

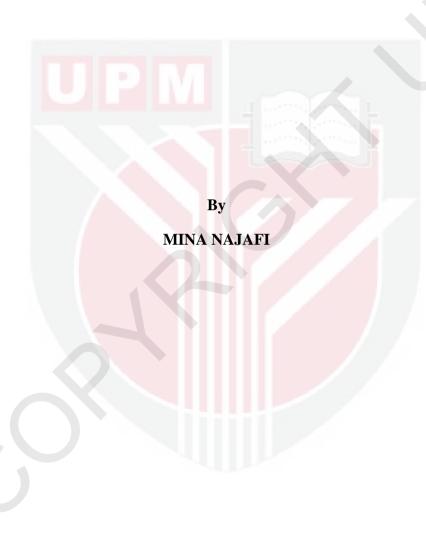
# **UNIVERSITI PUTRA MALAYSIA**

# PLACE ATTACHMENT TO CONTEMPORARY PUBLIC-FUNDED MOSQUES IN MALAYSIA

# **MINA NAJAFI**

FRSB 2012 6

# PLACE ATTACHMENT TO CONTEMPORARY PUBLIC-FUNDED MOSQUES IN MALAYSIA



Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

PLACE ATTACHMENT TO CONTEMPORARY PUBLIC-FUNDED MOSQUES IN MALAYSIA

By

Mina Najafi

October 2012

Chair: Professor L.Ar. Mustafa Kamal Bin Mohd Shariff, PhD

Faculty: Design and Architecture

Place Attachment has been defined as an affirmative expressive bond between people and

their surroundings, in terms of psychological well-being. Within the context of religious

places, not only spiritual concepts, but also the architectural features of the space could

play important roles in forming users' place attachment. This research investigated

Malaysian [mosque] users' attachment to contemporary public-funded mosques in

Malaysia. The study adapted a sequential mixed research methodology for investigating

this attachment. In order to develop the research variables of the final survey, 23 people

were interviewed within the selected mosques. In order to further formulate the content of

the final questionnaire, the systematic field observations and content analysis on the

results of the interviews were conducted to identify the architectural characteristics and

afforded activities of the selected mosques. A total of 288 respondents participated in the

conducted survey. The results revealed that Malaysian users have strong emotional

attachment to all studied mosques, due to their significance as religious and cultural

places. However, there was no evidence to show that the architectural styles of the

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selected mosques could significantly affect the users' Place Attachment. Finally, the results indicated that the respondents were strongly attached to the existing social links to individual experiences, religious status of the places, aesthetical aspects of the architectural elements, spatial order, pleasant surroundings, the supportive facilities and equipment, and upkeep. Employing environmental psychology, this research provided theoretical recommendations to reveal the essential components of the significance of Islamic built environments. These recommendations could become a reference for designers and scholars for leveraging local Islamic identity in the context of Malaysia as a fast growing Islamic country. The reinforced Islamic identity within the public environments can also improve the people's environmental affections and their contributions toward the society.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

LEKAPAN TEMPAT TERHADAP MASJID BIAYA AWAM KONTEMPORARI DI MALAYSIA

Oleh

Mina Najafi

Oktober 2012

Pengerusi: Prof. LAr. Mustafa Kamal Bin Mohd Shariff, PhD

Fakulti: Rekabentuk dan Senibina

Lekapan tempat ditakrifkan sebagai bon afirmatif ekspresif antara manusia dan persekitaran mereka dari segi kesejahteraan psikologi. Dalam konteks tempat suci, bukan sahaja konsep rohani tetapi cirii seni bina ruang juga boleh memainkan peranan penting dalam membentuk lekapan tempat bagi pengguna'. Kajian ini menyelidiki lekapan penguna kepada masjid biaya awam kontemporari di Malaysia. Kajian menggunakan kaedah penyelidikan campuran bersekuen menyelidik lekapan ini. Dalam membangunkan pembolehubah penyelidikan kaji selidik akhir, 23 responden telah ditemubual dalam masjid yang dipilih. Dalam usaha untuk terus merangka kandungan soal selidik akhir, bidang pemerhatian sistematik dan analisis kandungan telah dilakukan pada hasil temubual untuk mengenal pasti ciri-ciri seni bina dan aktiviti masjid berkenaan. Seramai 288 responden telah mengambil bahagian dalam kaji selidik yang dijalankan. Hasil kajian menunjukkan bahawa penguna masjid di Malaysia mempunyai lekapan emosi kuat terhadap semua masjid yang dikaji oleh pentingnya masjid sebagai tempat-tempat agama dan budaya. Walau bagaimanapun, tidak ada bukti menunjukkan bahawa gaya seni bina masjid-masjid terpilih mempengaruhi lekapan tempat penguna. Akhirnya, hasil kajian

menunjukkan bahawa responden sangat terlekap kepada lekapan sosial yang sedia ada, pengalaman individu, status agama tempat, aspek estetik-unsur seni bina, susunan ruang, persekitaran yang menyenangkan, kemudahan sokongan dan peralatan, dan penjagaan. Berasaskan psikologi persekitaran penyelidikan ini menyarankan cadangan teori untuk mendedahkan komponen penting persekitaran alam bina Islam. Saranan-saranan ini boleh menjadi rujukan untuk pereka dan pengkaji untuk memanfaatkan identiti Islam tempatan dalam konteks Malaysia sebagai sebuah negara Islam cepat membangun. Dengan memperkukuhkan identiti Islam dalam persekitaran awam ia dapat mempertingkatkan rasa sayang rakyat kepada alam sekitar dan sumbangan mereka kepada masyarakat.

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#### **APPROVAL**

I certify that a Thesis Examination Committee has met on 3 October 2012 to conduct the final examination of Mina Najafi on her thesis entitled "Place Attachment to Contemporary Public-Funded Mosques in Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Degree of Doctor of Philosophy (PhD).

Members of the Thesis Examination Committee were as follows:

# Rahinah Ibrahim, PhD

Professor Dr. Hjh.
Faculty of Design and Architecture
Universiti Putra Malaysia
(Chairman)

# Noratiah binti Ismail, PhD

Faculty of Design and Architecture Universiti Putra Malaysia (Internal Examiner)

### Shuhana Shamsuddin, PhD

Associate Professor Dr.
Faculty of Built Environment
Universiti Technology Malaysia
(External Examiner)

### Ashraf M. Salama, PhD

Professor Dr.
Department of Architecture and Urban Planning
Qatar University
Qatar
(External Examiner)

SEOW HENG FONG, PhD

Professor and Deputy Dean School of Graduate Studies Universiti Putra Malaysia

Date:

This thesis submitted to the Senate of Universiti Putra Malaysia has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee are as follows:

# Mustafa Kamal Bin Mohd Shariff, PhD

Professor Faculty of Design and Architecture Universiti Putra Malaysia (Chairman)

# Norsidah Binti Ujang, PhD

Associate Professor
Faculty of Design and Architecture
Universiti Putra Malaysia
(Member)

# Suhardi Bin Maulan, PhD

Senior Lecturer
Faculty of Design and Architecture
Universiti Putra Malaysia
(Member)

# **BUJANG BIN KIM HUAT, PhD**

Professor/ Dean School of Graduate Studies Universiti Putra Malaysia

Date:

# **DECLARATION**

I declare that the thesis is my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently submitted for any other degree at Universiti Putra Malaysia or at any other institution.

# **MINA NAJAFI**

Date:03 October 2012

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#### LIST OF ABBREVIATIONS AND GLOSSARY OF TERMS

RQ Research question

Sub-RQ Sub-research question

Place is a space associated with people's relationship with

physical environments, individual and group activities, and conceptions or meanings. In this regard, *physical features*, *activities*, and *meanings* are considered as the three main

constructs of a place.

