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REVIVING ISLAMIC CIVILISATION PARK AT PULAU WAN MAN, TERENGGANU

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ABSTRACT

The paper explores the idea and concept of Islamic civilisation and the Islamic Garden, and their implementation in landscape architectural design in the Malaysian context. This project explores how the Islamic Garden design concept can be integrated within landscape design for a diverse society without neglecting the local culture, values, and place identity. Deeply rooted in the symbolic, cultural, and theological foundations of Islamic civilisation, Islamic Gardens have historically represented more than aesthetic beauty. They embody spiritual meaning, philosophical depth, and a connection to nature and divine creation. With origins dating back to the 7th century through the Persian Garden, Islamic Gardens evolved across regions and cultures, adapting to local environmental and social contexts. However, modern landscape practices often overlook these traditional elements. This project investigates how Islamic Garden principles can be revitalised and implemented in contemporary landscape design, particularly in public park and spaces in Pulau Wan Man, Terengganu. The project embeds cultural identity, religious values, and environmental planning that co-exist in the design of landscape spaces. Ultimately, the study emphasises the importance of preserving Islamic heritage through landscape design that reflects both traditional principles and modern needs, ensuring the enduring relevance of Islamic Gardens in diverse urban and cultural contexts.

Keywords: Islamic civilisation, Islamic Garden, Essence of Islamic Garden, Types of Islamic Garden, Revitalisation

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INTRODUCTION

Pulau Wan Man is one of the smallest islands in Terengganu. Situated in the estuary of the Terengganu River, the island has emerged as a focal point for religious and cultural tourism in the area. It is most recognised for being the site of Taman Tamadun Islam (TTI), a park with an Islamic theme that features 21 scaled-down replicas of famous mosques and monuments from across the Muslim world. Taman Tamadun Islam (TTI) was inaugurated in 2008 as the first Islamic heritage and edutainment park in Southeast Asia. Developed by the Terengganu State Government, TTI was envisioned as a celebration of Islamic architecture, history, and culture, promoting understanding of Islamic civilization. The park's creation reflects Terengganu's commitment to highlighting Islamic heritage as a part of Malaysia's multicultural identity, and it offers both educational and tourism experiences within a picturesque, riverfront setting (Rahiman Bin & Rozaid, 2021).

PROBLEM STATEMENT

Taman Tamadun Islam (TTI) was established as an edutainment park to showcase Islamic architectural heritage through life-size and scaled replicas of global monuments. Yet the park currently faces multiple interrelated problems. While it holds immense cultural and educational value, the park faces several challenges that affect its appeal and visitor experience. Over the years, certain areas have suffered from neglect and aging structures. For instance, some wooden boardwalks are reportedly loose, cracks, and worn out, raising safety concerns for visitors. This is supported by some reviews on TripAdvisor on maintenance problems, including poorly maintained boardwalks with loosen parts and overgrown weeds on pathways (*TripAdvisor*, n.d.). Vendors and businesses operating within the park have also reported in the survey from this study that there was low customer flow due to less visitors coming over the years.

A decline in visitor numbers is due to competition from other attractions, insufficient marketing efforts, maintenance issues, and pandemic-related impacts. As a government-supported initiative, the park also struggles to balance financial sustainability while maintaining affordable pricing for its audience (Hamid et al., 2016).

Uneven conservation and visible material deterioration under Malaysia's tropical coastal conditions, infrastructural and accessibility constraints on a small island site, and an emphasis on spectacle over interpretive depth limits the attractiveness and value of the TTI. These operational and design gaps are compounded by unclear long-term funding and resilience planning, which reduce the park's ability to deliver strong cultural interpretation, sustainable landscape performance (including water and microclimate management), and meaningful engagement with local communities. Therefore, for the park that have been operated for more than a decade, it requires urgent revitalisation and upgrades to maintain its appeal values and functionality. Addressing these gaps through landscape design requires context-sensitive design solutions that integrates conservation, climate-responsive landscape design, interpretive planning, and sustainable management.

AIM AND OBJECTIVES

This project aims to appraise the concept of Islamic Garden and Islamic civilisation in the context of landscape design proposal for a park at Pulau Wan Man, Terengganu.

The objectives of the project are as follows:

- 1) To identify the concept and attributes of Islamic Garden in response to its relevance and implementation in the contemporary world.
- 2) To revitalise the existing park of Pulau Wan Man by integrating Islamic civilisation garden design and attributes of the Islamic Gardens' visual appeal without neglecting the local culture, values, and place identity.

LITERATURE REVIEW

Definition of Islamic civilisation

The term "civilisation" has been defined differently by various schools of thought and points of view, but generally speaking, it refers to a set of values and principles that structure society and are the result of human activity that is reflected in a variety of disciplines, including science, literature, the arts, and the resulting tendencies that allow for this activity (Ihsan, 2021).

DEFINITION OF ISLAMIC GARDEN

A garden has been described as a "paradise" in the Greek version of the Bible. "Eden" in Hebrew refers to an unspecified nation or area. The word "pardis" in Persian literature comes from the word "paridaiza," which translates to "walled garden." (Nazia Nazifi, 2011). Gardens have been characterised as a metaphor for Heaven, Paradise, or El-Jannah (garden) since the rise of Islam in the seventh century when the Persian Gardens were established (Ranguelov et al., n.d.).

Type of Islamic gardens

Islamic gardens have evolved across different regions, adapting their core design elements to local social, cultural, and climate conditions. Three major influences of Islamic Gardens are Persian, Mughal, and Andalusian.

Table 1: Type of Islamic Gardens.

Type of Islamic Gardens	Characteristic	Example
Persian Garden	<ul style="list-style-type: none"> Chahar Bagh Layout Axis and Hierarchy: The gardens are ranked according to their importance. Water as a Central Element Enclosure and Privacy Lush Vegetation: Cypress and fruit-bearing plants such as pomegranate and date palms, symbolizing longevity, and abundance. 	Bagh-e Fin Garden
Mughal Garden	<ul style="list-style-type: none"> Integration of Persian Influence Water Features and Reflection Pools Terraced Structure, with cascading water features that move down from one level to the next, symbolizing the flow of paradise. Symmetry and Axial Layout Ornamental Plants and Flowers. 	Taj Mahal-Agra Shalimar Garden
Andalus Garden	<ul style="list-style-type: none"> Patio-Centric Layouts Use of Light and Shade Integration of Water Narrow, long pools and water channels in the Andalusian Garden provide reflective surfaces that reflect the building. Tilework and Ornamental Detail Mosaic patterns 	Alhambra and Generalife

Table 2: Descriptions on Precedent Studies

Precedent Study	About the Place	Essence of Islamic Garden	
<p>Quranic Park – Dubai, UAE</p>	<p>The Quranic Park in Dubai is a distinctive public area that incorporates Islamic heritage and Quranic symbols (Sha, 2024). This 64-hectare park in Al Khawaneej were developed with several purposes which are: (1) Seeks to integrate spirituality, education, and aesthetics while providing guests with an immersive experience that examines the relationship between Islamic teachings and nature, (2) To offers an innovative way to explore stories and miracles from the Holy Quran. The park implements the Islamic Garden design concept within their enclosure and open spaces based on Quranic interpretation such as The Botanical Garden, The Split Miracle Lake, The Glass House, and The Cave of Miracles.</p>	<ul style="list-style-type: none"> Symbolic Use of Water Symbolic Use of Plant Geometric Layout and Symmetry 	 <p>Figure 2: (Quranic Park, First Ever Park of Its Kind in Dubai, 2019).</p>
<p>Miniaturk – Istanbul, Türkiye</p>	<p>Miniaturk is a modern cultural park located in Istanbul, Türkiye, which incorporates Islamic Garden design concepts that honour traditional Islamic aesthetics. It is one of the largest miniature parks in the world, covering an area of approximately 60,000 square meters. It aims to educate both local citizens and international visitors on the significance of Türkiye's historical landmarks.</p>	<ul style="list-style-type: none"> Cultural Integration and Historical Symbolism Water Features and Reflective Pools Symbolic Use of Water 	 <p>Figure 3: (Miniaturk Art, 2024).</p>
<p>Moroccan garden, Putrajaya, Malaysia</p>	<p>The Moroccan Garden in Putrajaya, Malaysia, is a distinctive fusion of Moroccan architectural beauty with traditional Islamic Garden design ideas. The Moroccan Garden exhibits the beauty and elegance of Islamic landscaping in a tropical setting and represents Malaysia's cultural ties with Morocco.</p>	<ul style="list-style-type: none"> Symmetrical Layout and Geometry Water Features Enclosed Spaces and Privacy 	 <p>Figure 4: (Moroccan Garden, Putrajaya).</p>

