THE ROLE OF COLOURS FOR MOSQUES IN ENHANCING IT
AS A SIGNIFICANT LANDMARK IN A PLACE

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A thesis submitted for the fulfillment
of the requirements for the award of the degree of
Master Science of Urban Design

Faculty of Built Environment
University Technology of Malaysia

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To my beloved

Parents

&

Siblings

Hold fast to dreams
For if dreams die
Life is a broken-winged bird
That cannot fly.

Hold fast to dreams
For when dreams go
Life is a barren field
Frozen with snow.
ACKNOWLEDGEMENT

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ABSTRACT

A mosque is an important building in any development and specifically in Malaysia. It may be due to majority of population which is Muslim. To be the centre, the elements of colour play a key role architecturally, creating dynamism to capture attention among the public apart from cooling effect in our high temperature and humidity. In Islamic townships, where mosques stand, there will always be water, trees and wind. The combination of these elements must intertwine with the mosque architecture and colour scheme and to neutralise these elements together, they will always relate to some appropriates colour which can resemblance their presence as most significance landmark in an Islamic city. There are some more factors that important for mosques such as architectural style, scale or size, location etc. but the factors of colours give a sense of uniqueness to the mosques and it does play such important role to enhance it as a significance landmark for a place. From the research of these whole studies of colours and mosques characteristics, we can determine that there is a certain colour which is the most appropriate to apply for a mosque which related on their characteristics itself. This is to ensure the quality of visual effects in a place. The important roles of colours in general and also for mosques in enhancing it as a significant landmark in a place or city shows that the colours is not only to fill in the emptiness or to highlight an object, but also can be used for an object or building to have their own identity and uniqueness to be recognize by others. This is also important in urban design framework as it can make us aware of the colour choices for a building that must suits to our surround natures, environment and cultures of a place to be a significance landmark.
ABSTRAK

Masjid adalah penting dalam sesebuah kawasan pembangunan dan tidak terkecuali Malaysia. Ini mungkin disebabkan oleh faktor majoriti penduduknya yang beragama Islam. Di sebalik faktor keselesaan yang mempengaruhi cuaca kita yang panas dan lembab sepanjang tahun, sebagai salah satu pusat yang penting dalam sesebuah pembangunan, elemen warna juga memainkan peranan yang penting di dalam senibina dan dinamik dalam menarik perhatian orang ramai bagi. Di dalam konsep pembangunan bandar Islam, di mana didirikan sebuah masjid, ia akan dikelilingi oleh elemen air, tumbuhan hijau dan angin. Keseluruhan kombinasi elemen-elemen ini haruslah bersesuaian dengan gaya senibina dan warna masjid tersebut. Untuk menyeimbangi kesemua elemen-elemen tersebut, pemilihan warna yang bersesuaian amat penting bagi menyerlahkan lagi keindahan sesebuah masjid sebagai satu mercu tanda yang penting di dalam sebuah pembangunan berkonseptkan Islam. Terdapat faktor-faktor lain seperti gaya senibina, skala atau saiz, lokasi dan lain-lain yang penting untuk sesebuah masjid, namun faktor warna dapat memberikan ia kelainan dan antara peranan utama dalam menyerlahkan ia sebagai mercu tanda yang penting bagi sesebuah tempat. Daripada kajian menyeluruh tentang warna dan karakter masjid, kita dapat membuat kesimpulan bahawa terdapat satu warna yang bersesuaian untuk masjid di mana ianya berkait rapat dengan karakter sesebuah masjid itu sendiri. Ini adalah penting dalam memastikan jaminan kepada kualiti kesan visual yang baik di sesuatu tempat. Peranan warna amat penting secara amnya dan juga ke atas masjid dalam membantu menonjolkannya sebagai mercu tanda yang penting di sesebuah tempat. Warna bukan sahaja untuk mengisi kekosongan atau menonjolkan sesuatu objek, tetapi juga berperanan kepada objek atau bangunan itu untuk memiliki identiti dan keunikan mereka yang tersendiri di dalam menarik perhatian orang ramai. Hal ini juga penting dalam perangkaan reka bentuk bandar di mana kita dapat menyedari bahawa pemilihan warna untuk sesebuah bangunan haruslah bersesuaian dengan persekitaran, alam semulajadi dan budaya sesebuah masyarakat untuk menjadi satu mercu tanda yang penting di sesebuah tempat.
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<td>peace be upon him</td>
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1.0 Introduction

