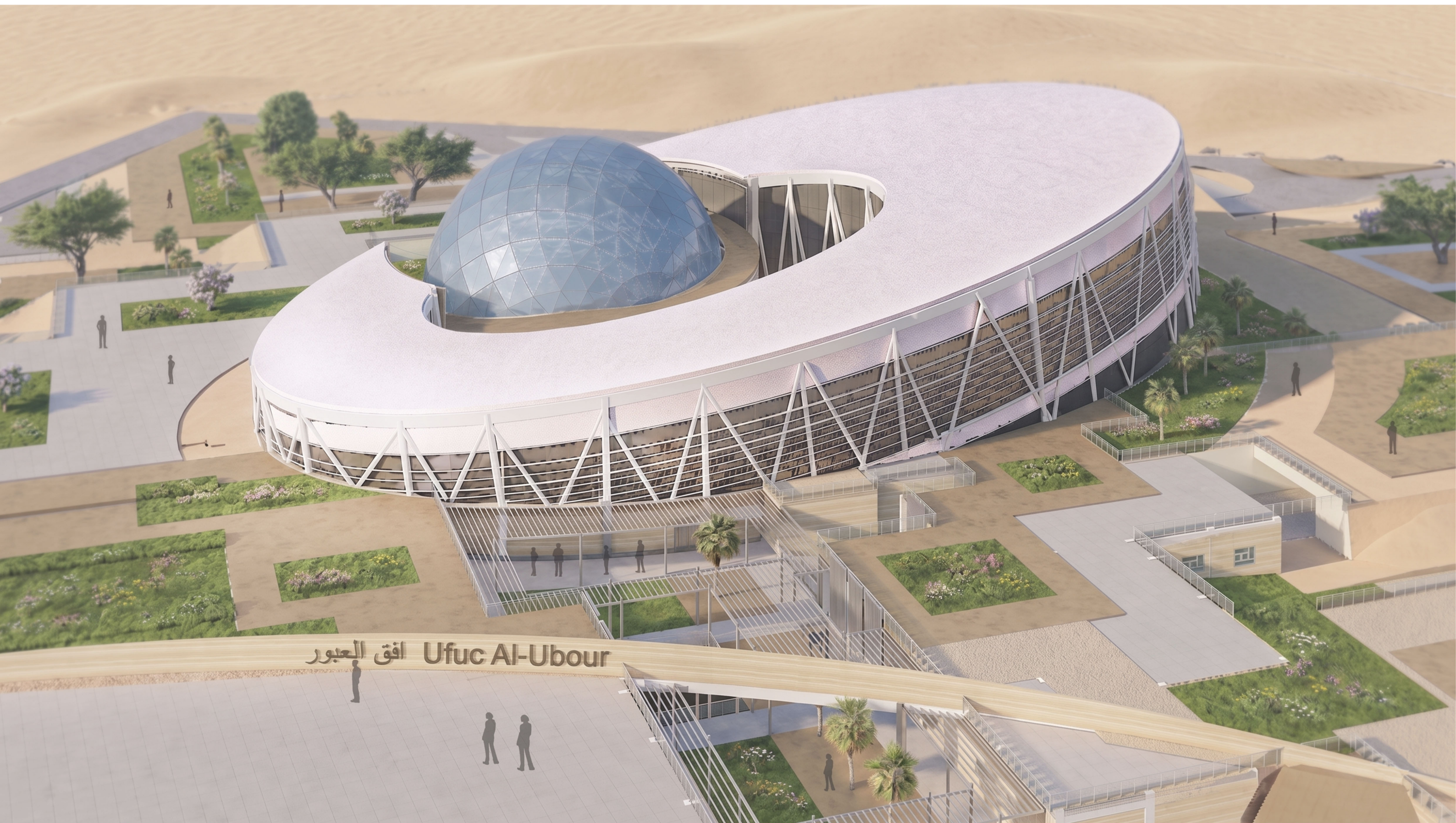




Astronomy Museum Ufuc Al-Ubour

01

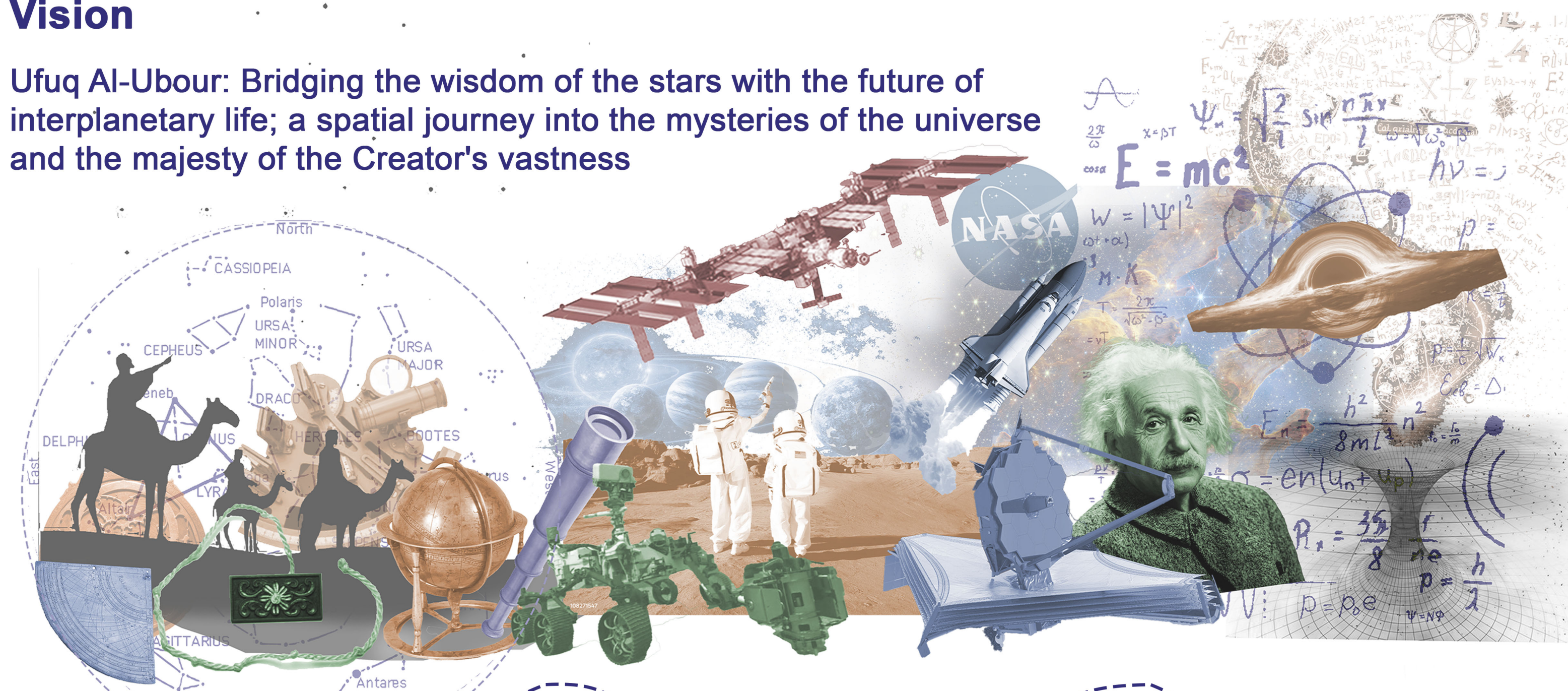




Astronomy Museum Ufuc Al-Ubour

Vision

Ufuq Al-Ubour: Bridging the wisdom of the stars with the future of interplanetary life; a spatial journey into the mysteries of the universe and the majesty of the Creator's vastness



Users



International and domestic tourists

Families and curious individuals

School and university students

Project and staff management

Astronomy Museum Ufuc Al-Ubour

SITE ANALYSIS

The Land's location is at

N"46.63' 31°17'

E"11.74'27°20'



Alexandria Region



Eastern sector



Matrouh Governorate



Marsa Matrouh city

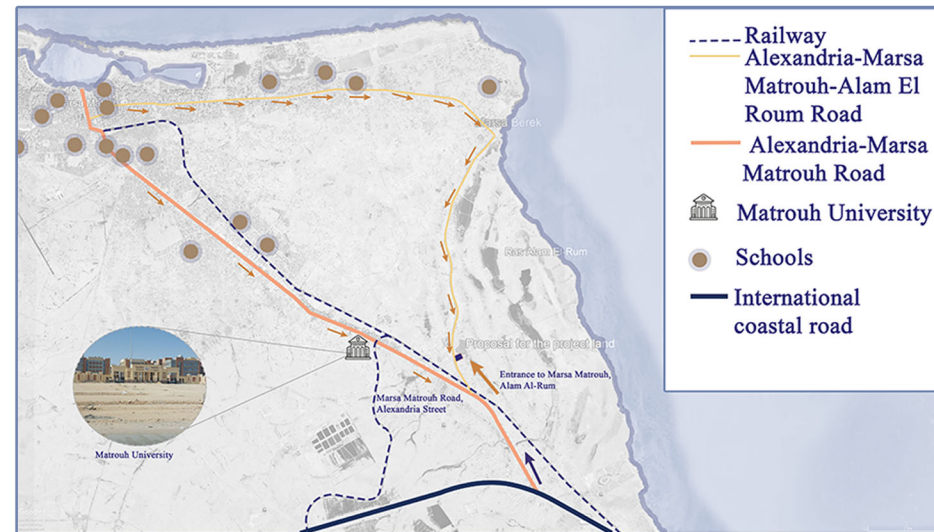
Land location



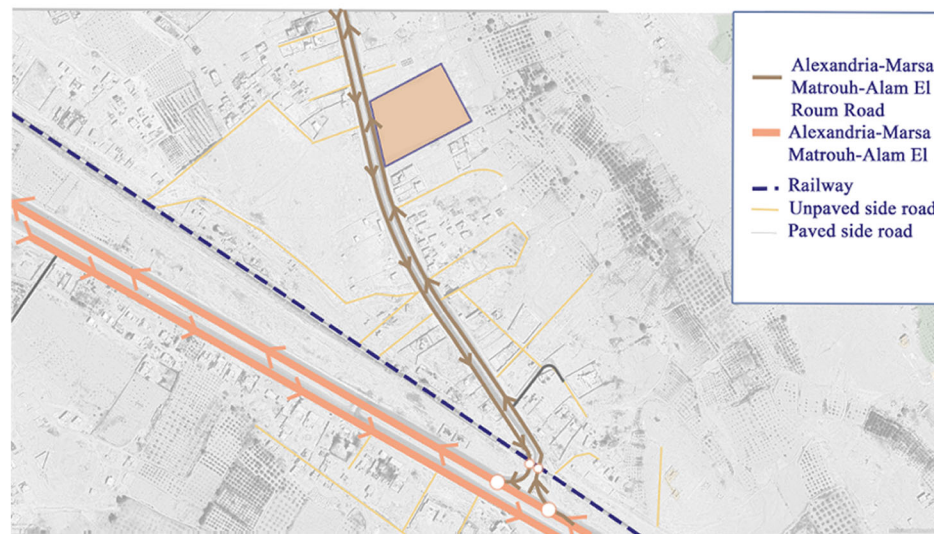
Land area 21,798 m2



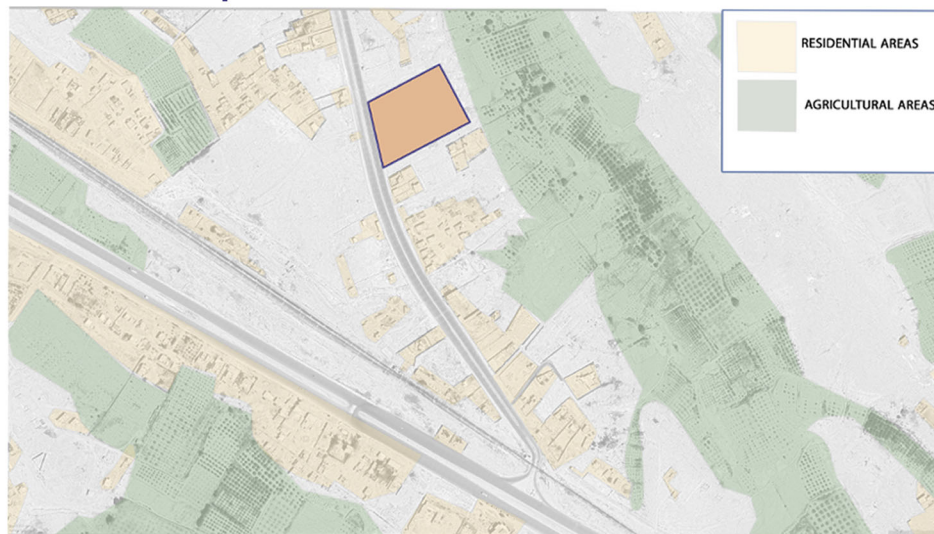
The land is visible from" below due to its higher elevation compared to agricultural lands, which allows the museum to be viewed from multiple ".directions



