THE MUSES LABYRINTH BENEATH

Reproducing life inherent in musical form with architectural composition

Ivan Chi Fung TAM

Roel van de Pas (Design tutor)

Hubert van der Meel (Building technology tutor)

Peter Koorstra (Research tutor)

External examiner: Dr. DA Sepulveda Carmona

Architecture is beyond objects

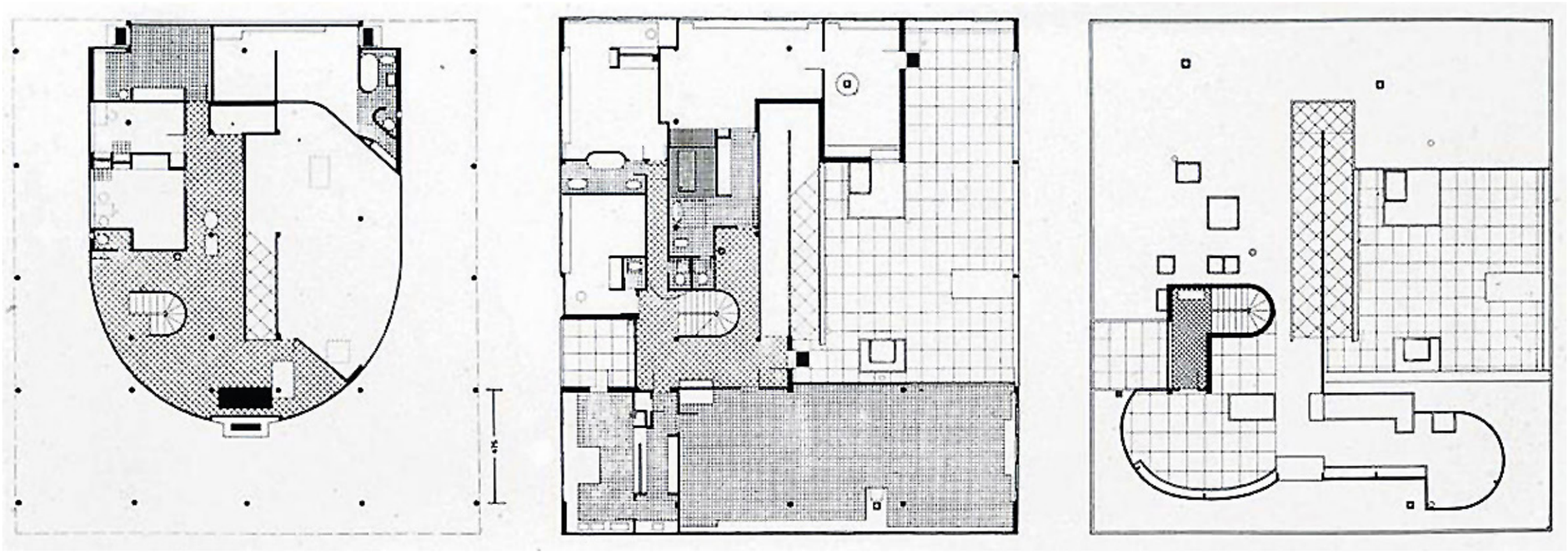
“Poetry is not just in the word. Stronger is the poetry of facts. Objects that mean something, disposed with tact and talent, create a poetic fact.”

Le Corbusier, Vers une architecture (Paris: Crès, 1923)

Le Corbusier, 1920,
Nature morte (Still Life)

Le Corbusier, 1921,
Nature morte (Still Life)

