
THINK!

STUDIO SEILERN ARCHITECTS

GREEN MANIFESTO

‘As architects, we are inventors, curators, and custodians of the cities of the future generations. The responsibility therefore lies within our work and our thought-process to think beyond legislations and guidelines.’

- Christina Seilern

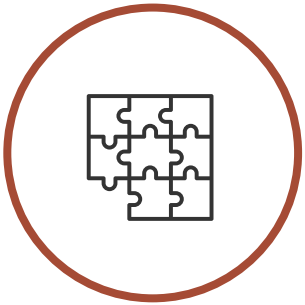
Our sustainability manifesto has been written with the notion that in a world of global warming, pandemic, urban sprawl, overpopulation and food insecurity, we, as architects and citizens, must not just comply to a sustainability mantra, but must operate critically and evolve our thinking in the work that we do. Sustainability and wellbeing are intrinsically interconnected. Our work continually evolves in our attempt and our wish to work with nature, rather than against it.

At Studio Seilern, we aim to design for positive change through our ingenuity. We commit to make our projects exemplars of sustainable development every step of the way, from energy usage during construction and operation, to nature conservation and socioeconomical sustainability. We intend to do so by combining the most innovative technologies with systems inspired by nature. Our design decisions will continue to be driven by our passion and respect for nature and our desire to restore its equilibrium in order to achieve a more equitable future and demonstrate how environmental and social sustainability can generate commercial value.

This forms the basis of our sustainability manifesto, with the aim of continually evolving our thinking through research and reflection and applying that to the buildings we design.

Christina Seilern
Principal
Studio Seilern Architects

we are
contextualists
in that we integrate the cultural, social and natural characteristics of the site



Integrative Approach

we reduce the
energy demands
of our buildings through strategic orientation and massing

Passive Design Features

nature
is an integral tool of our designs as a formal building material

Balance Between Nature & The Built Environment

we create

active, safe, quiet and contemplative spaces

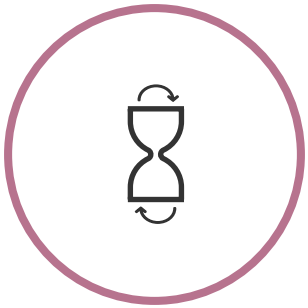
that benefit the occupants' health and wellbeing

Wellbeing & Social Value

we

reuse, recycle and retrofit

materials and structures to achieve lower embodied carbon



Resilient Design

we create

commercial value and revenue

with adaptable, multifunctional and low operating cost spaces

Economic Sustainability

Somerset House Auditorium

Oak Cottage

Gota Dam

El Gouna C.C.

Dubai Creek Harbour

Aiglon PAC

Bokstо 6

Lekki Beach

Restaurant Gutsch

Owest Apartments

Andermatt Concert Hall

Shenzen Cultural House

Integrative Approach

Passive Design Features

Balance Between Nature & The Built Environment

KSI Geneva

Jabi Lake

KSI Rabat

Shenzen Opera House

Science City

Prinz Eugenstrasse

Albion Barn

Hewer Street

Ansdell Street

G.W Annenberg PAC

Oxpens

540 West 21st St.

Ras el-Tin

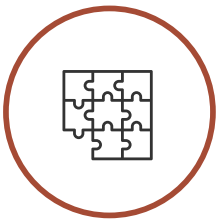
Wellbeing & Social Value

Resilient Design

Economic Sustainability

Ras el-Tin Opera exterior view

INTEGRATIVE APPROACH



We are contextualists and focus on:

- Finding contextual relevant solutions that are embodied in the project rather than an add-on.

- Integrating local characteristics of the site. From landmarks to intimate residential spaces, our work embodies in-depth research of the synergetic interaction of architecture with nature, culture, ecology and society.

- Researching the cultural needs of communities, we consider that sustainability and preservation of cultural identities are complimentary and adopt sustainable approaches based on the research of vernacular architectures.

El Gouna under construction

EL GOUNA, EGYPT

Scope: Conference Centre & Concert Hall
Area: 30,000 m²

- ### Adapting To Local Climatic Conditions

El Gouna has a desert climate that can be described as subtropical and is characterised by a very dry and hot summer and is windy year-round. Creating comfortable outside public spaces, with shading and integrated water features for cooling, was a key design principle from very early on.

