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REVEALING THE FITRAH OF THE GARDEN OF KNOWLEDGE AND VIRTUE

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ABSTRACT

This project aims to redesign the Rectory Building Grand Archway and the SHAS Mosque upper courtyard of the International Islamic University Malaysia (IIUM). IIUM is known as the garden of knowledge and virtue, which is one of the leading universities in the world, where it is a place for the unification of worldly knowledge with the teachings of Islam. The project is intended to provide the visual context of the main gate entrance and the SHAS Mosque and to improve accessibility in that area.

Keyword: Islamic courtyard, grand landmark, archway
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INTRODUCTION

The Rectory building is the first building one sees as they enter through the main gate of IIUM Gombak. It is approximately 400 meters from the main entrance of the campus and can be distinguished by its grand staircase that leads the user's line of sight toward an archway. This building is a corporate administration office building that houses most of the main administrative department offices of the university. However, in 2019, the building name was officially changed to "Muhammad Abdul-Rauf Building", based on the name of the first Rector of IIUM, Allahyarham Tan Sri Prof. Dr. Muhammad M. Abdul Rauf who served IIUM from 1983 to 1988.



Figure 1: The view of rectory building, IIUM, Gombak
(Source: iium.edu.my, 2020)

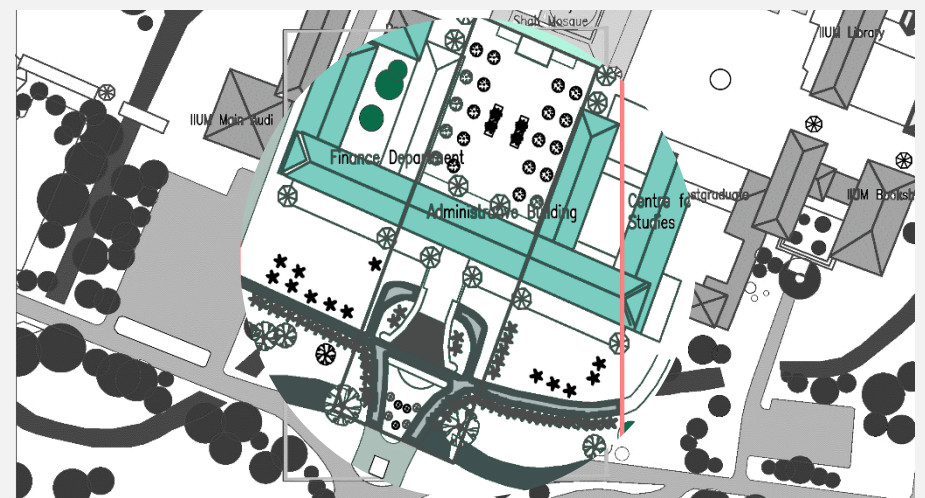


Figure 2: Site plan

ISSUE

Relevant issues were derived from the existing design of the IIUM Rectory building and SHAS Mosque entrance, where there are no obvious main entrances to the SHAS mosque. Furthermore, there was no apparent aesthetically pleasing vista for the SHAS Mosque entrance. Other than that, the entrance design of the Rectory building is not welcoming. As a gathering point, it does not have appropriate shade from the sun. There are no lighting features, tree arrangements, or indication of main entry towards the existing archway and grand staircase. Furthermore, there is an integration issue within the IIUM community between diversities and the issues about maintaining the exclusivity and privacy of both the administration building while keeping the archway attractive and acting as public friendly space.

METHOD/ PRODUCE

1. Case studies on archway, courtyard, arch interior and plaza.
2. Proposed design of based on the concept and seven missions of IIUM.
3. Model-making using exact construction.

LITERATURE REVIEW

ARCHWAY

According to the 12th Edition 2014 Collins English Dictionary, an archway is a term in architecture that represents a passageway or entrance under an arch or a series of arches. It can serve as both a private and public passageway depending on the space planning and scale of the archway.