A Mosque is the place where Muslims worship God. The Prophet Muhammad pbuh stated that all Muslims are brothers and in performing the required five prayers in a day, Muslims are encouraged to pray in congregation at a mosque. Mosques have a peaceful ambiance within, with its cool and serene atmosphere. Besides being a peaceful place to conduct the daily prayers, Muslims meet other Muslims there to discuss religious teachings and other matters affecting their daily lives. In short, mosques are the focal point of the Muslims daily lives.

Mosque is not only known as a place for worship and prays, but the scope of it much broader in variety aspects. It is also functions as the centre of development for Muslims since the time of Prophet Muhammad pbuh. Mosque in public opinions is a place for prayers and for other events in a particular time during the Qurban, Maulidur Rasul and Eid festival. However, the concept and understanding of the mosque remain the same since before whereas it must be clean, separated with entertainment and the ultimate place. It is also must be located away and isolated from the outside world as easier for the prayers to I’tiqaf, Uzrah and being intimate with the God (Dr Tajuddin Haji Mohd Rasdi The concept and functions of mosque according to Hadith )
A mosque does not have to follow any particular shape to follow as long as it fulfils the basic needs to perform the prayer and religious activities. In the Islamic context, a mosque should be at the centre of development where other components of the development will evolve. It will act as point of orientation at the development site where gathering spaces and public activities intersects. This should be true for future developments. Development evolving around the mosque can be seen with universities, research and development offices, administration, residential, commercial, libraries and many more which will cluster around the mosque.

To be the centre, the elements of colour play a key role architecturally, creating dynamism to capture attention among the public, apart from cooling effect in our high temperature and humidity. In Islamic townships, where mosques stand, there will always be water, trees and wind. The combination of these elements must intertwine with the mosque architecture and colour scheme and to neutralise these elements together, they will always relate to some appropriates colour which can resemblance their presence as most significance landmark in an Islamic city. Colour is always being used in the urban scheme. It will create local flavour, as unique to a place as its human inhabitants. It also play such an important element for the eyes of local and observer onto perceive the colour of the mosque as an attraction.
1.1 Statements of the Problems and Related Issues

Most of the mosques in Malaysia built earlier are usually massive looking and are generally been painted in white color. Several mosques built recently use other colors such as light green and others in a way to denote Islam but are generally not pleasing to the eye and it is not the best color to meet the heat and humidity of our country. Climate influence is changes in the weather hot country where the colors function to reflect the heat.

Countries with hot and cold weather must find colors more suitable to retain heat during cold weather and reflect heat during the summer. In any case, the impact of light colors particularly white can show the purity and dynamism of the mosques and Islam itself which is more accepted in all countries. The difference will be some areas of the building façade or dome having a light color to blend with it.

Currently, we do not have any specific bodies to control the suitable and appropriate colors choose for mosques in Malaysia. The focus of this research is to study the most appropriate colors for the mosques in Malaysia particularly. Most of the colors choose for the mosques do not reflect the image of it as one of the most important landmark in a city. We should give more attention towards this problem as color is one of important element to complement the mosque architectural designs in order to create a visual impact with the surrounding social and culture. Color sensitivity varies among cultures and in diverse parts of the world; color shows a distinct relationship between them.

This study is so important in order to observe and to prove on how far the role or elements of colors can support the idea of a mosque as the significance landmark in a city. This study also focuses on how the observers perceive the color and to find out what is the appropriate color for the mosque particularly in Malaysia from the eyes of the local and through some studies of the colors.
1.2 Aims and Objectives of the Study

The result of this study will review the appropriate color choices for mosques in Malaysia from the thorough analysis on colors and how it perceives by the people. Through the knowledge of colors, it will review it as an element to support the mosques as a significance landmark in a city. The chosen of a right color for the mosque from this analysis perhaps will distribute towards a better visual of mosque and as to review the mosque as a unique identity and as an attractive focal point for people to enjoy the beauty and functions.