Given the hot Egyptian climate, we decided to create a shaded perimeter colonnade around the entire building, placed in an artificial lagoon, giving it its distinctive character. The colonnades are positioned in a staggered way to achieve maximum shading on both the plaza and the building.

Courtyard elevator

BOKSTO 6, LITHUANIA

Scope: Mixed use (Spa, Offices, Residential, Chapel and Restaurant)
Area: 13,265 m²

- ### Respect of Historical Fabric

Out approach to the restoration of these buildings hinges on the idea of not wanting to replicate or necessarily repair the existing fabric. Any contemporary insertions such as electrical services or plumbing respects the historical fabric of the building following a "box-in-box" approach. Rather than having these elements fitted in the existing walls, causing damage to the value of the original brickwork, they were inserted as part of an architectural feature built as a separate element along the perimeter of the room, maintaining the untouched original Baroque vaults.

Exterior view

GUTSCH RESTAURANT, SWITZERLAND

Scope: Restaurant
Area: GEA 860 m²

Certification: Minergie

- Inspired by Vernacular Architecture

Made out of local stone and reflecting the silhouette of vernacular Swiss villages, Restaurant Gutsch caters for both the aesthetic and climatic challenges of this unique site. The wide opening offers panoramic views over the valley of Andermatt. Short construction phases and the difficult access to the site forced us to develop prefabricated system of modules, which will were mounted on site.

Balconies view

Prinz Eugenstrasse exterior view

PASSIVE DESIGN FEATURES

Our integrative passive designs explore:

- Innovative and strategic ways of restoring the balance between the built environment and nature.

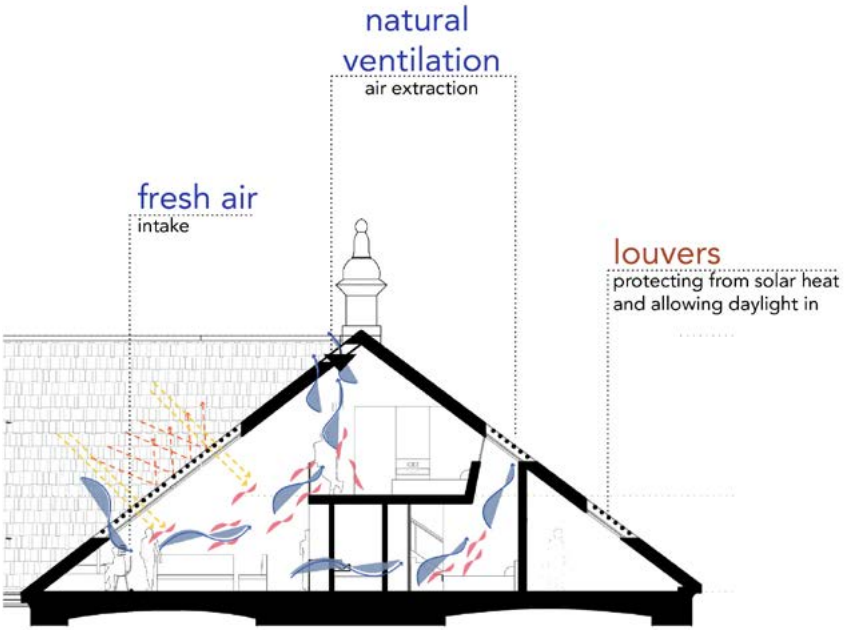
- The use of architectural archetypes such as light, materials and form to imagine timeless passive designs.

- The use of local, low embodied carbon and healthy materials aiming for Net Embodied Carbon.

- Technology and passive design features to reach optimum energy performance and facilitate relationships between people and their place.

Boksto 6 under construction


BALTISCHESHAUS
BIURAI
RESTORANAS
SPA
RENGINIŲ ERDVĖ



Sustainability strategy roof section

BOKSTO 6, LITHUANIA

Scope: Mixed use (Spa, Offices, Residential, Chapel and Restaurant)
Area: 13,265 m²

- Roof Strategy
- Geothermal Systems & Rainwater Collection

Our roof is a construction of vertical steel slats revealing areas of glazing underneath and allowing the roof openings to be integrated into the roofing system. The glass and skylights are set behind the oxidised steel screen, and are only revealed through the vertical arrangement.

