the latter part of the eleventh century was marked with the appearance of Maktab, Madrasa, and so on. During the early Islamic period, Muslim generals, after conquering or establishing a city, used to establish a mosque at the central location of the city, which served the purpose of socio-political control and religious activities. And these are the mosques where a diversified range of facilities like Madrasa, Dormitory, Library, and Shops was available [1]. Diagrammatic representation of a mosque complex with its various associated functions is presented in (Fig. 1) as proposed by Hamid [1].

The Prophet's (PBUH) mosque represents a model per excellence of the Islamic way of life [4]. Performance of prayers at formally appointed time is a major function of mosque, but also, there were other social, political, and administrative functions that should be noticed [2]. Tajuddin Rasdi marked out several characteristics, which he suggested, outlined the eternal idea of mosque. According to his opinion, mosque is a place for worship, but the sacred area for offering prayers should be limited so that the rest of the spaces can accommodate other flexible functions. Secondly,



Madrasa = Religious School
Maktab = Religious School for children
(Functions developed in later days are shown in light lines)

Fig. 1 Diagrammatic representation of a mosque complex with its various associated functions (reproduced by the author according to [1])

mosque is the house of community, and in its very nature, it is a multifunctional building fulfilling the functions of administration, education, prayer, welfare, social activities, and judiciaries. Then comes the functions related to social issues which acts as a platform for fostering Islamic brotherhood. And the final function of mosque is concerned with its relation to the non-Muslim communities or the non-Muslim members of a Muslim-dominated community. It is the responsibility of the Muslim community to present the teachings and values of Islam to their fellow non-Muslim communities [4].

Robert Hillenbrand, in his book titled “Islamic Architecture: form, function and meaning,” compiled a range of activities which was associated with the mosque institution from the time of Prophet (PBUH) toward the later period of Islamic reign. This compilation illustrates a range of diversified activities both religious and secular establishing the fact that mosque was always the center of activities within the communities rather than only being a place for worship. These activities consist of worship or spiritual activities, learning center, center for scholarship, publication and authorization (certification), library and book shops, accommodation for travelers with food facilities (i.e., kitchen), hospitals and morgues, lecture sessions, debate and discussions on daily issues in academic manner, charity distribution, marriage, divorce, burial, and so on. The mosque was also served as a place for preservation of relics, much like the modern-day museums, law courts, and military bases in newly conquered territories [5].

3 Inclusiveness of the Mosque’s Program

The varied range of functions that a mosque must serve, as briefly compiled by Tajuddin Rasdi in two major spectrums. He argued that the present-day mosques should have a curriculum of activities which will consequently generate proper architectural guidelines for designing mosques. The two major spectrums are as follows:

- (1) Intellectual development,
- (2) Strengthening the brotherhood of Islam.

These two spectrums contain the compulsory functions that should be incorporated in the mosque [6].

Another important issue regarding the compilation of the mosque’s activities is to incorporate friendly and welcoming atmosphere for all genders and age groups. Hesham emphasized that mosque should be designed as a child-friendly way, and he brought evidence from the life of Prophet (PBUH). He said Prophet (PBUH) used to incorporate children in the mosque with a loving attitude in a very welcoming atmosphere [7].

According to the opinion of [1], children, apart from receiving religious education, can even play inside the mosque. As Imam Ghazzali wrote, “For children, there is no harm if they enter the mosque, and it is not unlawful for them to play inside the mosque. To remain silent at this scene is not unlawful, provided that the mosque is not turned into a playground.”

The same welcoming environment should also be maintained for the women. As Spahic Omer said, the first generation of Muslims was capitalizing on every opportunity to acquire and disseminate knowledge. Some of them were so devoted to it that they were ready to sacrifice some things which they cherish. That is why the Prophet’s (PBUH) mosque was always bustling with life. Study circles, intellectual discourses, meditation, etc., made the mosque virtually never devoid of people. Neither women

nor children have been disregarded in this process. Even the Prophet (PBUH) designated some times of the week exclusively to teach the women and listen to their own issues in a very comfortable manner secured from the intrusion of men [2].

The statement illustrates the importance of incorporating women in the mosque as well as the children of the society to achieve the holistic manner of serving as a center of community development.

Stated by [8], children are going to be the future generations in society, who will determine the nature of life and society of the future. In relation to this, society has to change its view concerning children, from regarding them as those who do not understand anything to a person who should be given the necessary attention and providing them with exposure to the issue of religion and especially the function of mosques at the earliest opportunity.