To achieve the above goal, the following objectives are identified:

- To study the function and role of colours towards both; physical and social perspective in scientific and general concepts.

- To analyzed the effects and importance of colors on mosques in contribution of unique urban environment context.

- To identify the character of mosques from the history and significance background.

- To get some initial thoughts on how particularly people perceived the color of mosques from couple of selected case studies of mosques in Malaysia.
1.3 Research Questions

As a guide to the study and to get the expected result, a few questions have been raised:

i. What are the main functions or roles of colour?

ii. Does colour influence the physical and social perspective thoughts especially towards the mosques in a city?

iii. What is the general functions and important characteristic of mosques as they are known as one of significance landmark in a city?

iv. Does colour of the mosques appear to be one of important elements for it to stand as a significance landmark?

First, second and third questions basically will be answered in chapter two (2) through the literature review regarding the colour and mosque analysis. The analysis for the role and functions of colours and characteristics of mosque are given during the process of this chapter.

Fourth questions will be addressed through study area and interviews (field study) in chapter three (3) that identifies if the colour of a mosque will help to support the mosque to be known as such an important landmark in a city.
1.4 Research Methodology

This Research used Multiple Case Study to support the research has been done. Several techniques had been used to analyze the data. It went through the interviews, research, observation, field study and documentation especially on the colours and mosques.

The research began with literature review in order to understand the meaning, importance, role, functions and components of colours and mosques. Based on this research there are 2 periods had been chosen which is Pre-Independence and Post-Independence. It has been chosen due to time constraint of information gathered.

A comparative and research on study area had been utilized to consider on two period of time for this study and it is particularly within Malaysia. The information collected was based on documentation (records from books, archives and journals), interviews with individuals and local people of selected area.

Survey questionnaire and some graphics survey were applied during this analysis of the data in order to get the expected end result and regarding colours and mosques and people perceptions towards it. In order to achieve the main goal of this research, the following chart below shows the overall research methodology which was applied in the identification of to find the appropriate colour for mosques in Malaysia.
Figure 1.0 — Research Method Flow Chart
1.5 Case study

From the research method and the flow chart, this detailed research will be conducted in two different places which are Kuala Putrajaya and Johor Bahru. Putrajaya is located on the West Cost of Peninsular Malaysia, while Johor Bahru is located in South of Peninsular Malaysia.

Figure 1.1 –The key plan is showing the map of Selangor and the map is showing the Research Area of Putra Mosque in Putrajaya and surrounding contexts. Not To Scale. Source: Google Map

Figure 1.2 –The key plan is showing the map of Johor and the map is showing the Research Area of Abu Bakar Mosque in city of Johor Bahru and surrounding contexts. Not To Scale. Source: Google Map
These two locations were used as comparative cases and studies of mosques between the pre- Independence and post- Independence period of time. The Putra Mosque is the post-Independence period based on the year of built and the new and modern example for the new era. During this period, the country economy slowly increases and more people are exposed to higher education, leading to better designs, better materials used and planned development. In terms of town planning, architecture of buildings and consequently the color of the mosque are to complement the surroundings and interplay with certain natural elements especially water and trees within a city.

While for the pre-Independence period of time, Abu Bakar Mosque being chose base on their famous historical facts, years of built, architectural influences and the importance of their roles during this period. Mosque is also known as one of six important elements in Malay traditional town during the Malay Sultanate administration and it played a very important role towards Malay settlement. It gathered the people during the prayers time and also some festival or ceremony being held there. It is the focal point of activities and development in an area.
1.6 Scope of Study

The study is focused on to analyze the functions of color and how people perceive it in application to the mosques in a city particularly in Malaysia. The reason of choosing mosques as the subject for this study is because of their importance in our daily life since before until this present time and their prominent function as one of a significance landmark in a city.

Primarily, the focus of the research is to define the role of colors and characteristics of mosques in worldwide and Malaysian landscape which will be done through literature review, historical research and some initial thoughts by a few respondents towards the current situation. In the historical research, two areas in west coast and south of Peninsular Malaysia were selected as study as comparison areas for the expected end results.

Based on the physical layout of these two mosques, it is quite different in terms of location, architectural design and era of development, but they are sharing the same significant function as a significance landmark in their city and as the centre of development which have their own attraction.

