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REVITALISING THE WELCOMING EFFECT OF THE IIUM RECTORY BUILDING; THE INTEGRATED APPROACH

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ABSTRACT

The nature of this course is to expose students to the various fields of the Built-environment and familiarise students in working with other related professions in a building team. Therefore, the students' knowledge and skills in Other than that, this project is done to sharpen the students' knowledge and skills in leadership, communication and team working in the context of the Islamic Values. Scholars, researchers and tourists from around the world usually make academic or social meetings at this university with the intention of presenting papers, joining intellectual discourses, attending conferences and seminars and/or going on a personal tour. Therefore, the re-design of the Rectory Building Grand Archway including the SHAS Mosque upper courtyard is one of the initiatives of Kulliyah of Architecture and Environmental Design to provide visual context of the Main Gate Entrance and the SHAS Mosque in order to make the mosque as the focal point of the campus. To achieve the objective of this project, students are required to make a new design of the Rectory Building Grand Archway including the SHAS Mosque upper courtyard that will give a better welcoming impression of IIUM by the visitors and scholars that come to this university.

Keywords: Grand Archway, Courtyard, Islamic Garden, An-Nur

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INTRODUCTION

The design concept for this project is *An-Nur* which means "The Light" in Arabic. As we know, the nature of the light is reflective, moves in a straight direction, luminous, refract and disperse. Thus, this concept is implemented in the design to symbolize Rectory Building Grand Archway including the SHAS Mosque upper courtyard as a place that reflects the culture in IIUM. *An-Nur* concept helps to design structures with reflective and luminous materials. The landscape design also has its own concept that is related with *An-Nur* which is an oasis realm. This is because the image of IIUM that combined local characteristics and elements of Islamic universality to suit the atmosphere of the eastern country had to be maintained.



Figure 1 : Site views

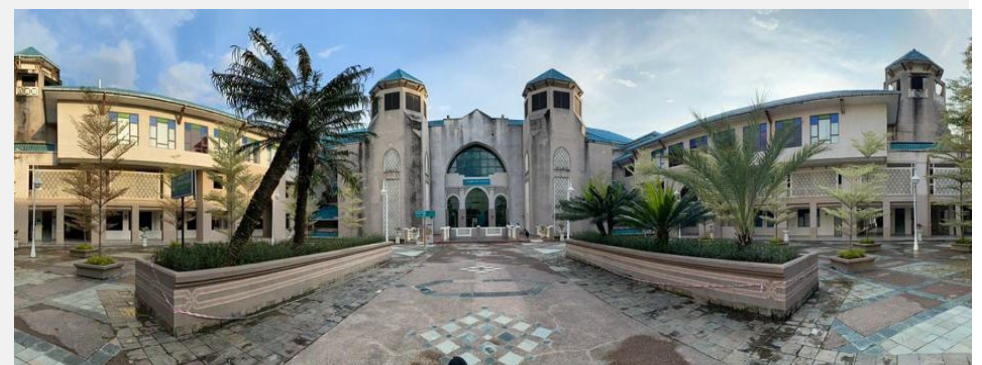


Figure 2 : View of courtyard

METHODOLOGY

Several case studies of archway and courtyard was conducted to design the masterplan. The selection of case studies are based on the grand size of archway to suite the grand stair while the landscape part is more to Islamic garden to highlight IIUM as the Islamic university.



Figure 3: Grand archway



Figure 4: Garden of Alhambra
(Source: Google image, 2020)

LITERATURE REVIEW

ARCHWAY CASE STUDY CANARY WHARF STATION



It is situated right in the heart of the financial Centre of London. Cross rail Place Roof Garden – a rooftop garden with its own street food market – is an oasis of calm. Built to evoke a ship laden with rare and exotic specimens from around the globe, the roof garden is enclosed within a complex ETFE lattice timber roof framework — built by Foster + Partners— that wraps around the building like a shell with openings that facilitate light penetration and natural irrigation. The semi-permeable nature of the canopy helps establish a localised microclimate that allows more susceptible and unusual plant species to be planted.

Objectives:

- Mitigating the environmental effects of the Canary Wharf station site.
- Provide the tenants and developers with the greatest possible versatility while being cost-effective.
- Roof garden to merge Canary Wharf residential area and business district.
- Render Canary Wharf the main attraction among other night-time houses.

