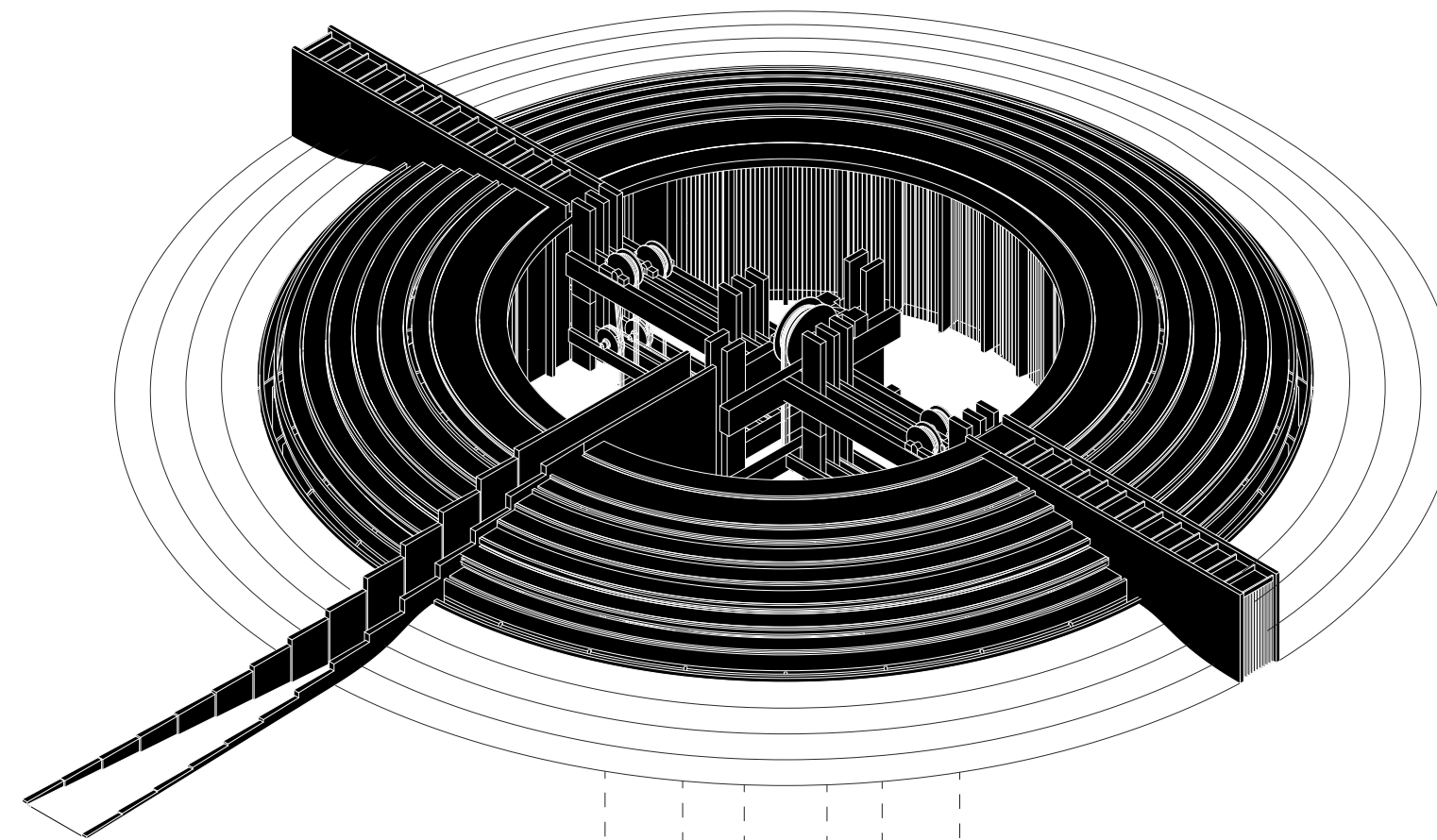


NUCLEAR REQUIEM

Burial ground for radioactive waste and memorial to the weapon testing area of Xinjiang



Research



Death of the Terrritory

Research to Design



Nuclear Graveyard

Proposal

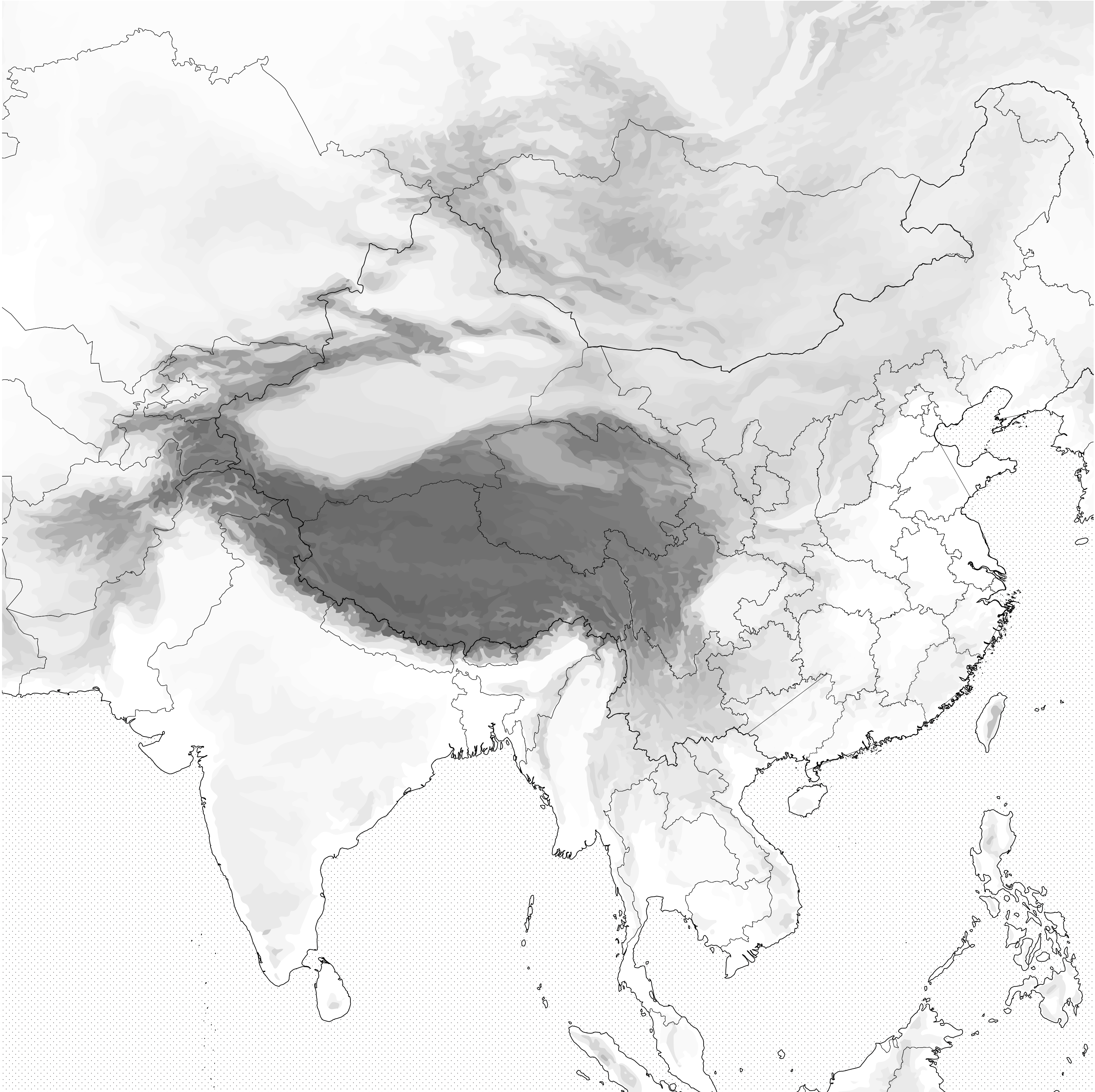


Infrastructural Requiem



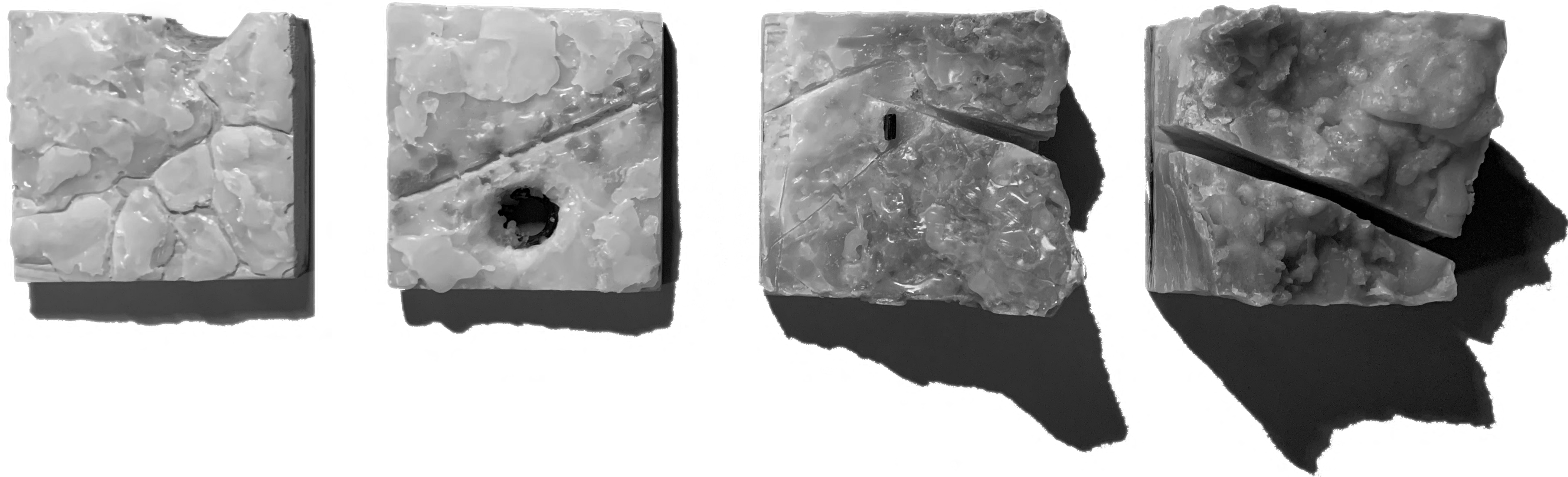
Xinjiang

—
—



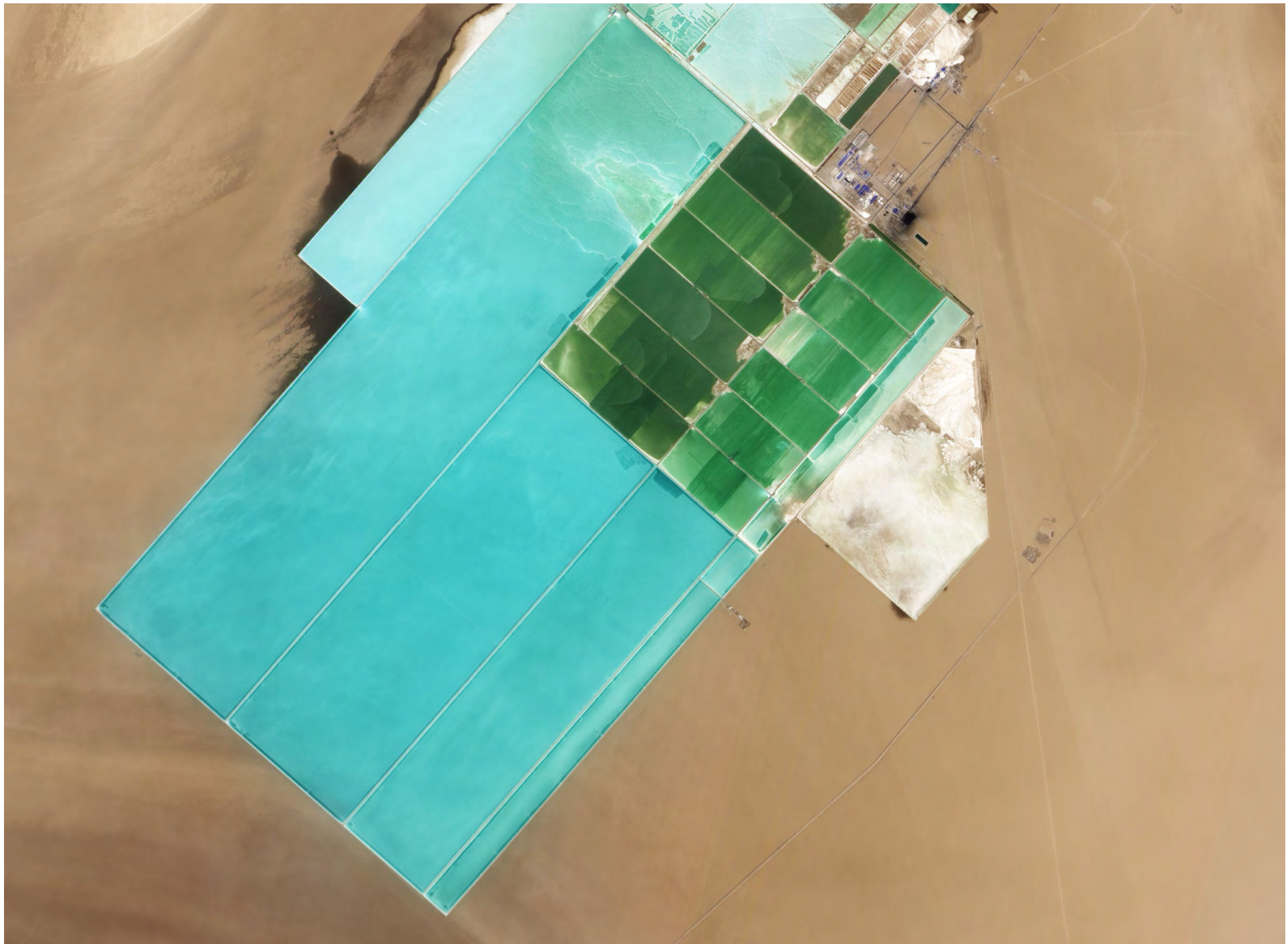
Tarim Basin

—
—



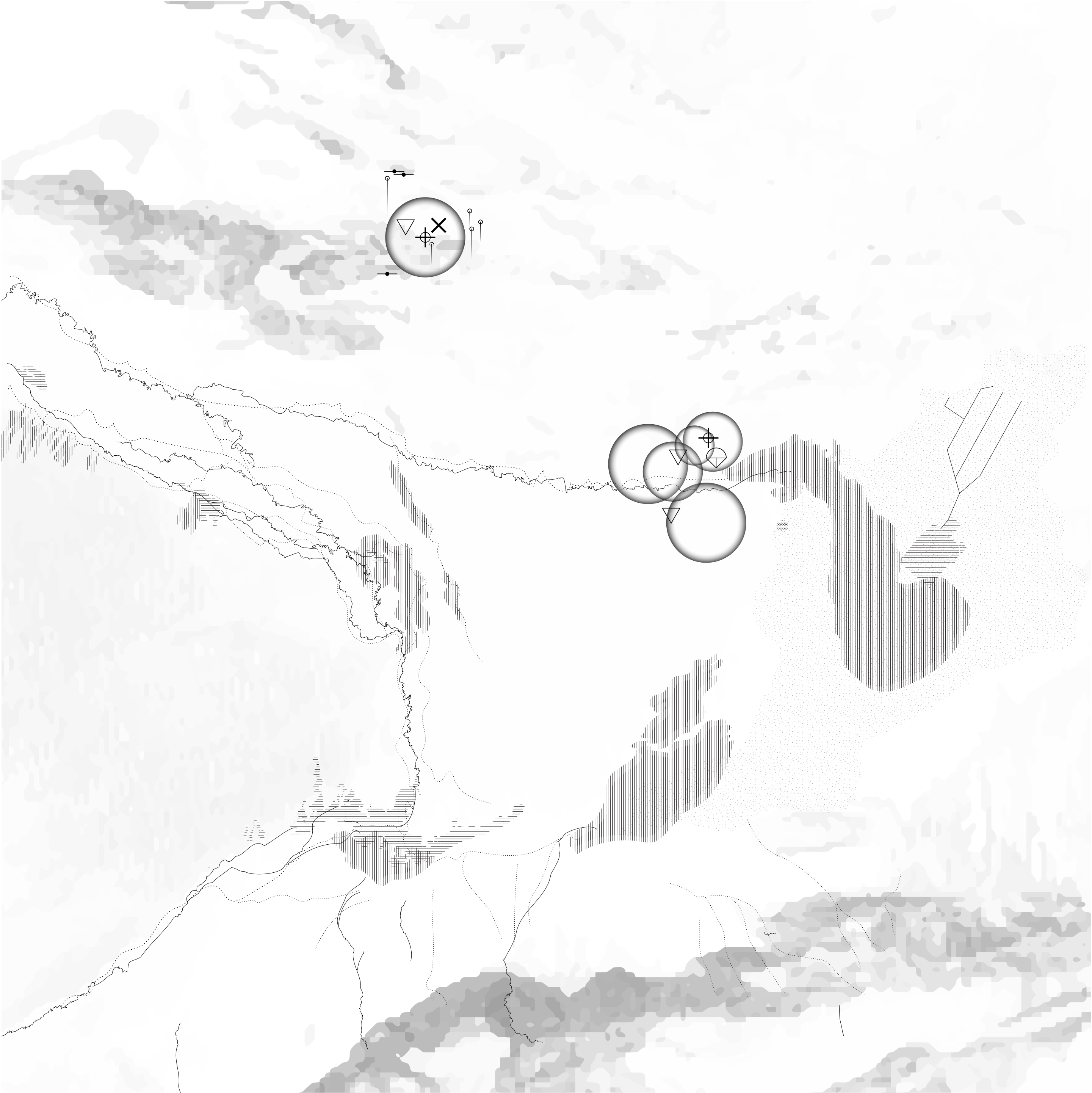
Discontinuity within the territory

—
—



Exploitation of the Land

-
-



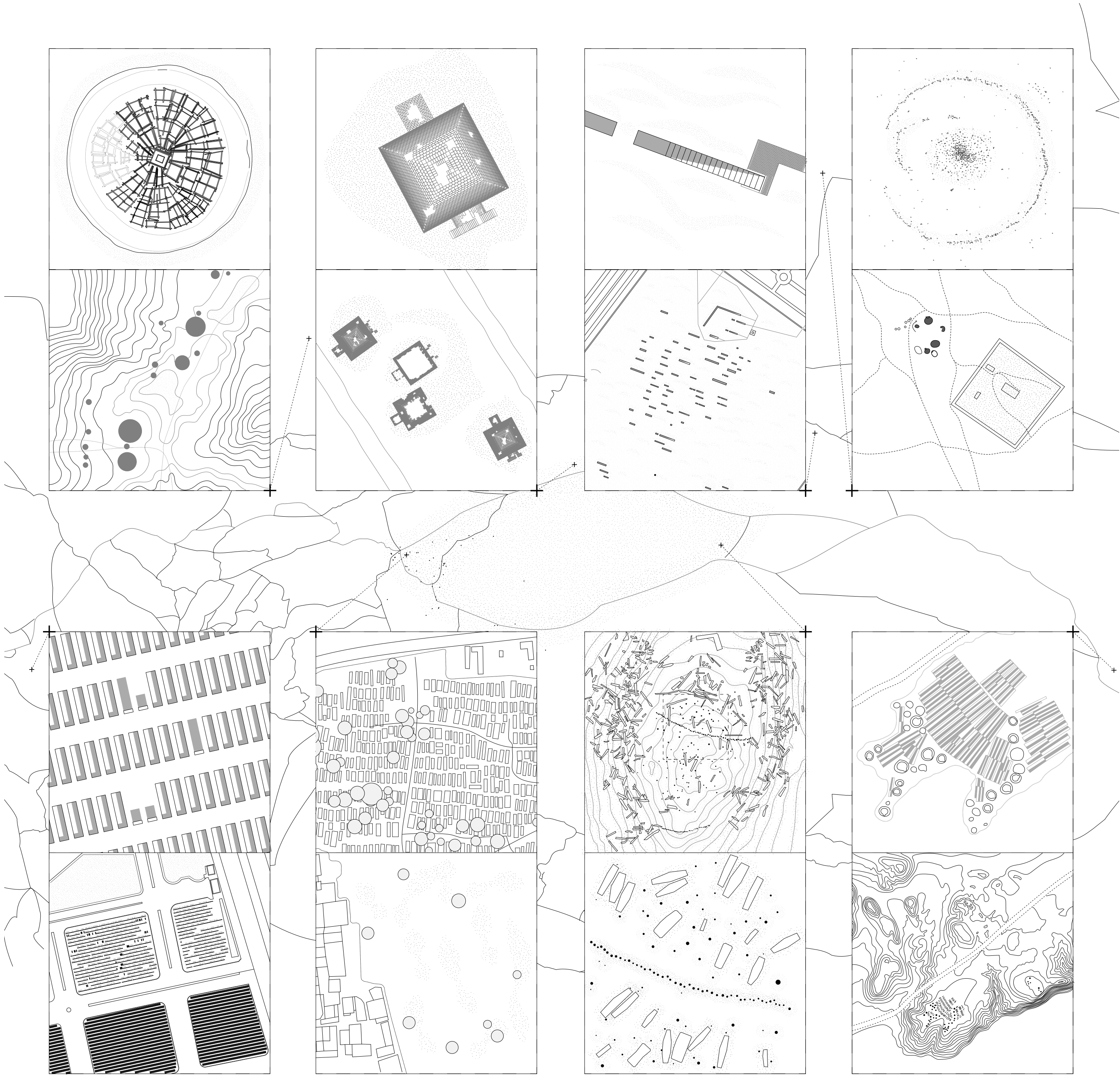
Exploitation of the Land

—
—



Exploitation of the Culture

-
-



Exploitation of the Culture

—
—

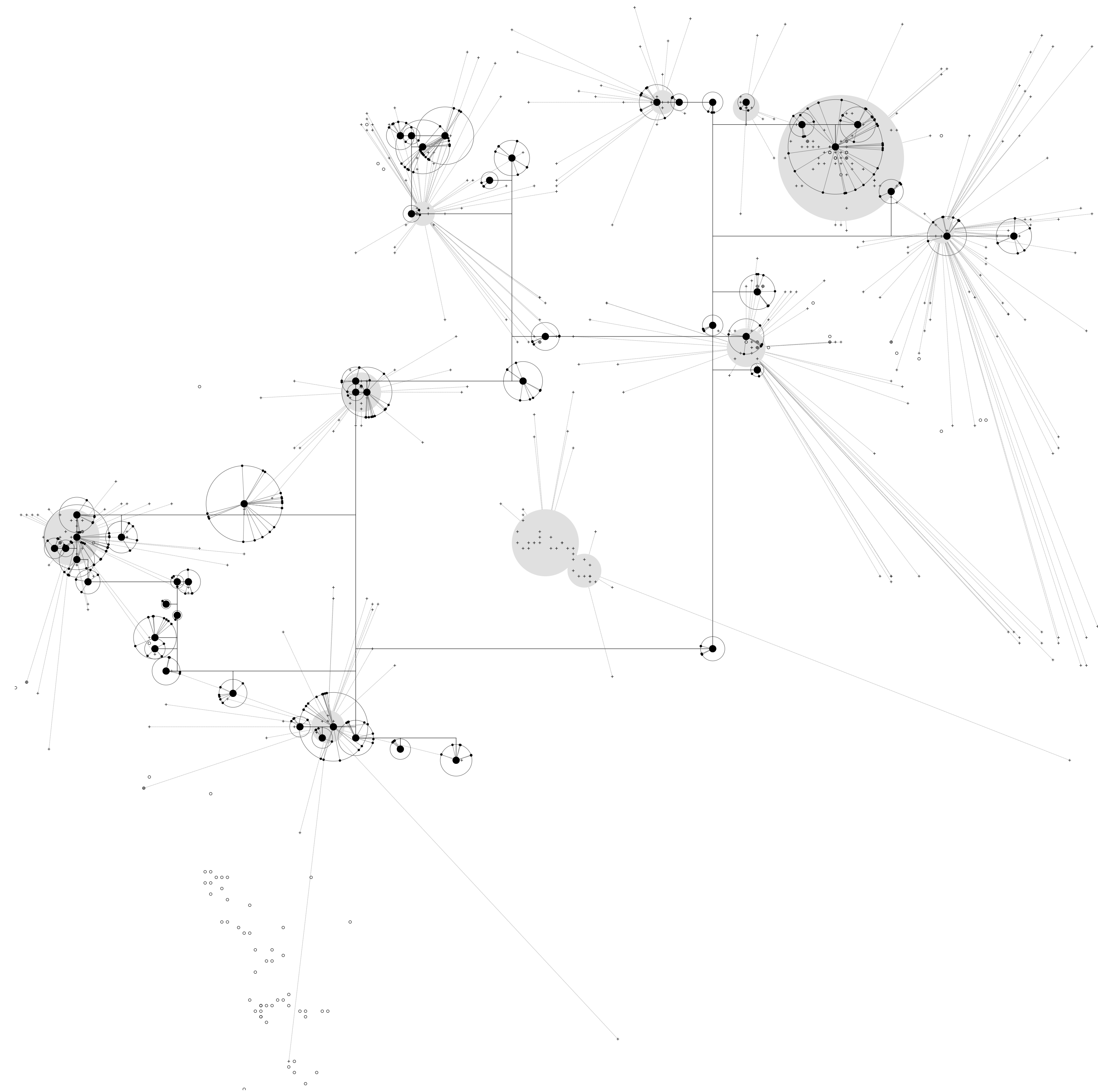
Exploitation of the People

—
—



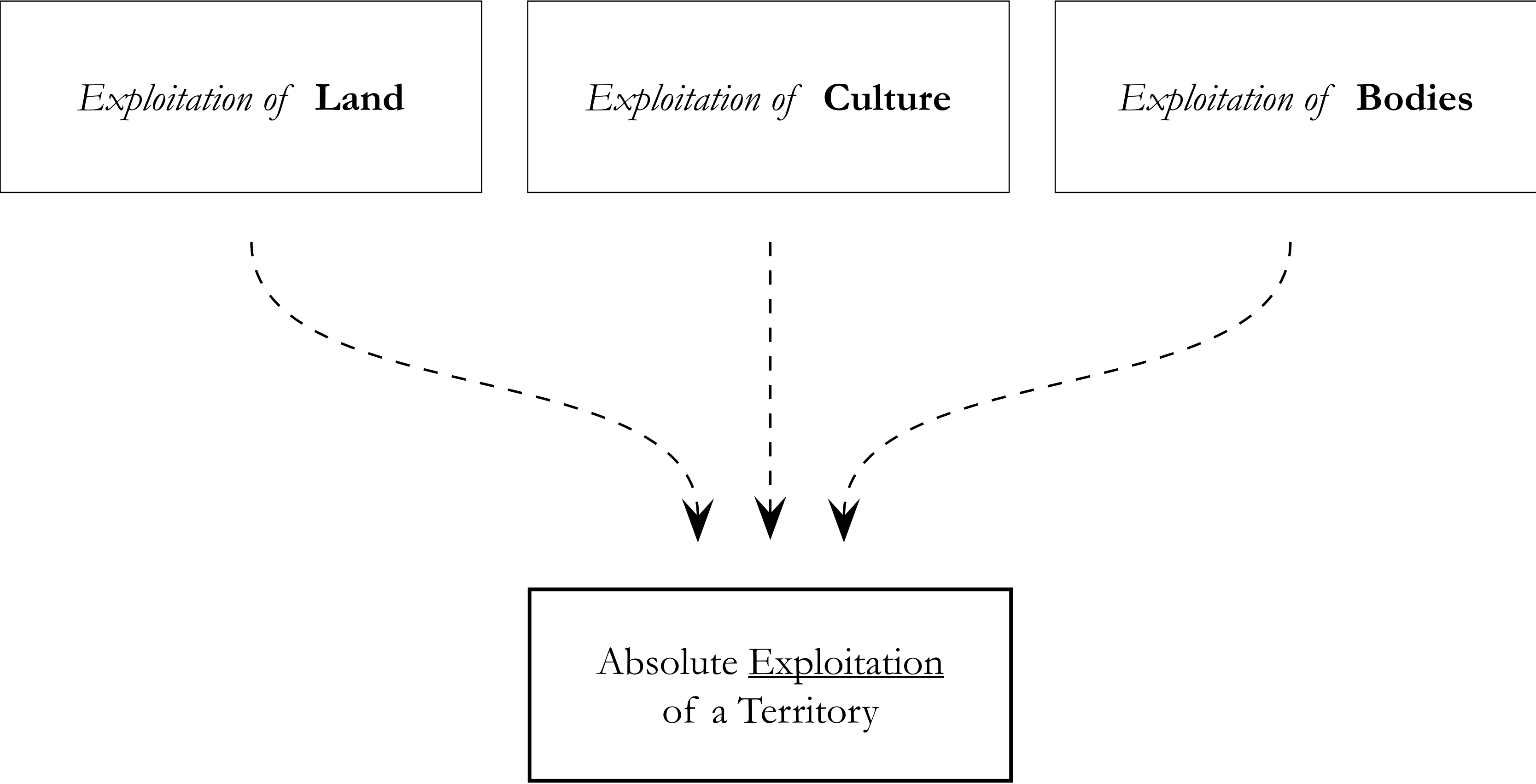
Exploitation of the People

—
—

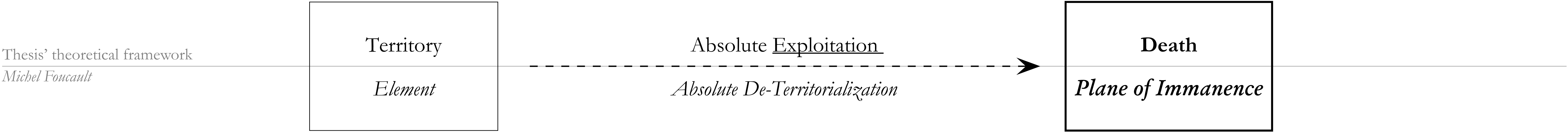


Exploitation of the People

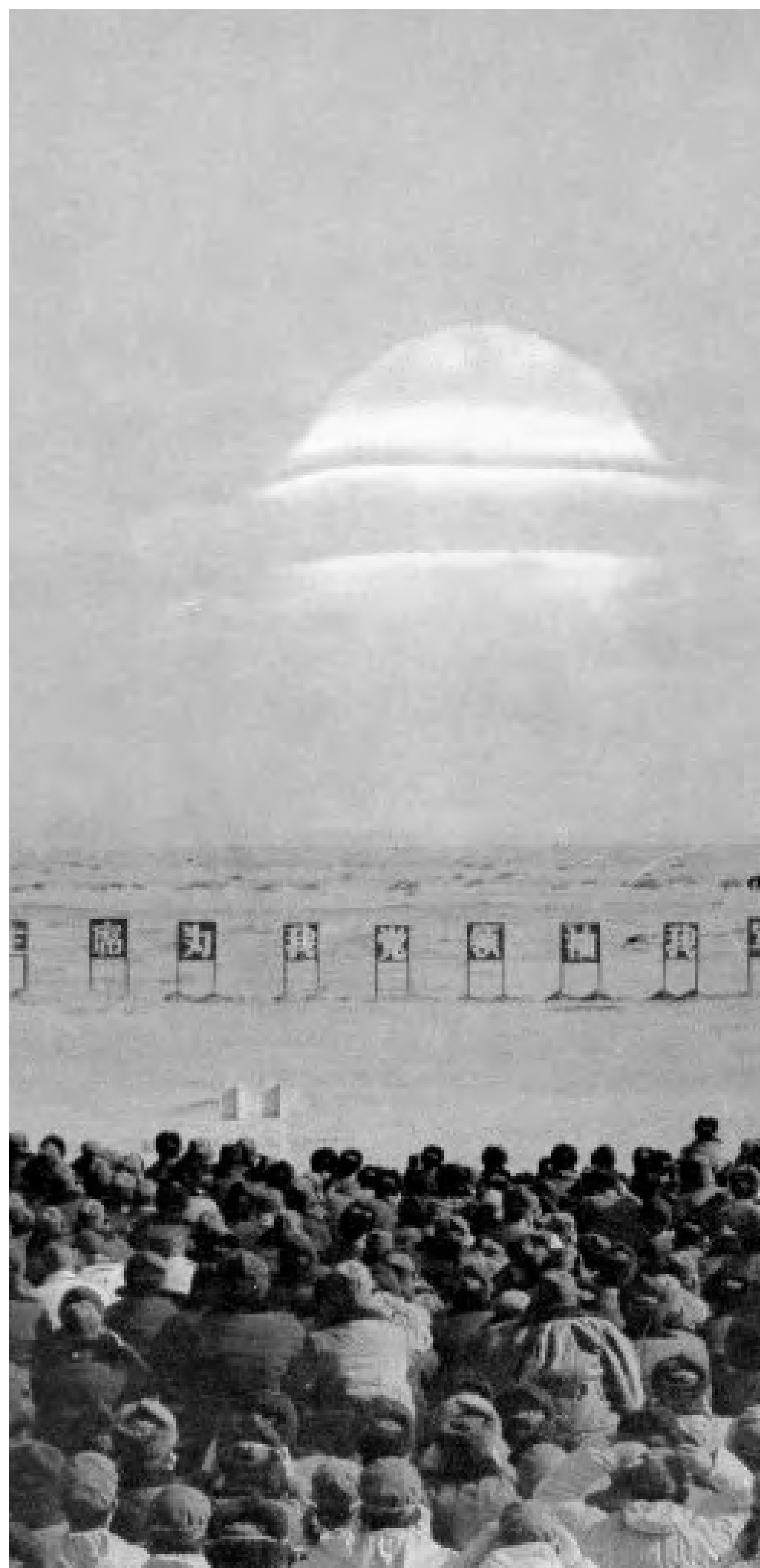
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—



Absolute Exploitation
—
—



Death of the Territory
—
—



Nuclear Weapon Testing

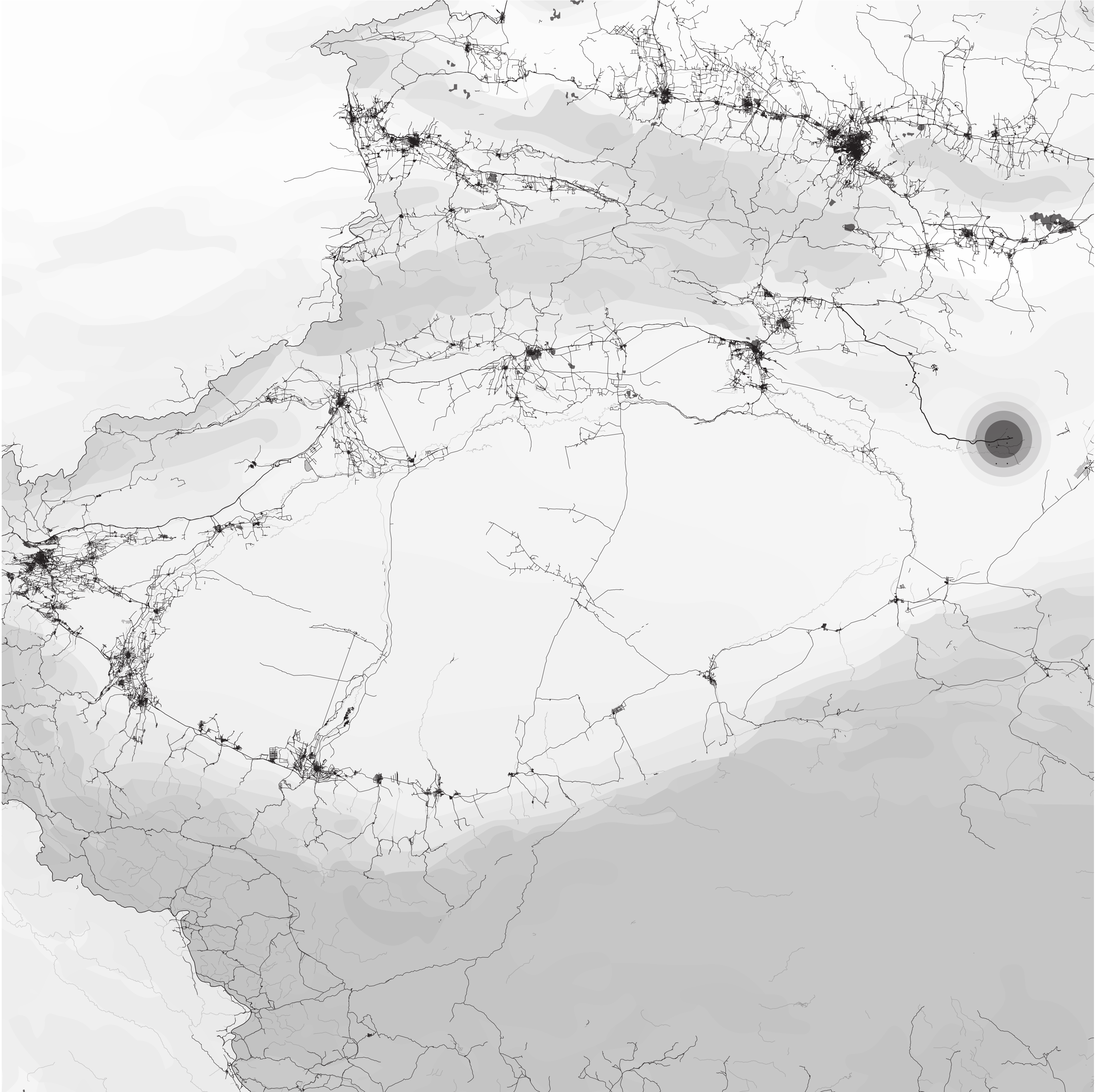
-
-

The aftermath of nuclear imperialism in Lop Nor is well explained by Mbembe’s theory of necropolitics (Mbembe 2003) [...]

[...] “weapon are deployed in the interest of maximum destruction of persons and the creation of ‘death-worlds’...“, referring to a ‘phantom-like’ form of existence in which vast populations are subjected to the power of the state over their life and death. “the extraction and looting of natural resources by war machines goes hand in hand with brutal attempts to immobilise and spatially fix whole categories of people” [...]

[...] Through the nuclear activity across Xinjiang, the sovereignty power of the PRC has dominated and racialized Uyghur environments, culture and bodies.

