

HOUSE OF CREATIVES: A CREATIVE CONDENSER IN BERLIN

PRESENTATION SLIDES
PUBLIC BUILDING GRADUATION STUDIO

ARNON VAN EMBDEN SPANJAARD
4434900



1. **GRADUATION PLAN**
2. **THEORY & DELINEATION**
3. **DESIGN BRIEF**
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GRADUATION PLAN | PROBLEM STATEMENT

Berlin's Creative Community

According to the research of Puchta, D. (2010), the Creative Industries are a most significant and important factor within the city of Berlin. Thus, regional economic policy makers are required to develop innovative instruments aimed at fostering those future key industries.

However, Berlin's creative community faces a number of challenges. The city's rapidly changing neighborhoods and rising rent prices have made it difficult for many artists and creatives to find and maintain affordable living and working spaces. Additionally, the city's competitive and fast-paced art scene can make it difficult for emerging artists to gain recognition and build their careers.

Focussing on 'music, visual and performing arts' specifically, this community holds by far the largest number of one-person enterprises (Puchta, D. (2010). In some cases this is possibly accompanied by a risk of isolation and depression and it also shows that collaboration, which is a key factor for the creative industries, is likely lacking here.

Creative Hub or Creative Condenser

Looking at some of the above mentioned challenges, the design of a so called 'hub' for the creative communities could be the answer. This quite popular term, can be compared with this year's theme of Public Building design studio; 'Public Condenser'. According to the interdisciplinary research of Gill et al. (2019), a creative

hub is interpreted as: "A place, either physical or virtual, which brings creative people together and provides space and support for networking, business development and community engagement within the creative, cultural and tech sectors".

But, today's literature on creative hubs is surprisingly scarce and mostly focused on the typical creative hubs as co-working spaces, led by entrepreneurs, which are built around a certain profit motivation. Recently, a different type of creative hubs has emerged, which are community-driven and could have a lot of potential as public building. Unlike the entrepreneurial-led co-working spaces that represent enterprises renting out individualised workspaces to creative professionals, the community-driven ones are usually non-profit ventures that accommodate creatives with a kind of social and even political proximity between them (Avdikos & Iliopoulou, 2019). The community-driven creative hub can play an important role in our future cities. However, looking at the translation of this contemporary public building typology into practice, it seems mostly unexplored.

Architecture

Architecture is facing the challenge of designing and constructing buildings that are sustainable and environmentally tenable. This includes reducing the carbon footprint of buildings, using renewable energy sources, and incorporating green spaces. Another challenge is addressing

socio-political developments such as affordable spaces, urbanization, and the integration of technology into the built environment. As technology continues to advance, architects will need to find ways to integrate new materials, construction methods, and building systems into their designs to create more efficient and sustainable buildings.

Architecture for Berlin's creative communities

Contemporary architecture in Berlin has the potential to foster creative communities by providing unique and flexible spaces for artists and creatives to work and collaborate. The city's rich history and diverse cultural landscape offer a variety of architectural styles and forms to inspire new and innovative designs. However, currently creative communities are seen as: "the mechanism to regenerate what is perceived as a derelict urban area" (Porter, L. & Shaw, K., 2013).

When looking at the spaces these creative communities are situated in, one of the main challenges seems to be the lack of a strong identity. Many of the buildings in the city have historical significance, making it difficult for the creative community to put their own stamp on them. Additionally, the cost of renovating and maintaining these older buildings can be high and zoning laws and regulations may limit their ability to use these buildings in new and innovative ways.

Research by design: Investigating the potential of **new building technologies** in enhancing the **functionality** and **sustainability** of the **public building** as a **creative condenser** in the context of **Berlin**.

Research questions:

1. What is a creative condenser and what are the potential benefits in terms of social and economic impact?
2. What are the current trends and challenges facing the creative communities in Berlin and how do they influence the design of public buildings for them?
3. How can the use of new technologies be integrated into the design and construction process to improve sustainability and performance of public buildings?

Design Assignment:

A future proof and sustainable creative condenser for the 'music, visual and performing arts' community, located next to the Berghain in Friedrichshain.

The project is expected to include the following design solutions to address the current issues that this community, as well as the architectural practice, are facing:

1. Program: The building has to be designed to foster all stages of the creative process, with a focus on collaboration, sharing knowledge and providing opportunities for artists to share their work. This includes shared spaces with no or very little rent prices such as co-working areas, meeting rooms, but also halls where the community is able to share with the public. Next to interior spaces, the building should provide qualitative outdoor spaces that are unbounded, becoming one with the public realm.
2. Multiplicity: By combining different public indoor and outdoor program into larger multi-use spaces, the community is provided with a level of flexibility to utilize in creative ways. These spaces should be the programmatic focal points in and outside the building where people can gather, interact and collaborate, creating a sense of community.

3. Community's Identity: Through architecture, this building should provide a strong communal identity. This should translate into an iconic and attractive building, distinctive and eye-catching, that serves as a symbol for the community.

4. Sustainability: The building should be designed and optimised to be highly energy efficient, incorporating features such as solar panels, green roofs, and natural ventilation to reduce the building's environmental footprint and lower operating costs. The construction and further use of materials should all be reduced in terms of environmental impact, some examples could be bio-based or recycled materials. This can be supported by the use of optimisation and digital fabrication, which potentially reduces construction costs and improves the building performance.

5. Context: The building's aesthetic should be distinctive within the context of Friedrichshain, Berlin. However, the building should respond to the urban context in terms of accessibility and the building's envelope.

GRADUATION PLAN | RESEARCH QUESTION & DESIGN ASSIGNMENT

Method description

For this graduation project, a combination of 'research by design' methods and techniques will be utilised to study the building's qualities through 3D and physical models, technical drawings, diagrams and sketches. More specifically, testing and reflecting on these models and drawings will gain insights into the building's characteristics. Contemporary techniques such as digital fabrication, the use of AI in architecture and optimisation will inform this 'research by design' process. Additionally, literature study will be done to gather existing knowledge supporting this project.

Literature

Avdikos, V. & Iliopoulou, E. (2019). Community-Led Coworking Spaces: From Co-location to Collaboration and Collectivization. *Creative Hubs in Question*, 111–129. https://doi.org/10.1007/978-3-030-10653-9_6

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Jakob, D. (2010). Constructing the creative neighborhood: Hopes and limitations of creative city policies in Berlin. *City, Culture and Society*, 1(4), 193–198. <https://doi.org/10.1016/j.ccs.2011.01.005>

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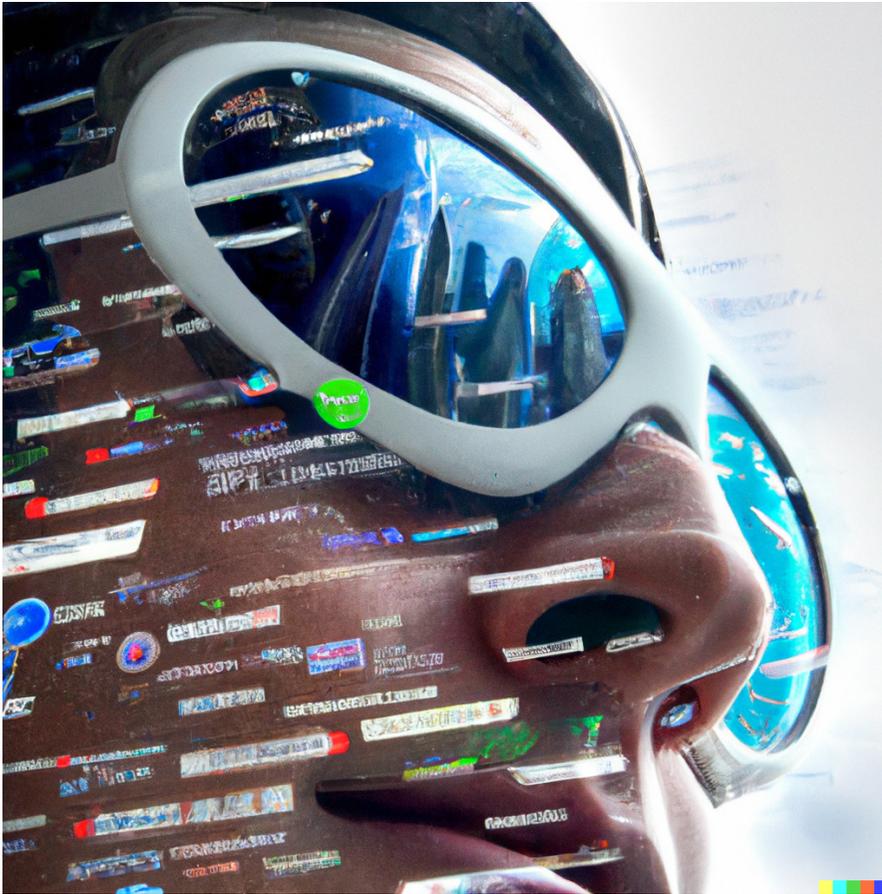
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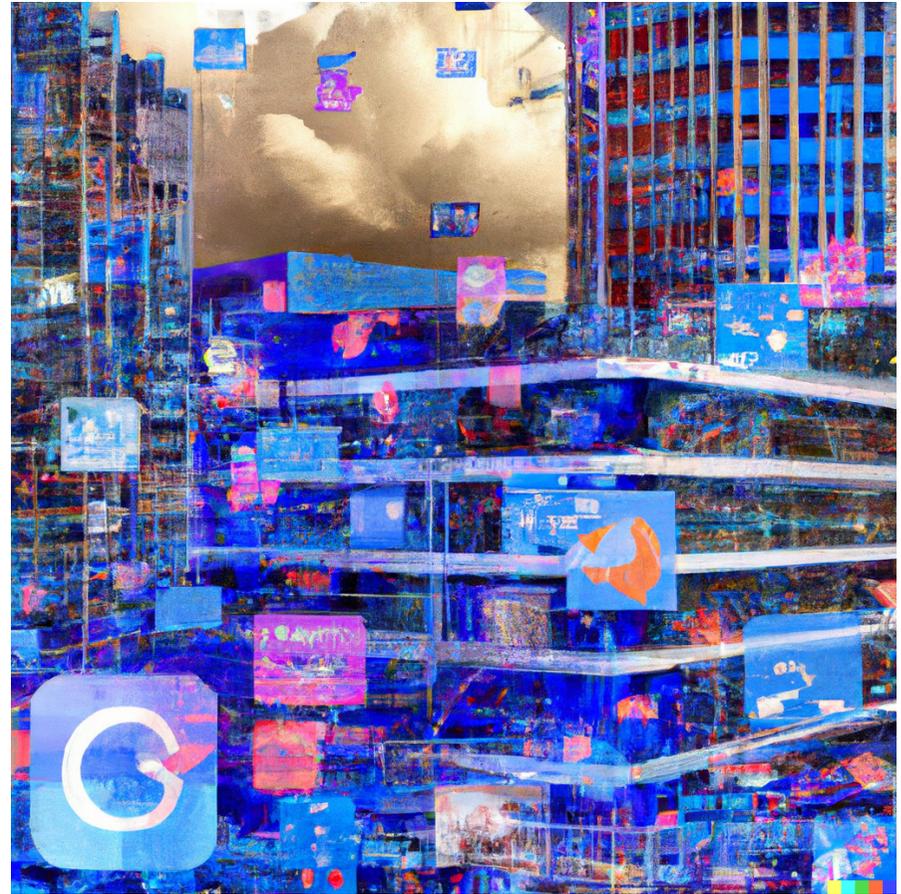
Porter, L. & Shaw, K. (2013). *Whose Urban Renaissance?: An international comparison of urban regeneration strategies*. Taylor & Francis.

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THEORY & DELINEATION | COLLAGE/MONTAGE

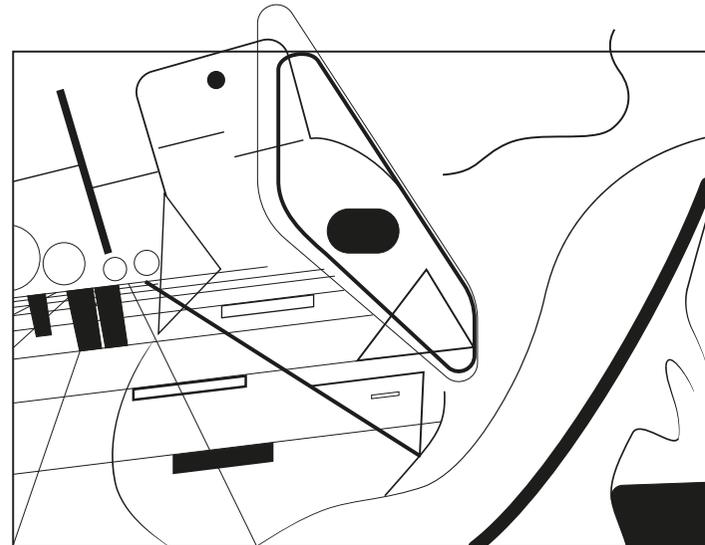
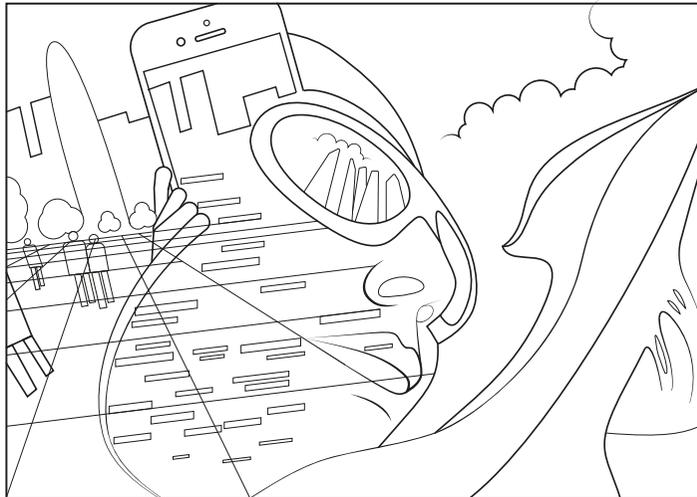


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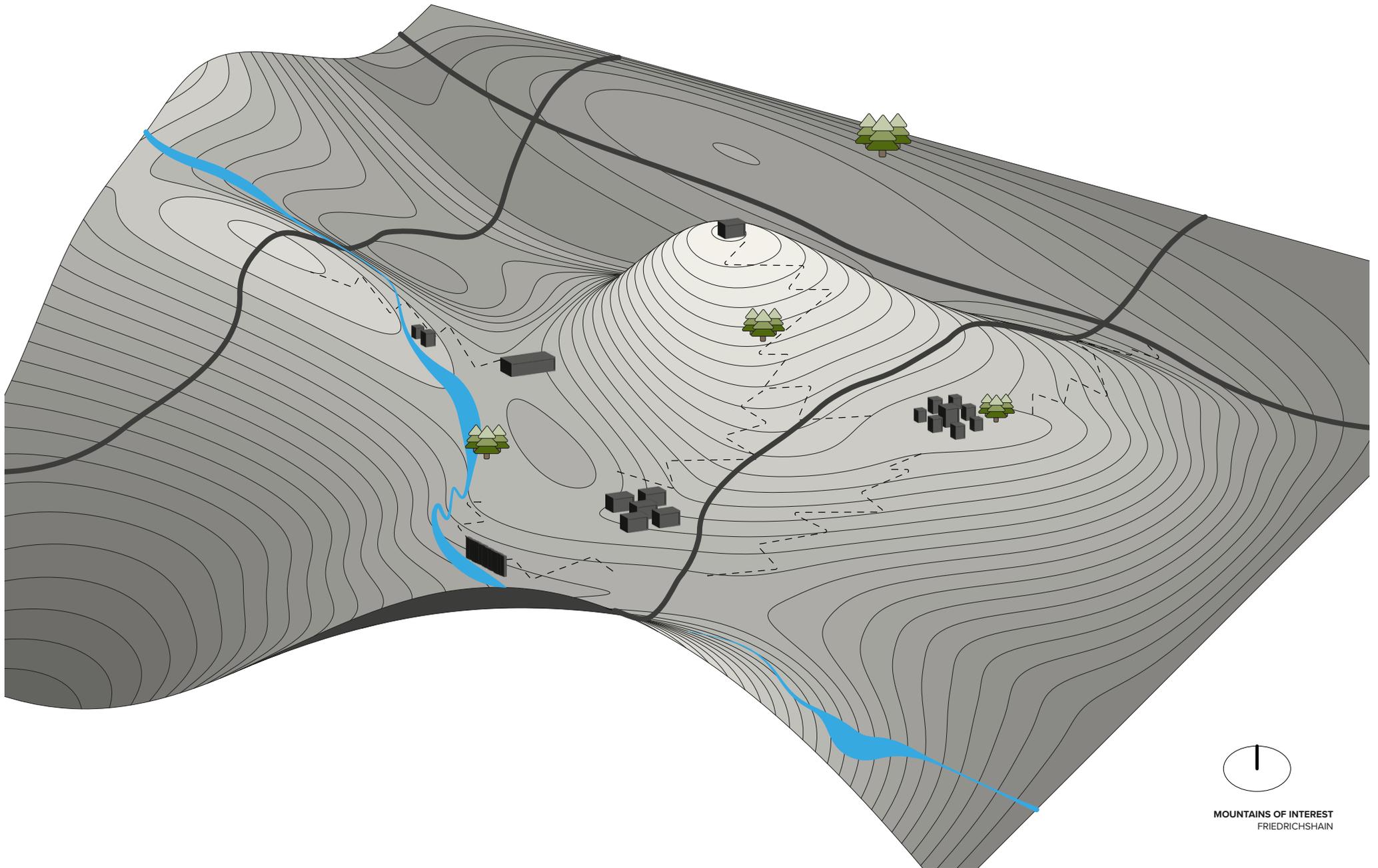


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THEORY & DELINEATION | SUPERPOSITION/-IMPOSITION



THEORY & DELINEATION | PSYCHOGEOGRAPHY

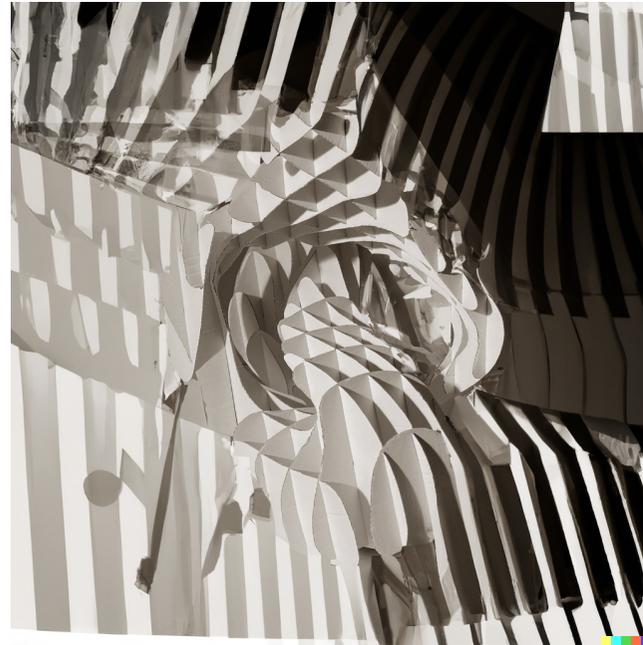


MOUNTAINS OF INTEREST
FRIEDRICHSHAIN

THEORY & DELINEATION | ASSEMBLAGE



THEORY & DELINEATION | RE-MIX

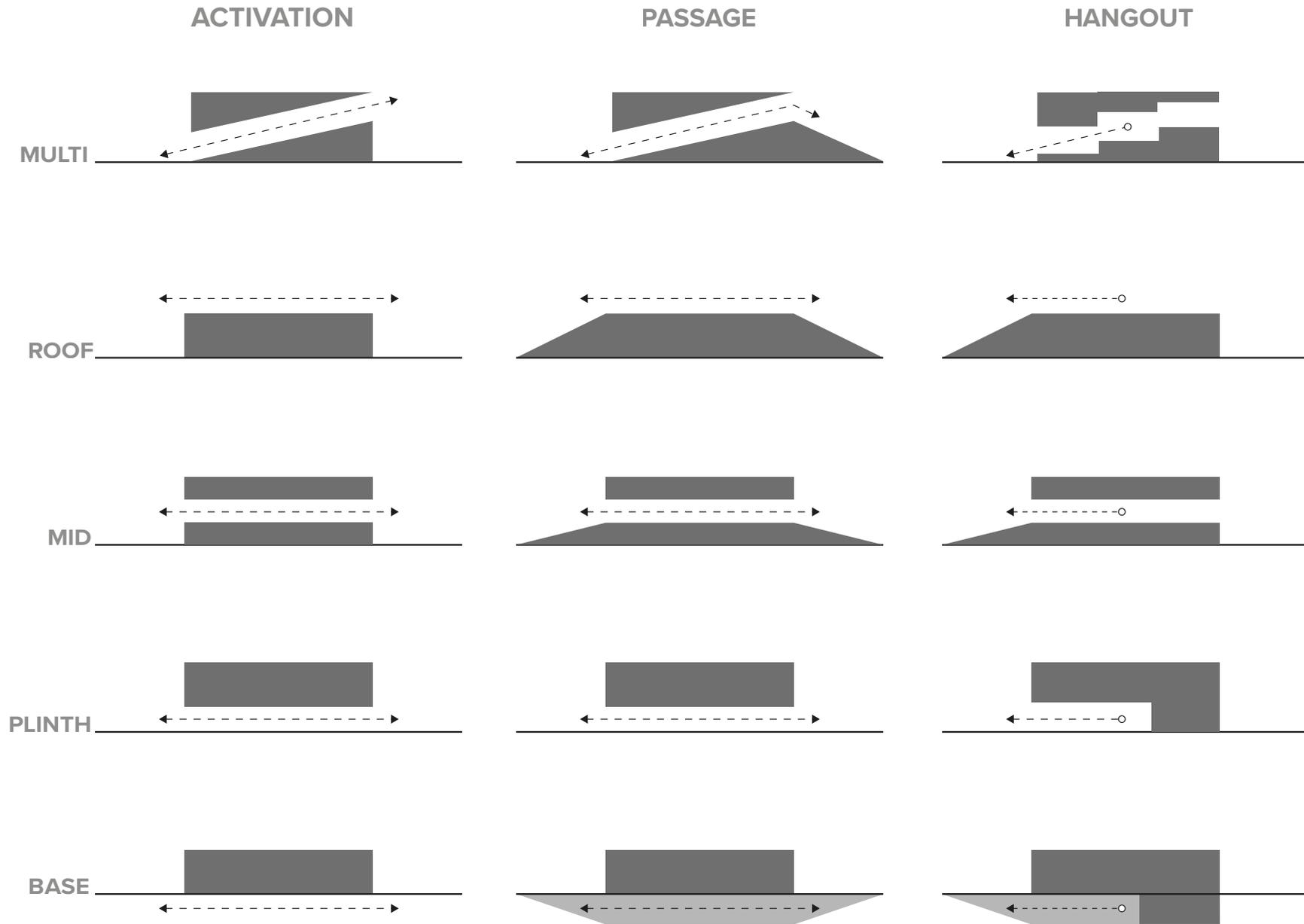


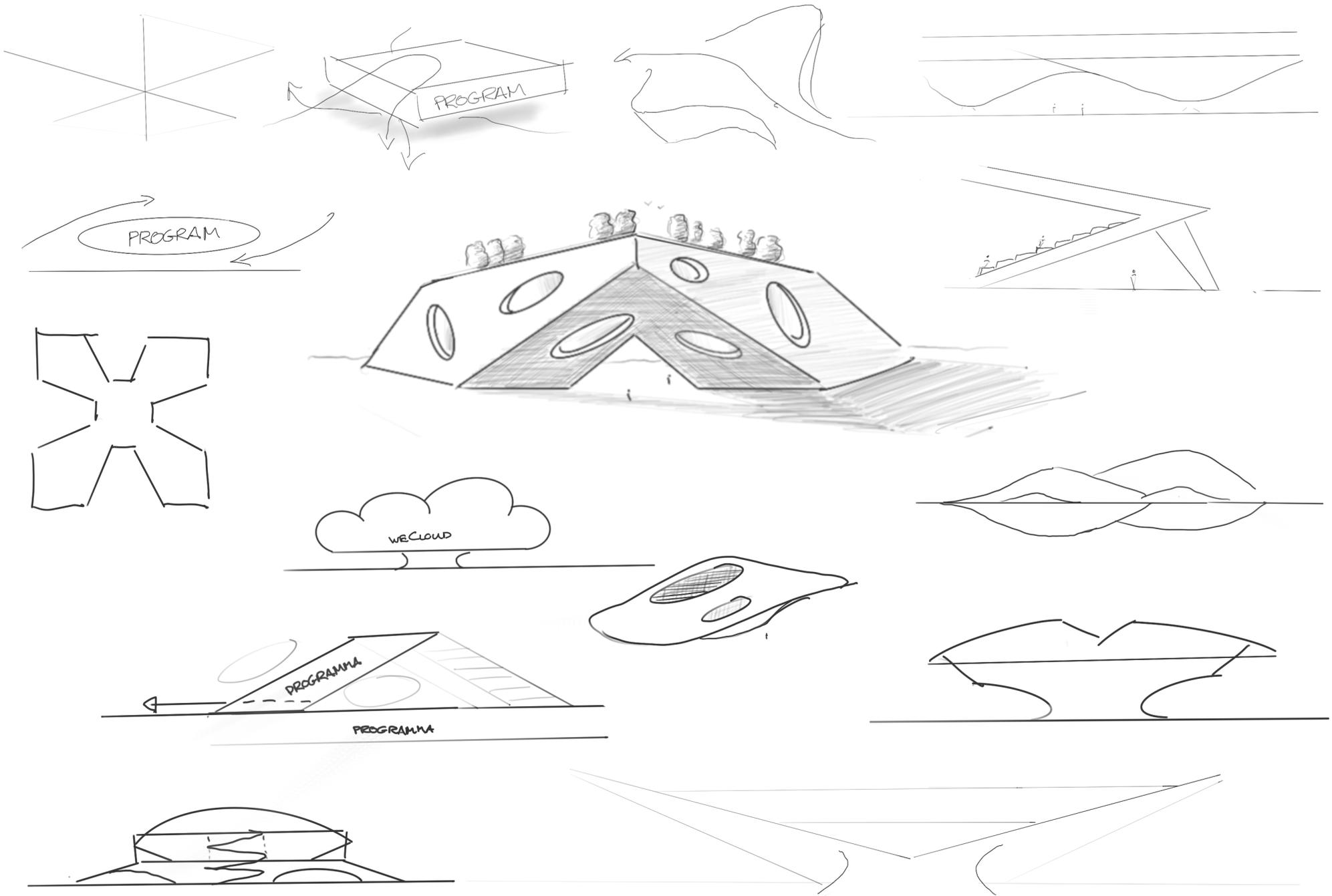
DESIGN BRIEF | BUILDING PROGRAM

PROGRAM: MUSIC, VISUAL & PERFORMING ARTS

THE SPACES PRESENTED BELOW COULD POTENTIALLY BE COMBINED INTO MULTI-USE SPACES.

PROGRAM			M2's or AMOUNT	NOTES
THINK/MAKE/SHARE	LIBRARY	- PUBLIC LIBRARY	300 - 500 m ²	MAXIMIZE USE OF DAYLIGHT
	DESKS	- COMPUTER DESKS	200 SPOTS	
	ROOMS	- MEETING ROOMS - SILENT ROOMS	100 m ²	
	WORKSHOP	- WORKSHOP SPACES	200 m ²	
	SHARED STUDIO'S	- RECORDING STUDIO - PRODUCTION STUDIO - PHOTOGRAPHIC STUDIO - FILM STUDIO - ART STUDIO - DANCE STUDIO	500 m ²	ACCES TO TOOLS, EQUIPMENT & RESOURCES
	EXHIBITION (INDOOR)	- EXHIBITION SPACES	500 m ²	TEMPORARY PUBLIC ART INSTALLATIONS
	EXHIBITION (OUTDOOR)	- OUTDOOR EXHIBITION SPACE	N/A	TEMPORARY PUBLIC ART INSTALLATIONS
	PERFORMANCE (INDOOR)	- THEATER - PERFORMANCE SPACES	1500 m ²	
	PERFORMANCE (OUTDOOR)	- OUTDOOR PERFORMANCE SPACES		
GENERAL	ENTRY	- ENTRANCE - RECEPTION - TICKET COUNTER? - CAFÉ - SHOP? - TOILETS - ETC.	150 - 200 m ²	
	PUBLIC SERVICE	- INFORMATION COUNTER - WAITING AREA - PRIVATE MEETING ROOMS - BACK OFFICE - AUDITORIUM - ETC.	150 - 200 m ²	
	ADMINISTRATION & SERVICES	- OFFICES - STORAGE - CHANGING ROOMS - KITCHEN AND BREAK ROOMS - ETC.	200 - 250 m ²	
TOTAL			3.950 m²	



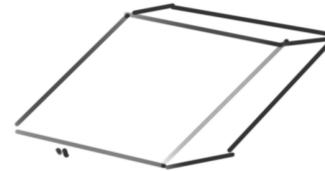
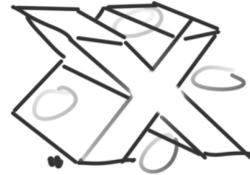




+ CIRCULAR MARKET POTENTIAL



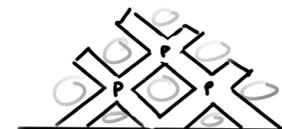
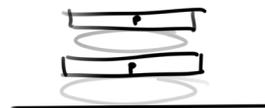
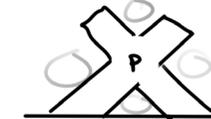
- WHEELCHAIR + DIVERSITY OF FLEXIBLE SPACE



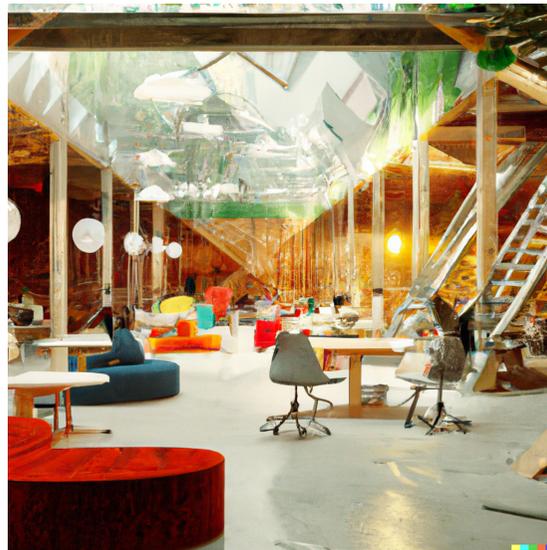
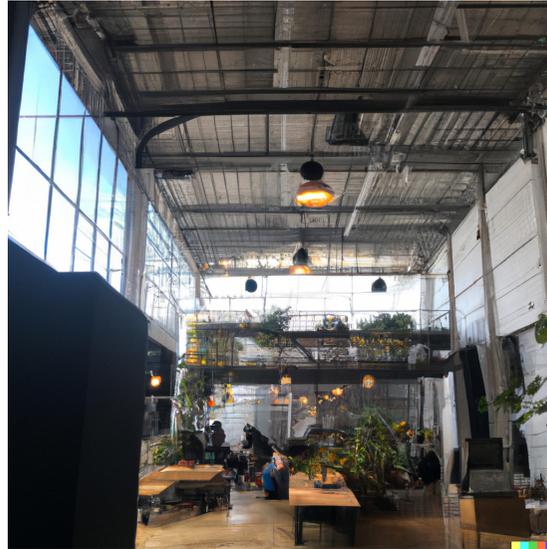
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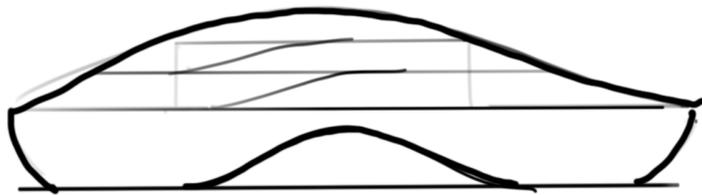
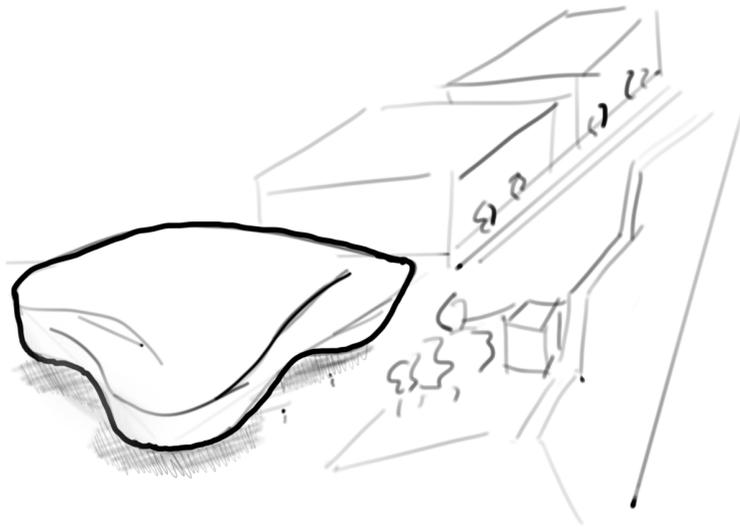
INCLINE

WEAVE

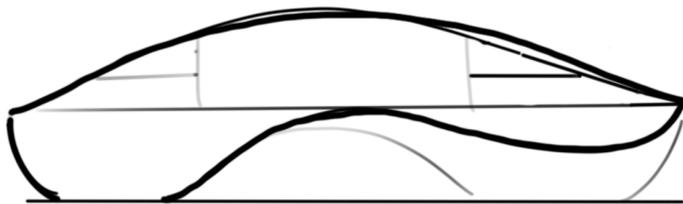


“THE ARCHITECTURE OF COMMUNITY DRIVEN CREATIVE HUBS”

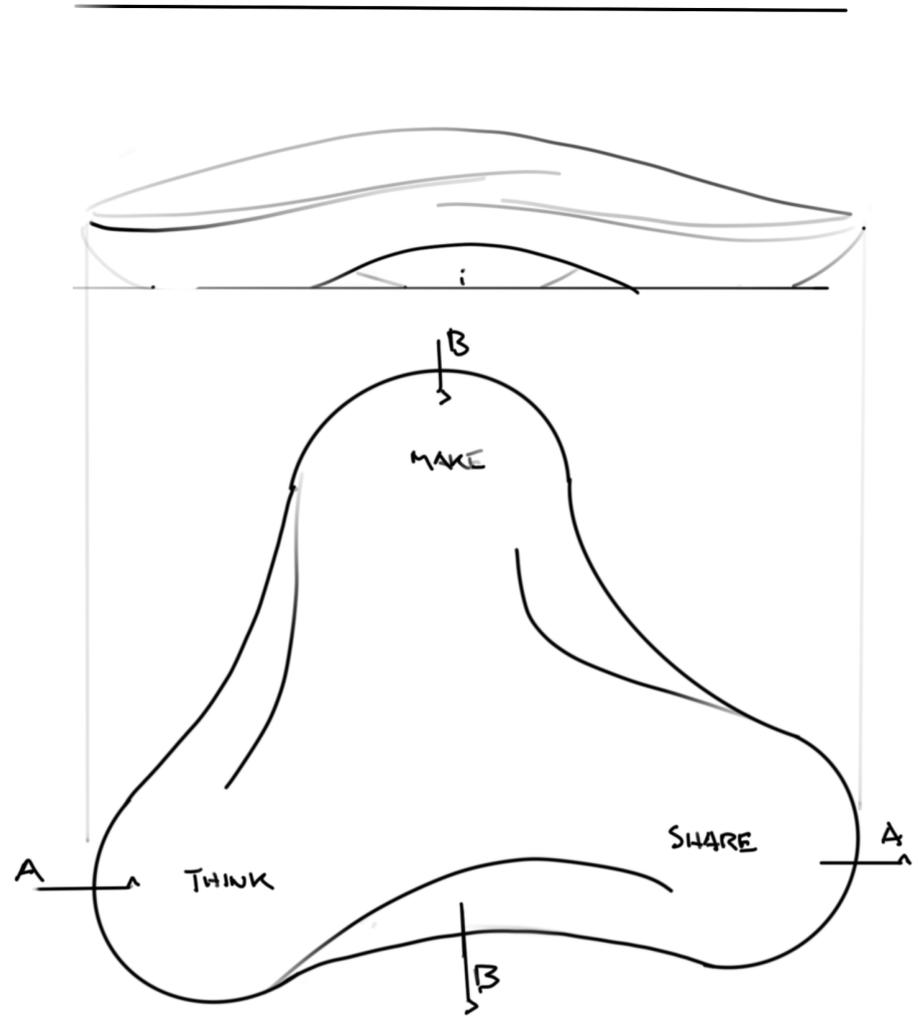


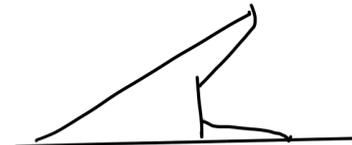
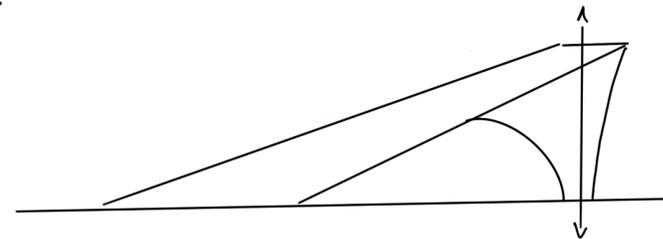
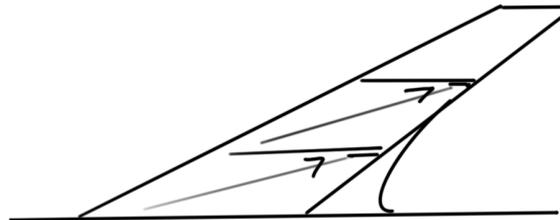
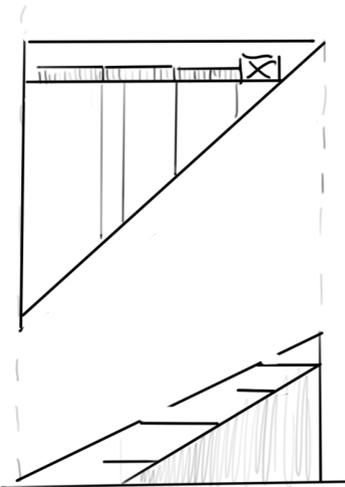
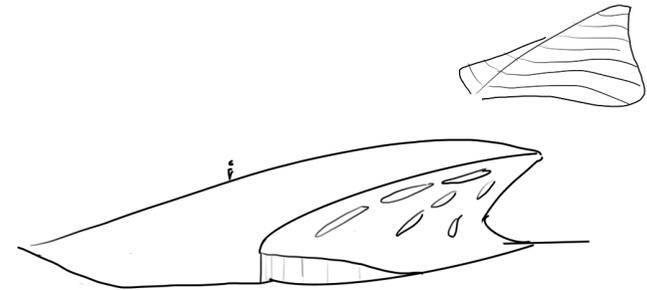
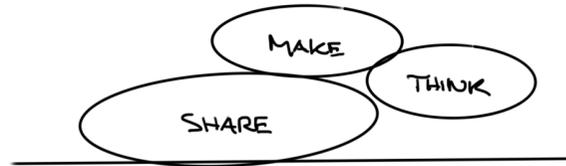
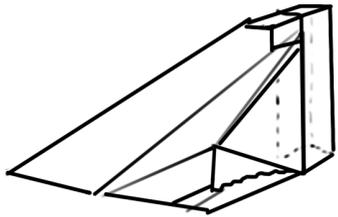
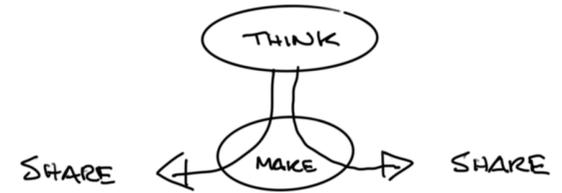
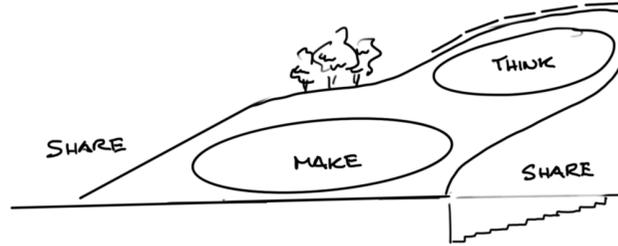


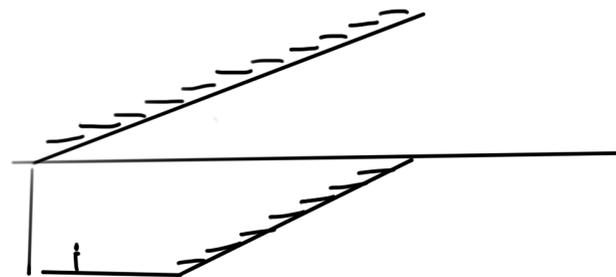
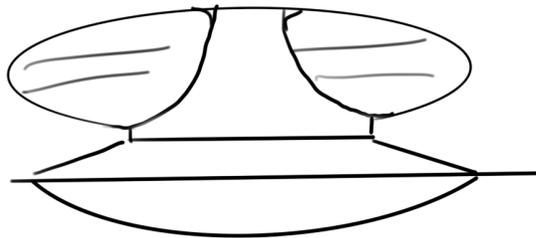
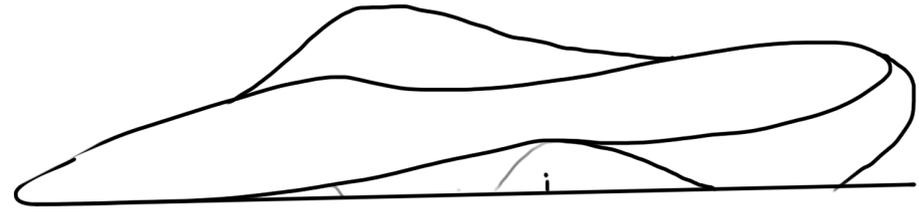
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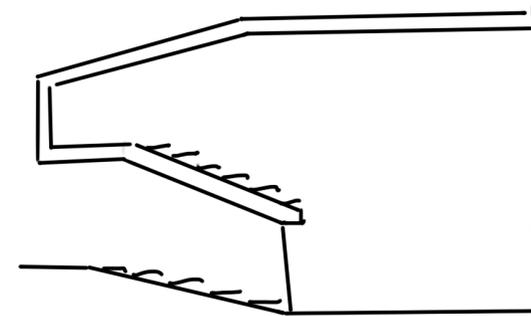
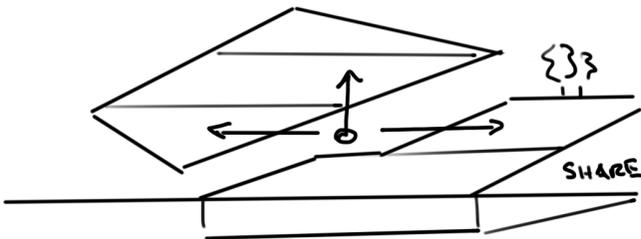
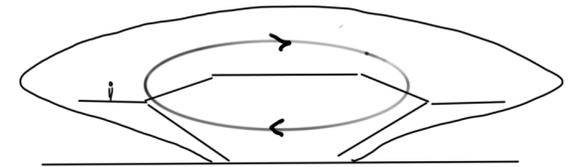
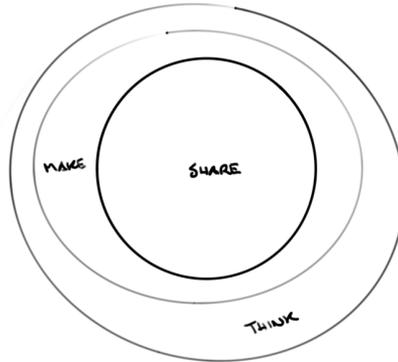
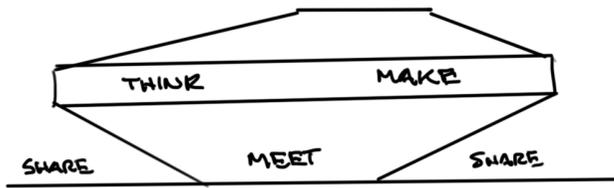
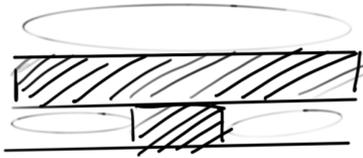


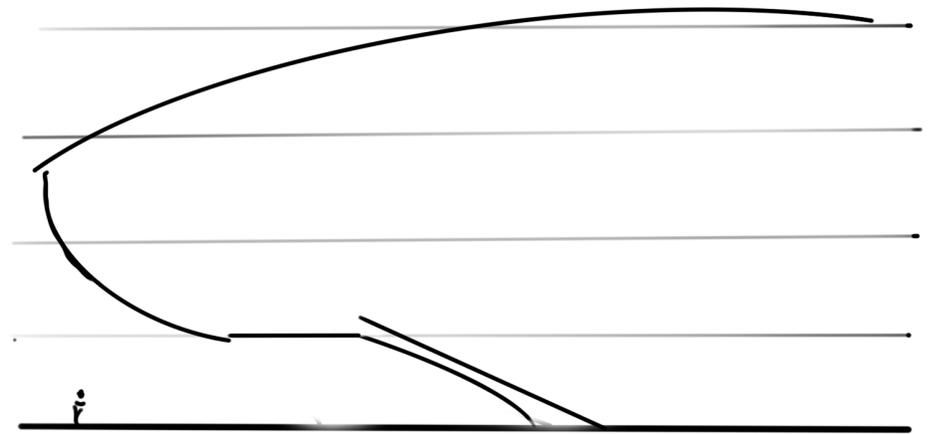
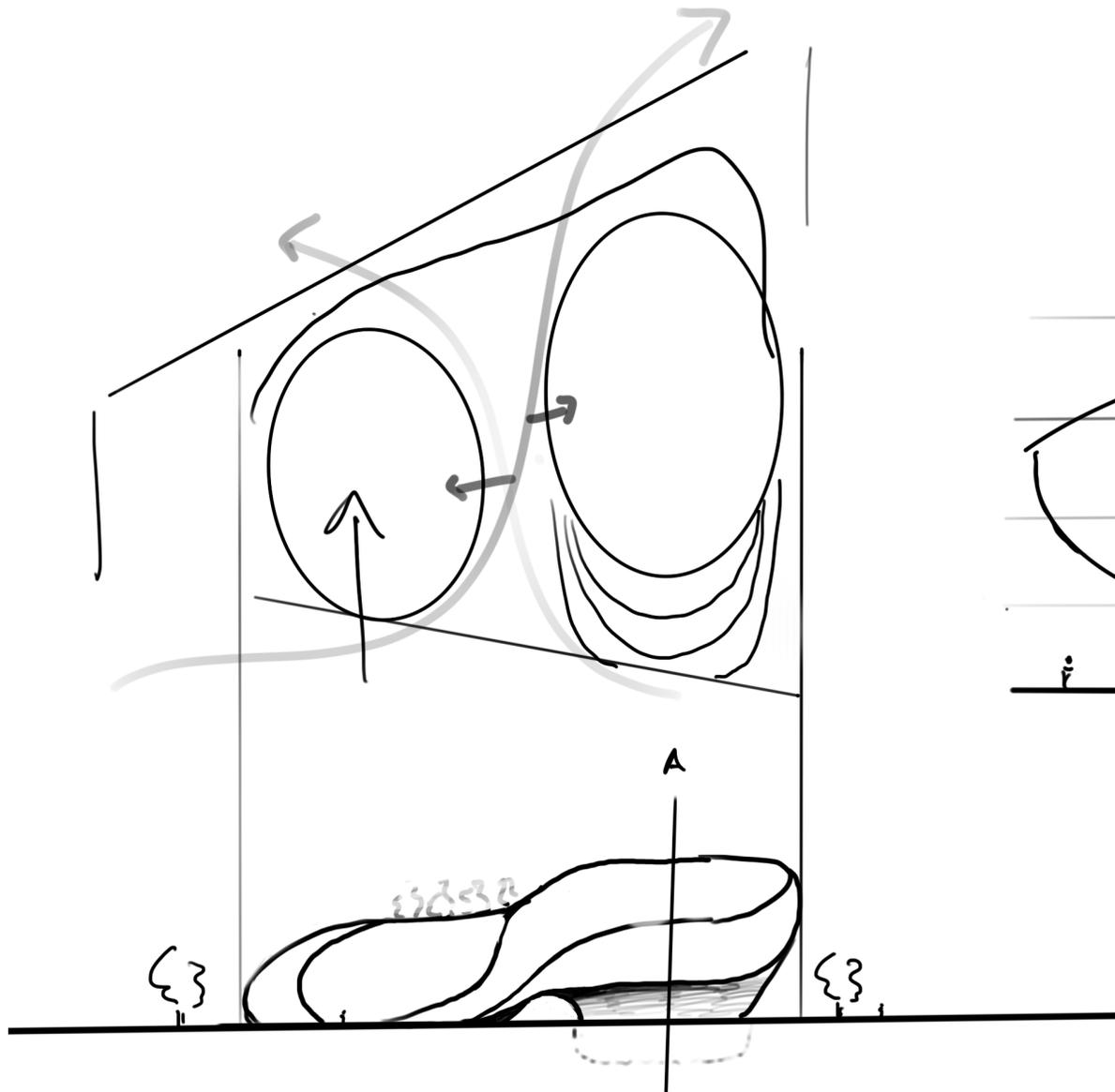
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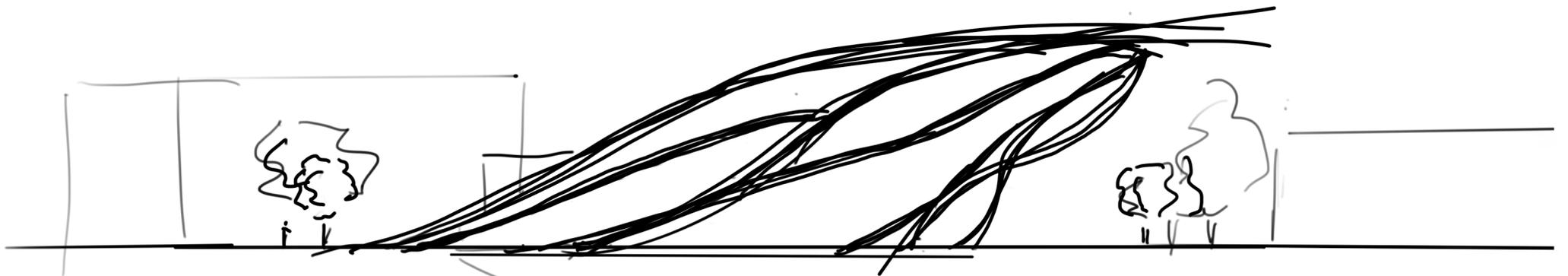
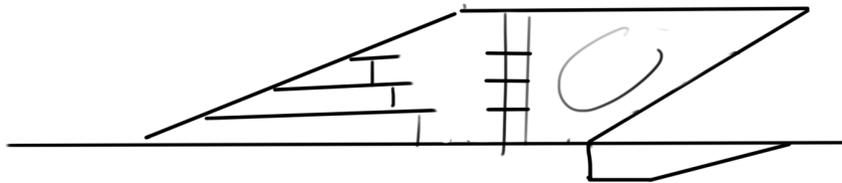
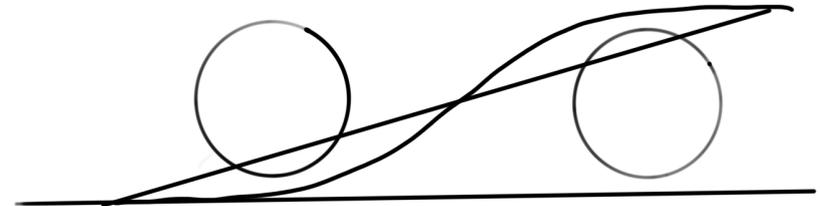
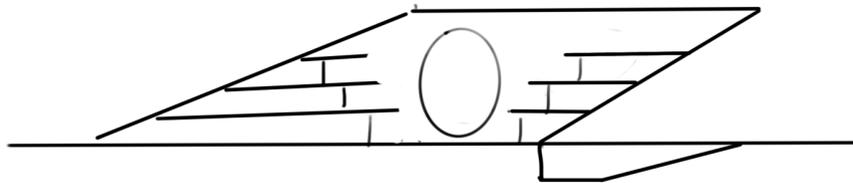
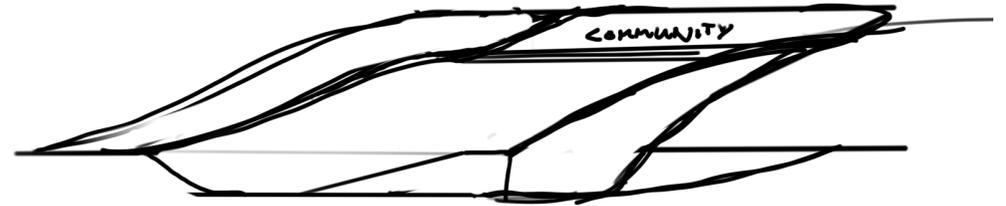
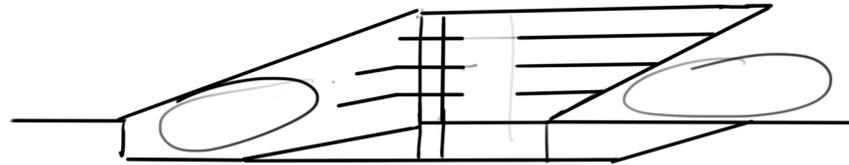




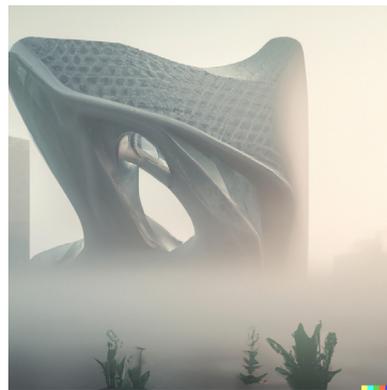
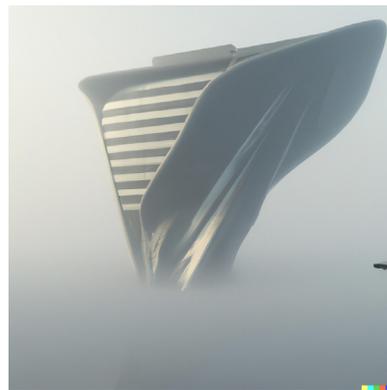
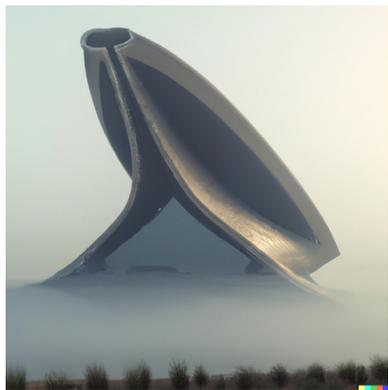
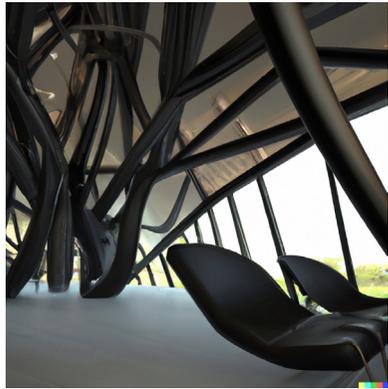








PROCESS DOCUMENTATION | FORMAL AND STRUCTURAL EXPLORATIONS WITH AI



An architectural rendering of a modern public building, the 'House of Creatives'. The building features a prominent, angular, light-colored facade with a large, integrated staircase. The scene is set in a park-like environment with green lawns, paved walkways, and several trees, including one with vibrant autumn foliage on the right. A person is seen walking a bicycle on the path, and a wooden bench is placed nearby. In the background, a white airplane is flying in a blue sky with scattered clouds.

