

Tango Studio

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Based in Rosario, Tango Studio was founded in late 2018 by Guido Chiarito, Juan Censi, Francisco Jolly, Alejo Miranda and Leonel Prieto. We are, first and foremost, friends with a common goal and the we have remained true to our collaborative way of working from the very beginning.

Meet the team

We are a creative studio specialized in architecture and visualization.

Guido Chiarito

Co-founder, studio manager
guido@tangostudio.ar

Juan Censi

Co-founder, artist

Francisco Jolly

Co-founder, artist

Alejo Miranda

Co-founder, artist

Leonel Prieto

Co-founder, artist

Nazareno Amici

Artist

Imanol Cabezón

Artist

The Canadian Experience

After spending a year working at Teeple Architects in their office in Toronto, Canada, in 2017, Guido Chiarito returned to his hometown of Rosario, Argentina with the idea of creating a local practice capable of providing visualization and design services for architecture studios all around the globe.

This first international experience gave us not only the initial kick start to set up the studio, but an important insight in how big firms operate and what clients would be expecting from us.

“While visiting my family in Toronto, back in August 2016, I decided to follow my instincts, so I fired up Google and searched for the best architecture firms in the city, looking for a job opening during the summer. One in particular caught my attention: Teeple Architects. The very next day I got an invitation to an interview at their office, and the following week I was coming back to Argentina with a job offer. It was a dream come true.

Before I knew it, after a lot of paperwork, I was in my way back to Toronto to start my adventure at Teeple, which was set to last for at least one whole year.” – Guido Chiarito

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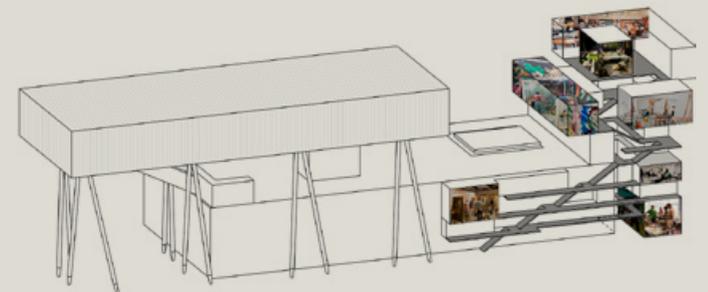
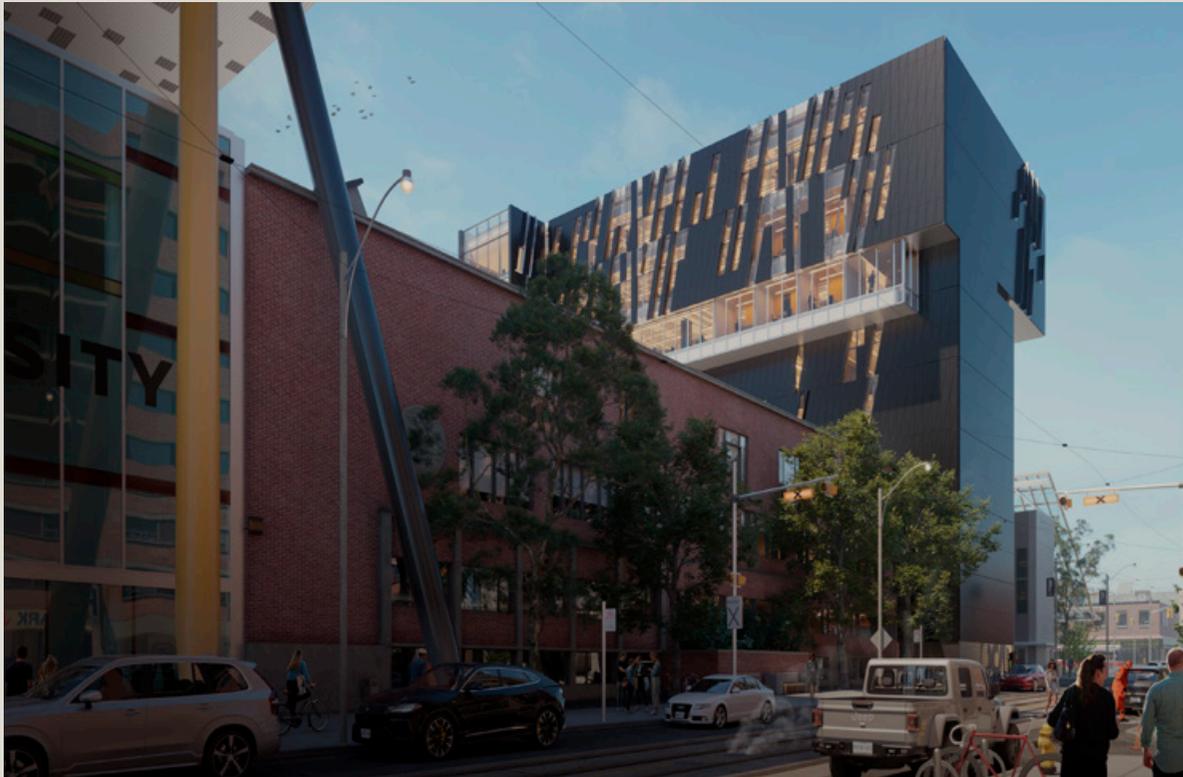
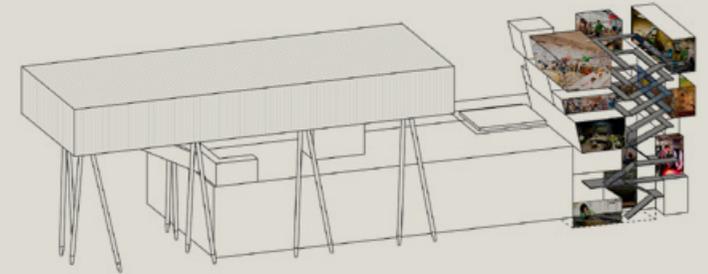
Conceptual Design & Design Development

This first chapter explores bits and pieces of different projects throughout the years, mainly focusing on generative diagrams and formal and programmatic explorations during the early design process.

Morphosis Architects

OCAD University Toronto, Canada

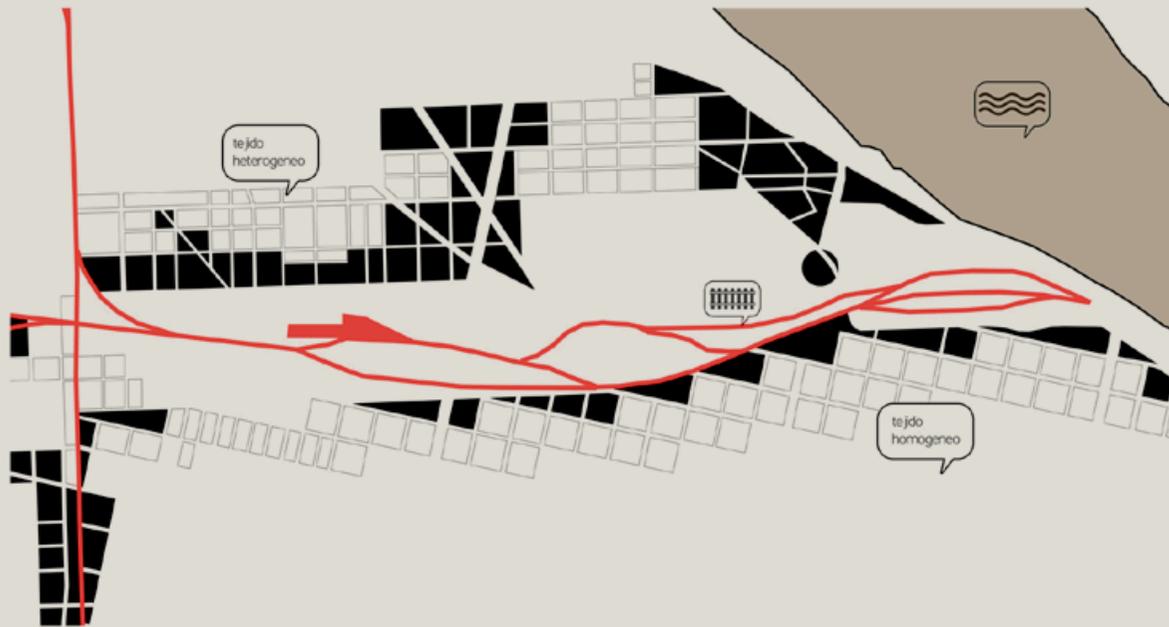
“This is a special one. It was an architecture competition; an expansion for OCAD University’s main building. The project was developed together with Morphosis Architects (I met Thom Mayne!). It was a wonderful experience indeed, and, although I didn’t had much participation, I worked on the diagrams that were later regarded by the jury as important in the final decision for winning first place. Later on, in 2019, this project carried over to Tango Studio, as we did the final renderings for the proposal, so the whole team has some type of attachment to this project, in one way or another.” – Guido Chiarito