Due to the large area of the site and ample pitched roofs, a rainwater harvesting system is incorporated that will generate all grey-water needs year-round. Because the complex consists of both restoration and new build sitting on 7.6 acres site, ample land area enables us to utilise earth-connected geothermal systems by installing ground source heating and cooling pipes.

Exterior view of the tower

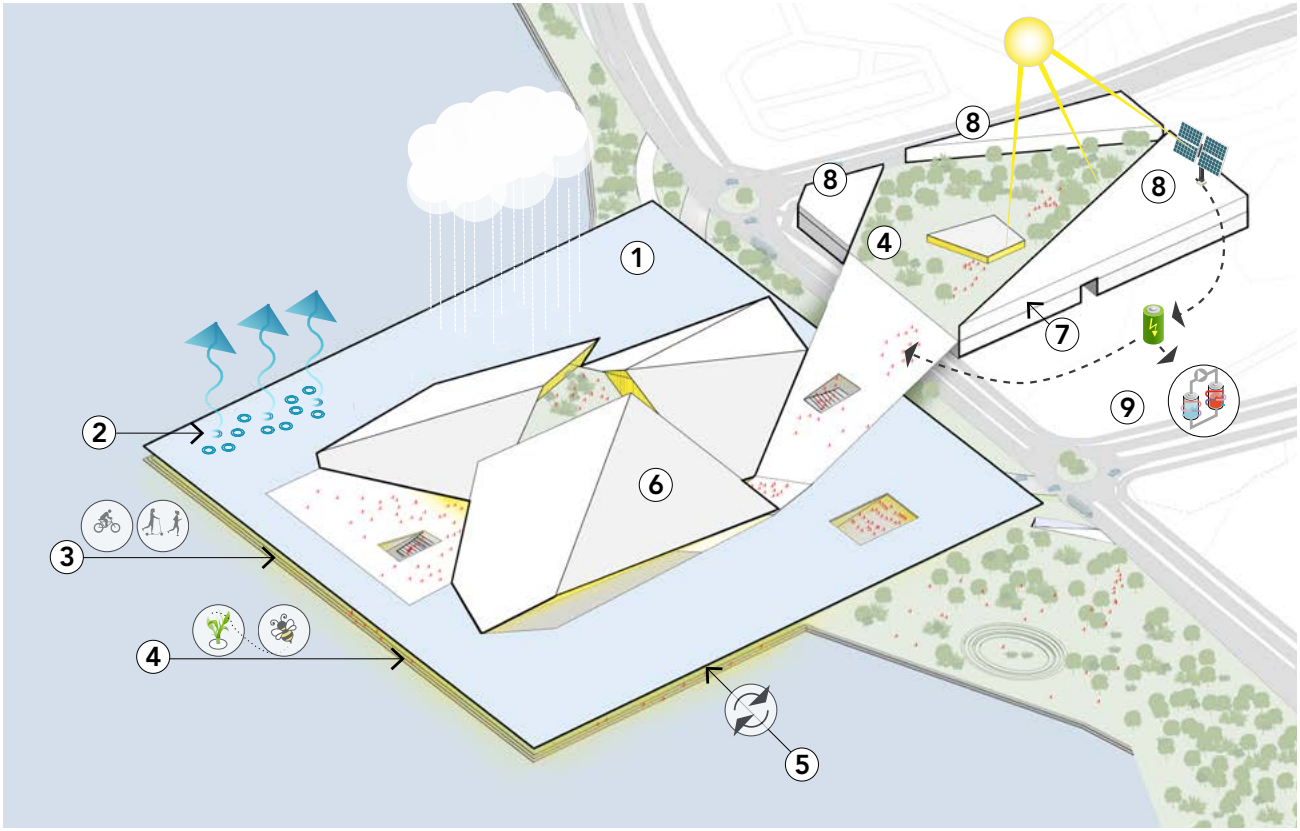
DUBAI CREEK HARBOUR, DUBAI

Scope: Hotel & Serviced Apartments
Area: 200,800 m² / 300m tall

- Design Services M&E Strategy

Our strategy has been developed based on a holistic, integrated approach with simple and cost effective installation, an iconic glazed facade which maximises daylight, reduces the risk of glare and minimises energy consumption. Additionally the use of intermediate plant rooms for ventilation, chilled water and domestic hot and cold water tanks, centralised transformer rooms at ground floor level and low voltage vertical distribution to each floor have also been integrated.