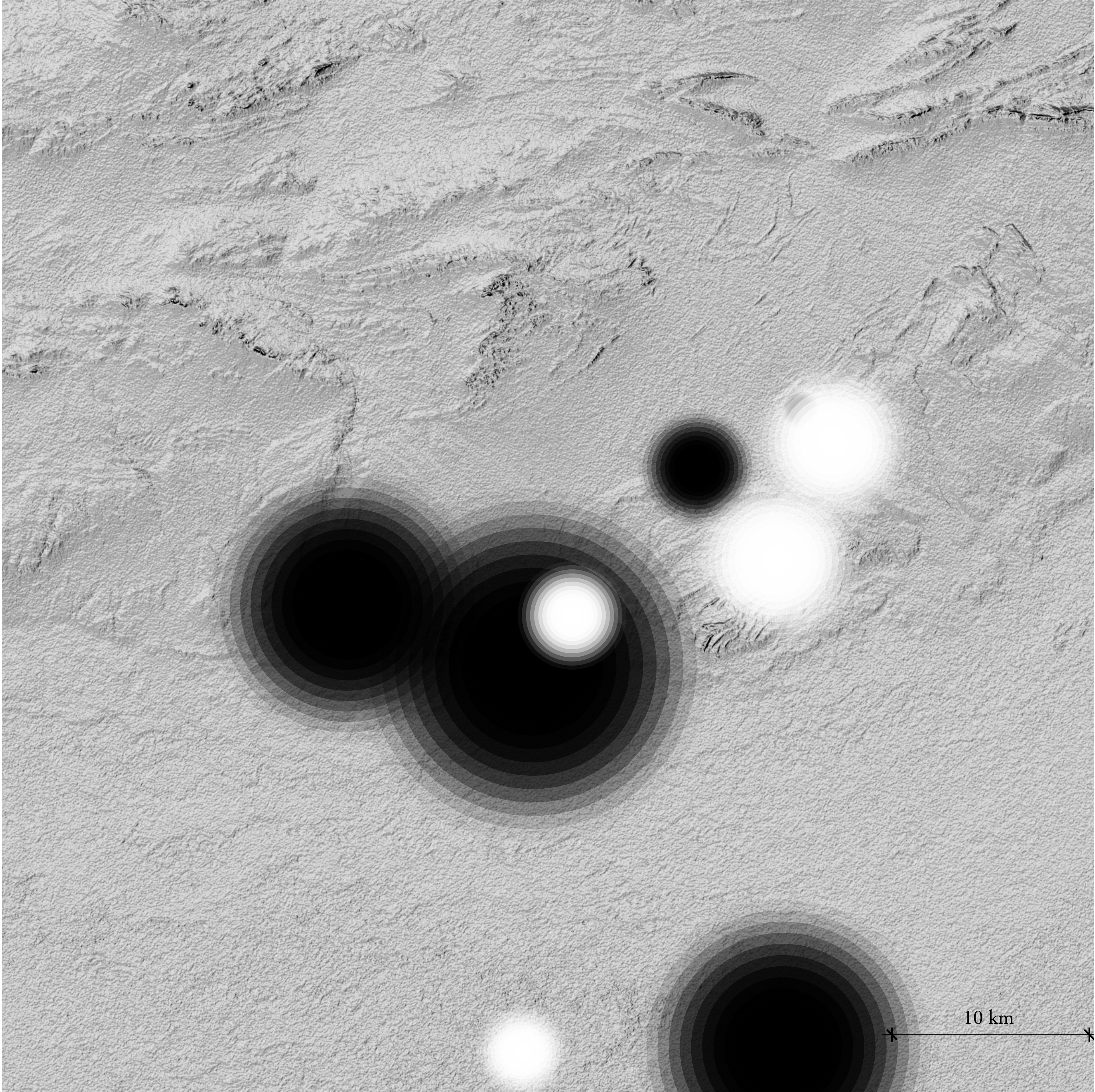
Nuclear Imperialism-Necropolitics Nexus
Alexis-Martin 2019



Lop Nor base

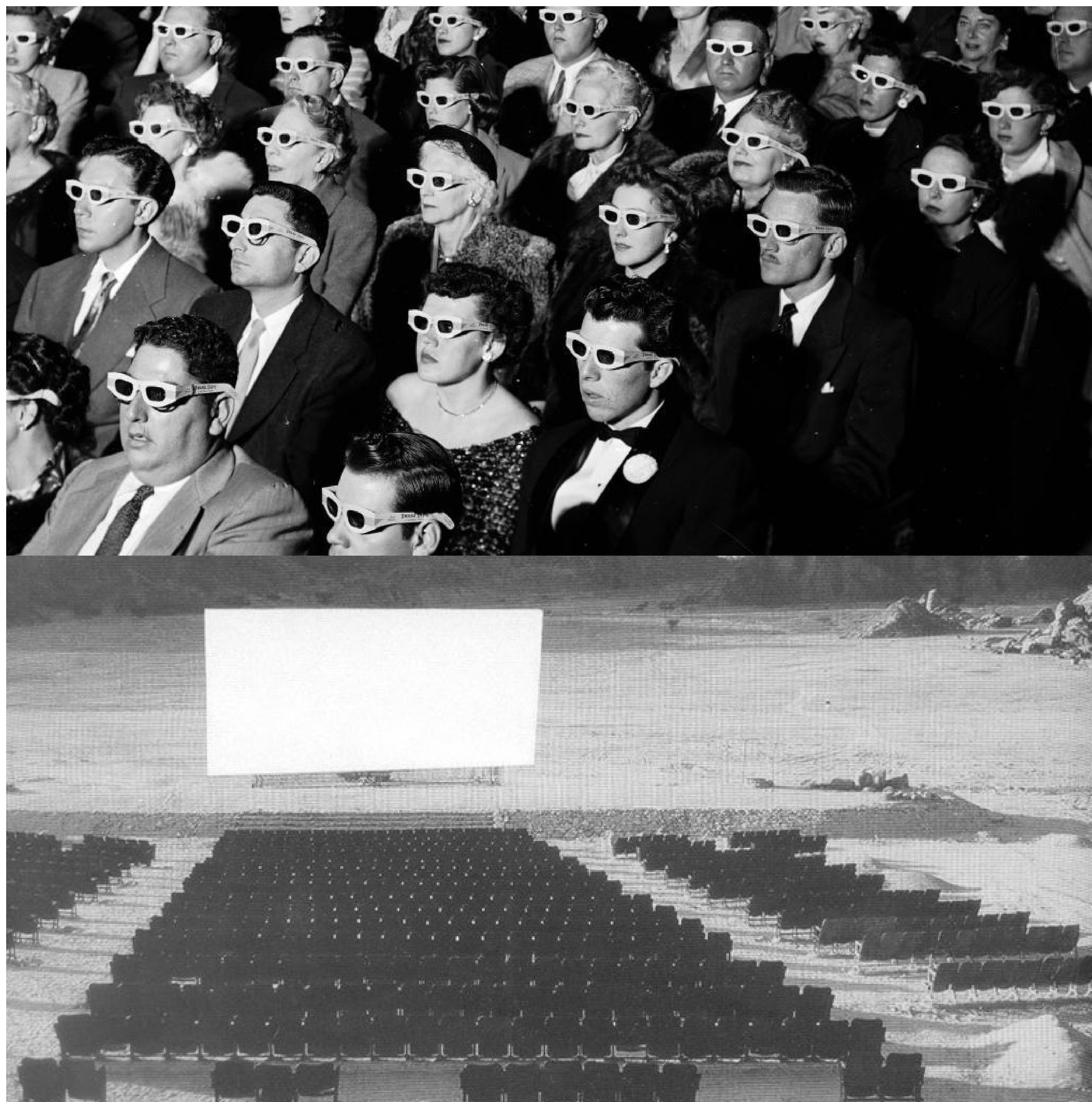
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—

Project 596	16/10/64	D	Tower	22
CHIC-2	14/05/65	D	Air drop	35
CHIC-3	09/05/66	D	Air drop	250
CHIC-4	27/10/66	D	High alt rocket	12
CHIC-5	28/12/66	D	Tower	300
CHIC-6	17/06/67	D	Parachuted	3300
CHIC-7	24/12/67	D	Air drop	20
CHIC-8	27/12/68	D	Air drop	3000
CHIC-9	22/09/69	B	Tunnel	19
CHIC-10	29/09/69	D	Air drop	3000
CHIC-11	14/10/70	D	Air drop	3400
CHIC-12	18/11/71	D	Cratering	20
CHIC-13	07/01/72	D	Air drop	8
CHIC-14	18/03/72	D	Air drop	170
(15)	27/06/73	D	Air drop	3000
(16)	17/06/74	D	Atmospheric	1000
(17)	27/10/75	B	Tunnel	3
(18)	23/01/76	D	Atmospheric	N/A
(19)	26/09/76	D	Atmospheric	200
(20)	17/10/76	A	Tunnel	3
(21)	17/11/76	D	Air drop	4000
(22)	17/09/77	D	Atmospheric	N/A
(23)	15/03/78	D	Atmospheric	11
(24)	14/10/78	C	Underground	3
(25)	14/12/78	D	Atmospheric	N/A
Failed	02/02/79	D	Underground	1
(26) aborted	13/09/79	D	Parachuted	N/A
(27)	16/10/80	D	Atmospheric	1000
(28)	05/10/82	D	Underground	7
(29)	04/05/83	A	Tunnel	1
(30)	06/10/83	C	Underground	N/A
(31)	03/10/84	C	Underground	N/A
(32)	19/12/84	A	Tunnel	15
(33)	05/06/87	C	Underground	250
(34)	29/09/88	A	Tunnel	3
(35)	26/05/90	C	Underground	N/A
(36)	16/08/90	C	Underground	189
(37)	21/05/92	C	Underground	660
(38)	25/09/92	A	Tunnel	8
Failed	02/11/92	D	Underground	1
(39)	05/10/93	C	Underground	80
(40)	10/06/94	C	Underground	90
(41)	07/10/94	C	Underground	90
(42)	15/05/95	C	Underground	95
(43)	17/08/95	C	Underground	90
(44) - 1	08/06/96	C	Underground	50
(44) - 2	08/06/96	C	Underground	N/A
(45)	29/07/96	A	Tunnel	3



Weapon Tests

-
-



“All that once was directly lived has become mere representation.”

“the decline of being into having, and having into merely appearing.”

“historical moment at which the commodity completes its colonization of social life.”

Guy Debord - Society of the Spectacle

Spectating the destruction

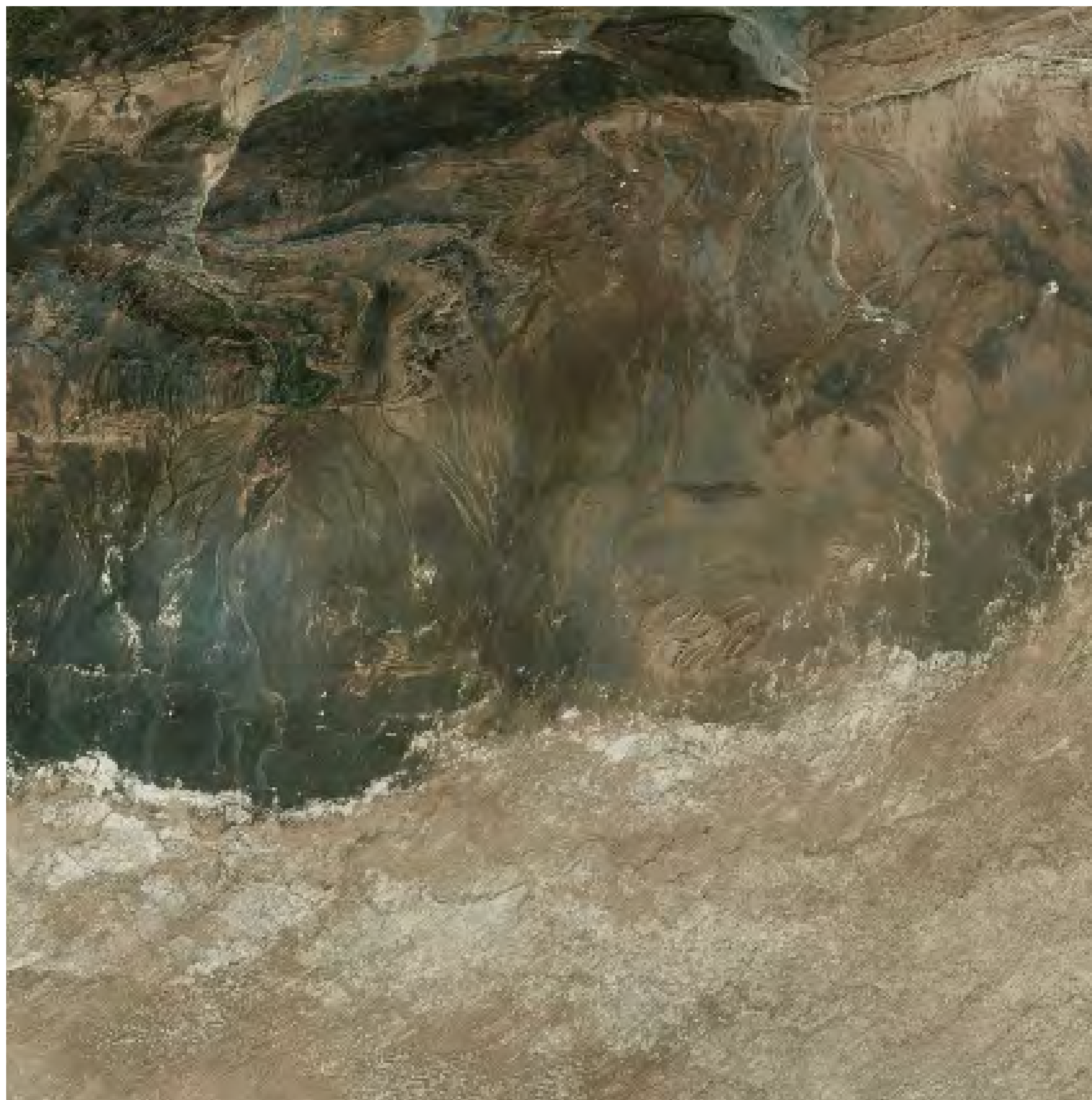
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—



Apex of territorial destruction

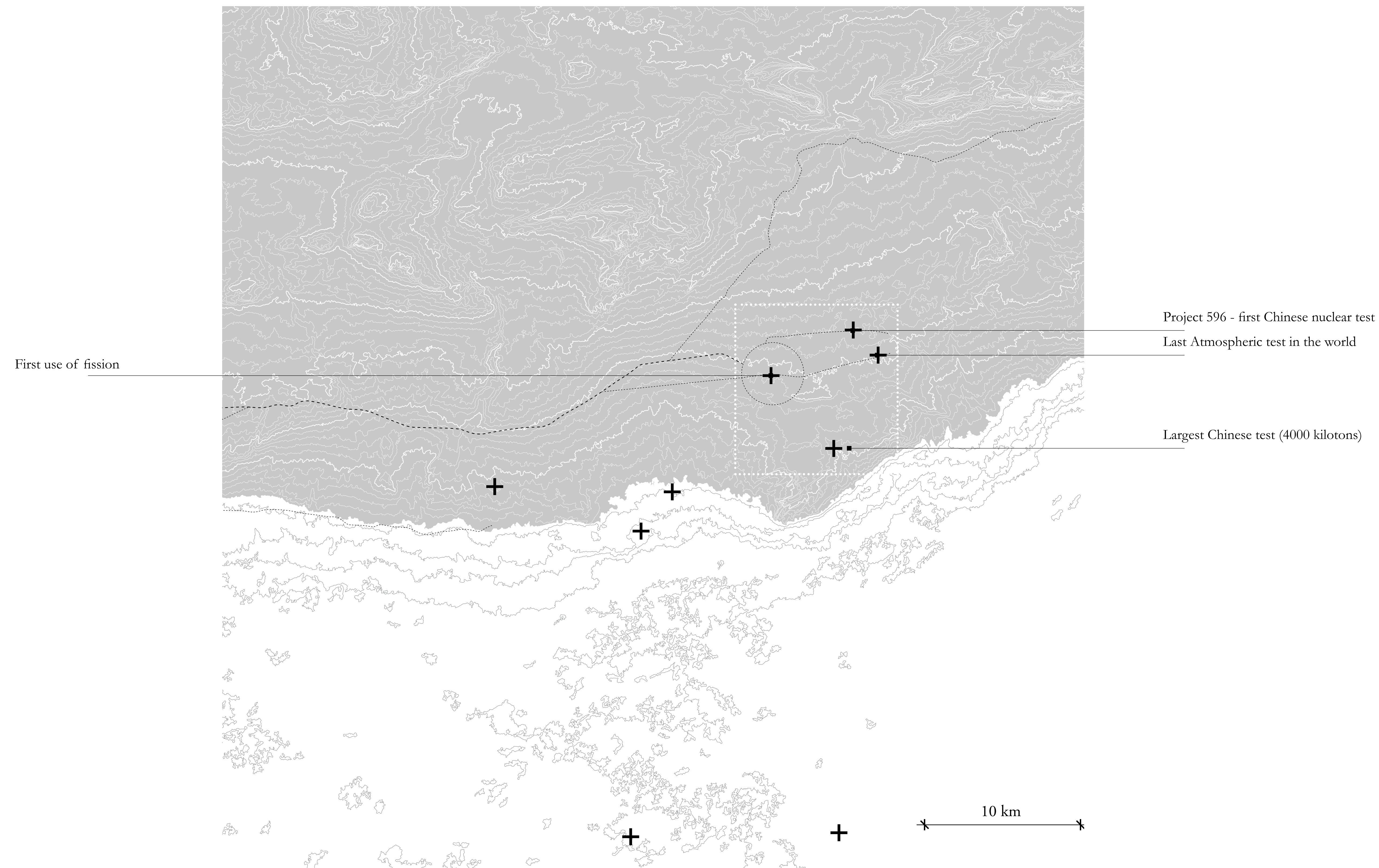
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Atmospheric and Surface Testing Area

Satellite Image

—



Atmospheric and Surface Testing Area

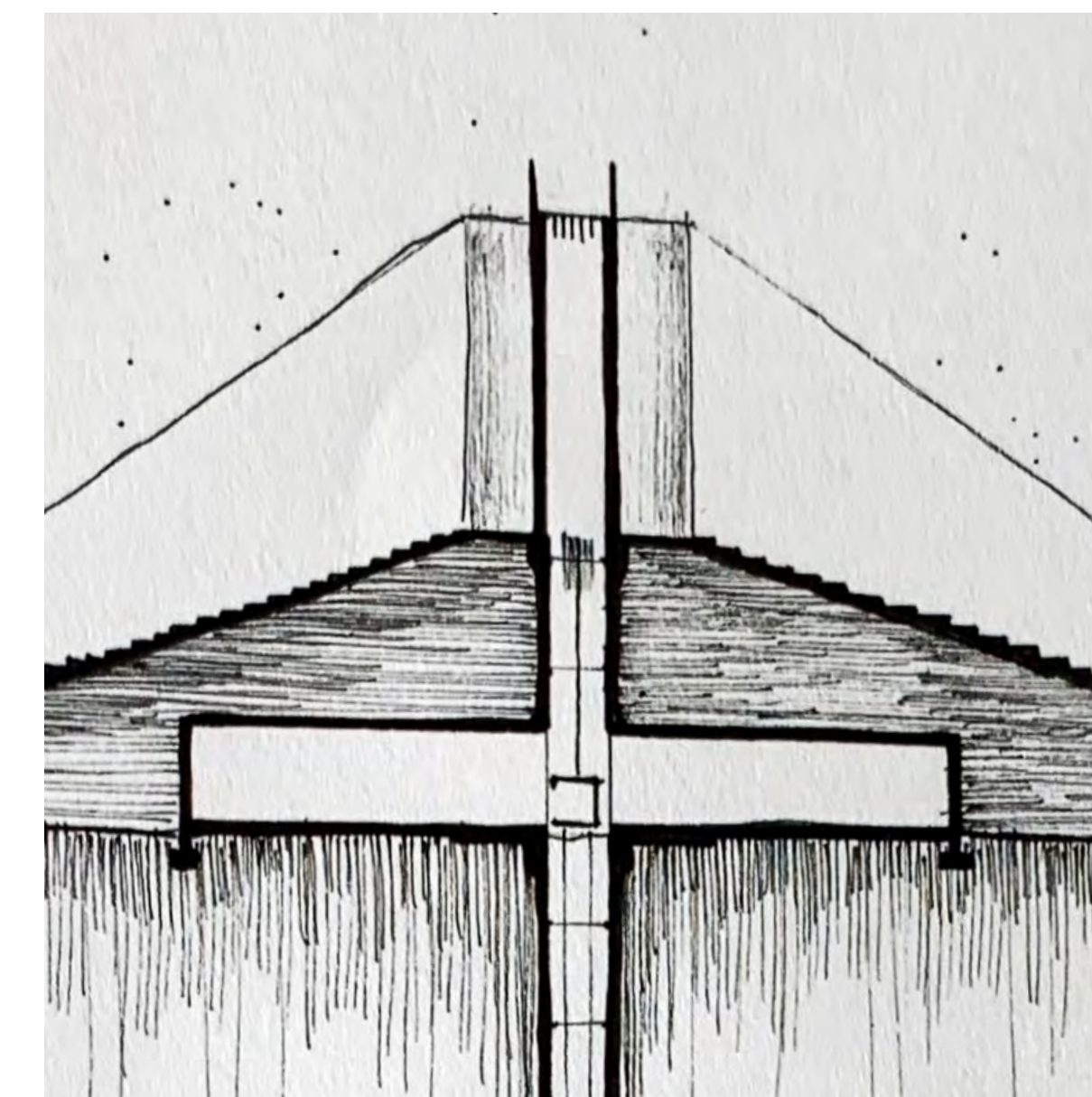
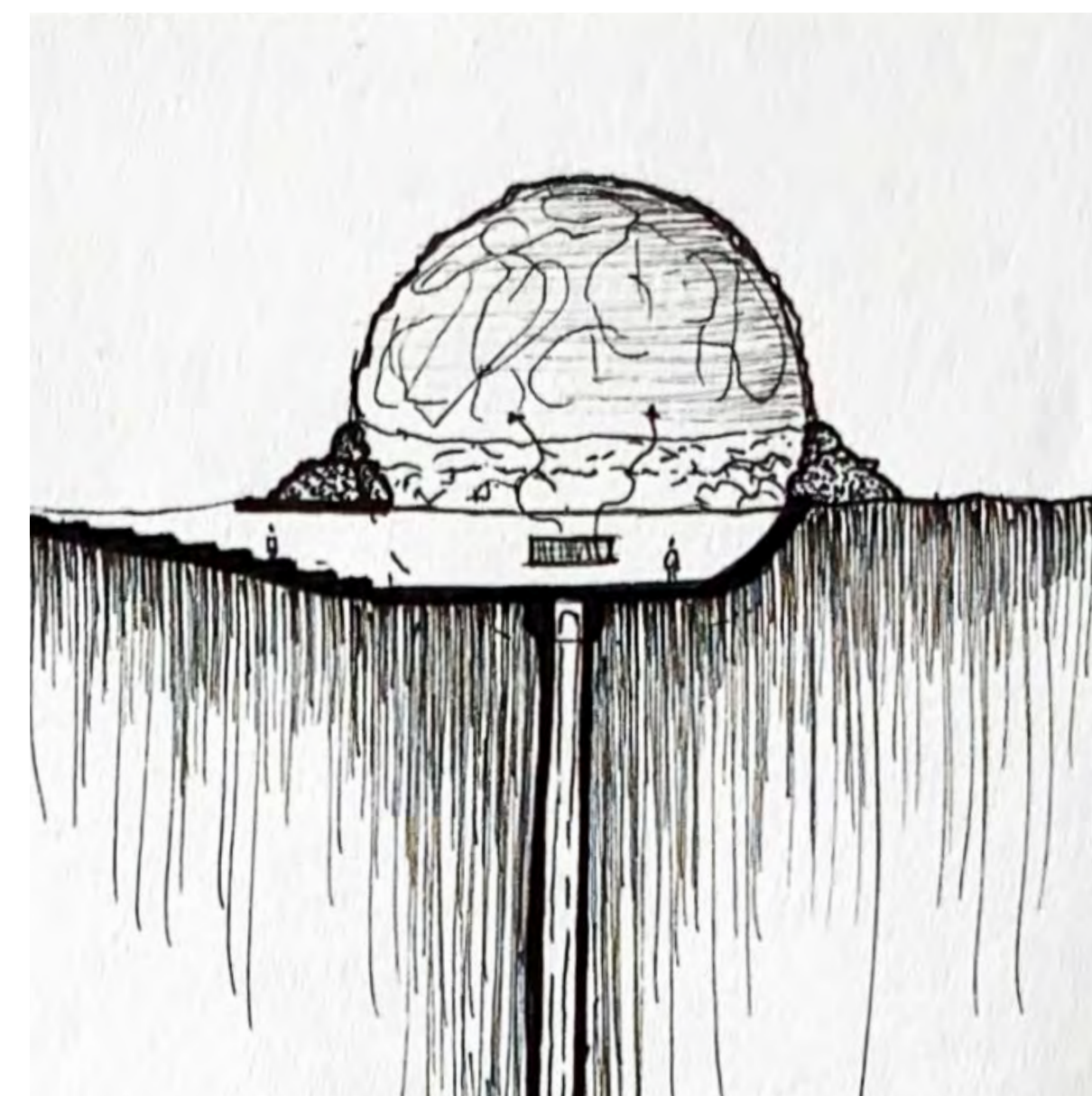
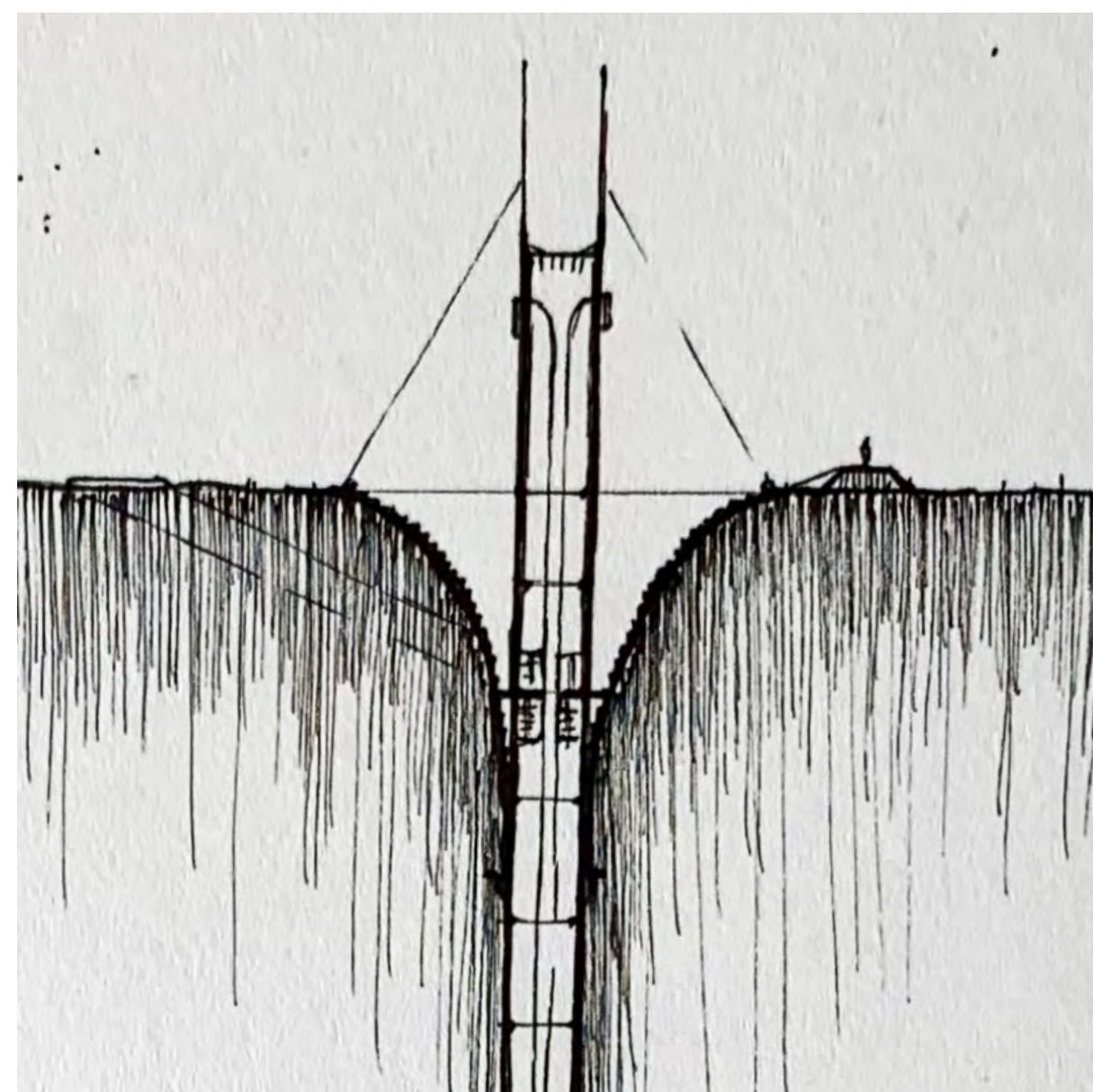
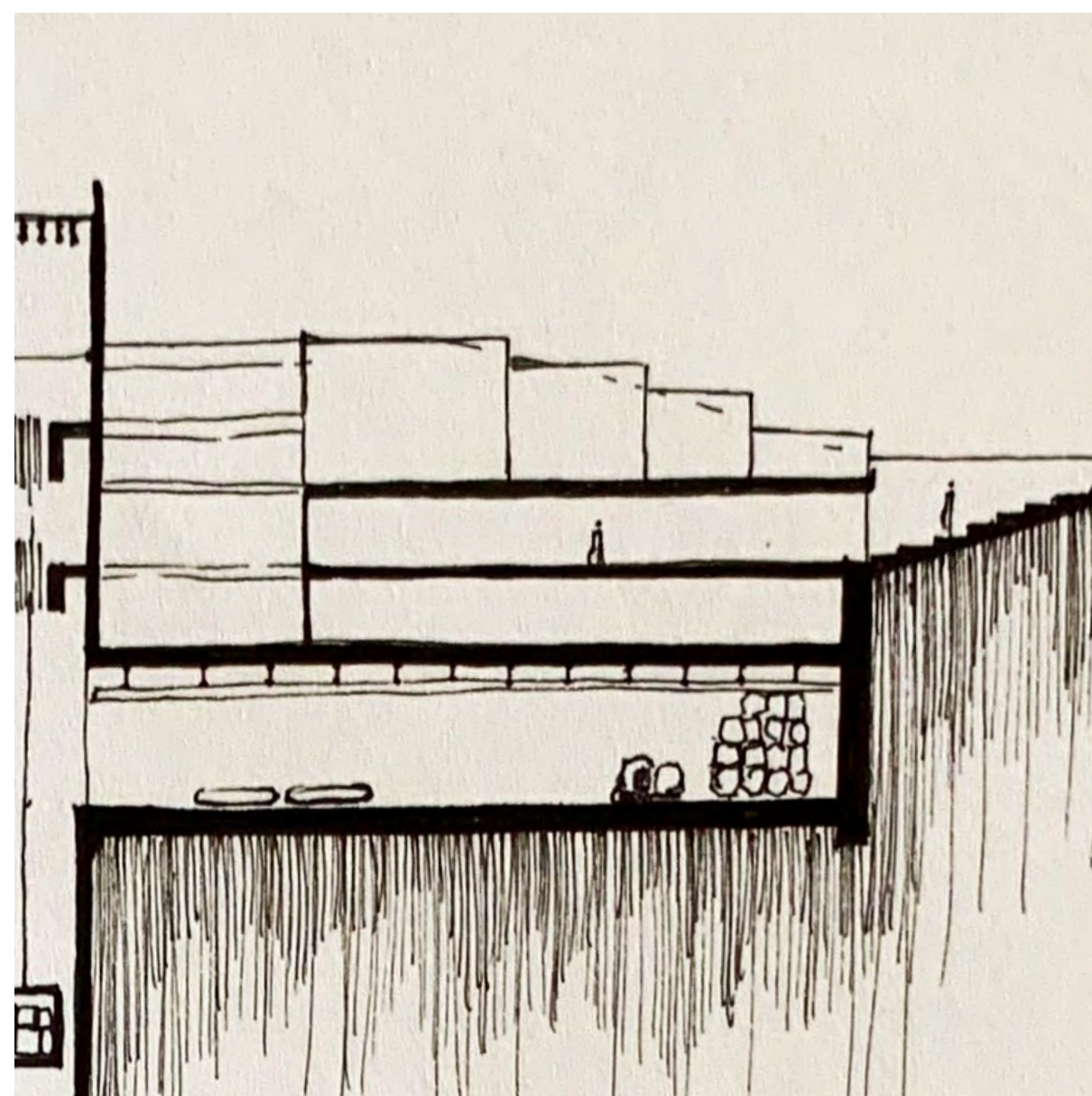
Map

—



Monuments

—
—



Hidden Infrastructure

—
—

China / People & Culture

China earmarks site to store nuclear waste deep underground

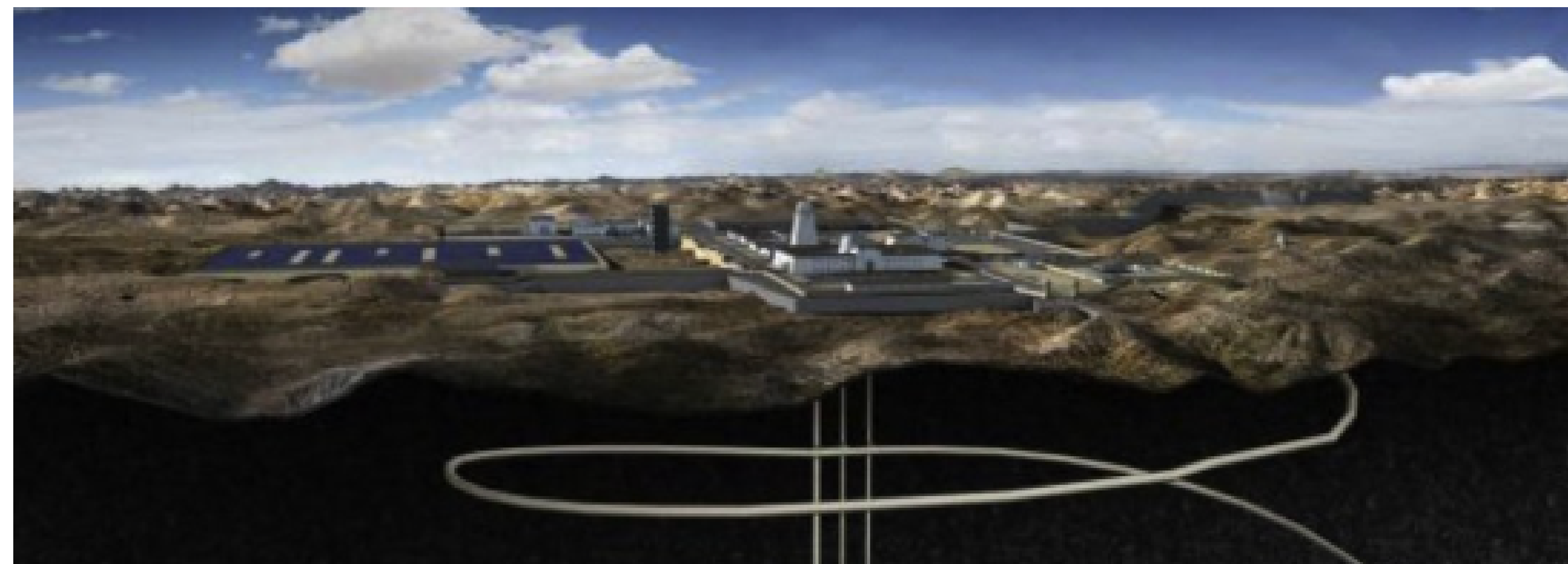
- Researchers will conduct tests at the location in Gansu to see whether it will make a viable facility to store highly radioactive waste safely
- Scientists say China has the chance to become a world leader in this field but has to find a way to ensure it does not leak



Echo Xie

Published: 7:33am, 5 Sep 2019

[Why you can trust SCMP](#)



Global Nuclear Agenda

—
—

China / Science

China builds bunker to test whether nuclear waste can be dumped underground

- Lab more than 500 metres underground in the Gobi Desert will be the world's largest of its kind
- If research there is successful, a long-term underground dump for high-level radioactive waste could be built, helping to address a global problem

Echo Xie

+ FOLLOW

Published: 8:28pm, 23 Jun, 2021

Why you can trust SCMP

KNOWLEDGE

China's tech billionaires
→

► Q: Before founding Tencent in 1993, what did Pony Ma do for a living?