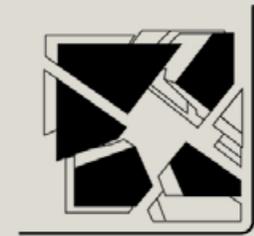
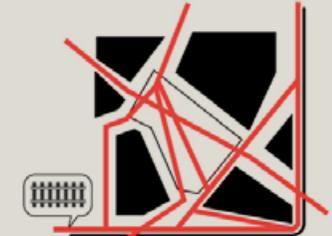
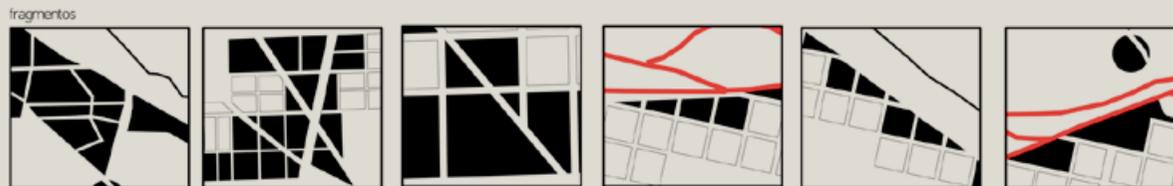
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Biblioteca Rosario, Argentina

An experimental and conceptual type of project. For this one, we used an architectural diagram; an abstract drawing that could be read in many different ways, serving as a mean to kick off the design process. The diagram is, as we understand it, not a floor plan or a section, (although it can be interpreted as such); it is, at its core, a graphical representation of relationships between elements. Its purpose is to synthesize and to arrange selectively all the information that conforms the project, allowing us to jump from abstraction to the specifics of the design following a planned path.



Site analysis



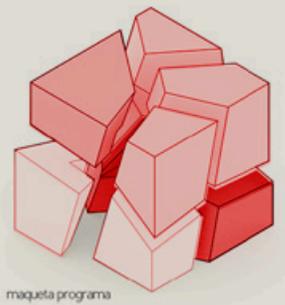
Explorative diagrams

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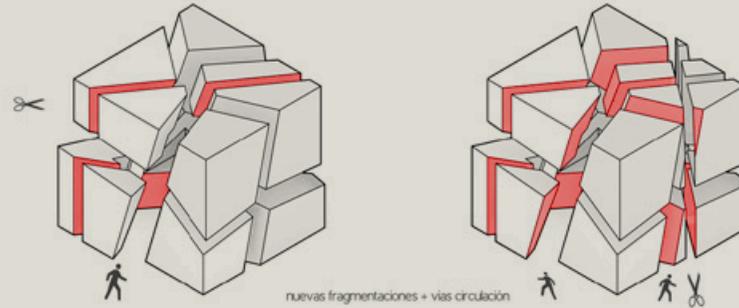
Biblioteca Vigil Rosario, Argentina



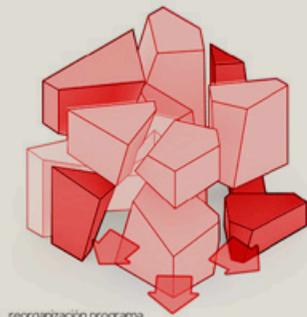
Exploded views (Fig. 1)



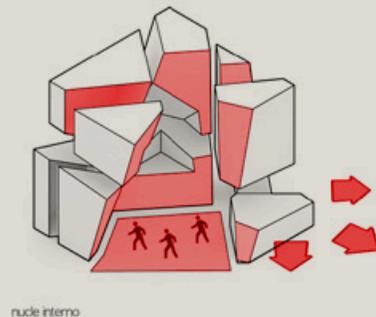
maqueta programa



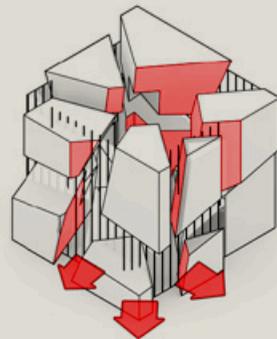
nuevas fragmentaciones + vías circulación



reorganización programa



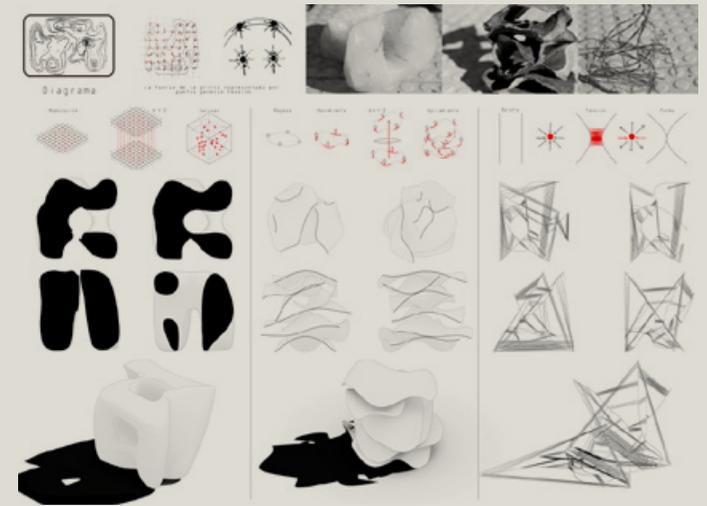
núcleo interno



Design operations (Fig. 2)

The diagrams shown on the left represent the next stage in the design process, taking the inputs from the diagrams originated from the site analysis as seen in page 6. (Fig. 1, 2)

We also tried a more conceptual and organic approach to the same site and program, using abstract 3D and physical models a starting point for the design process. In this case, the models serve as three dimensional explorative diagrams. (Fig. 3)



Organic 3D and physical explorations (Fig. 3)

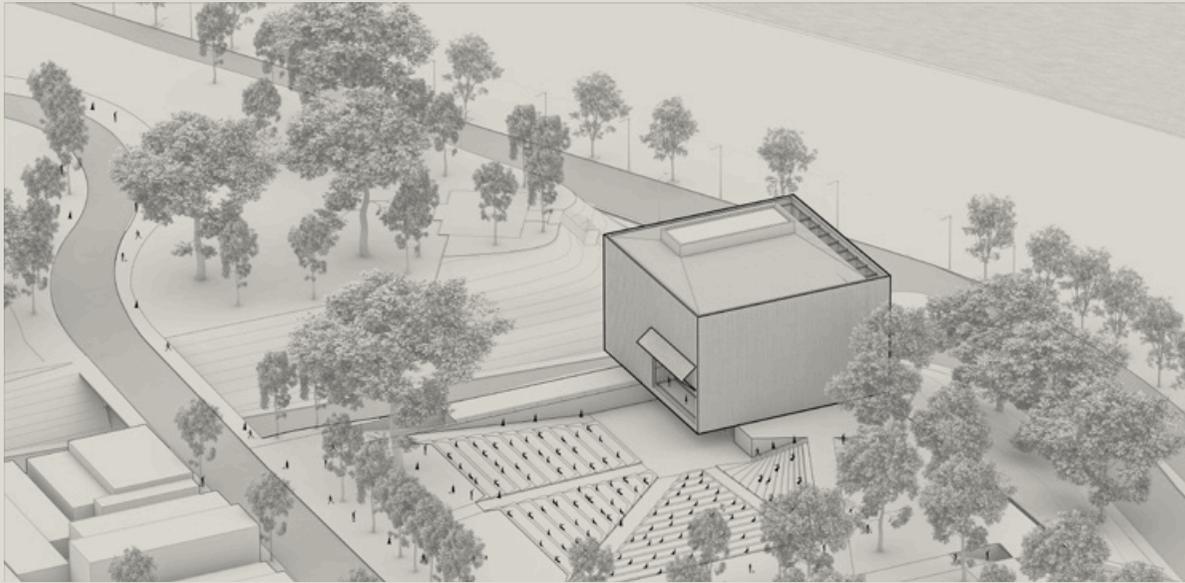


Floor plan and elevation from the alternative proposal

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Faro Multicultural Rosario, Argentina

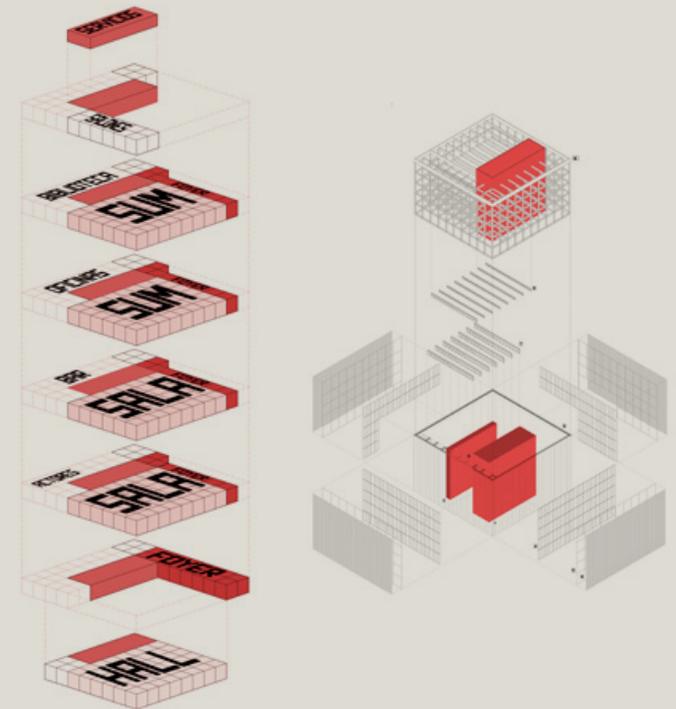
The design of the building is a response to the necessity of expressing a more monumental side of architecture, understanding it as a new icon of the city of Rosario. As a multi-functional building, it responds to both the public and private needs of the program; the Open Theater can offer both outdoor and indoor performances, two totally different experiences that complement each other.