Opera House exterior view



Sustainability strategy diagram

SHENZHEN OPERA HOUSE, CHINA

Scope: Opera House
Area: 222,000 m²

- Blue Infrastructure Strategies
- Renewable Energies

The lake provides storm water attenuation to minimise flood risk and stores rainwater as part of a rainwater recycling system.

The large surface area of the lake will maximise an evaporative cooling effect on the water, stored as part of a low energy cooling strategy and functions as a thermal store and heat rejection for both heating and cooling. The design seeks to generate as much water as possible on site. Electric batteries will maximise the contribution from renewable PV generated electricity and photovoltaic (PV) panels will generate renewable electricity. Heating and cooling will use electric chillers and heat pumps to reduce emissions.

BALANCE BETWEEN NATURE & THE BUILT ENVIRONMENT

Our projects draw inspiration from nature and more specifically we:

- Aim to use systems that originate from nature, such as recycling, desalination and evaporative cooling.

- Are mindful from the outset and consider to have both a significant opportunity and a responsibility to protect, enhance and restore the world's natural and social systems.

- Design spaces that provide strong visual and physical connections between nature and the built environment contributing as a result, to the wellbeing of occupants.

- Treat light and landscaping as building materials rather than just the 'green stuff that surrounds buildings'.

Primary school view

KSI RABAT, MOROCCO

Scope: Primary & Secondary IB Schools
Area: 7,118 m²

- Outdoor Spaces For Students

The provision for adequate outdoor sports facilities, informal and social spaces are as essential as the school buildings that occupy the site. The buildings form an acoustic buffer between the neighbouring residential areas and the sports and play area. The latter has been placed as far away as possible, so as not to disturb the neighbourhood, while taking advantage of the green tree-lined avenue to the west of the site, an extension of this green heart for the school. The primary and secondary schools create a green buffer between the residential area to the east and the commercial area to the west. Forming the southern edge of the site, the primary school building curates a distinctive green architecture of raised gardens and extended balconies.

The auditorium exterior view

C.W. ANNENBERG PAC, UK

Scope: Performance Arts Centre
Area: Ph.1 2,262 m² Ph.2 3,512 m²

Certification: BREEAM Very Good

- ### Integration with the Natural & Historical Context

The campus of Wellington College contains several listed buildings and the landscaping was as important to the initial design of the institution as the form of the buildings themselves. Our approach was one of in-depth research of the site's historical context, the landscape and its contribution to the setting of these heritage assets.

Our scheme created a new Performing Arts Centre in place of the existing theatre, retaining some selected elements of the existing building. The bold circular design for the auditorium created an organic form which engages with and integrates directly into its beautiful woodland setting.

G.W. Annenberg Performing Arts Centre

Exterior view of the apartments

OWEST APARTMENTS, EGYPT

Scope: Multi-family apartments
Area: 1,500 m²

- Public & Private Green Spaces

The strong emphasis between interior and exterior spaces guides the design of the building, where the inhabitants can enjoy views of the park beyond while sitting on an enlarged terrace that is tucked in to create the maximum amount of privacy. Every apartment benefits from an extensively greened terrace as a series of floating gardens decorating and softening the façades of the building.

Exterior view of the undulating facades

NEW SHENZHEN CULTURAL CENTRE, CHINA

Scope: Cultural Centre
Area: 83,000 m²

- Outdoor Social And Cultural Spaces

The layering of the buildings' functions are organised around multiple outdoor spaces that can be used for exhibitions, performances and cultural interventions. Every building function has its own outdoor garden, where activities can occur in a shaded and cooled environment. An outdoor amphitheatre offers views to the city and mountains.