HOUSE OF CREATIVES

PUBLIC BUILDING | ARNON VAN EMBDEN SPANJAARD | 4434900 | 03/02/2023



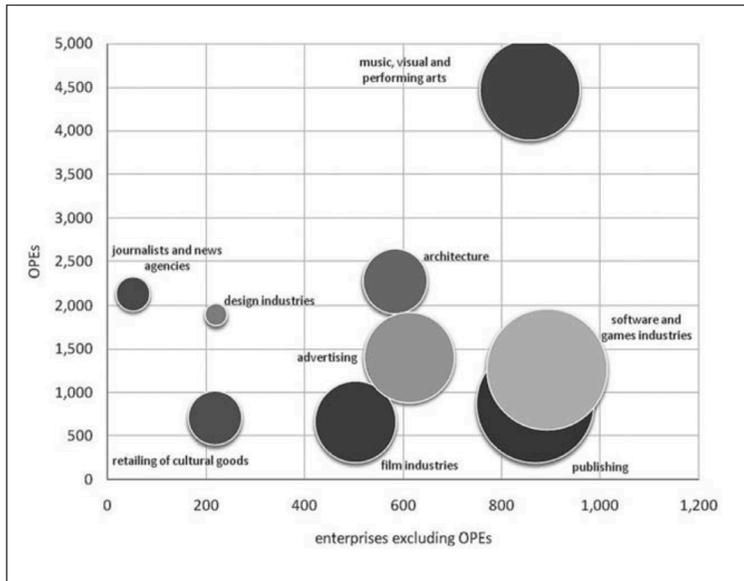


Figure 4: The Berlin Creative Industries – Enterprises, OPEs and Employees

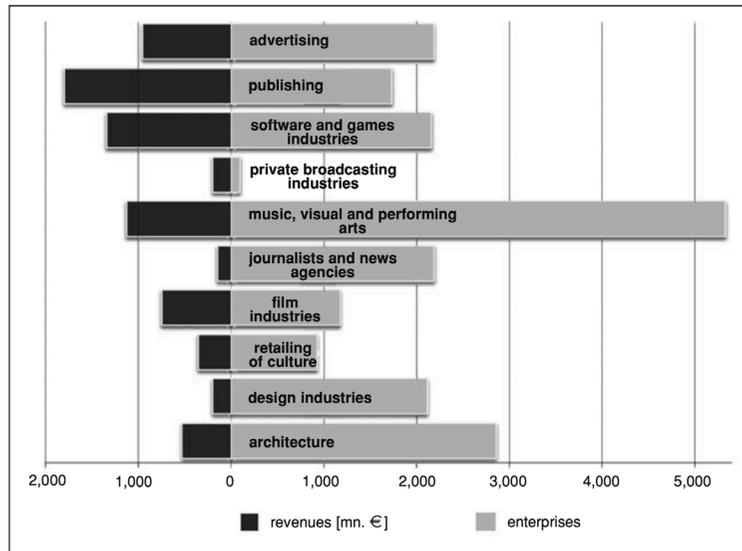


Figure 5: The Berlin Creative Industries – Enterprises and Revenues [mn. €]

Table 16: Music, Visual and Performing Arts – Employees

economic sectors	enterprises				revenues [th. €]			
	total	%	OPEs	%	total	%	OPEs	%
theater ensembles	16	0.3	4	0.1	16,047	1.4	584	0.1
ballet groups, orchestras, chapels, choirs	60	1.1	7	0.2	38,744	3.4	2,921	0.7
freelance visual artists	629	11.8	595	13.3	56,129	5.0	50,834	12.9
freelance restorers	137	2.6	121	2.7	12,955	1.1	7,577	1.9
freelance composers and processors of music	230	4.3	198	4.4	31,284	2.8	17,766	4.5
freelance writers	719	13.5	709	15.9	50,184	4.4	49,091	12.4
freelance stage-, film-, radio- and TV-artists	1,699	31.9	1,649	36.9	140,366	12.4	133,152	33.7
freelance artists	89	1.7	75	1.7	5,246	0.5	4,551	1.2
theater- and concert managers	133	2.5	51	1.1	178,162	15.8	8,084	2.0
operas, theaters, concert halls and similar institutions	20	0.4	5	0.1	53,909	4.8	295	0.1
variété and cabaret	12	0.2	3	0.1	2,820	0.2	160	0.0
technical support for cultural services	436	8.2	397	8.9	66,835	5.9	29,718	7.5
showmen and amusement parks	57	1.1	48	1.1	12,643	1.1	9,715	2.5
dance schools	82	1.5	57	1.3	10,191	0.9	5,959	1.5
supply of other cultural and entertainment services	87	1.6	56	1.3	41,852	3.7	4,126	1.0
Photography	401	7.5	357	8.0	46,768	4.1	32,383	8.2
photo laboratories	38	0.7	22	0.5	21,651	1.9	2,600	0.7
discotheques and dance halls	51	1.0	37	0.8	18,746	1.7	5,845	1.5
libraries and reader circles	4	0.1	–	–	1,766	0.2	–	–
sculpture and masonry	62	1.2	38	0.8	14,420	1.3	6,206	1.6
artist blacksmiths	20	0.4	12	0.3	26,078	2.3	958	0.2
manufacturing of adornment from noble metal	35	0.7	–	–	10,624	0.9	–	–
manufacturing of gold- and silversmith products	84	1.6	–	–	7,545	0.7	–	–
manufacturing of musical instruments	43	0.8	31	0.7	65,189	5.8	22,301	5.6
supply of other services for entertainment, recreation and leisure	185	3.5	–	–	200,789	17.8	–	–
total	5,329	100	4,472	100	1,130,943	100	394,826	100

Source: Bundesagentur für Arbeit, Statistik-Service Ost and own calculations



U

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BERGHAIN

SITE

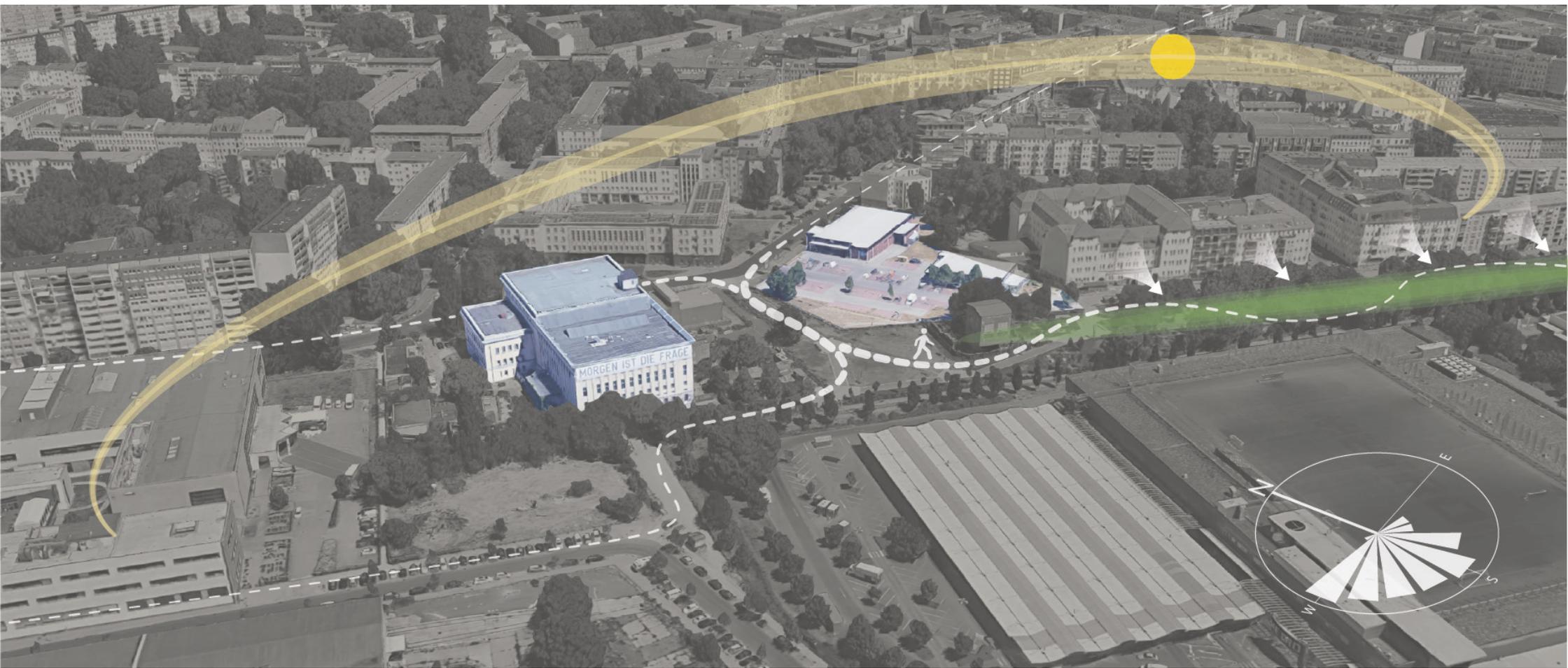
S

S

U

SITE | FRIEDRICHSHAIN

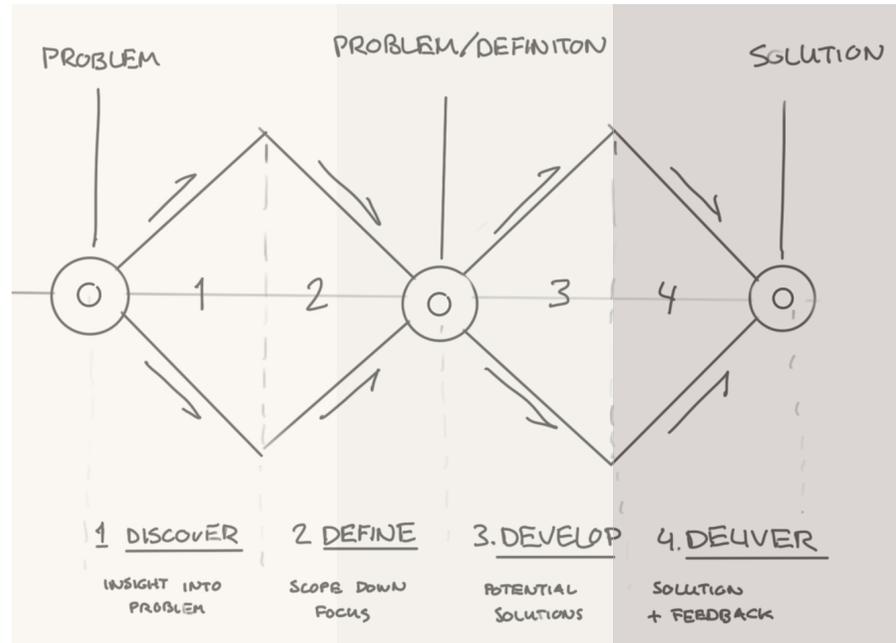
TU Delft



SITE ANALYSIS

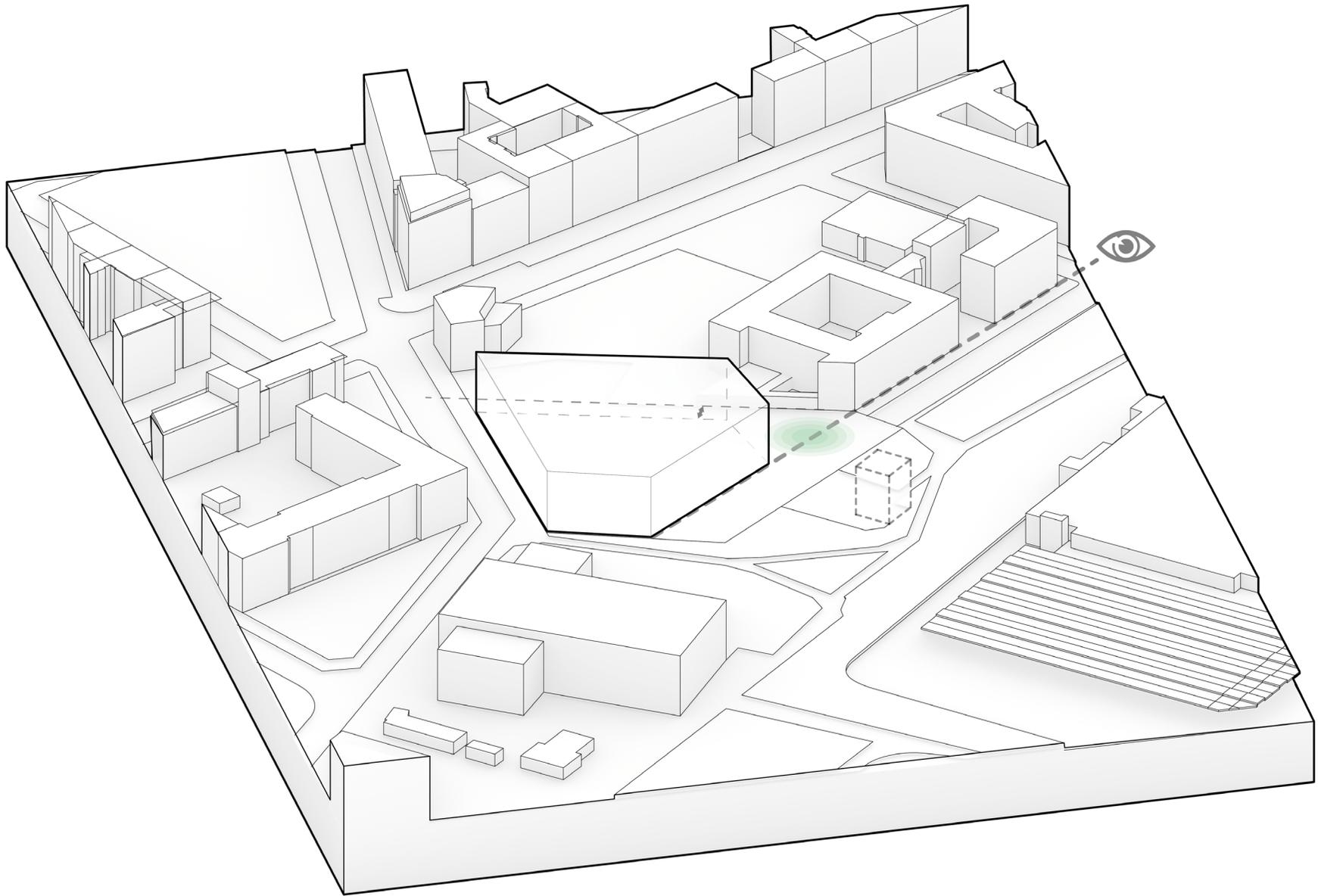
PROGRAM: MUSIC, VISUAL & PERFORMING ARTS

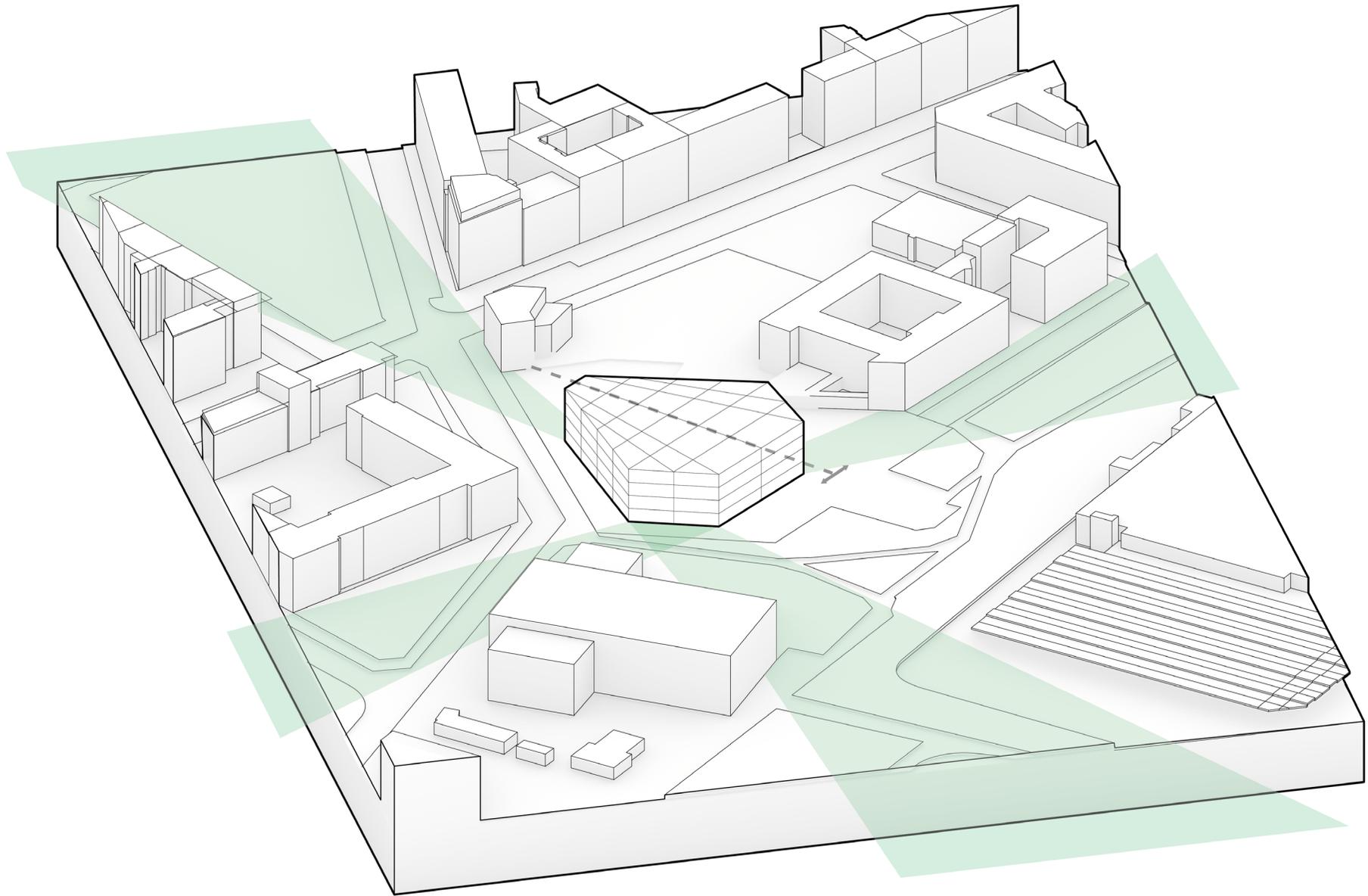
THE SPACES PRESENTED BELOW COULD POTENTIALLY BE COMBINED INTO MULTI-USE SPACES.

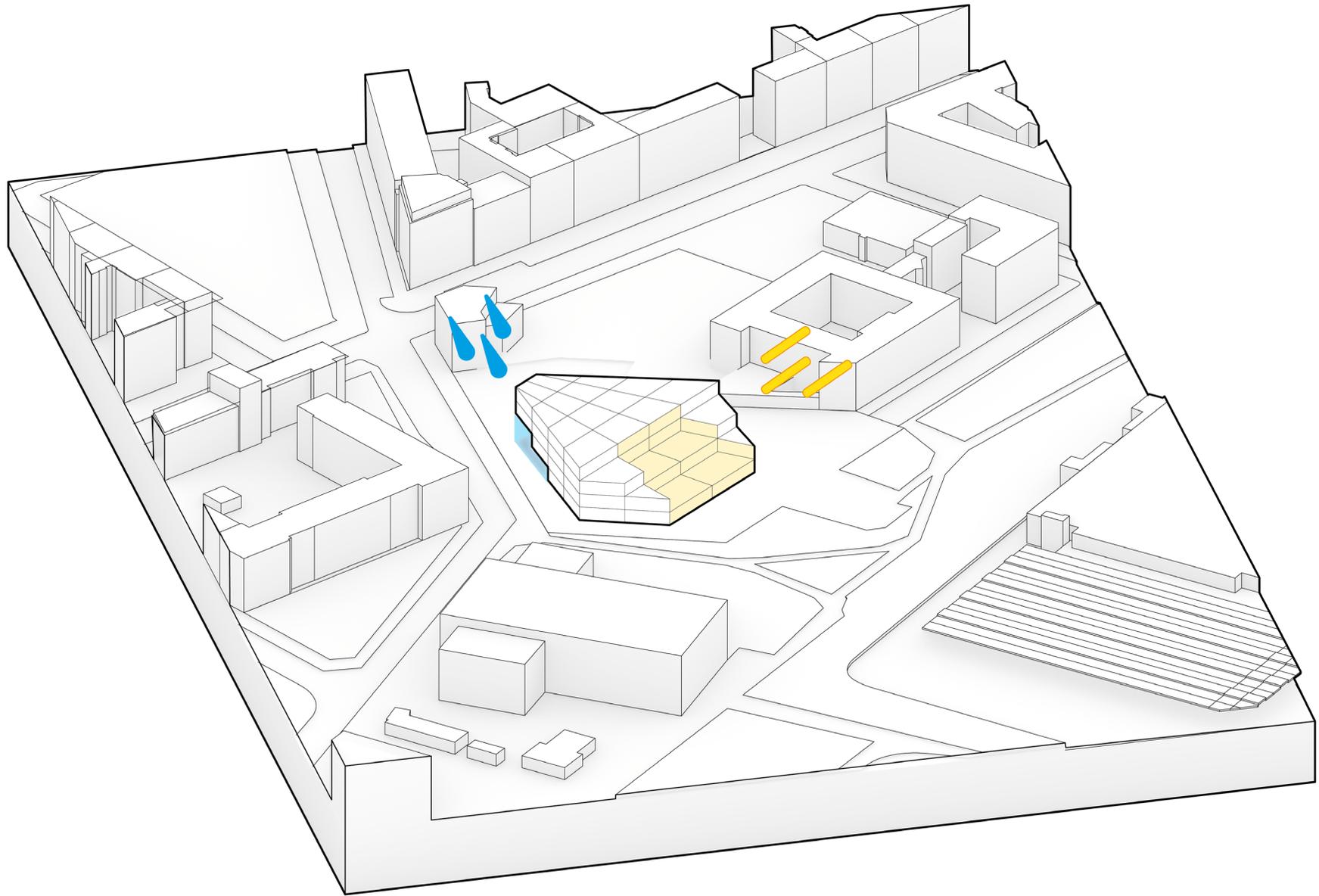


— B.H. BANATHY (1996)

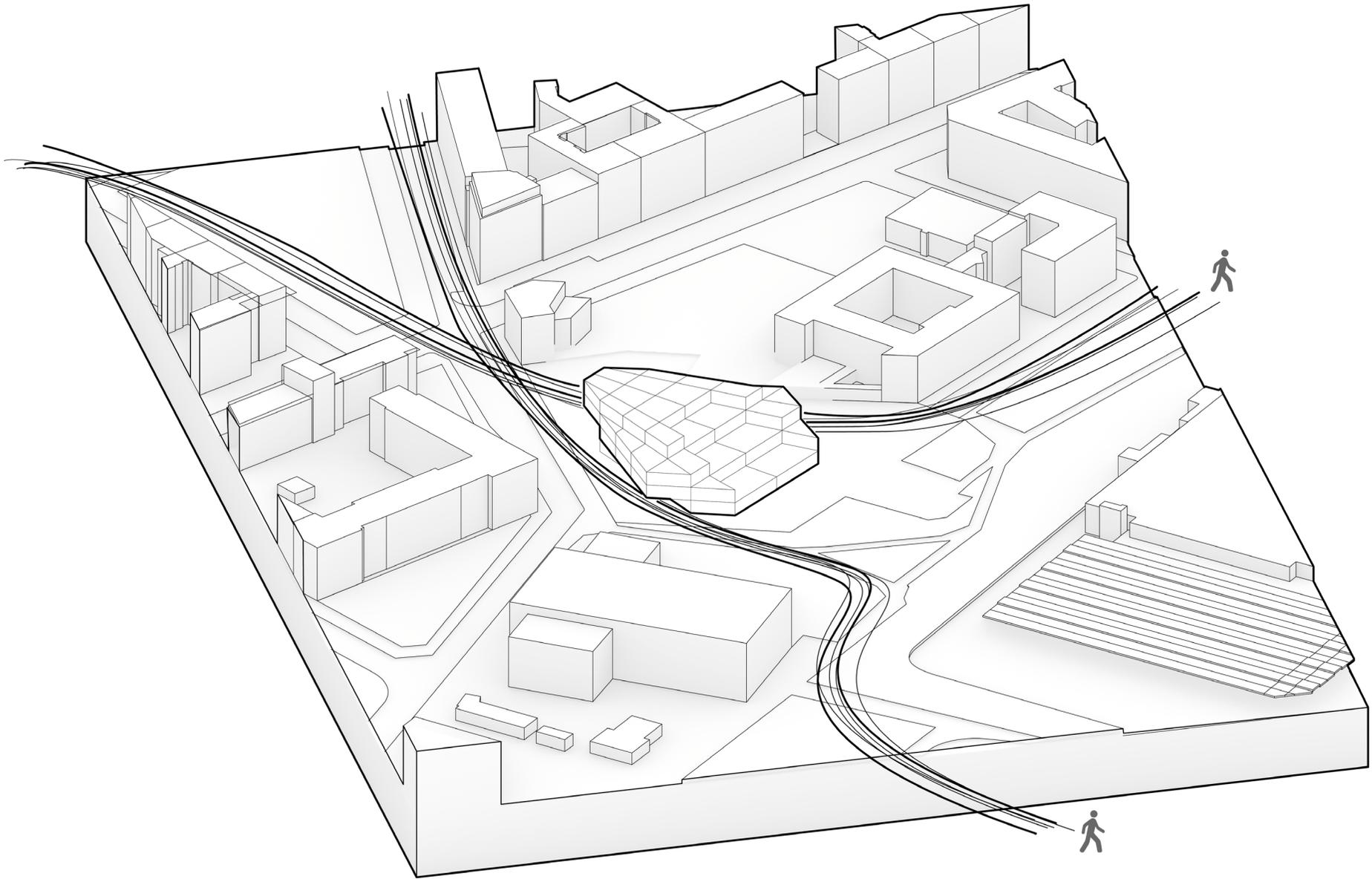
PROGRAM			M2's or AMOUNT	NOTES
THINK/MAKE/SHARE	LIBRARY	- PUBLIC LIBRARY	300 - 500 m ²	MAXIMIZE USE OF DAYLIGHT
	DESKS	- COMPUTER DESKS	200 SPOTS	
	ROOMS	- MEETING ROOMS - SILENT ROOMS	100 m ²	
	WORKSHOP	- WORKSHOP SPACES	200 m ²	
	SHARED STUDIO'S	- RECORDING STUDIO - PRODUCTION STUDIO - PHOTOGRAPHIC STUDIO - FILM STUDIO - ART STUDIO - DANCE STUDIO	500 m ²	ACCES TO TOOLS, EQUIPMENT & RESOURCES
	EXHIBITION (INDOOR)	- EXHIBITION SPACES	500 m ²	TEMPORARY PUBLIC ART INSTALLATIONS
	EXHIBITION (OUTDOOR)	- OUTDOOR EXHIBITION SPACE	N/A	TEMPORARY PUBLIC ART INSTALLATIONS
	PERFORMANCE (INDOOR)	- THEATER - PERFORMANCE SPACES	1500 m ²	
	PERFORMANCE (OUTDOOR)	- OUTDOOR PERFORMANCE SPACES		
GENERAL	ENTRY	- ENTRANCE - RECEPTION - TICKET COUNTER? - CAFÉ - SHOP? - TOILETS - ETC.	150 - 200 m ²	
	PUBLIC SERVICE	- INFORMATION COUNTER - WAITING AREA - PRIVATE MEETING ROOMS - BACK OFFICE - AUDITORIUM - ETC.	150 - 200 m ²	
	ADMINISTRATION & SERVICES	- OFFICES - STORAGE - CHANGING ROOMS - KITCHEN AND BREAK ROOMS - ETC.	200 - 250 m ²	
TOTAL			3.950 m²	



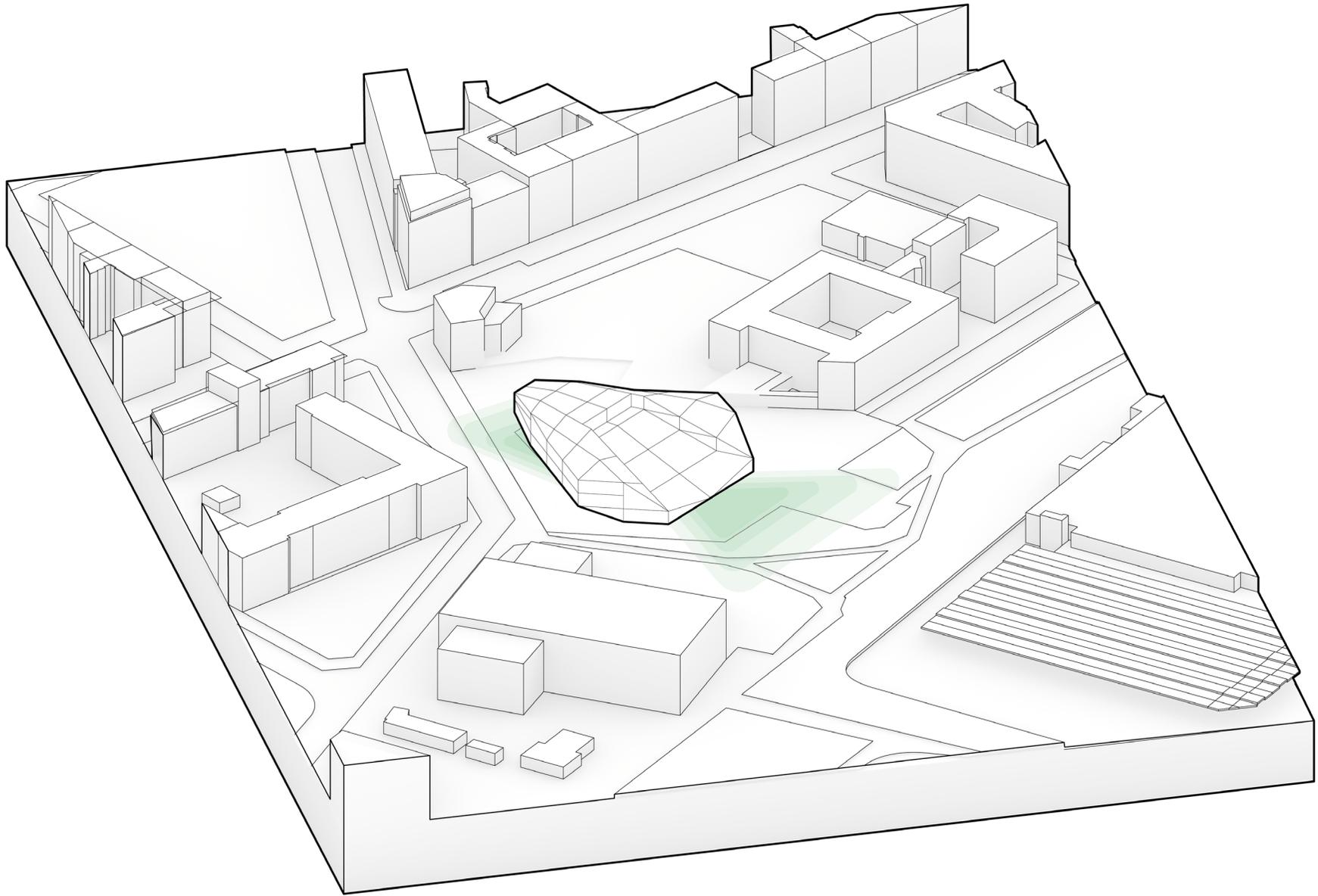


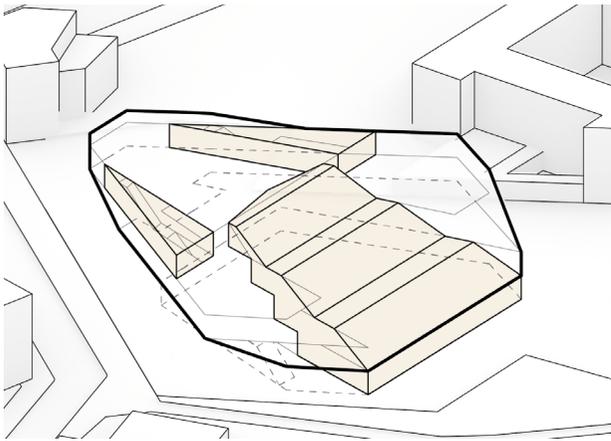


MASSING DEVELOPMENT | HIGH-QUALITY PUBLIC SPACE

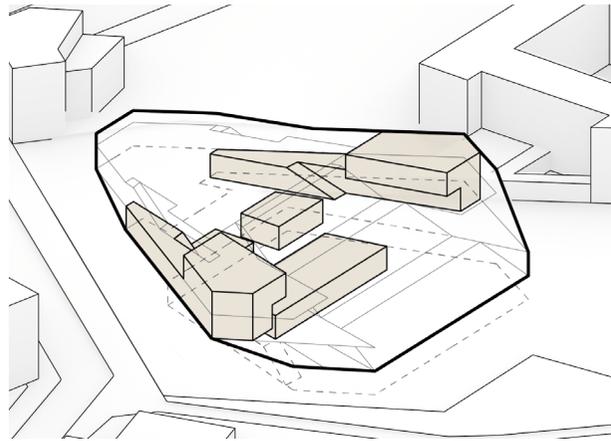


MASSING DEVELOPMENT | FLOW THROUGH SITE

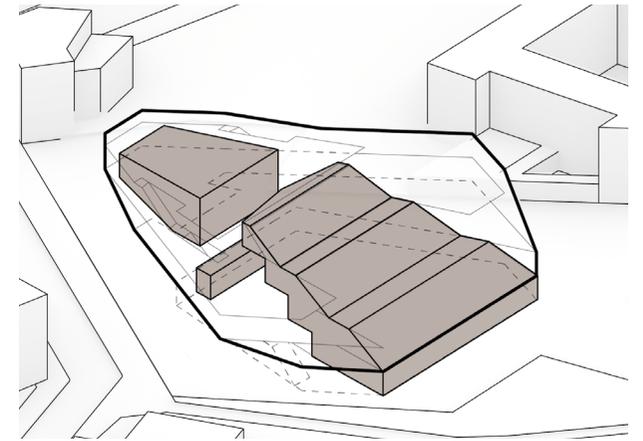




THINK



MAKE

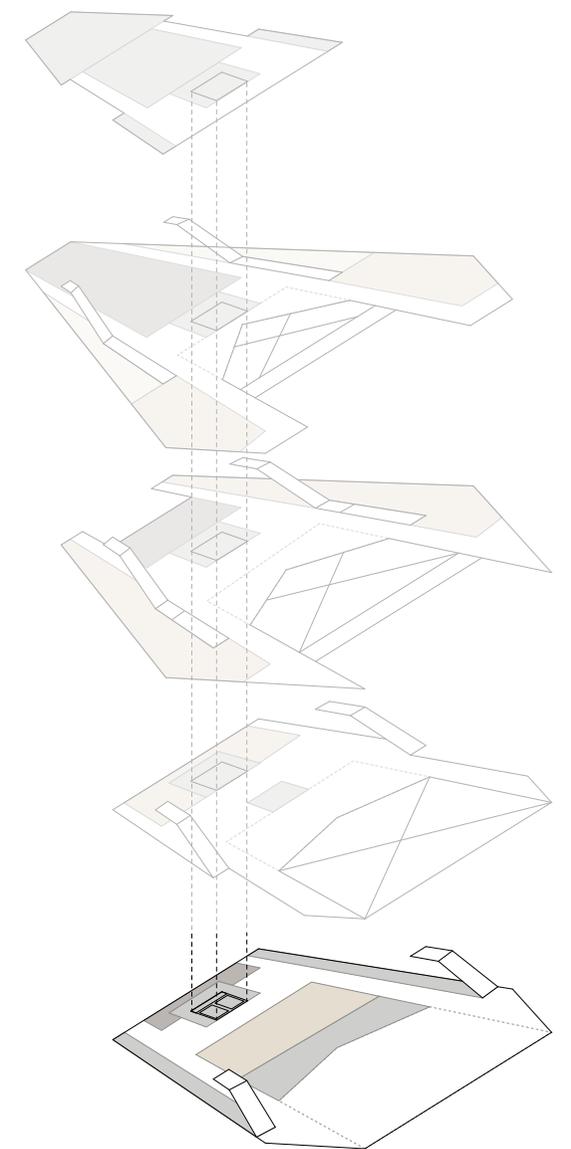
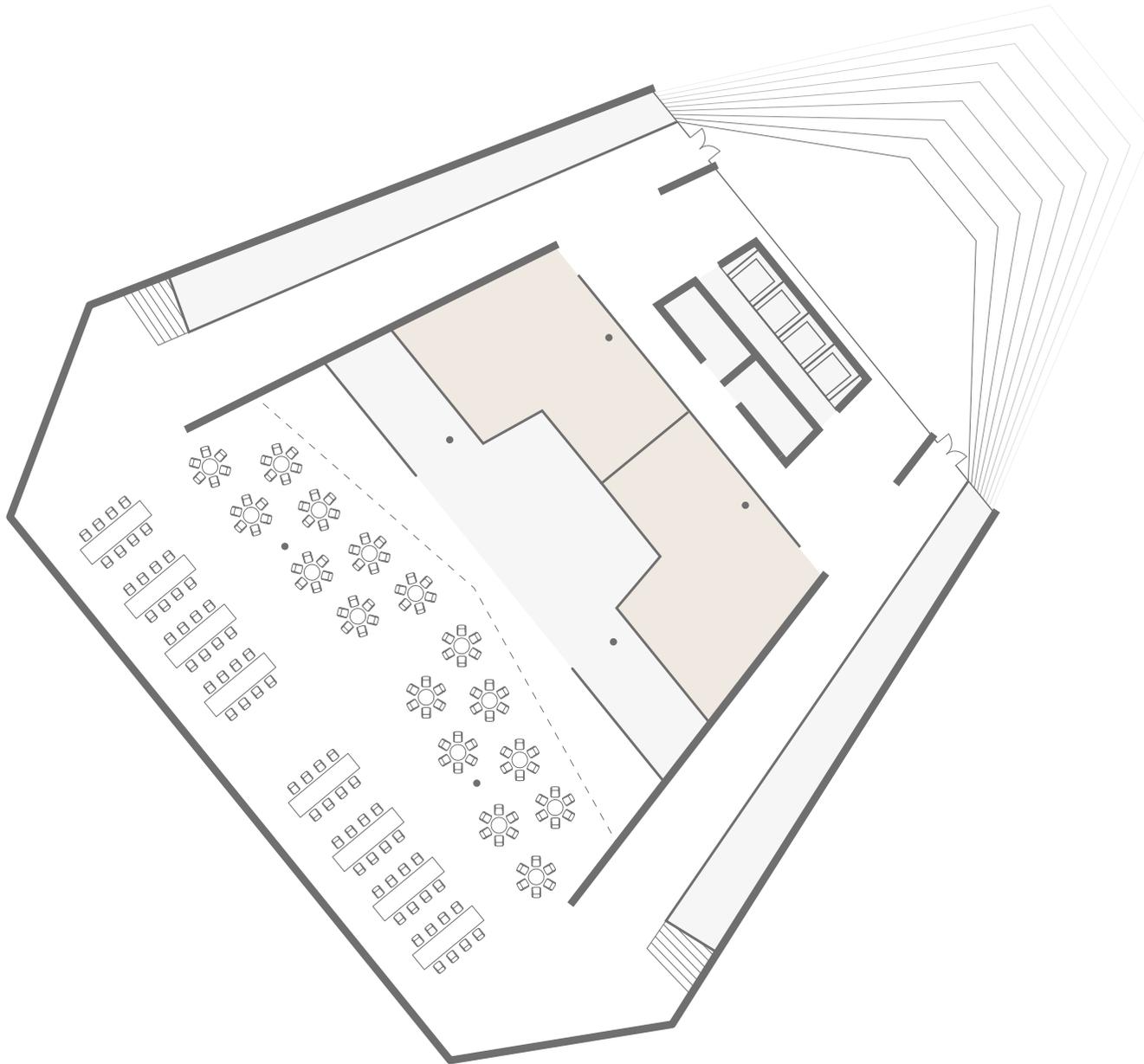


SHARE

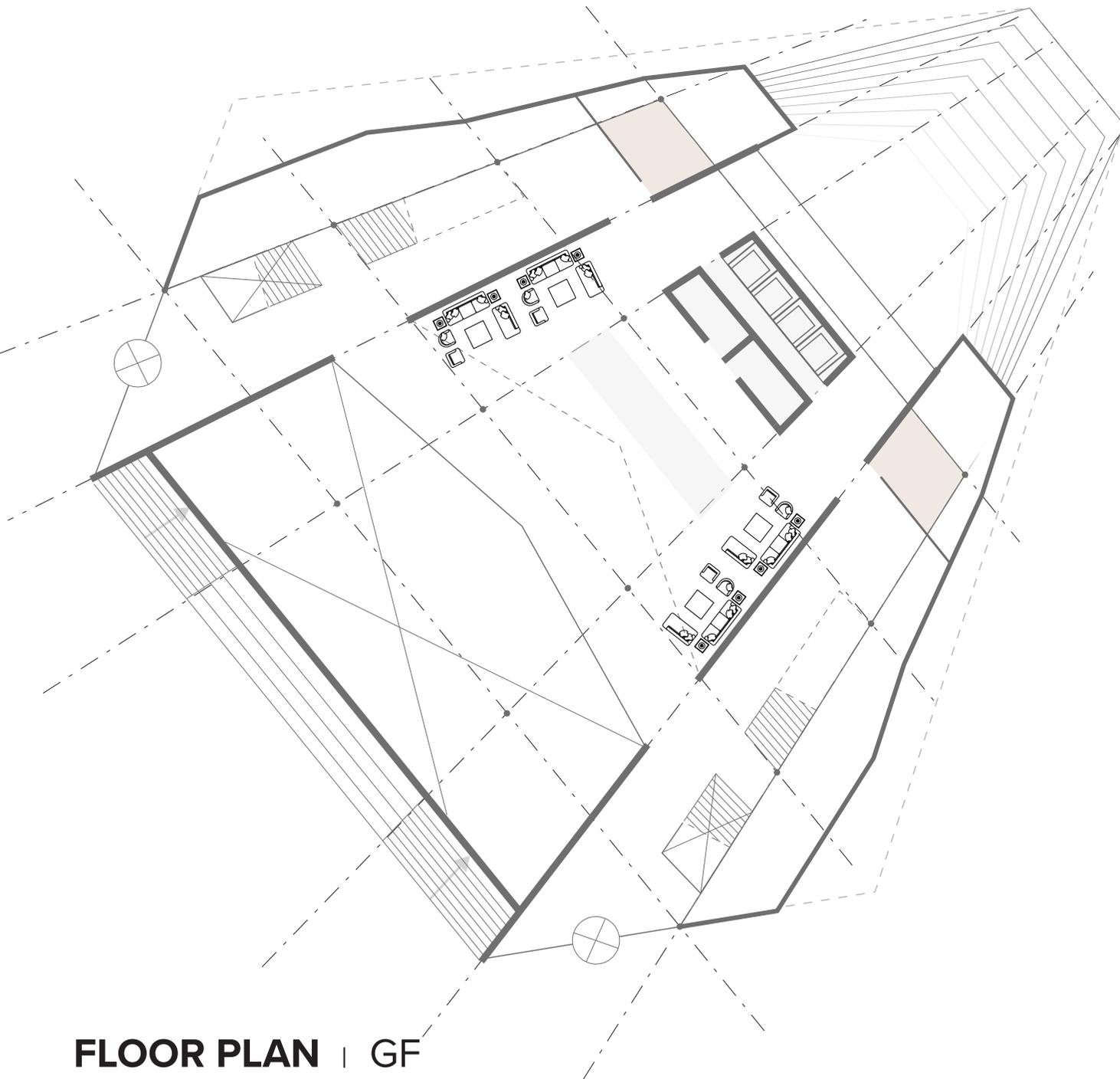


FLOOR PLAN 1:1000

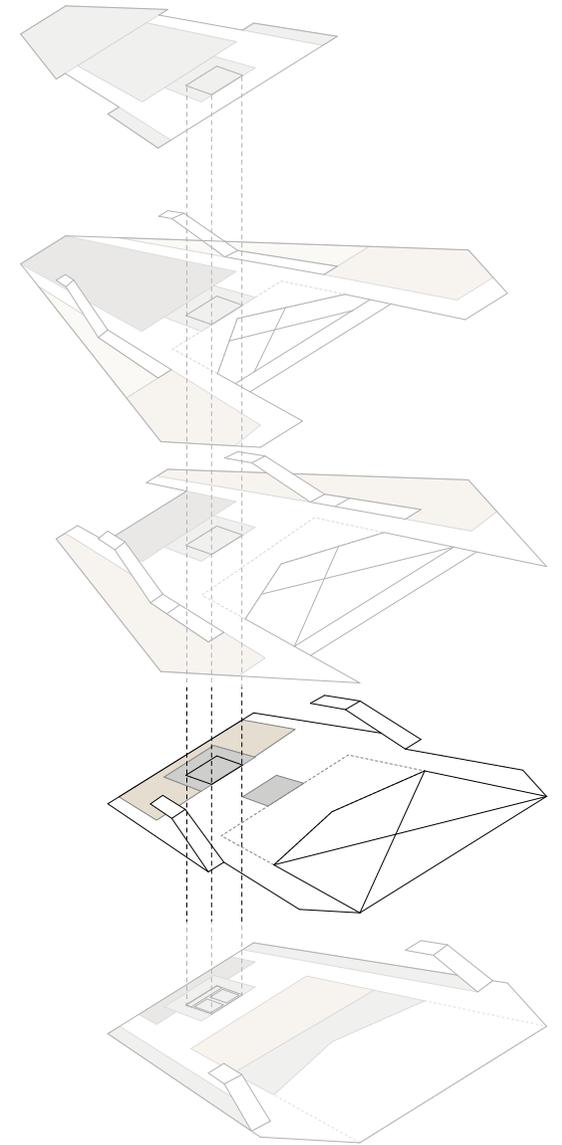


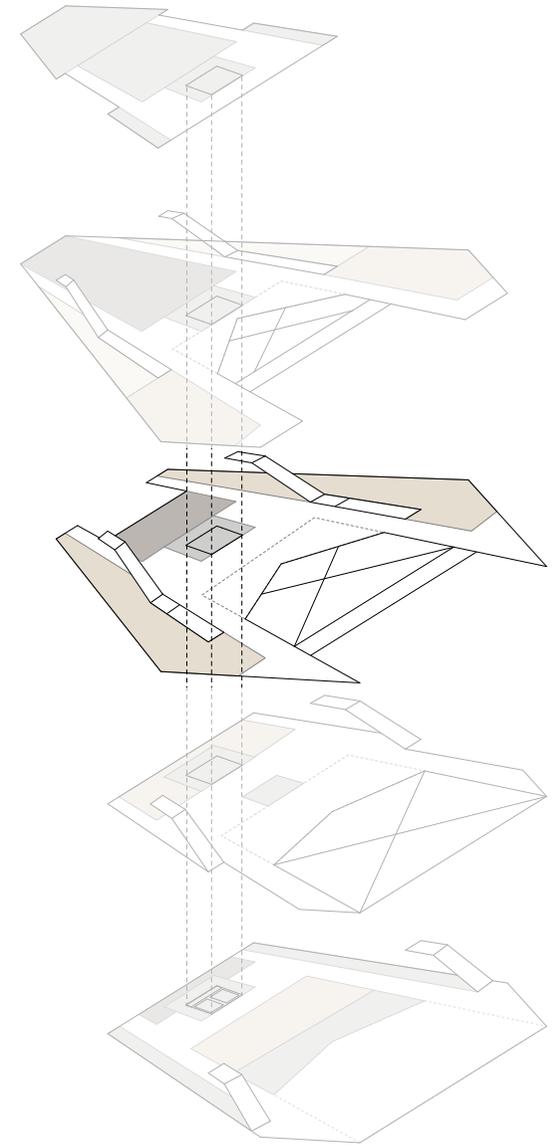
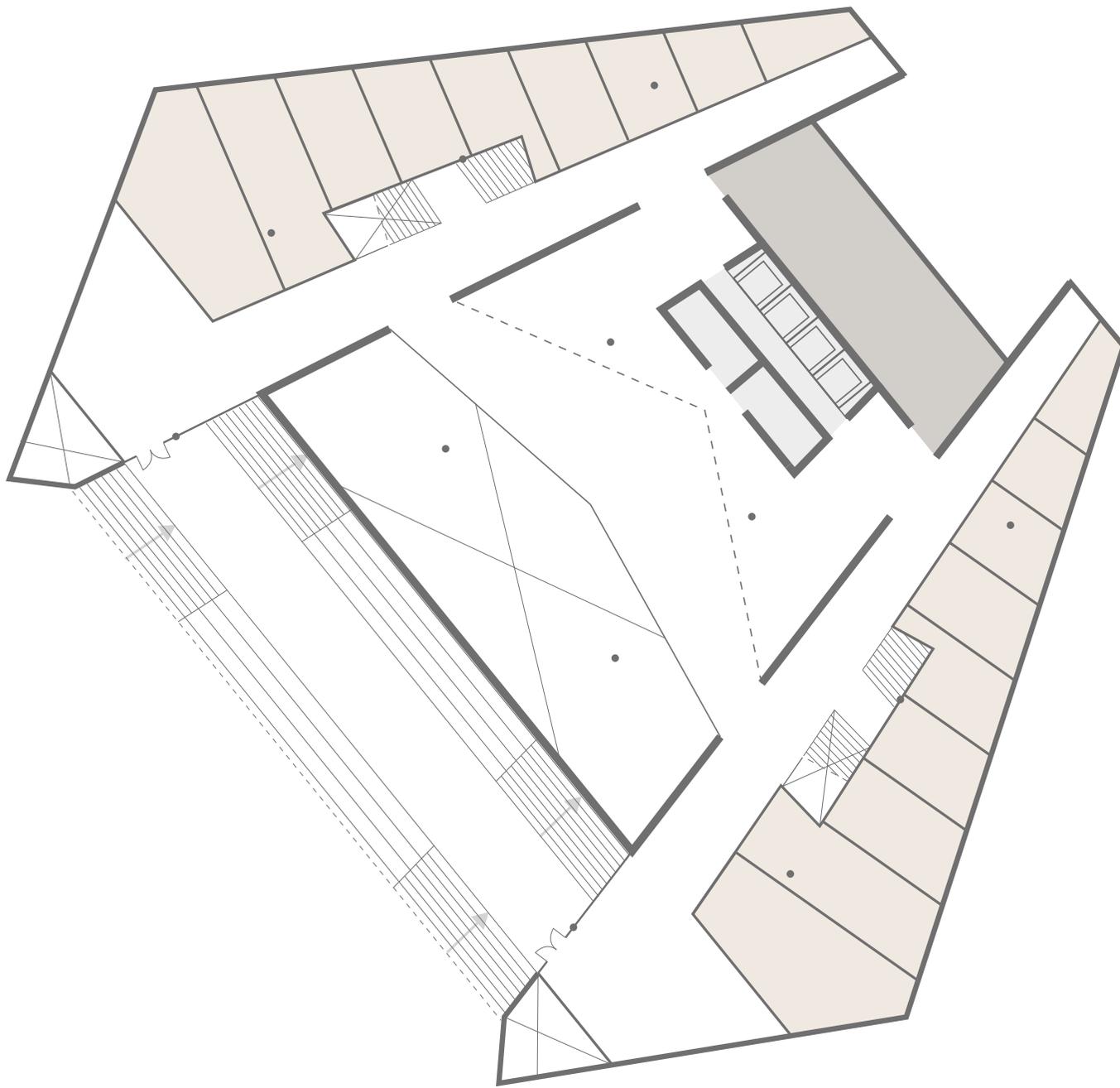


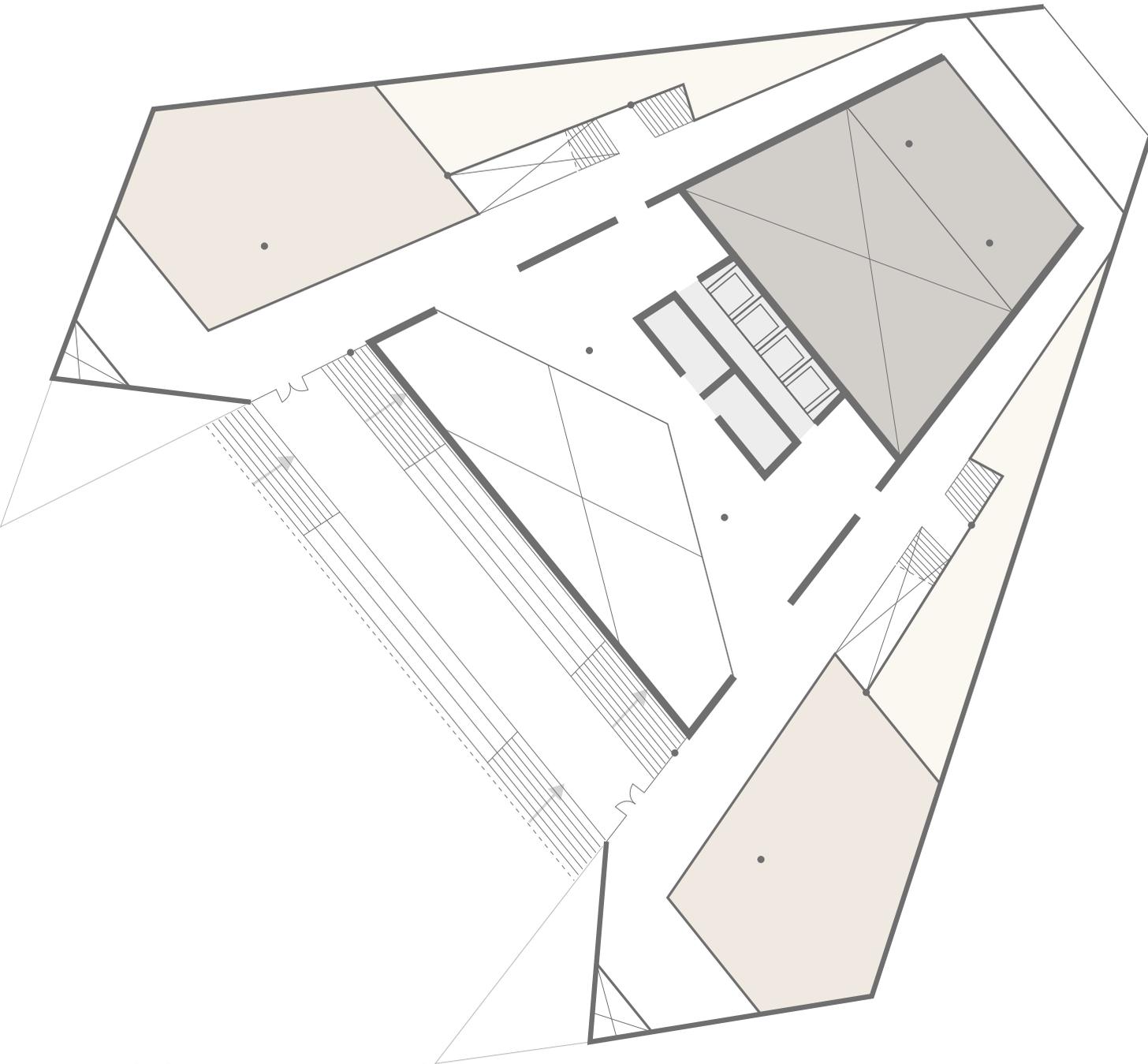
FLOOR PLAN | -1



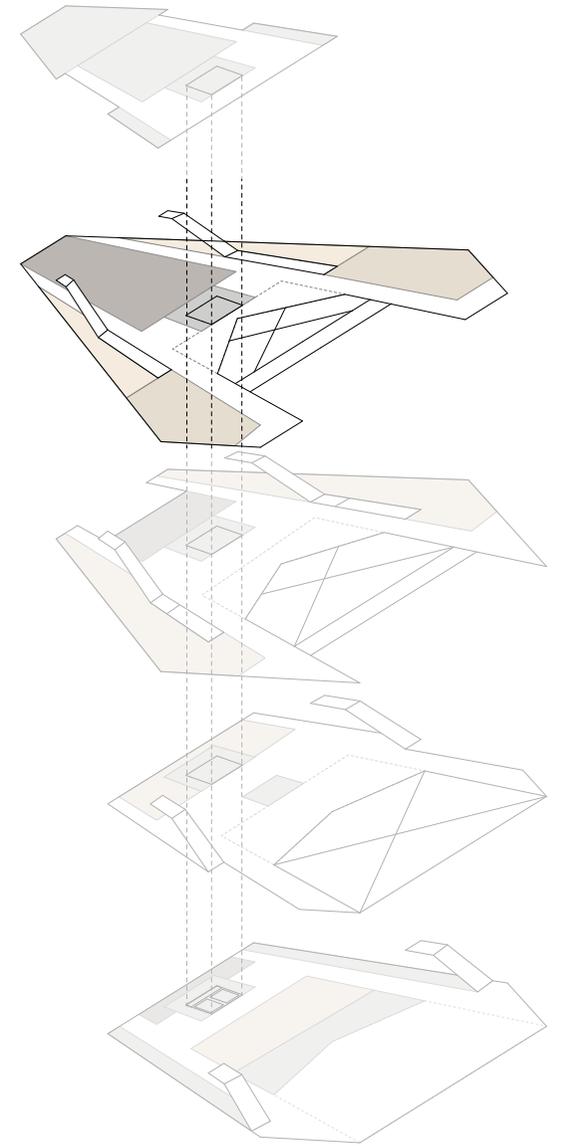
FLOOR PLAN | GF

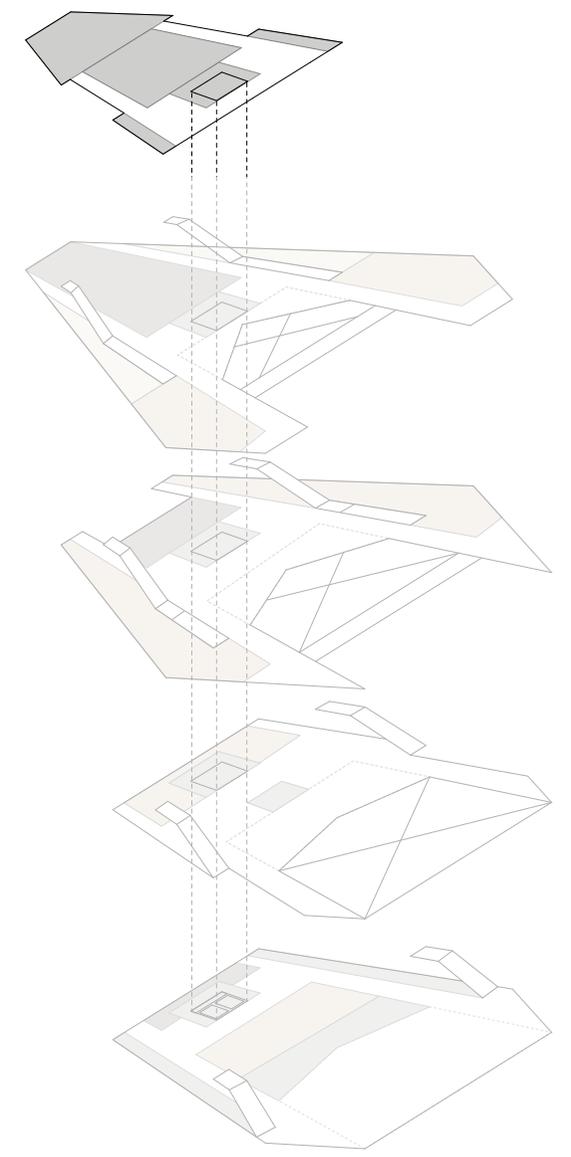
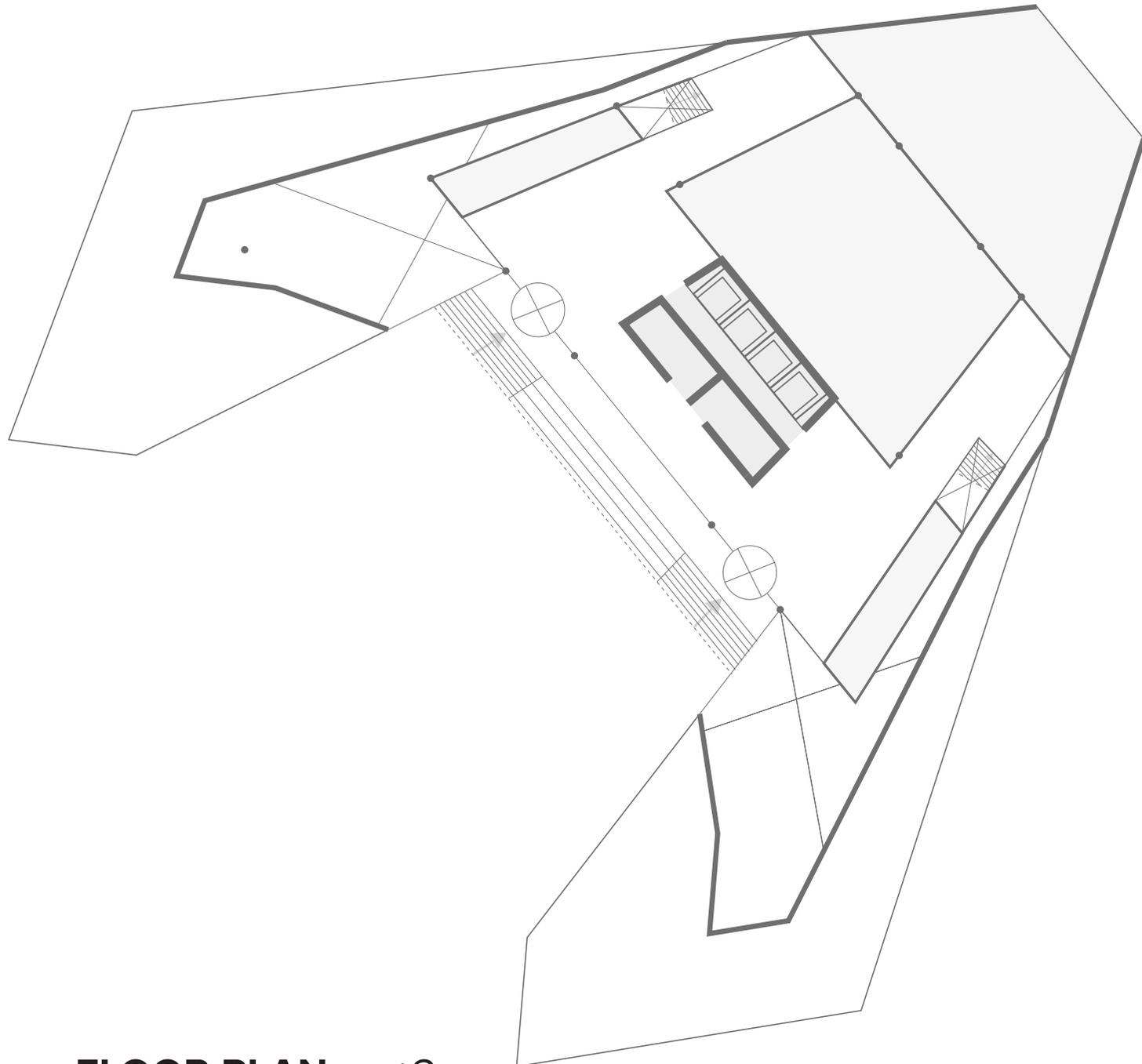