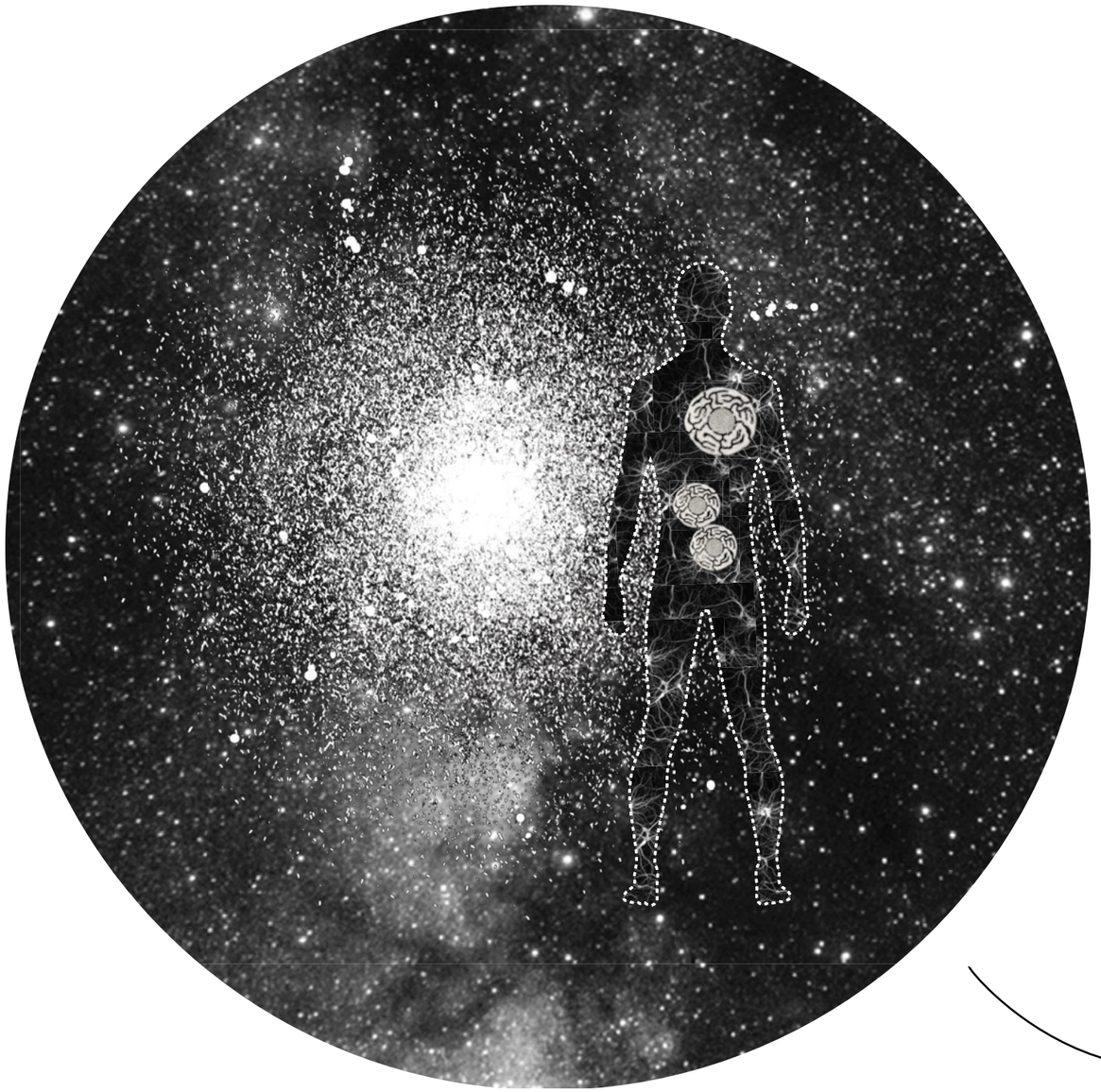
Le Corbusier, 1922,
Nature morte verticale (Vertical Still Life)



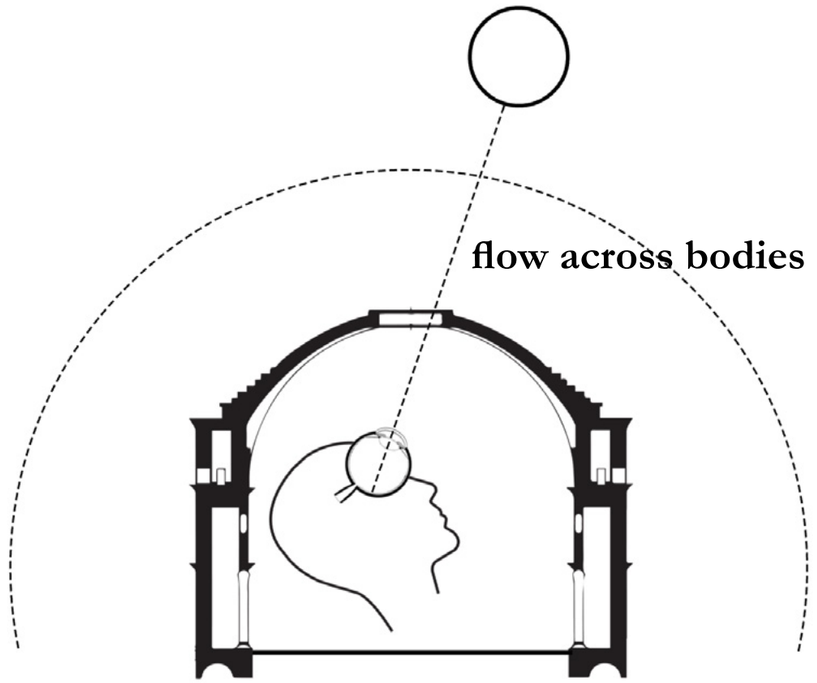
Villa Savoyae

Architecture is essentially an extension of nature into the man-made realm, providing the ground for perception and the horizon of experiencing and understanding the world.