Shenzhen Cultural Centre

WELLBEING & SOCIAL VALUE

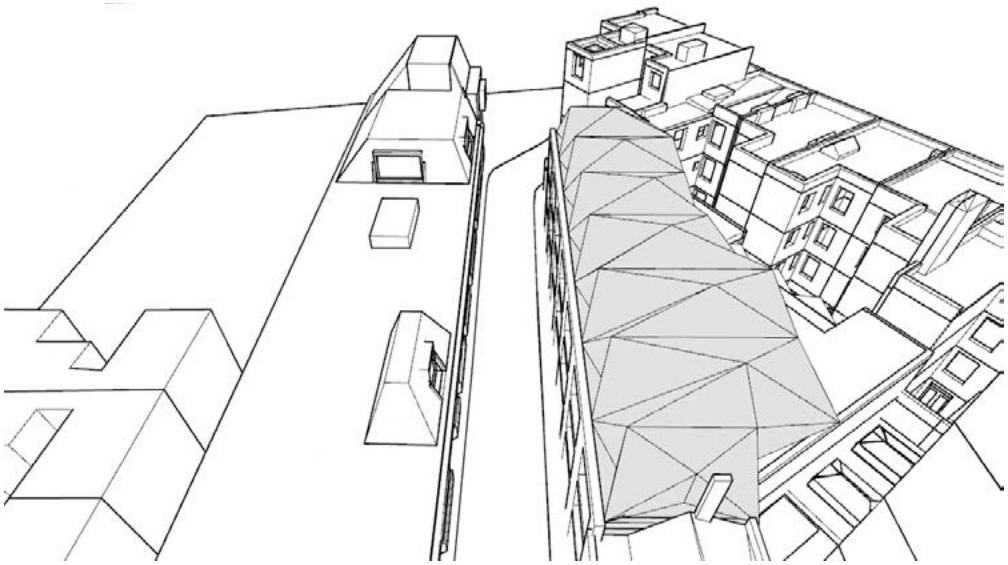
We prioritise the health and wellbeing of occupants and the planet by:

- Creating interactive and inclusive spaces for social and cultural interactions.

- Engaging natural surroundings and creating a continuous dialogue between outdoor public spaces and interiors, to create vibrant mixed used spaces.

- Focusing on providing natural lighting and ventilation and prioritising the thermal and acoustic comfort of spaces.

- Encouraging sustainable connectivity and transport through our designs.



Ansdell roof sketch

Ansdell exterior view

Roof

ANSDELL, UK

Scope: Office
Area: 1,360 m²

Certification: BREEAM Excellent

- Improvement of Natural Light & Natural Ventilation

The new façade incorporated additional commercial large scale windows to mitigate the lack of natural light. At ground level, large warehouse type window openings with floor to ceiling height windows were introduced, giving the building a distinctive character more reflective of its use. As opposed to a typical sealed office with homogeneous open plan environment, we provided maximum control of their own environment for the building's occupants, so that they could adjust their working environment for their thermal and visual comfort. Good amenity spaces differentiates our project from other typical office developments of this type in London.