The field survey will be conducted in identifying the appearance of colors onto mosques and does the colour enhance the mosques to be acknowledged as one of significance landmark in the urban context. The discussion about which is the most appropriates color for the mosques will be held in the research area and through some interviews during the field survey. At the end of the study, the research will come out with a documentation of a result about the mosques as a significant landmark and how the colors appears to be one of the most important elements to it and what is the appropriate color been chose for the mosques generally due to their functions and uniqueness from the research and interviews held.
1.7 Research Method

Research methodology is a set of procedures or methods used to conduct research. There are two types of research methodologies. These two types of methodologies are qualitative methodologies and quantitative methodologies. Qualitative methodology will be used during this research development phase. Qualitative research involves the use of qualitative data such as interviews, direct observations, survey and analysis of documents. Survey Questionnaire and documents review are the research method used for developing this research. These research methods are important to gather information such as user’s preferences, opinions and suggestions.

1.7.1. Techniques of Collecting Data

The purpose of this research was to observe and understand about the role and function of colors application on mosques and how this relationship between them in giving the visual impact in a city as the mosques known as a significance landmark. A detailed research on colors and mosques will carried out during the literature review. Comparative case study also will be conducted between two periods of times which are pre-Independence and post-Independence types of mosques in different type of towns in Malaysia. This is in order to investigate the functions of a mosque in an area and how they evolve in Malaysia. This will help to strengthen the facts of a mosque as a landmark in the urban context and how the colors played their role in enhancing the mosque. However, the most important advantage by using the different case studies is the development of converging lines of inquiry. So, any findings or conclusion in each case study is likely to be much more convincing and accurate if it based on several different sources of information but still the same type of study.

This research will use several techniques on how to collect the data that needed. The techniques used of collecting the data or evidence here are documentations, comparison of case studies, field survey and survey questionnaire.
i. Documentation

The second method being used and employed in this study is documentation of physical evidence of the colors and mosques and their features. The following methods were the methods will be used during the survey and identification of the physical evidences of the mosques and their colors at the research area to be discussed.

Table 1.0 – Method for survey and documentation for physical evidence of case study.

<table>
<thead>
<tr>
<th>METHOD</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photography</td>
<td>To record the picture of chosen mosques and their colors and this information will be needed during the field study for further observations or discussions. This data provides strong graphic evidence.</td>
</tr>
<tr>
<td>Books, Journals and Website</td>
<td>To identify existing location of case study, historical evidence and the physical features. Maps are needed.</td>
</tr>
</tbody>
</table>

In term of photography, the site photo taken will be used as part of data collection and documentation. This is to support the historical data from the research being done in literature review. The pictures will include the architectural features and colors of the mosques. It will also to review the surrounding area of the mosque in the city.

ii. Comparison (Multiple Case study)

The comparison of case study has been chosen in a way to see their difference of characteristics and style. Two or more existing situations are studied to determine their similarities and differences. In this case it is an empirical inquiry that investigates a contemporary phenomenon within its real life context through the use of multiple sources of evidence and this multiple study of area which contains more than single cases but involve in same types of study is an advantage instead of single study (Yin, 1994). The evidence of from multiple study of area is more compelling and the overall study is therefore regarded as more robust (Herriott and Firestone, 1983).
### iii. Field Survey

The third method of gathering data information was through the field survey which is more to site observation of mosques in the case study. This method basically to draw out information that was not obtainable from other methods. Field survey were conducted to capture and identify the personal feelings of observers towards the color application on mosques and to assess the mosques as the significance landmark at the case study.

Characteristics that were identified from every aspect physical, social and culture towards the mosque in the case study were used as a guide for the research of colors for mosques later.