Careful and well-organized planning in the use of space must be emphasized in the building of mosques, especially in relation to the separation of areas for the use of men and women in all activities, whether in times for prayer, taking ablution, or the use of the rest-rooms. Moreover, special space should be given to women with special design for their needs, especially for the disabled with small children and so on. Similarly, the same is the case with the need for special space for taking ablution for women which should be placed together with the special space of prayer for them so as to facilitate them in their movements and activities when they are not putting on their hijab in that area [8].

But, unfortunately, the present situation is different than the ideal one. Reported by Svetlana Peshkova in an interview of an Uzbek woman who said, “We have a desire to go to the mosques, but in Uzbekistan only men go there. We [women] are not very upset because the Qur’an says that one needs to read within a group, and we do just that at our meetings.” [9]. Similar situations have been reported regarding other countries as well where women are not allowed to enter into the mosque or participate in the activities therein [10].

Provision for differently able people is also crucial in planning mosque. Othman et al. [8] stated, those who are disabled also have a right to participate in making the activities of the mosque successful and effective with all the facilities for them being made, helped by the public. The application of universal design in this built environment of mosque is crucial to cater wider range of users. The significance of the application of universal design is an exigency in mosque design process [11]. There is a tradition of the Prophet which narrates that those who are disabled also are not excluded from performing the prayers in congregation in mosques as long as such persons can listen to the call to prayer in the house, as stated in the Prophetic hadith,

It is narrated by Abu Hurayrah (Ra): A blind man came to the Messenger of Allah—peace and blessings be upon him—asking “O Messenger of Allah, I do not have someone to direct and aid me to go the mosque.” The man requested the Messenger—peace and blessings be upon him—to permit him to pray in his house. He obtained it. After he has gone home, the person was called back and he was asked: “Can you listen to the call to prayer (adhan)?” The man answered “Yes.” The Messenger then said “You should respond to the call (so you should go to the

mosque”). (Sahih Muslim, Book no: 9, Hadith no: 1066, [12]) BIM, according to the National Standards of the Modeling Information System (NBIMS), is defined as “a numerical representation of the physical and functional characteristics of an object to serve as a common knowledge source for information on a structure that creates a reliable basis for decisions during its life cycle, from the beginning to the next. Based on the abovementioned definition, BIM is a concept that enables a variety of techniques that link the process of virtual design practice and building through the lifecycle of the project.

4 Methodology

This study will focus on the institution of mosque from a functional perspective. Thus, the scope of this research will be confined within the boundary of analyzing the activity patterns and spatial provisions for those activities within the institution of mosque. As the research will focus on the functional aspects of mosque by analyzing the historical precedence and contemporary practices, qualitative research method is chosen to conduct the process because it will give the opportunity to collect and compile necessary data to reach toward a conclusion.

Analyzing literature or secondary analysis means that the researcher analyze data that were not collected for that particular study of that researcher rather they are existing datasets that were produced for other purposes. Literature survey will cover a wide range of time period starting from the early texts of Islam until recent academic and professional works. This will ensure a holistic background to analyze the data and organize the findings into appropriate sections and sub-sections focusing on the functional aspects of the mosque institution.

5 Functional Requirement of Mosque in Contemporary Muslim Societies

Although historical evidence gives a broad spectrum of activities that was incorporated with the mosque and played a vital role in community development, reinterpretation of these functions in the modern context to address the issues of contemporary Muslim societies is required. Tajuddin Rasdi reported from many academics commenting on this regard. Like Ismail Kamus, who suggested that the Prophet’s (PBUH) mosque was built solely for the purpose of uniting the Muslims in single brotherhood, and today’s mosques should also be built to serve the same purpose [4].

This view was further strengthened by Suhaib Hasan and Akmal Haji M. Zain. One of them highlighted the importance of five daily prayers in the mosque, which should act as the mechanism for fostering brotherhood among Muslims, while others

suggested using mosque as a base for establishing Muslim government through the unity of Muslim brotherhood. This view was also emphasized by Dusuki Ahmad [4].

Ustaz Taib Azamuddin Mohamed Taib gave some important notions on the mosque from which Tajuddin Rasdi derived some guideline for the architecture of mosque. According to the Ustaz, mosques should be equipped with recreational facilities for children and adults. Accommodation for travelers, rentable rooms for Muslims, health clinics, public welfare offices and space for sale of certain products and items. [4].

