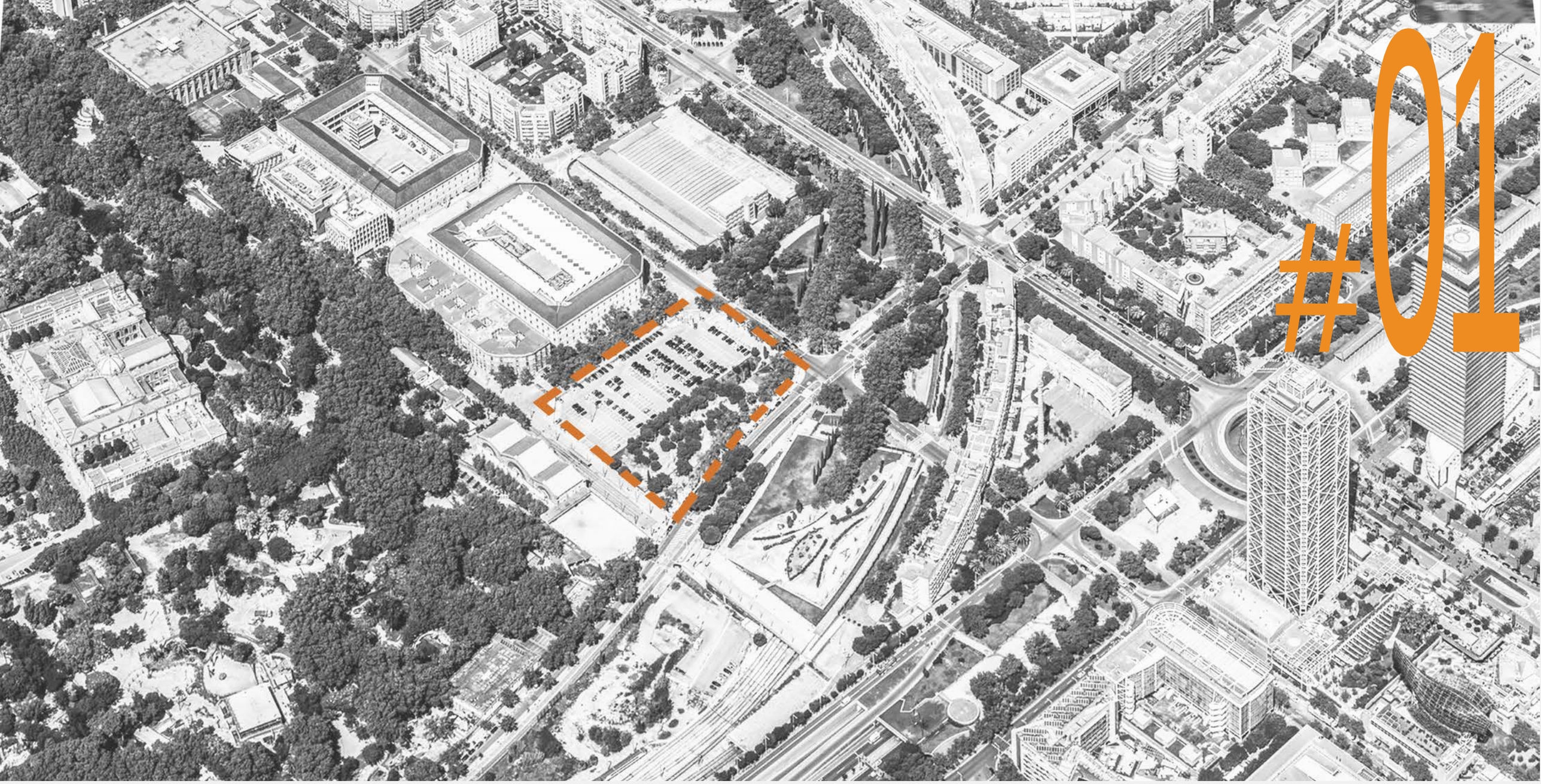

#01

BAC
BARCELONA ARCHITECTURE CENTER

BARCELONA ARCHITECTURE CENTER
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BAC Barcelona Architecture Center

@BACprogram

BARCELONA ARCHITECTURE CENTER is an educational organization founded in 1998 and chaired by Miguel Roldán. The BAC was created with the aim of developing academic and research collaborations with other universities and higher education institutions across the globe.

BCN Urban project

Barcelona Studio “Barcelona Collection Center”

Edited by Barcelona Architecture Center in colaboration with Clemson University, Texas A&M University

New Barcelona Museums Collection Center, Fall 2021
BAC, Barcelona Architecture Center 01

academic platform

BAC
BARCELONA ARCHITECTURE CENTER

Study Abroad Programs
Barcelona, Europe
in alliance with
UPF / COAC

programs

- SEMESTER STUDY ABROAD PROGRAMS
- INTENSIVE COURSES
- FIELD STUDIES COURSES
- INTERNSHIP COURSES

SEMESTER STUDY ABROAD PROGRAMS

- DESIGN STUDIO — 6 credits
- URBAN HISTORY OF BARCELONA — 3 credits
- BARCELONA BUILDING TECHNOLOGY — 3 credits
- FIELD STUDIES — 3 credits — Barcelona, Madrid - Toledo, The Netherlands (8 cities in 8 days)
- SPANISH LANGUAGE AND CULTURE — 2 credits

1999-2022

Over **2,600** American, Asian and Australian students.

BAC
BARCELONA ARCHITECTURE CENTER

STUDENTS |

CLEMSON UNIVERSITY | Matthew Alexander Bourean, Jordan Jolie Brideau, Clarkson Fitzpatrick Broadwater, John Robert Brown, Jennifer Lauren Dutt, Carson Reese Gardner, Kimani Joi Grayson, Arman Curtis Kriner, James Brian Moulder, Ayomide Olaoluwa Otuyalo,Anna Elizabeth Stone, Madison De la Cruz Turcotte, Brianna Lain Wallace, Olivia Nicole Wright

TEXAS A&M UNIVERSITY | Natalie Arroyo / Myles Robert Barker / Alejandro Covarrubias / Isabella Davies / Samantha Elvia Garza / Sunjin Lee / Cole Sterling Mcdowell / Austin William Patterson / Arianna Kaitlyn Ramirez / Peyton Roberts / Mia Renee Robison / Angela Sarai Rodriguez / Nansi Nalleli Rodriguez / Charlotte Kay Shawver

BAC STAFF and PROFESSORS | Director Miguel Roldan, Academic Coordinator Zana Bosnic, Design studio professors: Miguel Roldan, Zana Bosnic, History Research Seminar Professor Jelena Prokopljevic, Building Technology Seminar Professor Pia Wortham, Field Studies seminar and travels Professor Ivan Blasi.

VISITORS & UNIVERSITIES STAFF | Jim Stevens (CU), Ulrike Heine (CU), Gregory Luhan (TAMU), Leslie Feigenbaum (TAMU), Regina Foster (CU), Amaris Vazquez (TAMU)

LECTURERS and VISITS PROFESSORS | Joan Callis, EMBT, Miquel Rodriguez, Xmade, Pasqual Bendicho, Sumo Arquitectes, Xavier Guardiola, G+R Consultors d'estructures, Alberto Veiga, Barozzi Veiga.

FINAL JURY | CLEMSON UNIVERSITY: Jim Stevens, Sallie Hambright-Belue, Dustin Albright , TEXAS A&M UNIVERSITY: Gregory Luhan, Marcel Erminy, Koichiro Aitani, Stephen Caffey , ROGER WILLIAMS UNIVERSITY: Andrew Cohen, Architects from Barcelona: Merce Berengue, Pasqual Bendicho, David Espuña, Marti Llorente, BARCELONA ARCHITECTURE CENTER: Miguel Roldan, Zana Bosnic, Jelena Prokopljevic

BAC thanks to YOU ALL

STAY IN CONTACT AND JOIN FACEBOOK GROUP
BAC Barcelona Architecture Center Alumni

Fall 2021

BCN Urban project

Barcelona Studio

Barcelona Museums Collection Center #1

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BAC PROGRAM

Executive Director

MIGUEL ROLDAN

Introduction letter by **Miguel Roldán, Executive Director** of BAC program.

The Barcelona Architecture Center, BAC is an educational organization that was founded in 1999 and is currently chaired by Miguel Roldán.
The center offers custom designed architecture and urban design programs in Barcelona to international architecture students and schools.

The BAC was created with the aim of developing academic and research collaborations with other universities and higher education institutions across the globe. We are continually building and international network between universities to develop common architectural research projects.
This network includes new partners every year from a variety of geographical areas, as we are especially interested in focusing on local and global points of view. We are optimistic in our pursuits as we design the future of a professional environment in a global context, creating mechanisms to share tasks and to work in a worldwide team.

Having reached over 2,600 students since its foundation, the BAC currently collaborates with our local partners UPF, COAC, Catalan Association of Architects and La Capell. Our international partners include **Texas A&M University, Clemson University, Roger Williams University, Penn State University**, **CEDIM of Monterrey, Shibaura Institute of Technology** and a number of other Japanese universities.

The **BAC** has been participating in a variety of educational exchanges since 1999. Over the last more than 20 years, our directors have had many different experiences in organizing innovative programs and workshops designed to train architects in the frame of European architecture, urban and landscape design tendencies, as well as participation in teaching exchanges around the world. Over the past decade, the BAC has established a mission and designed its programs and research to this end.

For more information on this program visit our webpage
http://barcelonaarchitecturecenter.wordpress.com/

1. Barcelona Design Studio Program

Professors

MIGUEL ROLDAN

ZANA BOSNIC

Site description:

The project site this Fall 2021 Design studio project will be the plot used as a **Zoo parking**, located between Wellington, Villena and Ramón Trias i Fargas Streets and Icària Avenue. This site limits with **Ciutadella's Park and Zoo** to the South-West, **Pompeu Fabra University Campus** to the North-West, **Carlos I Park** to the North-Est and with the covered **train tracks** to the South-Est.

This site has remained unused even its potentiality as a **privileged piece** of the city, due to the difficulty of accessibility and also because of its **infrastructural condition** and the proximity of the train tracks. This 'remoteness' has built a site that could seem forgotten by most of the citizens. Even that it has a remarkable **urban condition** to become a central element for the reconversion of this area of the city.

The site needs to be re-interpreted, re-thought and re-use to transform it into a new **"urban hinge"** that makes possible the relation between the surroundings.

This FALL 2021 project wants to research the **site condition opportunities**. Hence the transformation of this plot can contribute to a challenge for the reinterpretation of **Barcelona Second sea façade** to the Mediterranean but also a confluence between **city and infrastructure**. Architect can join their voice in this **architecture opportunity**.

Site location:

1. Ciutadella Park

Ciutadella Park is located on the area formerly occupied by the **military citadel** and it was transformed to held the **1888 Textile Industries World's Fair.**

This is an enclosed, walled park, like a large pouch attached to the city. The Park project was done by the master builder **Josep Fontseré**, whose competition motto was "Parks are to cities what lungs are to people", and proposed that most of the 60 hectares should be given over to **gardens** and also that most of the military buildings should be demolished. The project was extremely important because it established **relationships between different parts of the city** that remain unchanged nowadays.

Ciutadella represents the legacy of 1888 World's Fair and it is the most important **Public Park for Ciutat Vella** although it has strange relationships between all the **Eastern parts**, La Barceloneta neighborhood in particular, and the rest of the city.

2. Zoo

The Southern part of Ciutadella Park was never completed until Mayor Porcioles decided to build the **Zoo**, that doesn't allow the **relation between de Park and the Western part**: Pompeu Fabra's Campus and Poblenou's neighborhood. This controversial project has been on debate in the last few years. In this area, the park is guarded by a **perimeter fence** and the Zoo is waiting to be moved away. That would finally give the park the opportunity to reach its original perimeter.

3. Pompeu Fabra Campus

Pompeu Fabra University Campus is located on the North-Est façade of the park, and it occupies **two former military barracks** as well as other satellite buildings next to them.

The team of **MBM Arquitectes, Josep Maria Martorell, Oriol Bohigas and David Mackay,** was commissioned to perform the renovation of the southern building that was inaugurated the year 2000. **Esteve Bonell and Josep Maria Gil** were in charge of the renovation of the northern building.

An intervention by **Juan Navarro Baldeweg** hosts the Pasqual Maragall Foundation for Research on Alzheimer's Disease and other UPF **Research Park Buildings.**

One of the highlights is the renovation done by **Lluís Clotet and Ignacio Paricio** on the former Water Tower. It was originally designed by Josep Fontseré in 1894 and converted into the new **Central Library** for the University.

4. Ring Road (Passeig de Circumval·lació)

Located in the South-Est part of the site, the Ring Road is a Street with no name, no neighbors and with **non-urban condition**. The Road follows the train tracks on one side, and the Zoo Perimeter fence on the other side.

5. Train Tracks

The train track to **Estació de França** are a crucial infrastructure to build the city's morphology in the southern part of the plot.

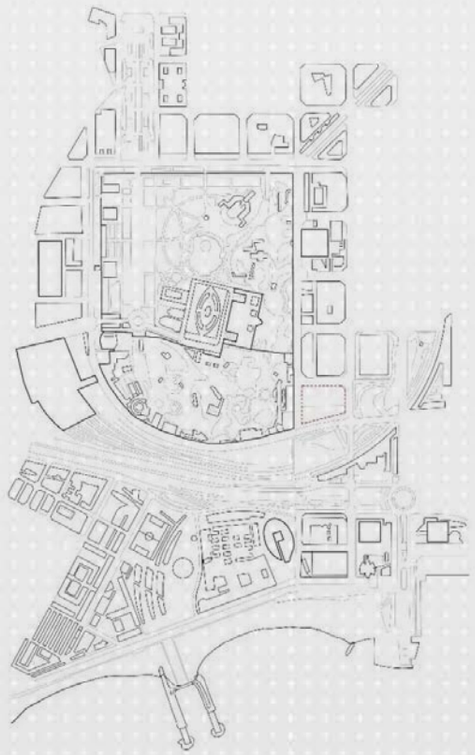
6. Coast line

The site is related with the space between **Barceloneta**'s neighborhood and **Villa Olimpica**, in the **Poblenou**'s neighborhood, on the coast line of the city. Although its proximity, nowadays it is impossible to jump this urban gap between the pieces.

Plot description

The plot limits are with Wellington Street to the South-West, where are located the **Zoo entrance** and the end of the **Tram**, with the station of Ciutadella – Vila Olimpica. On the North-West there is the **Pompeu Fabra Campus and a Housing Building** that remained from the Military Barracks, with façade to Wellington Street. A private passage is located between them. On the North-Est we reach **Carlos I Park**, a small intervention next to the **train tracks and Ring Road** (Passeig de Circumval·lació), that are located in the South-Est limit of the plot and represent an **urban defining element for the growth of the city**.

The use of **surface parking** is totally **underusing** the site and has no relation with the **program** that is housed in neighboring buildings.

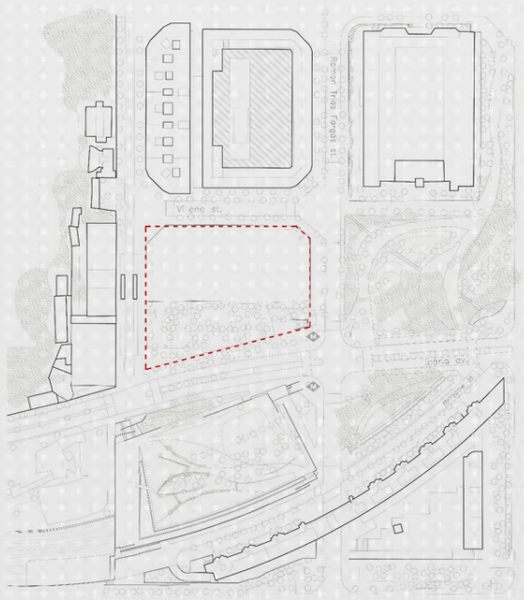


4.Theme description

Following a municipality requirement BAC proposes to FALL 2021 students to design the new Barcelona Museums Collection Center.
The building will be a collective storage and restoration space for the public Museums of Barcelona City. It will allow to preserve the local cultural heritage with suitable protection conditions and facilitate its accessibility for study and investigation.
These collections are composed by elements of different types: objects, furniture and documents. Their dimensions could be very unequal and requirements for their storage could be totally distinct. The building should be a piece that is capable of transforming itself in the future and adapting to new challenges.
The project theme will be strongly based on the site discussion at a functional, historical, and social components, paradoxically in a place that seems to be forgotten by the city. We ask to architects and landscape architects to participate in the debate. The course, within a simulation of a competition, could be a chance to test the role of our professional practice in this regard.
the creation of knowledge, it has to allow to preserve in order to share, reinforcing the role of the museums in contemporary society with critics of generation and diffusion of knowledge.

Why a Collection Center?

The collections of the municipal museums are currently located in different buildings. In some cases, they are located in the same building of the museum, or they are in an external building of the museum itself. In other cases, they are in rental spaces under certain conditions that are not appropriate for them. This propitiates crowded spaces, outdated, in bad climatical conditions and that present difficulties to the access to the collections, making it impossible to think of an increase in the municipal cultural collection.
The municipal museums have the urgent need to share a multidisciplinary space, giving adequate conditions to the collections, with new laboratories, study and research areas, as well as collaborative spaces, training and interchange between the museums, cultural agents, universities, and other institutions and professionals at national and international scale.
The new Barcelona Museums Collection Center has to facilitate the accessibility to the collections not exposed to the professionals and researchers, but also to general public in a certain way. The building should give something to citizens of Barcelona and recover the relations people and our cultural heritage. The building has to promote the exchange and the creation of knowledge, it has to allow to preserve in order to share, reinforcing the role of the museums in contemporary society with critics of generation and diffusion of knowledge.



Design goals

City scale

1. Which is the relation between the new building and the **city water-front?**
2. Is the **limit condition** of the site significant for the project?
3. Are the **layers** made during the **history** of Barcelona visible in the site?

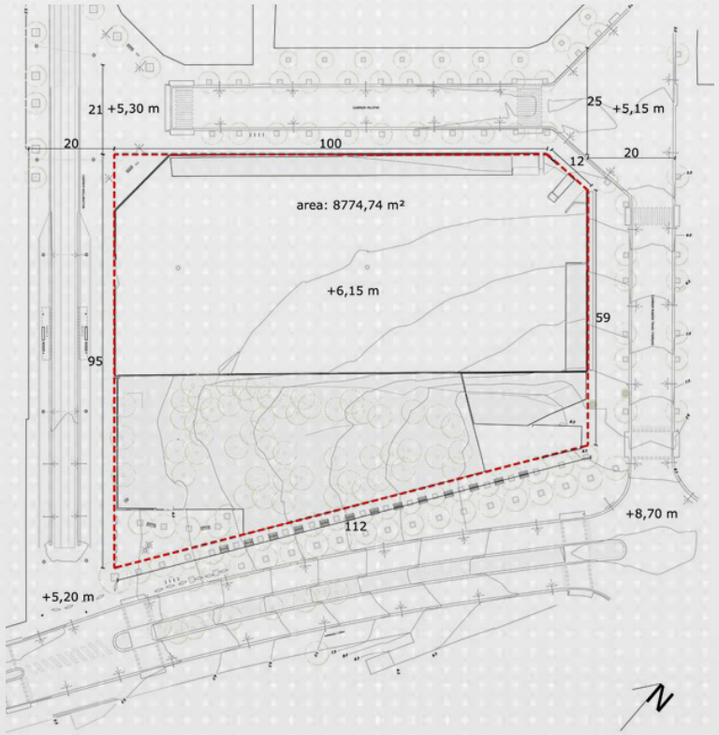
Urban scale

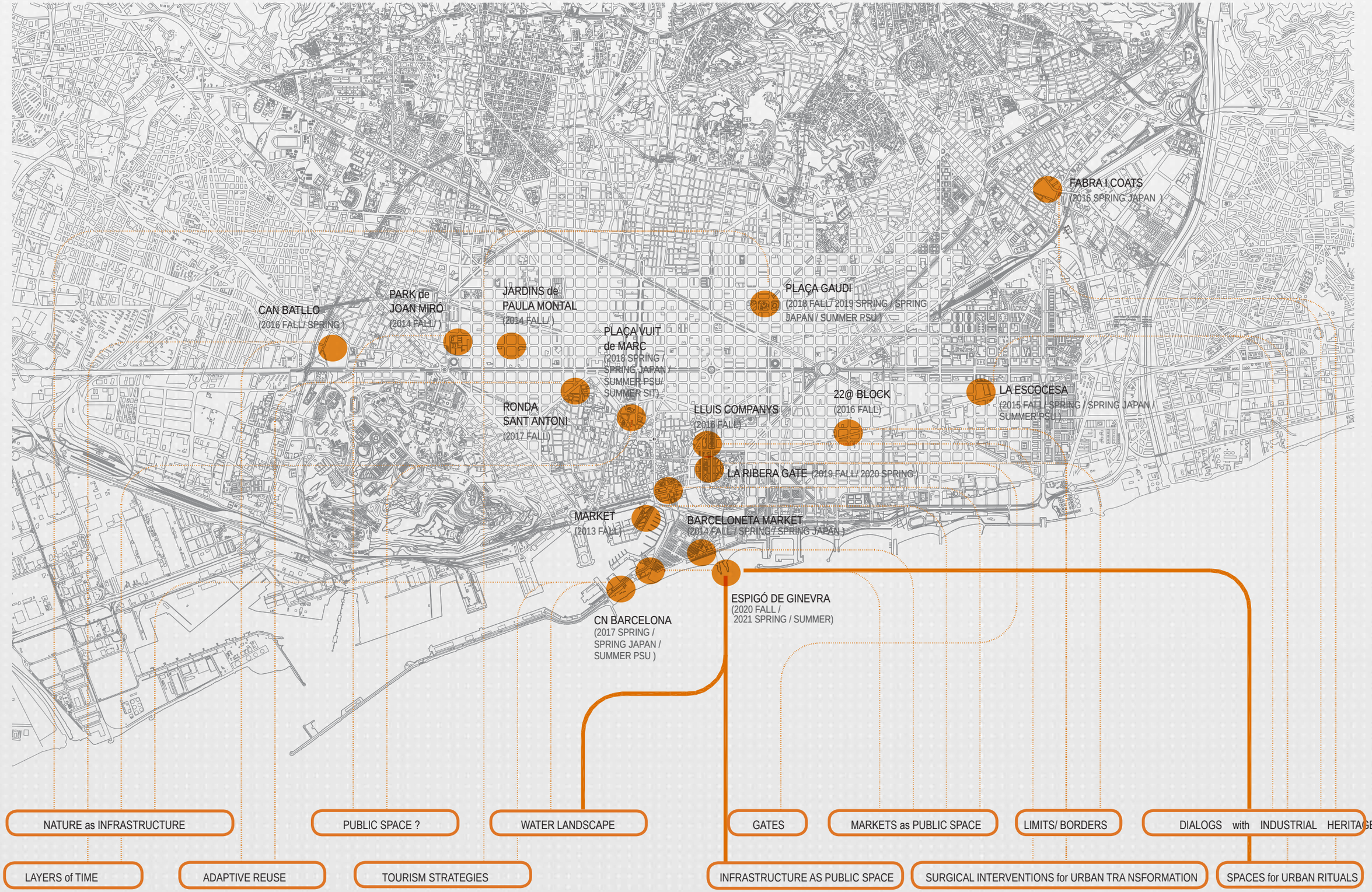
4. What is the role of **Ciutadella Park** in the project?
5. Is there a relation between the project and **Pompeu Fabra Campus** buildings and program?
6. Are the **train tracks** significant in this site?

Architecture + Landscape scape

7. How are the **entrances** working in relation with the surroundings?
8. How do I **move** around the building? Is the building vertical? Horizontal? Underground? Overland? …
9. What is the collection museum building in this city context?
10. Which is the **public- social return** with this building?

	surface m²	by total %
1. STORAGE and ARCHIVE (OBJECT + DOCUMENT área)		
delivery	**840**	**4**
-loading dock	400	
-disinfection room	440	
storage	**10.500**	**50**
logistics and services	**3.990**	**19**
- facilities	3.390	
maximum surface 1	**15.330 m²**	**73%**
2. PUBLIC área		
2.1 public use entrance	**420**	**2**
- atrium + services	220	
- information desk	200	
public space	**1.680**	**8**
- reception and public events	1.100	
- exhibition area	580	
maximum surface 2.1	**2.100 m²**	**10%**
2.2 private-public use offices	**630**	**3**
- coworking space	430	
-10 private offices	20	
conservation-restoration	**1.050**	**5**
research-study	**1.470**	**7**
photography study	**420**	**2**
maximum surface 2.2	**3.570 m²**	**17%**
maximum total surface	**21.000m²**	**100%**




FABRA I COATS
(2016 SPRING JAPAN)
PLAÇA GAUDI
(2018 FALL/ 2019 SPRING / SPRING JAPAN / SUMMER PSU)
CAN BATLLO
(2016 FALL/ SPRING)
PARK de JOAN MIRO
(2014 FALL/)
JARDINS de PAULA MONTAL
(2014 FALL/)
PLAÇA VUIT de MARÇ
(2016 SPRING / SPRING JAPAN / SUMMER PSU/ SUMMER SIT)
RONDA SANT ANTONI
(2017 FALL)
LLUIS COMPANYS
(2016 FALL)
22@ BLOCK
(2016 FALL)
LA ESCOCESA
(2015 FALL/ SPRING / SPRING JAPAN / SUMMER PSU)
LA RIBERA GATE (2019 FALL/ 2020 SPRING)
MARKET
(2013 FALL)
BARCELONETA MARKET
(2014 FALL / SPRING / SPRING JAPAN)
CN BARCELONA
(2017 SPRING / SPRING JAPAN / SUMMER PSU)
ESPIGÓ DE GINEVRA
(2020 FALL / 2021 SPRING / SUMMER)
NATURE as INFRASTRUCTURE
PUBLIC SPACE ?
WATER LANDSCAPE
GATES
MARKETS as PUBLIC SPACE
LIMITS/ BORDERS
DIALOGS with INDUSTRIAL HERITAGE
LAYERS of TIME
ADAPTIVE REUSE
TOURISM STRATEGIES
INFRASTRUCTURE AS PUBLIC SPACE
SURGICAL INTERVENTIONS for URBAN TRA NSFORMATION
SPACES for URBAN RITUALS

2021	FALL	BCN MUSEUMS COLLECTION CENTER
2021	SPRING	
2020	FALL	L'ESPIGÓ DE GINEBRA
2020	SPRING	
2019	FALL	LA RIBERA GATE
2019	SUMMER	
	SPRING	
2018	FALL	PLAÇA GAUDI
	SUMMER	
	SPRING	PLAÇA VUIT de MARÇ
2017	FALL	RONDA SANT ANTONI
	SUMMER	
	SPRING	CN BARCELONA
2016	FALL	CAN BATLLO / LLUIS P. COMPANYS
	SUMMER	INTERIOR EIXAMPLE BLOCKS
	SPRING	FABRA I COATS / 22@ BLOCK / CAN BATLLO
2015	FALL	LA ESCOCESA
	SUMMER	EIXAMPLE SKYLINE
	SPRING	LA ESCOCESA
2014	FALL	PAULA MONTAL GARDENS/ JOAN MIRÓ PARK
	SUMMER	
	SPRING	PLAÇA CNAB
2013	FALL	4 SITES BARCELONETA
	SPRING	PASSEIG MARITIM de BARCELONETA
		BARCELONETA / EIXAMPLE BLOCK
		POBLE NOU TRAIN CORRIDOR

- INFRASTRUCTURE AS PUBLIC SPACE
- GATES
- BORDERS / LIMITS
- NATURE as INFRASTRUCTURE
- PUBLIC SPACE ?
- WATER LANDSCAPE
- MARKETS as PUBLIC SPACE
- DIALOGS with INDUSTRIAL HERITAGE
- LAYERS of TIME
- ADAPTIVE REUSE
- SPACES for URBAN RITUALS
- SURGICAL INTERVENTIONS for URBAN TRANSFORMATIONS
- TOURISM STRATEGIES
- PRIVATE / PUBLIC / COLLECTIVE

Design Studio: Student Teams

team 1

Kimani Joi Raley
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ARCH GRAD

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ARCH UNDERGRAD

Charlotte Kay Shawver
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ARCH UNDERGRAD

team 3

Sunjin Lee
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ARCH UNDERGRAD

Alejandro Covarrubias
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ARCH UNDERGRAD

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LAND UNDERGRAD

Madison De La Cruz Turcotte
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ARCH UNDERGRAD

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Nansi Nalleli Rodriguez
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Natalie Arroyo
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Brianna Lain Wallace
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ARCH UNDERGRAD

Olivia Nicole Wright
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ARCH UNDERGRAD

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James Brian Moulder Jr
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ARCH UNDERGRAD

team 8

Peyton Roberts
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Mia Renee Robison
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ARCH UNDERGRAD

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ARCH UNDERGRAD

Cole Sterling McDowell
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ARCH UNDERGRAD

team 11

Matthew Alexander Bourean
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ARCH GRAD

team 13

Clarkson Fitzpatrick Broadwater
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Ayomide Olaoluwa Otuyalo (Ayo)
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ARCH UNDERGRAD

team 14

Carson Reese Gardner
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LAND UNDERGRAD

John Robert Brown (Jack)
CLEMSON UNIVERSITY
ARCH UNDERGRAD

team 15

Isabella R Davies (Bella)
TEXAS A&M UNIVERSITY
ARCH UNDERGRAD

Samantha Elvia Garza (Sam)
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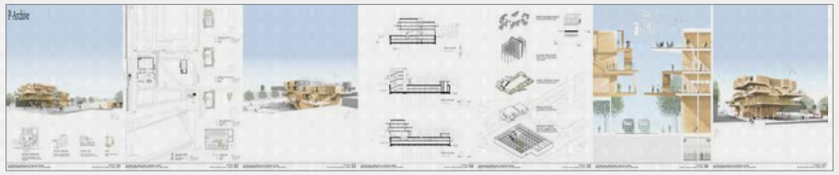
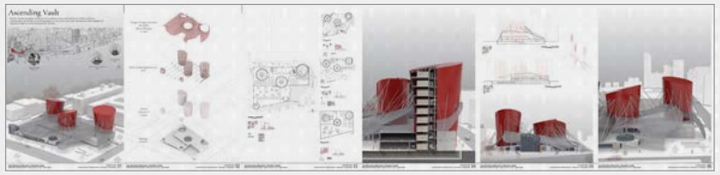
ARCH UNDERGRAD

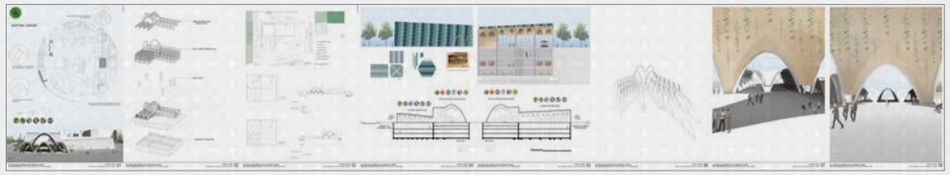
team 16

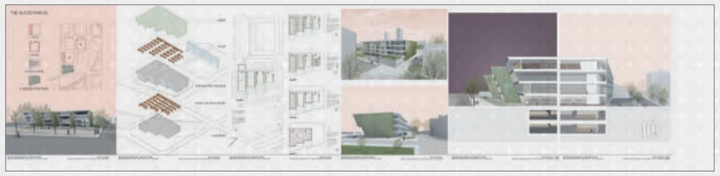
Jennifer Lauren Dutt (Jenn)
jdutt@clemson.edu
CU ARCH GRAD -TA

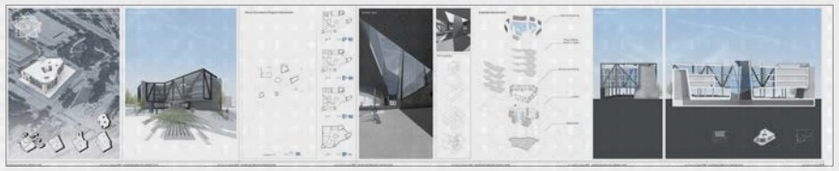

P-Archive

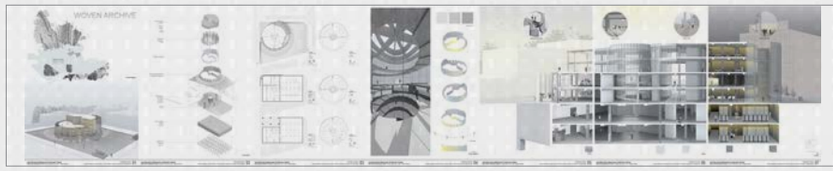

THE PARCHIVE


Ascending Vault



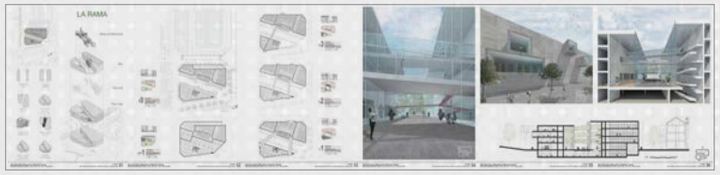





WOVEN ARCHIVE


Arc de Punción


BREATHING ARCHIVE CENTER
80%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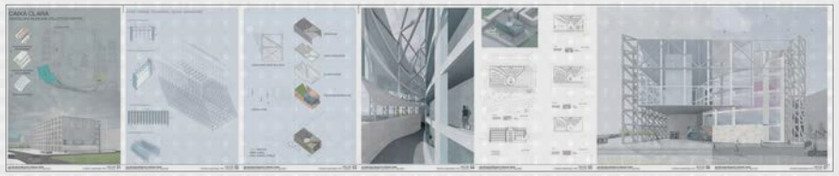
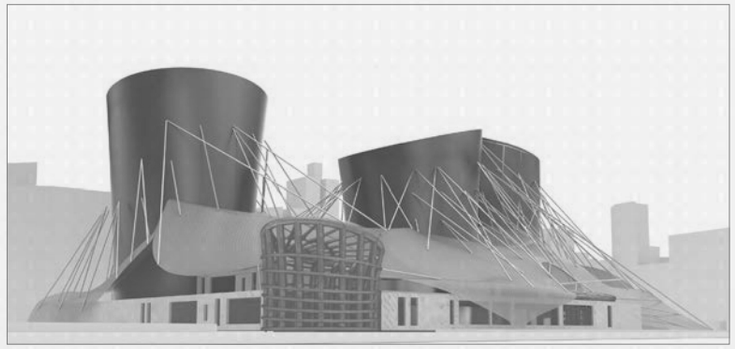
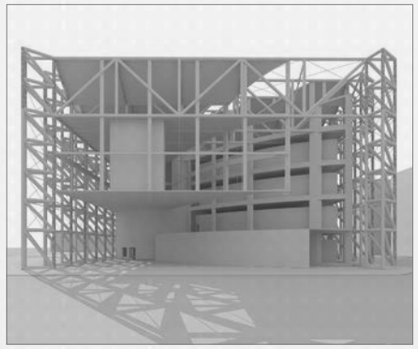
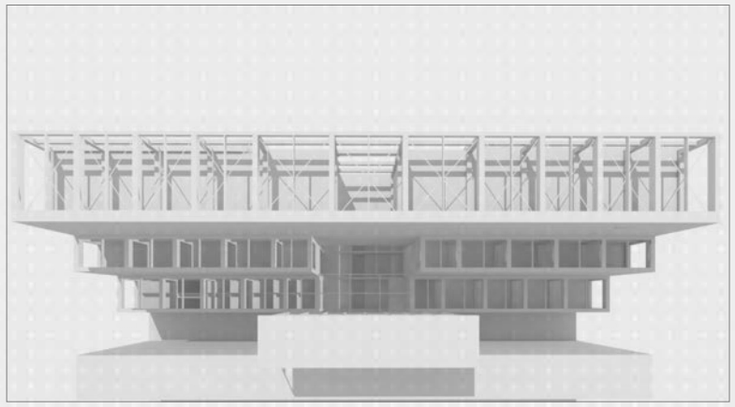
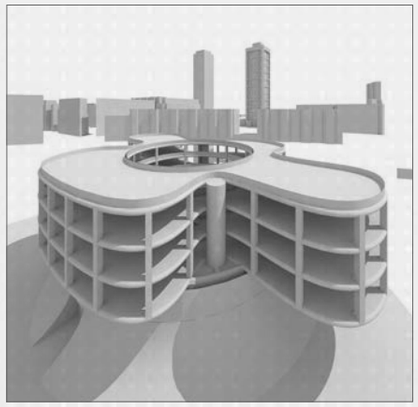
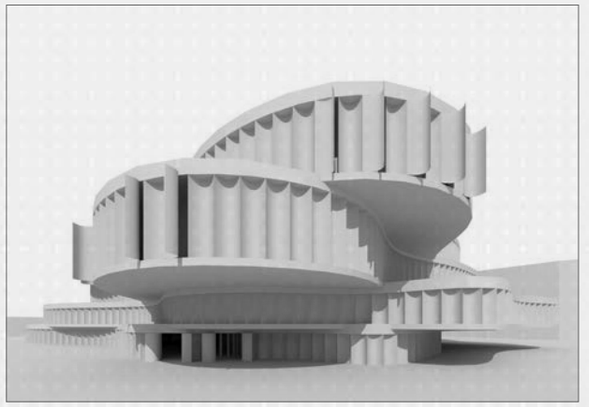
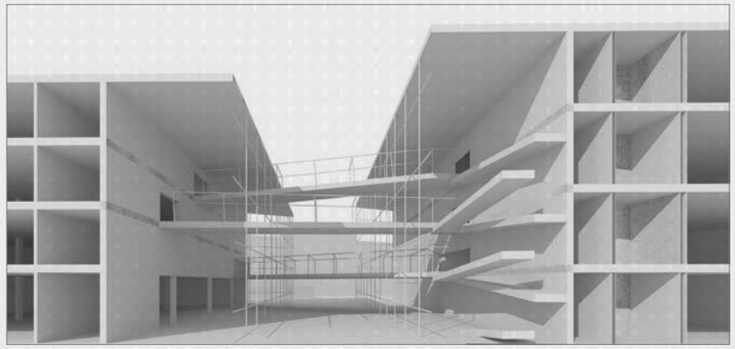
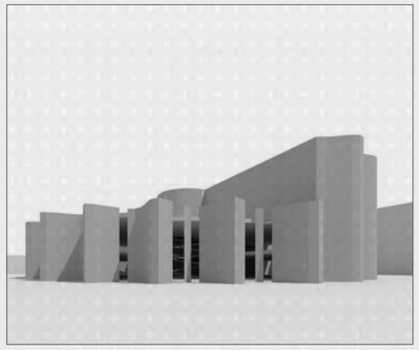
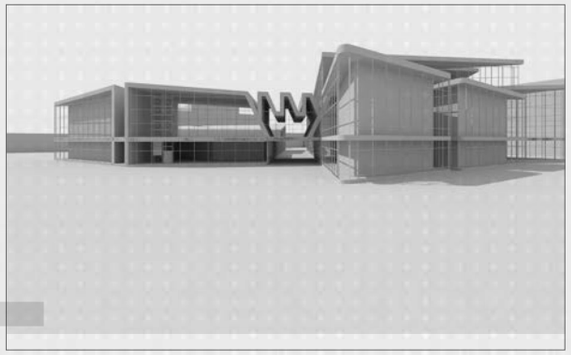
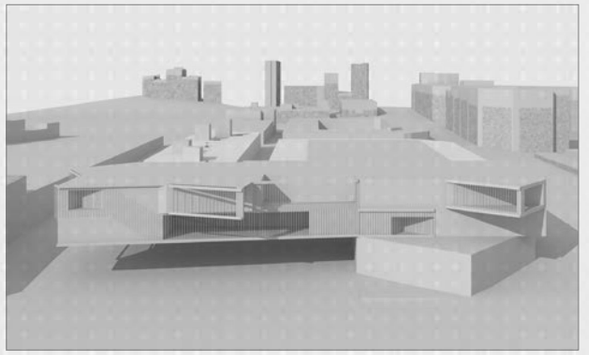
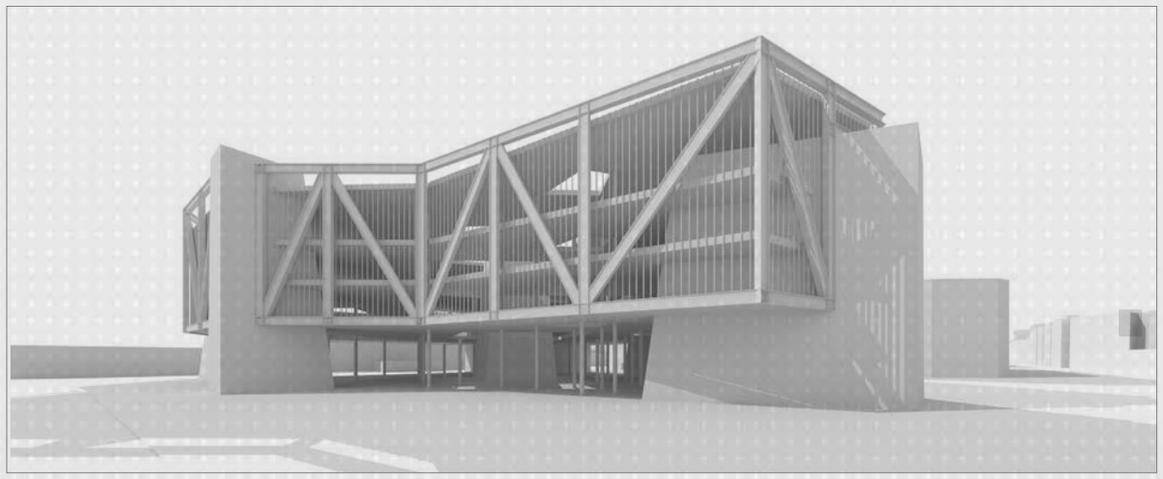
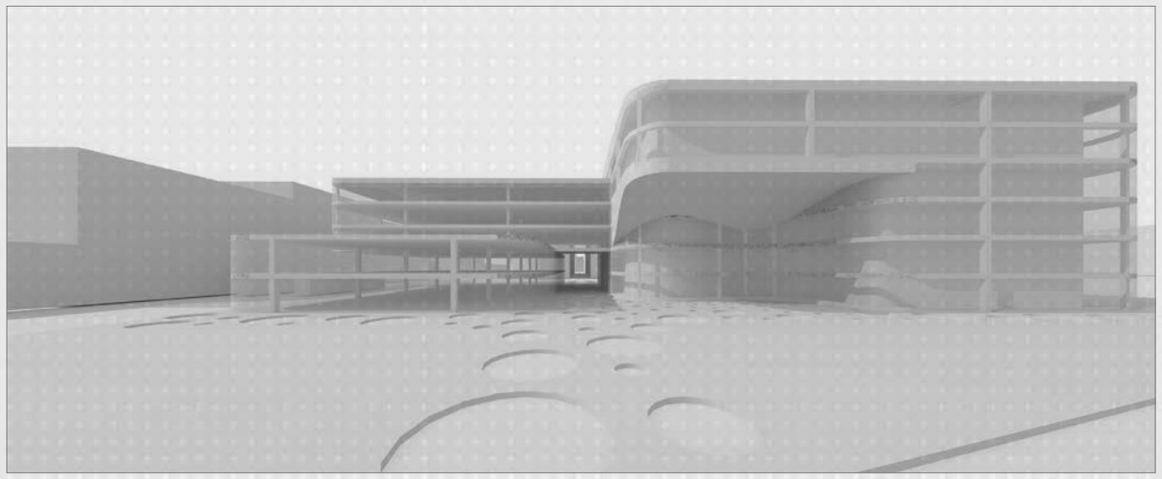

CANCA CLARA


FLUIDITY

In process

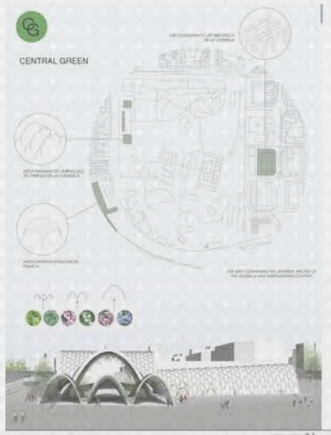



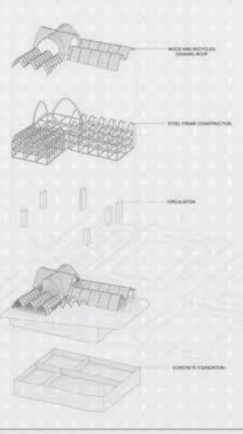



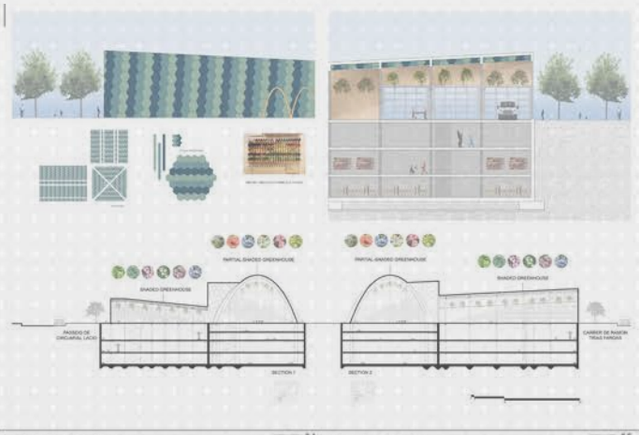








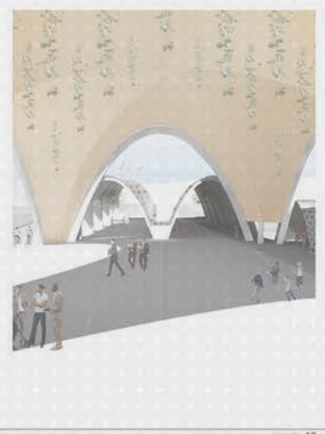
CENTRAL GREEN

Kimani Grayson, Clemson University, Architecture Graduate









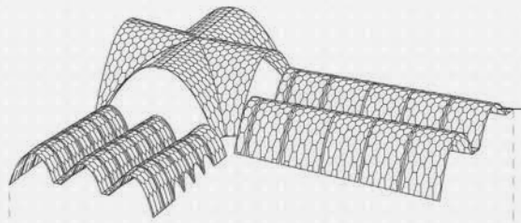
Barcelona has a diverse richness that separates it from all others. From its architecture to its use of materials, to even the diversity of people. Something similar can be found within our site. Located in the heart of so many active spaces; the citadel park, the Barcelona Zoo, UPF University, Parc de Charles I, and less than a five minute walk from the beach. The diversity and richness of the area surrounding our site tells a story greater than its current state as a parking lot. It can and should be so much more. The site is directly accessible from the tram, metro and by foot, making it a great common area for tourists as well as natives. Currently however, this connection is a missed opportunity as the Citadel wall to the east of the site creates a huge barrier between the vegetation of the parks around our site and the infrastructure of Barcelona. Though one day it may not. I propose to foresee the future and design with vegetation inside of infrastructure for when a possible day arrives that the wall comes down, merging the two entities.