**Table 1.1 – Tables showing the characteristics and features on case studies area.**

<table>
<thead>
<tr>
<th>CHARACTERISTICS AND FEATURES</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Landmarks</td>
<td>Aesthetic or spiritual value of other buildings or development for different groups in the local community which have the influence towards case study.</td>
</tr>
<tr>
<td>Building Materials and Construction Techniques</td>
<td>This is to study on the materials been used to determine the era of built and architectural style been applied and aesthetic preferences during research of colors.</td>
</tr>
</tbody>
</table>

During the field study, existing conditions of the mosques will be identified in order to help on how to enhance the case study later and not to forget the development of surroundings area. The existing condition of mosques to be researched is very important to investigate the structure and features of the mosque whether it is still stable and usable. Their presence is very important especially on the choosing appropriate colors strategy later and as a landmark in a city.
iv. Survey Questionnaire

This last method of data collection is the most important for studies of colors. The preference for this study of method is because it offers sufficient flexibility to approach the methodology expecting end result. In qualitative research, it does not require researcher to strive for objectivity and to distance themselves from the research participants (King, 1994). Behaviors, beliefs and observations of specific groups are identified; reported and interpreted. From the survey questionnaire to people also we can find out things we cannot directly observe. We cannot observe feelings, thoughts and intentions. We cannot observe behaviors that took place at some previous point in time Johnson et al. (1994)

In this method, survey questionnaire being chosen and conducted to get to know which the best color chosen for the mosques are. It will be in samplings method which will be given to randomly people in a population for example students and local people surround the area. It will contain two sets of questions and issues to be explored. One set is the general writing questions format and issues about the important of mosques in a city and the role of colors. The second set of it is series of graphic format which contain the pictures of iconic mosques in Malaysia with different types of architectural styles and colors. This is where the answers for the survey will lead this research to the expected end result in this study.
1.7.2. Methodology of Analysis

The method being chosen to be applied in this research of colors for mosques is a process on how to achieve the end result of this study which is to know the most appropriate color for mosque in a way to enhance it as a significance landmark in a city. The processes were divided into three main steps as shown in figure 1.4.

The first step was to define the meanings, roles, functions and important of colors and mosque generally. The study of colors is basically to support and enhance the role of them in daily life and in this research is towards application onto the mosques. The study of colors and mosques will be discussed in the literature review and will be used as a basis in carrying out the mosque as a landmark in a city.

Putrajaya and Johor Bahru have been chosen for the comparison of case studies in order to fulfill this research limitation which is on the pre-Independence and post-Independence period of time. These different era and style of mosques has been identified as potential studies because of their historical value, functions and locations.

The study began with identifications of role and functions of colors in our daily physical and social life. Then, the research will continue further to the research studies about mosques. Analysis on colors been done is actually to pursuit with the study colors for mosques. This study will applied during the discussion about colors of mosques in Malaysia. The establish pattern were formed from the result of the thorough analysis from documentary evidence in history of the past, either by referring the books and journals or by the field study for the colors and mosques study. To support the findings, the field survey and survey questionnaire will be held to get the end expected result which is to find which the most appropriate colors for mosques in Malaysia are.
Comparison Places of Study
To strengthen the findings

PRE-INDEPENDENCE
1. Abu Bakar Mosque, Johor Bahru

POST-INDEPENDENCE
1. Putra Mosque, Putrajaya

Field Study
Photography, interviews and site observations

Conduct Survey Questionnaire
To get the response of most appropriate choice of color for mosques from people

Descriptively Analyze and Documentation
Discussion on existing condition of mosques in study area, analyze the existing colors and colors been chosen from questionnaire survey and develop documentations on end result.

Figure 1.3 Methodology for assessing of colors for mosques in Malaysia in several place of study
1.8 **Summary and Expected Result**

The expected end results of this research is basically to answer all the research questions in the beginning regarding the role of colours for mosques in Malaysia with a thorough research analysis on colours and mosques. From the research and questionnaire survey being done it will this research towards the expected end results which is to know what colour is the most appropriates to apply on mosques in Malaysia by considering lots of elements that will blend the mosques with surrounding buildings and other components of the area. This also should together show centrality of mosques as a landmark and reviewing the color choices of mosques in Malaysia.

The result of the research perhaps could give some awareness and considerations of others towards their perception to colours and how their application should be very carefully applied on a building especially mosques that always been a landmark in an area. Considering the visual effects and aesthetic values of a place, this research also should lead to a guideline in future for colours of mosques in Malaysia in a way to protect their values.

Colors always are the first impression in everything, not only for human but also towards building, landscape, natures and human psychology. It is hoped that in the future this research will enable the architect, town planner and designers to appreciate, understand the perceptions and concept of colors application towards an important building or element in an area to be well appreciated later.

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