Considering all these opinions, Tajuddin Rasdi proposed a theoretical framework of guidelines for mosque architecture. These guidelines are aimed to address the issue of modern Muslim societies by considering their requirements, and the final program is categorized under five distinct sections;

- (1) Educational program,
- (2) Social program,
- (3) Economic program,
- (4) Welfare program, and
- (5) Judicial program. [4]

Furthermore, Tamuri et al. [13] state that there is a need to develop a module of teaching and learning of Islamic Education, which is based on mosque. His study assesses the effectiveness of the generated module by a quasi-experiment design from which he derived that mosque has the potential to ensure better quality Islamic education within Muslim societies.

Lanre et al. [14] state that the mosque had contributed a lot to the development of Islamic education in Nigeria before independence and after independence as they used it in the first mosque of the prophet Muhammad in the Qubah, which serves as fundamental of all mosques on the hearth. Their study aims at examining the meaning of Islamic education, looks into the concepts of education in the Quran, looks into the aim and objective of Islamic education in the human life, discusses the qualities of Islamic teacher, and mentions the role or impact of Muslim teachers in the Islamic education and society.

More contemporary research on the effectiveness of mosque during disaster time shows the universality of this community-based institution. That particular research focused on the functional aspect of mosque at the earthquake-affected areas of Pakistan and emphasized on the suitability of community-based religious organization in disaster management [15].

Candland [12] reported, during times of disasters, religious institutions contribute to the disaster mitigation drive in a number of ways such as feeding hungry victims, providing shelter, and supporting communities in a host of ways. Religious institutions have played an important role in developing social cohesion, building social, and safety networks within communities. Important here to note that the activities stated here, such as feeding and providing shelter to the needy and supporting people of the community are functions that have been served by the mosque institutions for thousands of years.

Social welfare activities are one of the major sectors where mosques are contributing throughout the world for Muslim and non-Muslim communities alike. By virtue of Islam, mosques are recommended to participate in welfare activities and take care of the needy and the poor of society.

Another research by Ahmad Ashraf discussed the relationship between the Mosque and the commercial center or bazaar and how each entity influence another one in various issues. He said in Iran, the recent revolution and revolts within the country's social and political history were centered on this bazaar-mosque alliance Ferrarotti et al. [16]. It is important to note that how mosques can even play roles in altering the political powers of a region with its ability to accommodate revolutionary activities.

Erkoçu and Buğdacı [17] recommend a transparent and welcoming architecture for the mosque, which would help to increase its understanding and acceptance among Muslims and non-Muslims alike. In this way, the building itself can acquire a central and significant position within the society, serving the community as a whole. And the transparency would give a clear understanding to the community member about what happened inside the mosque.

Tariq Ramadan, the famous Islamic scholar and thinker in our time, emphasized that a mosque must be simple and beautiful. He then highlighted the age-old tradition of services that mosques used to provide, such as education, food supply, and other vital necessities to local community with little amount of money. The mosque must be welcoming so that people would be encouraged to come and eat and discuss there. It should also teach because no worship without knowledge [17].

Multifunctionality and flexibility make mosques better able to pay for themselves. Multiple parties share the costs of maintenance and operation, and if one of them wants to move on, it is easy to make and adjustment. As a result, multifunctionality and flexibility make it easier for the building to stand the test of time [17].

Types of spaces within and surrounding the mosque should also be taken into account. This space varies from context to context, and apart from the prohibited or sacred area of mosque, other spaces should have flexible qualities so that they can accommodate range of functions in an effective way [2, 4].

Exploring the concept of mosque design, [17] stepped into a whole new dimension for the mosque and said that there is a possibility of forming digital mosques, which anyone can visit on the Internet. The only building involved would be one's own room or home or even the mobile phone.

6 Findings and Discussion

This study will focus on the institution of mosque from a functional perspective. Thus, the scope of this research will be confined within the boundary of analyzing the activity patterns and spatial provisions for those activities within the institution of mosque. As the research will focus on the functional aspects of mosque by analyzing the historical precedence and contemporary practices, qualitative research method

is chosen to conduct the process because it will give the opportunity to collect and compile necessary data to reach toward a conclusion (Table 1).

7 Compilation of Recorded Activities

Following prior discussion on functional aspects of mosque from different viewpoints, this section proposed six major programs, namely educational, social, economic, welfare, judicial, and miscellaneous programs to establish the role of mosque institution from a functional perspective.

The figures below present the compilation of all activities recorded from different sources categorized under six predefined sections—educational, social, economic, welfare, judicial, and miscellaneous programs (Fig. 2).