Proposed building, right next to the Paraná River



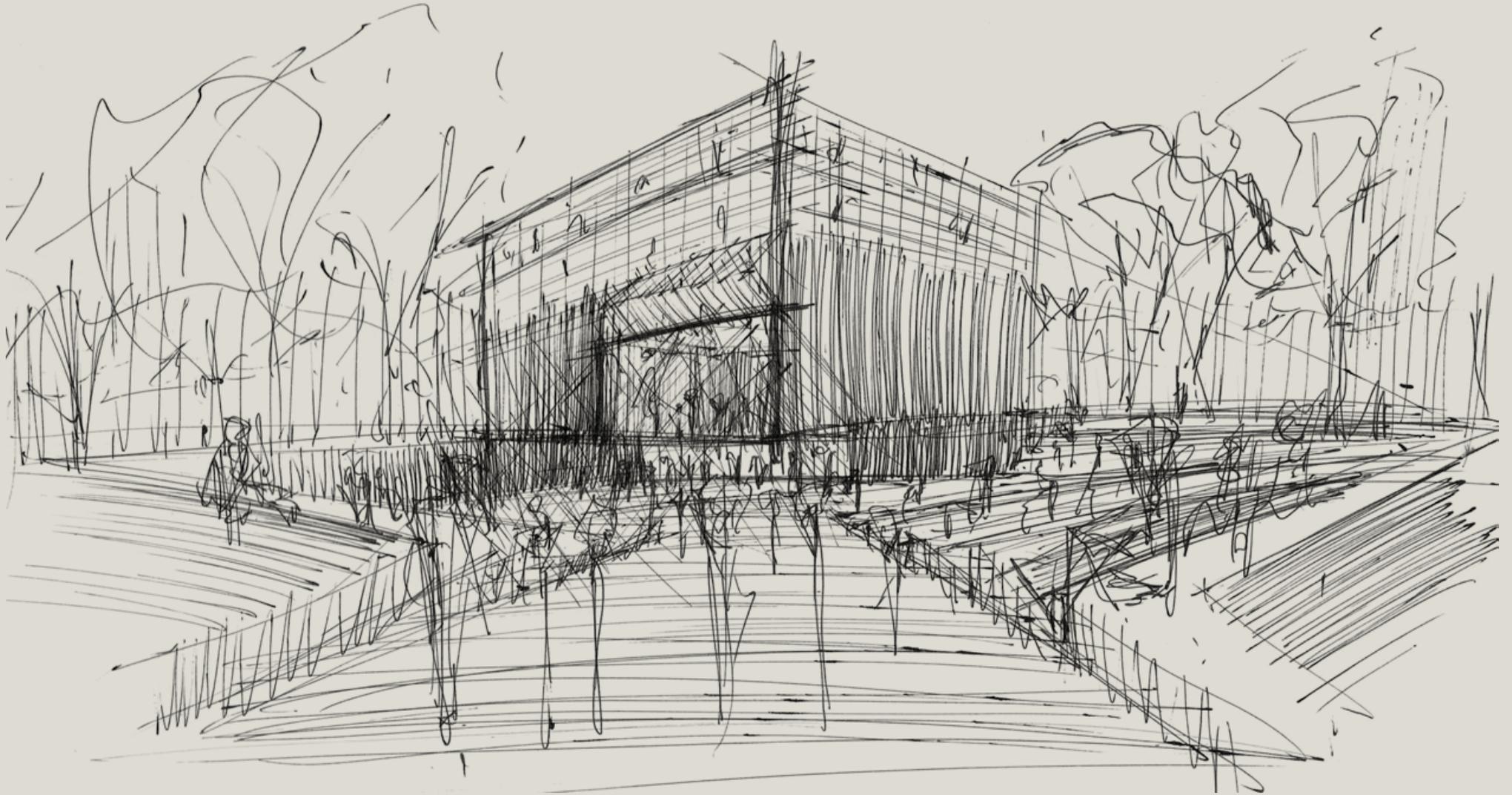
Section diagram, showing the traversality of the proposal



Program explorations (left), Structural diagram (right)

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Faro Multicultural
Rosario, Argentina



Preliminary sketch, showing the main intentions of the proposal

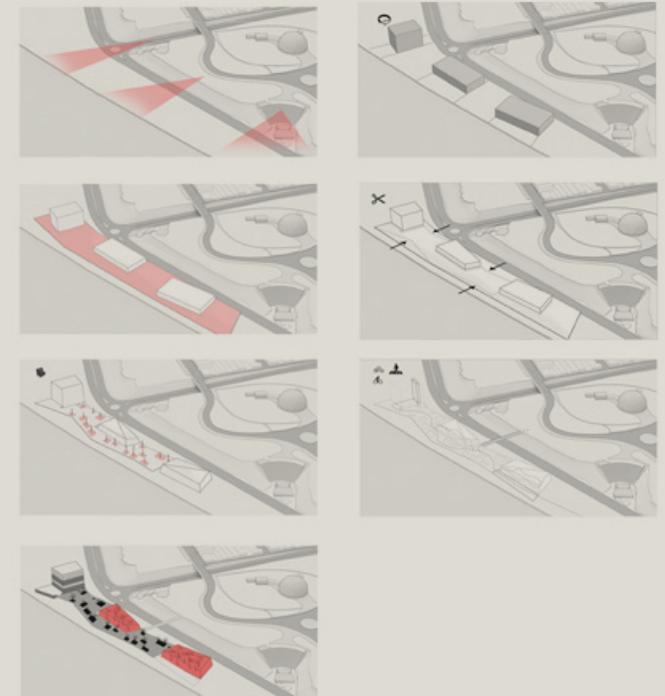
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Jardín Botánico Rosario, Argentina

Right next to the Faro Multicultural (page 10) and Oscar Niemeyer's planned project, Puerto de la Música, the project site is located in a constantly growing area of the city right next to the Paraná River. Taking advantage of its privileged and critical location, the building serves as a mean of connection for a fragmented city like Rosario.



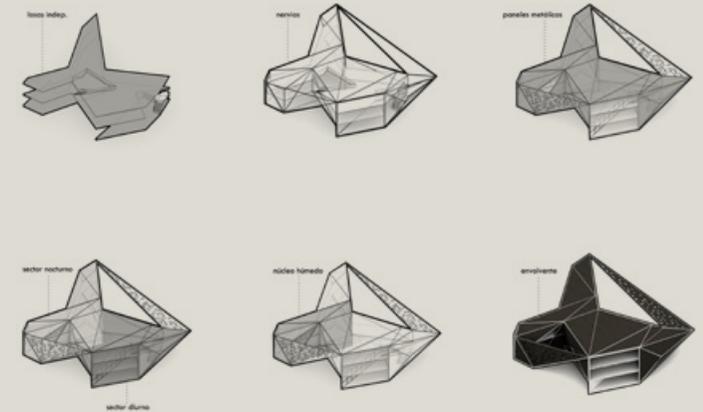
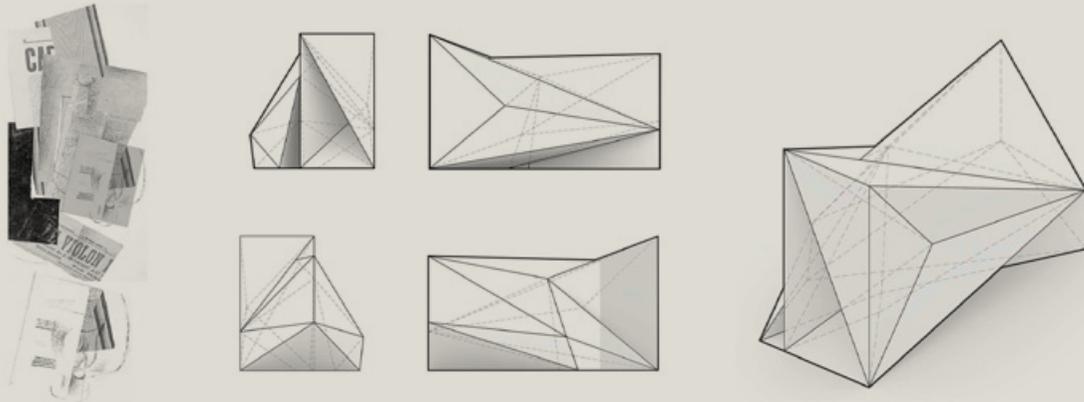
Site



