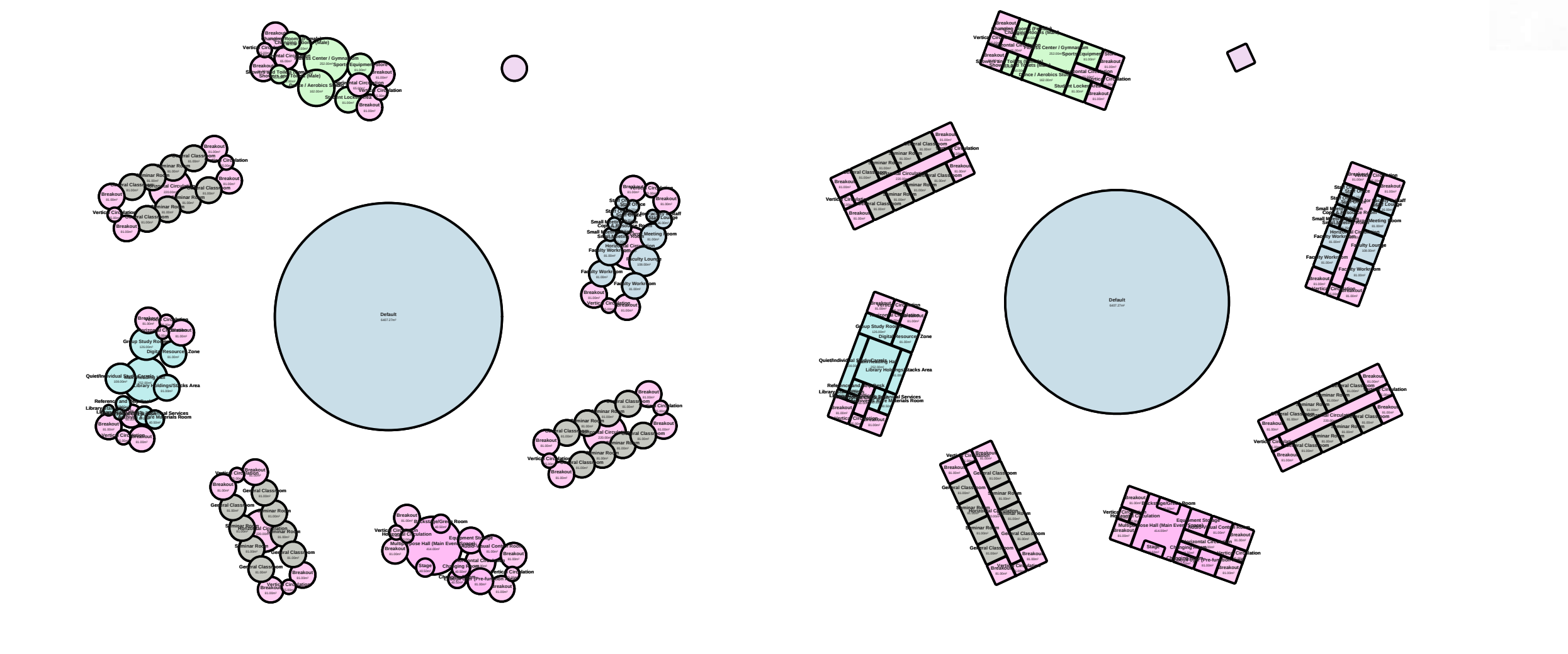
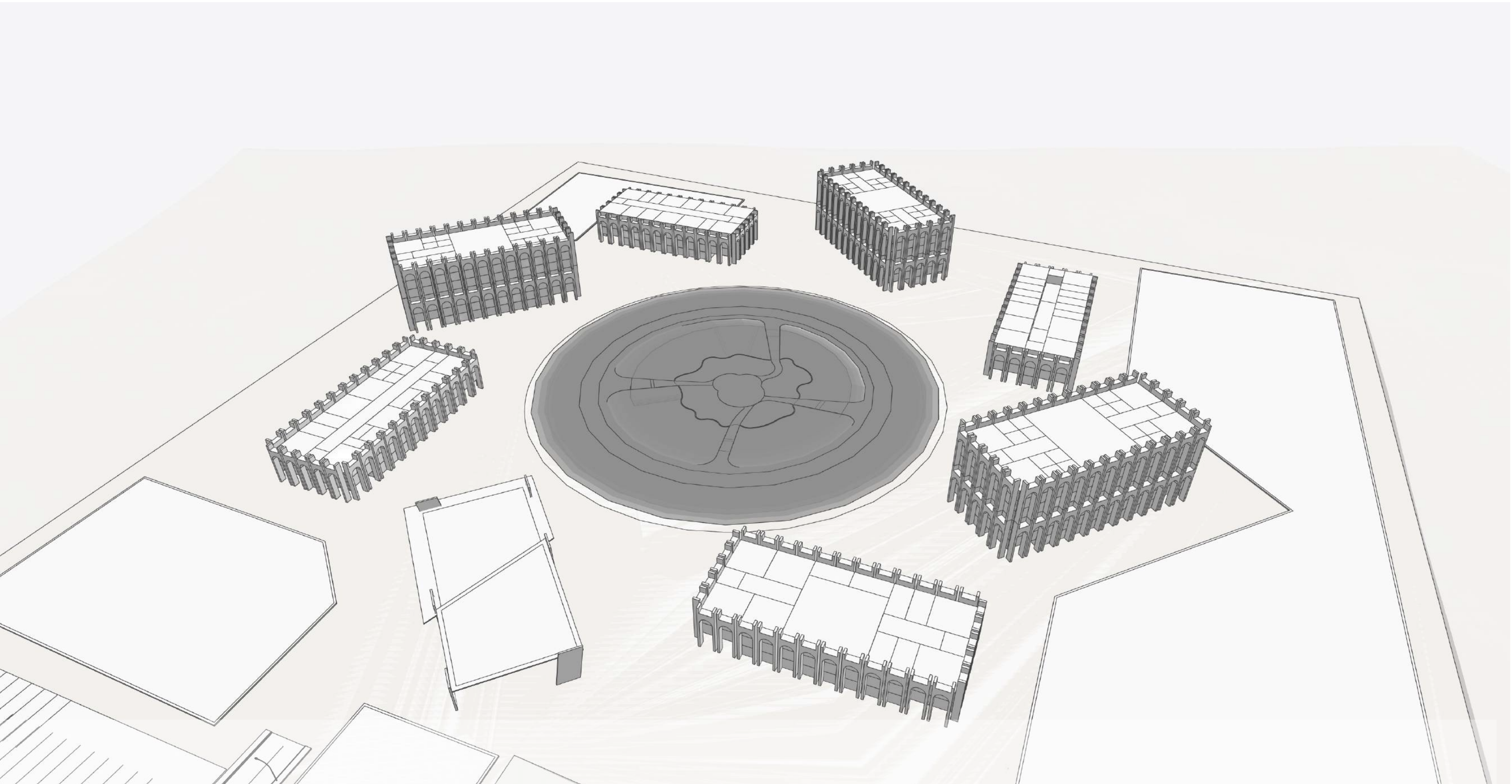