With inspiration from current buildings surrounding the site; The Umbracle, Francia train station as well as the UPF Library, my proposal explores history of the Catenary arch of Barcelona in three dif¬ferent ways. Three facades facing south (public), north (private) and west (public-private) each frame the sites corners to easily integrate those exiting the metro and the rest of the city. The entrance is framed with a continuation of wooden arches that allow it to blend, while being easily seen. The vegetation inside frames the ceiling to act as stars within the arches, bringing out the beauty in both.

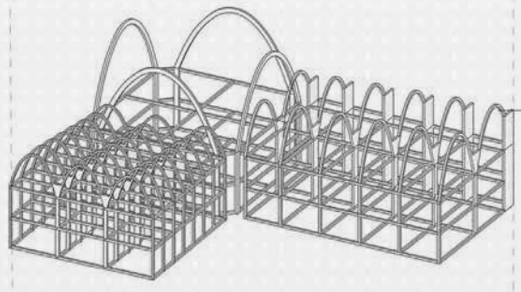
The infrastructure uses steel arches that extend into the archives below, wood ceilings as well as ceramic tiling for the roof. Barcelona's famous history of ceramic tiles involve both pattern and color extended by local ceramist Antoni Cumella, which has been incorporated into the roof's design. The blue-green tiles of the roof combine the essence of the sky, the vegetation, and the grounding of the arches. In turn, my Collection Center proposal seeks to foresee the future in a way that allows the wall of the Citadel to come down and merge the beautiful green Barcelona has to offer with its unique architec¬tural history.

CENTRAL GREEN

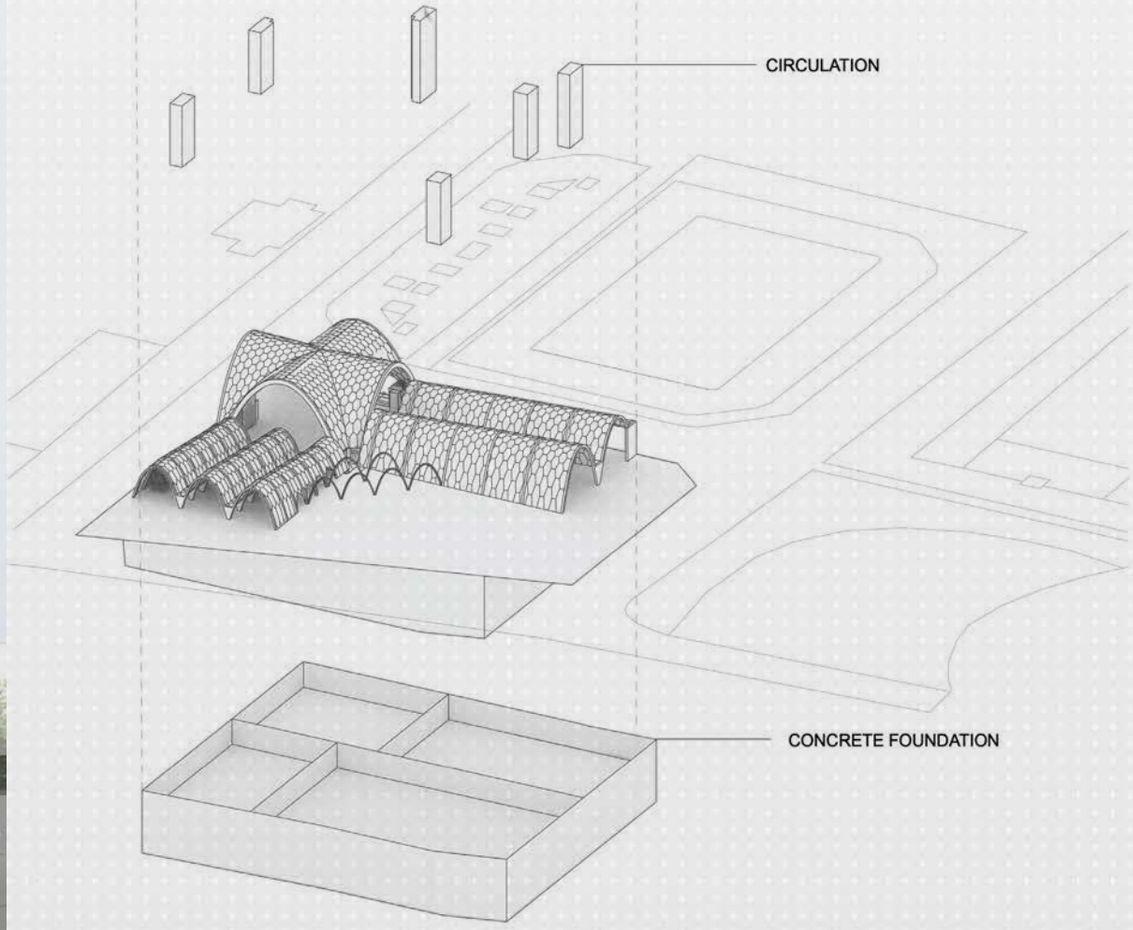
SITE MAP COMPARING THE DIFFERENT ARCHES OF THE CITUDELLA AND SURROUNDING CONTEXT.



WOOD AND RECYCLED CERAMIC ROOF

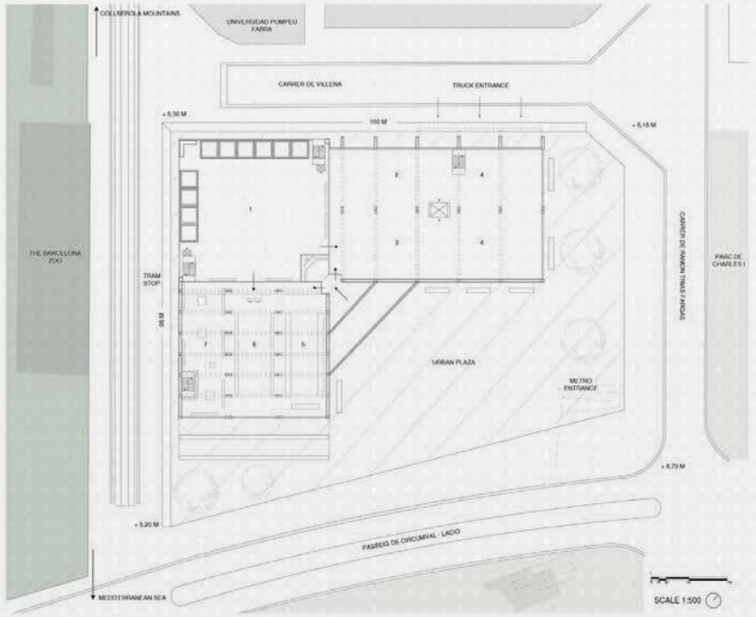


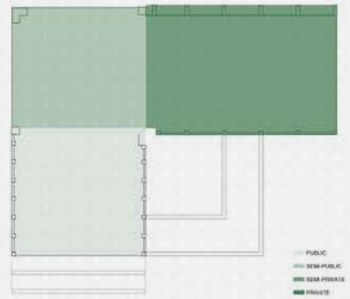
STEEL FRAME CONSTRUCTION



CIRCULATION

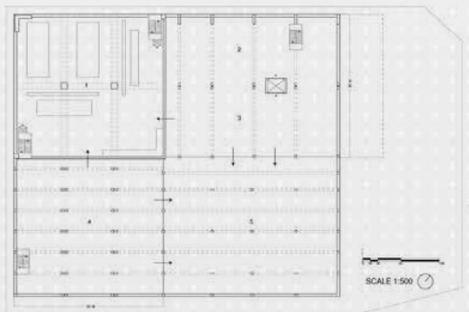
CONCRETE FOUNDATION

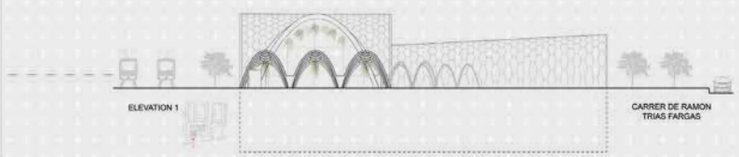




1 CO-WORKING OFFICES
2 LOGISTICS
3 DISINFECTION
4 LOADING DOCK
5 PUBLIC EVENTS
6 RECEPTION/SECURITY
7 EXHIBITION SPACE

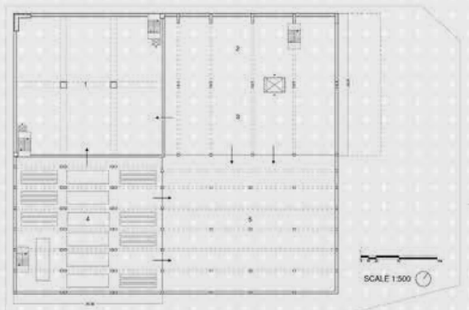
0 GROUND FLOOR

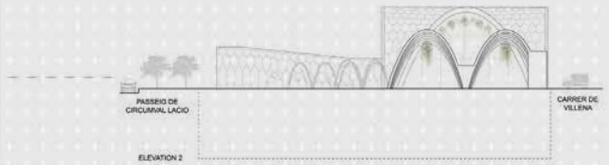




-1 FLOOR PLAN

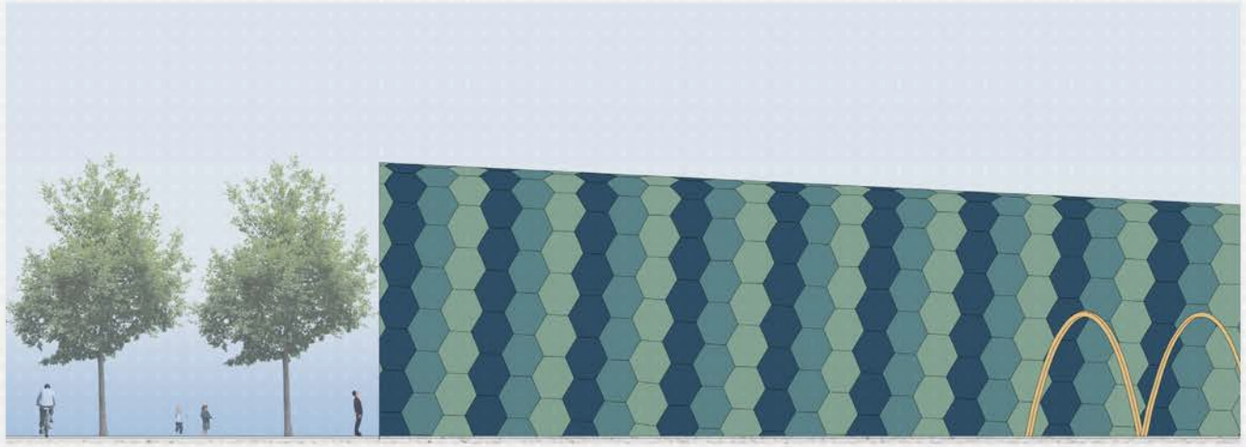
1 RESEARCH/STUDY
2 LOGISTICS
3 FACILITIES
4 LARGE ARCHIVE STORAGE
5 ARCHIVE STORAGE

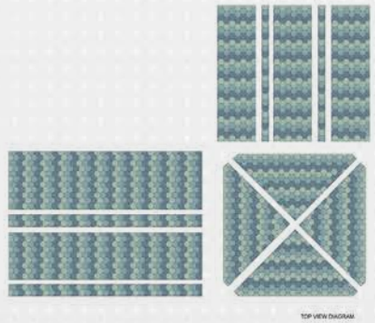




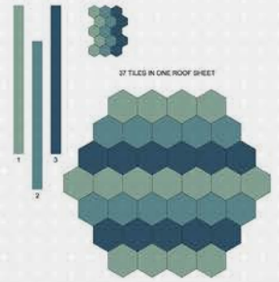
-2 & -3 FLOOR PLAN

1 ARCHIVE STORAGE





TOP VIEW DIAGRAM



ANTONI CUMELLA'S CERAMIC TILE DISPLAY

PARTIAL-SHADED GREENHOUSE

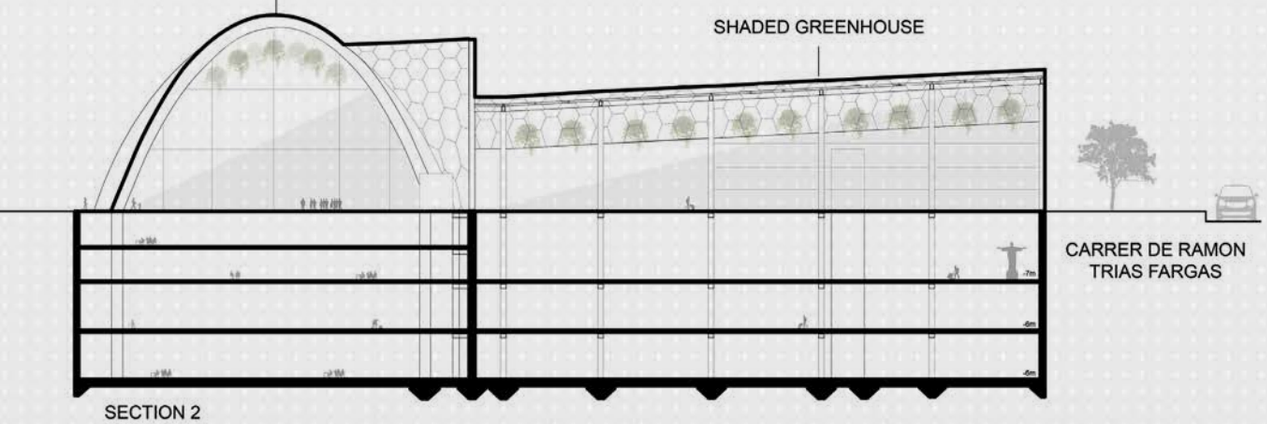
SHADED GREENHOUSE

PASSEIG DE CIRCUMVAL LACIO

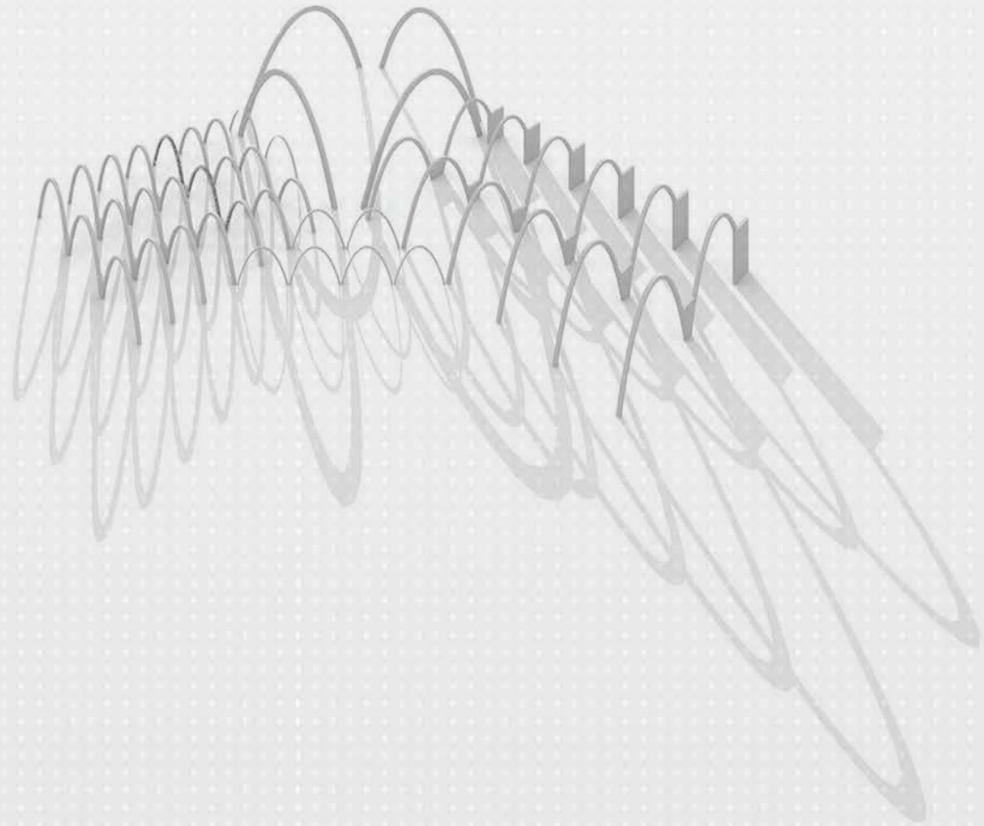
SECTION 1

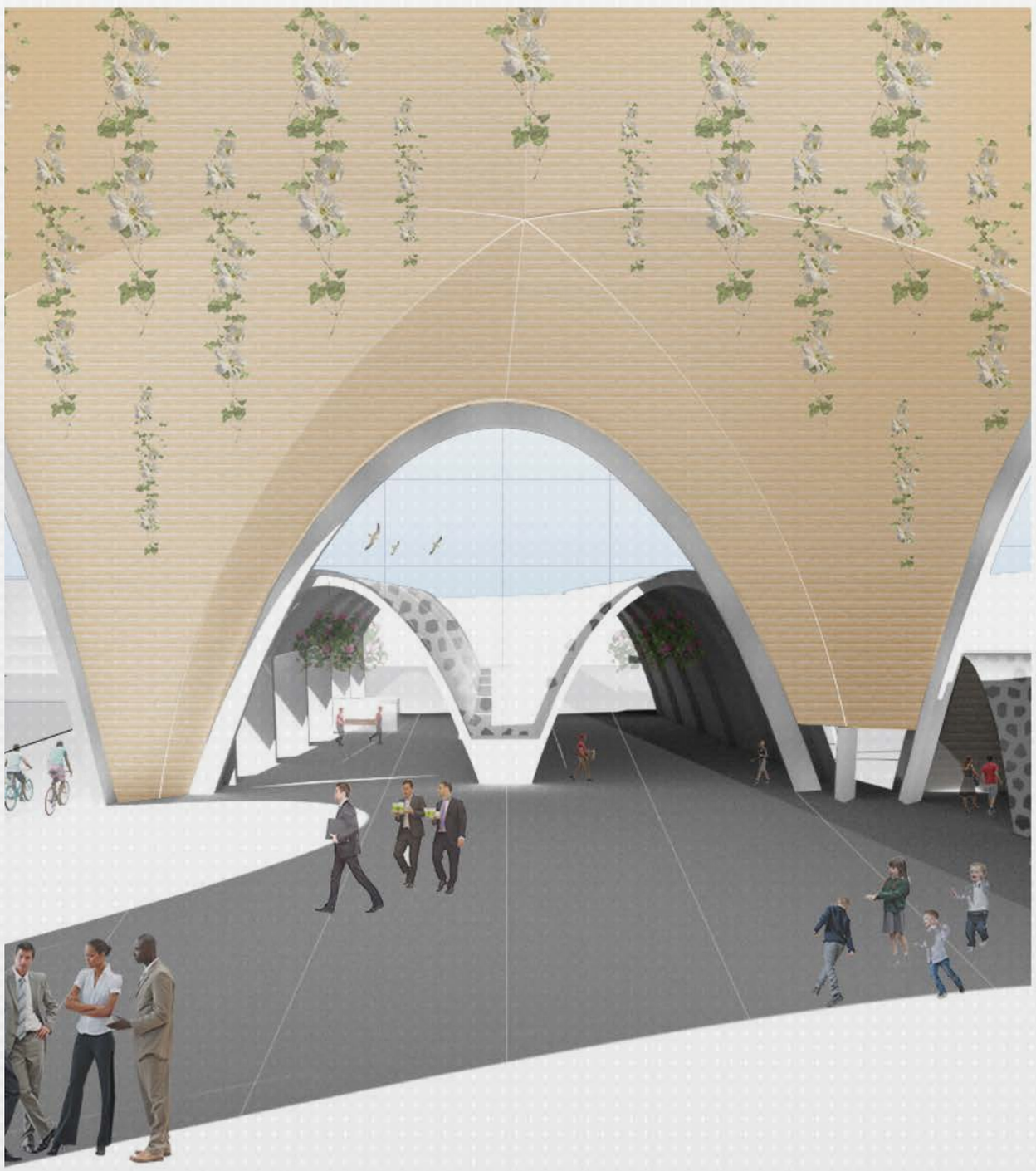
PARTIAL-SHADED GREENHOUSE

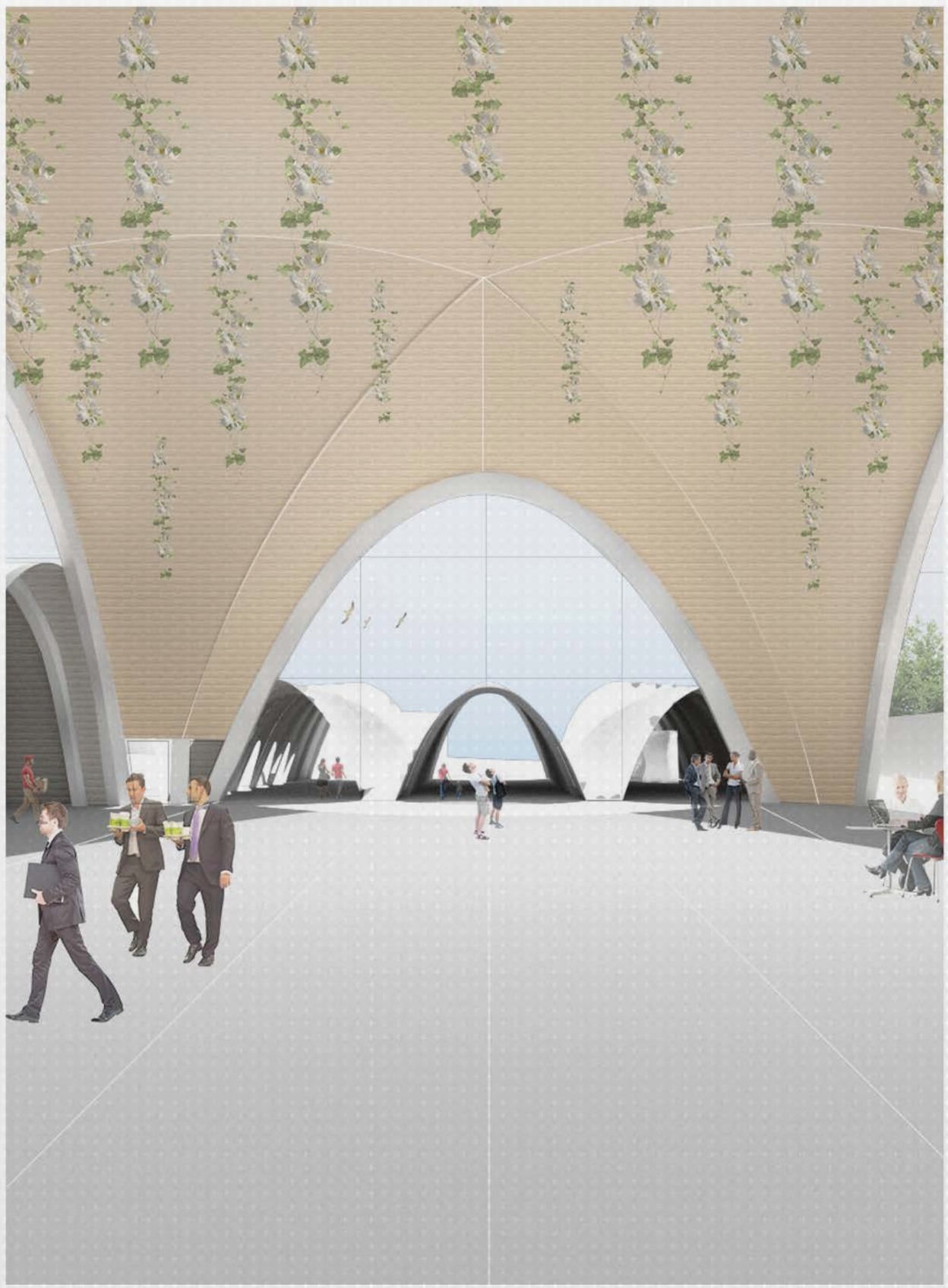
SHADED GREENHOUSE



SECTION 2

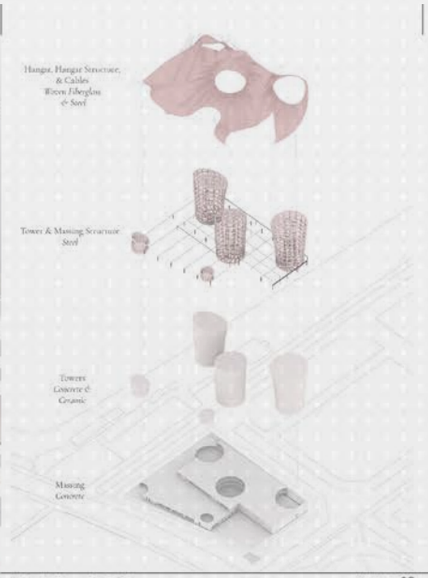


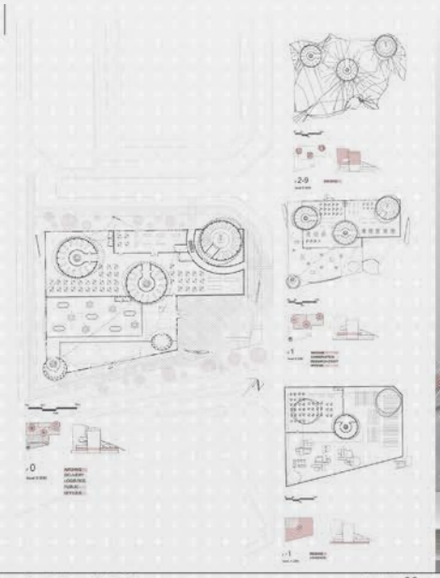


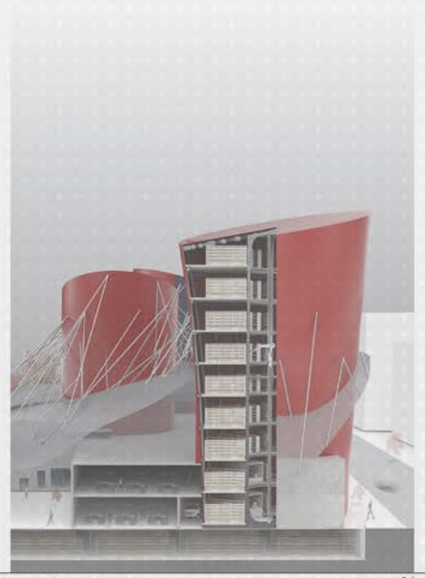


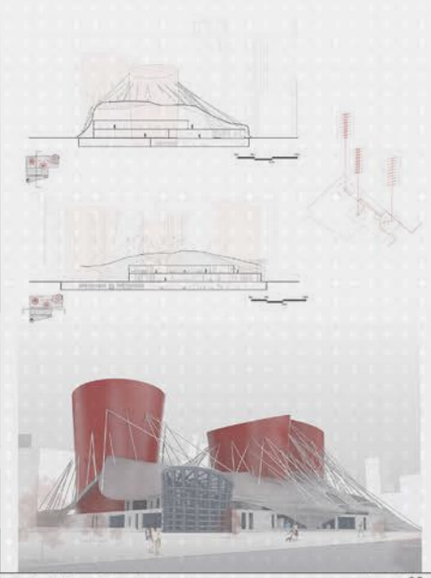
ASCENDING VAULT

Arianna Ramirez, Texas A&M University, Architecture Undergraduate
Charlotte Shawver, Texas A&M University, Architecture Undergraduate









Within Barcelona, architecture is utilized to showcase the city's history while propagating varying elements of a functioning and affluent society. Often, this history is exhibited through museum spaces. From those pieces, stories of humanity are told, instilling a rich understanding of our world and surrounding cultures. However, unfortunately, these pieces are often retired to a bunker, a space intended for storage and nothing more, nothing less.

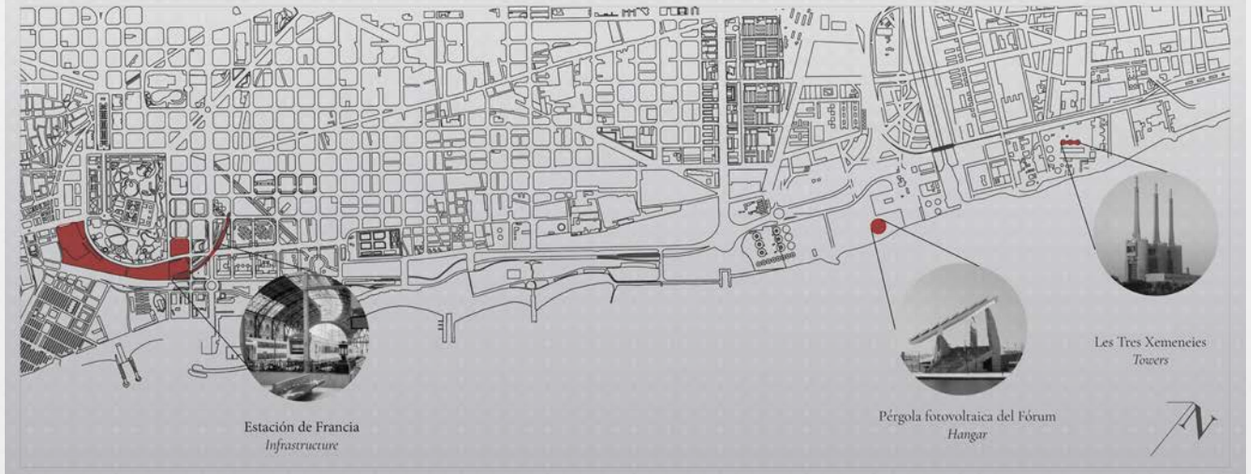
It has been made clear how crucial the social aspect of humanity is to the general population and well-being. Because of this, when looking to the future, it is essential to incorporate the social return within structures and intentionality to propel architecture forward through the next generation.

The structure proposed is intended to act as a hangar through the open floor plan pierced by towers that hold Barcelona City Museum's pieces. Key concepts included the encasement with a hangar, the verticality of documentation through piercing towers, and the incorporation of automated documentation storage techniques.
These concepts were derived from a series of questions throughout the design process. What if the volumes did not dictate the covered structure to be only a flat roof? What if the archives themselves were structural and isolated as a focal point?

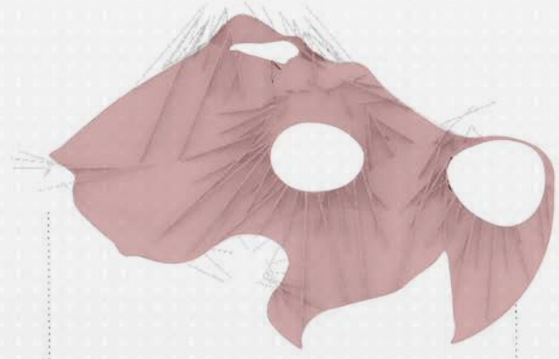
What if the storage area was maximized while being innovative? These questions furthered the idea generation to push past the boundaries of a stereotypical archives traditionally understood. Our project, in turn, proposes the idea that what traditionally is understood to be a bunker, hidden from the world, can instead bring attention to historical objects while promoting the social return within Barcelona.

Ascending Vault

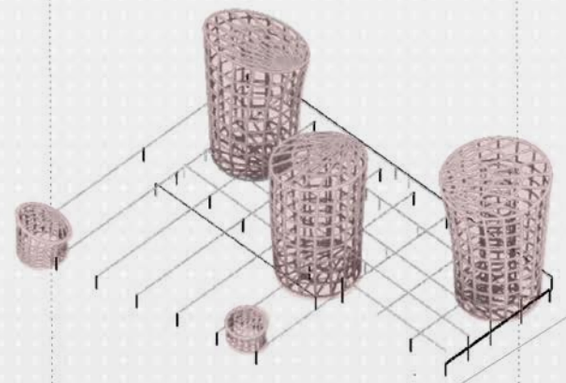
The key concepts throughout the project are encasement, towers, and utilization of robotic machinery; experimenting with the idea of not having majority of the archive space under the block but rather highlight the program through its vertical monumentality and color.



Hangar, Hangar Structure, & Cables
Woven Fiberglass & Steel

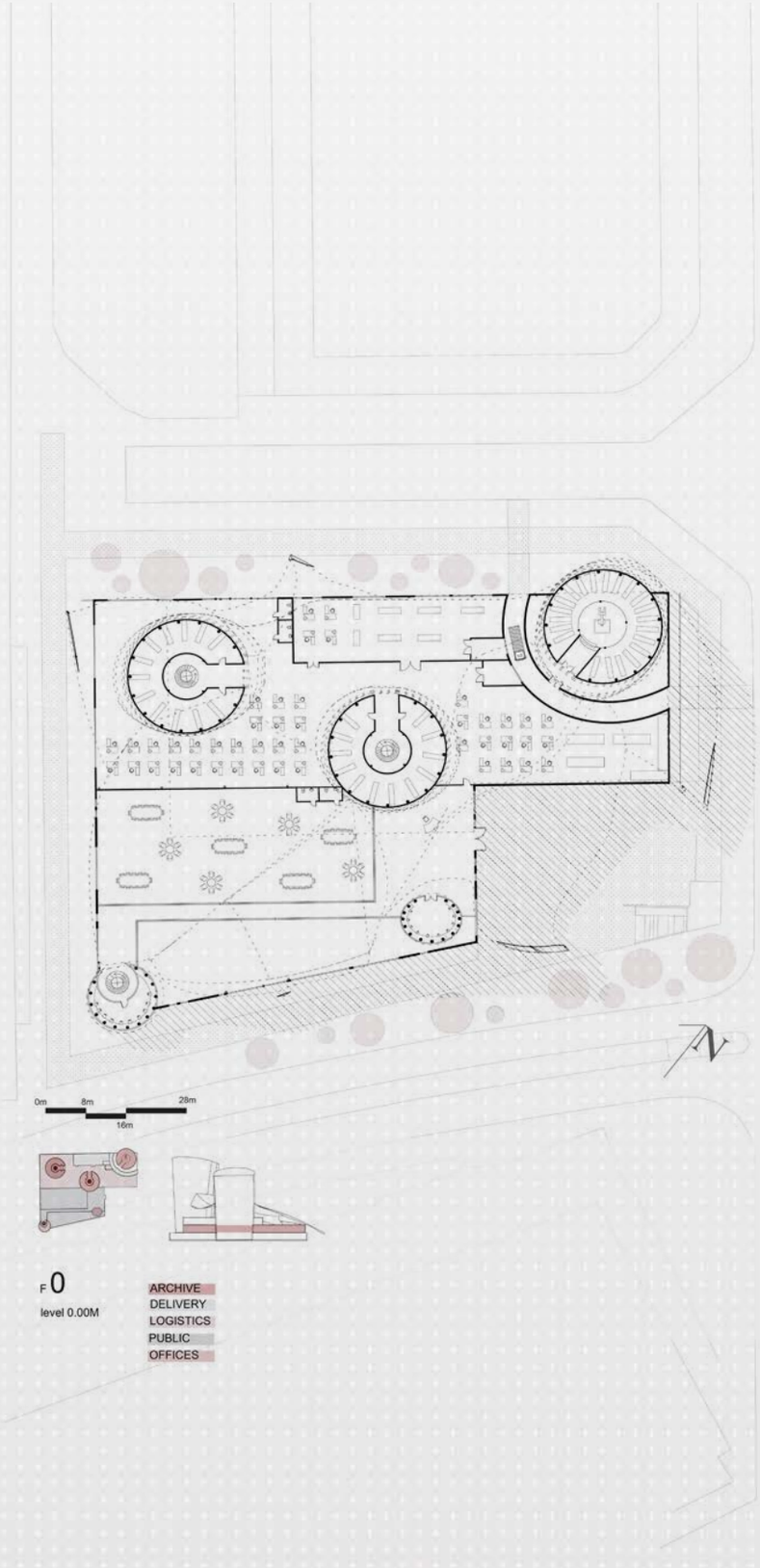


Tower & Massing Structure
Steel



Towers
Concrete & Ceramic

Massing
Concrete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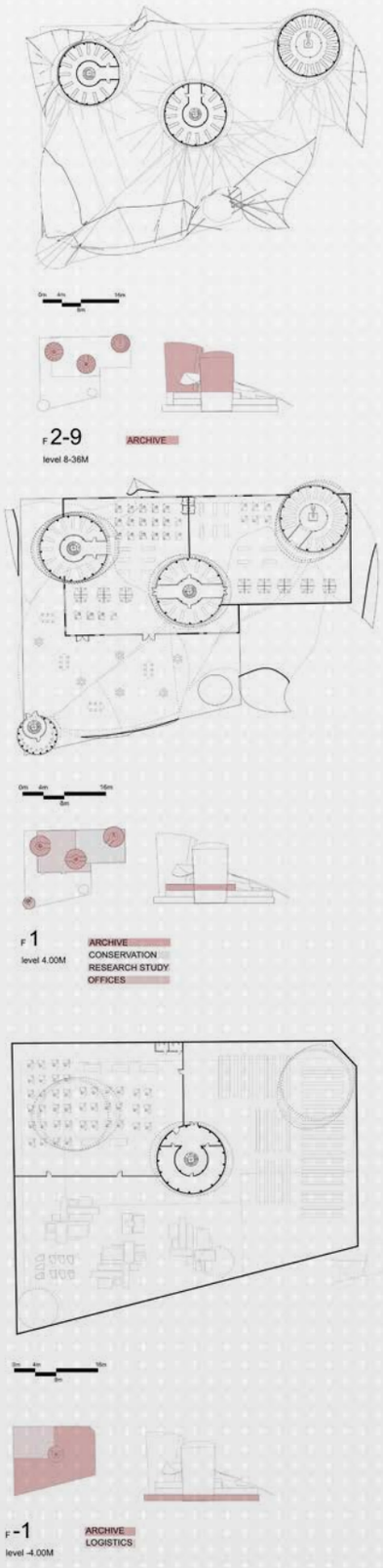
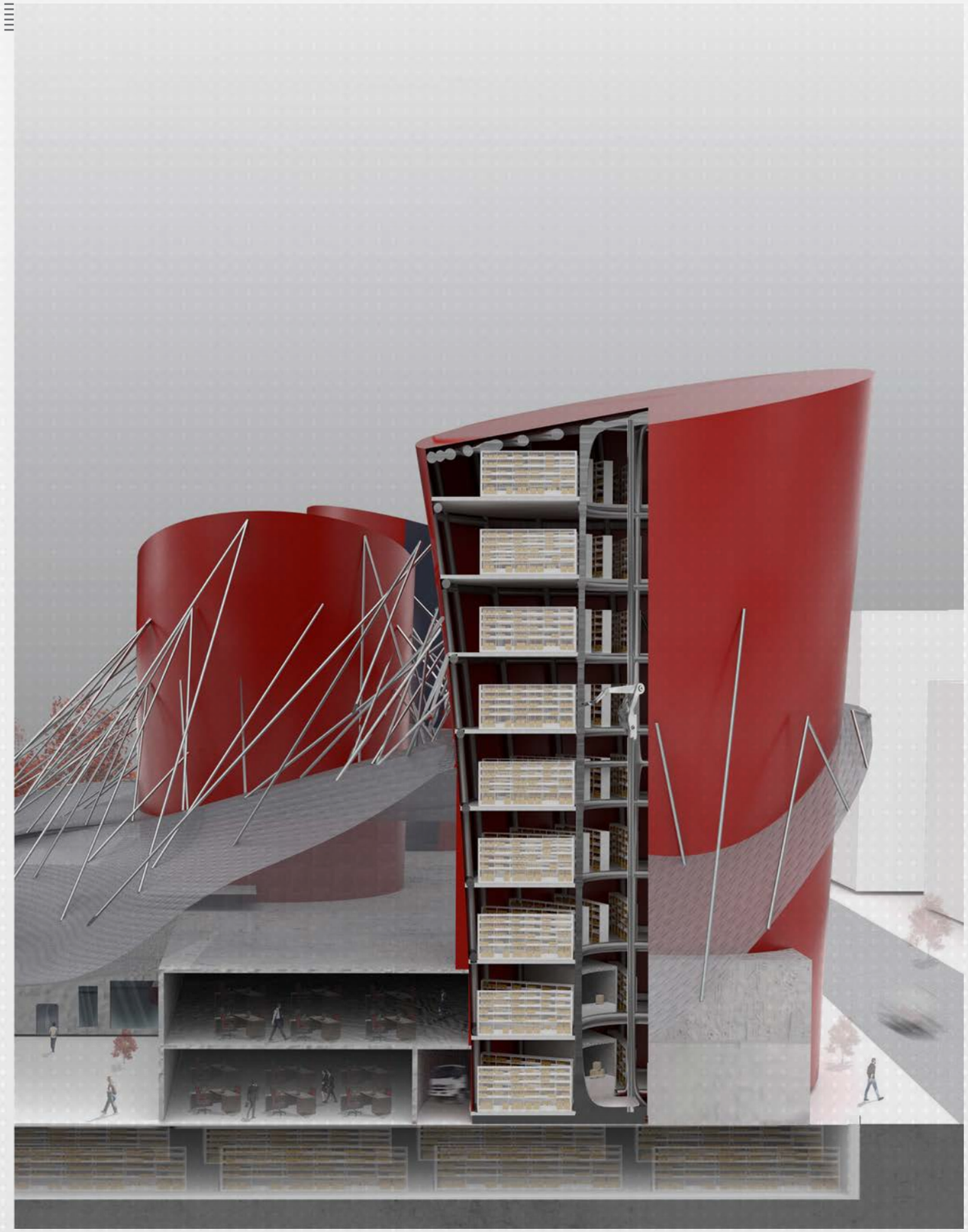
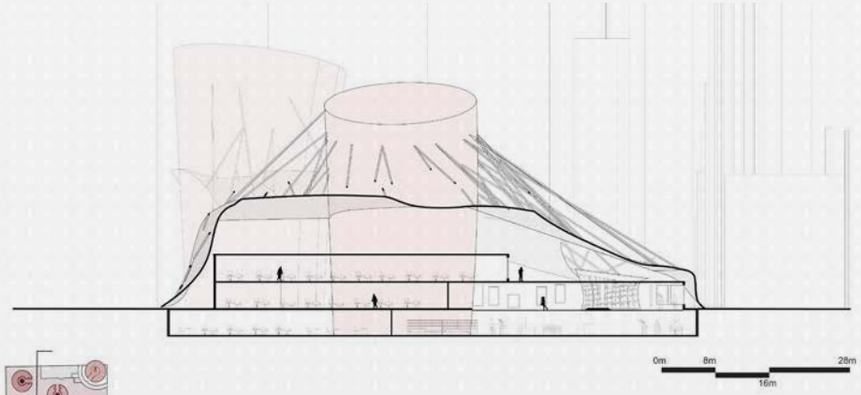
16m
F 0
level 0.00M
ARCHIVE
DELIVERY
LOGISTICS
PUBLIC
OFFICES


0m 4m 16m
8m
F 2-9
level 8-36M
ARCHIVE
0m 4m 16m
8m
F 1
level 4.00M
ARCHIVE
CONSERVATION
RESEARCH STUDY
OFFICES
F -1
level -4.00M
ARCHIVE
LOGISTICS

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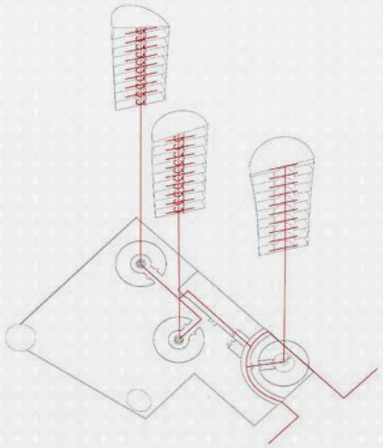

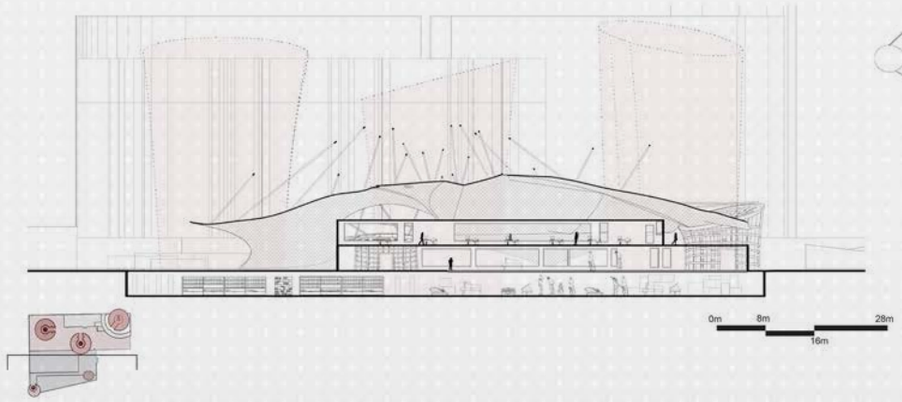
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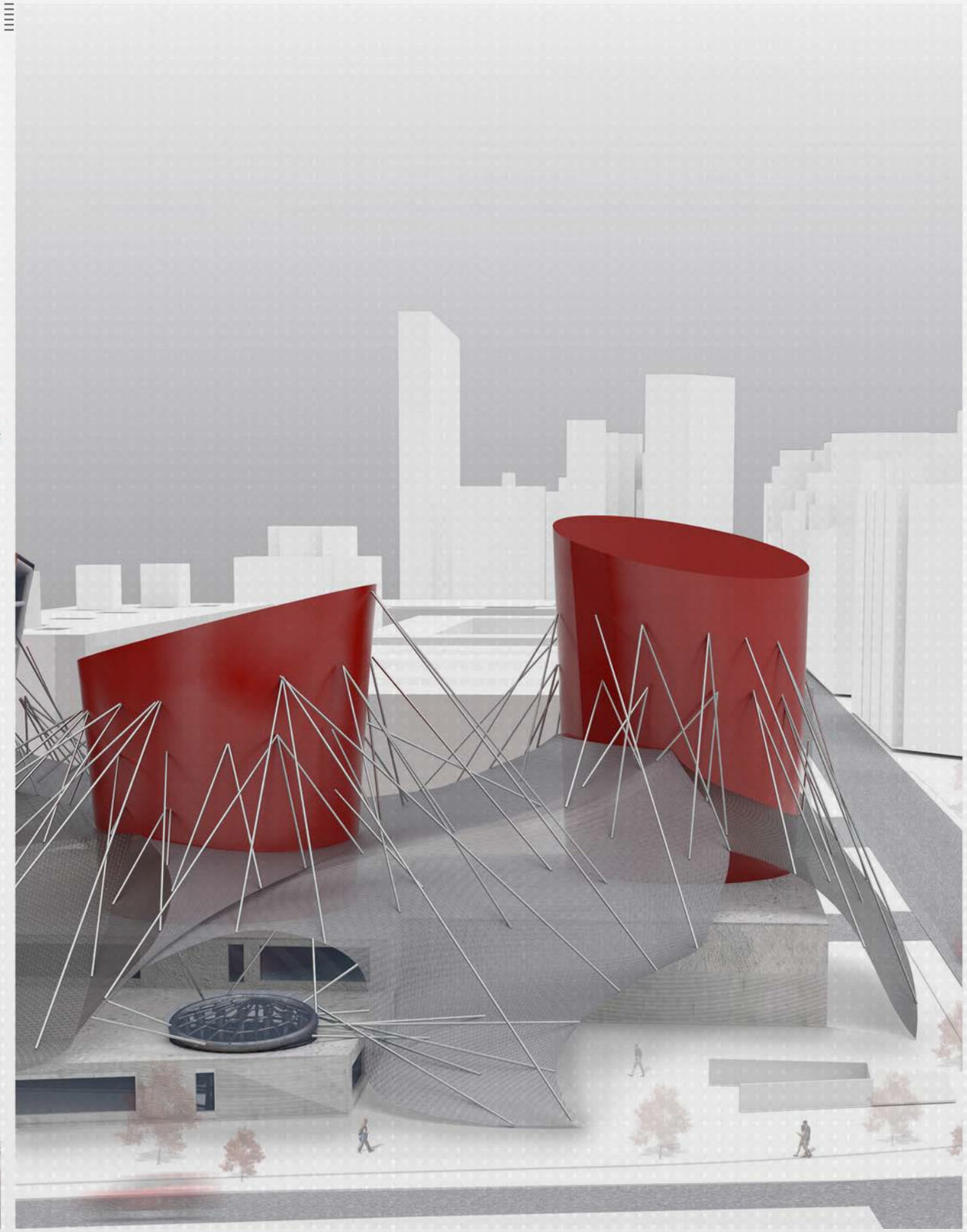
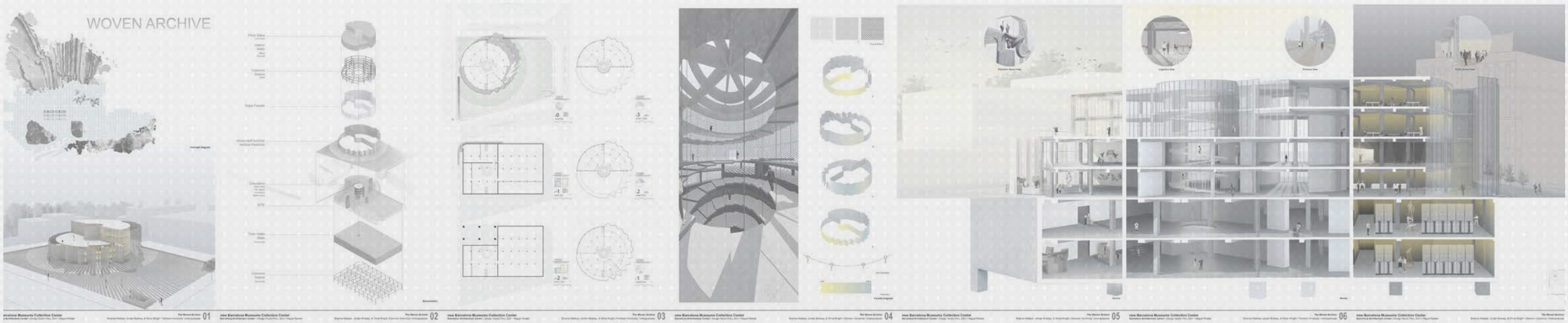




CENTRAL GREEN

Brianna Wallace, Clemson University, Architecture Undergraduate
Jordan Brideau, Clemson University, Architecture Undergraduate
Olivia Wright, Clemson University, Architecture Undergraduate



Barcelona is a city where organic and grid meet. The Cerdá plan rises to meet the natural pieces of the landscape, such as the Ciutadella park, Mediterranean Sea, Tibidabo, and Parc Guell. This relationship of rigid and organic can also be observed on our site through surrounding green spaces, proximity to the sea, and the university buildings that follow the Cerdá plan.