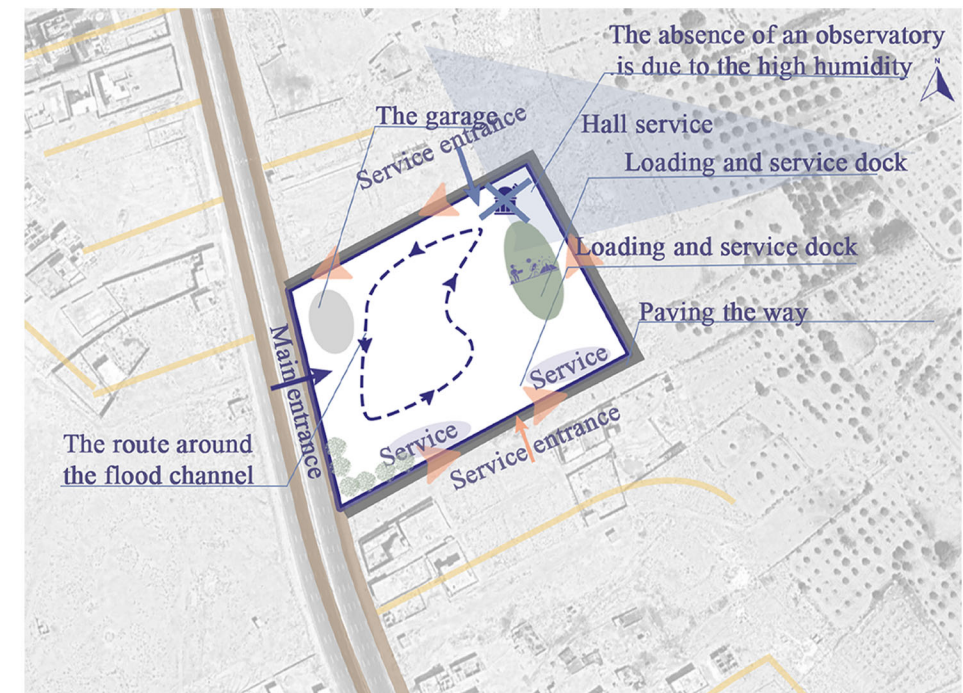
Map of school districts



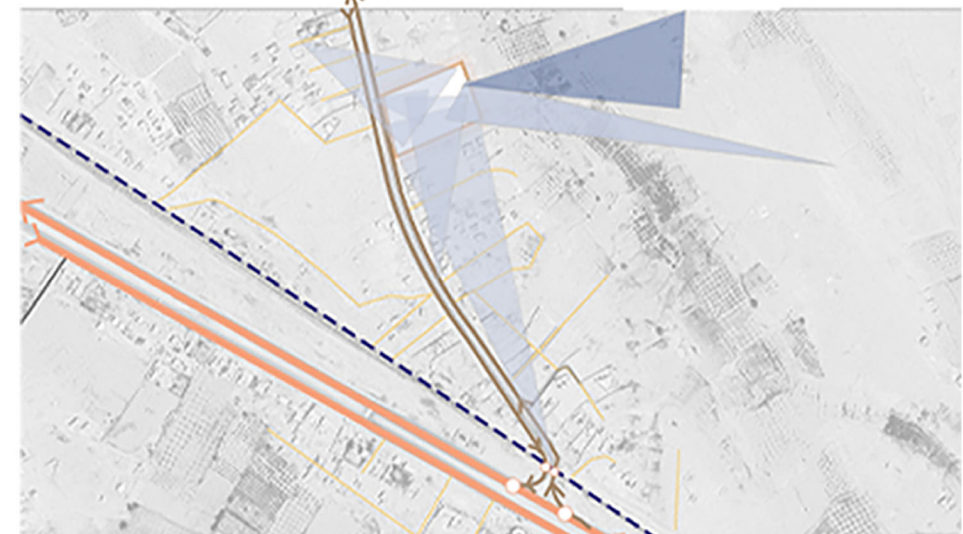
Roads Map



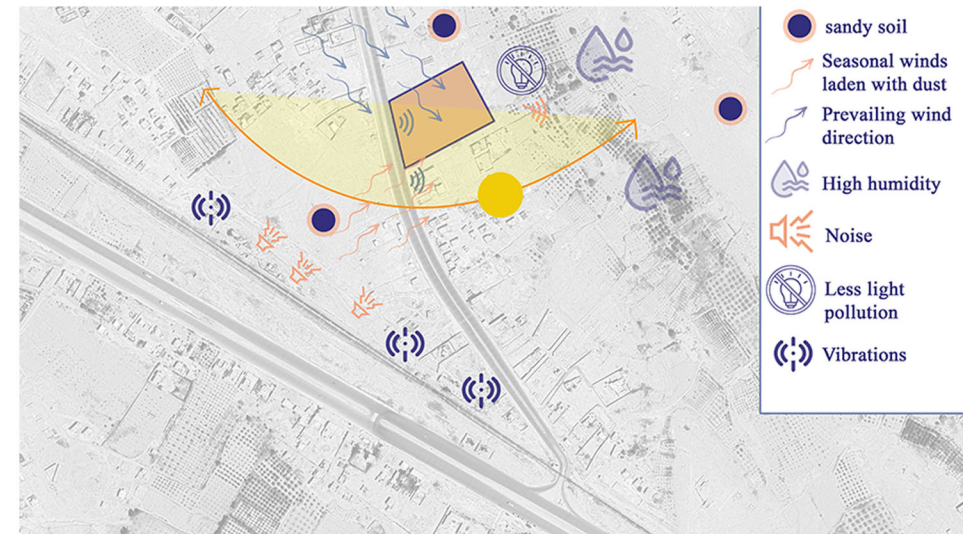
Zoning Map



Design decisions



View of the land from the outside and inside



Land analysis map

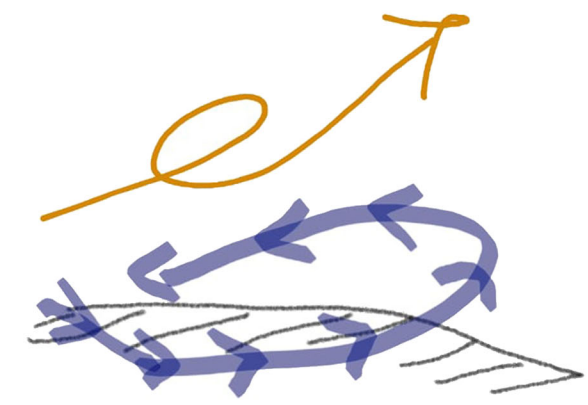


Astronomy Museum Ufuc Al-Ubour

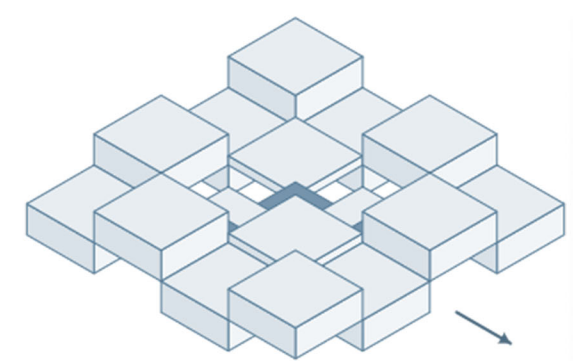
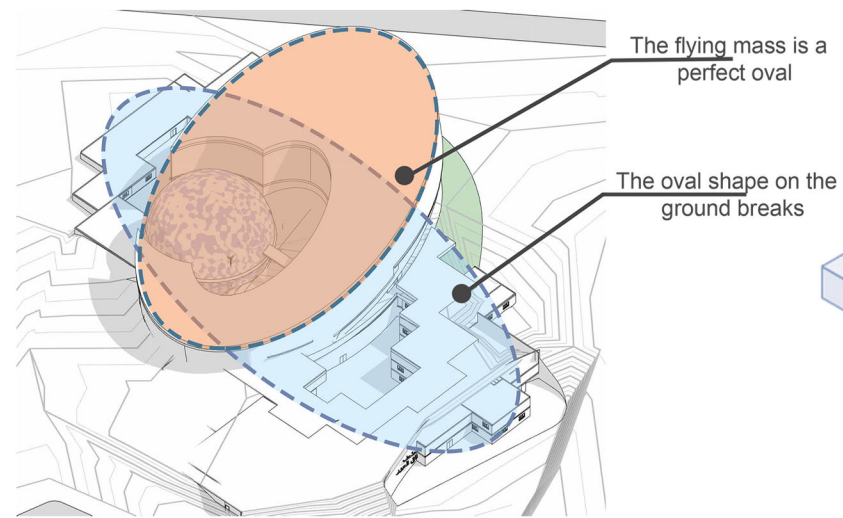
Concept



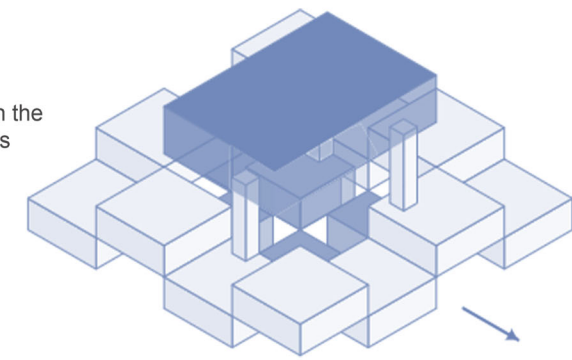
Dynamic blocks that mimic the spiral paths of objects, merging matter with space in the experimental loop, embody the flow of spacetime, and linking functions to a visual exploration journey



The liberation of mass towards the cosmic horizon



The mass emerging from the Earth's interior is a plane; this is the demonstration

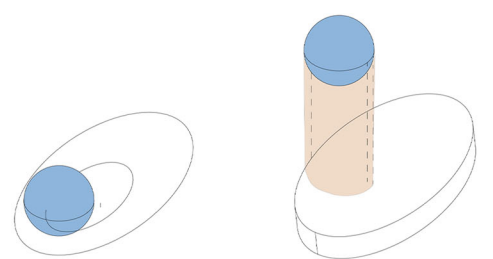


Dividing the land for pixels



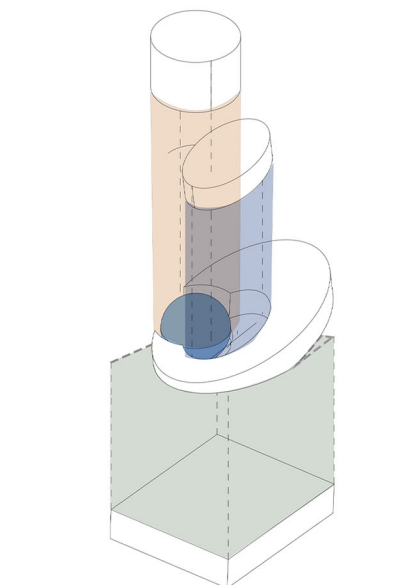
An open-space museum concept with strong visual connectivity between all levels through a central atrium, promoting interaction, orientation, and a unified spatial experience

Form Development

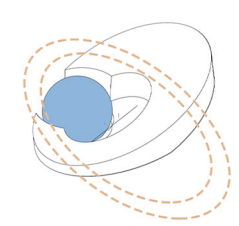


Step 1: Cosmic Geometry & Planetary Orbits
Initial forms derived from nested planetary orbits

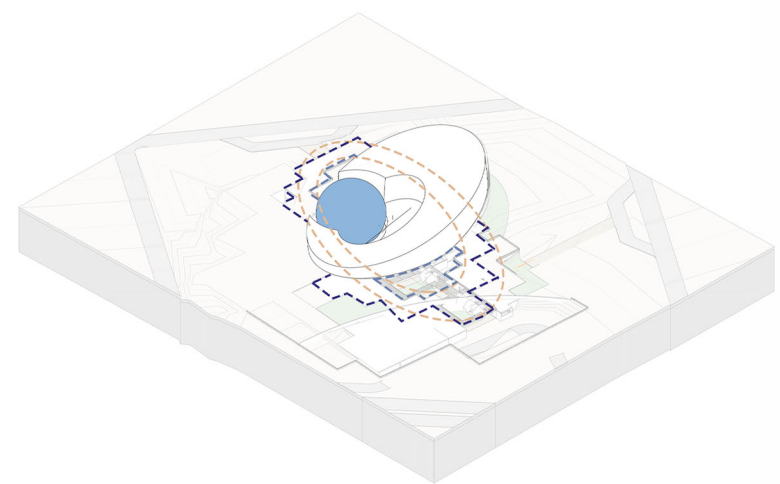
Step 2: Elliptical Extrusion
Applying a vertical extrusion to the primary elliptical shape, transforming it from a 2D layout into a 3D mass



