



International Virtual Colloquium on Multi-disciplinary Research Impact (1<sup>st</sup> Series) Organised by Research Nexus UiTM (ReNeU) Office of Deputy Vice Chancellor (Research and Innovation) Universiti Teknologi MARA 40450 Shah Alam, Malaysia, 15 Oct 2021



# Sensuousness Space: Internalizing Islamic Geometrical Ornament found in National Mosque

## Mairul Nisa Malek, Rahman Amin, Muhamad Khairi Shamsudin

Department of Fine Art, Faculty of Art & Design, Universiti Teknologi MARA, 40450 Shah Alam Selangor, Malaysia

mmairulnisa@gmail.com, rahman807@uitm.edu.my, khairi9542@uitm.edu.my Tel: +601135819405

#### Abstract

This project seeks to identify the fundamental form of Islamic geometrical patterns found in the National Mosque. The internalization from the subject and visit helps to produce an installation sculpture. The sculpting process uses plywood as the primary material and is formed by using mathematical methods and woodworking as the approach. The work presents in installation as it potentially delivers a sense of sacredness towards the audience. Therefore, this study explores the chronology of artmaking inspired by the hidden form and its foundation in Islamic ornament and reviews how its complexity creates a sense of sacredness towards the atmosphere of human psychology.

Keywords: Sensuousness Space, Islamic Geometrical Ornament, National Mosque, Installation

eISSN: 2398-4287 © 2021. The Authors. Published for AMER ABRA cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BYNC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), ABRA (Association of Behavioural Researchers on Asians) and cE-Bs (Centre for Environment-Behaviour Studies), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia. DOI: https://doi.org/10.21834/ebpj.v6iSI6.3042

## **1.0 Introduction**

The idea of re-constructed secret form is inspired by the sense of place in the architecture itself. Personal internalization towards the details of architecture helped me detected its subtle form on every ornament. This intricate design fascinates me; it impacted our various senses towards the space also gives us the sacredness atmosphere. The main idea of the research comes from the beauty of the complexity of the details of Islamic Geometrical patterns commonly found in every Mosque Architecture. Every ornament has its geometric and arabesque<sup>1</sup> design. Islamic geometric pattern has its insight that affected me as a Muslim. Its intricate motifs that are delicately crafted can give someone a peaceful feeling as they depiction the unity of the universe's creation. As in Islam itself against figural representation for the reason of belief, the primary premise of the Islamic faith is monotheism,<sup>2</sup> a renunciation of all deities except one, Allah. The first thing that I perceive is that the patterns encompassing small repeated fundamental geometrical elements. The foundational forms of circles, square, triangle, and straight-line delve into geometry. In addition, I realized that the Islamic geometrical pattern commonly found in relief form that considered a two-dimensional form since it is not 360° view. The decoration often has a background and foreground pattern. I founded that the Islamic geometrical pattern has a remarkable degree of freedom. The concept of freedom gives me the idea of reconstructing the secret form by embracing the foundation form founded in the ornament design. Remodelling from two-dimensional form to three-dimensional form. Hence, reviewing the artist's references is very important

<sup>&</sup>lt;sup>1</sup> Arabesque is an ornamental design consisting of intertwined flowing lines, originally found in ancient Islamic art

<sup>&</sup>lt;sup>2</sup> Monotheism also known as *Tauhid* (Islamic thermology) is the doctrine or belief that there is only one God

eISSN: 2398-4287 © 2020. The Authors. Published for AMER ABRA cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BYNC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/). Peer–review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), ABRA (Association of Behavioural Researchers on Asians) and cE-Bs (Centre for Environment-Behaviour Studies), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.

to pick up how the artist implemented operation from the collecting subject data into the sculptural making until the product presenting to the audience.

### 1.1 Research Theme: Atmosphere and the Sensory - the Relationship between Architecture and Human Feeling

I decided to depict how the space of architecture can have impacted the way I thought and influenced my feeling psychologically through my art-making. I believe the detail of the Islamic Geometrical pattern on the ornaments creates a sense of sensuousness in the space. The sensory of the room drew me to a peaceful state because of its sacredness. I was fascinated by how space can interact with humans and embark on a human feeling. It allows them to reflect on themselves while enjoying the breath-taking view and sensuousness experience. Because of these factors, I founded that atmosphere and the sensory is a perfect theme for my art-making. As an artist, I often internalize my surrounding, especially the subject that attracted me including the details of the element of the architecture. I move and am sometimes overwhelmed by the space that potentially leads me into introspection. The sacredness and sensuousness of the space unconsciously made me reflect on myself.