0° 2'57.99"E 5°44'10.47"N



A future-ready educational campus that harmonizes light, water, and greenery within a solar-guided circular masterplan, symbolizing unity, growth, and renewal. Anchored by a central fountain and walkway , the design merges modern glass minimalism with the timeless character of arcade façades, creating a dialogue between transparency, culture, and climate response. Surrounding lush landscapes and reflective water surfaces moderate heat gain while promoting comfort and social interaction. Developed and refined through Snaptrude’s real-time modeling and solar analysis, the design integrates environmental intelligence and architectural expression into a single, self-sustaining ecosystem of learning and innovation.



Inspiration and Precedent



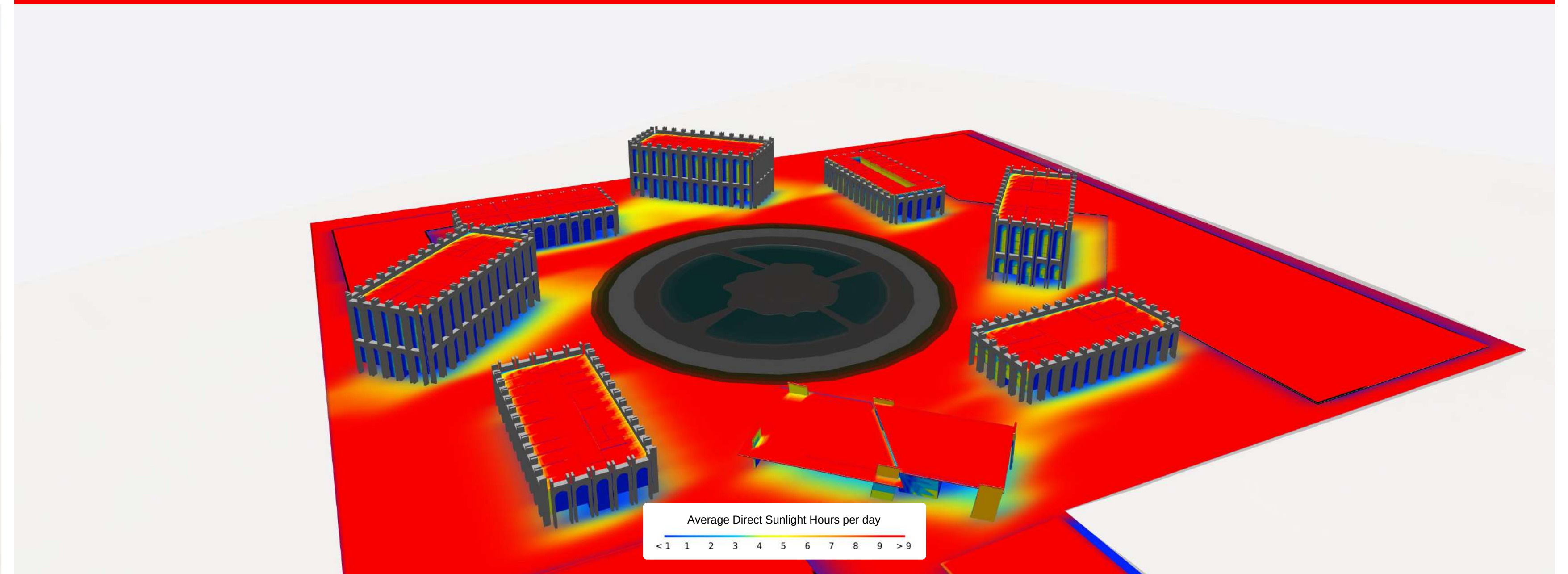
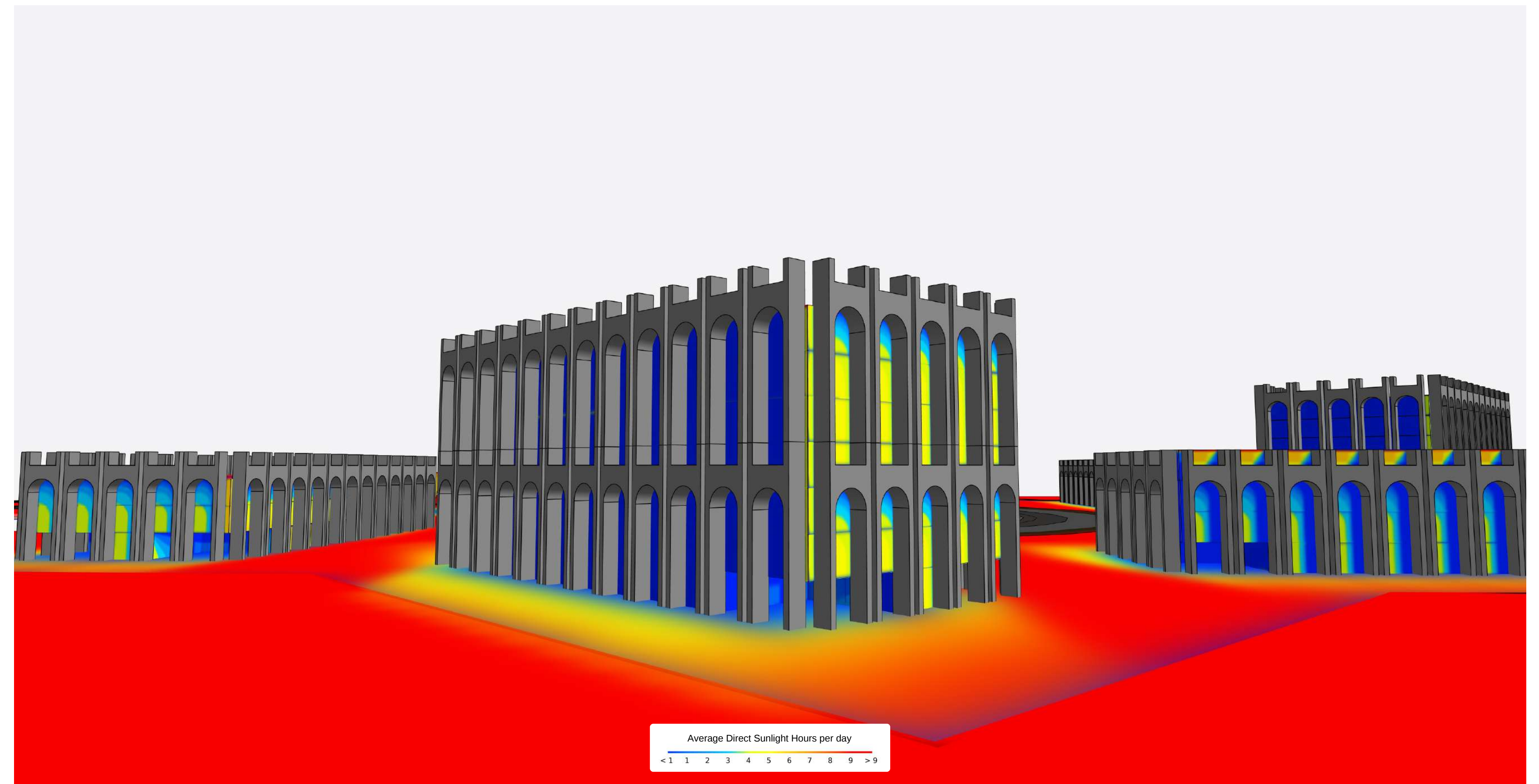
The Bank of Ghana’s new headquarters, clad in durable stone and UV-protected glass, embodies a union of resilience, permanence, and modern transparency. Its solar-powered systems and EDGE Advanced sustainability framework establish it as a self-sufficient landmark, while the building’s scale, material richness, and vertical composition assert the institutional strength and economic aspirations of Ghana in the global financial landscape.

