Project

Geomdan Museum Library Cultural Complex

Location

Incheon
South Korea

Date

2023

Client

Incheon Metropolitan City

Status

Concept Design

Size

27,768m²

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Archeological Park

How might we use low-tech strategies for the (re)discovery of sustainable landmark architecture? How might we evolve beyond energy-intensive, high-cost construction methods and generate scalable solutions in the built environment?

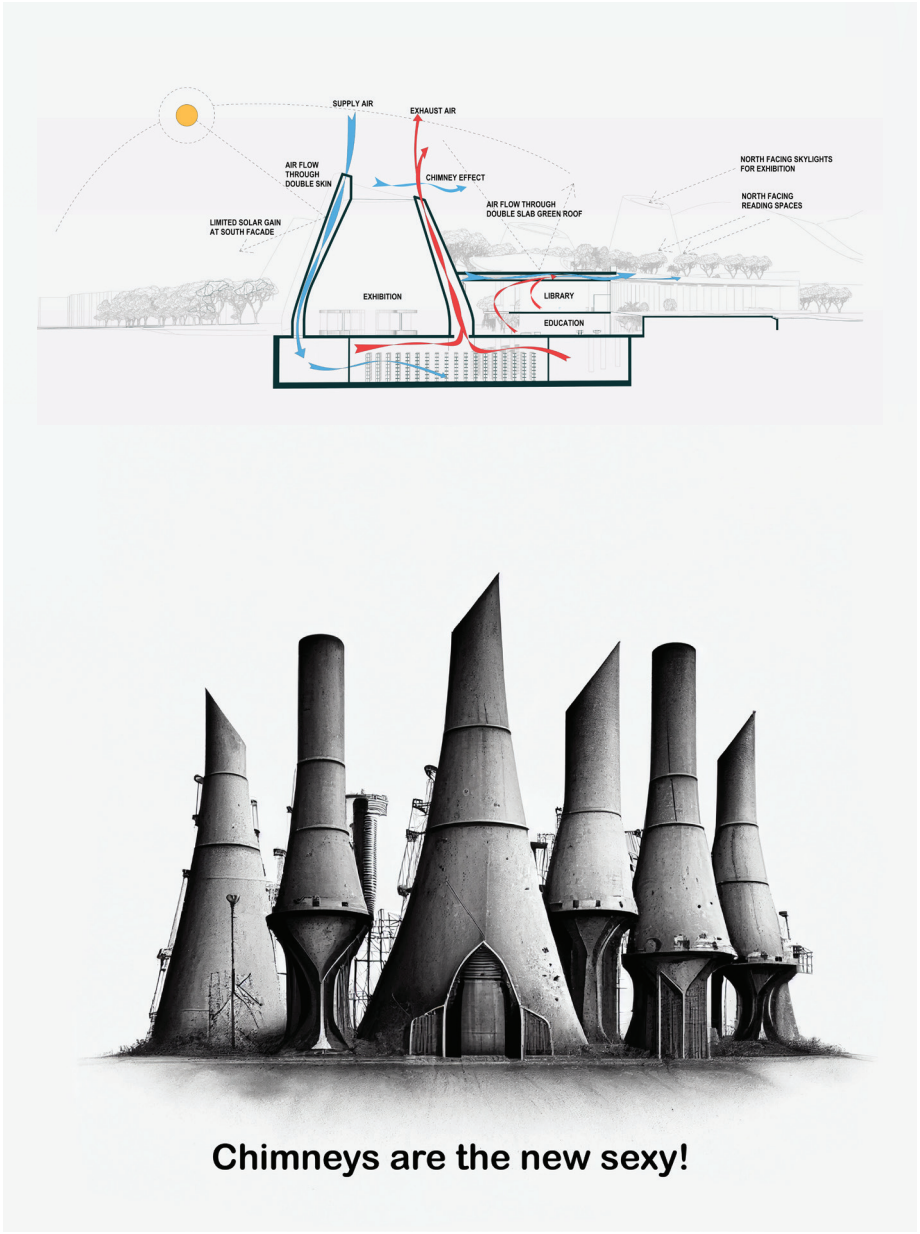
Today we live in a volatile, uncertain, complex and ambiguous world. Climate and energy crises, global economic downturn, and the COVID-19 pandemic urge us architects to re-evaluate our priorities and methods in the generation of signature architecture.

All proposals for the built environment must present purposefully viable solutions that address issues around energy usage, material waste, supply chain inefficiencies, and carbon footprint.