Throughout the introspection phase, I started to experience this mind's eye<sup>3</sup> state but in a good way as it was beneficial to picturing the bright sight of life. This theme potentially approaches the audience towards the concept of atmosphere and the sensory of the place or space. I decided to use installation sculpture as a medium as it is very good at creating a specific atmosphere and is known as an influential presentation. The installation is partly in response to contemporary cultural demands for the spectacular- direct a shared experience seen as a welcome reprieve from the internalized subject itself. This installation allows me to explore the possibilities of the relationship of the space, site, curatorship, audience, and the artist. I want to share my perspective with the audience because there will be different interpretations from the audience. Those different interpretations and statements from the audience are valuable final products besides the installation itself.

#### **1.2 Research Problem and Objectives**

Based on the observation, society doesn't get enough exposure to the relationship between architecture, space, and human psychology. Where I found it is helpful if someone knew the benefits of the sense of place. It can provide an initiative to those who struggle with mental health or self-help since it is very therapeutic. In this research, I choose the National Mosque Kuala Lumpur as the subject. By exploring the ornamentation in the mosque to depict the sacredness of space, I found several features that provide a sense of sensuousness.

The research aims to identify the basic foundation of the geometric design structure itself. By identifying the basics, I can adapt the method of my art-making. The research on this fundamental helps me to find depth on the subject. This process allows me to figure out the preferable material, method, and technique of construction. Considering the proper operation will produce a firm and quality product.

I decided to choose an installation as the direction of the art-making since it potentially provides the engagement (visual and perceptual, emotional and affective, physical and tactile) between the audience and the artist and the space itself. The intention is to allow the audience the experience of the sense of place from its atmosphere. The interplay between freedom and control is becoming more fluid and dynamic, and for the sculpting process, "exploration" may be carried out in renewed and innovative ways. However, it is crucial to remember that the relationship between architecture and the human body is as much about being "still" as it is about "movement"- whether that be physically, emotionally, or spiritually (Maria Lorena Lehman, 2008)

## 1.3 Studio Based Research

Art-based research can be defined as the systematic use of the artistic process, the actual making of creative expressions in all of the different forms of the arts, as a primary way of understanding and examining the experience of both researcher and the people involved in the study. These inquiries are authoritative from research activities where the arts may play a significant role but are essentially used as the data for investigations within academic disciplines that utilize more traditional scientific, verbal, and mathematic descriptions and analyses of phenomena<sup>4</sup>. The last decades have witnessed a renewed interest in the role of arts in science and the growing hybridization<sup>5</sup>

<sup>&</sup>lt;sup>3</sup> The mental faculty of conceiving imaginary or recollected scenes use mind

<sup>&</sup>lt;sup>4</sup> "Arts may play a significant role but are essentially used as the data for investigations within academic disciplines that utilize more traditional scientific, verbal, and mathematic descriptions and analyses of phenomena"- McNiff, 20083

<sup>&</sup>lt;sup>5</sup> Hybridization as metaphor for describing the interpenetration of diverse worlds in both the personal and societal-Gwiazdzinski, L (2016)

between the two. An illustration of this is the emergence of arts-based research practices. As Chilton (2013) remarks, there are a whole plethora of terms that refer to approaches that embrace the arts in social research.

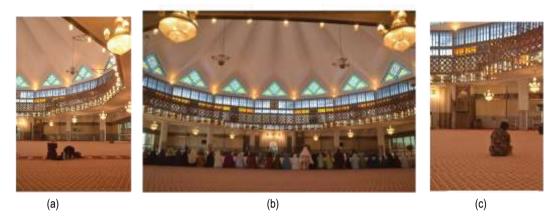


Fig. 1 The view of the interior at the National Mosque (a to c)

## 2.0 Observation

I started documenting my research on 12th July 2019 at the National Mosque Kuala Lumpur to collect the data. The survey helps me understand the environment, materials of the subject, and the people's perspective (the staff and the visitor) through the interviews process.