► Alibaba posts fourth-quarter loss after paying record antitrust fine



► China's record fine sets Alibaba as an example for tech giants



► 13 things you may not know about China's tech billionaires



► Baidu flops in Hong Kong stock debut as market risks temper IPO craze

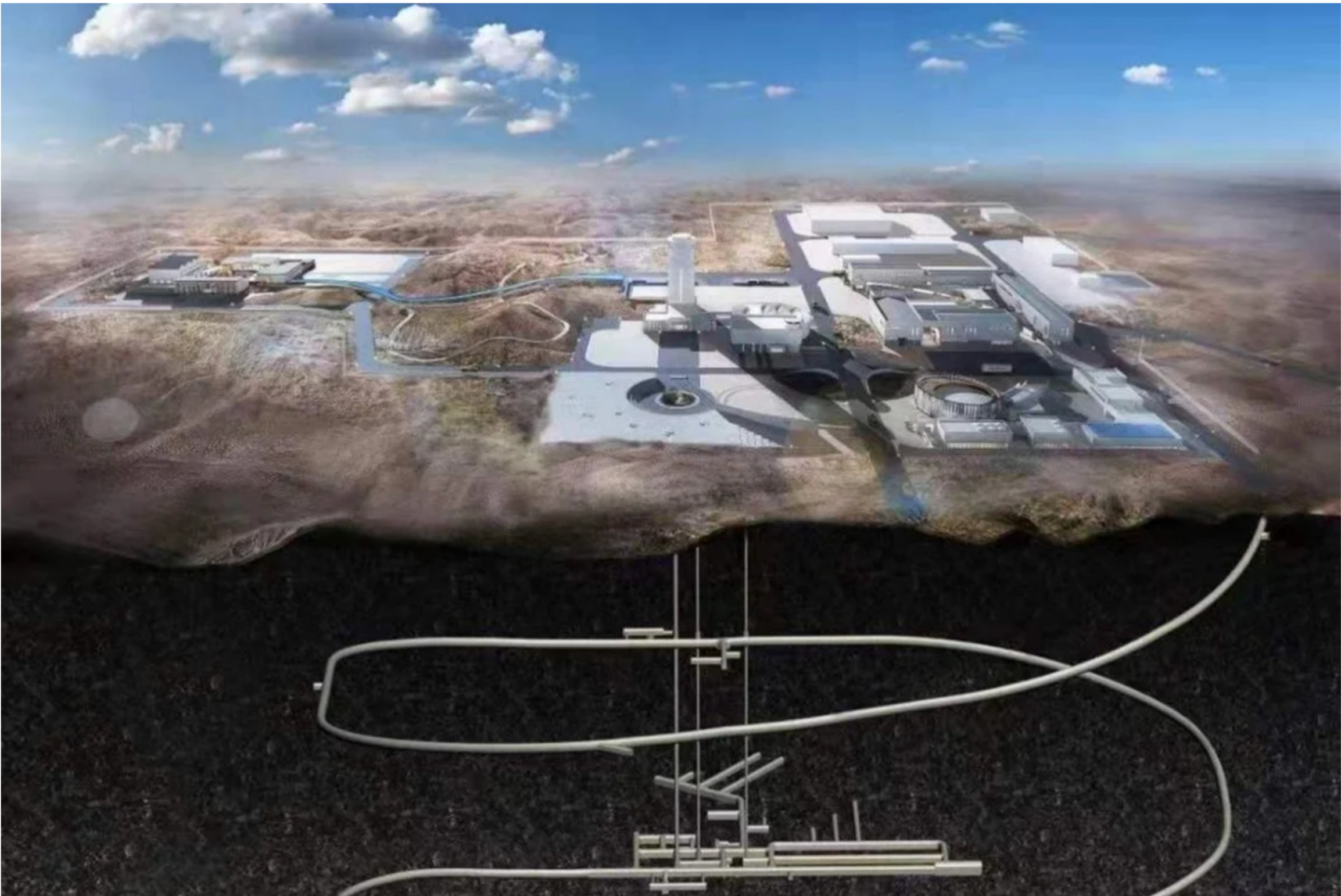


► Q: What does Xiaomi

1.4k



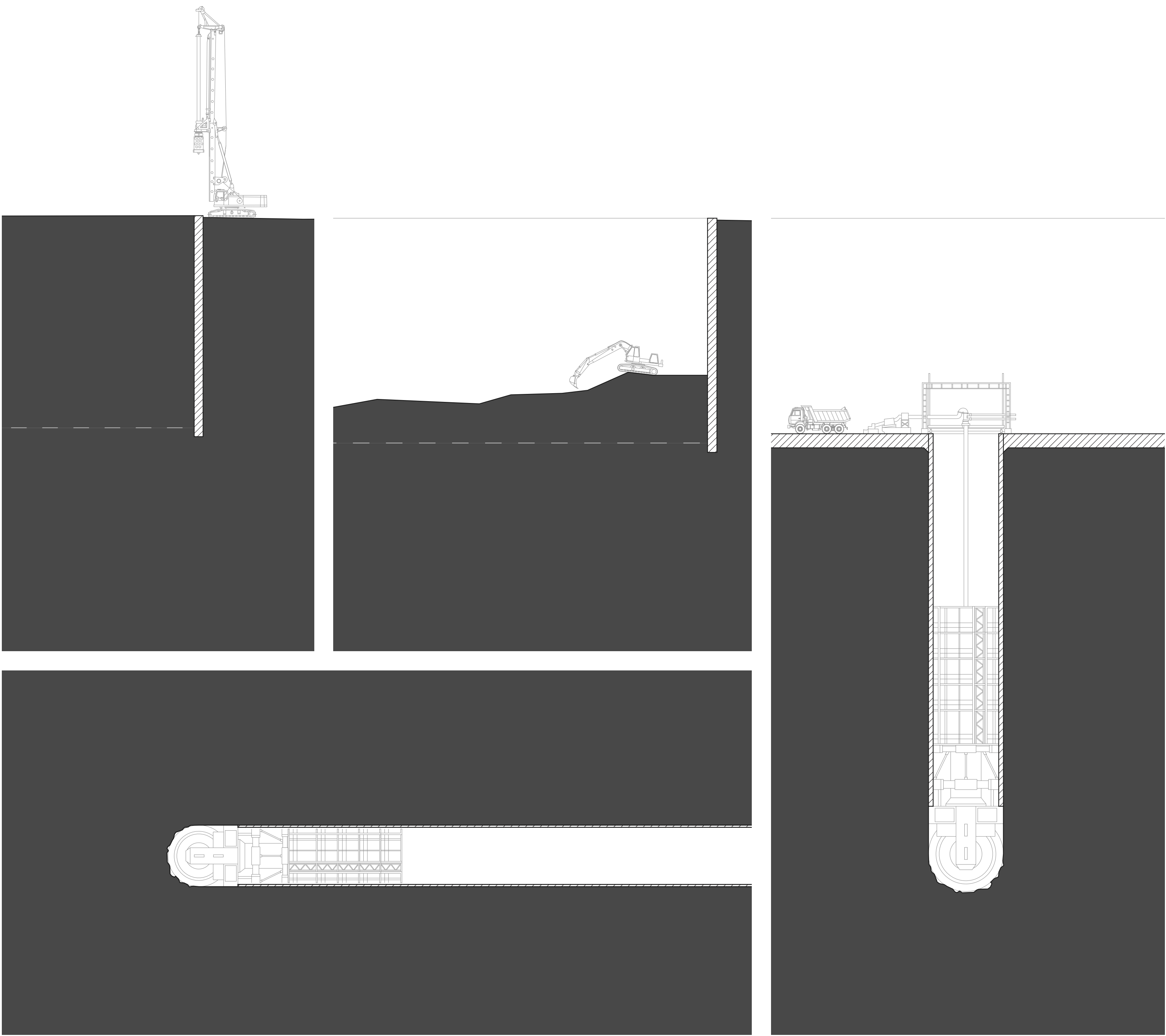
Post



The new Chinese lab, to be built underground in Gansu, will be used to research storage of high-level radioactive waste. Photo: Handout

Global Nuclear Agenda

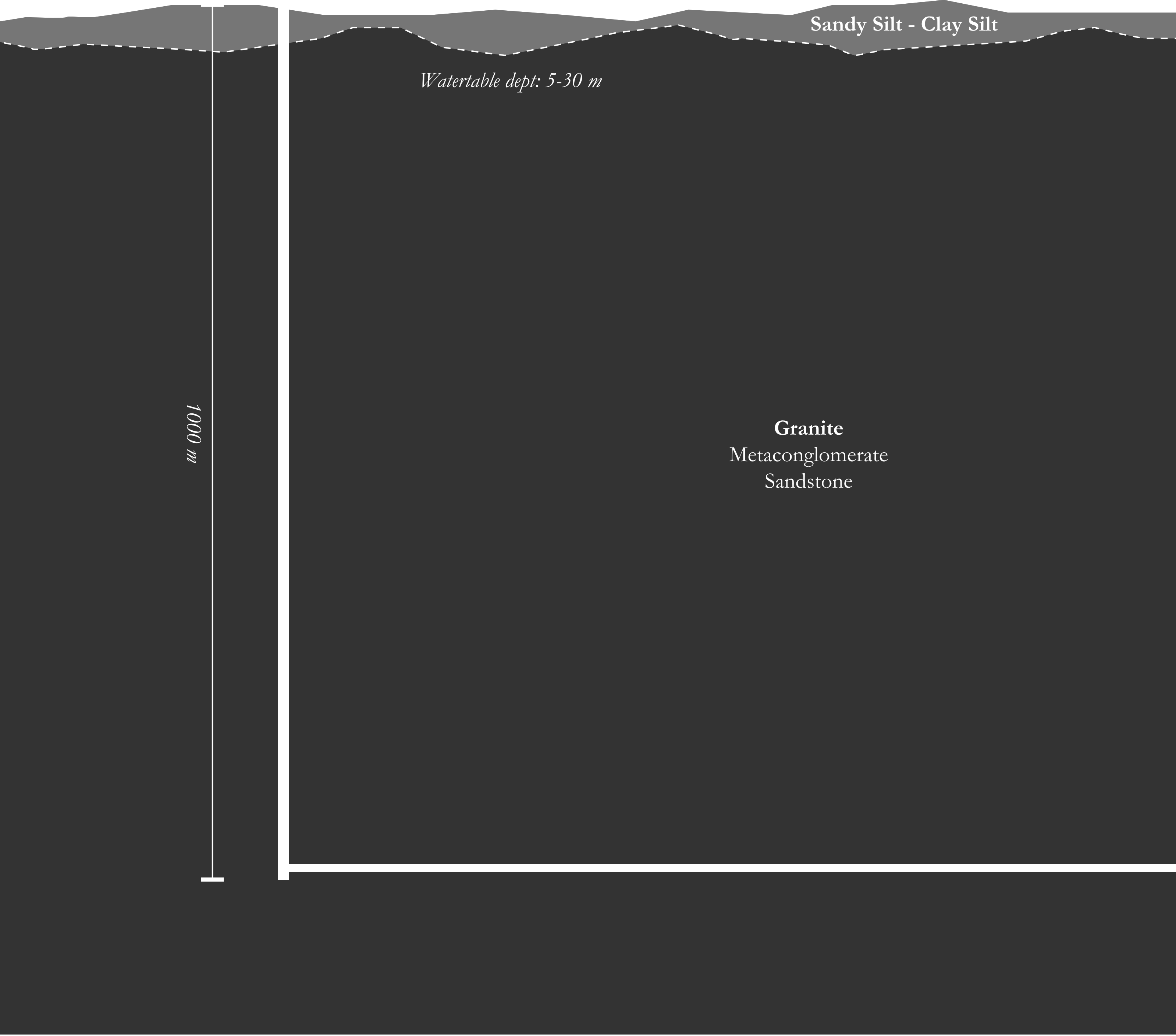
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-