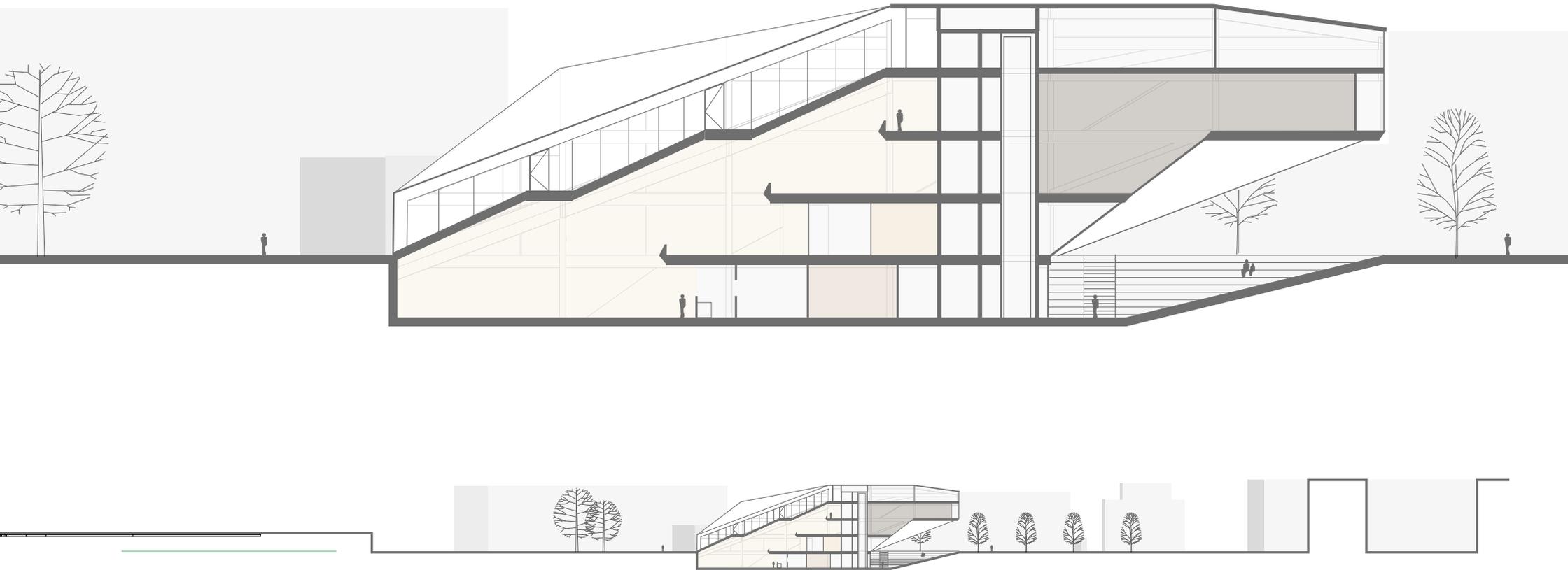


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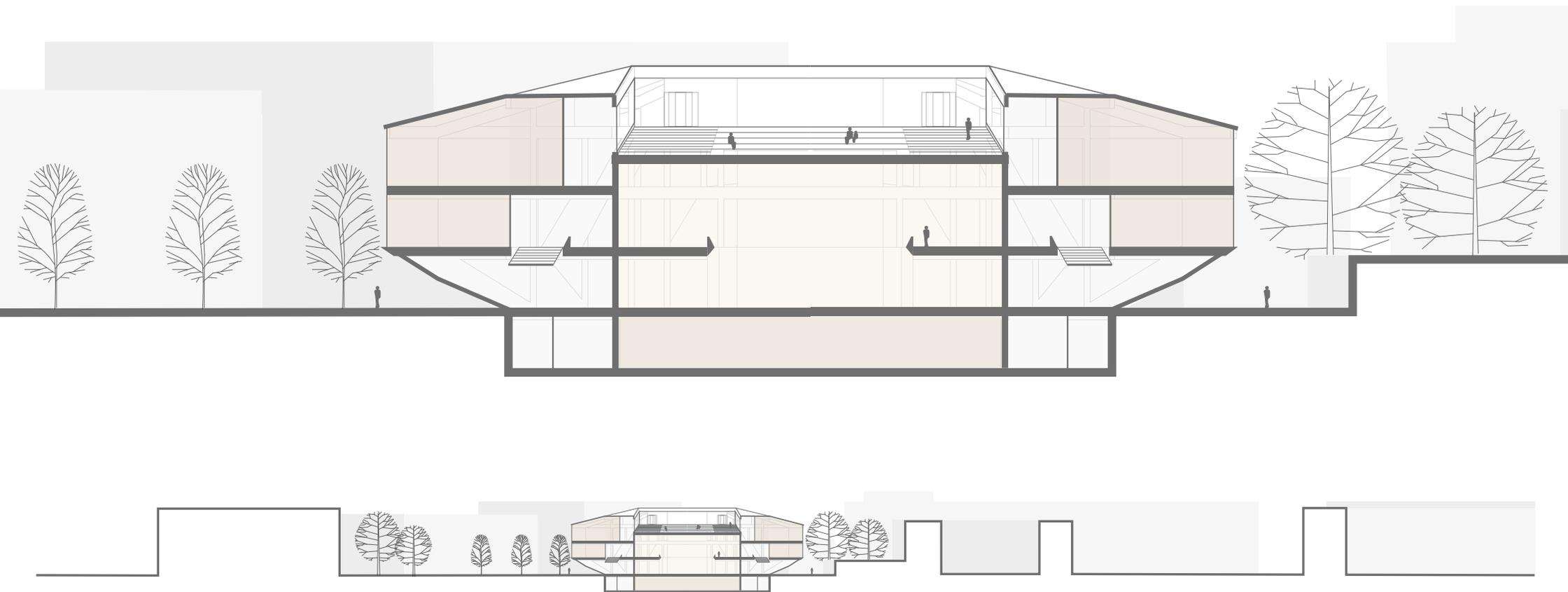




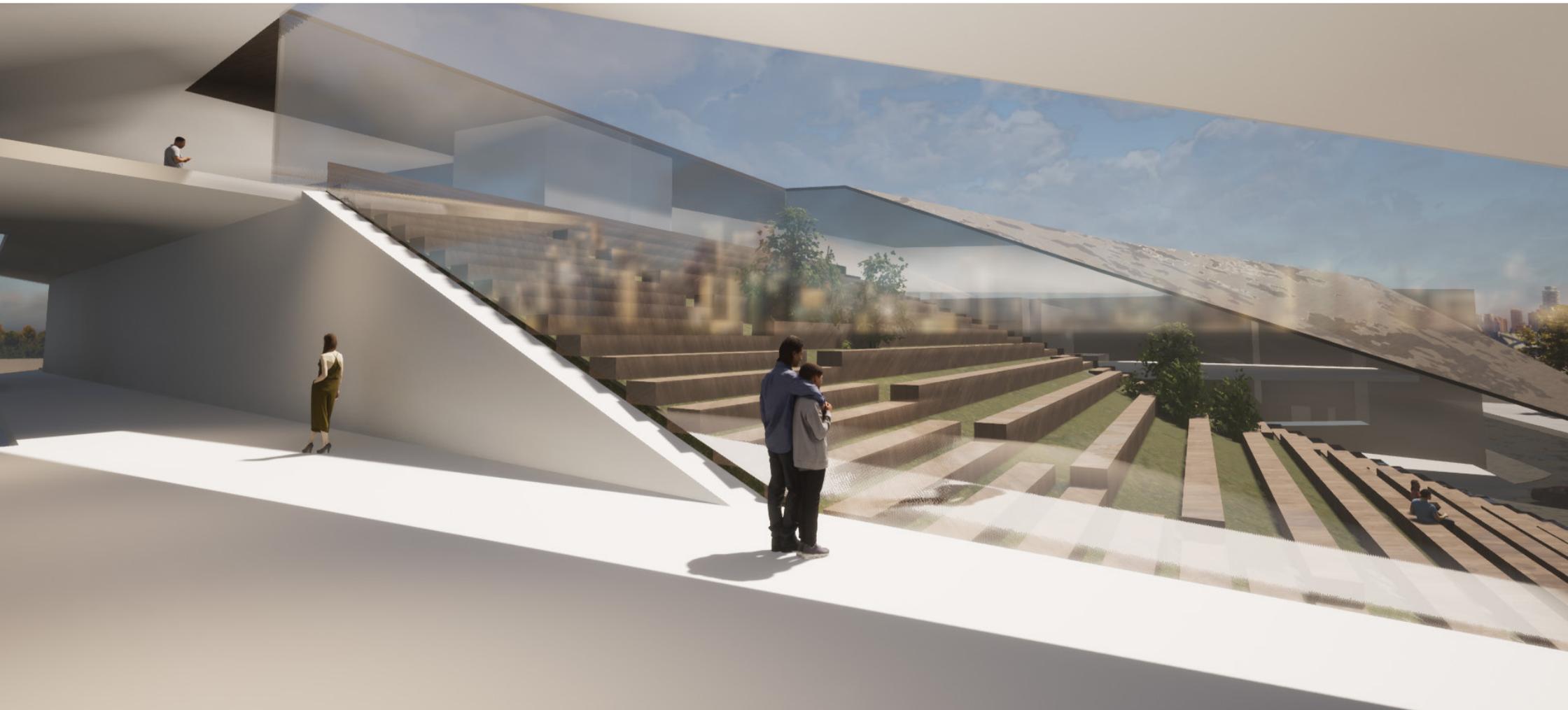
FLOOR PLAN | +3

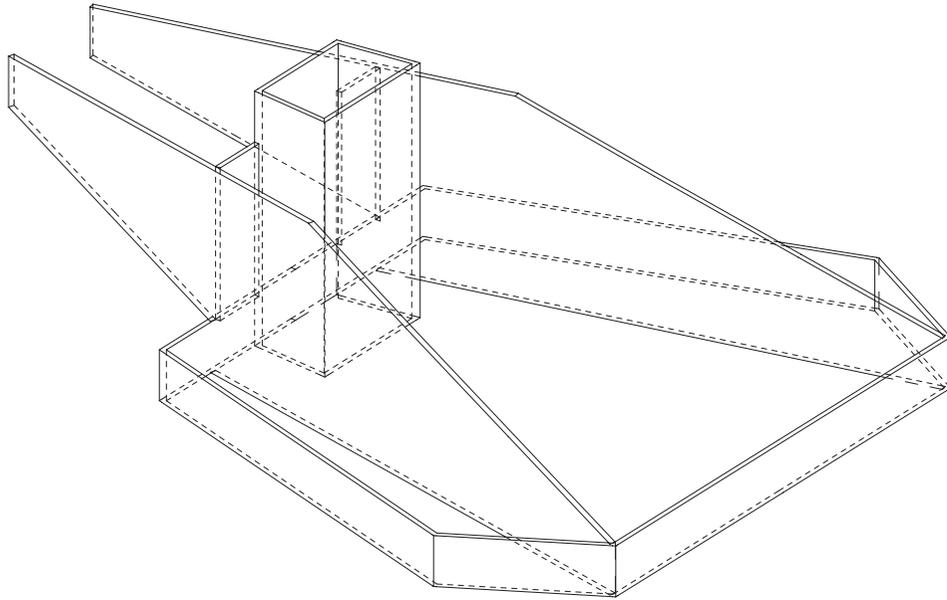


SECTION | SECTION A-A

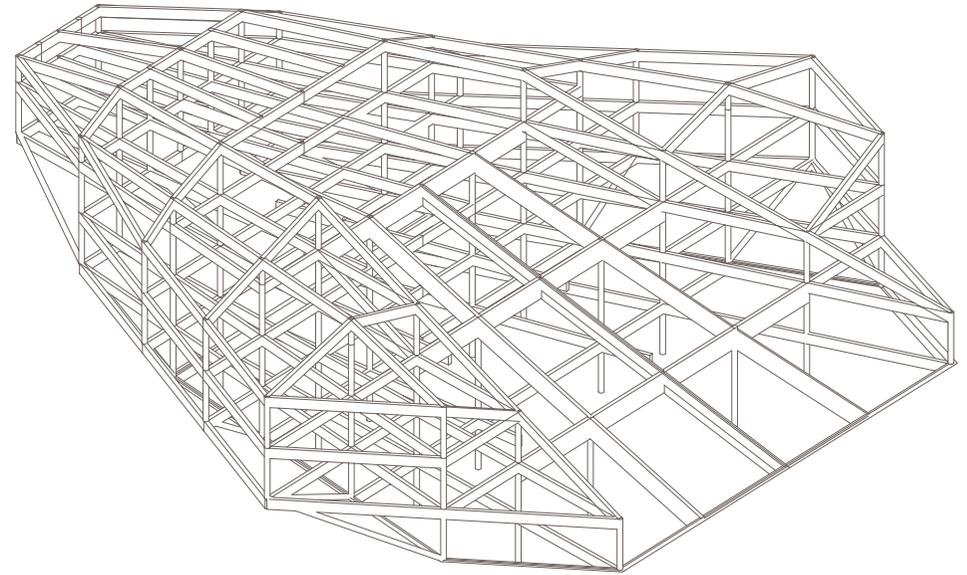


SECTIONS | SECTION B-B

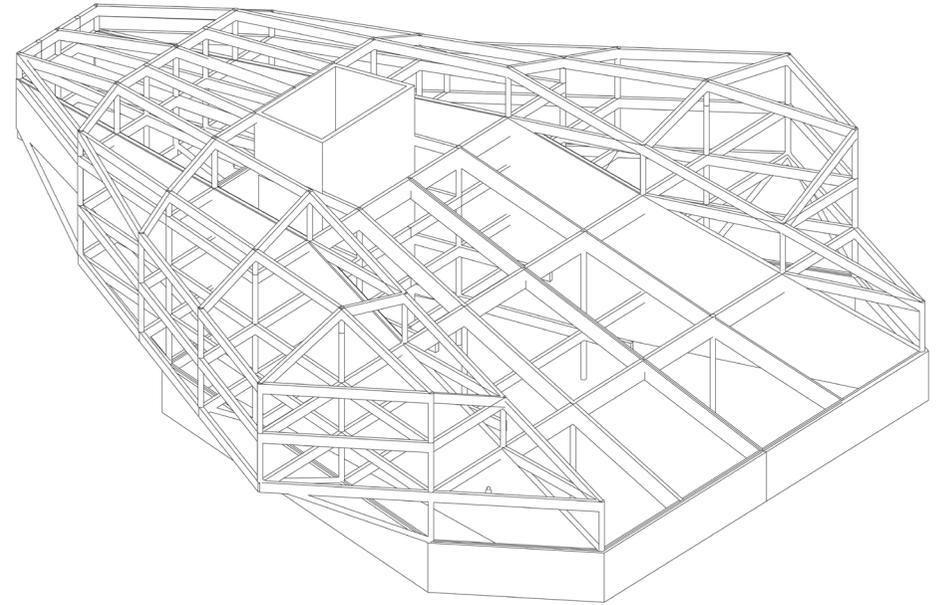
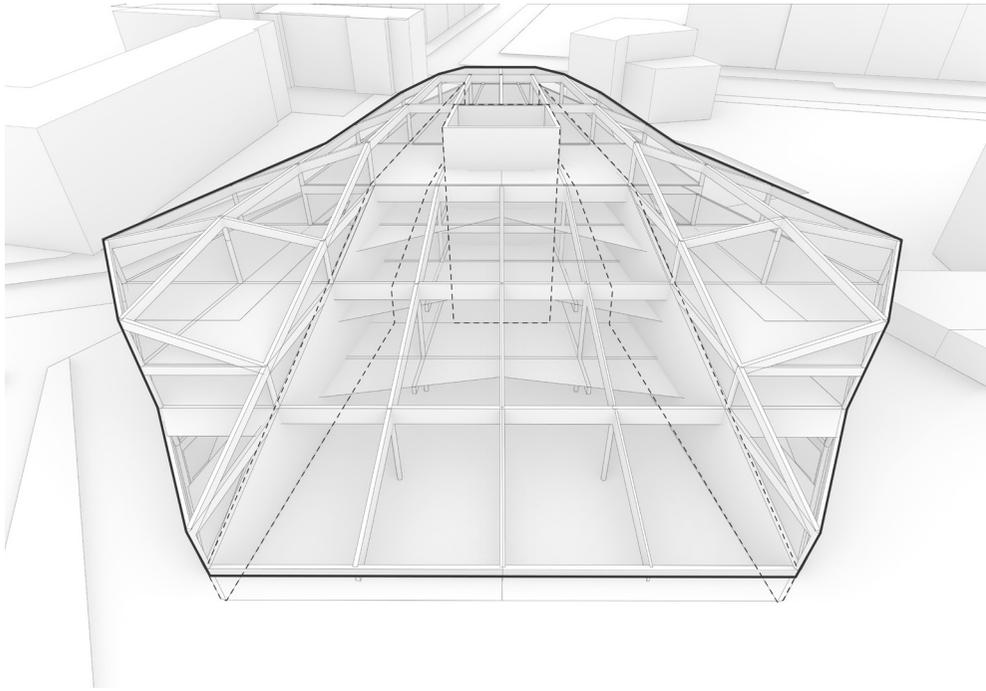


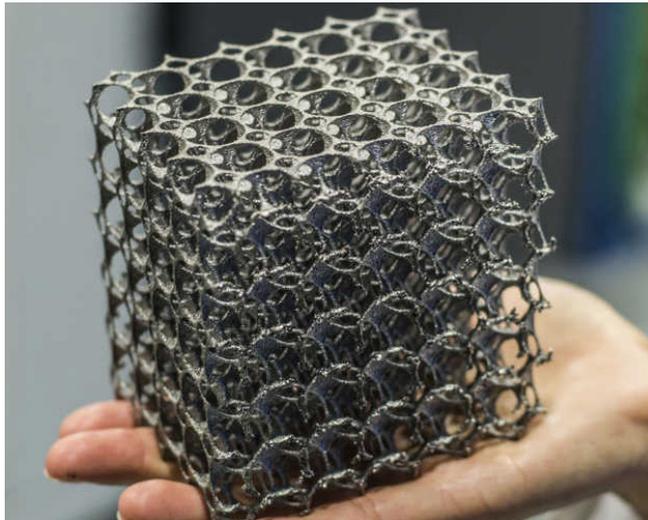
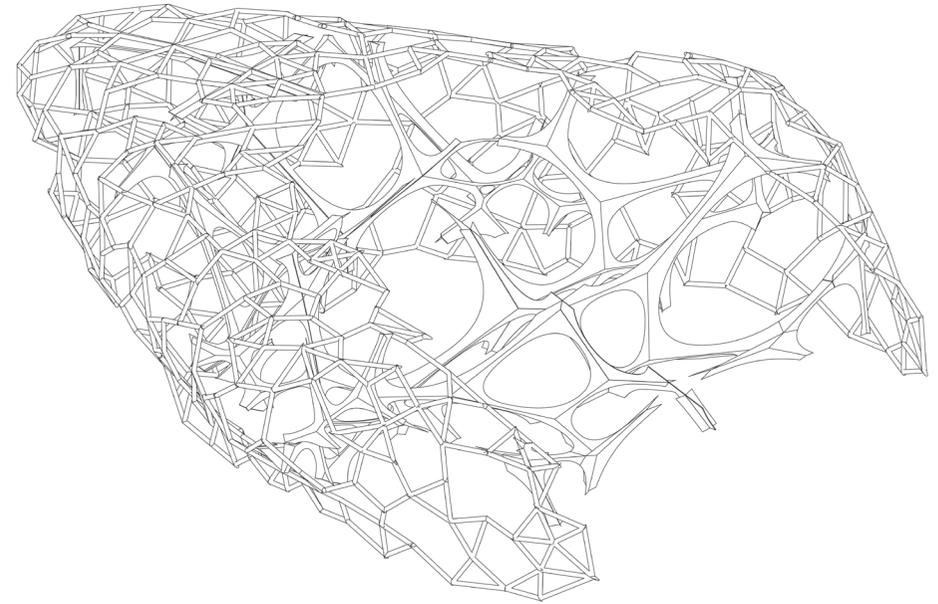
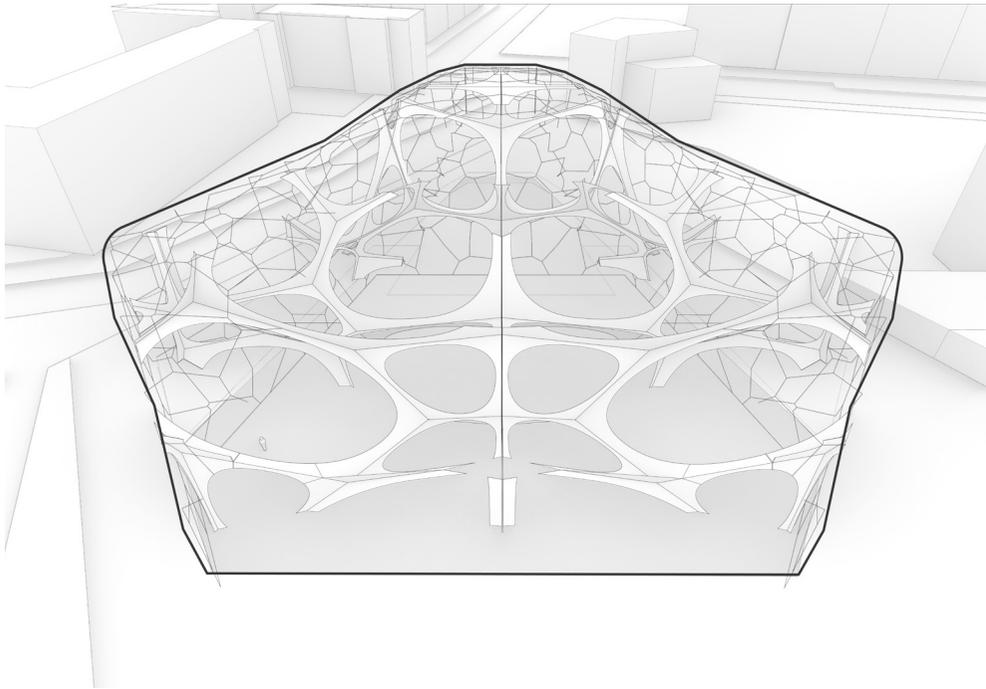


STABILITY
CORE AND WALLS

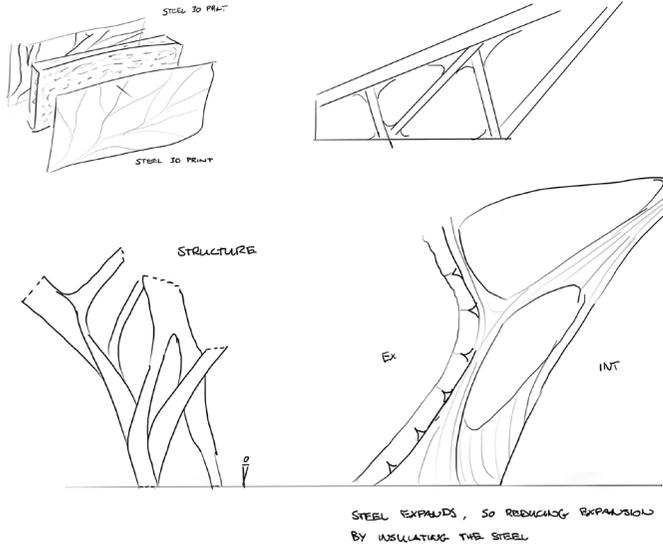
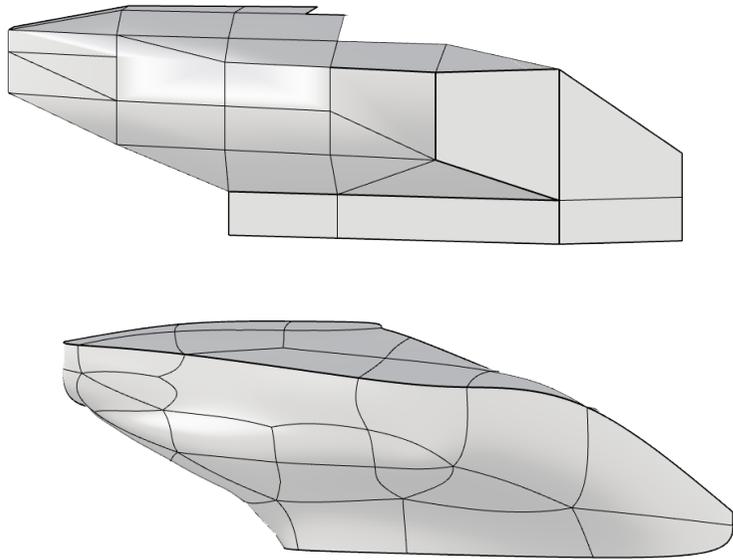


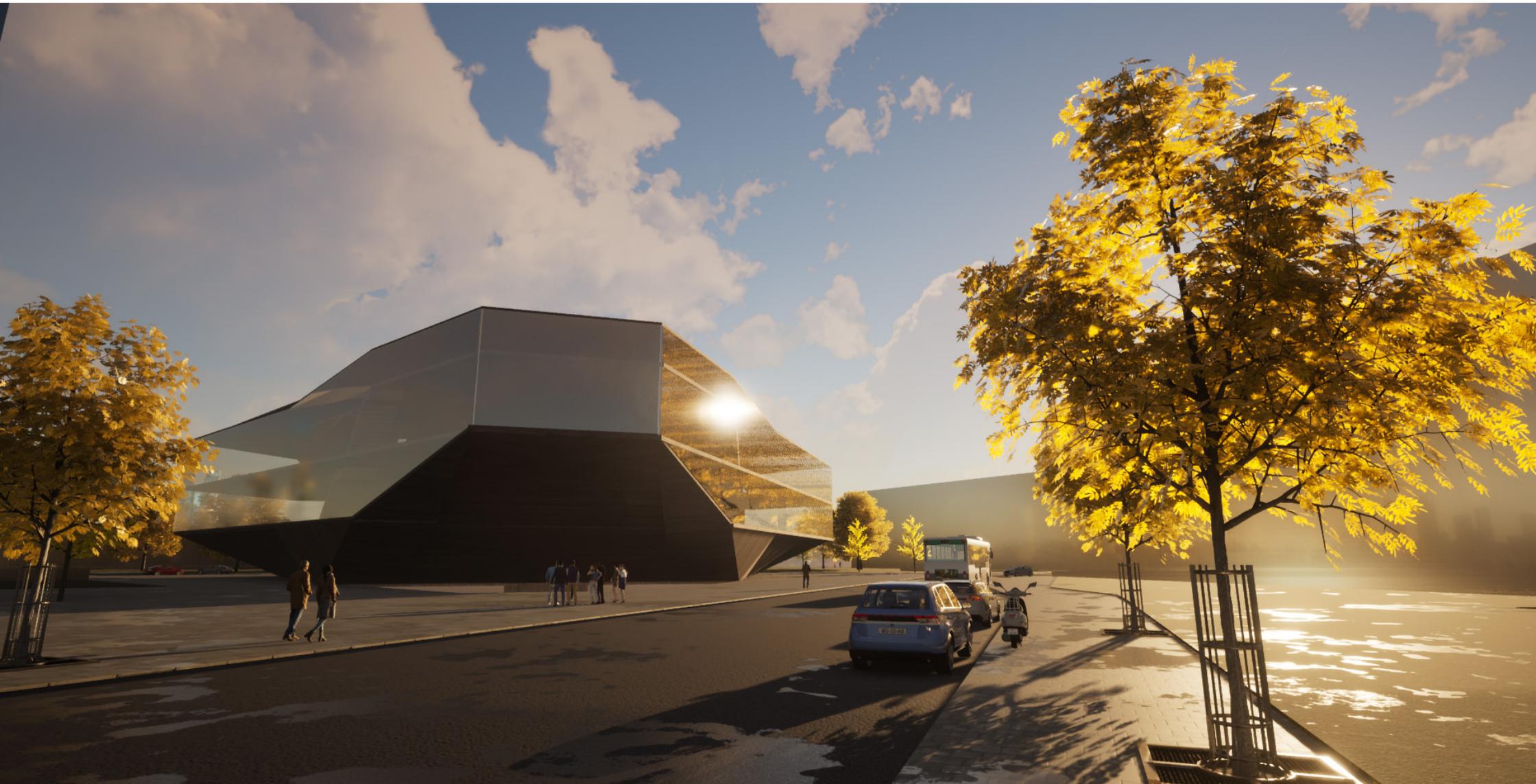
FRAMEWORK
BEAMS AND COLUMNS



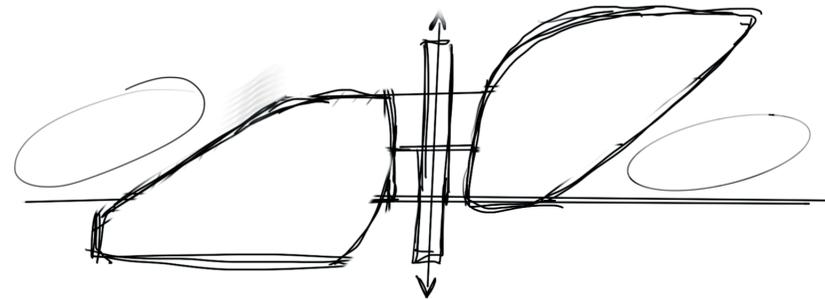
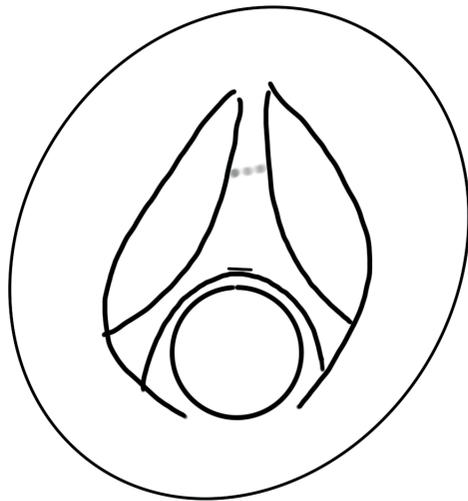
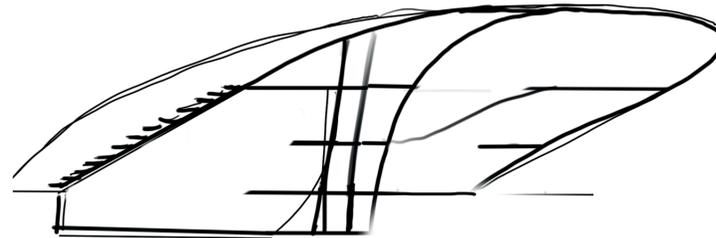
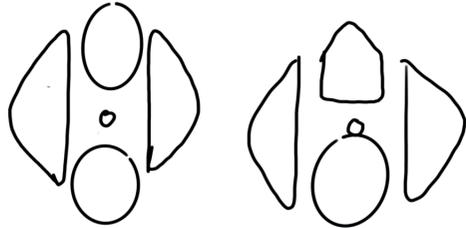
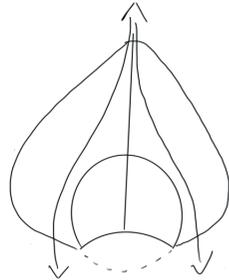
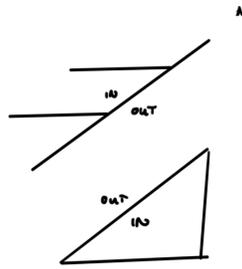


STRUCTURE | RECYCLING STEEL

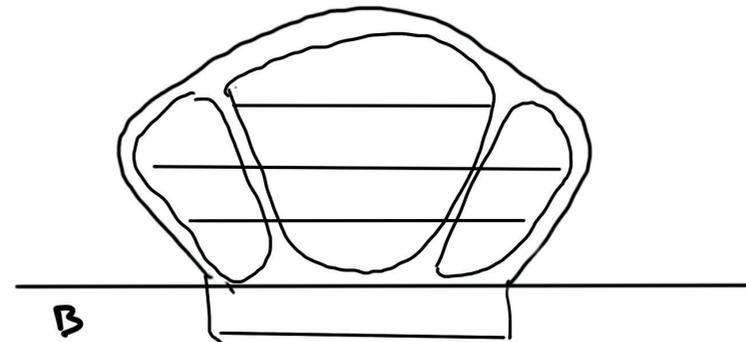
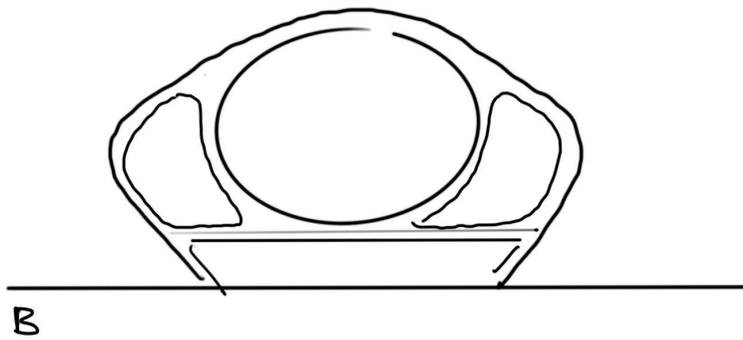
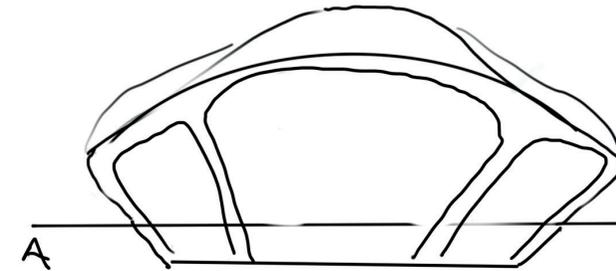
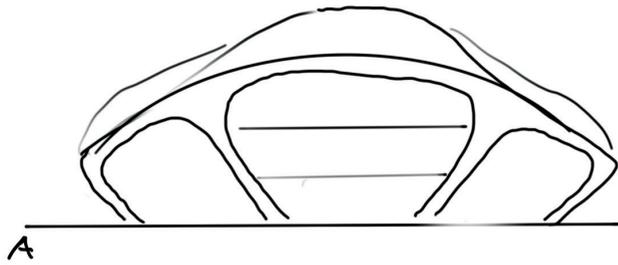
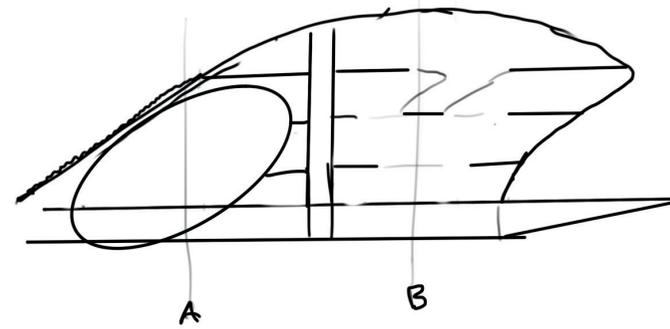
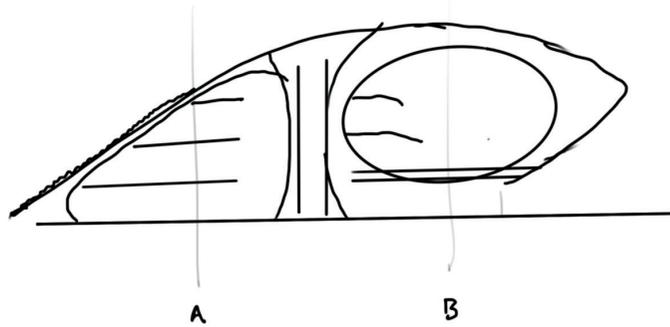




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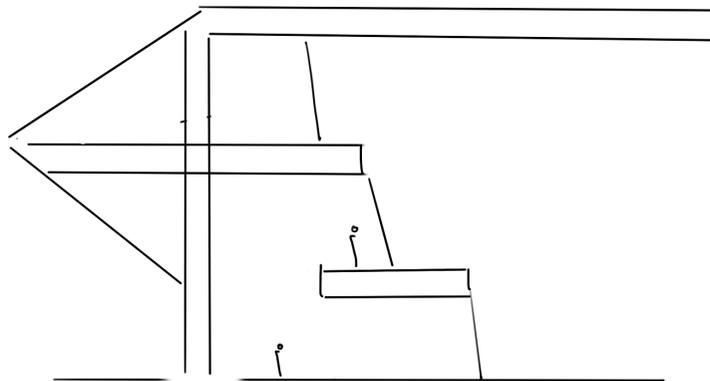
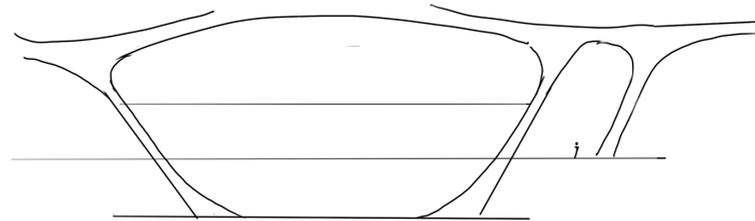
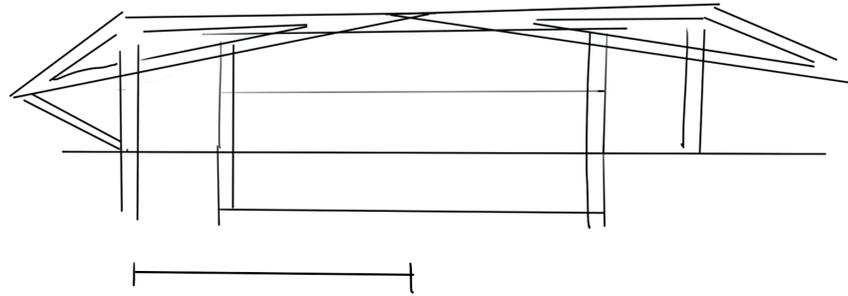
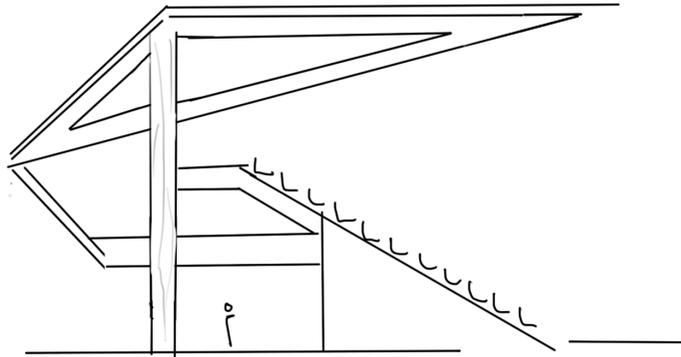


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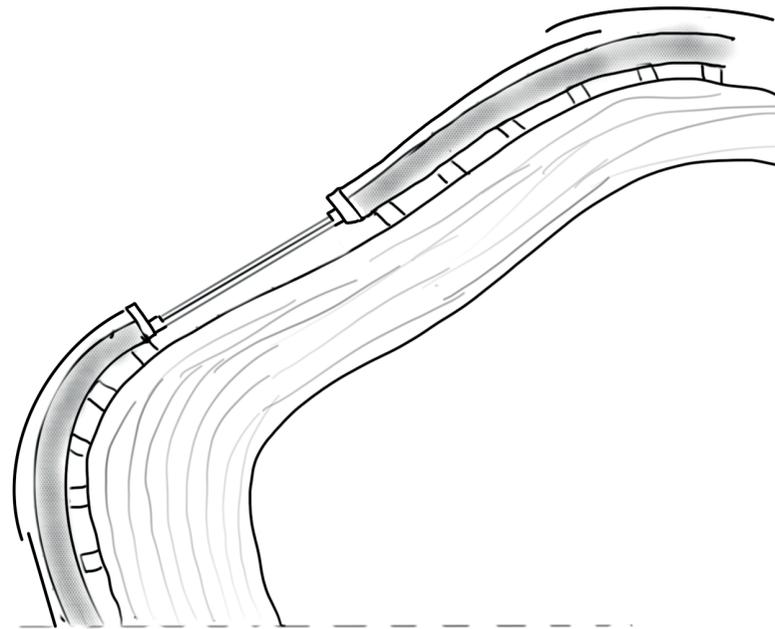
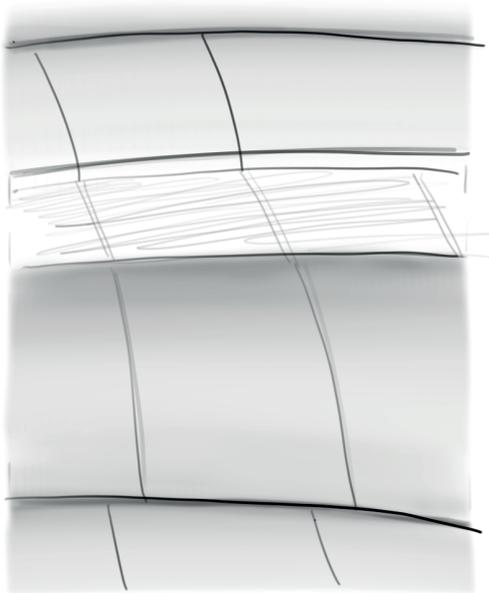
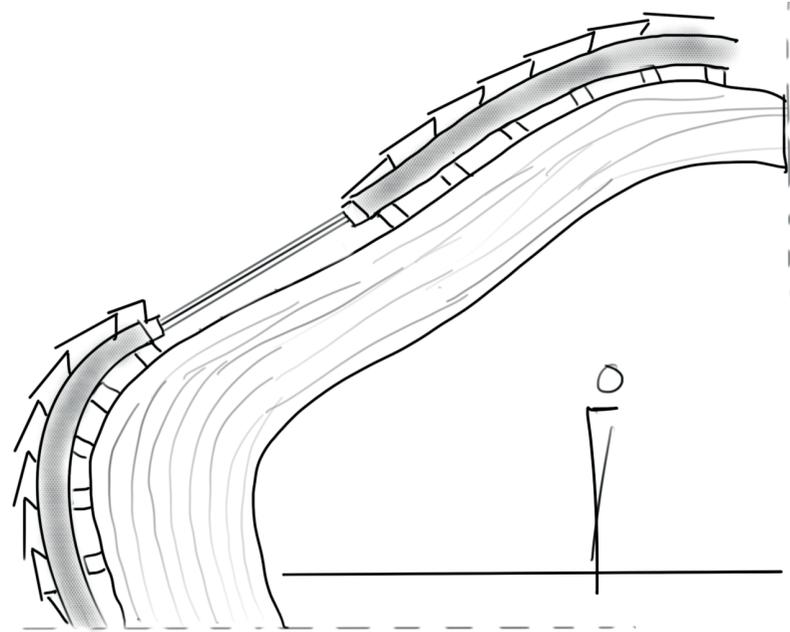
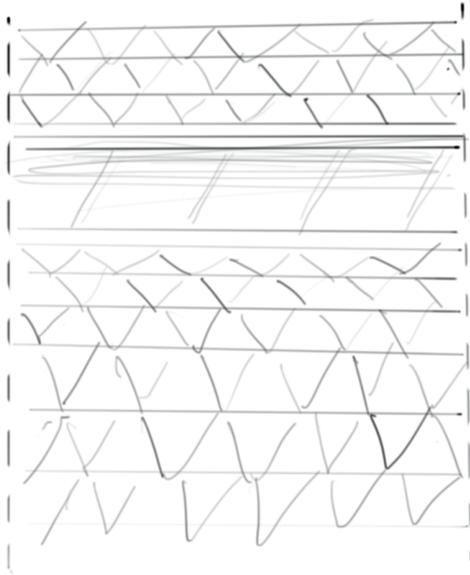


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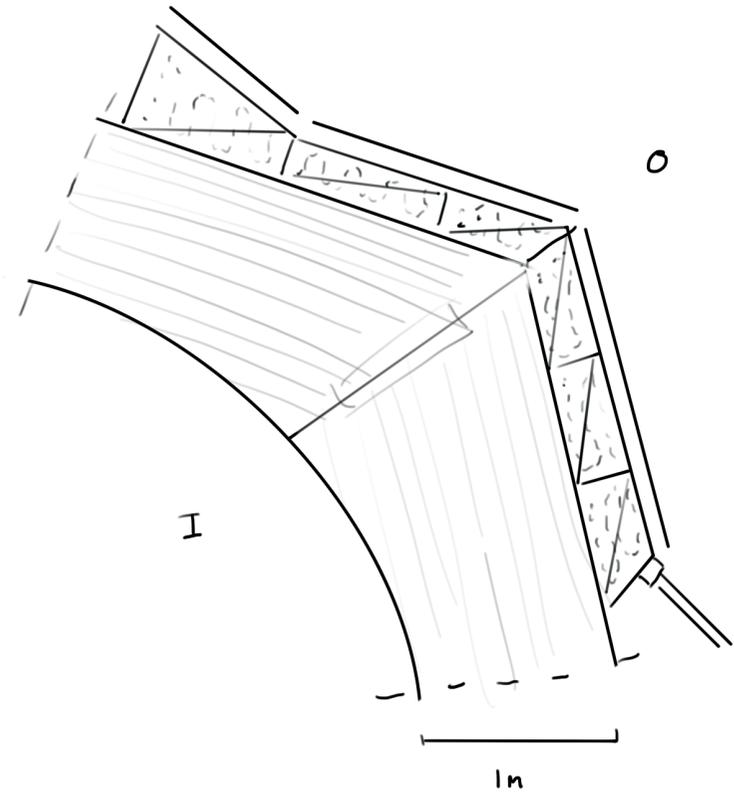
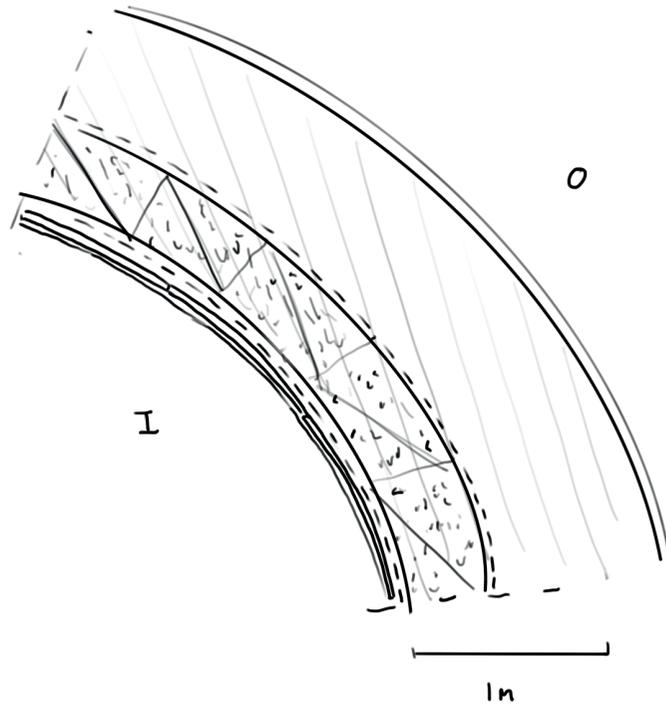
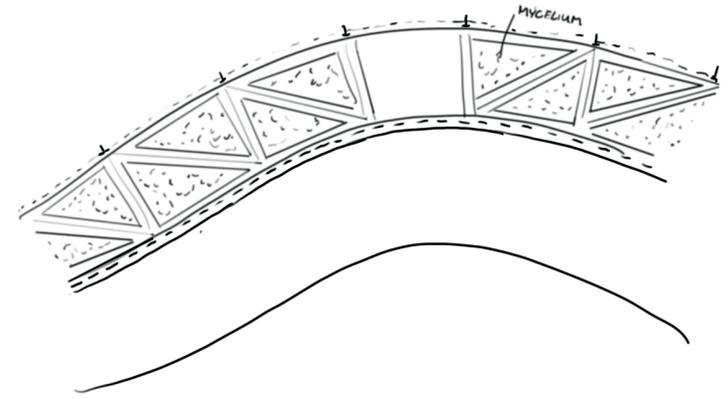
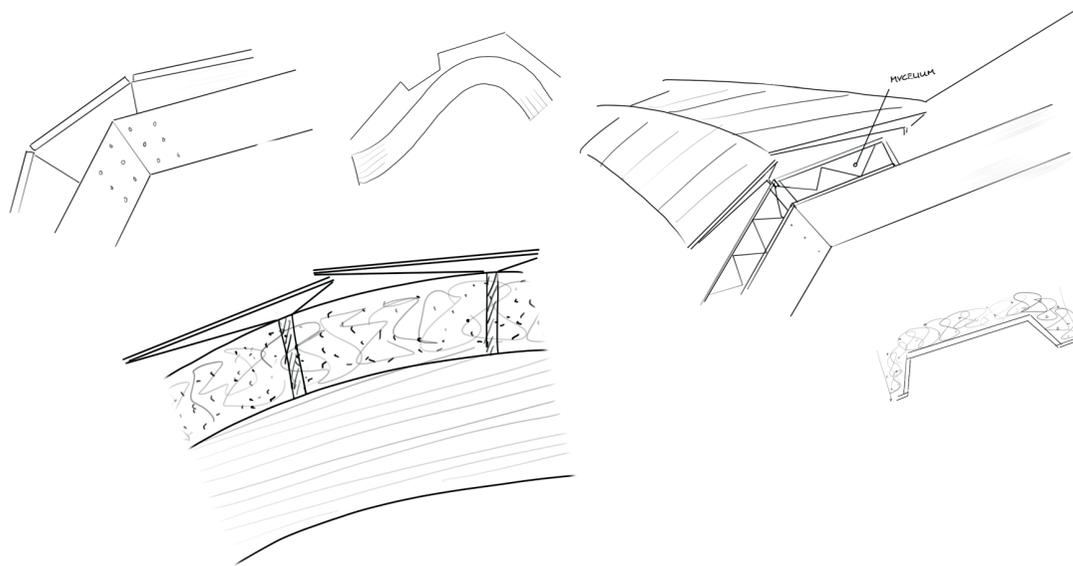
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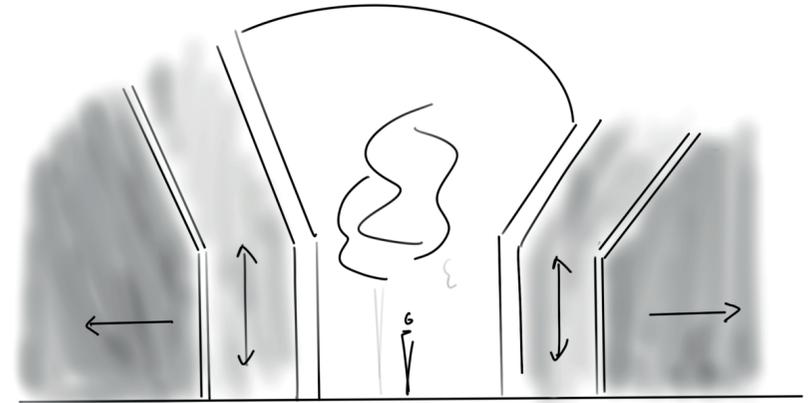
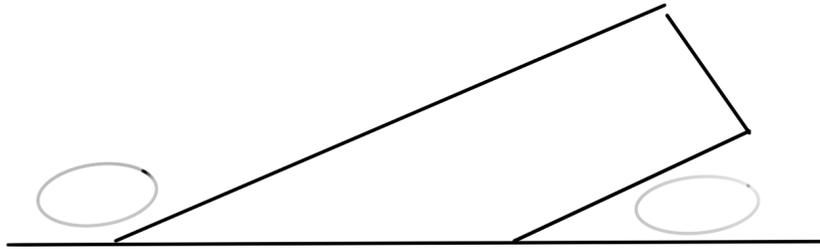
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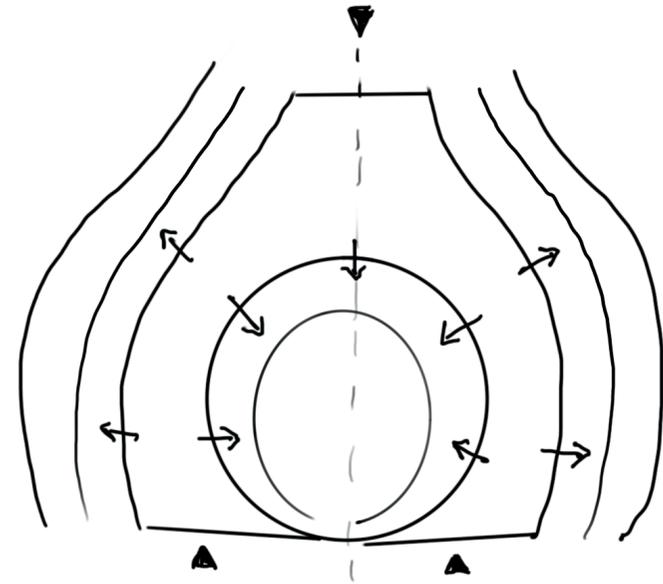
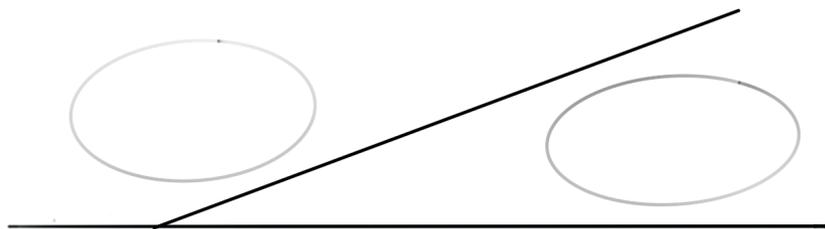
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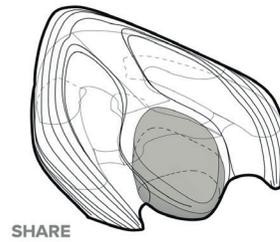
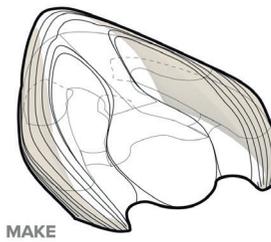
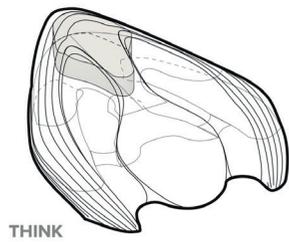
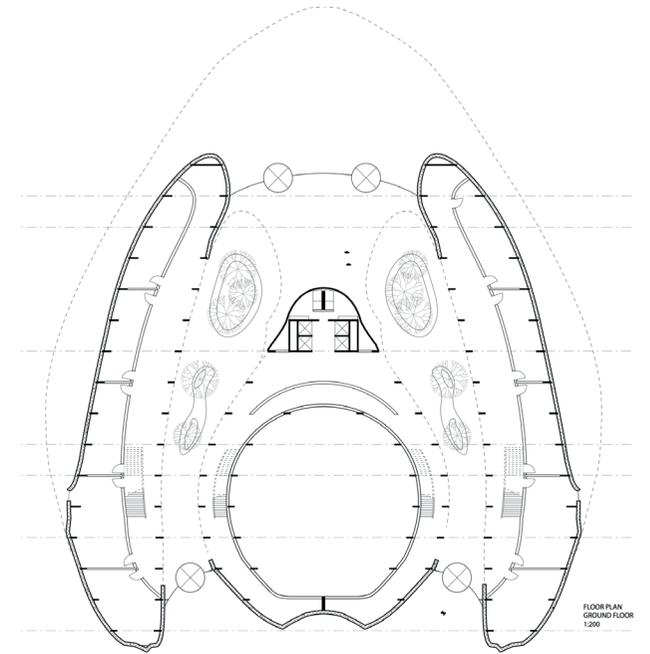
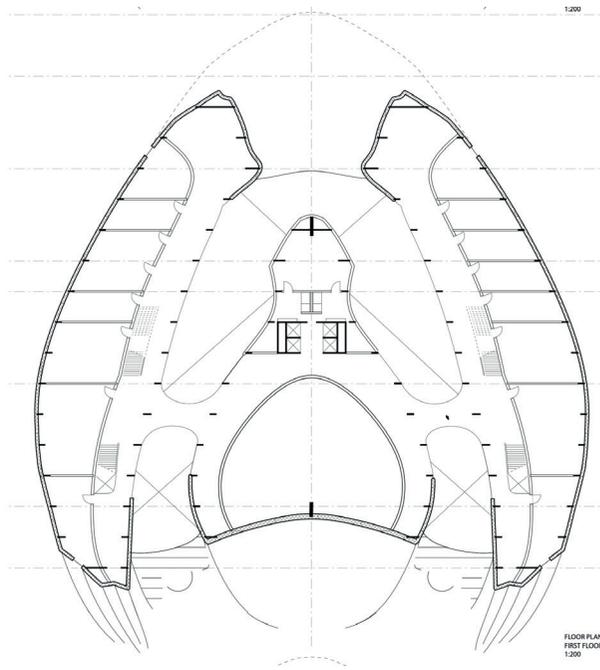
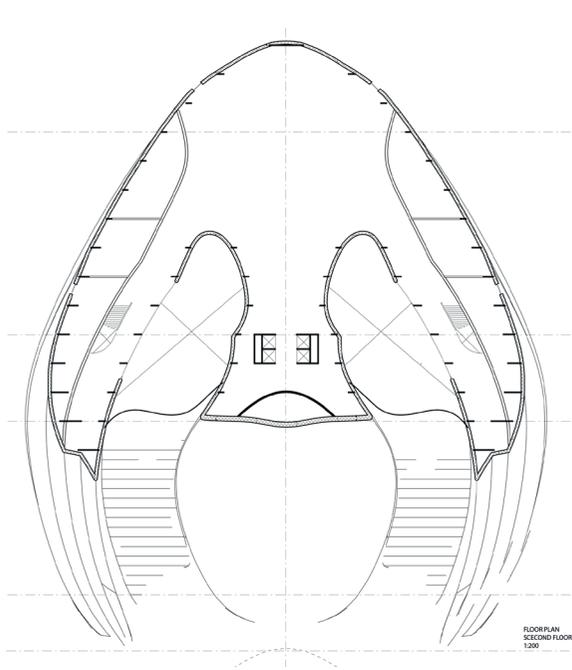


ATRIUM

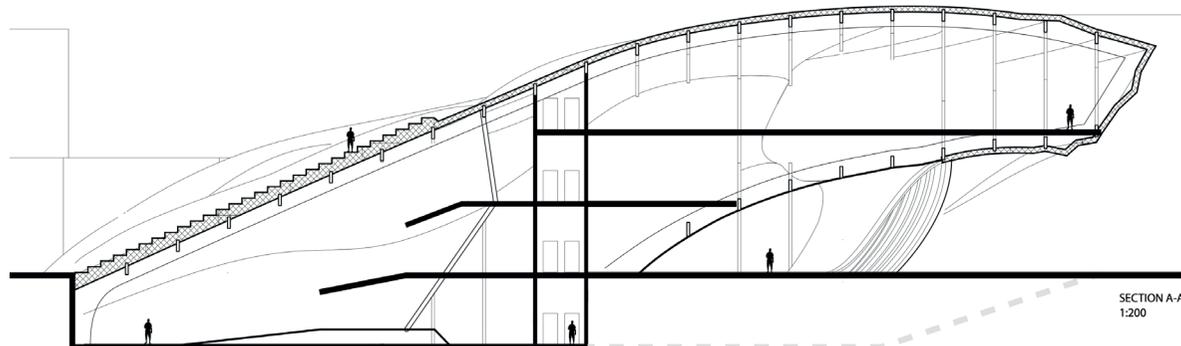
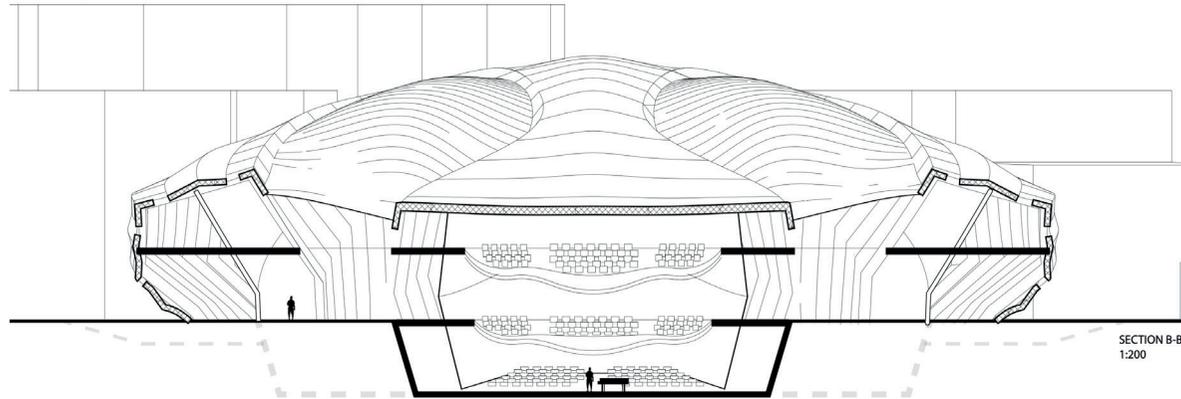
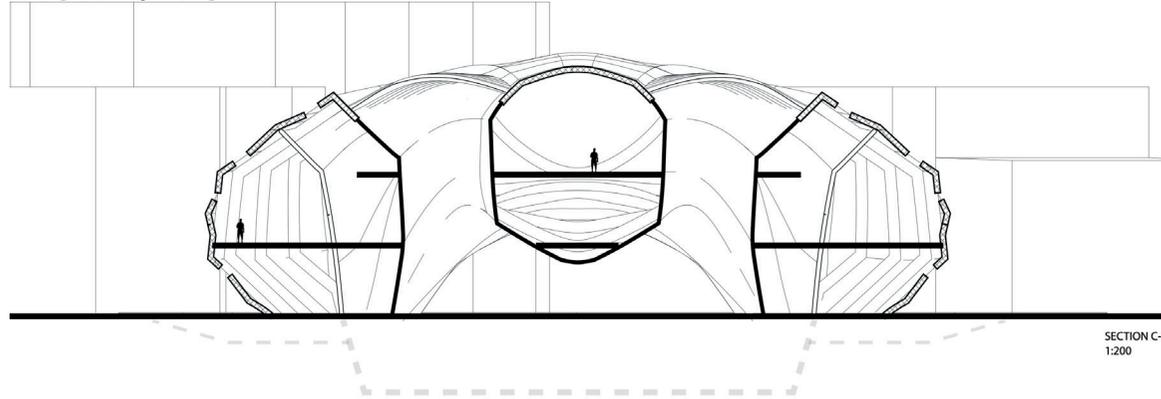