Fig. 2 Part of the Decoration at National Mosque

## 2.1 The Identifying of the Secret form on the Subject Matter

The observation from the survey helps me to find the potential ornamentation to proceed to remodel process. The selected ornament will identify its pattern to detect the secret form in it. This analysis will lead the development of reconstructing the original design into the artist's interpretation and interest. The aim of this process is to transfer the two-dimensional design into a three-dimensional design. The hidden secret form identified on the ornamentation design will be developing its characteristics and volume. Without the proper operation, I would not be able to get the basic step to constructing my structure in sculptural work. Hence, I started to analyse from the easy design as I want to get the momentum; I have selected stained window glass, wall screening, and the iconic National Mosque umbrella dome. I was able to figure out the big picture of the process as it needed to solve the complexity in finding the foundation of the secret form as a consequence.

## 2.3 The Islamic Geometrical Pattern on the Stained-Glass Window

The first subject matter that I used is the stained-glass window. I founded that the ornament had an obvious square form on the window. For my first attempt at identifying the secret form, stained glass is a great example. I recognize the square form directly. Documentation of the data by photographing the details and the materials give a direction to develop the information. Begin from an elementary design conduct me to a relevant brainstorming process that benefits me in manage my materials, method, and technique used in the sculpting process. Figure 3 and Figure 4 shows the analysing process of the geometric pattern.

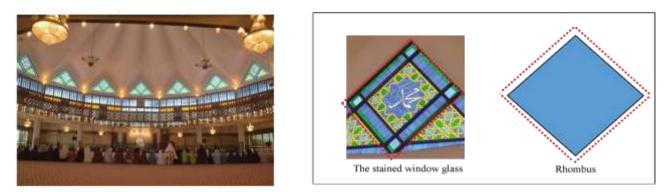


Fig. 3 As I was inspired by the foundation of the stained glass, I made the identification of a secret form on the stained glass called a rhombus. Rhombus is the two-dimensional version of the Rhombic Dodecahedron.

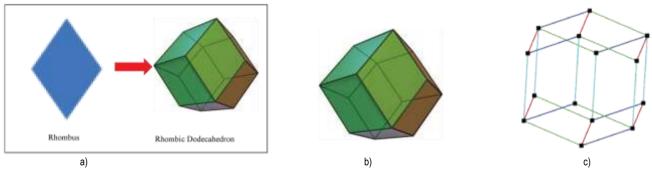


Fig. 4 Case study area at National Mosque (a, b, c)

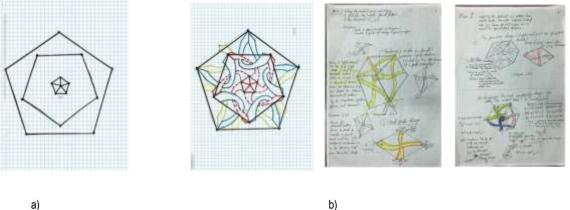
- a) The figure shows how I identified the flat version into its volume. This identification helps me in constructing the process of my sculptural work by detecting its contact point or called by relative point.
- b) In geometry, the Rhombic Dodecahedron is a convex polyhedron with 12 congruent rhombic faces. It has 24 edges and 14 vertices of two types. It is a Catalan solid, and the dual polyhedron of the cuboctahedron
- c) The figure shows the relative point of the Rhombic Dodecahedron that helps me in constructing my sculpture. The rhombic dodecahedron can be constructed with four sets of parallel edges.

## 3.0 Finding on the Application of Mathematical Method in Sculptural Work

After numerous researches on geometric sculpture, I decided to choose Polyhedral sculpture as the art-making abstraction. The polyhedral sculpture is the first type included in the group of geometrical sculptures. The first polyhedron is called Platonic Solid. It is one of the geometrical figures more widely used by mathematical sculptors and many other artists due to its beauty and minimalistic. Although their description is well-known, it is worth mentioning some characteristics of these regular polyhedrons.

A convex polyhedron is ordinary if limited by regular polygons of a single type and if the same number of aristae converges at each vertex. There are only five solids of this type, known as Platonic or cosmic. These five solids are the tetrahedron, hexahedron or cube, octahedron, icosahedron, and dodecahedron. As the sculptural work used the mathematical method, I specified the reconstruction process using the Polyhedral design discipline. The specification is crucial as it helps me to focus and manage my material and time management. In geometry, the Polyhedron type is solid three-dimensional with flat polygonal faces, and it has straight edges and sharp corners or vertices. Based on the observation, I identified three types of polyhedrons on the subject. It is called Catalan solid, Archimedean solids, and Platonic solids.