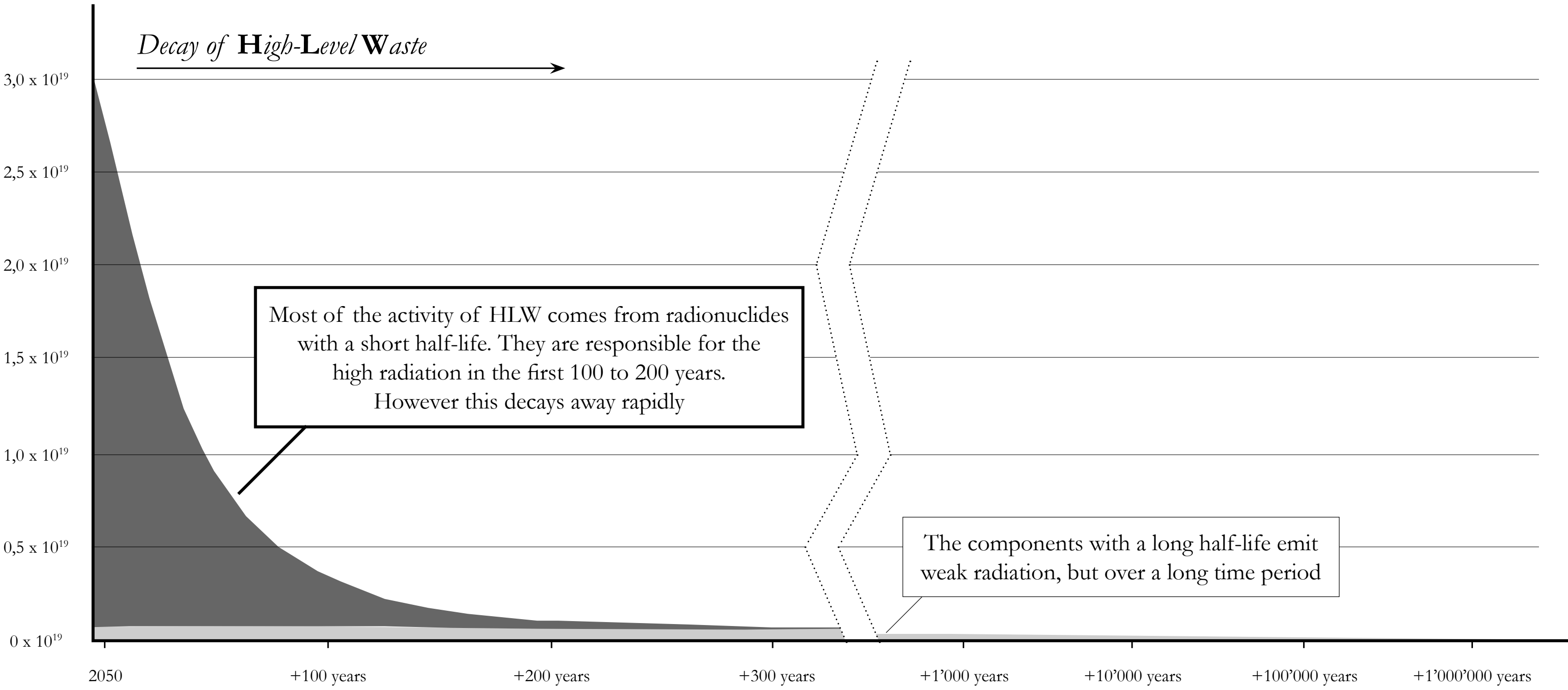
Construction Technicalities

Section

—

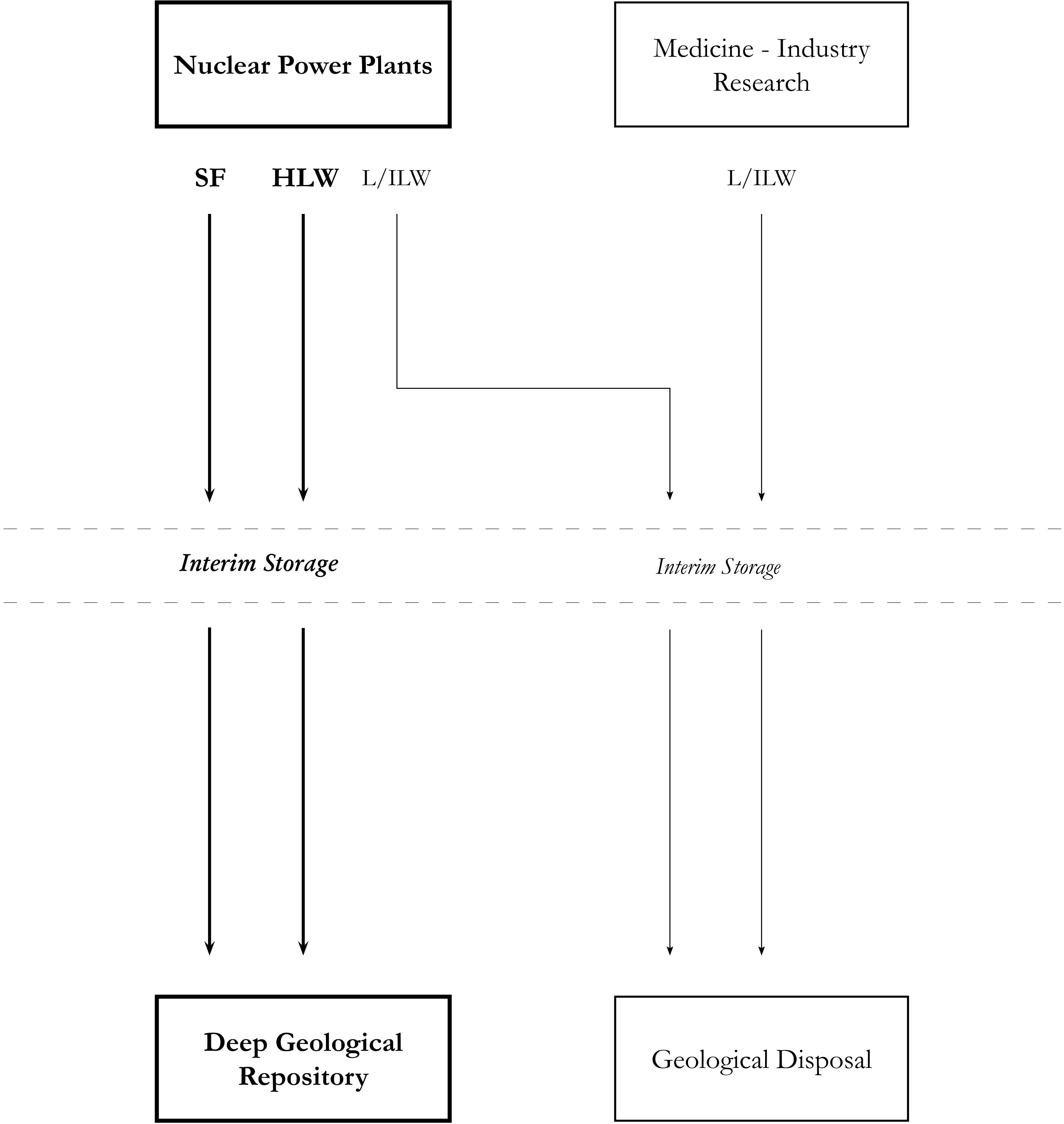


Repository Dept and Geoloical Formation
Section



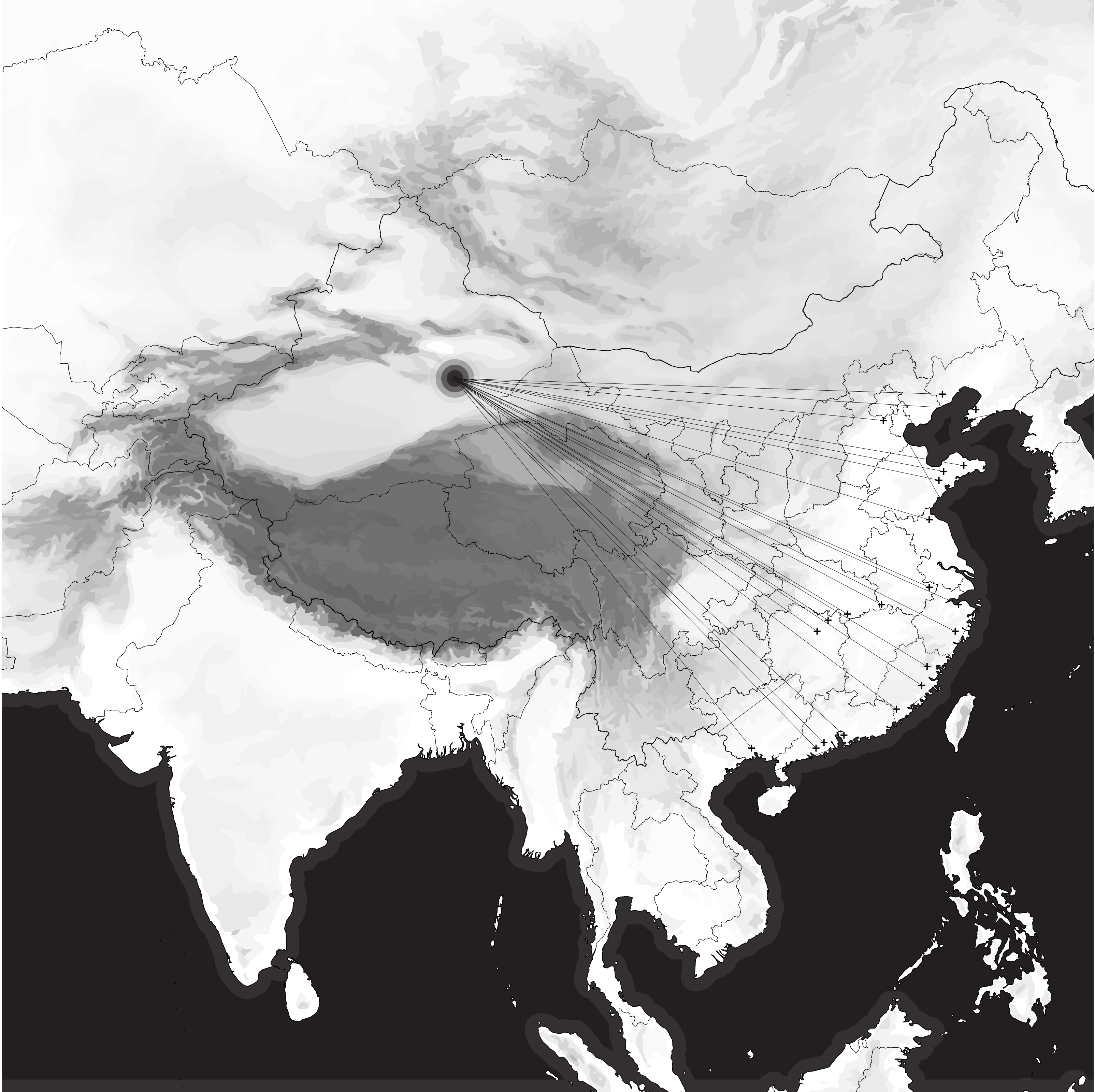
Nuclear Waste Cycle

—
—

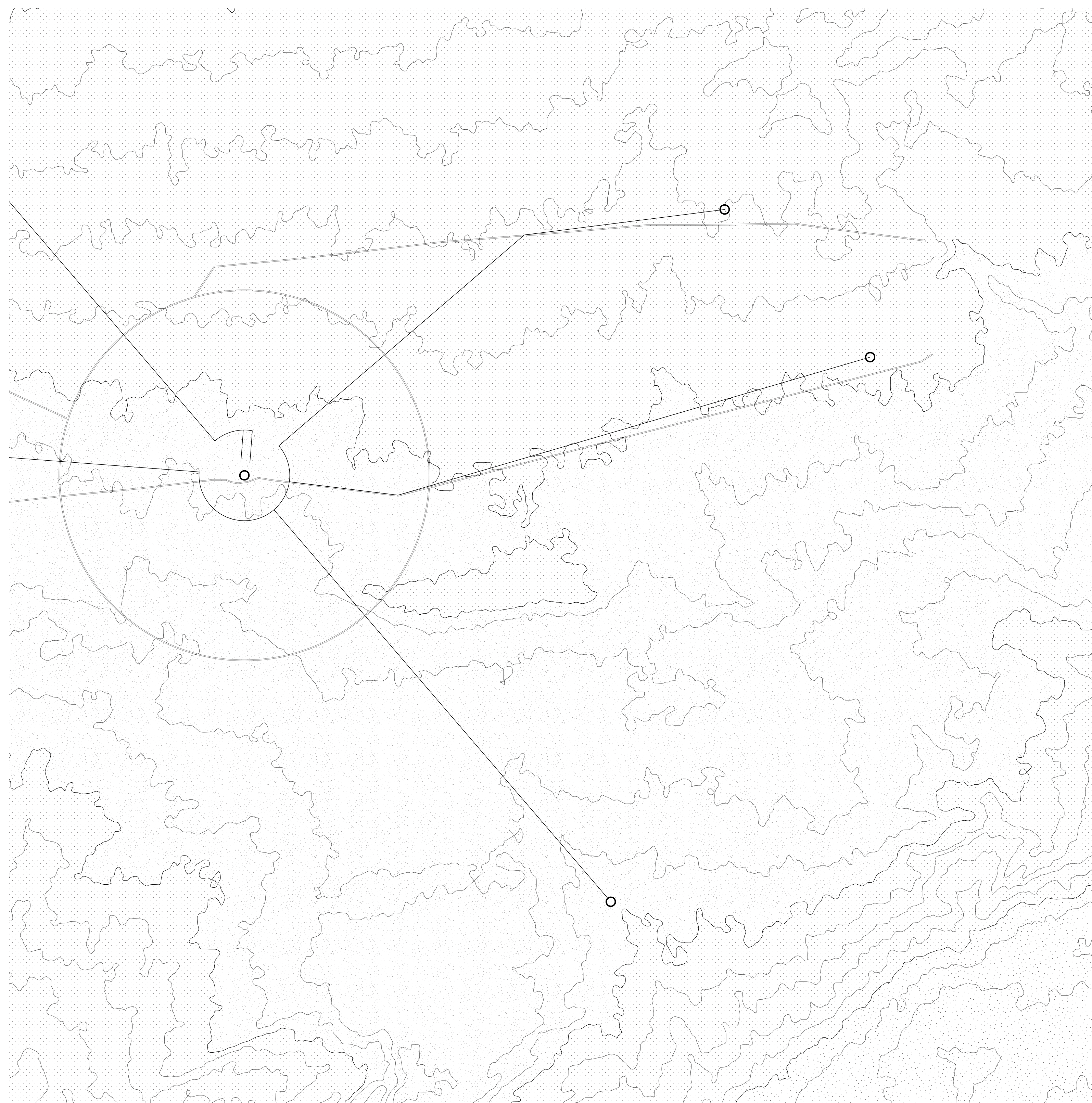


Nuclear Waste Sources

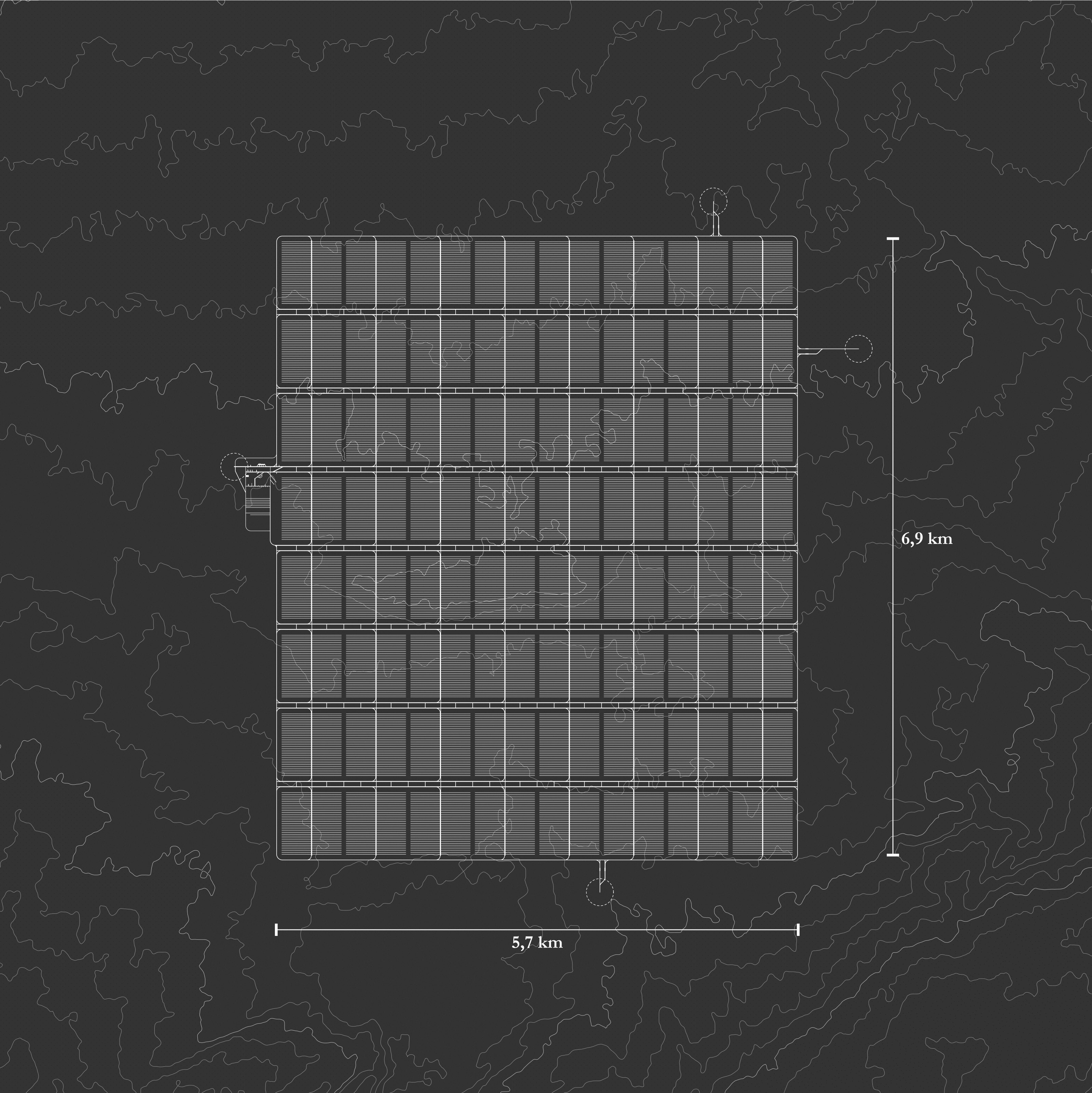
-
-



National Infrastructure
Map
—



Nuclear Park
Masterplan
1:10000



Deep Geological Repository

Masterplan
1:10000



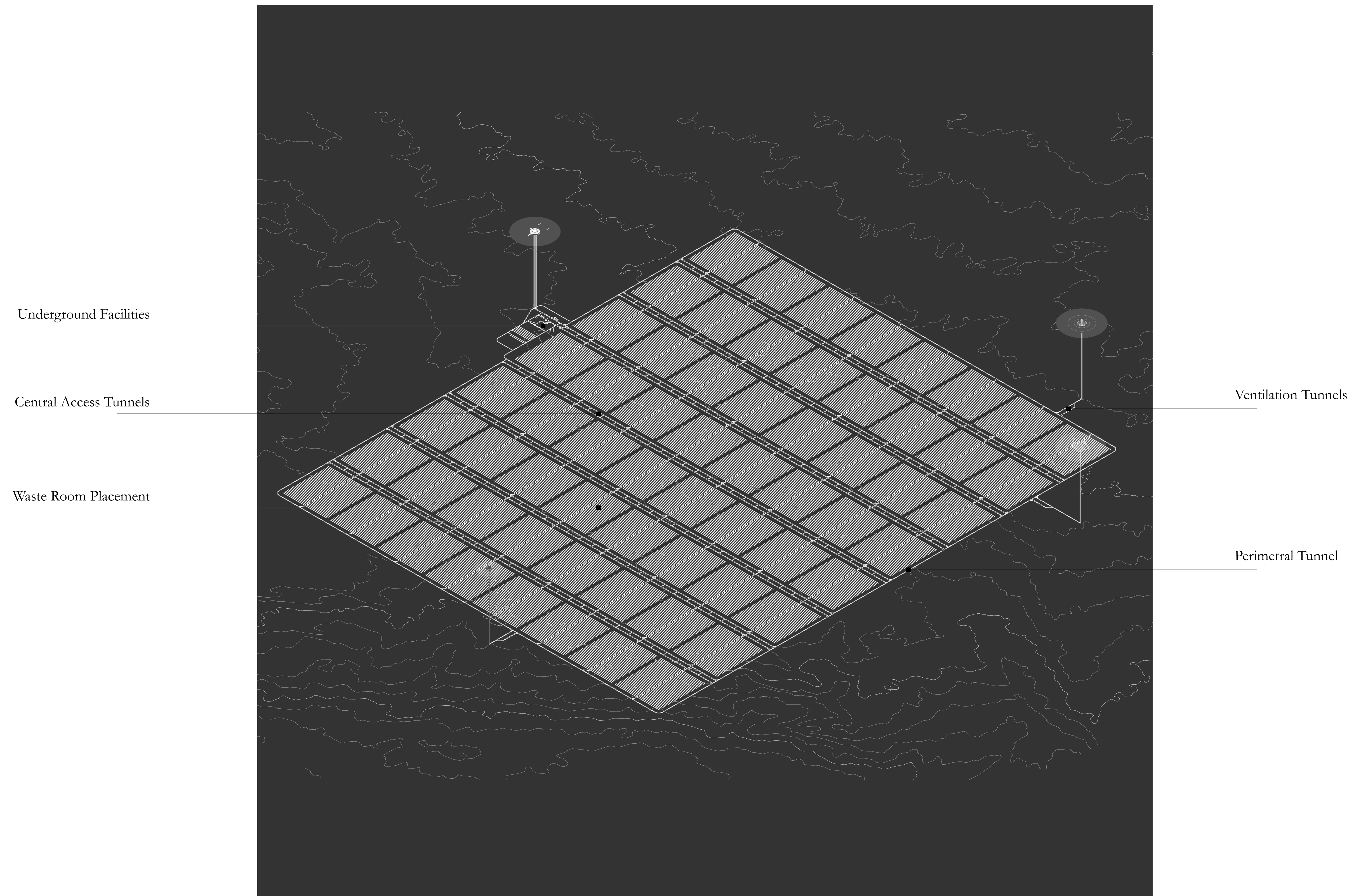
Memorials
Axonometric

—

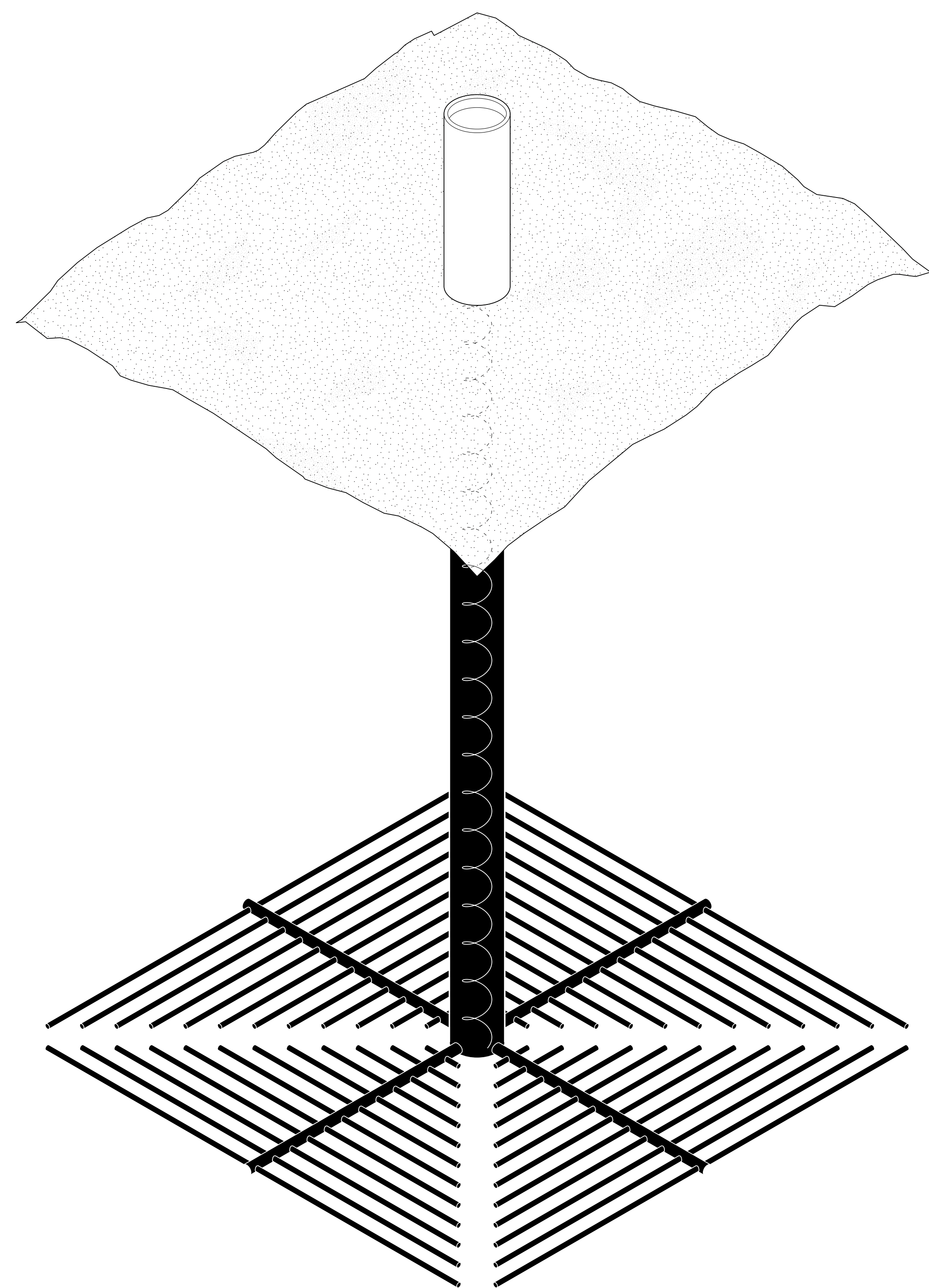


Shafts / Entrenches
Axonometric

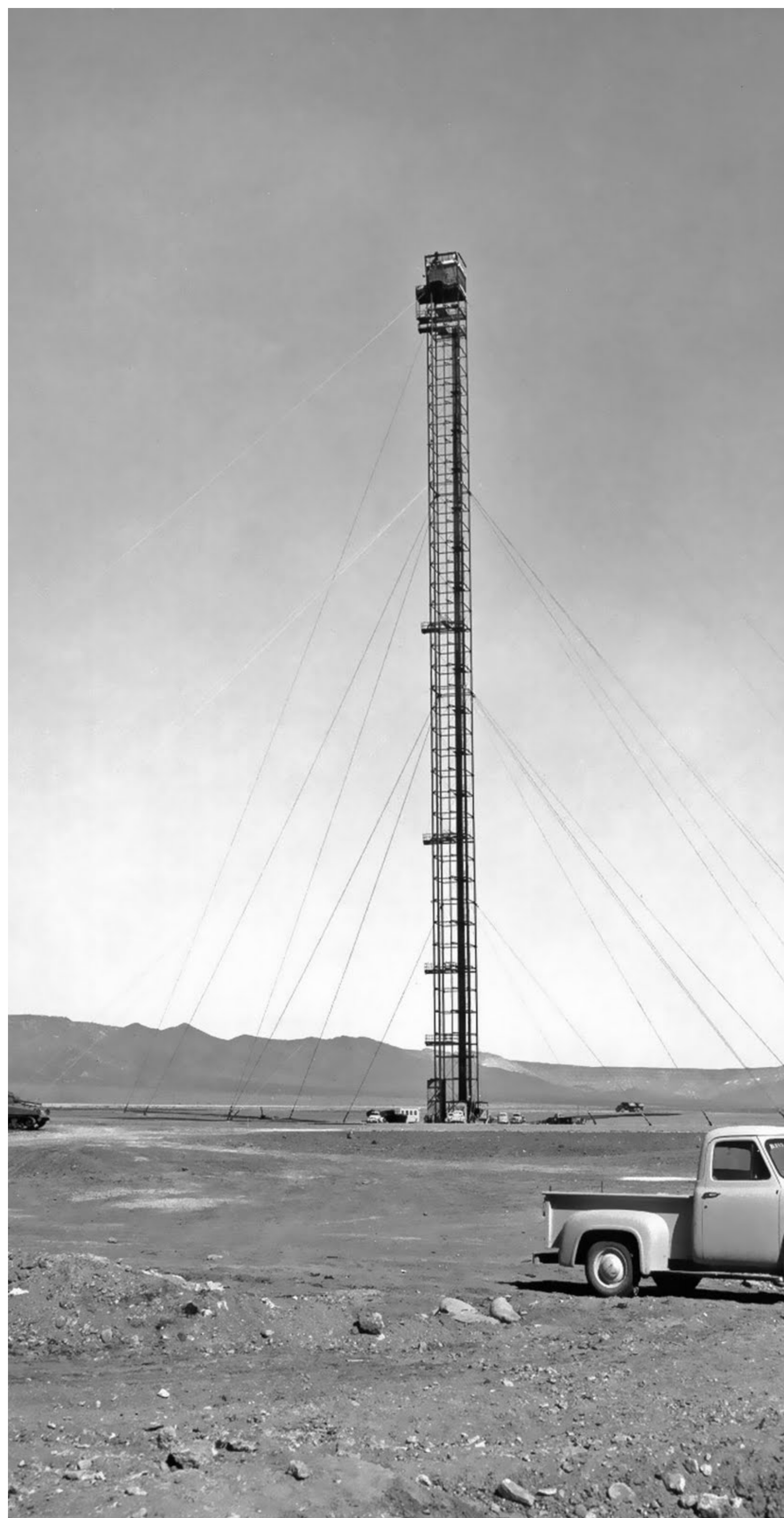
—



Deep Geological Repository
Axonometric



Hidden Exploitation
Axonometric



Monument #2 - Testing Tower

—
—



Approach | Night
Visual

—



Approach | Day
Visual

—



Walkway
Visual

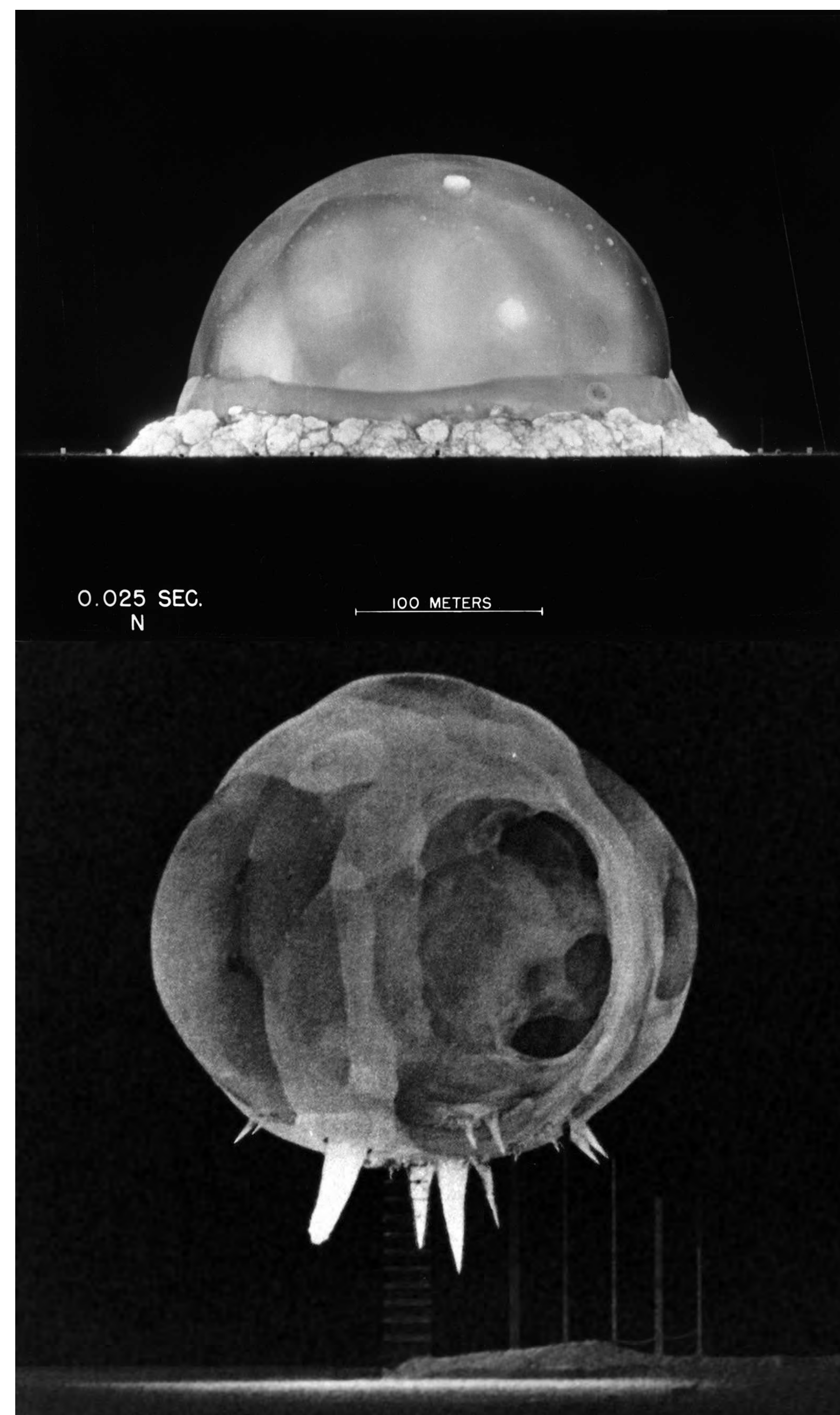
—



Top of the Tower

Visual

—



Monument #2 - Fireball Explosion

—
—



Approach | Night
Visual

—



Approach | Day
Visual

—



Threshold

Visual

—



Spectating at the Explosion

Visual

—



Monument #3 - Ore Hill

—
—



Approach | Night

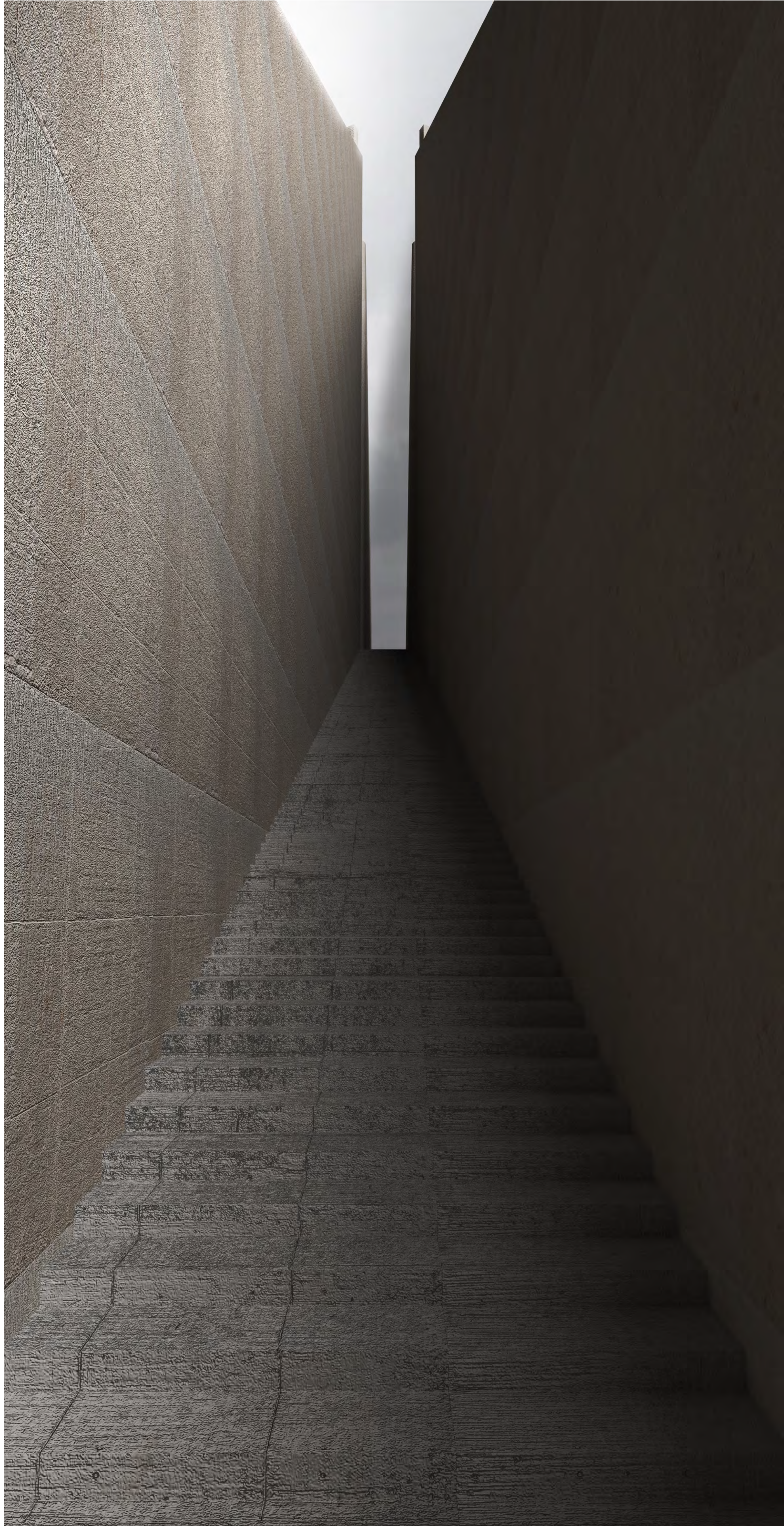
Visual

—



Approach | Day
Visual

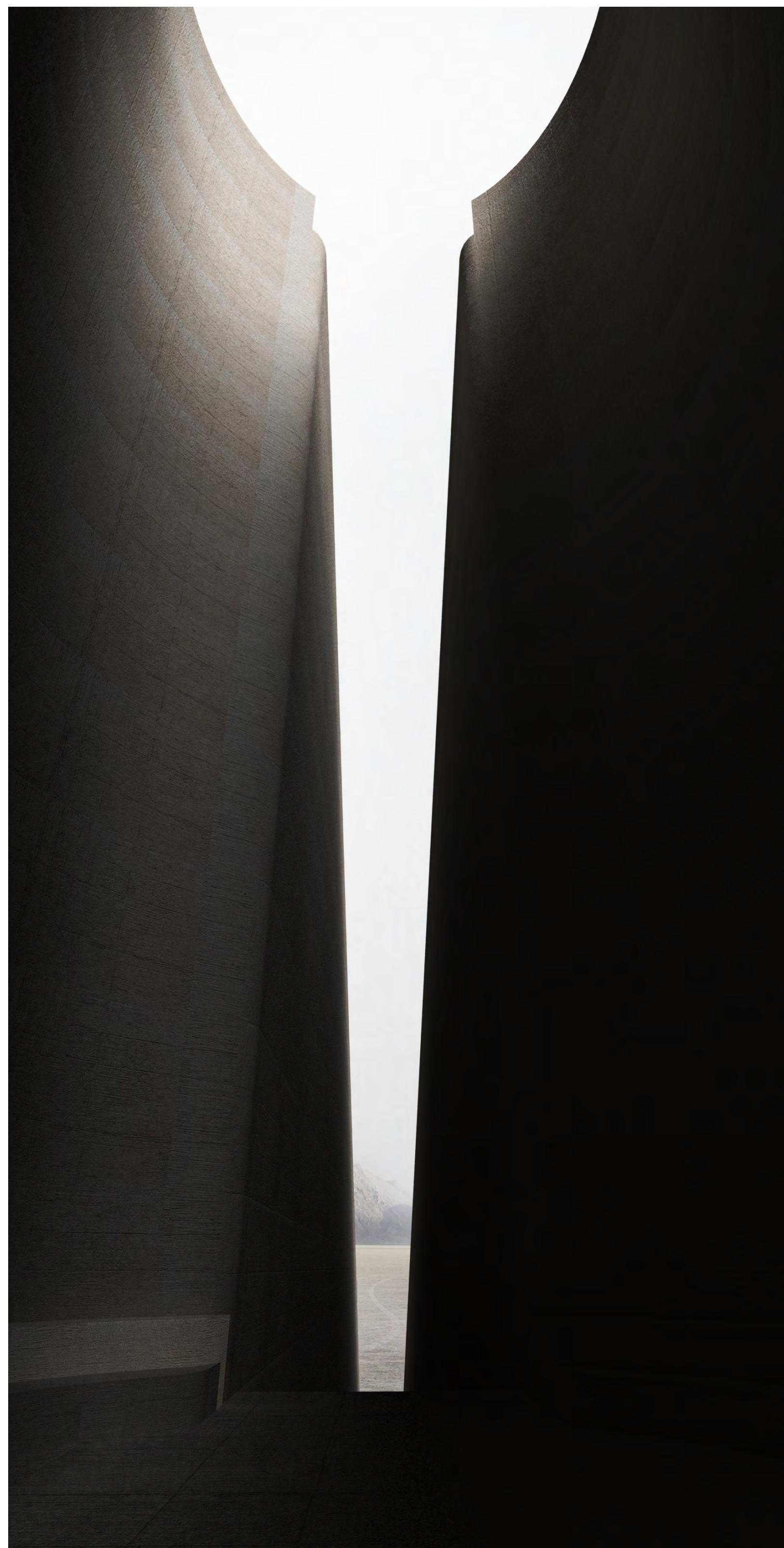
—



Staircase

Visual

—



Centre
Visual

—



Monument #4 - Shelter | Bunker

—
—



Approach | Day
Visual

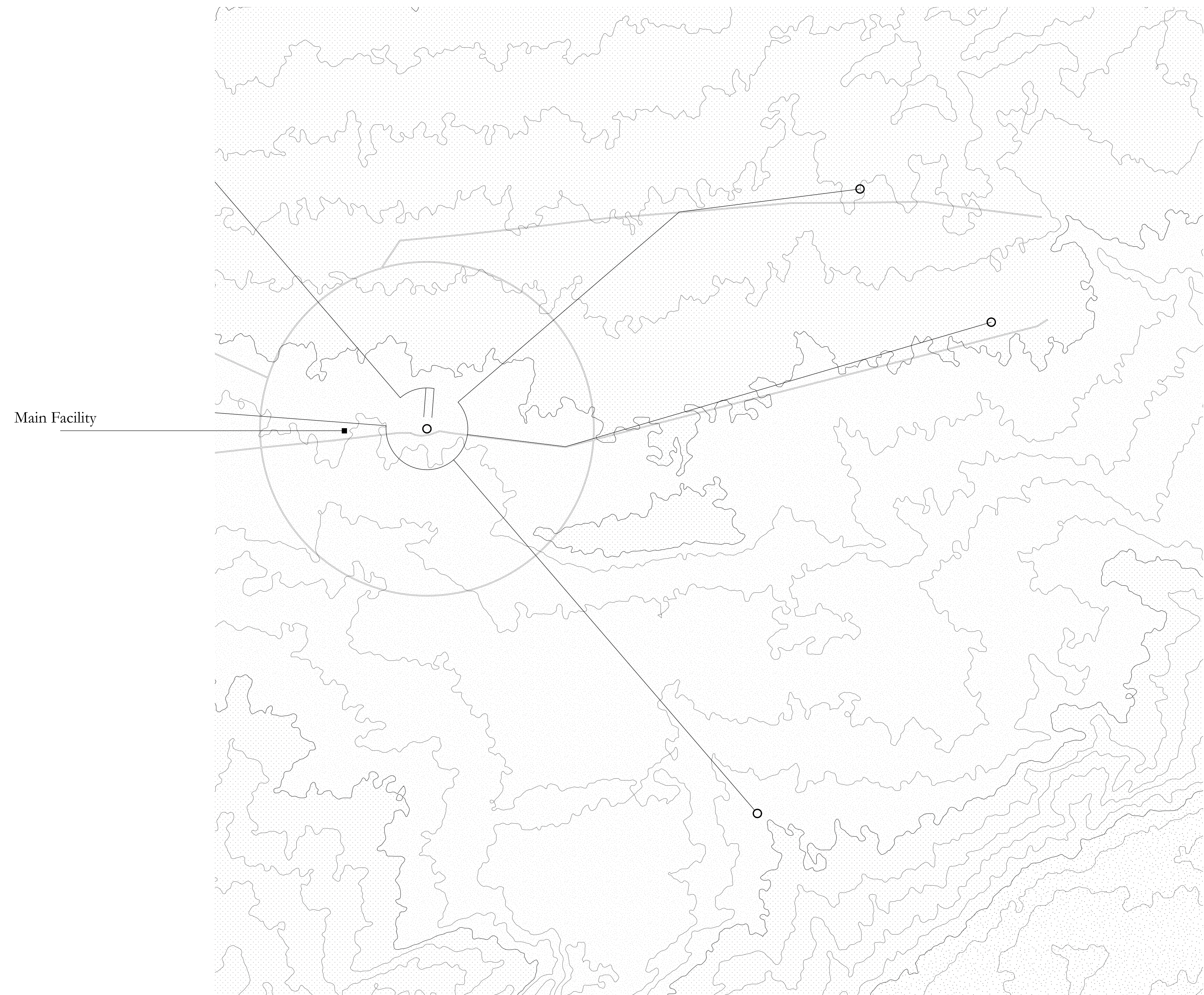
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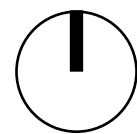
Approach | Night

Visual

—

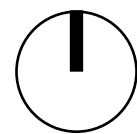


Nuclear Park
Masterplan
1:10000

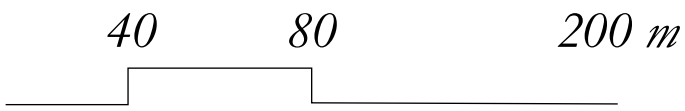


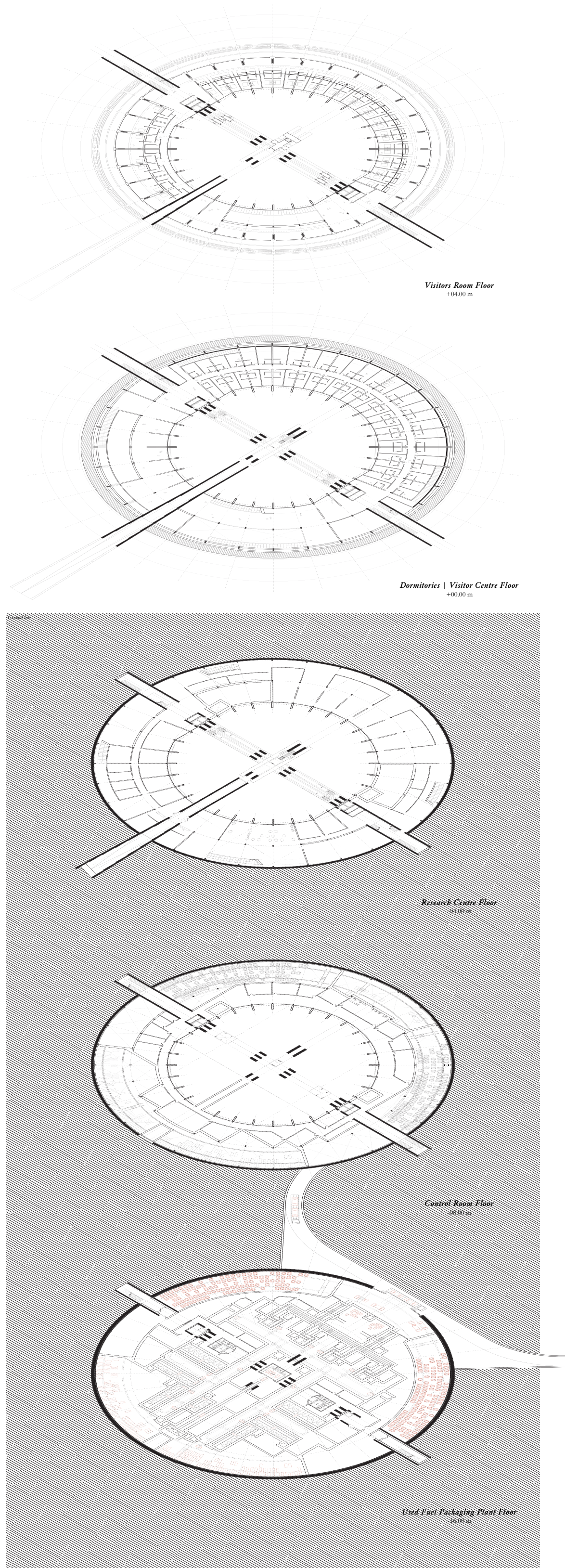
Site
Satellite Image
—

40 80 200 *m*



Central Facility
Masterplan
1:1000

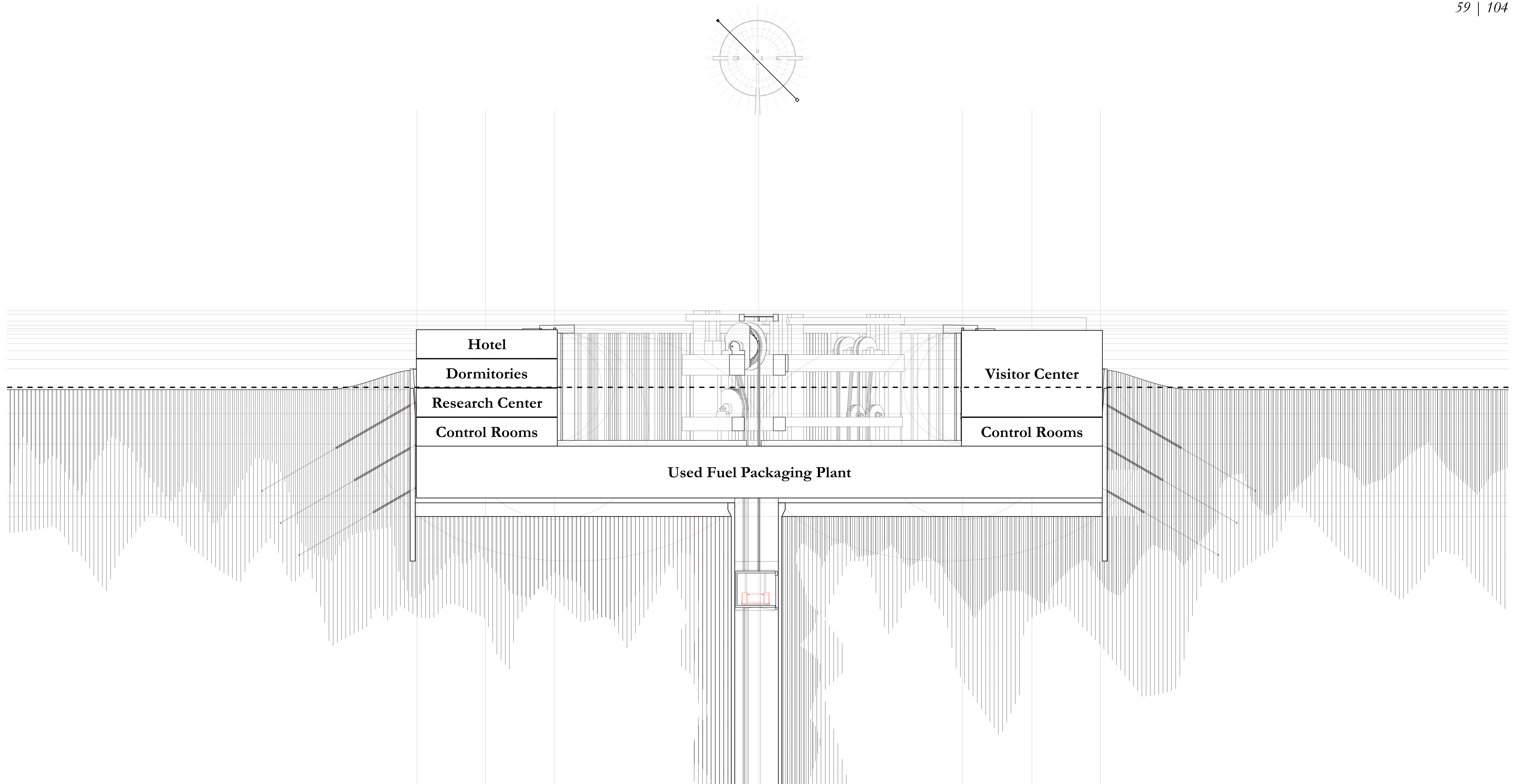




Exploded Levels

Axon

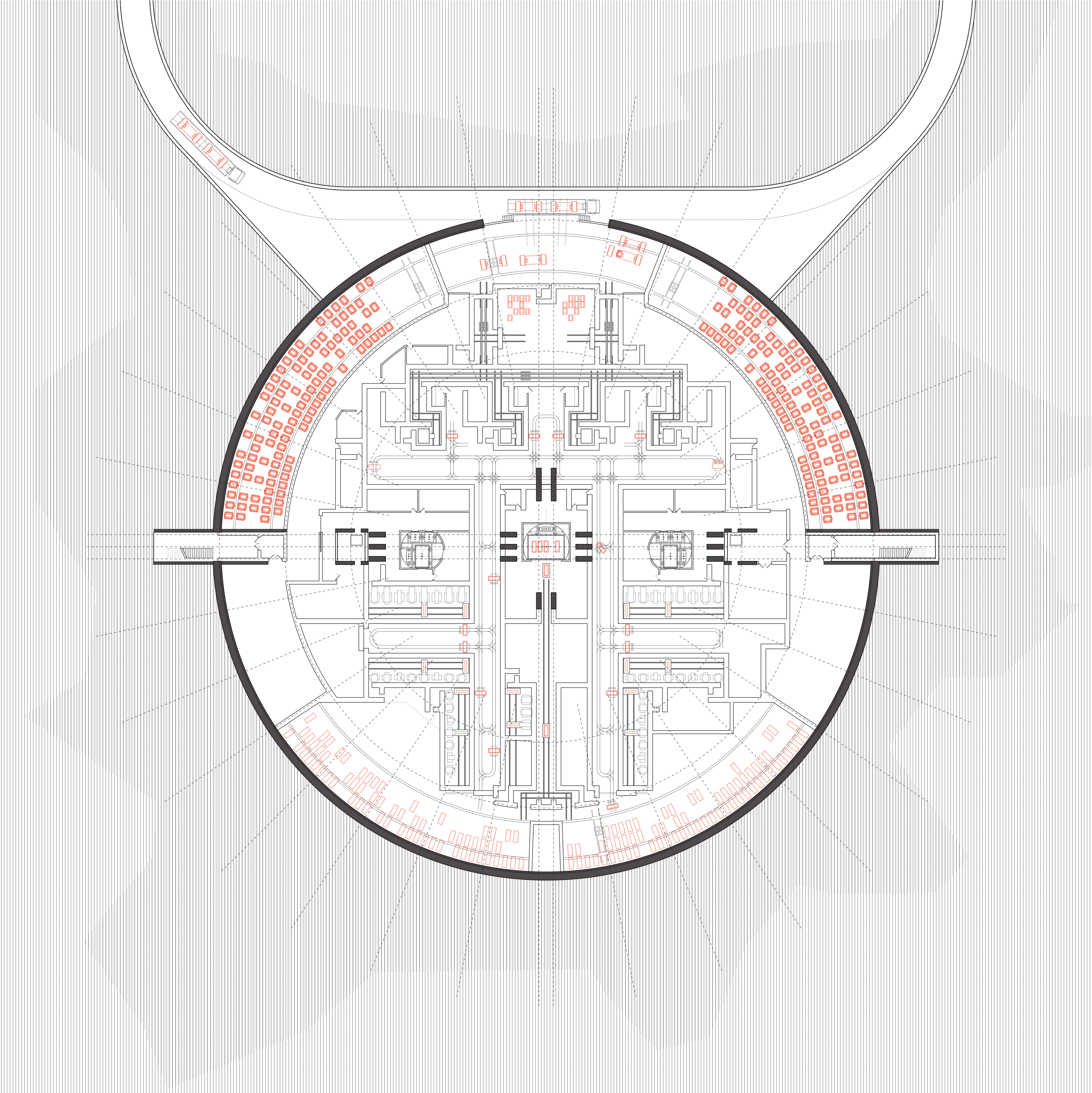
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Vertical Program Stacking