Figure 3: Olympic Sports Complex, Athens by Santiago Calatrava (Source: BuzzFeed, 2013)

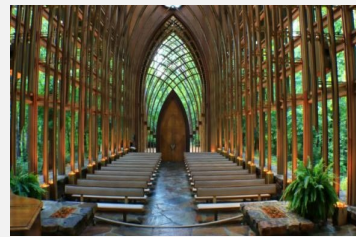


Figure 4: Fay Jones Cooper Chapel (Source: Bdiscoverbellavistaar,)

TYPES OF ARCHWAY

1. Lancet Arch

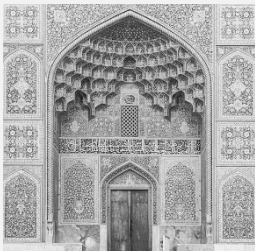


Figure 5: Sheikh Lotfollah Mosque (Source:picfair.com/)

2. Parabolic Arch

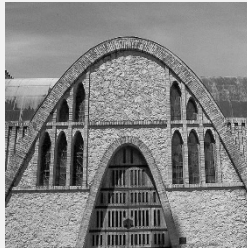


Figure 6: Sheikh Lotfollah (Source:picfair.com/)

3. Ogee Arch

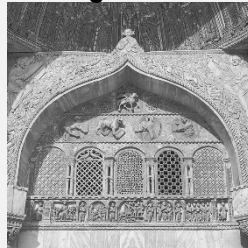


Figure 7: Sheikh Lotfollah (Source:picfair.com/)

4. Horseshoe Arch



Figure 8: Sheikh Lotfollah (Source:picfair.com/)

5. Segmental Arch

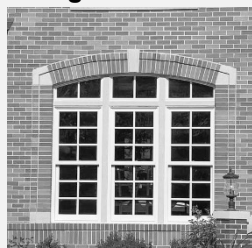


Figure 9: Sheikh Lotfollah (Source:picfair.com/)

6. Round Arch



Figure 10: Sheikh Lotfollah (Source:picfair.com/)

7. Equilateral Arch



Figure 11: Sheikh Lotfollah (Source:picfair.com/)

8. Triangular Arch

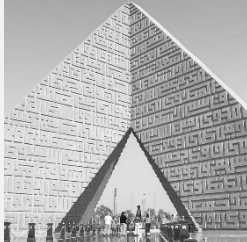


Figure 12: Sheikh Lotfollah (Source:picfair.com/)

9. Trefoil Arch

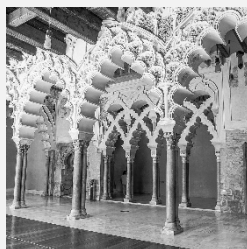


Figure 13: Sheikh Lotfollah (Source:picfair.com/)

COURTYARD

A courtyard or court is a circumscribed space, often surrounded by buildings or complexes that open to the sky. Spaces like inns and public buildings are also the principal meeting places for a variety of purposes, leading to the meaning of other courts.

TYPES OF COURTYARD

MOSQUE	RESIDENTIAL
The use of the sahn in Middle Eastern countries' mosques was carried on to the majority Islamic countries' mosque architecture design	Part of the courtyard house and are the most private.
Contain water basins, such as howz, for ritual purification and performing of ablutions, and flowing fountains for drinking water	The scale and design details different
Sahn means courtyard, while Riwaq means the transition between the outdoor space and indoor space.	Regions and climates



Figure 14: Al Bukhari Mosque (Source: yakhwajagaribnawaz., 2013)



Figure 15: Agha Bozorg Mosque (Source: alamy,2014)

PUBLIC SQUARE

A public square or plaza is both an area framed by buildings and an area designed to exhibit its buildings to the greatest advantage (Moughtin, 2003). Squares act as a center point for social and cultural life in the city. The unique relationship between the open area of the square, the surrounding buildings, and the sky above creates a genuine emotional experience comparable to the impact of any other work of art (Donald, Alan, and Robert, 2003).



Figure 16: Yagan Square Digital Tower (Source: screenwest.com,2018)

CASE STUDIES

PRECEDENT STUDY- PUTRA MOSQUE,PUTRAJAYA



Figure 17: Putra Mosque, Putrajaya.
(Source:flickr.com, 2013)

SIMILARITIES BETWEEN PUTRA MOSQUE AND SHAS MOSQUE

Both Putra Mosque and IIUM SHAS Mosque have similarities in their plan layouts. The similarities can also be seen in the arrangement and placements of the Mosque concerning the minarets, courtyard, arched entrance, and roundabout. The Putra Mosque also has the same arch type as the IIUM Rectory building archway. However, it is more open, and the Mosque can be seen through the archway, unlike the current archway of the IIUM Rectory building.