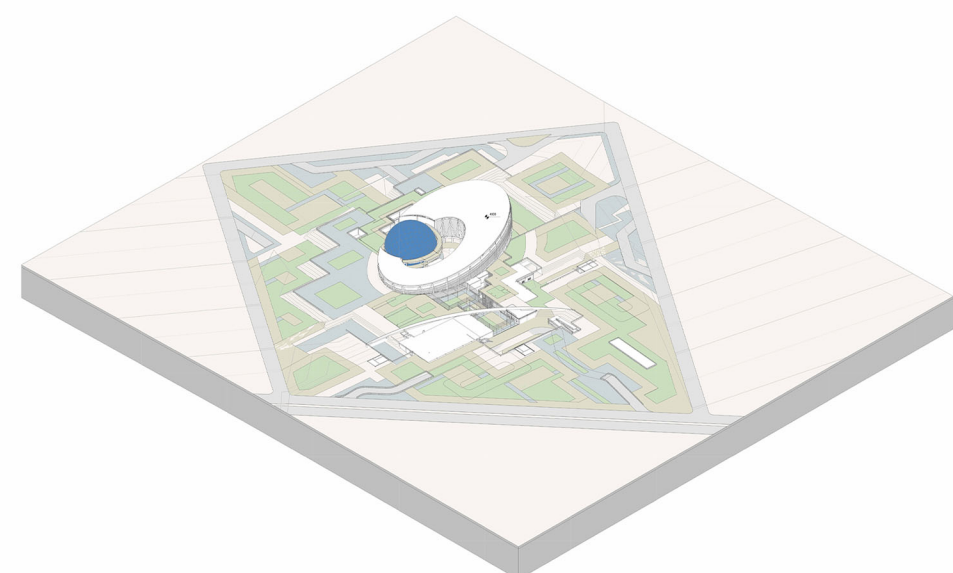
Step 3: Spherical Subtraction / Void Creation
Subtracting a spherical volume from the center of the elliptical mass to create a dynamic internal void



Step 4: Concentric Orbit Rotation
Introducing secondary elliptical paths that rotate around the main mass to emphasize the cosmic movement



Step 5: Pixelation & Ground Integration
Transforming the ground-connected elliptical elements into a pixelated pattern to smoothly integrate the architecture with the landscape



Step 6: Final modelion
Facade and landscape design



Astronomy Museum Ufuc Al-Ubour

Museum display scenario

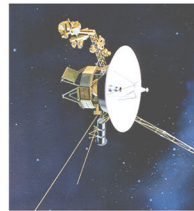
Visual display of the universe



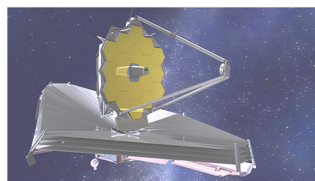
Space travel



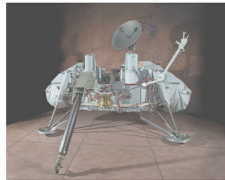
International Space Station (ISS)



Voyager 1

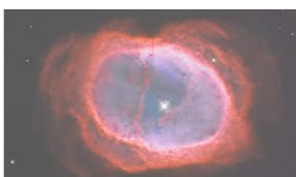


James Webb



Viking Lander

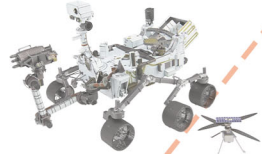
The scientific revolution caused by the James Webb telescope



Spacecraft on Mars



Sojourner Rover



Perseverance Rover

Mars settlement



Absence of knowledge



Explanation of the stars in seasons



Astrolabes



The invention of telescopes, scientists



Hilscher's telescope



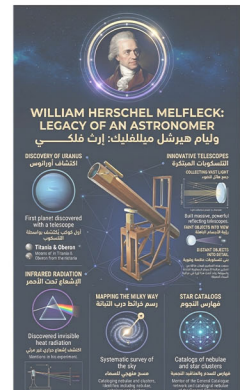
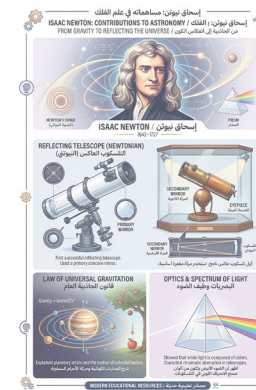
Cassegrain's Telescope



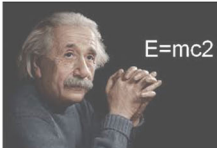
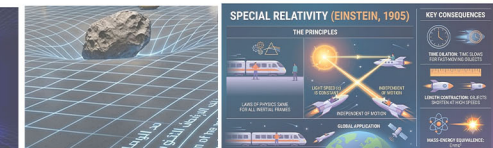
Galileo's telescope



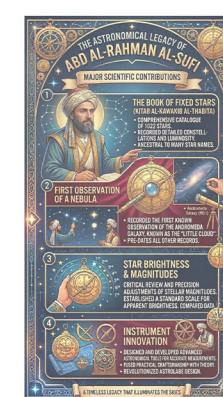
Newton's telescope



General and special relativity



Arab scholars



Apollo flight

The conflict between America and the Soviet Union



Vostok spacecraft



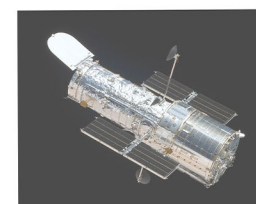
Laika



Sputnik 1



_Füsée_V2



Télescope Hubble



Apollo-Soyuz Test Project



Apollo 11 (Moon) Landing



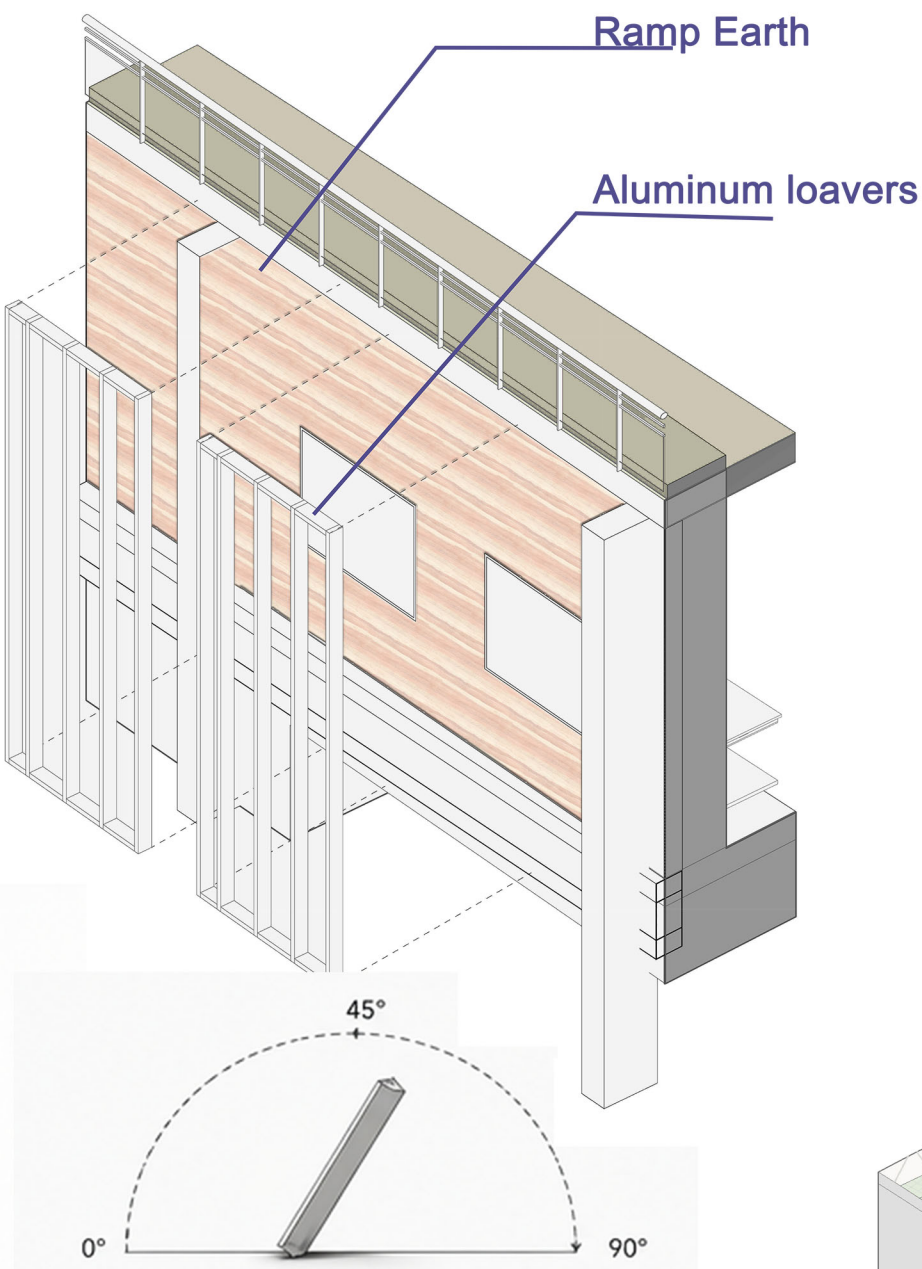
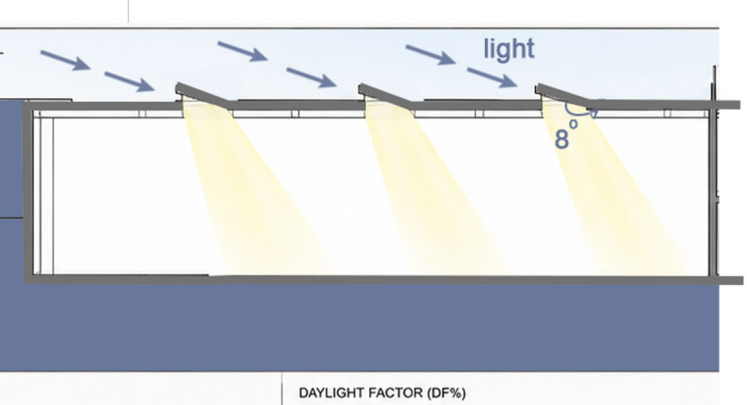
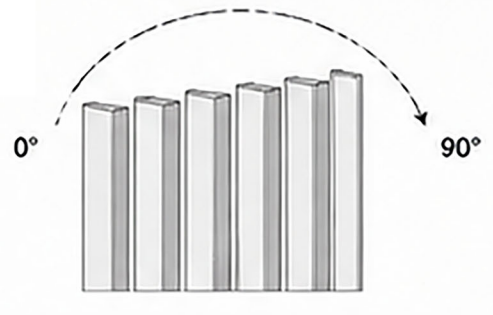
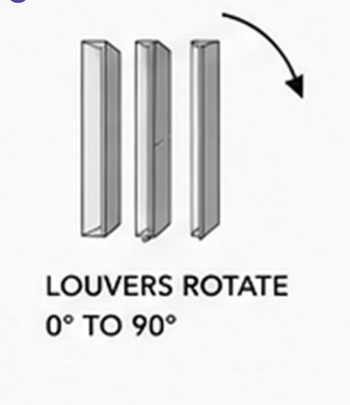
Astronomy Museum Ufuc Al-Ubour

Environmental studies

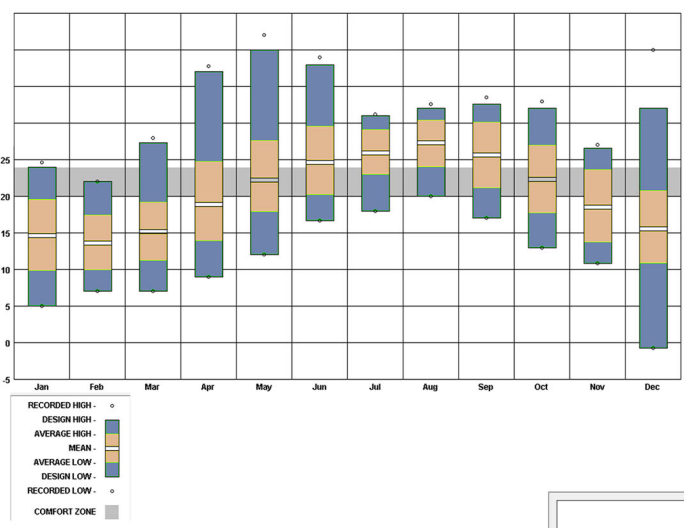
MOVABLE LOUVERS

CONCEPT

The vertical louvers rotate to control solar penetration throughout the day, providing optimal daylight, reducing glare and heat gain.

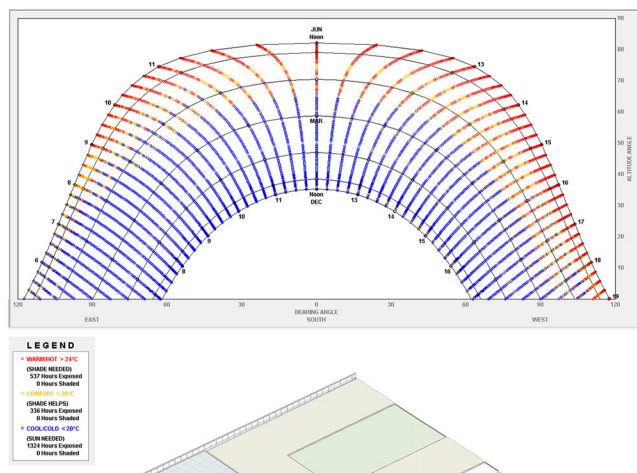


Lighting enters from the ceiling on the north side of the temporary exhibition hall



Temperature fluctuations: Most of the year is outside the "comfort zone," with extreme heat peaks exceeding 40°C in May and severe cold in winter.