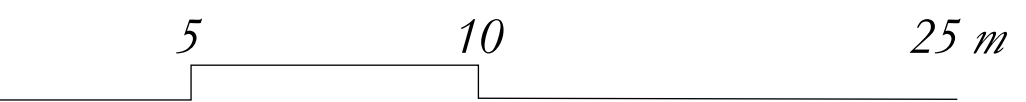
Section
1:200

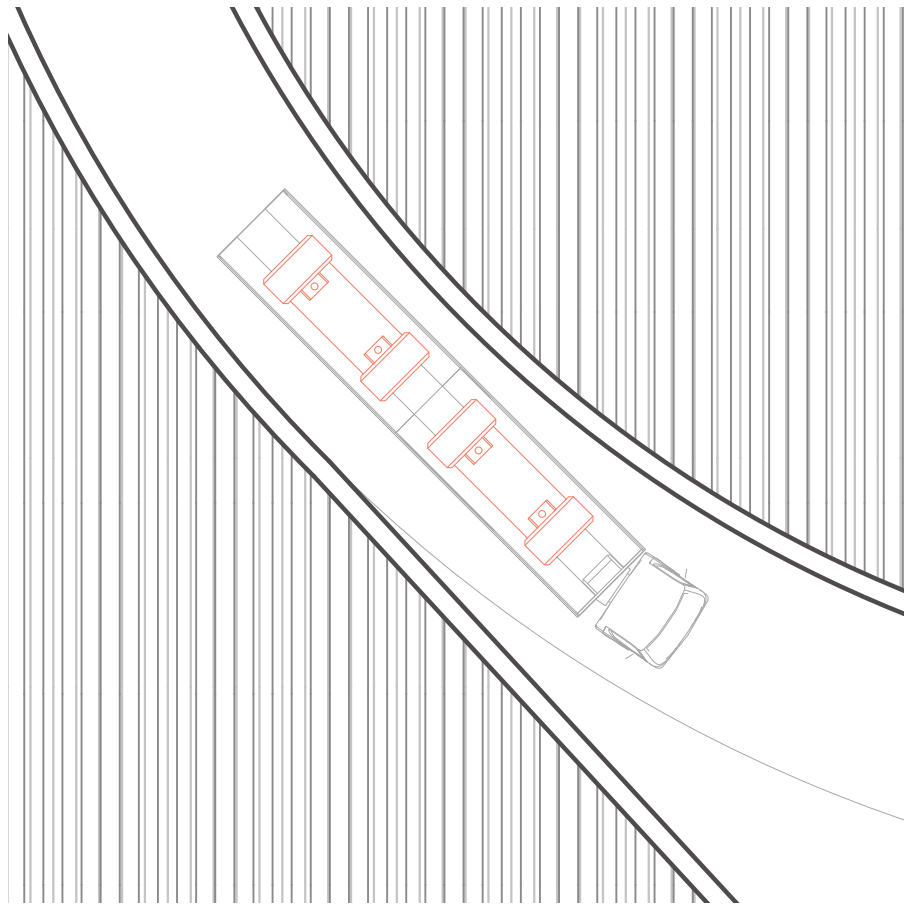
5 10 25 m



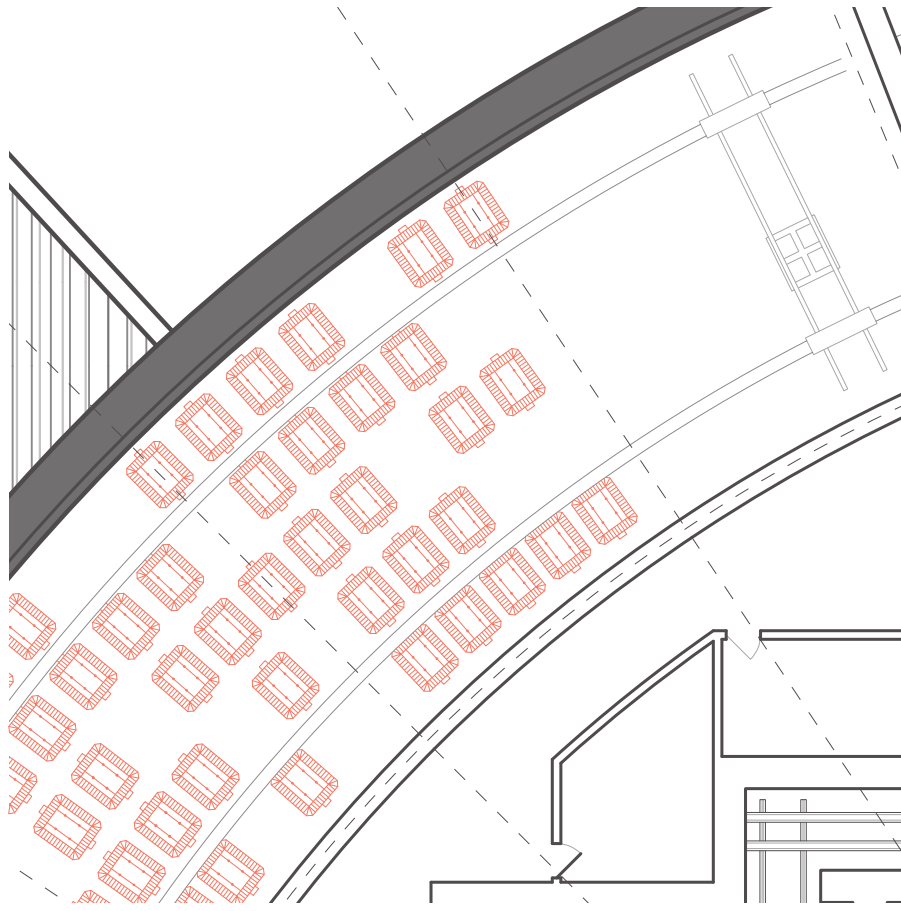
Used Fuel Packaging Plant Floor

-16.00 meters
1:200

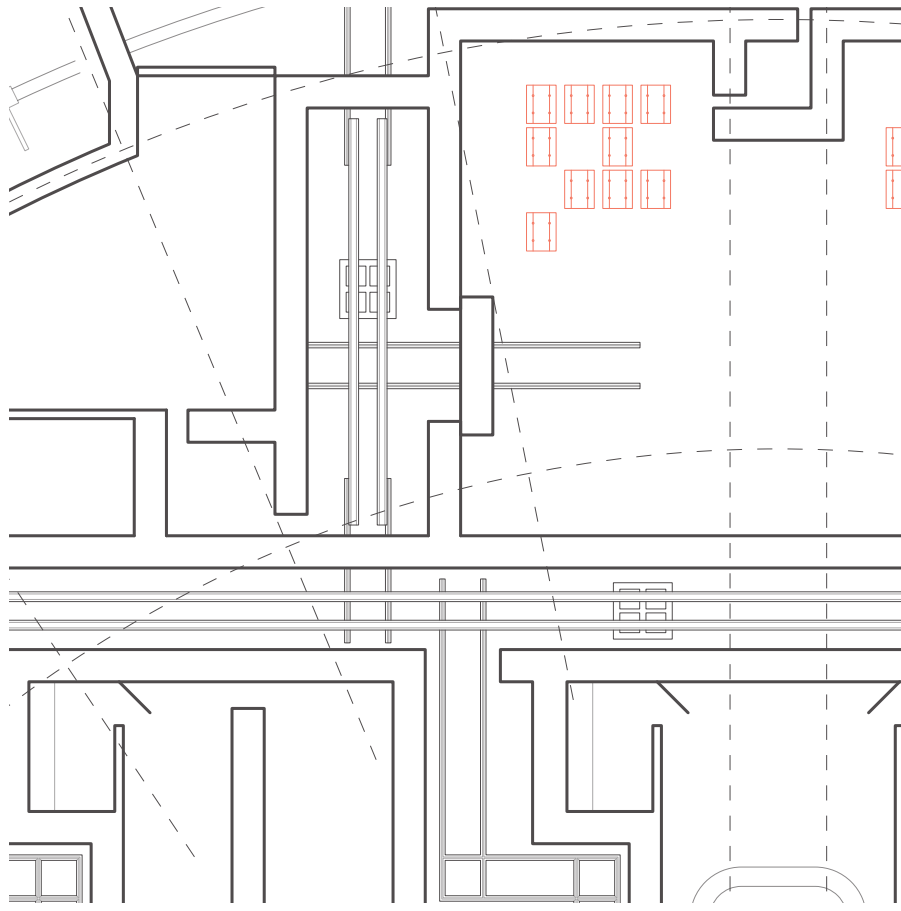




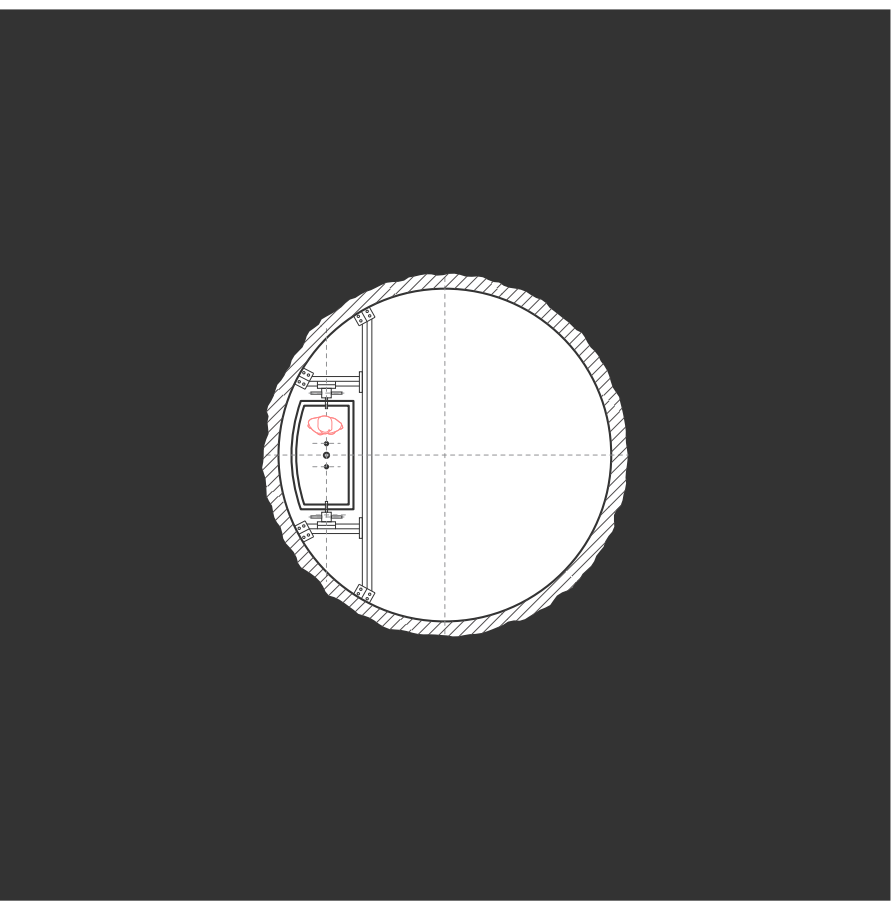
Transportation



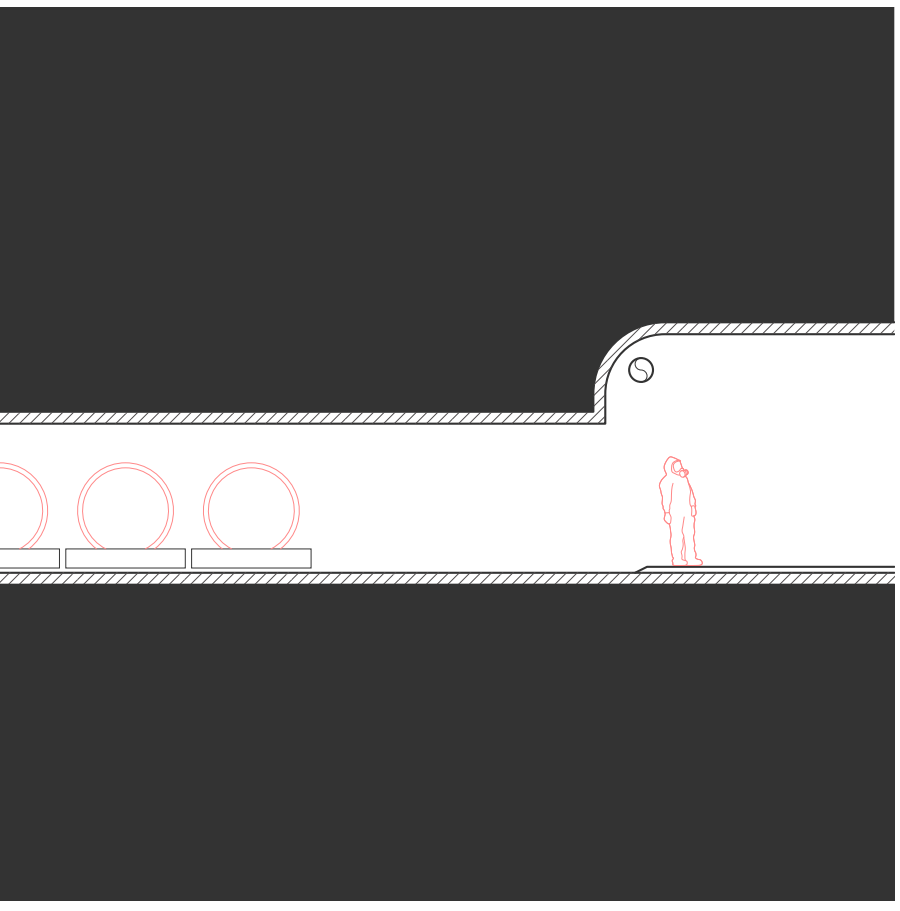
Storage



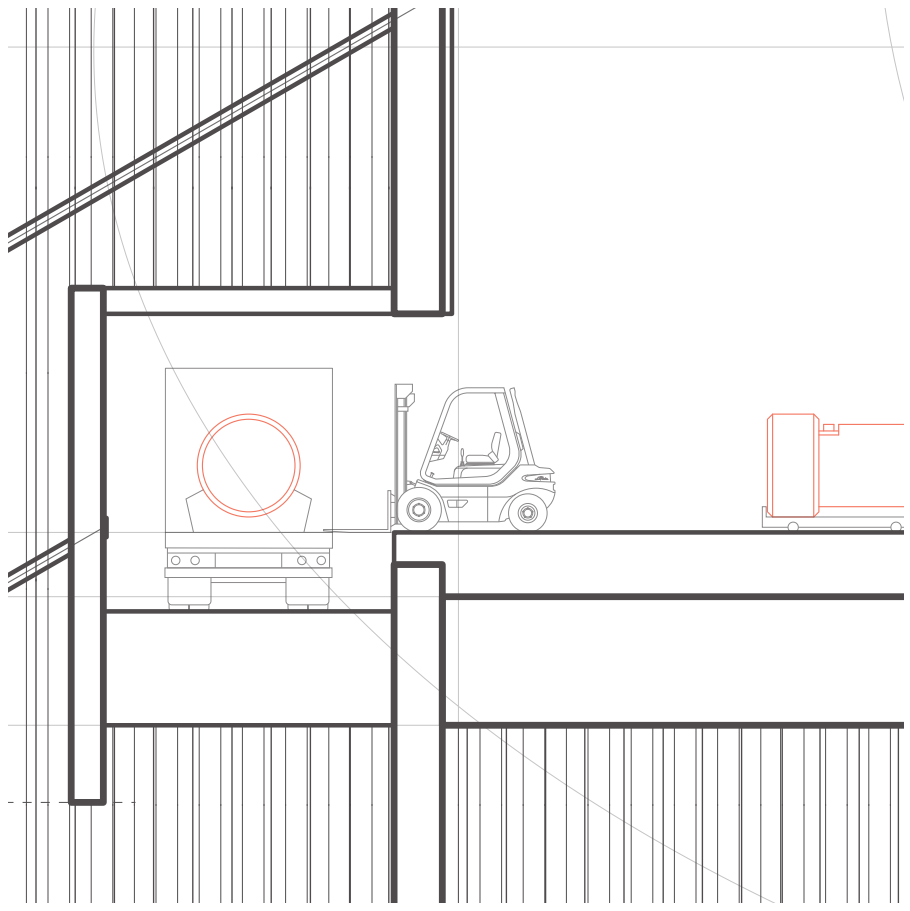
Unsealing



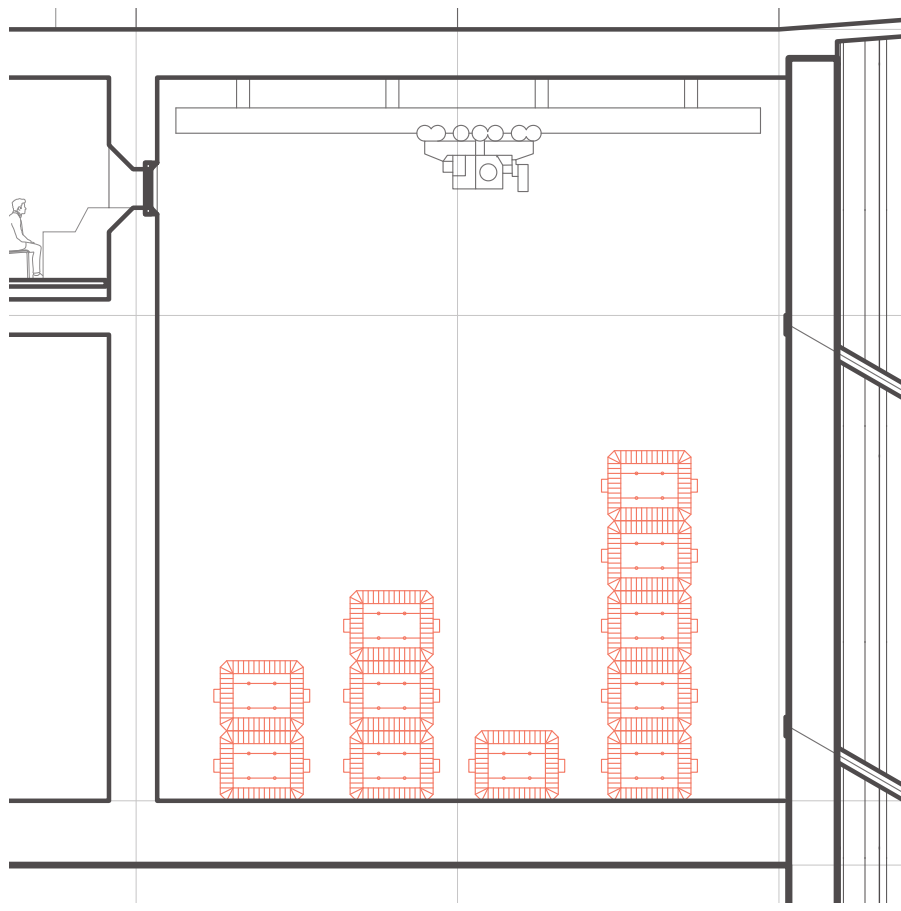
Ventilation Shaft



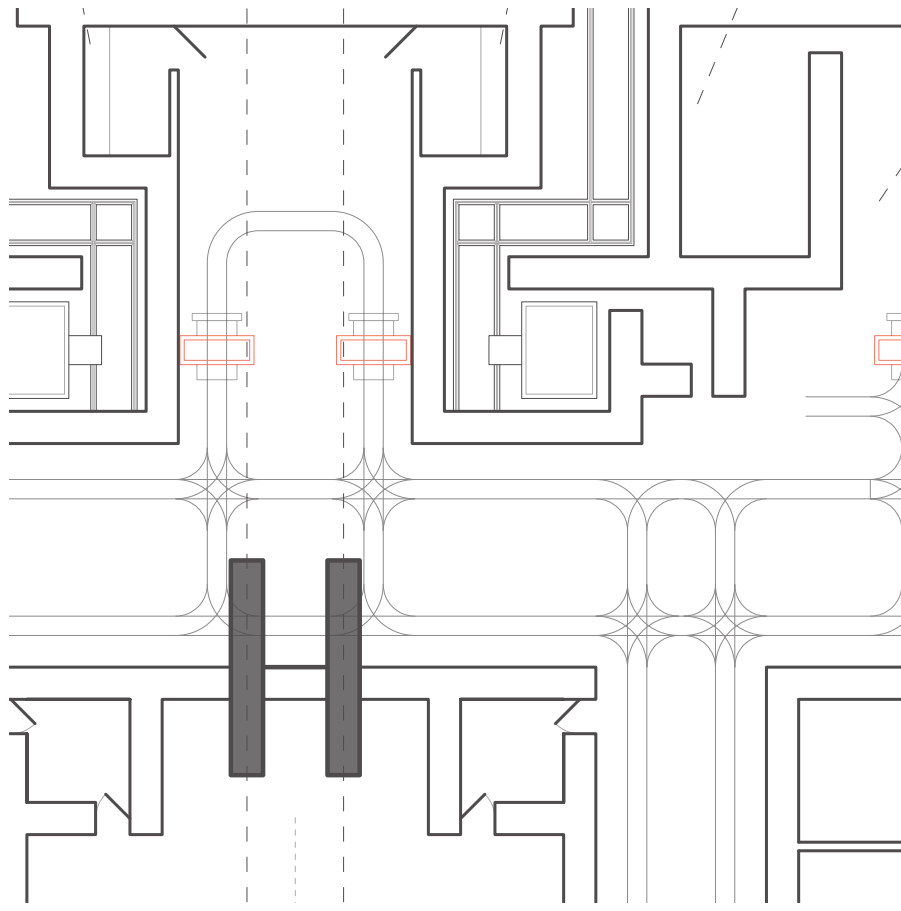
Tunnel Placament



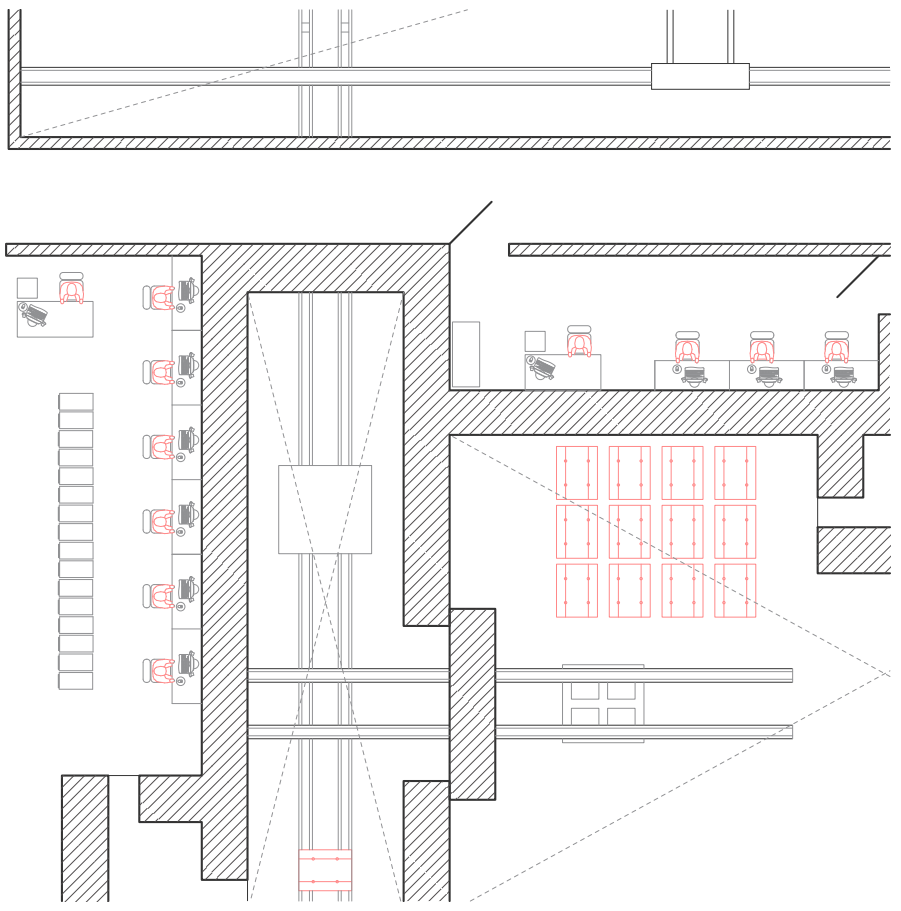
Unloading



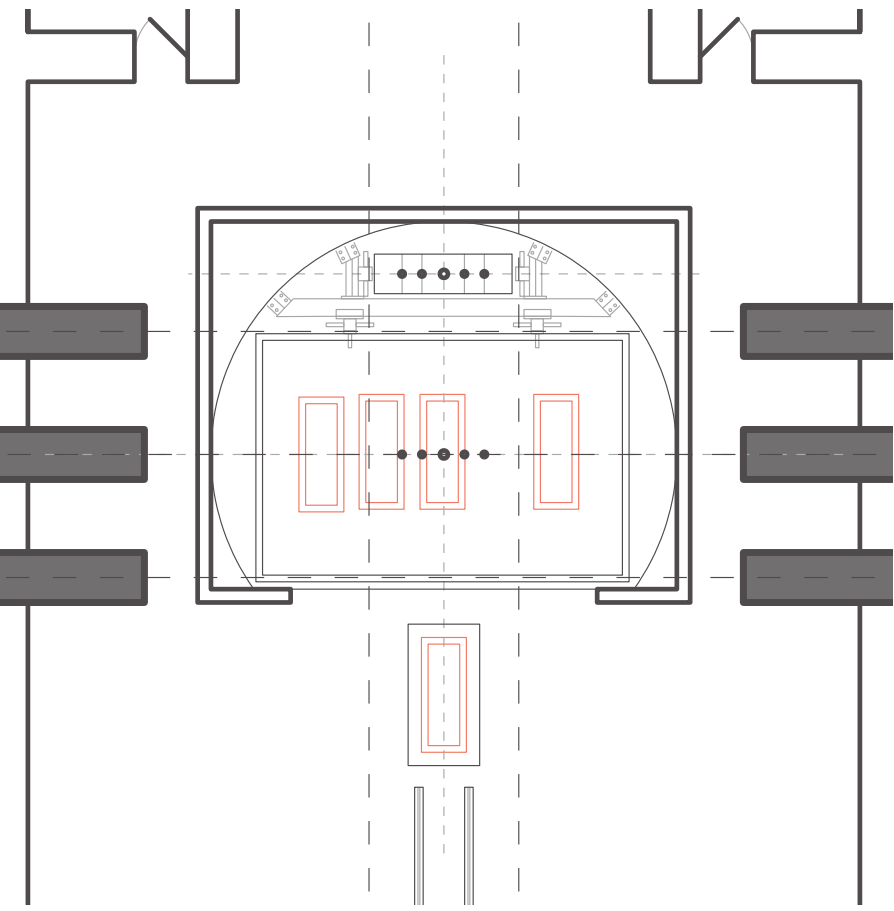
Storage



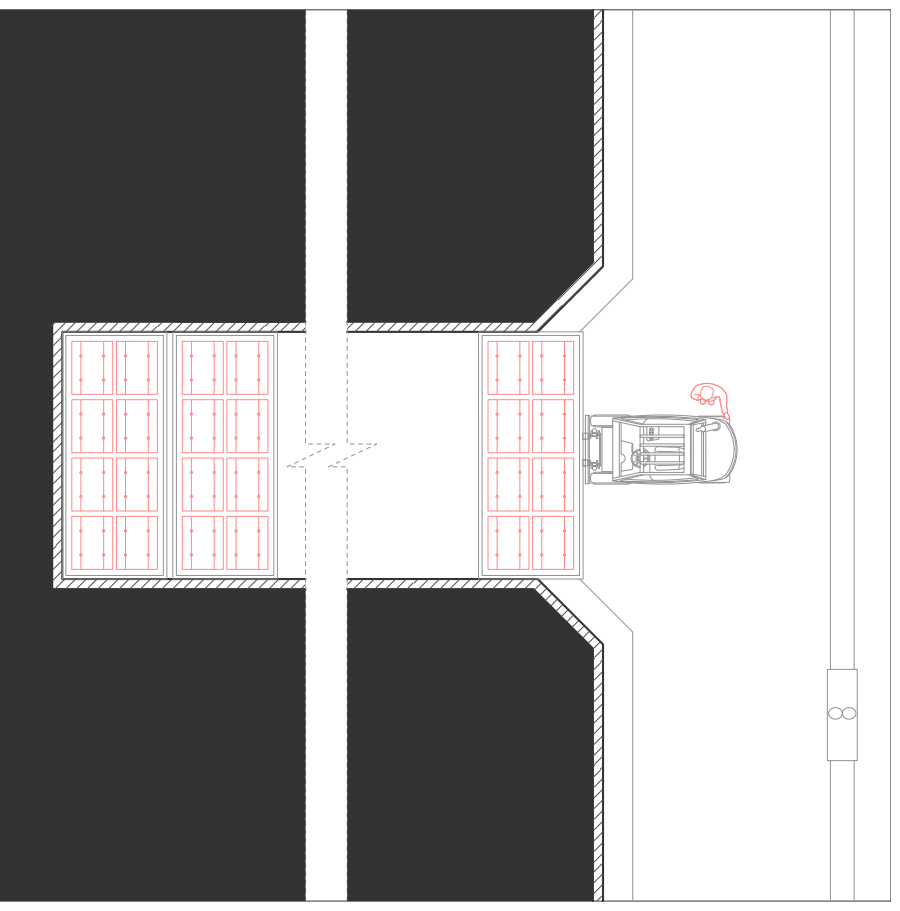
Loading on Robots



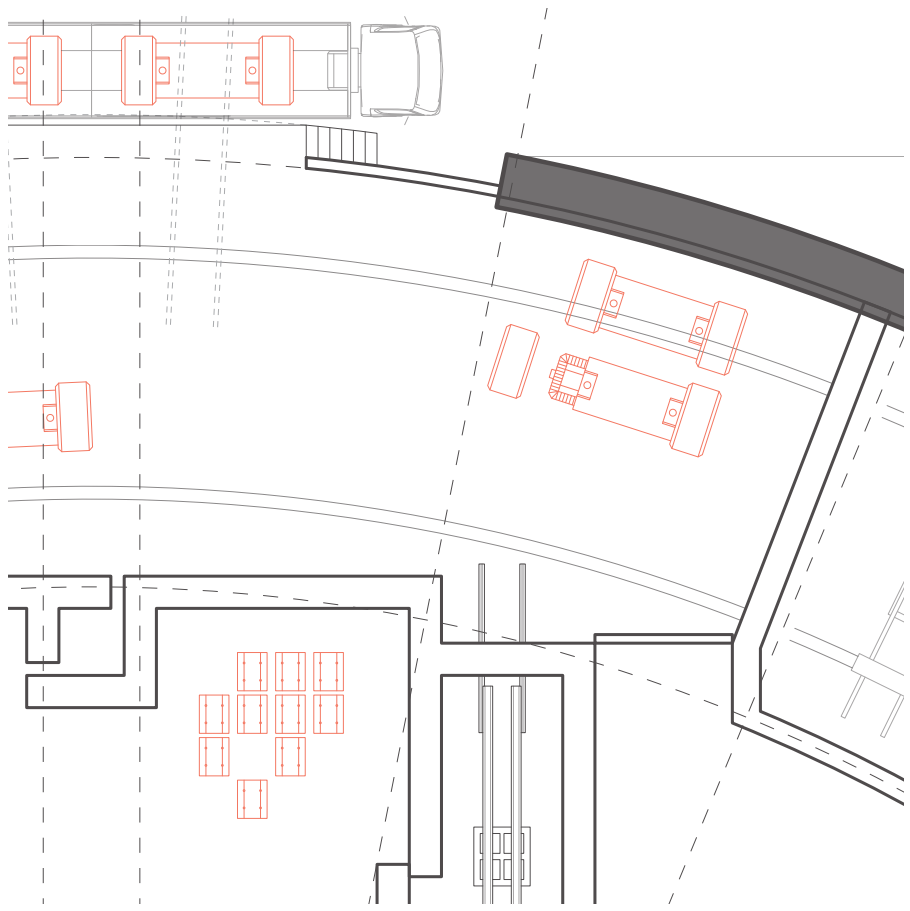
Control Rooms



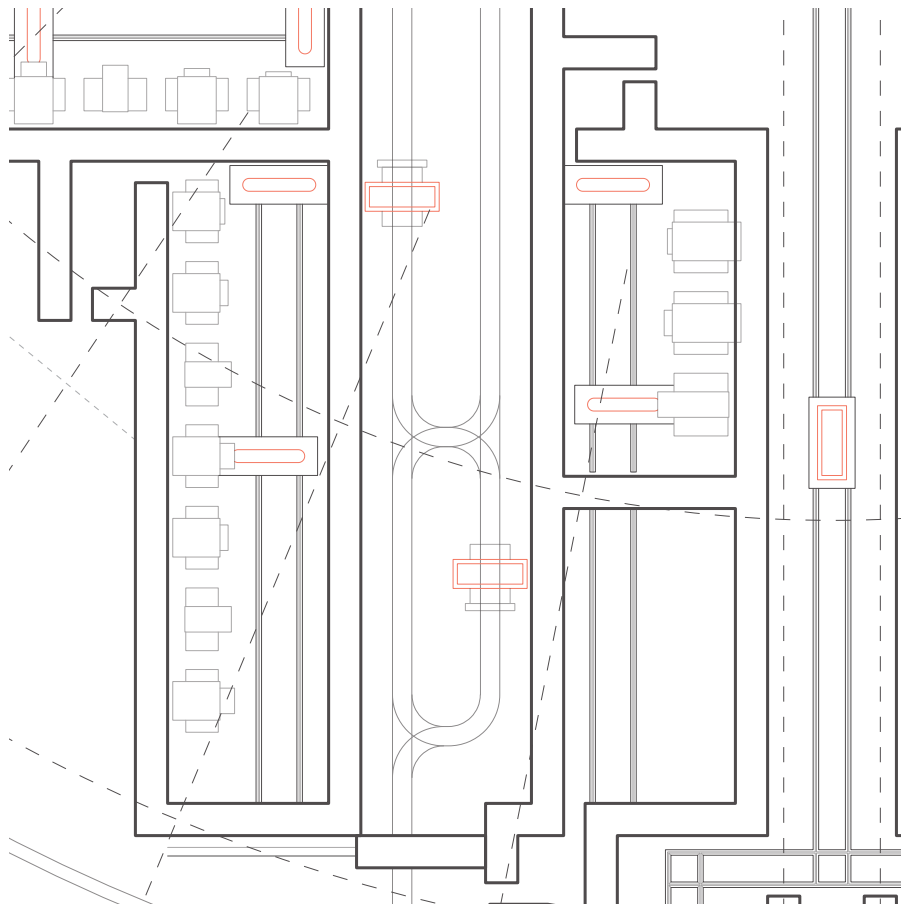
Main Shaft



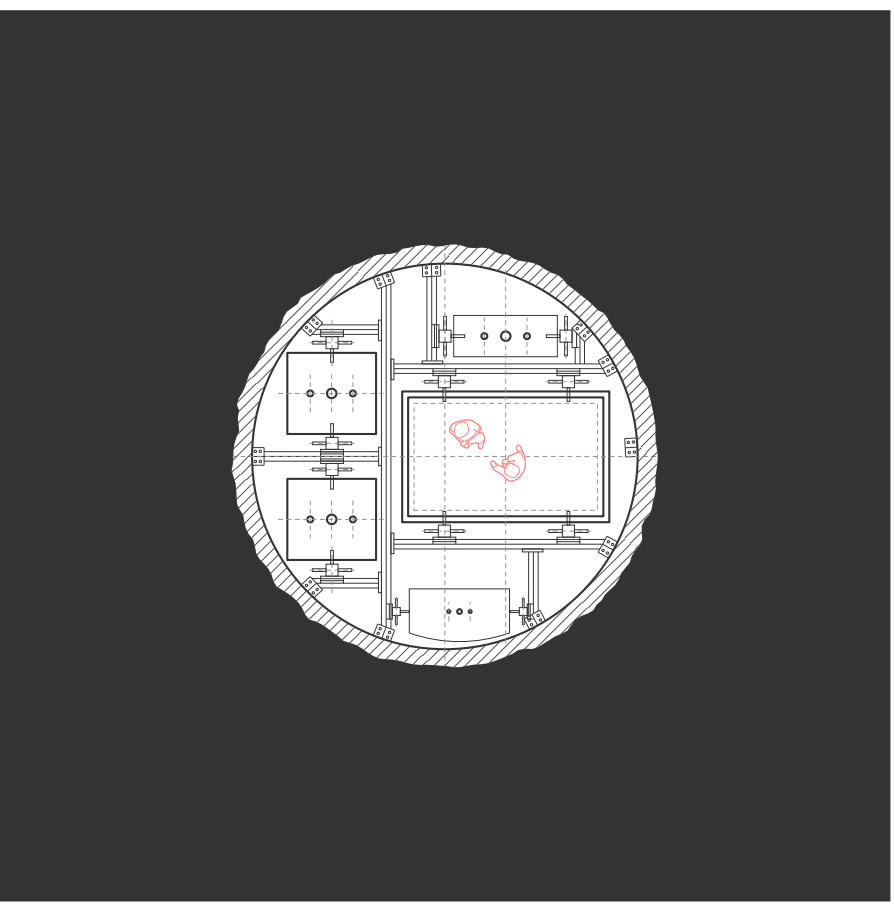
Tunnel Placament



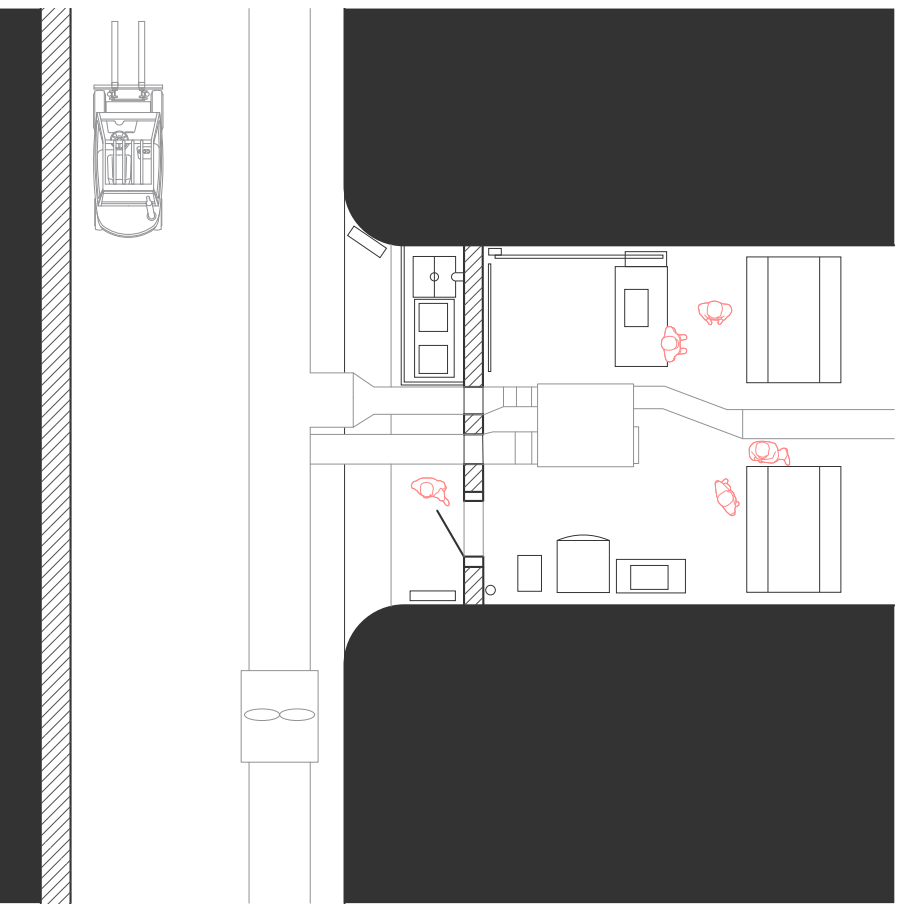
Unpackaging



Sealing / Checking



Service Shaft

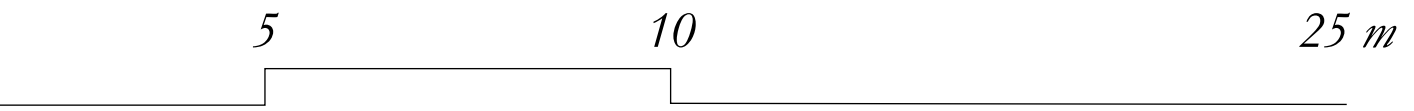


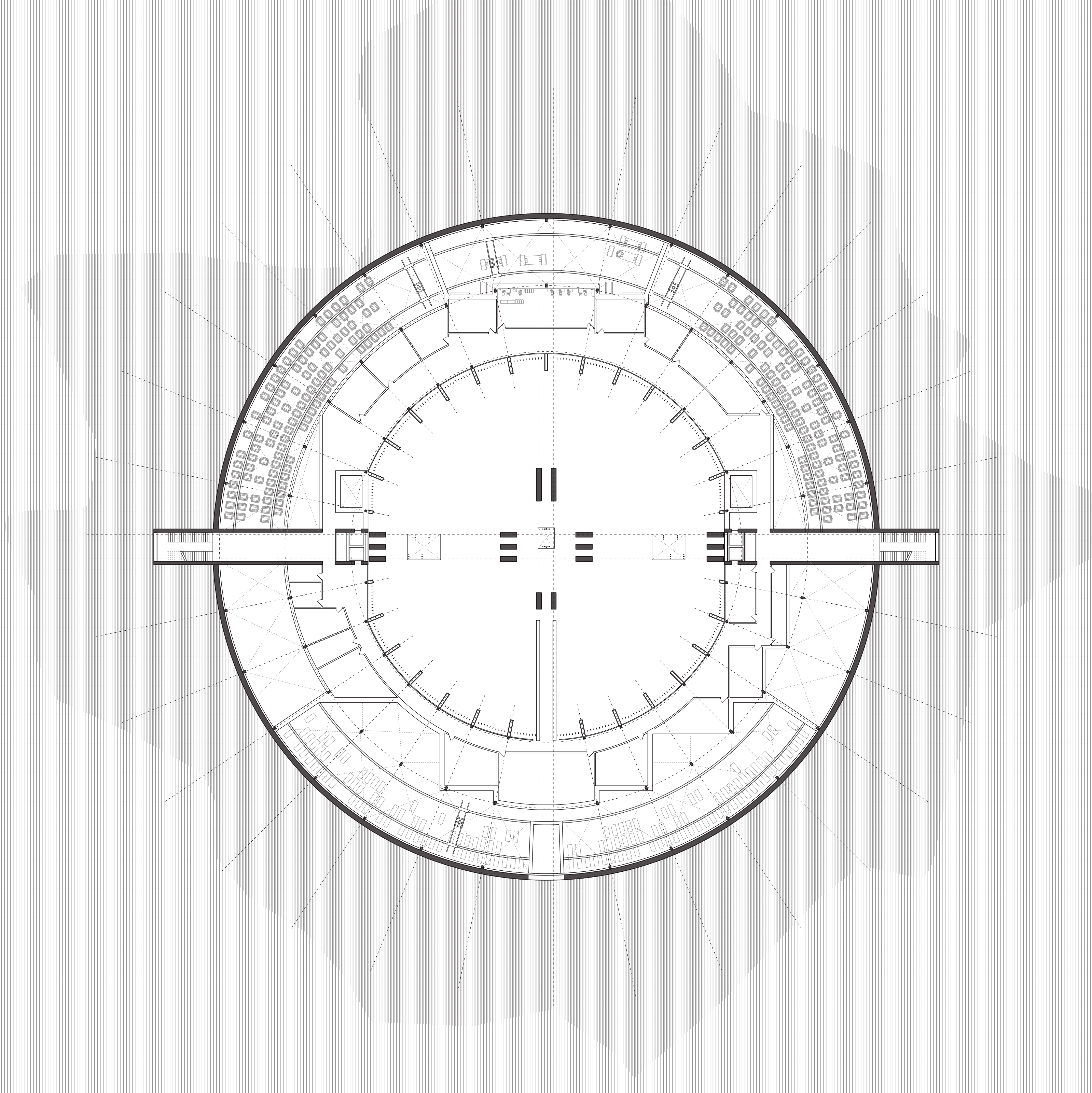
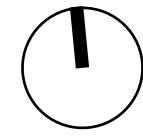
Underground Facilities

Burial Ritual / Steps

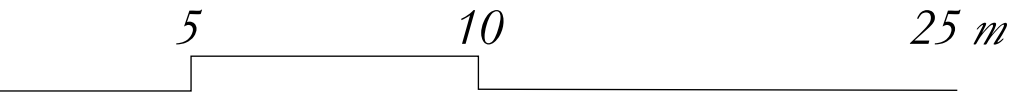
Plans and Sections

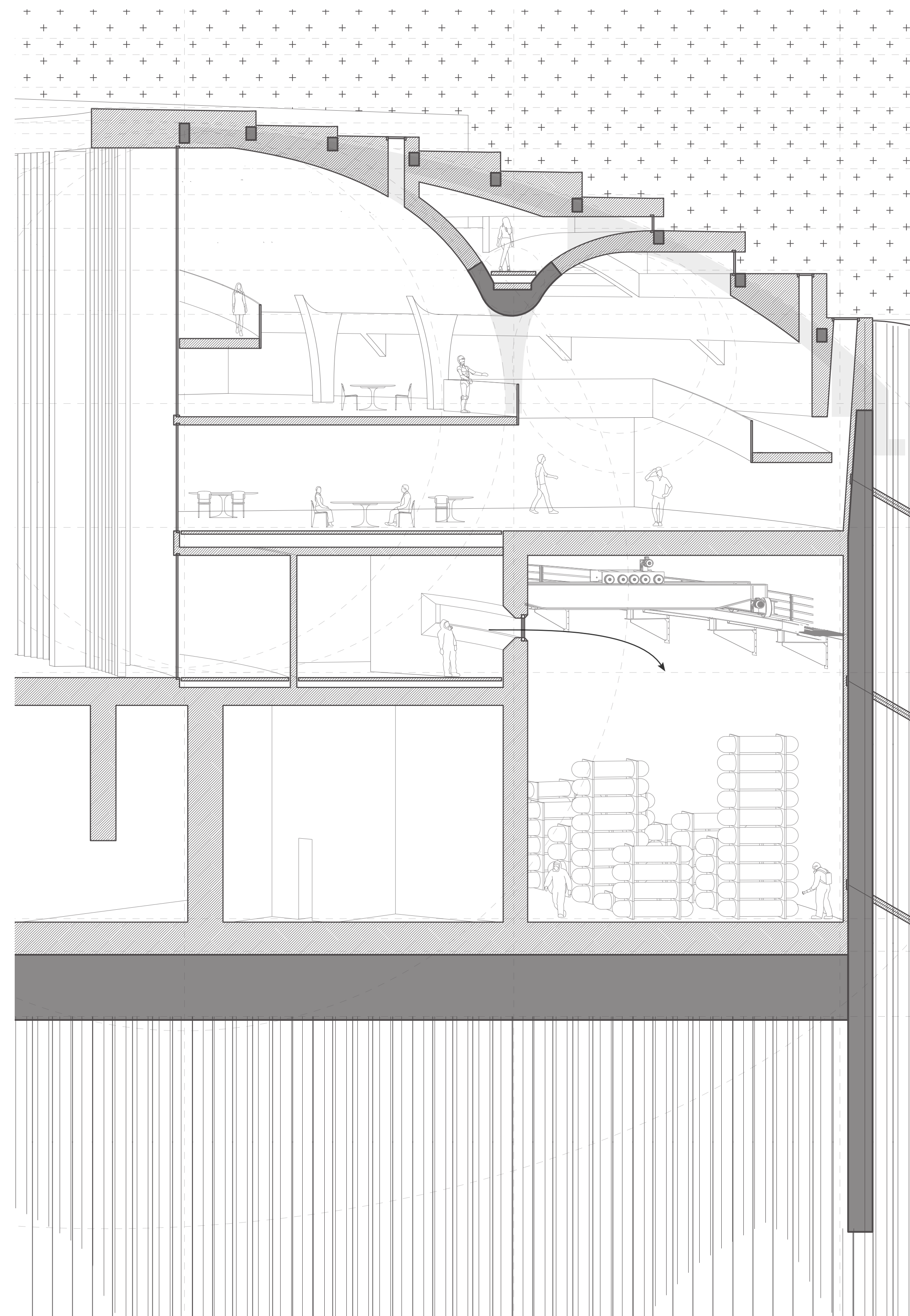
1:100



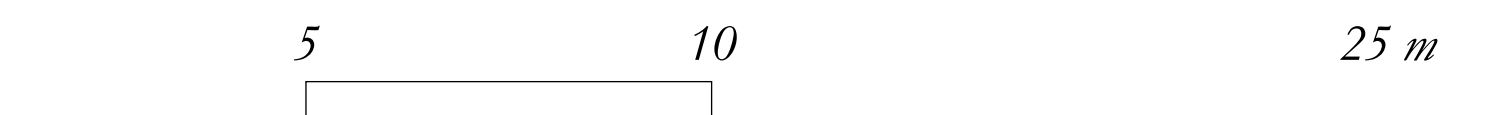


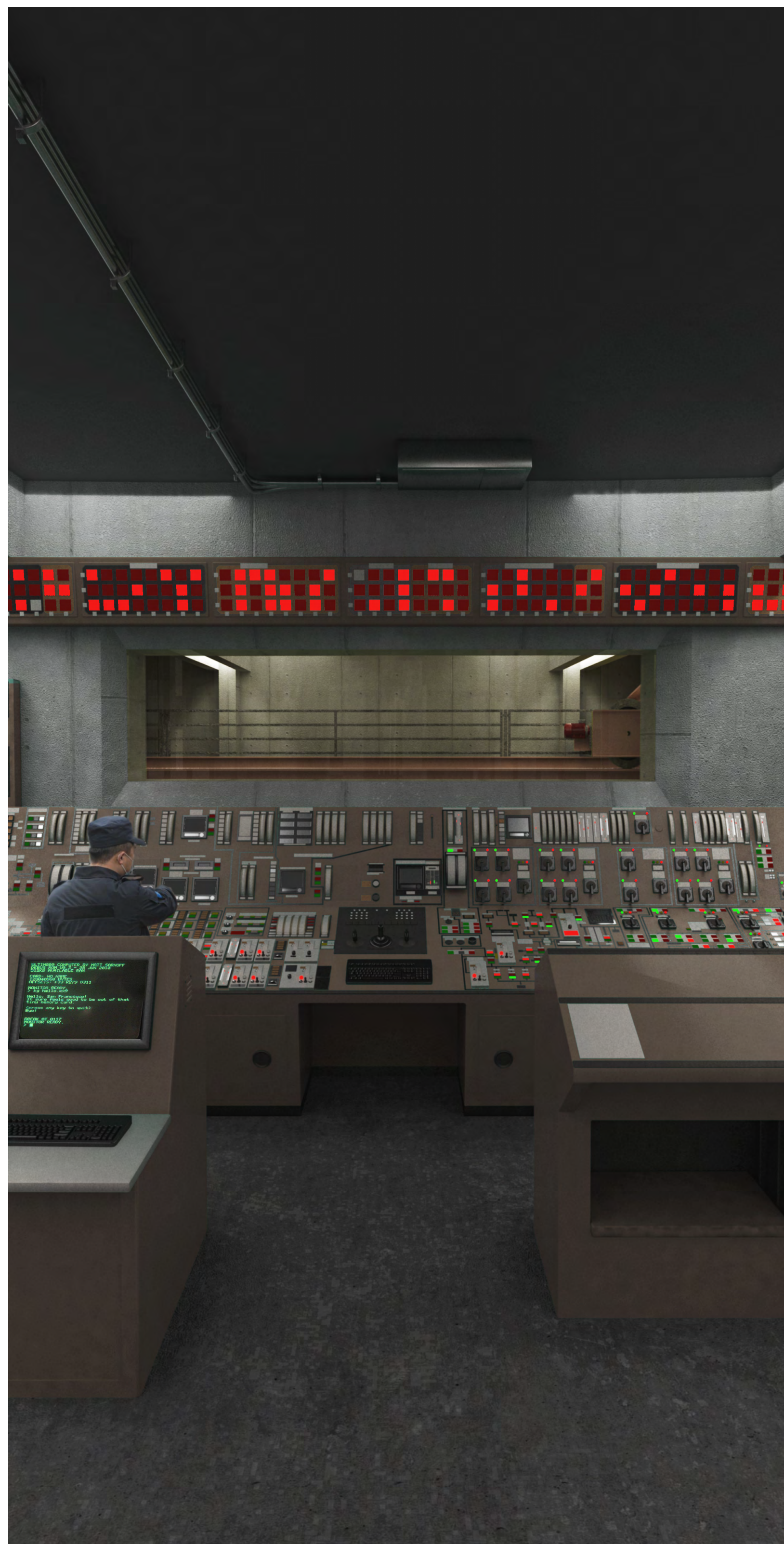
Control Room Floor
-08.00 meters
1:200





Control Rooms
Section
1:200

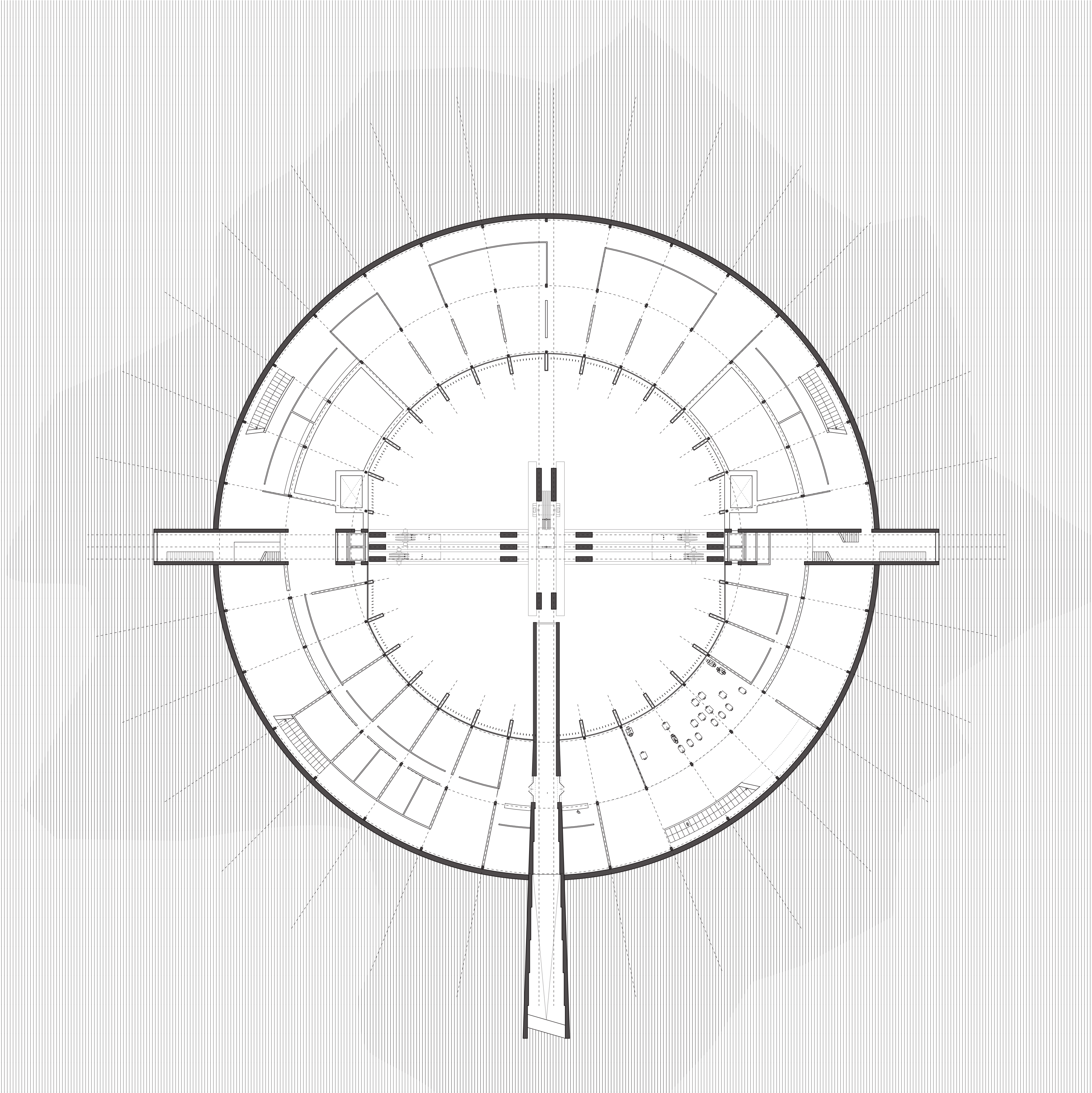
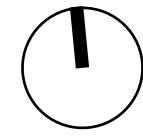