Sense of Place Sense of Place is defined as the collection of emotions,

feelings, and perceptions of the people towards specific places and typical environmental attributes that affect these feelings and perceptions. It therefore comprises of main concepts and significance of particular physical settings that are held by people through experiencing the places and

forming attachment to them.

Place Attachment The affective and emotional bond between people and

places.

Place Identity A cognitive connection between self and a physical

environment.

Place Dependence The significance of a place in providing people with

conditions, characteristics and attributes that support specific goals and required activities with respect to their aims of

appearing within the places.

Perception Perception is the cognition which is produced through a

sense-organ coming into relation with an object. In the other word, Perception is the process by which organisms interpret and organise sensation to produce a meaningful experience

of the world.

Culture The collective heritage of ways of thinking, concepts,

values, and attitudes, which form the common foundations

of social activities.

Topophilia An affective bond between people and place, love of place.

Spirituality Refers to those beliefs, values, and practices that relate to the

search for existential meaning, purpose or transcendence.

Physical Spatial, constructional, and architectural qualities of places

Attributes/Features that could affect the level of either physiological or

psychological satisfaction of users within the environments.

ContemporaryArchitecture

This study defined the term 'contemporary mosque' as a common chronological character amongst all mosques that were constructed after the independence of Malaysia in 1957.

User(s) Individuals who appear in public and private spaces in order to use

the facilities and environment for supporting their intended

activities.

Masjid Mosque

JAKIM Jabatan Kemajuan Islam Malaysia (Malaysian Islamic

Development).

#### **CHAPTER 1**

#### INTRODUCTION

#### 1.1 Introduction

Chapter 1 presents an introduction to the reported study in this thesis. It starts with clarifying the background issues and problems of the research. It also introduces the aim, objectives, research questions, and assumptions of the study. The chapter then outlines the employed methodology for data collection. The latter sections of this chapter explain the scope and the significance of the conducted research. Ultimately, the chapter ends with outlining the structure of the thesis.

# 1.2 Statement of issues and background of the study

Religious places are the physical settings correlated to religious or sacred events that could cultivate fundamental human values and enrich human soul (1990). These places are often embellished by architectural structures and art (Shampa Mazumdar and Mazumdar, 2004). In the Islamic culture, 'Masjid', or mosque, is considered as the most important sacred structure. They have always been the most frequent subjects in studying architecture of Islamic countries. Malaysia, as a country which has numerous huge and costly mosques, stands among the countries with diversity in architectural styles for mosque design and construction. This variety is due to various ethnic groups and cultures, colonialism, applied new technology and styles (Ahmad, 1999) as well as the political situation of Malaysia (Ahmad, 1999; A. S. Ismail, 2008).

The diversity in the architectural design of Malaysian mosques has reached to a peak when the 'emerging' generation of Western educated Malaysian architects introduced 'new' architectural designs (in accordance to Vision 2020) with a greater sense of style which placed great emphasis on innovative approaches of advanced structure and materials (A. S. Ismail, 2008; Yeang, 1992). The reviewed literature shows that many scholars (e.g. Ahmad, 1999; A. S. Ismail, 2008; Mohamad Rasdi, 1998, 2003, 2007; Yeang, 1992) have recently started worrying about these stark changes in design and construction of Malaysian mosques, as they asserted that these new trends might hinder the development of Islamic architectural identity in Malaysia.

Some researchers (e.g. A. S. Ismail, 2008; Yeang, 1992) even argued that the introduced modern architectural ideas that revealed a strong sense of rationality and functionalism could result in fading local and Islamic 'identity'. In this regard, Arefi (1999) asserted that weakening the 'place identity' may lead to loss of meanings and disrupt emotional relationships with places. Such 'post-modernistic' or contextual considerations about preservation of the identity of Malaysian architecture were in accordance with the 'Islamisation agenda' under the leadership of Mahatir who tried to project Malaysia as asuccessful, modernised and progressive centre for Islamic civilisation in the world. Therefore, the local designers were encouraged to produce design ideas associated with Islamic elements and values (Ismail 2008). This was aligned with Mazumdar and Mazumdar's (2004, 2009) idea that 'significant' places in religion could help believers learn identity and develop "self". This also reflected Mazumdar and Mazumdar's (1993) idea who argued that design, decor, and aesthetics of the religious places could bring people closer to religious ideals, spirituality, community, and peace. This theory explains religious identity and place attachment to religious places as a compound process (not as a

result of a single event) that needs objective investigation.

As such, study of feelings and emotions that people develop towards places is getting increased attention, while the concept of place attachment lies at the heart of these studies (e.g. Altman and Low, 1992; Ednie, et al., 2010; Giuliani and Feldman, 1993; Hernandez, et al., 2007; Hernández, et al., 2010; Kamalipour, et al., 2012; Kyle, Graefe, et al., 2004; Manzo, 2003; Sanjoy Mazumdar, 2005; Shampa Mazumdar and Mazumdar, 1993, 2004; Tumanan and Lansangan, 2012; Wynveen, et al., 2012). Place attachment is defined as the emotional and affecting bond established between people and places. This sentimental connection could be developed towards different places that vary in terms of size and function; e.g. room, house, neighbourhood, city, recreational settings, community places, religious places etc. (Altman and Low, 1992; Hay, 1998; Sanjoy Mazumdar, 2005; Shampa Mazumdar and Mazumdar, 1993, 2004; Tuan, 1977).

Religious places are the places that are constructed in order to support religious activities during rituals and satisfy human needs in terms of emotional security and social interaction (Shampa Mazumdar and Mazumdar, 2009; Stokols, 1990). In essence, religious architecture represents the physical space in which people often try to get closer to the divine (Shampa Mazumdar and Mazumdar, 1993, 2004). Barrie (1996) argued that religious architecture, in addition to directly symbolising the belief system, acts as a stage that accommodates and facilitates the embodying myth via ritual. Thus, the essential quality of religious architecture is its provision of built myth that symbolises cultural beliefs and facilitates the enactment of shared rituals. The method of producing this identification is through specifying a particular place. Religious architecture therefore is the synthesis of a variety of stimuli, when experienced in totality, has a semantic function.

Consequently, in religious architecture, the corporeal qualities of the space, its tactility, lighting, aural qualities etc are the aspects which orchestrate a predetermined meaning that edifies the spirit of the believer. Watson and Kucko (2001) argued that religious places could promote public attention to divine and increase demand for spirituality. The conducted literature review also shows that there is a significant correlation between the sacred buildings' spatial arrangements, materials, and furnishings with the worshipers' feelings, perceived meanings and their attachment within the places (Eliade, 1957; Shampa Mazumdar and Mazumdar, 1993, 2009; Roberts, 2004; Tuan, 1977; Watson and Kucko, 2001; White, 2003).

Notwithstanding the established methodologies for investigating people's attachment to sacred places, there is a theoretical gap in existing literature in investigating the impacts of the environmental characteristics of Malaysian mosques on people's attachment. In other words, the preceding subjective and descriptive studies often could not provide a sufficient theoretical basis for the academic investigations of this kind of attachment. However, there is no formal research to actually reveal the type of people's attachment and influencing factors towards Islamic places within the context of Malaysia. Ismail et al. (2008) argued that there is a lack of concern to involve public in the design process in Malaysia. It means public's perceptions; their needs and their attachment to places are ignored. In order to fill this theoretical gap, this study firstly reviewed the published literature regarding Malaysian mosques.