## 3.1 The Analytical of Subject Matter Drawing



a)

Fig. 5 Drawings (a and b)

- I used the drawing as a documentation mechanism to understanding the subject matter and annotating my work. Drawing helps record and a) develop the potential design and manage my ideation subtly. Hence, the drawing itself is a device to analyse the technique, method, and design of the composition of installation placement to achieve the theme of art-making (see figure 5). I used visual data to draw an analytical drawing as it is a fundamental step to get inspired and get depth.
- This sketch shows the subsequent development from the figure (b). I started to draw a pattern on the surface of each face of form as I realized b) the potential of its relative point creates a globe. In addition, I make sure the design can fit well with every vertex.

## 4.0 Conclusion

To sum up, the results of this research affirm the statement that every flat surface has its volume. Identifying the hidden foundation form of the Islamic Geometrical pattern is a good start and fundamental to proceed with the subsequent process. I believe the unity of the complexity of Islamic geometrical patterns can influence the sense of someone as it provides a sacred atmosphere. The mosque is a great place to start as the first step to understanding the value of my research scope. A mosque is clarified as the house of God as its capability in turn creates a sense of astonishment among Muslims. The space builds a spiritual atmosphere that moves human emotions and feelings. The therapeutic experience in the mosque inspired me to review the importance of a sense of place towards people and use sculptural work as a medium to present the expression to the audience. The involvement of the people with the installation will provide us different interpretations. Therefore, from these interpretations, we learn the value of the attachment between humans and place. This art-making process has impacted me mentally and physically, and as a result, the installation of the sculpture has the potential to influence human feelings by its ambience, atmosphere and sensory.

#### Acknowledgement

I thank the following individuals for their expertise and assistance (Department of Fine Art, Faculty of Art & Design UiTM Shah Alam) throughout all aspects of our study and for their help in writing the manuscript.

## References

Burckhhardt, T. (2009), Art of Islam: Language and meaning, World Wisom Inc.

Carey, M. (2010), Illustrated Encyclopedia of Islamic Art and Architecture, London, United Kingdom, Anness Publishing A. Barkman, (2015), Making Sense of Islamic Art & Architecture, United Kingdom, Themes & Hudson

Dewiyanti, D. and Kusuma, E. (2012). Spaces for Muslims Spiritual Meanings, School of Architecture, Planning and Policy Development, Institut Teknologi Bandung, Jl. Tamansari 64 Bandung 40116, Indonesia, retrieved from

Goodwin, A. (2002), Writing the Artist Statement: Revealing the true spirit of your work, Infinity Pub.

Gritter, W. (2012). The significance of spiritual space, retrieved from https://www.generousspace.ca/the-spiritual-significance-of-space/ 151

Jezdmeen, I., Ng. Pui Yan, Atiqah, N., Ng. Lek Yuen, National Mosque Kuala Lumpur (2017), Culture & History retrieved from https://www.slideshare.net/LekYuen/report-ofnational-mosque-kl Attraction.

Mah, K. (2015). The man behind Masjid Negara's iconic 'umbrella' dome. Themalaymailonline.com. Retrieved 10 June 2017, from

Malek, M.N., et.al. / International Virtual Colloquium on Multi-disciplinary Research Impact (1st Series), Shah Alam, Malaysia, 15 Oct 2021, E-BPJ, 6(SI6), Oct 2021 (pp.67-72)

http://www.themalaymailonline.com/features/article/the-man-behind-masjid-negaras-iconic-umbrelladome NATIONAL MOSQUE, Utaberta, Moszynska, A. (2015), Sculpture Now, United Kingdom, Thames & Hudson world of art.

Nangkula, S. D. M. Sojak, M. Surat, A. I. Che-Ani and M.M. Tahir (2012), Typological Study of Traditional Mosque Ornamentation in Malaysia – Prospect of Traditional Ornament in Urban Mosque, Journal-World Academy of Science, Engineering and Technology 67 2012, SCOPUS, p. 624-63 Retrieved fromhttps://waset.org/publications/12907/typological-study-of-traditionalmosqueornamentation-in-malaysia-prospect-of-traditional-ornament-in-urbanmosque