Seasonal variation: December and January experience the lowest temperatures, while high heat stress persists from May to October.



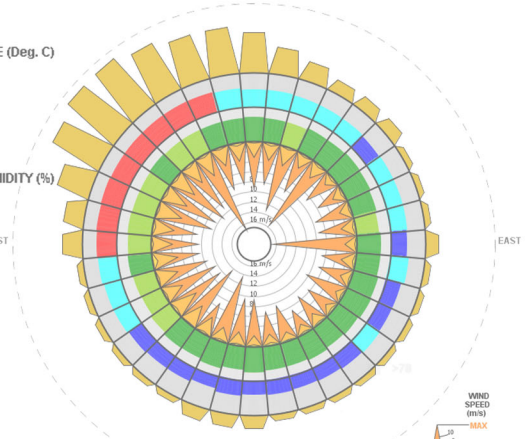
The northwestern (NW) facades receive the soothing sea breeze, while the southwestern (SW) facades repel the hot, dust-laden Khamsin winds during the spring season.

TEMPERATURE (Deg. C)

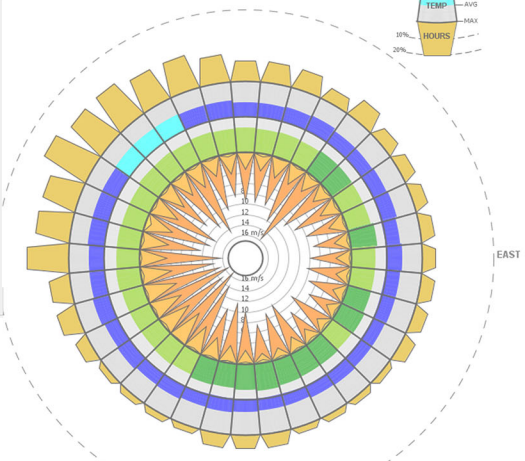
- < 0
- 0 - 20
- 20 - 24
- 24 - 38
- > 38

RELATIVE HUMIDITY (%)