Juhani Pallasmma



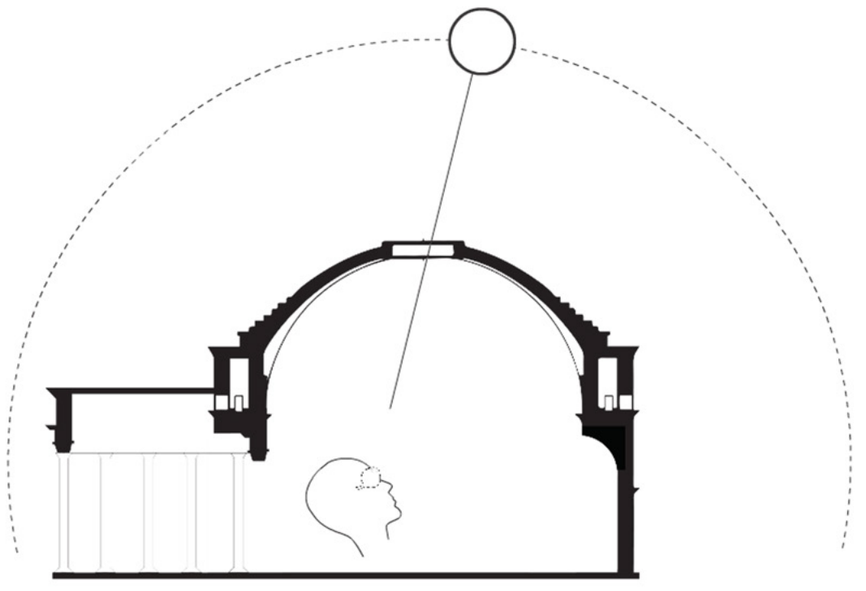
Diversity of bodies



Architectural body

... [Architecture] is not an isolated and self-sufficient artefact; it directs our attention and existential experience to wider horizons.

Juhani Pallasmma



[click link to video]

https://youtu.be/0VL4bclgT7g

Research on Music & Architecture

A metaphysical approach looking into the quote “I call architecture frozen music”
by Johann Wolfgang Von Goethe.

Exploring on the universal quality of music - affectiveness, adaptiveness & generativeness

How to reproduce the music quality in architectural compositions

Relationship between Music and Nature

MUSIC IN TIME: HISTORY AND BECOMING

Music is the deterritorialization of the refrain, and in this sense the refrain is "the block of content proper to music" (MP 368; 299). The refrain itself, of course, is a complex of deterritorialization and reterritorialization, its three aspects being those of a point of order, a circle of control, and a line of flight to the outside. The refrain territorializes chaos in forming a milieu; it deterritorializes milieu components and reterritorializes them in a territory proper; and deterritorializing forces constantly play through the territory, thereby opening it to the cosmos as a whole. Yet the basic function of the refrain is "essentially territorial, territorializing or reterritorializing, whereas music makes of it a deterritorialized content for a deterritorializing form of expression" (MP 369; 300). The refrain, then, is "a way of impeding, of conjuring music or doing away with it" (MP 368; 300). Music takes the refrain as its content and transforms it by entering into a process of "becoming" that deterritorializes the refrain.