Our goal in creating our archive for Barcelona was to acknowledge the space where organic and grid meet one another and create this unique aspect of Barcelona into a built structure.
Our proposal mirrors the meeting space of grid and organic using material while also staying true to European self-cooling and warming building techniques. Flexibrick, a lightweight and efficient alternative to masonry, achieves our design goal by acting as a rigid path that then meets our building, merging into an undulating facade.the building.

The Flexibrick facade not only creates a continuous relationship between the building and plaza, but it also reacts to the sun path of the site and the radial organization of the building. The above portion of the archive uses a two-skinned technique to cool and heat the building, the outer skin consists of Flexbrick, and the inner skin is a glass curtain wall. Four environments of Flexibrick occur using three patterns that vary in light permeability due to sun path. Moving from the heaviest to lightest patterns, the first environment is the exhibition space which receives the most intense sun.

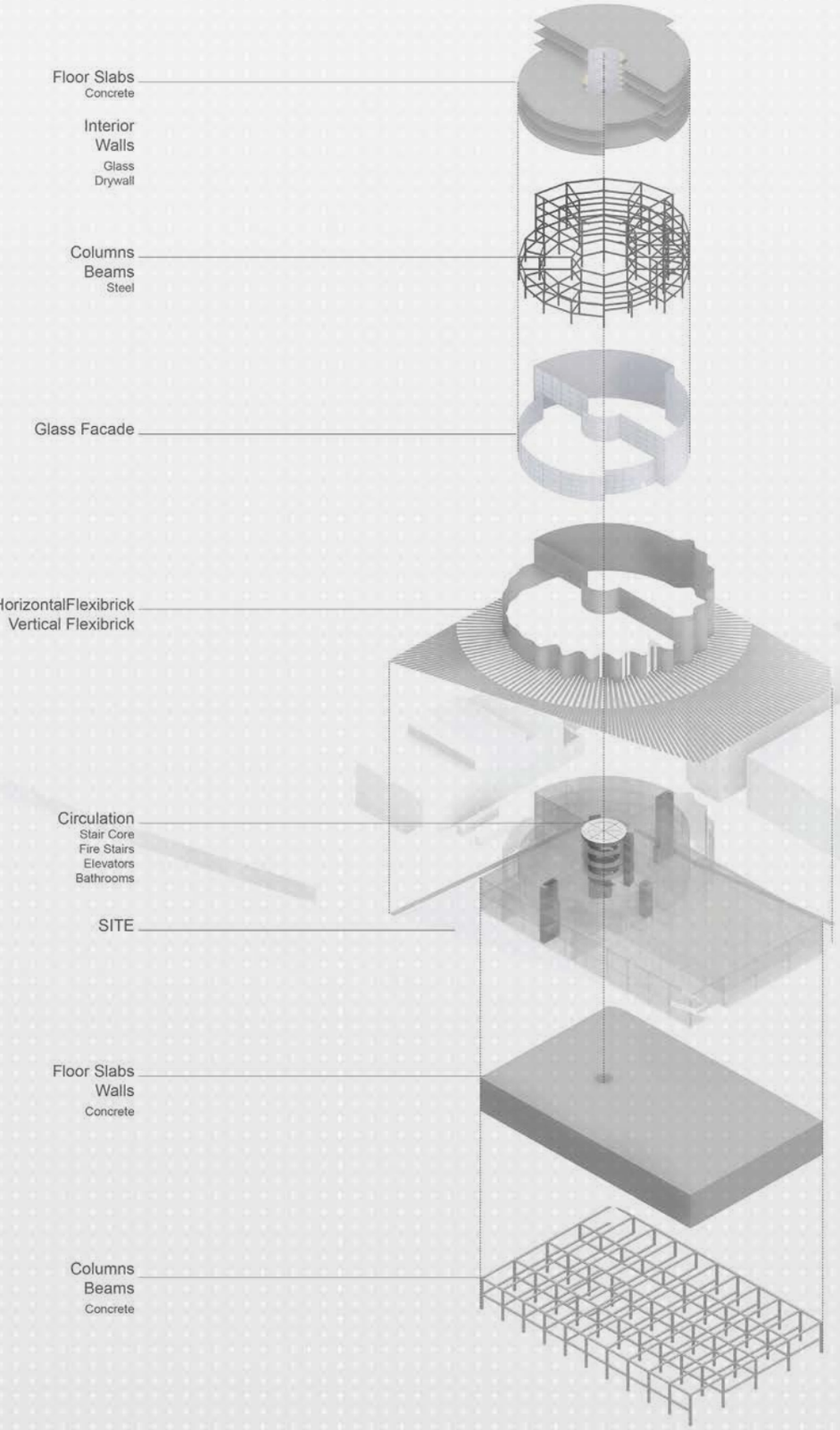
The Flexibrick environment is heavily shaded and moved away from the building to allow sculptural pieces to be displayed outdoors and the air in contact with the curtain wall to be cooled. The middle pattern occupies two portions of the four-quarter organization: logistics and public entrance. Both portions of the building receive the same light, giving them the same pattern, but the environment is different. Logistics, an above-ground portion of the underground archive space, is not for public use, causing the Flexibrick to be directly cladded to the building.

However, the public entrance Flexibrick ripples off the building and has panels removed to communicate a clear entryway. The final environment is the public event space, receiving the least light and the largest outdoor space created through the building's two skins. The pattern of the public event space is the most porous, allowing for communication between the plaza and the event space.

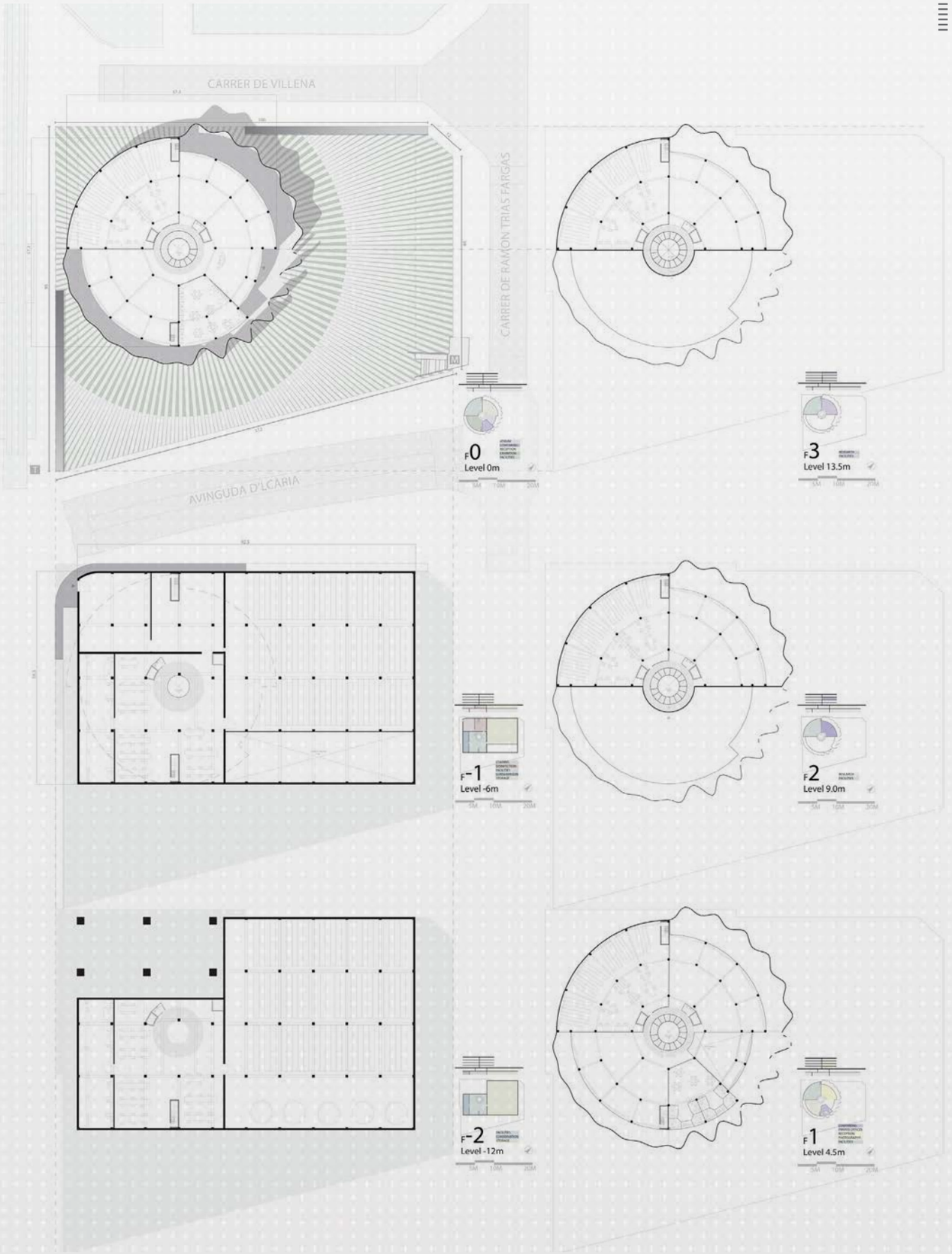
The building also programmatically follows the concept of merging natural and artificial elements of Barcelona, all the while tying this concept through the structural grids used throughout. The above-ground portion is meant to encourage openness and fluidity in its program placement, which is further mimicked by using a radial structural grid. These programs are meant to be public use elements, while the more rigid underground portion is strictly archival space. This underground portion follows its more set program and circulatory usage through its structure as well, following a strict cartesian grid. The portions, while entirely different, are still tied together using a central core and a light well that permeates the entire building. The Woven Archive aims to rediscover the language between organic and grid and create the meeting space between the two in a seamless public experience for the people of Barcelona.

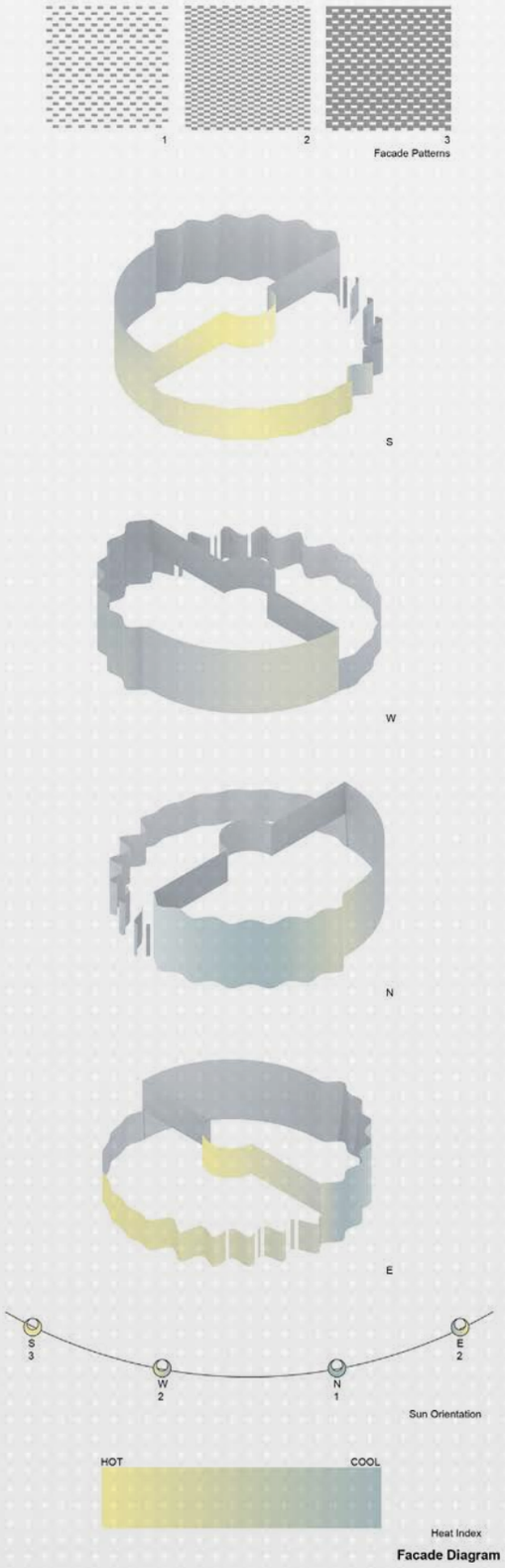
WOVEN ARCHIVE

Concept Diagram



Axonometric


CARRER DE VILLENA
CARRER DE RAMON TRIAS FARGAS
AVINGUDA D'ICARIA
F0
Level 0m
F3
Level 13.5m
F-1
Level -6m
F2
Level 9.0m
F-2
Level -12m
F1
Level 4.5m


1
2
3
Facade Patterns
S
W
N
E
S
3
W
2
N
1
E
2
Sun Orientation
HOT
COOL
Heat Index
Facade Diagram

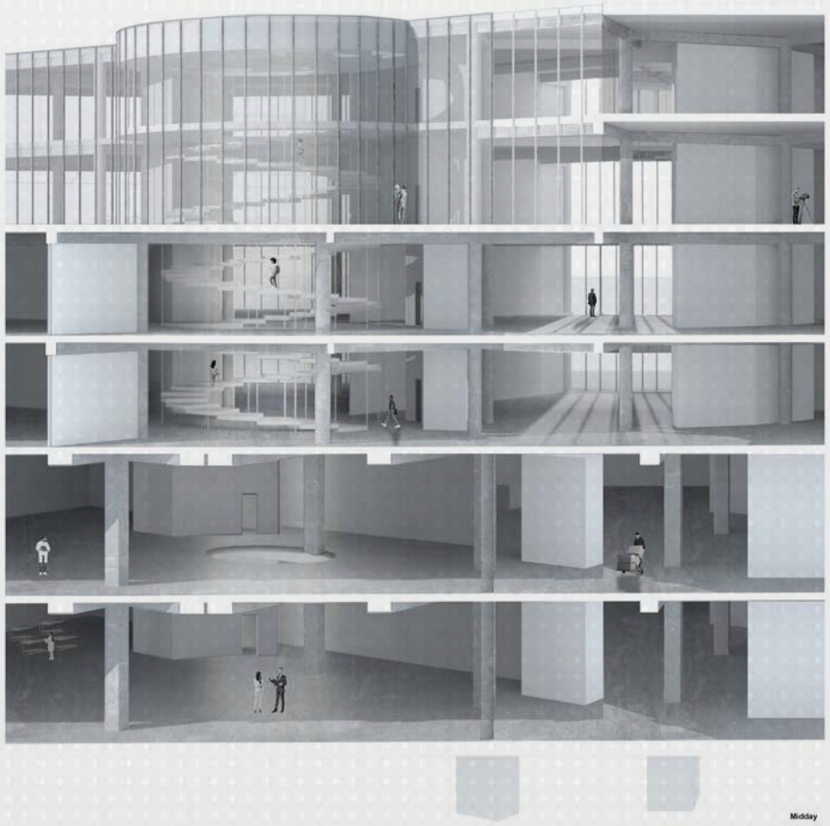

Exhibition Space View


Logisitics View


Entrance View


Public Events View

Sunrise

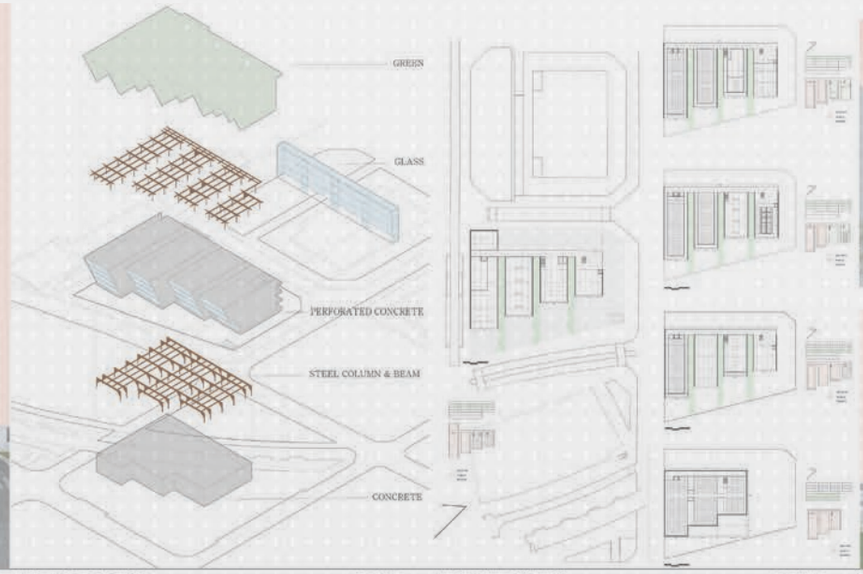

Midday

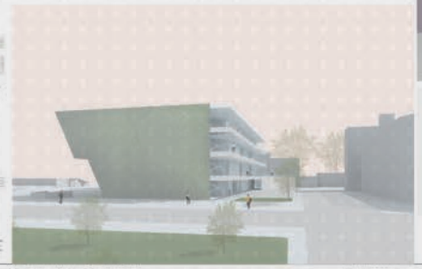
Dusk

Section

THE SLICED PARCEL

Alejandro Covarrubias, Texas A&M University, Architecture Undergraduate
Sunjin Lee, Texas A&M University, Architecture Undergraduate



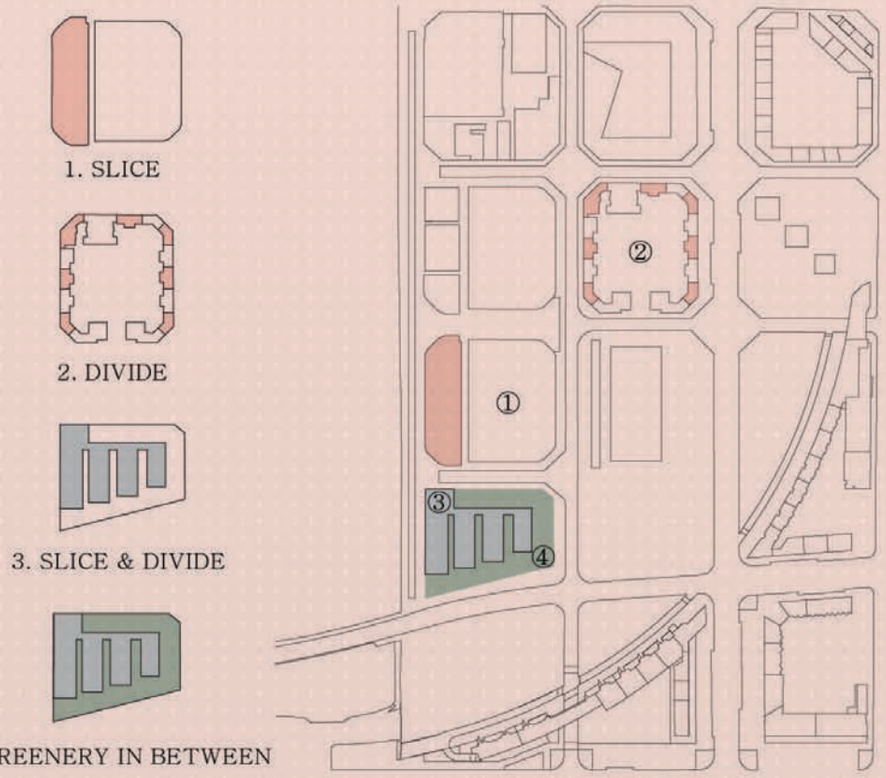


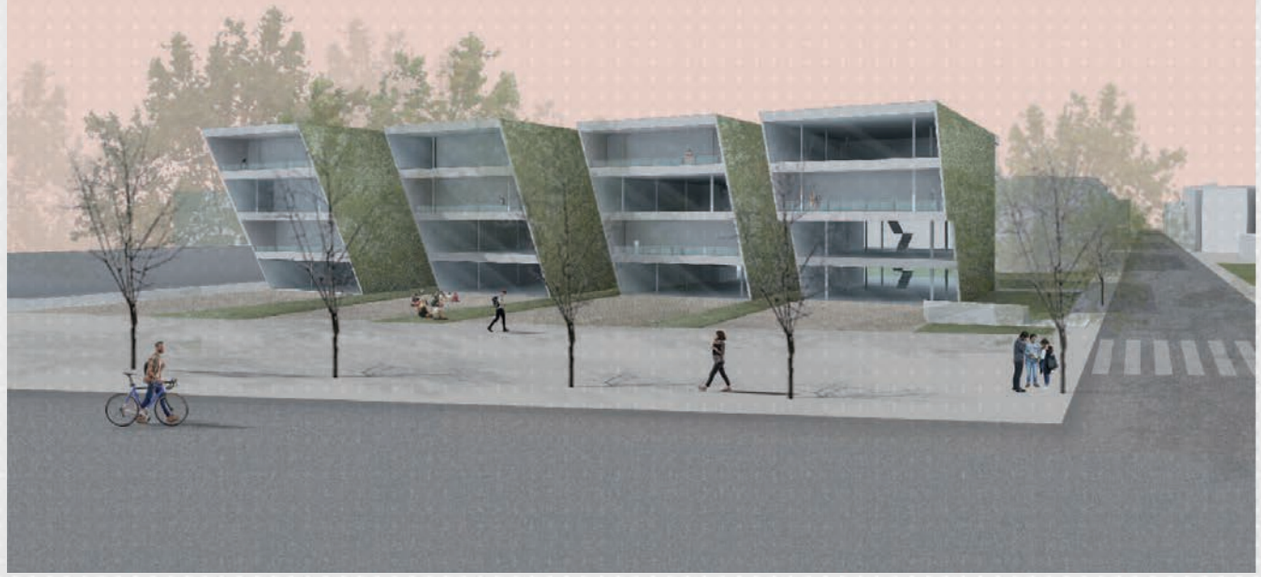
Given the project to design an archive that consists of multiple programs such as storage area, offices, and public areas, we wanted to incorporate the division of the buildings in Barcelona into our design. Buildings in Barcelona tend to take up space fully in its gridded square city blocks and some of them are big building blocks that are divided into smaller units.

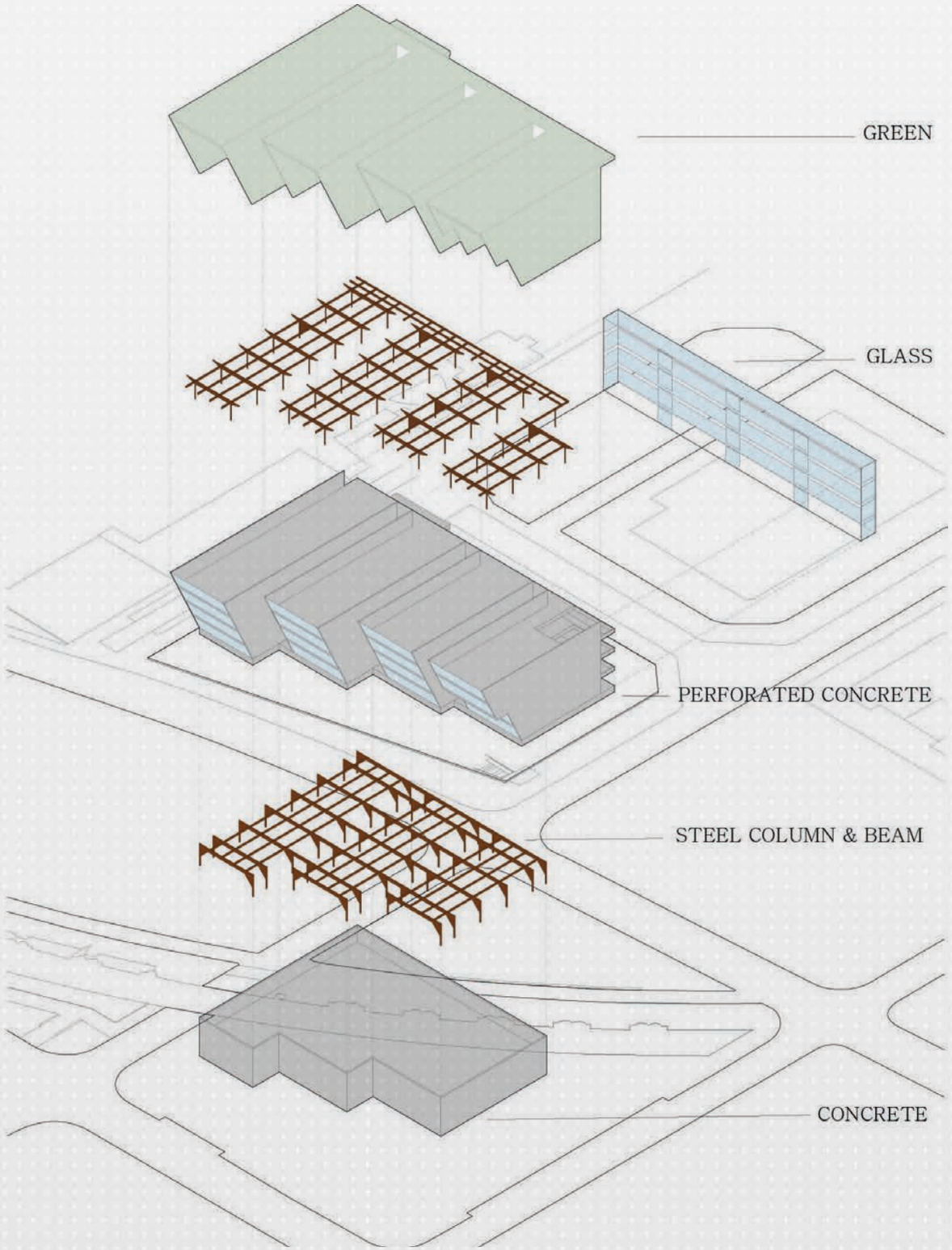
So, in the creation of our building, we fragmented our big volume into smaller and separated pieces creating open spaces in between. Our physical building has one horizontal hallway and four vertical parcels extruding out from it.

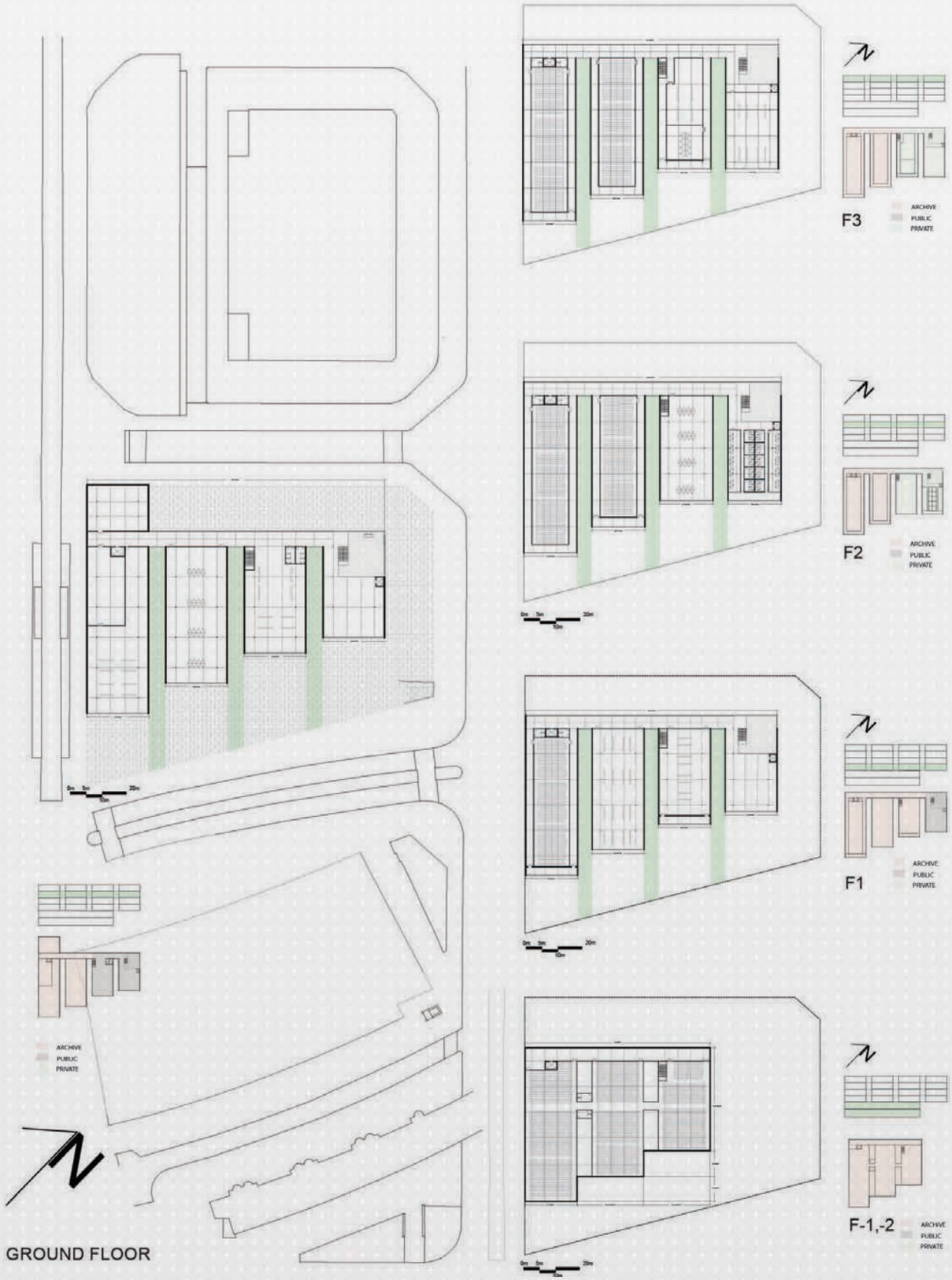
Between the parcel cuts we placed a vertical garden that will pull up the greenery in front of the building and this also gives our building the connection with the three parks next to our site. These open spaces allow lights to come in between the building
parcels and we used perforated concrete for our main material so we can put more natural light in without using windows.

THE SLICED PARCEL








F3
ARCHIVE
PUBLIC
PRIVATE
F2
ARCHIVE
PUBLIC
PRIVATE
F1
ARCHIVE
PUBLIC
PRIVATE
F-1,-2
ARCHIVE
PUBLIC
PRIVATE
ARCHIVE
PUBLIC
PRIVATE
GROUND FLOOR

Breathing Archive Center (BAC)

Alejandro Covarrubias, Texas A&M University, Architecture Undergraduate
Sunjin Lee, Texas A&M University, Architecture Undergraduate

Beginning in the nineteenth century, Barcelona started to see a deviation in contentment with the current city walls. The city was brimming with industry and in need of growth. Illdefons Cerdá, a Catalonian civil engineer, recognized this and created a plan for a new, larger city. Within this proposal, Cerdá planned for the expansion of the city walls to create healthier living and breathing conditions for the citizens of Barcelona at the time. In recognition of Cerdá, along with the recognition that Barcelona is once again crowded with industry, we created an archive center that aims to transform the site based on its qualities and provide to the city the same conditions that Cerdá envisioned.

The Breathing Archive Center acts as an urban sponge, or cleaning machine, that gives back to the city by purifying the air and capitalizing on natural processes. This is done through two different concepts: the first being a “cleaning machine” through the use of landscape and the natural environment; the second being a “cleaning machine” through its construction and use of materials within the built environment. Together, these two elements forge an inertia that facilitates an equilibrium that is sustainable and protects the precious archives within the building.

The Cleaning Machine

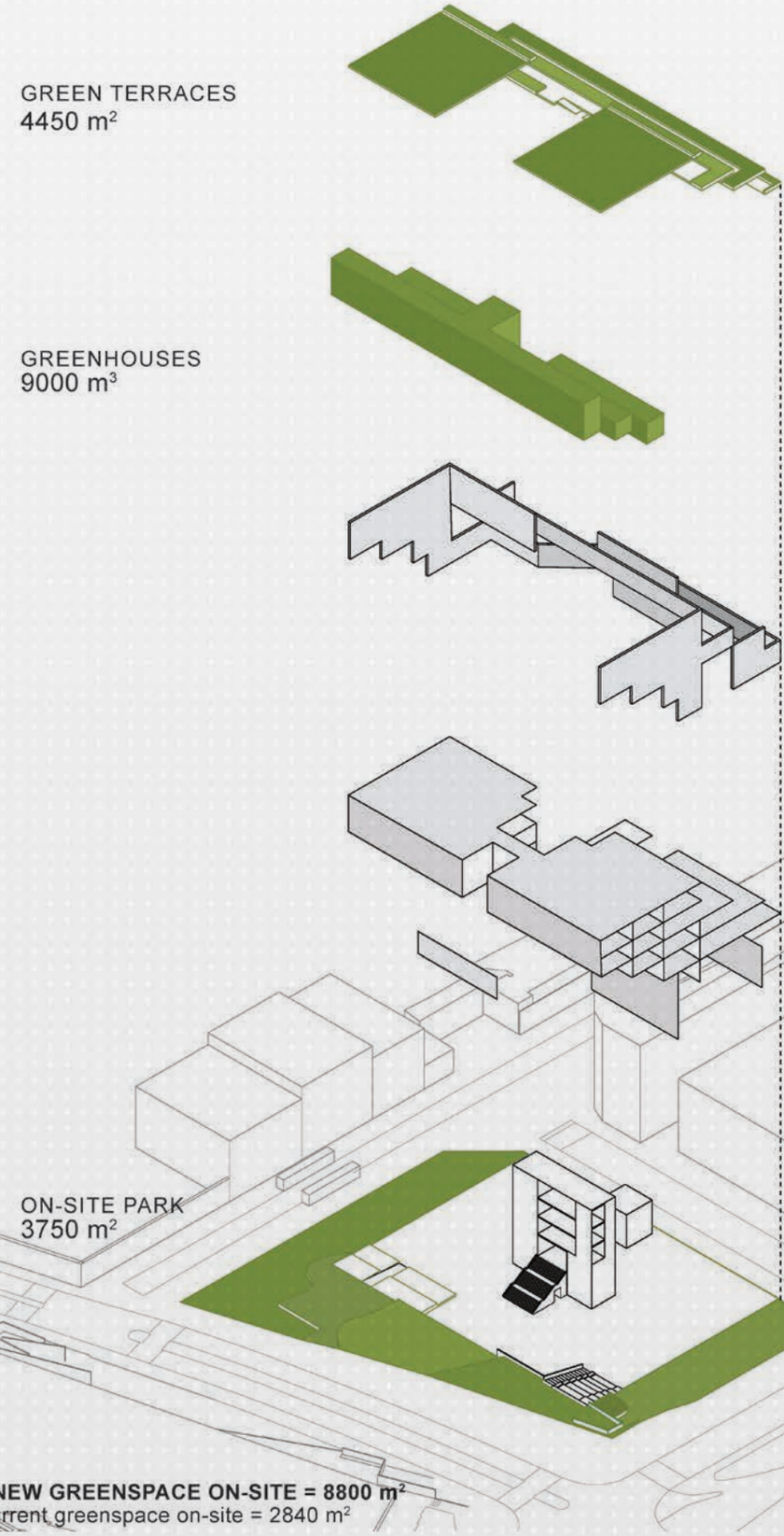
Within the site lines of the Breathing Archive Center, there are 3 types of natural environments. These greenspaces aim to lessen the urban footprint and reclaim or expand the city’s natural elements. Being that Barcelona is predominantly hard scape, our public greenspace softens the city block by preserving and extending the current park on the site. Along with this, we wanted to cultivate a comfortable microclimate for the public and employees to immerse themselves in nature. This is done with our three cantilevered greenhouses: a Mediterranean garden, flowering garden, and a shade garden. Each greenhouse displays a variety of species that correlate with the conditions prescribed by their placement in the building. Lastly, the green terraces and roof support a variety of species that are native to Barcelona, and therefore facilitate a relationship with the local fauna. Altogether, these three natural environments allow for 30,000 kg of CO2 to be sequestered a year by the vegetation. The Breathing Archive Center also uses the technology of an air purifying concrete to clean the air surrounding the archive center. Minerals within the structure of the concrete absorb CO2 and relinquish it as purified oxygen.

BREATHING ARCHIVE CENTER

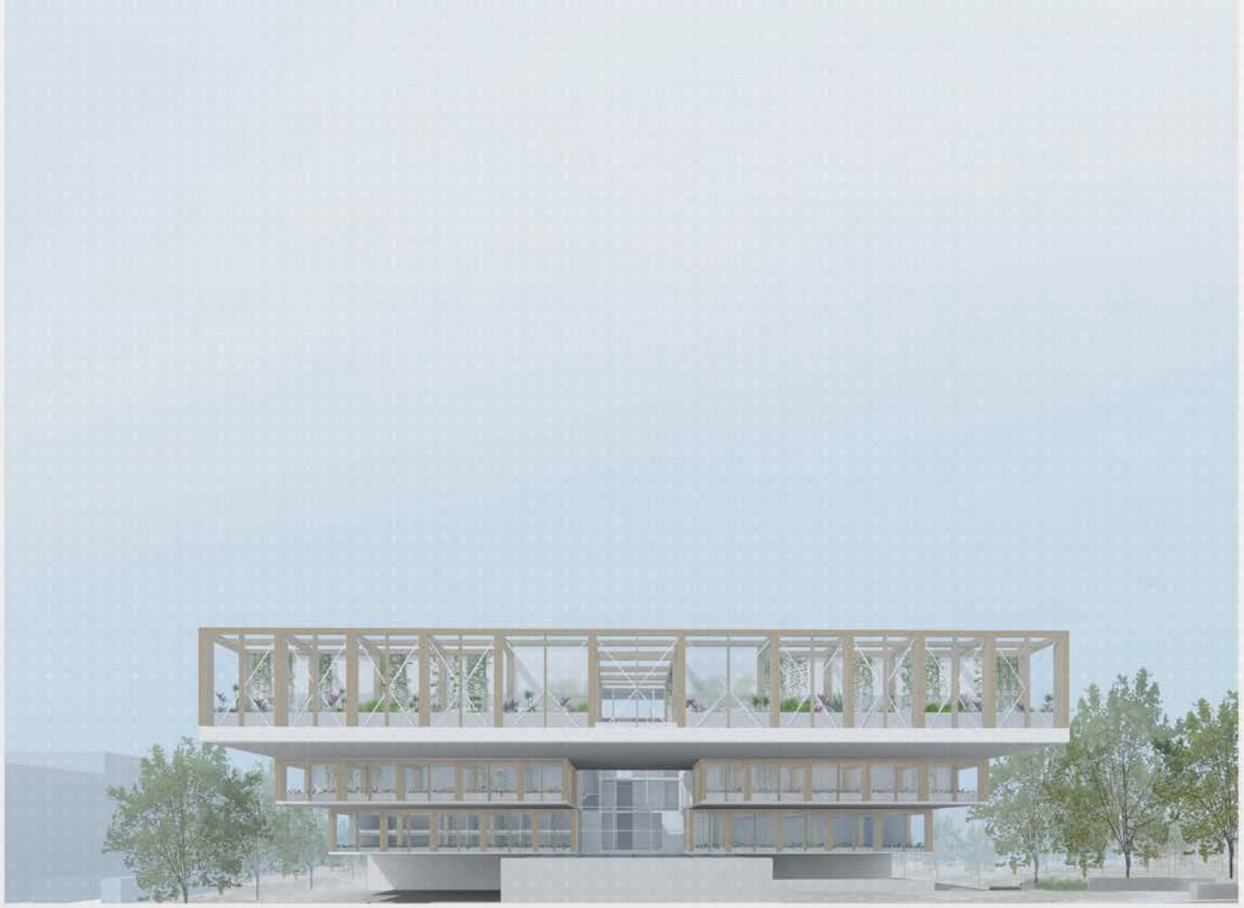
Barcelona once again faces a pollution crisis with more than

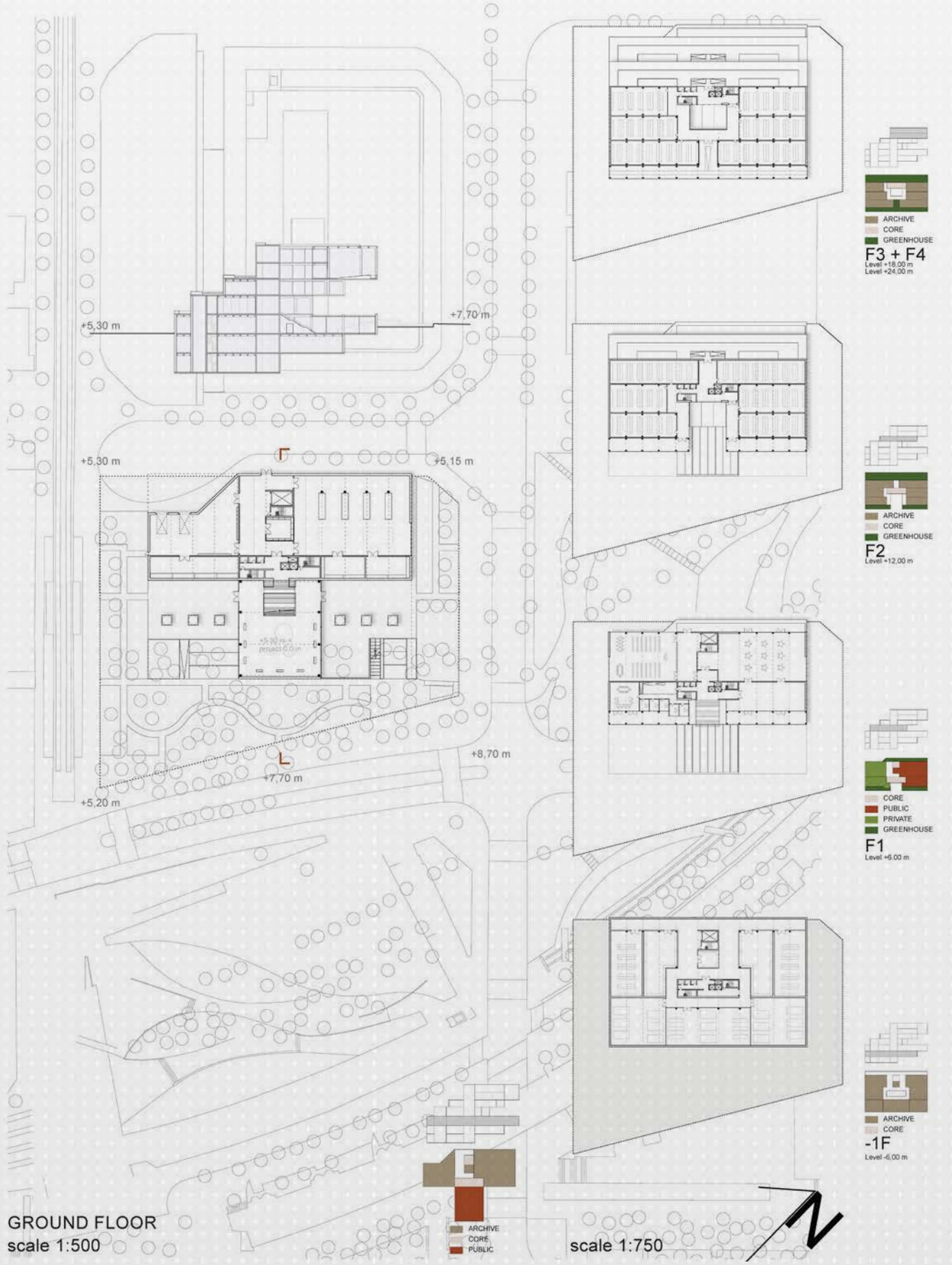
80%

of urban residents breathing air that that exceeds World Health Organization recommended pollution levels.