Figure 18: Entrance gate of Putra Mosque.
(Source:bigstock, 2015)



Figure 19: SHAS Mosque, IIUM.
(Source:deviantart.com, 2012)



Figure 20: Entrance of rectory building.
(Source: GSPBlog, 2016)

CASE STUDIES - ARCHWAY

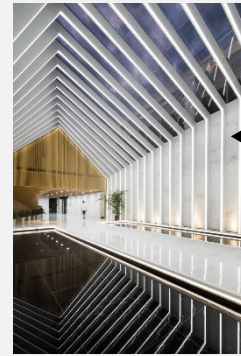


Figure 21: Lishui Corporate Office
(Source:archdaily, 2018)

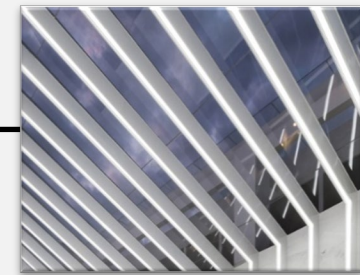


Figure 22: Repetition of the plane and on the top of building is covered with clear glass above it so that it is fully sheltered.

CASE STUDIES - ARCH INTERIOR



Figure 23: The sights and sounds of gushing water fountain offer a relaxing complement toward the area.
(Source:apple, 2018)



Figure 24: Apple Piazza Liberty
(Source:global blue, 2018)

CASE STUDIES - COURTYARD

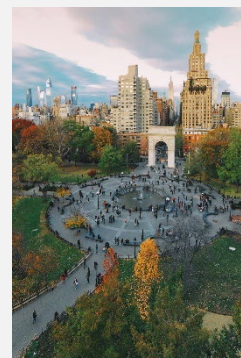


Figure 25: Washington Square Park
(Source:the active time, 2019)



Figure 26: This park with the large central fountain serve as for community to gather.
(Source:the active time, 2019)

CASE STUDIES - PLAZA



Figure 27: Geometrical layout blend well at the entrance of the mosque



Figure 28: Sheikh Khalifa Bin Zayed Grand Mosque
(Source:abu dhabi magazine, 2019)

DESIGN DEVELOPMENT

CONCEPT

Fitrah is an Arabic word representing the state of purity and innocence. Innate nature, innate human need, and inclination towards believing in Oneness and tawhid. In our design we want the users to return to their fitrah, by unveiling the fitrah of IIUM. Every person has many layers of themselves that they portray before they reveal the core of their fitrah. The product of unveiling the core missions of IIUM as an International Islamic University is what matters most. A large usrah/family that aims to provide a conducive and functional space for knowledge-based activities for Muslims across the globe and to cater to the community's needs for multipurpose gathering spaces. University that focuses and specializes in the integration of Islamic studies into worldly knowledge for both local and international students. The design of the archway is a statement and a major entrance into the building. Mirrors the IIUM logo that has the symbol of the "rehal" and books in the center to symbolize knowledge.

ARCHWAY

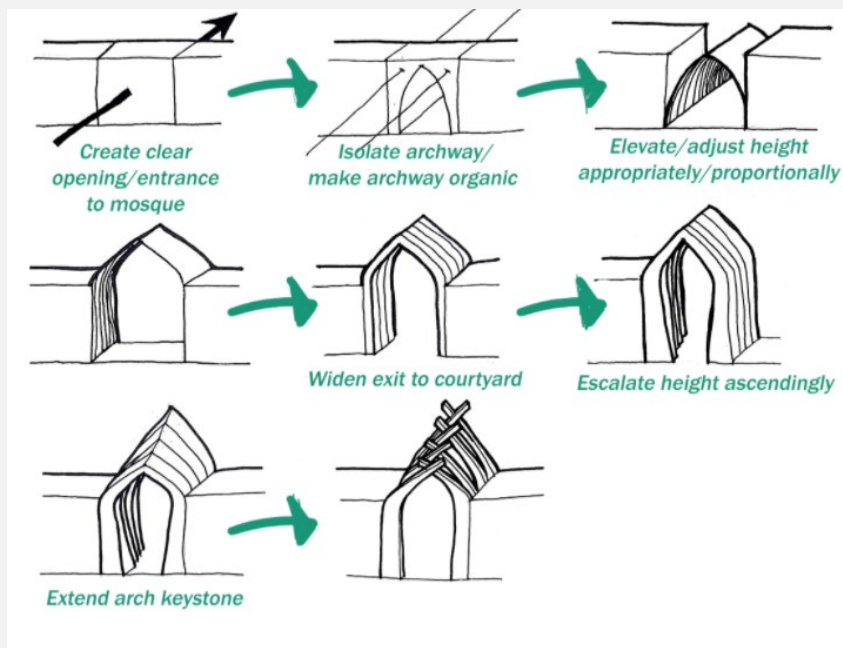


Figure 29: Rehal' element in the IIUM logo that symbolizes the central priority of the university towards education for all.