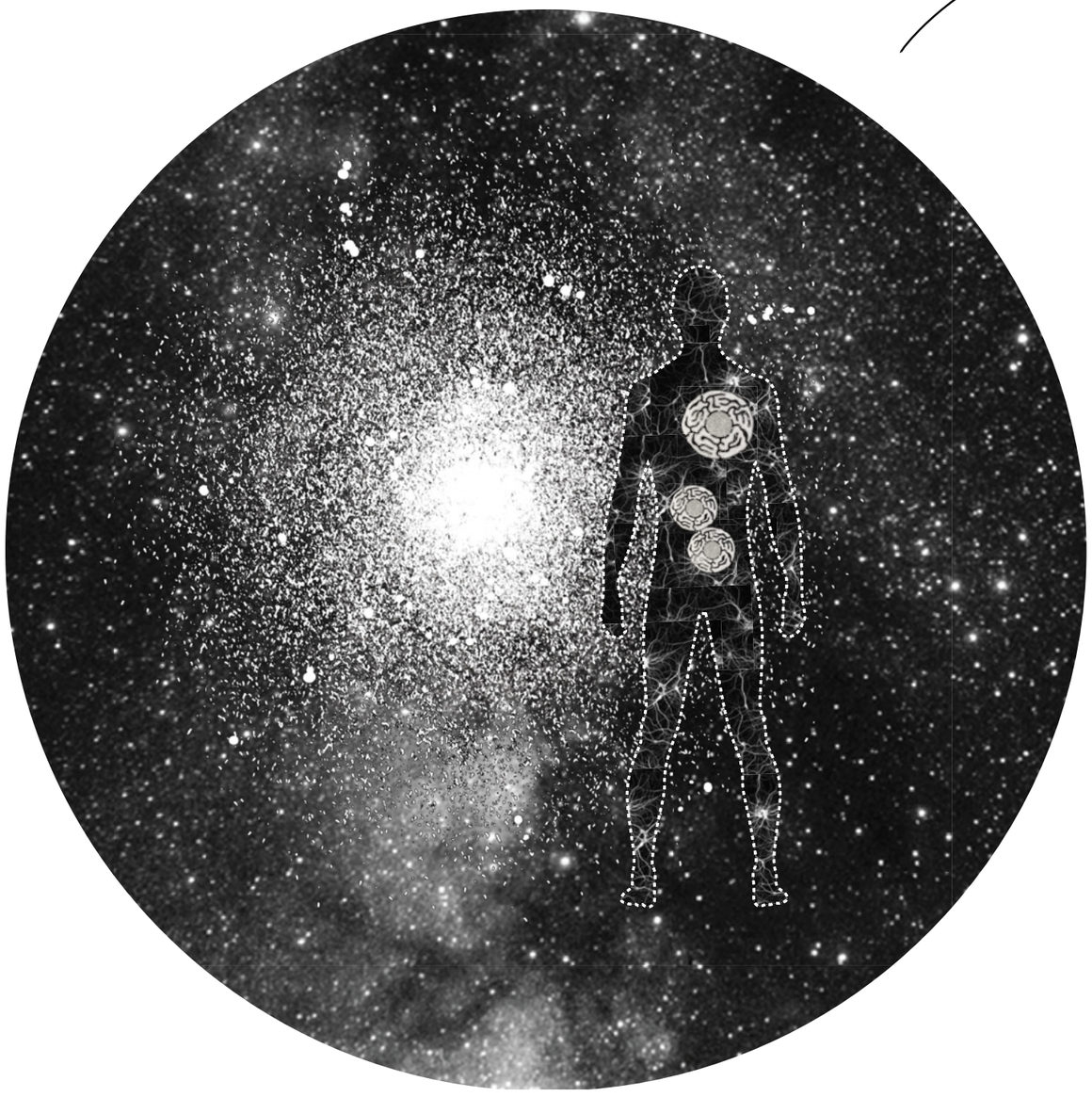
BECOMING-WOMAN, BECOMING-CHILD

We have seen how Messiaen's becoming-bird eventuates in the *Catalogue d'oiseaux*. What might seem a mere imitative exercise is actually the inauguration of a creative passage between bird and musician, a

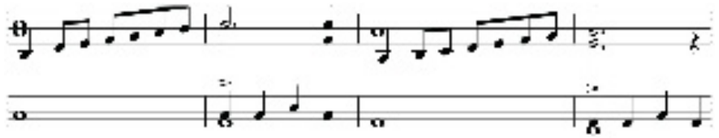
RUYER AND THE MELODIES OF DEVELOPMENTAL BIOLOGY

Von Uexküll recognizes the importance of developmental melodies in the symphony of nature, but for a detailed elaboration of this notion one must turn to Raymond Ruyer, a philosopher whom Deleuze and Guattari cite with some frequency.* In a series of books, including *La Conscience et le corps* (1937), *Eléments de psycho-biologie* (1946), *Néo-finalisme* (1952), and *La Genèse des formes vivantes* (1958), Ruyer articulates a philosophy of biology centered on the formative activity of all living beings. Ruyer's controlling insight is that the morphogenesis of a living entity can never be explained via a mechanistic causality-through-contiguity, but must presume the existence of a formative theme or melody controlling its development. Following Whitehead, Ruyer distinguishes between living forms—self-shaping, self-sustaining, and self-enjoying entities—and aggregates, quantitative collections of entities whose forms are determined by external forces, and hence are explicable in terms of mechanistic causal relations. Examples of aggregates are clouds, ocean currents, geological formations, and human crowds.

Abstracted into



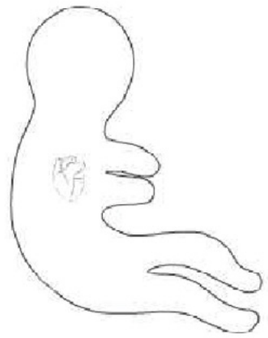
Life
(Diversity of bodies)



Musical body
(Flow)

Architectural body
(Frozen Form)

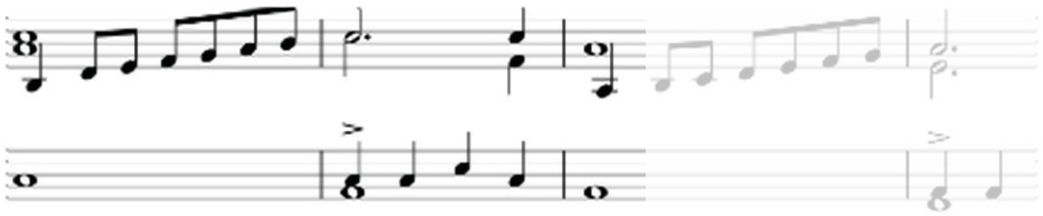
[Music and Bodies] Flow - formation



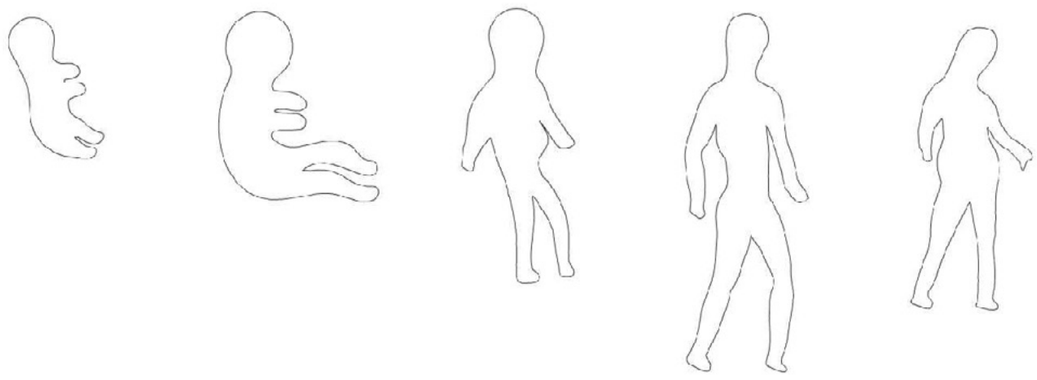
1. Embodied body (heart) actions within and contribute to the embodying body (human)