Previous studies investigated Malaysian mosques from seven different perspectives: descriptions of the mosques regarding their historical development (Ahmad, 1999; Nasir,

1984), classification of mosque styles (Ahmad, 1999; Hisham, 1990; Mohamad Rasdi, 2007), documentation of the mosques in the form of measured drawings (Mohamad Rasdi, 2007; Nasir, 2004), discussions on the technical aspects of the mosques design (Ahmad, 1999; Mohamad Rasdi, 2007), theory for designing the mosques based on religious sources (Mohamad Rasdi, 2003), discussions on the role and function of the mosques in relation to social aspects (Mohamad Rasdi, 1998, 2003; Roslan, 2004), and the impact of political ideas on mosques architecture (A. S. Ismail, 2008).

Although these researches invaluably and rigorously attempted to introduce Malaysian mosques and their architecture, there are still some parts that are not addressed by these studies. These studies attempted to review Malaysian mosques either historically or typologically, while ignoring prolonged investigations of their characteristics as remarkable religious and socio-cultural places. In other words, they only described constructional and architectural features of these mosques and neglected people's attachment to these places.

This study therefore sought the answer of its question regarding Malaysian [mosque] users' attachment to contemporary Malaysian mosques through reviewing internationally published literature and collecting primary data to compare the reviewed literature against particular conditions within Malaysian context. These questions should be justified objectively as Mazumdar and Mazumdar (1993) asserted that investigation of people's attachment to religious places (e.g. mosques) is so important because these places are where religion is learnt and experienced and people are bonded to religion. Justifying people's attachment to places could also contribute to better use of place, satisfaction with place and affiliation to places (Altman and Low, 1992; Lewicka, 2010; Rapoport, 1990;

Scannell and Gifford, 2010a) and help designers to evaluate the existing places to avoid current mistakes in the future (Nasar, 2008).

# 1.3 Research questions

In accordance with the aforementioned aim and objectives in Section 1.2, Main Research Question (Main-RQ) and Sub-Research Questions (Sub-RQs) of this study were defined as follows:

- Main-RQ: What are the effects of socio-cultural and religious activities on users' attachment to the selected mosques?
  - Sub-RQ1: What are the spatial attributes and characteristics of the selected mosques that could influence users' place attachment?
  - Sub-RQ2: What are the meaning(s), which make people attached to the selected mosques?
  - Sub-RQ3: What are the effects of socio-cultural and religious activities on users' attachment to the selected mosques?

# 1.4 Aim and objectives of the study

Aligned with the issues discussed in Section 1.2, the purpose of this study was to discover Malaysian [mosque] users' attachment to selected contemporary Malaysian mosques. Due to the complex and multi-aspect nature of this aim, it has been divided into three objectives as follows:

a) to examine the spatial attributes and characteristics of the selected Malaysian mosques that could influence the users' place attachment;

- b) to identify the meaning(s), which make users attach to the selected Malaysian mosques; and
- c) to determine the effects of socio-cultural and religious activities on users' attachment to selected Malaysian mosques.

# 1.5 Scope, limitation and areas of the study

Before conducting the actual study, all mosques in Malaysia were identified from the literature and interviews with the personnel of Malaysian Islamic Development (JAKIM). According to Malaysian Islamic Development (JAKIM), mosques in Malaysia can be categorised into five groups: Principal mosques, State mosques, District mosques, Qaryah mosques, and Private mosques. Among these five types, only principal and state mosques are constructed 'fully funded' by the government (Ref. JAKIM).

According to JAKIM, Masjid Tuanku Mizan Zainal Abidin in Putajaya (2010), Masjid Putra in Putrajaya (1999) and Masjid Negara in Kuala Lumpur (1965) are the three principal mosques of the country. All these mosques were constructed after the independence of Malaysia in 1957. Malaysia has also 14 state mosques. These are Masjid Negeri (in Perlis state, 1897), Zahir Mosque (in Kedah state,1912), Sultan Idris Shah II mosque (in Perak state, 1968), Sultan Salahuddin Abdul Aziz Shah mosque (in Selangor state, 1988), Seremban mosque (in Negeri Sembilan state, 1970), Al-Azim mosque (in Malacca state, 1990), Sultan Abu Bakar mosque (in Johor state, 1900), The Sultan Ahmad Shah mosque (in Pahang state, 1993), Abidin mosque (in Terengganu state, 1808), Muhammadi mosque or Great mosque (in Kelantan state, 1926), Penang state mosque (1979), Sabah state Mosque (1974), Sarawak state mosque (1968), and Wilayah mosque

(in Kuala Lumpur, 2000). Out of these 14 state mosques 7 mosques were constructed after independence of Malaysia (Sabah and Sarawak are not included since those states are located in East Malaysia or Malaysian Borneo and our study focused only on mosques in West Malaysia).

In order to have homogenous cases of the study, this research only focused on Principal and State mosques that benefited from similar allocation of resources, as the construction of all of them have been fully funded by the government. This criterion minimises those differences between the cases that are due to the shortage or abundance of resources. In order to further mitigate the risk of heterogeneity of the cases, this study selected only 9'contemporary' mosques out of all 17 Principal and State mosques of the country. This study defined the term 'contemporary mosque' as a common chronological character amongst all mosques that were constructed after the independence of Malaysia in 1957.

The 9 selected mosques vary in terms of their architectural styles. Mohamad Rasdi (2007) identified eighth architectural styles for Malaysian mosques: *Traditional Vernacular*, *Sino-Eclectic, Colonial, North Indian, Modern Vernacular, Modernistic Expressionism, Post-Modern Revivalism,* and *Vernacular Revivalism.* According to this taxonomy, all 'contemporary' Malaysian mosques could fall in one of the following three categories only: *Modernistic Expressionism, Post-Modern Revivalism,* and *Vernacular Revivalism.* Consequently, this study just investigated the characteristics of these three styles. In other words, the study focused on the mosques from *Modern, Post-Modern,* and *Vernacular Revivalism* architectural styles as the settings of investigation in order to investigate the type and degree of users' attachment to these mosques.

As such, as the result of the applied Purposive Stratified Sampling method (Kumar, 2005) the following mosques have been selected as the sites of investigation for this study: 1) Masjid Negara in Kuala Lumpur as a representative of Modern style, 2) Masjid Negeri Sembilan in Seremban as a representative of Modern style, 3) Masjid Wilayah in Kuala Lumpur as a representative of Post-Modern style, 4) Masjid Putra as a representative of Post-Modern style, and 5) Masjid Al-Azim in Malacca as the only representative of Vernacular style.

# 1.6 Research approach and the methodology

In terms of methodological approaches, the study conducted a sequential mixed method (Creswell, 1998) research approach to design a process for investigating phenomena of place attachment in the context of selected places. This approach allowed the use of a sequential exploratory design in which the qualitative phase was used to identify potential relationships that were tested in the quantitative survey (Hanson, et al., 2005). For developing the variables for final investigation and identifying the potential relationships, 23 people were interviewed in the selected sites regarding their reasons for engagement with and being attracted to the selected places, their knowledge about the places, their feelings regarding the places (e.g. sense of loyalty and sense of belonging), description of the places, thoughts and beliefs related to the places, the feeling of comfort and satisfaction, opinions, and suggestions. In other words, the aim of the interview was to further justify the factors that were identified through reviewing the seminal literature. They were also designed to determine the factors that have the highest contribution towards users' attachment to the selected mosques. This study further developed the findings of the interviews through conducting quantitative surveys (Creswell, 2003) and

measuring place attachment by objective scales deployed based on *place-identity* and *place-dependence* theories (Lewicka, 2010; Proshansky, *et al.*, 1983; Shamai, 1991; Stokols and Shumaker, 1981; D. R. Williams and Roggenbuck, 1989; D. R. Williams and Vaske, 2003). The final survey solicited data from 288 mosque users to develop the findings of 23 in-depth interviews with purposely composed samples. Most of the participants were very familiar with the studied mosques as they were the frequent users of these places.