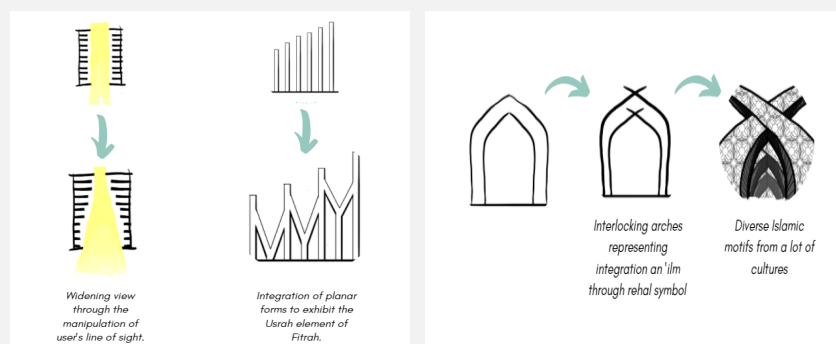


Figure 30: The usrah element of fitrah can be seen through the integration of planes through geometrical measures.



Figure 31: Rendered perspective image of proposed archway

ARCH INTERIOR

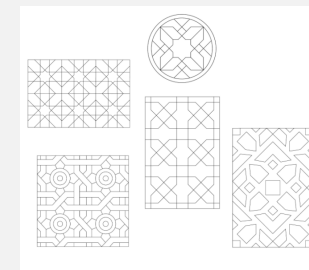


Figure 32: Chosen middle eastern motifs as adornments and decorations of the panel structures

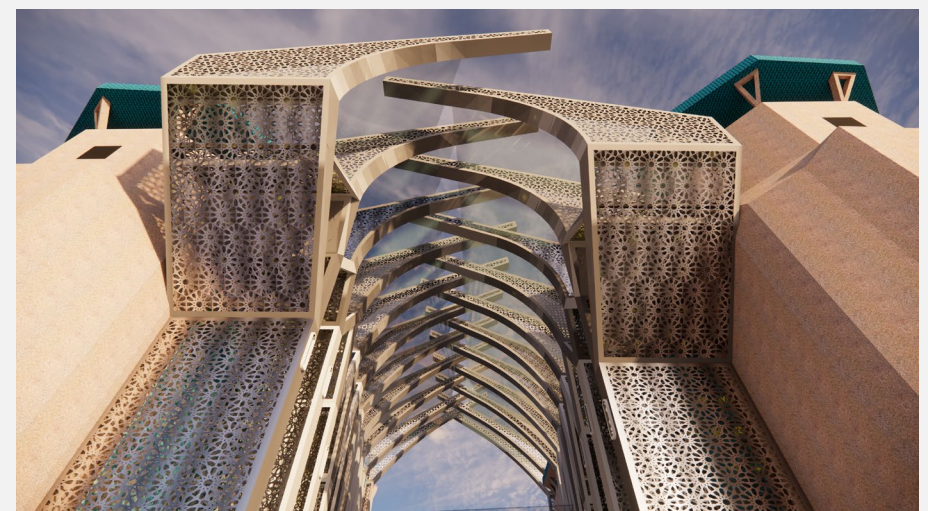


Figure 33: Motifs can be seen on the perforated steel panels of the arch

Several motifs are flora inspired designs crafted geometrically. These designs are perfect due to it also complying to sharia.