[click link to video]

https://youtu.be/5EVY2WSws04



1. Sounds action and contrubute to the musical body
2. The music body unfolding through time

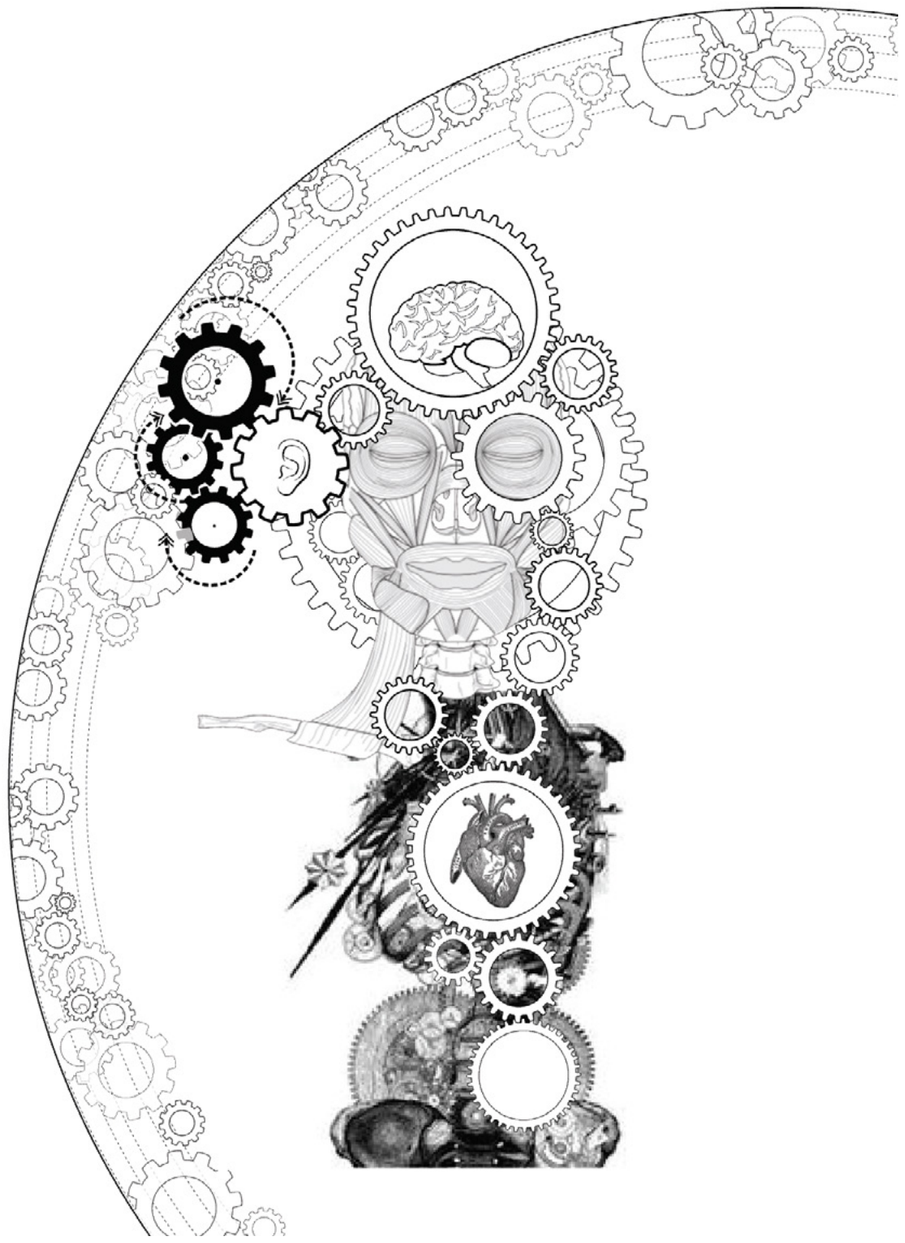


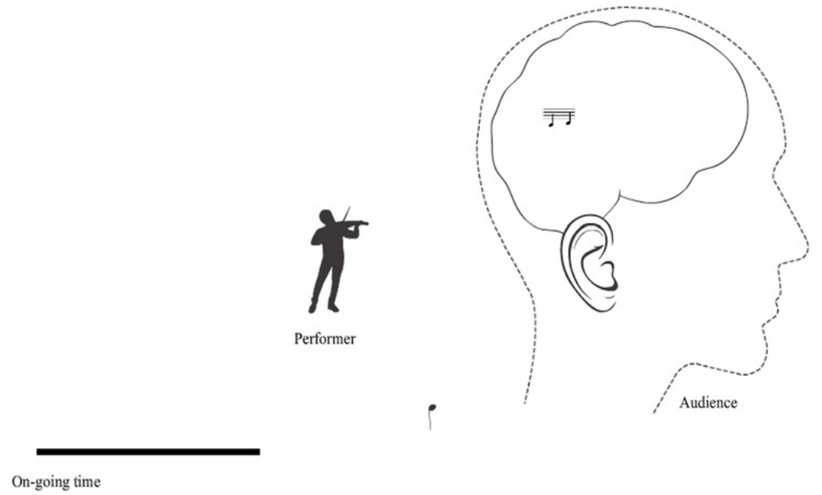
2. The holistic body is transforming itself alongtime