8 Conclusion

The institution of the mosque, throughout ages, served as a communal facility to develop the Muslim society as a whole. The discussion above portrays how people were attached to this institution, and later, in the course of time, the Muslim community gradually lost the strength of its connection with mosque. However, the modern time puts a quest in front of the Muslims to search for the appropriate framework for contemporary mosques so that once again the Muslim community can rejuvenate itself with its age-old tradition of developing individual as well as social life by making their mosques more active and meaningful for every sphere of life. The available literature also shows that there is a gap in the study of mosque institutions and their contribution to community development.

The timelessness of mosque institution demands that reinterpretation of its activities and architecture to match the needs of modern Muslim societies is utterly significant. As stated by Spahic Omer, “the mosque institution is bound to serve as a focal point of the religious and social life of the Muslims, advancing its physical stature as a guidepost and its message as an inspiration and guidance in all our development, building and planning undertakings.” [2].

“It is not for the polytheists to maintain the mosques of Allah (while) witnessing against themselves with disbelief. (For) those, their deeds have become worthless, and in the Fire, they will abide eternally. The mosques of Allah are only to be maintained by those who believe in Allah and the Last Day and establish prayer and give zakah and do not fear except Allah, for it is expected that those will be of the (rightly) guided.” [Surah At-Tawba: 17–18] [18].

Table 1 Recorded activities of mosque by past researchers and scholars

Scholar	Educational program	Social program	Economic program	Welfare program	Judicial program	Miscellaneous program
[1]	Madrassa Maktab Library	Dormitory Clinic	Market Shops			Recreational facilities for children
[4, 6]	Educational program for children, youth, men, women and elderlies	Distribution of Zakat Fostering Islamic brotherhood		Receive and distribute charity (sadaqa)	Administrative functions	
Ustaz Taib Azamuddin Mohamed Taib (reported by [4])		Accommodation for the travelers health clinic	Sales space for products and items Rentable rooms for Muslims	Public welfare offices		Recreational facilities for children and adults
[16]			Bazaar-mosque alliance			
[5]	Learning center for scholarship Publication Authorization of academic works Certification Library Lecture sessions Debate and discussion	Accommodation for the travelers Hospitals Marriage	Book shops Food facilities	Morgues Charity distribution Burial	Divorce Law courts	Preservation of relics (museum) Military bases

(continued)

Table 1 (continued)

Scholar	Educational program	Social program	Economic program	Welfare program	Judicial program	Miscellaneous program
(Harun-ur-Rashid 2004)	Mosque based children education program Developing Islamic Encyclopedia Islamic publication programs Research Imam training centers Mosque library	Free health facilities Disaster management Zakat board		Social welfare Poverty alleviation Financial donations		Dawah programs
(Omer, 2010) [8]	Learning center Intellectual discourse Study circles	Medical treatment and nursing		Charity center Detention and rehabilitation center	Seat of prophet's (pbuh) government	Leisure activities Provision for women and children
[17]			Multifunctional spaces for generating income			Digital portals for mosques Activities to welcome non-Muslim people
[15]		Disaster management programs		Relief programs		