In terms of the quantitative data collection instrument, a questionnaire survey (Kumar, 2005) was designed based on the findings of interviews and the reviewed seminal literature. Ultimately, the conducted statistical analysis on the results of questionnaire survey and further discussions on the interpretations provided the adequate basis for final conclusions. The conducted statistical analyses included both descriptive and inferential statistics. In terms of descriptive analyses, the study benefited from analysing mean, standard deviation, and variance of the measured values as well as evaluating the implications of graphical data visualisations tools (e.g. bar charts, line charts etc). The employed inferential statistics for testing 12 hypotheses (Chapter 4) of this study were as follows: Examination of Reliability Scale, Regression Analysis, Variance Analysis (ANOVA), and Pearson Product-Moment Coefficient Correlation Analysis. In order to evenly select the sample population of worshipers at the study areas, the Systematic Random Sampling (Kumar, 2005) method was adapted in this study since the other random sampling methods could not be applied without having the list of the members' names (Creswell, 2003). Out of the total of 1147 daily users of the selected 5 mosques, the study solicited data from a randomly selected sample comprising 288 respondents. Figure 1-1 illustrates the Summary of methodological framework of this study.

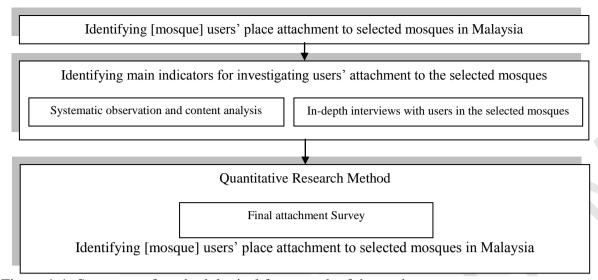


Figure 1-1: Summary of methodological framework of the study

# 1.7 Major theories and concepts referred in the study

In accordance with the aforementioned aim, objectives, and research questions in Section 1.3 and Section 1.4, this study relied on Relph's (1976) 'Place' theory, Altman's (1992)'Place Attachment' theory, Proshansky's (1978) 'Place-Identity' theory, and Stokols and Shumaker's (1981) 'Place-Dependence' theory for investigating form and degree of [mosque] users' attachment to different Malaysian mosques.

The three main components of places (Relph, 1976) that are considered in this study as the main indicators of Place Attachment are as follows: a) the physical and spatial characteristics of places, b) the activities within the places, and c) the constructed meaning(s) and significance of the places. In essence, the following paragraphs describe the main terminologies that are frequently used in this study.

### a) Physical and spatial characteristics of place

In this study, physical attributes and characteristics regard those spatial, constructional,

and architectural qualities of places that could affect the level of either physiological or psychological satisfaction of people within the environments. The study limited the discussions to those attributes and components which are in accordance with studying religious places within the particular context of the study (as per explained in Section 1.5). In this regard, some of the evaluated key components of physical settings are as follows: identity, distinctiveness, symbolism, impressiveness, accessibility, comfort, etc.

# b) The activities within the places

Activities refer to the actions afforded by a place; it means that every place constructed to organise a function. People combine with places through the activities. In Islamic religious places, a mosque is a building in which Muslims worship God. Throughout Islamic history, the mosque was the centre of the community and towns. Hosting the five daily prayers, Friday prayers, and Eid Prayers are the core function of each mosque. Nevertheless, besides praying, each mosque has different kind of activities that can be divided into 2 clusters: religious (e.g. praying) and socio-cultural (e.g. welfare activities) actions.

# c) Constructed meaning(s) and significance of the places

Place meanings are the conceptions that people hold in their minds regarding a place; meanings are *what* people are attached to. It means that meaning(s) is a conceptual dimension of people's relationship with place that is created by the setting and combined with what people bring to place. The reviewed studies reveal that places hold deep-seated meanings for people and have a strong cognitive basis (e.g. Stedman, 2008; Tuan, 1977; Wynveen, et al., 2012). Tuan (1977) explained that meanings are attached to places by

humans over the course of time by tying the image of a place to personal experience. Stedman (2003) argued that meanings of place could contribute to place attachment. The seminal literatures reveal that the physical setting with its attributes and elements could contribute to forming the place meanings. This study used the Stedman's (2003) classification for meaning. He explained that the meaning of a place is divided into three groups; one is 'direct-effects' it means that meaning is imbued in the physical setting itself and the other is 'meaning-mediated', i.e. attributes attachment to symbolic meanings that places hold for people, and 'experiential' it means that meaning is imbued through experience.

# 1.8 Significance of the study

This study identified the factors that affect worshipers' attachment to the selected mosques. Therefore, this study integrated the psychological aspects of environmental experience; whereby worshipers and their attachment to religious places are regarded as the key sources of reference in defining distinctive character of places. Consequently, this research provided evidence to show that users' attachment to the selected mosques is something beyond mere influence of religion itself. It objectively investigated the impacts of multiple factors within the selected mosques on people's place attachment. The study is important in exploring the attraction and the significance of Islamic places within the context of Malaysia. This could help sustain the characteristics that are attractive, meaningful and significant to the worshipers and leverage their continued attachment. The performed detailed study on place attachment also revealed the conceptual and physical values of the studied religious and sacred places.

#### 1.9 Structure of the thesis

This thesis comprises of six chapters that are explained as follows:

Chapter 1 introduces the overall structure of the conducted research; it presents the issues and motivations of the study followed by the aims, objectives, and research questions. It also outlines the methodologies in collecting data through the employed quantitative research approach. The final sections of the chapter describe scope, outcomes, and the significance of the conducted research. It concludes with outlining the structure of the thesis.

Chapter 2 presents a review of literature relevant to the study. This chapter is divided into three sections to define the theoretical foundation and scope of the research: the first part presents related literature regarding perception and preference studies; the second part reviews the theories and concepts of place, namely sense of place, place attachment, place identity, and place character; and the final part focused on mosques in the context of Malaysia and their developments.

Chapter 3 describes and discusses the adopted design, methodology, and strategies of research to collect, analyse, and validate relevant data which aims to answer the research questions. It also presents the main characteristics of the selected mosques as the contexts of the research.

Chapter 4 analyses the collected data regarding place attachment and its influencing factors. This chapter is divided into two sections: the first part presents the results of the

conducted in-depth interviews to identify the main indicators of the study; and the second part addresses the results of the conducted questionnaire survey. This chapter also presents the form and degree of [mosque] users' attachment to the selected places and the factors influencing feelings, emotions and meanings attached to the users' environmental experiences there.

Chapter 5 presents the discussions on the main findings of the research in association with the research agenda. The discussions also relate the findings to the reviewed theories. Finally, the discussions make conclusions based on the achieved results.

Finally, Chapter 6 summarises the whole thesis and its main findings. It makes general conclusions and recommendations for further researches. Finally, it concludes with highlighting the thesis knowledge contributions and impacts on leveraging users' attachment to Malaysian Islamic built environments.

Figure 1-2 shows the research framework of this study.