[click link to video]

https://youtu.be/vkkPcYNJAzg

[Music and Bodies] Flow - affection





[click link to video]

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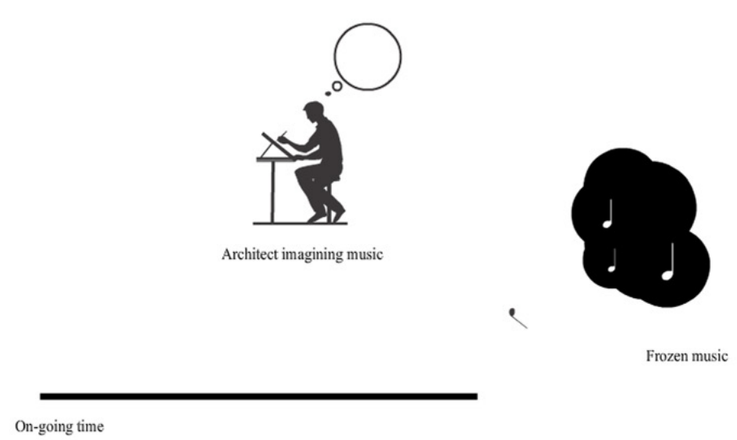
[Architecture and bodies] Flow and Frozen



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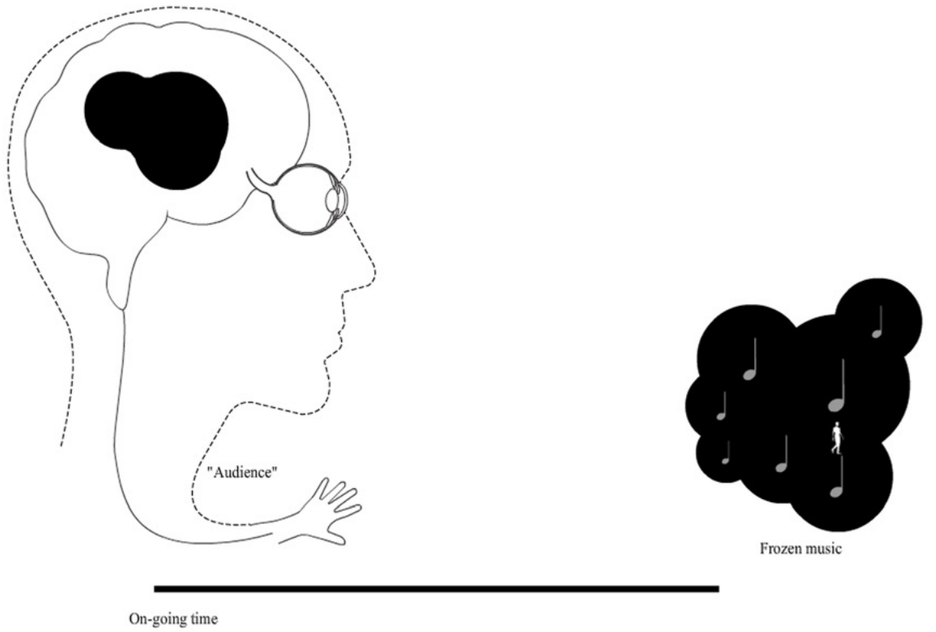
[Architecture and bodies] Flow and Frozen



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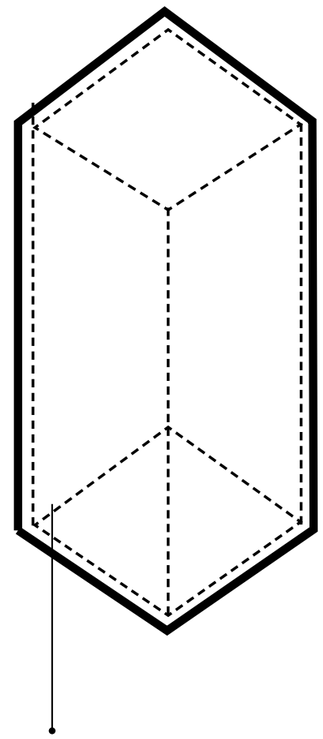
Negative Space - space as volume contained