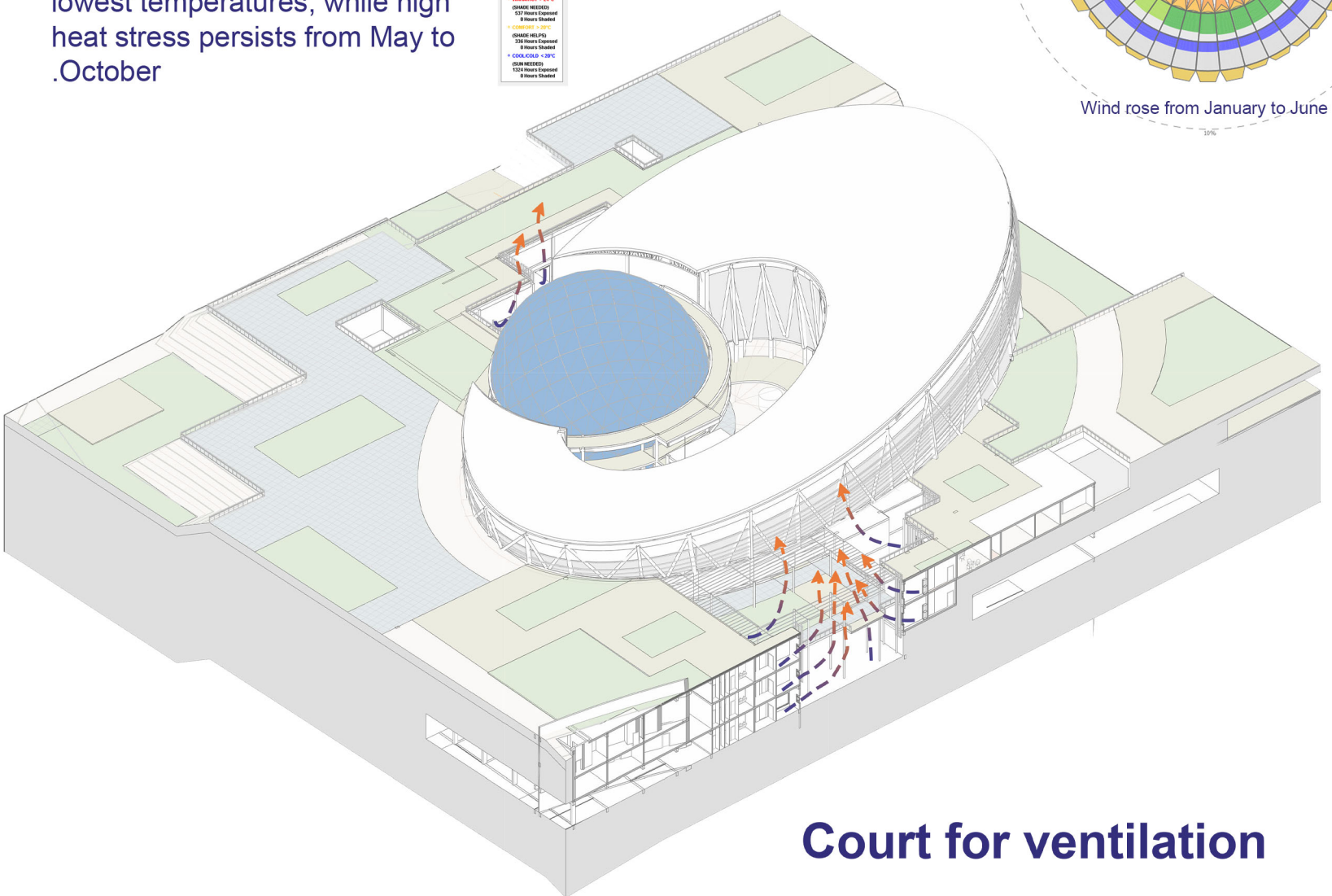
- < 30
- 30-70
- > 70



Wind rose from June to December



Wind rose from January to June

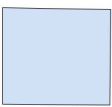


Court for ventilation



Astronomy Museum Ufuc Al-Ubour

key plan



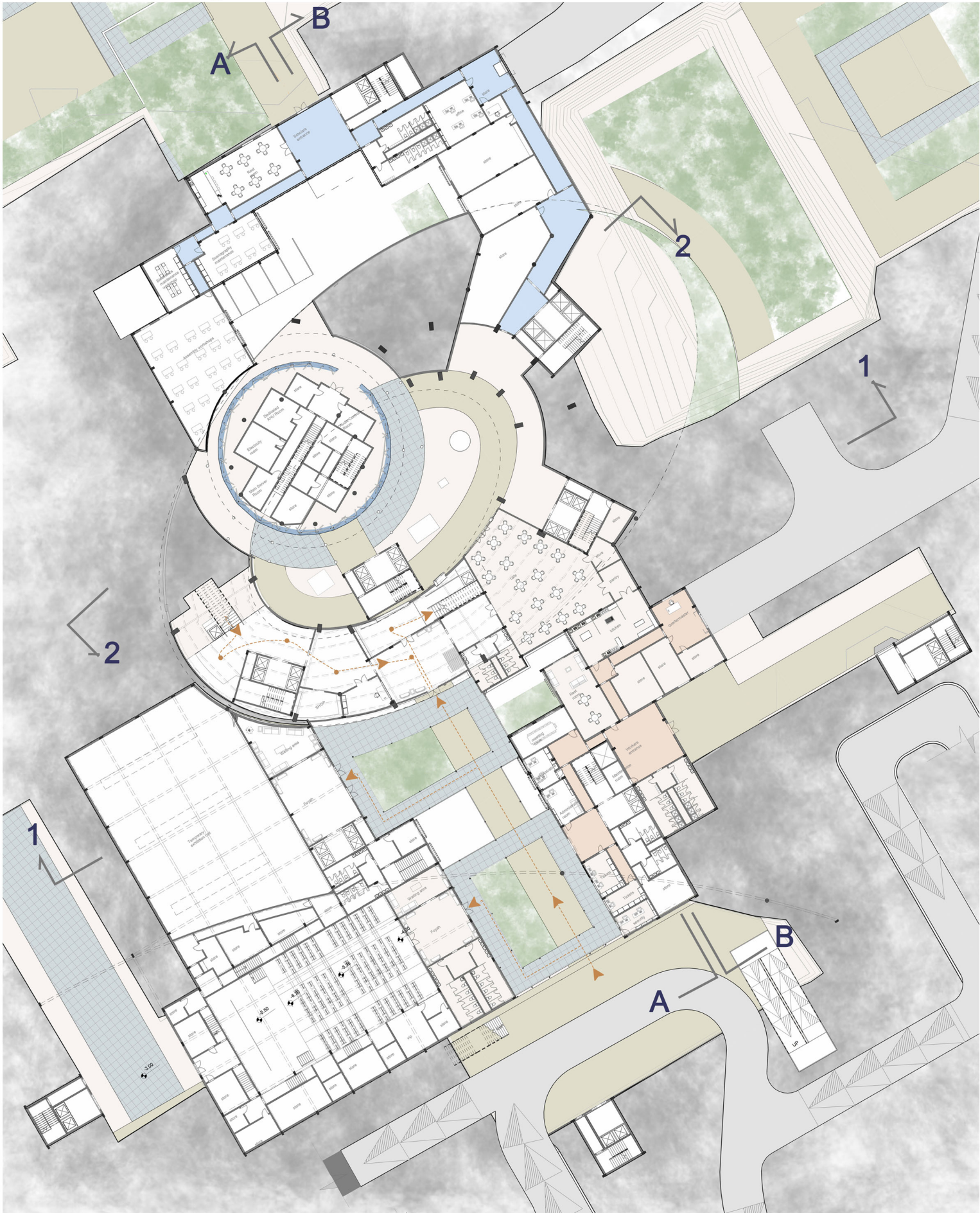
Circulation
Service
Museum



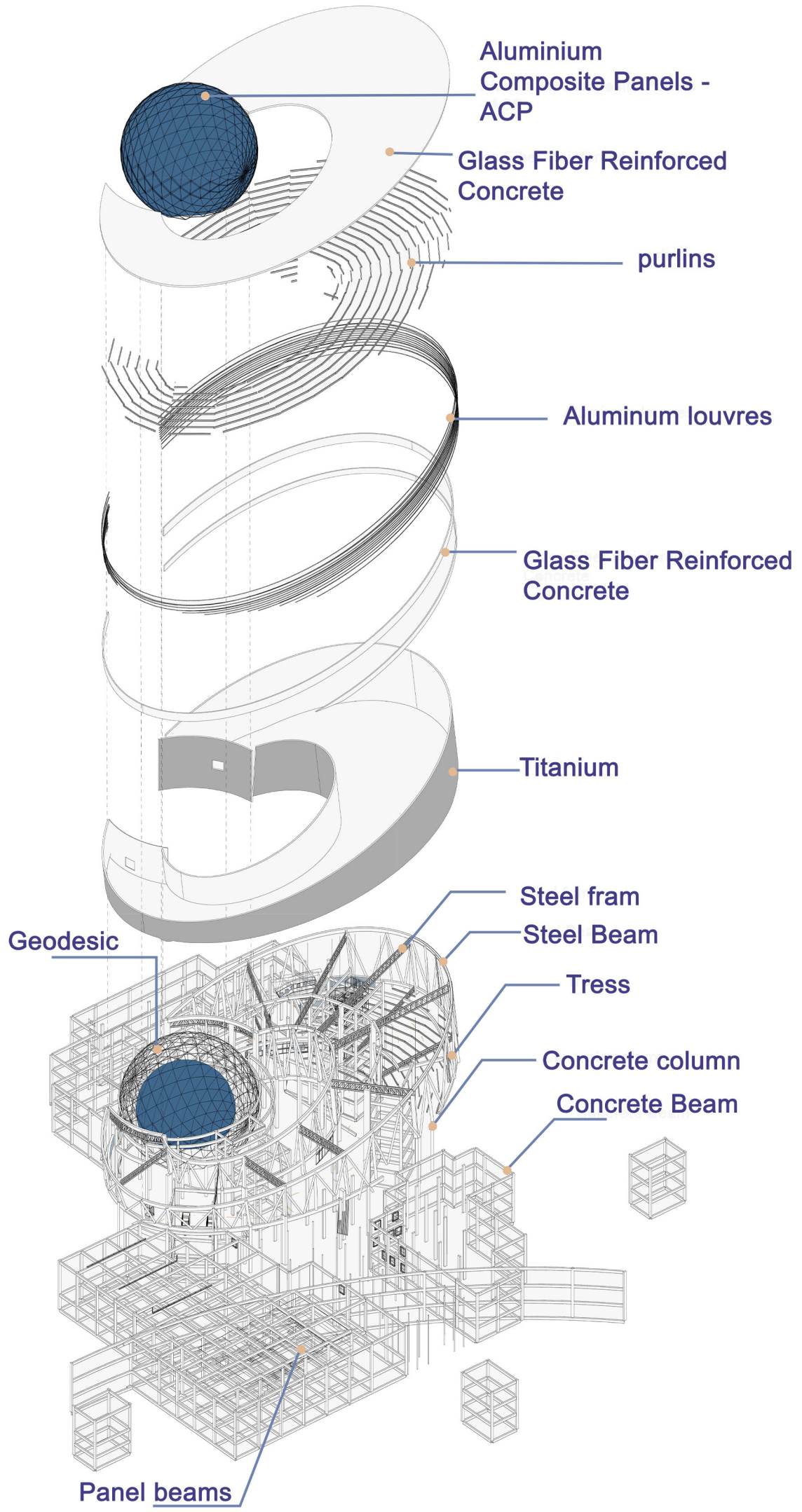
Service and
Management
Circulation



Visitors'
movement
path

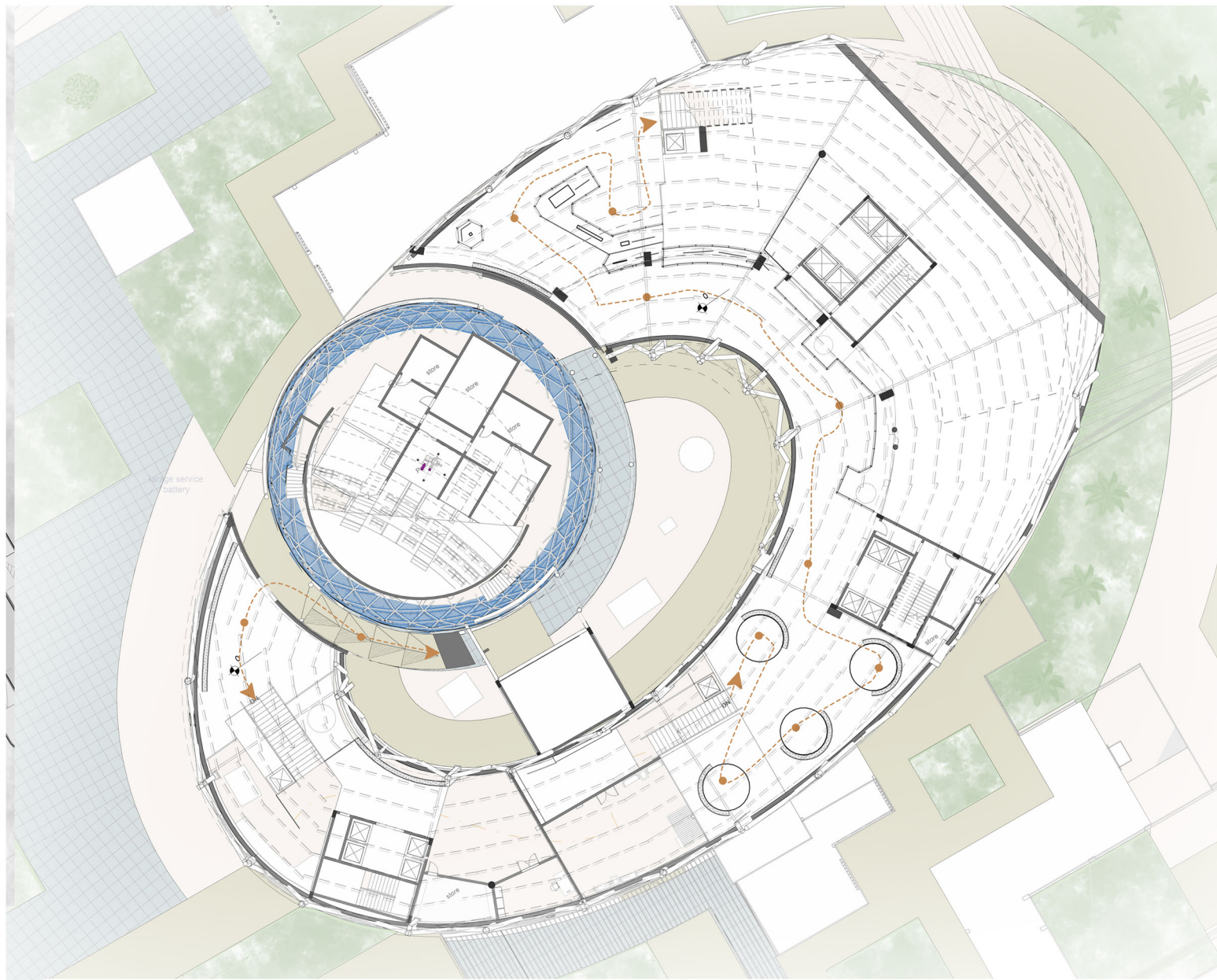


Floor Plan (level -4m) Scale 1:200

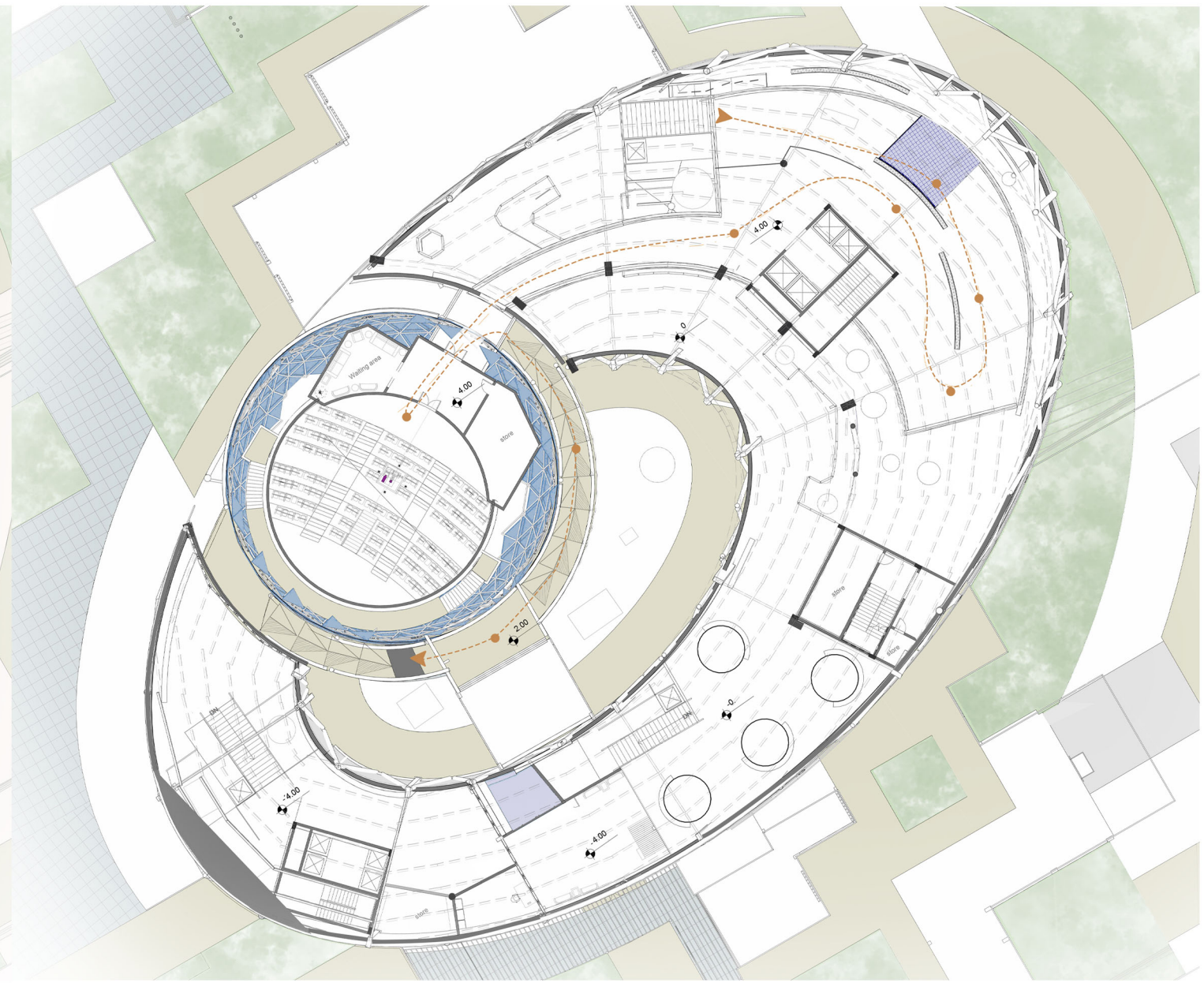




Astronomy Museum Ufuc Al-Ubour



First Floor Plan (level +4.0m) Scale 1:200