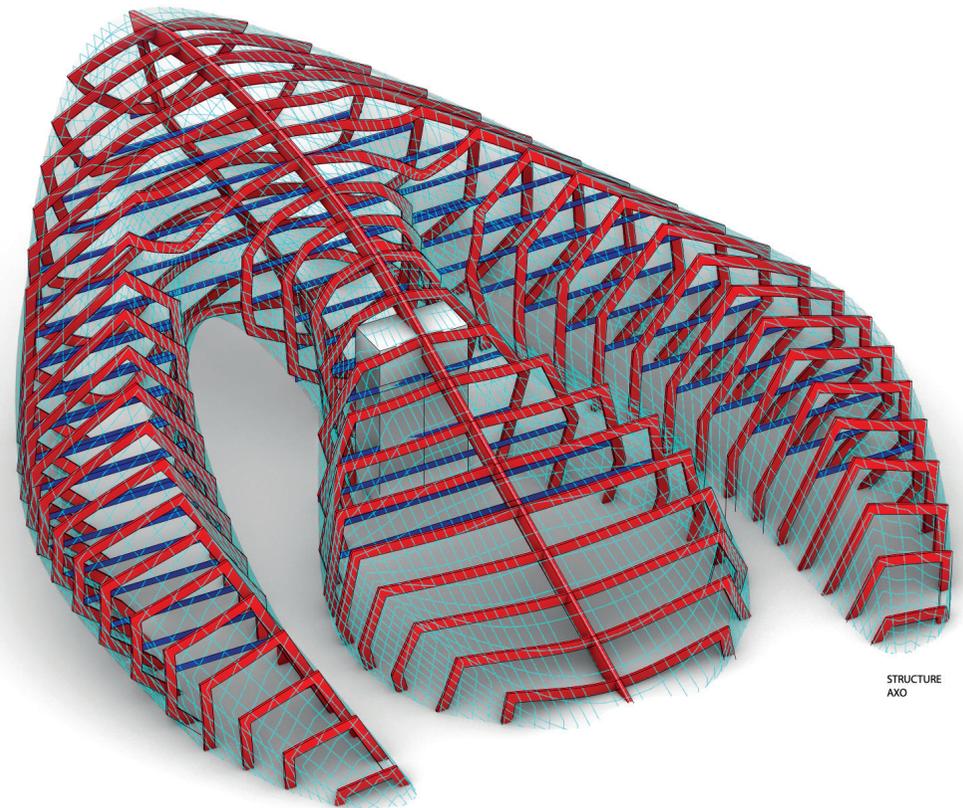
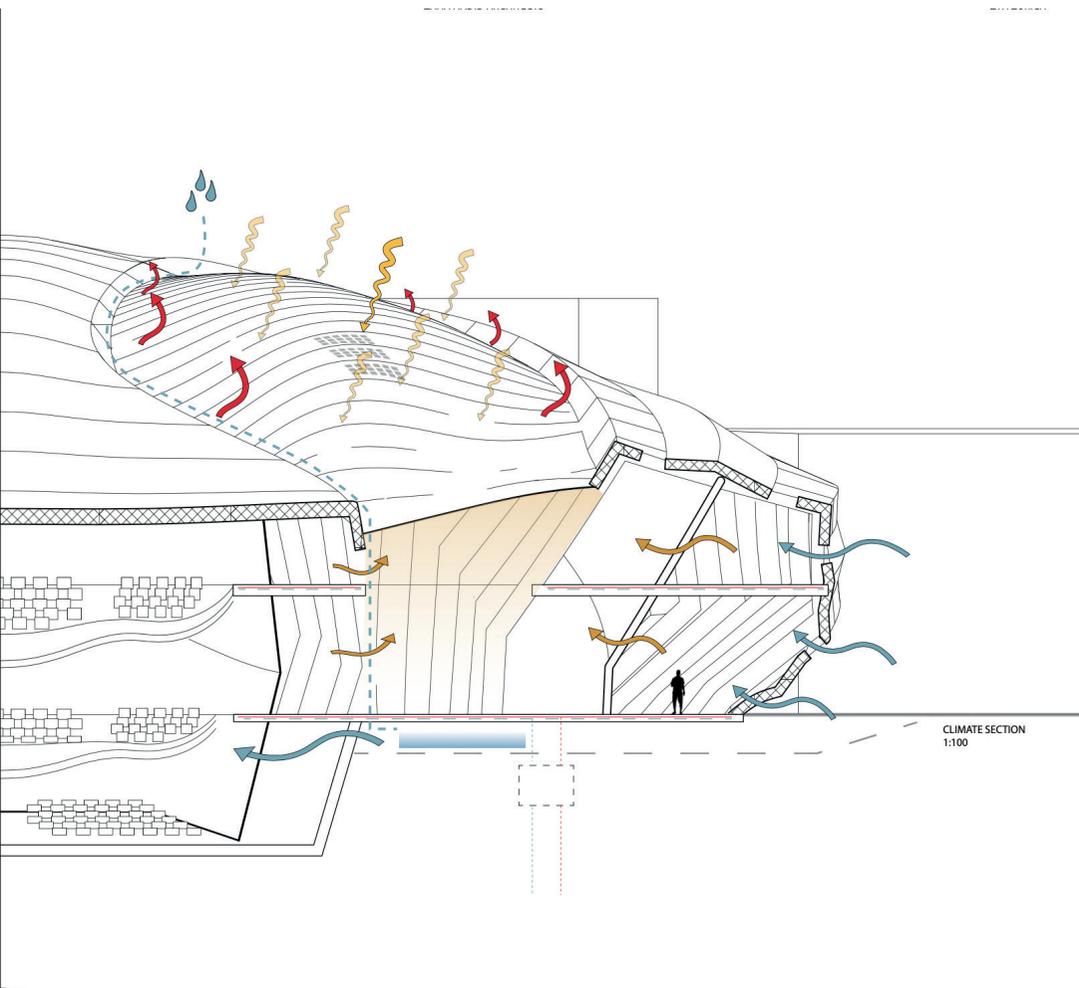
GROUND FLOOR

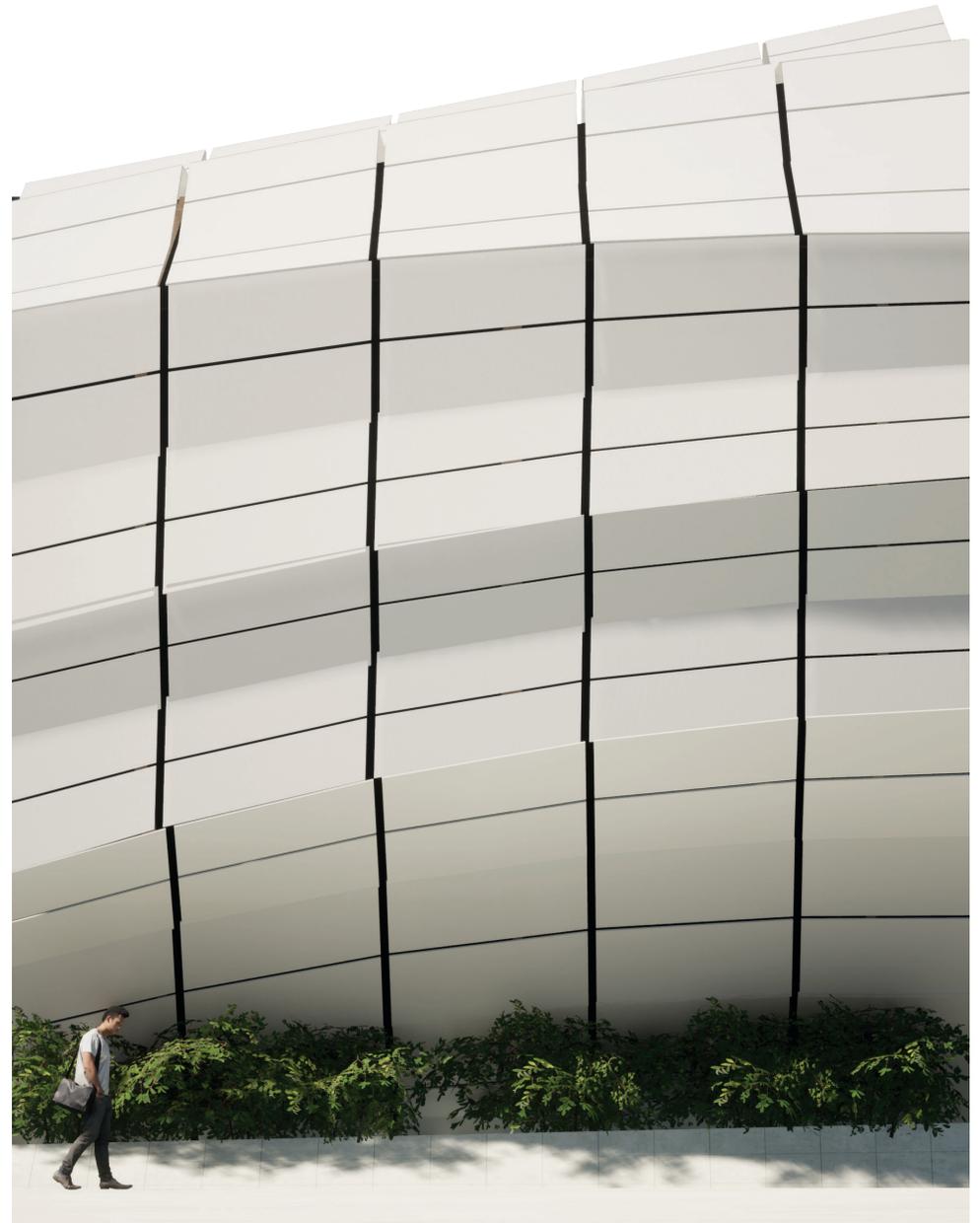
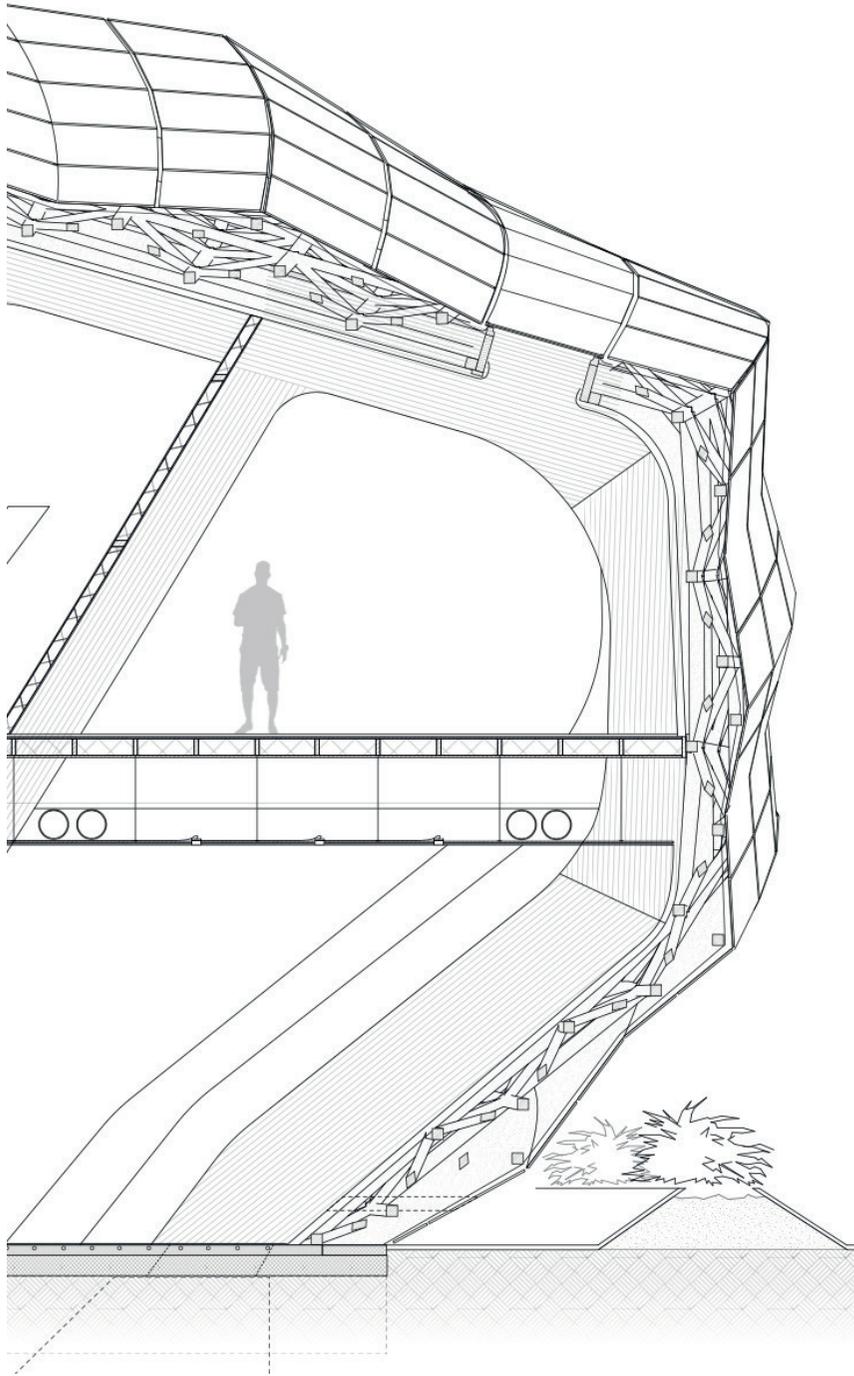
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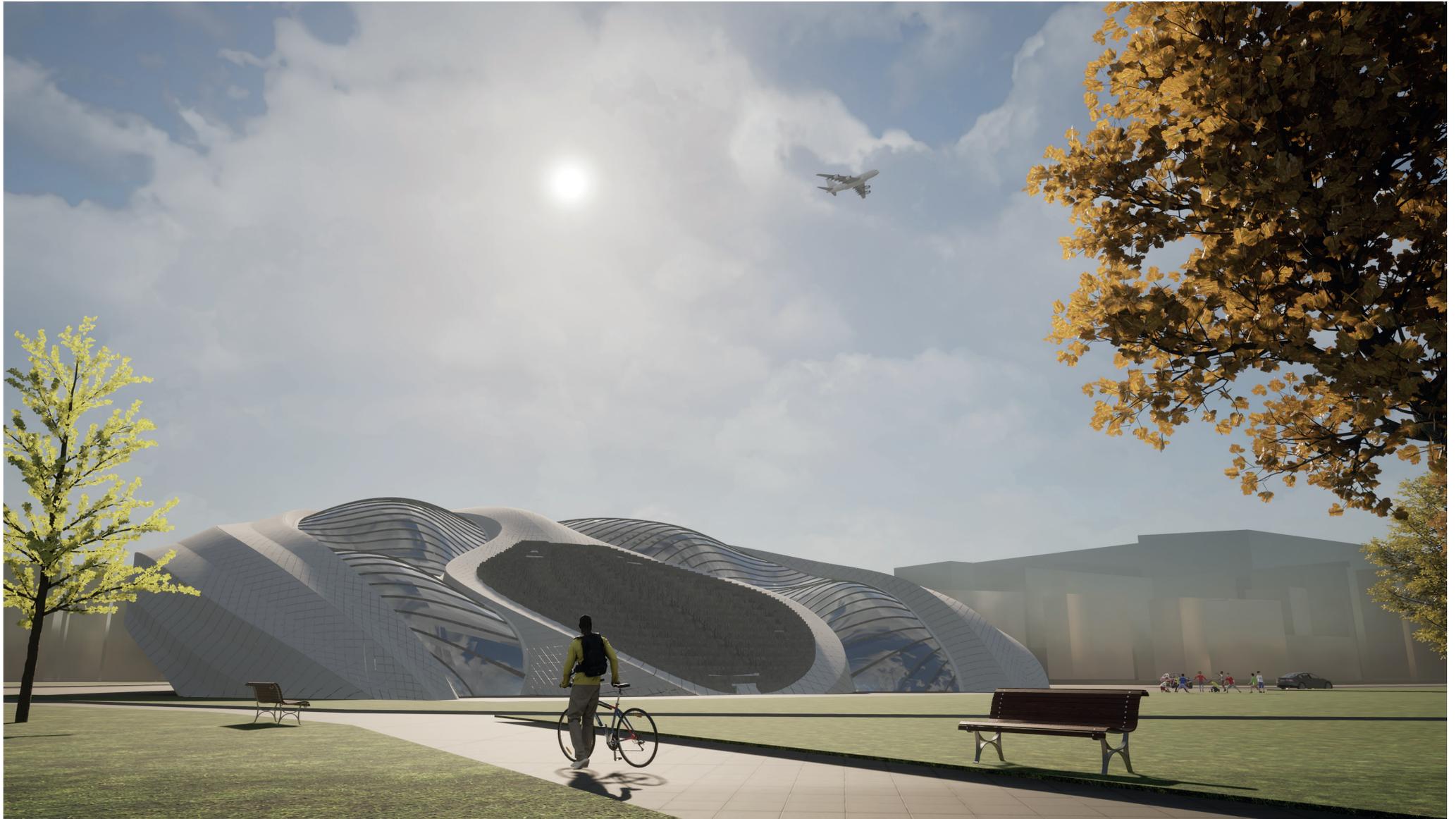


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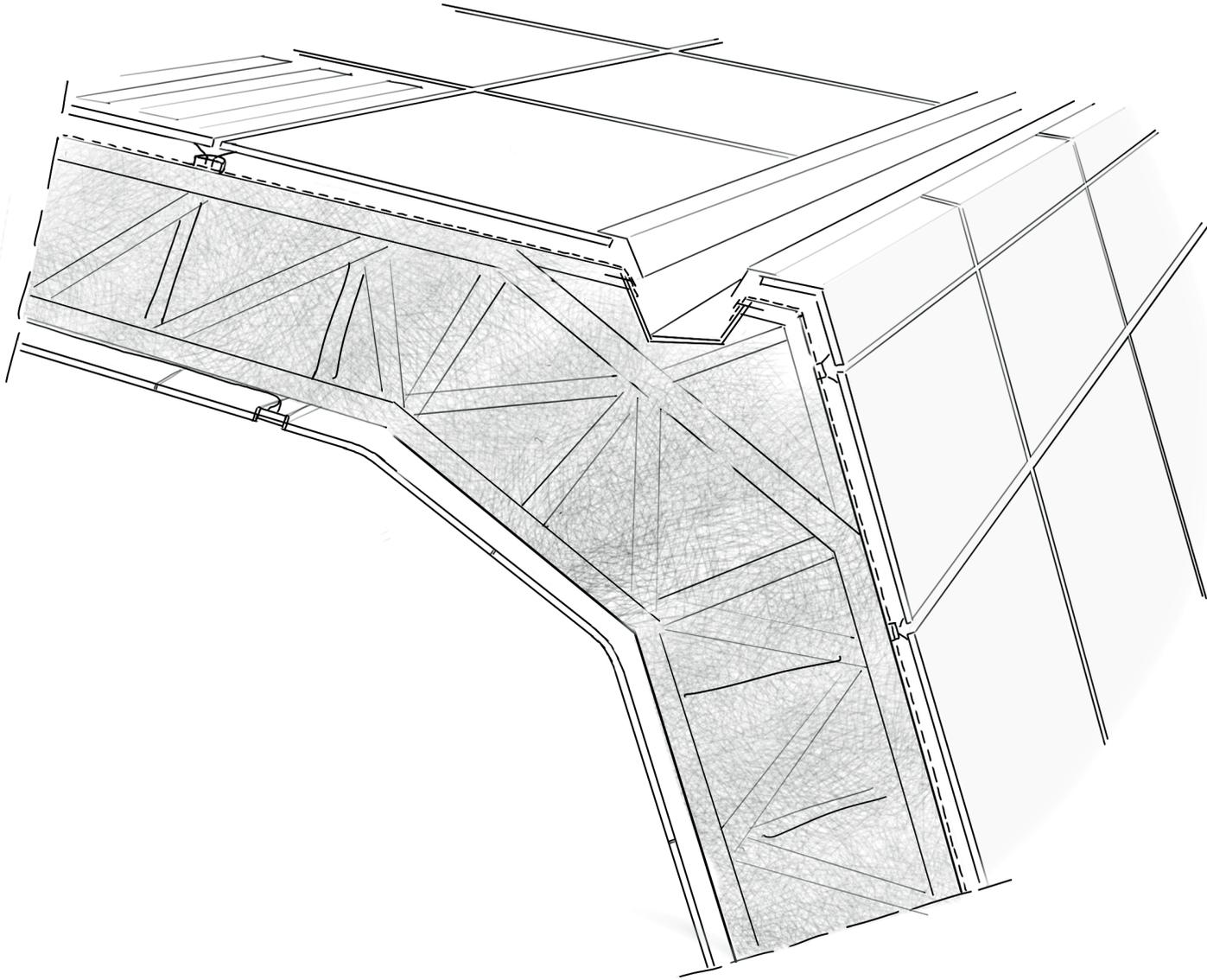




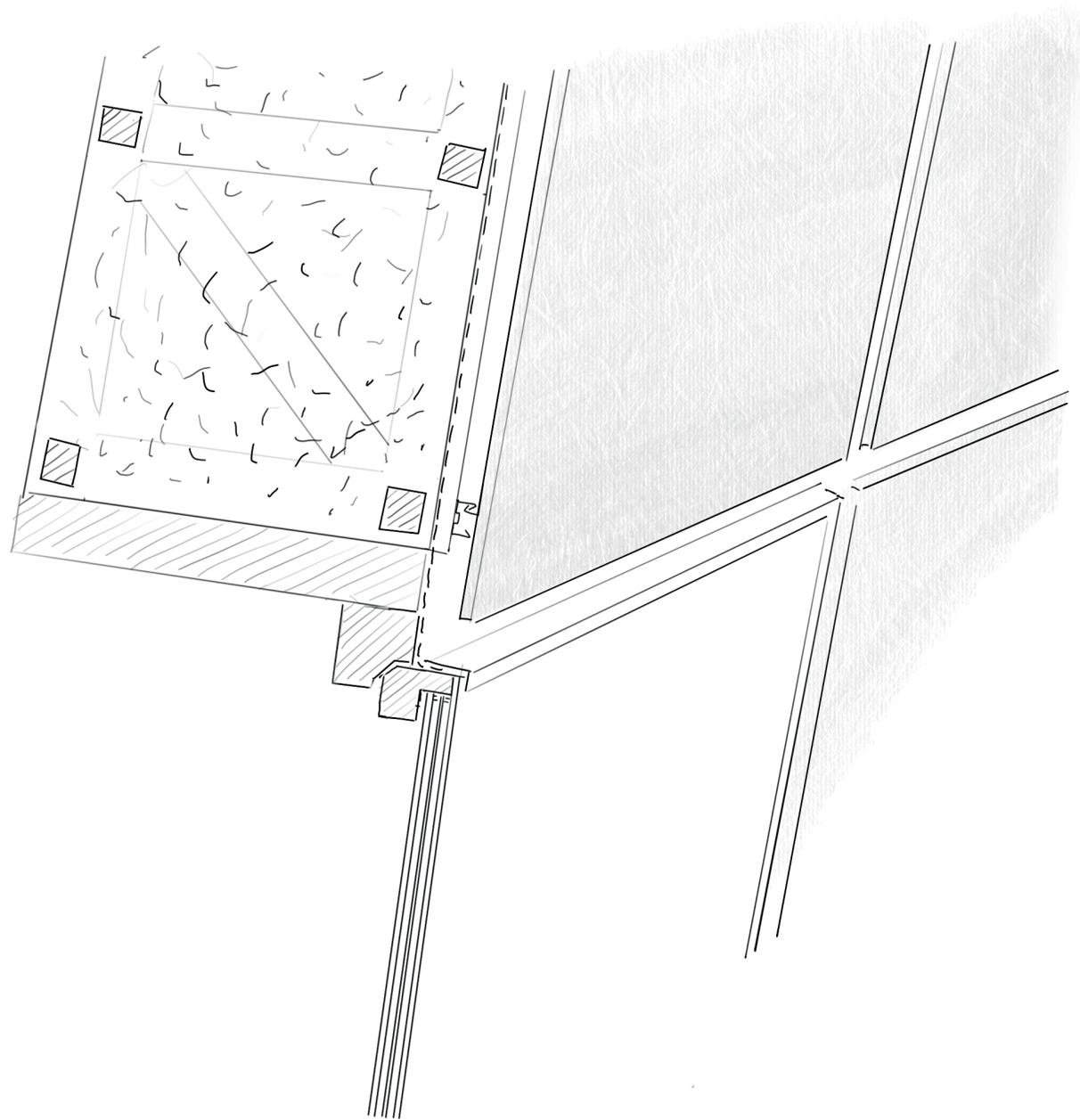




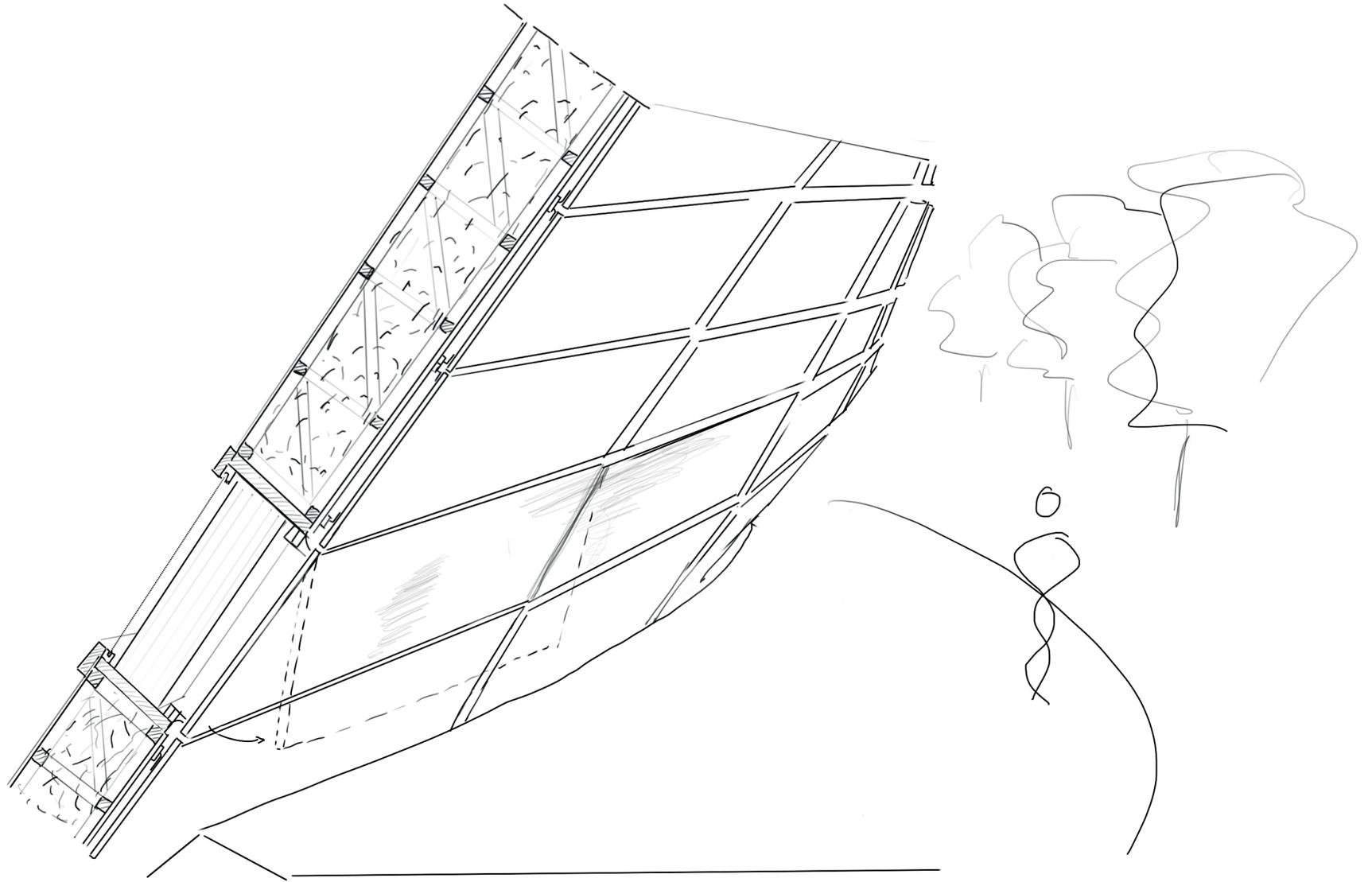
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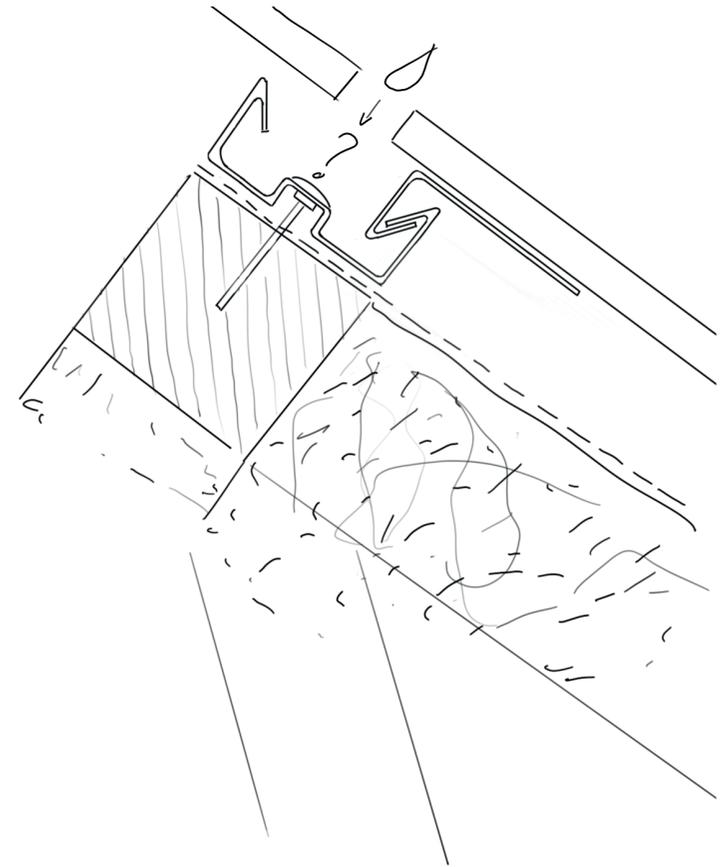
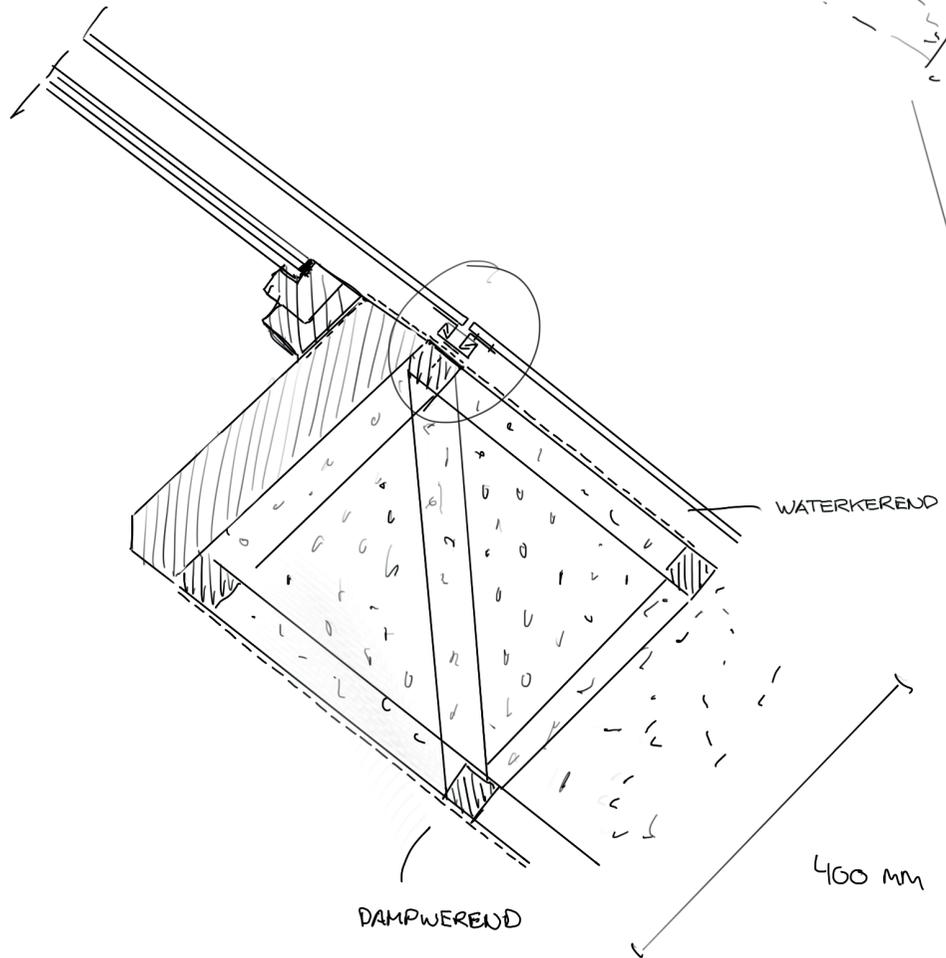
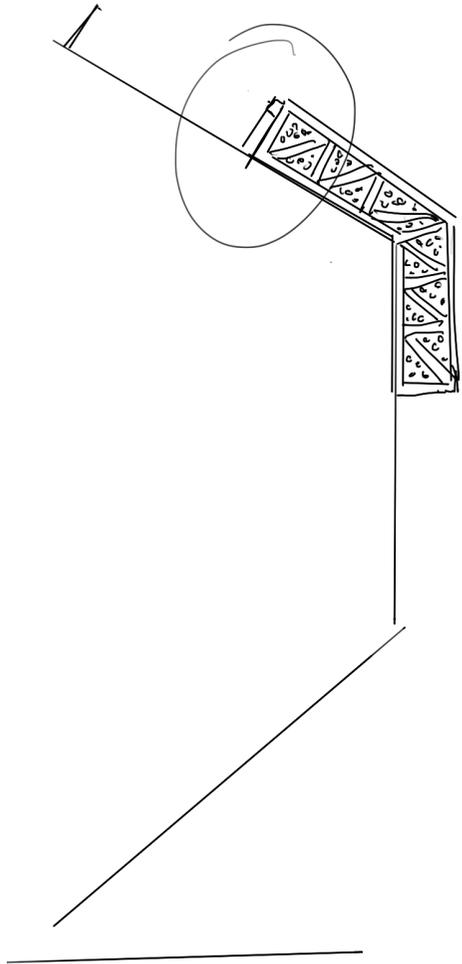
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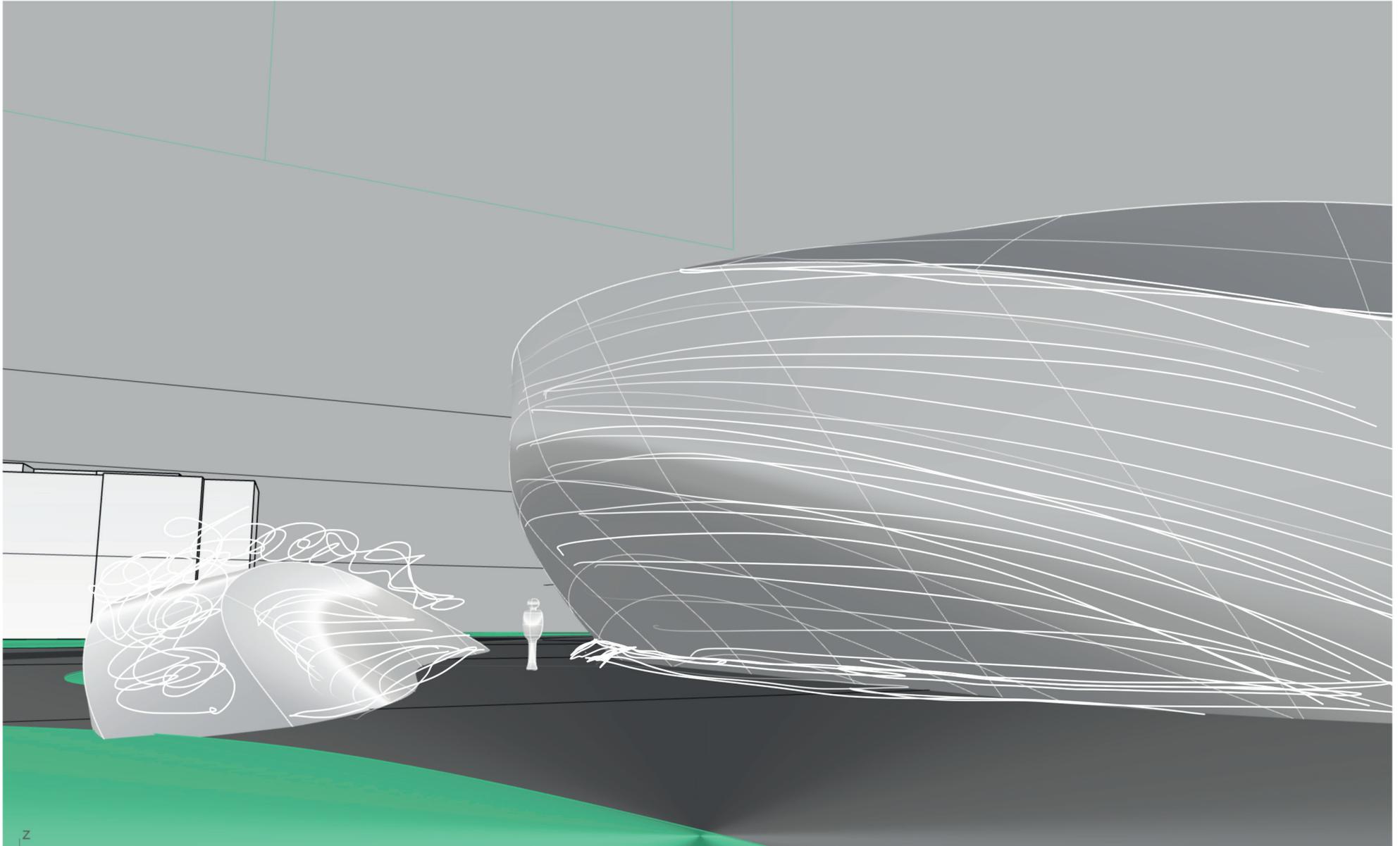
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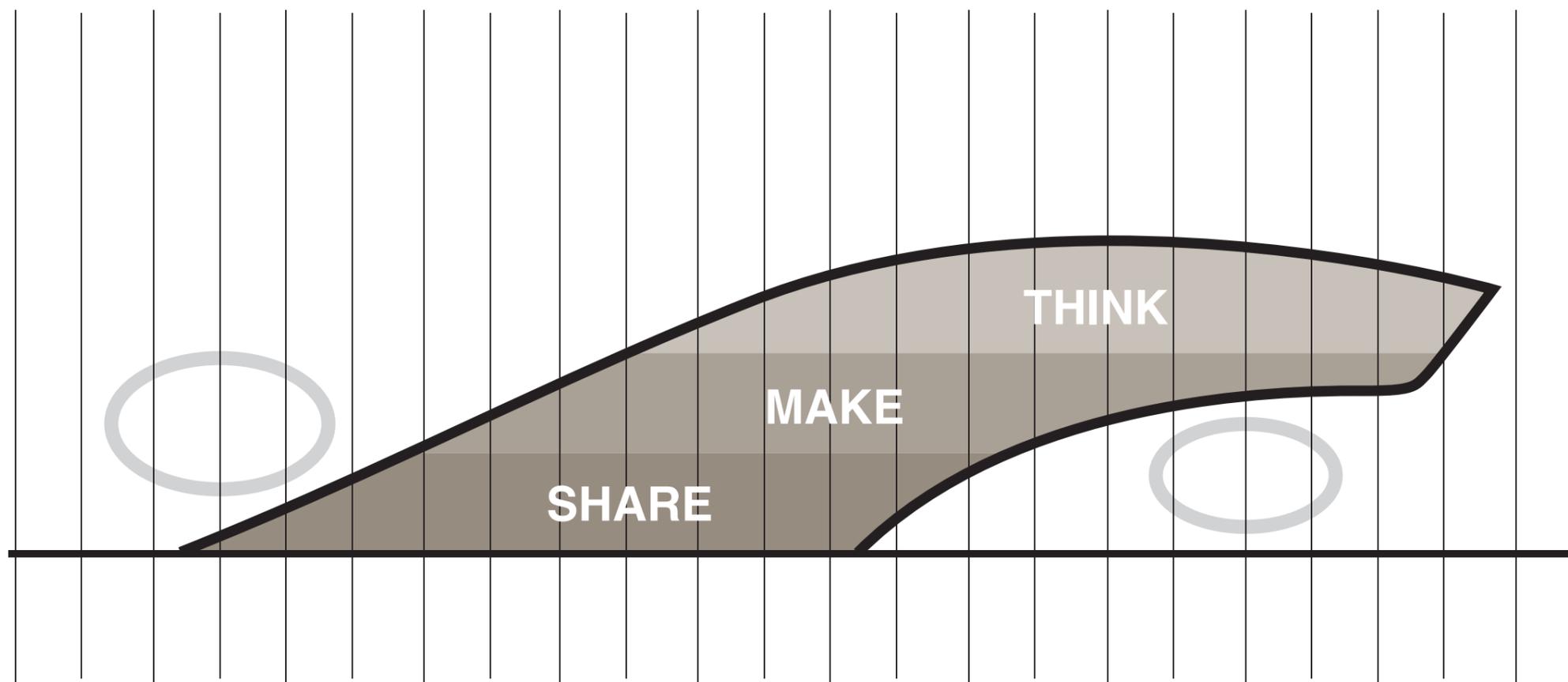
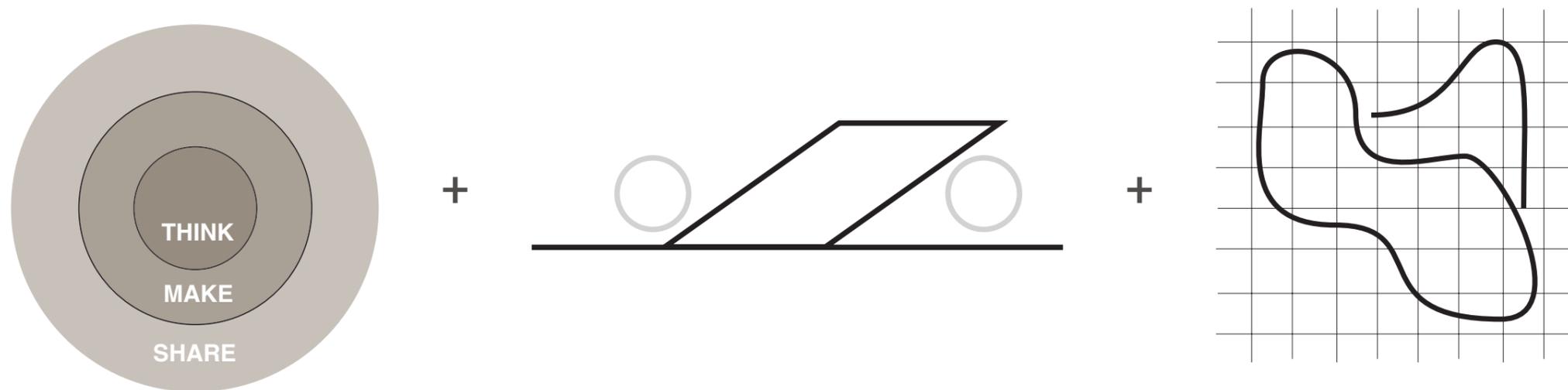
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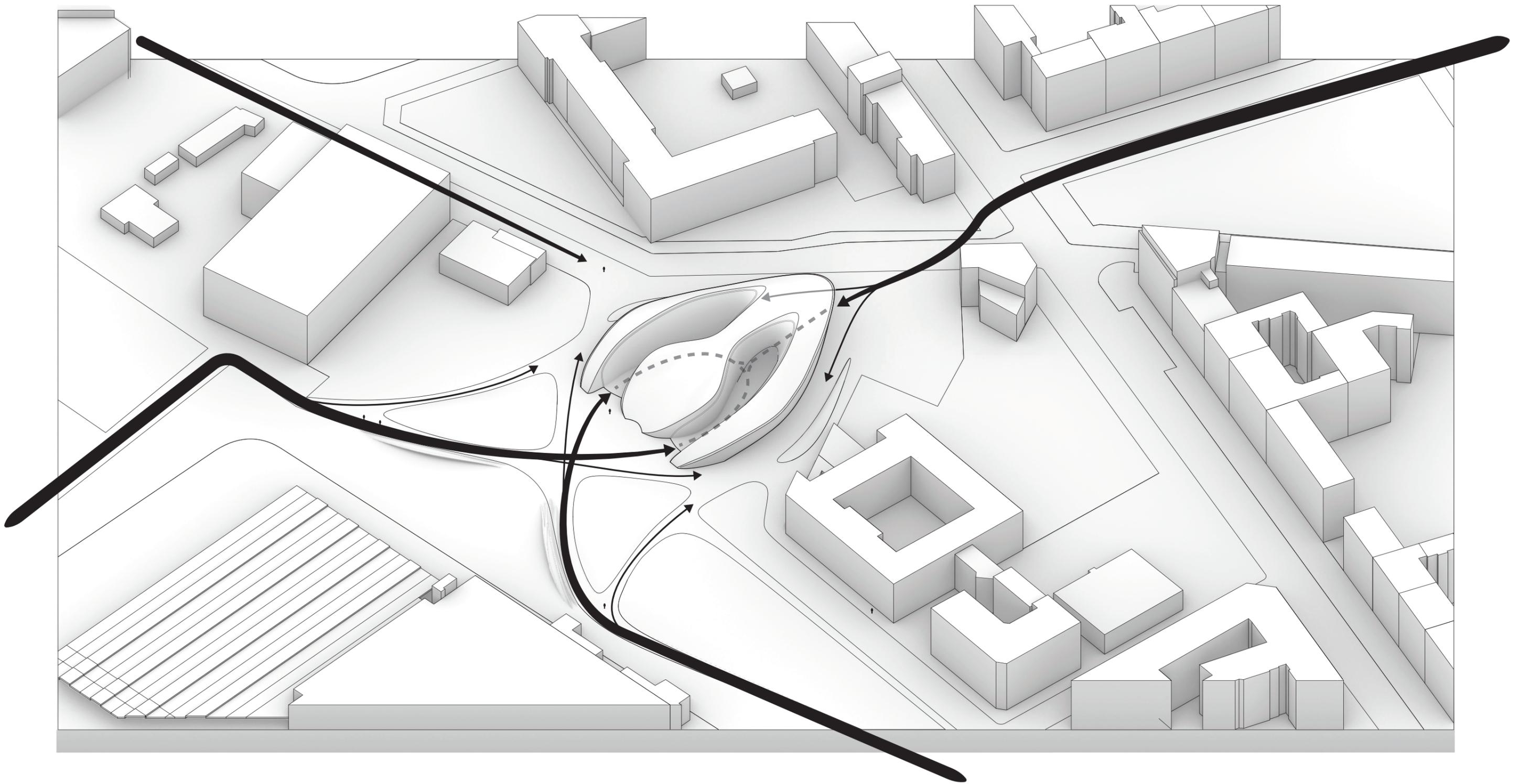


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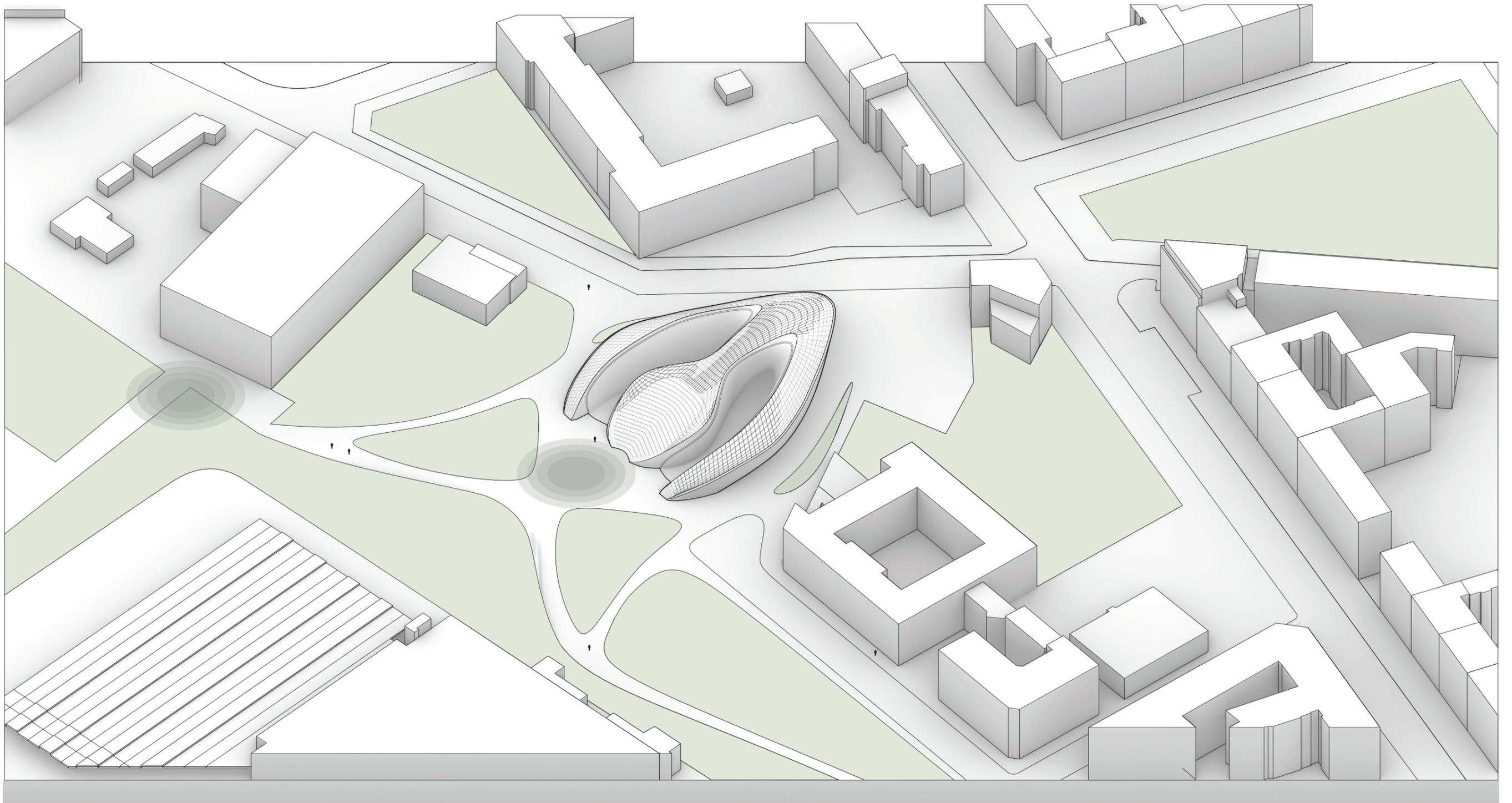


CREATIVE CONDENSER: A KATALYST FOR THE CREATIVE COMMUNITY

HOUSE OF CREATIVES | CONTEXT



HOUSE OF CREATIVES | CONTEXT

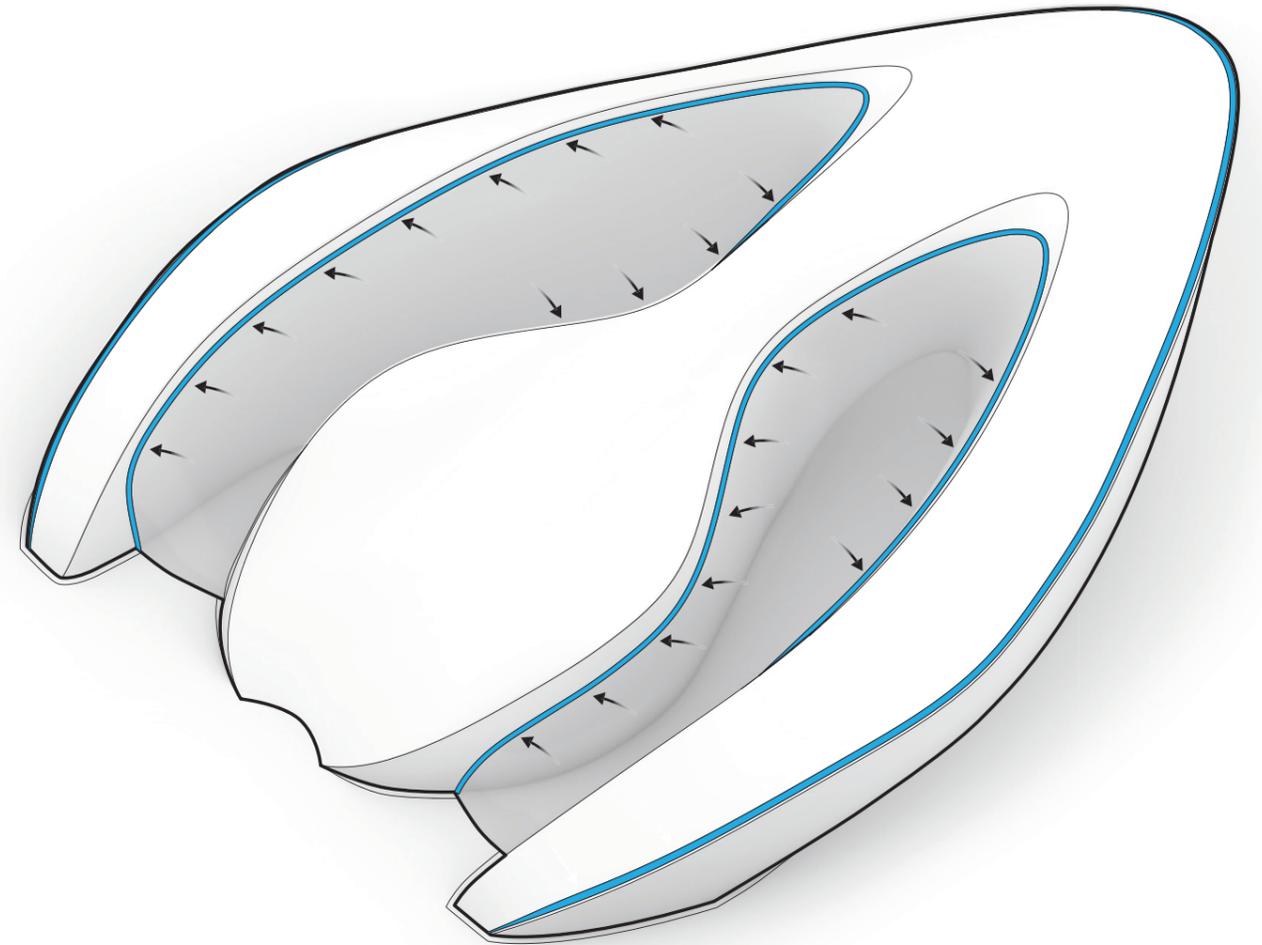
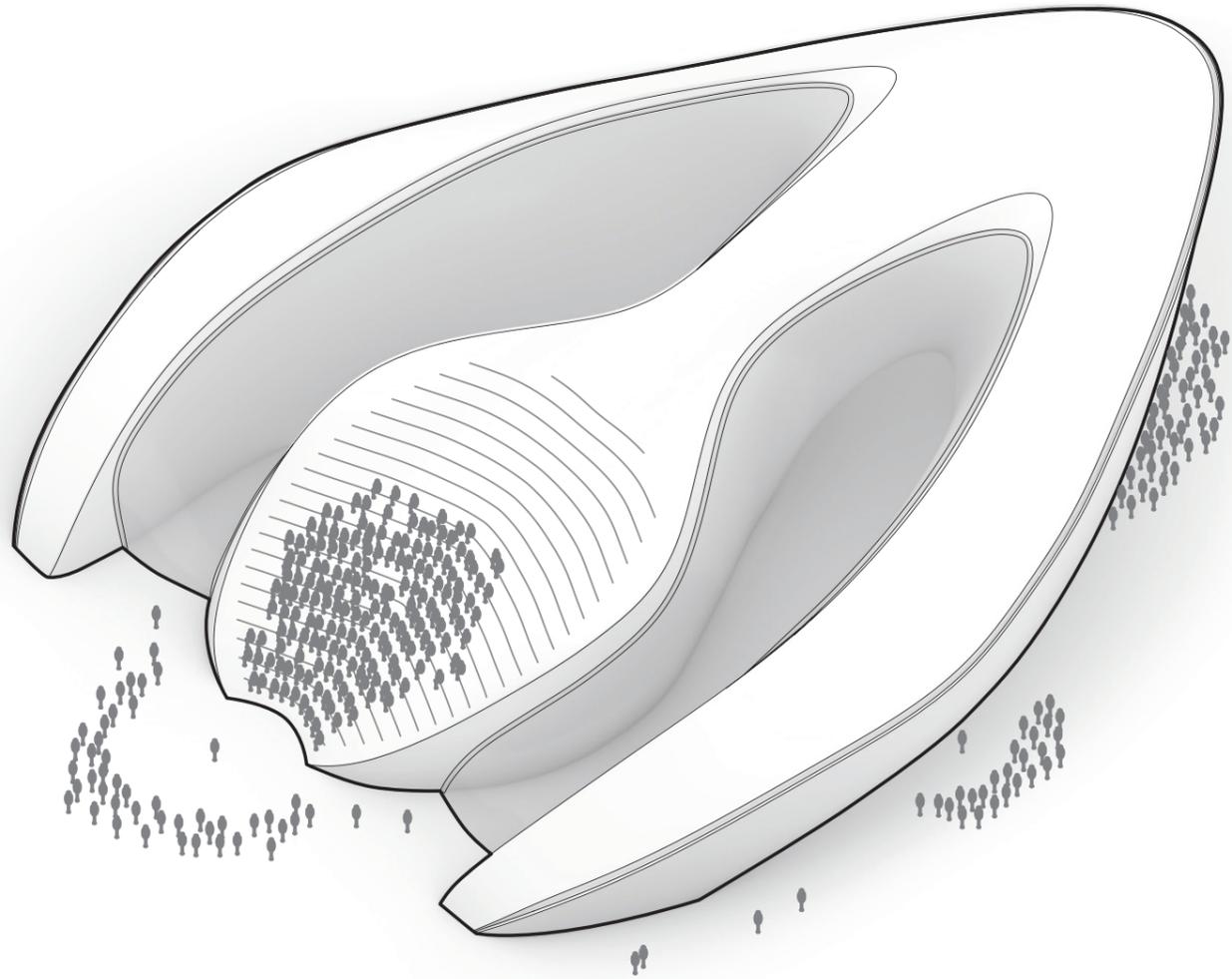






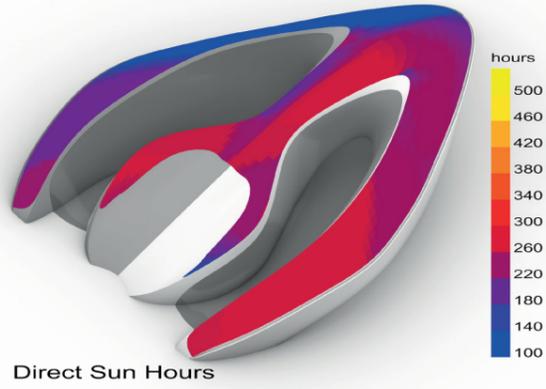


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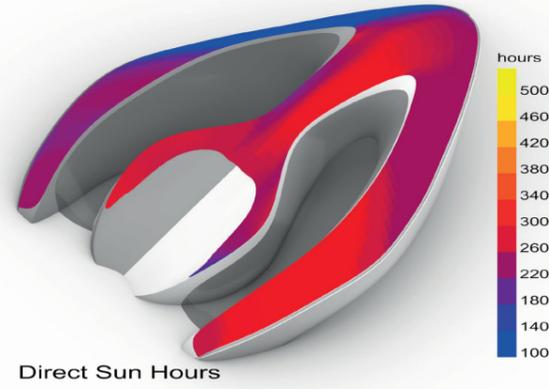