THE NEW GREENSPACE ON-SITE = 8800 m²
the current greenspace on-site = 2840 m²



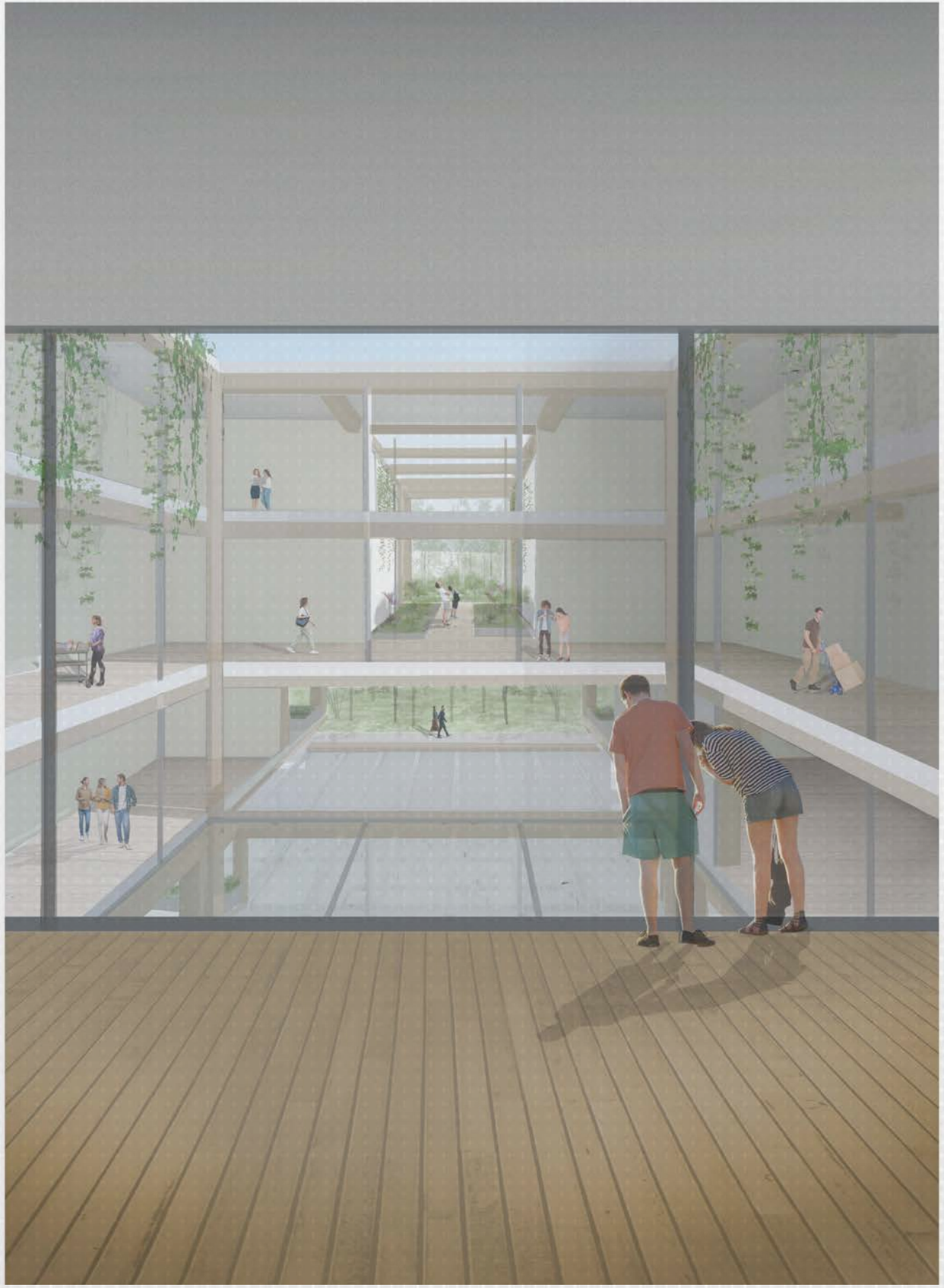


GROUND FLOOR
scale 1:500

scale 1:750

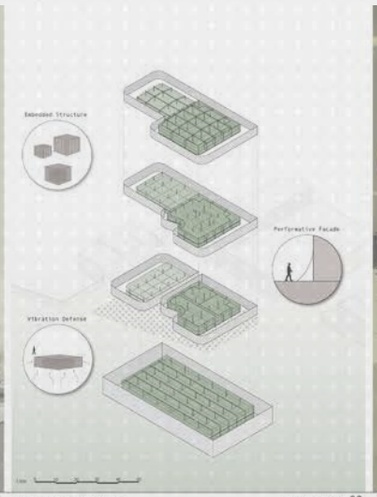
30,000 kg
of CO_2 sequestered a year by the **vegetation**

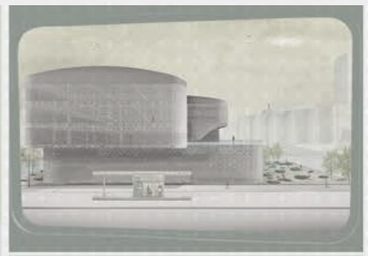
three greenhouses, with **over 45 species**, purify the air **within** the building

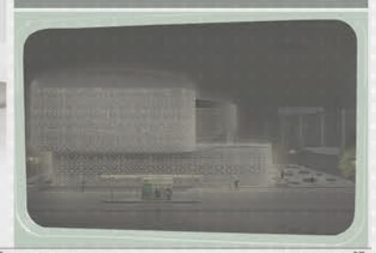


THE STORAGE OF LIGHT

Natalie Arroyo , Texas A&M University, Architecture Undergraduate
Nansi Rodriguez, Texas A&M University, Architecture Undergraduate







Barcelona is known for its Urban Planning techniques which includes an organized gridded pattern with Ensanche Blocks. Overall, this facilitates the circulation for all types of commuters in Barcelona.
This connection is further emphasized with the visible divide of the wall separating Ciutadella Park leaving our site
forgotten.

Our proposal “The Storage of Light” creates a magnitude into our site with the development of a “lantern-like” structure that is blended into the site using sustainable elements, those of which include aluminum foam and the addition of a greenspace. We noted the present population and decided to break our form to create a connection with the university located behind our site and leave an open connection between the tram and metro.

Implementing aluminum foam panels allows the visualization of the porosity from the exterior daylight to the interior of out structure. Likewise, to the exterior when it’s dark out, it creates a glowing element that provides light to the outside. The porosity of the aluminum foam is mostly concentrated in the atrium of the structure because of its open space.

A box inside the box is a fundamental approach we decided to take to provide an additional layer of protection for the delicate items of the archive. This protective layer consists of mainly the circulation. The exterior vegetation bubbles have a higher concentration in the main facade that creates a place of concentration towards the main entrance found in the atrium.

The Storage of Light

Illuminating the community

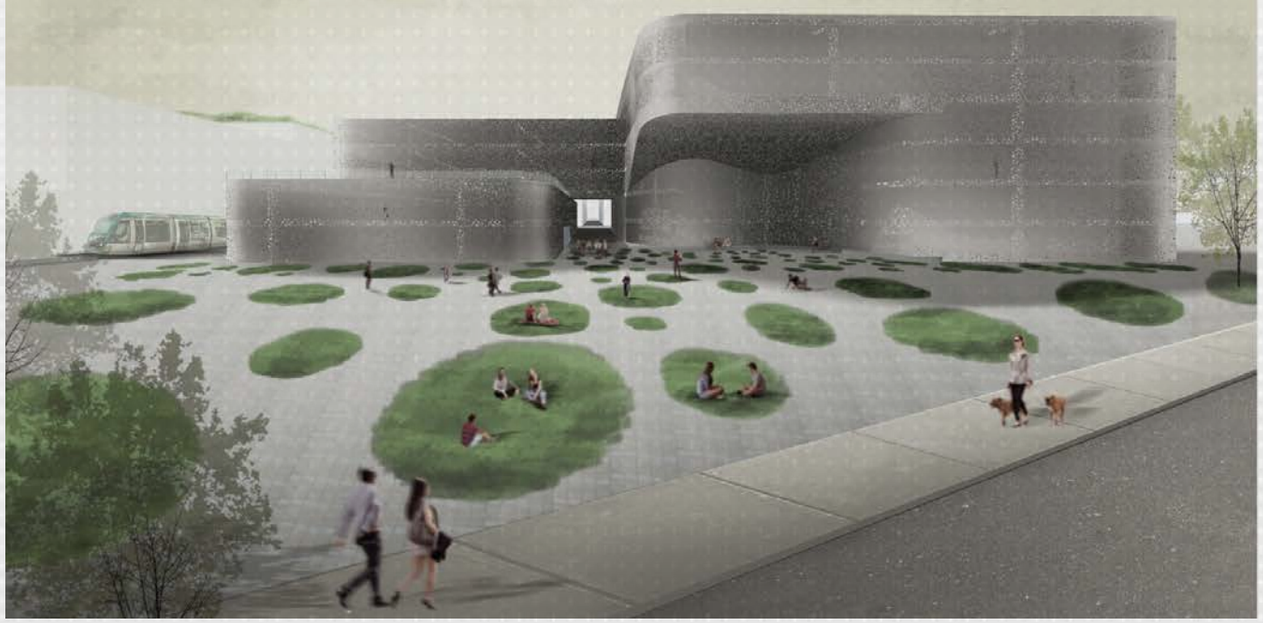
families
students
commuters

community

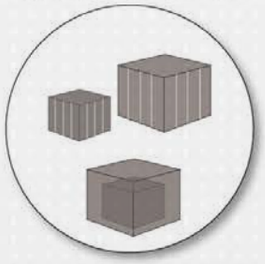
integration

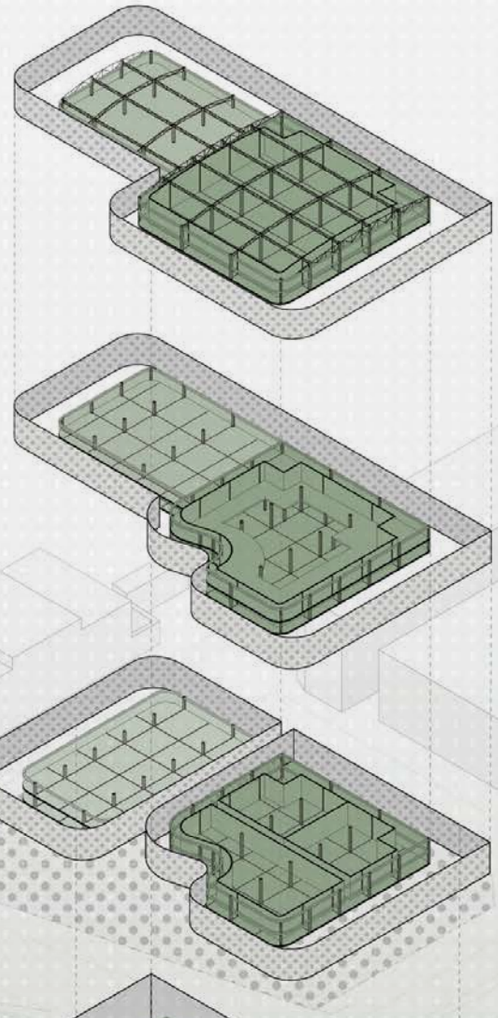
flow

Breaking Eixample

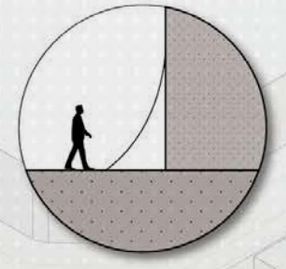


Embedded Structure

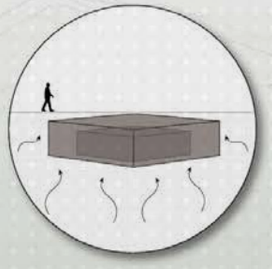


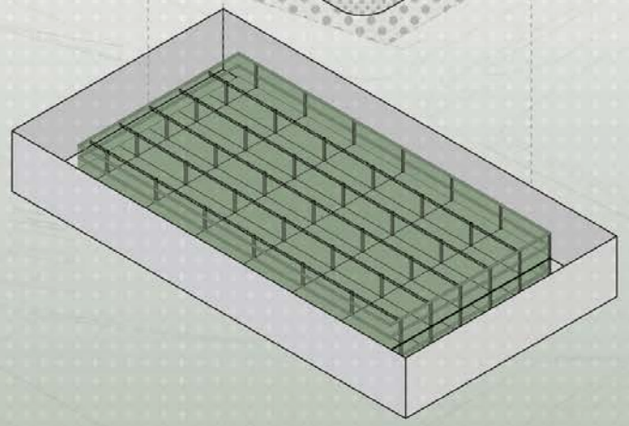


Performative Facade

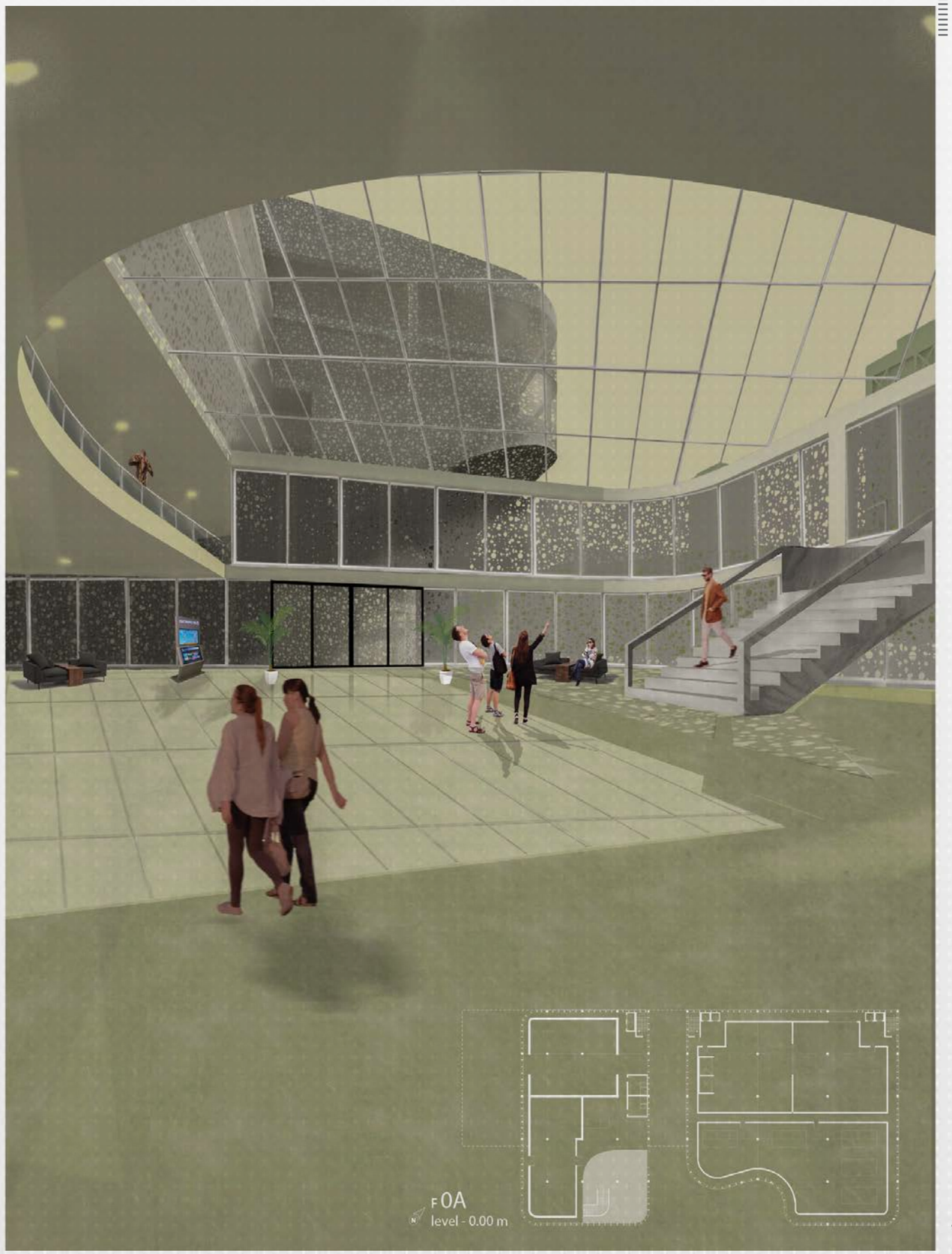


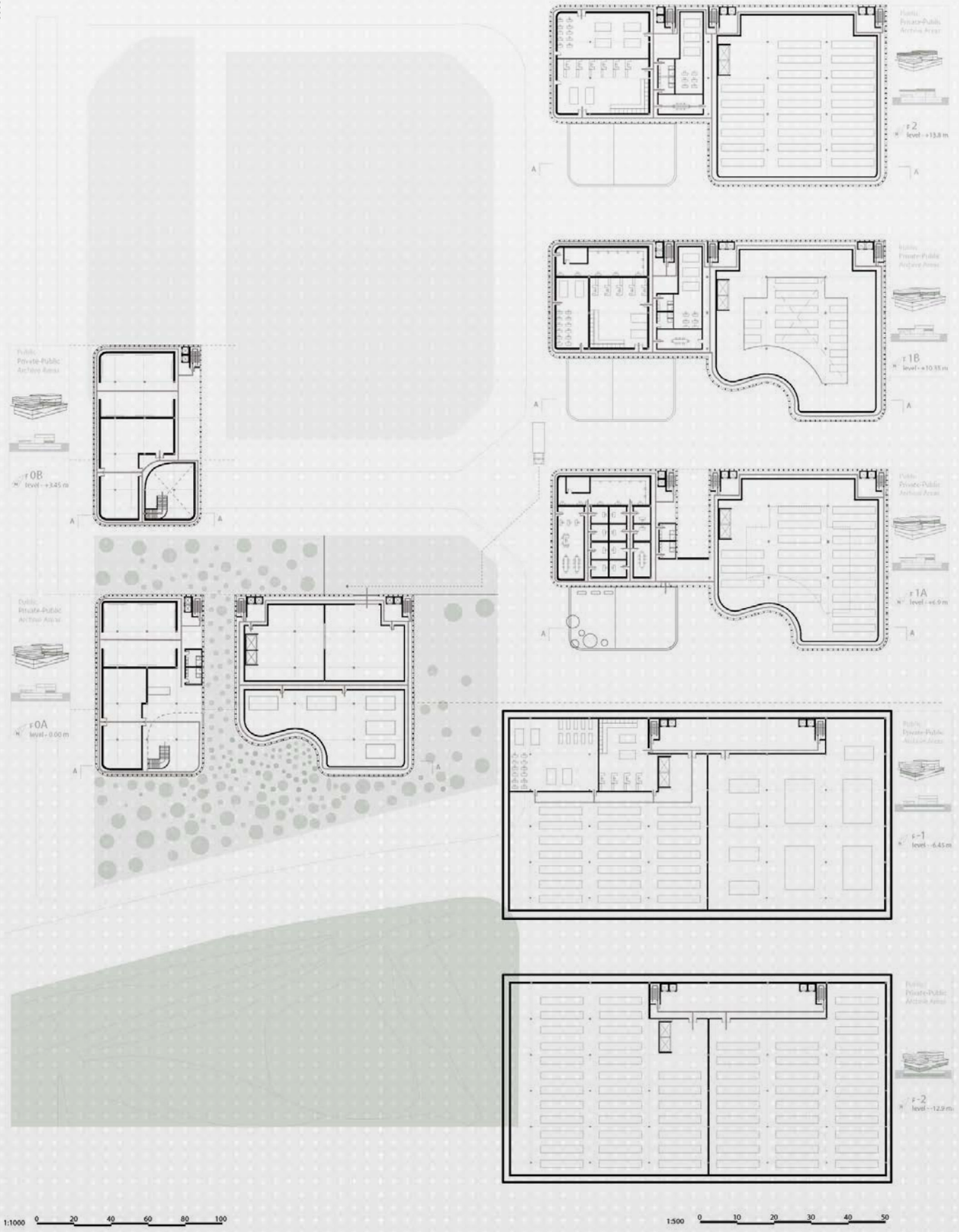
Vibration Defense

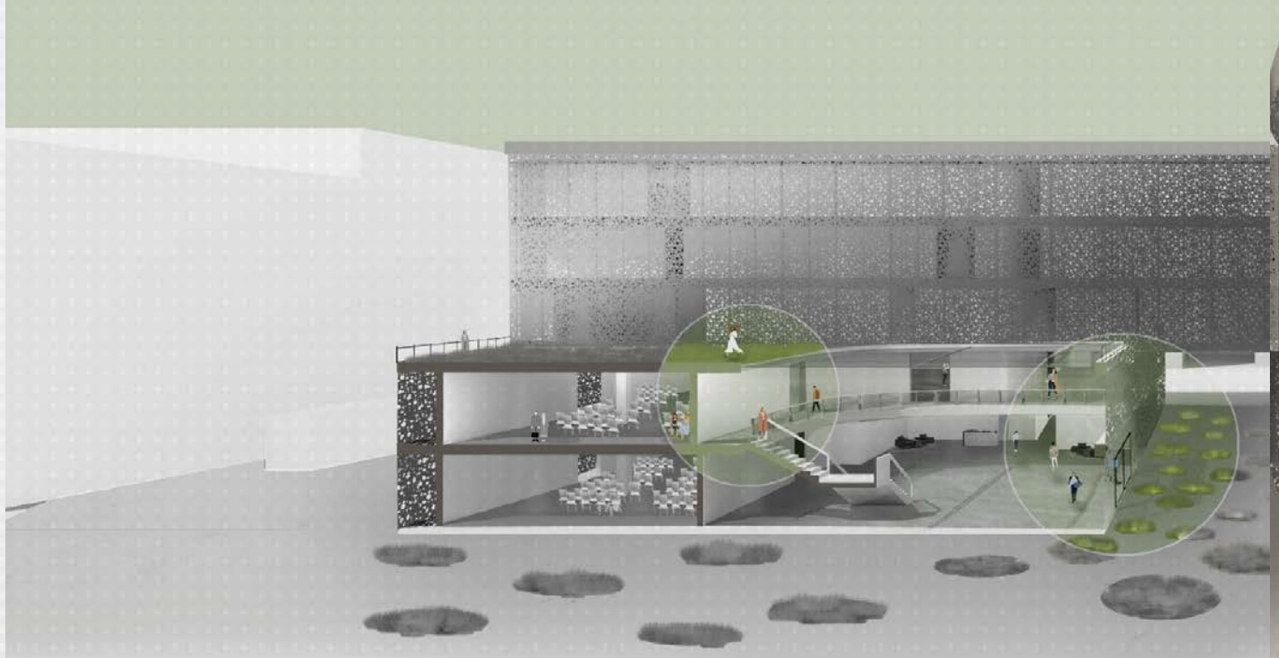


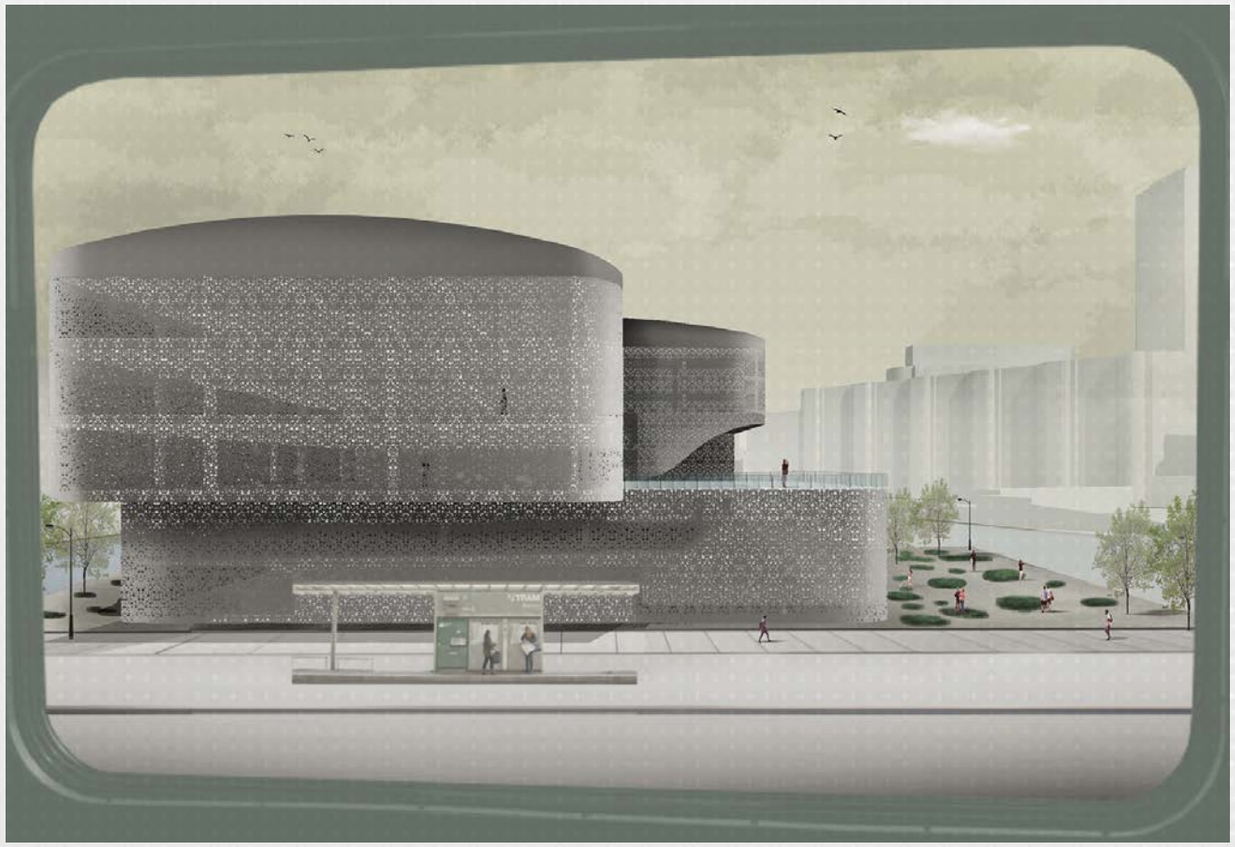


1:500 0 10 20 30 40 50


F 0A
level - 0.00 m

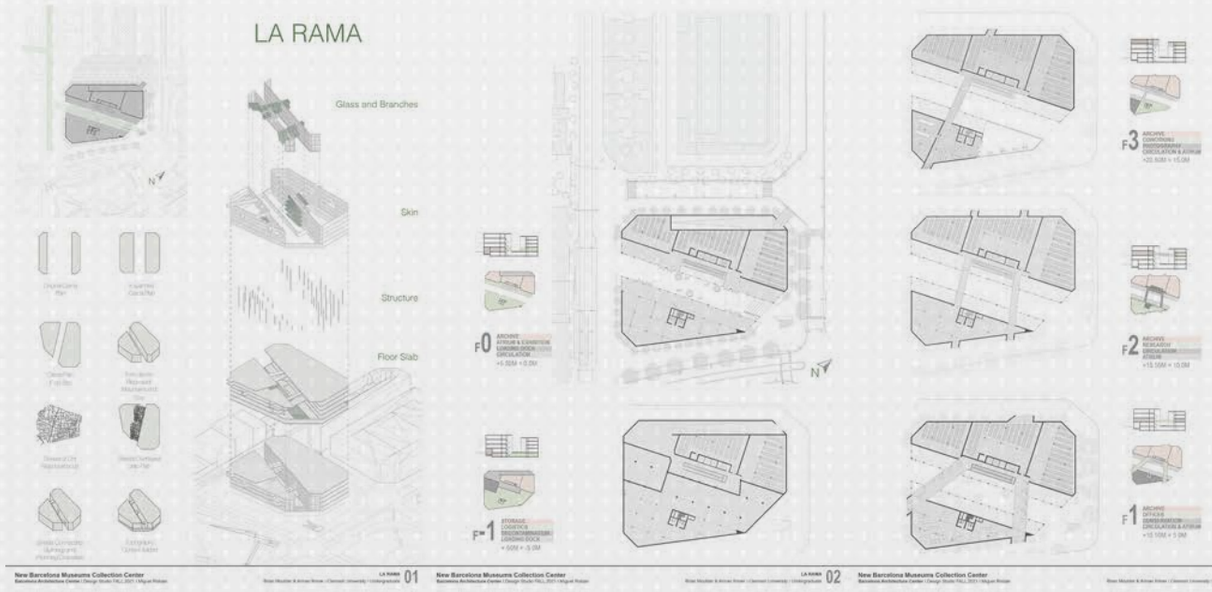

F 2
level - +13.8 m
F 1B
level - +10.35 m
F 0B
level - +3.45 m
F 1A
level - +6.9 m
F 0A
level - 0.00 m
F -1
level - -6.45 m
F -2
level - -12.9 m
1:1000 0 20 40 60 80 100
1:500 0 10 20 30 40 50





LA RAMA

Arman Kriner , Clemson University, Architecture Undergraduate
Brian Moulder, Clemson University, Architecture Undergraduate



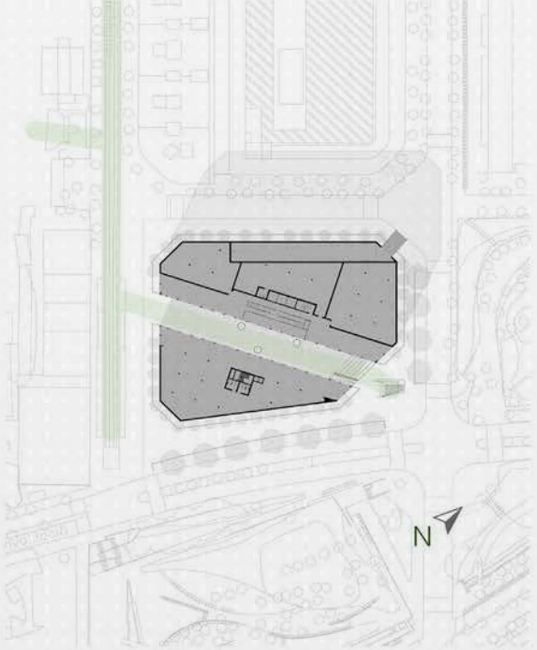
Our project concept of intertwining the public and private is created by having direct access through the site to connect the main points of public foot traffic and using branches to connect the two main structures of our building's own public and private spaces. The project is seemingly cut in two to allow direct access from the Metro stop on the east corner to the tram stop, zoo, and park on the west side. This access point through the site inspired us to split the building into two main massing while connecting them underground for logistics and loading.

The smaller, southeast structure contains more public programs such-as the co-working spaces, research, and exhibition spaces. The more prominent, northeast tower contains the more private archival storage space. To connect these two spaces, we implemented the idea of "glass branches," hence the name "La Rama," to allow for circulation of both sides. To help with circulation, we added a ramp on the archival side to allow for better accessibility when moving archives.
precast concrete panels and beams.

Preservation plays a vital role in our archival space because it reflects the protection of goods and items and preserving artifacts similar to Barcelona preserving its history and culture through architecture.

For materiality, the central concept was preservation versus exposure. On the outer walls of the archive, unfinished precast concrete will give a rough, natural look to the building. On the inner alleyway, the walls will be finished concrete and will have glass curtain walls allowing people to look in, which preserve the inside of the building, similar to that of a geode. The materiality will inform the structure by using precast concrete panels and beams.
Preservation plays a vital role in our archival space because it reflects the protection of goods and items and preserving artifacts similar to Barcelona preserving its history and culture through architecture.

LA RAMA



Original Cerda Plan

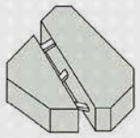
Expanded Cerda Plan

Cerda Plan Fit to Site

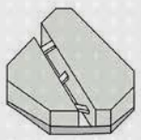
Extruded to Represent Mountains and Sea

Streets of Old Neighborhoods

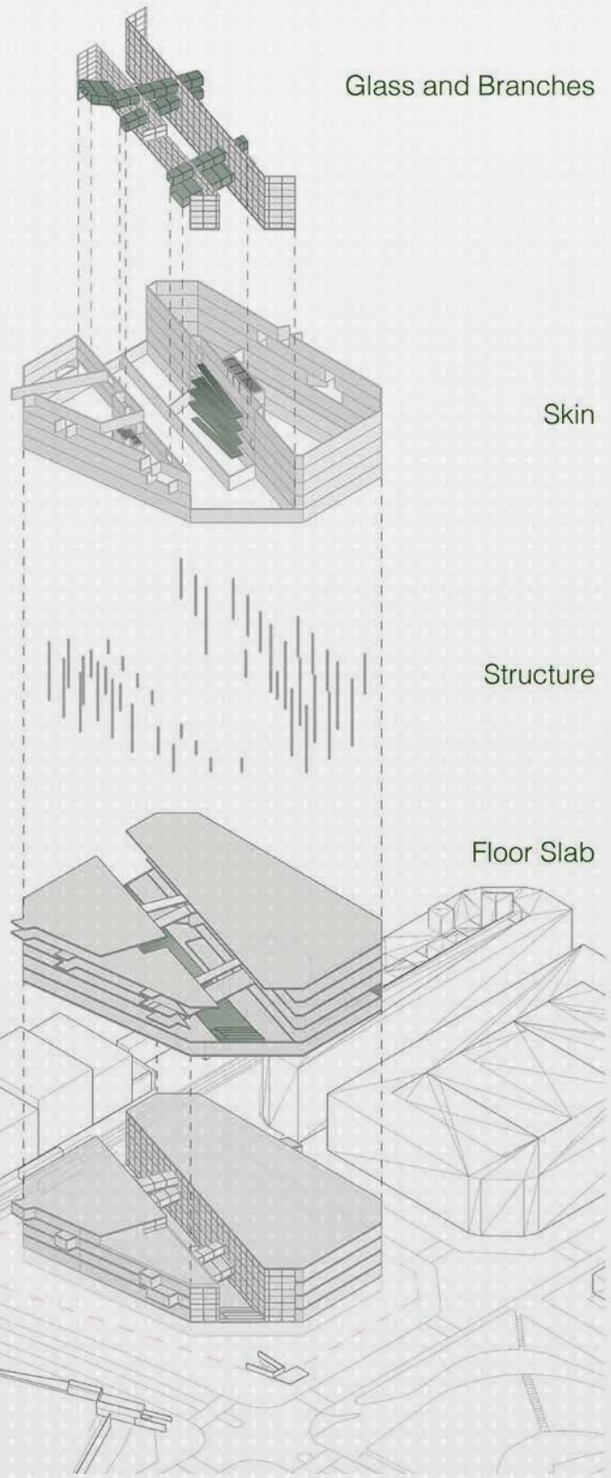
Streets Overlayed onto Plan



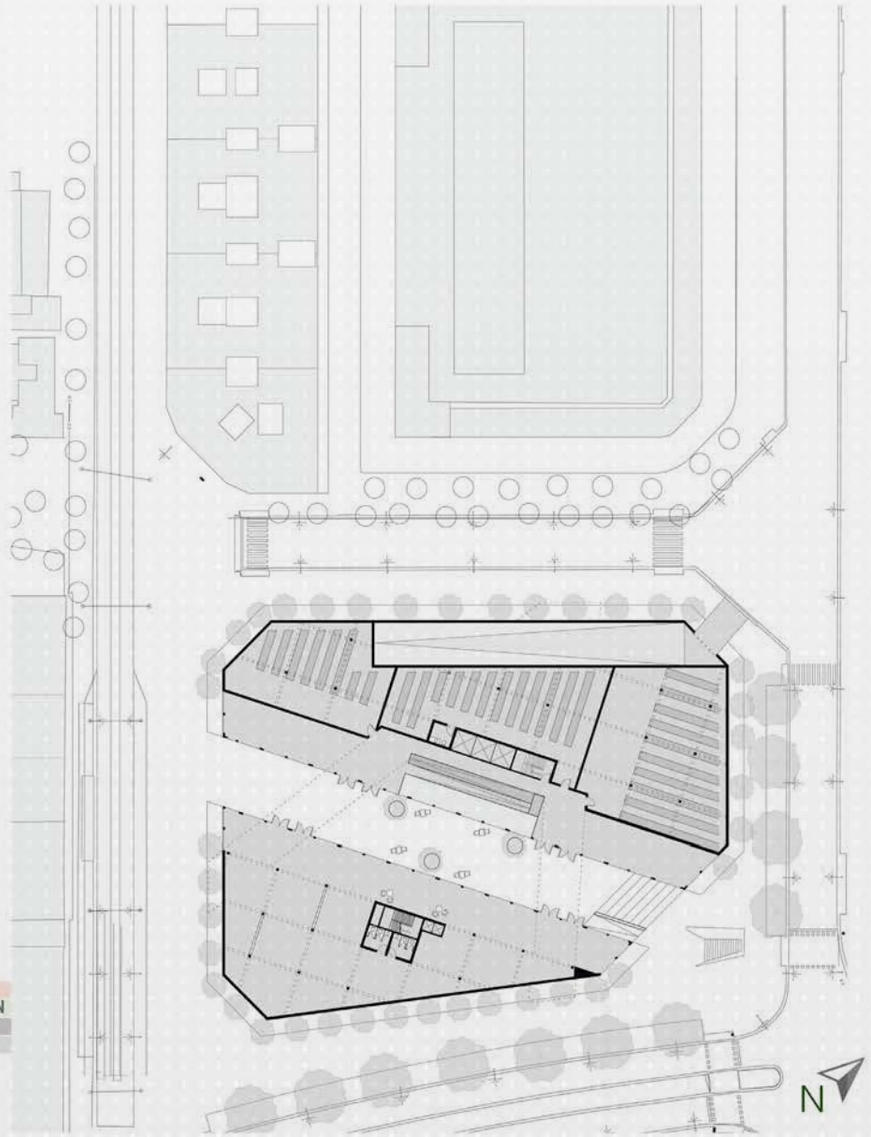
Streets Connecting Buildings and Informing Circulation

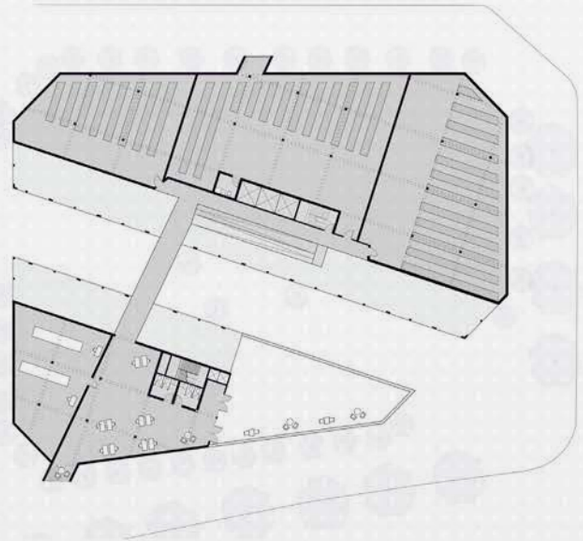


Topography Context Added

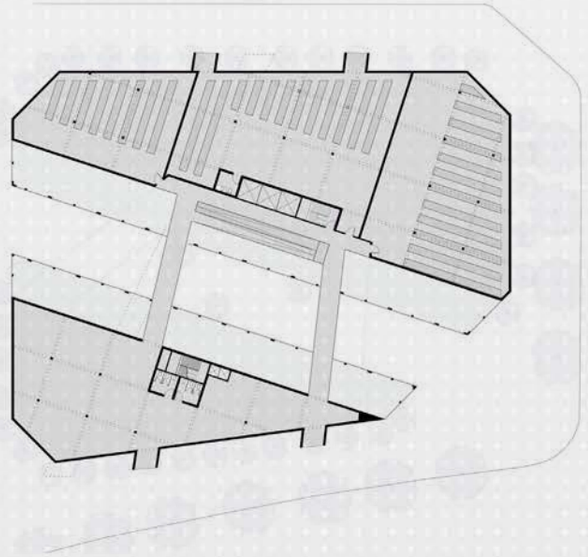


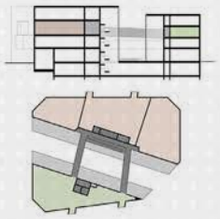
F0 ARCHIVE
ATRIUM & EXHIBITION
LOADING DOCK
CIRCULATION
+5.50M = 0.0M



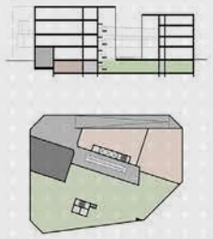


F3 ARCHIVE
COWORKING
PHOTOGRAPHY
CIRCULATION & ATRIUM
+20.50M = 15.0M

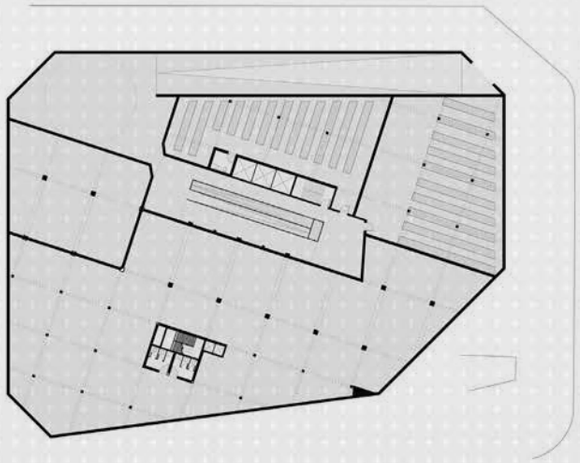


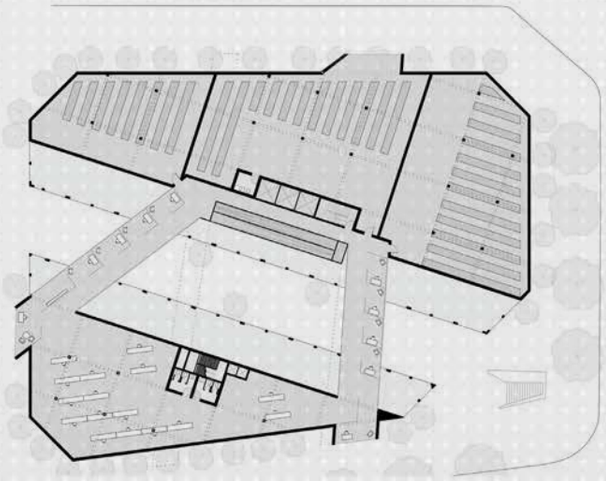


F2 ARCHIVE
RESEARCH
CIRCULATION
ATRIUM
+15.50M = 10.0M



F-1 STORAGE
LOGISTICS
DECONTAMINATION
LOADING DOCK
+.50M = -5.0M



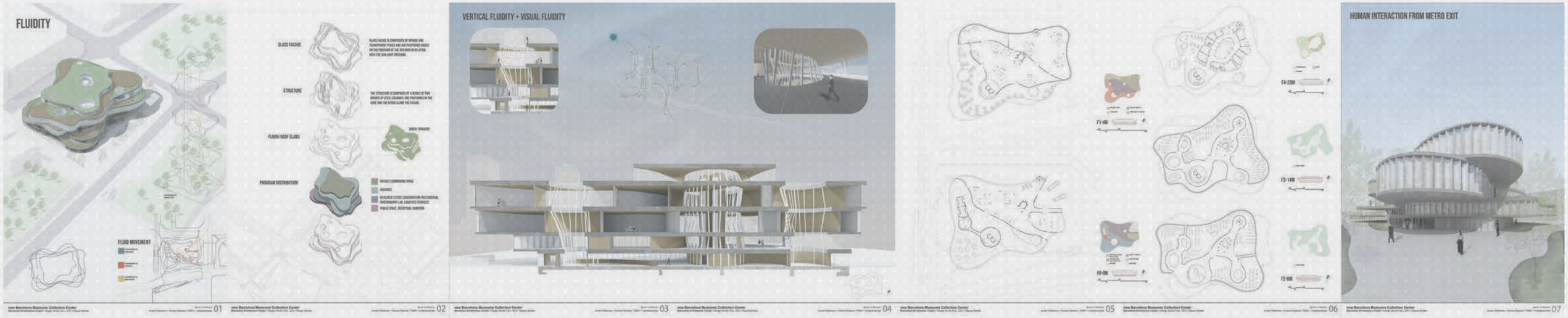


F1 ARCHIVE
OFFICES
CONSERVATION
CIRCULATION & ATRIUM
+10.50M = 5.0M


1:200
0
4
8
12
16
20 M

BACK TO NATURE: FLUIDITY

Austin Patterson, Texas A&M University, Architecture Undergraduate
Peyton Roberts, Texas A&M University, Architecture Undergraduate



The main guidance of our project was derived from the harsh disconnect of the surrounding green public spaces because of the concrete mass of a parking lot that is situated on our site.
Our project aimed to bridge this disconnect diagonally through the site and then determined the movement should be a fluid one, a natural organic one.