Ground Floor Plan (level 0.0) Scale 1:200



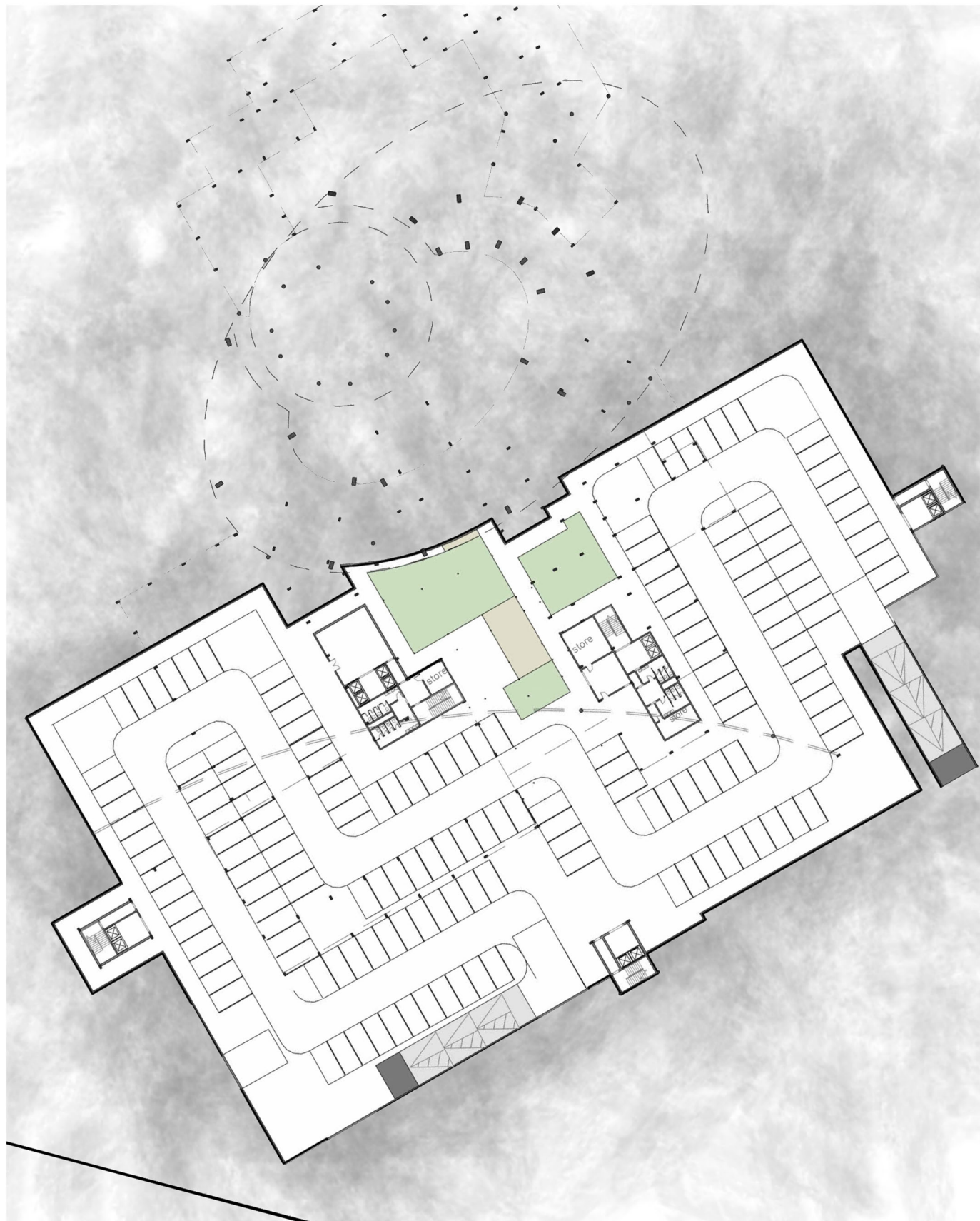
North Elevation Scale 1:200



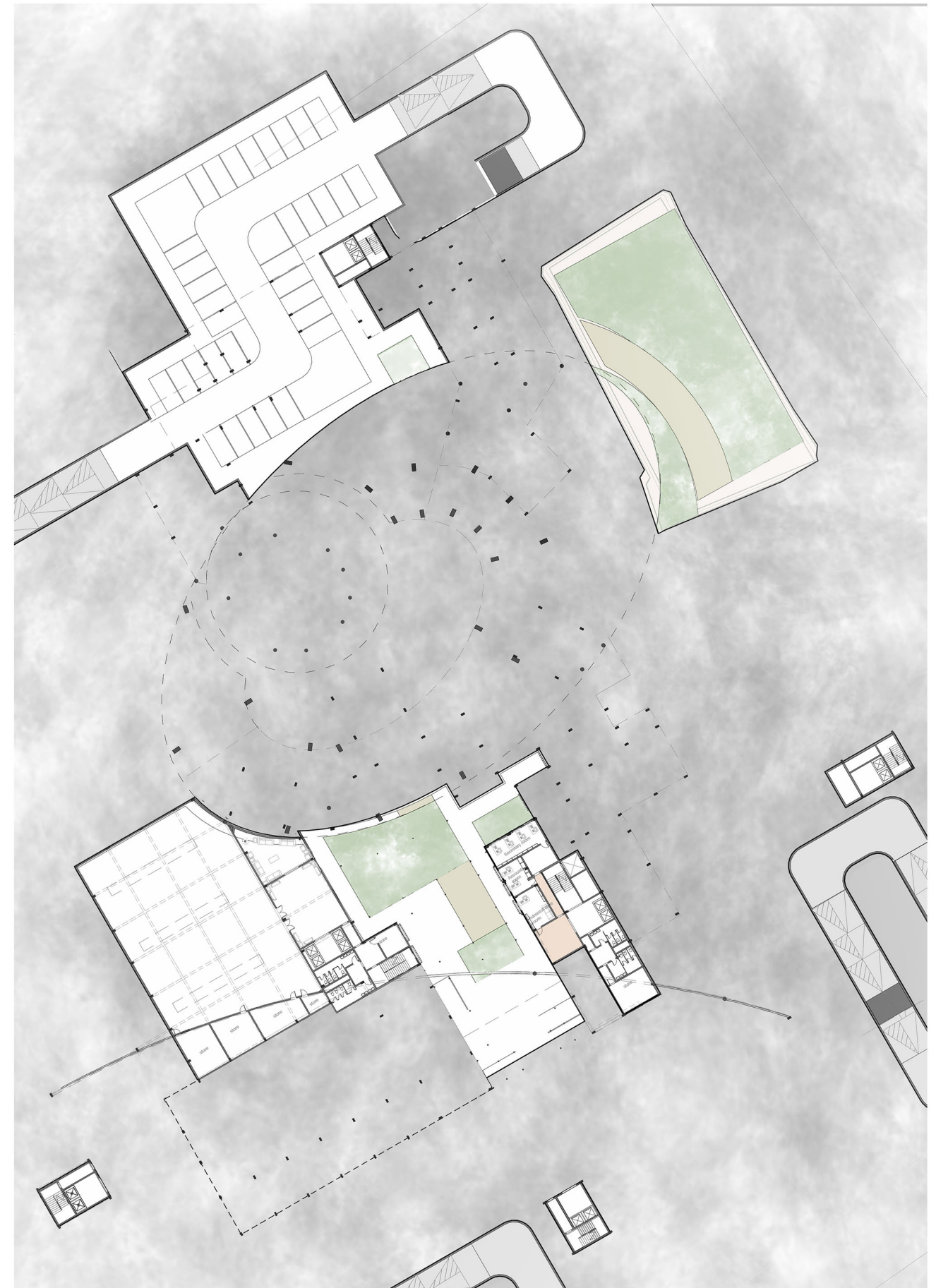
Western Elevation Scale 1:200



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Floor Plan (level-12m) Scale 1:400

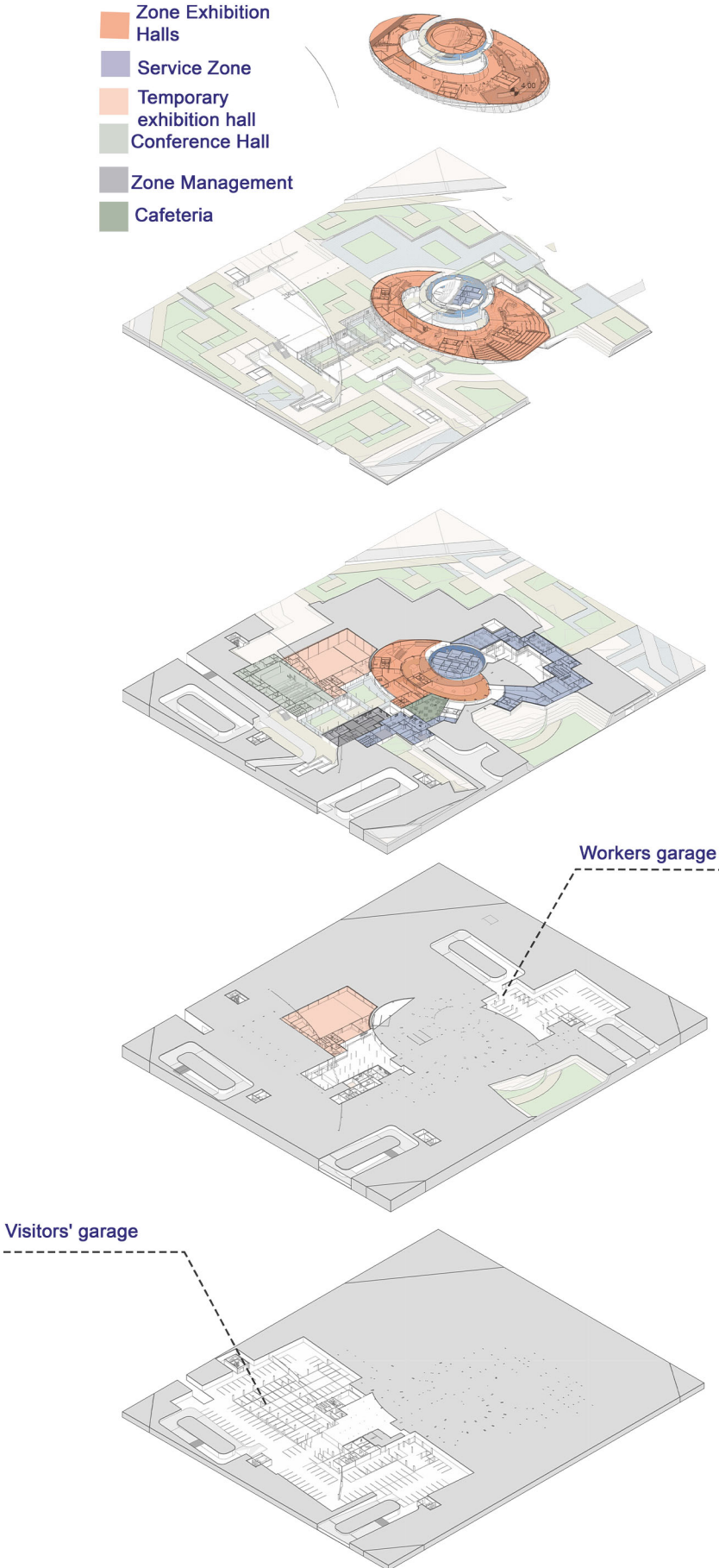


Floor Plan (level-8m) Scale 1:10000

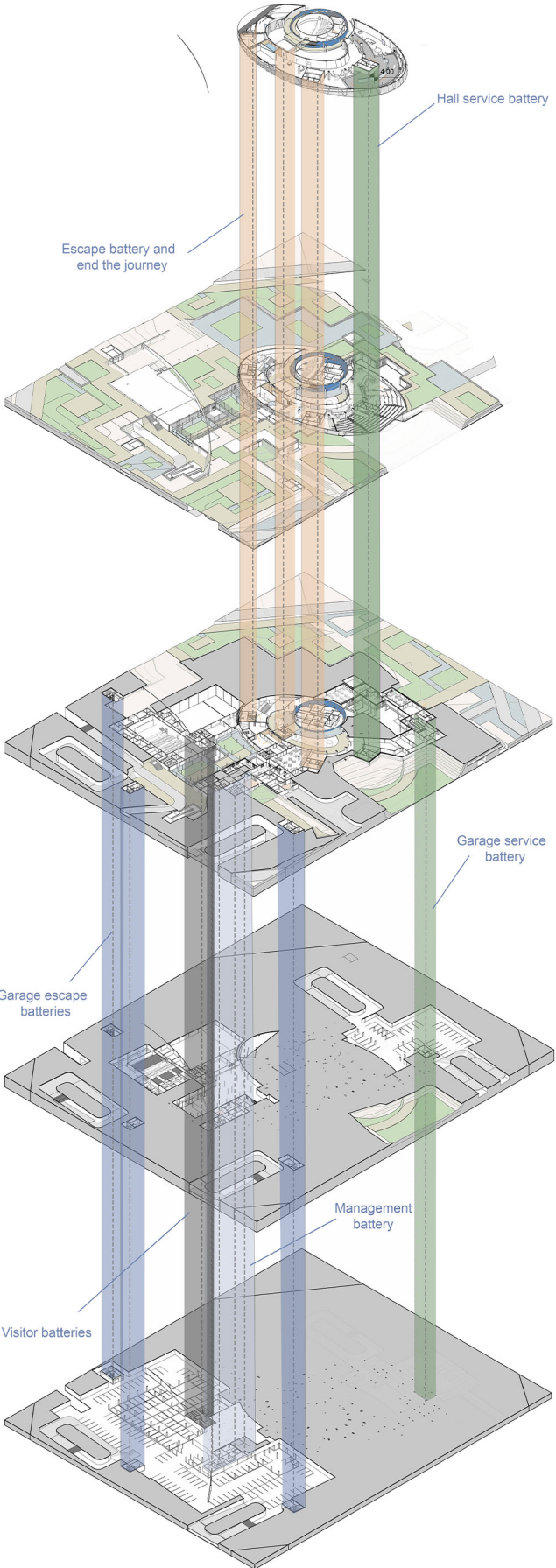


Astronomy Museum Ufuc Al-Ubour

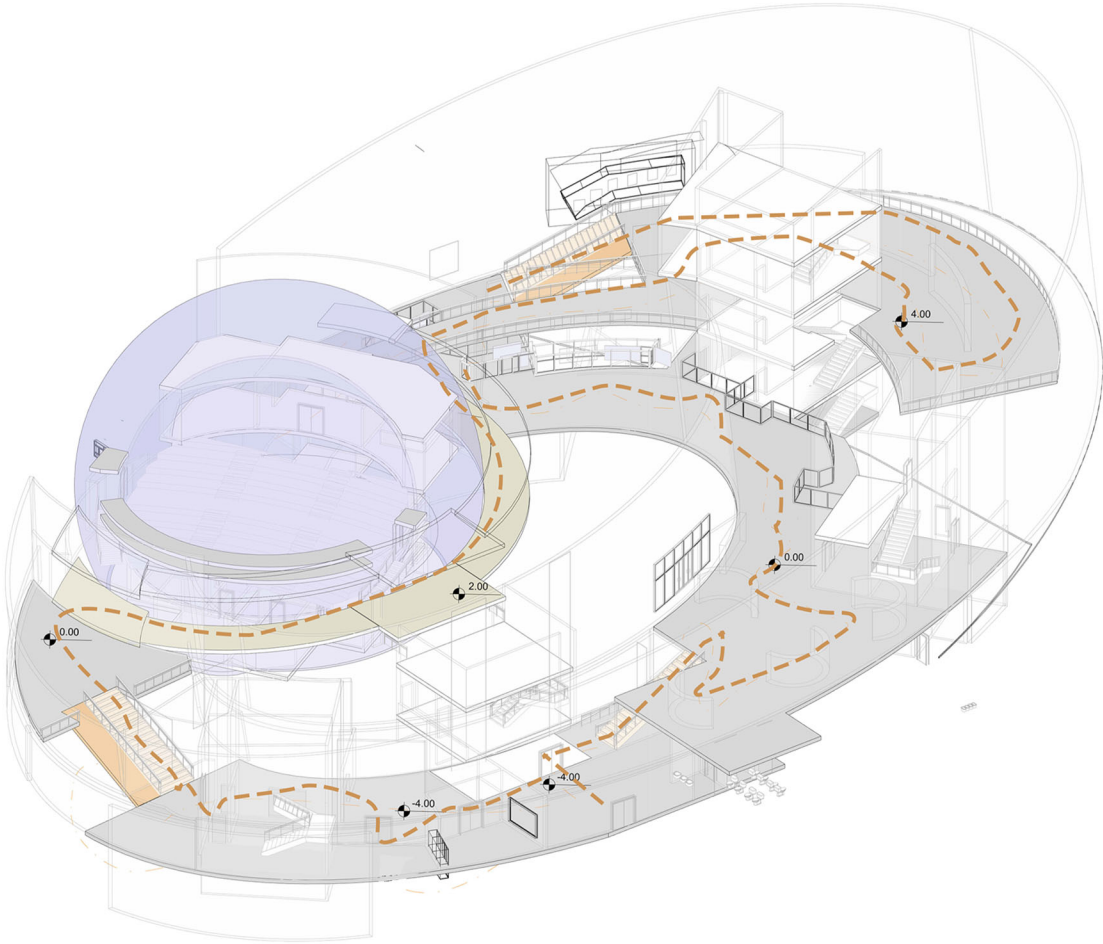
- Zone Exhibition Halls
- Service Zone
- Temporary exhibition hall
- Conference Hall
- Zone Management
- Cafeteria