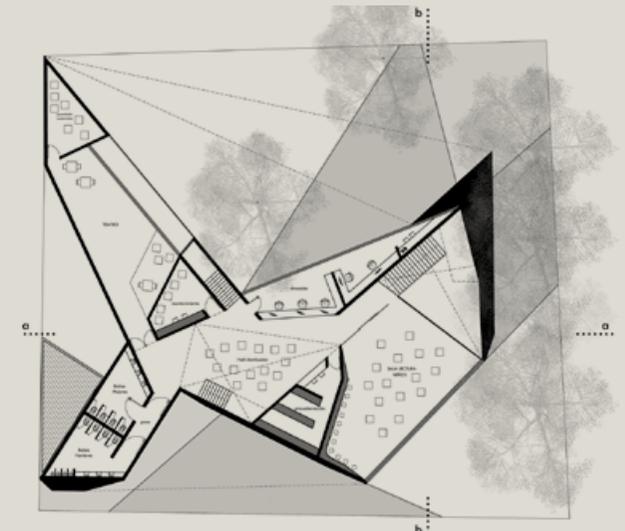
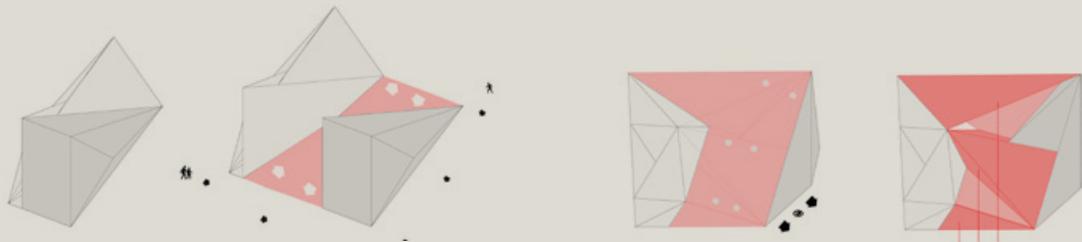
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Biblioteca Barrial Rosario, Argentina

This library is a conceptual, more experimental type of project. We started off with a collage by french painter Georges Braque, trying to read the underlying relationships between shapes and forms within the piece of art, that could be interpreted as spatialities in an architectural sense. In this particular case, the painting works as a generative diagram.



Braque's painting is used to generate a three-dimensional diagram



Architecture & Design

The focus of this chapter is the in-depth breakdown of a single project—the Songdo Library—that we developed together with the Canadian firm DIALOG.

Tango Studio
DIALOG

Songdo Library
Songdo, South Korea

In early 2021, we approached DIALOG with a proposal to take part together in the competition for the new Songdo Library, in South Korea. We worked for forty-five days to design a building that would meet all the criteria of the competition, proposing sustainable solutions for both the project and its construction.



Design overview



Community

A 2018 article in Bloomberg suggested Songdo International Business District (Songdo IDB) left the impression of a well-designed district where it's hard to meet one's neighbours. Our design aims to address this. Community binds a city/district/neighbourhood together; no less so in a district that is less than two decades old. Places can help create a sense of community — the traditional Korean market immediately springs to mind.

We are in the midst of a transition as libraries are being transformed from places for books into places for people. We have designed the Songdo Library to be a place that consolidates and amplifies community and culture in the district. It will be a diverse and inclusive forum for civic life, and a place to nurture the interrelationship between Korean and international cultures.

Culture

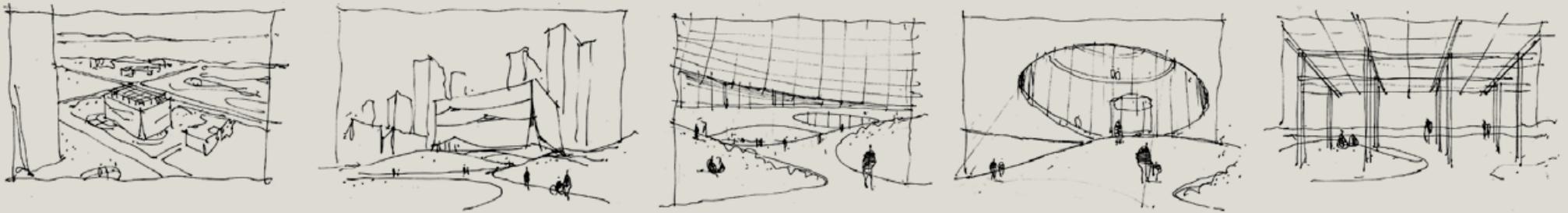
A library is also central to cultural resilience; it's important the library itself be a story, one that celebrates Korean culture and ingenuity. The timber structure is a reflection of traditional Korean architecture; exposed joinery details throughout the structure express traditional Korean joinery. The structural grid is multiple of 303 cm or 1 Ja (자). Radiant heating strategies owe a debt to the On-dol (온돌), the underfloor heating innovation in traditional Korean architecture.

And then there is the form of the building itself. Approaching the library, a pensioner might recognize the form of the Turtle Ship (거북선) in the building's structure, with the solar shades akin to sails. From a different angle, a child might regard the openings in the brise-soleil and reminisce on the mischievous act of poking holes in a rice paper screen (Han Ji; 한지), to spy on one's parents.

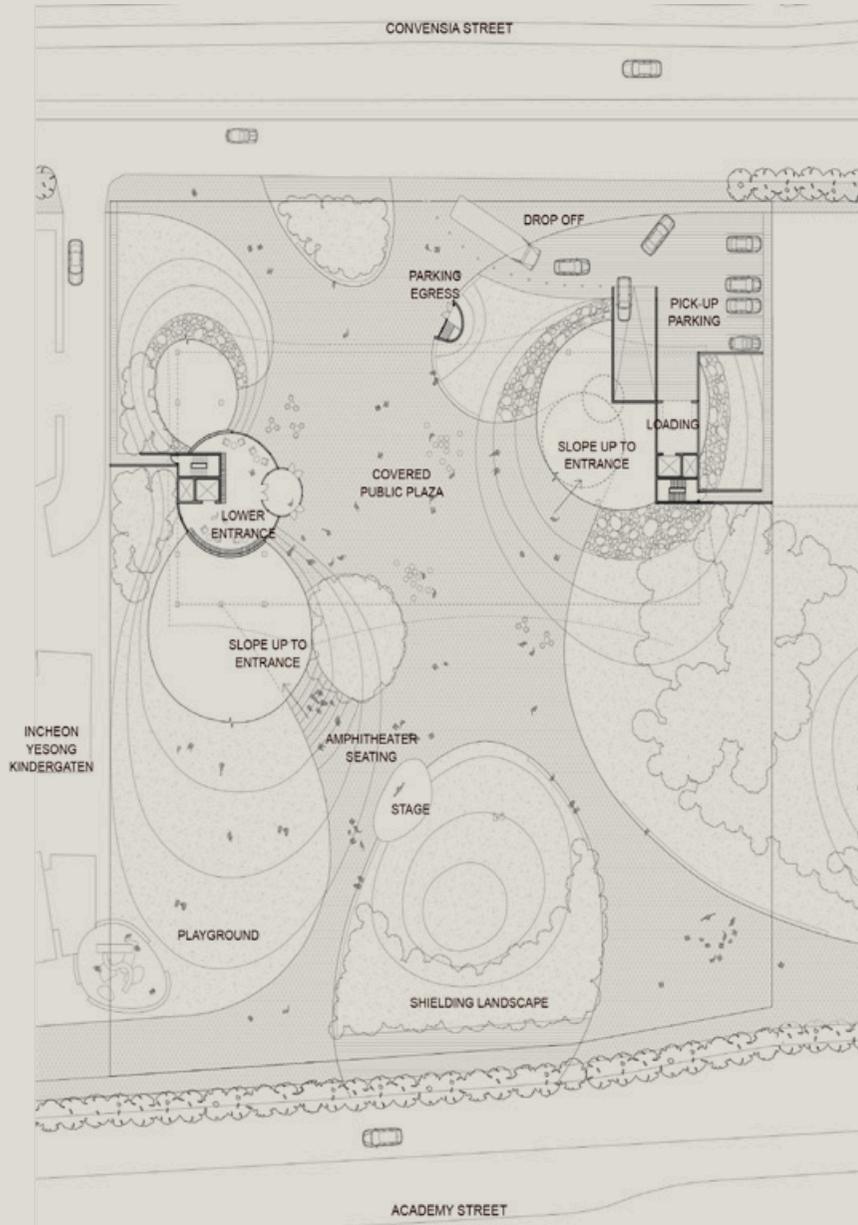
Basic design direction (intent and idea)

A human space crafted by a human hand

We have included our original hand-drawn drawings here because they capture the essence of the design; the interwoven lines reveal the humanity at its heart.