Control Rooms
Visual

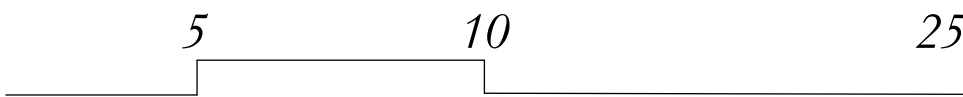


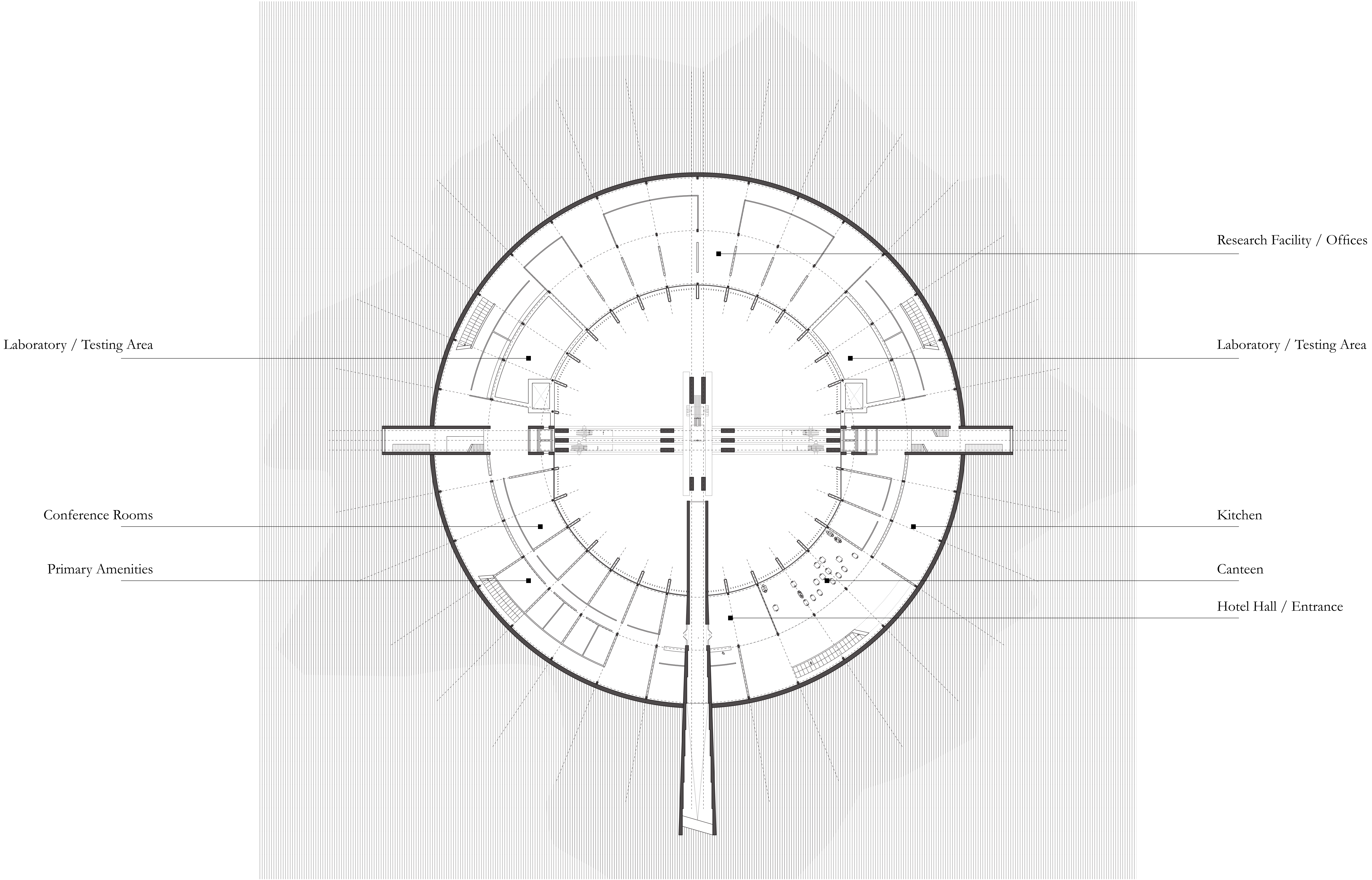
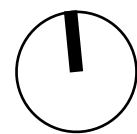
Nuclear Waste Storage
Visual



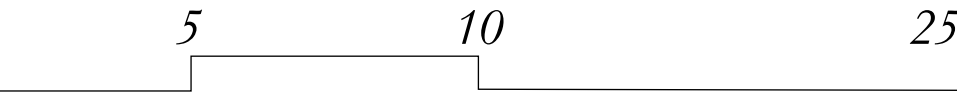
Research Facility + Visitor Center Floor

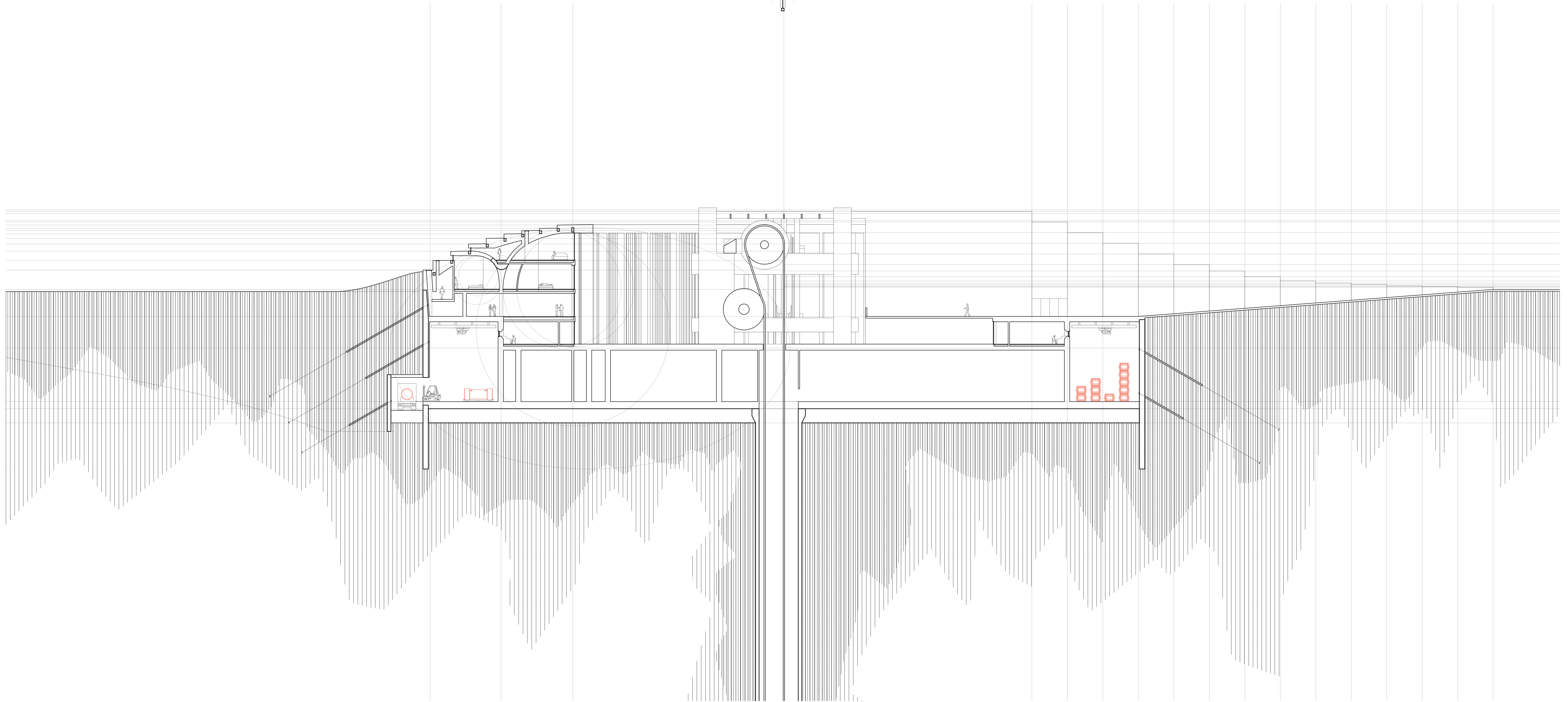
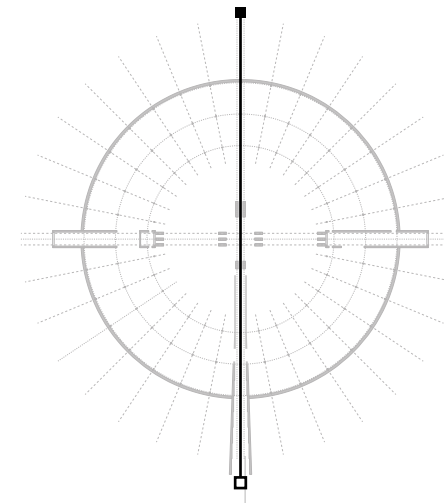
-04.00 meters
1:200





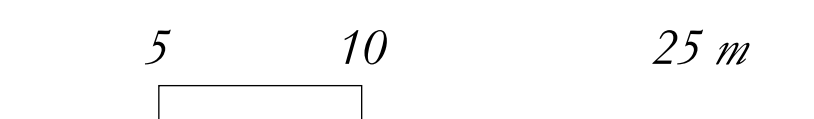
Research Facility + Visitor Center Floor
-04.00 meters
1:200

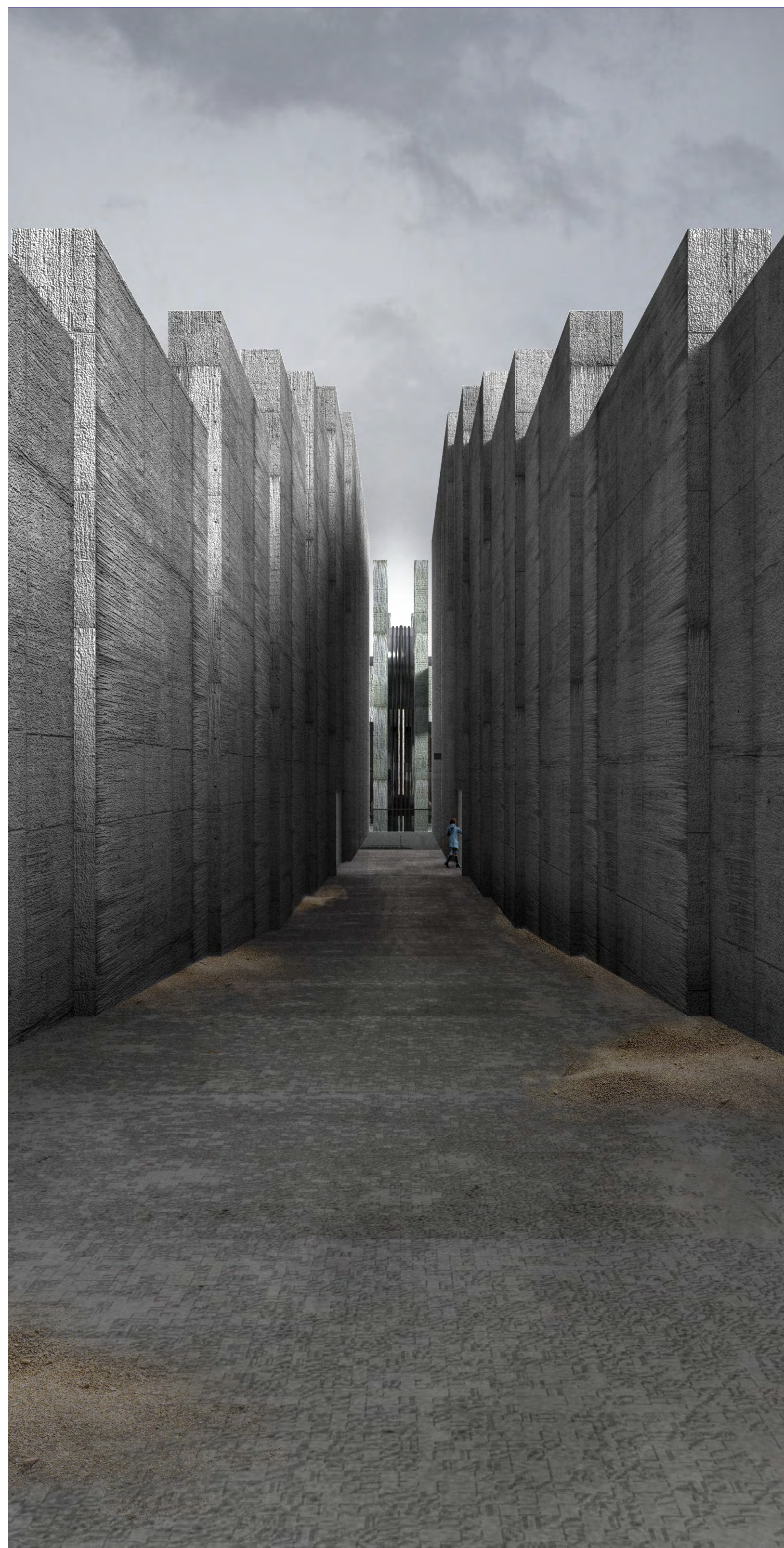




Entrance and Rooms

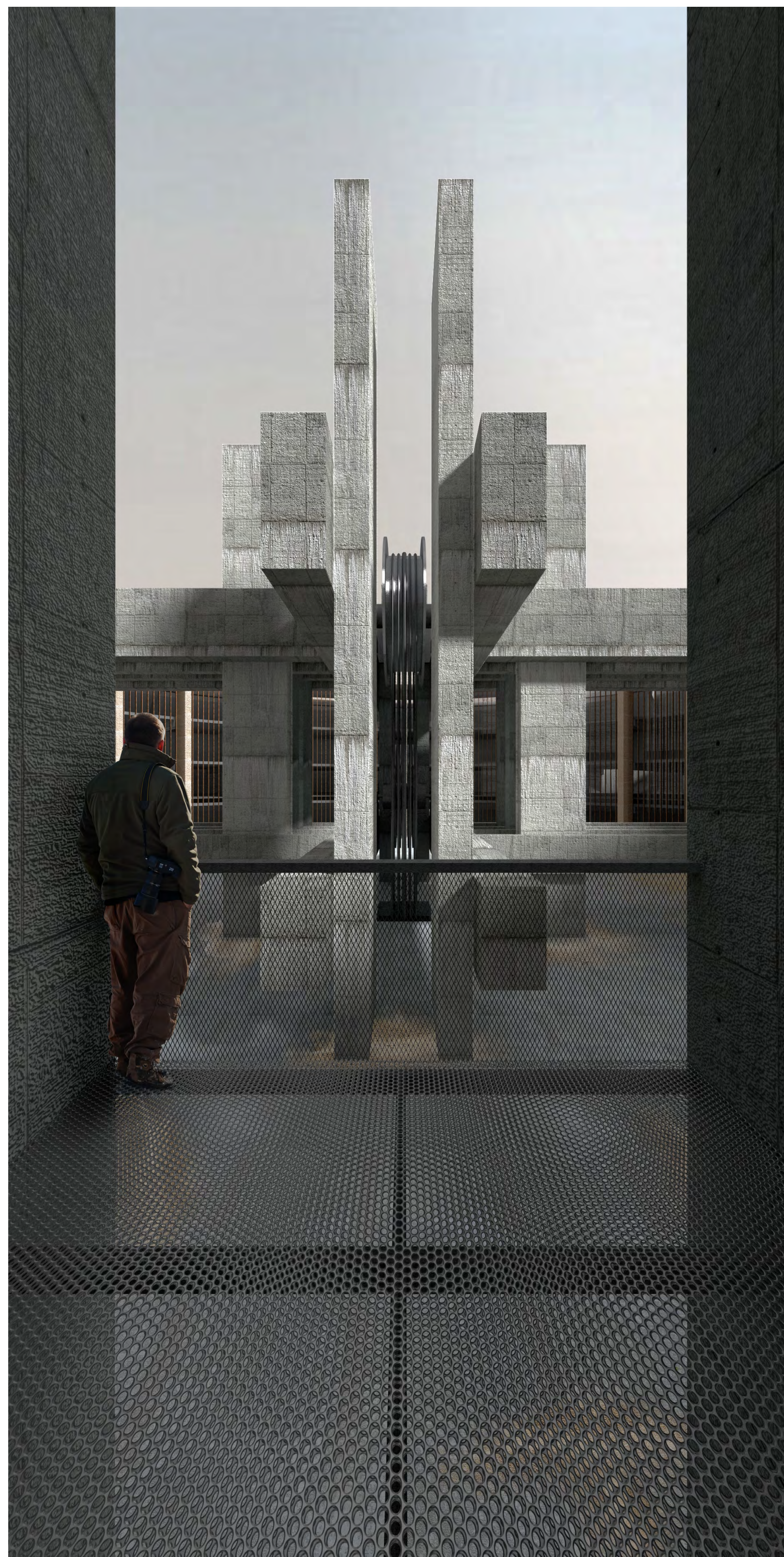
Section
1:200





Entry Hallway
Visual

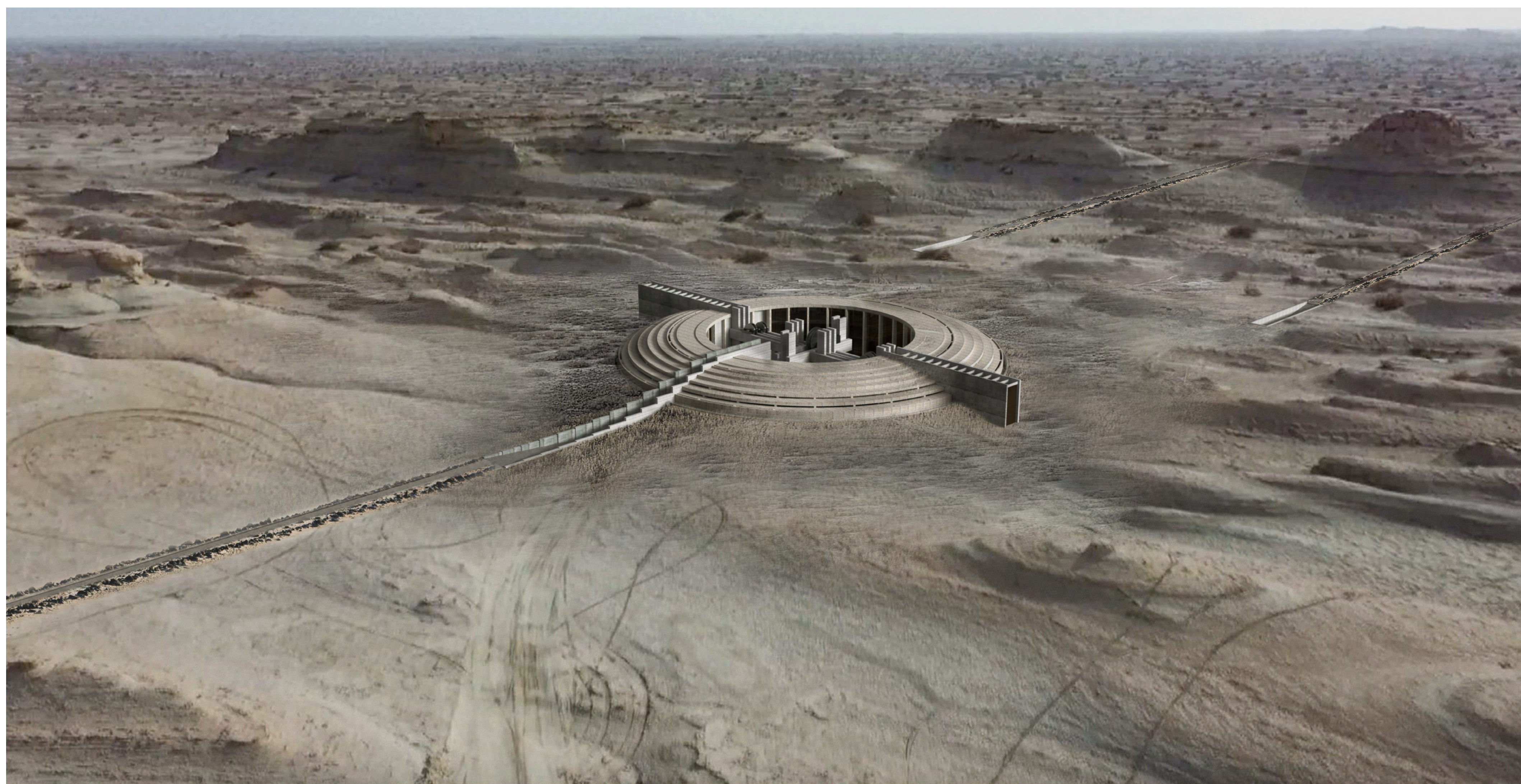
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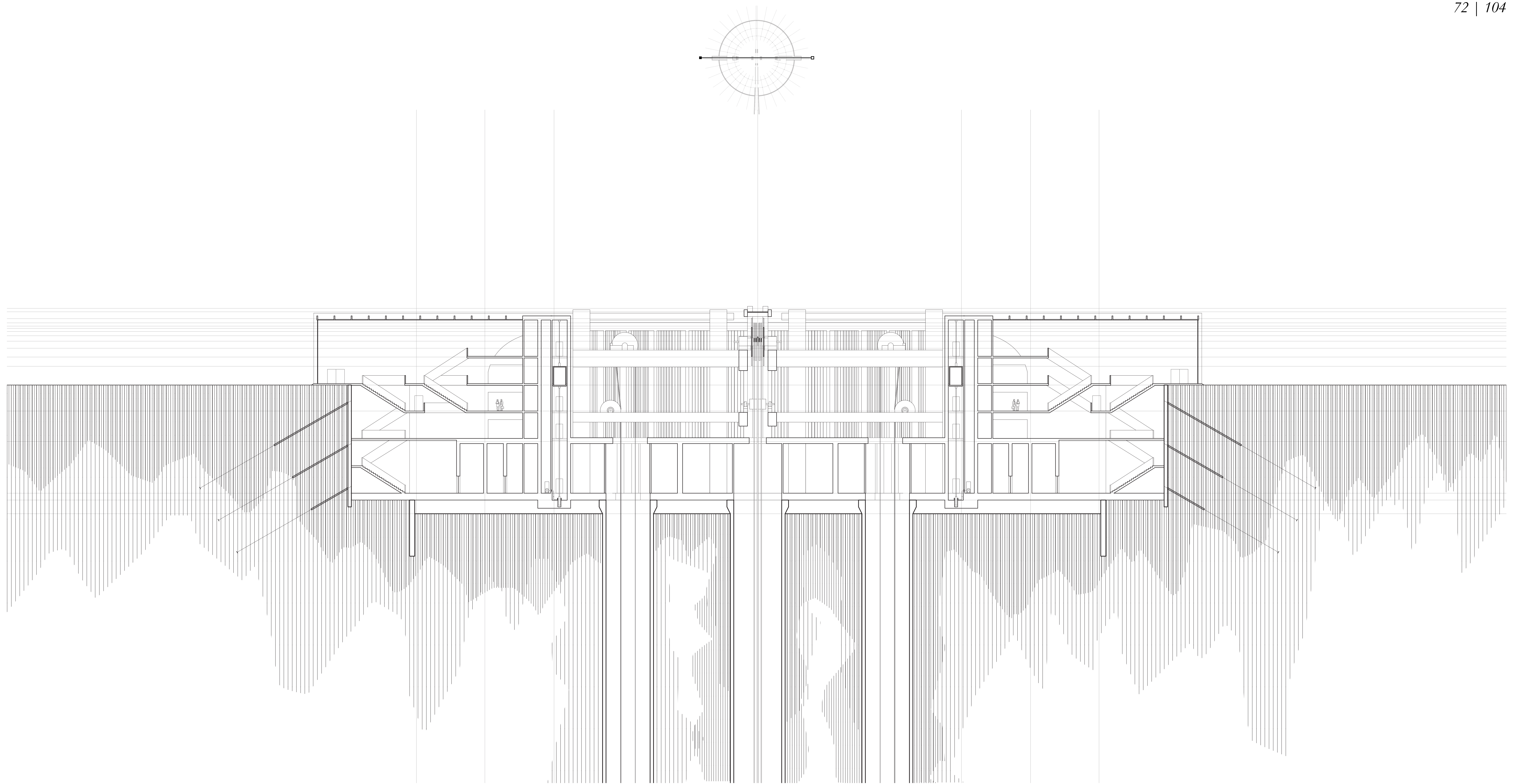
Courtyard

Visual

—

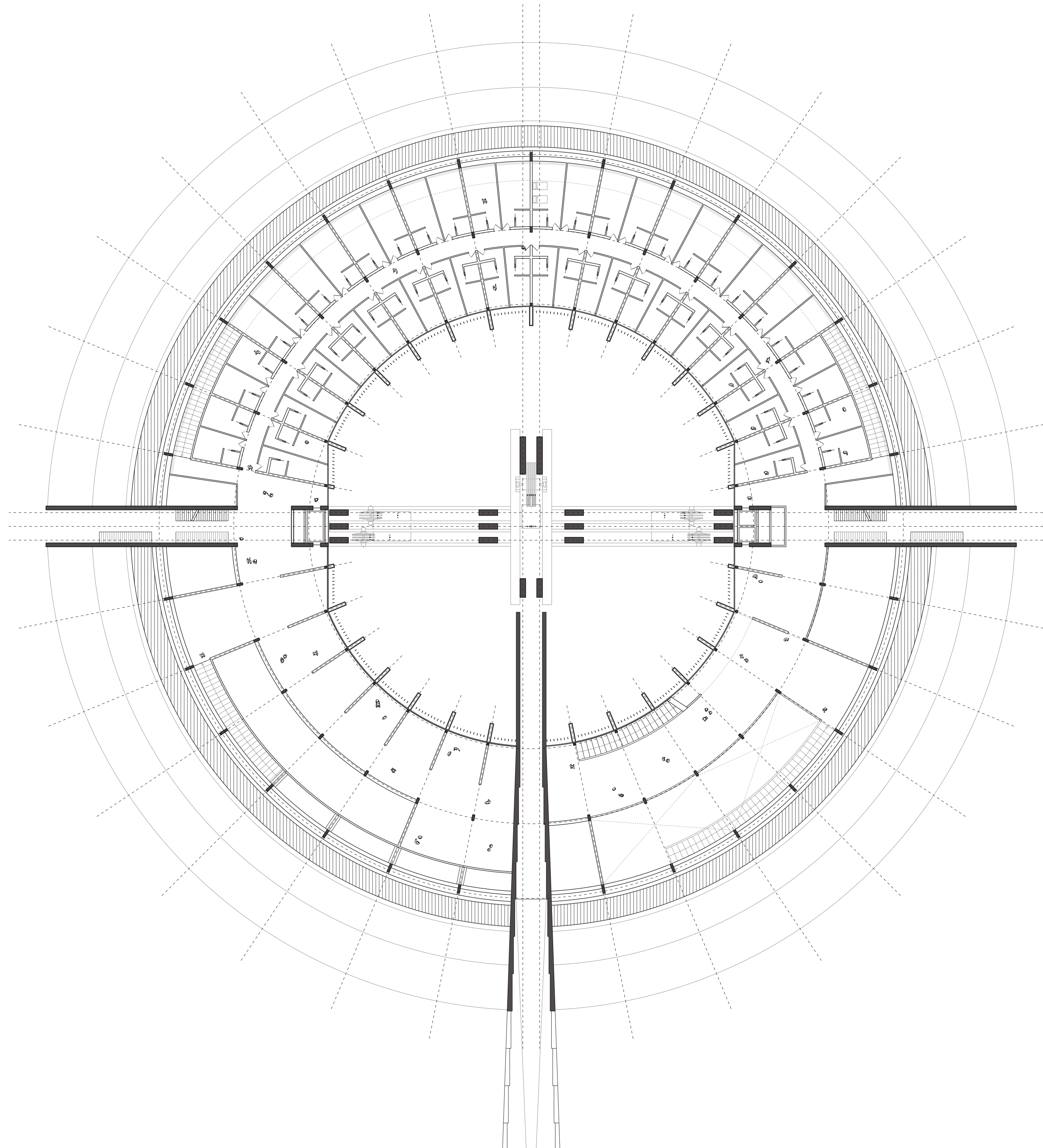
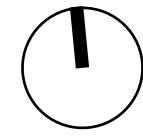


Bunker
Aerial View



Cores
Section
1:200

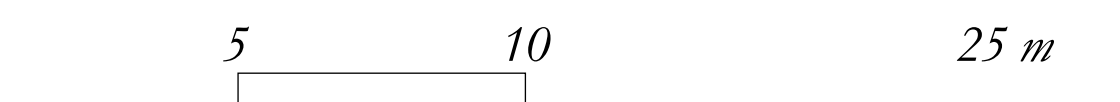
5 10 25 m

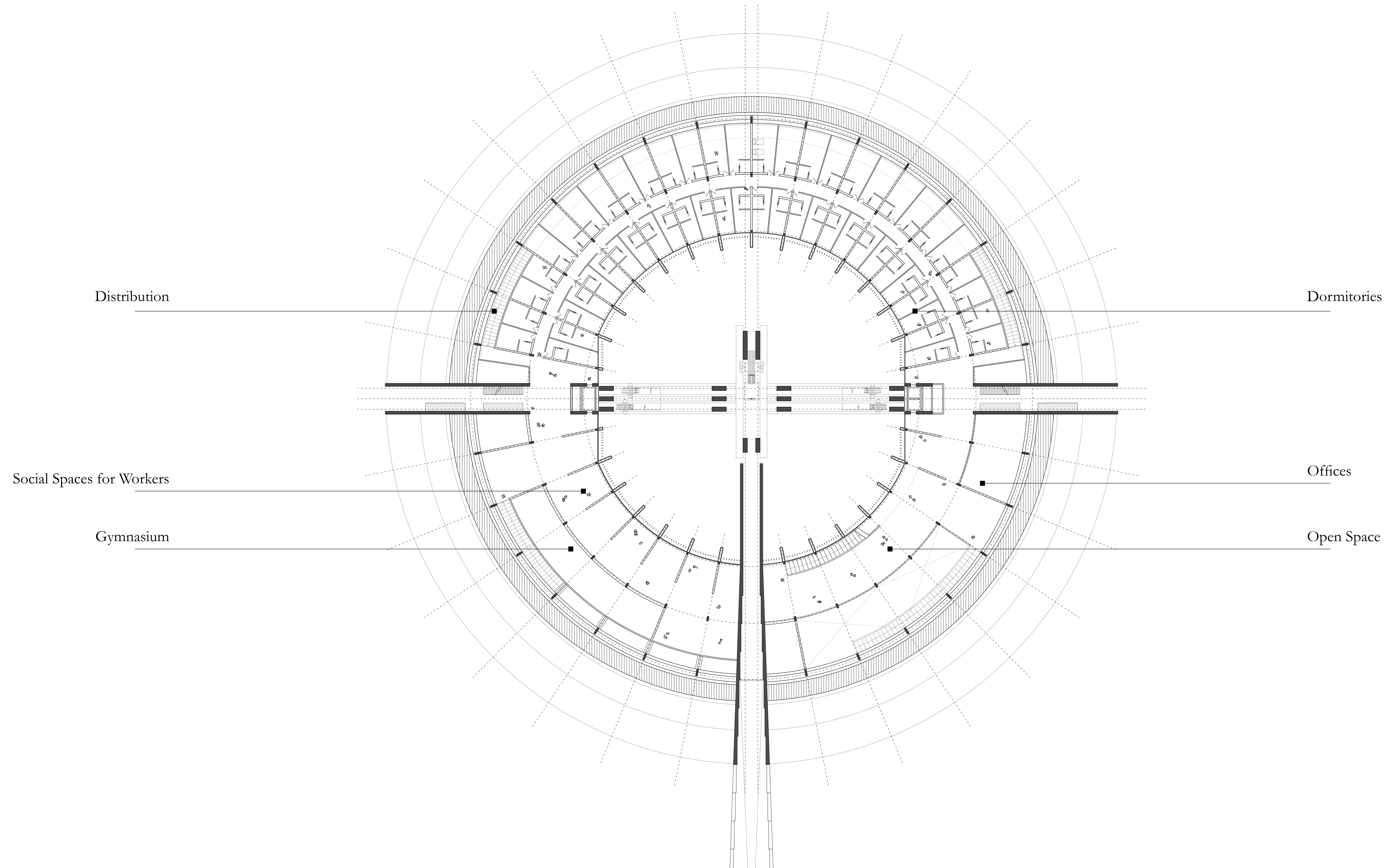
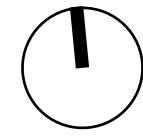