Zoning diagram



Vertical Circulation Diagram

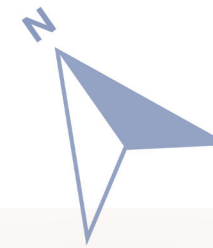


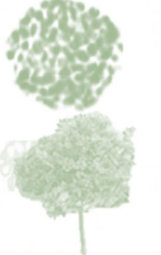
Circulation display

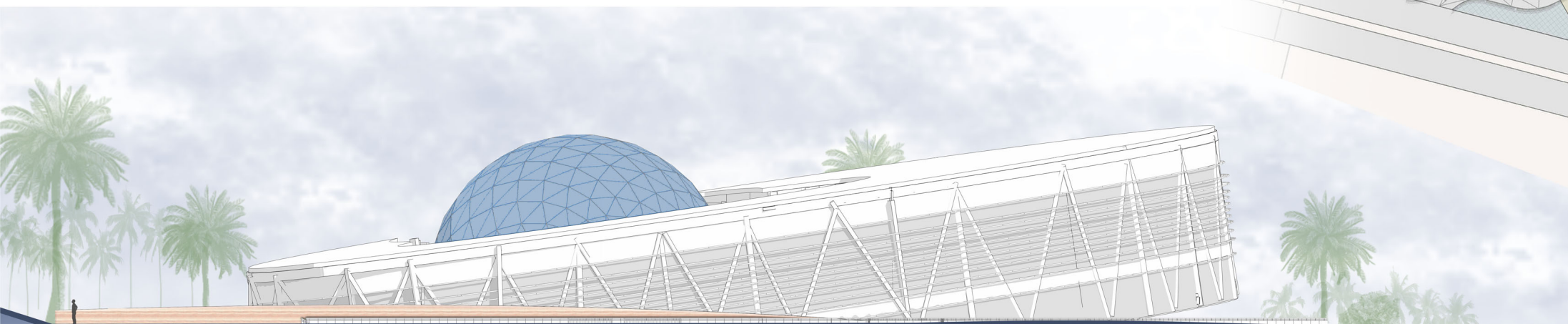
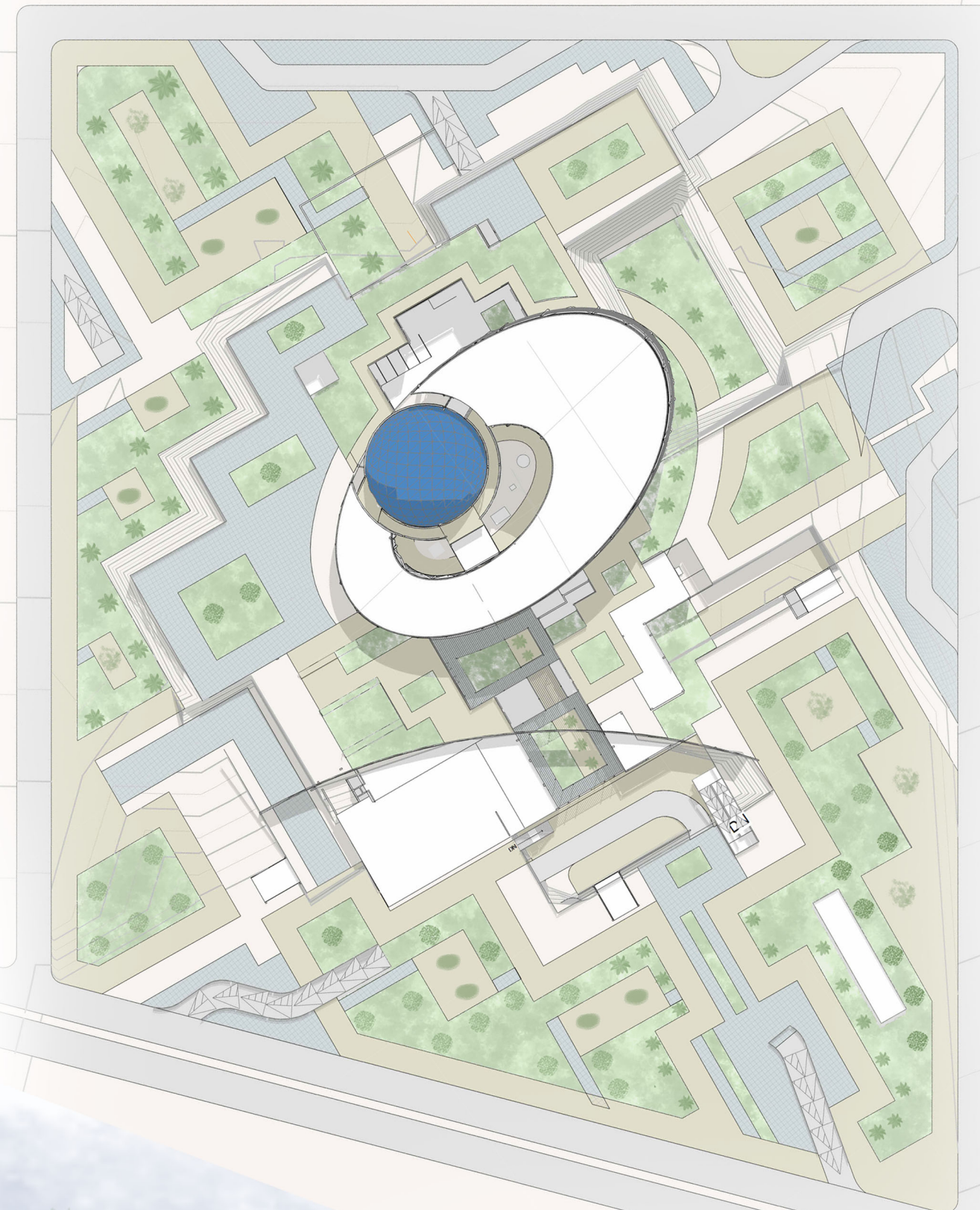




Astronomy Museum Ufuc Al-Ubour



<Code>	TREE IMAGE	COMMON NAME	DESCRIPTION / CLASSIFICATION
		Green Ash	Deciduous Shade Tree
		Banyan Ficus	Mature Specimen Tree (Gnarled Root)
		Weeping Fig	Interior Topiary Tree (Formed)
		Coconut Palm	Tropical Monocot Tree

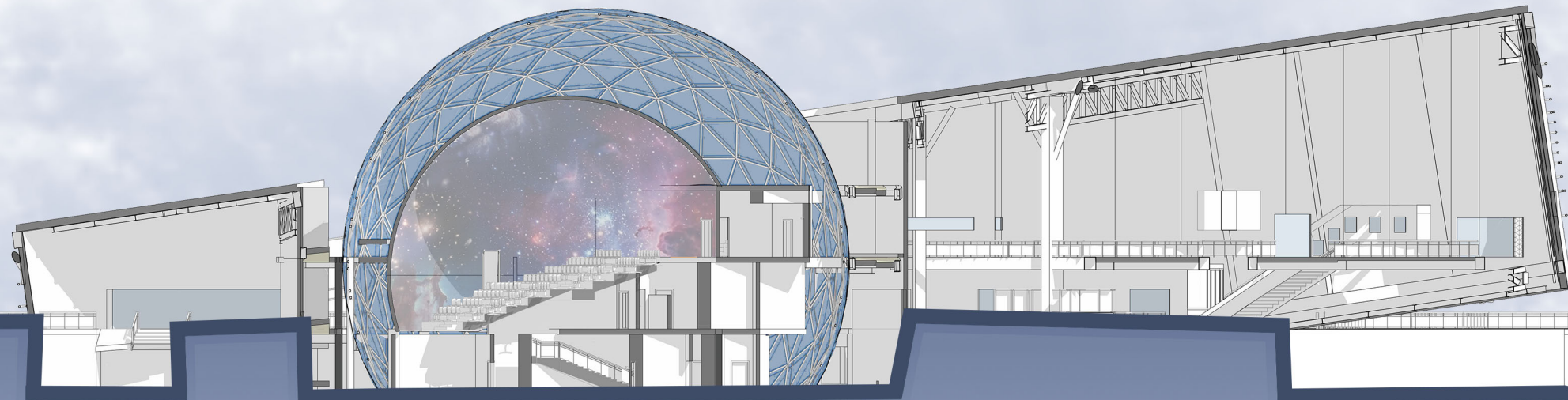


South Elevation Scale 1:200

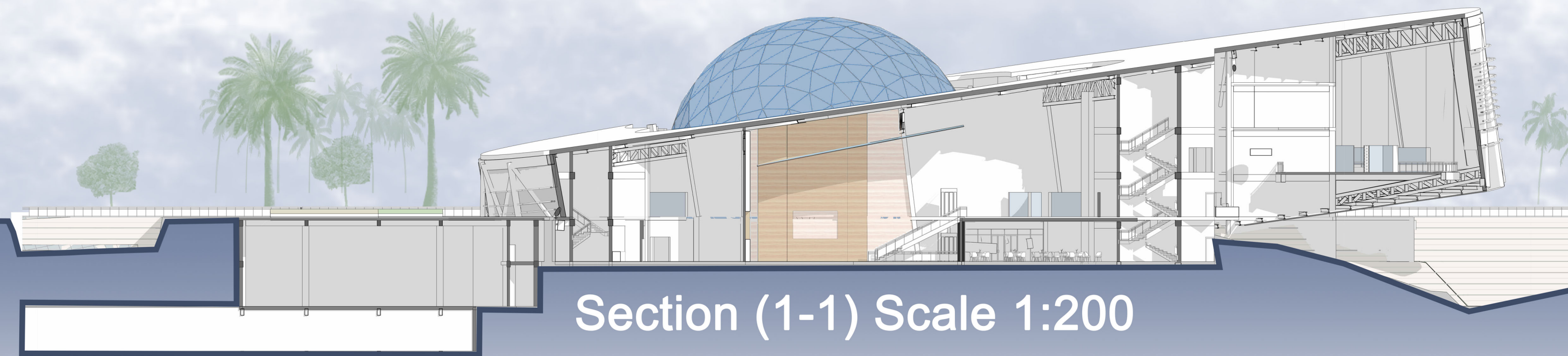
Site Plan Scale 1:1000



Astronomy Museum Ufuc Al-Ubour



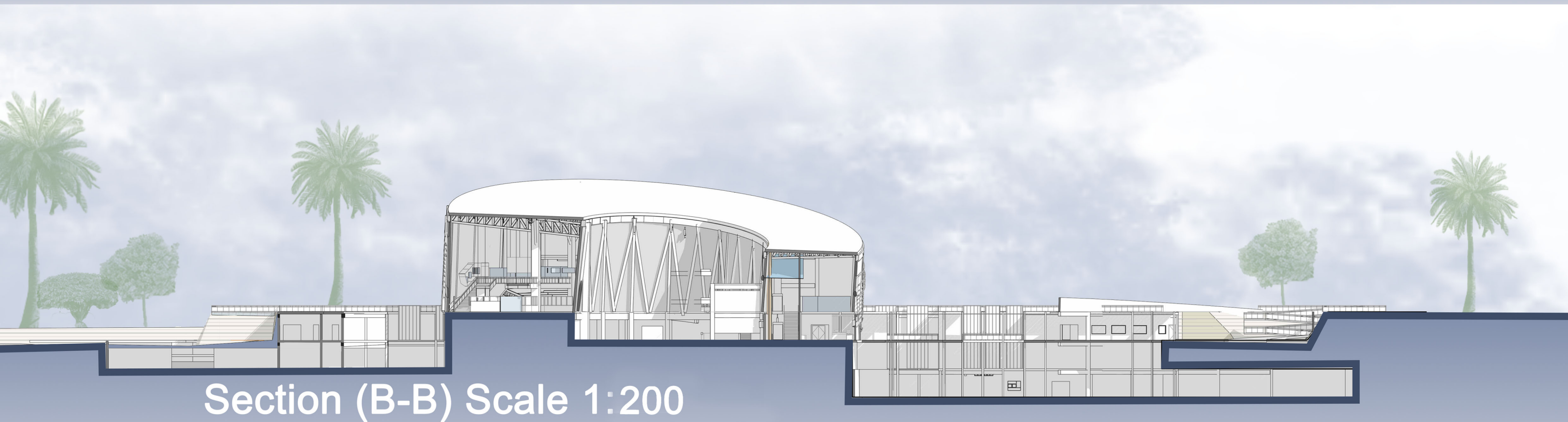
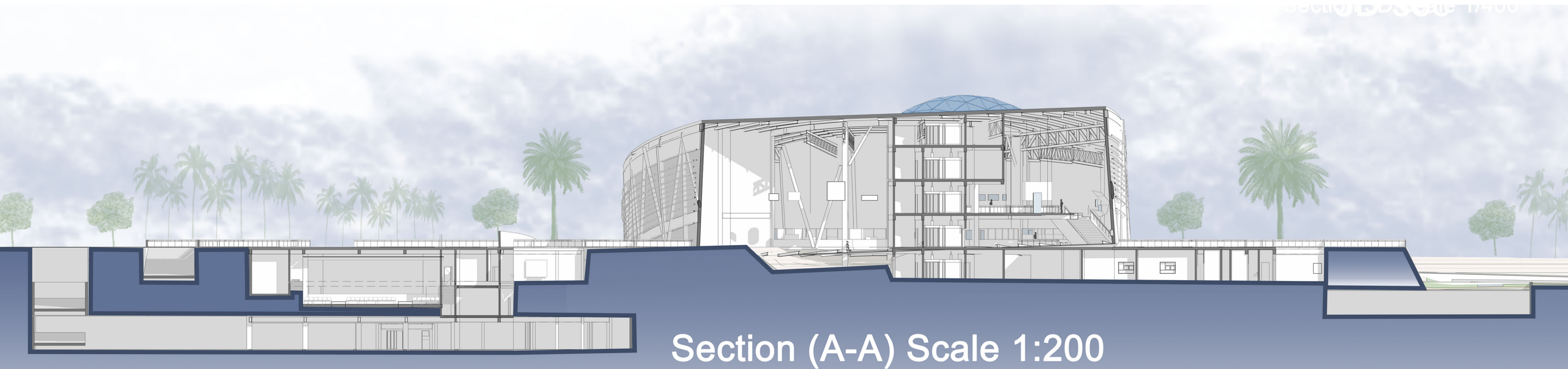
Section (2-2) Scale 1:200