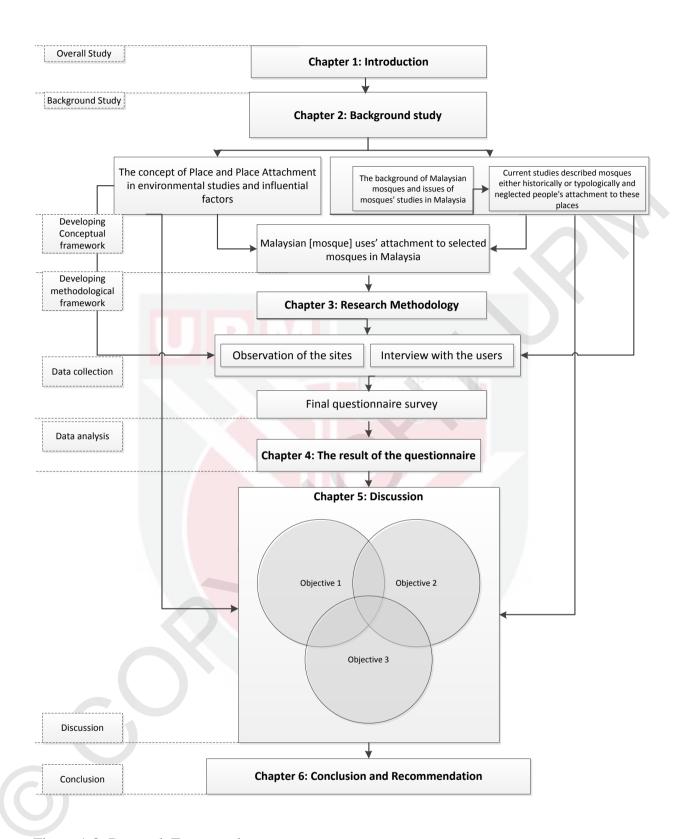


Figure 1-2: Research Framework

#### **BIBLIOGRAPHY**

- Ahmad, A. G. (1999). *The Architectural Styles of Mosques in Malaysia: From Vernacular to Modern.* Paper presented at the Symposium on Mosque Architecture: The Historic and Urban Developments of Mosque Architecture, King Saud University, Riyadh, Saudi Arabia.
- Altman, I., & Low, S. M. (1992). Place attachment. New York: Plenum Press.
- Andaya, B. W., & Andaya, L. Y. (2001). A history of Malaysia Hampshire: Palgrave.
- Andriotis, K. (2009). Sacred site experience A phenomenological stady. *Annals of tourism research*, *36*(1), 64-84.
- Arefi, M. (1999). Non-place and placelessness as narratives of loss: Rethinking the notion of place. *Journal of Urban Design*, 4(2), 179-193.
- Awang, M. M., Yousuf, M. I., & Ghani, S. A. (2011). A Study of Preferred Socioreligious Activities by Muslim Youth. *European Journal of Social Sciences*, 18(4).
- Babbie, E. (1990). Survey Research Methods. Belmont, CA: Wadsworth Publishing Company.
- Barrie, T. (1996). Spiritual path, Sacred place. Boston: Shambala Publications, Inc.
- Baskin, J., & Winks, R. (1966). Beginings of the Johor Empire: the Bugis and the Dutch, Malaysia Selected Historical Readings
- London: OUP.
- Bogaç, C. (2009). Place attachment in a foreign settlement. *Journal of Environmental Psychology*, 29(2), 267-278.
- Bonnes, M., & Secchiaroli, G. (1995). environmental psychology: A psycho-social introduction. London: Sage.
- Bott, S., Cantrill, G. J., & Myers, E. O. J. (2003). Place and the promise of conservation psychology. *Human Ecology Review*, 10.
- Brandenburg, A. M., & Carroll, M. S. (1995). Your place or mine? The effect of place creation on environmental values and landscape meanings. *Society and Natural Resources*, 8, 381-398.
- Bricker, K. S., & Kerstetter, D. (2000). Level of specialization and place attachment: An exploratory study of whiterwater recreationists. *Leisure Sciences*, 11, 233-257.
- Bryman, A., & Bell, E. (2007). *Business research methods*. London, UK: Oxford University Press.
- Burckhard, T. (1954). The Spirit of Islamic Art. . Islamic Quarterly 1(1), 212-218.
- Canter, D. (1977). The psychology of place: The Architectural Press Ltd.
- Chow, K., & Healey, M. (2008). Place attachment and place identity: First-year undergraduates making the transition from home to university. *Journal of Environmental Psychology*, 28(4), 362-372.
- Creswell, J. W. (1998). *Qualitative inquiry and research design*: Sage Pub.
- Creswell, J. W. (2003). Research design: qualitative, quantitative, and mixed methods approaches (Second ed.): SAGE publications, Inc.
- Cuba, L., & Hummon, D. M. (1993a). Constructing a sense of home: Place affiliation and migration across the life cycle. *Sociological forum*, *5*(4), 547-572.
- Daniel, T. C., Wheeler, L., Boster, R. S., & Best, P. (1973). Quantitative evaluation of landscapes: An application of signal detection analysis to forest management alternatives. *Man-environment Systems*, *3*, 330-344.
- Davenport, M. A., & Anderson, D. H. (2005). Getting from sense of place to place-based management: An interpretive investigation of place meanings and perceptions of

- landscape change. Society and Natural Resources, 18, 625-641.
- De Vaus, D. (2002). Social Survey (I): Saga Publications Ltd.
- Dubisch, J. (1995). In a Different Place: Pilgrimage, Gender and Politics of a Greek Island. Princeton: Princeton University Press.
- Eco, U. (1976). A Theory of Semiotics: Bloomington: Indiana University Press.
- Ednie, A. J., Daigle, J. J., & Leahy, J. E. (2010). Place Attachment on the Maine Coast: User Characteristics and Reasons for Visiting. *Journal of Park and Recreation Administration*, 28(1).
- Eisenhauer, B. W., Krannich, R. S., & Blahna, D. J. (2000). Attachment to special places on public lands: an analysis of activities, reason for attachments, and community connections. *Society and Natural Resources*, *13*, 421-441.
- Eliade, M. (1957). *The Sacred and The Profane: The Nature of Religion* New York: Harcourt Publishing.
- Engleberg, I. N., & Wynn, D. R. (2007). Working in Groups: Communication Principles and Strategies: Pearson.
- Espe, H. (1981). Differences in the Perception of National Socialist and Classicist Architecture. *journal of Environmental Psychology*, 1(1), 33-42.
- Farnum, J., Hall, T., & Kruger, L. E. (2005). Sense of place in natural resource recreation and tourism: An evaluation and assessment of research findings. Portland: USDA Pacific Northwest Research Station.
- Fatimi, S. Q. (1963). *Islam comes to Malaysia*: Malaysian sociological research institute Ltd., Singapore.
- Fee, C. V. (1998). Architecture: the encyclopedia of Malaysia. Kuala Lumpur: Archipelago Press.
- Feldman, R. M. (1990). Settlement- identity: psychological bonds with home places in a mobile society. *Environment and Behavior*, 22(2), 183-229.
- Fetzer Institute, N. I. o. A. W. G. (1999). In Multidimensional measurement of religiousness/spirituality for use in health research: Kalamazoo. MI: Fetzer Institute.
- Fink, A. (2003). How to sample in survey. London: Sage Publication Ltd.
- Fried, M. (1963). Grieving for a lost home. In L. J. Duhl (Ed.), *The urban condition:* people and policy in the Metropolis (pp. 151-171). New York: Basic Books, Inc.
- Gieryn, T. F. (2000). A space for place in psychology. *Annu. Review of Sociology*, 26, 463-496
- Giuliani, M. V., & Feldman, R. (1993). Place attachment in a developmental and cultural context. *Journal of Environmental Psychology*, 13, 267-274.
- Groat, L. (1982). Meaning in Post-Modern Architecture: An Examination using the Multiple Sorting Task. *Journal of Environmental Psychology*, 2(1), 3-22.
- Groat, L., & Wang, D. (2002). Architectural Research Methods: John Wiley and Sons, Inc.
- Gustafson, P. (2001). Meanings of place: Everyday experience and theoretical conceptualizations. *Journal of Environmental Psychology*, 21, 5-16.
- Hanson, W. E., Creswell, J. W., Plano Clark, V. L., Petska, K. S., & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology*, 52(2), 224-235.
- Hay, B. (1998). Sense of place in developmental context. *Journal of Environmental Psychology*, 18, 5-29.
- Hayes, B. H. (1983). *Tradition Becomes Innovation: Modern Religious Architecture in America*. New York: The Pilgrim Press.
- Hernandez, B., Hidalgo, M. C., Salazar-Laplace, M. E., & Hess, S. (2007). Place