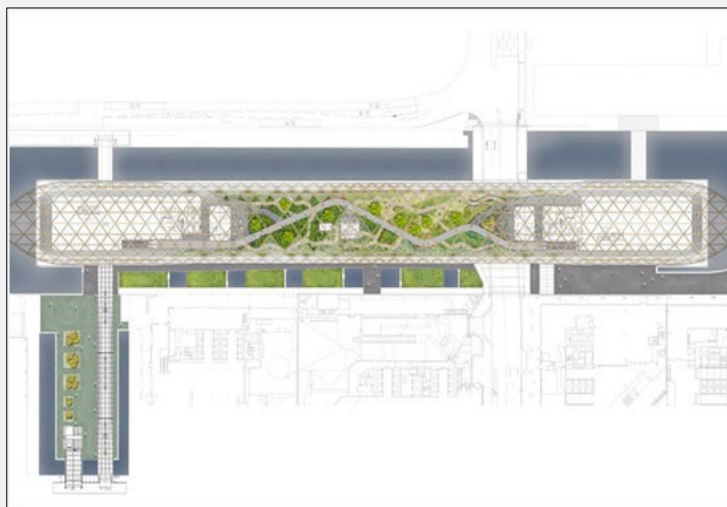


Figure 5 : Floor plan of Canary Wharf Station



Figure 6 : Longitudinal section through station and retail development

Cross rail Place Roof Garden is divided into hemispheres, reflecting the east and west on various sides of the park. Australasian ferns and American sweet gums make way for Chinese bamboo and Japanese maples, meaning you can travel around the globe literally (sort of). It is such a great place for a sunny walk at lunchtime.



Figure 7 : Cross rail Place Roof Garden

The garden also features a performance room of sixty seats, which can be hired if you want to give a run out to your one-man show. In the summer, the owners put together a music and drama program, turning Cross rail Place Roof Garden into the leafiest theatre in London.



Figure 8 : Timber roof under construction. Galvanised tubes that will supply air to pillows are visible from this angle, but were carefully positioned so they cannot be seen from eye level. Concrete floor forms roof to retail units below, prior to receiving waterproof membrane and soil for garden

Footpaths had to be raised on lightweight supporting structures to allow for root growth and drainage of the trees and plants. The structural loading typically limits the soil depth to 1.2 m: deeper zones were produced by inserting vacuum formers of polystyrene under the soil. A 27 m span steel I-beam structure was introduced where the garden stretches over Bank Street, with a composite floor on metal decking. In this area the depth of soil is reduced to 0.6 m. All roof garden structures, including the retaining walls, amphitheatre, roof access plinths, etc., are built to be 'free standing' and do not penetrate the waterproof membrane or insulation on top of the Level +1 slab. This allows for reconfiguring the garden (if necessary) without disrupting retail tenants below.

LITERATURE REVIEW

COURTYARD CASE STUDY CAMBRIDGE CENTRAL MOSQUE: THE GARDEN



Figure 9 : The garden view

“A CALM OASIS WITHIN A GROVE OF TREES”

The Islamic garden at the front of the mosque is open to everyone, and provides a quiet transition from the city to the prayer space, as well as a taste of *Jannat al-Firdaws*, the Paradise Gardens described in the Qur'an. The central feature is an octagonal stone fountain, designed in collaboration with water specialist Andrew Ewing, since running water is a vital element in the Paradise Gardens. There are curved oak benches, designed and made by cabinet-maker Tom Zinovieff, where visitors can sit and enjoy the sound and movement of the water, the colours and fragrances of the flowers, and the shade of the trees. On each side of the fountain area is a small *chahar-bagh* (4-fold garden) featuring crab-apple trees and bursting with mixed seasonal planting throughout the year.