Dormitories / Visitor Center Floor

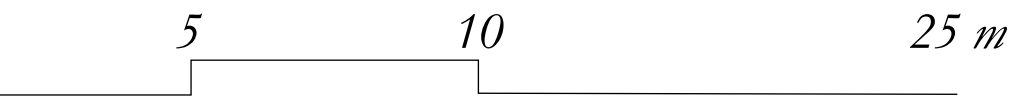
+00.00 meters

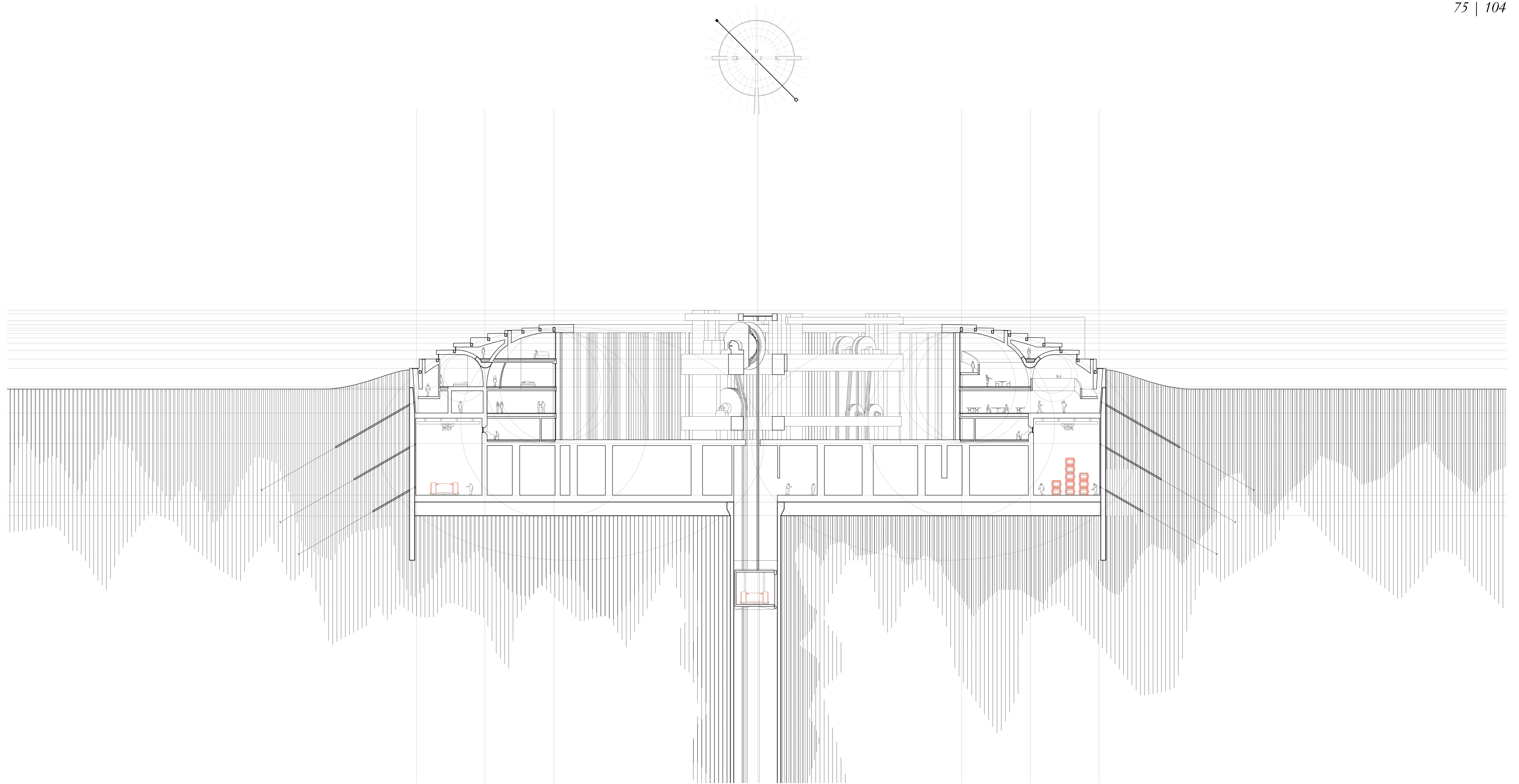
1:200





Dormitories / Visitor Center Floor
+00.00 meters
1:200

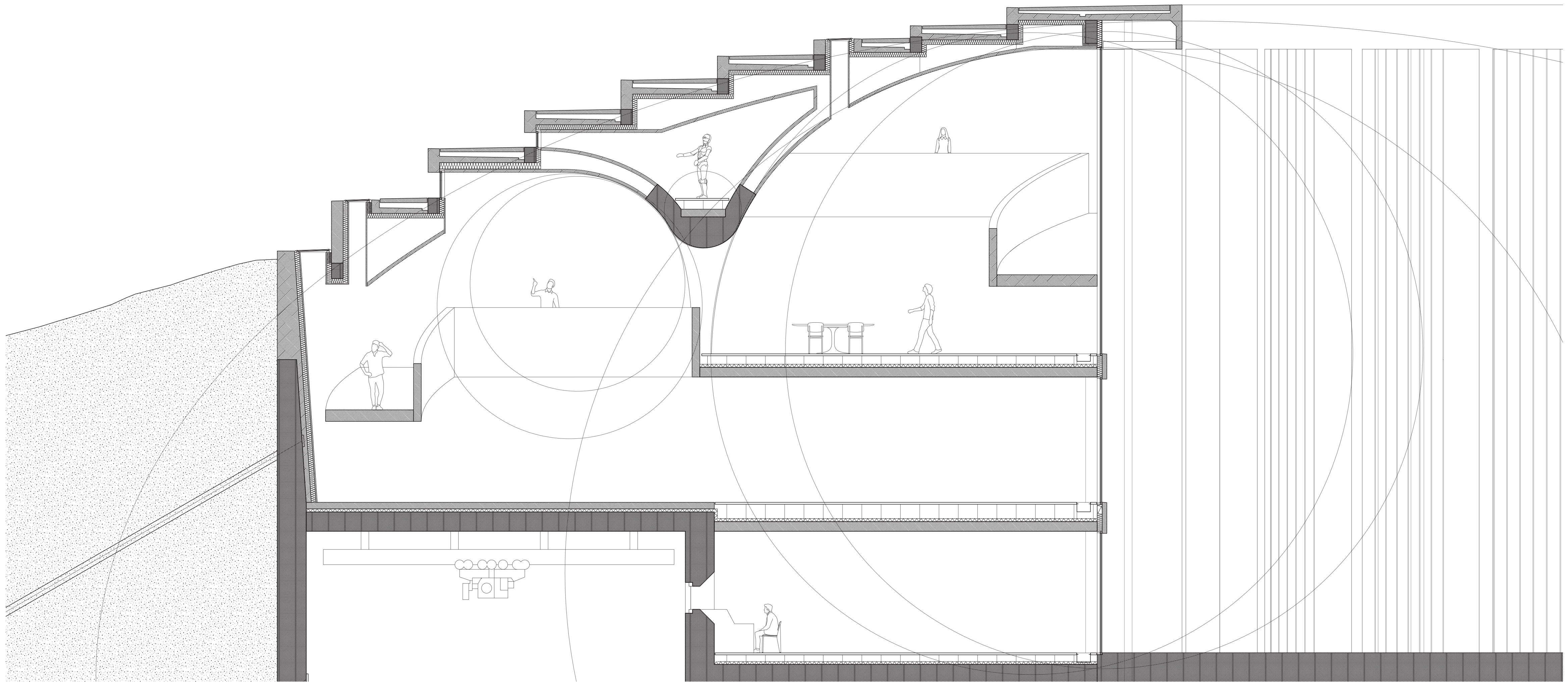
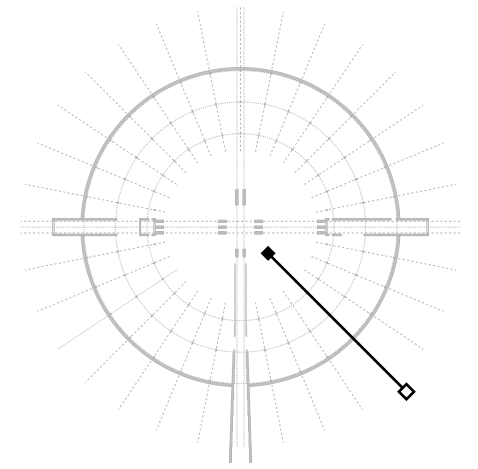




Section Variations

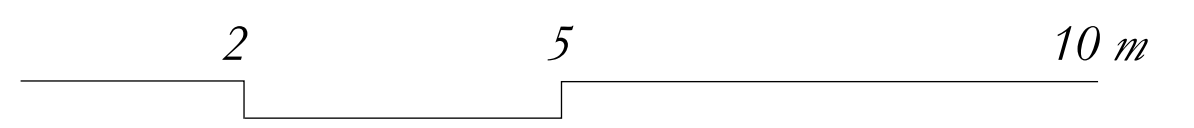
Section
1:200

5 10 25 m



Visitor Center Hall and Distribution

Section
1:50





Visitor Center Hall

Visual

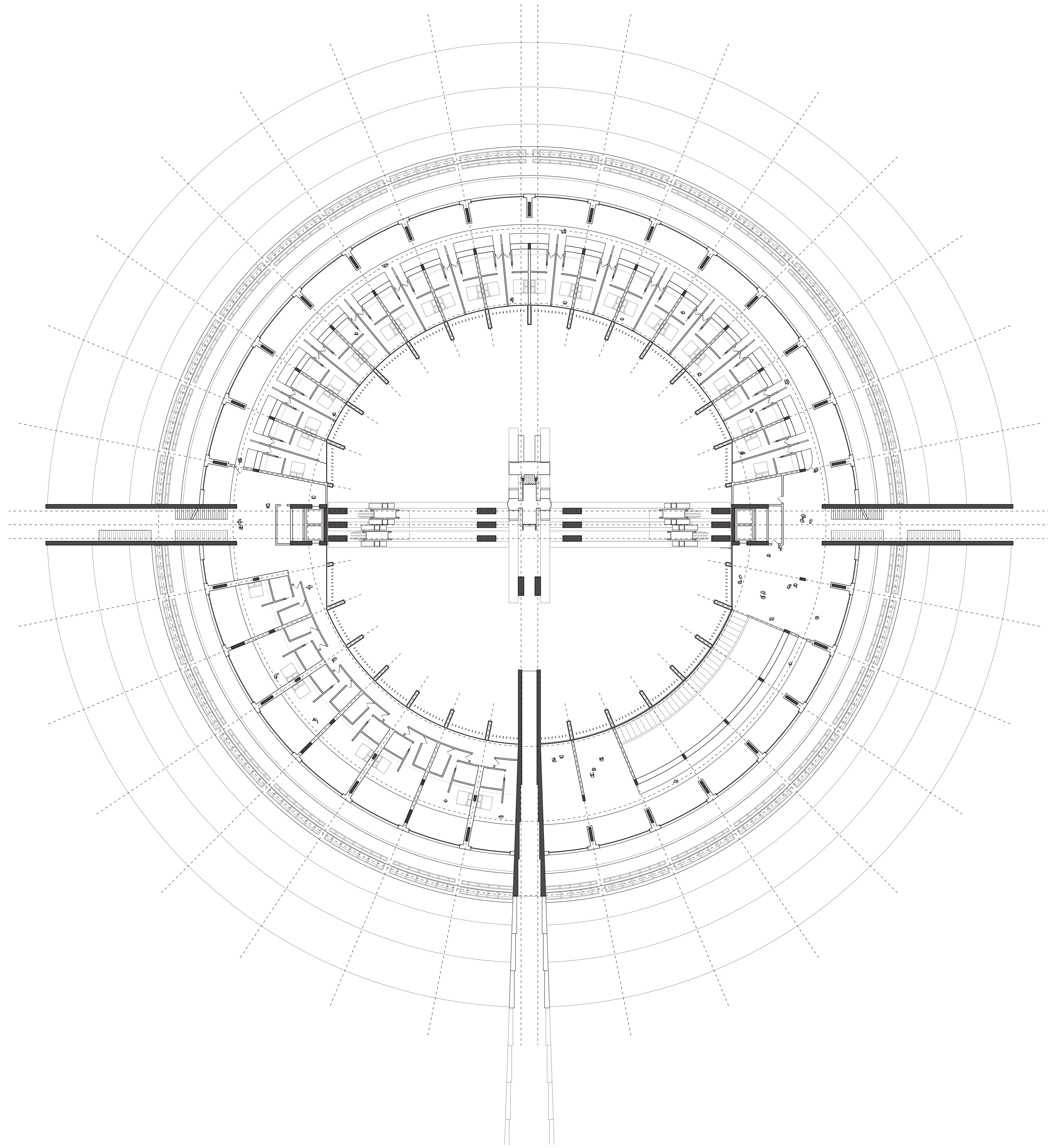
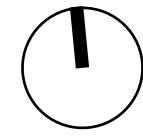
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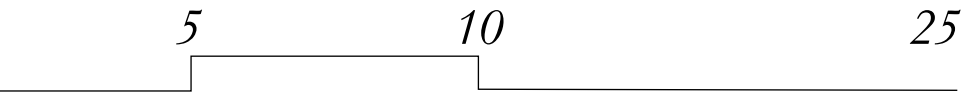
Visitor Center Hall

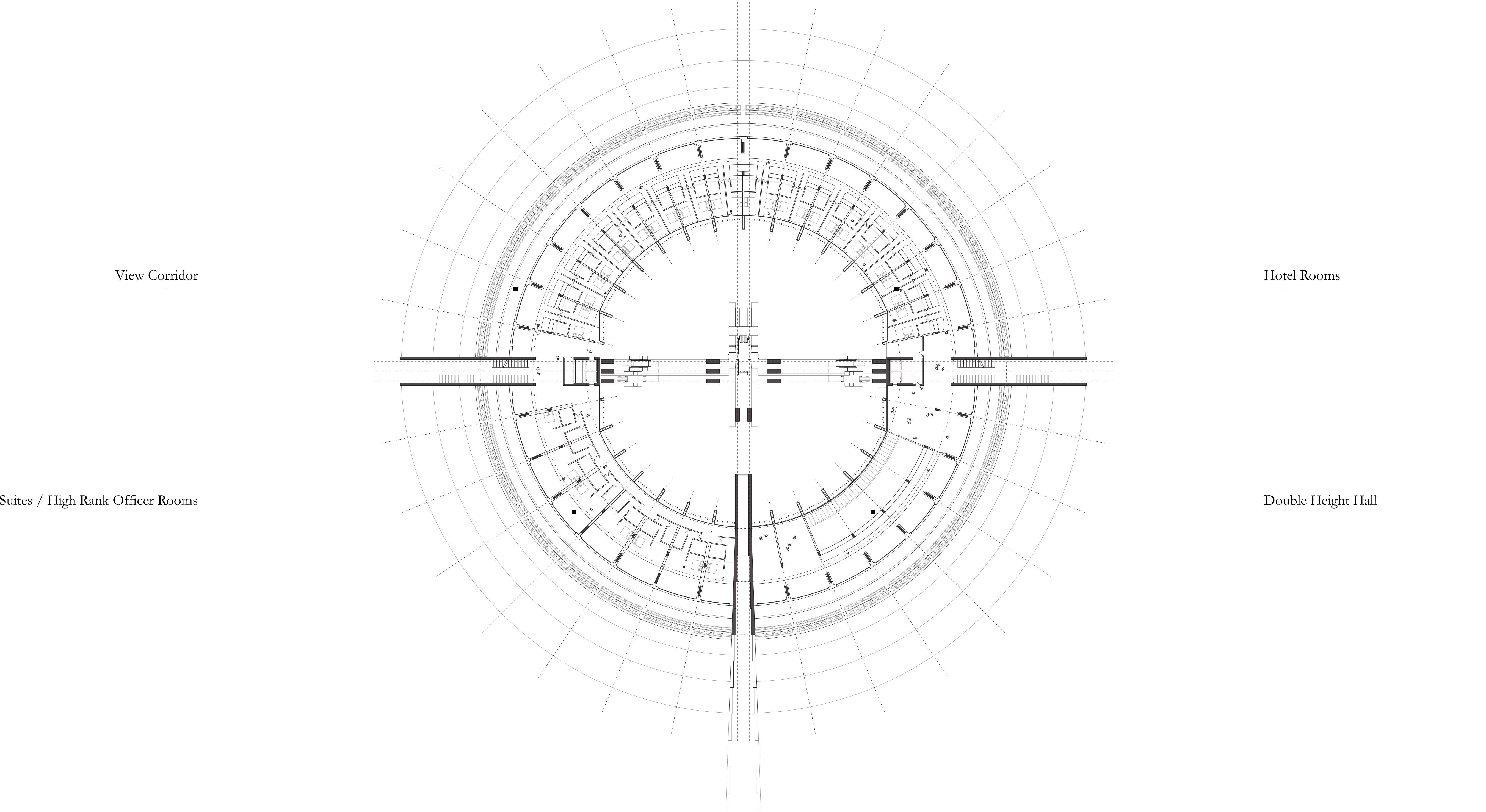
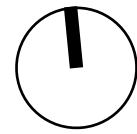
Visual

—

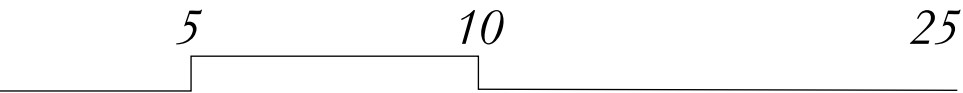


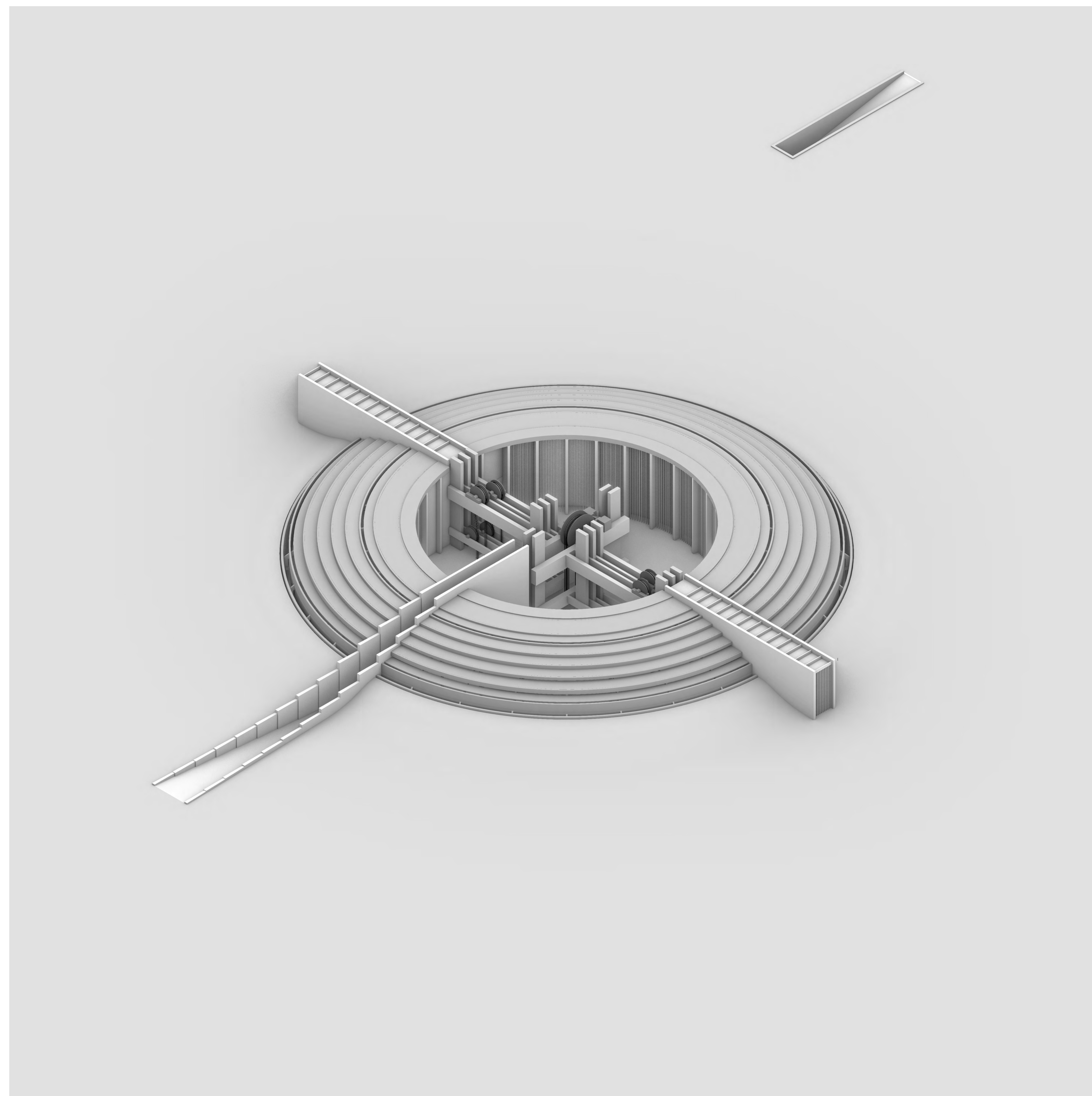
Visitor Rooms Floor
+04.00 meters
1:200





Visitor Rooms Floor
+04.00 meters
1:200

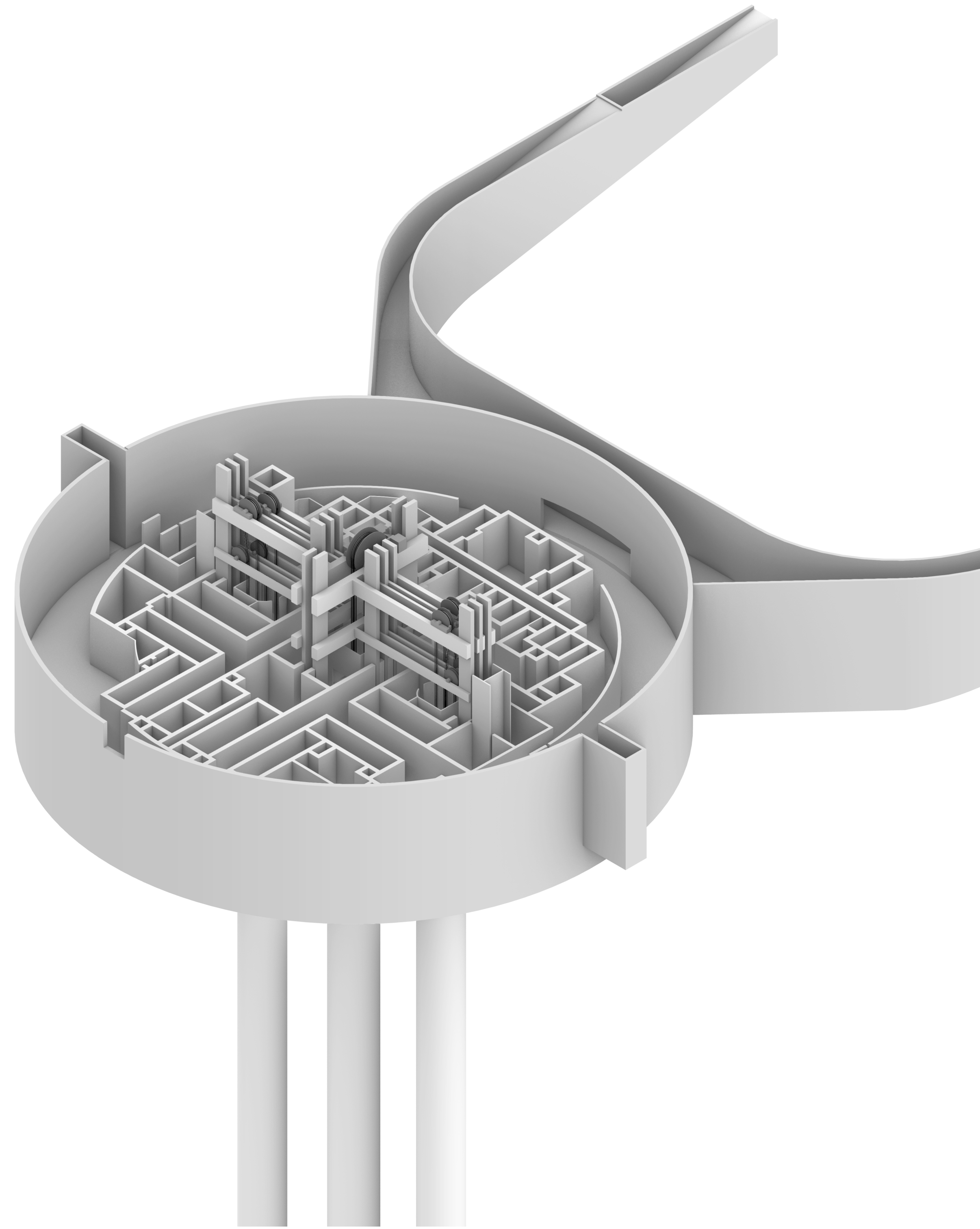




Central Facility
Axonometric

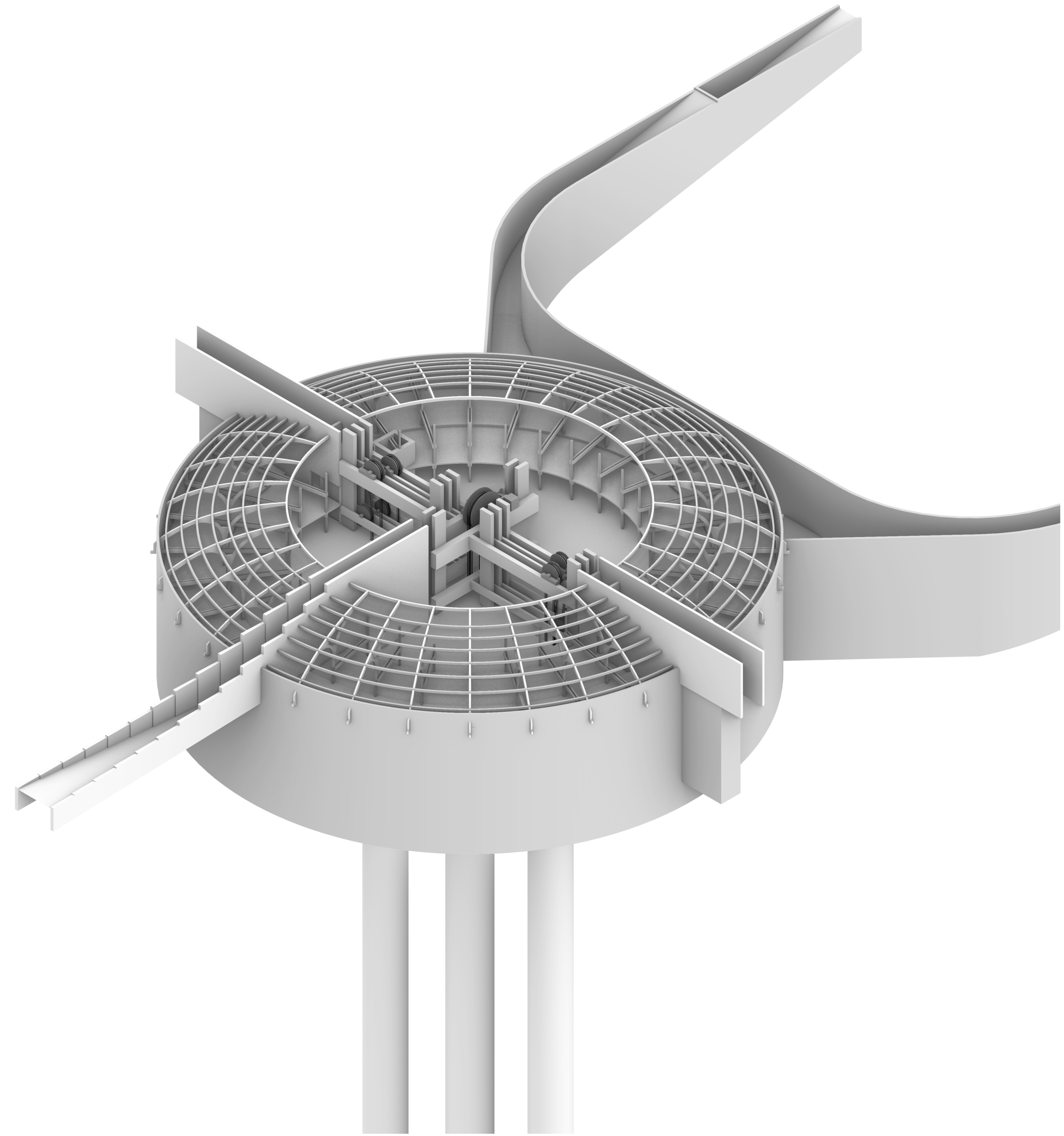


Mining Operations
Diagram
—



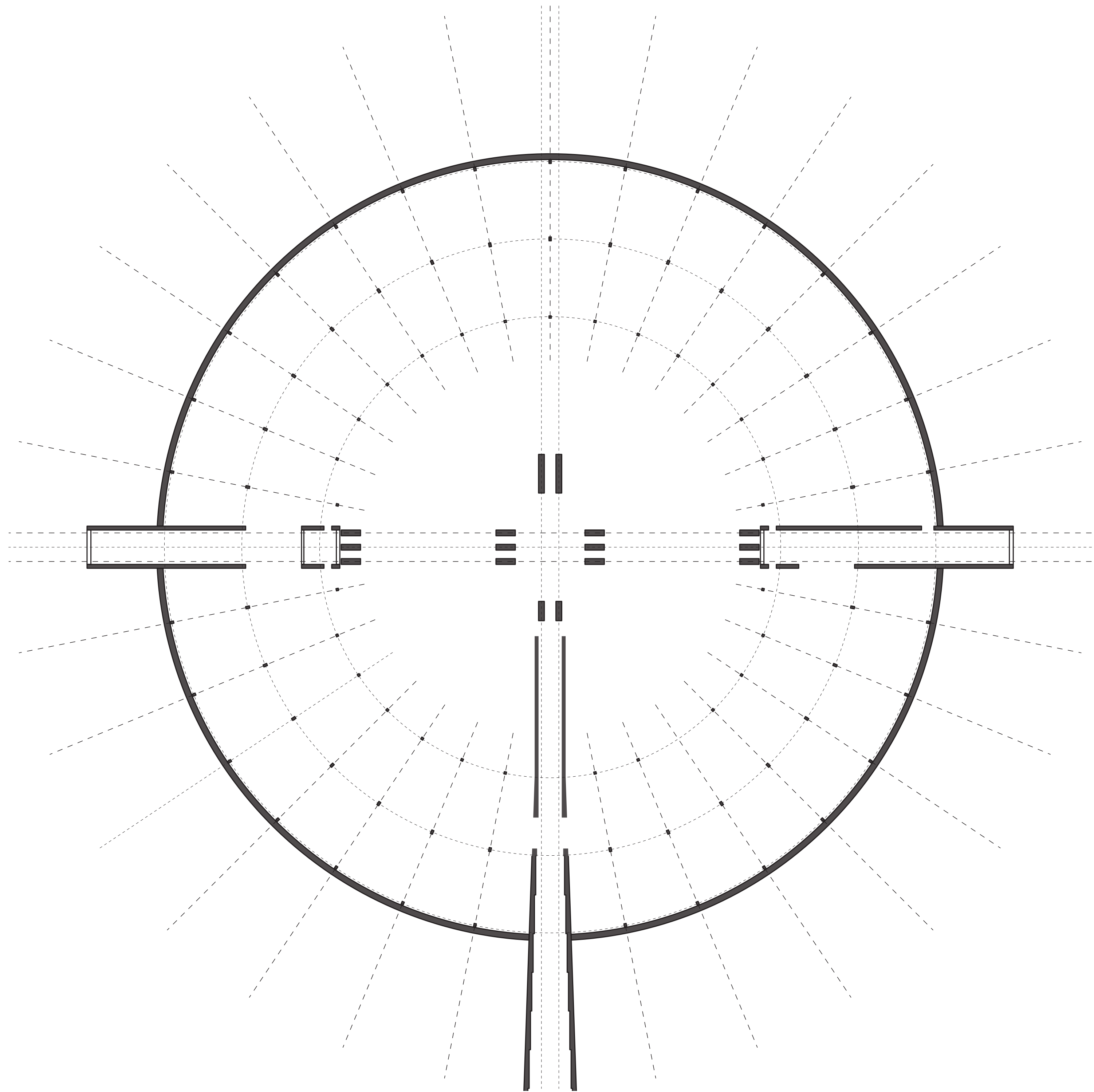
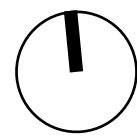
Repository Infrastructure
Diagram

—

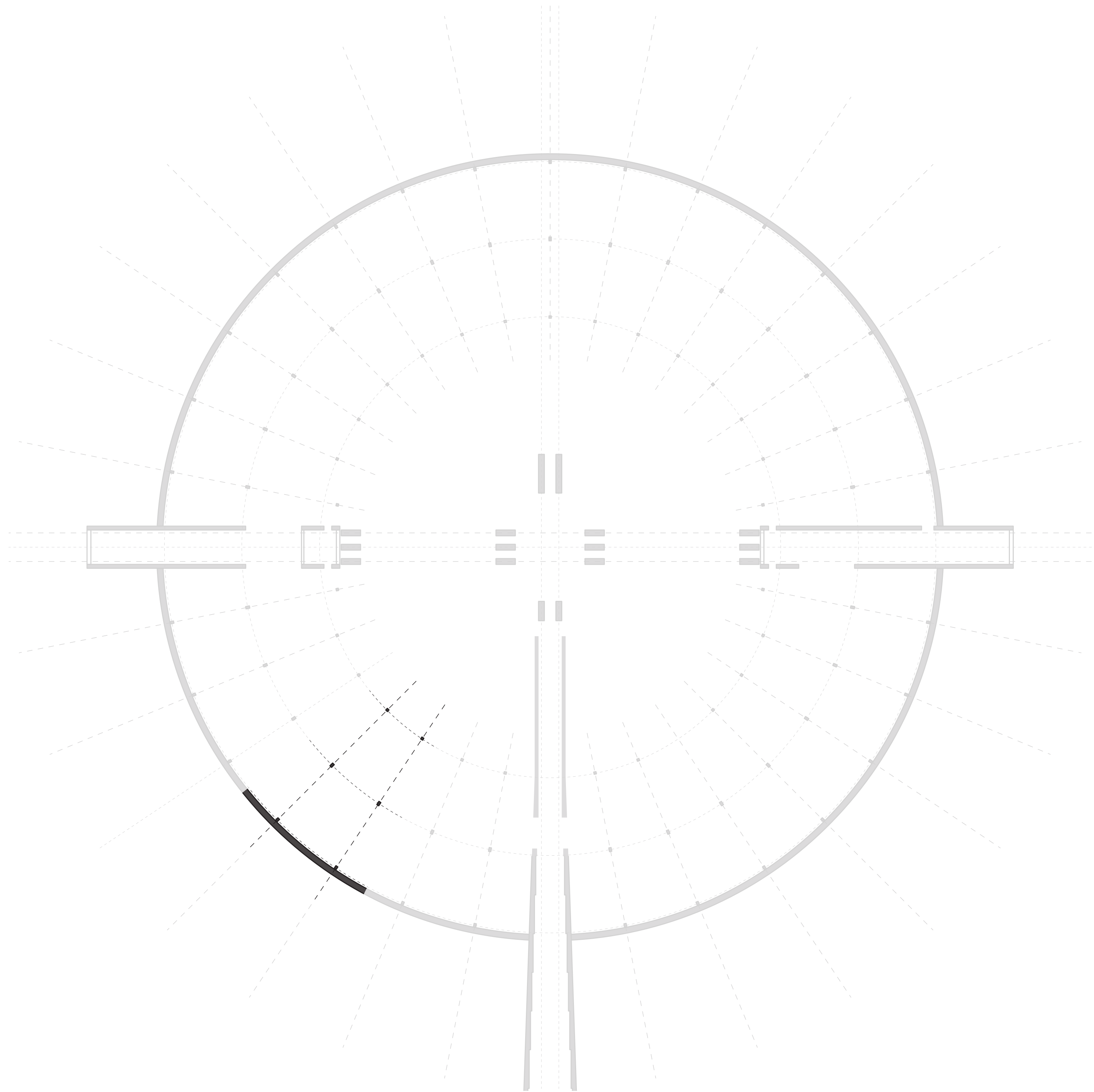
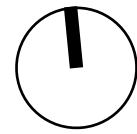


Research / Visitor Center
Diagram

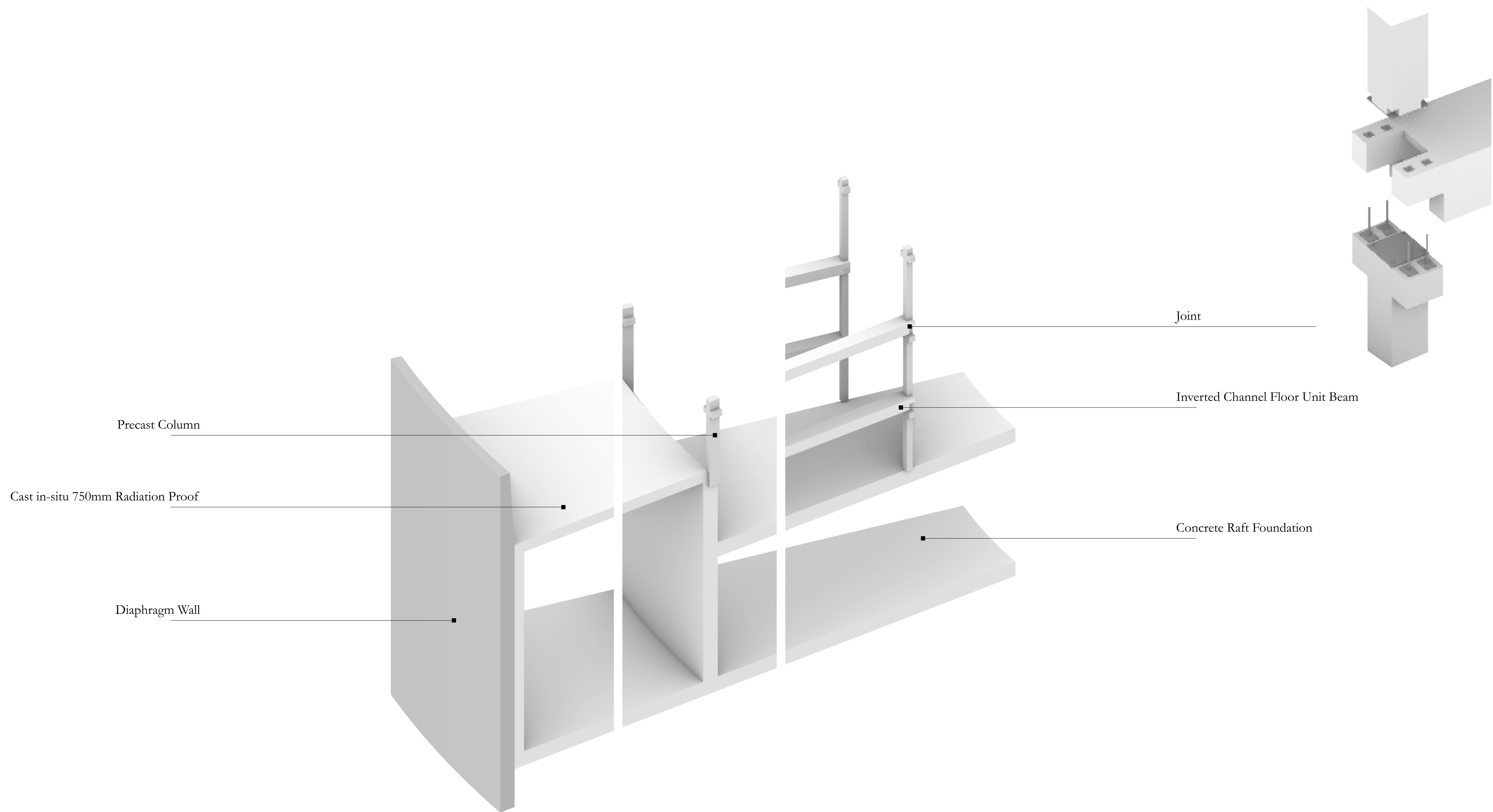
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Structure Grid
Structure
—