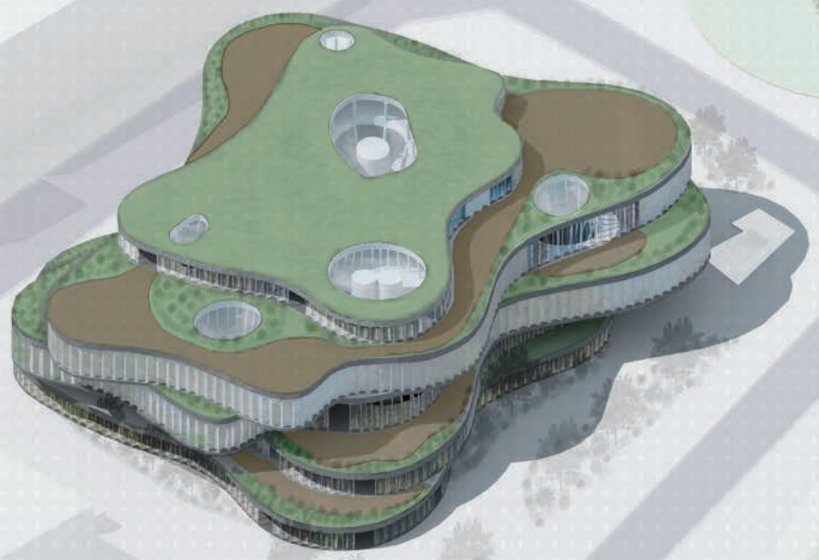
The idea of fluidity is strong in Barcelona with Gaudi organic forms that bring us back to nature is architecture design. The idea to get back to nature in architecture was the leading design contributor in the project, fluidity. This concept of fluidity is seen in three main forms: the fluidity of movement, the fluidity of the façade, and vertical fluidity.

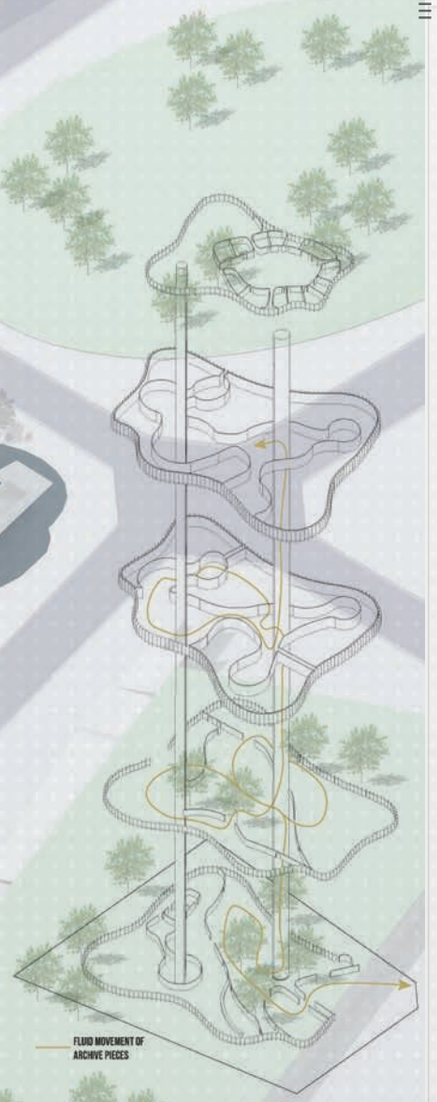
The combination of these three ideas of fluidity determined the program's distribution, the circulation, and the connection back to the city.

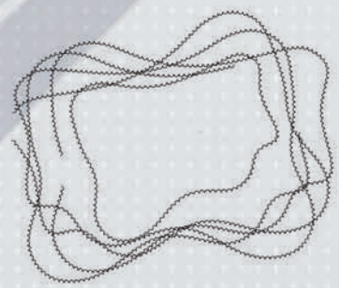
The first form of fluidity is movement, mentioned before with connecting the site with the surrounding green public spaces and using our site as a connection to those spaces with each other.
The connection was also used to connect the metro exit to the tram station that are situated almost diagonally across the site, which was the main connection route, and we determined a fluid movement of employees and archive pieces throughout the building.

The fluid façade is composed of transparent and opaque glass to give the employees a chance to look at nature during their busy workday and to give reflexions of threes back to the surrounding parks.
The vertical fluidity is derived through large voided light wells that are the main structural elements of the building. These
light wells allow for the transfer of sunlight, air, and circulation.
The purpose of our project was to create a building that lived with the nature that surrounds it instead of being a separate entity. Using these fluid design elements, we feel we have established this cohesive partnership between architecture and nature.

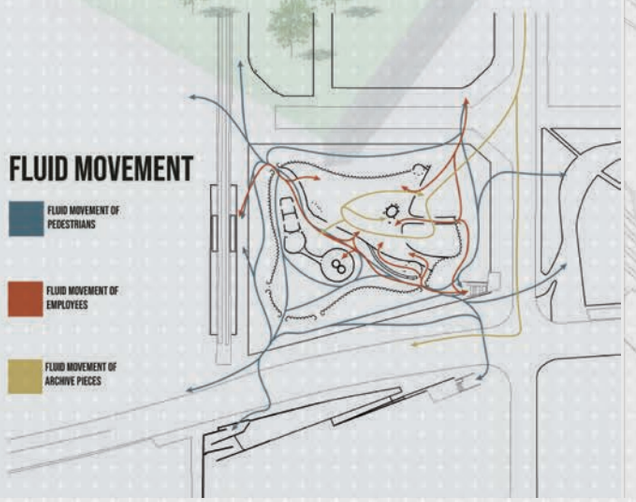
FLUIDITY







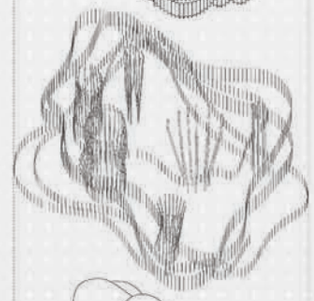
FLUID MOVEMENT



GLASS FACADE

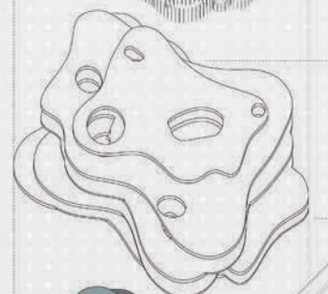
GLASS FACADE IS COMPOSSED OF OPAQUE AND TRANSPARENT PEICES AND ARE POSITIONED BASED ON THE PROGRAM OF THE INTERIOR IN RELATION WITH THE SUN LIGHT ENTERING.

STRUCTURE



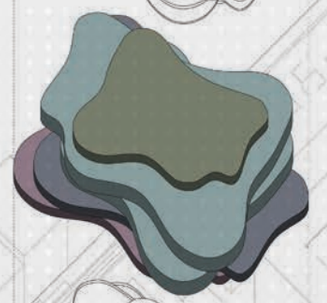
THE STRUCTURE IS COMPOSED OF A SERIES OF TWO GROUPS OF STEEL COLUMNS, ONE POSITIONED IN THE CORE AND THE OTHER ALONG THE FACADE.

FLOOR/ROOF SLABS



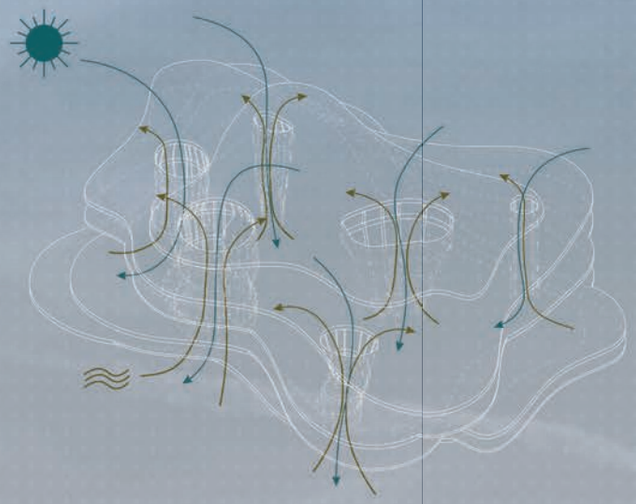
GREEN TERRACES

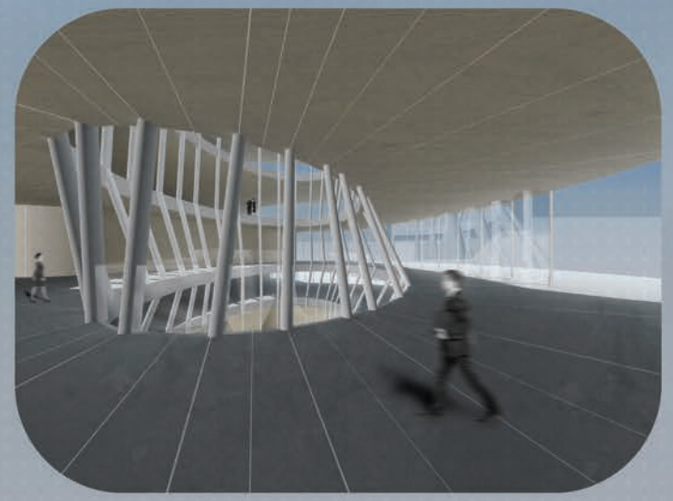
PROGRAM DISTRIBUTION

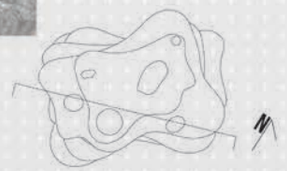


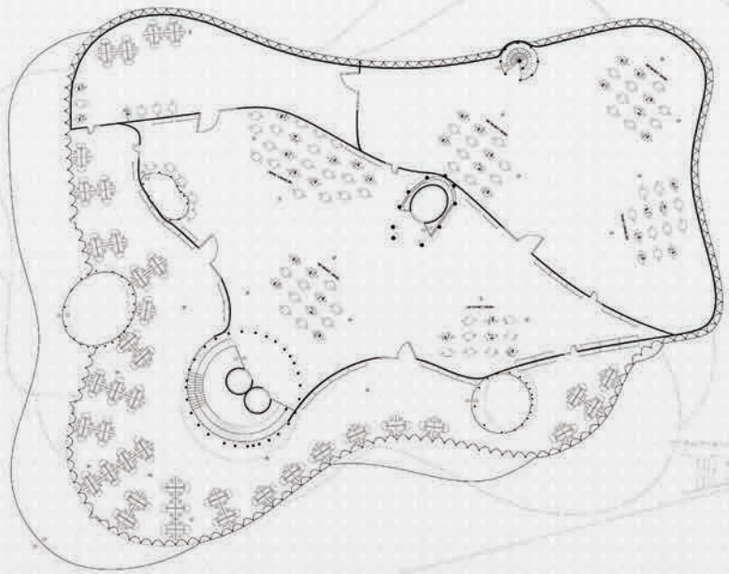
- OFFICES/COWORKING SPACE
- ARCHIVES
- RESEARCH/STUDY, CONSERVATION/RESTORATION, PHOTOGRAPHY LAB, LOGISTICS/SERVICES
- PUBLIC SPACE, RECEPTION, EHIBITION

VERTICAL FLUIDITY + VISUAL FLUIDITY



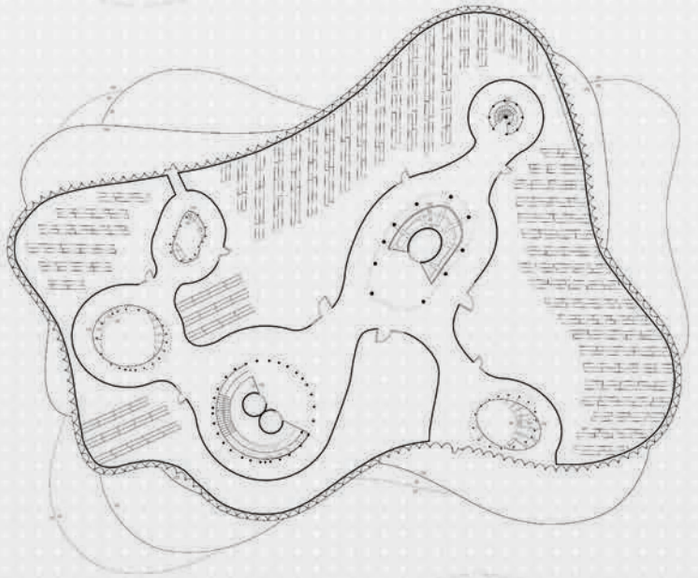




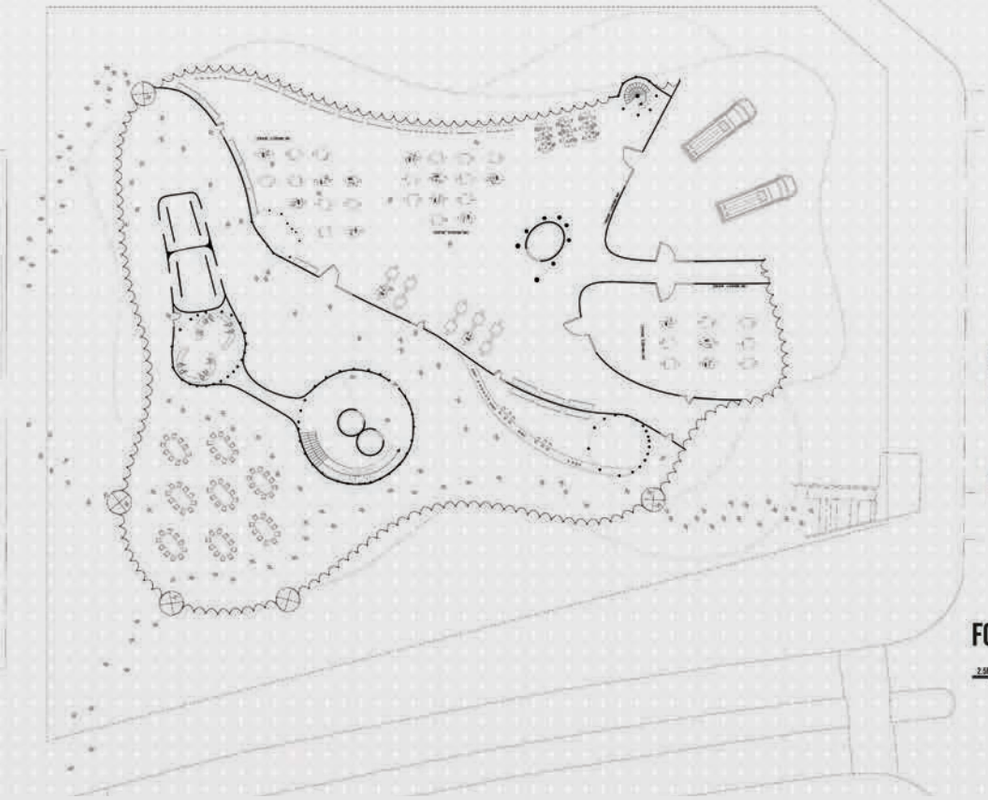


F1-4M

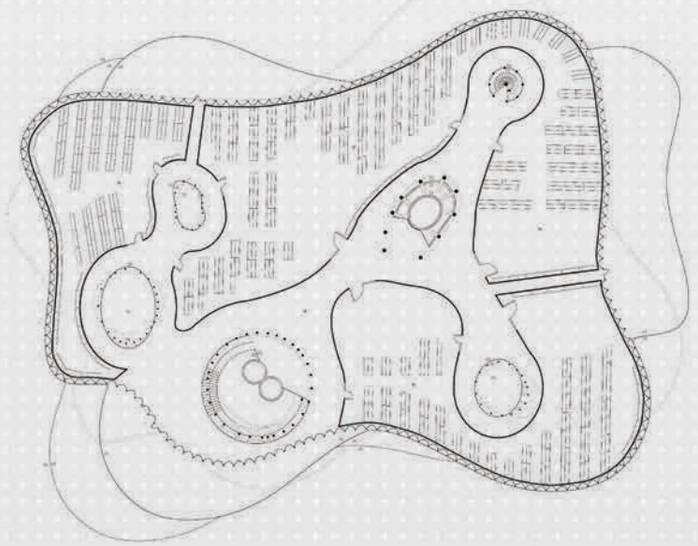
F4-20M



F3-14M



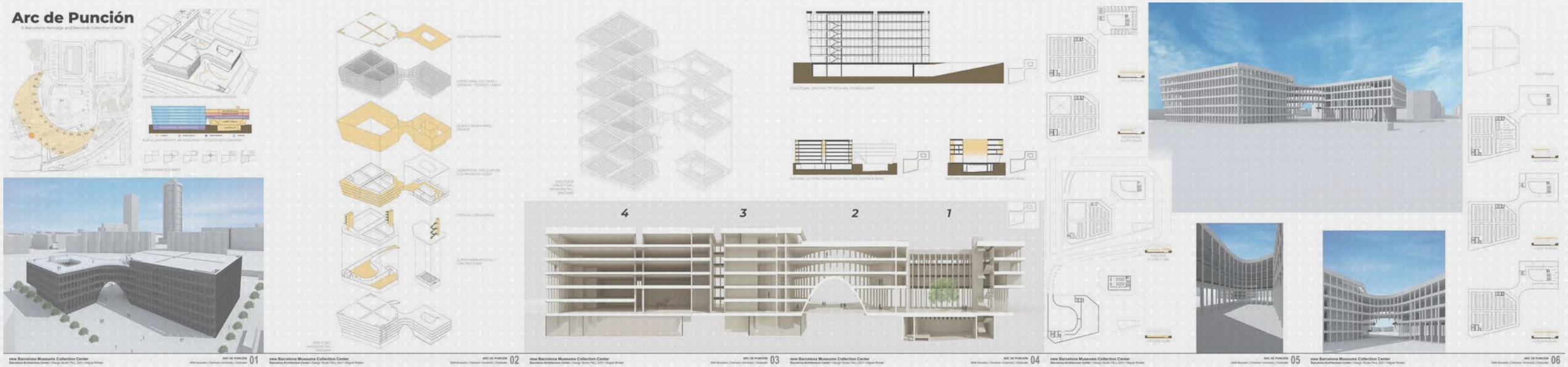
F0-0M



F2-8M

ARC DE PUNCION

Matt Bourean, Clemson University, Architecture Undergraduate



Public return and engagement were the main drivers for this building. It is, after all, a National Archive of Spain, and its peoples. This is achieved by eliminating any volumetric forms at the corners where pedestrians are most likely to approach the site. By pinching and pulling the building in by two of its corners, it creates the opportunity for public/ pedestrian plaza spaces to develop on the ground level.

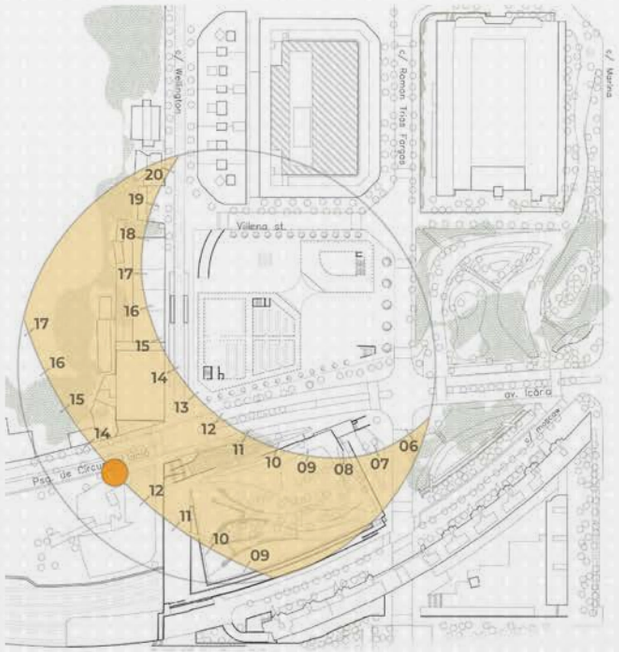
The puncture through the geometry of the design, via the archway, connects the two public plazas not only physically but visually as well, while also nodding to Spain's rich history of arches dating back to Roman times.
The building program also incorporates public involvement by way of an auditorium spaces, exhibition area, reception hall, and rooftop terrace that can be accessed by public.

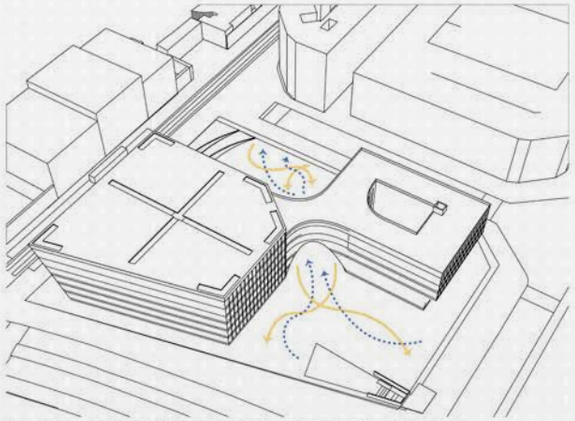
By breaking the geometry into two masses, a larger and smaller one respectively, the program can be divided easily between the volumes. The larger, taller one contains the archies and research labs and loading areas. The smaller volume contains the satellite support like the worker's offices, conference rooms, exhibition space and auditorium within the smaller volume.

A courtyard is at the heart of the smaller mass and extends throughout all levels to allow natural light to enter the worker's workspaces. The void of the courtyard creates a vertical garden and connection between the green terrace on the roof and the lobby and plaza spaces at grade. The design decision to put opaque material on the southern facing corner was a reaction to solar diagrams and sun analysis to keep interior temperatures down and act as a sunshade technique.

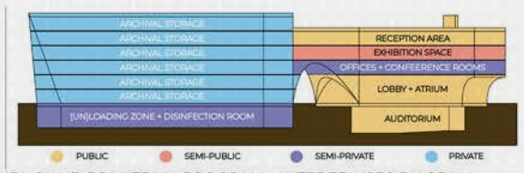
Arc de Punción

A Barcelona Hertiage and Records Collection Center

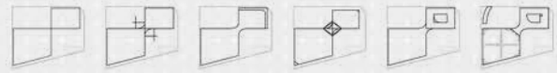




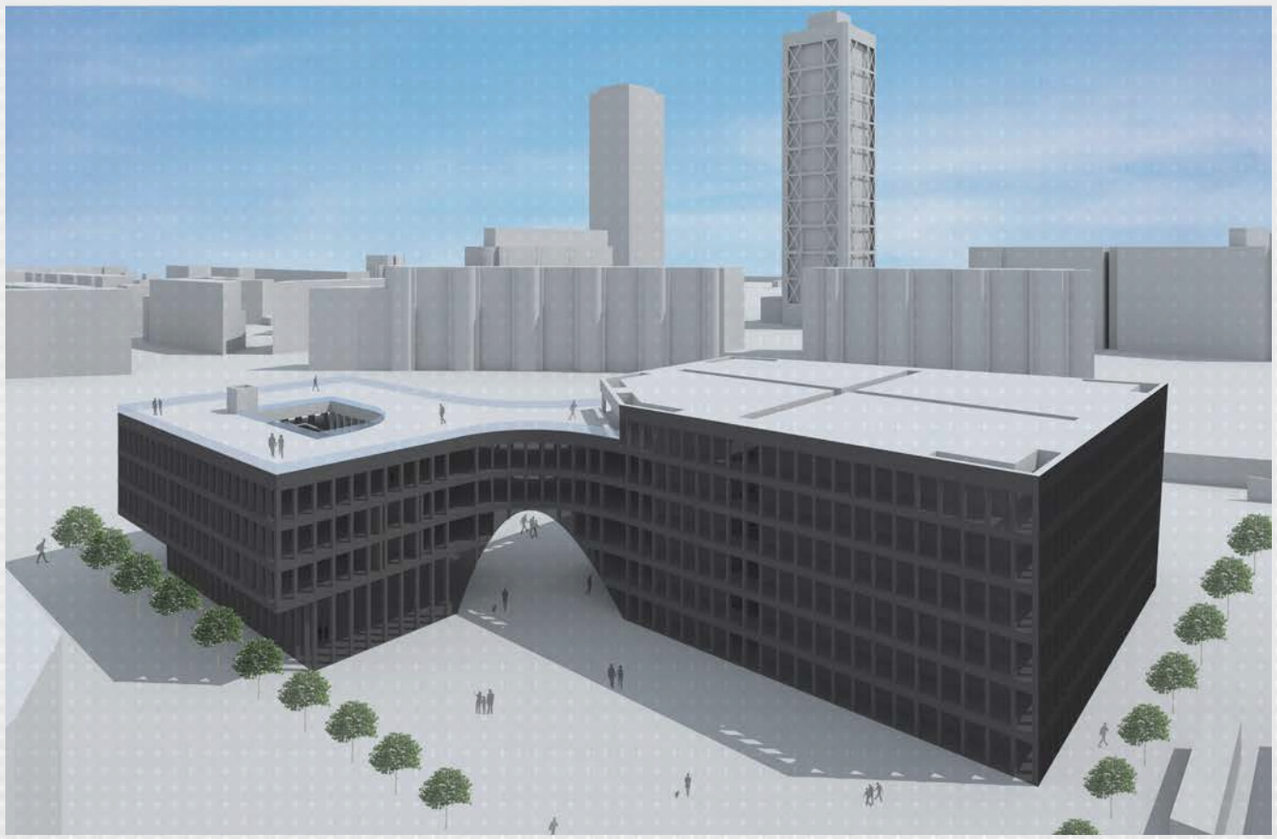
INGRESS + EGRESS ON SITE FROM SURROUNDING CONTEXT

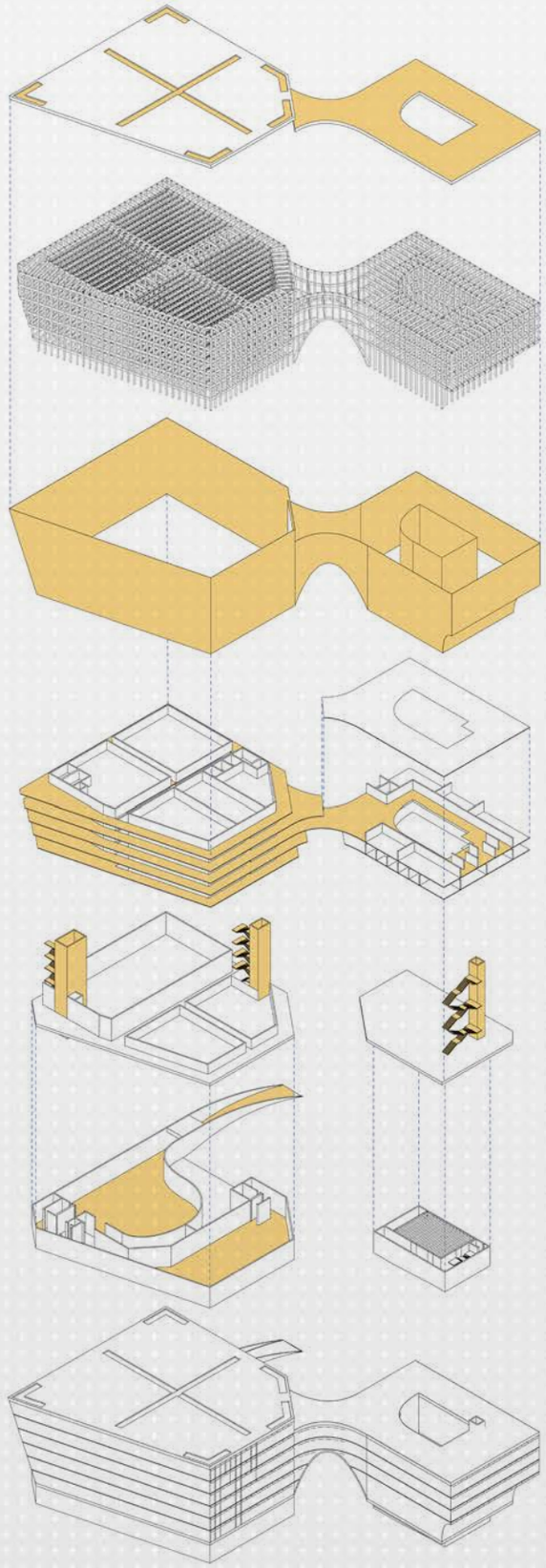


PUBLIC AND PRIVATE VIA PROGRAM + INTEDED USES DIAGRAM



DESIGN PROCESS PARTI





ROOF SKYLIGHTS + TERRACE

STRUCTURAL COLUMNS + GIRDERS + TRUSSES + ARCH

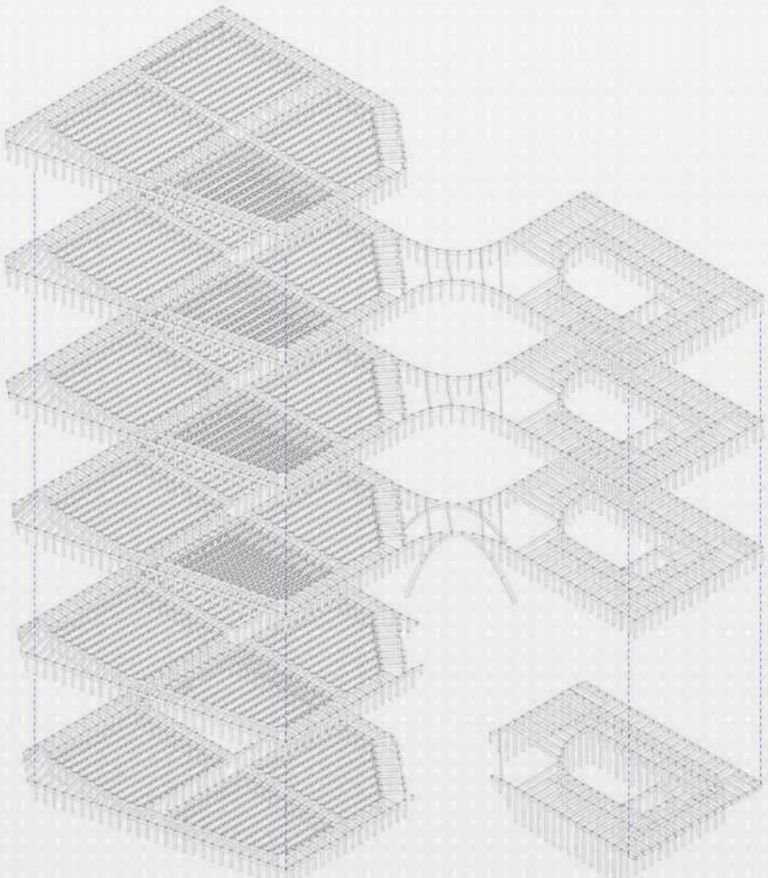
GLASS CURTAIN-WALL FACADE

HORIZONTAL CIRCULATION BOX INSIDE-OF-A BOX

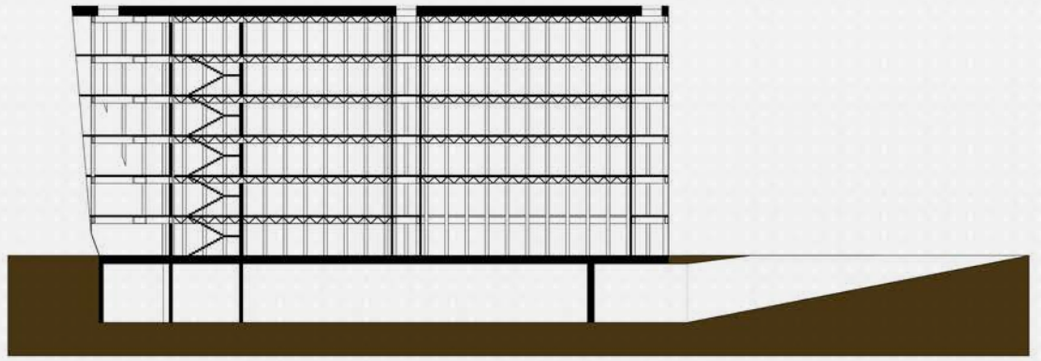
VERTICAL CIRCULATION

SUBTERRANEAN LEVEL + LOADING ZONE

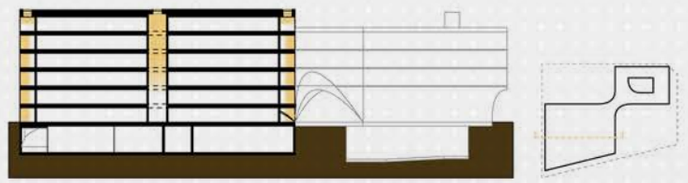
EXPLODED AXONOMETRIC DIAGRAM



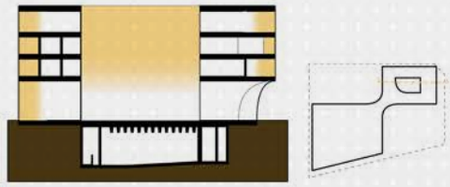
EXPLODED STRUCTURAL AXONOMETRIC DIAGRAM



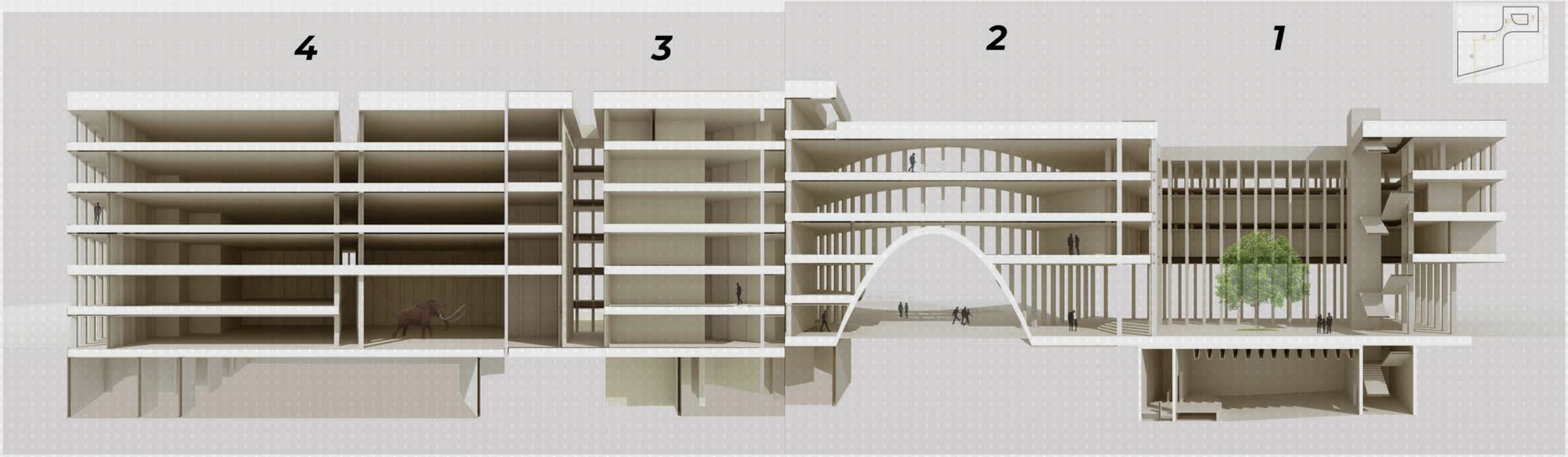
STRUCTURAL DIAGRAM OF ARCHIVAL STORAGE WING

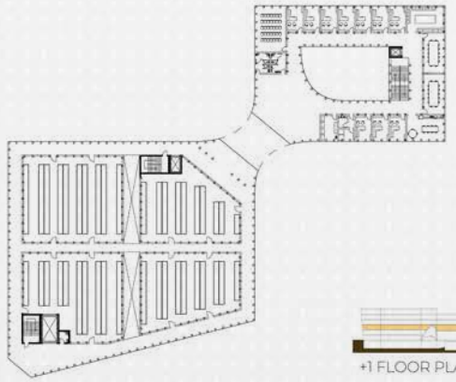


NATURAL LIGHTING DIAGRAM OF ARCHIVAL STORAGE WING

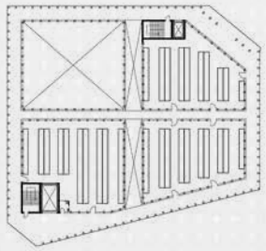


NATURAL LIGHTING DIAGRAM OF SATELLITE WING

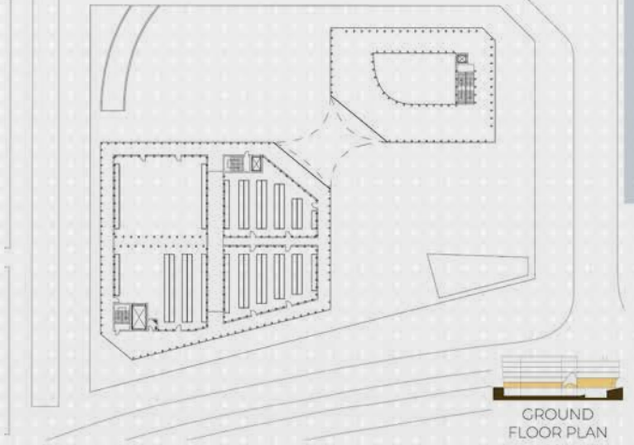




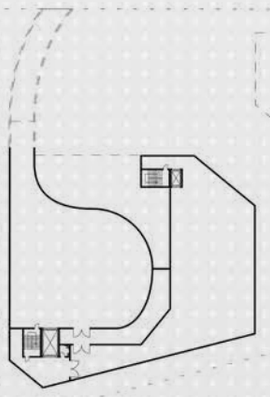
+1 FLOOR PLAN



MEZZANINE
FLOOR PLAN



GROUND
FLOOR PLAN



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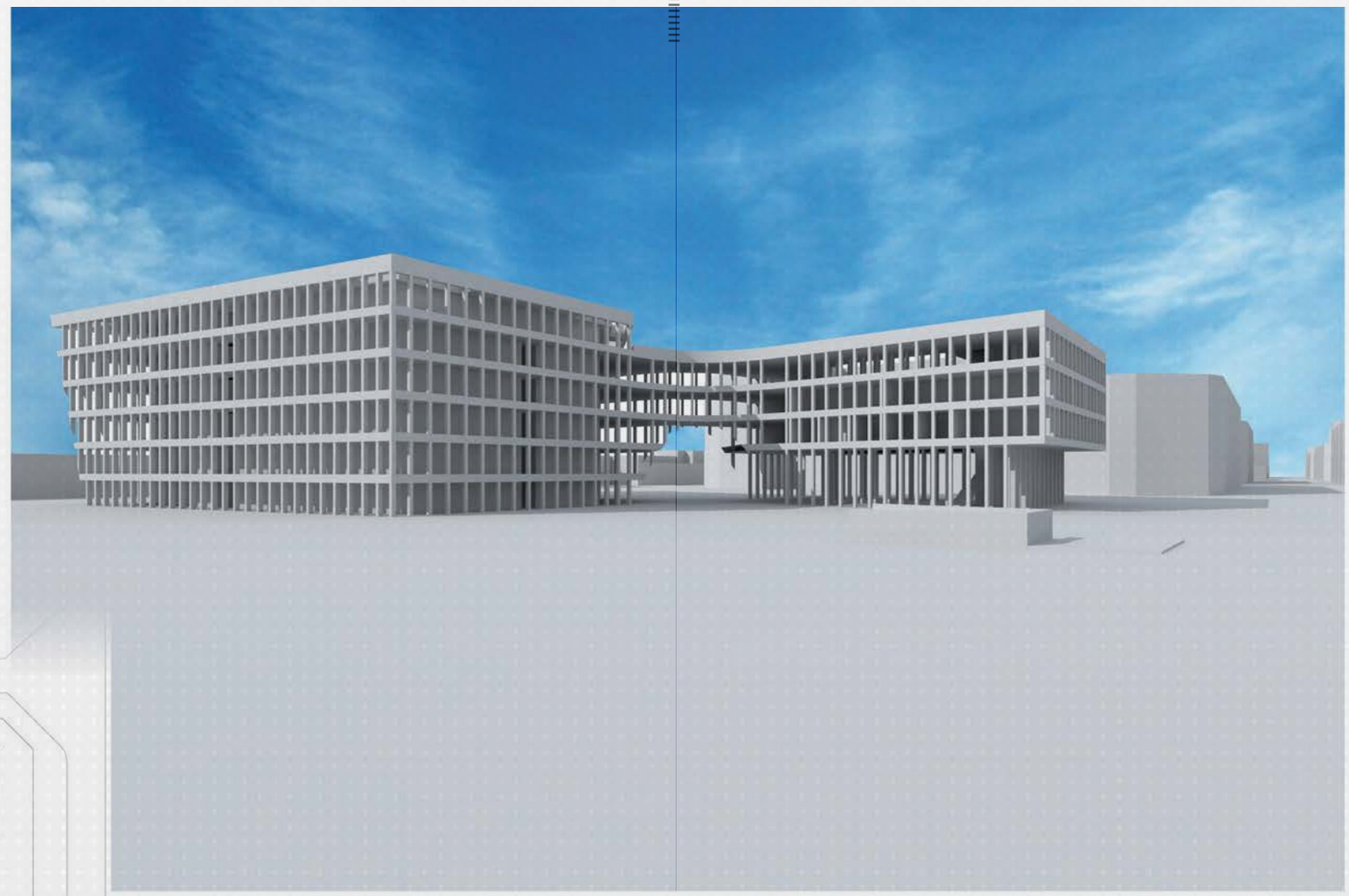
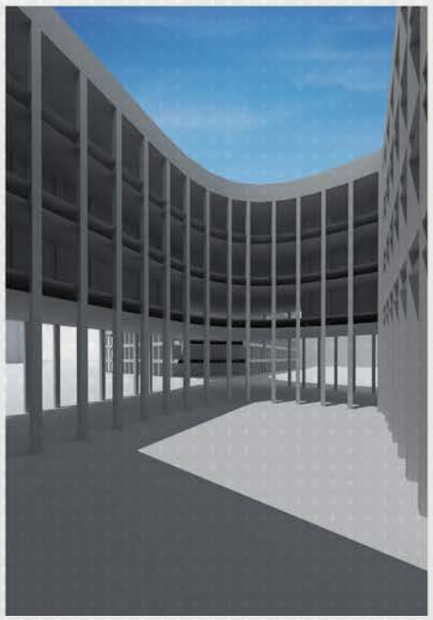
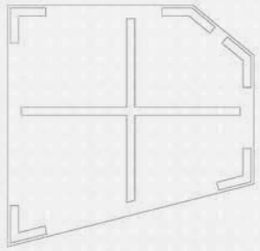
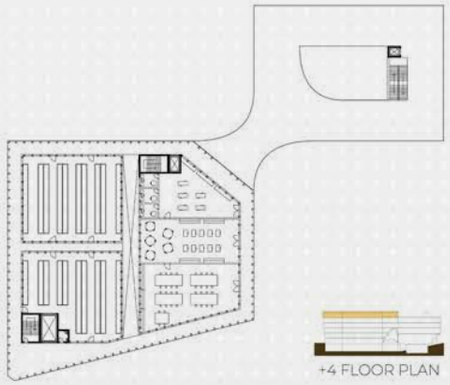


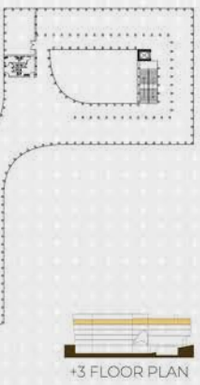




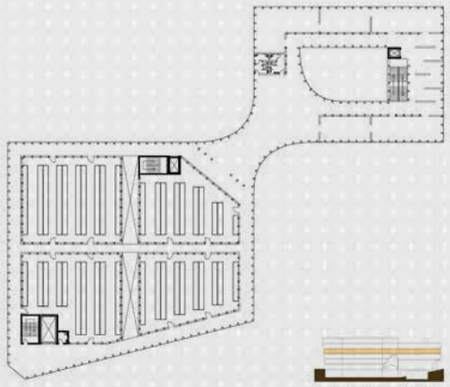
ROOF PLAN



+4 FLOOR PLAN



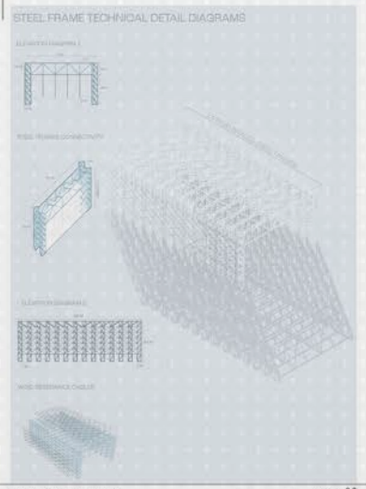
+3 FLOOR PLAN

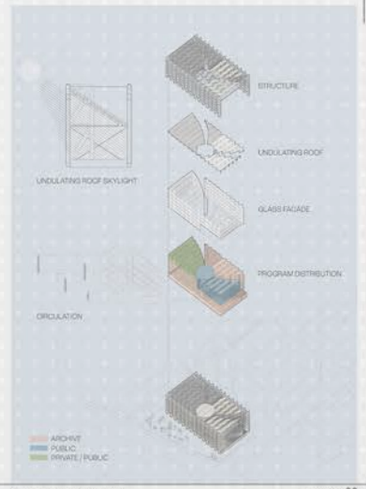


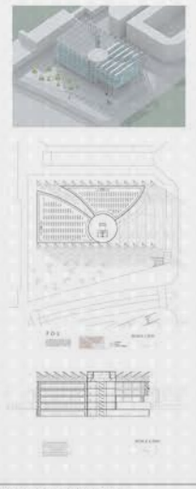
+2 FLOOR PLAN

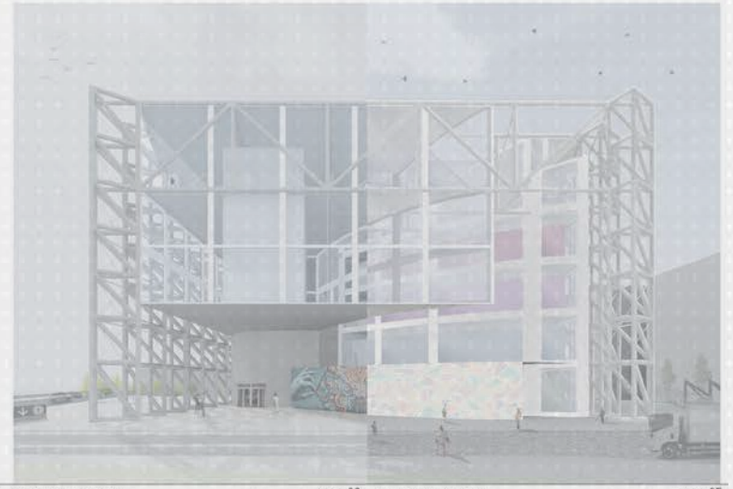
CAIXA CLARA

Mia Robison,Texas A&M University, Architecture Undergraduate
Angela Rodriguez,Texas A&M University, Architecture Undergraduate









Since its original founding as the Roman colony Barcino in the late 1st century, Barcelona has taken on many motifs around the city. Whether it's the blocks of L'Eixample being repeated and reimagined throughout the city's urban planning, or something as small as Gaudi's mosaic tiles seen around major tourist spots, these are elements that make up the identity of the city. Gaudi's hexagonal mosaic tiles, which come together to create a spiral pattern, became the inspiration for the massing of the building. It implements the pattern, which creates spaces that are easily definable and meet in a central point for access and circulation.