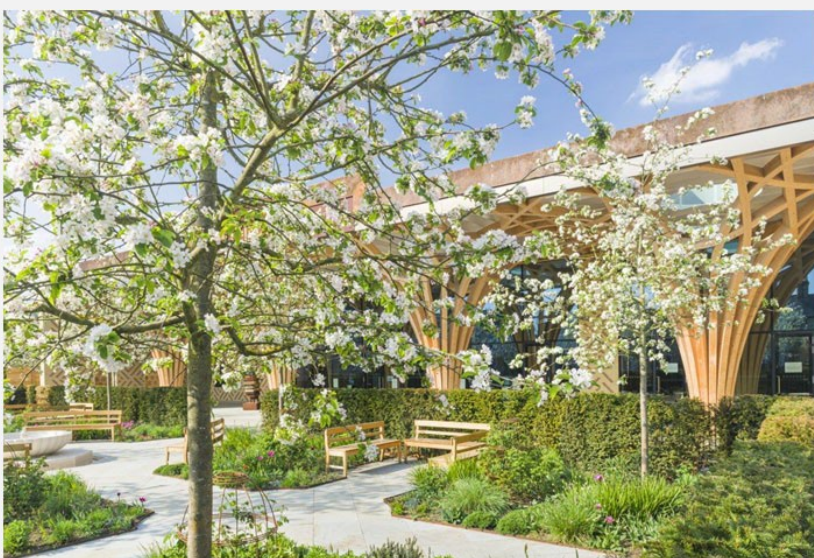


Figure 10 : Crab-apple trees

With fruit as a key element of the paradise gardens, eight crab-apple trees were planted, aligned with the ‘tree-columns’ of the mosque atrium. The inner Islamic garden was designed to both fit into the urban context of Cambridge and evoke an atmosphere of peace and contemplation. In this way the gardens strike a harmonious balance between Islamic structure and relaxed English herbaceous and naturalistic planting. A concern for sustainability, biodiversity and insect-friendly planting has also been a constant theme in the selection of plants.



Figure 11 : Pathway around the courtyard

On either side of the fountain, to the right and left, we created a small *chahar-bagh*. The pathways are paved with a **cream-colored York stone** and the planting beds are designed with a mixture of plants, scented wherever possible.



Figure 12 : Water fountain at the courtyard of the garden



Figure 13 : Selection of flower at the garden

There are perennials (such as roses, geraniums and iris), flowering shrubs (including myrtle, jasmine and daphne) and a succession of bulbs, including narcissi and tulip species. Perfume is an important characteristic of an Islamic garden, not only because it is deeply pleasurable, but also because it has the power to evoke profound memories.

MASTERPLAN DEVELOPMENT

The master plan was designed with symmetrical design to show that this site is a formal meeting place. The water fountain in the middle works as an axis to give balance for both sides. The water fountain from the welcoming area separates the walkway for both sides. This will help users to go with direct movement from the archway to the mosque.