Concept Statement

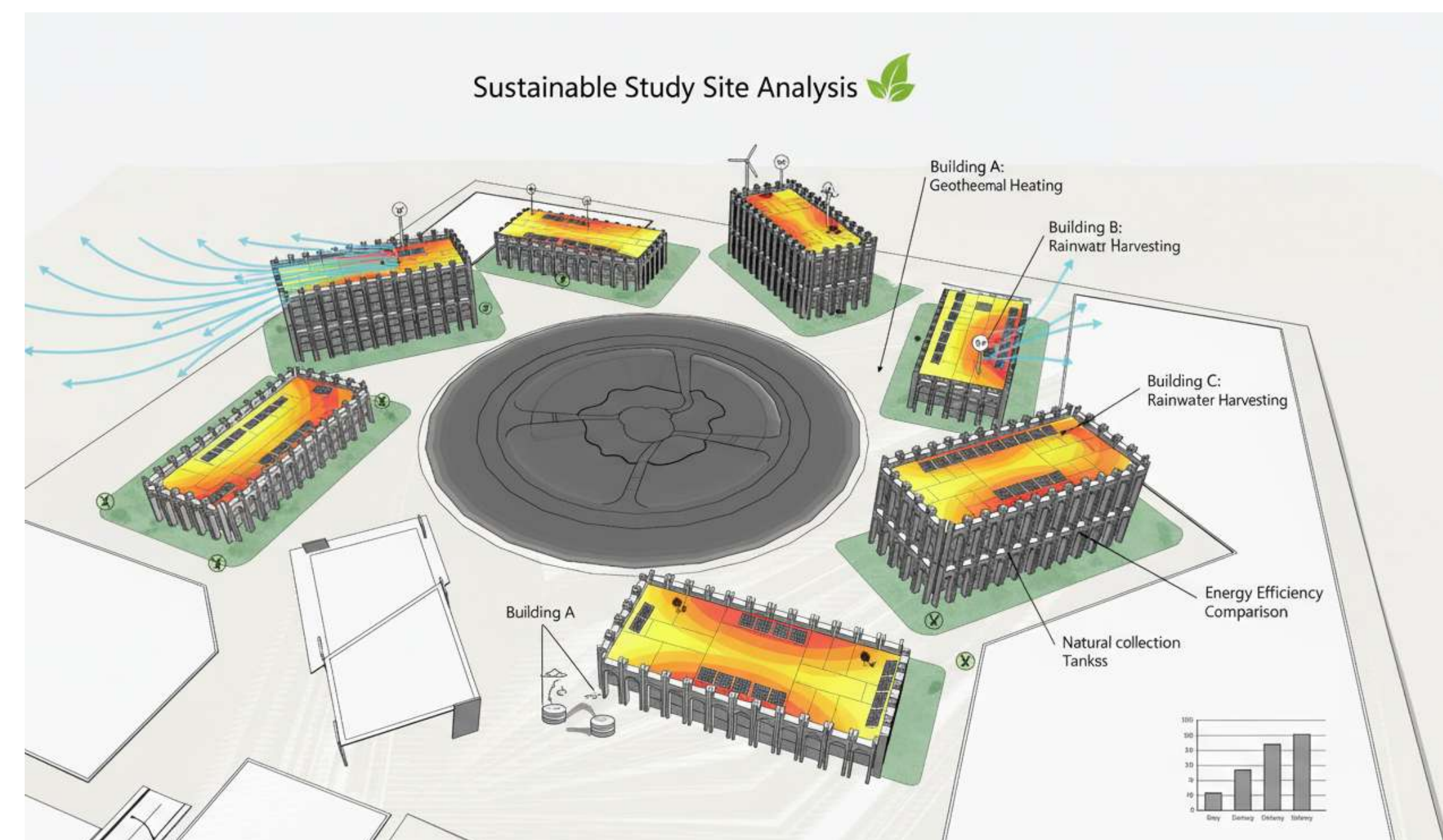


Total Net Internal Area: 91,925.44

Net Internal Area



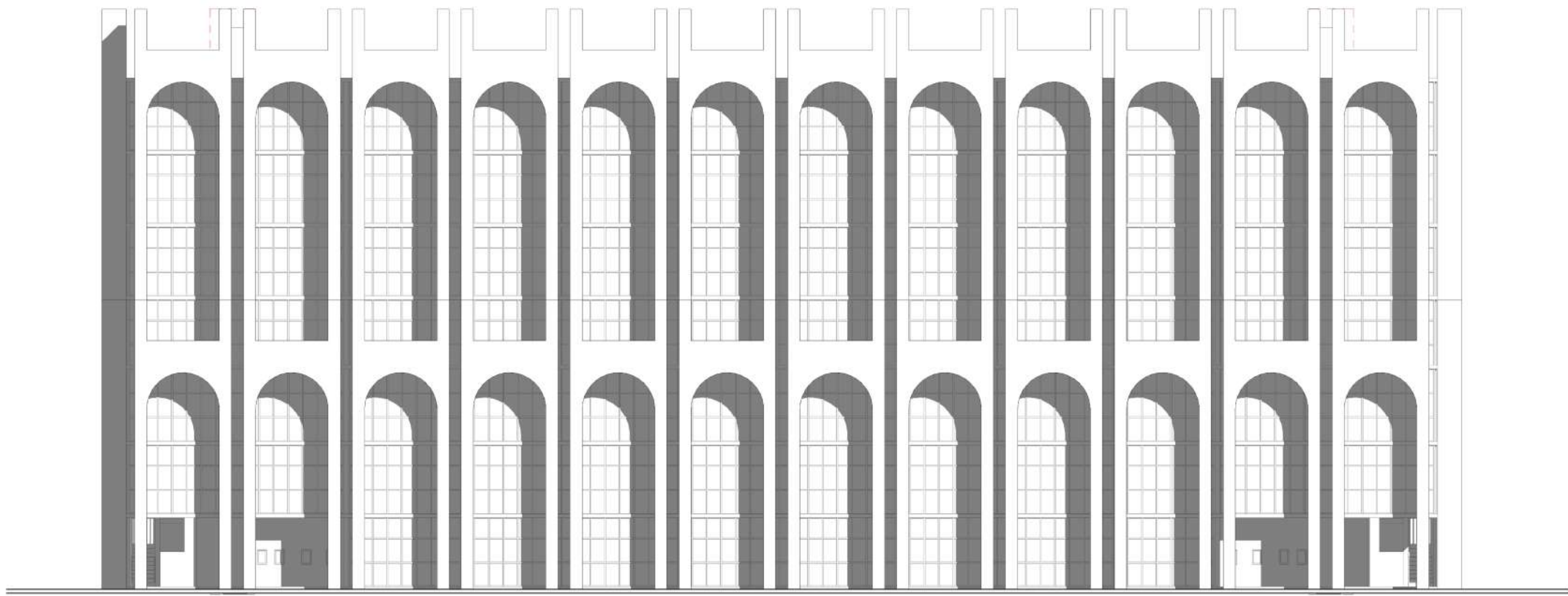
The solar analysis of the façades indicates that the vertical elements, functioning as fins or deep reveals are highly effective in shading the building during peak sunlight hours while still allowing ample daylight to penetrate the interior spaces. Additionally, the presence of water at the center contributes to passive cooling, reflecting light and enhancing the overall microclimate of the space.