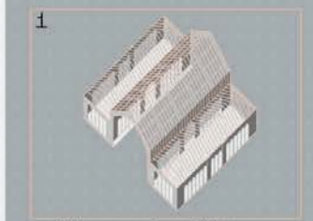
To confront the task of making a building that included very private protected spaces as well as public social return, we chose a glass facade so visitors could enjoy the exhibitions and activities on the interior, while also having views of the surrounding area of the site.

Archives are then to be kept in "boxes." surrounded by hallways filled with natural light coming through the glass-facade. Because of the building's program requirements and its form, an exterior load-bearing structure is necessary, to free the space for archive, offices, and public use. A double height steel truss structure spans from the southeast to northwest facades, consisting of a total of 14 rigid-braced steel frames.

These frames connect cables that are responsible for bearing the weight of the floor slabs, enabling us to free the ground floor from any structure. To maximize natural light in the building, the structural system allows the use of a glass facade and the roofing system allows for skylights on the top floor. Our building then forms part of the family of structural buildings in the surrounding area. These buildings include, Hivernacle del Parc, Umbraculo de Parquea, and the Estacion de Francia. Together these buildings, including the new museum's collection center, define the built environment of the area.

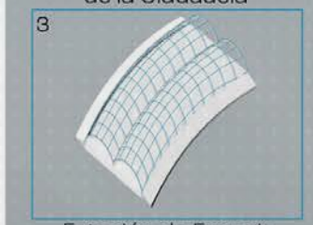
CAIXA CLARA

BARCELONA MUSEUMS COLLECTION CENTER

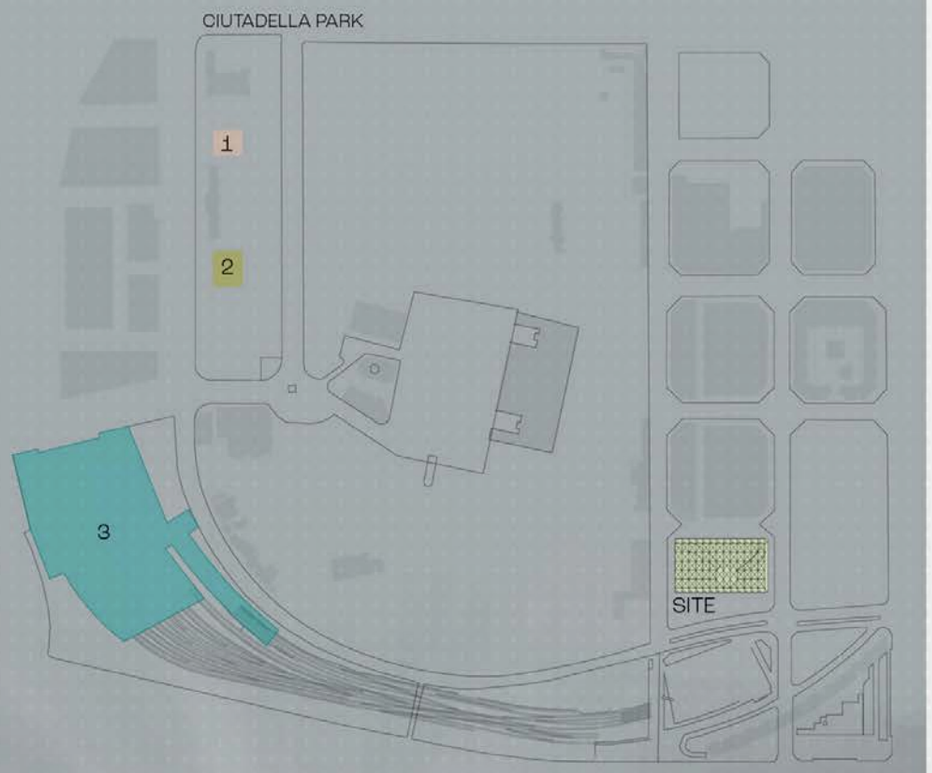


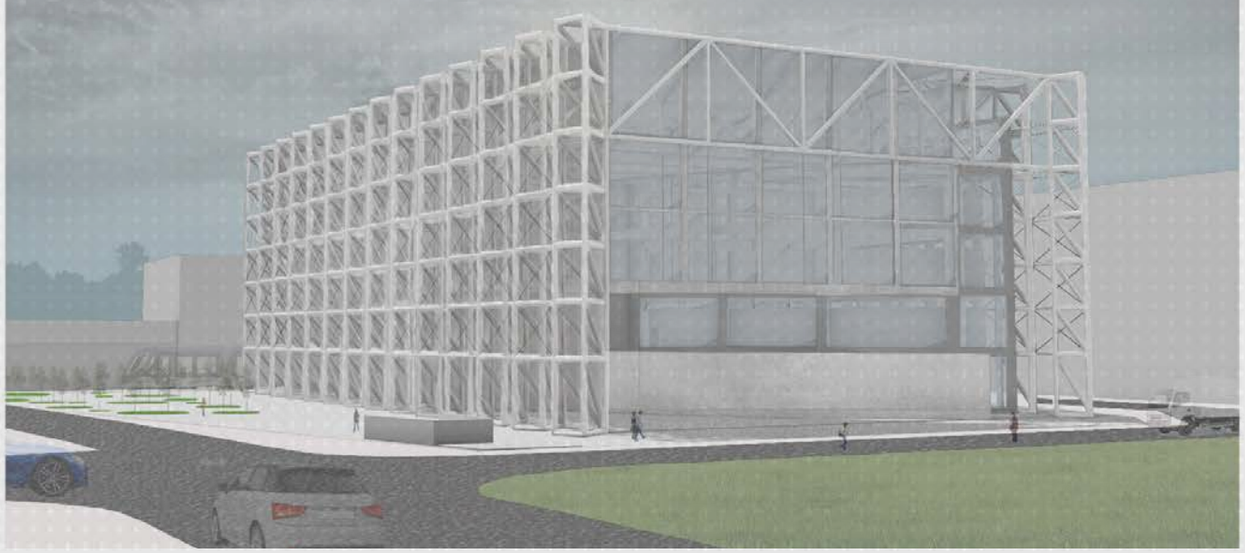
Hivernacle del Parc
de la Ciutadella

Umbráculo del Parque
de la Ciudadela



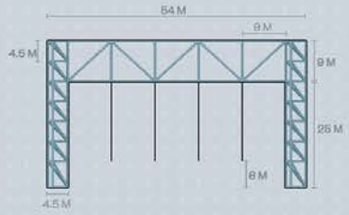
Estación de Francia



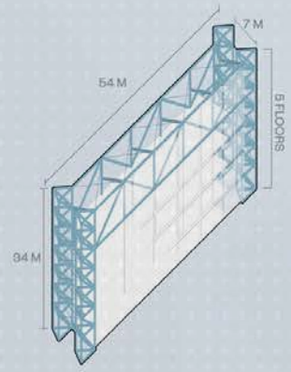


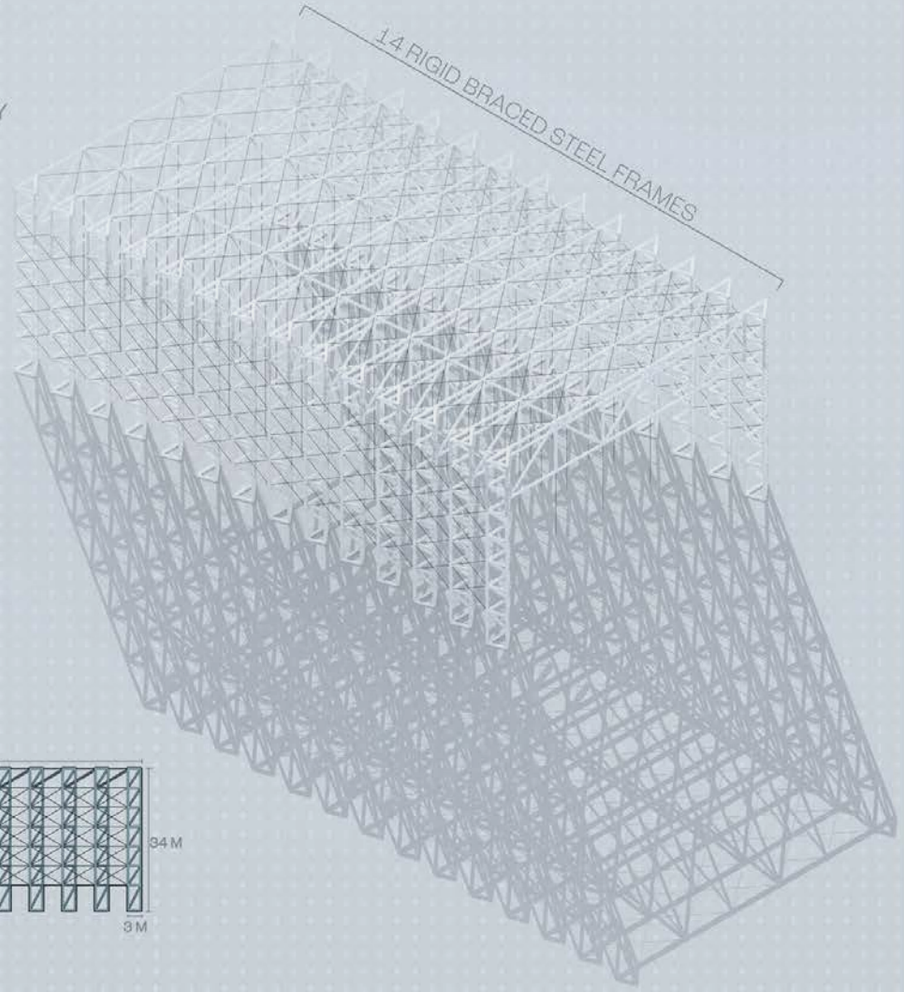
STEEL FRAME TECHNICAL DETAIL DIAGRAMS

ELEVATION DIAGRAM 1

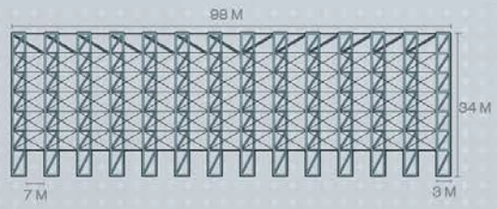


STEEL FRAMES CONNECTIVITY

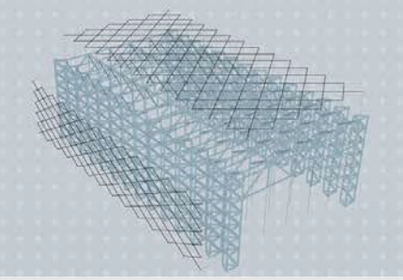


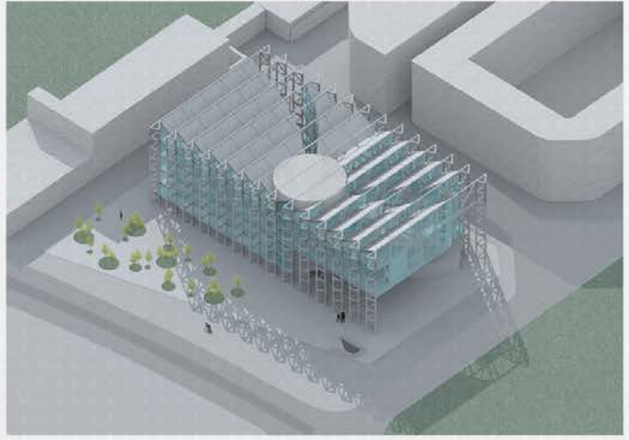


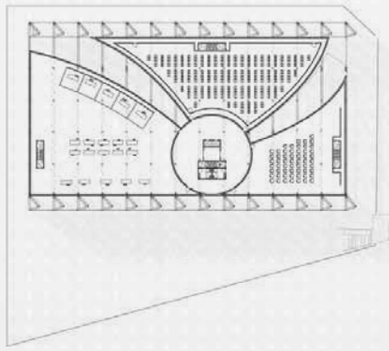
ELEVATION DIAGRAM 2



WIND RESISTANCE CABLES

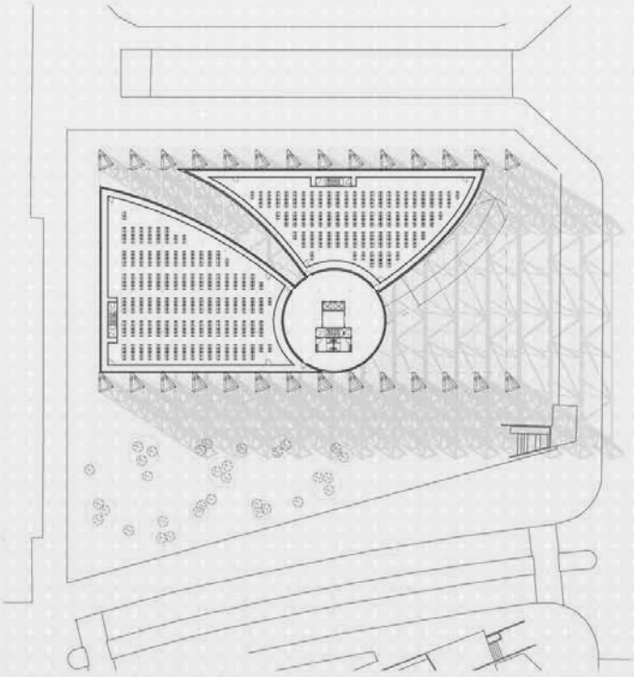






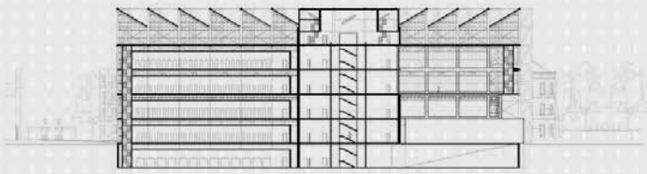
F 4

SCALE 1:500



F 0-1

SCALE 1:500



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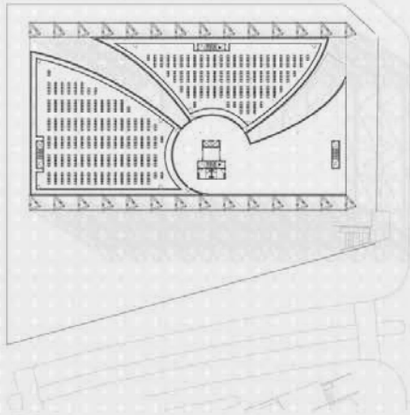
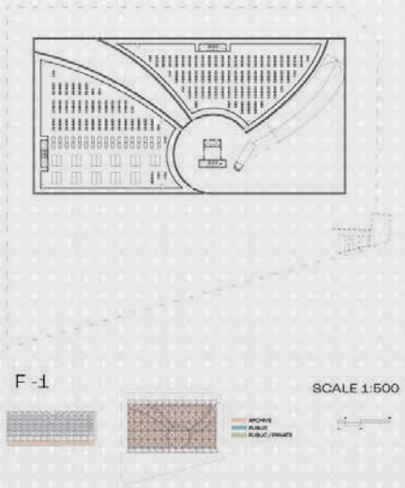


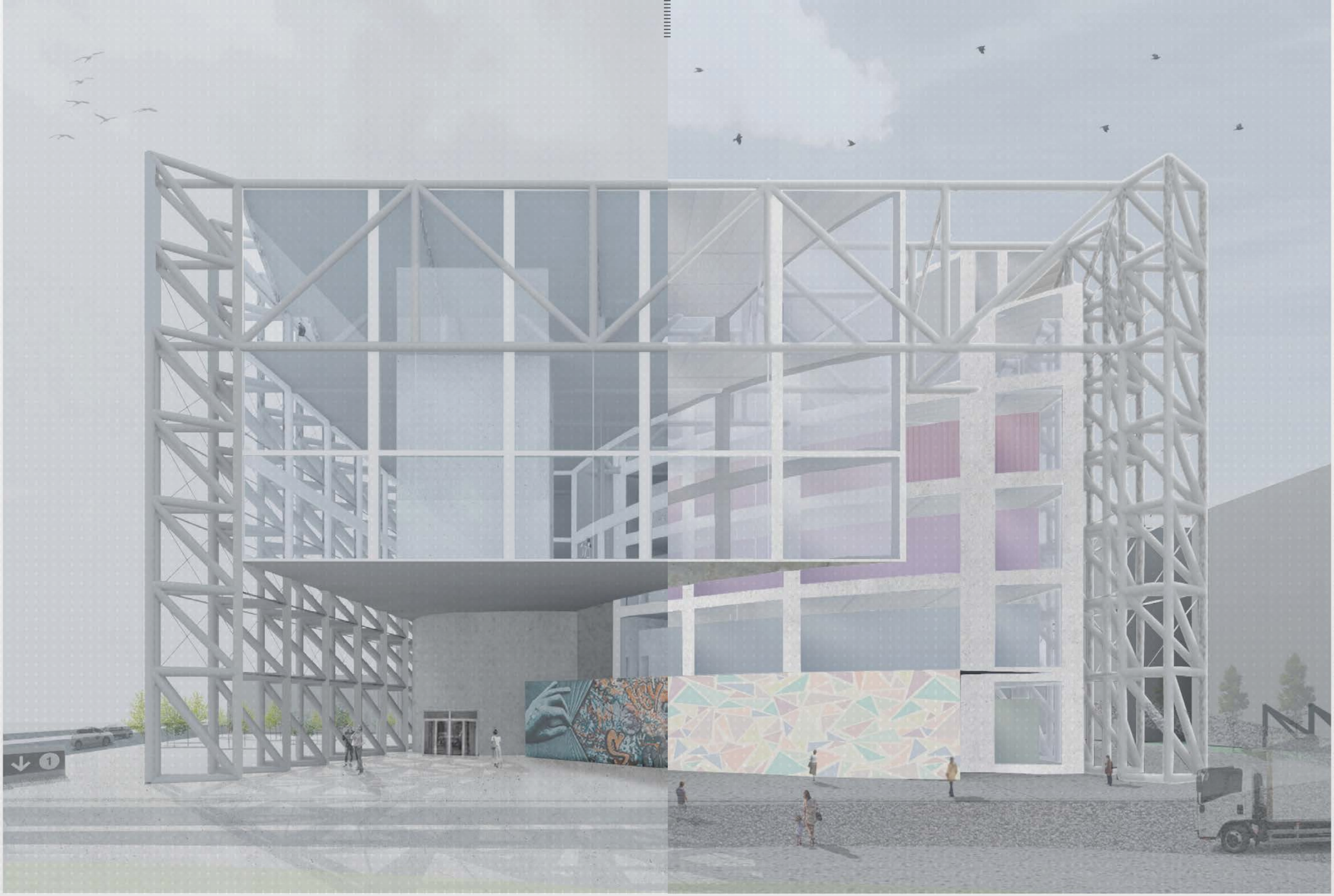
F 2-3

SCALE 1:500



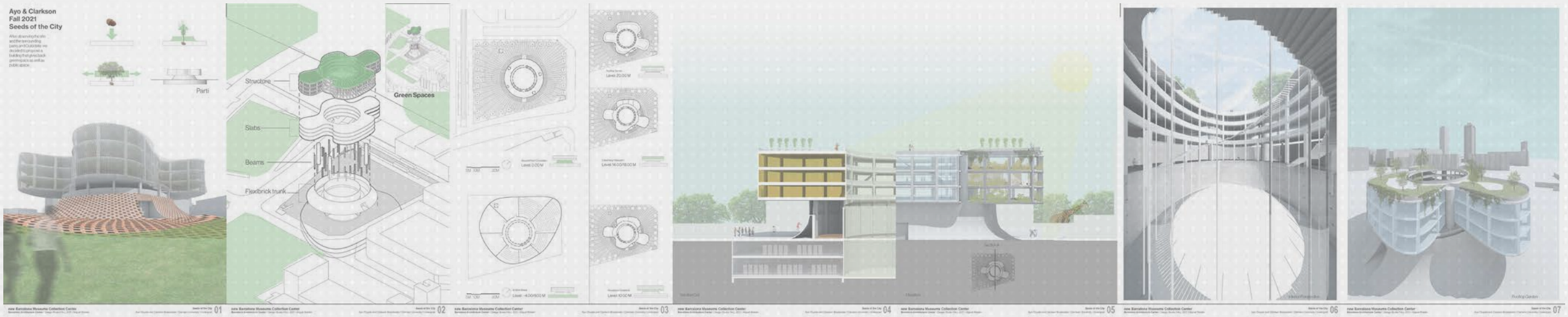
F -1

SCALE 1:500



SEED OF THE CITY

Ayo Otuyalo Clemson University, Architecture Undergraduate
Clarkson Broadwater,Clemson University, Architecture Undergraduate



An important factor of the city of Barcelona is its focus on the pedestrian infrastructure, this can be observed throughout the Ensanche blocks, with the expansion of sidewalks and an emphasis on a walkable city. Also included in this infrastructure are a series of green spaces which provide people with a space for physical activity and an escape from the noise of the city, traffic, better air quality, and a space for meeting within the community. After observing the green spaces surrounding our site we sought to create an archive that gives back to the city by addressing these benefits.

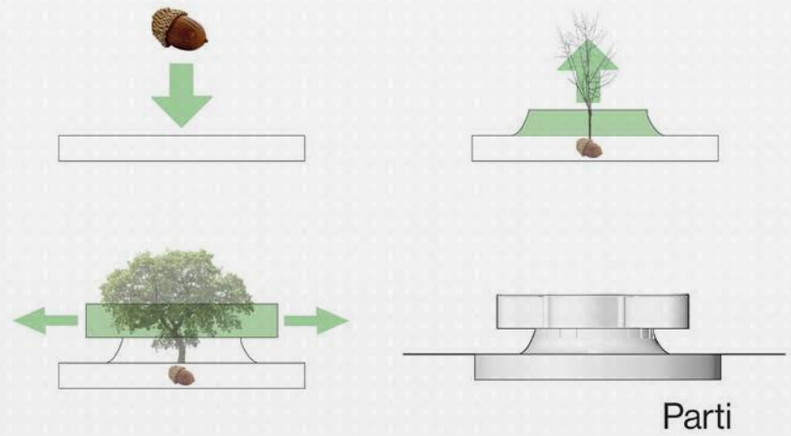
We created an archive that gives back green space, as well as public space with the introduction of a public park which promotes movement from the nearby university and the metro stop located on the site. As well as connection with the tram and Ciutadella park. The sustainability of our archive was an important factor in our design so also included is a rooftop garden which will be maintained through a self-sustaining system of hydroponics. One of the main features of our building is a large central space on the ground floor which facilitates circulation and serves as a display area for archives, which can be seen from floor to floor as one circulates around the building. Also important in our design was the continuation of curvilinear forms, which can be seen throughout the tectonics of the design, continuing from the division of the floor plans all the way to the circulation around the building's main core.

Another important aspect of our archive was creating views that connect to the surrounding context. We achieved this by creating cantilevering the forms in which the offices will be located in order to provide views for both the public and private utilizers of the building. In order to achieve this cantilever, we focused on creating a structure that would heighten the building's rigidity.

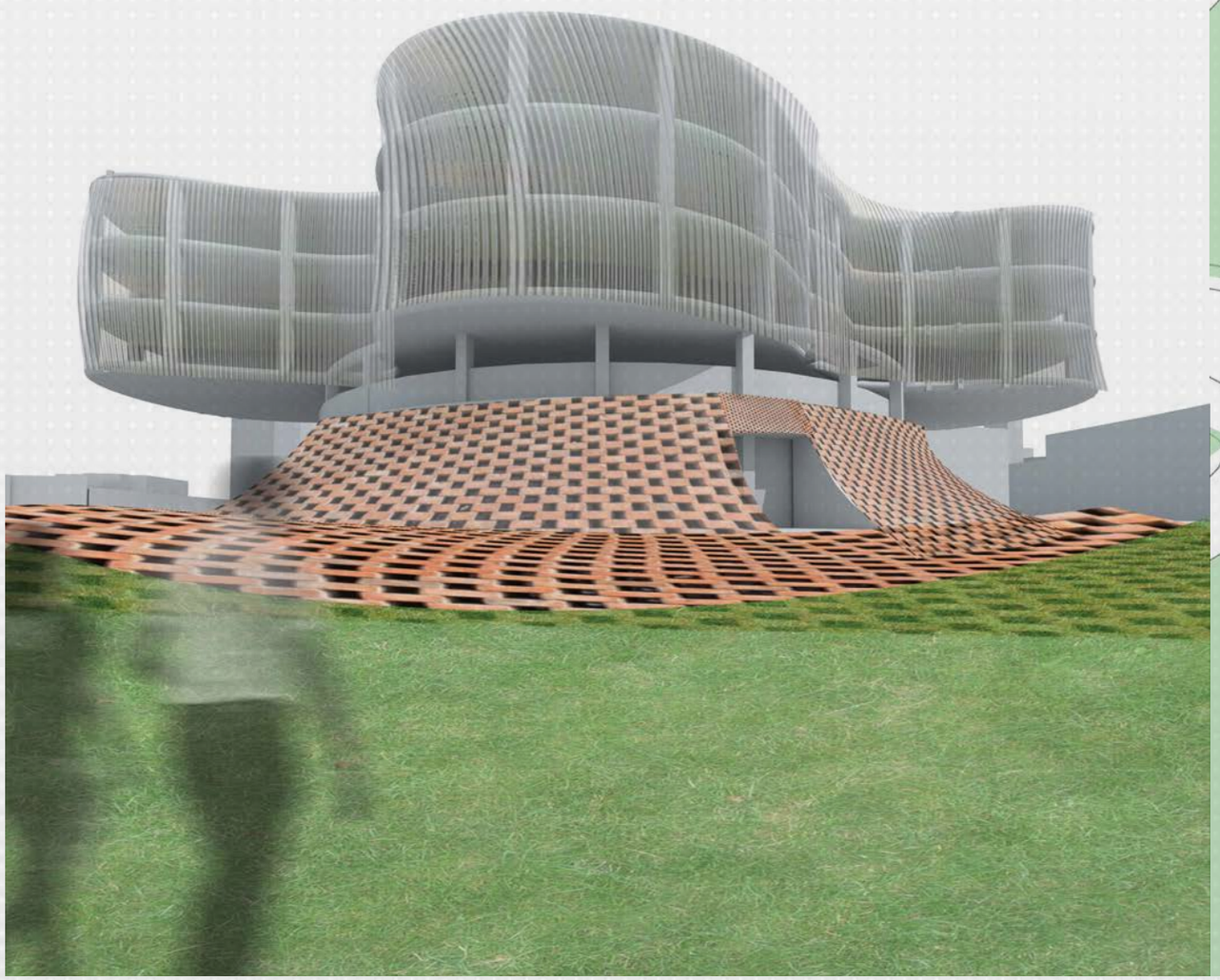
Our focus is to create a building whose archival space is located underground, with public space that grows upwards from it, similar to the growth of a tree. With this project we are planting the seeds for the future growth and development of the city and contributing to the long term sustainability goals of Barcelona.

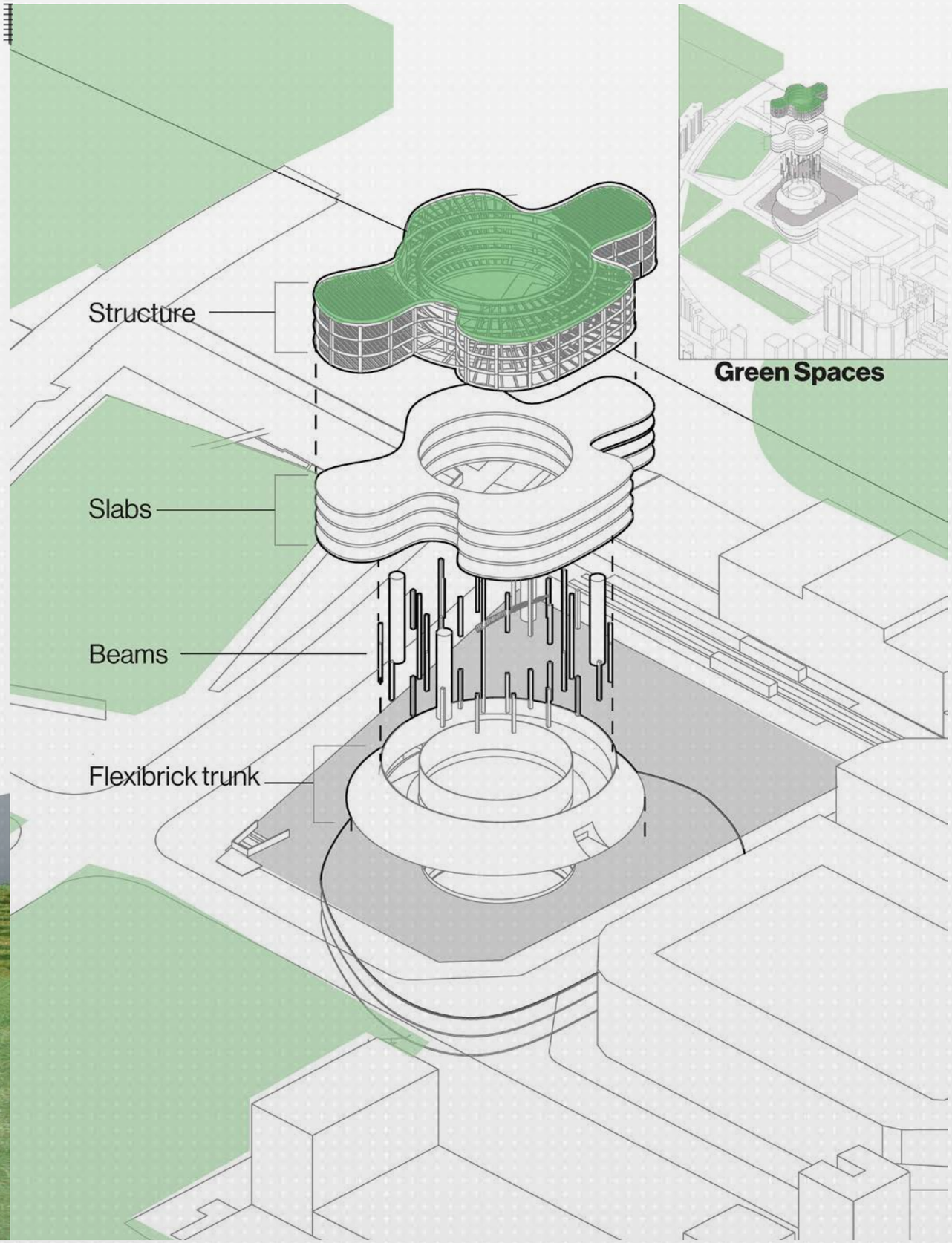
Ayo & Clarkson
Fall 2021
Seeds of the City

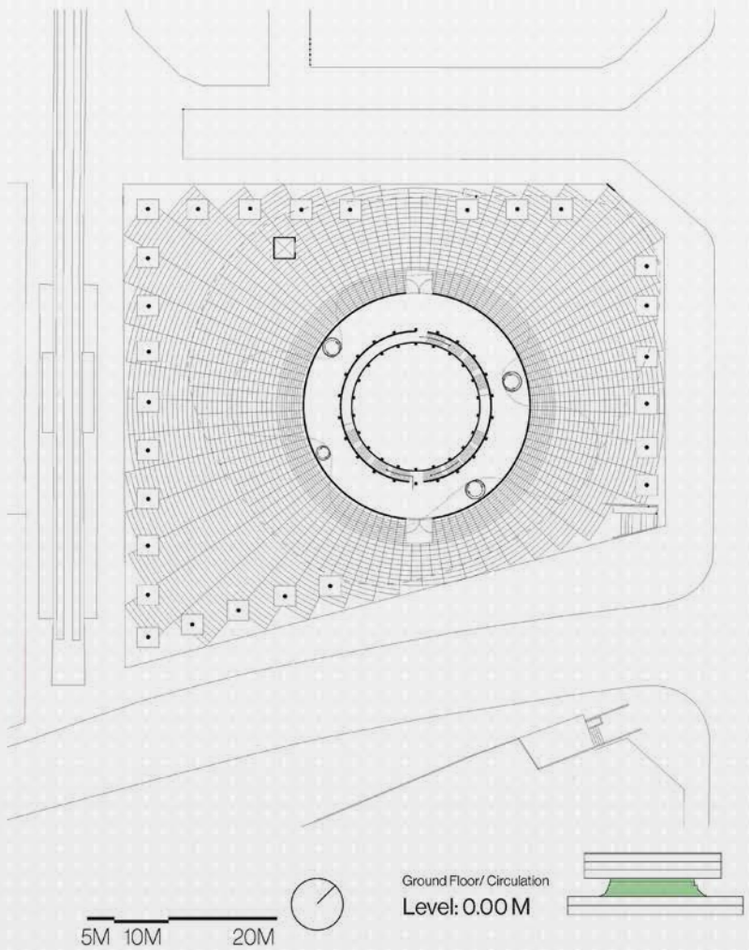
After observing the site and the surrounding parks and Ciutadella we decided to propose a building that gives back green space as well as public space.



Parti

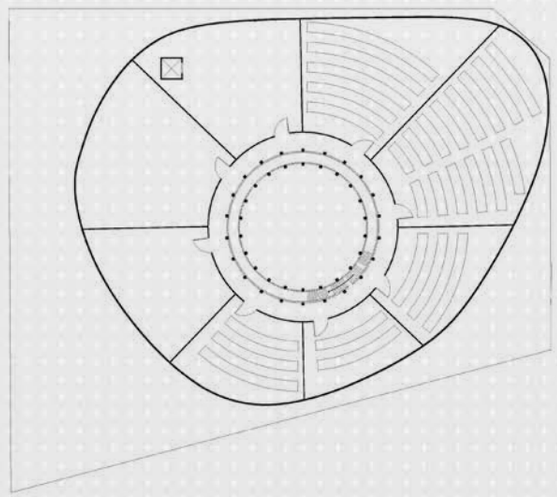




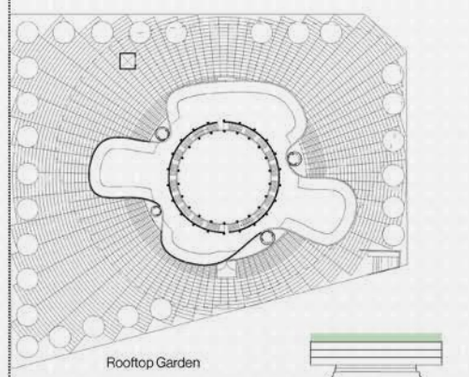


5M 10M 20M

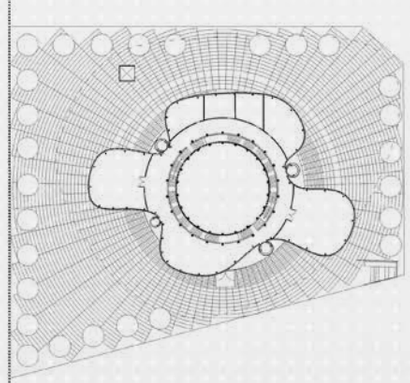
Ground Floor/ Circulation
Level: 0.00 M



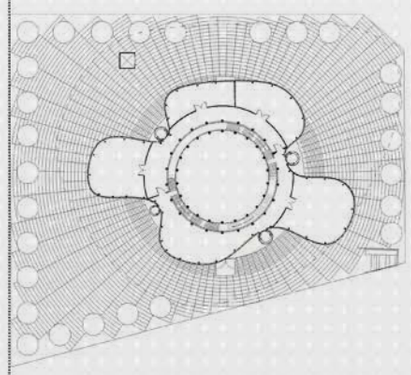
Archive Space
Level : -4.00/800 M



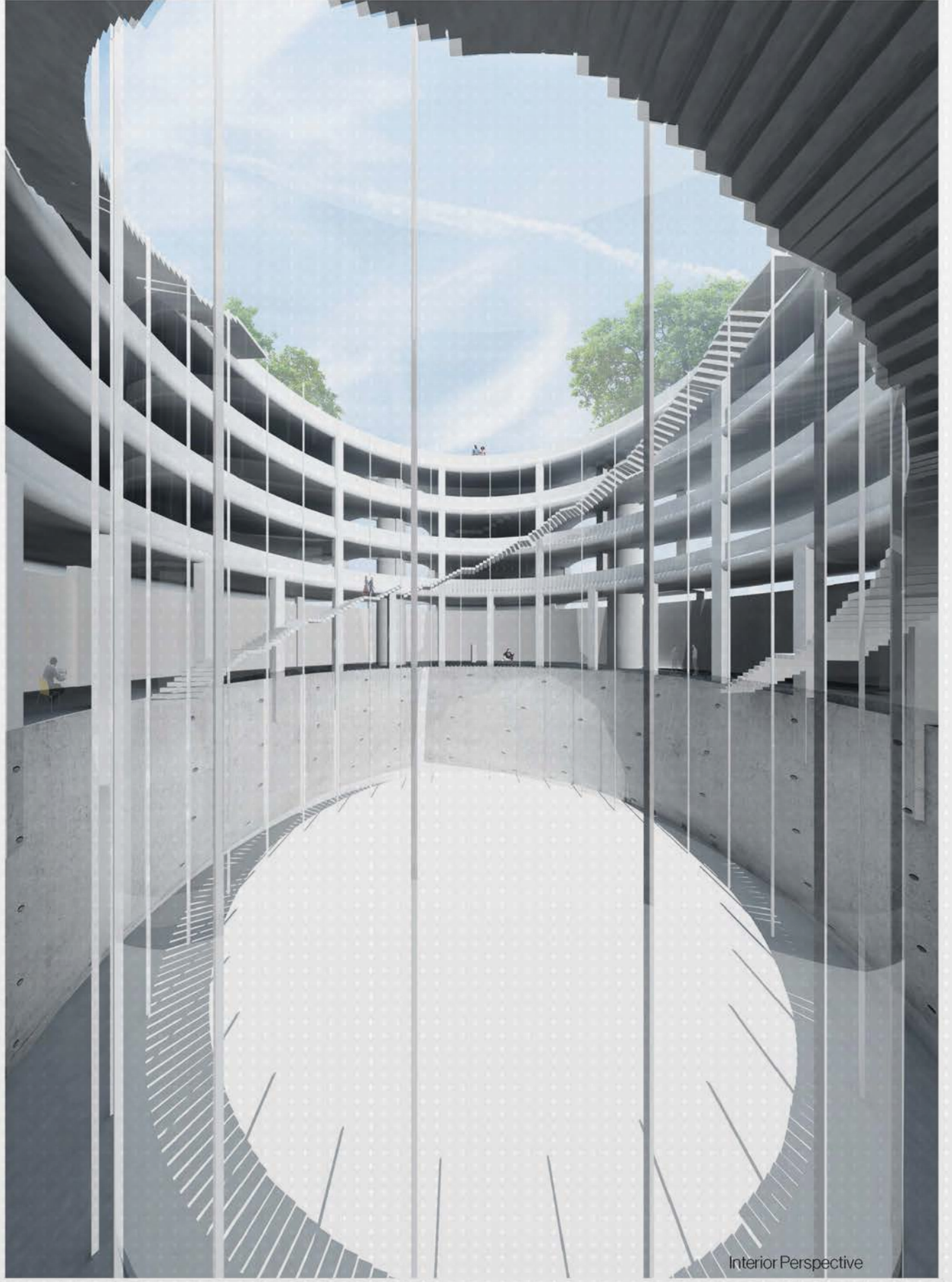
Rooftop Garden
Level: 20.00 M



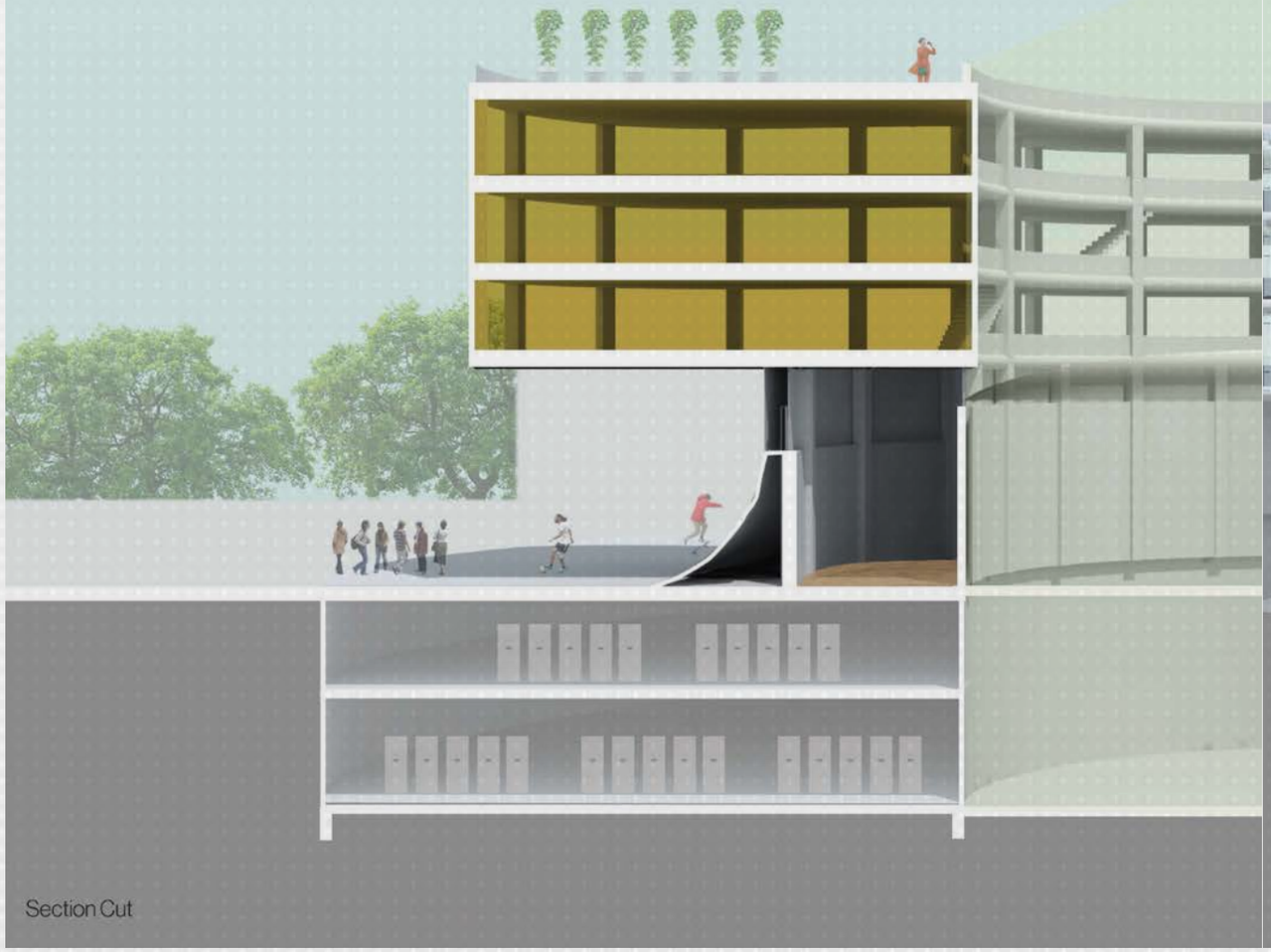
Coworking/ Research
Level: 14.00/18.00 M