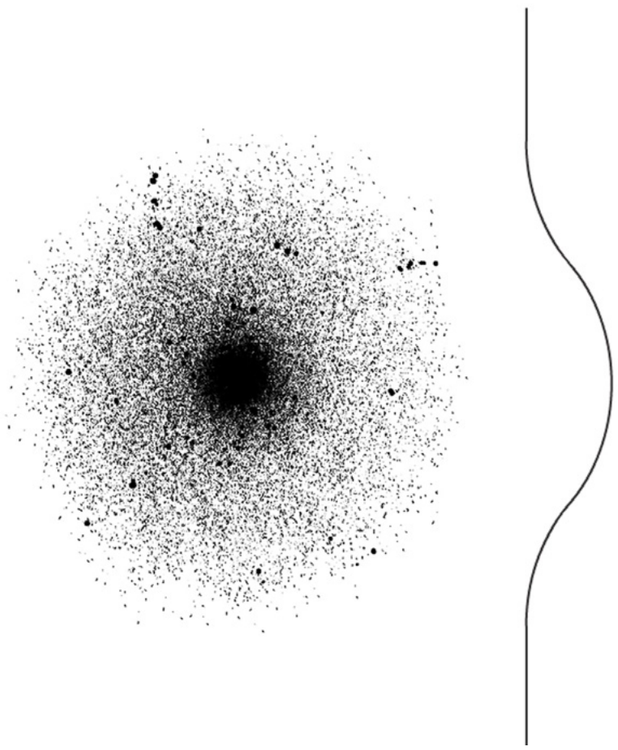


negative space

Sound and Auditory space

[Auditory space] is a sphere without fixed boundaries, space made by the thing itself, not space containing the thing. It is not pictorial space, boxed-in, but dynamic, always in flux, creating its own dimensions moment by moment.

M. Fowler, Architectures of Sound: Acoustic Concepts and Parameters for Architectural Design



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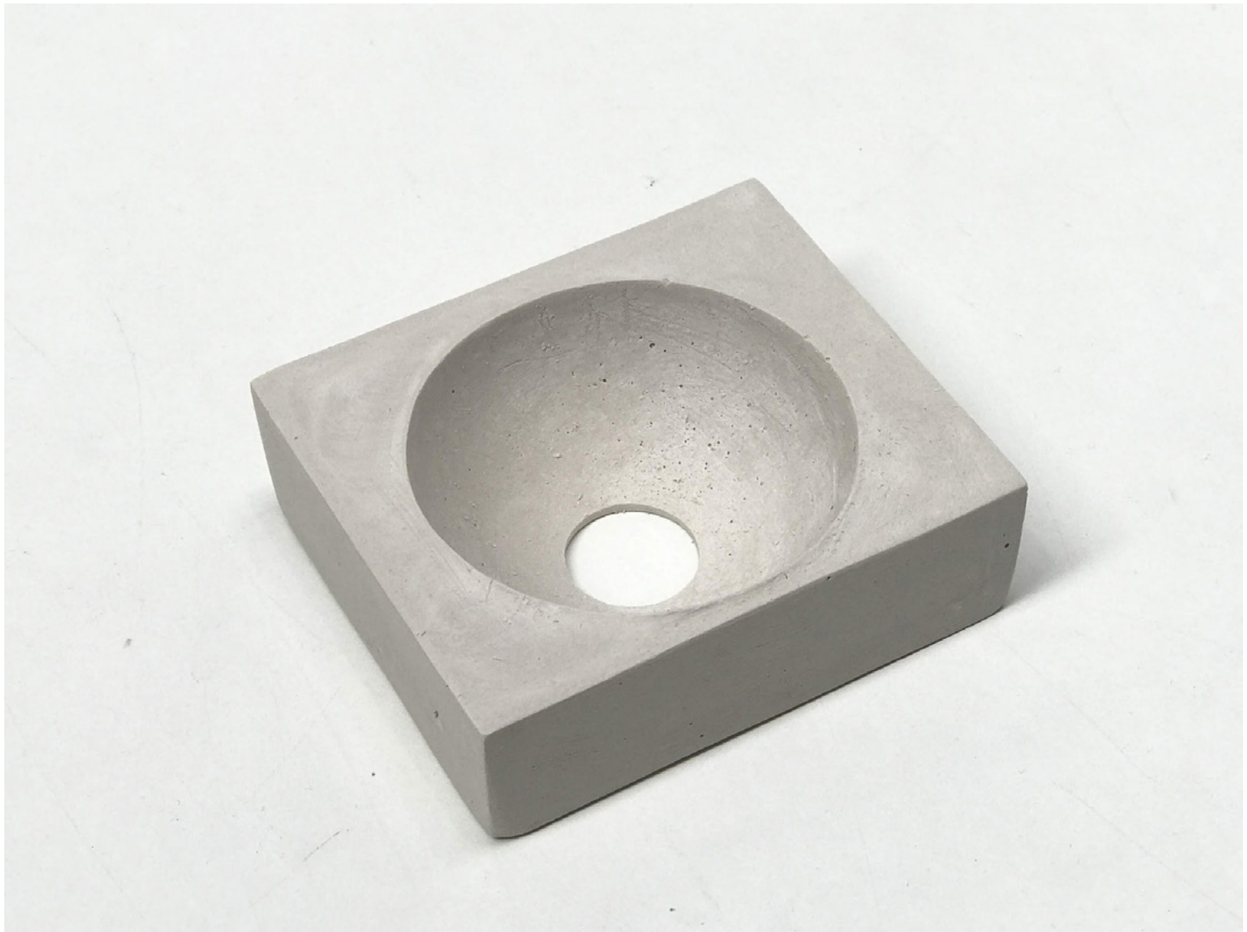
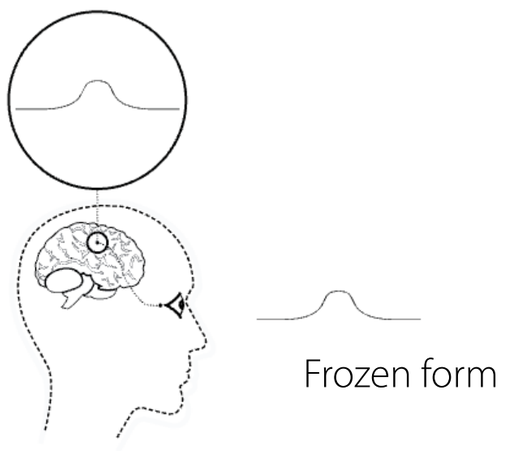