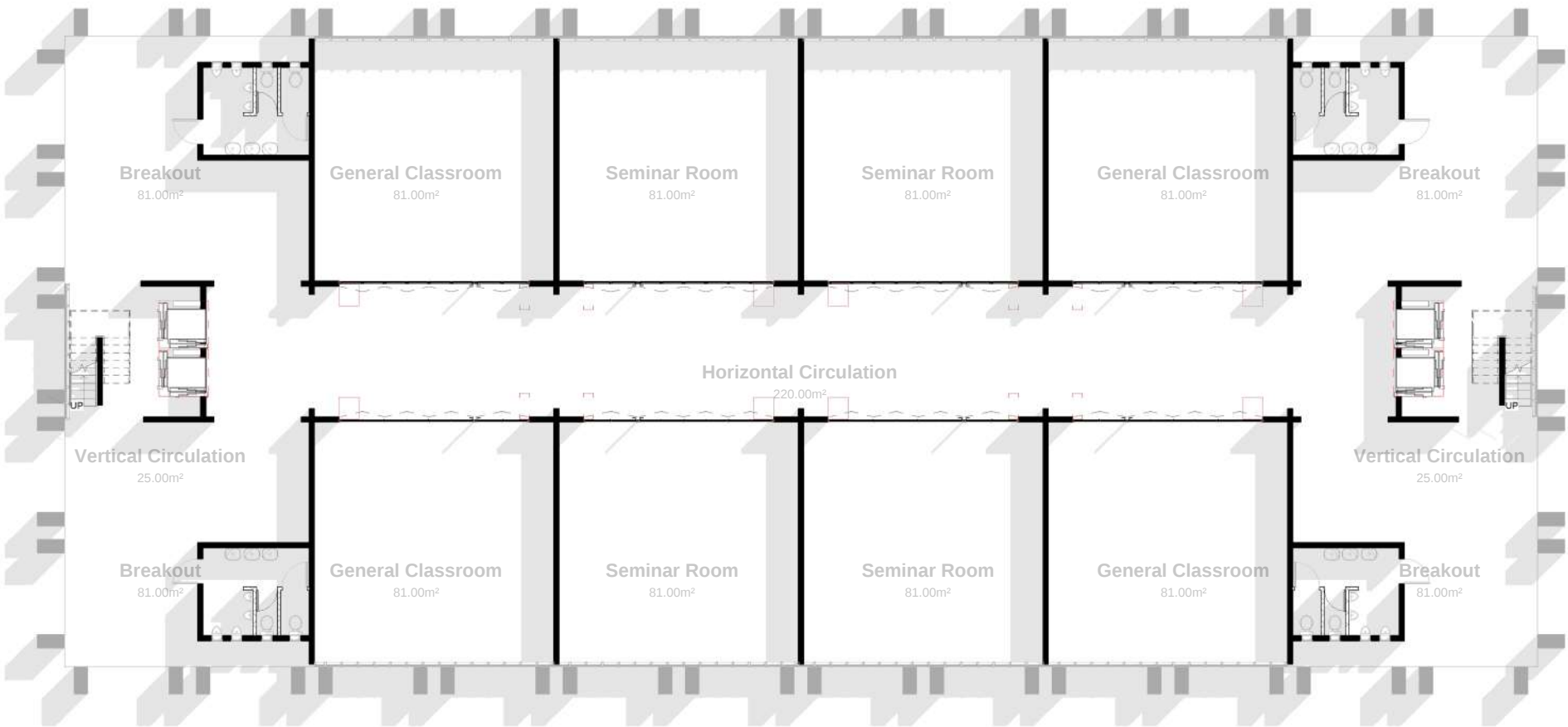
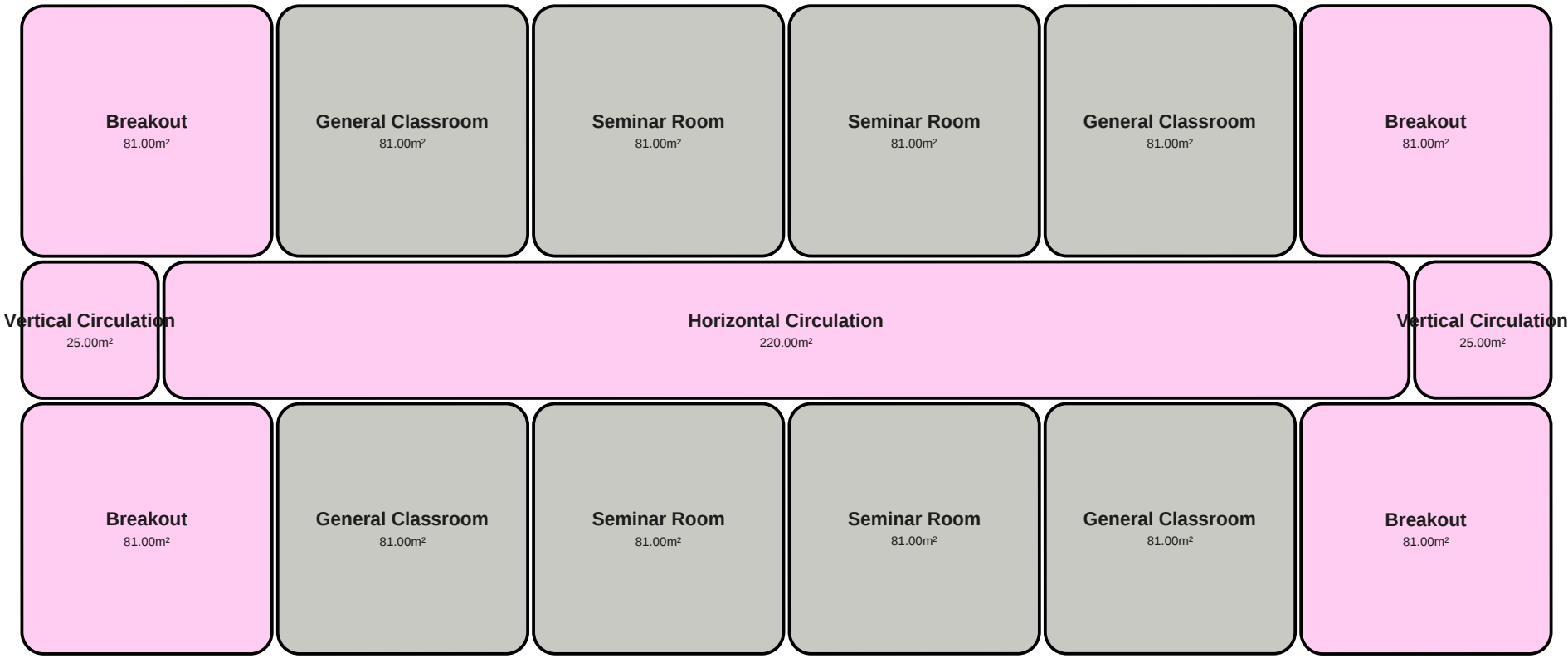
AI Generated Analysis

