



Science Ascendant

Rising from the island to meet the future, the net-zero-capable National Science & Innovation Centre unfolds into a geometric sequence that invites exploration. Inspired by the accelerating trajectory of scientific discovery, the building expresses the anticipatory nature of critical inquiry – always reaching for the future while grounded in the physical world. The Centre therefore frames new perspectives – below, within, and atop – from which to engage with the park, Kaunas, and the Nemunas River.

To tie the building experience to its landscape, we cantilevered the structure, creating a raised park while preserving access and views at ground plane. A grand plaza enhances visitors' sense of arrival, its stairs functioning as metaphorical wings channeling visitors up to the main entrance and down to a new recreational pier. Within the building, exhibition areas and amenities are organized on one level in one continuous space that can be flexibly subdivided as program needs evolve.

Functioning at zero energy, the building optimizes energy to model sustainability, its systems and features working in harmony with the building program inspired by the fundamental elements – earth, air, water and fire – the ancient roots of scientific understanding.

Air & Fire: Designed to deflect wind, manage heat, and maximize solar harvesting, the Centre is dramatically cantilevered to suggest aerodynamic lift. The building is oriented to maximize interior daylighting and topped by an array of photovoltaic panels.

Earth: A green roof extends the park experience above the building, forming a biogarden that captures and treats rainwater. The eastern edge of the 200-meter-long building aligns with the entry axis of the Zalgiris Arena. Together these destinations will constitute a unique attraction celebrating intellectual and athletic human achievement in symbiosis with the natural environment.

Water: The design celebrates the surrounding river by using water to heighten the senses and impact building performance. The path from the pedestrian bridge to the entry plaza diagonally crosses a cascading rain garden, tying the built environment of the island to the river and urban fabric of the City. Within the performative tower, water is pumped from the river to power the exchange system that works in concert

with the dual-skin thermal envelope, so that it can “breathe” in response to climatic conditions. On the west end of the building, the cantilevered beam of the structure spans bio-pools overlooked by an outdoor observation gallery.

In design and function, the new Science Centre embodies the scientific and technological promise of tomorrow in relation to the City of Kaunas, Lithuania, and the world. The scientific technique of *triangulation* validates data with cross-verification from two or more sources. The *parti* for the design arose from the ways in which the existing site geometries revealed the potential of the site itself, folding and unfolding like origami. The resulting folded and sculpted design both responds to and reveals its environment in a new light, just as scientific discovery strips back successive layers of mystery to build the future.