Evolution of Islamic Garden

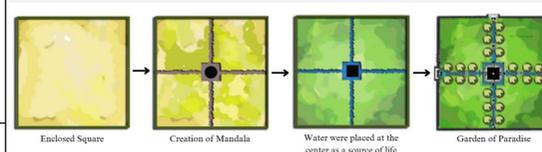


Figure 1: Image shows the evolution of Chahar-bagh system in Islamic Gardens (Source: Nazia Ansari, 2011)

PRECEDENT STUDIES

Inherit essence of Islamic garden

The essence of an Islamic Garden lies in its symbolic, aesthetic, and spiritual meanings. Islamic garden designs vary depending on the climate and cultural requirements of the area. Although each form of garden has its own regional context, specific basic characteristics reflect Islamic Gardens

Table 3: Water arrangement within the Islamic Garden. (Md.Jani, H.H., et al., 2018)

Arrangement	Aspect	Variables
Water Arrangement	Layout of	Central axis according to the <i>chaharbagh</i> layout
	Water Flows	Central axis have a channel or broad pool Creates a cross plan section of four divisions Occupied the primary and secondary axes Water appears sunken
Water Course		Irrigated in a straight line Direction depends on the topography Followed various angular paths Turns 90 degree angle Flows in geometrically regular
		Influence plants arrangement and path circular
Colour		The water reflects the colour of the canal bed Turquoises and blues ceramic as canal bed If the bed has a brighter colour, its reflection becomes secondary

Table 4: Planting arrangement within the Islamic Garden. (Md.Jani, H.H., et al., 2018)

Arrangement	Aspect	Variables
Planting arrangement	Layout of planting design	Follows the watercourse and pathways pattern Symmetrical patterns and linear form Figure-ground, continuity, closure and similarity Planting zone serves a specific purpose Orchard in the centre or inner section Geometric pattern in rectangular or star-shape Plant's boundary made with various materials Varied selection of plant at the edge of the plant bed
		Tree
Shrub		Shady trees planted beside watercourses and paths Massing shrubs as hedges and framing Linearity or formally arranged form High shrubs to enhance lines and direct view Flowering plants close to pathways or building Small or low shrubs selected for the courtyard
		Ground-cover
Vine		Vines occupy the pavilion or wall Vibrant and colourful flowering vines
		Aquatic

Table 5: Hardscape arrangement within the Islamic Garden. (Md.Jani, H.H., et al., 2018)

Arrangement	Aspect	Variables
Lodgement arrangement	Layout of lodgement design	<i>Chaharbagh</i> influence the lodgement arrangement Pavilion is at the centre or at the end Pathways are perpendicular to water channel
		Building
Entrance		Direct/bend entrance at main axis or middle line Bent entrances offer a delayed viewing Bent entrances have a porous curtain wall Porous curtain wall between garden and entrance Clear view between main entrance and building One or a few other entrances alongside it Secondary entrances are for the other building and services (trash removal) Secondary entrance(s) at the side of the garden
		Pathways

By examining the essence of Islamic Garden, a clearer understanding of the concept and design principles of Islamic Gardens can be achieved.

METHODOLOGY

The project site

Taman Tamadun Islam (TTI), located on Pulau Wan Man in Terengganu, Malaysia, was inaugurated in 2008 as the first Islamic heritage and edutainment park in Southeast Asia. Developed by the Terengganu State Government, TTI was envisioned as a celebration of Islamic architecture, history, and culture, promoting understanding of Islamic civilisation.



Figure 5: Site location



Figure 6: Aerial view of Taman Tamadun Islam (TTI) Pulau Wan Man (Source: John Smith, R., 2024).

The park's creation reflects Terengganu's commitment to highlighting Islamic heritage as a part of Malaysia's multicultural identity, and it offers both educational and tourism experiences within a picturesque, riverfront setting (Rahiman Bin & Rozaid, 2021). However, currently it falls into deterioration and disrepair due to outdated landscape design and other interrelated limitations.

DATA COLLECTION

The research is based on a qualitative methodology to explore the Islamic Garden concept in the context of revitalising the Islamic Civilisation Park at Pulau Wan Man, Terengganu. It involves primary data collection through observation checklists and interviews with local authorities and the public to assess the site and to gather contextual insights. Secondary data was obtained from academic journals, government sources such as RTD, and relevant articles to provide theoretical and historical context. The combination of these methods supports a comprehensive understanding and informs design strategies rooted in Islamic traditions.

- 1. Site Observation and Inventory:** Checklist was developed to systematically gather firsthand and real-time data on specific behaviours, events, and conditions within the study area. The attributes checklist was made to analyse the current condition of the site. Observation was carried out for a few days and throughout the area to detail up the checklist attributes of land-use, topography, hydrology, accessibility, facilities and infrastructure, flora and fauna, microclimate, socio-cultural, and views and senses.
- 2. Semi-structured Interview:** Questions to local authority's officers, visitors' experience, and operational dynamics of TTI (business operator/vendor), and views on Islamic garden characters of the place. The interviews seek to provide a comprehensive evaluation of TTI's effectiveness in promoting Islamic culture, supporting local businesses, and contributing to tourism in Kuala Terengganu.

Table 6: List of questions to various participants of interview

No	Interviewees	Section	Question
1	Local Authority (TTI Management)	Design Vision and Planning	What were the main goals, vision, and planning considerations behind the design and establishment of TTI, including the objectives, site selection, and conceptual approach?
		Design implementation	How were Islamic design principles incorporated into TTI's design, what strategies influenced the placement of monuments, and which global Islamic landmarks served as key inspirations?
		Vendor Management and Support	How does TTI manage vendor selection, ensure alignment with its theme and visitor demographics, and support local entrepreneurs through its vendor management strategies?
2	Vendors	Business Operations	Why did you choose to establish your business at TTI, and do you consider it an ideal location for your operations?
		Business Operations and Management	What challenges do you face in running your business at TTI, and how does it compare to other locations in terms of profitability? What support do you receive from TTI management?
		Visitors and Products	What products or services are most popular with your customers, who are your primary customers, and how do customer demands vary based on seasons or events held at TTI?
3	Visitors	Purpose of Visit	Why did you visit TTI, and how did your company (family, group, or alone) affect your experience? Is TTI your main destination in Kuala Terengganu?
		Expeirtence and Impressions	Which areas of TTI helped you appreciate Islamic civilization, and which part best shows Islamic culture?
		Cultural and Educational Value	What monument or feature stood out to you, and did TTI help you learn about Islamic history and culture?

ANALYSIS AND FINDINGS

Land-use evolution



Figure 7: Land-use evolution of the site

SITE INVENTORY AND ANALYSIS

The data collection procedure from observations involved spending time in the study environment for a few days to observe specific locations and collect relevant data based on the checklist attributes. This is the inventory of the site. Observations were made throughout the whole site area focusing on key events, interactions, and features that were important to the study. The list of the attributes is presented in Table 7.

Data from interviews with the local authority officers, visitors and vendors complemented the observation data to obtain synthesis of the study. From the synthesis, landscape design was proposed based on the existing theme of the TTI and new design ideas and solutions are proposed for the site.