Section (1-1) Scale 1:200

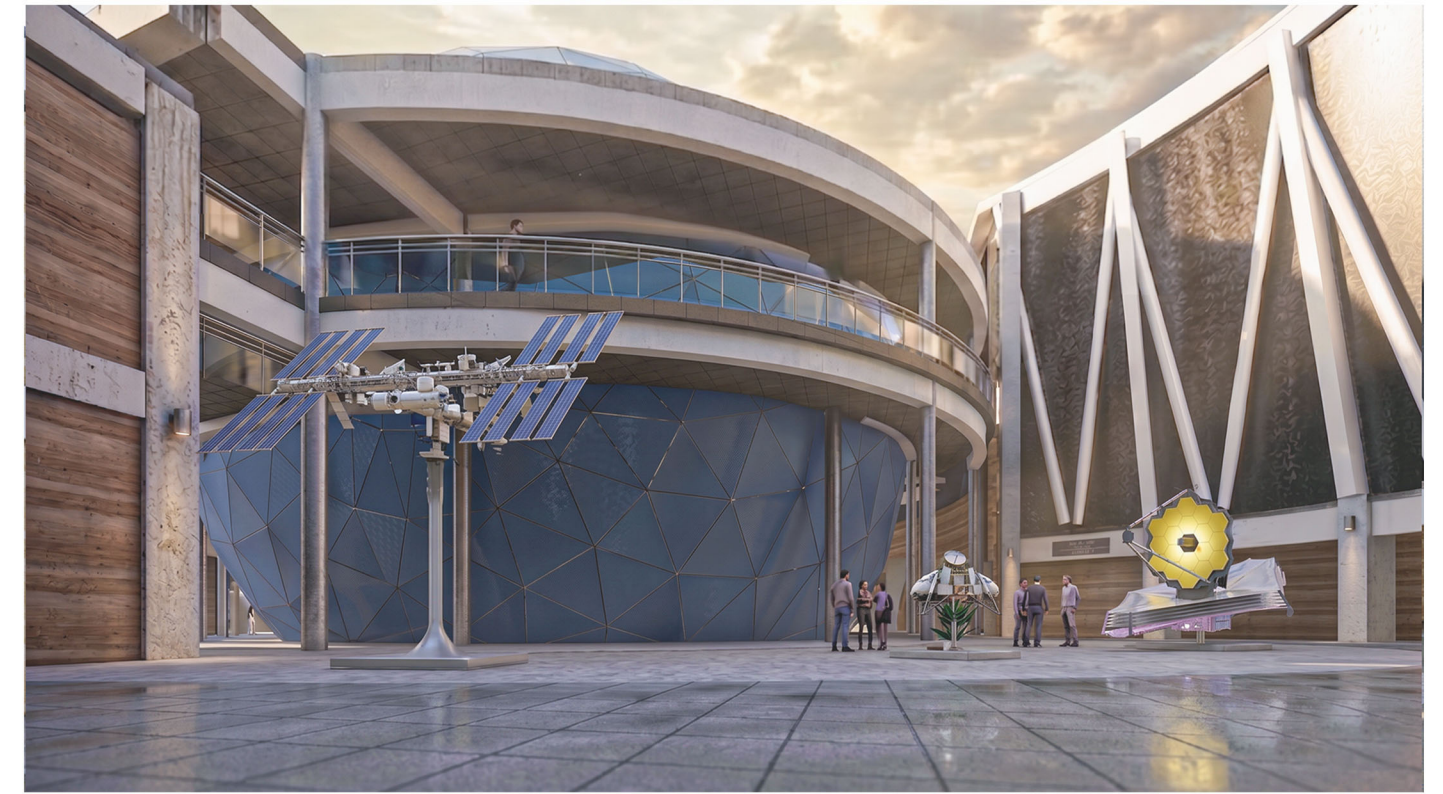


Astronomy Museum Ufuc Al-Ubour



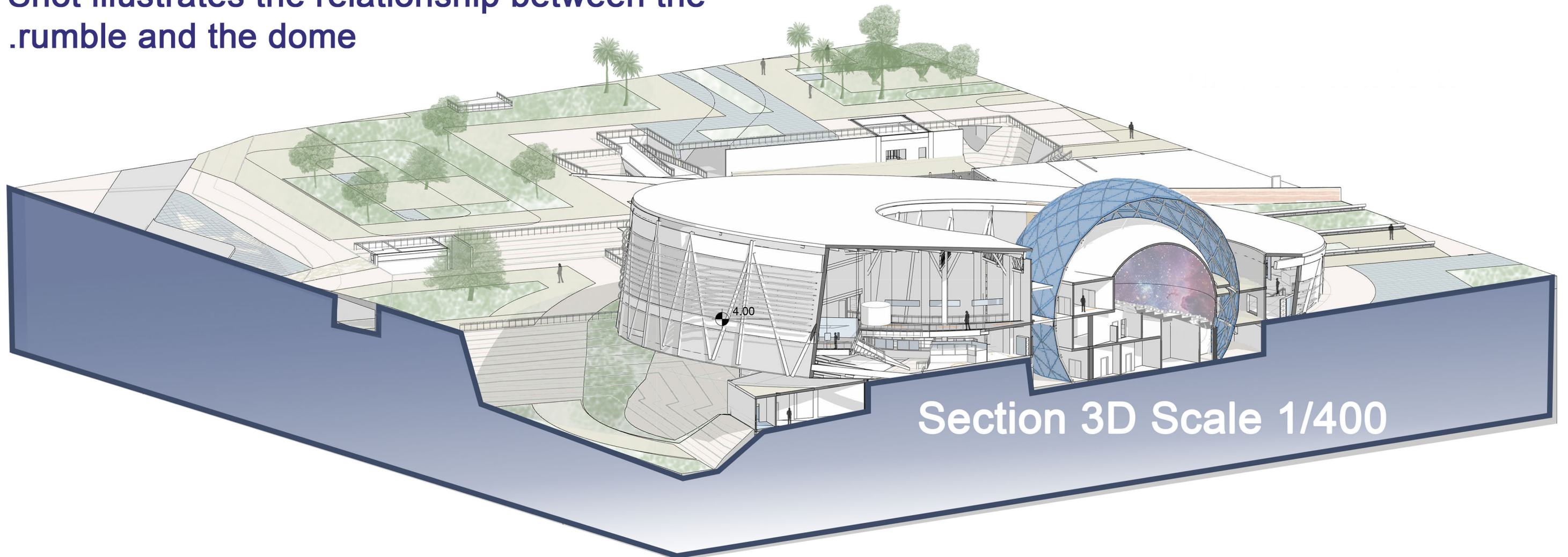


Astronomy Museum Ufuc Al-Ubour



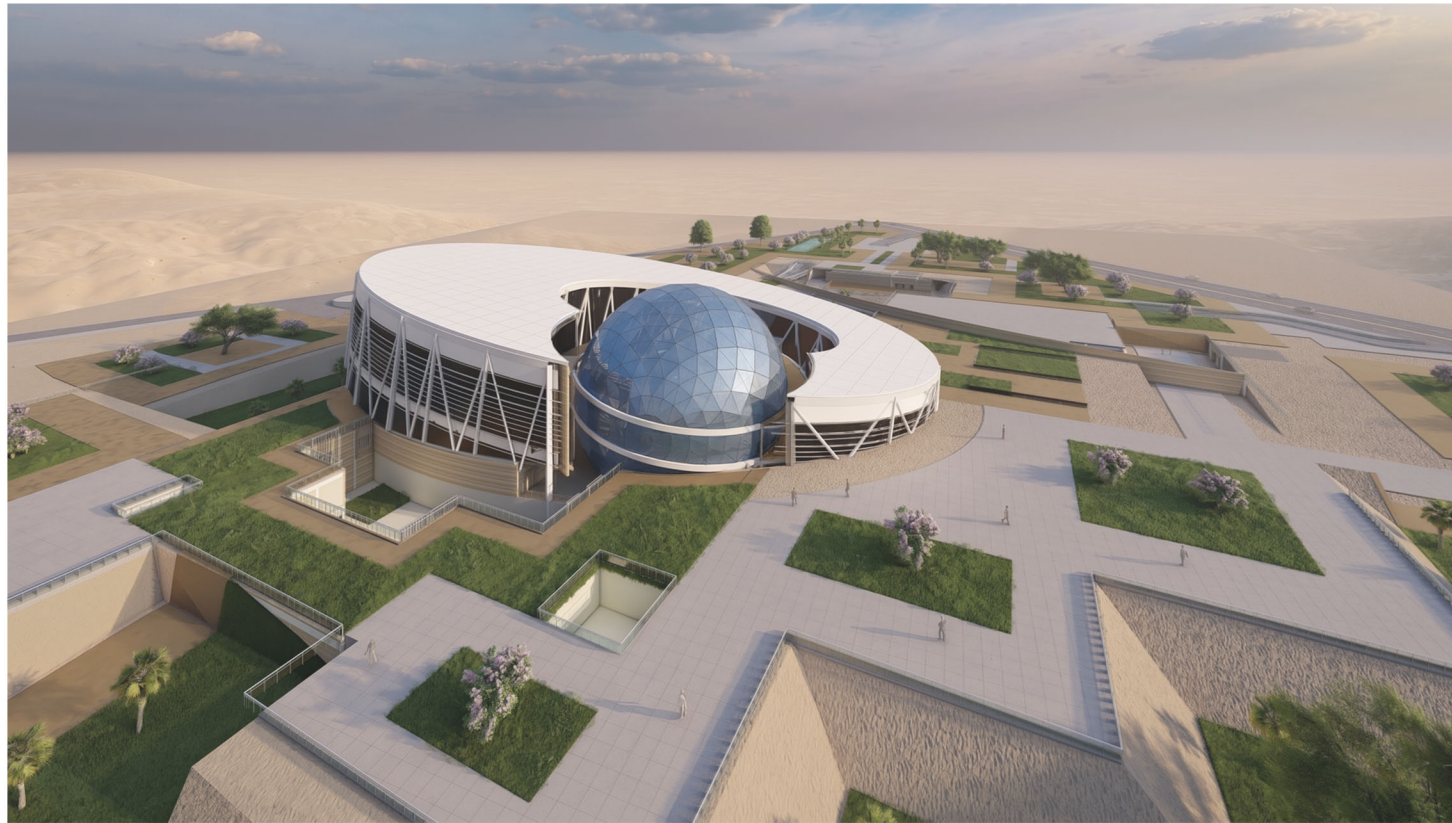
Shot illustrates the relationship between the .rumble and the dome

Shot showing the display in the inner court





Astronomy Museum Ufuc Al-Ubour



A shot from the underground plaza



Shot the entrance from underground



Shot from inside the Plaza entrance



.A shot showing the skyline



Astronomy Museum Ufuc Al-Ubour



A shot illustrating the "Darkness, Ignorance, and the Unknown" exhibition zone



A perspective showing the star mapping exhibition area



Sightline between main exhibits and telescopes' display



An interior shot of the Planetarium