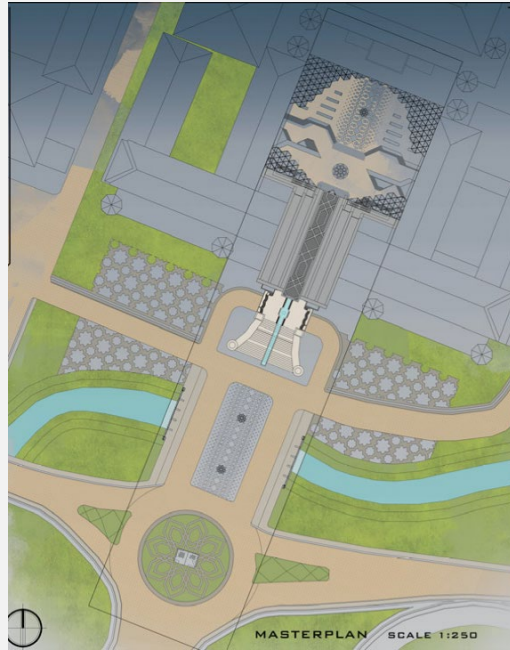


Figure 14 : Master Plan

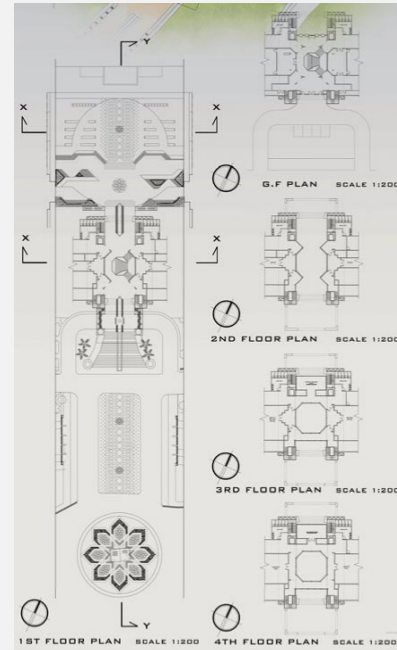


Figure 15 : Floor Plan

CONCEPT DEVELOPMENT

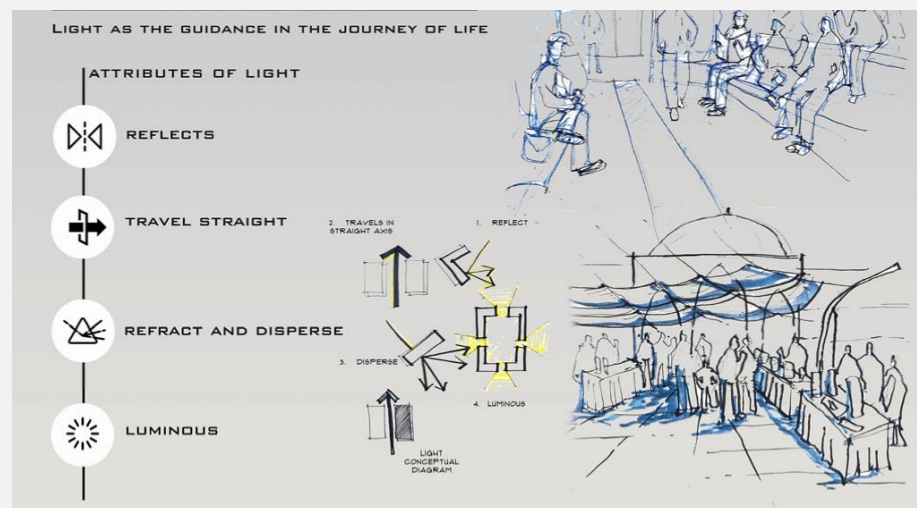


Figure 16 : The attribute of light

The meaning of An-Nur in Arabic word is "the light". To represent the concept of An-Nur, some of the design used material from glass that sun can go through it. The most exciting part is the reflection from the sun or light makes the geometry shadow clearly can be seen. Metaphorically, seven colours of light turn to white when combined together to symbolise IUM as one community that has people from all over the world.

DESIGN DEVELOPMENT

ARCHWAY

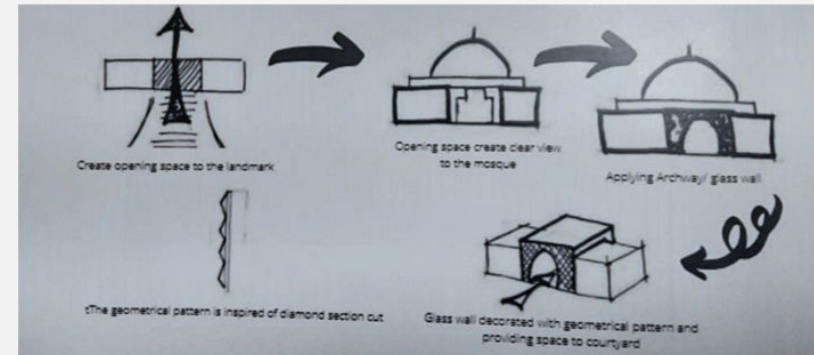


Figure 17 : Archway design process

1. Create opening space to the landmark.
2. Opening space create clear view to the mosque.
3. Applying archway with glass wall.
4. Glass wall decorated with geometrical pattern and provide space to courtyard.
5. The geometrical pattern is inspired of diamond section cut.



Figure 18 : Final design of archway

COURTYARD

The shape of diamond is used in the design, metaphorically to show that every person is a diamond. To fulfil its purpose, the diamond needs to be excavated. The final product will be a brilliant crystal that refracts, reflects and disperse the light.

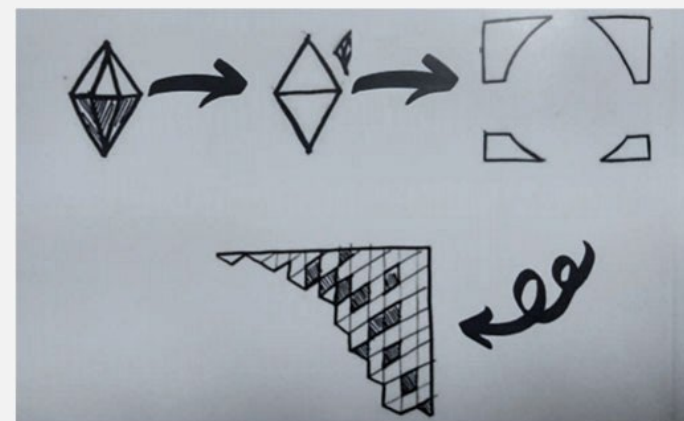


Figure 19 : Pattern of courtyard canopy

PROJECT FINDINGS

ARCHWAY

The front archway has a very common and simplest architectural form but still brings an image of grand entrance with the glass wall and the diamond shape. In this design, “less is more” really brings an expression of the design philosophy of modern minimalism. Less is not blank but simplified and more is not crowded but perfect. We wanted it to look simple and modest with its own identity. At the same time, it can also maximise the setting of the glass wall, so that the most perfect interaction exists between the interior of the main building and the courtyard and plaza landscape. The movement of natural light in buildings through the glass wall reveals simple and clean spaces. Our main purpose to create a bright and luminous archway is to attract users to come here anytime.