Site plan, floor, elevation, cross-sectional drawings



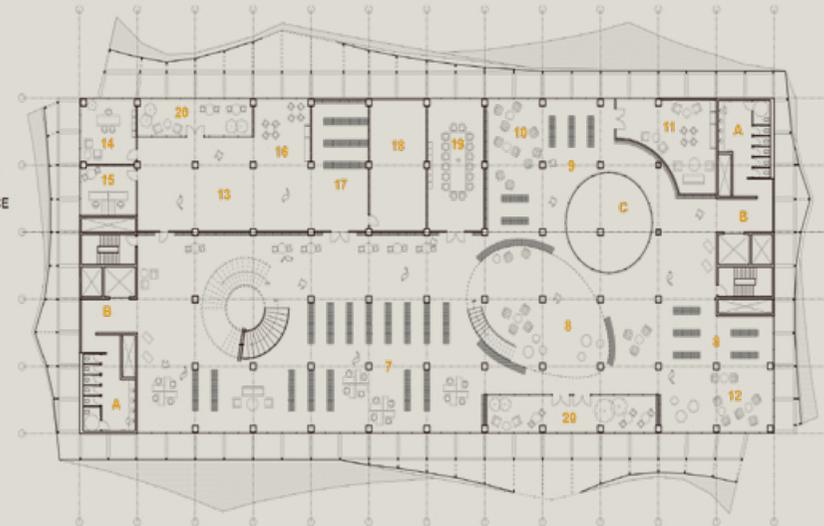
LEVEL 1 (+6m)

- 1 MAIN INFORMATION DESK
- 2 SORTING ROOM
- 3 BOOK CAFE
- 4 GENERAL MATERIALS
- 5 GENERAL MATERIALS - MULTIMEDIA
- 6 SOCIAL BOWL
- A TOILET
- B ELEVATOR LOBBY
- C OCULUS (ABOVE)



LEVEL 2

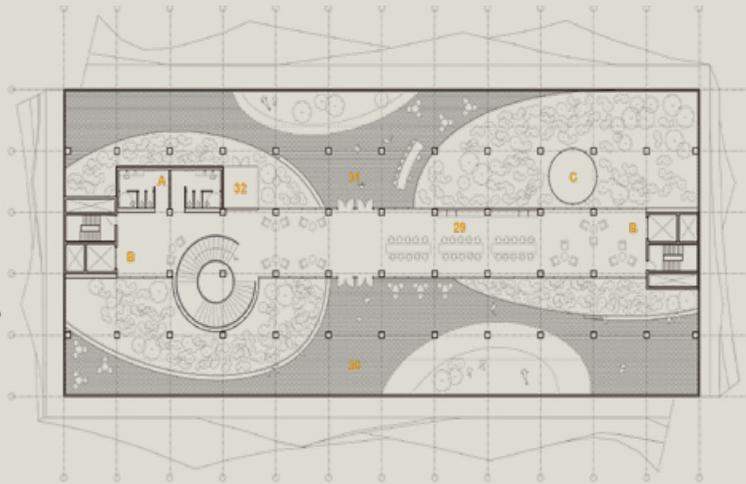
- 7 GENERAL MATERIALS
- 8 CHILDRENS MATERIALS
- 9 INFANT MATERIALS
- 10 COMMUNICATION ROOM
- 11 FEEDING ROOM
- 12 CULTURAL CLASSROOM
- 13 OPEN OFFICE SPACE
- 14 CHIEF EXECUTIVE OFFICE
- 15 VOLUNTEER ROOM
- 16 OFFICE LOUNGE
- 17 ARCHIVE
- 18 SERVER ROOM
- 19 CONFERENCE ROOM
- 20 TERRACE
- A TOILET
- B ELEVATOR LOBBY
- C OCULUS



LEVEL 4 (ROOF)

- 29 CULTURAL CLASSROOM
- 30 ROOFTOP TERRACE
- 31 OUTDOOR COOKING AREA
- 32 HEAT PUMPS

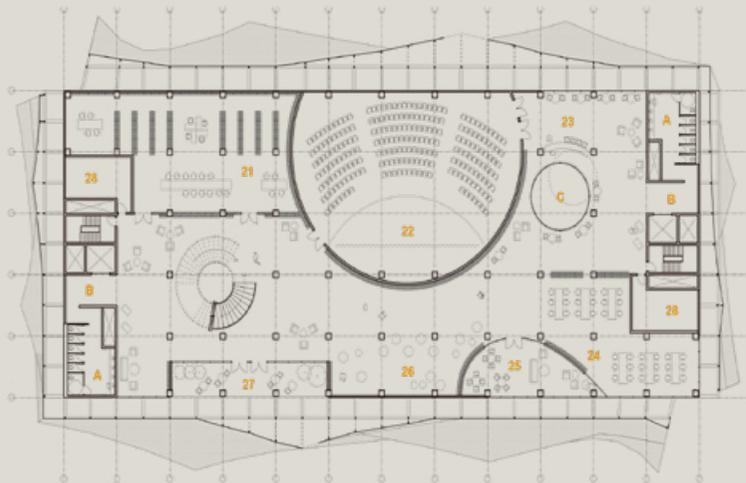
- A TOILET
- B ELEVATOR LOBBY
- C OCULUS SKYLIGHT



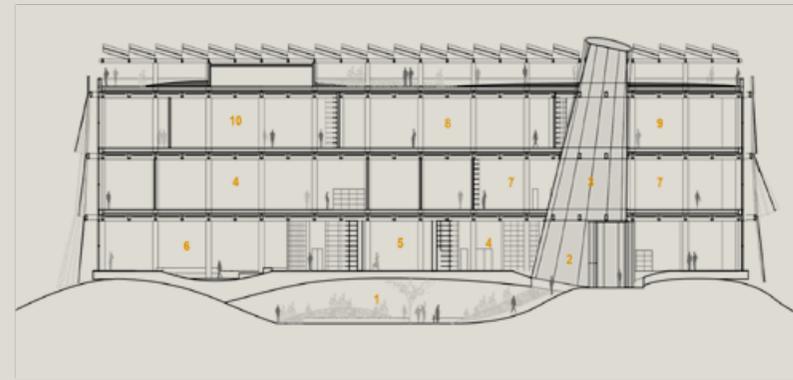
LEVEL 3

- 21 PRESERVATION ROOM
- 22 AUDITORIUM CONCERT HALL
- 23 LOUNGE
- 24 LEARNING ROOM
- 25 CLUB ROOM
- 26 EXHIBITION SPACE
- 27 TERRACE
- 28 DOAS FAN ROOM

- A TOILET
- B ELEVATOR LOBBY
- C OCULUS



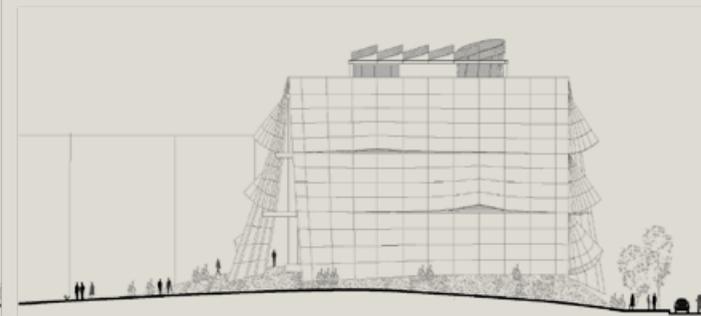
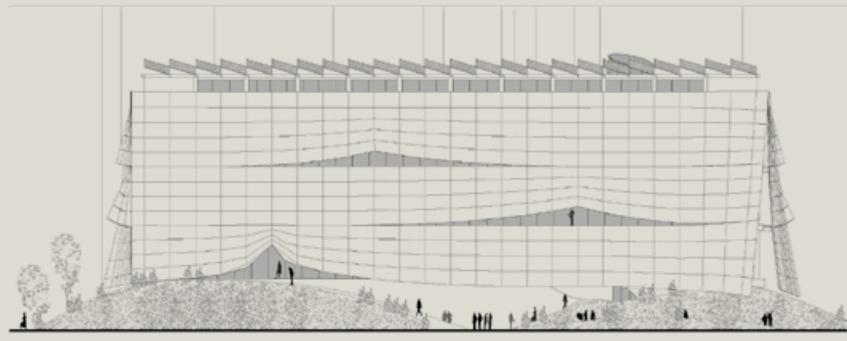
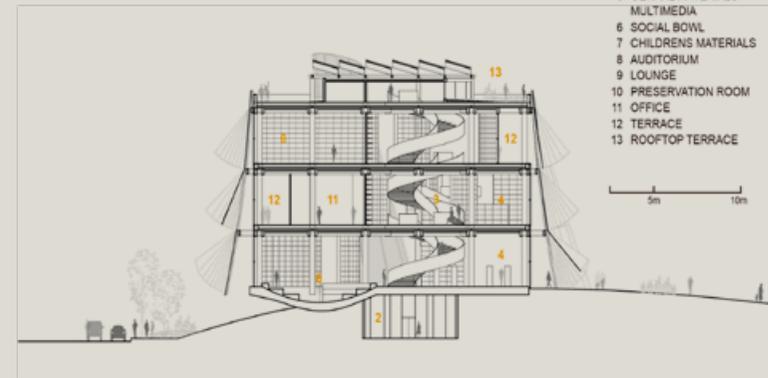
LONGITUDINAL SECTION