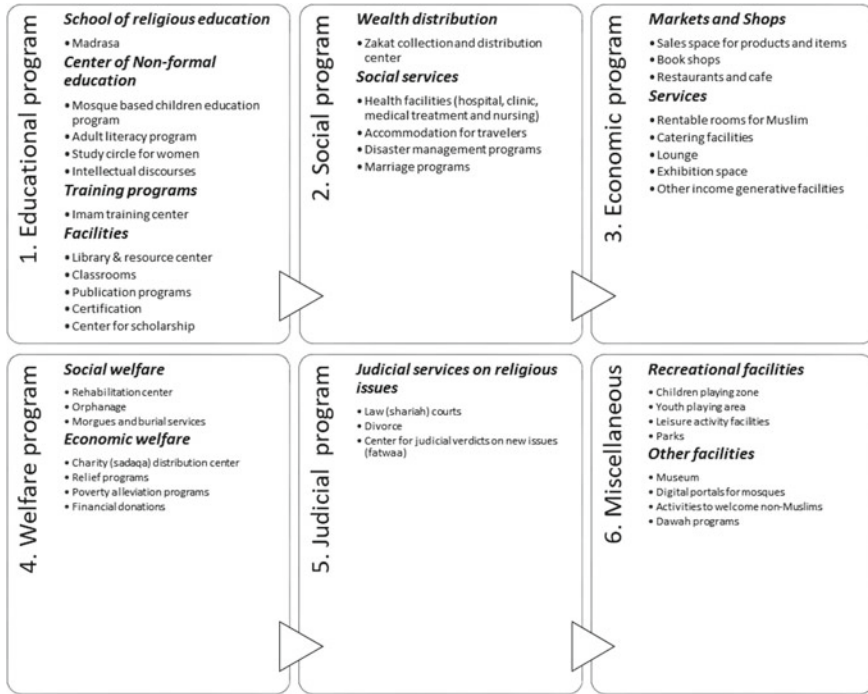


Fig. 2 Functional aspects of mosque institution

Acknowledgements This paper was an outcome from research supported by UCSI University under Research Excellence & Innovation Grant (REIG-FETBE-2022/014) which was conducted in 2022. We thank our colleagues from School of Architecture and Built Environment who provided insight and expertise that greatly assisted the research although they may not agree with all of the interpretations/conclusions of this paper.

References

1. Hamid A (1973) The role of the mosque in Muslim settlements: a study of the mosque as a planning element in South Asian Muslim Countries. Columbia University
2. Omer S (2013) Studies in the Islamic built environment. Retrieved November 11, 2014, from IIUM Press website: <http://iiumpress.iium.edu.my/bookshop/wwwgooglecom-18>
3. Desai Z (1966) Mosques of India (First). Delhi: Ministry of Information and Broadcasting. Government of India, Delhi
4. Rasdi MTHM (1998) The mosque as a community development centre: programme and architectural design guidelines for contemporary Muslim societies. Retrieved from http://eprints.utm.my/29825/2/MohamadTajuddinMohamad1998_TheMosqueAsACommunityDevelopmentCentreProgrammeSYN.pdf
5. Hillenbrand R (2004) Islamic architecture: form, function, and meaning. Retrieved from <https://books.google.com/books?id=81uo8Vc04gQC&pgis=1>

6. Rasdi MTHM (2010) Rethinking Islamic architecture. Retrieved from <https://books.google.com/books?id=dsDCSAAACAAJ&pgis=1>
7. Al-Awadi H (2008) Four great imams. Homepage <http://www.awakening.org/heshamalawadi/>
8. Othman H, Yazid M, Yunus M, Ismail NA (2015) Issues and problems of modern mosques design in Malaysia: a critical analysis. *Adv Environ Biol* 9(April):330–337
9. Peshkova S (2009) Bringing the mosque home and talking politics: Women, domestic space, and the state in the Ferghana Valley (Uzbekistan). *Contemp Islam* 3:251–273
10. Nawaz Z (2005) Me and the mosque. Retrieved from https://www.nfb.ca/film/me_and_mosque
11. Niya MD, Utaberta N, Maulan S (2015) Significance of the application of universal design in mosque buildings in Malaysia. *Appl Mech Mater* 747:72–75. Homepage <https://doi.org/10.4028/www.scientific.net/AMM.747.72>
12. Al-Mundhiri AHZAA, Sahih Muslim (Arabic-En), Riyadh KSA, Darussalam, Candland C (2001) Faith as social capital: Religion and community development in southern Asia. *Policy Sci* 33(3–4): 355–374. Homepage <https://doi.org/10.1023/A:1004857811117>
13. Tamuri AH, Ismail MF, Jasmi KA (2012) A new approach in Islamic education : mosque based teaching and learning. *J Islamic Arabic Educ* 4(1)
14. Lanre O, Malik A, Hamad AS (2014) The impact of mosque in development of Islamic education in Nigeria (imdien). *GSE E-J Educ* 2:93–98
15. Cheema AR, Scheyvens R, Glavovic B, Imran M (2014) Unnoticed but important: revealing the hidden contribution of community-based religious institution of the mosque in disasters. *Natural Hazards* 71:2207–2229. Homepage <https://doi.org/10.1007/s11069-013-1008-0>
16. Ferrarotti F, Kashef M, Modarresi-tabatabai H, Nowshirvani V, Rassam A, Tilly C (1988) Bazaar-Mosque Alliance : the social basis of revolts and revolutions. 1(4):538–567
17. Erkoçu E, Buğdacı C (2009) The mosque. Political, architectural and social transformations | Ergün Erkoçu, Cihan Buğdacı | Retrieved from http://www.naibooksellers.nl/the-mosque-political-architectural-and-social-transformations.html?__store=english&__from_store=default
18. Sahih International (2004) The Qur'an English meanings. Jeddah: Data, King Fahd National Library Cataloging-in-Publication