COURTYARD

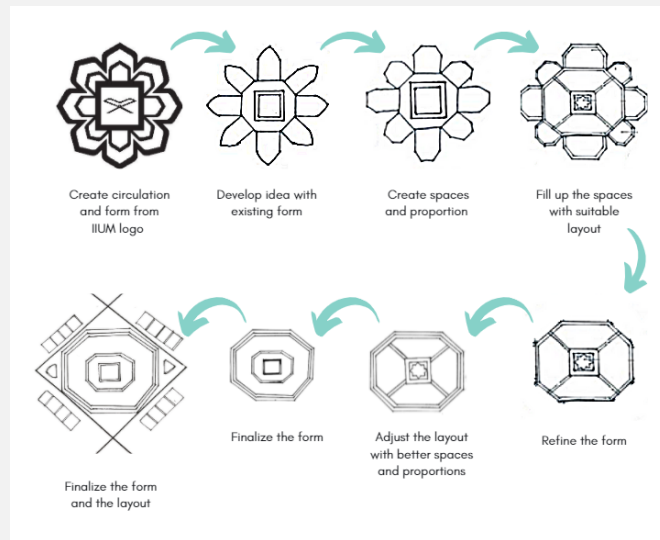


Figure 34: From the IIUM logo create the circulation and the layout for the courtyard.



Figure 35: Rendered image of view towards upper courtyard layout at night.

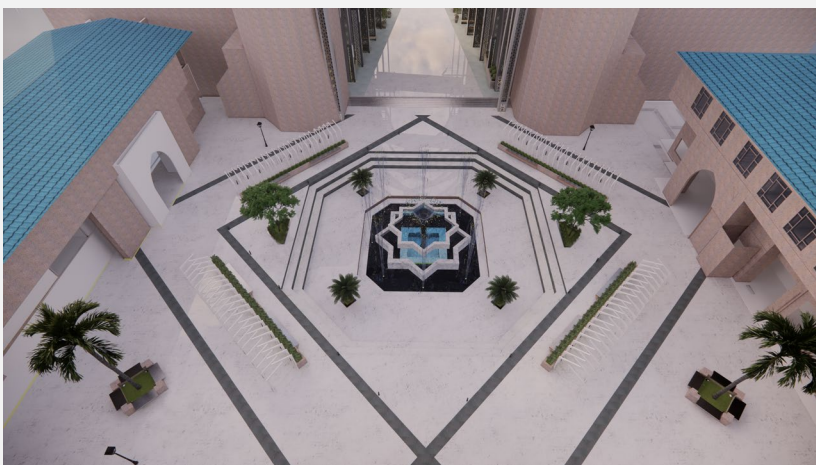


Figure 36: Second rendered image of view towards upper courtyard layout.