TRANSVERSE SECTION

- 1 COVERED PLAZA
- 2 ENTRANCE
- 3 OCULUS
- 4 GENERAL MATERIALS
- 5 GENERAL MATERIALS - MULTIMEDIA
- 6 SOCIAL BOWL
- 7 CHILDRENS MATERIALS
- 8 AUDITORIUM
- 9 LOUNGE
- 10 PRESERVATION ROOM
- 11 OFFICE
- 12 TERRACE
- 13 ROOFTOP TERRACE

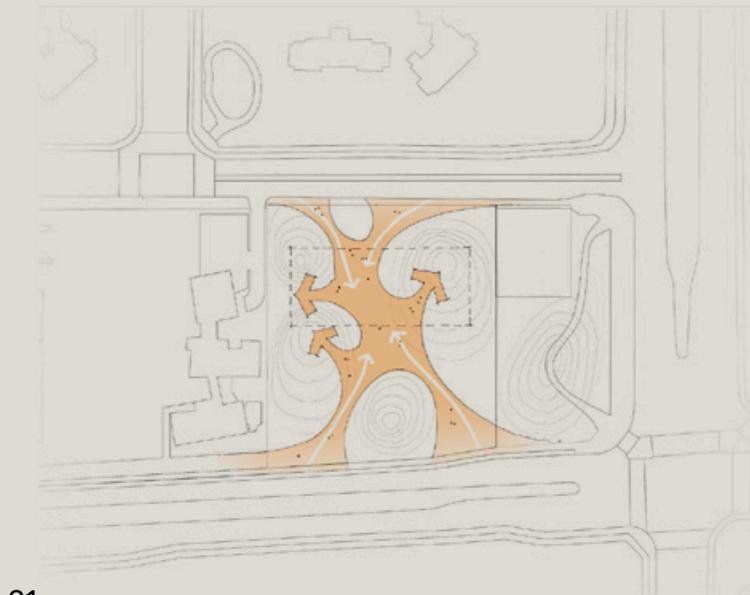
5m 10m



Outside space plan



*Artificial topography:
Canvas for social activation*



*Pedestrian movement as
formal driver*

“If you have a garden in a library, nothing is missing”
Korean landscape architecture has a history as profound as the country itself. Defined by hundreds of years of subtle yet intentional stewardship of the landscape, a Korean garden is known for its unforced reflection of the natural world. The landscape design for this library is delicate in its form and expression, yet remains resilient and adaptable.

An undulating landscape

The idea of the landscape begins with a sinuous, undulating landscape that creates a striking foundation upon which the building gracefully perches. Lush native grasses, forbs, and wildflowers echo a seaside dunescape, and protect the site from potential inundations from the adjacent and unpredictable sea. The softness of the ground-plane is home to a series of spiraling pathways that reach out to the site’s edges, inviting visitors into the lush library garden.

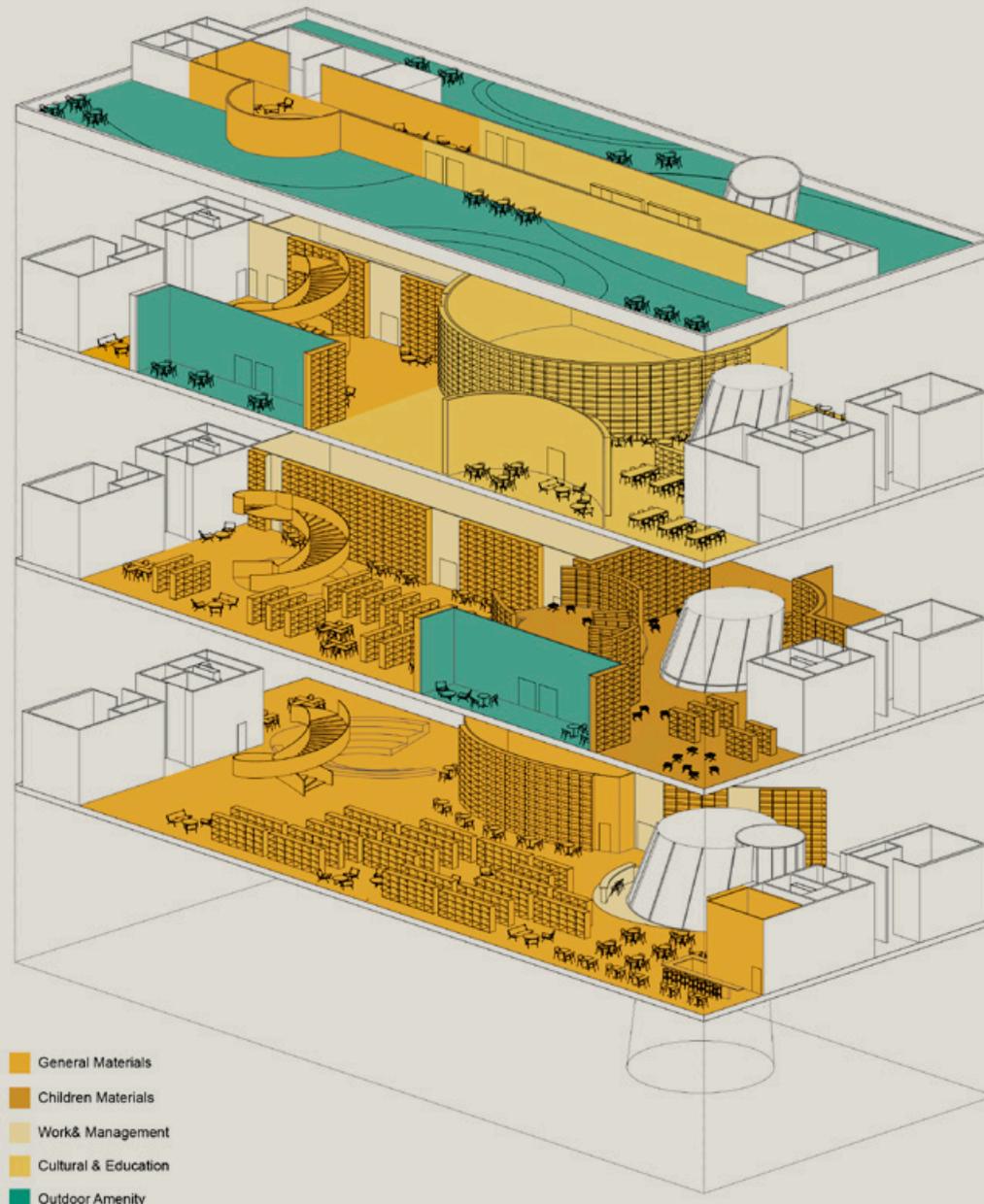
Connection, socialization, and lingering

To the east, a shared-use pathway system provides an alternative to the asphalt roadways. The greenway is defined by winding walkway and gentle hills; this language is carried into the library site through a series of constructed mounds and connected pathways. The pathways transect the site from east to west and north to south, making the landscape open and welcoming, and creating a series of spaces that support connection, socialization, and lingering. To the west, the site design creates a play space next to the Kindergarten, sheltered from the busy arterial road to the south by the rippling site topography. A protected amphitheater space is carved into the hillside of one of the mounds, and it is here that children will gather to listen to stories and to create their own.



View of the project from the landscape areas to the south of the Library.

Interior design concept



Rigid structure, flexible interior

Traditionally, libraries in Korea have been very rigid and structured, generally associated with universities and municipalities. These were places designed for books not people. Here we would rather the opposite; the Songdo Library aspires to become the community's cultural hub. The structural rationalism of the design's timber modules is highly adaptable, allowing for significant flexibility in the design of the interior.

A collection that grazes the landscape

The interior design reconnects cityscape to countryside, creating a calming space in a busy urban area. The collection is distributed across the floors of the library like Jeju Black Cattle (제주 흑우), the indigenous cattle species that has long been part of the Korean landscape. The idea is for people to feel like they are strolling through an open, rolling field of cattle rather than navigating a closed and rigid space.

Songdo's living room

Interspersed among the "cattle" are areas to sit, gather and connect; we are creating a series of soft spaces, bathed in the soft, natural light, that feel warm and inviting. This interior space embraces its imperfections — a blanket tossed here, or pillows piled there — to create a sense of comfort and connection. It is designed to be Songdo's living room.

Love of life

A Canadian study revealed that people view wood interiors as "warm," "inviting," "homey," and "relaxing." People preferred rooms that were "completely wood dominated, containing little to no artificial materials and having large windows with views of nature." We have responded to this research in our design for the Songdo Library, with exposed timber and views of nature revealed by the flowing brise-soleil.



View to the exterior from an open study space.