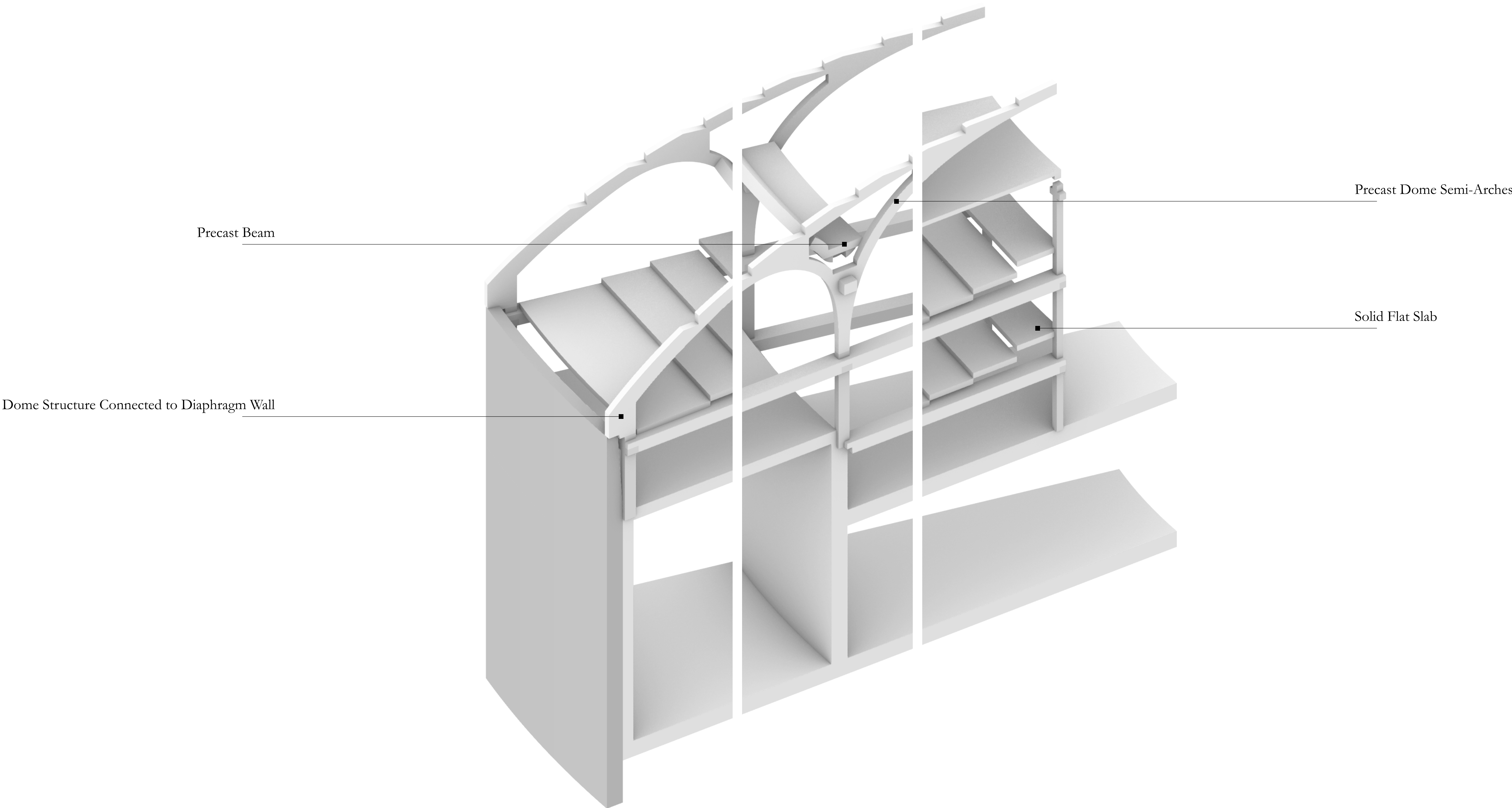
Slices
Structure
—



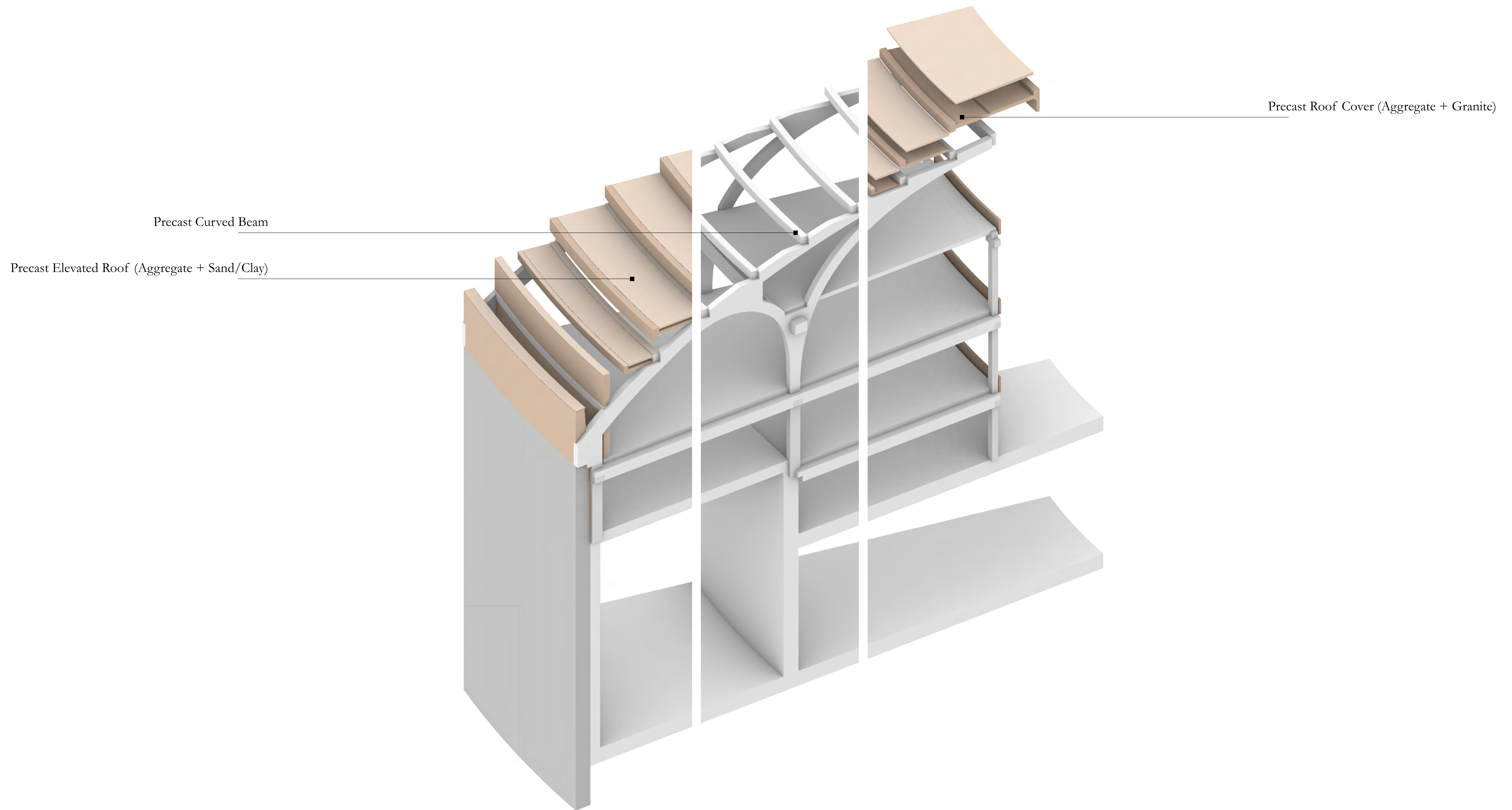
Structural Scheme

Axonometry

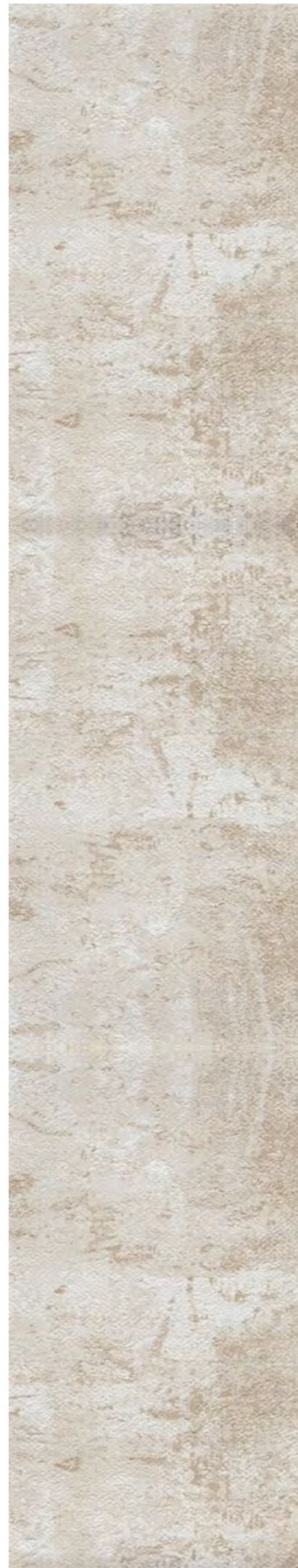
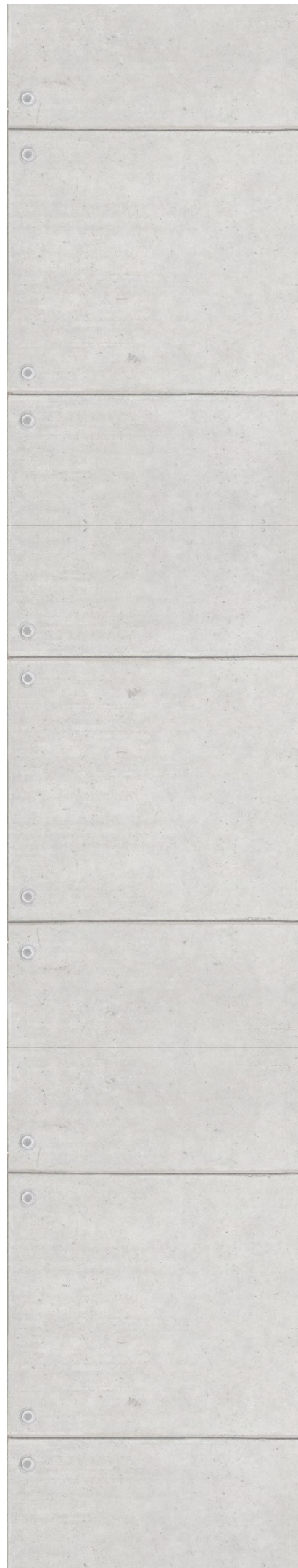
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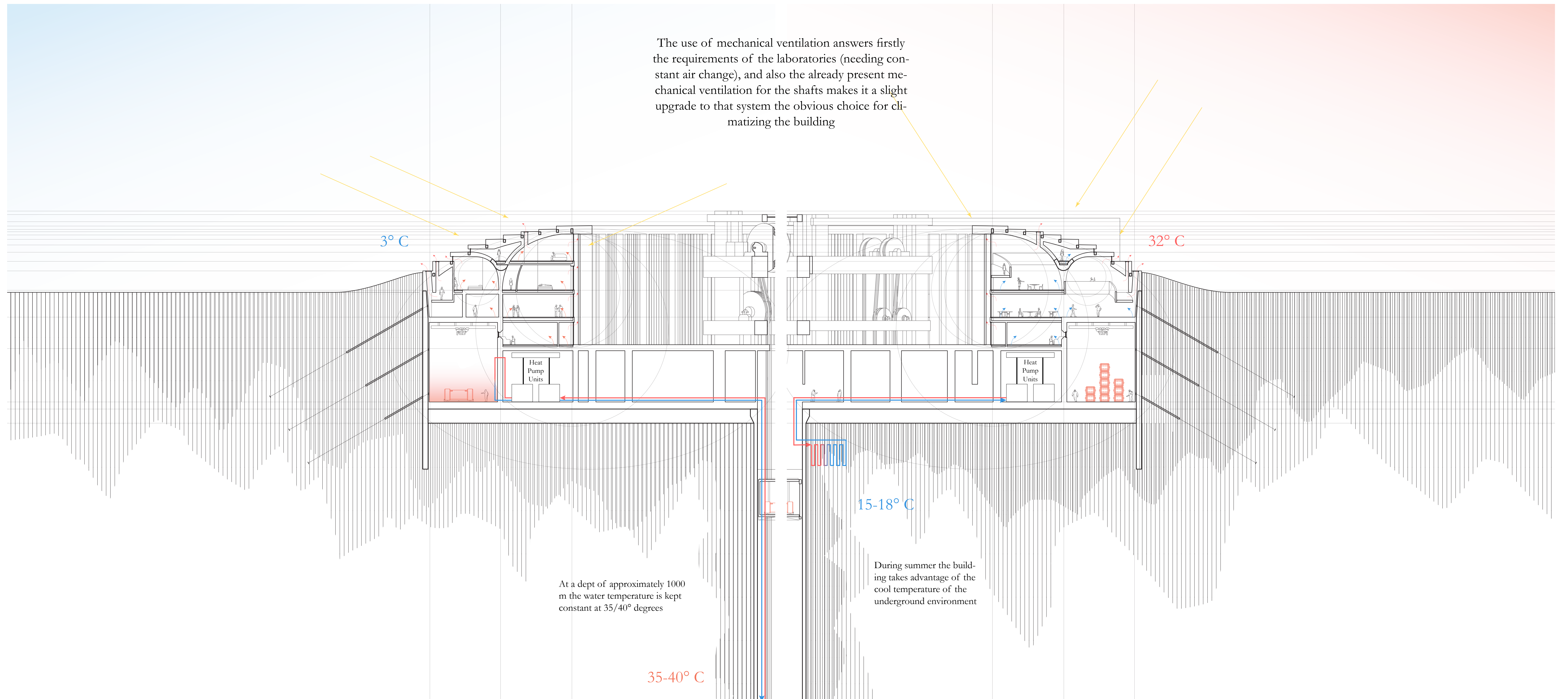


Structural Scheme
Axonometry

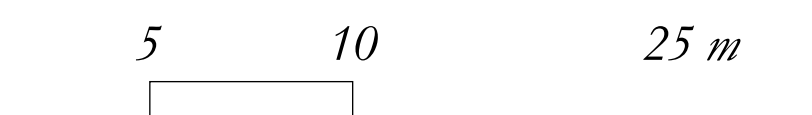


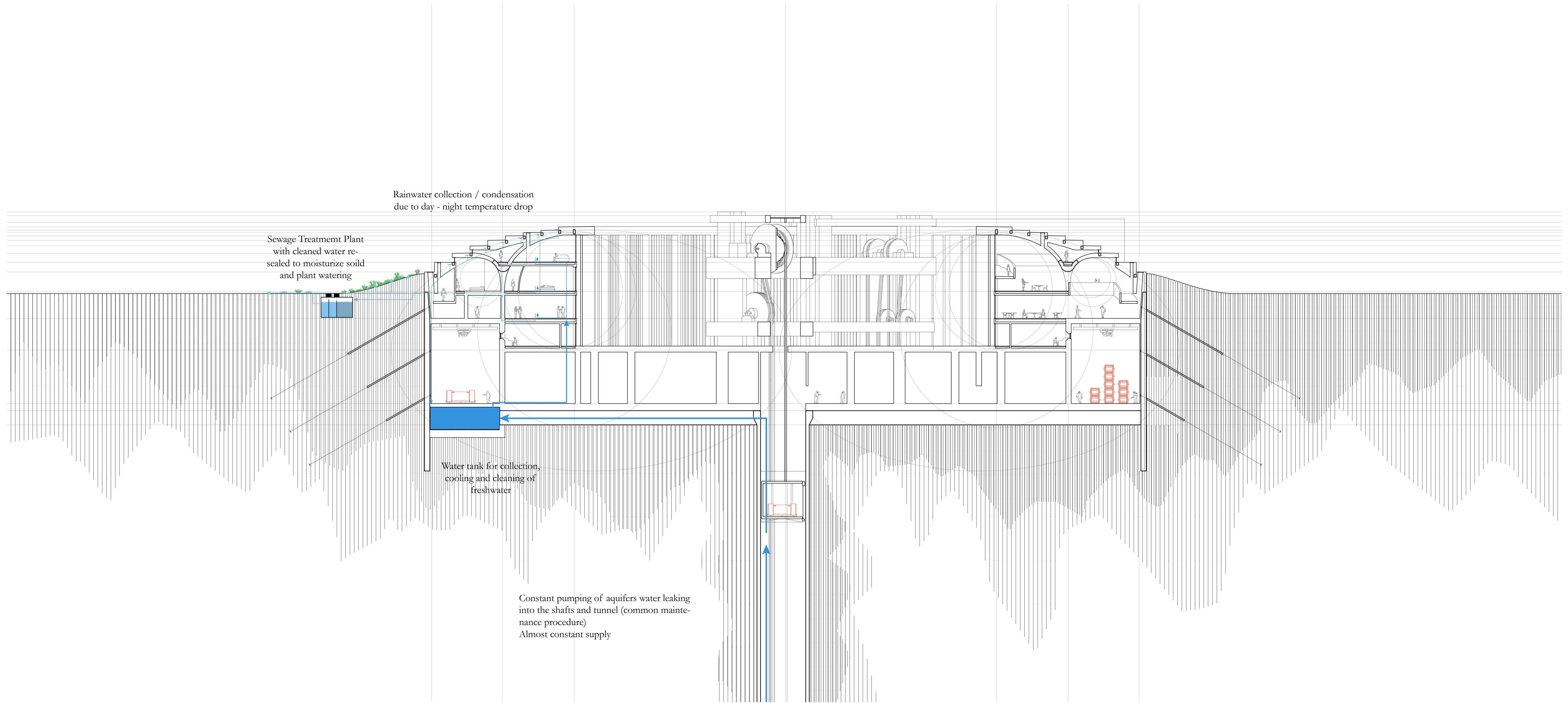
Structural Scheme
Axonometry

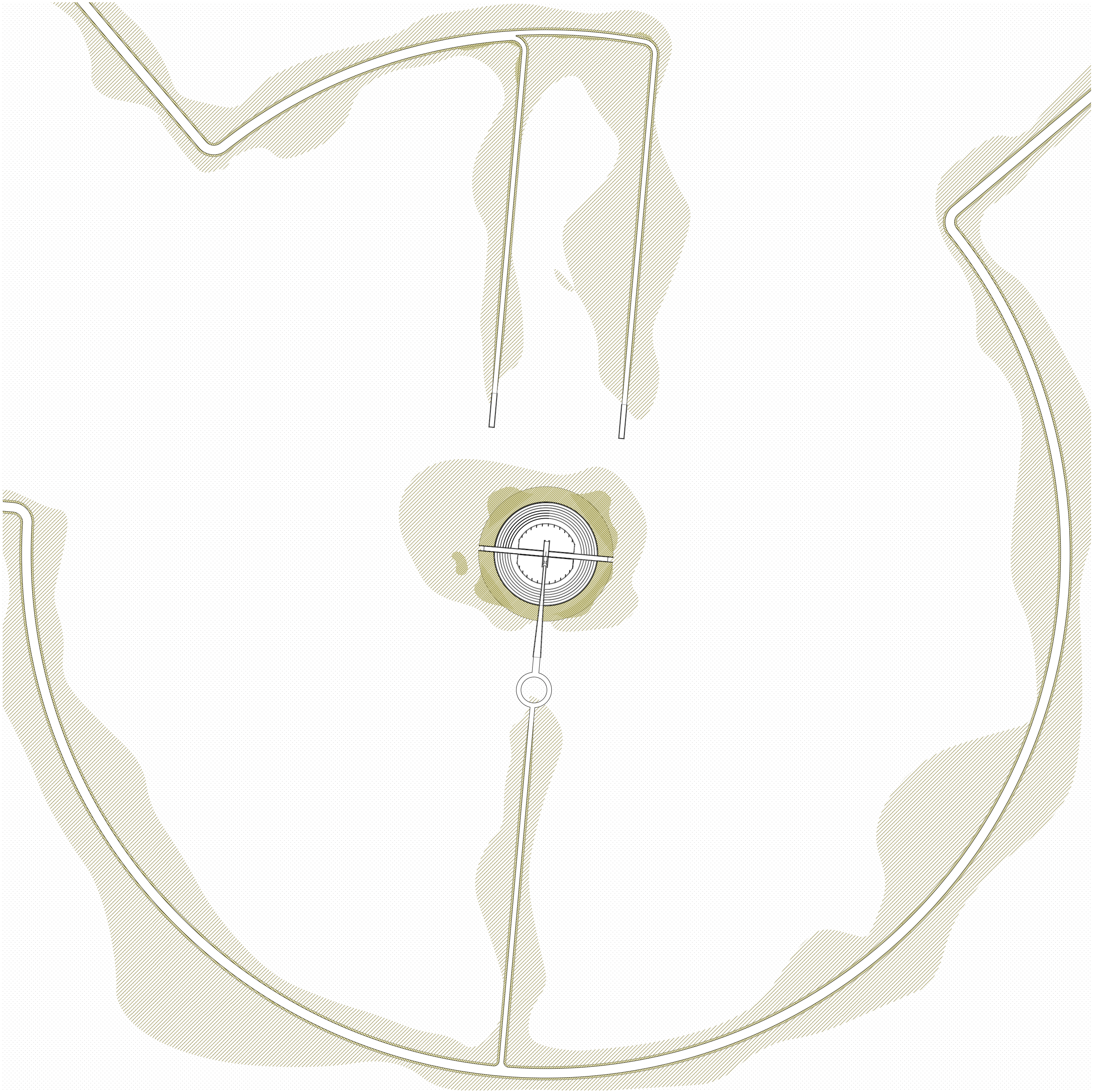




Climatic Strategy
Cold Winter Day Hot Summer Day
1:200





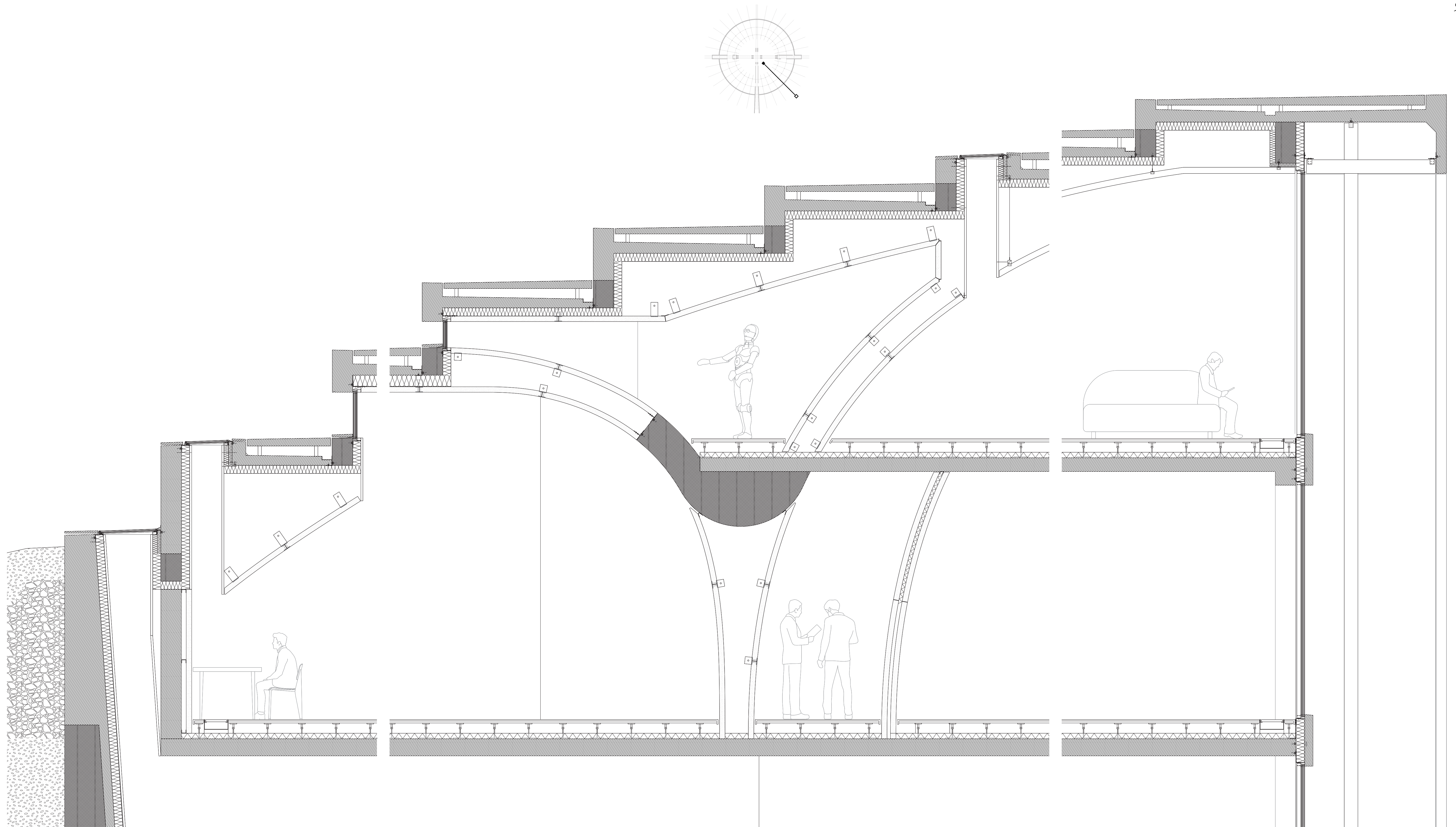


Climatic Strategy

Water Strategy

Reforestation

1:200



Build-up
Section
1:20

1 2 5 m

2

4

- (1) 20 mm granite tile flooring
30 mm double floor
Raisers
100 mm rigid foam insulation
Separation layer
250 mm solid flat slab
- (2) 100 mm elevated precast reinforced concrete element
Bituminous sheeting seal
Precast reinforced concrete step module
Vapour barrier
150 mm stone wool thermal insulation
30 x 90 mm stainless steel curved lamellas
- (3) 80 mm precast concrete cladding element to slab
12.5 mm waterproof plasterboard panel
150 mm stone wool thermal insulation
Vapour barrier
130 x 130 mm slotted steel angle bolted to halfen channel
- (4) 150 mm precast reinforced concrete roof element
130 x 130 mm slotted steel angle bolted to halfen channel
30 x 200 mm stainless steel lamellas

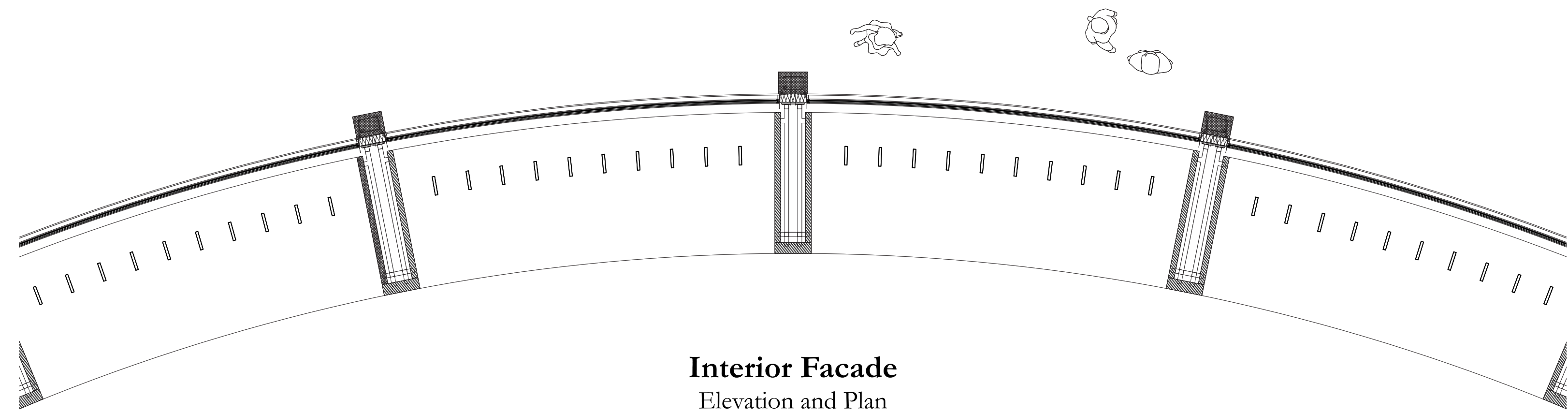
1

3

Interior Facade
Vertical Section
1:10

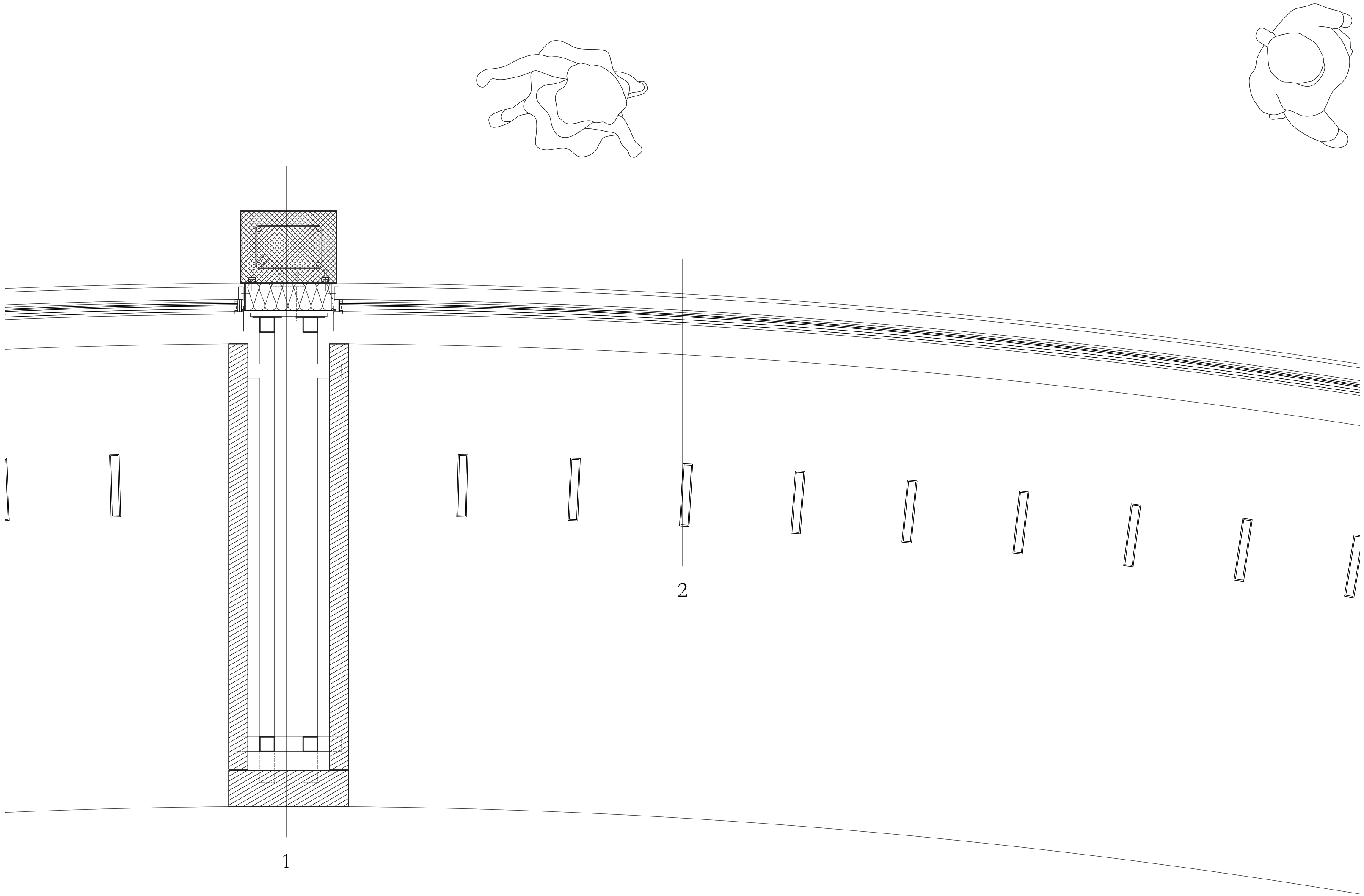
1

2 m



Interior Facade
Elevation and Plan
1:50

2 5 10 m



- (1) 80 mm precast concrete cladding element to column
steel substructure
12.5 mm waterproof plasterboard panel
150 mm stone wool thermal insulation
Vapour barrier
130 x 130 mm slotted steel angle bolted to halfen channel
300 x 350 mm precast reinforced concrete column
- (2) 30 x 200 mm stainless steel lamellas
Sun protection glazing in south
10 mm toughened glass coated
20 mm cavity
2 x 4 mm laminated glass
Aluminium frame

Interior Facade
Horizontal Section
1:10

1 2 m

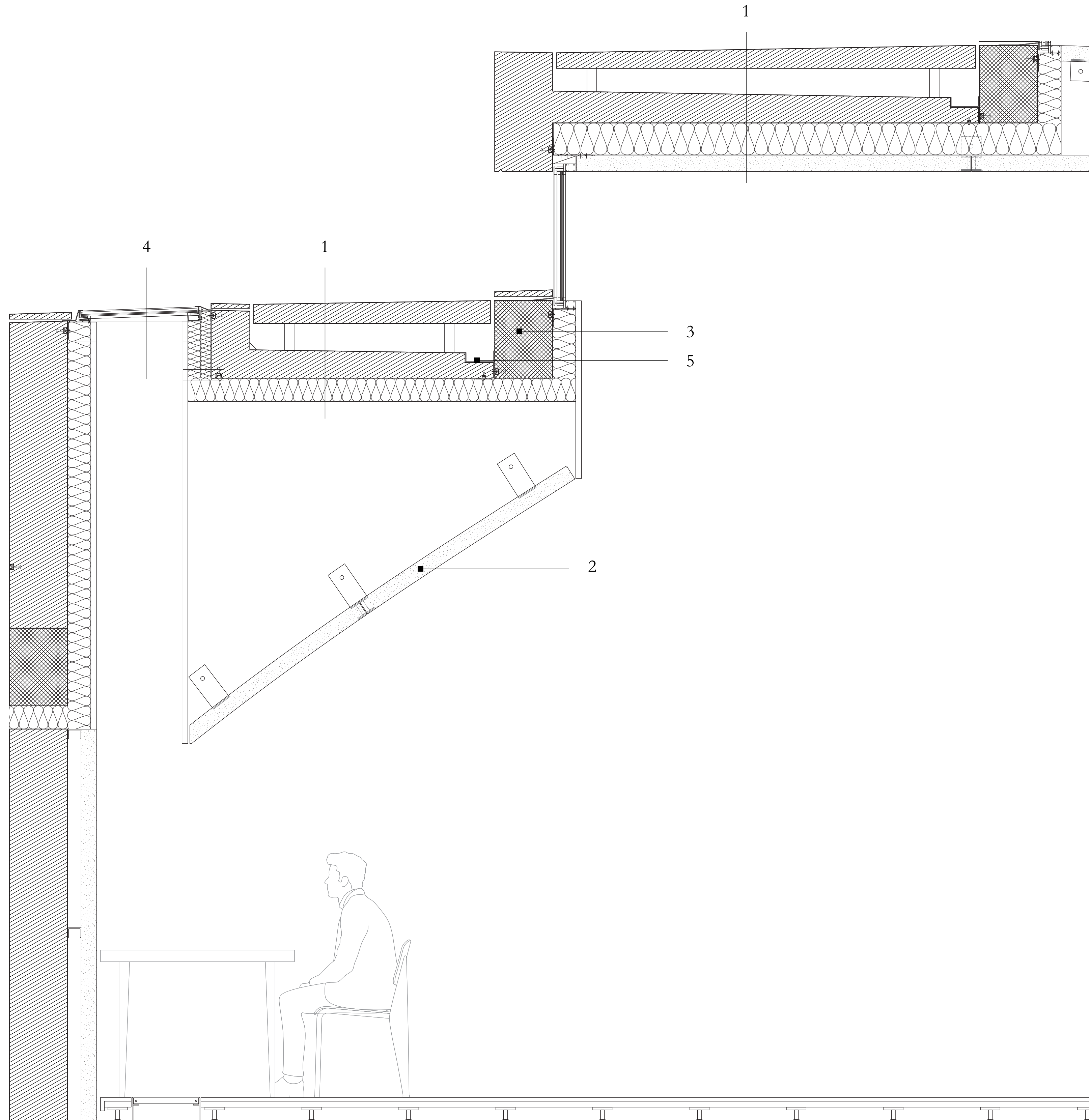


Interior View

Visual

—

- (1) 100 mm elevated precast reinforced concrete element
Bituminous sheeting seal
Precast reinforced concrete step module
Vapour barrier
150 mm stone wool thermal insulation
- (2) 80 mm prefab concrete panel double curved
- (3) 300 x 400 mm precast curved beam for dome structure
- (4) Sun protection glazing in south
10 mm toughened glass coated
20 mm cavity
2 x 4 mm laminated glass
Aluminium frame
- (5) Gutter



Skylights
Section
1:10

1

2 m

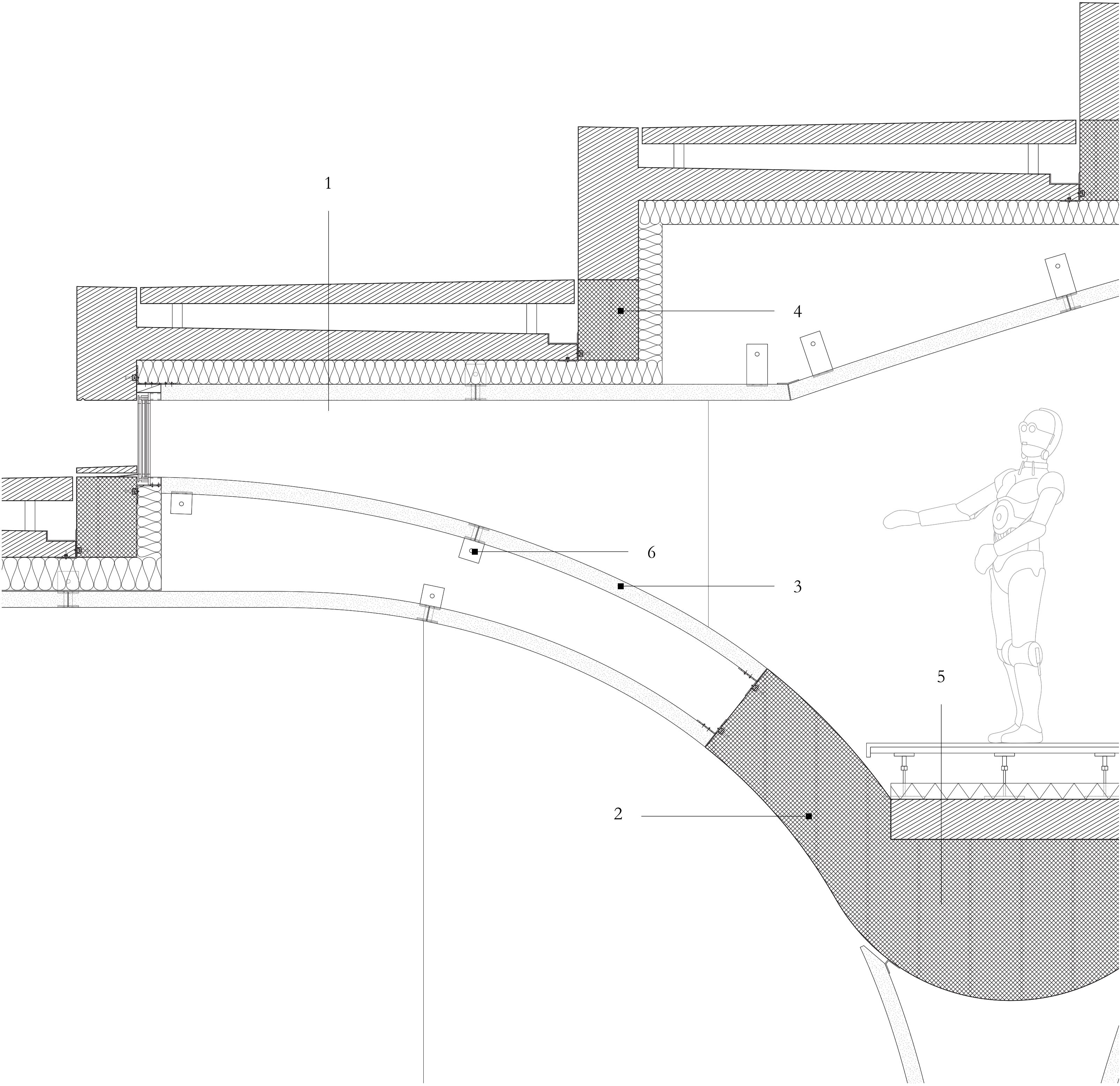


Interior View

Visual

—

- (1) 100 mm elevated precast reinforced concrete element
Bituminous sheeting seal
Precast reinforced concrete step module
Vapour barrier
150 mm stone wool thermal insulation
80mm precast concrete panel curved
- (2) Precast curved special beam
- (3) 80 mm prefab concrete panel double curved
- (4) 300 x 400 mm precast curved beam for dome structure
- (5) 20 mm granite tile flooring
30 mm double floor
Raisers
100 mm rigid foam insulation
Separation layer
Precast curved special beam
- (6) 5 mm steel L plates attached to arching structure



Framed Views and Partitions

Section
1:10

1 2 m



Corridor
Visual
—



Thank you