Sustainability Study

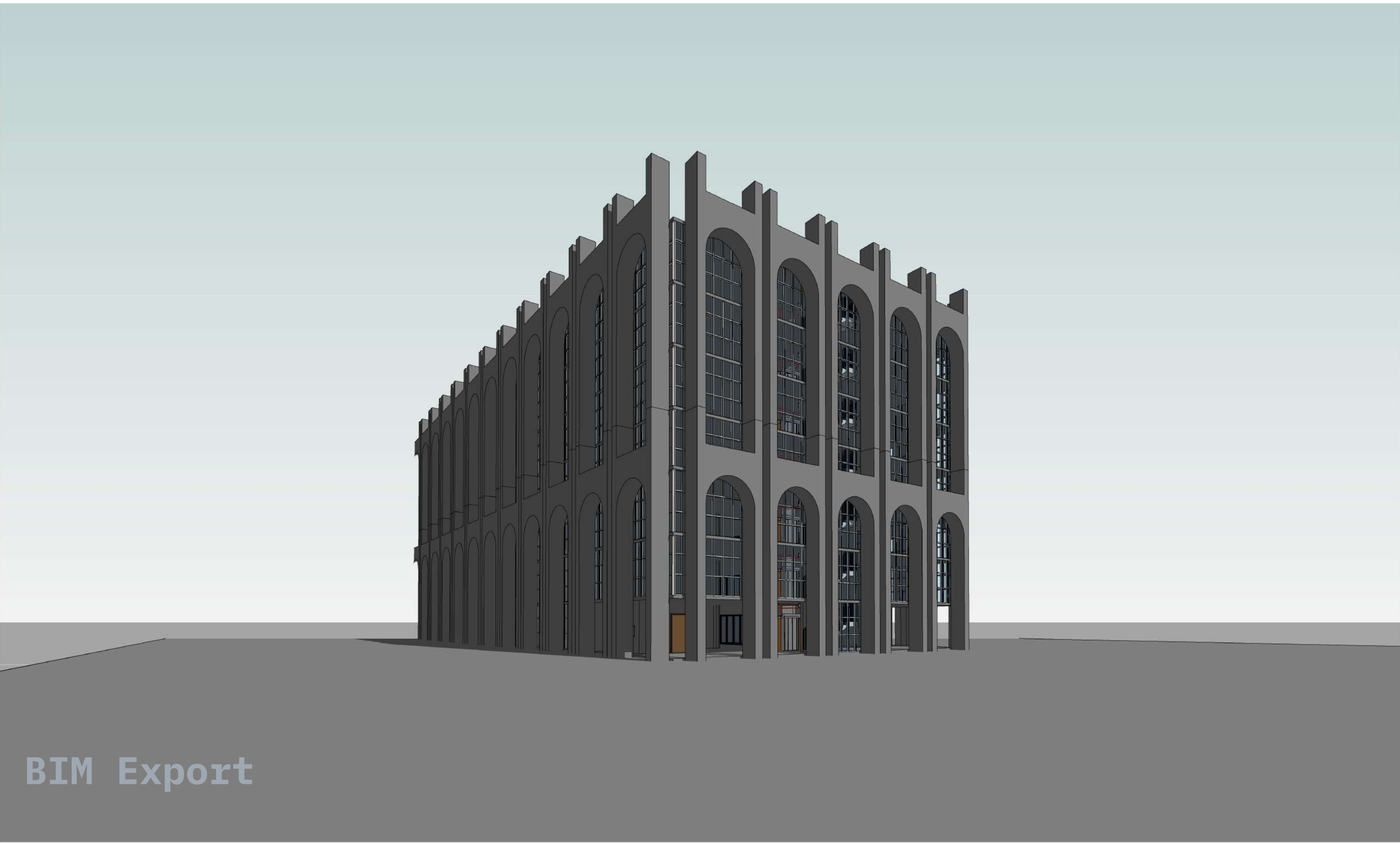
Typical Elevation



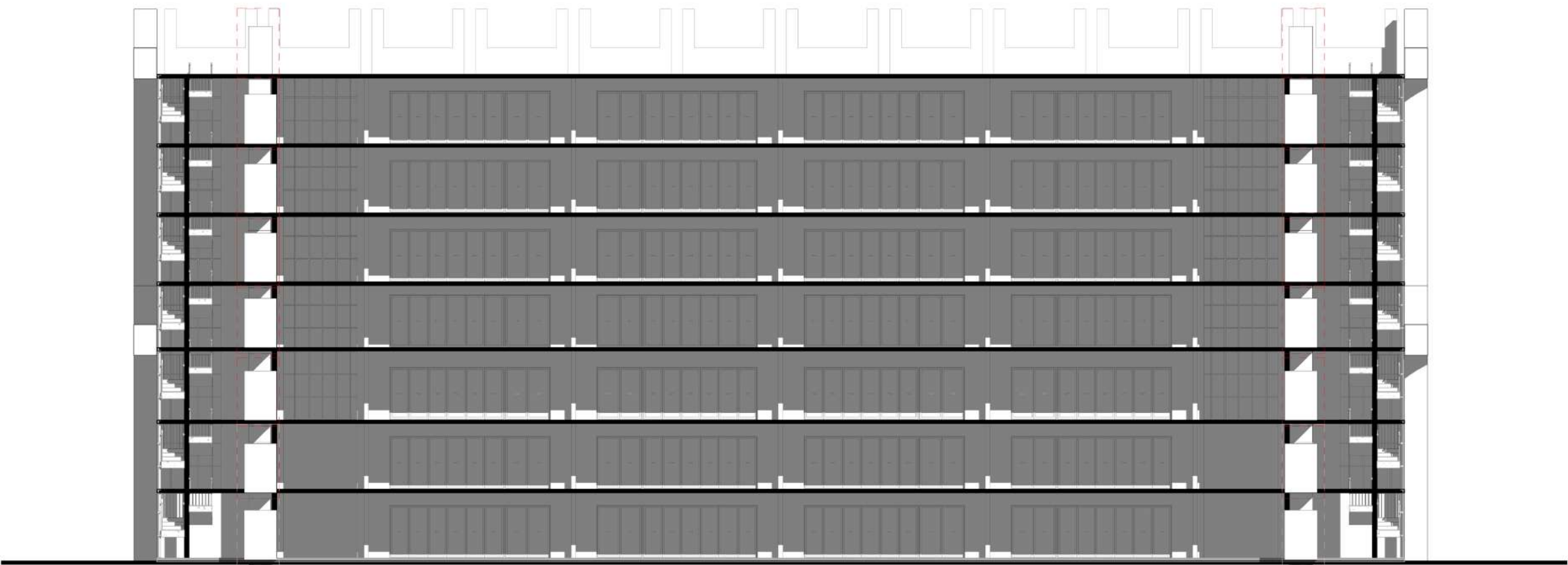
Typical Elevation



Typical Plan



Typical Section



Layout and Hierarchy



Visualization

Concept Narrative: OA_Academy – The Solar Spine of Learning

OA_Academy envisions the future-ready educational campus as a living organism powered by light , where solar energy, water, greenery, and human connection flow in harmony. The design interprets the sun as both a source of energy and enlightenment, guiding spatial arrangement, environmental response, and architectural expression across the site.

At the core lies, a circular hub featuring a reflective water fountain and walkway that anchors the entire composition. This water element symbolizes clarity, renewal, and unity, while its cooling effect improves the microclimate and creates a tranquil social space. The play of light on the moving water mirrors the rhythm of daily activity and natural change, making the center the emotional and environmental heart of the campus. From this center, academic and residential blocks radiate outward based on solar path analysis, ensuring optimal daylight and cross-ventilation. Their roofs are equipped with solar panels that harvest clean energy, reinforcing the vision of a self-sustaining campus.

Architecturally, the design merges the transparency of modern glass minimalism with the rhythmic depth of traditional arcade façades. The glass invites light and openness, while the arches provide shading, texture, and a sense of cultural continuity. This balance of modern and traditional form expresses both innovation and heritage , a dialogue between technology and timelessness.

The site is surrounded by lush greenery that absorbs surrounding heat gain and enhances comfort. Landscaped courtyards, shaded walkways, and the reflective water feature work together to cool the environment naturally. The greenery not only improves microclimate performance but also symbolizes life, learning, and resilience essential values of the educational spirit.

Using Snaptrude, the entire design process was streamlined through real-time modeling, solar analysis, and environmental visualization. The platform allowed precise orientation studies, quick design iterations, and material experimentation, ensuring that every decision was environmentally responsive and contextually grounded. Snaptrude’s analytical tools helped visualize sun paths, shadow patterns, and light behavior across the site, allowing for accurate optimization of façade shading, and green zones.

The radial masterplan enhances visual connectivity and social engagement, creating a walkable, inclusive environment. Pathways converge at the center, reinforcing the concept of collective learning and shared energy.

Culturally, the circular form reflects African communal spatial traditions, where people gather around a shared center. This fusion of context, climate, and culture shapes a truly future-ready learning environment , one that teaches sustainability not just in curriculum but through daily experience.

OA_ACADEMY becomes more than architecture , it is a philosophy of light, water, and growth, brought to life through the synergy of design intelligence and digital innovation.

Where energy flows, learning grows.

THANK YOU!!