PLAZA

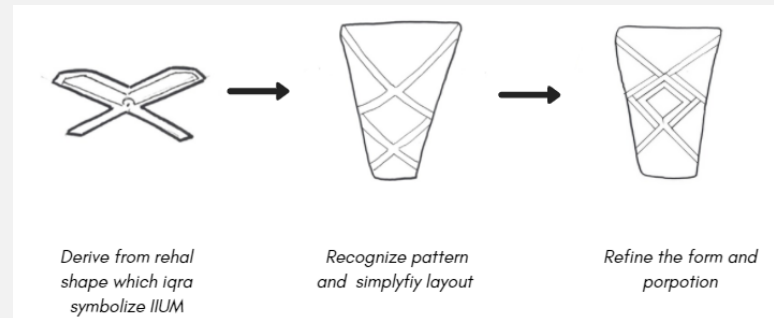


Figure 37: Rehal symbol as for reference to design the layout of the plaza

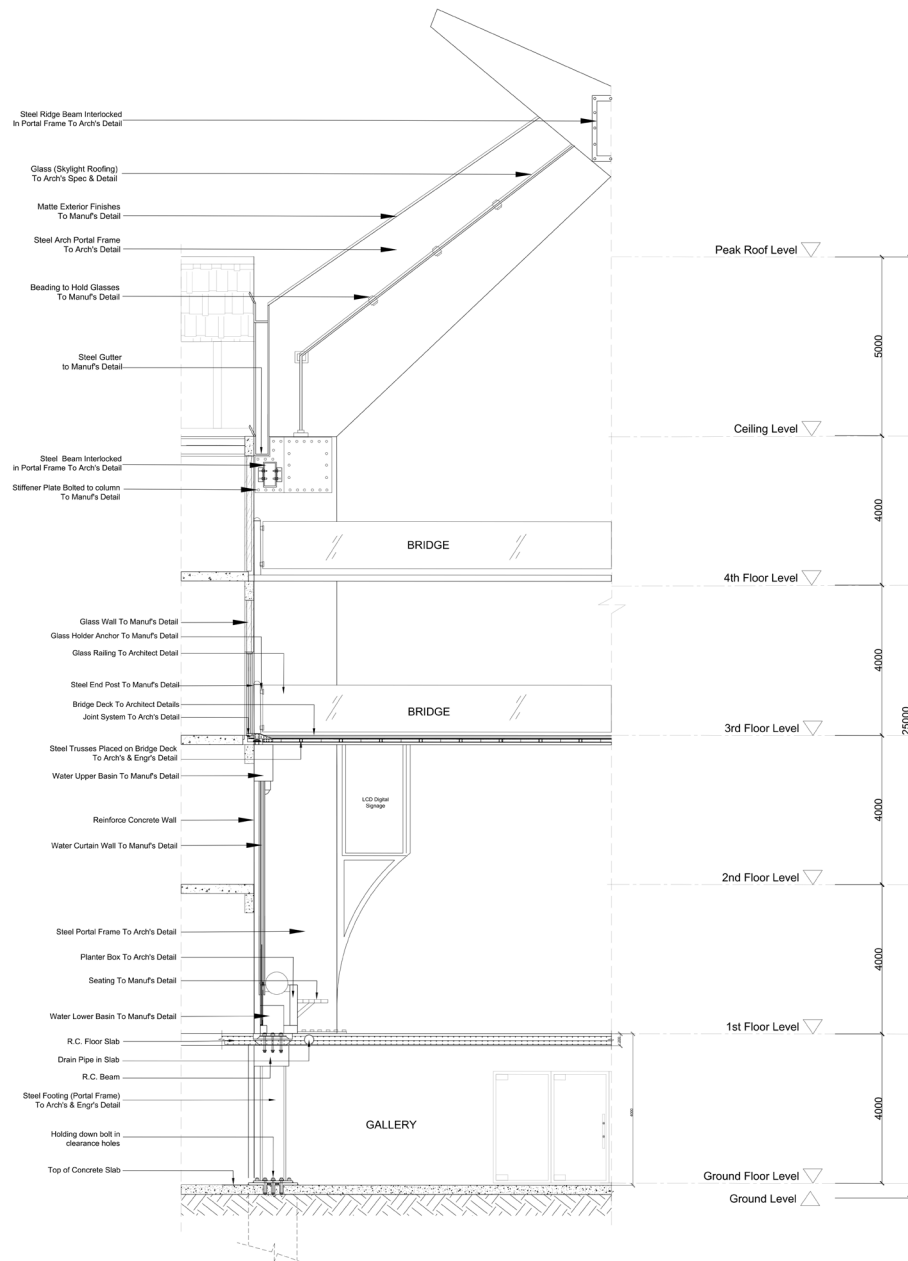


Figure 38: Perspective view of plaza from the grand staircase



Figure 39: Perspective view of plaza towards the archway

CONSTRUCTION DETAILS – WORKING DRAWING



08 CONSTRUCTION DETAILS

PROPOSED MATERIALS

It is crucial to select appropriate materials to ensure the stability of the structure and how it will frame the view of the SHAS Mosque. The main structural materials included are steel, glass, and concrete. Steel is the main building material used in the construction of the archway. The designs of geometrical floral patterns are all made from perforated steel and supported by steel portal frames. This is due to the malleable characteristic of stainless steel, which can form various patterns. These patterns and how it was formed are important to display and reflect the multicultural aspect of IIUM. Stainless steel was used due to its durability in weathering. The walls between the rectory building offices and the archway are half concrete and half structural glass. The archway also integrates natural daylight through the usage of tinted glass as skylights of the structure. These building materials will create a juxtaposition from the existing materials of the building, which are mainly concrete with a sandblast finish. The juxtaposition will provide a sense of grandeur and catch the eye of everyone that enters the campus. The structure would surely be a landmark that displays the identity of IIUM.