- attachment and place identity in natives and non-natives. *Journal of Environmental Psychology*, 27, 310-319.
- Hernández, B., Martín, A. M., Ruiz, C., & Hidalgo, M. d. C. (2010). The role of place identity and place attachment in breaking environmental protection laws. *Journal of Environmental Psychology*, 30(3), 281-288.
- Herzog, T. R., & Gale, T. A. (1996). Preference for Urban Buildings as a Function of Age and Nature Context. *Environment and Behavior*, 28(1), 44-72.
- Herzog, T. R., & Shier, R. L. (2000). Complexity, Age, and Building Preference. *Environment and Behavior*, 32(4), 557-575.
- Hewitt, J. P. (1989). Dilemmas of the American self. Philadelphia: Temple Press.
- Hisham, D. M. (1990). *Typology and the evolution of the Malaysian Mosque*. Kuala Lumpur: Majalah Arkitek Malaysia.
- Hood, R. W., Hill, P. C., & Williamson, W. P. (2005). *The psychology of religious fundamentalism*. New York: Guilford.
- Horton, M. S. (1998). Why Sacred Space Matters. Modern Reformation. *Modern Reformation*, 7(3).
- Hoyt, S. H. (1996). *Old Malacca*. Kuala Lumpur: Oxford University Press.
- Hummon, D. M. (1992). Community Attachment: Local Sentiment & Sense of place. New York: Plenum.
- Ismail, A. S. (2008). The influence of Islamic political ideology on the design of state mosques in west Malaysia (1957-2003). Queensland University of Technology, Australia, Brisbane.
- Ismail, I. S., Shamsuddin, S., & Sulaiman, A. B. (2008). An evaluation of residents perception of identity in Putrajaya new town. *Jurnal Alam Bina*, 13(4).
- Itewi, M. (2007). Towards a Modern Theory of Islamic Architecture. Australian Journal of Basic and Applied Sciences, 1 (2), 153-156.
- Jencks, C. (2002). The New Paradigm in Architecture: Language of Post-Modern Architecture (17 ed.). London: Yale University Press.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33(7), 14-26.
- Jones, L. (2000). The Hermeneutics of Sacred Architecture: Experience, Interpretation, Comparison, Volume 1: Monumental Occasions: Reflections on the Eventfulness of Religious Architecture. Cambridge: Harvard University Press.
- Jones, T. M. (2011). Christian church architecture across the United States: how the rhetoric of the building and its appointments speak to the doctrin and practices of a church. California State University, Long Beach.
- Jorgensen, B. S., & Stedman, R. C. (2001). Sense of place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of Environmental Psychology*, 21, 233-248.
- Jorgenson, B. R., & Steadman, R. C. (2006). A comparative analysis of predictors of sense of place dimentions: Attachment to, dependence on, and identification with lakeshore properties. *journal of Environmental Management*, 1-12.
- Kaltenborn, B. P. (1997). Nature of place attachment: A study among recreation homeowners in southern Norway. *Leisure Sciences*, 19, 175-189.
- Kaltenborn, B. P. (1998). Effects of sense of place on responses to environmental impacts: A study among residents in Svalbard in the Norwegian high Arctic. *Applied Geography*, 18(2), 169-189.
- Kamalipour, H., Yeganeh, A. J., & Alalhesabi, M. (2012). Predictors of Place Attachment in Urban Residential Environments: A Residential Complex Case Study. *Procedia Social and Behavioral Sciences*, *35*(0), 459-467.

- Kaplan, R., & Kaplan, S. (1989). *The experience of nature*. New York: Cambridge Press. (Republished by Ulrich's, Ann Arbor, MI).
- Kaplan, R., Kaplan, S., & Ryan, R. (1998). With people in mind: Design and management of everyday nature. Washington, D.C.: Island Press.
- Kaplan, S., & Kaplan, R. (1983). *Cognition and Environment: Functioning in an Uncertain World*: Ann Arbor, Michigan: Ulrich's Bookstore.
- Khan, H.-U., & Holod, R. (1997). *The mosque and the modern world*. London: Thames and Hudson.
- Kohl, D. G. (1984). Chinese architecture in the straits settlement and western Malaya. Kuala Lumpur: Heinemann Asia.
- Kumar, R. (2005). Research methodology. A step-by-step guide for beginners: SAGE Publications Ltd.
- Kyle, G., Graefe, A., & Manning, R. (2005). Testing the dimensionality of place attachment in recreational settings. *Environment and Behavior*, *37*(2), 153-177.
- Kyle, G., Graefe, A., Manning, R., & Bacon, J. (2004). Effects of place attachment on users' perceptions of social and environmental conditions in a natural setting. *Journal of Environmental Psychology*, 24(2), 213-225.
- Kyle, G., Mowen, A. J., & Tarrant, M. (2004). Linking place preferences with place meaning: An examination of the relationship between place motivation and place attachment. *Journal of Environmental Psychology*, 24(4), 439-454.
- Lalli, M. (1992). Urban-related identity: Theory, measurement, and empirical findings. *Journal of Environmental Psychology*, 12, 285-303.
- Larsen, L., Adams, J., Deal, B., Kweon, B. S., & Tyler, E. (1998). Plants in the Workplace: The Effects of Plant Density on Productivity, Attitudes, and Perceptions. *Environment and Behavior*, 30(3), 261-281.
- Lavin, M. W., & Agastein, R. (1984). Personal identity and imagery of place: Psychological issues and literary themes. *Journal of mental imagery*, 8, 51-66.
- Lewicka, M. (2005). Ways to make people active: The role of place attachment, cultural capital, and neighborhood ties. *Journal of Environmental Psychology*, 25(4), 381-395.
- Lewicka, M. (2008). Place attachment, place identity, and place memory: Restoring the forgotten city past. *Journal of Environmental Psychology*, 28(3), 209-231.
- Lewicka, M. (2009). What makes neighborhood different from home and city? Effects of place scale on place attachment. *Journal of environmental psychology*, 30(1), 35-51
- Lewicka, M. (2010). Place attachment: How far have we come in the last 40 years? Journal of Environmental Psychology, In Press, Accepted Manuscript.
- Librande, L. (1979). The calligraphy of the Quran: how it functions for Muslims. *Religion*, 9.
- Lobo, C. (2004). The role of environmental perception in sense of place: Case studies of neighborhoods in Phoenix, Arizona. Arizona State University.
- Manzo, L. C. (2003). Beyond house and haven: Toward a revisioning of emotional relationships with places. *Journal of Environmental Psychology*, 23.
- Manzo, L. C. (2005). For better or worse: Exploring multiple dimensions of place meaning. *Journal of Environmental Psychology*, 25 67–86.
- Maselko, J., & Kubzansky, L. D. (2006). Gender differences in religious practices, spiritual experiences and health: Results from the US General Social Survey. *Social Science and Medicine*, 62, 2848-2860.
- Matravers, D. (1998). Art and Emotion Oxford: Clarendon Press.
- Mazumdar, S. (2005). Religious place attachment, squatting, and qualitative research: a