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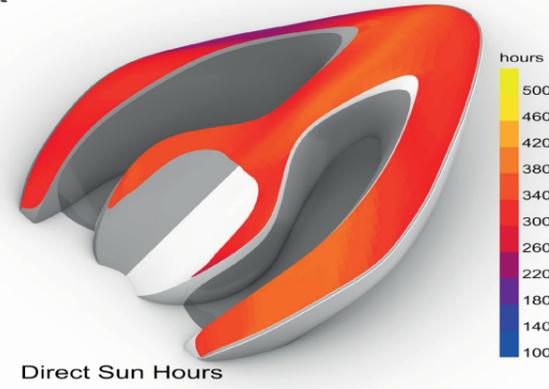
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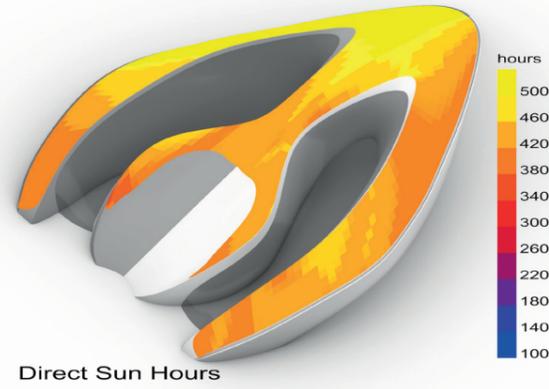
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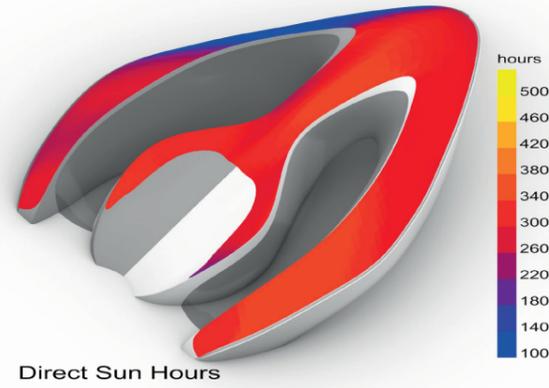
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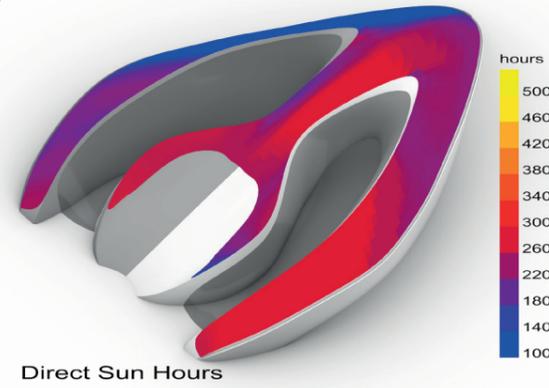
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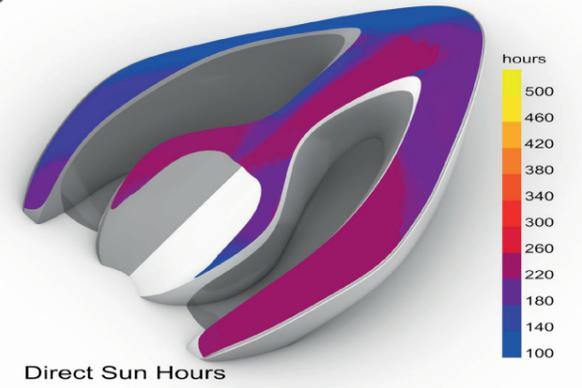
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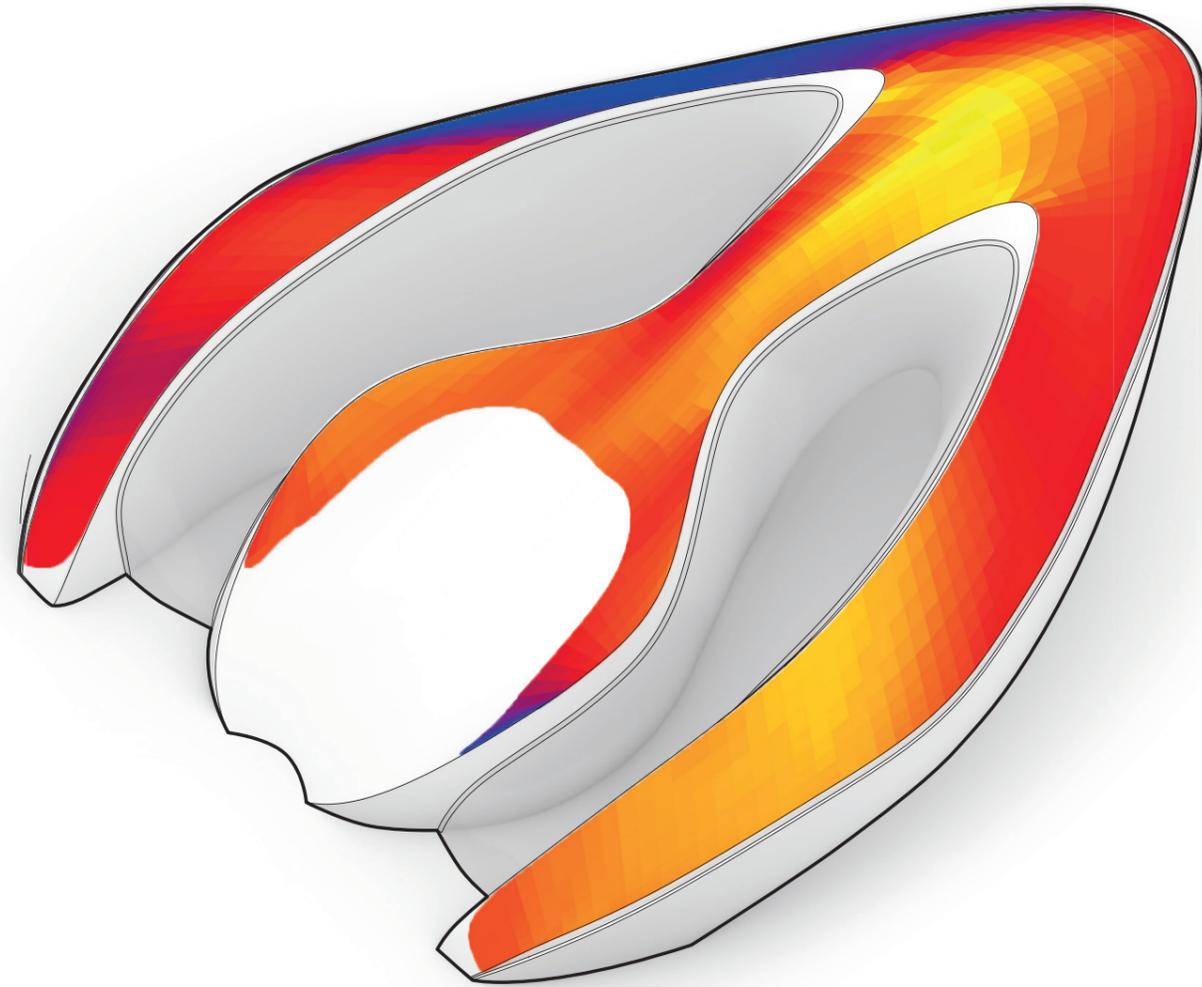
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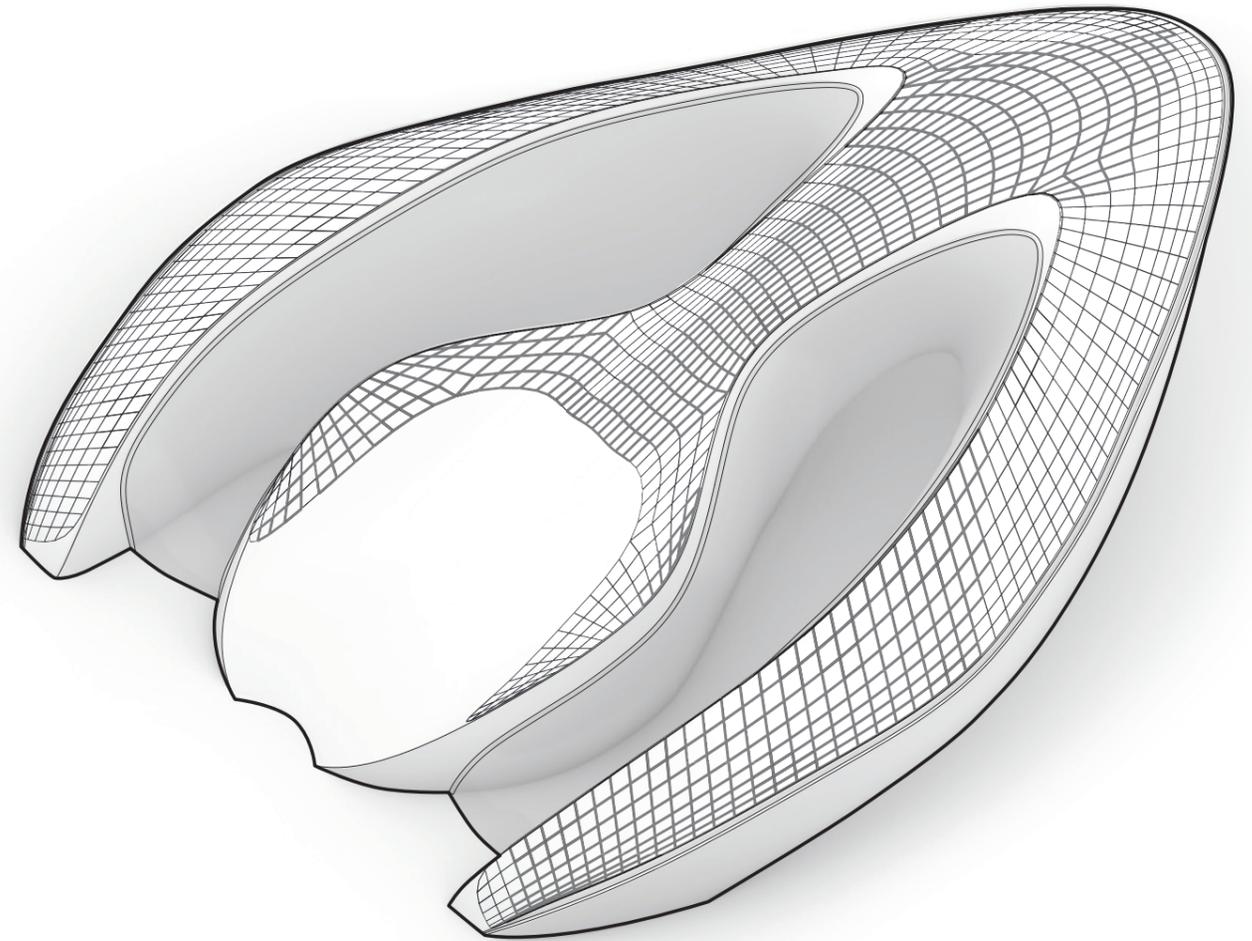
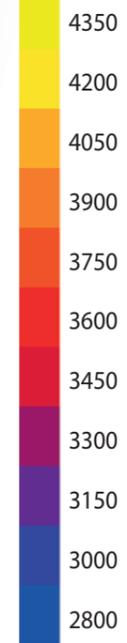
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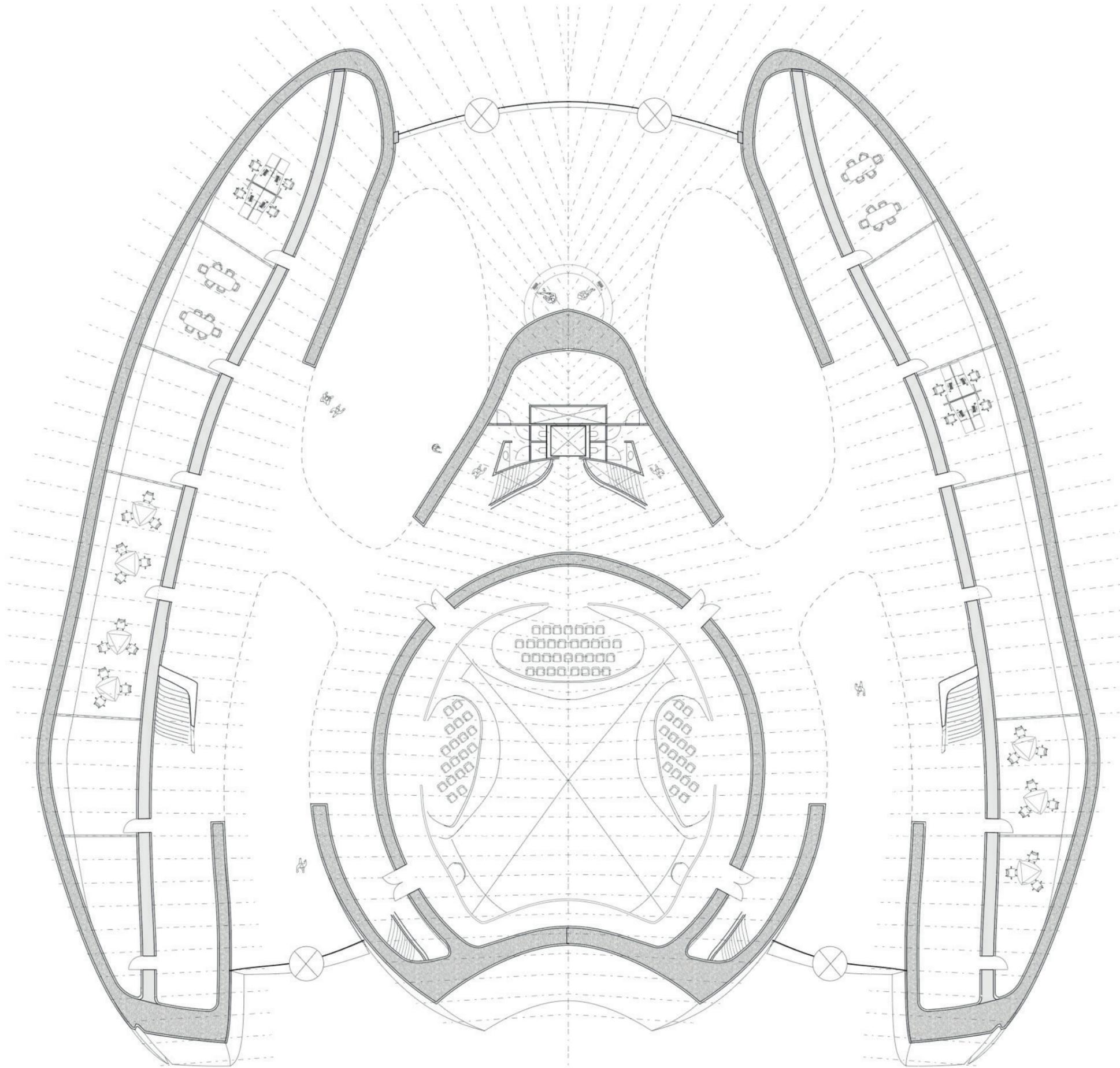
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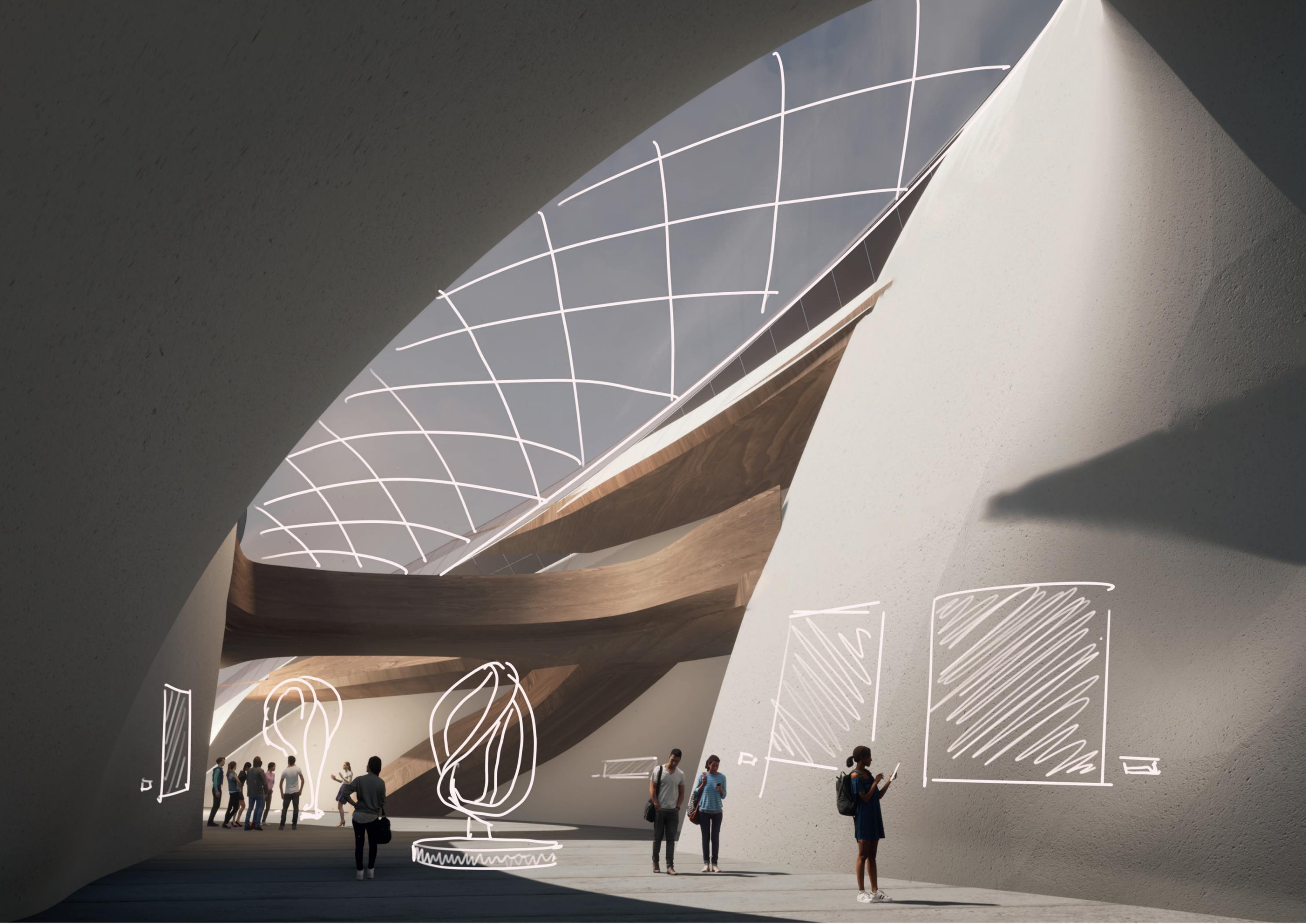


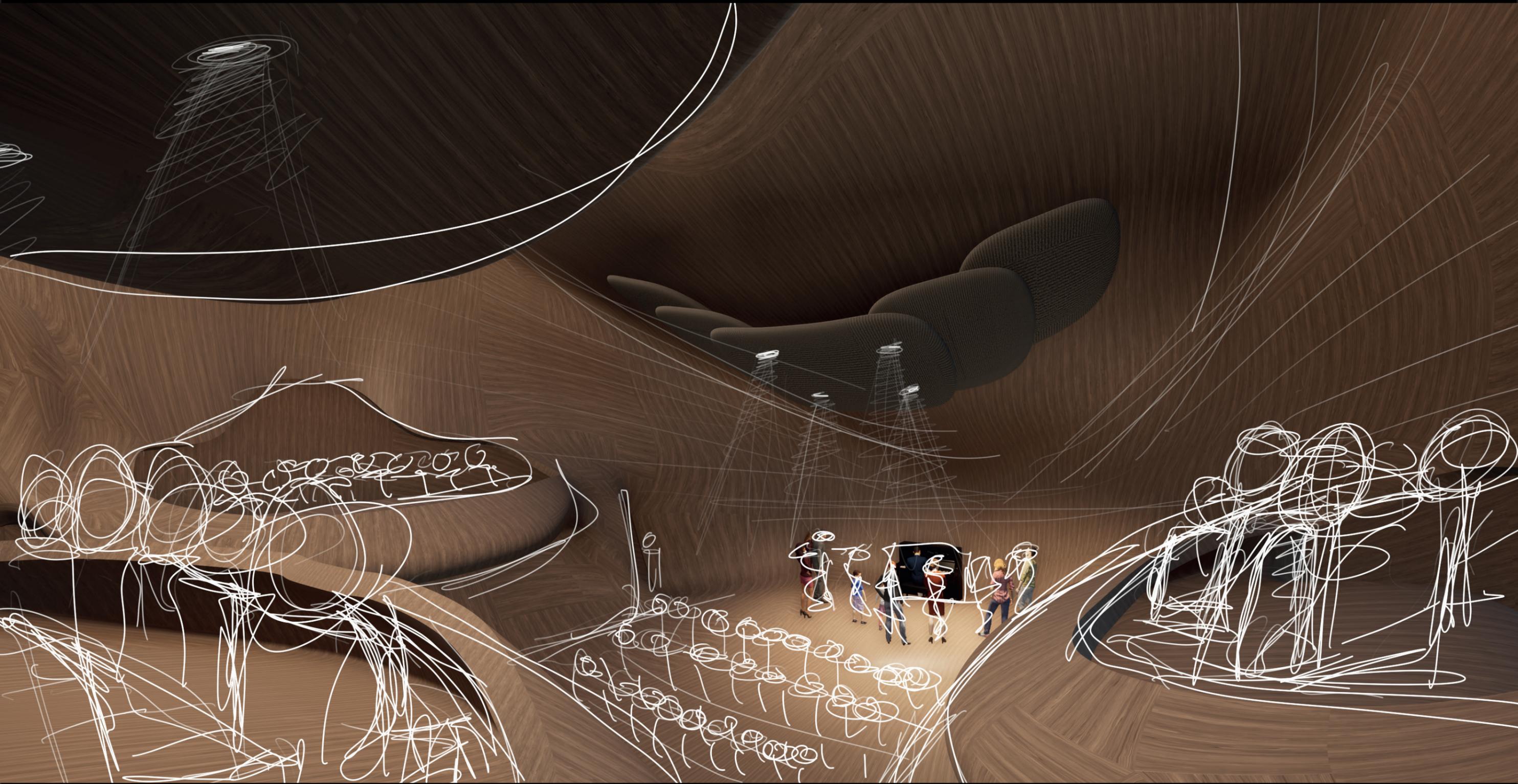
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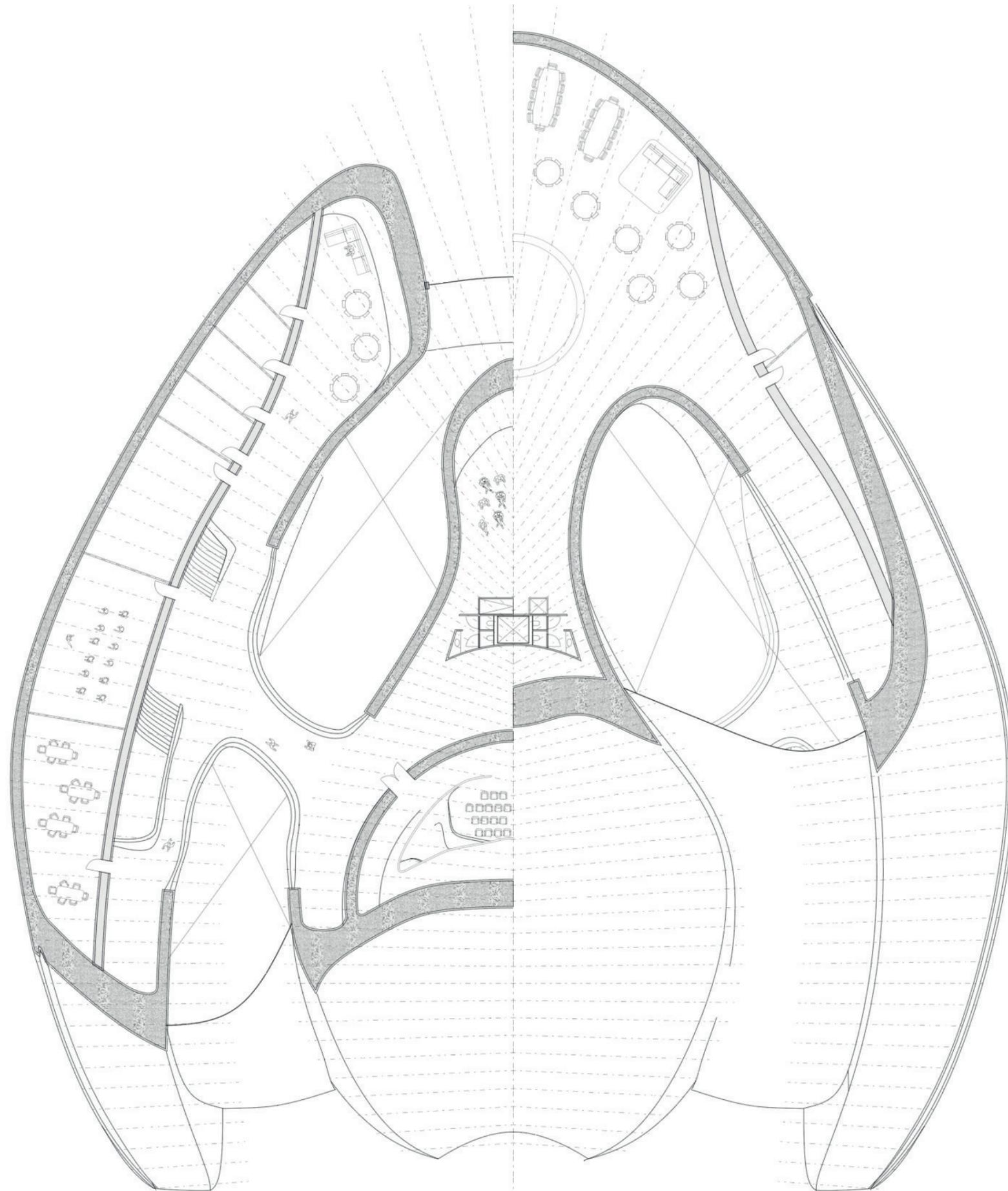
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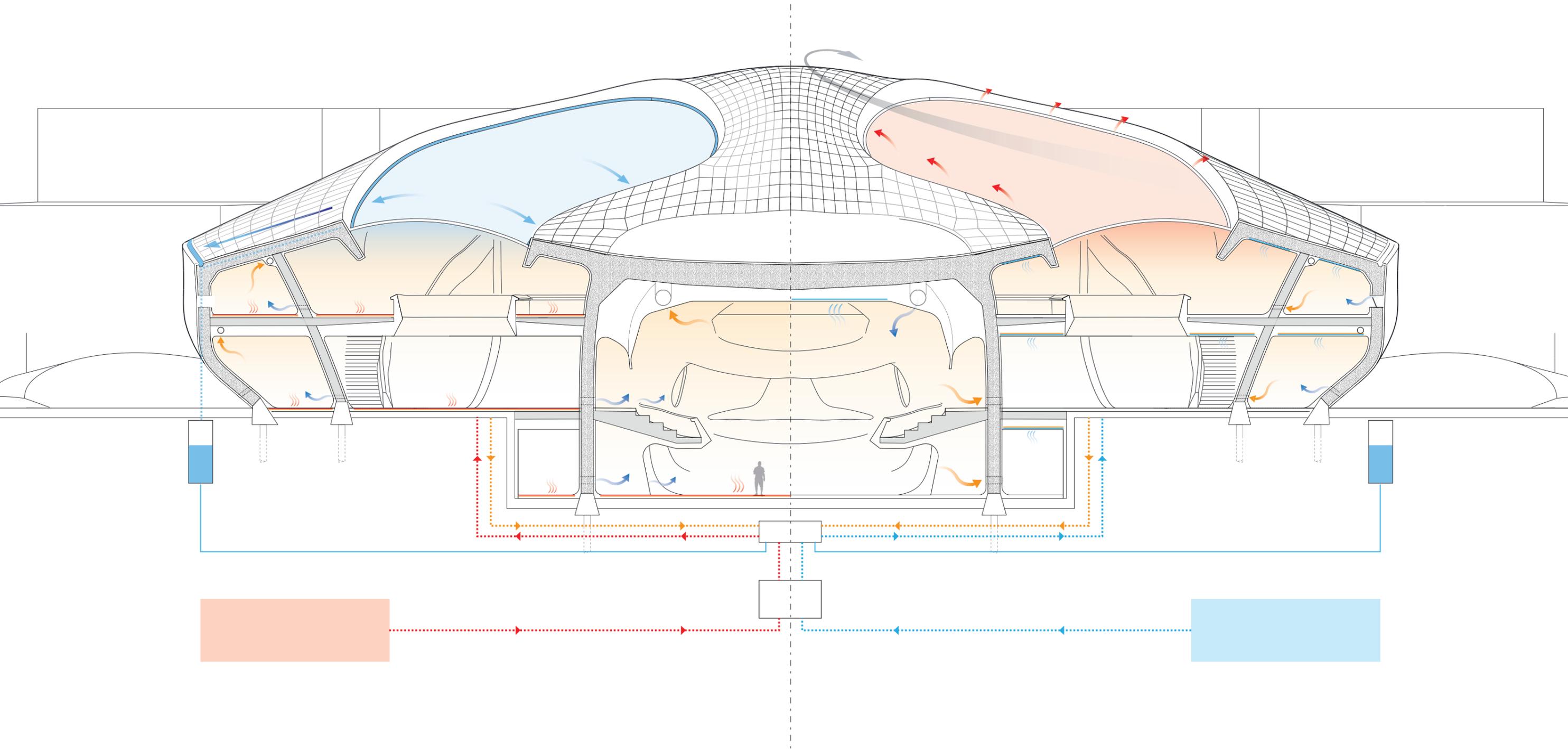




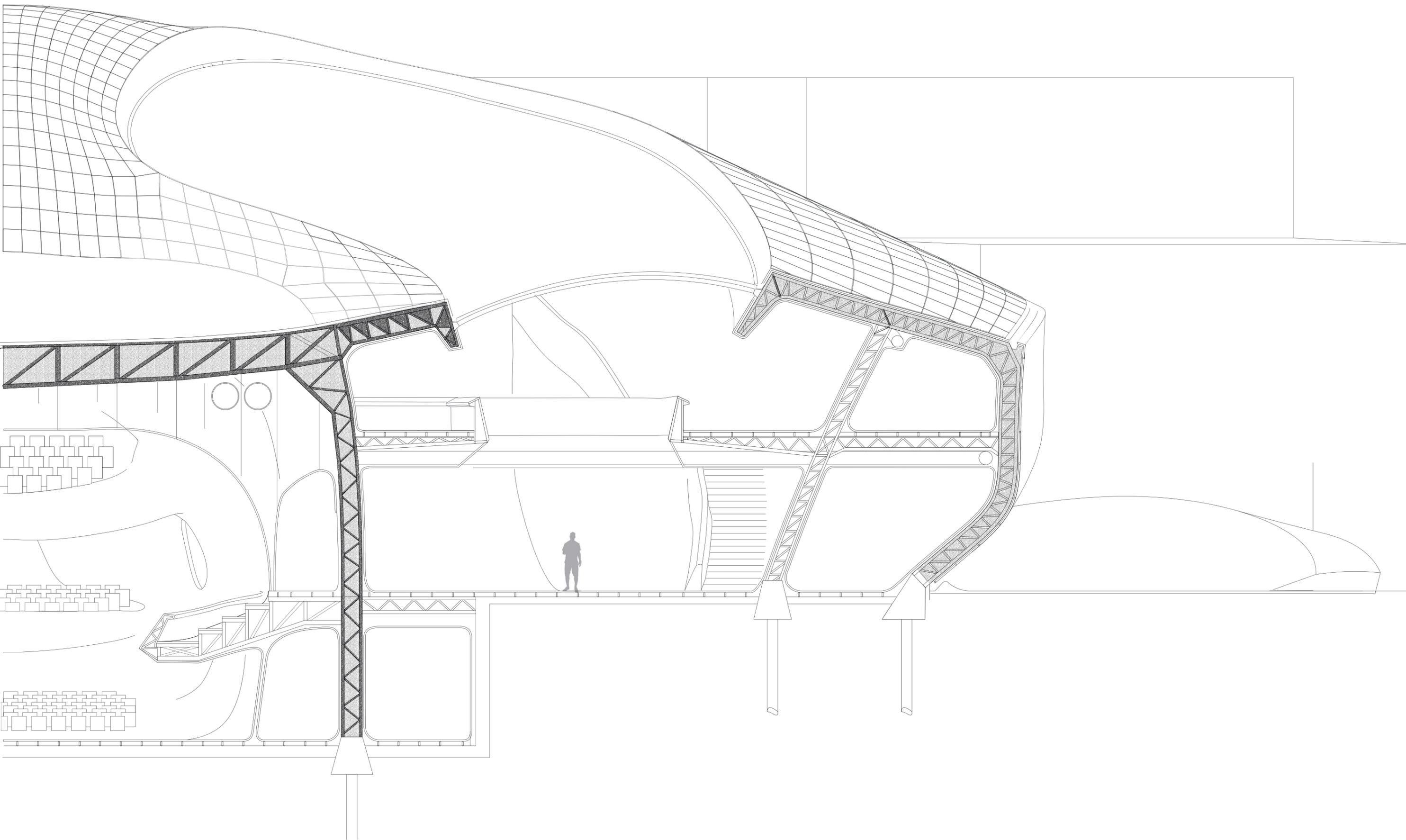
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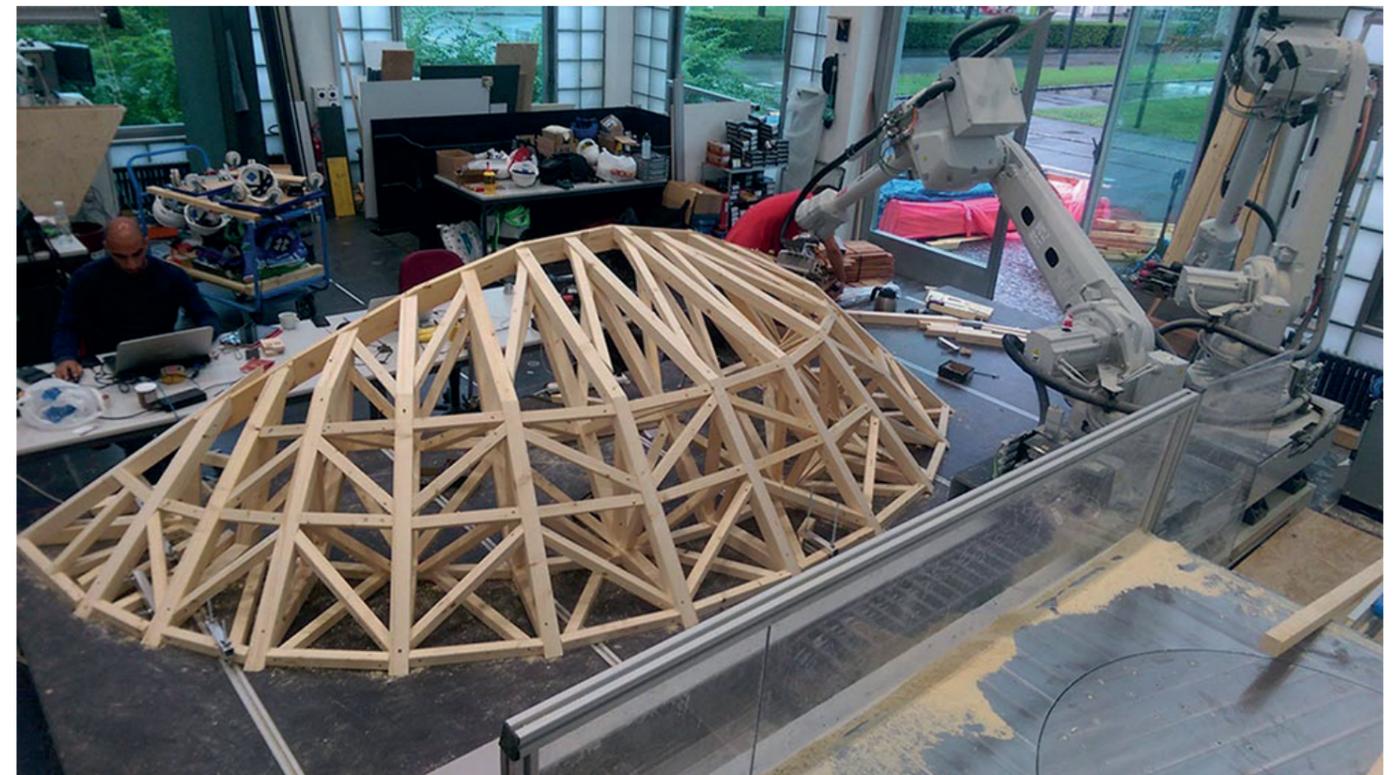
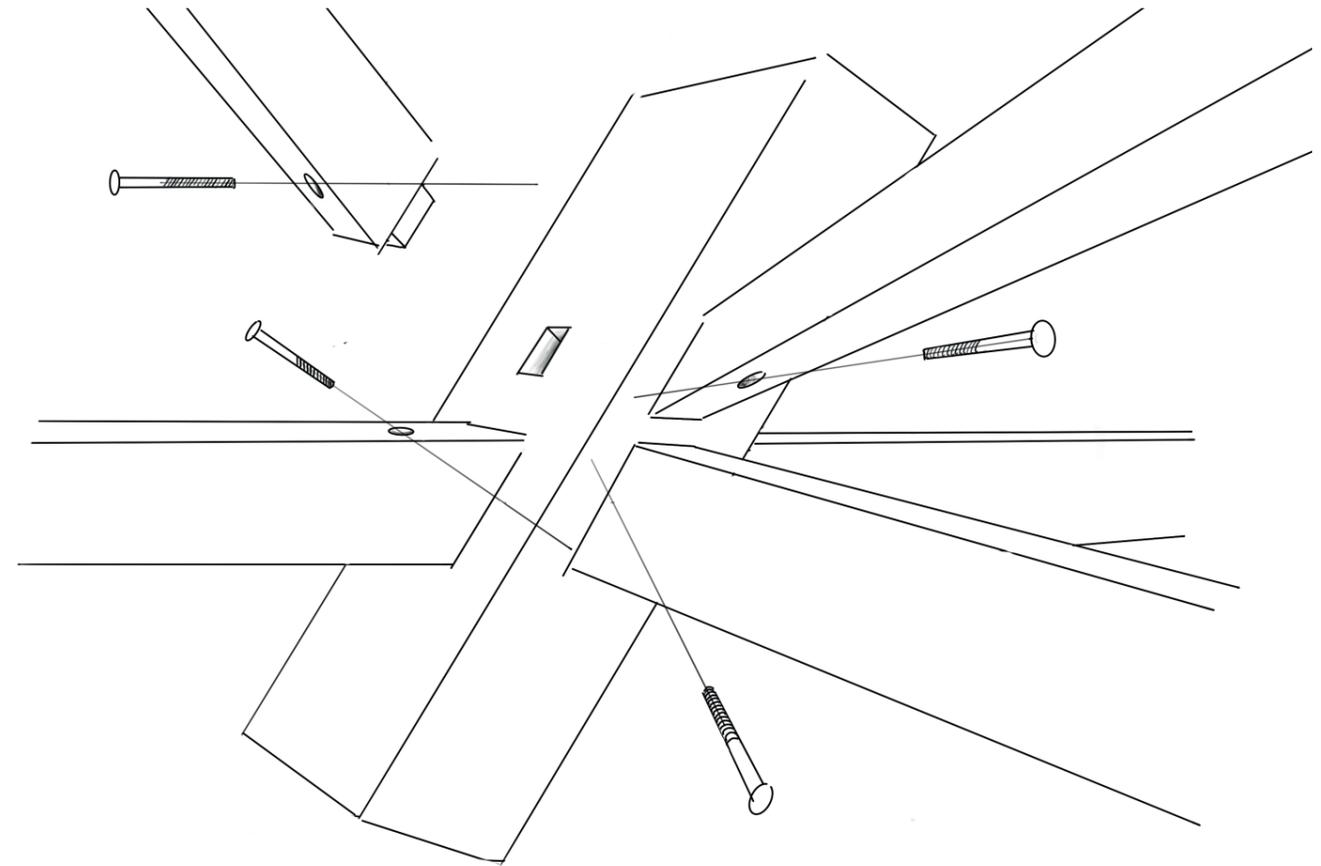
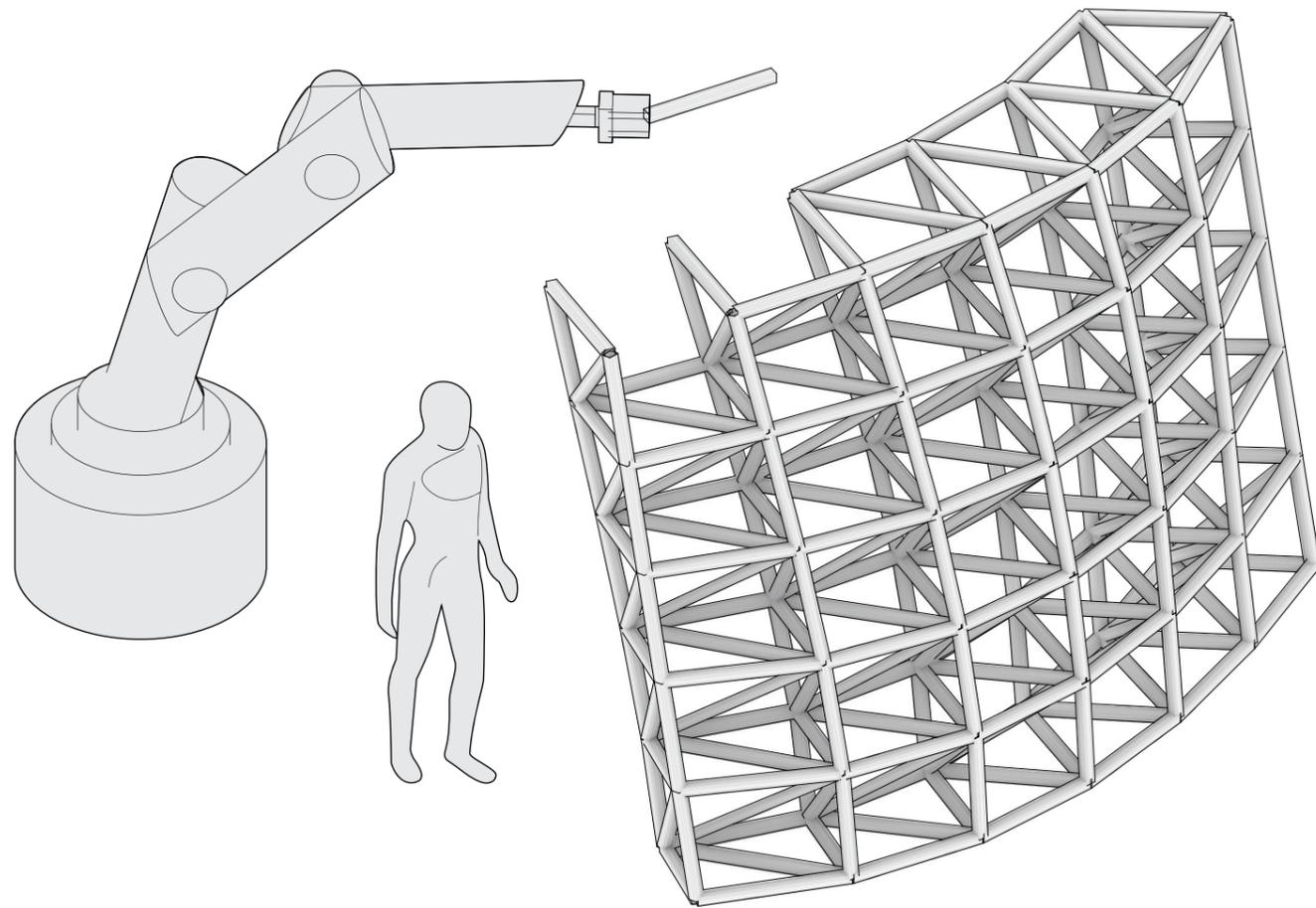
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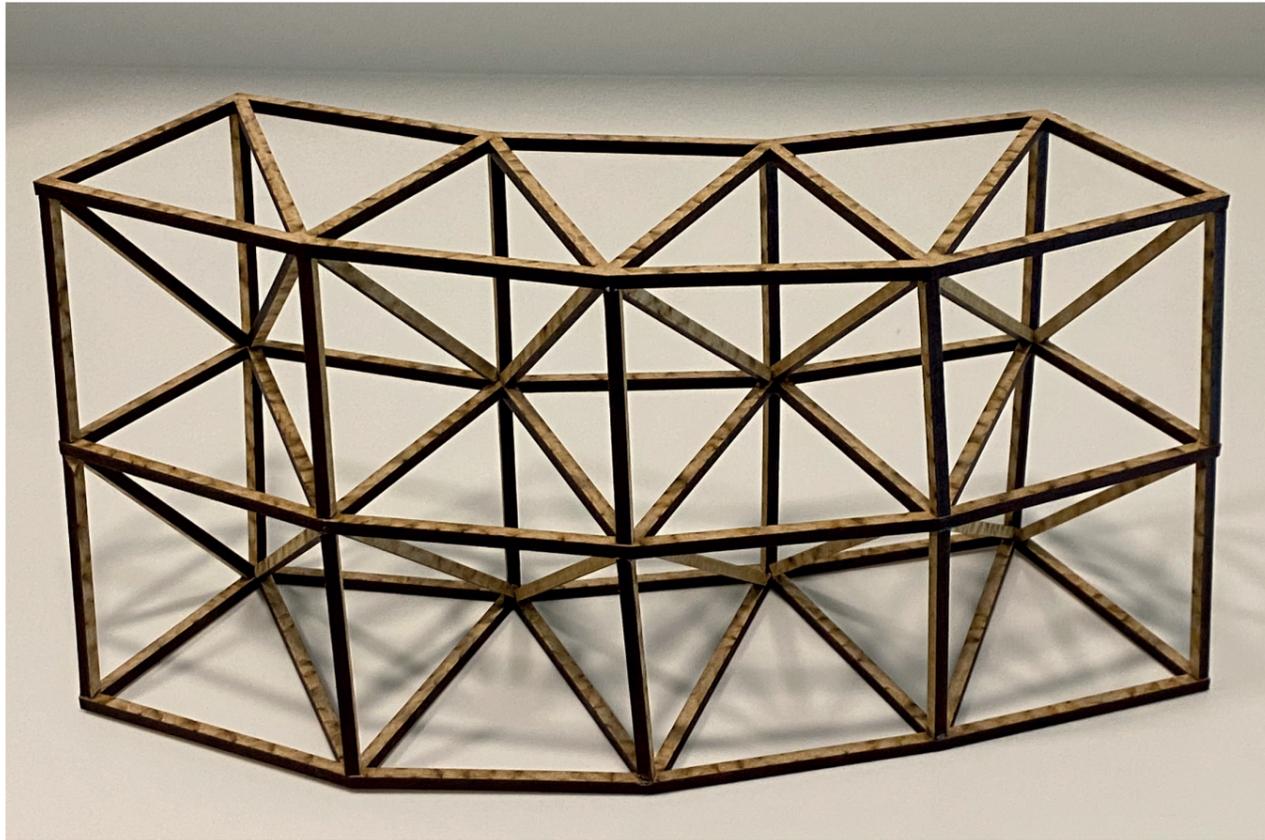
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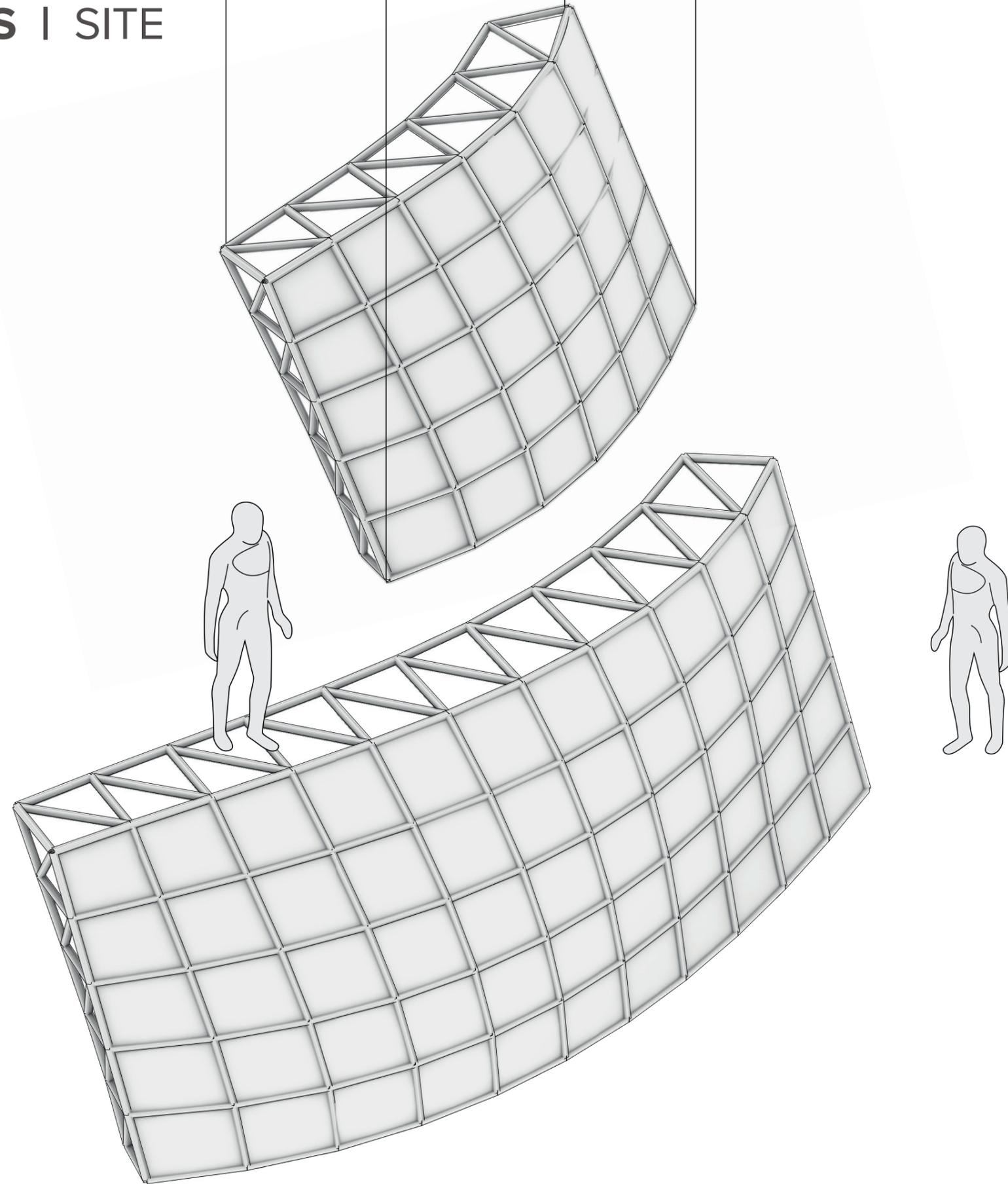
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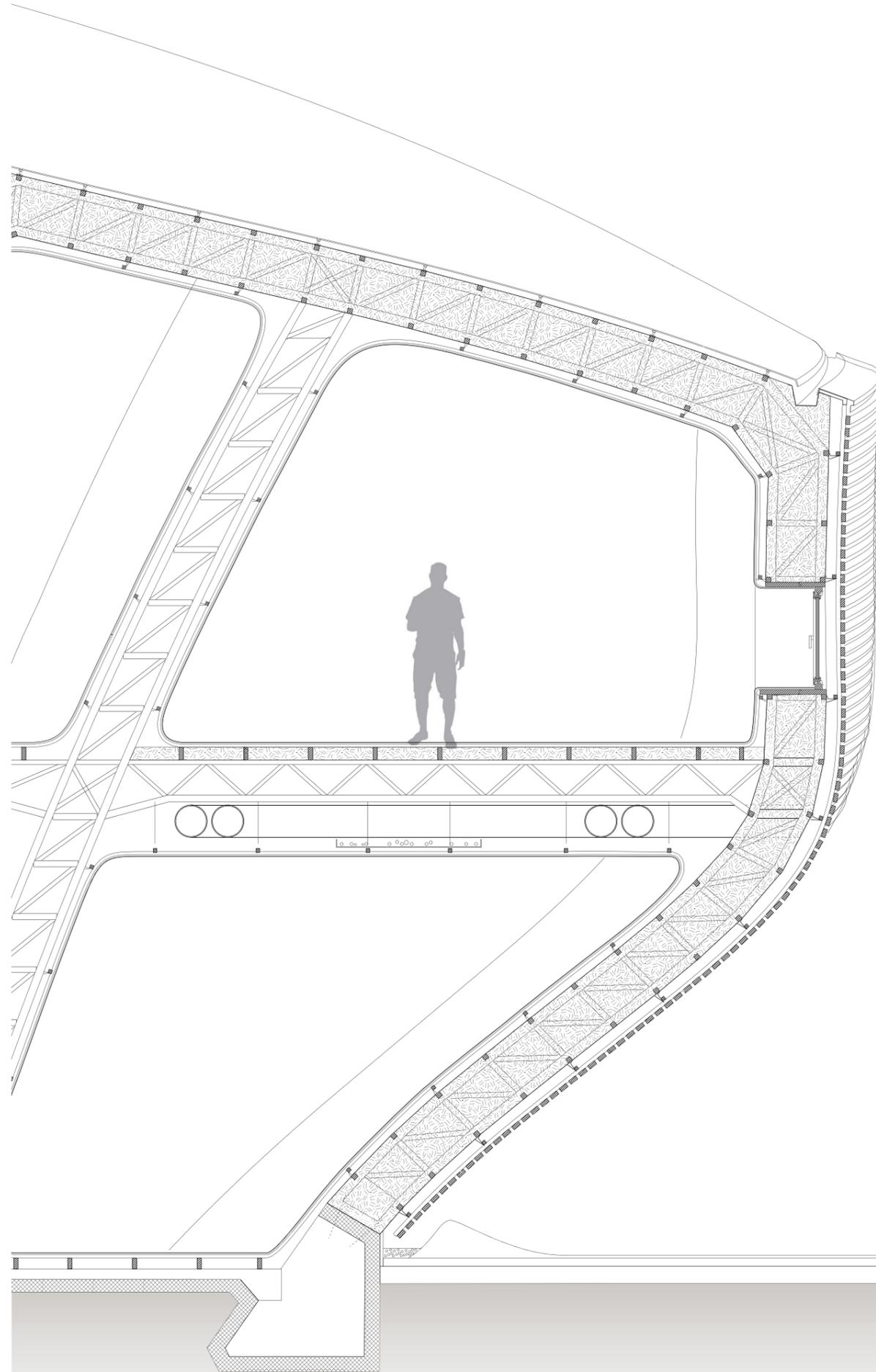
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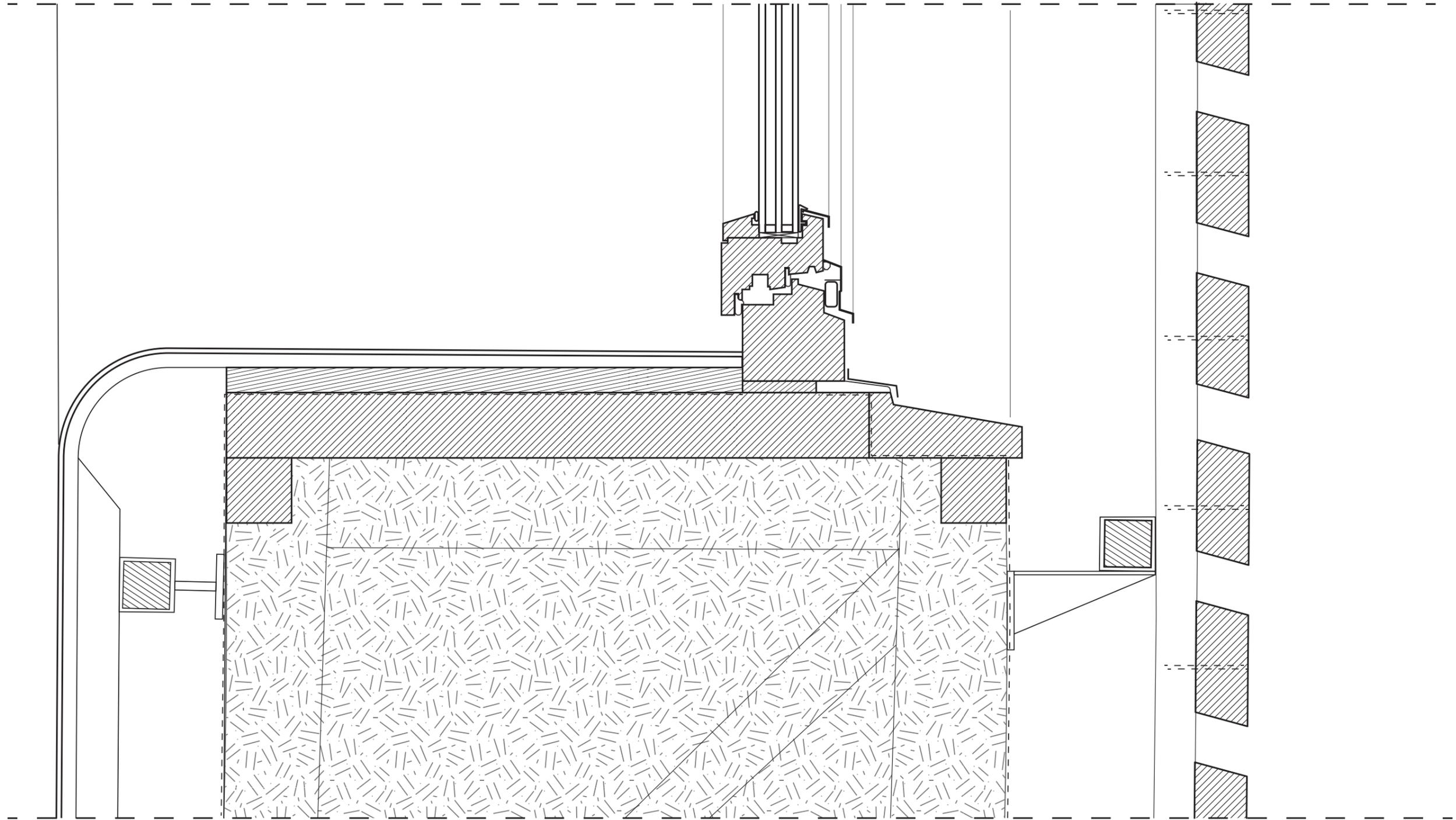
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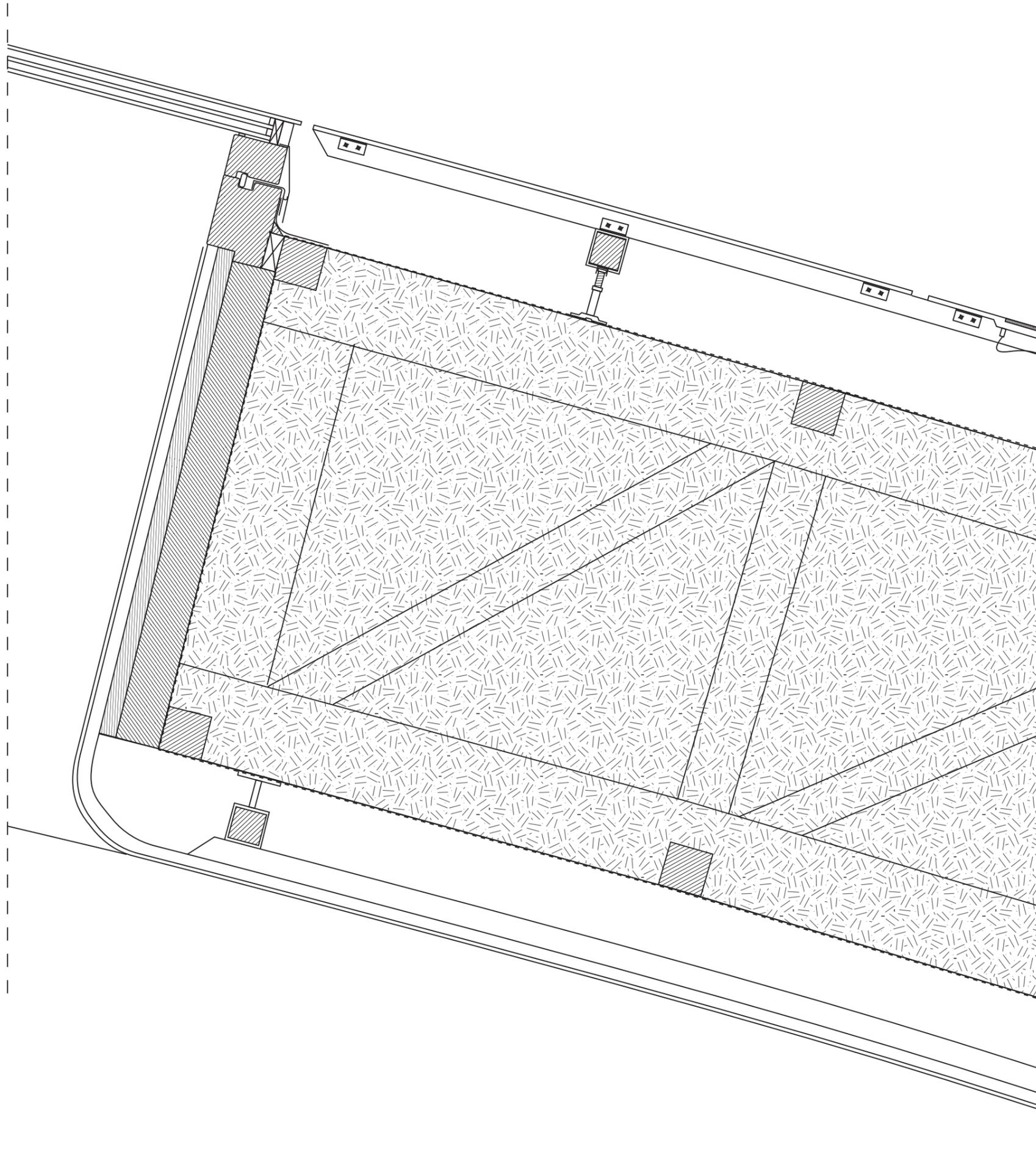
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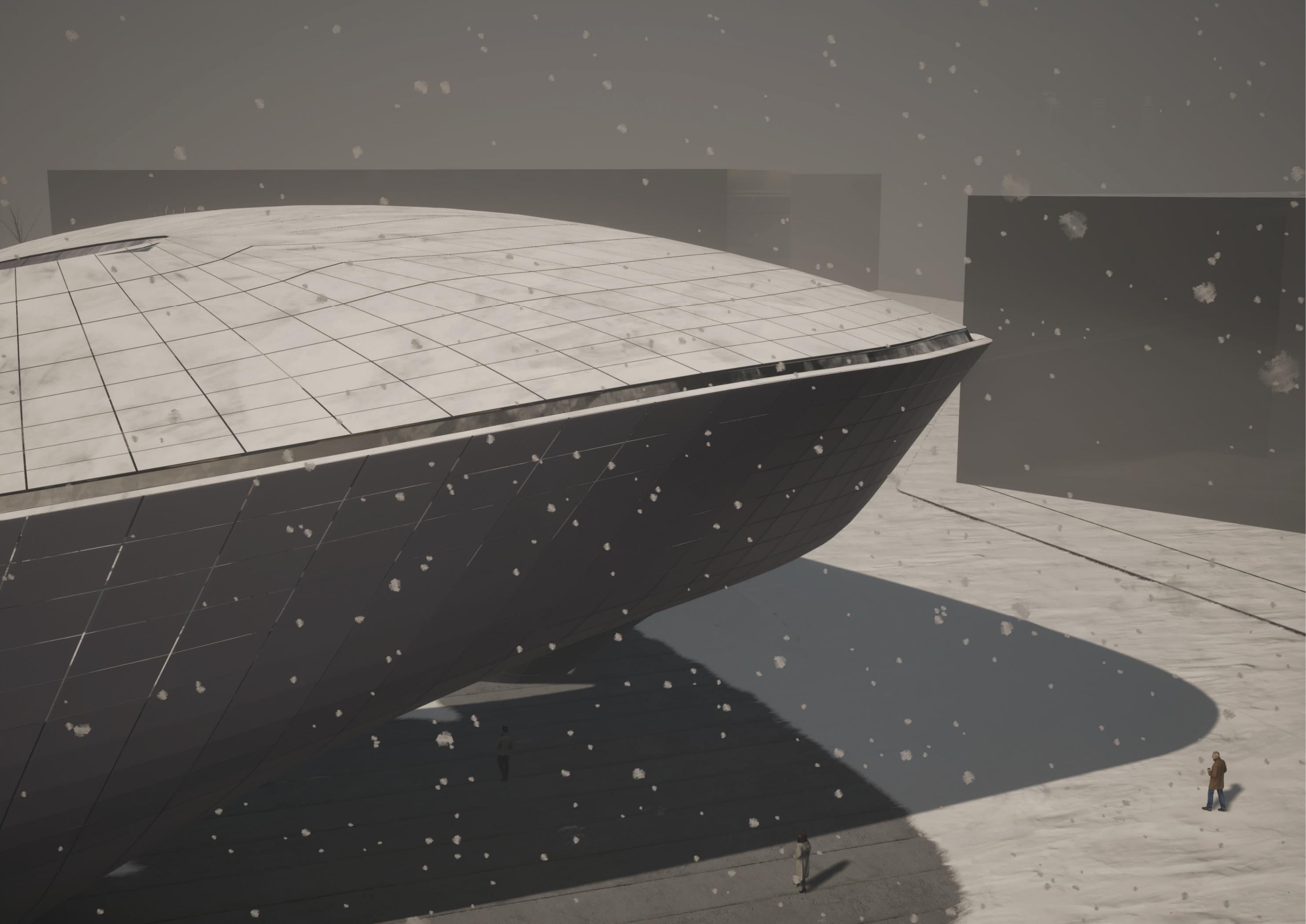