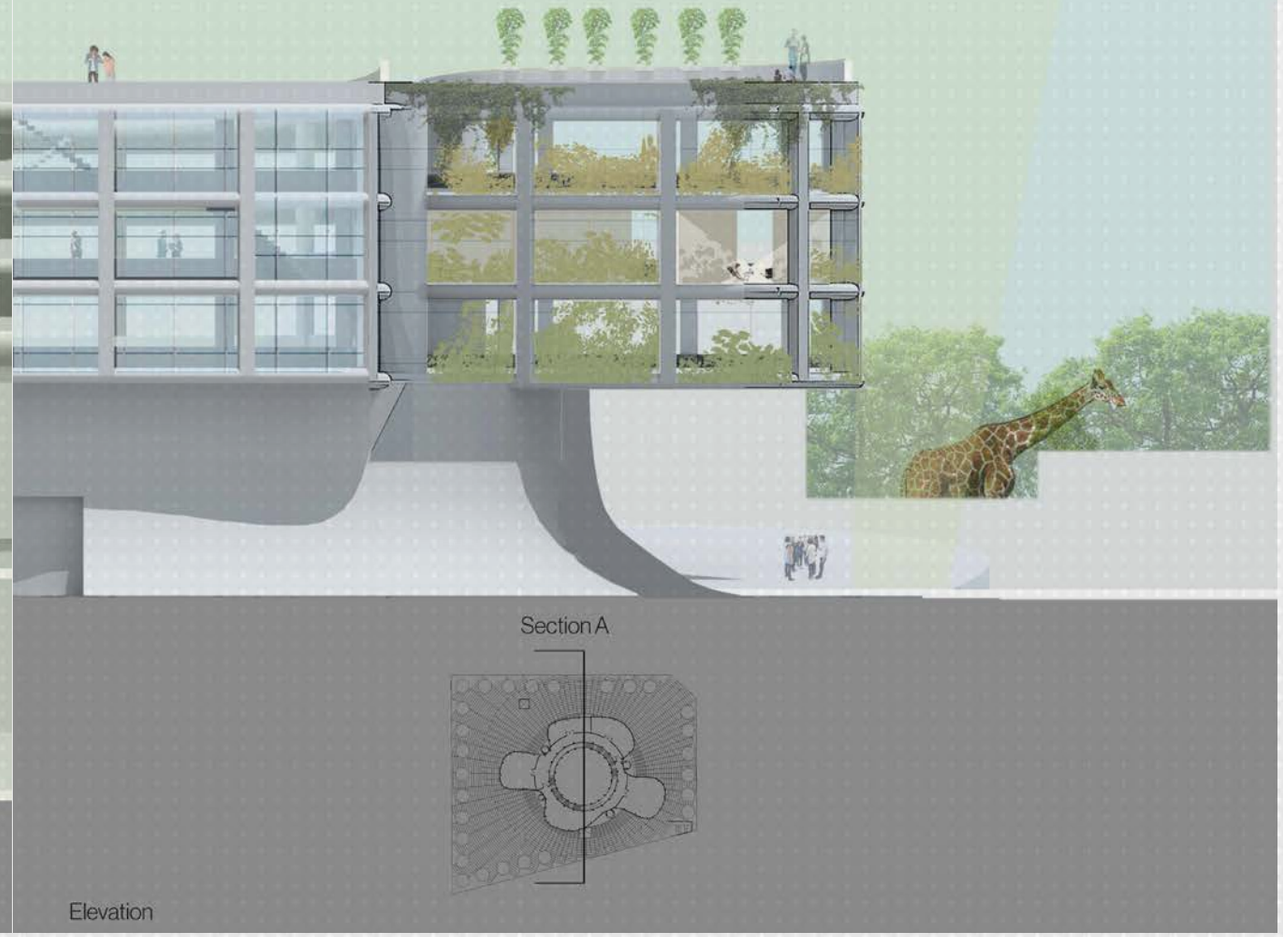
Reception / Exhibition
Level: 10.00 M



Interior Perspective



Section Cut

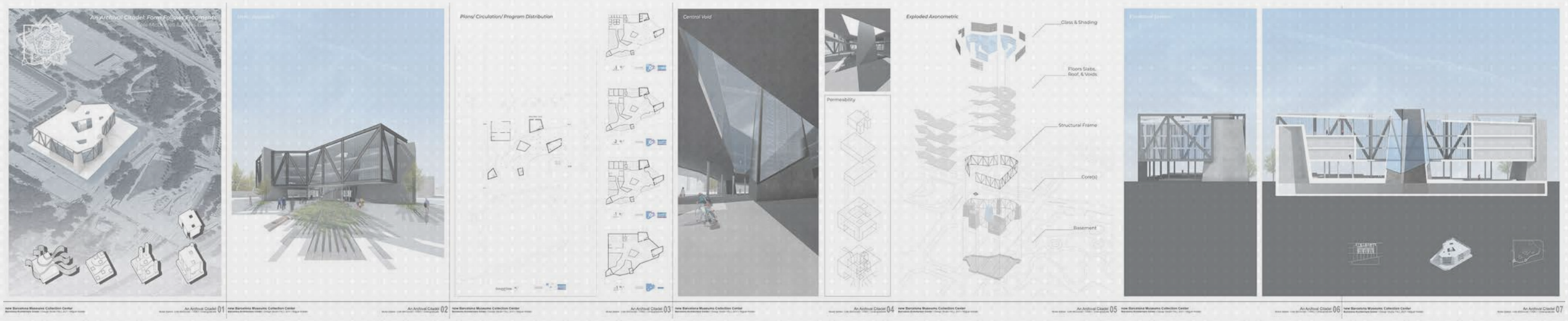


Section A

Elevation

AN ARCHIVAL CITADEL

Myles Barker,Texas A&M University, Architecture Undergraduate
Cole McDowell,Texas A&M University, Architecture Undergraduate

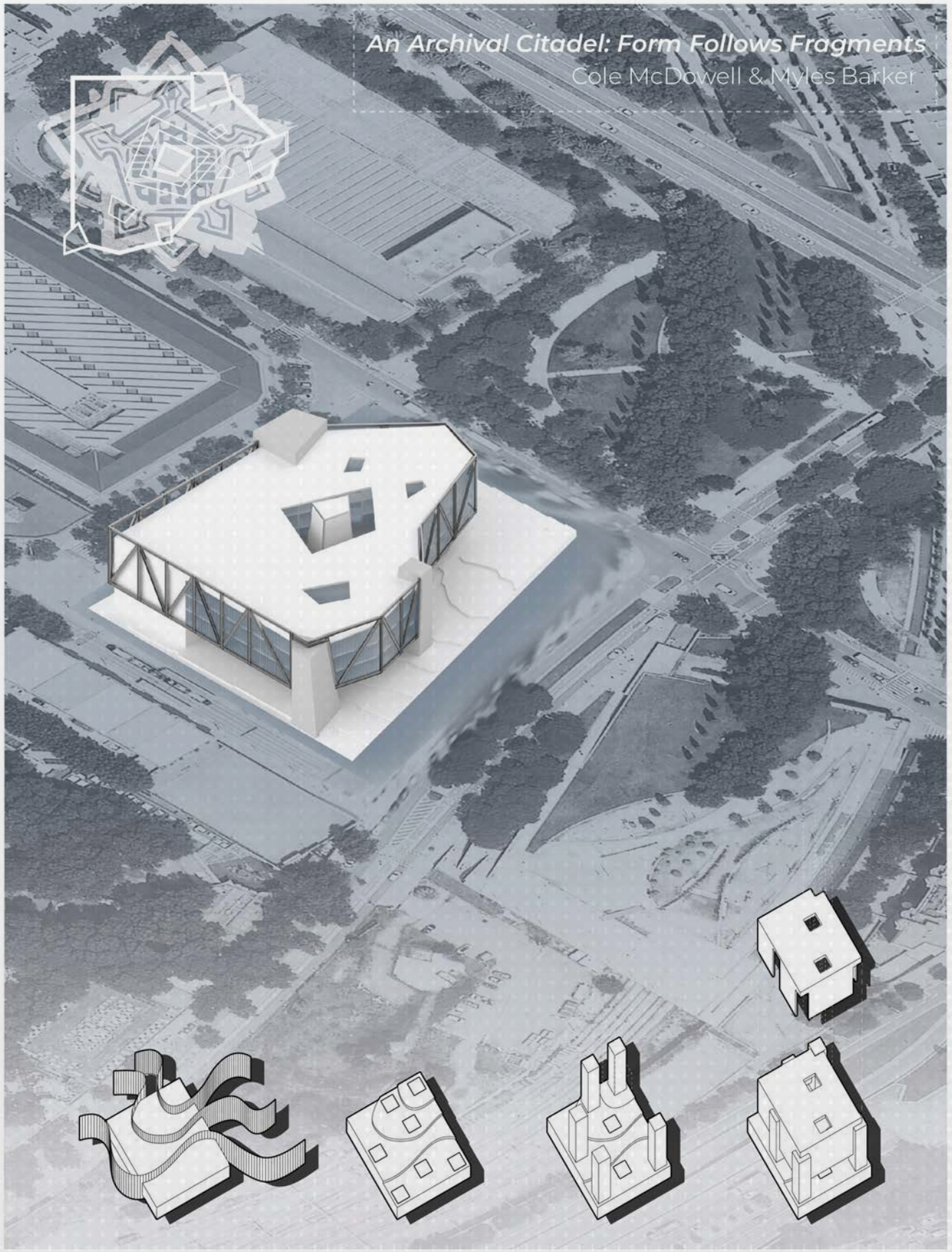


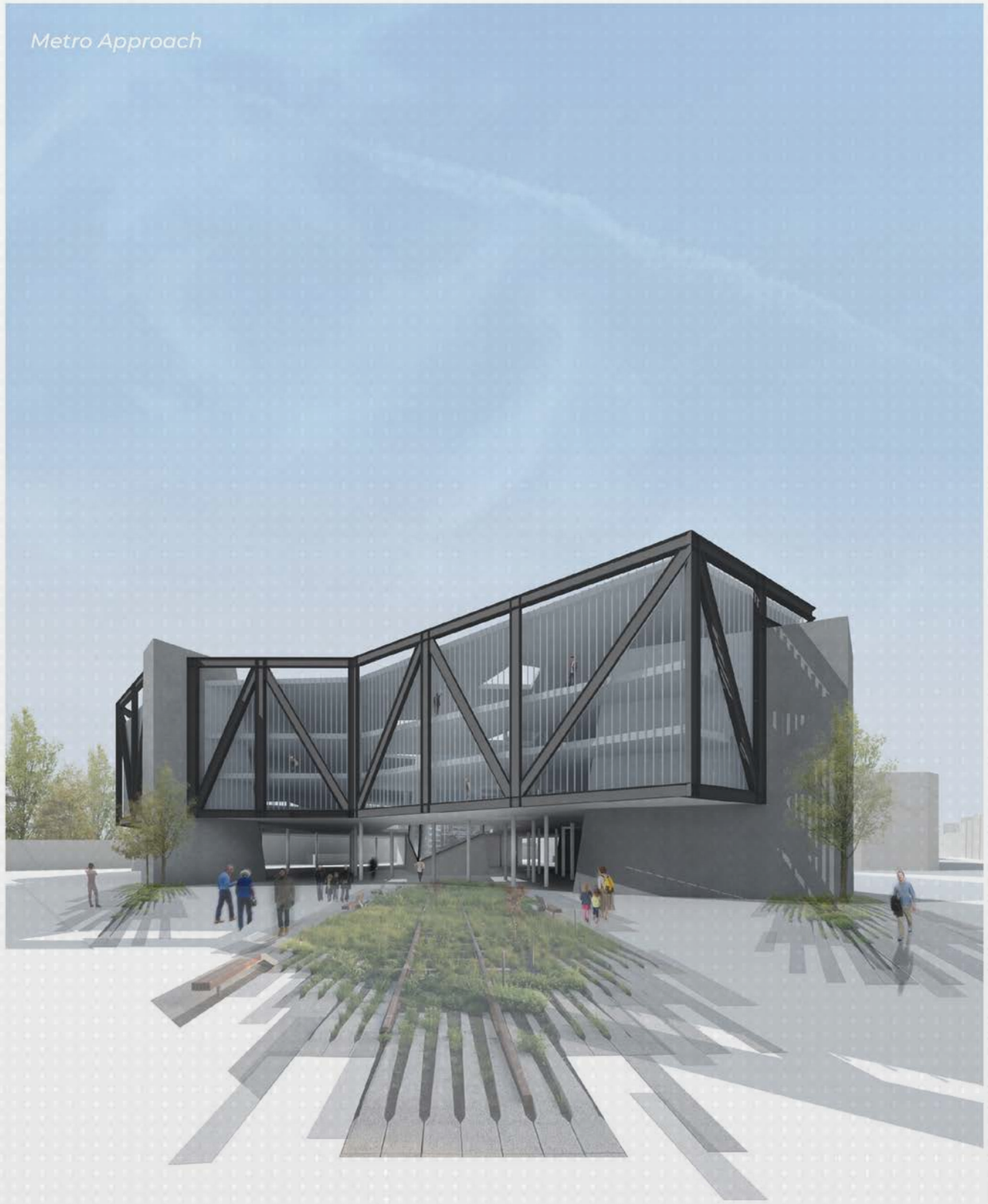
An Archival Citadel pays homage not only to Barcelona, but to our travels throughout Spain over the course of the semester as well. A prioritized concept of the project is the importance of the distribution and shaping of ground connections inspired by an early focus on ‘topographical’ lines of the site- an early influence for this came from Carlos Ferrater’s Barcelona Botanical Garden.

This would contribute to the development of our concept of fragmentation shaping our cores and their placement, which would then give way to our structural frame and solidify our decisions on materiality. A balance between solid and void was constantly entertained with functional and spatial concepts in mind such as circulation and permeability at different levels that shape the program distribution of the archive facility as well as different approaches and views. The central storage core offers a unique vertical

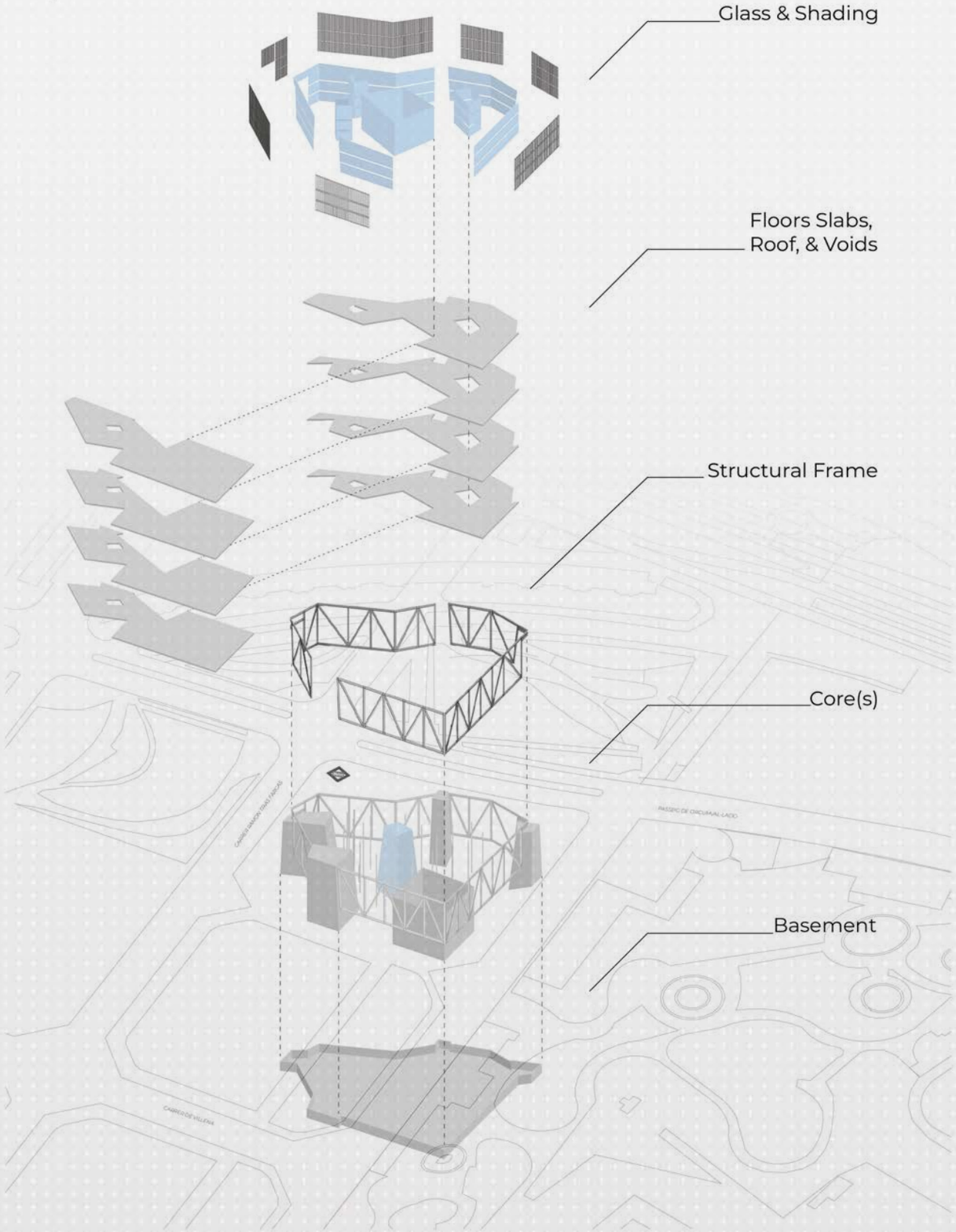
A balance between solid and void was constantly entertained with functional and spatial concepts in mind such as circulation and permeability at different levels that shape the program distribution of the archive facility as well as different approaches and views.

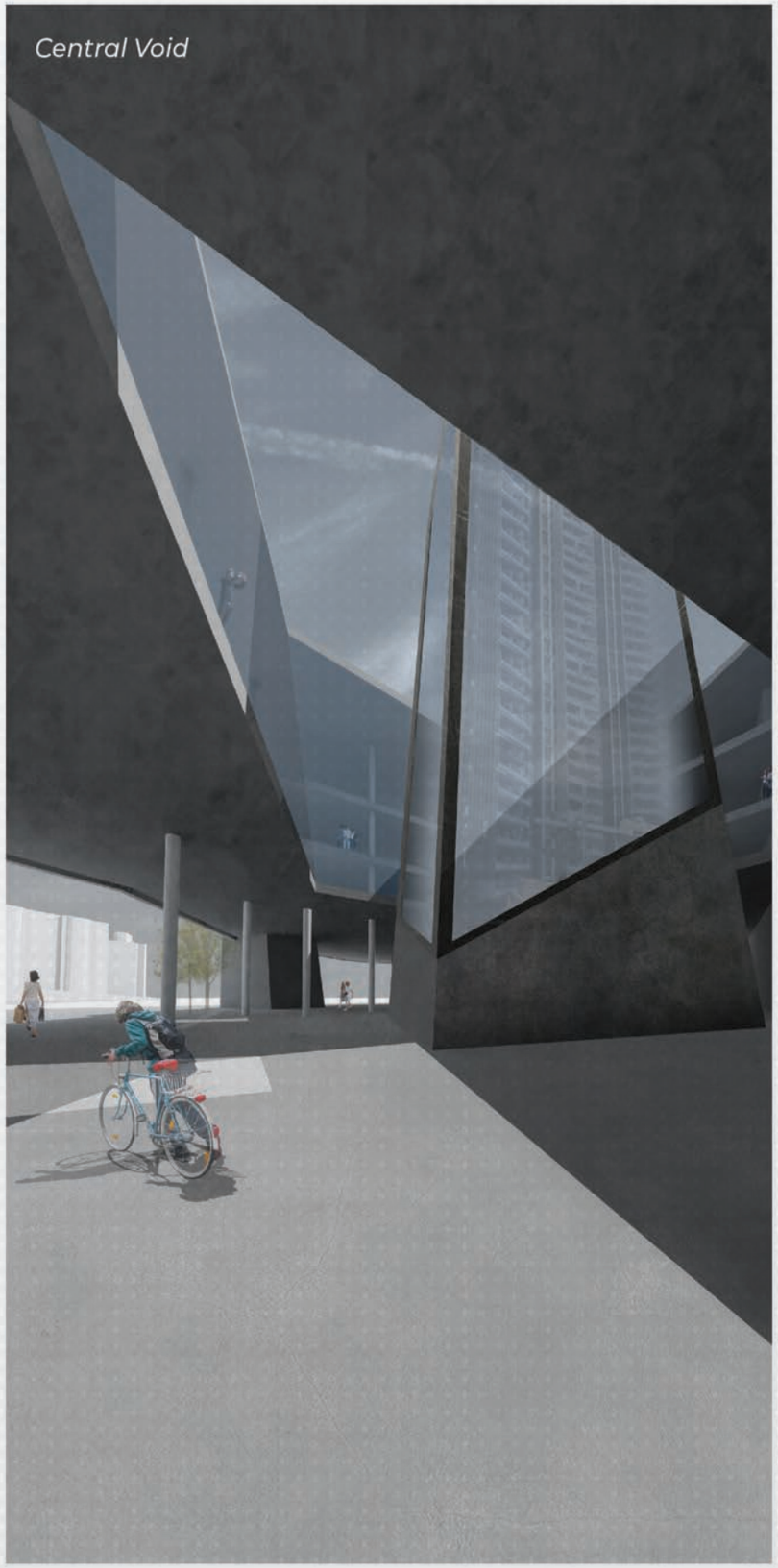
The central storage core others a unique vertical element in its ‘free floating’ extrusion which penetrates the volume of the facility, emphasizing the contrast of the cores and building while also strengthening a sense of lightness in the main massing of the building while simultaneously accentuating the mass and support of the cores distributed along the perimeter.

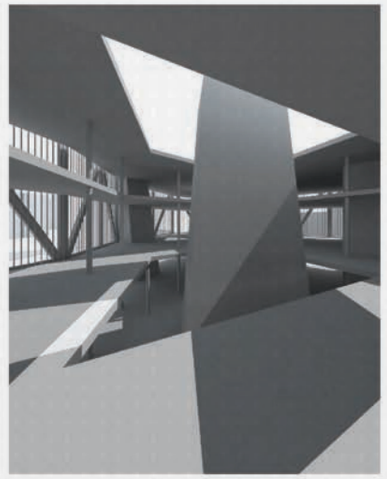

An Archival Citadel: Form Follows Fragments
Cole McDowell & Myles Barker

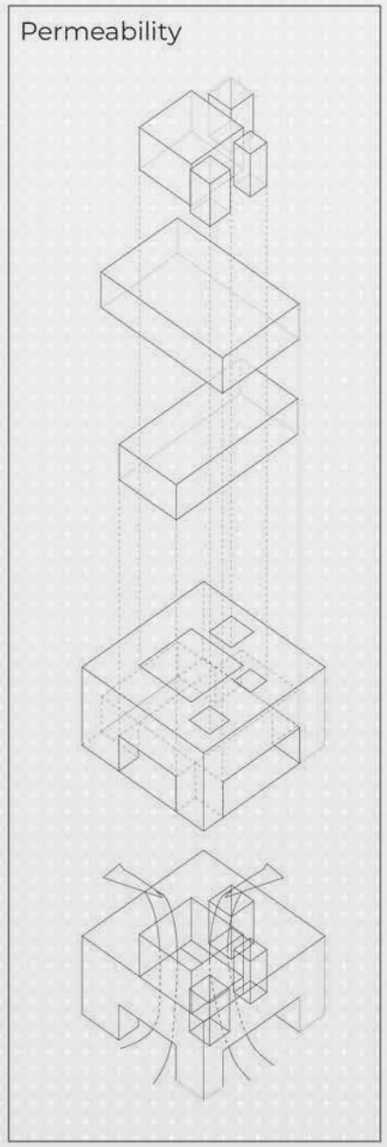

Metro Approach

Exploded Axonometric

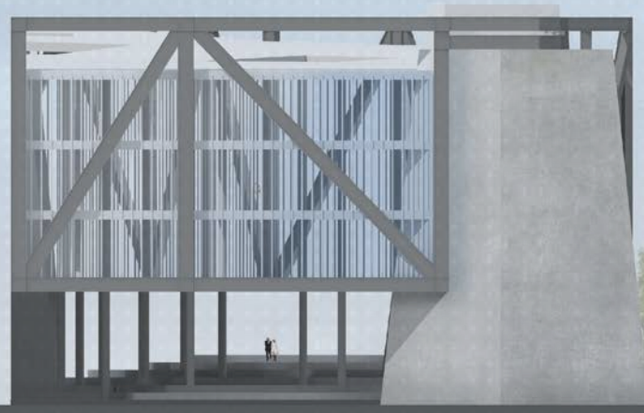


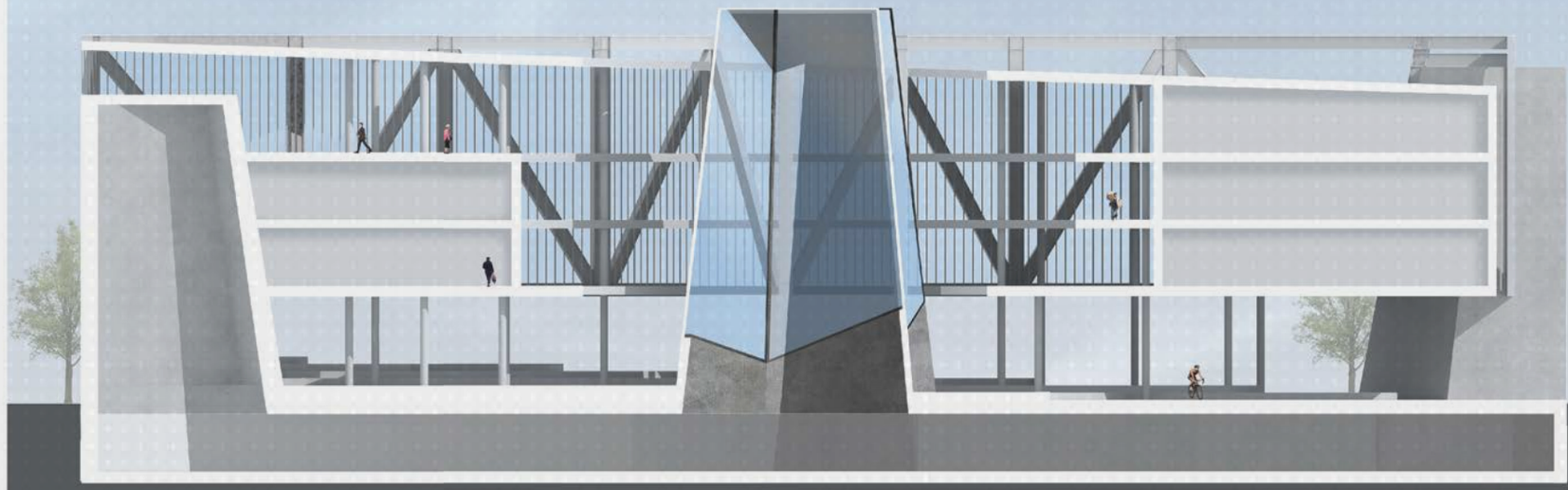


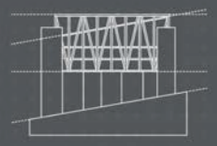


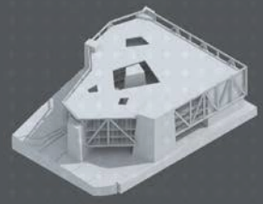


Elevation/ Section



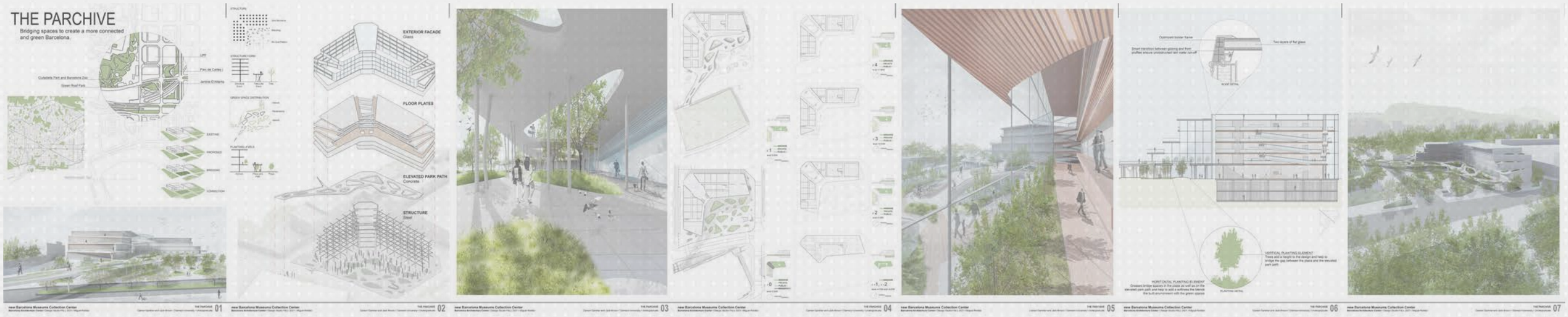






THE PARCHIVE

Carson Gardner,Clemson University, Landscape Undergraduate
Jack Brown,Clemson University, Architecture Undergraduate



The City of Barcelona blends the distribution of built city with green spaces that connect the Mediterranean Sea with the Collserola Sierra Mountains. Due to Barcelona's city planning around 11% of the city is considered a green space including urban street trees, urban parks, and architectural green spaces. As the City continues to advance, the boundaries between built spaces and green spaces become more blurred and new possibilities for greener architecture become possible. Our goal is to bridge the gap between these built city spaces and the green spaces and develop an archive building that is no longer one or the other, but both.

The proposed site is currently an island of concrete surrounded by multiple green areas; Ciutadella Park, the Barcelona Zoo, Parc de Carles I, and an adjacent green roof. These green spaces, however, are disconnected and not utilized to their full potential. With these green spaces, as well as a tram stop and a metro stop, this location has the potential to connect all of these separate spaces to create one large green space that the public can move around and enjoy freely. Our proposal for The Parchive is to develop an archive building that not only functions as a private archive, but also as a public park that can increase the connection between green spaces physically as well as blend the relationship between hardscapes and landscapes.

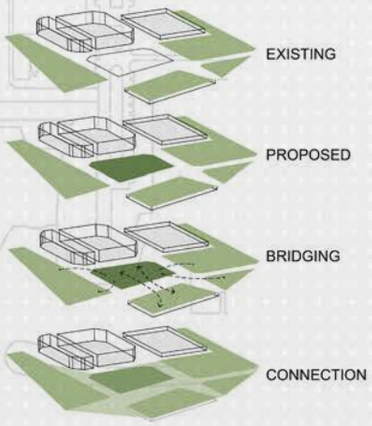
Our design takes inspiration directly from the grid pattern of Barcelona's streets to inspire the orientation of the building but also draws inspiration from the forms found in nature. The blending of tree trunks from the plaza to the column forest that supports the elevated park is one example of how nature inspired the design of the building. The elevated park walk is a physical bridge between The Parchive and the adjacent green roof to connect these two spaces but is also the blending point between interior and exterior spaces. Grassy islands scattered around the plaza establish the path system around the ground level, but also add softness and movement to the plaza space. Trees add a vertical element that blend the plaza below with the elevated park walk. As they grow through the perforations in the elevated park walk, they help to bring the park up to the building.

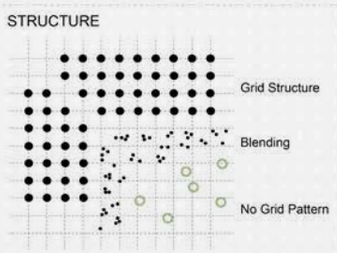
The use of glass as the facade acts as a seamless transition between interior and exterior spaces. Inside the archive, an open glass atrium is the grand entrance as well as the heart of the building. A system of ramps allows for open circulation throughout this light space giving the building a beautiful connection between the two wings. Hallways lined with plantings bring the park inside the building even further. Walkways on the higher floors allow for the connection to even extend vertically, truly expanding the experience to every corner of the archive. With this proposal, we intend to better connect isolated green spaces to become one large green area to increase the enjoyment and well-being of the citizens of Barcelona.

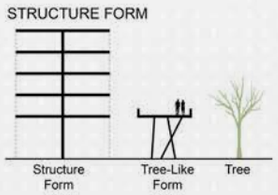
THE PARCHIVE

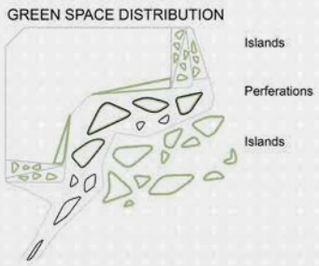
Bridging spaces to create a more connected and green Barcelona.

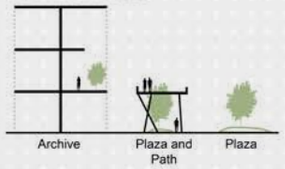
Mediterranean Sea

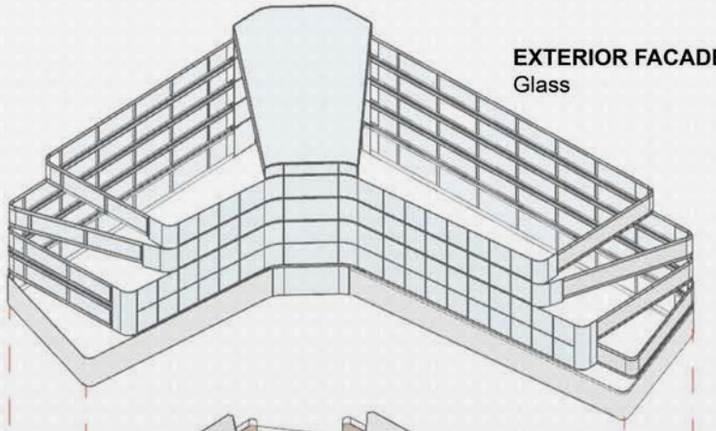


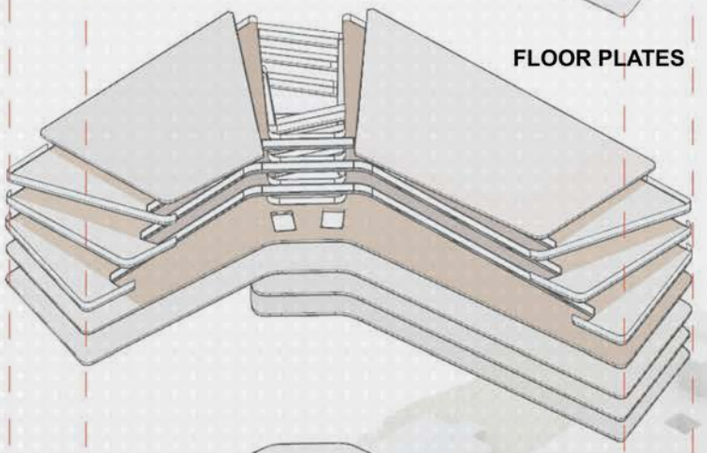


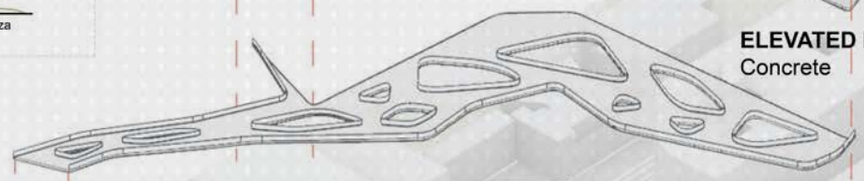


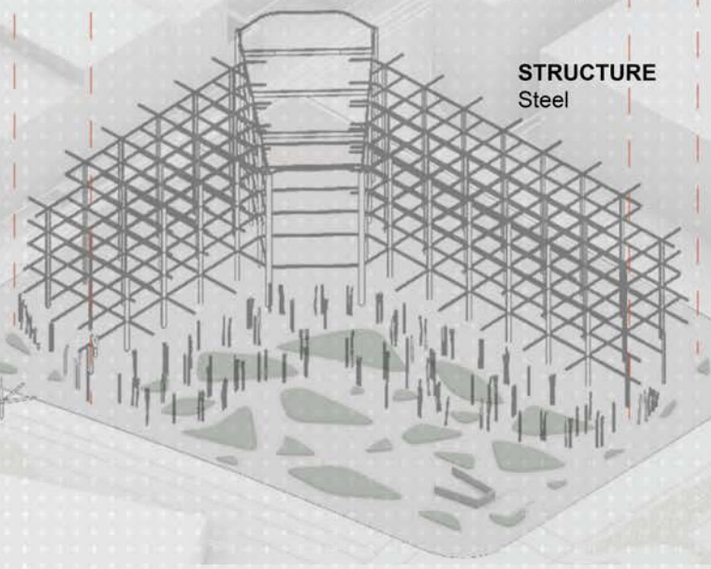








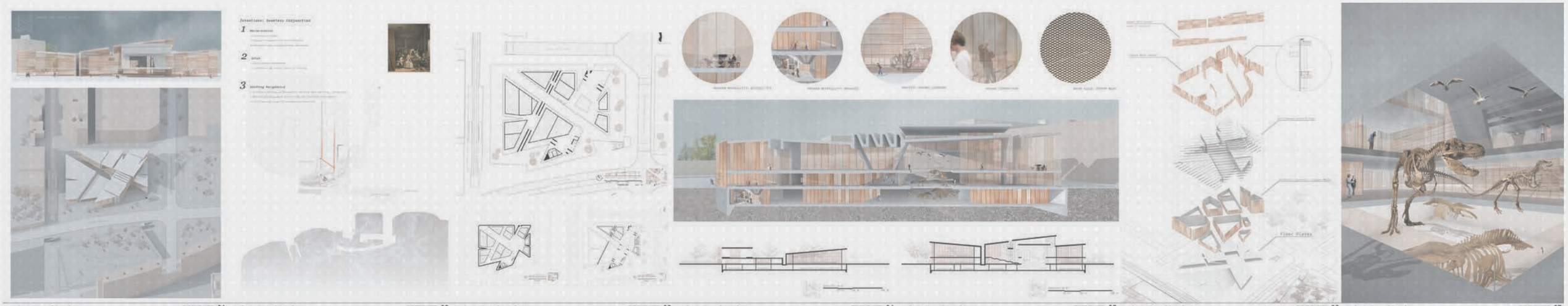





ARCHIVE
PRIVATE
PUBLIC
F 4
level 17.50M
ARCHIVE
PRIVATE
PUBLIC
F 3
level 13.50M
ARCHIVE
PRIVATE
PUBLIC
F 2
level 9.50M
ARCHIVE
PRIVATE
PUBLIC
F 1
level 5.50M
ARCHIVE
PRIVATE
PUBLIC
RECEPTION
F 0
level 0.00M
ARCHIVE
F -1, F -2
level -4.00M and -8.00M

SEAMLESS CONJUNCTION

Samantha Garza,Texas A&M University, Architecture Undergraduate
Isabella Davies,Texas A&M University, Architecture Undergraduate

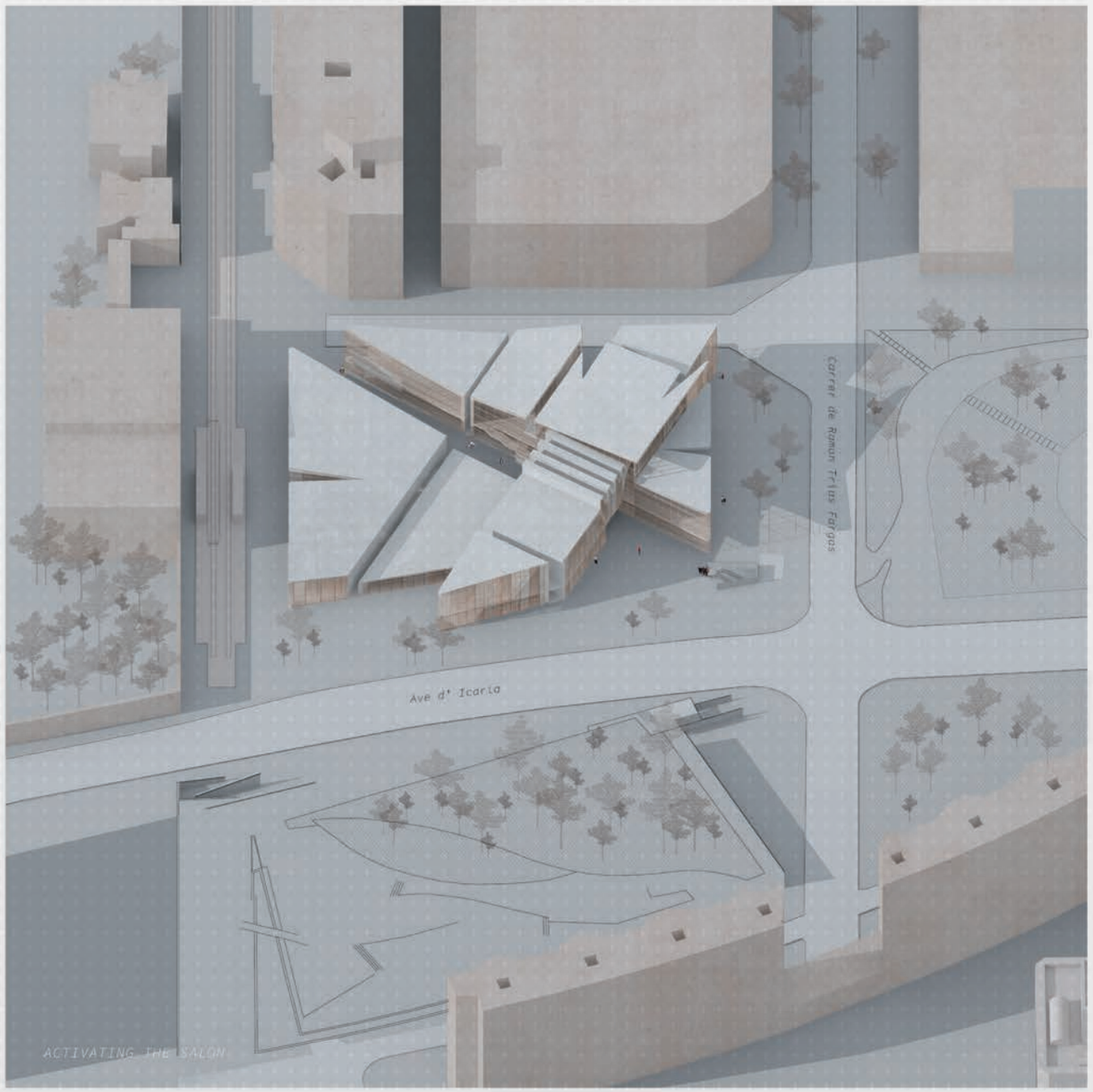


The building acts as a bridge to create a discourse between the cities. Our main constituents being the Mediterranean Sea, Ciutadella Park, and the Mountains acting as macro layers. After analyzing the immediate site and its relevant attributes, we have generated a division on our site to activate the social return of the site through a salon, which reinforces the notion of multifaceted containment as a social gallery. Inspiration is drawn from Las Meninas as an infinite transition of perspective shifting back and forth to allow our building to melt into and reinforce the surrounding context as a humble building. This is facilitated by layers of reflective materiality and conceptual layers of movement and program. Our analysis of the surrounding site focuses on the macro and micro scale of barriers with the surrounding context reaching out to the Mediterranean.

The building counteracts these factors of discontinuation and creates a foundation for a seamless conjunction between the sites. The form of the building in plan is meant to reference our inspiration of reflection and the sea and its constituents being water-centric fragmentation and delamination.

In section the geometry of the roof acts as structural support and is meant to divide sequence of volumes and define their various programs occurring in a building within a building. The irregular geometries are assembled to facilitate a part to whole relationship which allows for potential expansion and flexibility. The notion of seamless conjunction is facilitated by the overlapping roofs meeting at a prominent point where numerous events are happening simultaneously.

The form of the building also allows for a clear distinction between the interior and exterior buildings creating layers, which are defined by their materiality based on the type of program they contain. The exterior facade of the building consists of a copper mesh and a layer of glass on the interior. The archive spaces are contained by a repetition of the copper mesh facade and a layer of concrete to protect the archive pieces. In contrast, exhibition and office spaces are contained by glass facade to introduce transparency. This phenomenon of blurring subject and viewer is reinforced by conceptual layers and physical layers of reflection, creating an endless occurrence of dissolving to reinforce the building's surroundings.