SITE ANALYSIS

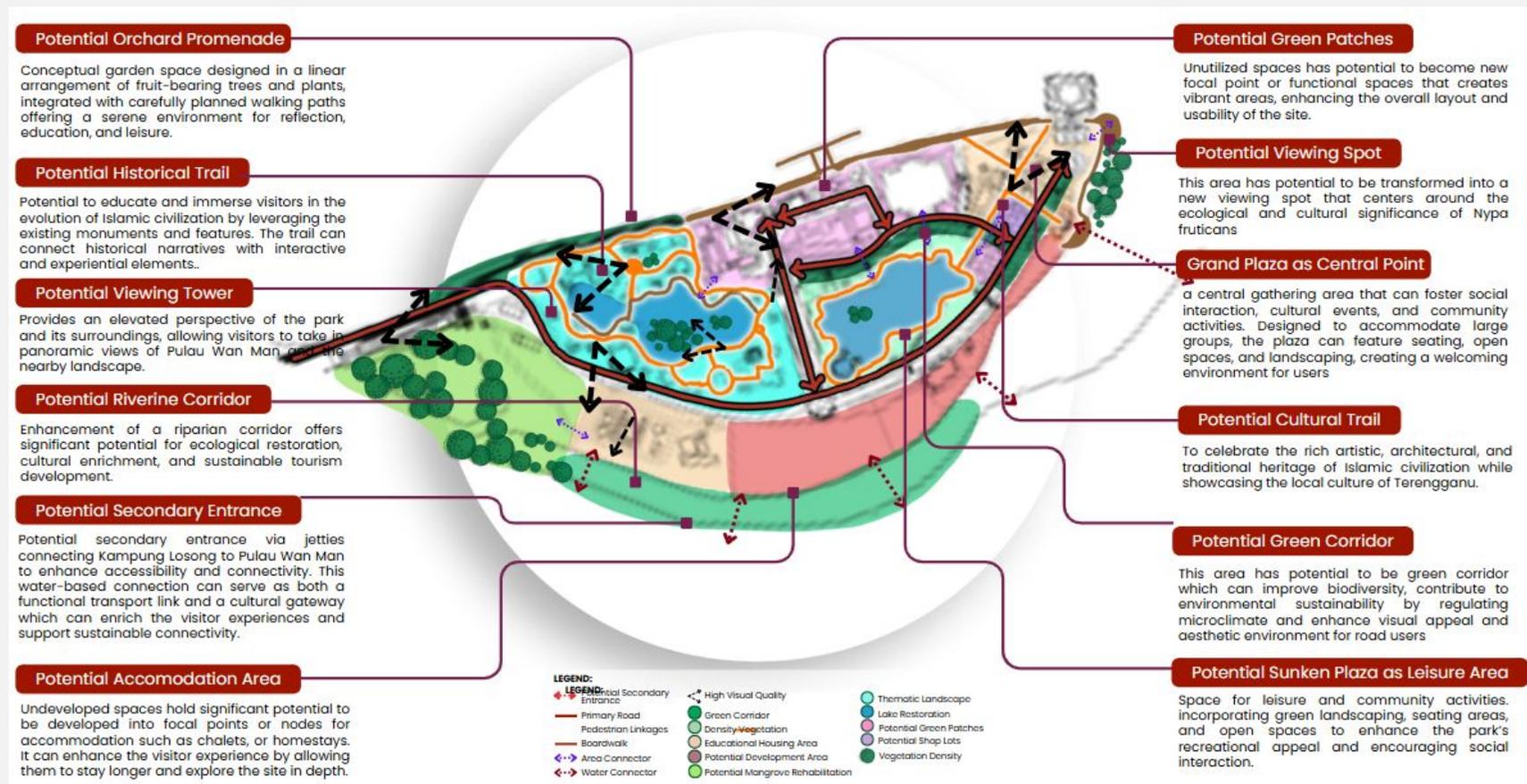


Figure 8: Site Analysis

Table 7: Checklist attributes

N	Attributes	Description	Elements
1	Landscape Evolution	The evolution of the site and its development throughout the years.	
2	Land Use	Focus on understanding how different areas and spaces are utilised for accommodation, commercial, religious, or recreational purposes.	<ul style="list-style-type: none"> Space Zoning Build Form and monument
3	Accessibilities	Accessibility examines the ease people can reach and move within a specific area. It is essential for assessing the functionality of spaces and ensuring inclusivity for all.	<ul style="list-style-type: none"> Roadway- Primary; Secondary; Tertiary; Waterway Walking radius and pedestrian movement
4	Infrastructure	Infrastructure is pivotal for assessing the developmental status of an area and ensuring that its services are adequate.	<ul style="list-style-type: none"> Transportation Facilities; Amenities Utilities
5	Flora And Fauna	Flora and fauna studies explore the biodiversity within a landscape environment.	<ul style="list-style-type: none"> Significant plant species Native plants; Aquatic species
6	Microclimate	Microclimate studies focus on localised climatic conditions to understand how environmental factors influence comfort, vegetation, and building sustainability	<ul style="list-style-type: none"> Sun Exposure; Temperature Wind Velocity Monsoon Season Rain Precipitation
7	Topography	Topography involves studying the land's physical features and provides insights into the natural form and structure of the land	<ul style="list-style-type: none"> Erosion prone area Elevation Slopes
8	Hydrology	This attribute is essential for managing water resources, mitigating flooding risks, analyse water flow of the site and how it interacts during rainy or monsoon season	<ul style="list-style-type: none"> Existing Water bodies Flood Prone Area Water Quality
9	Socio-Cultural	This attribute discovers the interactions between the community and inclusive spaces that cater to the cultural and social needs of the community	<ul style="list-style-type: none"> Social Group; Religion Site Users Socio-Cultural Activities
10	View And Senses	Contributes to creating environments that are both functional and pleasant for human interaction.	<ul style="list-style-type: none"> Visibility and imageability; Visual Quality; Scenic viewpoint Noise and Odor

SITE SYNTHESIS

The site synthesis was generated based on primary data collection and analysis of the data from observation (inventory of the site based on checklist attributes) and the interview data. Based on the analysis, site constraints and potentials were determined according to several categories as shown in Figure 9. They are in terms of space zoning, accessibility and connectivity, flora and fauna, microclimate, hydrology, topography, views and senses, and infrastructures.

Based on the synthesis, the landscape design proposals consisting of various design process, including design concepts, master plan, detailed development area plan with details of landscape elements and sectional elevations, and innovative design ideas were produced to give vision to the site's potentials in the future.

Site Potential

- The Warrior Lake and Taman Ibnu Al-Baytar hold significant potential to become central hubs within the circulation routes of the site.
- By transforming these areas into gathering spaces, such as plazas or squares, it could enhance visitor engagement and improve the overall flow of movement within the park.

- Potential to maximise the utilisation of water route link from nearby boat station and jetty
- Proposed designed route for transportation services includes shuttle services and bicycle could ensure safety and boost number of visitors.
- The roads and walkways should be leveraged, to ensure easy access for both pedestrians and vehicles.

- Strategic planting selection of trees and shrubs to enhance characteristics of the Islamic Garden
- Enhance the Nipah mangrove ecosystem by creating a floating observation deck and incorporating interactive displays about its ecological and cultural significance, offering visitors a dynamic learning experience while preserving the natural habitat.

- The lakes within the island acts as water catchment basin and have a strong potential for water activities but need to enhance the infrastructures and water quality to ensure the safety and overall experience of the visitors.
- Use native tree species to reduce heat, and create cool, shaded areas for relaxation.
- Potential to create terraced gardens, amphitheatres, or sunken plazas that can enhance the visual and functional appeal of the site.

- Leverage the scenic waterfront location of Pulau Wan Man to create elevated viewing platforms, allowing visitors to enjoy stunning vistas of the surrounding river and mangroves.
- Potential to have new view point with decking which offers a view toward lakes, perfect for sightseeing and enjoying serene landscapes.
- Incorporate fragrant plants like jasmine, frangipani and pandan in the landscaping to evoke a calming and culturally resonant sensory and aromatic experience.

- Investing in modern and user-friendly infrastructure. Introducing apps for booking facilities, locating amenities, and providing real-time updates on park events to improve visitor experience.

Site Constraint

- Weak concept and lack of cultural characteristics of Islamic and education themes diminish the site's appeal, reducing its ability to attract visitors effectively.
- Expansive space for parking with no shaded plants and paving area exposed to direct sun exposure during hot weather.
- Undeveloped and unutilized spaces within TTI poses lack of socializing activities, limiting opportunities for community engagement and interaction.