HOUSE OF CREATIVES | FACADE 1:5



HOUSE OF CREATIVES | ROOF 1:5





HOUSE OF CREATIVES

SITE

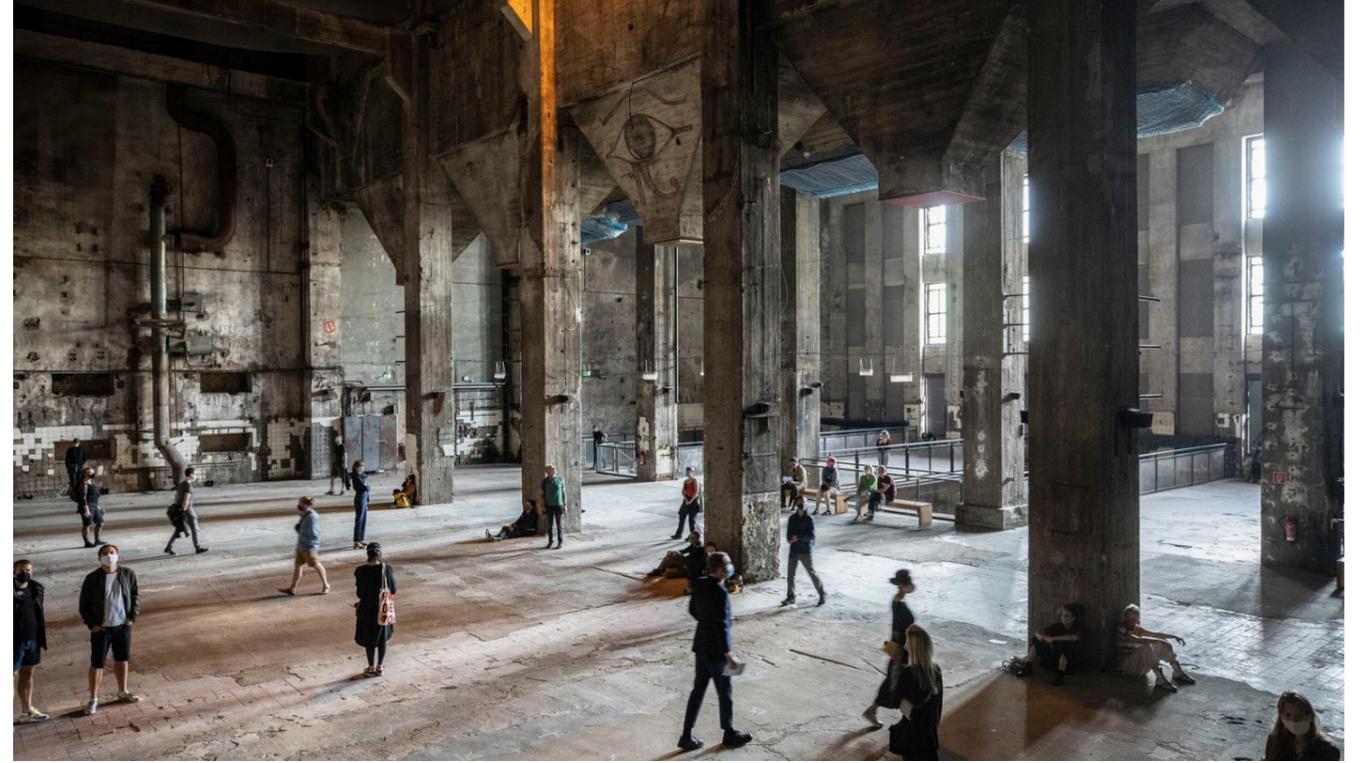
CONCEPT DEVELOPMENT
ARCHITECTURAL | PROGRAMMATIC | SPATIAL

ARCHITECTURAL DESIGN

HOUSE OF CREATIVES | FRIEDRICHSHAIN



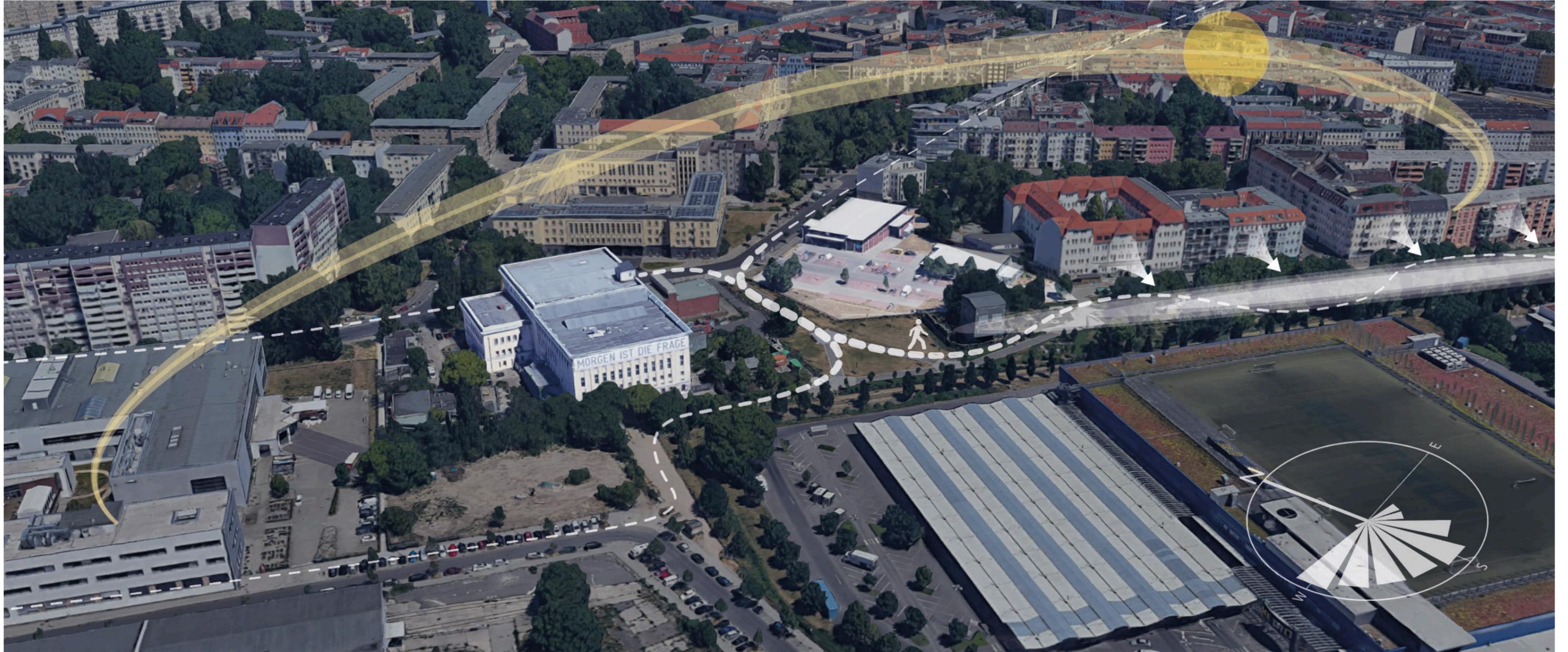
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HOUSE OF CREATIVES | SITE



HOUSE OF CREATIVES | PROGRAMMATIC

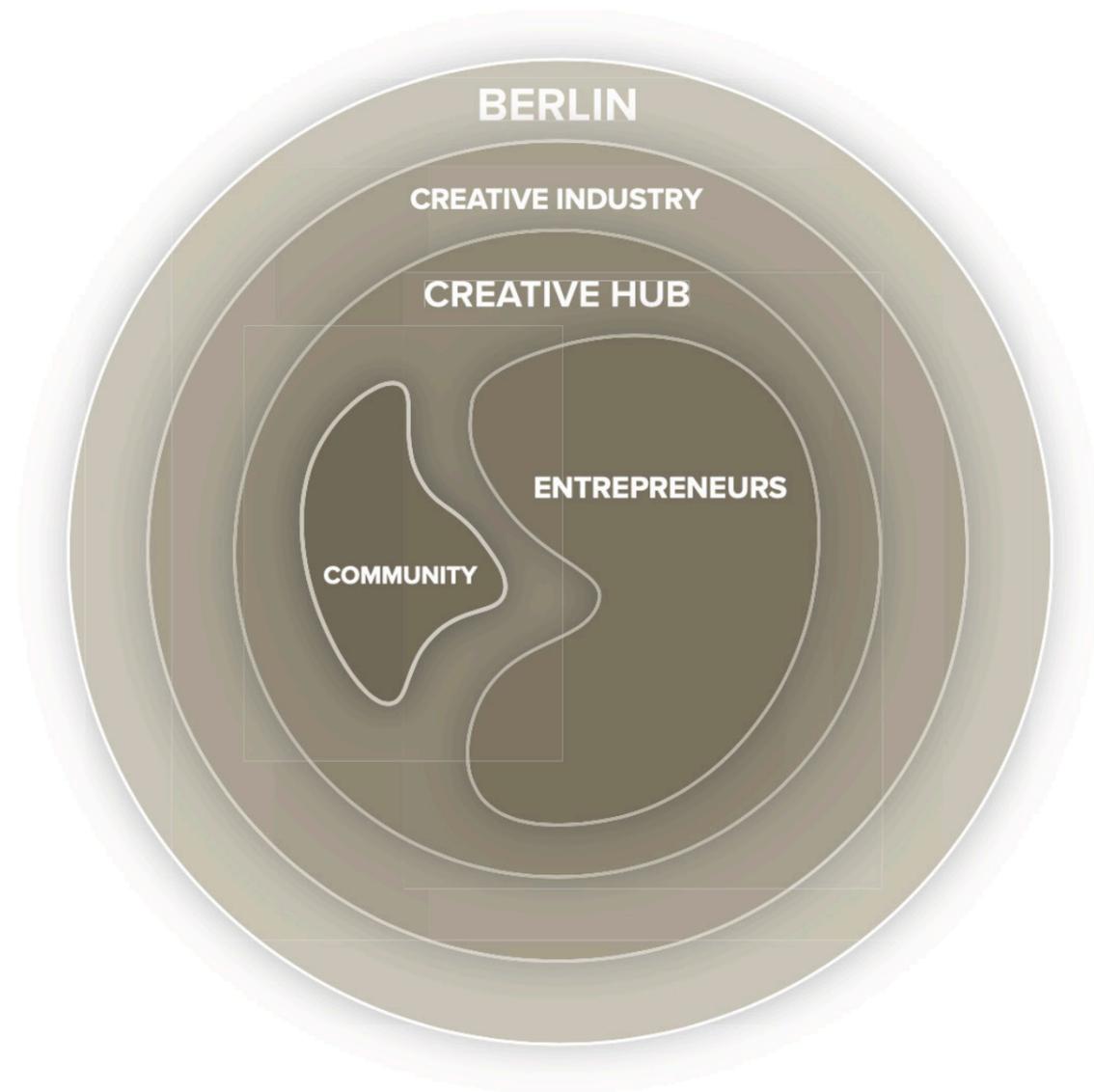


CONCEPT DEVELOPMENT
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HOUSE OF CREATIVES | BERLIN



HOUSE OF CREATIVES | PROGRAMMATIC



The Architecture of Community-driven Creative Hubs

Amon van Embden Spanjaard
4434900

Introduction & Relevance:

In recent years, the term 'hub' has captured the imagination of policy makers, politicians, urban planners, developers, academics and architects. Tied to a broader trending hyperbole about creativity, creative hubs have come to be presented as an unquestionably 'good thing', a cure for all economic ills. A creative hub is interpreted as a place, either physical or virtual, which brings creative people together and provides space and support for networking, business development and community engagement within the creative, cultural and tech sectors.

Problem Statement:

Today's literature on creative hubs is surprisingly scarce and mostly focuses on the typical creative hubs as co-working spaces, led by entrepreneurs, which are built around a certain economic interest. Recently, a different type of creative hubs has emerged, which is community-driven. Unlike the entrepreneurial-led co-working spaces that represent enterprises renting out individualised workspaces to creative professionals, the community-driven ones are usually non-profit ventures that accommodate creatives with a kind of social and even political proximity between them. These community-driven creative hubs can play an important role in our future cities and, seen as building program, require insight on architectural conditions.

Methodology:

This research focuses on the community-driven creative hubs within the context of the Media Spree, which is a redevelopment plan in East Berlin improving the city's creative industries. By doing research on this creative hub type from an architectural point of view, a (new) building typology will be introduced. The research will be accomplished through an elaborate literature study, supported by an analysis of relevant reference projects (if any). Additionally, a design research following the principles of 'research by design' will be carried out to explore the community-driven creative hub as a building typology. The aim of the research is to provide a clear understanding of the meaning and potential of community-driven creative hubs and set guidelines for the design of this (new) building typology.

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Amon van Embden Spanjaard
4434900

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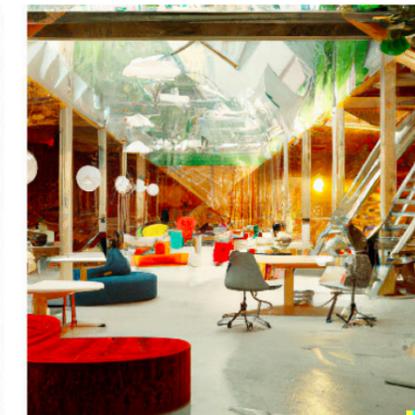
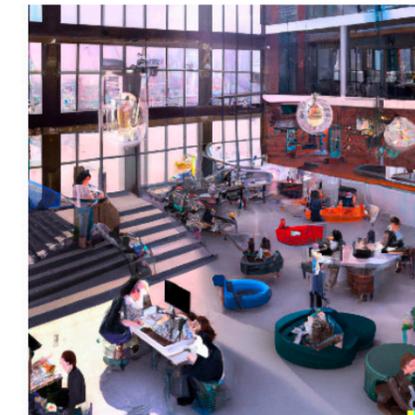
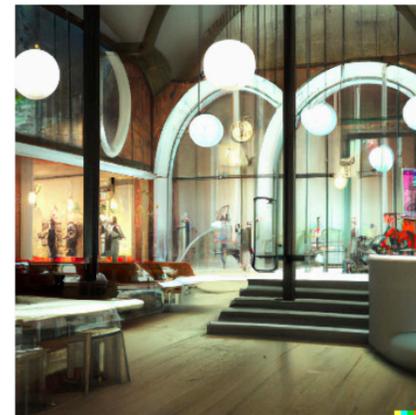
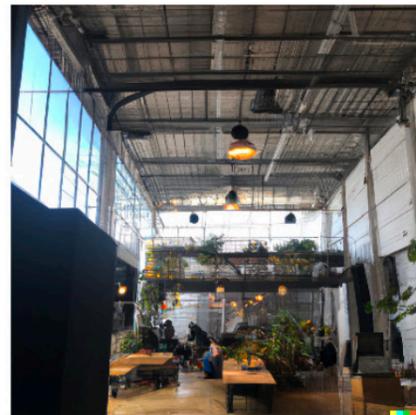
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“THE ARCHITECTURE OF COMMUNITY-DRIVEN CREATIVE HUBS”

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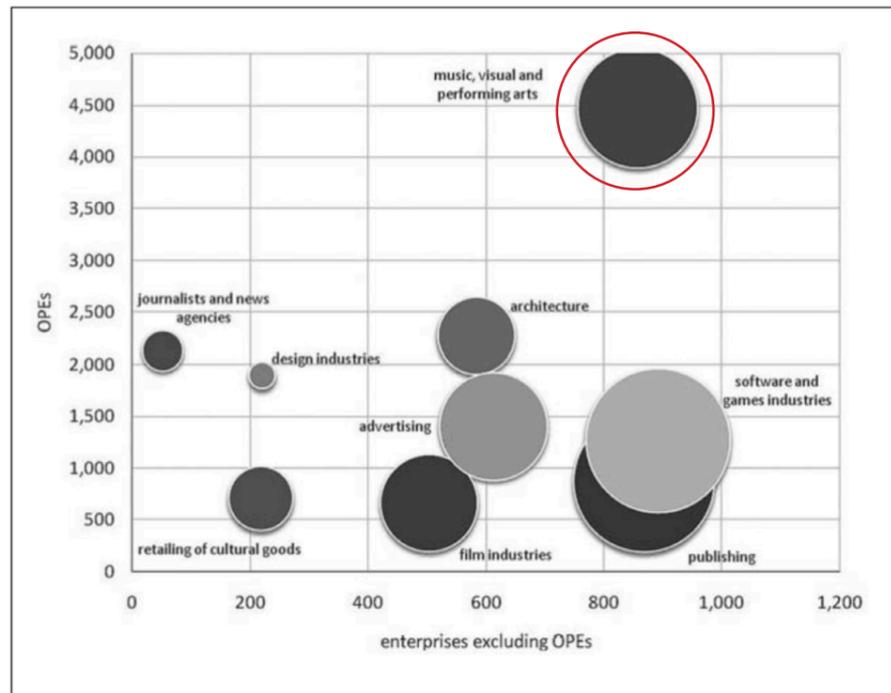


Figure 4: The Berlin Creative Industries – Enterprises, OPEs and Employees

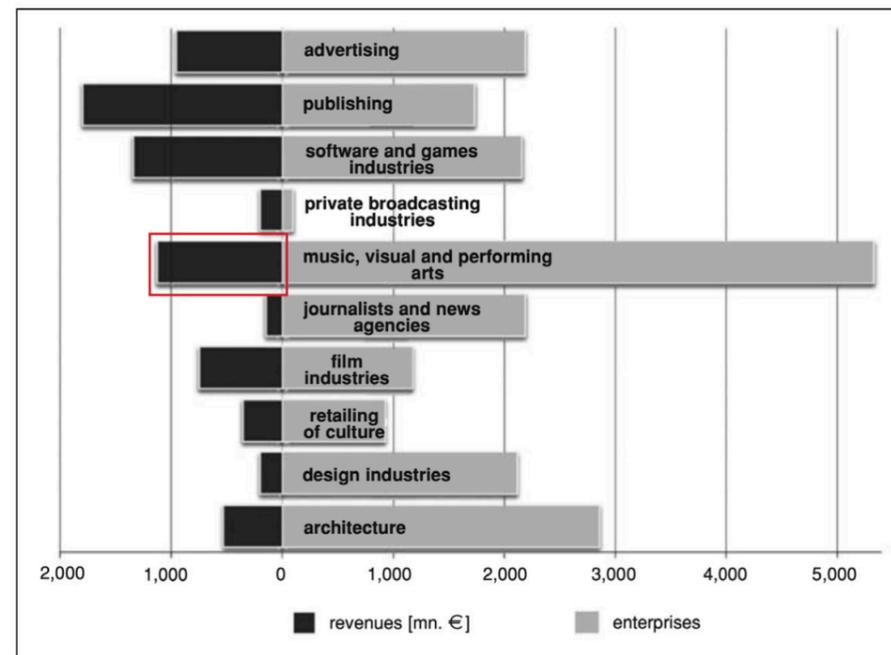


Figure 5: The Berlin Creative Industries – Enterprises and Revenues [mn. €]

Table 16: Music, Visual and Performing Arts – Employees

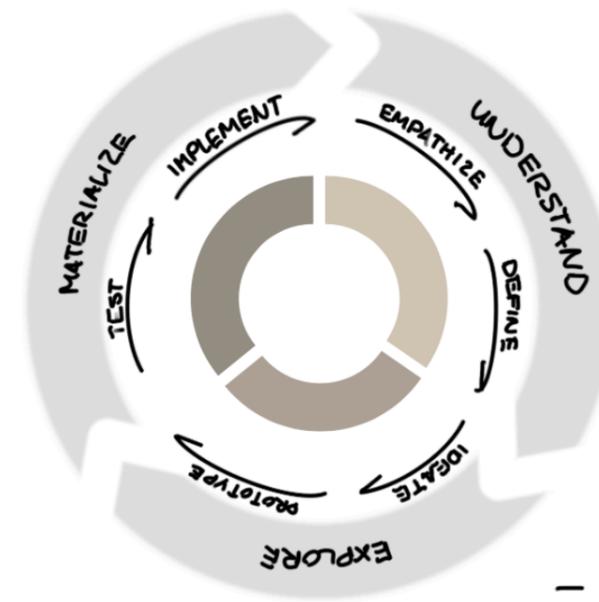
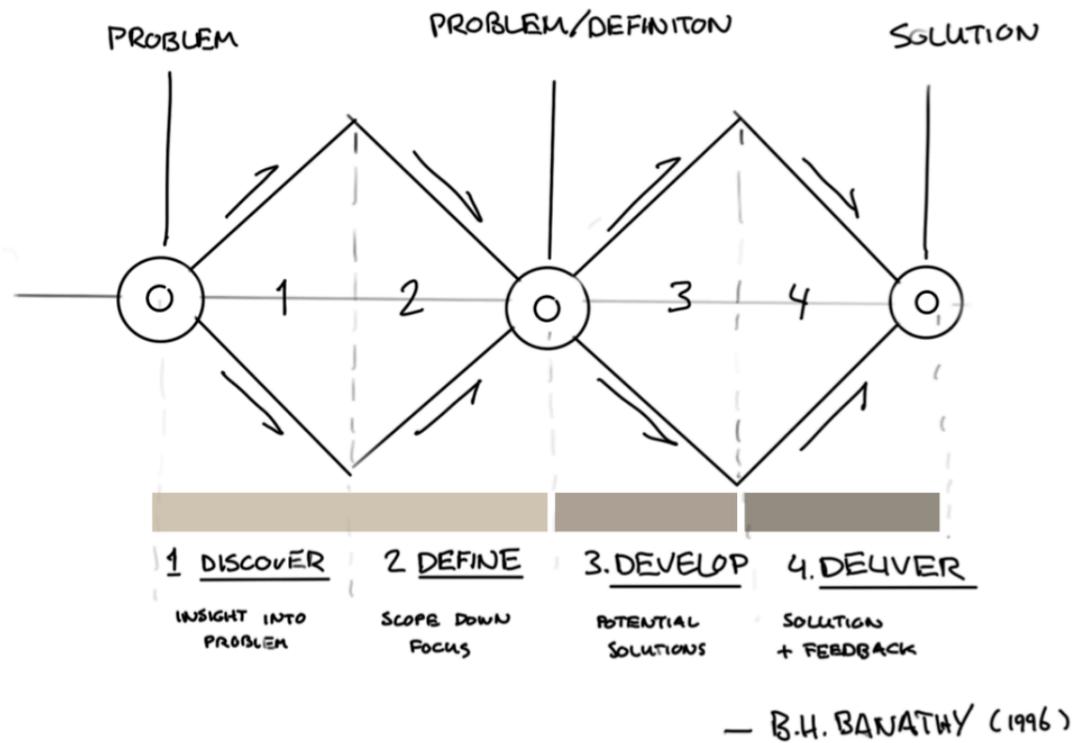
economic sectors	enterprises				revenues [th. €]			
	total	%	OPEs	%	total	%	OPEs	%
theater ensembles	16	0.3	4	0.1	16,047	1.4	584	0.1
ballet groups, orchestras, chapels, choirs	60	1.1	7	0.2	38,744	3.4	2,921	0.7
freelance visual artists	629	11.8	595	13.3	56,129	5.0	50,834	12.9
freelance restorers	137	2.6	121	2.7	12,955	1.1	7,577	1.9
freelance composers and processors of music	230	4.3	198	4.4	31,284	2.8	17,766	4.5
freelance writers	719	13.5	709	15.9	50,184	4.4	49,091	12.4
freelance stage-, film-, radio- and TV-artists	1,699	31.9	1,649	36.9	140,366	12.4	133,152	33.7
freelance artists	89	1.7	75	1.7	5,246	0.5	4,551	1.2
theater- and concert managers	133	2.5	51	1.1	178,162	15.8	8,084	2.0
operas, theaters, concert halls and similar institutions	20	0.4	5	0.1	53,909	4.8	295	0.1
variété and cabaret	12	0.2	3	0.1	2,820	0.2	160	0.0
technical support for cultural services	436	8.2	397	8.9	66,835	5.9	29,718	7.5
showmen and amusement parks	57	1.1	48	1.1	12,643	1.1	9,715	2.5
dance schools	82	1.5	57	1.3	10,191	0.9	5,959	1.5
supply of other cultural and entertainment services	87	1.6	56	1.3	41,852	3.7	4,126	1.0
Photography	401	7.5	357	8.0	46,768	4.1	32,383	8.2
photo laboratories	38	0.7	22	0.5	21,651	1.9	2,600	0.7
discotheques and dance halls	51	1.0	37	0.8	18,746	1.7	5,845	1.5
libraries and reader circles	4	0.1	–	–	1,766	0.2	–	–
sculpture and masonry	62	1.2	38	0.8	14,420	1.3	6,206	1.6
artist blacksmiths	20	0.4	12	0.3	26,078	2.3	958	0.2
manufacturing of adornment from noble metal	35	0.7	–	–	10,624	0.9	–	–
manufacturing of gold- and silversmith products	84	1.6	–	–	7,545	0.7	–	–
manufacturing of musical instruments	43	0.8	31	0.7	65,189	5.8	22,301	5.6
supply of other services for entertainment, recreation and leisure	185	3.5	–	–	200,789	17.8	–	–
total	5,329	100	4,472	100	1,130,943	100	394,826	100

Source: Bundesagentur für Arbeit, Statistik-Service Ost and own calculations

‘MUSIC, VISUAL AND PERFORMING ARTS’

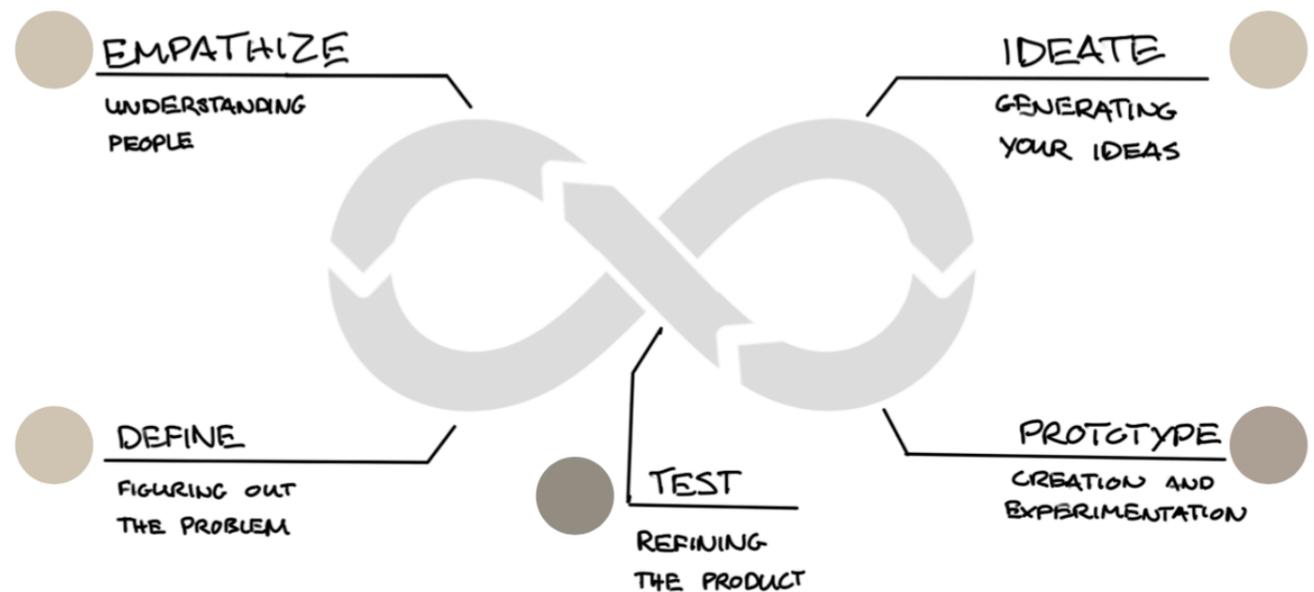
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HOUSE OF CREATIVES | PROGRAMMATIC

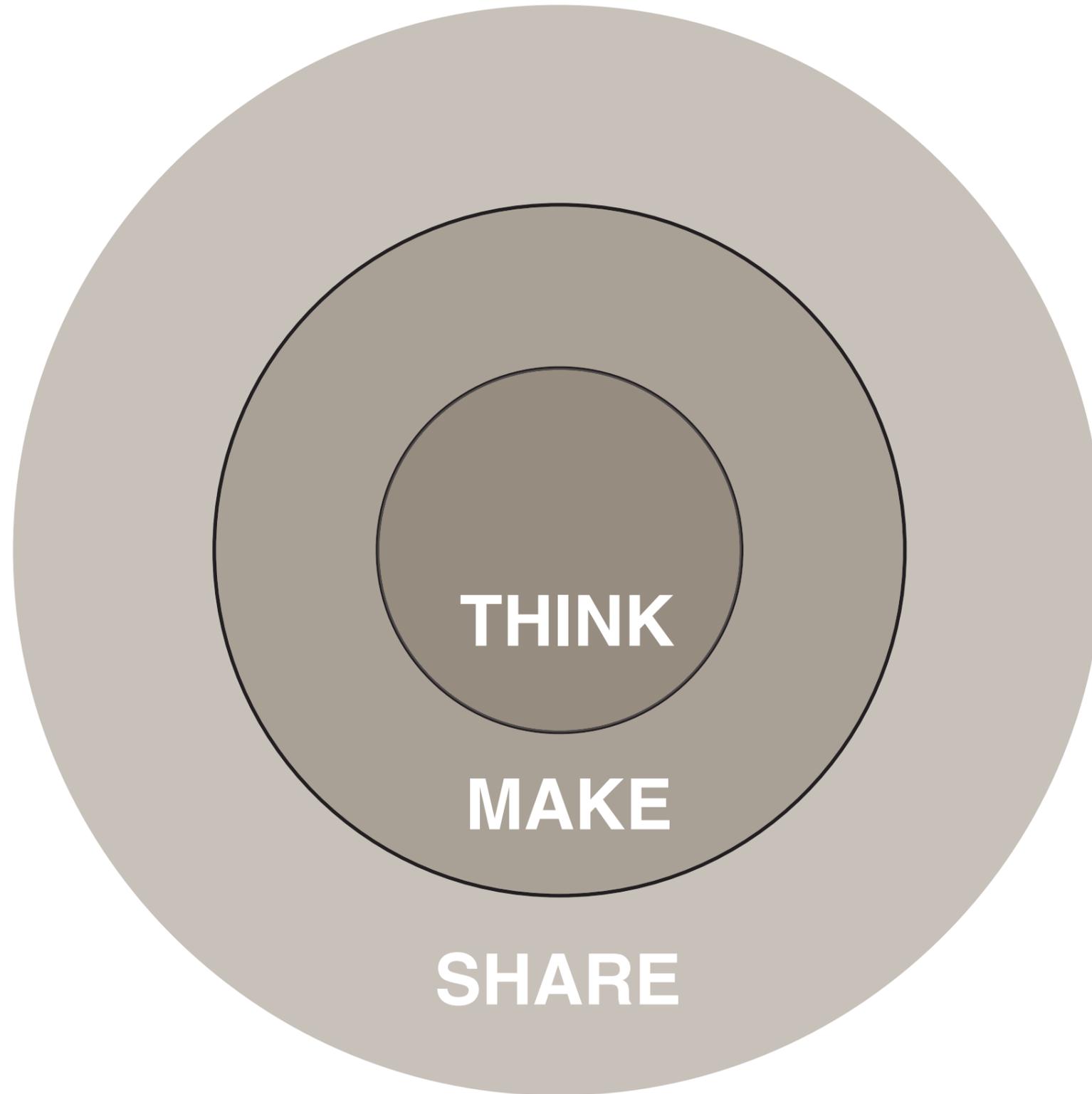


— SARAH GIBBONS (2016)
NNGROUP

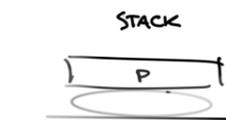
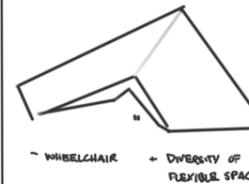
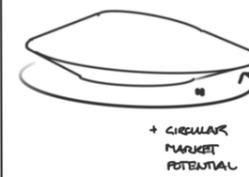
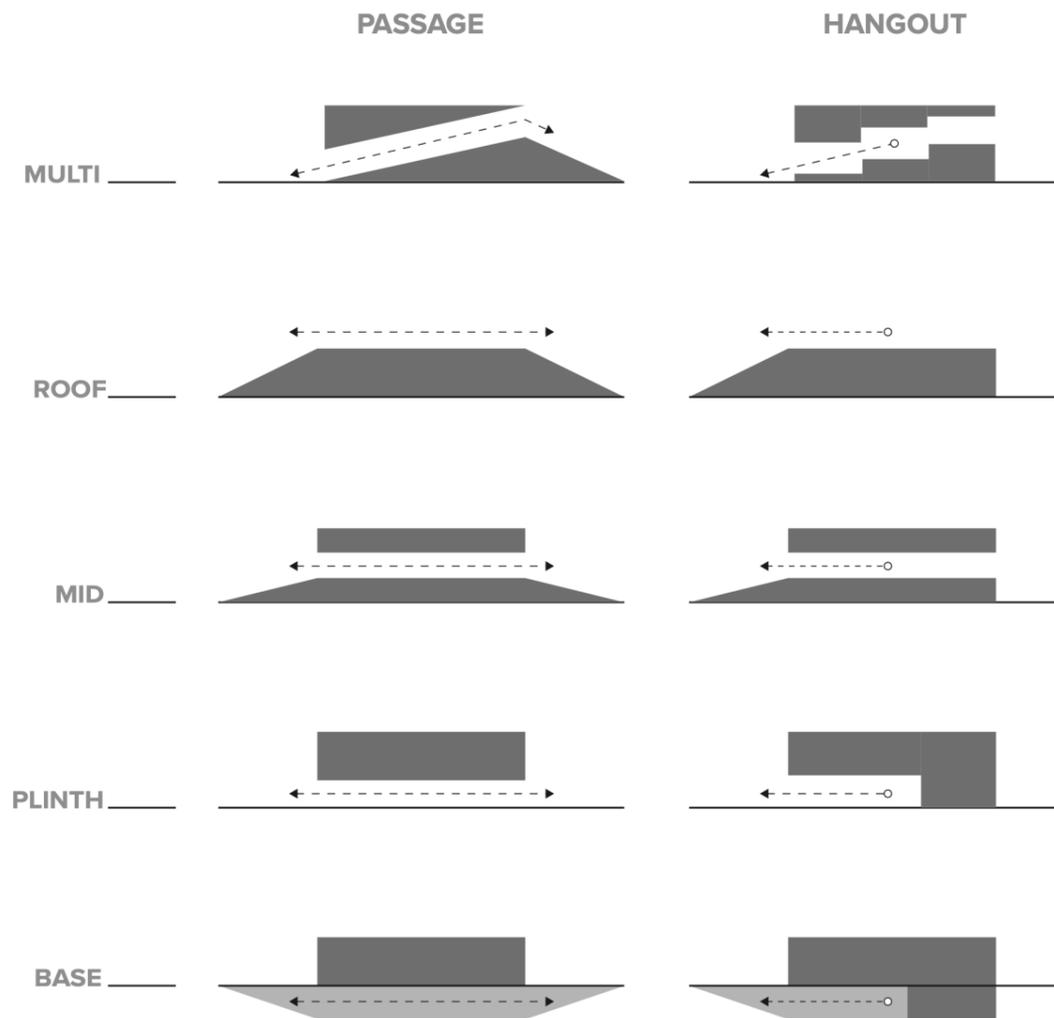
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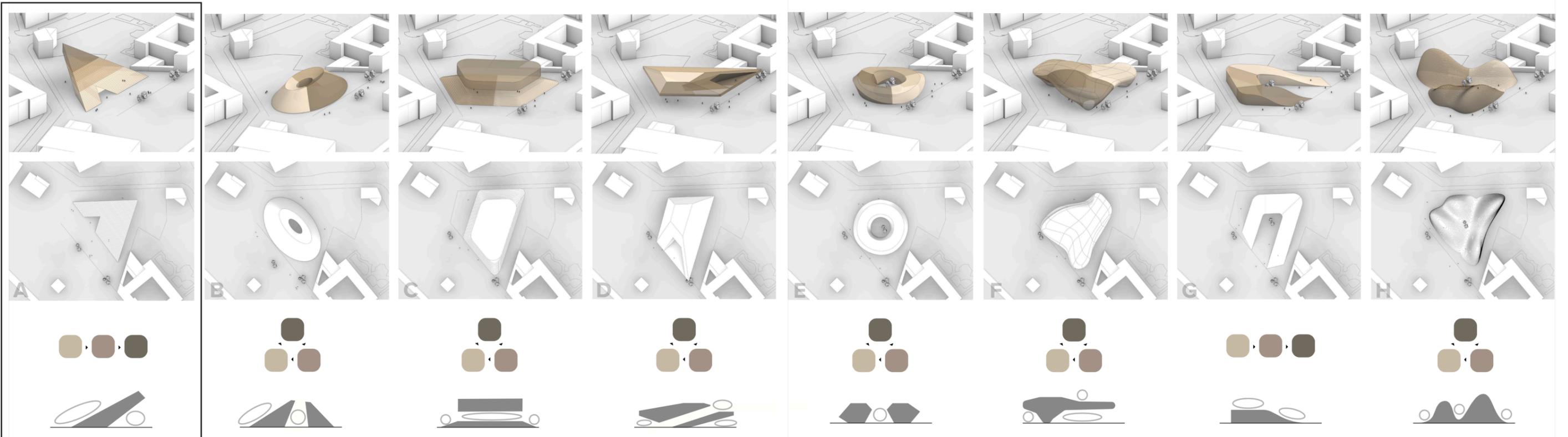
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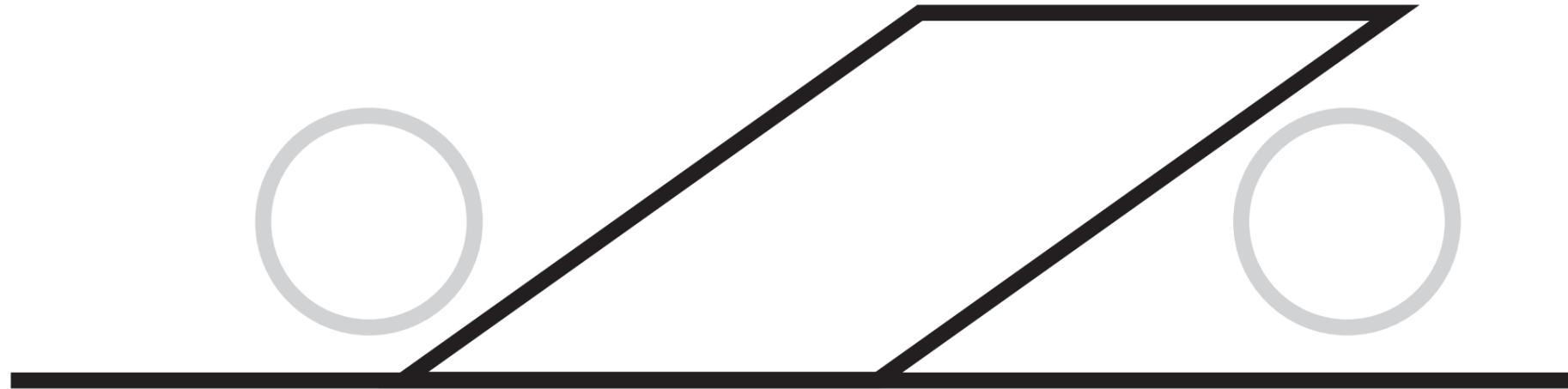
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HOUSE OF CREATIVES | SPATIAL



HOUSE OF CREATIVES | SPATIAL



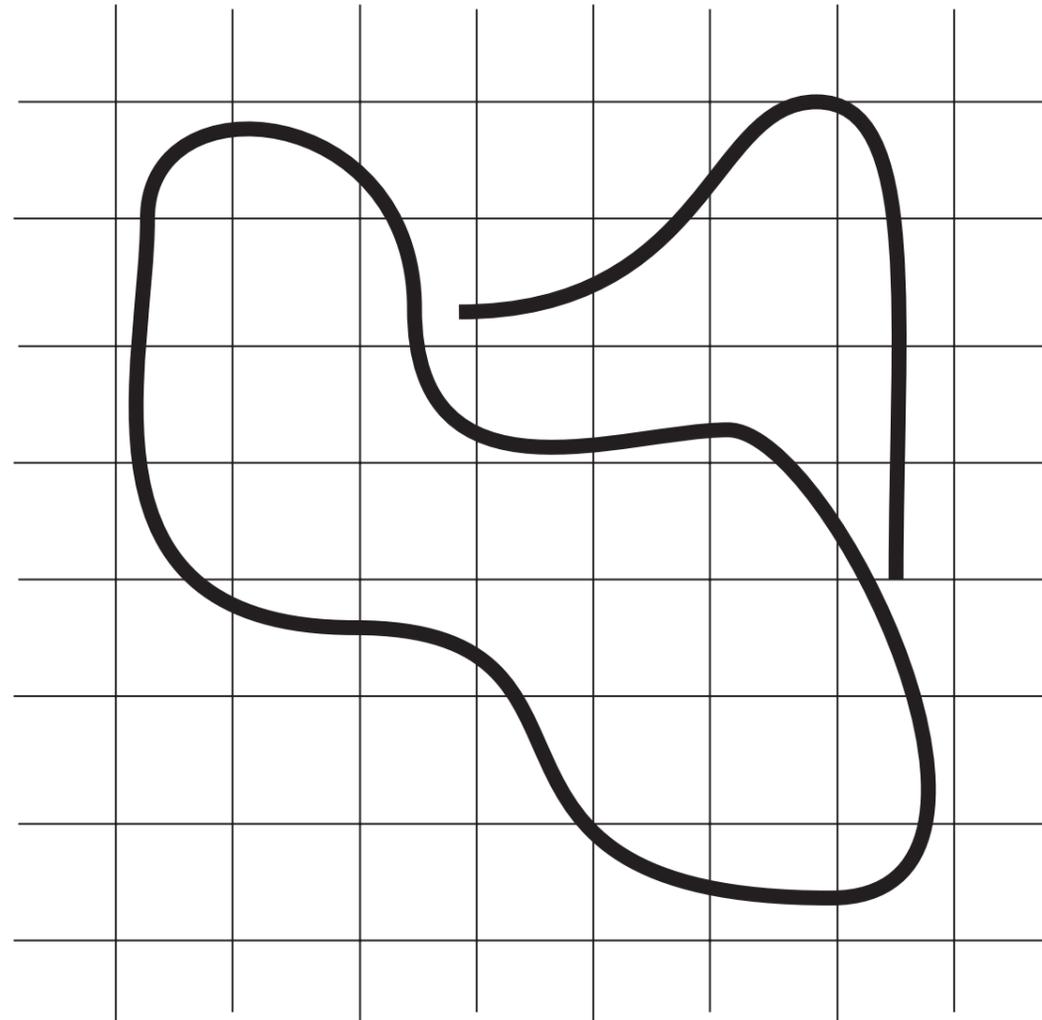
HOUSE OF CREATIVES | ARCHITECTURAL



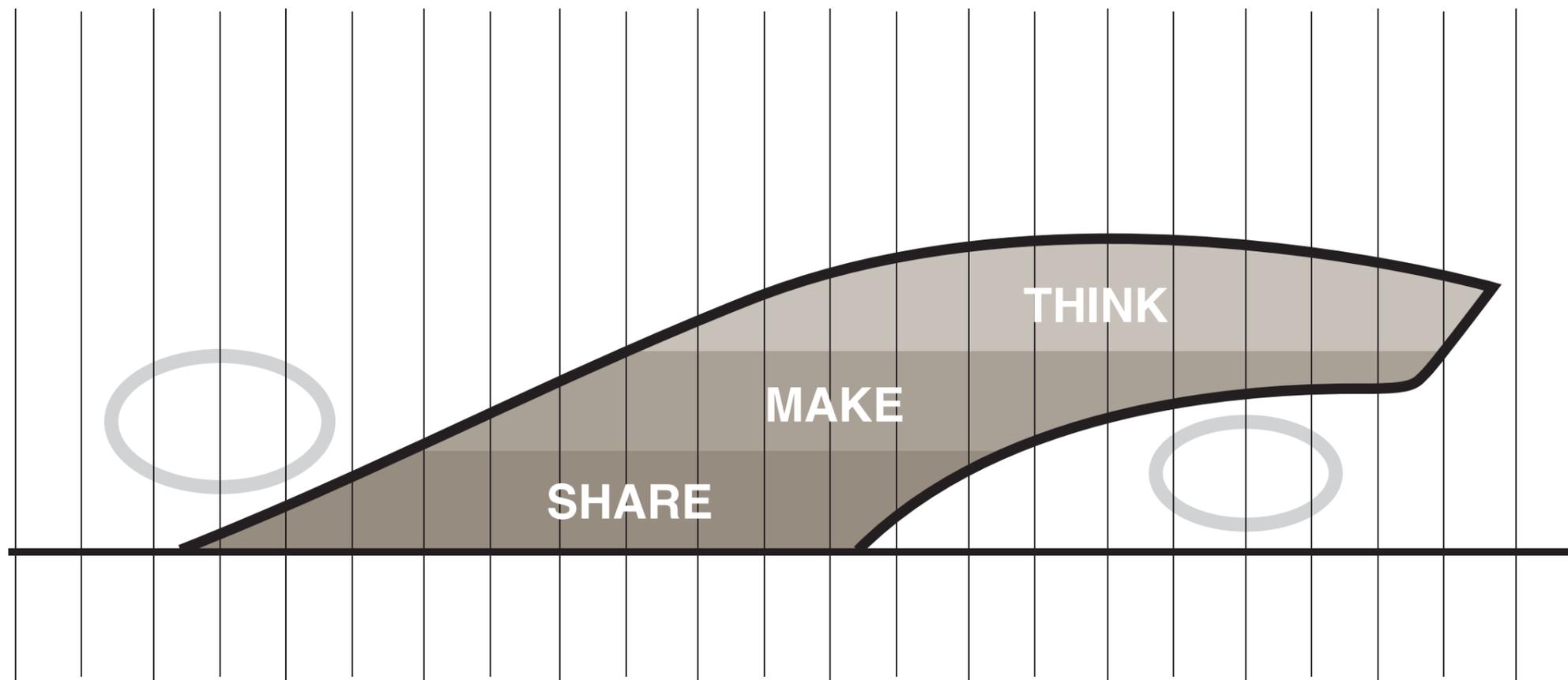
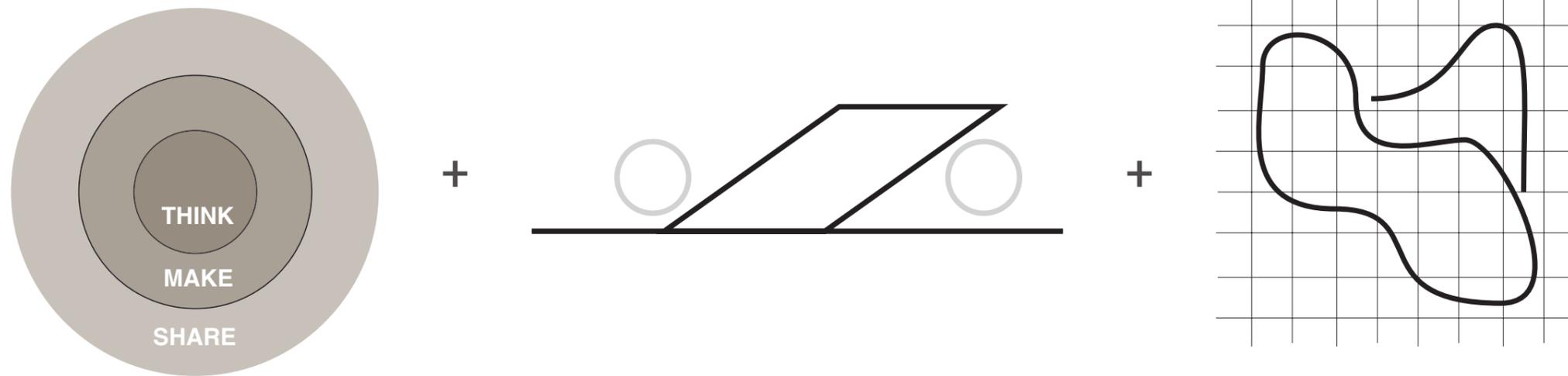
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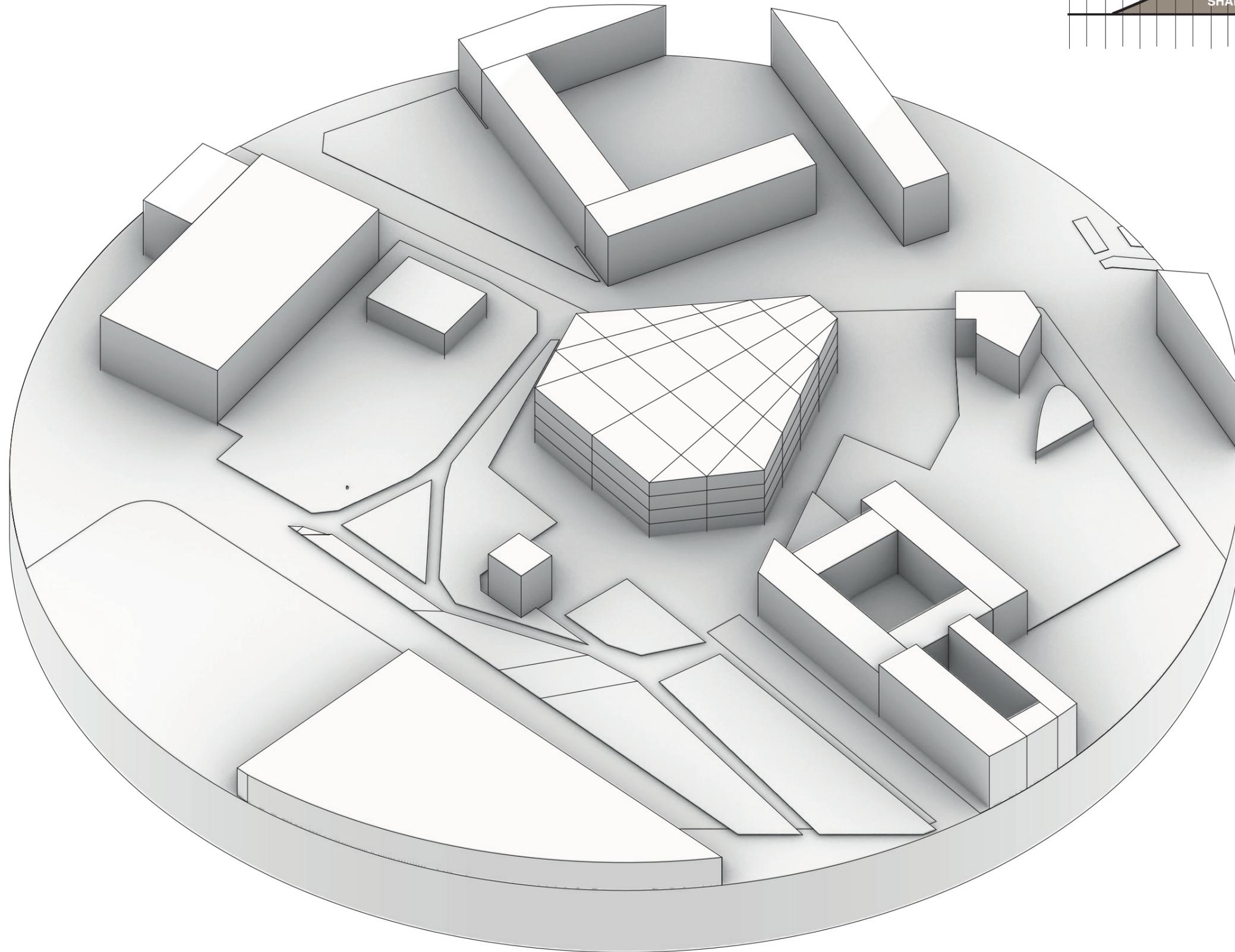
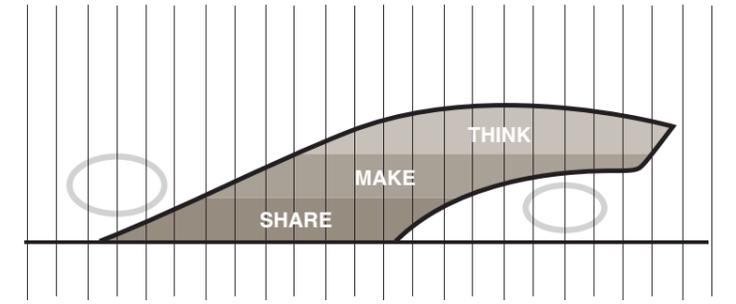


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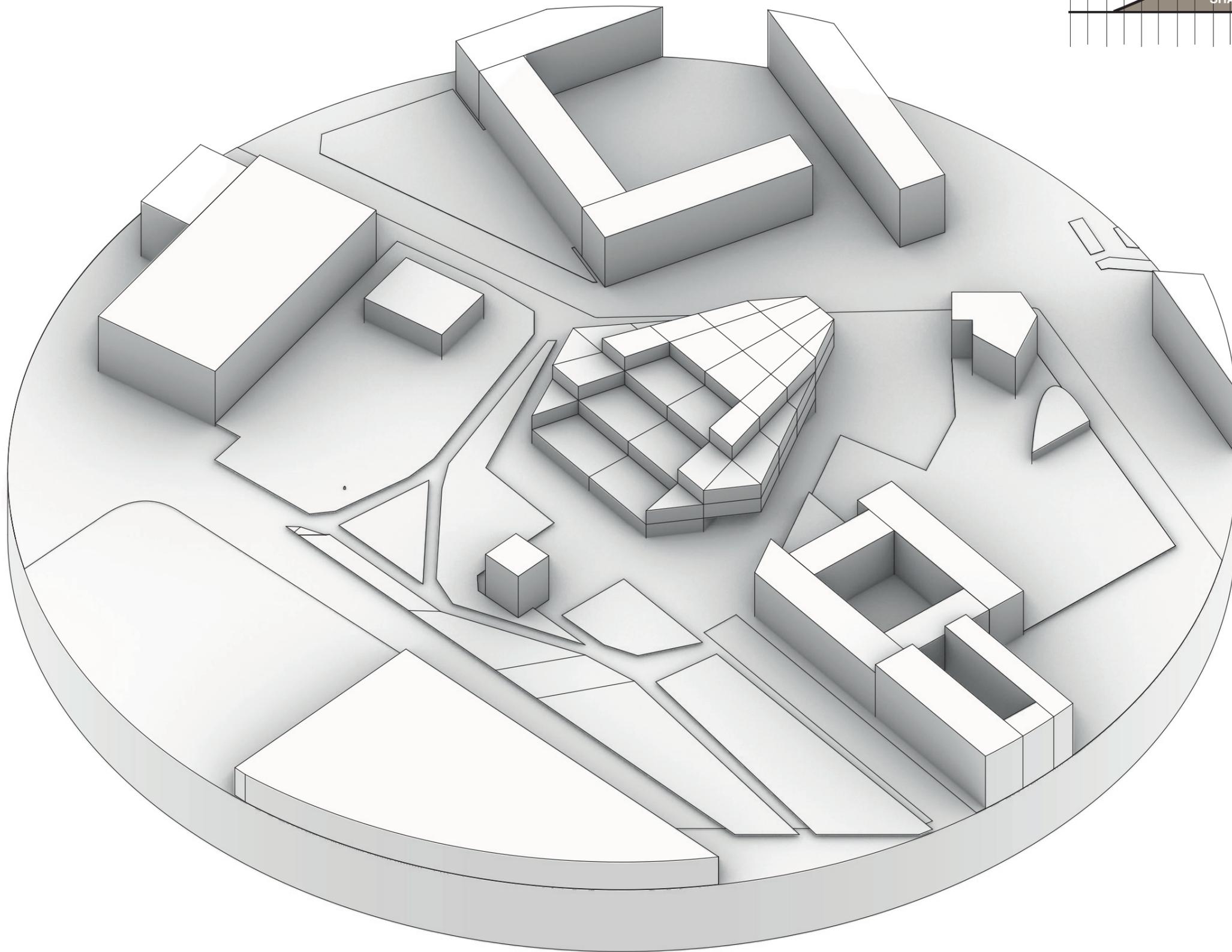
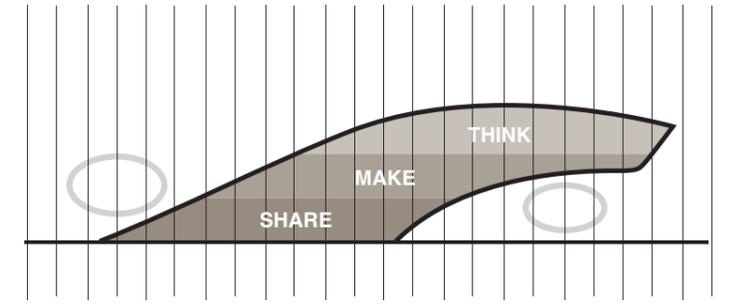