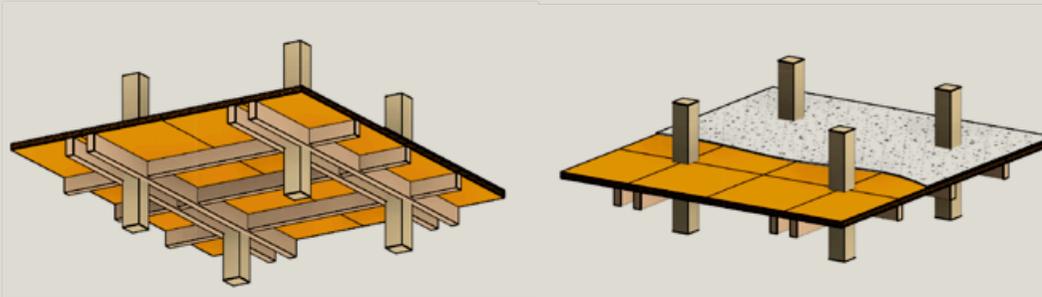


Third level reading lounge.

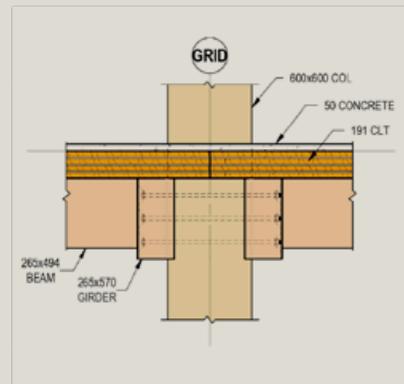
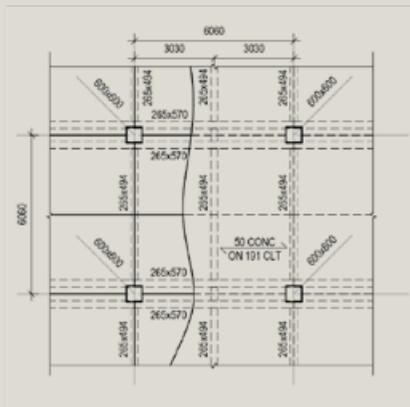


Landscaped roof terrace

Structural system review and plan



(Fig. left) Glulam beams, girders and columns for typical bay
 (Fig. right) CLT floor panels with concrete topping partially hidden



(Fig. left) Typical timber member sizes
 (Fig. right) Glulam girder and beam connection to the column

Mass timber

Mass timber, as a structural system, has one eye on the past and one on the future; it looks back to traditional Korean construction methods and forward to the future of sustainable building. Timber construction has a long history in Korea, yet during the twentieth century concrete and steel construction came to dominate large-scale construction. However, concrete and steel are associated with significant embodied carbon; sustainably harvested mass timber can lower embodied carbon of a structural system by up to 73%. Continued operational improvements mean that by 2030, 74% of carbon emissions in buildings will come from embodied carbon versus just 26% from operational carbon.

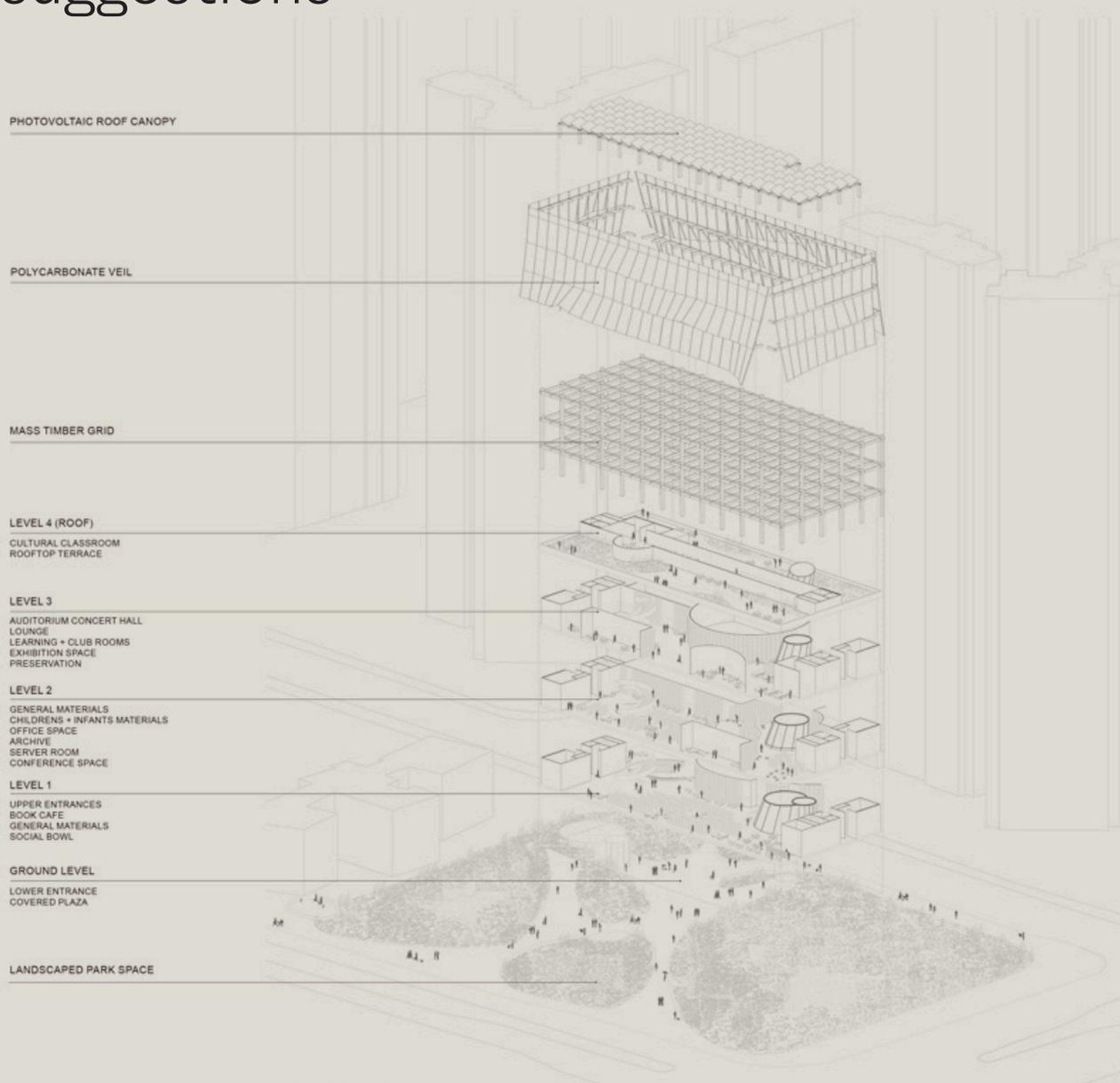
Timber frame, concrete base

Modern mass timber construction seeks to maximize the use of timber, while recognizing its limitations, using other materials where more efficient. For the Songdo Library this means a base podium constructed from reinforced concrete.

1 Ja (자)

The timber structure above the podium uses a 3.03 metre, or 1 Ja, square module. Glulam columns are spaced at 6.06 metres with double glulam girders spanning east-west between the columns. Glulam beams span between the girders at 3.03 metres to create the regular structural module. The beams are topped with CLT panels with a thin concrete topping for enhanced structural and acoustic performance. All mass timber elements will be sized to rely on the inherent (charring) fire resistance of the material while achieving the required structural performance. This eliminates the need for supplementary fire protection and enables the maximum exposure of the biophilic wood elements.

Construction method plan and suggestions



Elemental + Ground-up

Four layers

The construction of Songdo Library will be about layering. The first layer is the excavation for the foundation and underground parking. The second layer is the creation of the mounds that will form a new undulating topography to support the structure. The third layer is a base podium constructed from reinforced concrete, the most common form of construction in modern Korea. The final layer is the mass timber structure of cross-laminated timber (CLT) and glue-laminated timber (glulam) based on the 3.03 metre Ja module.

Pre-fabrication

The CLT layer offers the opportunity for prefabrication; pre-fabrication allows for increased safety, less on-site demand for skilled workers, less disruption to the kindergarten and surrounding buildings, less noise and waste, and faster completion. Pre-fab mass timber buildings are manufactured in a factory with openings cut using a CNC machine. Panels or sections are delivered to the site where they are connected using mechanical fastening systems such as bolts, lag bolts, self-tapping screws, or other connection systems.

Sourcing timber

While domestic Korean Larch is the dominant wood used in the nation, Korea does not have the capability to turn this local wood into a mass timber project. Songdo Library will likely use CLT and glulam manufactured in the North American, Australian, or European marketplaces.

Visual+

At Tango Studio, we are not just visualization artists; we are, primarily, problem solvers. Following this work philosophy, we created the Visual+ service; an integrated package to help you see your designs come to life. Our team is capable to jump in at any stage of the architectural process to fill in the gaps of the design process when needed, taking your concepts and ideas and transforming them into powerful visuals.

We offer our clients a way to expand their team remotely with us, with straightforward communication, taking their feedback and providing results in a very cost effective manner.