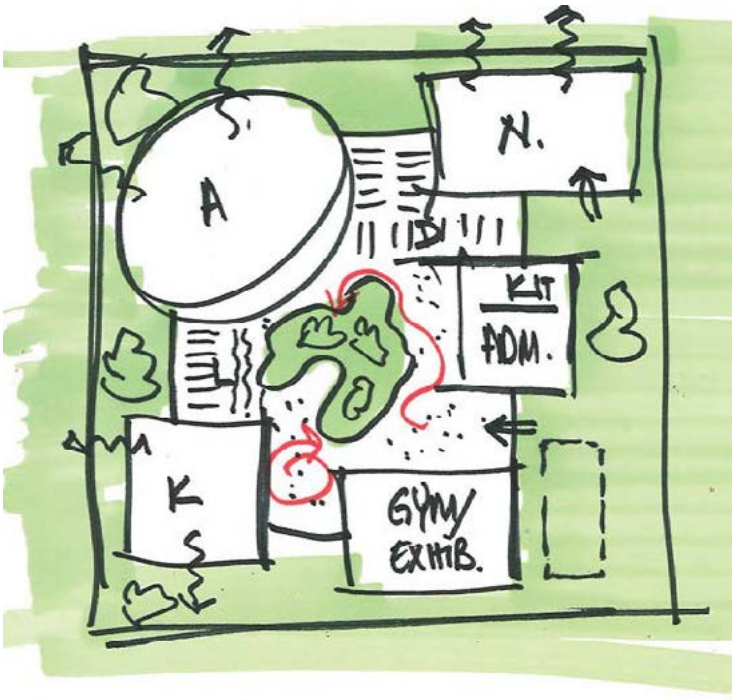
Balconies view

KSI GENEVA, SWITZERLAND

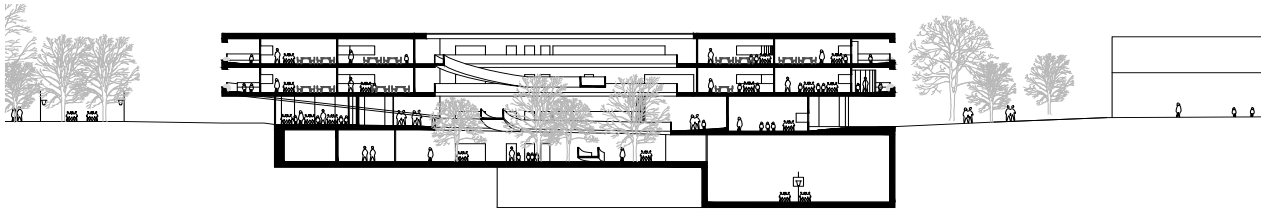
Scope: Nursery, Primary & Secondary IB Schools
Area: 7,000 m²

- A Holistic And Nurturing Educational Facility

External areas have been allocated to sport, play and informal spaces that encourage social interaction. It is a new building and its geometry responds to the needs of the brief, the greenness of the site, site access, reduction of noise levels and complex planning codes. The ground level of the building merges into the landscape, and the floor follows the contours of the existing site, the green central courtyard and the transparent volumes that sit on this level and enhance the experience of this park-within-the-building.

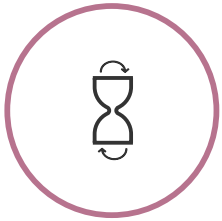


Hand sketch



KSI Geneva section

RESILIENT DESIGN



We aim to implement resilient design strategies that:

- Emerge from our desire to envision flexible spaces which respond to future changes in society, lifestyle and adaption to climate change. 'Flexibility of use' and the impact this has on operational costs versus capital budget are at the core of our designs.

- Emerge from our rigorous research of sustainable, local, ethically sourced materials which, combined with new technologies and our strong collaboration with experts, enable us to design resilient and adaptable spaces.

- Aim for Whole Life Zero Carbon for our projects and we commit to prioritising the use of renewables appropriate to each project`s context.