CREATIVE CONDENSER: A CATALYST FOR THE CREATIVE COMMUNITY

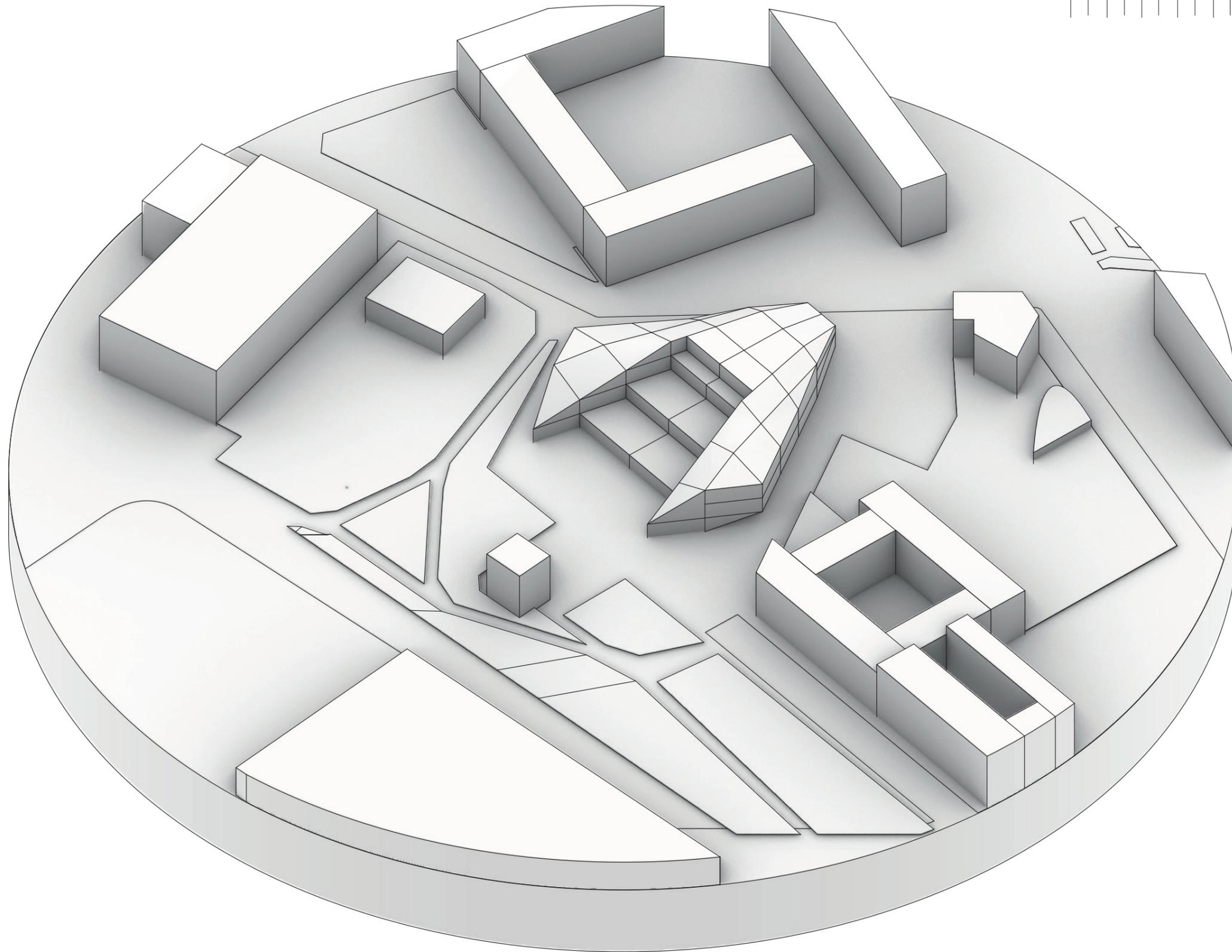
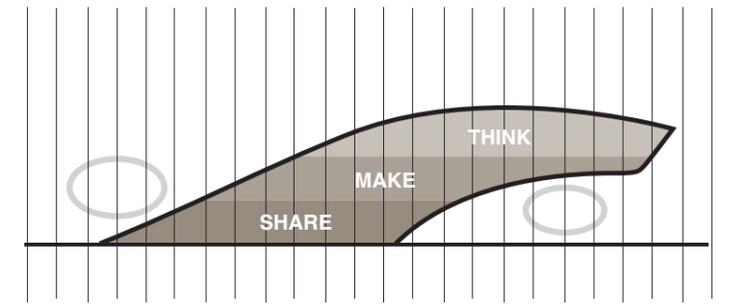
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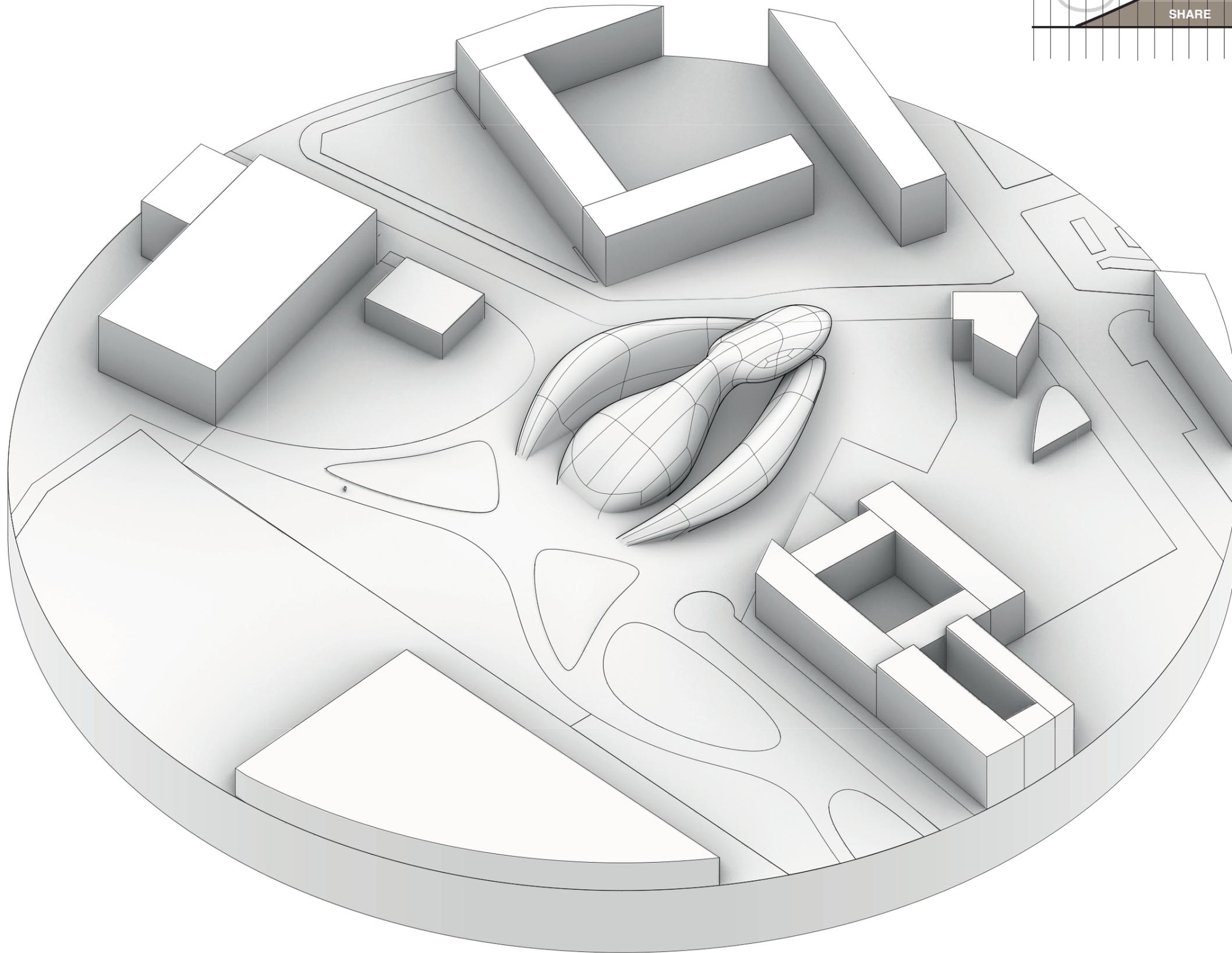
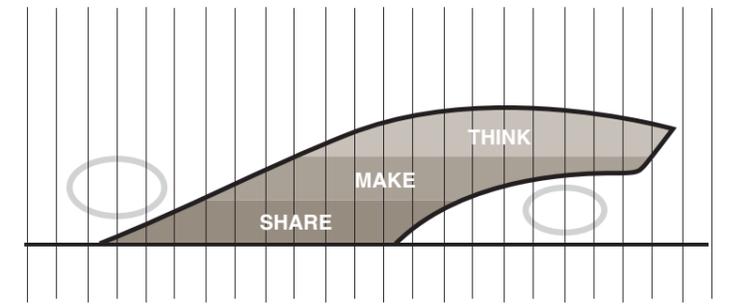
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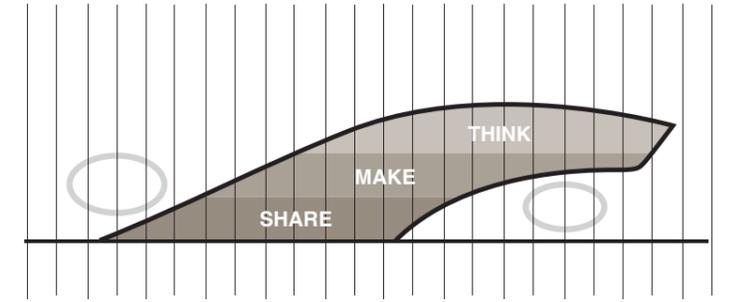
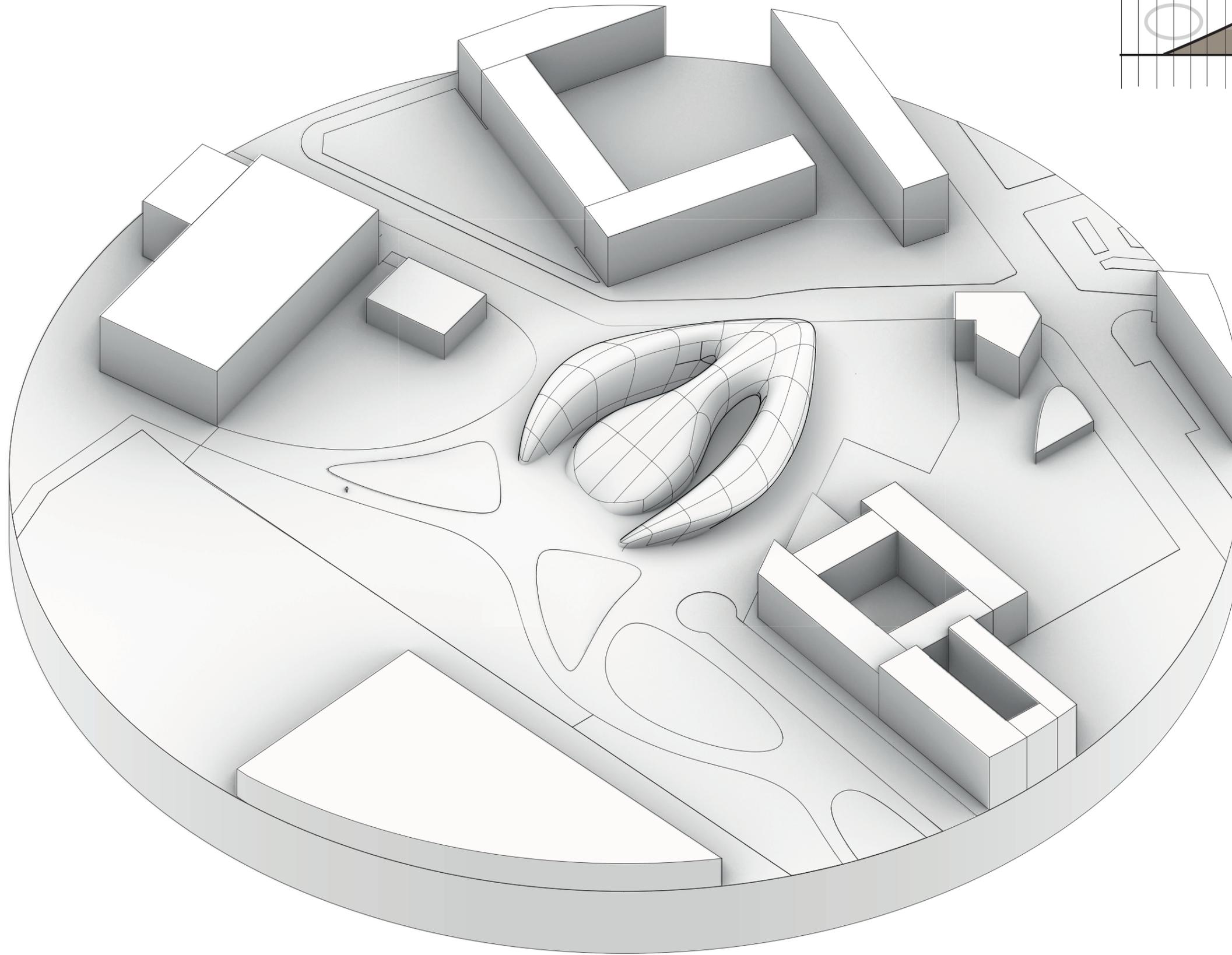
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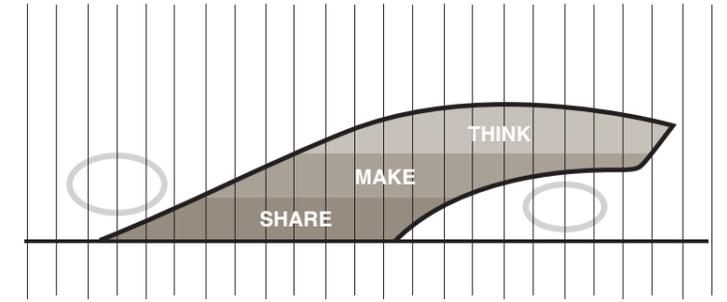
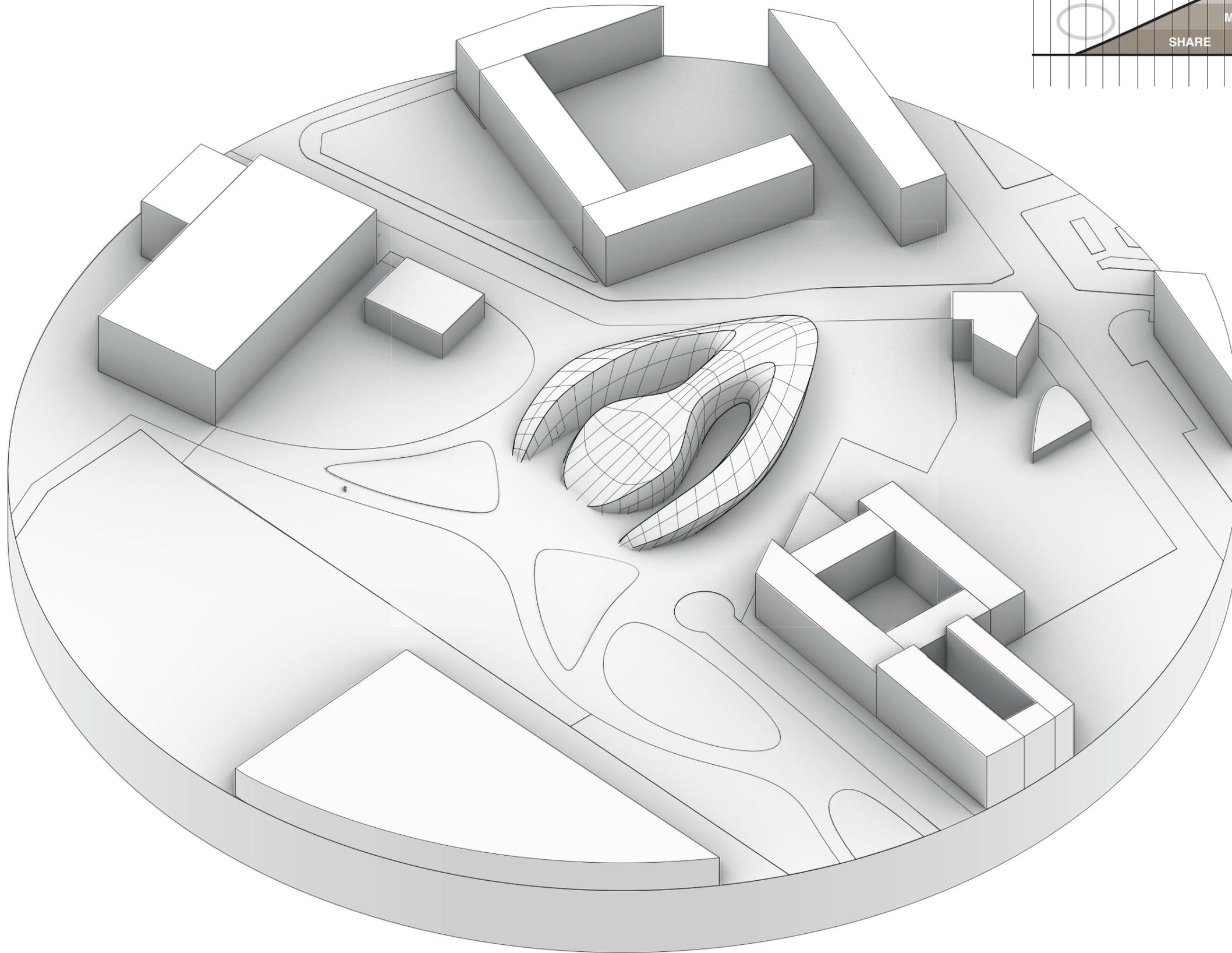
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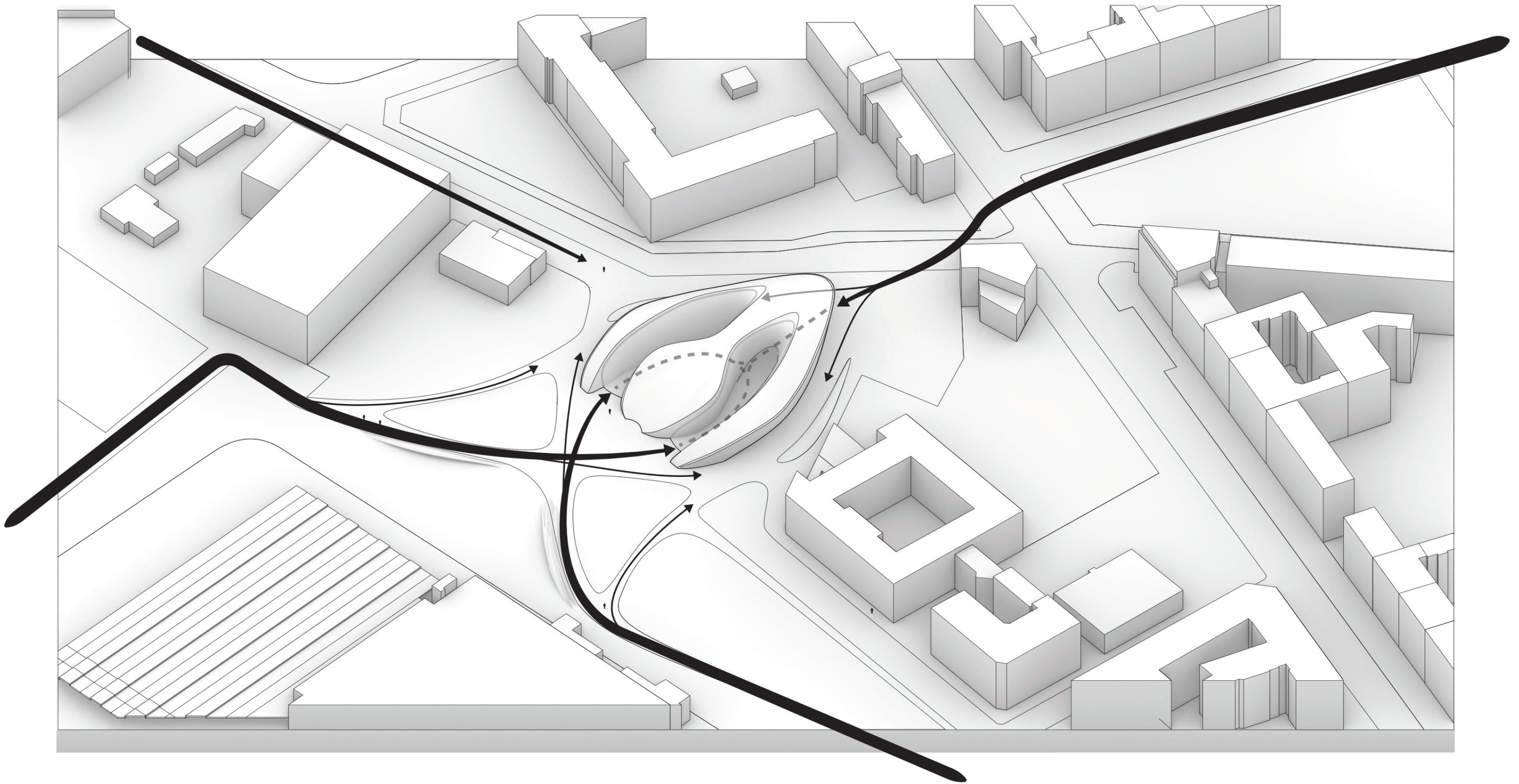
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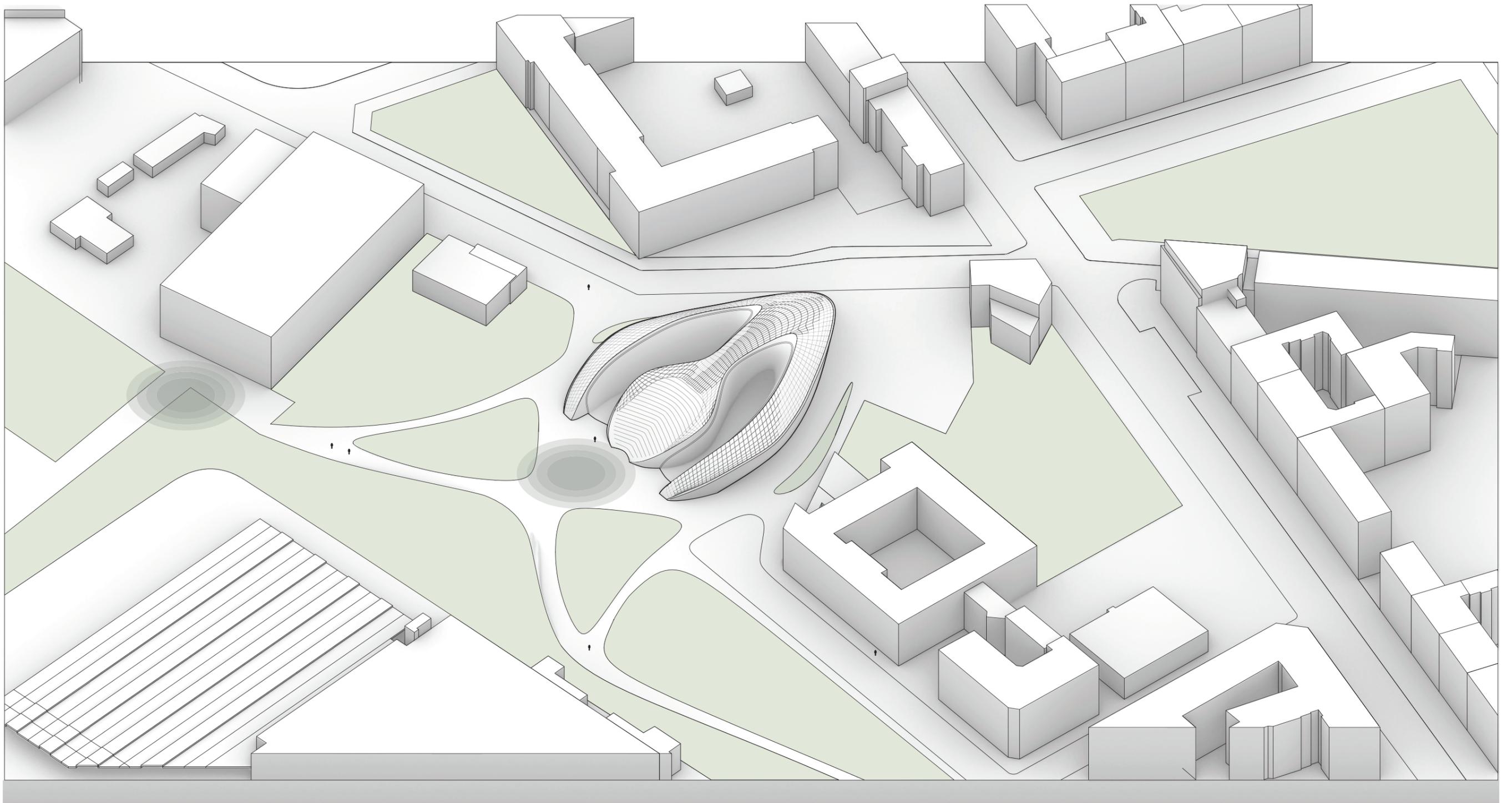
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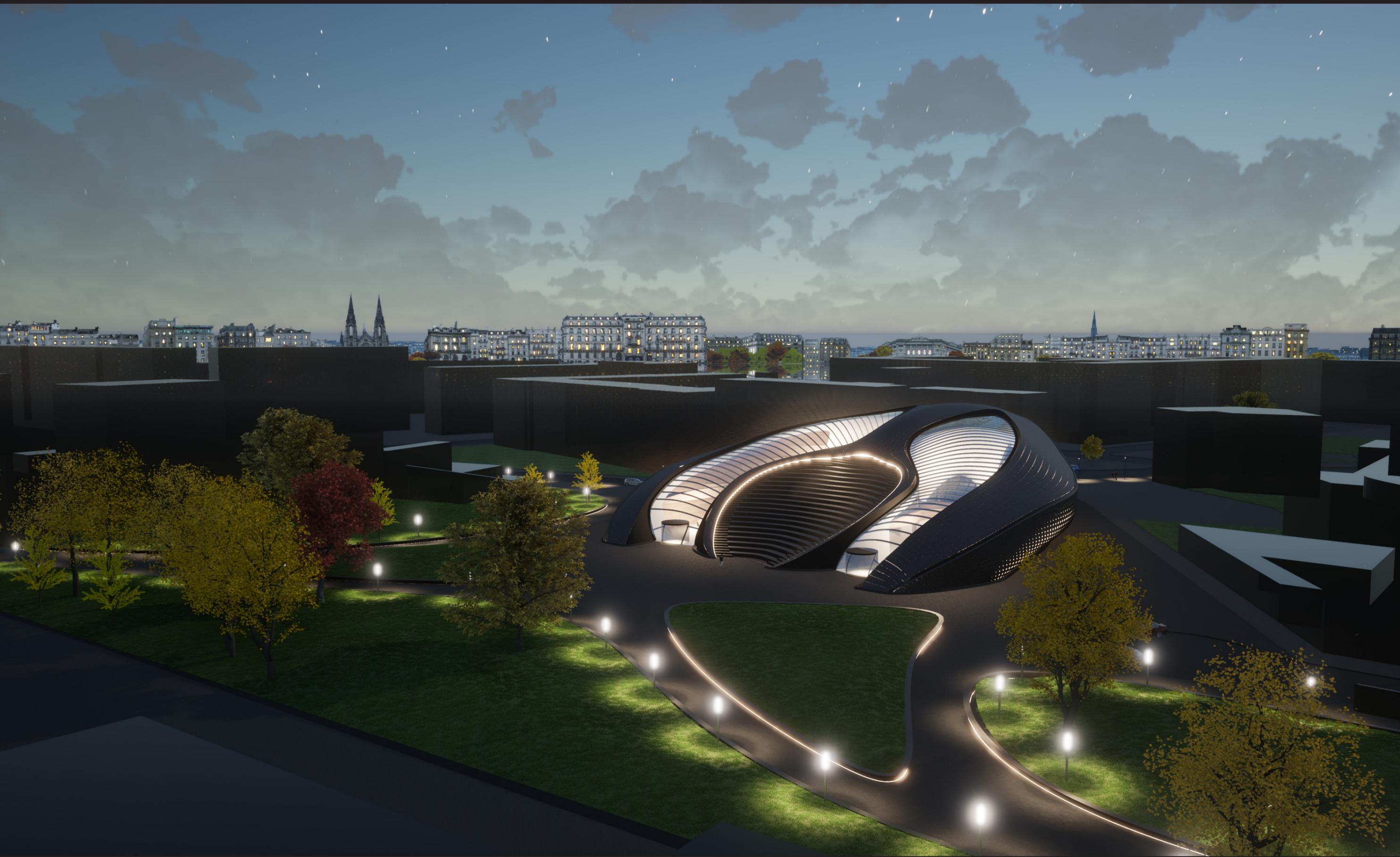


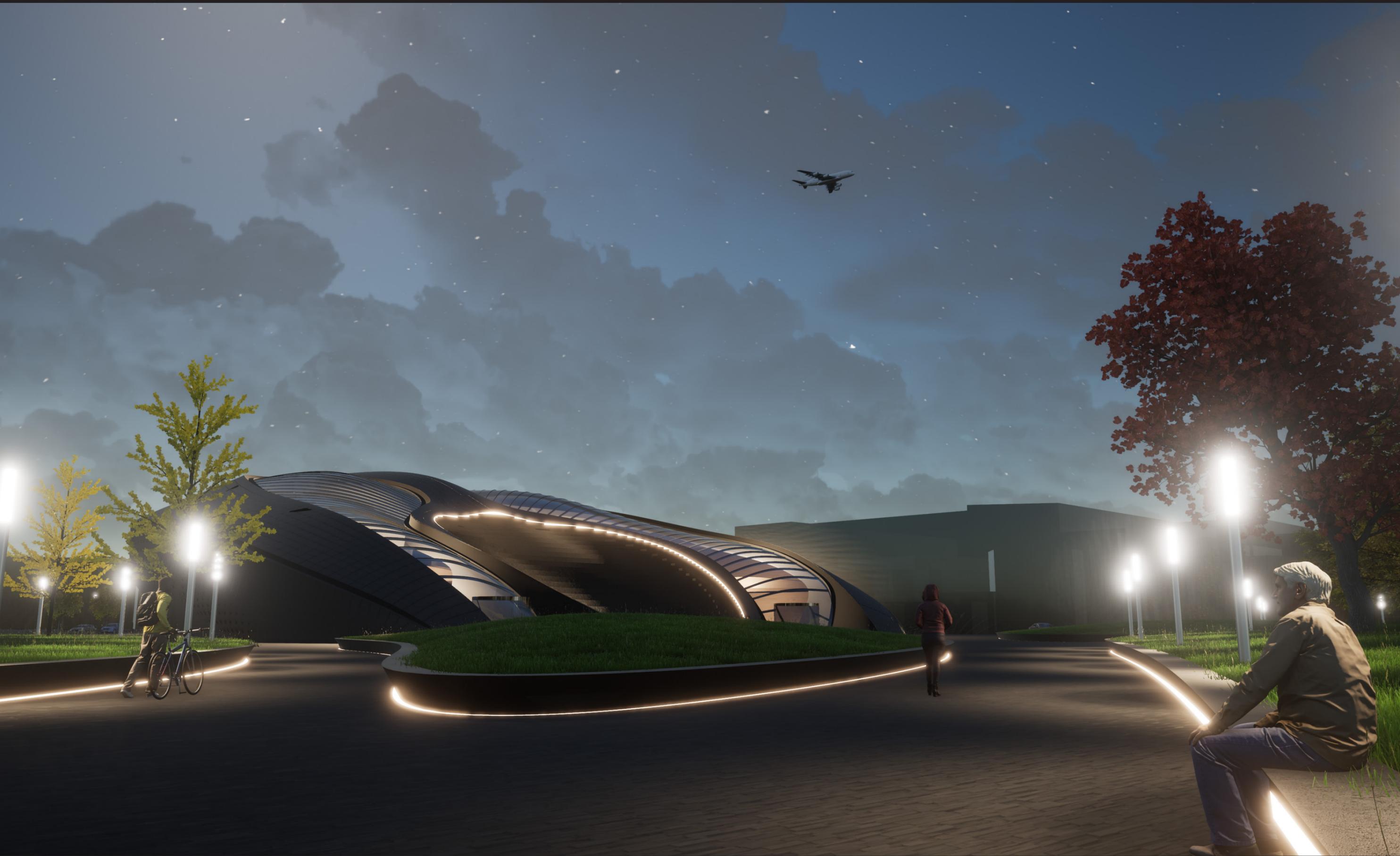
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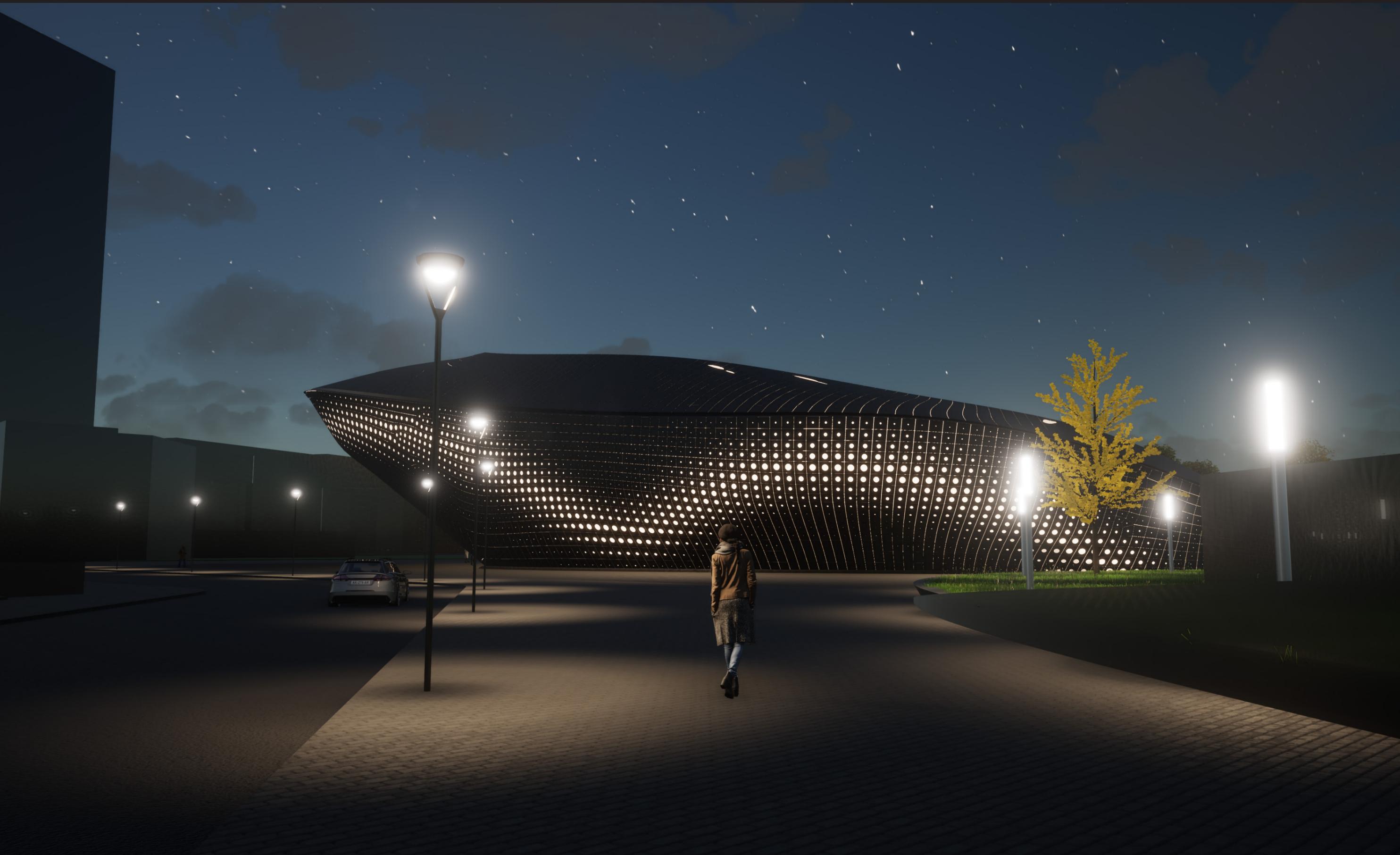


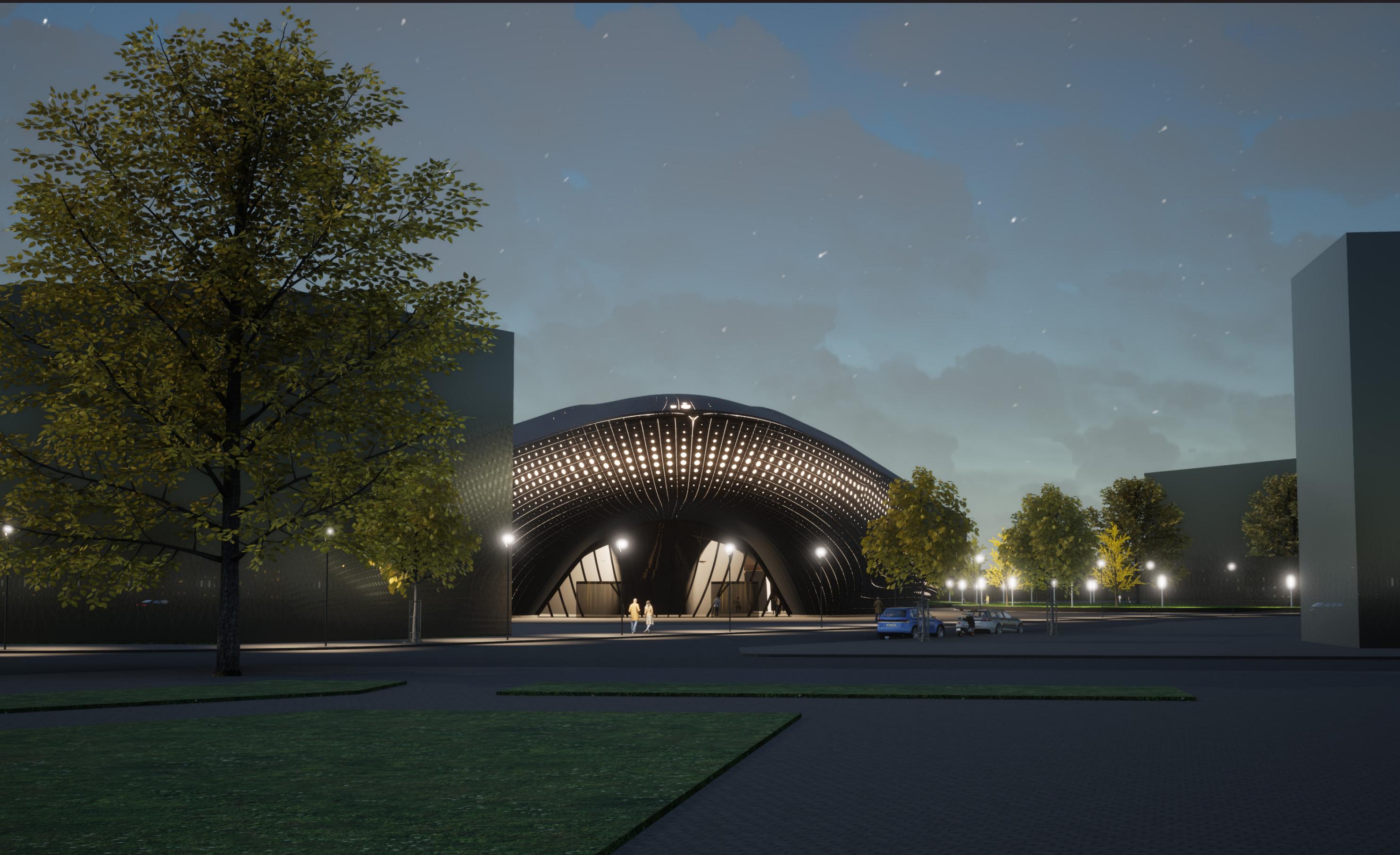
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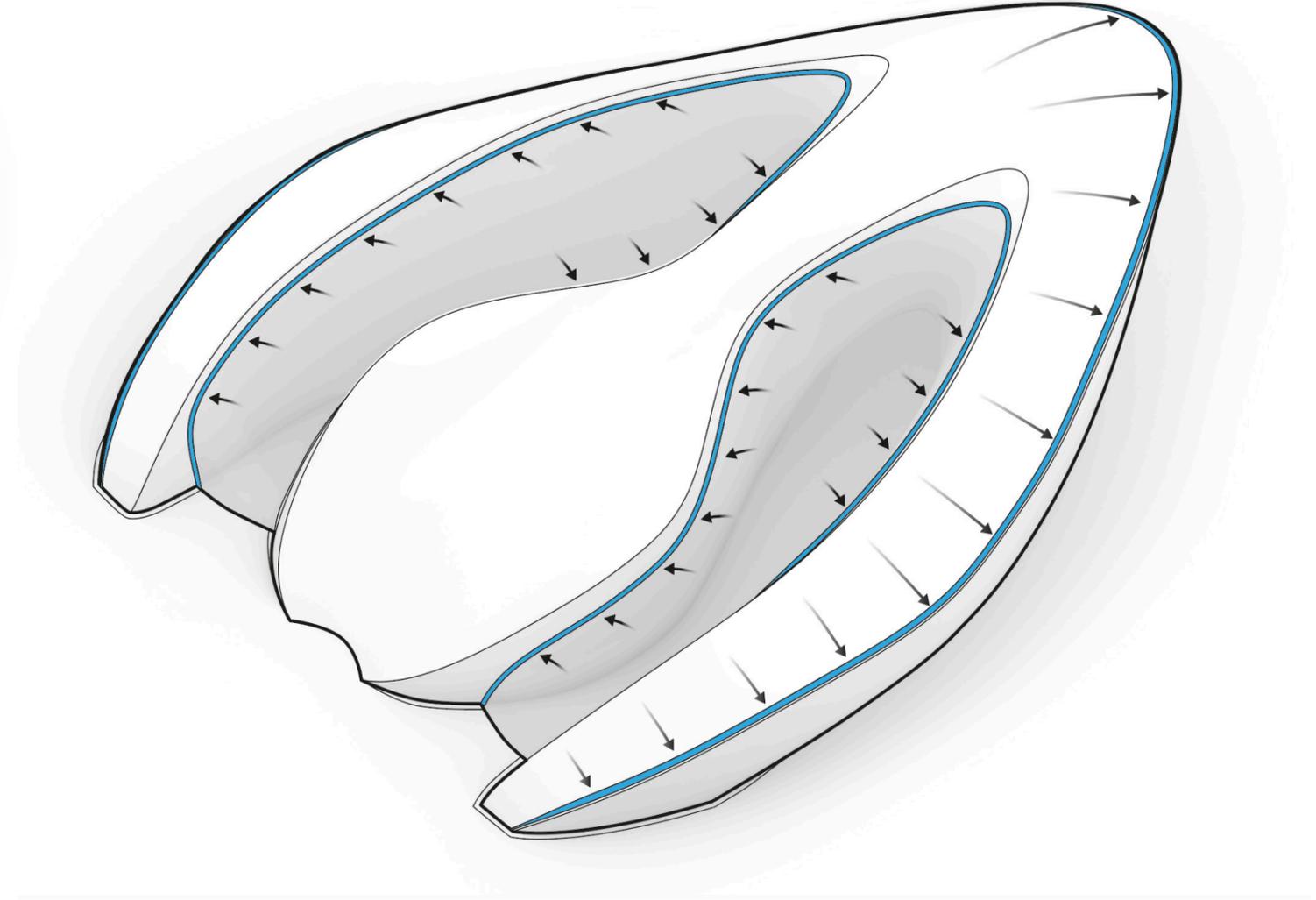
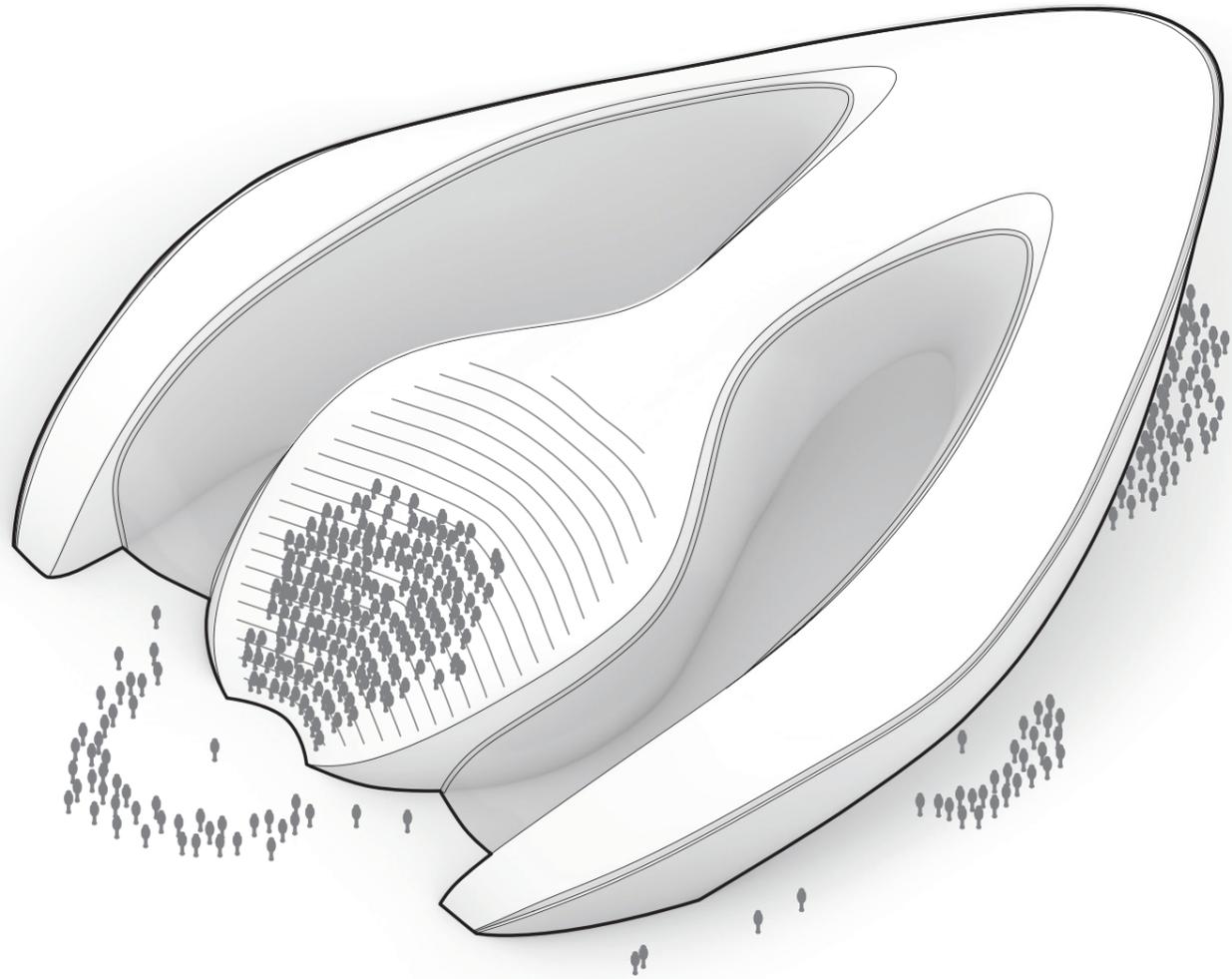






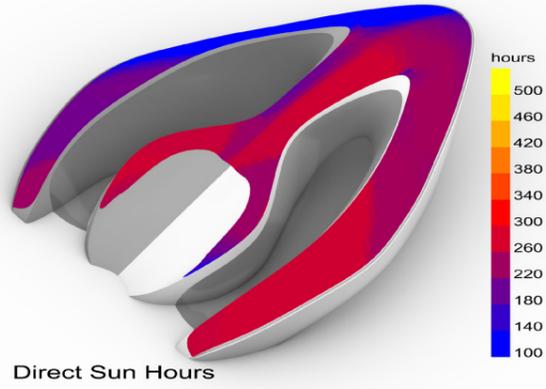


HOUSE OF CREATIVES | BUILDING PERFORMANCE

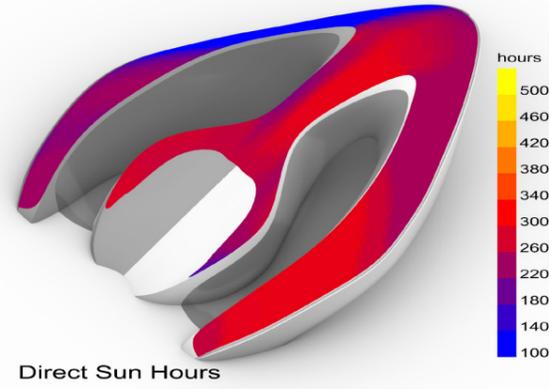


HOUSE OF CREATIVES | BUILDING PERFORMANCE

JAN



FEB



MAR



APR



MAY



JUN



JUL



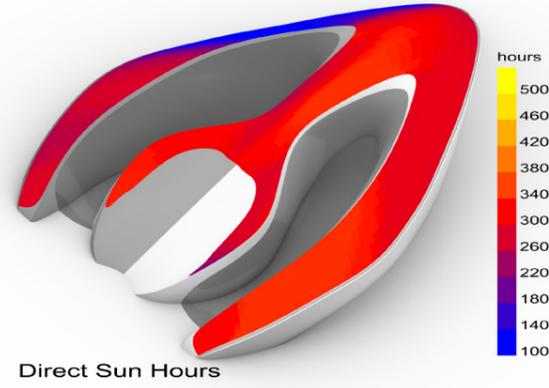
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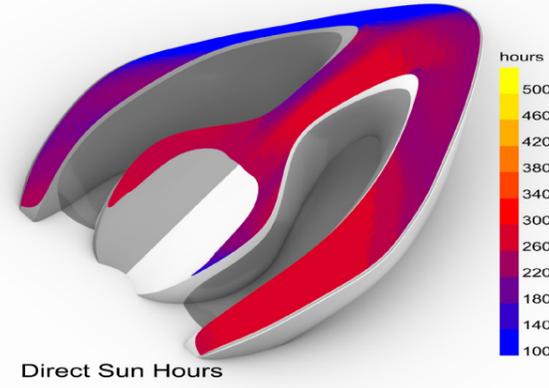
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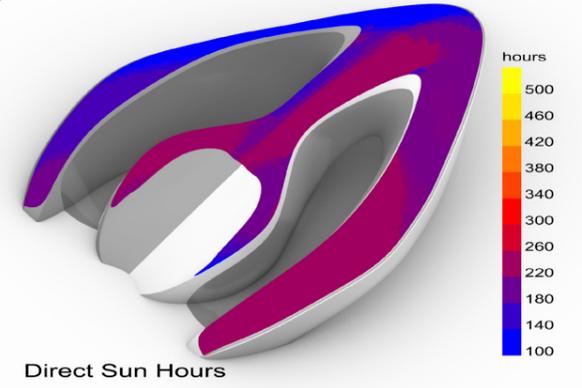
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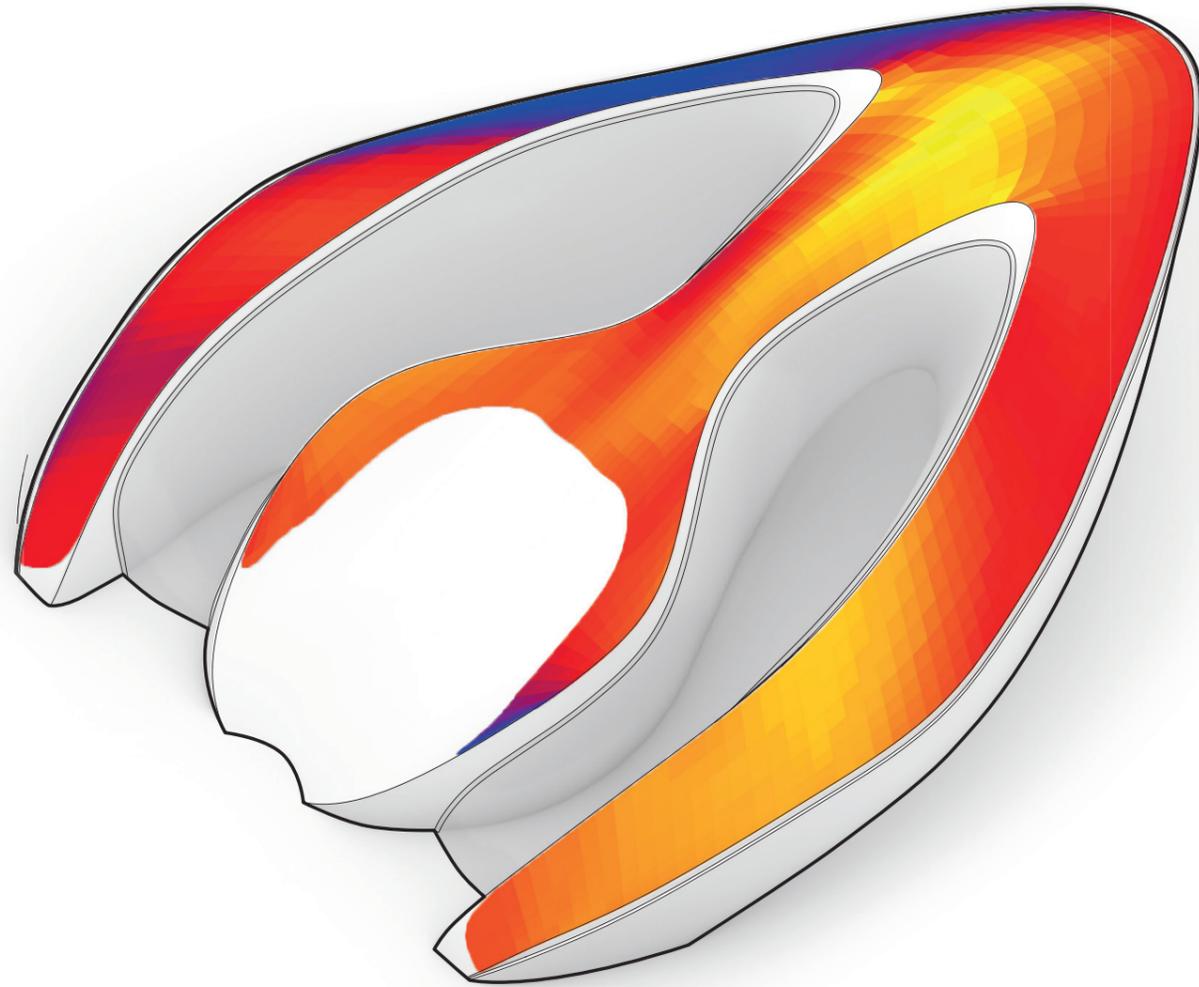
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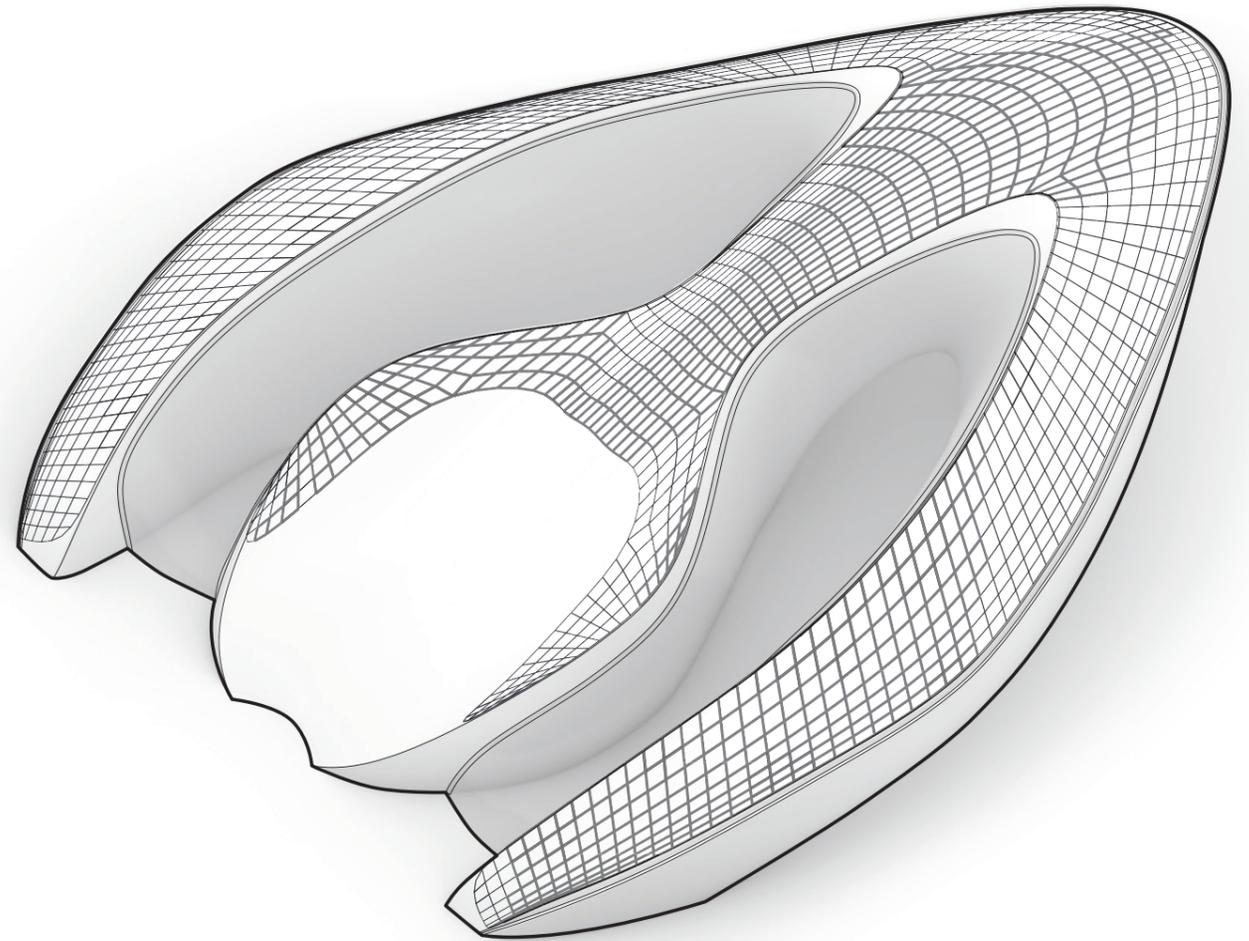
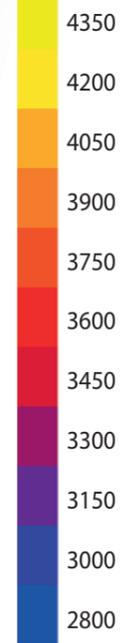
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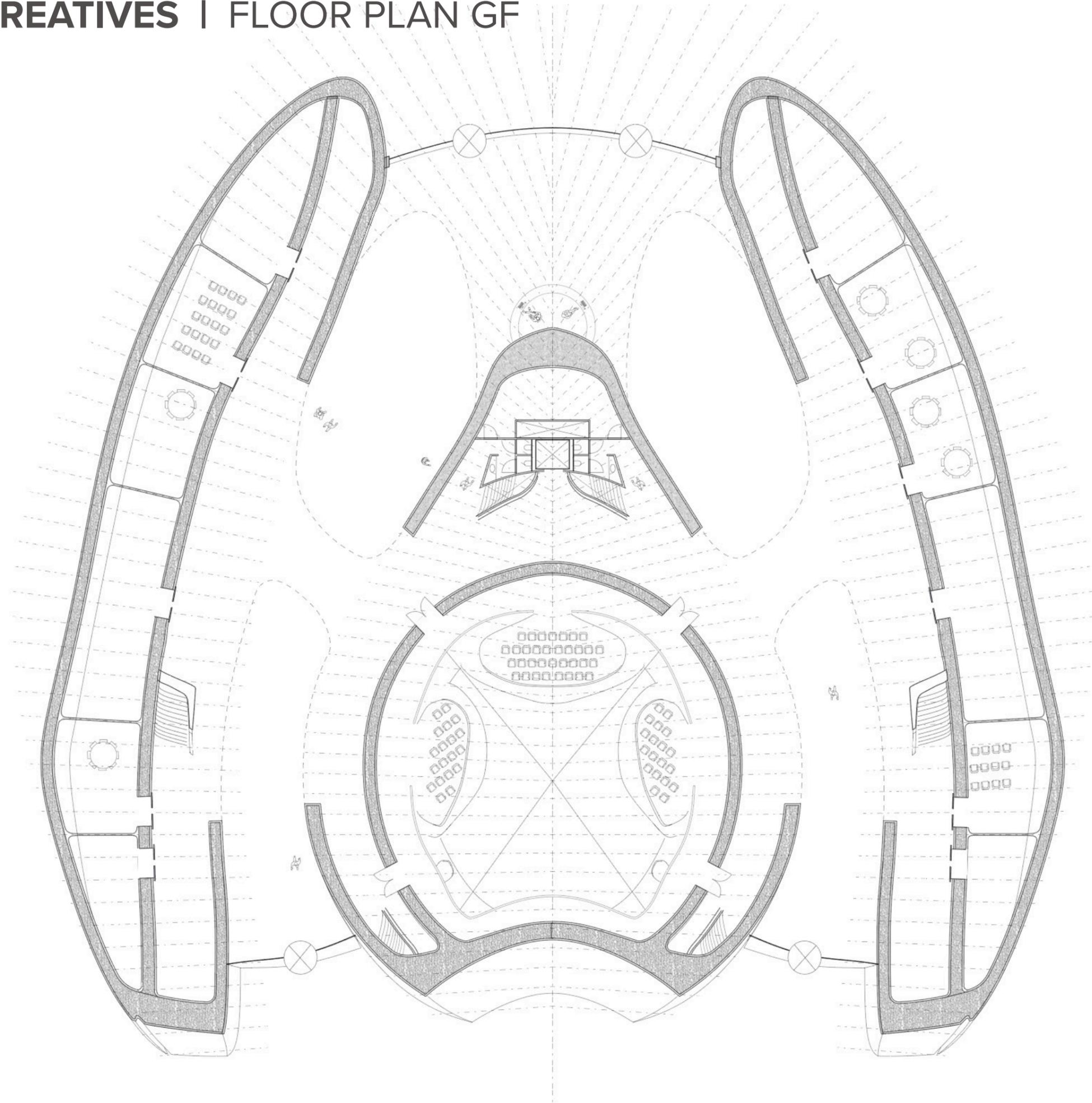
HOUSE OF CREATIVES | BUILDING PERFORMANCE