DIALOG

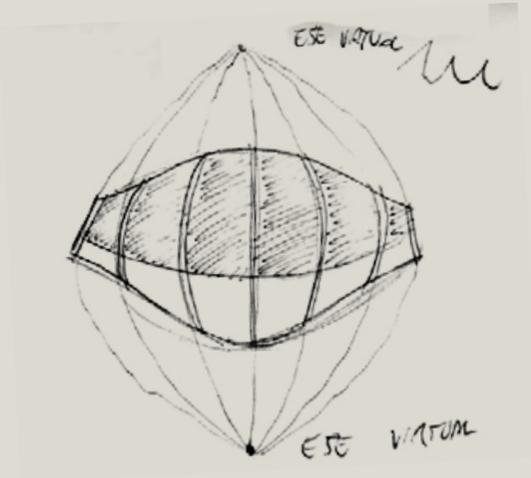
Hybrid Wood Tower

Toronto, Ontario, Canada

While working with DIALOG on their Hybrid Wood Tower prototype—the tallest sustainable building in the world—, we were tasked with designing the landscaping for the park surrounding the tower, as well as coming up with a design for the greenhouses near the base of the building. We also helped designing and adding the final touches to the curtain wall facade.



Landscape conceptual design



Preliminary plan sketch (above), Elevation sketch (below)



DIALOG

Hybrid Wood Tower Toronto, Ontario, Canada



Baron Nelson Architects

1005 Dundas St. E.
Oakville, Ontario,
Canada

After working on a few projects with Baron Nelson Architects, they approached us to collaborate on the design for a condominium proposal. We developed several options for the facade design, its composition and materiality, while BNA worked on the other aspects of the building at the same time.

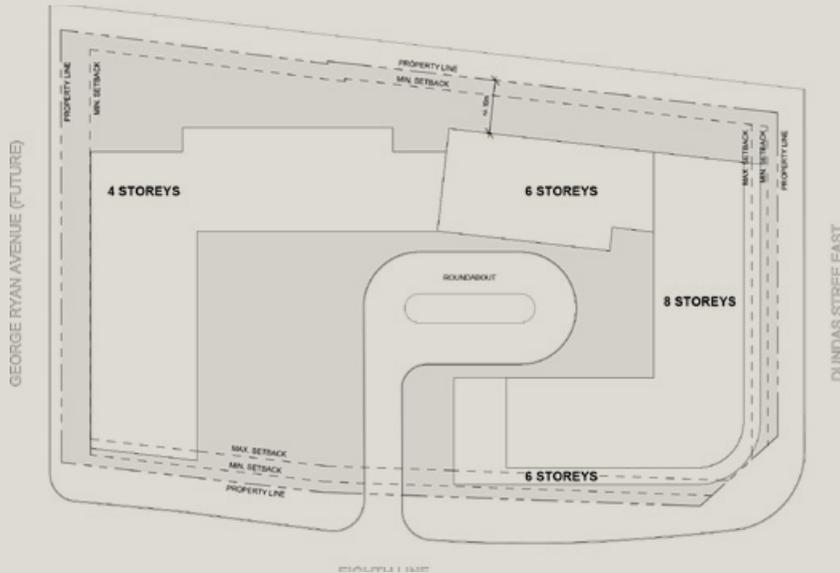


Baron Nelson Architects

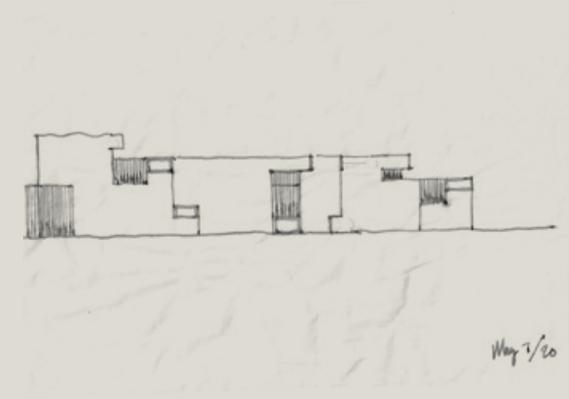
1005 Dundas St. E.
Oakville, Ontario,
Canada

We were given a few loose sketches and a schematic floor plan (Fig. 1). Martin's original sketches were inspired by the Bauhaus movement, and even if this idea was not explored too much during the design process, it totally served as a starting point. On the other hand, he also wanted the building to look modern and bold and we had the difficult task to reach a balance between both worlds. (Fig. 2)

The main idea was to create a very volumetric expression for the building through the use of contrast. We started to explore this path very early on with different 3D models.



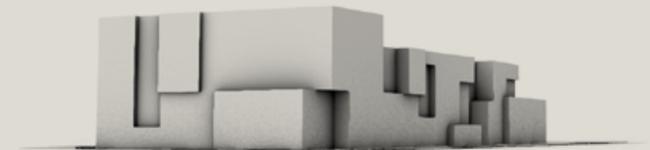
Basic floor plan (Fig. 1)



Martin Baron's first sketch



Martin Baron's references (Fig. 2)



First massing approach

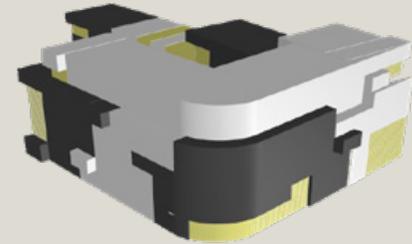
Baron Nelson Architects

1005 Dundas St. E.
Oakville, Ontario,
Canada

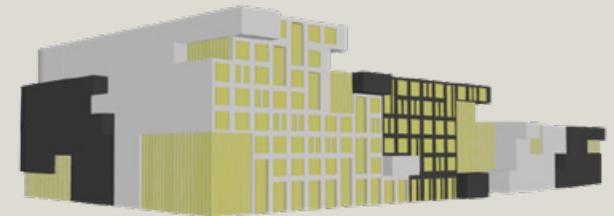
After a few weeks of trying out different patterns to come up with a convincing volumetric scheme (Fig. 1), we ended up with three, very different options. First we had the “Broken Snake”, which allowed us to work with a very well defined module, which was then intertwined to create a cool wavy pattern. The second one was the “Broken Podium”, which was very monumental, and the pattern became more of a gradient. The last one, which was the one chosen by the folks back at BNA, was denominated the “Broken Grid”, which was the most volumetric of the bunch, and we liked it because it expanded upon our idea of mass defined by contrast.



“Broken Snake”



“Broken Podium”



“Broken Grid”

First set of facade tests (Fig. 1)

Baron Nelson Architects

1005 Dundas St. E.
Oakville, Ontario,
Canada

We then spent the following weeks tweaking and polishing the design. One of the main difficulties we faced was how to articulate the ground floor and mainly, how to create an attractive entrance for the building in the corner of Dundas St. and 8th Line. We —BNA and us— contemplated the possibility of making the entrance its own thing, to make it speak a different language than the rest of the building, which was more boxy, but we discarded this idea along the road, as Martin requested a more direct way to access the building.



Baron Nelson Architects

Rutherford Rd. Vaughan, Ontario, Canada

Following our collaboration with BNA on their 1005 Dundas St. E. project, they reached to us to help them with designing this 230.000 m² masterplan. We only had a rough footprint of where the buildings were going to be, and from there we designed almost everything hand in hand with them.



Baron Nelson
Architects

Rutherford Rd.
Vaughan, Ontario,
Canada



MHKW Architects

Shenzhen Gas

Shenzhen, Guangdong, China

MHKW Architects, lead by Michael Wong, reached out to us after coming across with a publication on FastCompany that featured our work for DIALOG's Hybrid Wood Tower, looking for some help to finalize their unresolved design for the Shenzhen Gas Corp. private competition. We mostly helped with the interior design and architecture, and with integrating the building with a proposal of a masterplan where it would be located.

"Tango Studio caught our attention when we were searching for a rendering specialist early this year for our one-million-sq. ft. corporate headquarter project. With such a large scale international competition and extremely tight time frame during COVID-19 lockdown, we were facing multiple challenges. Guido Chiarito, Principal of Tango Studio, led his team to cooperate with us, following our direction every step of the way and produced impressive perspectives on time and on budget. We found them talented, easy to work with and valued their positive comments. I have no hesitancy in recommending them." — Michael Wong, MHKW Architects



Architecture Visualization

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Architects

University of Victoria
Victoria, BC, Canada



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University of Victoria
Victoria, BC, Canada



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Desautels Concert Hall
Winnipeg, Manitoba, Canada



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Desautels Concert Hall
Winnipeg, Manitoba, Canada



DIALOG
Glenbow Museum
Calgary, Alberta, Canada



DIALOG

Glenbow Museum Calgary, Alberta, Canada



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Glenbow Museum Calgary, Alberta, Canada



Morphosis
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DIALOG

Art Gallery of Nova Scotia Halifax, Nova Scotia, Canada



Grupo
PECAM

Complejo Botania
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Loza
Condominios Laprida
Rosario, Santa Fe,
Argentina



Loza

Condominios Laprida
Rosario, Santa Fe, Argentina



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