- commentary. Journal of Environmental Psychology, 25, 87-95.
- Mazumdar, S., & Mazumdar, S. (1993). Sacred space and place attachment. *journal of Environmental Psychology*, 13(3), 231-242.
- Mazumdar, S., & Mazumdar, S. (2004). Religion and place attachment: A study of sacred places. *Journal of Environmental Psychology*, 24, 385-397.
- Mazumdar, S., & Mazumdar, S. (2009). Religion, immigration, and home making in diaspora: Hindu space in Southern California. *Journal of Environmental Psychology*, 29, 256-266.
- Means, G. P. (1969). The role of Islam in the political development of Malaysia. *Comparative politics*, 1(2), 264-284.
- Mesch, G. S., & Manor, O. (1998). Social ties, environmental perception, and local attachment. *Environment and Behavior*, 30(4), 504-519.
- Miles, B. M., & Huberman, A. M. (1994). *Qualitative Data Analysis* (Second ed.): SAGE Publications, Inc.
- Milligan, M. J. (1998). Interactional past and potential: The social construction of place attachment. *Symbolic Interaction*, 21(1), 1-33.
- Mohamad Rasdi, M. T. (1998). The mosque as a community development center: Programme and architecture design guideline for contemporary Muslim societies. Johor Bahru: University Teknologi Malaysia.
- Mohamad Rasdi, M. T. (2003). The Design of Mosques as Community Development Centres from the Perspective of the Sunna and Wright's Organic Architecture. *Global Built Environment Review (GBER)*, 2(2), 40-50.
- Mohamad Rasdi, M. T. (2007). Mosque Architecture in Malaysia: Classification of Styles and Possible Influence *Journal Alam Bina* 9(3), 1-37.
- Montgomery, J. (1998). Making a city: urbanity, Vitality and urban design. *Journal of Urban Design*, 3.
- Moore, R. L., & Graefe, A. R. (1994). Attachments to recreation settings: the case of rail-trail users. *Leisure Sciences*, 16, 17-31.
- Morgan, P. (2009). Towards a developmental theory of place attachment. *Journal of Environmental Psychology*, 30(1), 11-22.
- Muhammad, M. A. h. w. b. o. (2005). Pre-Islamic Arabia And Its Socio-Religious Condition. Sirat Al Nabi and the Orientalists: With Special Reference to the Writings of William Muir, D. S. Margoliouth and W. Montgomery Watt.
- Nasar, J. L. (1994). Urban design aesthetics: The evaluative qualities of building exteriors. *Environment and Behavior*, 26(3), 377-401.
- Nasar, J. L. (1998a). *Environmental aesthetic: Theory, research and applications*: Cambridge University Press.
- Nasar, J. L. (1998b). The evaluative image of the city: Sage Publication.
- Nasar, J. L. (2008). Assessing Perceptions of Environments for Active Living. *American Journal of Preventive Medicine*, 34(4), 357-363.
- Nasir, A. H. (1984). *Mosques of Peninsular Malaysia. Kuala Lumpur*: Berita Publishing Sdn Bhd.
- Nasir, A. H. (2004). *Mosque Architecture in the Malay World* (O. Salahuddin Abdullah, Trans.). Kuala Lumpur, Malaysia: University Kebangsaan Malaysia.
- Noor, F. (2004). *Islam embedded: historical development of the pan-Malaysia Islamic party: PAS (1951-2003)*. Kuala Lumpur: Malaysian Sociological Research Institute.
- Omer, M. M. (2000). *The design and relationship of the first built mosque within a non-Muzlim urban environment*. Paper presented at the Symposium on mosque architecture: the historic and urban developments of mosque architecture.

- Othman, R., & Z.J.Zainal-Abidin (2011). *The Importance of Islamic Art in Mosque Interior*. Paper presented at the The 2nd International Building Control Conference.
- Peletz, M. (2002). *Islamic modern: religious courts and cultural politics in Malaysia*. Princeton: Princeton University Press.
- Pellow, D. (1992). Spaces that teach: Attachment to the African compound. In I. Altman (Ed.), *Place attachment* (pp. 187-208). New York: Plenum Press.
- Proshansky, H. M. (1978). The city and self-identity. *Environment and Behavior*, 10, 147-169.
- Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1983). Place- identity: physical world socialization of self. *journal of Environmental Psychology*, *3*, 57-83.
- Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1995). Place identity: Physical world socialisation of the self, giving places meaning. Reading in environmental psychology. London: Academic Press.
- Purcell, A. T. (1992). Abstract and specific physical attributes and the experience of landscape. *Journal of Environmental Management*, 34, 159-177.
- Qasmi, M. F. (2010). Reviving the institution of Masjid in Islam, <u>www.understanding-islam.org.uk</u>.
- Qian, J., Zhu, H., & Liu, Y. (2011). Investigating urban migrants' sense of place through a multi-scalar perspective. *Journal of Environmental Psychology*, 31(2), 170-183.
- Rakatansky, M. (1992). Spatial narratives. In J. Whiteman, J. Kipnis & R. Burdett (Eds.), *Strategies in Architectural Thinking*. Cambridge: MIT Press.
- Rapoport, A. (1977). Human Aspects of Urban Form. Oxford: Pergamon Press.
- Rapoport, A. (1990). The meaning of the built environment: a nonverbal communication approach: the university of Arizona Press, Tucson.
- Raymond, C. M., Brown, G., & Weber, D. (2010). The measurement of place attachment: Personal, community, and environmental connections. *Journal of Environmental Psychology*, 30(4), 422-434.
- Razak, A. M. (2001). *Masjid Wilayah Persekutuan*. Kuala Lumpur: Johawaki- Ahmad Zaki Jv.
- Reicher, S. D., & Hopkins, N. (2001). Self and Nation: Categorization, Contestation and Mobilisation: London: Sage.
- Relph, E. (1976). Place and placelessness. London: Pion.
- Riley, R. (1992). Attachment to the ordinary landscape. In I. Altman & S. Low (Eds.), *Place attachment* (pp. 13-36). New York: Plenum Press.
- Ritterfeld, U., & Cupchik, G. C. (1996). Perceptions of Interior Spaces. *Journal of Environmental Psychology*, 16, 349-360.
- Roberts, N. W. (2004). *Building Type Basics for Places of Worship*. Hoboken, New Jersey: John Wiley and Sons.
- Rogge, E., Nevens, F., & Gulinck, H. (2007). Perception of rural landscapes in Flanders: Looking beyond aesthetics. *Landscape and Urban Planning*, 89(1), 159-174.
- Rose, G. (1995). Place and identity: A sense of place. In D. Massey & P. J. (eds.) (Eds.), *A Place in the World? Place, Cultures, and Globalization* (pp. 88-132). Oxford: The Open University.
- Roslan, M. (2004). Mosque as a place for human development Memperkasakan masjid sebagai institusi pembangunan insan. Paper presented at the Mosque National Conference.
- Salzman, M. B. (2008). Globalization, religious fundamentalism and the need for meaning. *International Journal of Intercultural Relations*, 32, 318-327.
- Samah, B. A., & Suandi, T. (1999). Statistics for Social Research.