- Slow traffic near the main attractions, due to closure of Cul de sacs in front of Masjid Kristal and presence of vendors in between parking area and Taman Ibnu Al-Baytar.
- Ending routes without connectivity to other areas cause Frustration for visitors who need to backtrack
- Shared lane without clear boundaries increase the risk of accidents and discourage walking as a primary mode of transportation within the park.

- Mangrove Degradation due to land embankment for development of Taman Tamadun Islam. There are only a few mangrove clumps spotted alongside the riverbanks
- Lack of functional plant species which do not reflect the identity of Islamic Garden design concept.
- Tree roots of existing plant species infiltrating sewage and drainage systems causing blockages and structural damage which lead to waterlogging.

- The stagnant water on paving area may exposed to slip hazards. Wet and algae-covered paving surfaces become slippery, increasing the likelihood of accidents and injuries
- The polluted lakes creates ideal conditions for mosquito larvae to thrive, turning the lake into a significant mosquito breeding ground.
- Lack of street planting alongside the Persiaran Al-khwarizmi and Persiaran Masjid Kristal which makes the space exposed to hot weather.
- During the monsoon season, heavy rainfall and strong winds may limit accessibility and activities, affecting visitor numbers and revenue.
- The proximity to the river and its flat terrain, make the area susceptible to waterlogging, particularly during heavy rains or seasonal floods.

- Obstructed or limited sightlines due to the natural landscape, built structures, or overgrown vegetation, reducing the quality of views and visual access to key landmarks.
- Organic material such as leaves, algae, and plant debris can accumulate in the lake, leading to anaerobic conditions and the release of unpleasant odors
- Noise and odors coming from the food stalls and lakes, may disrupt the tranquil atmosphere of the park

- Lack of integration between permeable and impermeable areas can lead to water pooling
- The absence of interactive elements or modern technologies in certain areas limits the park's potential to captivate younger audiences and meet contemporary expectations
- Inadequate and aging infrastructure, such as insufficient signage, shaded seating areas, reduce visitor satisfaction and engagement.

Space Zoning

Accessibility and Connectivity

Flora and Fauna

Microclimate Hydrology Topography and Soil

View and Senses

Built Form and Monument Infrastructure

Figure 9: Site Synthesis

LANDSCAPE MASTER PLAN DEVELOPMENT

Site issues

1 Landscape Neglect

- Discourage community engagement and activities
- Fail to reflect the cultural and historical significances

2 Lack of Functional Plant Species

- Impact on climate and human comfort
- Do not reflect Islamic Garden concept

3 Segregation of Spaces

- Led to abandoned and neglected spaces

4 Mangrove Degradation

- Due to land embankment and development
- Negative impact on natural habitat

5 Unutilized Facilities

- Impact on safety and security of site users

Design Goal

Aim
Revitalization of heritage and edutainment park that serve as a living archive of Islamic civilization that are accessible to all, vibrant and sustainable.

Objectives

- Cultural & Historical Legacy**
To preserve and showcase the rich heritage, knowledge, and intellectual achievements of Islamic civilization.
- Harmonious Environment**
To create a tranquil, nature-integrated space that embodies the essence of an oasis and paradise.
- Seamless Connectivity**
To establish a dynamic link between past, present, and future while ensuring fluid spatial connections.

DESIGN STRATEGIES

DESIGN CONCEPT

Seerah I-Learn

Emphasis on "Place-Based Learning" as the land aspect signifies that learning is grounded in space, culture, and context.

Eye = I = an individual and symbolic of the seeker
Land = a place and a space for discovery.

Island

- A physical and symbolic landscape where the individual embarks on a journey.
- A place of experiential learning, as Wan Man Island offers visitors a personal journey through Islamic civilizations.

I-LEARN also becomes a central metaphor which history of Islamic Civilization is explored, understood, and internalized.

CONCEPTUAL AND IDEA DEVELOPMENT

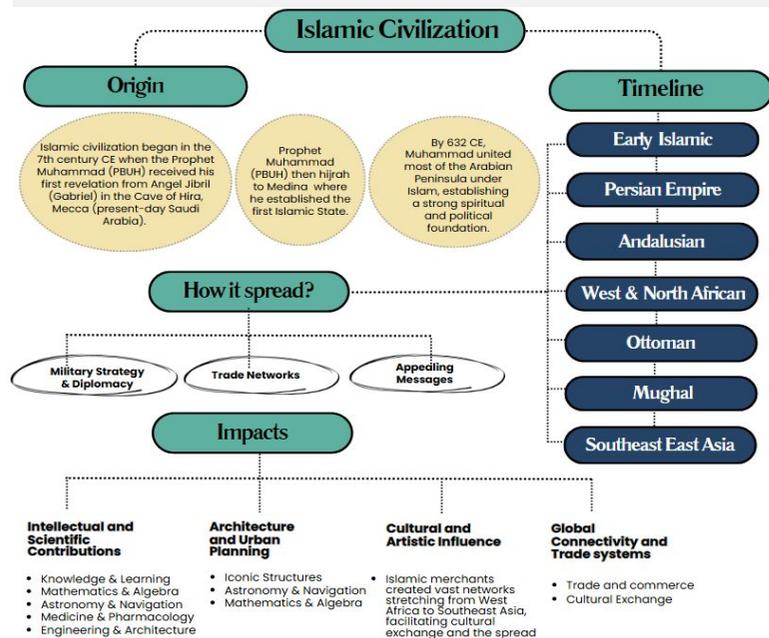


Figure 10 : Idea development of the design concept "Seerah i-Learn"