Intentions: Seamless Conjunction

1 **Reciprocation**

+ building as bridge
+ discourse between site and attributes

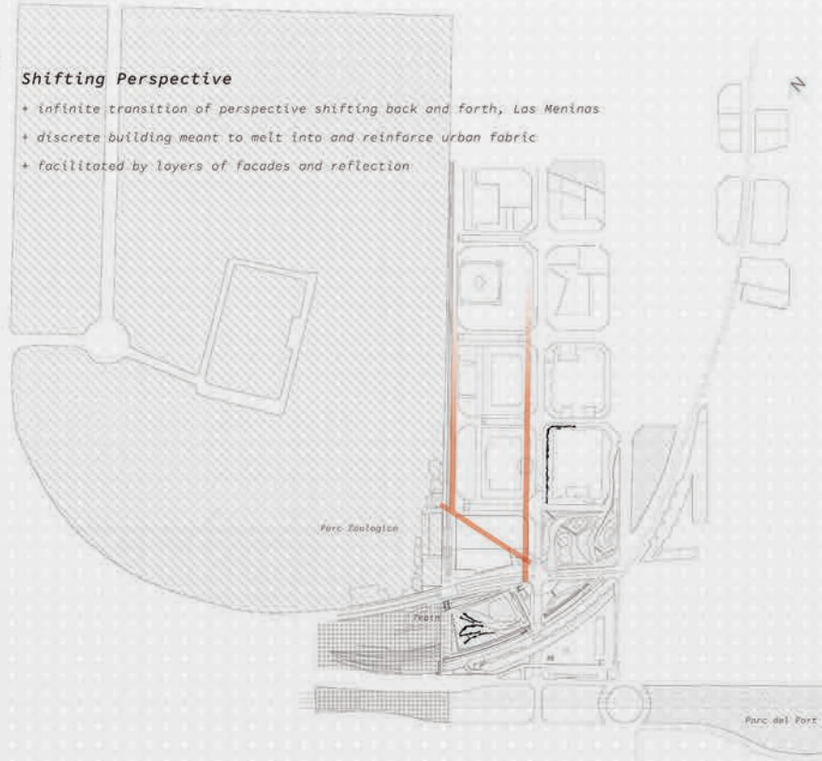
of Barcelona: Sea, Citudella Park, Mountians

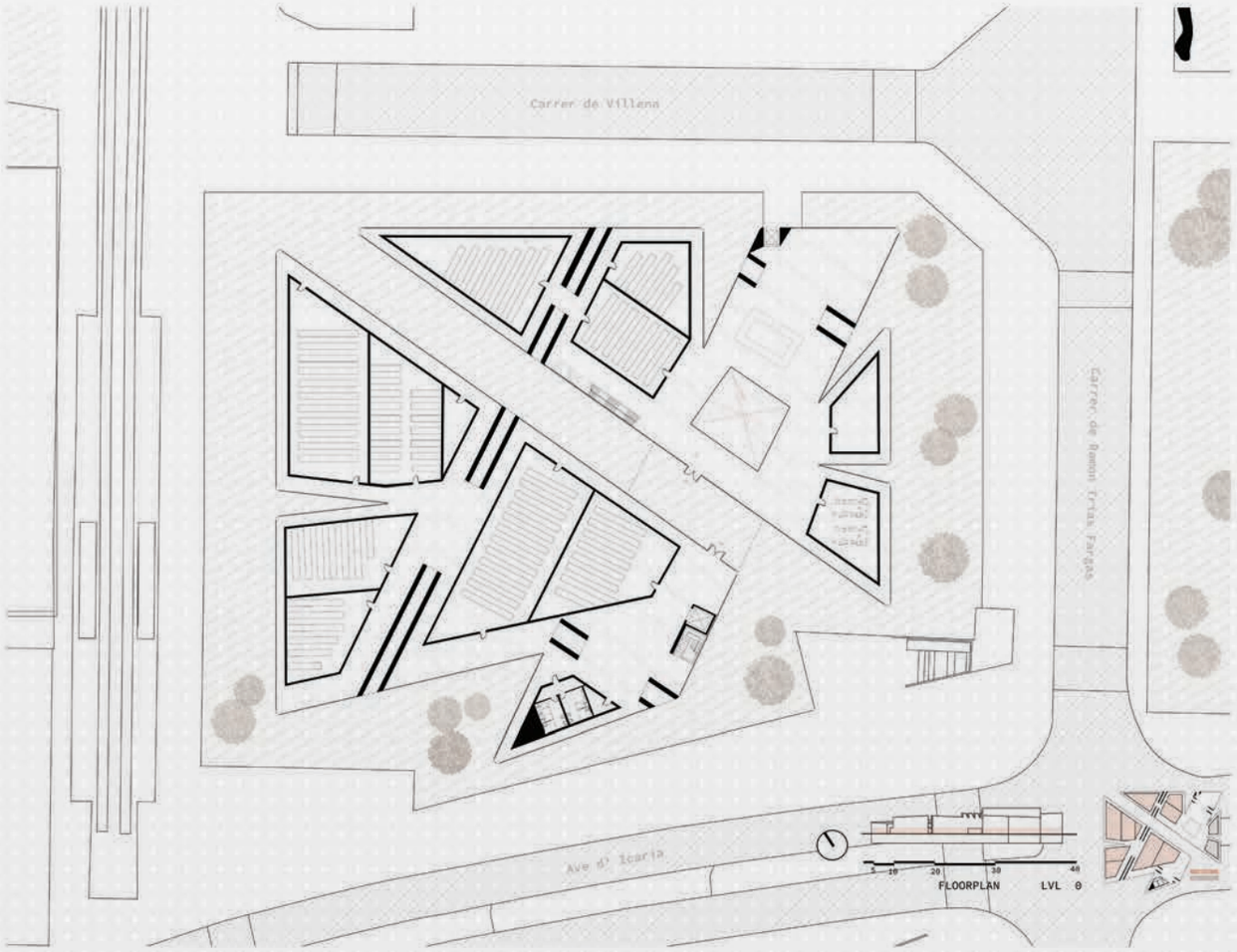
2 **Salon**

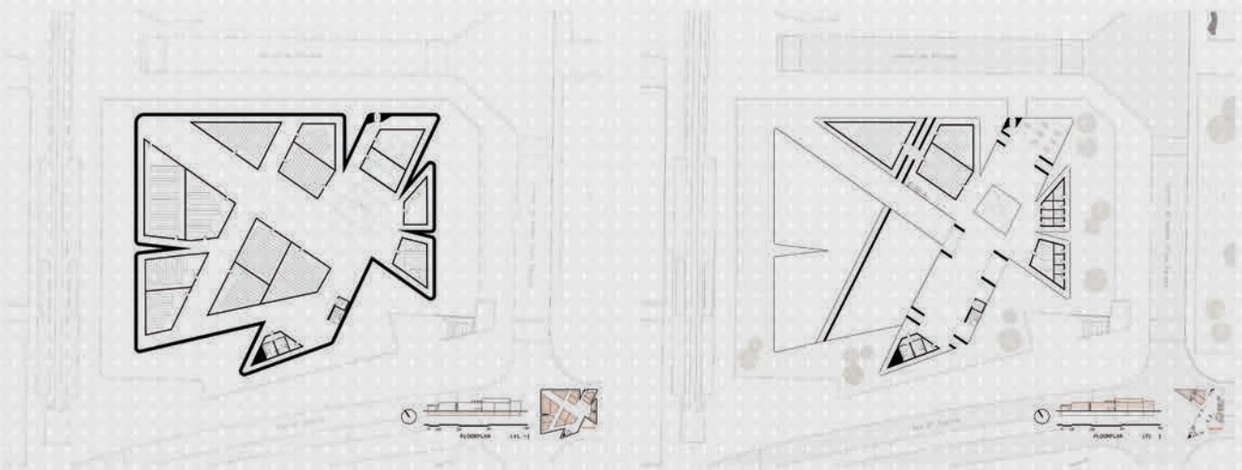
+ multifaceted containment
+ expiditing the social return of the site

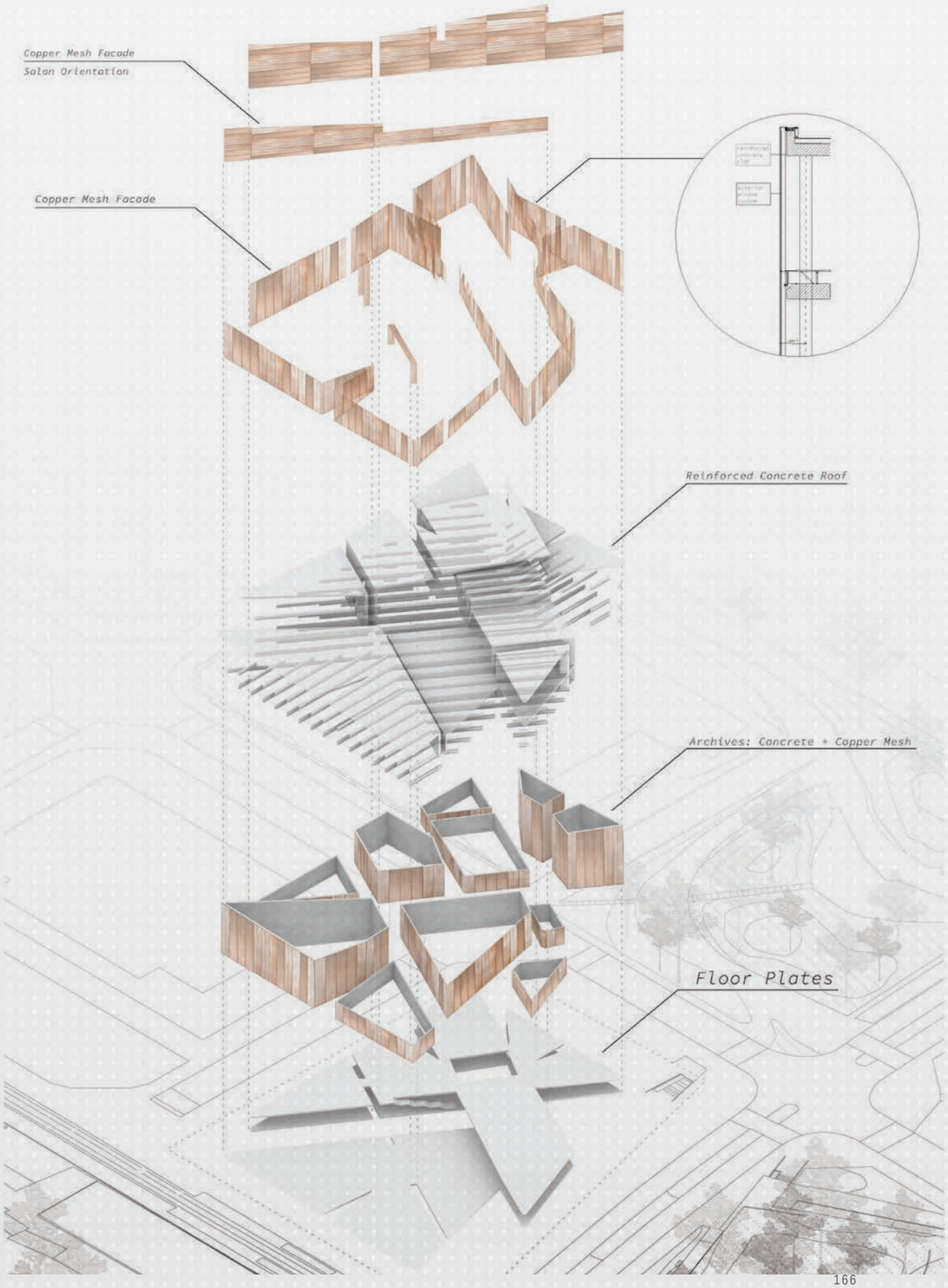
3 **Shifting Perspective**

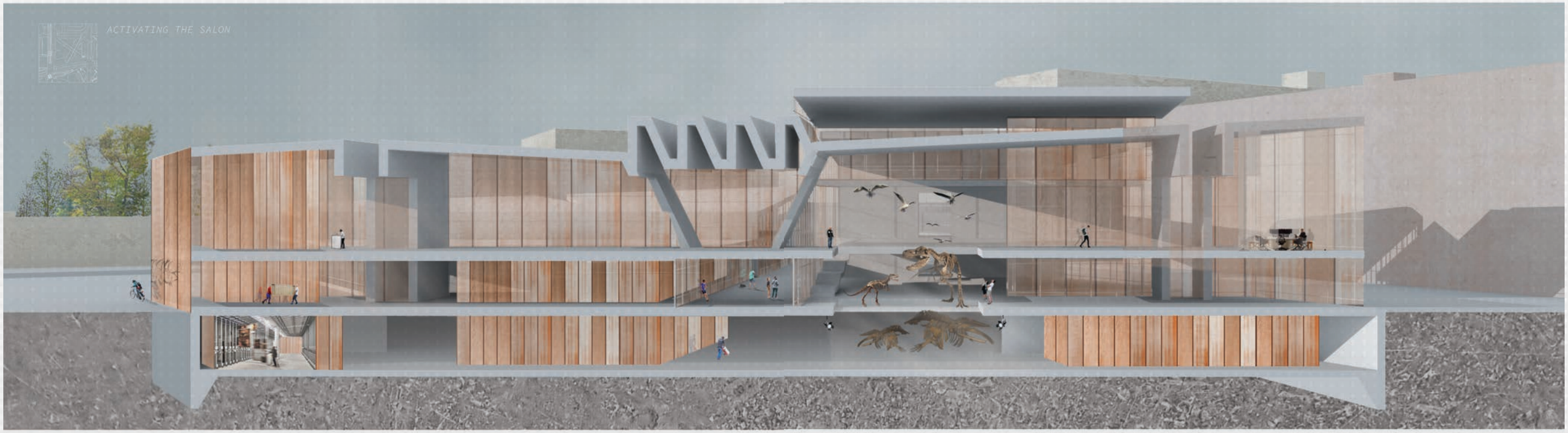
+ infinite transition of perspective shifting back and forth, Las Meninas
+ discrete building meant to melt into and reinforce urban fabric
+ facilitated by layers of facades and reflection

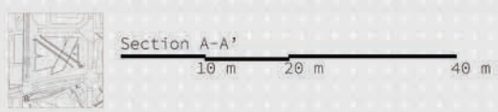


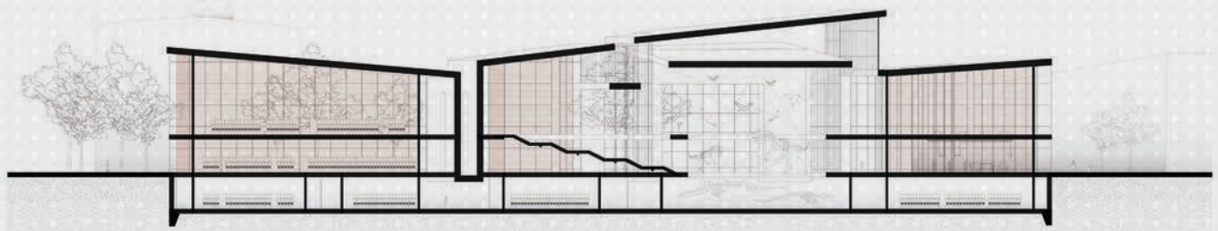

Carrer de Villena
Carrer de Ramon Trias Fargas
Ave d' Icaria
FLOORPLAN LVL 0

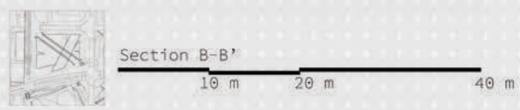


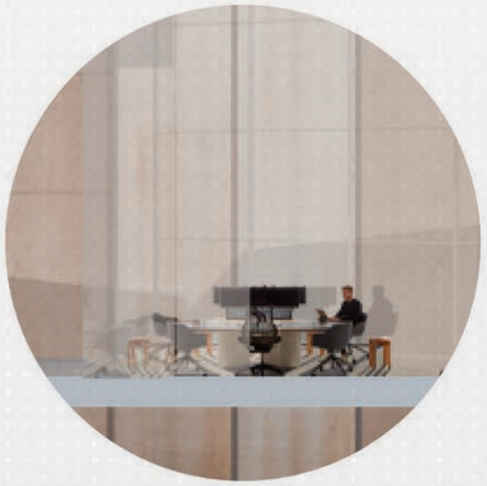

Copper Mesh Facade
Salon Orientation
Copper Mesh Facade
Reinforced Concrete Roof
Archives: Concrete + Copper Mesh
Floor Plates


ACTIVATING THE SALON

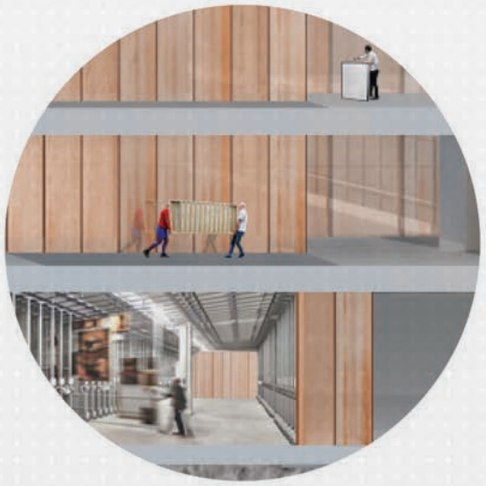

Section A-A'
10 m
20 m
40 m




Section B-B'
10 m
20 m
40 m

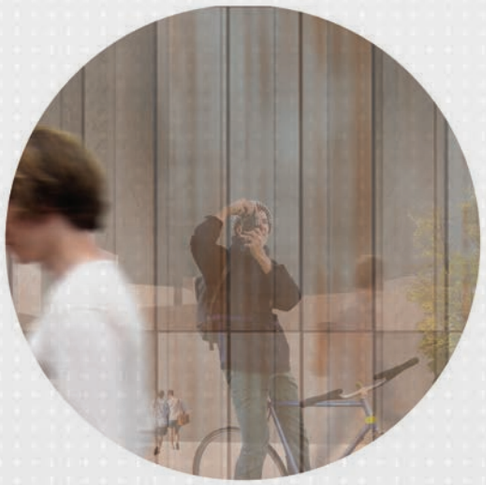


PROGRAM MATERIALITY: OFFICES/ ETC



PROGRAM MATERIALITY: ARCHIVES

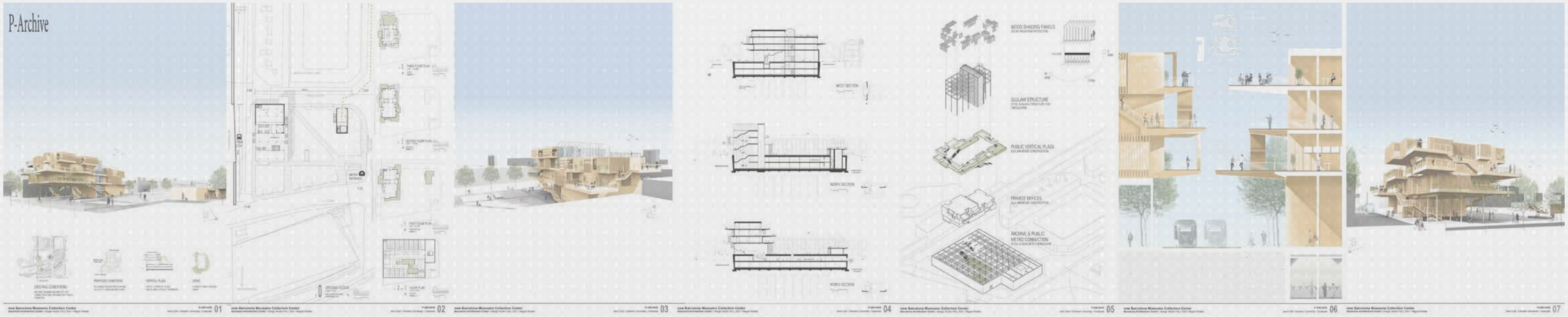
GRAFFITI CENTRIC LAYERING



FACADE INTERACTION

SEAMLESS CONJUNCTION

Samantha Garza,Texas A&M University, Architecture Undergraduate
Isabella Davies,Texas A&M University, Architecture Undergraduate



Barcelona has a rich history of diversity and growth with many projects seeking to increase public spaces across the city. Utilizing the circumstances arising from hosting the Olympic games, Barcelona has taken their traditional network of transportation and heavily modified it, providing extensions to the underground metro, tram lines, bus routes, and bicycling lanes. Untouched yet equipped with multiple forms of public transportation, my site sits on an area of land that is connected to both a tram stop and a metro.

The site is situated centrally between the Barcelona Zoo, a public park, and Universidad Pompeu Fabra. The placement of these public facilities creates a relationship that promotes public movement through the site with an existing pedestrian street stemming from the Universidad. Currently, however, the surrounding parks remain disconnected and public movement is forced to walk around the site, creating a disconnected space closed to the public.

My proposal encourages a connection that bridges the systems of public transportation and links the relationship with the public parks by pulling the movement of pedestrians onto the site. Once on site, the people are pulled upward onto a public vertical plaza that reflects the layers of transportation of the city and connects the people to the parks around the site through elevated views.

My proposal can be split into two systems, the interior private space which houses the archives and offices, and the exterior public space which promotes circulation and connection for the public. Public access takes place on two levels, one being the lower level with underground exhibition space connecting the metro to the covered plaza near the tram stop. The second level happens on the plaza with access to the public terraces completing the existing pedestrian paths from Universidad and the public park. Archival entry begins in a covered pavilion with an industrial elevator that carries artifacts down to the underground storage facility. A private vertical plaza allows archives to move freely from storage to conservation and creates easy connection between artifacts and research for employees.

I am not proposing a Collection Center that sits on the site with little connection to surrounding context. Instead, I propose a Center that completes the existing infrastructure on site and connects the public to surrounding parks through an open vertical plaza.

P-Archive

EXISTING CONDITIONS

SITE MAP SHOWING INCOMPLETE SITE CONNECTIONS AND UNCONNECTED PUBLIC TRANSPORT

PROPOSED CONDITIONS

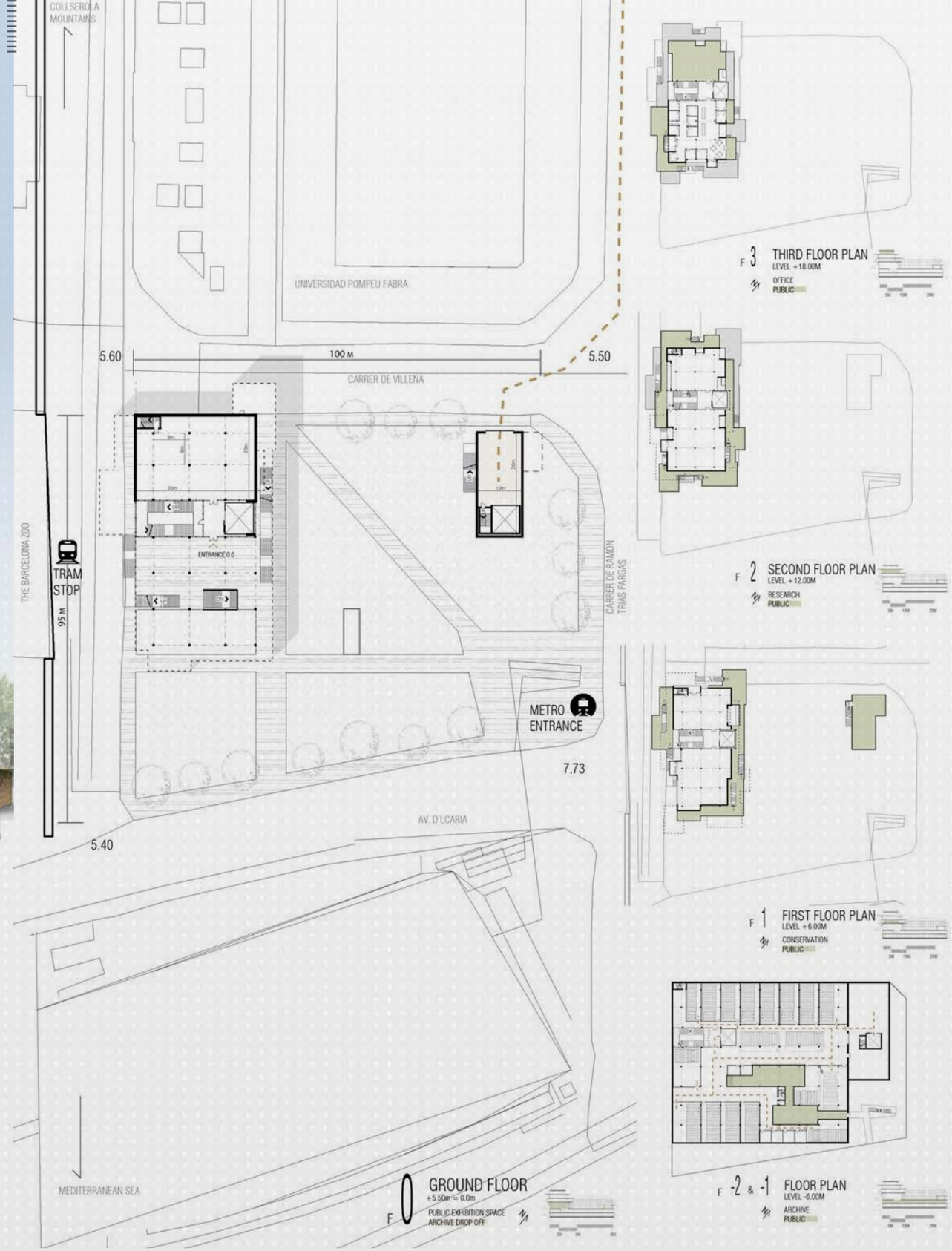
RECONNECT TRANSPORTATION AND ACCESS TO SURROUNDING PARKS

VERTICAL PLAZA

CREATE A VERTICAL PLAZA REFLECTING LAYERS OF TRANSPORT

VIEWS

CONNECT PARKS THROUGH VIEWS

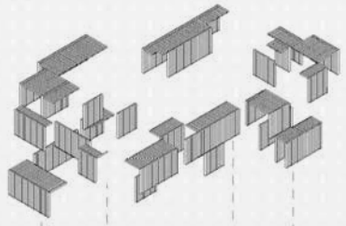


02

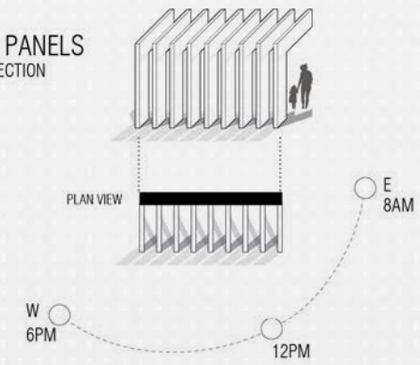
WEST SECTION

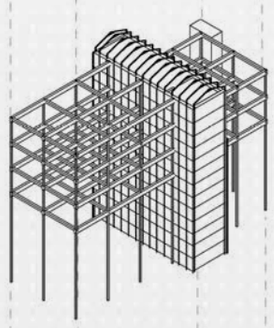
NORTH SECTION

NORTH SECTION

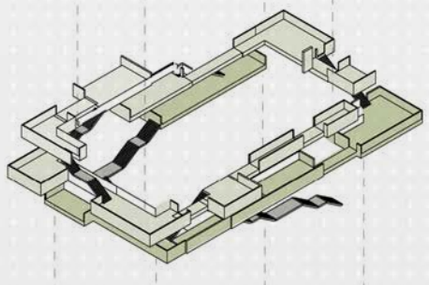


WOOD SHADING PANELS
SOLAR RADIATION PROTECTION

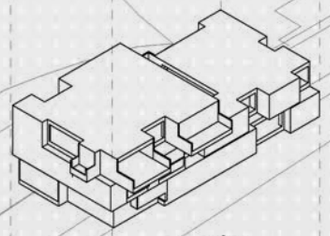




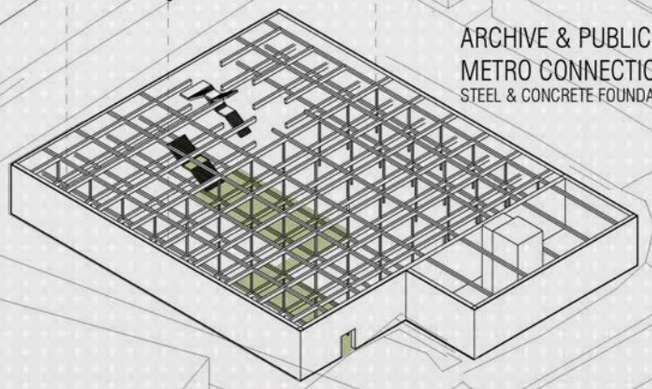
GLULAM STRUCTURE
STEEL & GLASS STRUCTURE FOR CIRCULATION



PUBLIC VERTICAL PLAZA
GLULAM WOOD CONSTRUCTION



PRIVATE OFFICES
GLULAM WOOD CONSTRUCTION



ARCHIVE & PUBLIC METRO CONNECTION
STEEL & CONCRETE FOUNDATION

Professor

JELENA
PROKOPLJEVIC

2. Barcelona History Research

The architectural history research course in Barcelona will be a sum of lessons learned through three different approaches to examining the diversity of topics related to the principal theme of the history of Barcelona, the European context and the critical analysis of key European examples. The intention of the course is for the student to build a map of Barcelona, key European cities and works within the cultural, urban, historical and theoretical contexts.

The course will be structured into 3 blocks, each focusing on a distinct theme. Daily classroom discussions and activities will be directed at exploring key questions related to each lesson in order to generate a dialog around the different theoretical concepts which may be applied to the design process. Students are expected to inform the classroom discussions with outside knowledge gained through library research and visits to sites and buildings.

BLOCK B: Urban History of Barcelona – Layers of urbanity
Instructor: Jelena Prokopljevic

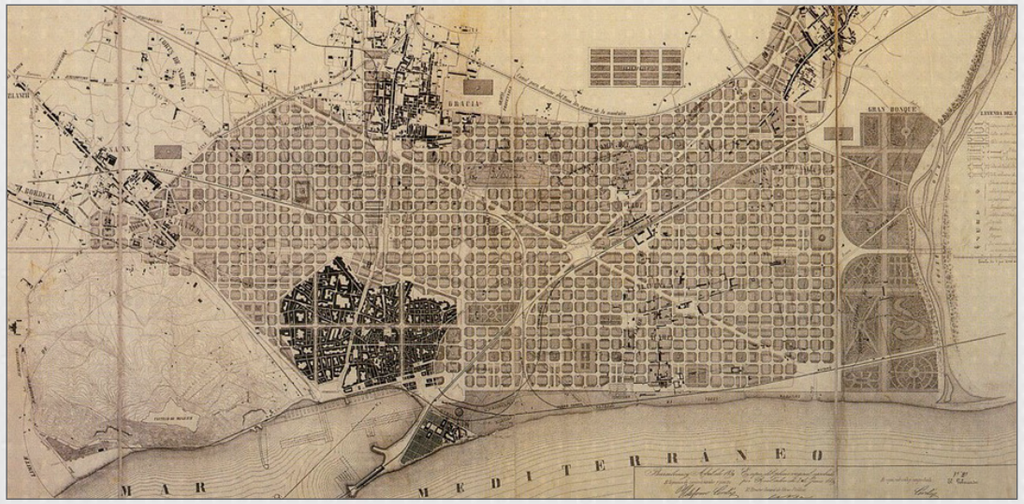
This block pretends to explain the development and the urban history of Barcelona by linking it to the general urban planning concepts and strategies and changes that took place simultaneously throughout Europe. The accent will be placed on concepts rather than on specific historical facts in order to provide the students with the general relations and analytical tools that can be used in the process of rethinking and intervening in the existing urban tissue. Benefitting from the multi-layered urban history of Barcelona, visible and tangible in today's city, the course will drive special attention to the memory sensible projects that enhance the coexistence of structures from different times, often built for different uses.

Just as Parthenon was once used as an ammunition storage or a Cristian church was built in the centre of the Roman Emperor's palace in Split, several residential houses of Barcelona or Tarragona have absorbed portions of Roman walls as their supporting structure or 19th century factories have been converted into education o cultural facilities, maintaining and adapting the original structure. This idea of juxtaposed layers of urban history: of material and sensible rests that form part of contemporary city, will give us an insight of the ways of envisioning the future cityscape by Catalan architects. The last part of the course will address the current problems and new solutions for re-naturalization of the urban space.

Part ONE. ORIGINS OF MODERN CITY
Session 1. Introduction and Roman city
Session 2. Defining urban referents
Session 3. Industrial city

Part TWO. FUNCTIONALIST UTOPIA
Session 4. Expanding the city
Session 5. The New Century Session
6. The International style

Part THREE. THE CITY OF ARCHITECTS
Session 7. Postwar reconstruction and new models
Session 8. Barcelona model
Session 9. New challenges



Professor

PIA
WORTHAM

3. Barcelona's Building Technology

Barcelona Building Technology course in Barcelona will be a sum of lessons learned through three different approaches to examining the diversity of topics related to the principal theme of materials, construction and technology. The intention of the course is for the student to build a map of methods for identifying, contextualizing and analyzing buildings and their construction in order to apply these concepts to the design process.

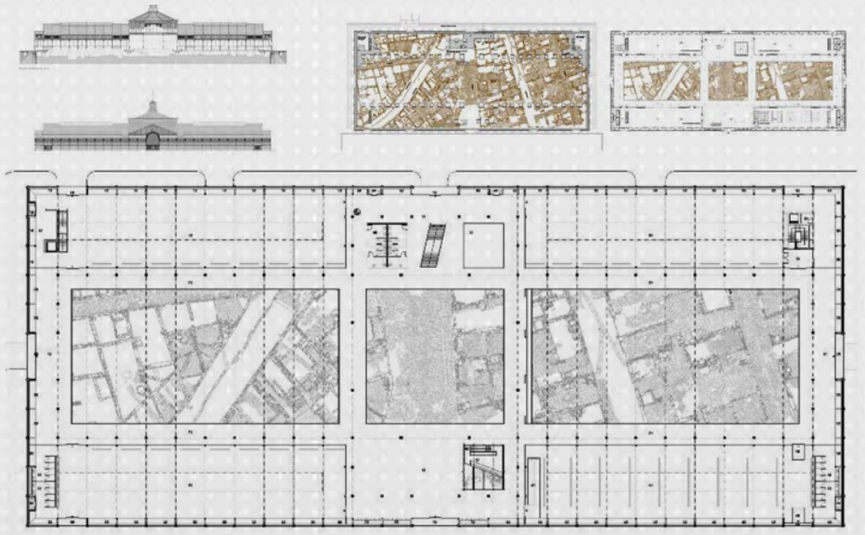
The course will be structured into 3 blocks. Within each block, there will be lessons, each directed at critically examining the topic of discussion. Students are expected to inform the classroom discussions with outside knowledge gained through library research and visits to sites and buildings.

BLOCK B: Barcelona Building Technology - BUILDING SCALE
Instructor: Pia Wortham

The introduction of this block will be the signature of the timeline and dictionary of Barcelona building technology. Following the introduction this block will look at 7 buildings in Barcelona from a technological point of view. We will examine the materials and technology of each period in history, as well as the kind of tools the builder/craftsman, and later architect had at his disposal. We will place the buildings in their historical context in terms of structural analysis and innovations in building technology. We will explore how all buildings fit into a social and economic context by looking at the history that surrounds these five examples.

How were the programmatic needs of each project met in terms of appropriateness of structure? Architectural history is often taught as a timeline of changes in style, without taking into account the scientific side to architecture. This class hopes to answer the question of how architecture is built to inform and reinforce what the architectural student faces in the design studio.

Session 1. Intro - Technology: a brief history
Session 2. Intro - Structure: basic building elements
Session 2. Intro - Structure: basic building elements
Session 4.Gothic: Santa Maria del Mar to the enlightenment
Session5.Born: Mercat del Born and the industrial revolution
Session 6. Gaudi: Geometry and Structure
Session 7.Caixa forum: industrial buildings and the catalan vault
Session 8. Palau Sant Jordi and a history of domes
Session 9. Hotel Me and a history of towers



Professor

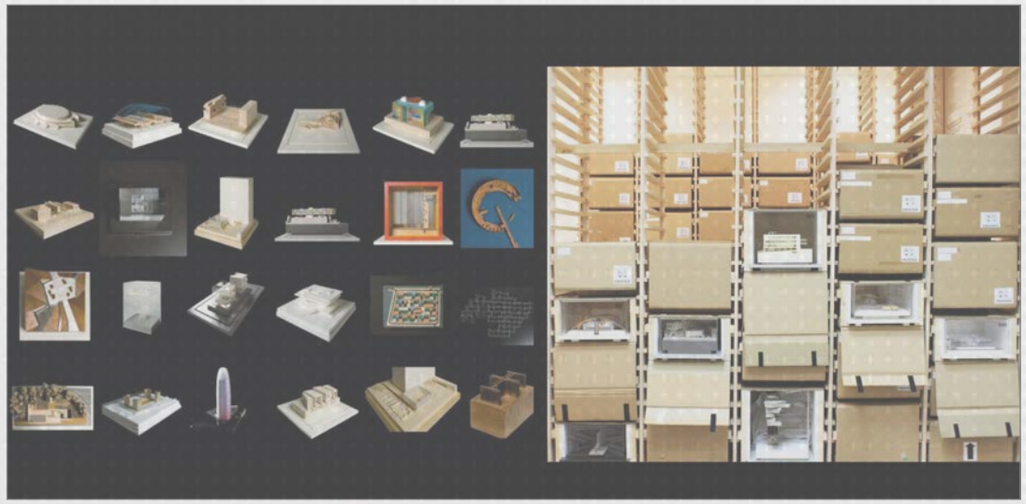
IVAN
BLASI

4. Field Studies in Architecture and Related Arts

The European territory is rich in history, culture and architecture. A certain common identity is perceived from outside its borders but it is difficult to detect from within. Public facilities, competitions and spaces are not exclusive of Europe but they have shaped the continent's territory over the centuries. The last years have brought important changes and cities have adapted according to political, economic, cultural and above all social transformations. European towns continue being attractive mostly because of their history but also because of their vibrancy. In the last years, one in ten enterprises in the European non-financial business economy belonged to the tourism industries. These 2.3 million enterprises employed an estimated 12.3 million persons. Students participating in the BAC program will become locals while they live in Barcelona and tourists while traveling around the territory and they will always be architects, with a specific awareness for how others live and how to understand different realities.
Cities have historically constituted a strategic area of intense exchange, dialogue and conflict. This space continues to play a key geopolitical role at a global scale. While in Europe, students will be able to travel to different locations on their own with some tools provided in Field Studies. Film makers, musicians, writers, painters and photographers among many others have created different perceptions of cities. As architects, all these visions together with the actual experience of a place help us understand it and design a project. All our previous life experiences will also be part of this personal relationship with a place. This is the aim of Field Studies: be aware of our role as architects at all times and make the most out of our discoveries.

Barcelona is the departure point to understand how visiting a city can be done in many different ways. Visits to its periphery: plaça Europa, Forum and Vall d'Hebron; to its elevated areas: Montjuïc, Parc del Laberint and Turó de la Rovira; and to its infrastructures: port, airport, "rondes" and Rambla de Sants-train system; will complement different ways of interpreting European cities such as London, Paris, Berlin, Vienna and Prague among others.

Visiting Madrid and Toledo will allow us to learn about part of Europe's Southern history, a culture of Arab, Jewish and Roman origins which built a capital (Toledo) which today is nearly a neighborhood of one of Europe's biggest metropolis (Madrid). A city growth focused on territorial expansion confronted with the territorial organization of the Randstadt, the Dutch conurbation of 7,100,000 inhabitants (Amsterdam, Utrecht, The Hague, Rotterdam), with a similar population to metropolitan Madrid and Toledo (6,600,000 inhabitants).
Address the current problems and new solutions for re-naturalization of the urban space.



Professors

IVAN
BLASI

ZANA
BOSNIC

Study Travels Spain and Virtual Europe:

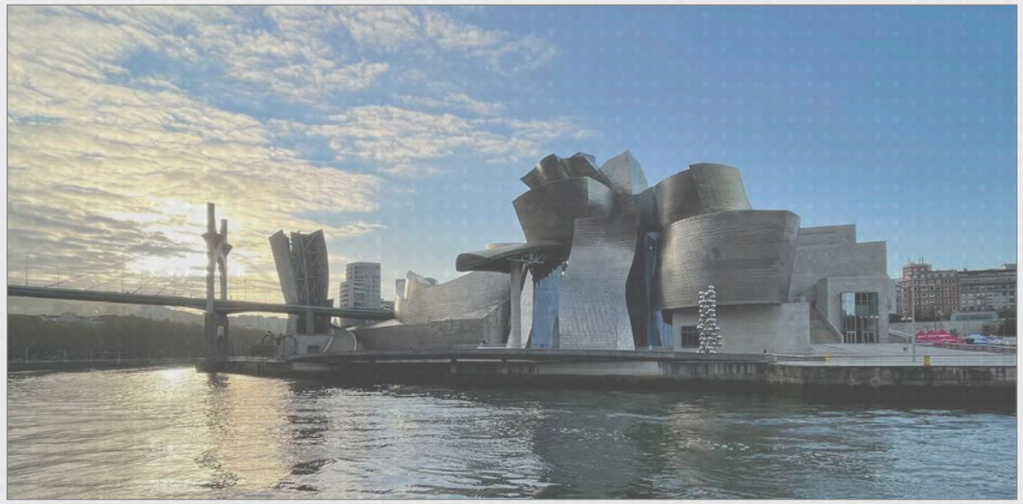
Barcelona is the departure point to understand how visiting a city can be done in many different ways. Visits to its periphery: plaça Europa, Forum and Vall d'Hebron; to its elevated areas: Montjuïc, Parc del Laberint and Turó de la Rovira; and to its infrastructures: port, airport, "rondes" and Rambla de Sants-train system; will be complement with visits to some of Europe's most important cities such as Amsterdam, Berlin, London, Madrid and Paris.

Visiting Madrid and Toledo will allow us to learn about part of Europe's Southern history, a culture of Arab, Jewish and Roman origins which built a capital (Toledo) which today is nearly a neighborhood of one of Europe's biggest metropolis (Madrid). A city growth focused on territorial expansion confronted with the territorial organization of the Randstadt, the Dutch conurbation of 7,100,000 inhabitants (Amsterdam, Utrecht, The Hague, Rotterdam), with a similar population to metropolitan Madrid and Toledo (6,600,000 inhabitants). Berlin, a city devastated by WW2 and the construction of the Wall and how it has become once again a reference for everybody around the world for its culture and specifically its architecture. London was also destroyed and from its ashes, one of Europe's biggest metropolis faces enormous challenges in a post Europe context, giving more power to Berlin and Paris, the latter, the city of continuous change and beauty, another capital of culture and knowledge.

Basque Country
5 days travel to Bilbao, Zumaia, San Sebastian, Arantzazu, Pamplona

Madrid, Spain
8 days travel to Madrid, Valencia, Cuenca, Toledo, Segovia

European Capitals:
Session 1_Berlin, Germany
Session 2_Amsterdam, the Netherlands
Session 3_London, United Kingdom
Session 4_Paris, France



Semester moments:

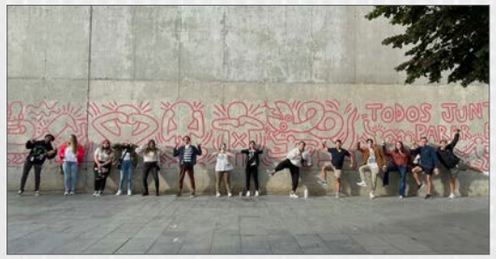
Post online classes arrival Barcelona airport CU Group

post online classes arrival Barcelona airport Tamu Group

Old city walks, Barcelona

Bunkers of Carmel, Barcelona

Old city walks, Barcelona



Old city walks, Barcelona

Sardana Dance in Catedral Square, Barcelona

Ciutadella Park, Barcelona

Design Studio

Design Studio

Design Studio

Invited lecture, Alberto Veiga, Barozzi Veiga

Historical Archive of Basque Country, Bilbao

Bilbao walks

Bilbao walks

Bilbao walks

Semester moments:

Zumaia Flysch visit, Basque Country

Zumaia Flysch visit, Basque Country

Chillida Leku, San Sebastian,Basque Country

Architecture Institute, San Sebastian,Basque Country

Comb of the wind, Chillida, San Sebastian,Basque Country

Comb of the wind, Chillida, San Sebastian,Basque Country

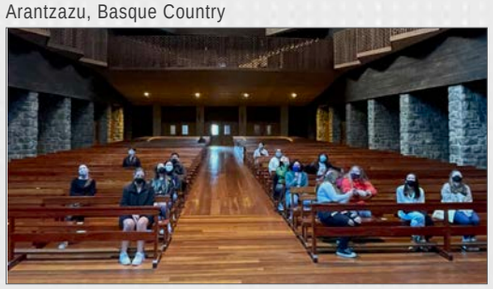
Arantzazu, Basque Country

Oteiza Museum, Pamplona

Kursaal, Rafael Moneo, San Sebastian,Basque Country

Hondalea, Cristina Iglesias, San Sebastian,Basque Country

Arantzazu, Basque Country



Santa Clara Island, San Sebastian,Basque Country

Hondalea, Cristina Iglesias, San Sebastian,Basque Country

Basque Country

Arantzazu, Basque Country

Archive of Navarra, Pamplona

Semester moments:

Thanksgiving dinner

Mies van der Rohe Pavilion, Barcelona

Royal Palace, Madrid

Caixa Forum, Madrid

Clemson Dean CAAH Nicholas Vazsonyi visit at BAC

Clemson Dean CAAH Nicholas Vazsonyi visit at BAC

Segovia

Segovia

Reception at Roldan + Berengue arqts

Park Guell, Barcelona

City of Arts and Science, Valencia

Caixa Forum, Madrid

Reception at Roldan + Berengue arqts

Reception at Roldan + Berengue arqts

Toledo

Caixa Forum, Madrid

Semester moments:

Enchanted City, Cuenca

Retiro Park, Madrid

Invited Lecture, Miquel Rodriguez, xmade

Invited Lecture, Xavier Guardiola

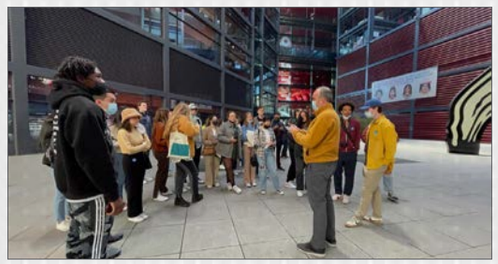
Cristal Palace, Retiro Park, Madrid

Enchanted City, Cuenca

Final Presentations, BAC

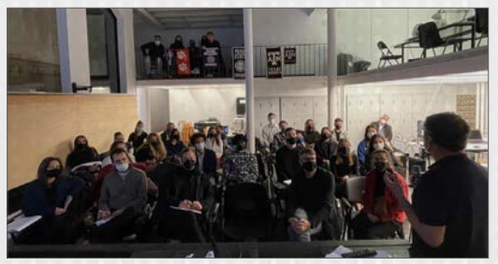
Final Presentations, BAC

Reina Sofia Museum, Madrid



Reina Sofia Museum, Madrid

Final Presentations, BAC



Final Presentations, BAC

Fine Arts Center, Madrid

Fine Arts Center, Madrid

Final Presentations, BAC

Final Presentations, BAC

thank you all!

BAC
BARCELONA ARCHITECTURE CENTER

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BAC Barcelona Architecture Center

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BARCELONA ARCHITECTURE CENTER is an educational organization founded in 1998 and chaired by Miguel Roldán. The BAC was created with the aim of developing academic and research collaborations with other universities and higher education institutions across the globe.