Exterior view

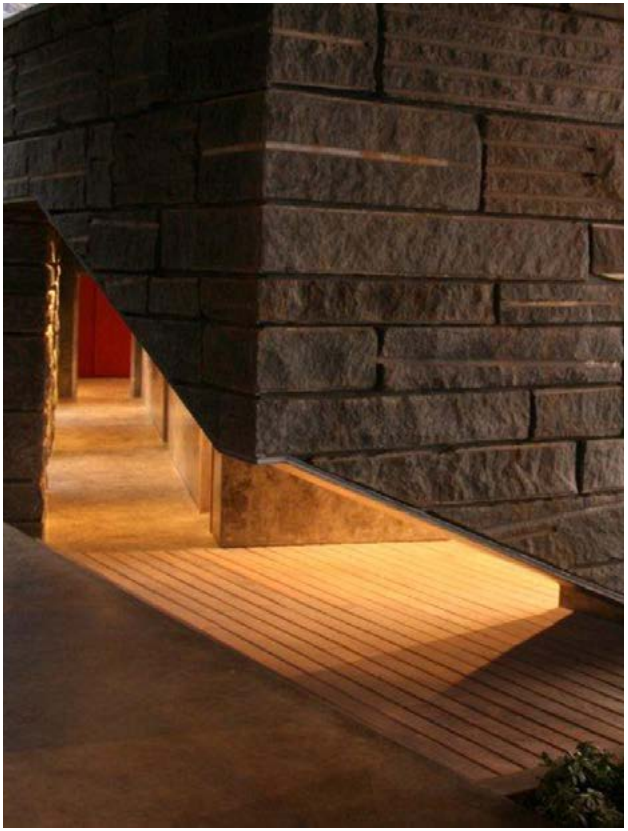
PRINZ EUGENSTRASS, VIENNA

Scope: Residential Roof Extension
Area: 6385 m²

- Minimising Disruption in an Area

The project, a roof extension with penthouse apartments, prioritises economic, social and environmental wellbeing and aims to limit the disruption to the neighbourhood from construction works by choosing a pre-fabricated construction system with on-site assemblage.