SPACE PROGRAMMING

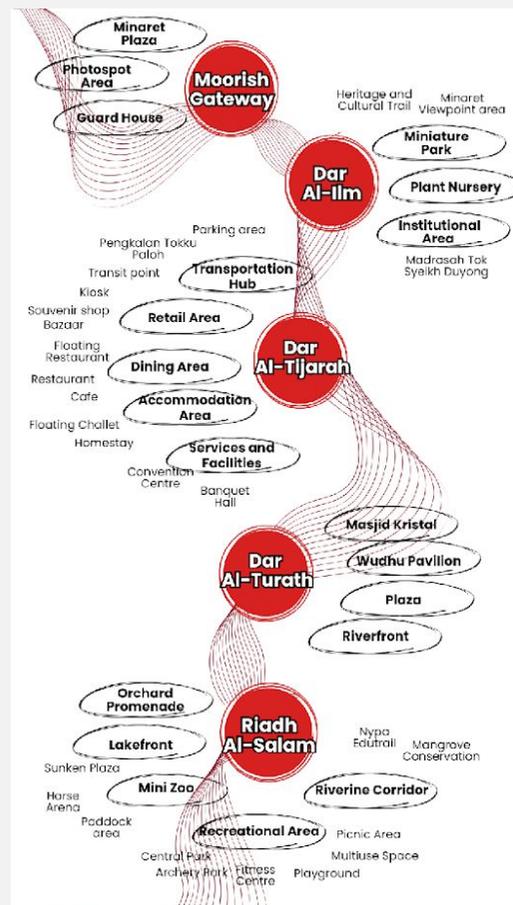


Figure 11 : Space Programming

FUNCTIONAL DIAGRAMS

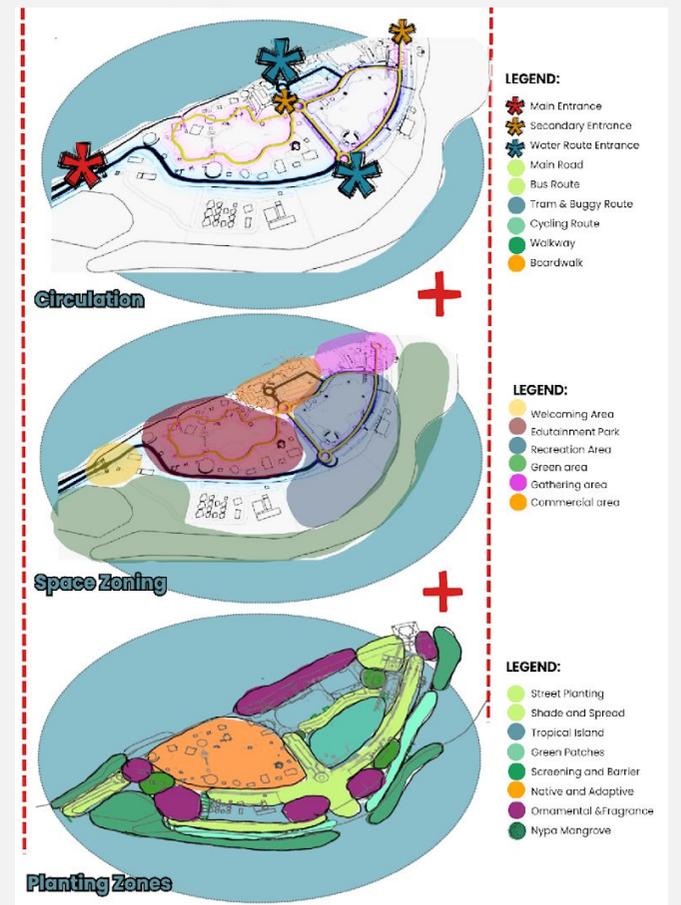


Figure 12 : Functional Diagrams

CONCEPTUAL PLAN

Building upon the insights derived from the functional diagrams, the conceptual plan represents a design stage where initial ideas are translated into a cohesive spatial strategy. This phase begins to shape the physical narrative of the Seerah i-Learn concept by defining key zones, circulation patterns, and experiential pathways as shown below.

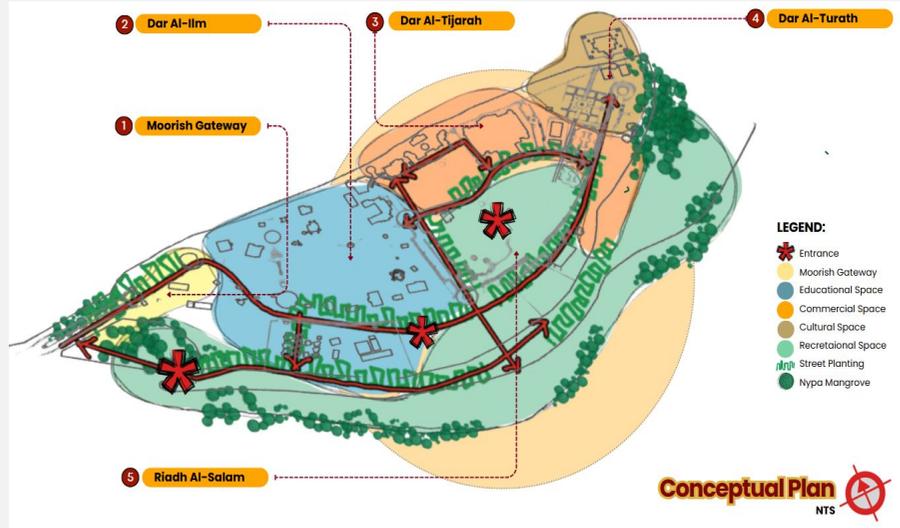


Figure 13 : Conceptual Plan

SCHEMATIC PLAN

The schematic plan establishes the foundational spatial organisation of the site, translating conceptual strategies into clearly defined zones and movement networks. This phase outlines the functional distribution of spaces while emphasising accessibility, landscape continuity, and user experience. As illustrated in the plan, key zones are strategically arranged along primary circulation paths that encourage seamless navigation between natural, cultural, and institutional areas. Figure 6.6 illustrates the schematic plan highlighting the distribution of major zones and the connectivity between them.

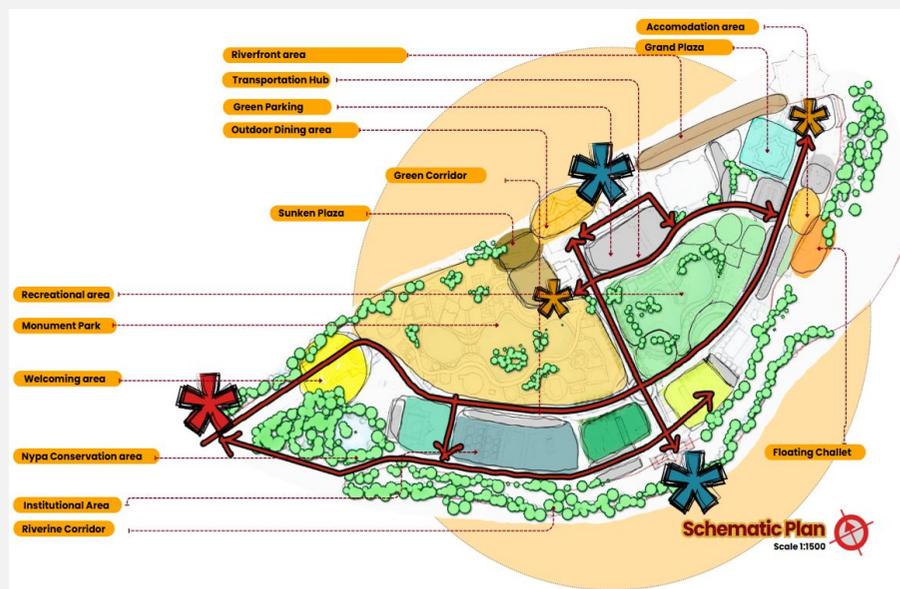


Figure 14 : Schematic Plan

PLANTING CONCEPT

The planting concept for this project is guided by the Eden Revival vision, reinterpreting the Qur'anic image of paradise as a living, resilient landscape. Inspired by the harmony and symbolism of Islamic gardens, this approach integrates spiritual meaning with ecological function. The planting design across the site is organised into distinct thematic zones, each reflecting symbolic and ecological narratives drawn from Islamic heritage.

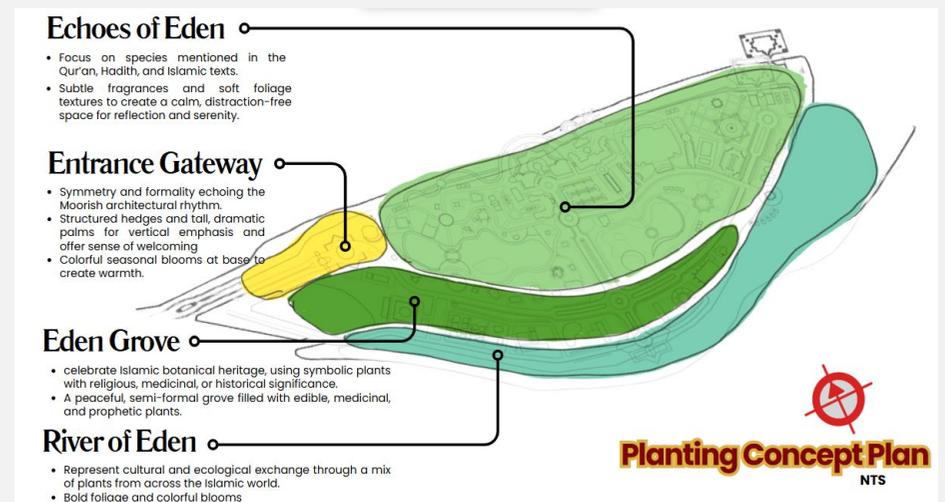


Figure 15: Planting Concept Plan

PLANTING STRATEGIES

The planting strategy for the Seerah i-Learn landscape is developed to deliver multiple functions include ecological, aesthetic, educational, and spiritual while reinforcing the Eden Revival concept. Each component of the strategy is carefully integrated to support biodiversity, promote sustainability, and enhance the user experience through meaningful engagement with nature.