Geomdan's Museum Library Cultural Complex proposes a paradigm shift to reform landmark aesthetics to be informed by climate resilience and to rediscover low-tech strategies to generate sustainable architecture.

While this proposal integrates the urban space and the landscape on a morphological level, it also brings forward historically proven yet underused methods of construction for energy endurance and climate resiliency, such as incorporation of "wind catchers", ventilated cavity "air pillow", natural cooling aerodynamics.

The proposal therefore becomes fully immersed in history, nature and



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[01] Archeological Park Aerial View
[02] Archeological Park Lakeside View
[03] We need a paradigm shift where Chimneys are the new Sexy

PROJECT CREDITS

Architects:
SOUR Studio
Seoinn Design Group

Design: Inanc Eray with Dong Kyu Choi

Design Team: Pinar Guvenc, Alex Yoocheol Choi, Marianne de Zeeuw, Mariana Evangelista, Merve Guven, Pinar Gursoy, Merve Akbay, Irem Gocmenoglu, Derin Sahin, Nicholas Doghlass, Gamze Gurgenc

"archeology" of architecture. What better fit to create an archeological park, an archeological museum and a library that will become a visual and archival complex for the region and a unique sustainable landmark.

Uplifting Places
Staying true to its archeological concept, the proposal is inspired by and reflects on The Korean Peninsula's Dolmen sites, which account for approximately 40% of the world's total stock. The preparation of the sand casted facade panels therefore becomes an opportunity for community engagement during construction, that will build a sense of belonging.

Fostering community co-creation, "Rocks on the Park" will communicate a distinct architectural image while blurring the boundaries of indoor and outdoor like a traditional Korean House. This will generate a seamlessly integrated urban space that will support activities for all visitors as well as local residents.

Thriving Communities
The design process for the proposal incorporated participatory design methods such as ideation sessions with community members that have diverse professional and lived experiences. The concept continues to carry the generative approach by endorsing community engagement during construction, co-creation of cultural events and public interaction in its parks.

The design of the site incorporates inclusive design principles, acknowledging the presence of diverse age groups, physical abilities and cognitive conditions. As environment impact human behaviors, building a site with a culture of co-creation and inclusion will promote equitable practices throughout its daily operations.

Viable Economics
The proposal is designed to optimize initial investment and operating costs through low tech energy strategies such as passive cooling, natural ventilation through wind catchers, water recycling, heat recovery, and thermal mass through double skin ventilated cavities a.k.a "air pillows". As the majority of energy consumption occurs during fresh air conditioning and heating/cooling, heat pump systems will be utilized to complement the passive systems through the building skin.

The multiple entries and routes allow for various open/closed use zones for seasonal and day / night activities, which enables fiscal resiliency and economic viability for the museum library complex.

Healthy Planet
The project is about using physics, aerodynamics, and natural phenomena to generate a path for a healthier planet. Low tech strategies on multiple scales aim to generate high impact. At urban scale, the proposal connects two neighborhood parks through green roofs and eco bridges that will promote biodiversity and continuous natural life, elevating this park to a destination

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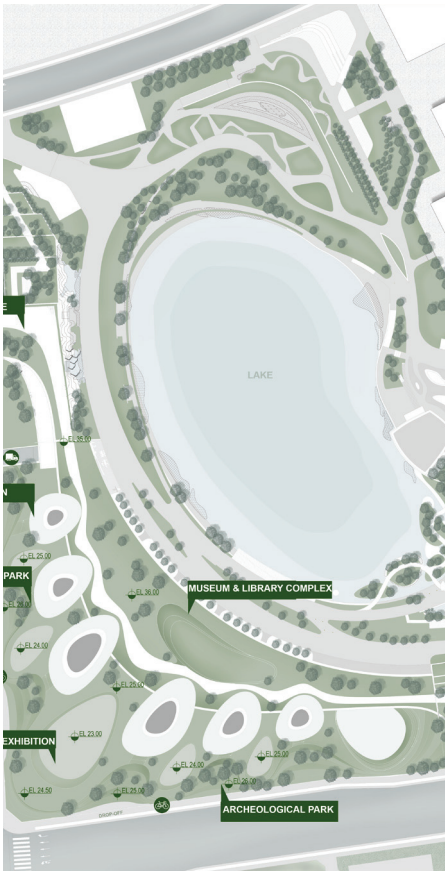

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04 Aerial View
05 Site Plan