Figure 20: Archway front elevation



Figure 21: Night view of the archway

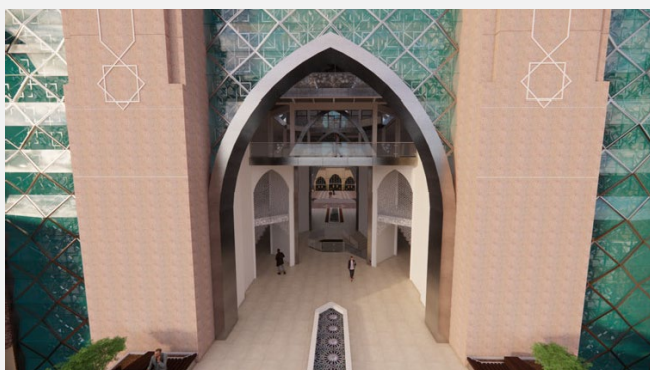


Figure 22: Close up view of front archway

Opposite to the front archway, the other side is more futuristic in terms of the design and materials. It gives users a feeling like entering to the other side of the world. It also has abstract and different decorations to give a vibe of neo-futurism style. A mix of materials can be seen throughout neo-futurism buildings including a glass façade, aluminium construction, and steel supports. Unlike the front archway that has a traditional form of architecture, the rear archway is looking more elegant with its luminous effect during night. However, even with the different style, both of them remain the same purpose.



Figure 23 : Archway rear elevation

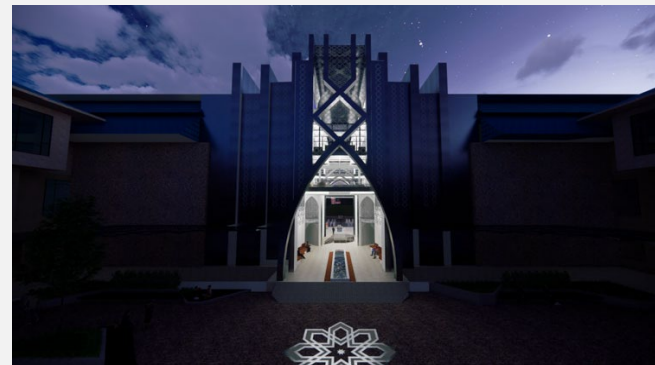


Figure 24 : luminous effect at night

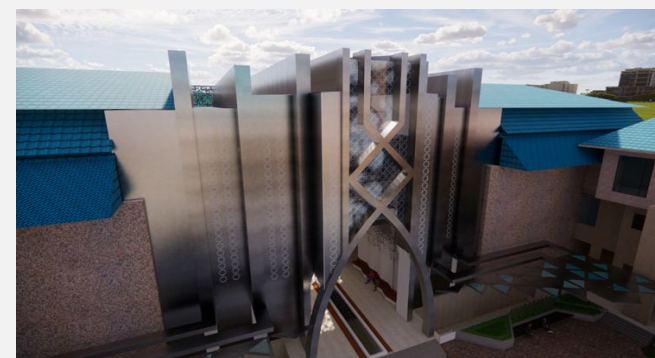


Figure 25: archway with futuristic architectural style

PROJECT FINDINGS

INTERIOR DESIGN

For the interior part, as soon as the user enters the archway, there will be a stair in the middle of the way. The stair can lead and ease the users to go to the gallery on the ground floor. A tall wall surface directly in front of the staircase was targeted by the design team. Instead of displaying a static image, we provide LED screens on the wall so it can be more interactive and have a greater effect for user experiences.



Figure 26 : LED screen surround the staircase in the middle of the archway.

In the middle part of the building, we introduce a new bridge with a glass floor to give a connection for the both sides of the two buildings. As the building is surrounded with a staff office, there will be a leisure area for relaxing purposes and vvpip waiting area.