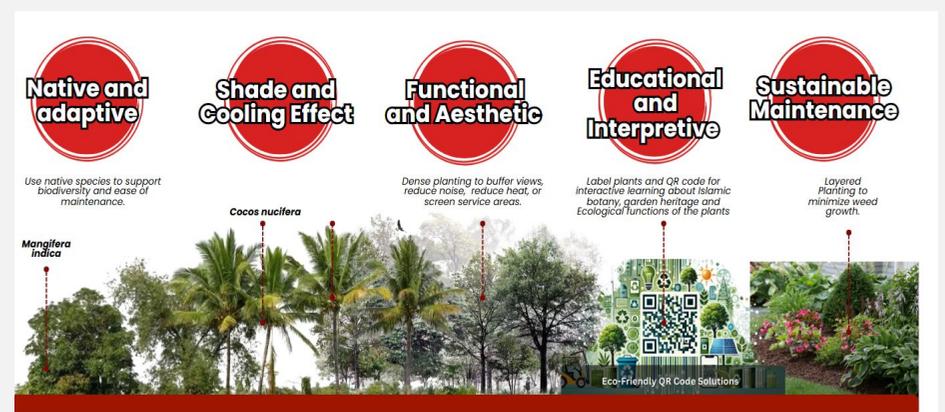


Figure 16: Design Strategies

Planting Approach

- Symmetry
- Symbolism
- Continuity
- Closure
- Tranquility
- Linear Form
- Simplicity
- Unity

Planting Principle

- Symbolism of Paradise
- Geometry and Order
- Water as a Key Element
- Shade and Fragrance

PRELIMINARY MASTER PLAN

Preliminary Master Plan further develops the schematic layout into a more resolved spatial composition. At this stage, the design translates conceptual and schematic intentions into a clear arrangement of zones, built elements, green systems, and circulation routes. Special focus is given to the functional integration of learning, cultural, and recreational areas.



Figure 17 : Preliminary Master Plan

LANDSCAPE MASTER PLAN

The Master Plan represents the final and most comprehensive stage of the planning process. It synthesises all prior design phases from the conceptual, schematic, and preliminary, transformed into a fully coordinated and site-specific layout..



Figure 18: Master Plan



Figure 19: Section Cut B-B

SECTIONAL ELEVATION AND PERSPECTIVES

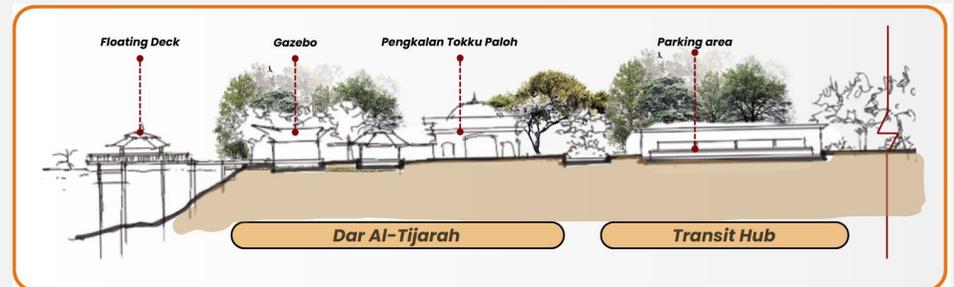


Figure 20: Section cut A-A

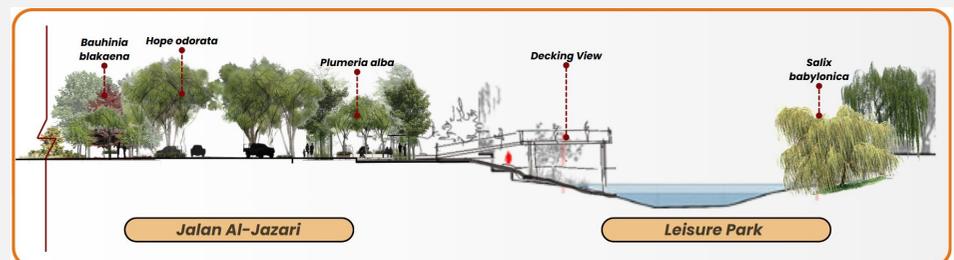


Figure 21: Section cut A-A

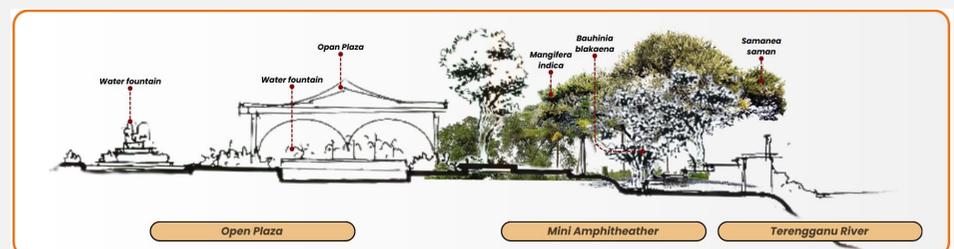


Figure 22: Section cut C-C

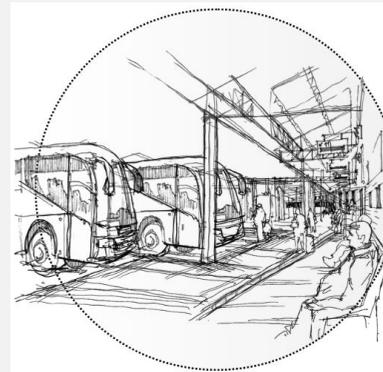


Figure 23: Transit Hub

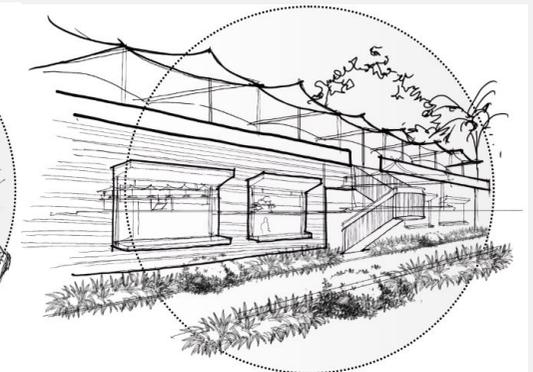


Figure 24: Souq, Dining area



Figure 25: Perspective View of Lakefront Promenade highlights a nature-integrated recreational zone.

Figure 26: Perspective View of Pedestrian-Friendly Park Edge illustrates a shared edge between vehicular infrastructure and park.

DETAILED DEVELOPMENT

The detailed development plan advances the vision established in the master plan by translating it into specific design interventions. This phase focuses on the spatial refinement and experiential quality of key zones, ensuring that each area supports the educational, cultural, and spiritual objectives of the Seerah i-Learn concept.



Figure 27: Detailed Development Plan

Dar Al-Turath is envisioned as a vibrant cultural and communal precinct that honors the diverse artistic and heritage traditions of the Islamic world. Anchored by a symmetrical landscape layout, the space is framed by two expansive reflecting pools that amplify the visual depth and elegance of the setting. This axial arrangement enhances the spatial harmony of the site and complements the adjacent Dome Pavilion, establishing a powerful cultural corridor within the development.

1. Transit Point, located at the entrance of the site, serves as a welcoming hub for visitors. It includes sheltered seating and orientation signage to support smooth transitions between vehicles and pedestrian movement.
2. A grand linear reflecting pool is placed along the central axis near the Pavilion Dome, creating visual balance and depth. By reflecting the dome, sky, and surrounding palm trees, the pool adds a sense of calm and enhances the contemplative atmosphere of the space.
3. The Idyllic Water Fountain, positioned along the main promenade, acts as a visual landmark leading toward the Pavilion Dome. Featuring sculptural jets and lush vegetation, it adds movement, sound, and cooling effects, enriching the sensory experience of visitors.
4. A checkered open lawn, with alternating grass and pavers, offers a flexible space for informal gatherings, events, or passive recreation. It is framed by ornamental trees and shaded seating, contributing to comfort and visual appeal.
5. The Craft Centre, designed in a traditional vernacular style with timber roofing and open verandas, serves as a cultural space for artisans. It hosts workshops and exhibitions, supporting local heritage, community interaction, and small-scale economic activity.



Figure 28: Aerial View of Dar Al-Thurath illustrate the overall layout of the spaces.



Figure 29: Aerial perspective illustrating a linear reflecting pool flanked by stratified rows of palm species, establishing a strong axial visual corridor



Figure 30: Annotated aerial perspective effectively illustrates the key spatial elements. The design emphasizes axial clarity, symmetry, and experiential layering through a blend of water features, open lawns, cultural nodes, and ecological buffers.