- Scannell, L., & Gifford, R. (2010a). Defining place attachment: A tripartite organizing framework. *Journal of Environmental Psychology*, 30, 1-10.
- Scannell, L., & Gifford, R. (2010b). The relations between natural and civic place attachment and pro-environmental behavior. *Journal of Environmental Psychology*, 30(3), 289-297.
- Schimmel, A. (1970). Islamic Calligraphy. Leyden: Brill.
- Schreyer, R., Jacob, G., & White, R. (1981). *Environmental meaning as a determinant of spatial behaviour in recreation*. Paper presented at the Proceedings of the Applied Geography Conferences.
- Serageldin, I. (1990, 15-19 October). *Contemporary expressions of Islam in buildings: the religious and the secular*. Paper presented at the Expressions of Islam in buildings, Indonesia.
- Serageldin, I., & Steele, J. (1996). *The Architecture of the Contemporary Mosque*: John Wiley and Sons.
- Shamai, S. (1991). Sense of Place: an Empirical Measurement. Geofmm, 22, 347-358.
- Shamsuddin, S., & Ujang, N. (2008). Making places: The role of attachment in creating the sense of place for traditional streets in Malaysia. *Habitat International*, 32, 399-409.
- Sharif, M. K. M. (2009). *Perception studies in landscap*. Kuala Lumpur: University Putra Malaysia.
- Sharma, B. A. V., Prasad, D. R., & Satyanarayana, P. (1984). *Research methods in social science* (First ed.). Herdarabad, India: ICSSR Southern Regional Centre.
- Shumaker, S. A., & Taylor, R. B. (1983). Toward a clarification of people- place relationships: A model of attachment to place In N. R. Feimar & E. S. Geller (Eds.), *Environmental psychology: Directions and perspectives* (pp. 219-251). New York: Praeger.
- Silverman, D. (2004). *Qualitative research: theory, method and practice*. London, UK: Sage.
- Smaldone, D., Harris, C., & Sanyal, N. (2005). An exploration of place as a process: The case of Jackson Hole, WY. *Journal of Environmental Psychology*, 25, 397-414.
- Sommer, B., & Sommer, R. (1997). A practical guide to behavioral research: Tools and techniques (4 ed.). New York: Oxford University Press.
- Sopher, D. E. (1967). *Geography of religions*. Englewood Cliffs, NJ: Prentice-Hall.
- Sousa, A., & Garcia-Murillo, P. (2001). Can place names be used as indicators of landscape changes? Application to the Donana Natural Park. *Landscape Ecology*, 16, 391-406.
- Stake, E. R. (1995). The art of case study research: SAGE Publications.
- Stamps, A. E. (1999). Physical Determinants of Preferences for Residential Facades. *Environment and Behavior*, 31(6), 723-751.
- Stedman, R. C. (2002). Toward a social psychology of place: Predicting behaviour from place based cognitions, attitude and identity. *Environment and behaviour*, *34*(5), 561-581.
- Stedman, R. C. (2003). Is it really just a social construction: The contribution of the physical environment to sense of place. *Society and Natural Resources*, 16, 671-685
- Stedman, R. C. (2008). what do we mean by place meanings? Implications of place meanings for managers and practitioners. In L. E. Kruger, T. E. Hall & M. C. Stiefel (Eds.), *Understanding concepts of place in recreational research and management* (Vol. PNW-GTR-744, pp. 61-82). Portland: USDA Forest Service, Pacific Northwest Research Station.

- Steele, F. (1981). The sense of place: CBI Publishing Company, Inc.
- Stokold, D., Shumaker, S. A., & Martinez, J. (1983). Residential mobility and personal well-being *Journal of Environmental Psychology*, *3*, 5-19.
- Stokols, D. (1990). Instrumental and Spiritual Views of People-Environment Relations. *American Psychologist*, 45(5), 641-646.
- Stokols, D., & Shumaker, S. A. (1981). People in places: A transactional view of settings. In Harvey (Ed.), *Cognition social behaviour and the environment*: Lawrence Erlbaum Assoc.
- Strauss, A., & Corbin, J. (1998). *Basic of qualitative research: Techniques and procedures for developing grounded theory*. California: Thousand Oaks, Sage.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of inter-group behavior. In S. Worchel & L. W. Austin (Eds.), *Psychology of intergroup relations*. Chicago: Nelson-Hall.
- Tuan, Y. F. (1974). *Topophilia: A study of environmental perception, attitudes, and values*. Englewood Cliffs, NJ: Prentice-Hall.
- Tuan, Y. F. (1977). Space and place: The perspective of experience. London: Edward Arnold.
- Tumanan, M. A. R., & Lansangan, J. R. G. (2012). More than just a cuppa coffee: A multi-dimensional approach towards analyzing the factors that define place attachment. *International Journal of Hospitality Management*, 31(2), 529-534.
- Twigger-Ross, C. L., & Uzzell, D. L. (1996). Place and identity processes. *Environmental psychology*, 16.
- Ulrich, R. S., Simons, R. F., Losito, B. D., Fiorito, E., Miles, M. A., & Zelson, M. (1991). Stress recovery during exposure to natural and urban environments. *Journal of Environmental Psychology*, 11(3), 201-230.
- Uścinowicz, J. (2009). Exchange of values in contemporary religious architecture in Poland in the dialogue between east and west. Paper presented at the Town Planning and Architecture.
- Uzzell, D., pol, E., & Badenas, D. (2002). Place identification, social cohesion, and environmental sustainability. *Environment and Behavior*, 34(1), 26-53.
- Vis, L. (1980). Restoration historic Dutch buildings. Melaka: Melaka Museum Corporation.
- Vlatseas, S. (1990). *History of Malaysian architecture*.: Longman Singapore Publishers Pte Ltd.
- Vosyliute, A. (2007). Thinking about religious space. *Lietuvos mokslų akademijos leidykla 18*(4), 95-104.
- Walker, G. J., & Chapman, R. (2003). Thinking like a park: The effects of sense of place, perspective-taking, and empathy on pro- environment intentions. *Journal of park and Recreation Administration*, 21(4), 71-86.
- Watson, S., & Kucko, J. (2001). Thorncrown and the Mildred B. Cooper Chapels: Sacred Structures Designed by Fay Jones. *Journal of Interior Design*, 27(2), 14 25.
- Weber, R. P. (1990). Basic Content Analysis. California, USA: Sage.
- White, J. F. (2003). Protestant Worship and Church Architecture: Theological and Historical Considerations: Eugene, OR: Wipf and Stock Publishers.
- White, J. F., & White, S. J. (1998). *Church Architecture: Building and Renovating for Christian Worship*: OH: OSL Publications.
- Whitfield, T. W. A. (1983). Predicting Preference for Familiar, Everyday Objects: An Experimental Confrontation between Two Theories of Aesthetic Behaviour. *Journal of Environmental Psychology*, *3*, 221-237.
- Whyte, W. (2006). How do buildings mean? some issues on the interpretation in the

- history of architecture. *History and theory journal*, 45(153-177).
- Williams, D. R., Patterson, M. E., Roggenbuck, J. W., & Watson, A. E. (1992). Beyond the commodity metaphor: Examining emotional and symbolic attachment to place. *Leisure Sciences*, 14, 29-46.
- Williams, D. R., & Roggenbuck, J. W. (1989). *Measuring place attachment: Some preliminary results*. Paper presented at the Paper presented at the Outdoor Planning and Management, NRPA Symposium on Leisure Research, San Antonio, TX.
- Williams, D. R., & Stewart, S. I. (1998). Sense of place: An elusive concept that is finding a home in ecosystem management. *Journal of Forestry*, 96(5), 18-23.
- Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: validity and generalizability of a psychometric approach. *Forest Science*, 49(6), 830-840.
- Williams, P. D. (2007). Between City and Steeple: Looking at Megachurch Architecture. In K. J. Vanhoozer, C. A. Anderson & M. J. Sleasman (Eds.), *Everyday Theology: How to Read Cultural Texts and Interpret Trends* (pp. 115-131): Baker Academic.
- Wiseman, J. A. (2006). SPIRITUALITY AND MYSTICISM A Global View. New York: Orbis Books.
- Wools, R. (1970). *The Assessment of Room Friendliness*. Paper presented at the Architectural Psychology Dalandhui. University of Strathclyde, Glasgow, Scotland
- Wynveen, C. J., Kyle, G. T., & Sutton, S. G. (2012). Natural area visitors' place meaning and place attachment ascribed to a marine setting. *Journal of Environmental Psychology*, 32(4), 287-296.
- Yeang, K. (1992). Architecture of Malaysia. Kuala Lumpur: The Pepin Press.
- Yin, R. K. (1994). Case study research: Design and methods: Sage Pub.
- Yuen, B. (2003). Searching for place identity in Singapore. *Habitat International*, 29(2), 197-214.
- Zeisel, J. (1980). *Inquiry by design: Tools for environment- behaviour research*: Brooks/Cole Publishing Company.