HOURS



HOUSE OF CREATIVES | FLOOR PLAN GF

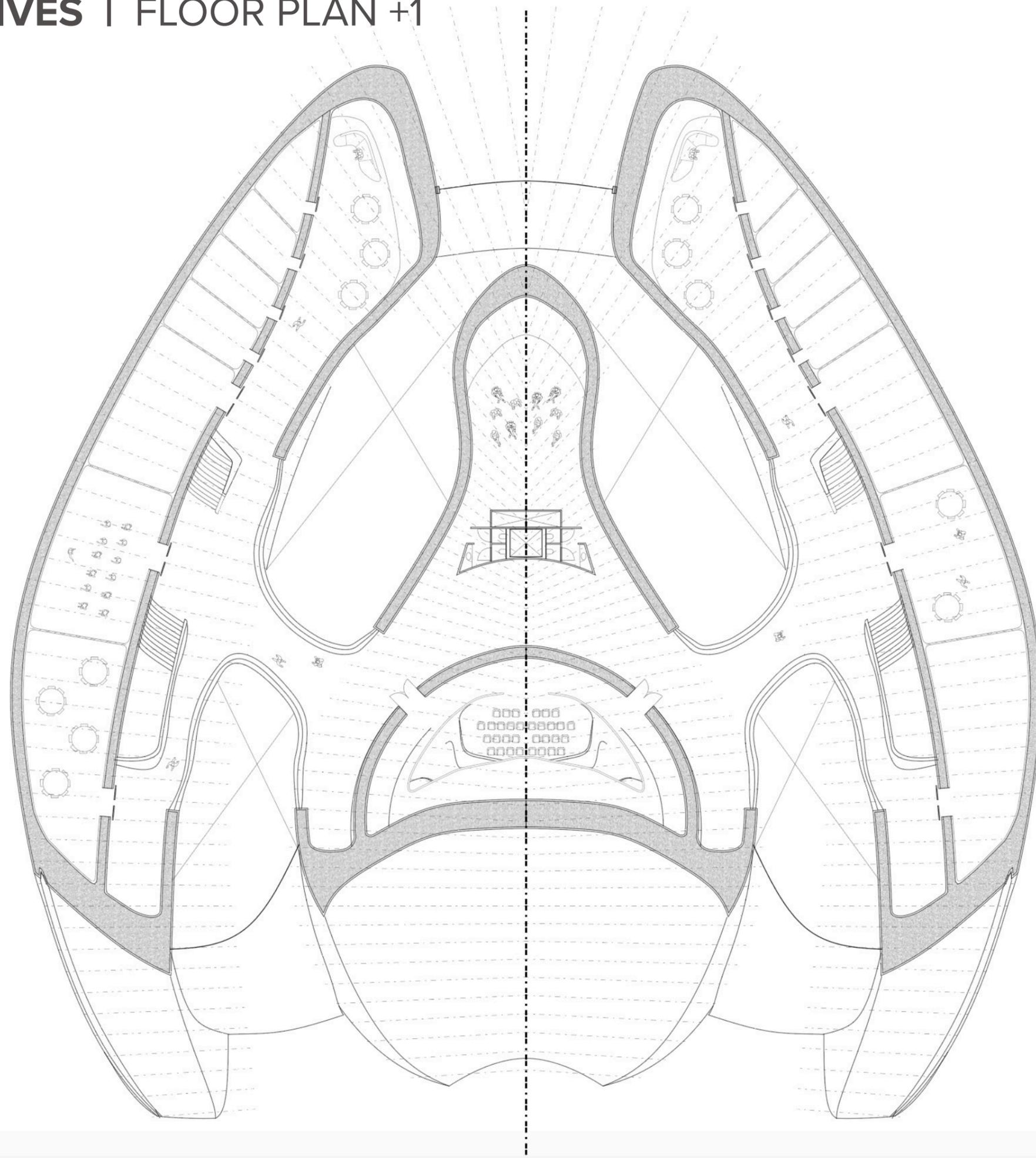


SHARE

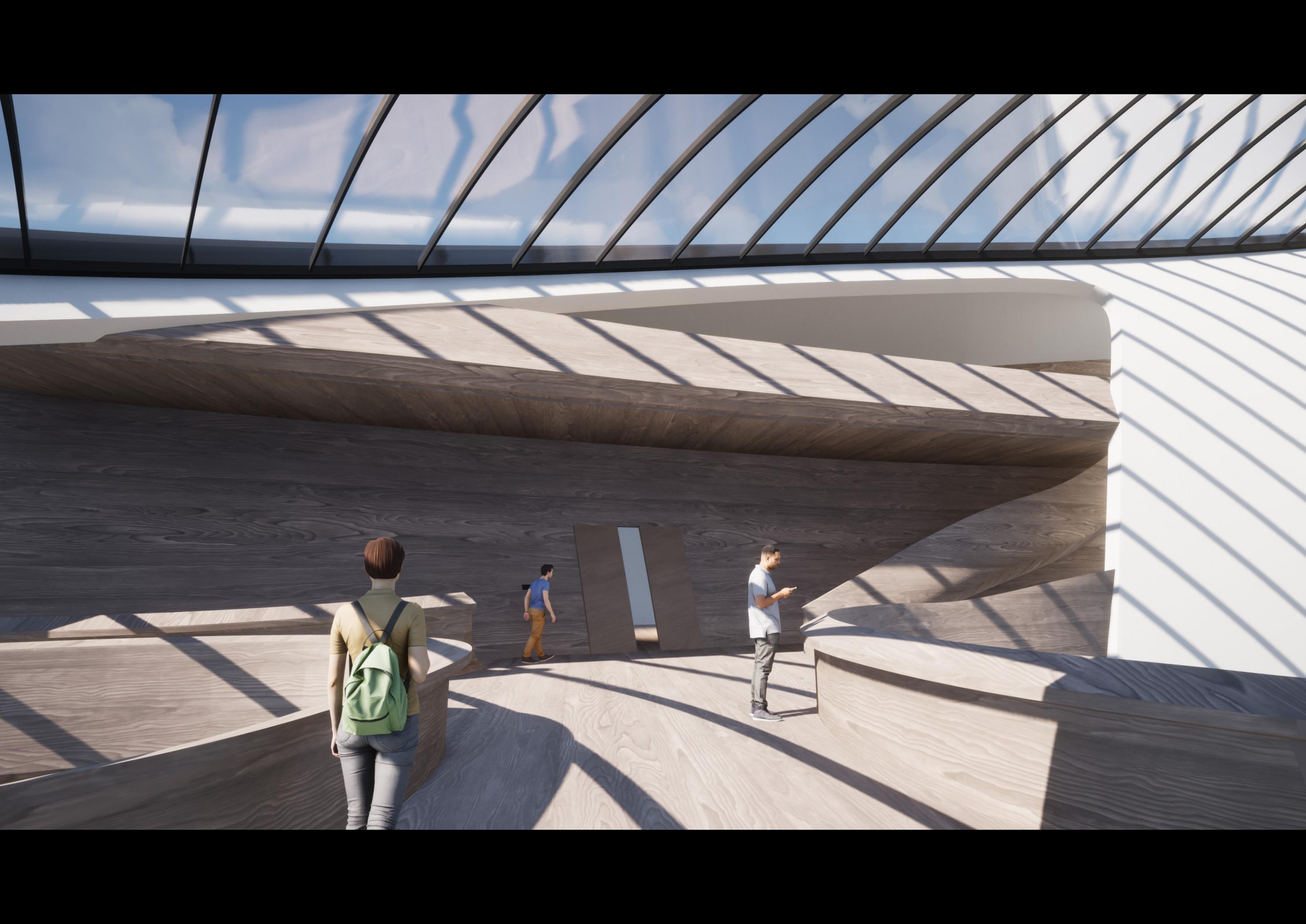




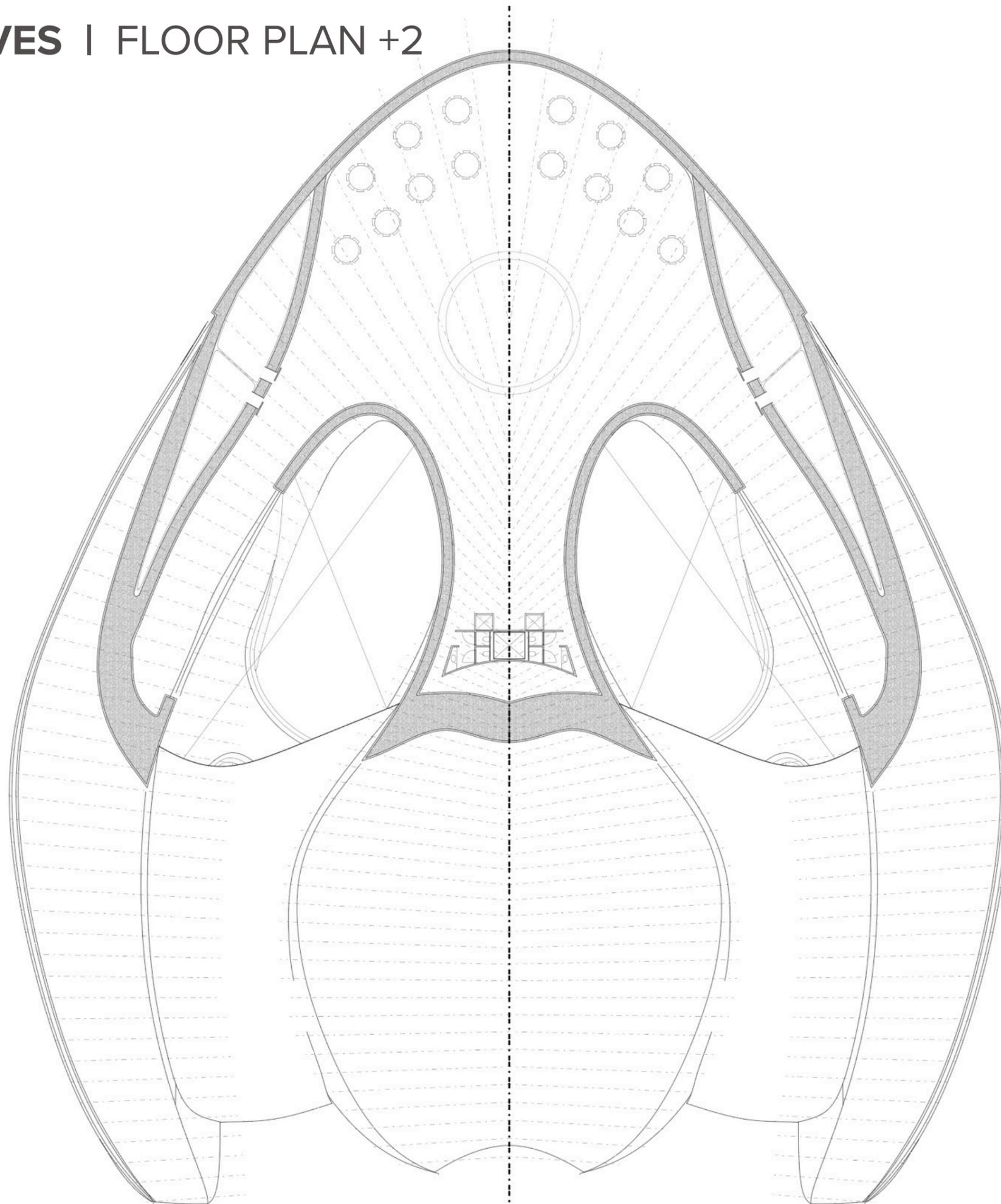
HOUSE OF CREATIVES | FLOOR PLAN +1



MAKE



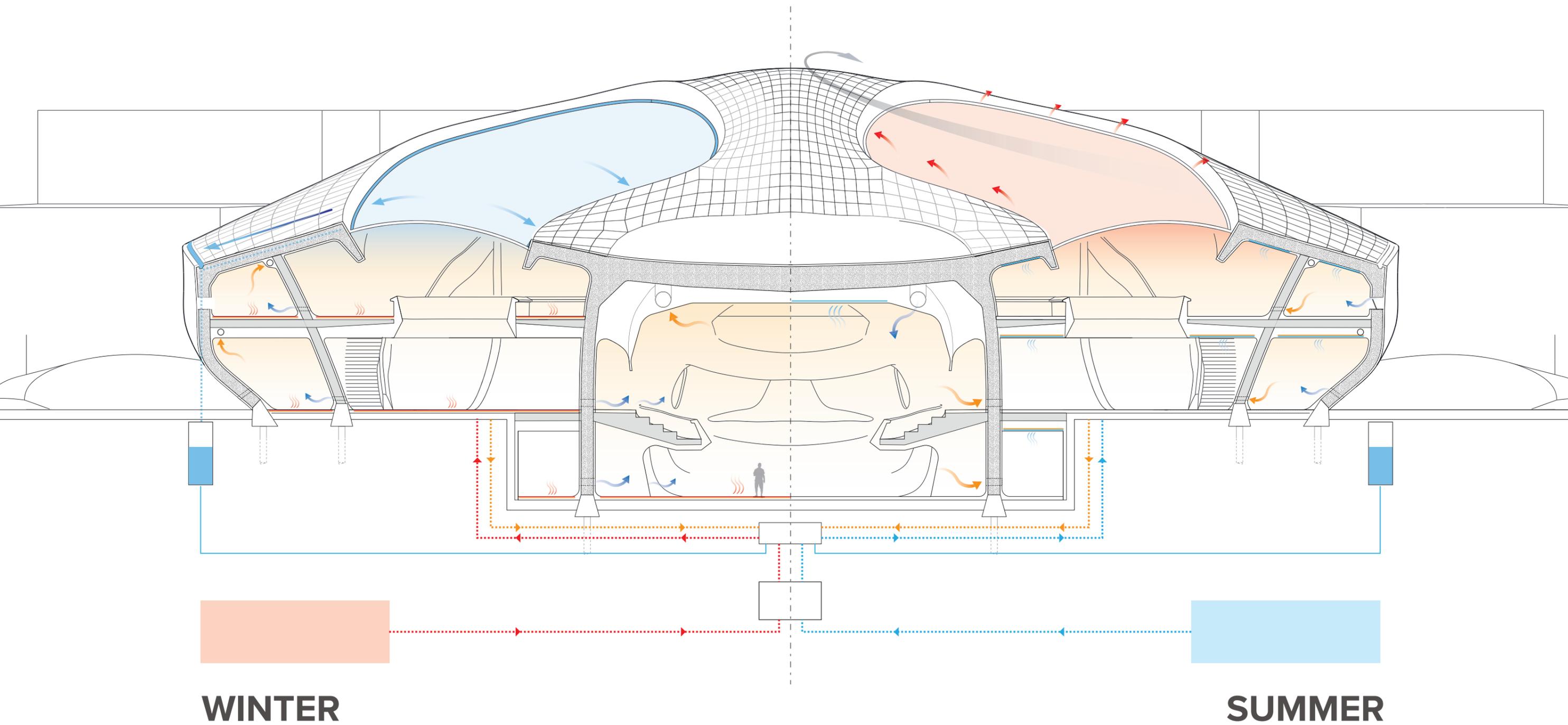
HOUSE OF CREATIVES | FLOOR PLAN +2



THINK



HOUSE OF CREATIVES | CLIMATE SECTION



HOUSE OF CREATIVES | STRUCTURE

REINFORCED MYCELIUM COMPOSITE (RMC)

HOUSE OF CREATIVES | MYCELIUM



- **LIGHTWEIGHT:**

MYCELIUM-BASED BUILDING MATERIALS ARE LIGHTWEIGHT, MAKING THEM EASY TO TRANSPORT AND HANDLE DURING CONSTRUCTION.

- **SUSTAINABLE:**

MYCELIUM IS A RENEWABLE RESOURCE THAT CAN BE GROWN QUICKLY AND REQUIRES MINIMAL RESOURCES, MAKING IT AN ENVIRONMENTALLY FRIENDLY BUILDING MATERIAL.

- **FIRE-RESISTANT:**

MYCELIUM POSSESSES INHERENT FIRE-RESISTANT PROPERTIES, REDUCING THE RISK OF FIRE HAZARDS IN BUILDINGS CONSTRUCTED WITH MYCELIUM-BASED MATERIALS.

- **INSULATING:**

MYCELIUM MATERIALS HAVE GOOD INSULATING PROPERTIES, PROVIDING THERMAL AND ACOUSTIC INSULATION FOR BUILDINGS.

- **STRONG AND DURABLE:**

MYCELIUM COMPOSITES CAN BE ENGINEERED TO HAVE HIGH STRENGTH AND DURABILITY, CAPABLE OF WITHSTANDING STRUCTURAL LOADS.

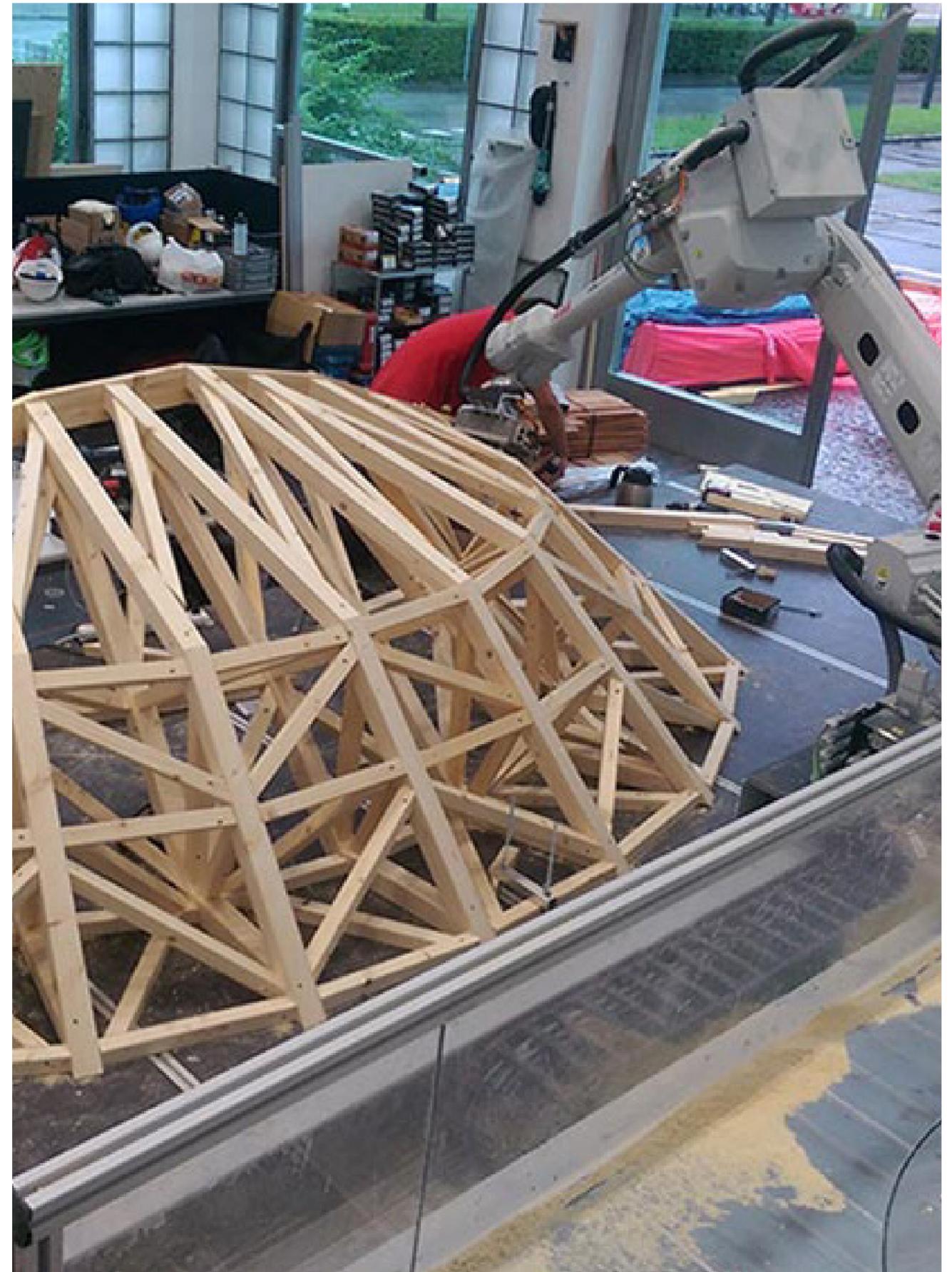
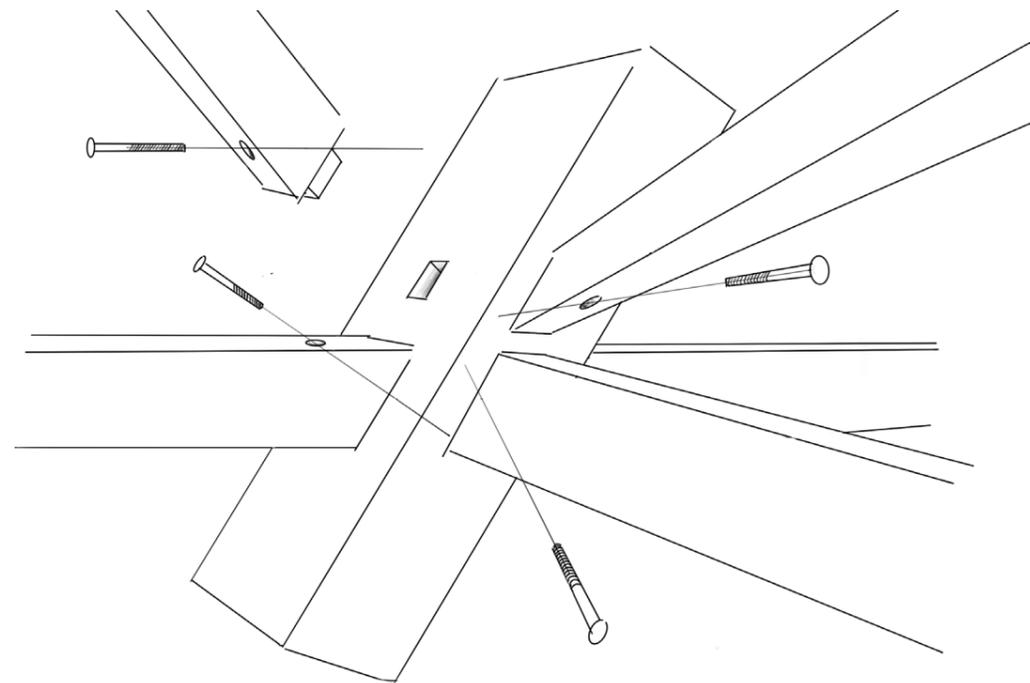
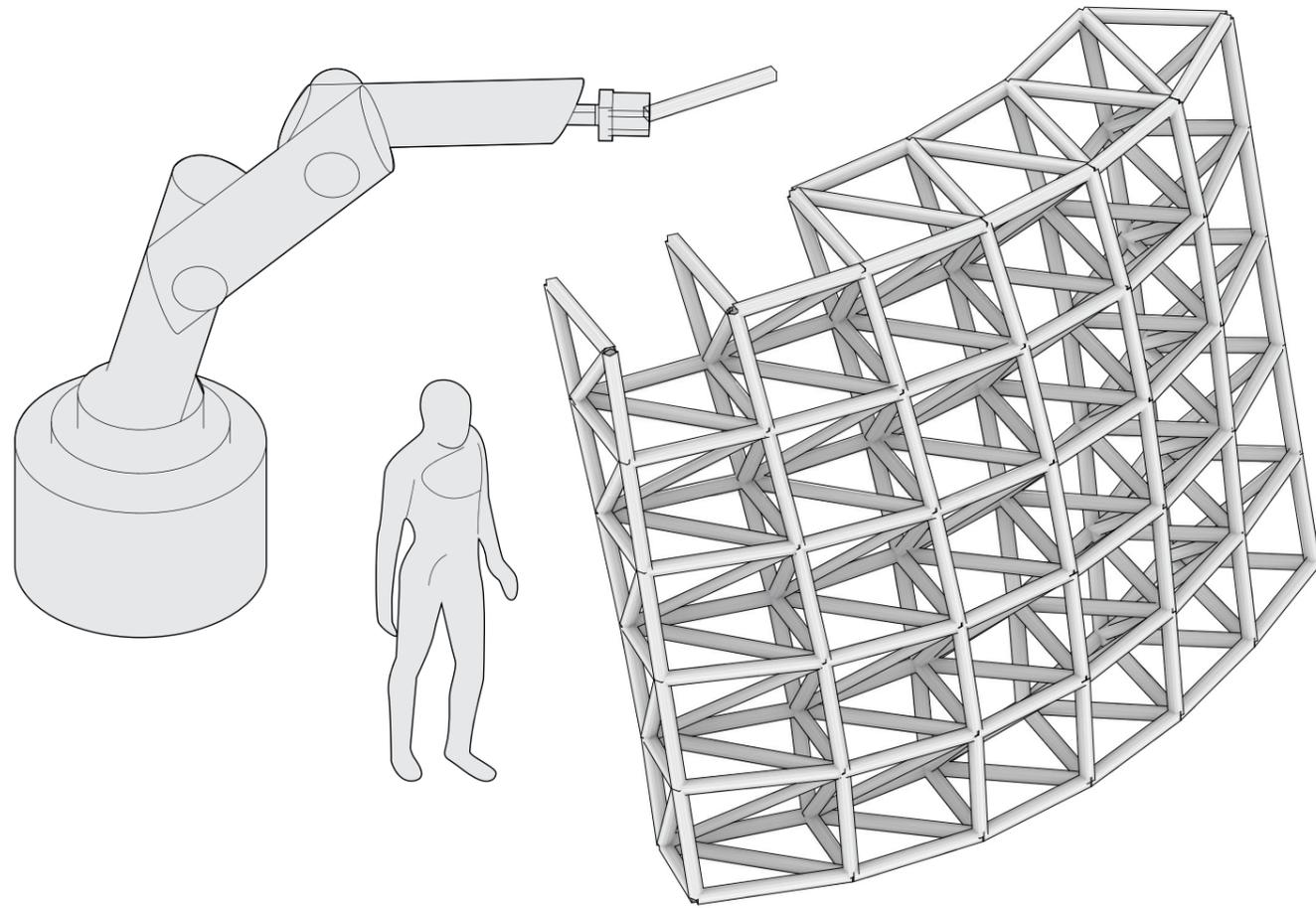
- **BIODEGRADABLE:**

AT THE END OF THEIR LIFE CYCLE, MYCELIUM-BASED MATERIALS ARE FULLY BIODEGRADABLE, MINIMIZING WASTE AND CONTRIBUTING TO A CIRCULAR ECONOMY.

HOUSE OF CREATIVES | RMC



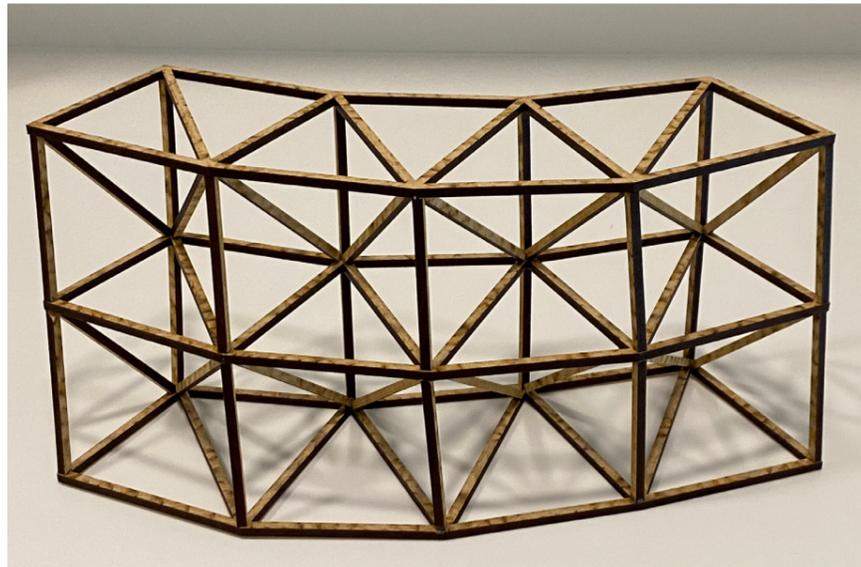
HOUSE OF CREATIVES | DIGITAL FABRICATION



HOUSE OF CREATIVES | MYCELIUM GROWTH



MYCELIUM COMPOSITE:
- HENNEP WASTE
- MYCELIUM SPORES



STRUCTURAL MODULE

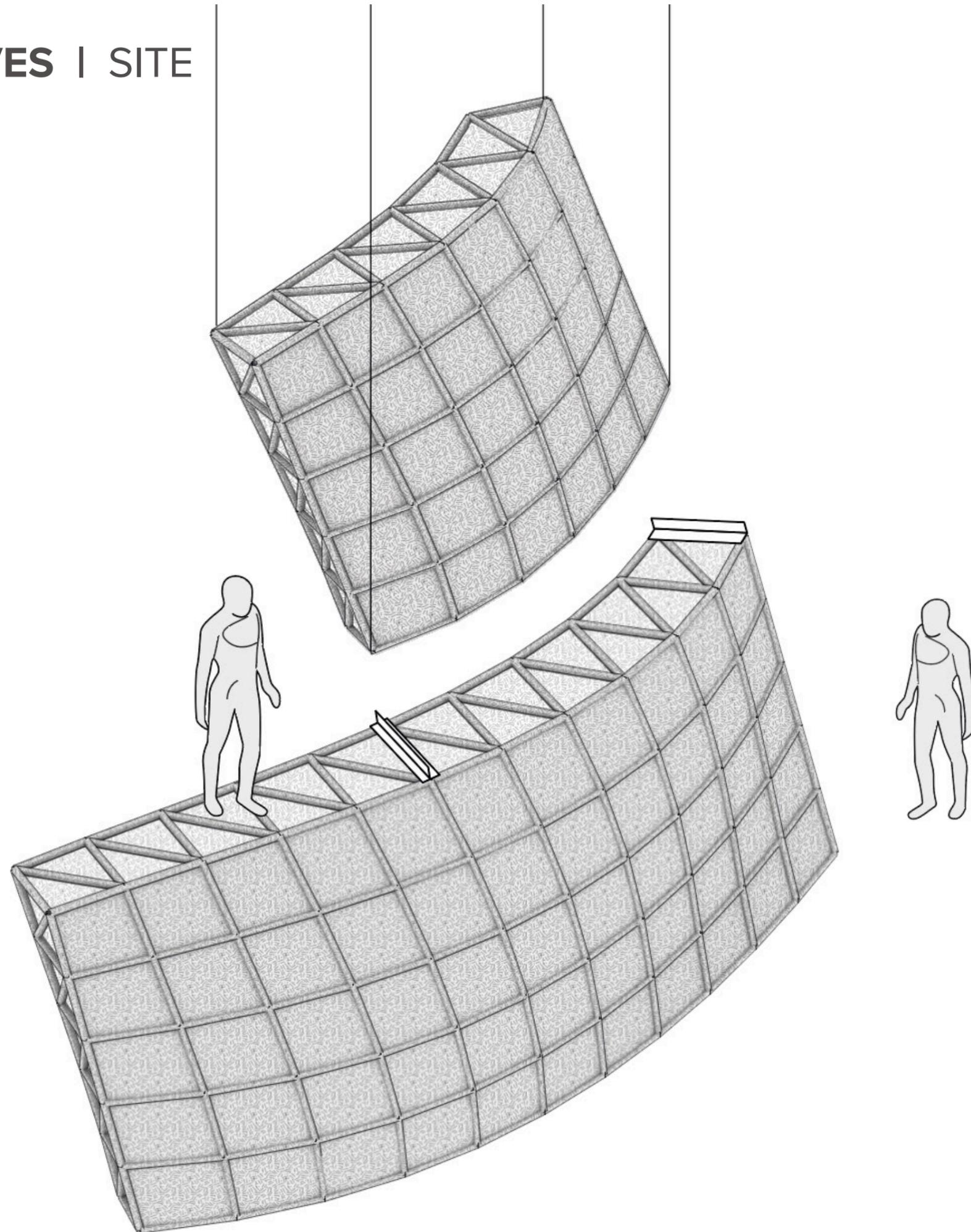


FILL WITH
MYCELIUM COMPOSITE

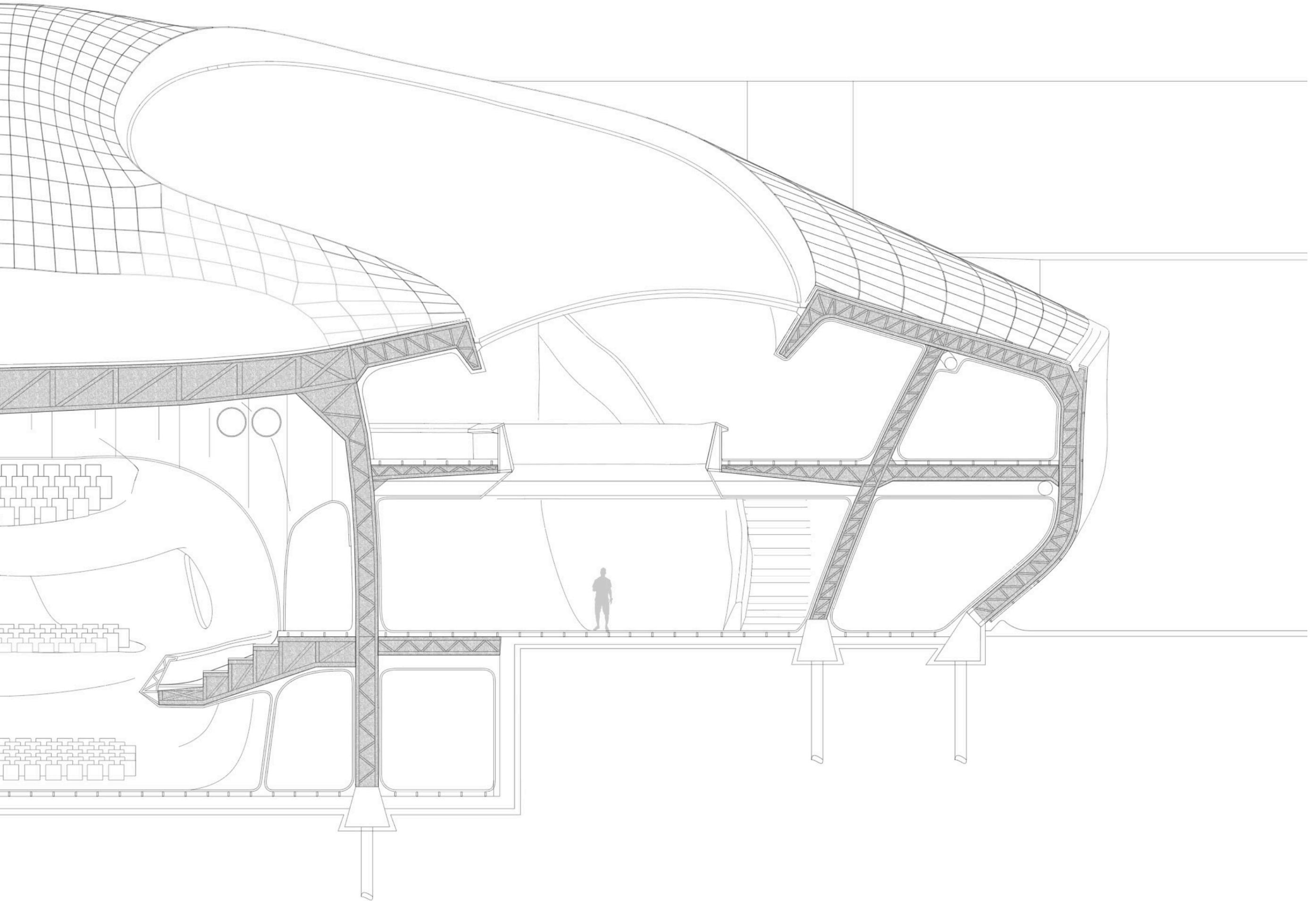
GROW
@
24-26°C
3-5 DAYS

DRY
@
40°C
3-4 HOURS
+
80°C
2 HOURS

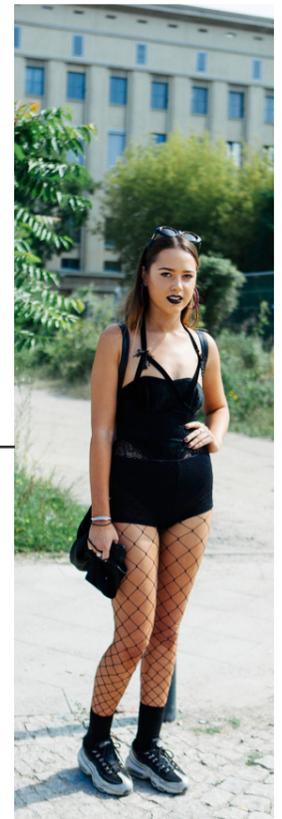
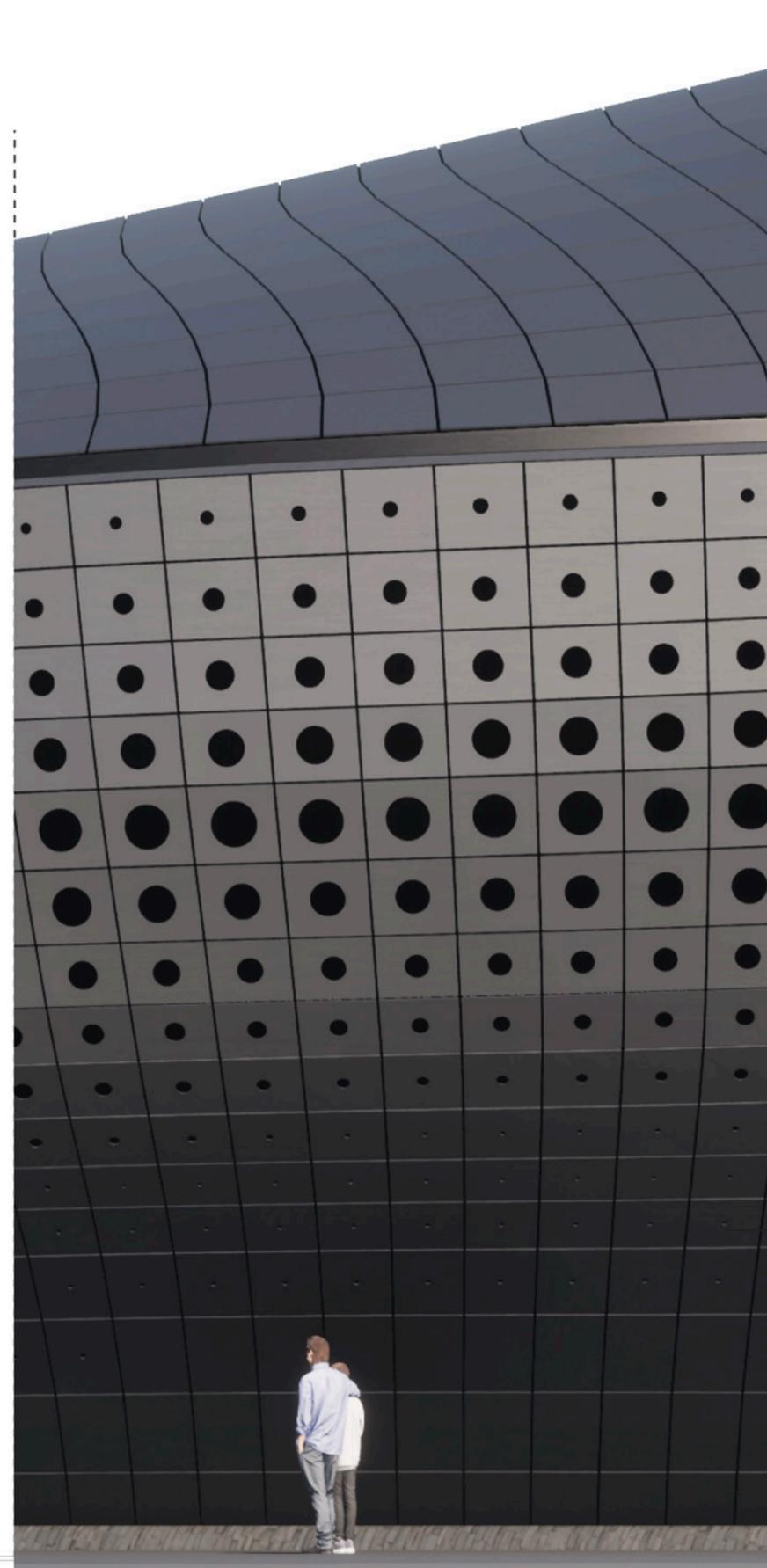
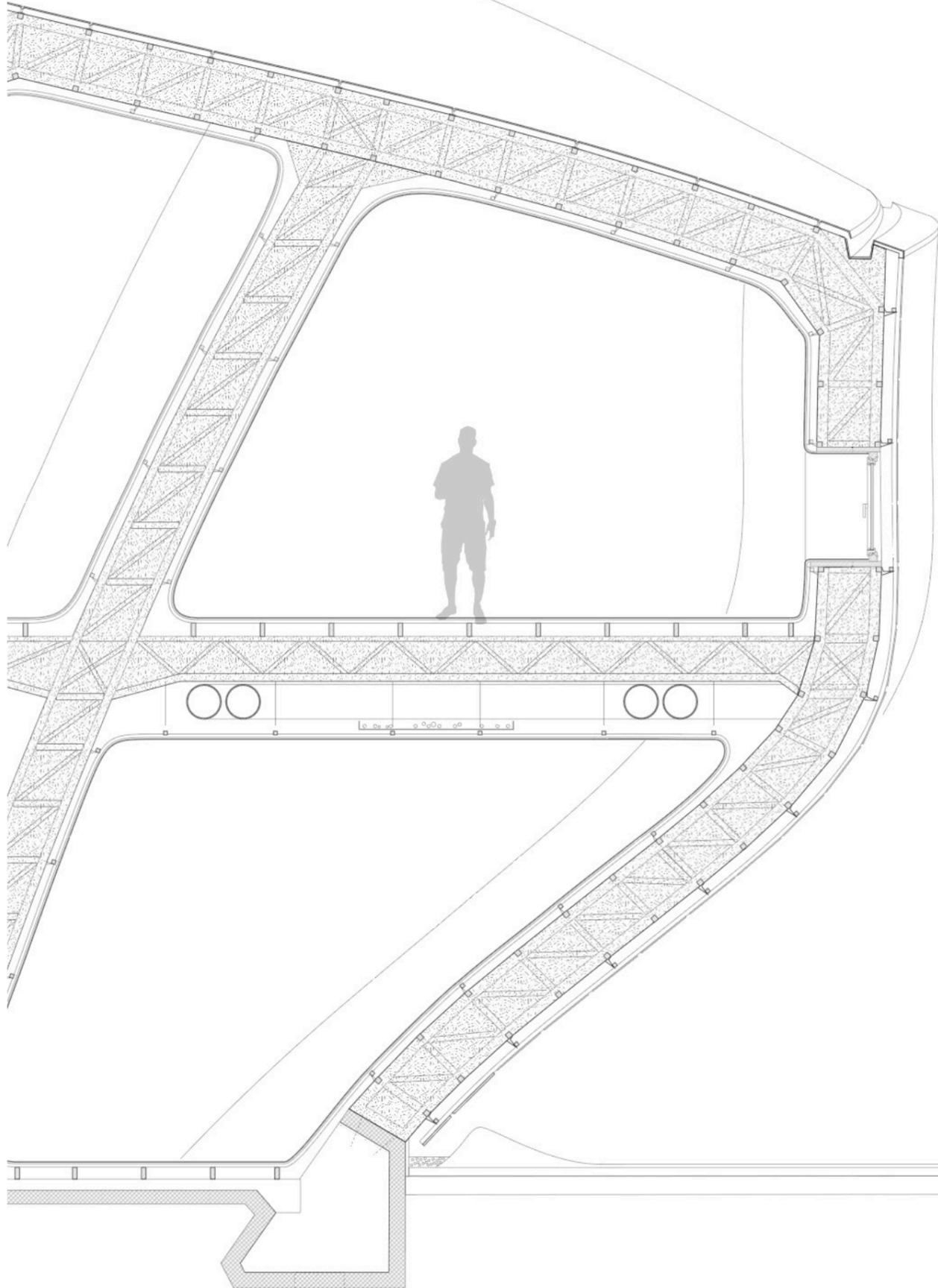
HOUSE OF CREATIVES | SITE



HOUSE OF CREATIVES | SECTION 1:50



HOUSE OF CREATIVES | FACADE 1:20

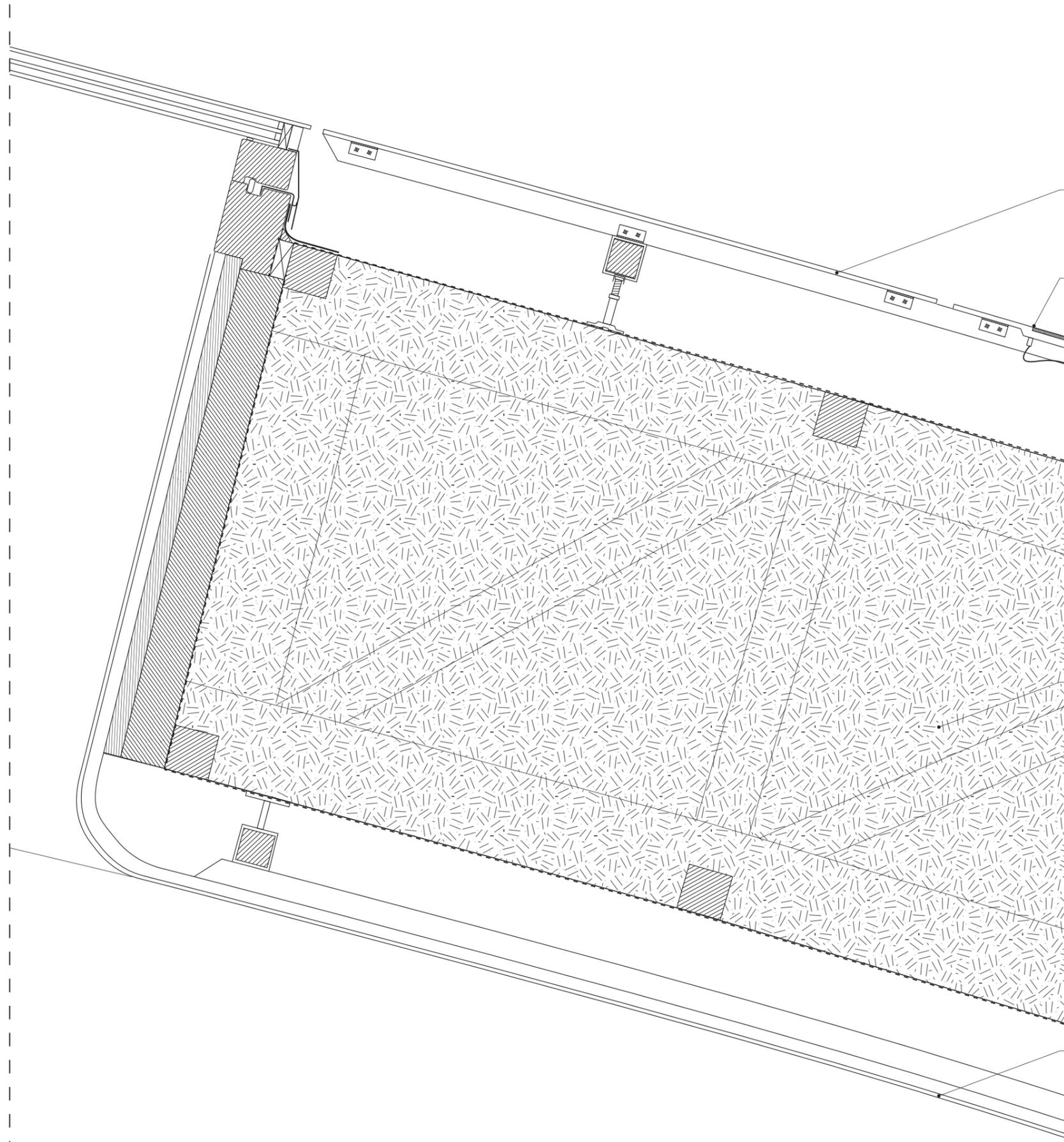


FACADE DETAIL
1:20

HOUSE OF CREATIVES | FRAGMENT



HOUSE OF CREATIVES | FACADE 1:5



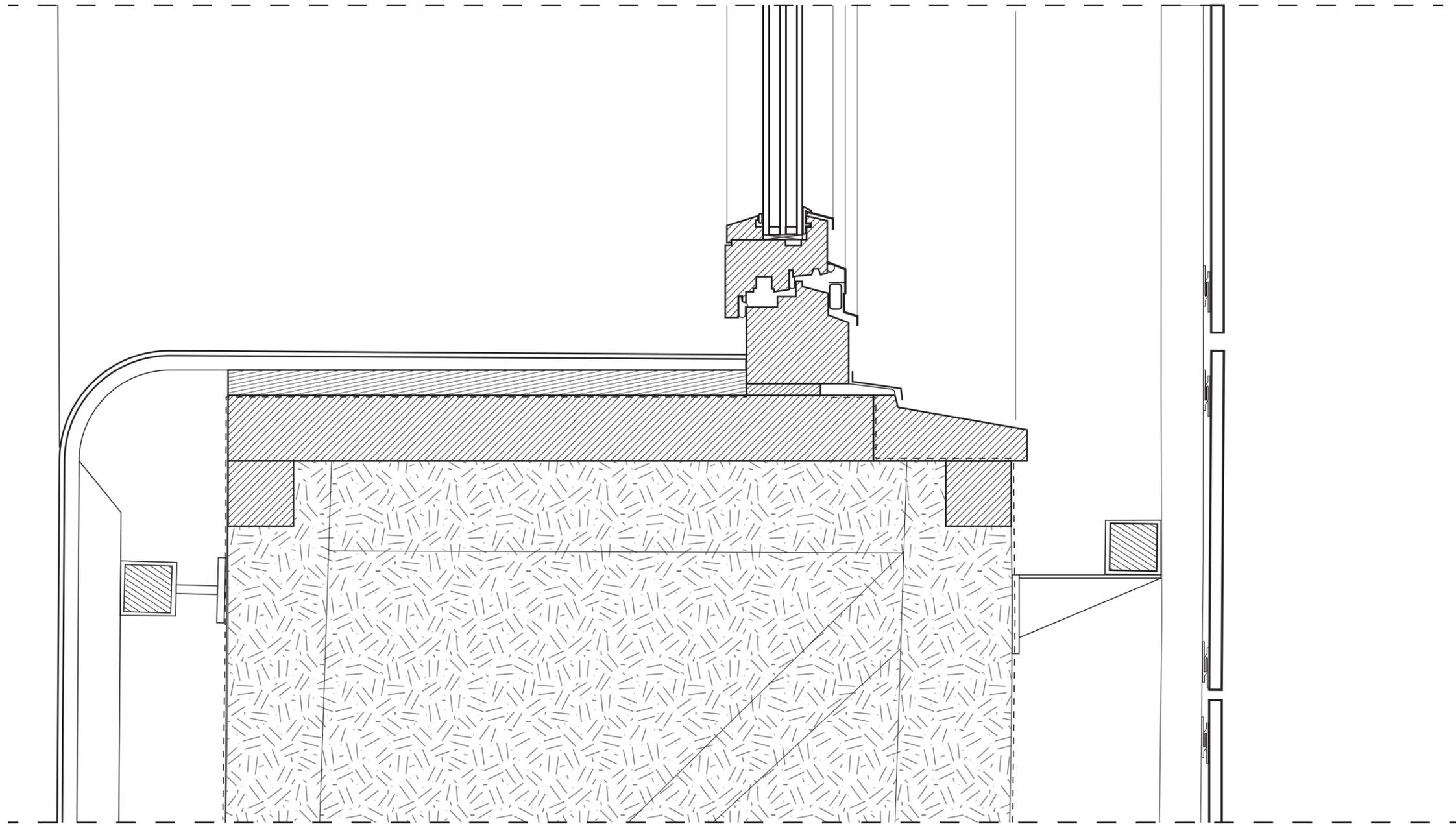
ArboBlend bioplastic, a development by Tecnar, comprises over 90% bio-polymers, and a little under 10% is a mix of inorganic mineral compounds. These minerals help protect the material from UV light. The bioplastic contains no halogens, chlorines or bromines. Oil-based components and additives are also kept to a minimum, meaning that recycling is both easier and cleaner than normal.

Organic Photovoltaic (OPV) panels.

Reinforced Mycelium Composite (RMC). A first study of digitally fabricated wooden reinforcement combined with mycelium composite. The mycelium not only functions as a high quality insulating material, but it also supports the wooden reinforcement by growing into, and attaching to, the wooden elements. The composite consists of hemp fiber with a length of 5-15mm, making a stronger composite.

Hempcrete is a sustainable building material made from the woody core of the hemp plant mixed with a lime-based binder. It is a breathable material and has hygroscopic properties, allowing it to absorb and release moisture. This feature helps to maintain a comfortable and healthy indoor environment. Additionally, it has good acoustic insulation properties, reducing sound transmission and improving the overall acoustic comfort within the building.

HOUSE OF CREATIVES | ROOF 1:5



HOUSE OF CREATIVES | REFLECTION

For my graduation project I propose the 'creative condenser' as an approach to the 'public condenser', a term introduced by the board of the Public Building graduation studio within the MSc Architecture track at Delft University of Technology. Through research by design, I investigated the potential of new building technologies in enhancing the functionality and sustainability of the public building as creative condenser in the context of Berlin.

Within this reflection I will elaborate on the research by design process by going through the different design stages and the feedback that was received.

Concept Development

The development of the project's concept started with a site visit to Berlin and trying to understand the city's demographics. The Friedrichshain neighborhood has a vibrant arts and culture scene, a very diverse population, and relatively affordable housing. The Berghain, a popular techno nightclub, is a prominent building in the area, attracting both locals and tourists. Back in Delft, I started seeing the potential of the 'creative condenser' in Berlin, not knowing what this exactly meant. By the use of AI imaging, I tried to develop a feeling for this new concept. The site next to the Berghain seemed to be a perfect fit for a public building for the creative community, implying a new creative cluster in the city.

During this period, interaction with different tutors, receiving questions and feedback from different perspectives was crucial to build a strong concept.

With the design of a composition, incorporating the technique 'montage' within a 400x400mm box, I started developing an architectural vision for the project. This composition acknowledges the given dimensions, but reinterperates the box as a shape. Furthermore, it touches upon the design challenges we as architects are facing by exploring the potential of digital fabrication while using sustainable materials (Figure 1). The feedback I received from this composition made me aware that I was seeking a certain creative freedom.

Creative Condenser

Later on in the process I defined the term 'creative condenser' as an approach to the studio's theme. A creative condenser is a space or building that fosters creativity and innovation, bringing together individuals from diverse backgrounds and disciplines to collaborate and generate new ideas. Based on the research of Berlin's creative industry by Puchta D. (2010), I specified my target group: the 'Music, Performing and Visual Arts' community. From this point the building's concept started informing the architecture in different ways. By analysing the daily activities of my target group, I came up with the concept of 'Think, Make & Share', which informed my design assignment and eventually became leading in the project's understanding.

Spatial Development

By testing different design options through sketches and 3D models I found one of the configurations to work best within the concept and this was worked out towards P2. This configuration was creating two large public spaces on and under the building that strongly connected to the building's concept; sharing with the public (Figure 3,4). The feedback received after this presentation was important to me. It made me realise I wasn't presenting the project as I had it in mind. The overall massing was there, but it was missing different qualities I was after.

Towards P3, the design approach changed drastically in a positive way. The massing was reinterpreted through the use of SubD modeling in Rhino, which enabled me to model the building exactly as I had in mind. This was the creative freedom I was after from the first weeks of the project. Analysing reference projects helped to, step-by-step, understand how such a complex shapes could be constructed in a sustainable way. The use of rendering software was crucial to really get a feeling of the building scale and the experience of designed spaces.

Towards P4

The feedback received at P3 was mostly focused on the urban scale an the smallest scale. I learned that with such projects, that could be seen as 'alien' within their urban context, designing the surroundings can be used as a tool to make the building fit in it's own context. Not only does this make the design and concept more coherent, it also improves the visitor's experience. I also realised the smallest scale of this project, especially when suggesting a new construction method, is most important and something that will be considered for the final stages of this project.

The final outcome of my graduation project, the creative condenser, is a product of a thorough research and design process. With the use of sustainable materials and new technologies in building design and construction, I can say that my project is valuable for the architectural practice. Next to the optimised solar performance, the building suggests a new material: reinforced mycelium composite (RMC). I am aware that this material requires a lot more research before being applied in building construction.