SECTIONAL ELEVATION AND PERSPECTIVES

The sectional drawings in the Detailed Development Plan phase offer a more refined view of selected nodes, including structural and softscape detailing. Key areas illustrated include the Pavilion Dome, Sunken Plaza, and Riverfront Corridor, all of which emphasize the design's layered experience and its interaction with human scale and natural elements.



Figure 31: Cut section E-E illustrate the view of Sunken Amphitheater across Pavilion Dome



Figure 32: Water Archway underneath Solar Dome Pavilion

Figure 33: View inside the Dome designed for communal gatherings, exhibitions, and cultural performances

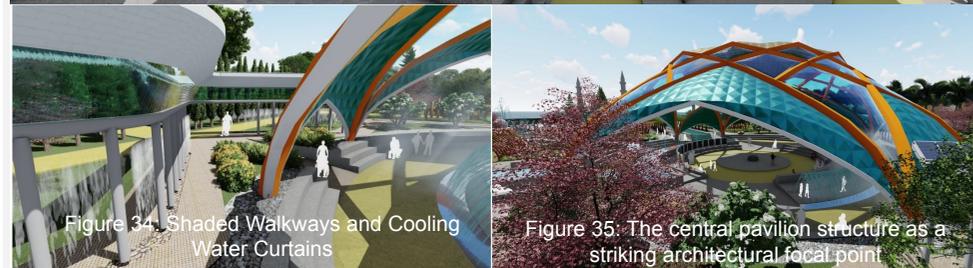


Figure 34: Shaded Walkways and Cooling Water Curtains

Figure 35: The central pavilion structure as a striking architectural focal point



Figure 36: The main road to Masjid Kristal is framed by a grand boulevard lined with linear rows of tall palm trees, creating a majestic approach that emphasizes symmetry and procession.



Figure 37: Idyllic Water Fountain

Figure 38: Gently sloped universal access ramps towards Solar Dome Pavilion



Figure 39: Perspective view of the main vehicular arrival axis

Figure 40: Ample Parking Spaces for visitors to park their vehicles

Section cut below illustrates the spatial relationship between the central pavilion dome and adjacent cultural plaza. It highlights the layering of hardscape, shaded walkways, and reflecting pools, with emphasis on accessibility and visual axis.

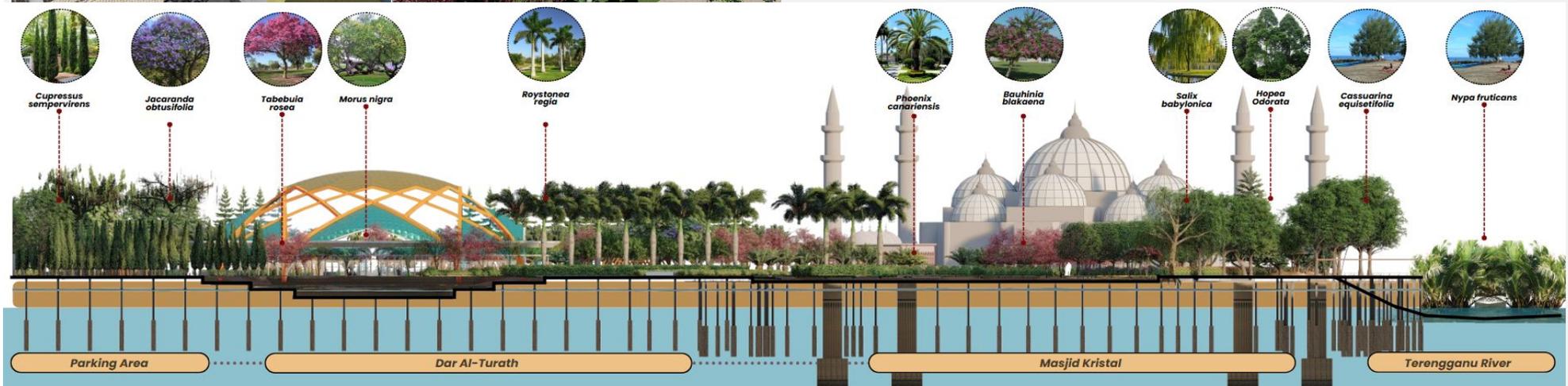


Figure 41: Cut section D-D illustrate the view of Cultural Plaza across Masjid Kristal and Riverfront.

INNOVATIVE DESIGN ELEMENT

The Solar Dome Pavilion represents an innovative architectural intervention within the revitalized Islamic Civilization Park, designed to function as a sustainable, multifunctional landmark. It not only enhances visitor experience but also reinforces the educational and environmental goals outlined in the Seerah i-Learn framework. Rooted in Islamic architectural heritage and scientific legacy, the pavilion serves as a physical and symbolic expression of knowledge, stewardship, and community engagement.

The conceptual foundation of the Solar Dome Pavilion draws inspiration from traditional Islamic design elements, including domes, geometric ornamentation, and principles of balance and symmetry. The structure is envisioned as an open, adaptable public facility that combines cultural aesthetics with advanced solar technologies. It functions as a central node within the park, contributing to both the spatial composition and the educational narrative of the site.



Figure 42 : Initial Form of Solar Dome

Photovoltaic (PV) panels are mounted across the outer surface of the dome structure..

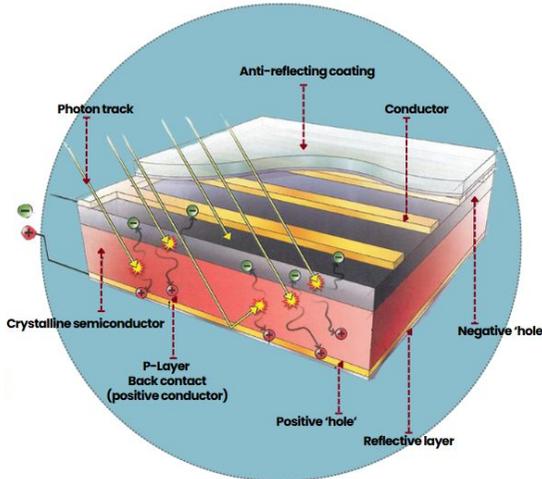


Figure 44 : Cut section of Solar Cell Structure and Operation

Functional Operation

- 1 Photovoltaic (PV) panels are mounted on the dome's exterior to produce electricity directly from sunlight
- 2 Solar energy collected throughout the day.
- 3 Solar energy is stored in batteries bank embedded underneath of structures for use during shaded periods or at night.
- 4 Lithium-ion or deep-cycle AGM; stores energy for night use.
- 5 Inverter function to converts DC to AC if using standard appliances as charging port.



Figure 43 : Aerial View of Solar Dome

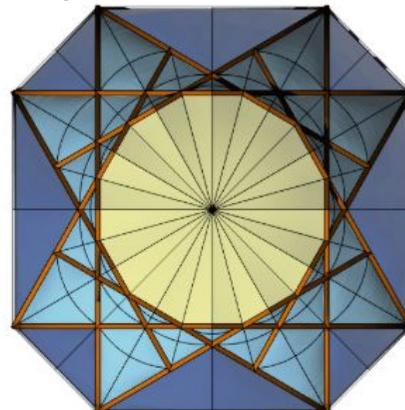


Figure 45: Plan View of Solar Dome

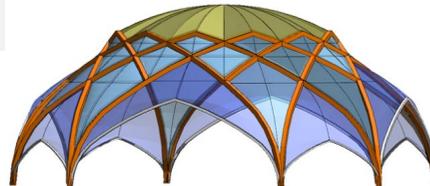


Figure 46: Rear View of Solar Dome

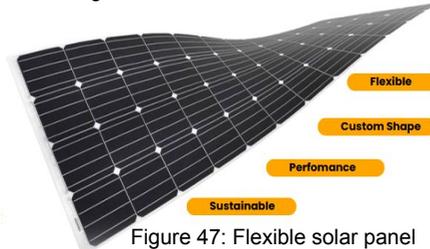


Figure 47: Flexible solar panel

SUSTAINABLE FEATURES OF SOLAR DOME

The Solar Dome Pavilion is designed with a range of passive and active sustainable strategies that enhance both environmental performance and visitor comfort. These features demonstrate a commitment to climate-responsive architecture while supporting the educational and interpretive goals of the Seerah i-Learn concept.