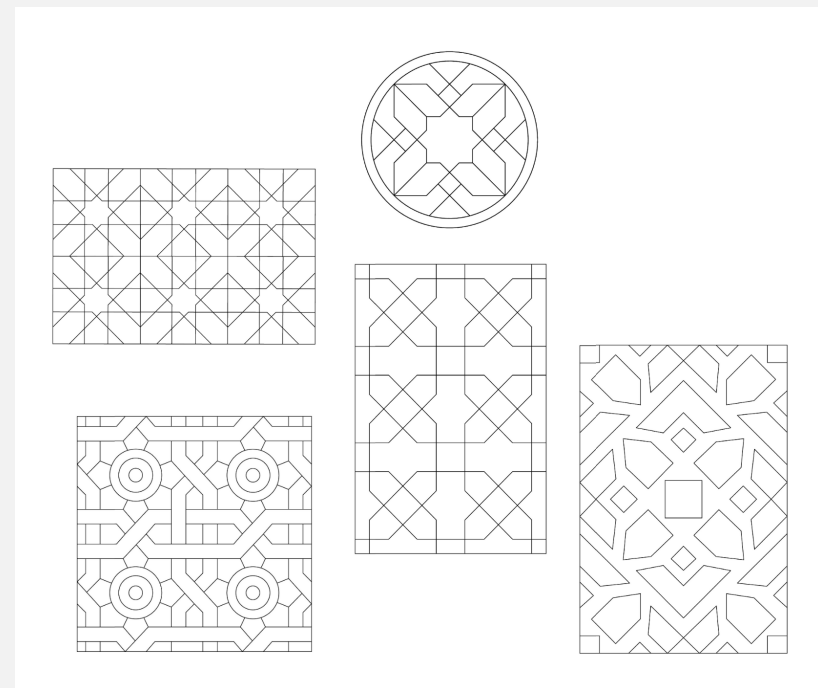


Figure 40: Multicultural based Geometrical Patterns

ERGONOMICS AND UNIVERSAL DESIGN

Ergonomics is an applied science related to designing spatial organization that considers human anthropometric factors. This will ensure occupants interact most efficiently and safely. Human factors consideration is part of the ergonomics study, and there are three aims when it comes to the consideration of ergonomics within spaces: •To reduce human errors as much as possible •To increase human productivity •To enhance safety and comfort with a specific focus on the interaction between humans and objects of interest. This design has considered the ergonomic factors by providing a spacious walkway. The implementation of the archway in the middle of the Rectory building creates a wide walkway. This walkway connects the user directly from the grand staircase to the SHAS Mosque and enhances the design of the space with how its ergonomics will provide smooth and safe movement for pedestrians. The linkage between the Rectory building offices also falls under the ergonomics category. The bridges act as linkages to help improve the private circulation between the offices. There are two bridges, one on the fourth floor and the other on the third floor. The bridge on the fourth floor is the most vital because it connects the Banquet and the Senate hall. The courtyard design provides an open layout with fewer obstacles and elements as part of the consideration of campus-centric movement. Users are more likely to move in large groups and will need as much space as possible to move and walk to and from the SHAS Mosque. It will also minimize the movement of pedestrians as it gives them the option of choosing their pathway while reducing their fatigue. Its structure and space design responded to the Universal Design guidelines to meet the needs of users of various capabilities. The design imposes simple and intuitive usage, which helps the users to understand the layout easily, regardless of their experience, knowledge, skills, or concentration level. The design also provides tolerances for error to minimize hazards. The users only require low physical effort to do proper tasks in the space. Therefore, the users can utilize the space efficiently and comfortably with minimal fatigue.

PROTOTYPE



Figure 41: Prototype of the upper courtyard

PROTOTYPE



Figure 42: Prototype of the Archway

CONCLUSION

The redesign of the IIUM Rectory building archway was from the execution of the Fitrah concept of the design. The three main cores of the four design concept, which includes Usrah, 'Ilm, and Nature were applied in the design philosophically and physically through various approaches. The defining feature of the design is the strength of the steel infused with the geometrical patterns inspired by multiple Islamic civilization cultures from all around the world to represent diversity and global ties between the Muslim community all centralized for seeking knowledge in IIUM. The Archway structure with the large plaza and redesigned upper courtyard were to serve the purpose of being a beacon of attraction of users towards the IIUM Sultan Haji Ahmad Shah Mosque and as a center for the use of the IIUM community regardless of status and nationality.

ACKNOWLEDGEMENT

In the name of Allah, The Most Gracious, The Most Merciful,

Praise be to Allah The Almighty, for it is only He whom we worship and depend on for the ultimate guidance towards the path of righteousness. All praises to Him as well for providing us with the determination, strength, and inspiration we needed to complete the research necessary for this project.

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