Figure 27 : leisure and relaxing space

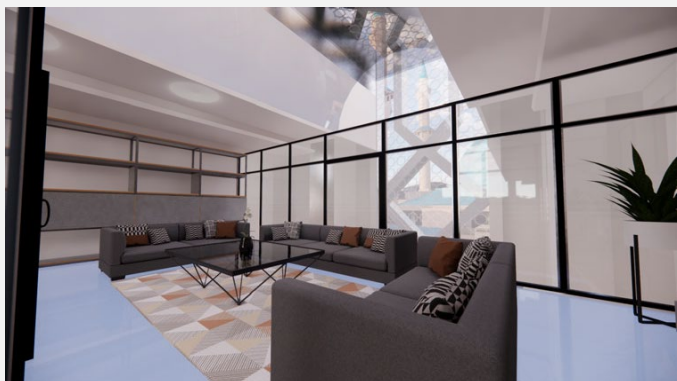


Figure 28 : vvpip waiting area

The bridge with glass floor will give users an incredible experience. Not only do they feel like walking in the air, users also can have a spectacular view of Bukit Tabur when standing on the bridge. The advantages of the building facing towards Bukit Tabur with the glass wall will please everyone's eyes.



Figure 29 : Bridge with glass floor



Figure 30 : Bridge with glass floor

The archway is the open part of the building, thus it only uses natural ventilation unlike the other part of the building which uses the air conditioner. However, the designer team decided to put a giant fan in the middle of the building as the natural ventilation is not always available especially during the midday.



Figure 31 : giant fan in the building

PROJECT FINDINGS

PLAZA AND COURTYARD

Landscape design is the most important part in the whole design. The existing water fountain will be replaced with green elements. This is because we want to avoid the sculpture from blocking the view. In this design, the size of the sculpture has been reduced and surrounded by colourful shrubs to create a visual and physical linkage from the main gate to the SHAS mosque.



Figure 32 : colourful shrub at the roundabout

Next, the plaza will be the open space for community gathering during any festivals or university events. In the middle part of the plaza, the water jet will turn on every prayer time. Water element symbolize purity in Islam. Thus, the function is to remind people its time to purify our soul with ablution.



Figure 33 : water jet on plaza



Figure 34 : water fountain on the grand stair

Some of the elements of Islamic garden are implemented in the upper courtyard. The design is axis symmetry and includes water elements just like the Islamic garden. The courtyard is divided into two different spaces which are active space and passive space. The active space is in front of the mosque where the route often used to walk from the admin building to IRKHS. The other space is used as an outdoor leisure area suitable as a meeting place and relaxing area. The use of *Cratoxylum cochinchinensis* as the main tree in the courtyard is because this type of tree has a thin canopy to avoid it blocking the spectacular design of the building but it also provides enough shade for the user.



Figure 35 : view of courtyard



Figure 36 : outdoor leisure area

The canopy design imitated the shape of the diamond and the LED information display also had a futuristic design. Both of this hard scape material and colour blend well with the archway design. It strengthens the vibe of futuristic architectural style.

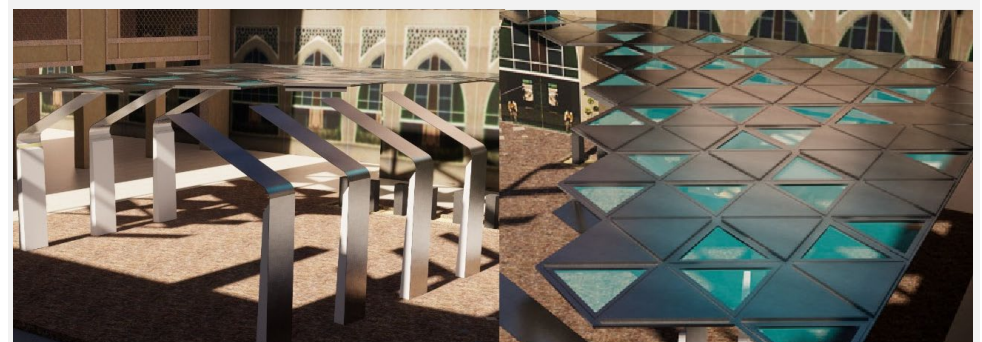


Figure 37 : detailed design of the hardscape

CONCLUSION

In conclusion, the design is the communication of messages through the juxtaposition of words and pictures. It is the visual synthesis of thought in the form of publications, exhibitions and posters as well as signage and digital interfaces. Moreover, a good design process will ensure the values of communities that can contribute to a positive environment to experience quality life, attractive and accessible to people of all ages that are protected.

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