Figure 48: Sustainable Features of the Solar Dome Pavilion

The design of the Solar Dome Pavilion is guided by several core objectives that align with principles of sustainability, cultural enrichment, and environmental education. The following key objectives are explained below:

- Renewable Energy Integration
- Climate Responsiveness
- Public Functionality
- Sustainable Materials and Systems.
- Interpretive Learning.

PURPOSE OF SOLAR POWER USE

The Solar Dome Pavilion is designed to harness renewable solar energy not only as a sustainable power source but also as a driver of immersive educational and cultural experiences. The energy generated is allocated across five primary functions, each enhancing the user experience while reflecting the project's environmental and thematic goals.

1. Holographic Displays
2. Lighting
3. Water Fountain System
4. Motion Sensors
5. Digital Information Panels



Figure 49: Aerial View of the Solar Dome Pavilion

SOFTSCAPE DETAILING

The softscape detailing component of this project focuses on the careful integration of plant materials into the built environment, enhancing both ecological value and user experience. It is designed not only for aesthetic appeal but also to reinforce cultural symbolism, microclimatic comfort, and biodiversity.



Figure 50: Softscape Plan

HARDSCAPE DETAILING

The hardscape plan provides a comprehensive layout of all constructed surfaces and features. It ensures spatial coherence, material zoning, and effective circulation patterns throughout the landscape.

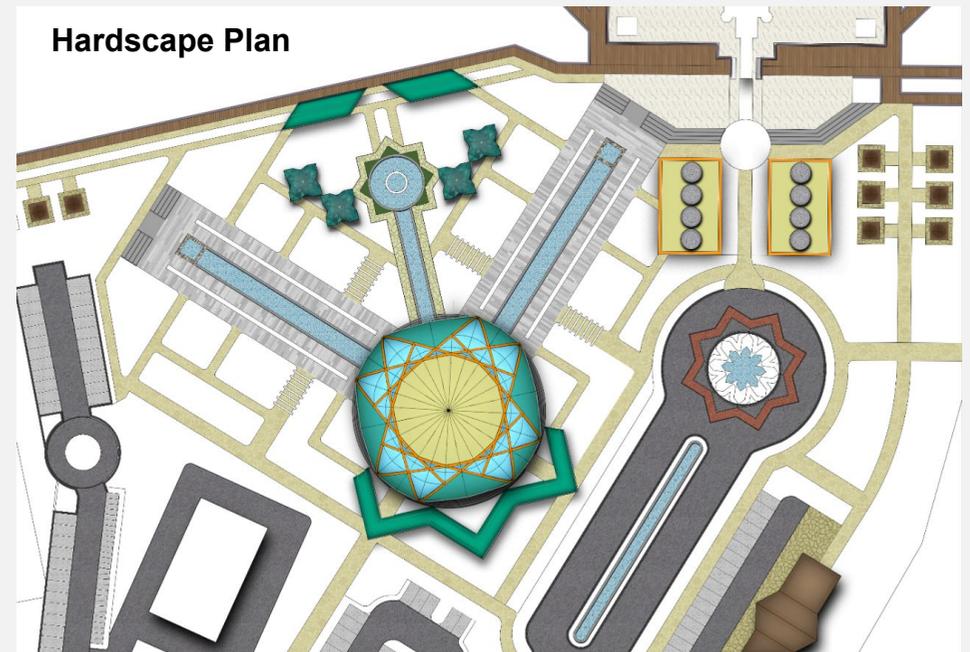


Figure 53: Hardscape Plan

Softscape Schedule

Tree

No.	Symbol	Scientific Name	Common Name	Height (m)	Width (m)	Nos
1		<i>Araucaria heterophylla</i>	Norfolk Island pine	8	8	38
2		<i>Bauhinia blakeana</i>	Butterfly Tree	5	4	40
3		<i>Bucide molineti</i>	Tadiah Hujan	5	5	10
4		<i>Casuarina equisetifolia</i>	Rhu	7	8	12
5		<i>Cupressus sempervirens</i>	Cypress	8	3	130
6		<i>Delonix Regia</i>	Royal Poinciana	10	8	6
7		<i>Hopea Odoroata</i>	Merawan Siput Jantan	7	6	40
8		<i>Jacaranda obtusifolia</i>	Jambol Merah	7	6	8
9		<i>Morus nigra</i>	Black Mulberry	3	4	28
10		<i>Plumeria alba</i>	White Champaca	3	4	12
11		<i>Plumeria rubra</i>	Frangipani	3	4	6
12		<i>Salix babylonica</i>	Weeping Willow	5	6	7
13		<i>Tabebuia rosea</i>	Pink poui	5	6	5

Palm

No.	Symbol	Scientific Name	Common Name	Height	Width	Nos
14		<i>Adonidia merrillii</i>	Manilla Palm	7	5	15
15		<i>Cocos nucifera</i>	Coconut Palm	10	5	15
16		<i>Roystonea regia</i>	Royal Palm	10	6	39
17		<i>Phoenix dactylifera</i>	Dates Palm	2	5	48
18		<i>Phoenix canariensis</i>	Canary Dates Palm	5	5	56

Shrubs and Groundcover

No.	Symbol	Scientific Name	Common Name	Height	Width	Nos
19		<i>Bougainvillea spectabilis</i>	Great Bougainvillea	3-5	2-4	
20		<i>Hymenocallis littoralis</i>	Spider Lily	0.5-1	0.5-1	
21		<i>Murraya paniculata</i>	Orange Jasmine	2-4	1.5-3	
22		<i>Ixora chinensis</i>	Ixora	2-4	0.6-1	
23		<i>Jasminum grandiflorum</i>	Jasmine	1-3	1-2	
24		<i>Pandanus pygmaeus</i>	Dwarf Pandan	0.3-0.6	0.5-1	
25		<i>Syzygium campanulatum</i>	Kelat Paya	3-7	2-4	
26		<i>Axonopus compressus</i>	Cowgrass	0.1-0.2	-	

Figure 51: Softscape Schedule

Hardscape Schedule

No.	Symbol	Structure Name	Material
1		Solar Dome Pavilion	Flexible or semi-transparent PV panels
2		Solar Walkway	Photovoltaic Paving Panels
3		Shaded structure	Galvanized steel frame with tempered low-E glass
4		Grasscrete Pavers	Porous grass concrete
5		Pavilion Pavement	Concrete Tiles
6		Pergola	Timber or powder-coated steel frame with polycarbonate or bamboo slats for roofing
7		Pedestrian Walkway	Light brown Concrete
8		Tiles	Precast concrete paving slabs finishing with grey colour
9		Gazebo	Reinforced concrete, natural stone (granite/marble), stainless steel
10		Paving Stone	Precast square stone pavers with light brown
11		Concrete Slab	Cast-in-place concrete in beige colour
12		Reflecting Pool	Reinforced concrete base with turquoise mosaic tile
13		Seating	Concrete base with pebblewash stone top
14		Wooden Deck	Composite decking (WPC), or concrete with anti-slip coating
15		Road	Asphalt with concrete
16		Structure Platform	Reinforced Concrete



Figure 52 : Hardscape Features



Figure 52: Planting Palette



Figure 54: Hardscape Material

CONCLUSION

In conclusion, this project has explored the ideas and the possibility for revitalisation of Islamic landscape heritage through the lens of landscape architecture, focusing on the Islamic Civilization Park at Pulau Wan Man. The literature review established a strong theoretical foundation grounded in Islamic garden principles, cultural identity, and sustainable landscape design. The site inventory and contextual analysis offered essential insights into the site's physical, ecological, and socio-cultural conditions. The analysis explored various aspects, identifying potentials and challenges for improvement.

Based on the theme and potentials of the site, design strategies were developed to connect Islamic heritage with modern needs through functional spaces, thematic landscaping, and environmental care. Guided by the "Seerah i-Learn" concept, the proposal envisions the park as a living and learning landscape inspired by the Qur'anic imagery of paradise. The design aims to create a learning landscape that reflects Islamic values and the beauty of paradise. It is envisioned as a living landscape that bridges the past, present, and future, reviving spiritual identity while contributing to the evolving discourse on culturally grounded and sustainable landscape design.

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