Interior view



Exterior view of the granite block

GOTA DAM, EAST AFRICA

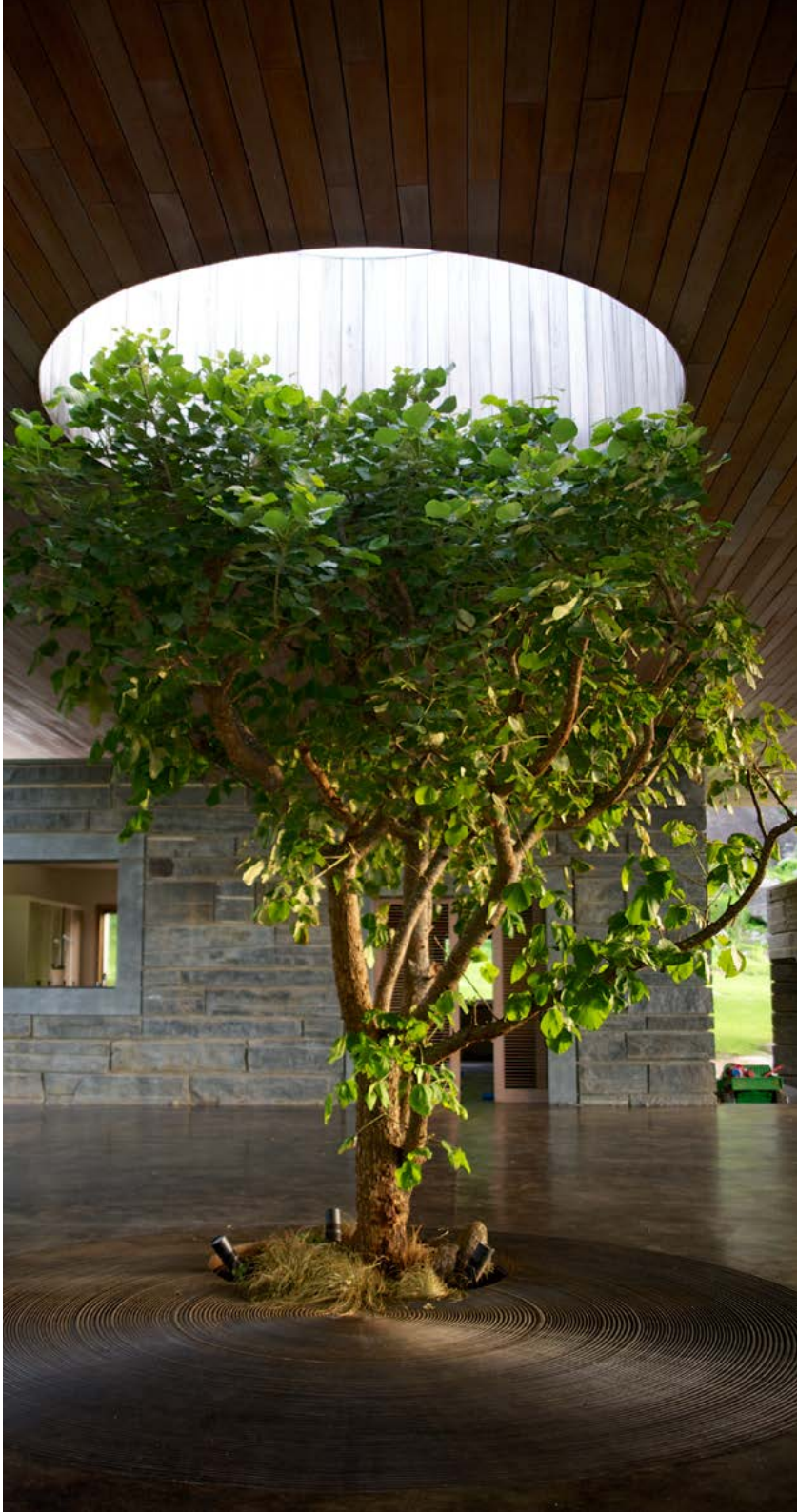
Scope: Private house
Area: 1,500 m²

- Reuse of Material Waste

All the granite that was excavated on site was reused in order to fabricate the sinks and gutters of the house. Due to economical challenges, all materials had to be sourced locally apart from specialist items such as the glass and roof waterproofing. As contextualists, we adapted our ethos and design to the local conditions of the project.

Reuse of excavated granite as a cladding material for Gota Dam

Gota Dam excavation area



Natural light coming from the roof merges interior and exterior

The courtyard

OXPENS APARTHOTEL, UK

Scope: Masterplan (Aparthotel)
Area: 12,051 m²

- The Ground Floor as An Urban Living Room

The Oxpens Aparthotel is designed to fulfill the many and diverse needs of a vibrant new community. Central to this is the drive to offer a range of ways in which the building is used, always on the basis that the communal spaces are inclusive and open to all. The ground floor will be an open and flowing space, providing a place to work and think during the day and a space to relax with a drink in the evenings. Though the privacy of the upstairs bedrooms will remain, the ground floor will open up to the public as an urban plaza. The sustainability of the building is critical, with the stated aim that it should achieve a BREEAM Excellent rating.

Exterior view

EL GOUNA, EGYPT

Scope: Conference Centre & Concert Hall
Covered Area: 9,700 m²

- Water Cycle - Zero Energy Artificial Lagoon
- Material Reuse

The new 30,000 m² lagoon is a gravity-based system, supplied from existing saline water wells that discharge back to the Red Sea. Rather than relying on mechanical pumps, using the existing natural water system as a source was the preferred environmental design approach. For the monumental colonnade, the modularity of the construction system was very important. We managed to reduce the number of typologies needed for the precast elements, helping to speed up the process by using the minimum number of moulds necessary to create the colonnades, which were reused.

Oxpens Aparthotel view from the street

6. ECONOMIC SUSTAINABILITY

We believe that economic and social sustainability cannot be looked at separately and so:

- The ability to assess what are the key components to the success of a project and finding a balance between pragmatic and visionary architectural approaches is something that we address early on.

- Our commitment to sustainability drives innovation, resilience, risk reduction and provides attractive project life cycle returns on investment.

- Our goal is to achieve a Sustainable Life Cycle Cost for our projects by measuring along with overall running costs, energy, management and maintenance costs as well as the added value of the sustainable outcomes of our designs.

Andermatt Concert Hall interior view

Performance space interior view

EL GOUNA, EGYPT

Scope: Conference Centre & Concert Hall
Covered Area: 9,700 m²

- Rigorous Value Engineering & High Design Standards

By following a rigorous value engineering process we examined each design element for the project in order to reduce its budget from £45million to £30million. This was achieved through a robust series of value-engineering exercises throughout the design process which helped the user, the client and the design team to prioritise the essential from the less essential, without jeopardising our high design standards.

Before

After

ANDERMATT CONCERT HALL, SWITZERLAND

Scope: Concert Hall
Area: 2341 m²

Certification: Minergie

- Revenue Generating Component of the Local Hotel

Andermatt Concert Hall overcame many limitations to create an unexpected space, with the project innovatively transforming an existing underground space that was originally intended to be used for conventions and events for nearby hotels, into a world-class performance venue. In doing so, the 663-seat, £13 million Andermatt Concert Hall has become a key revenue generating component for local hotels and an enviable music facility for the city`s music festival.

Ras el-Tin masterplan sketch

The Anfushi bridge for Ra el-Tin

Green Manifesto

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