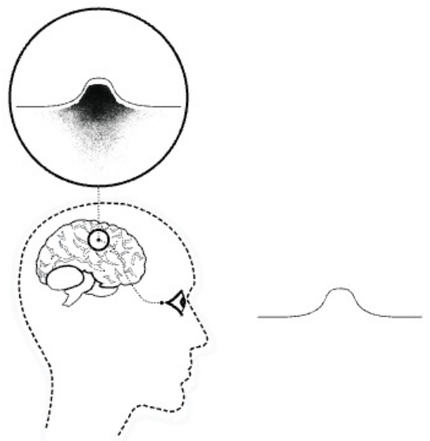
Empathy

I transpose myself into the inner being of the object and then explore its formal character from within as it were. This kind of transposition can take a motor or sensitive form even when it is concerned with lifeless and motionless forms.

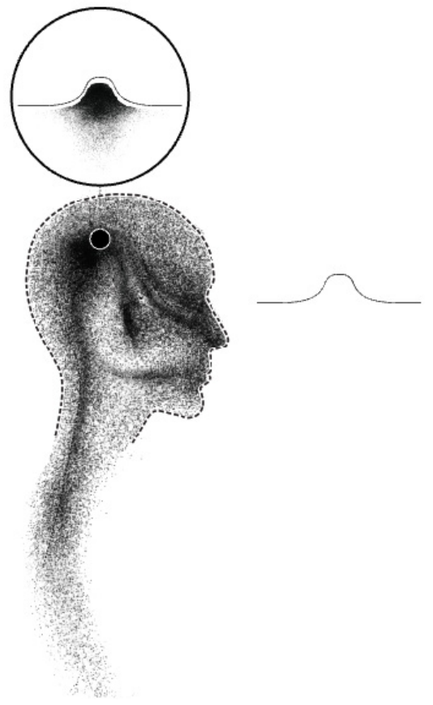
Robert Vischer, "The Aesthetic Act and Pure Form,"



1. Human perceive the form

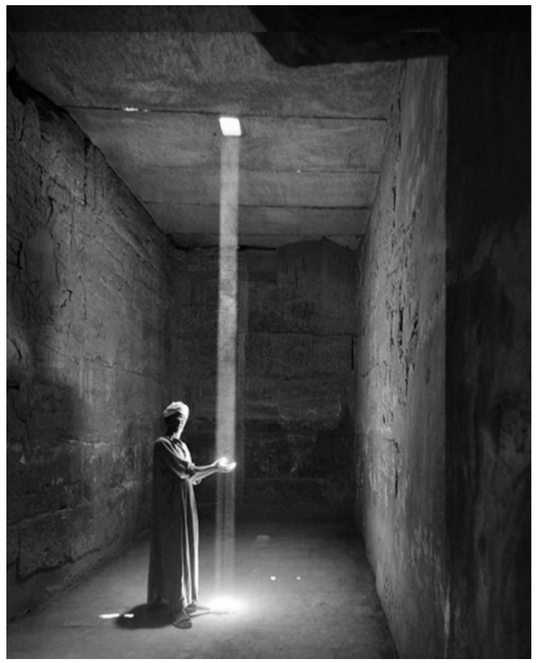


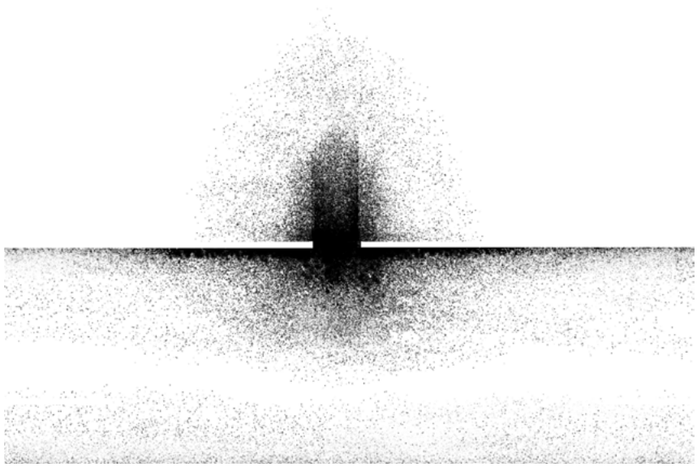
2. Imagination of action

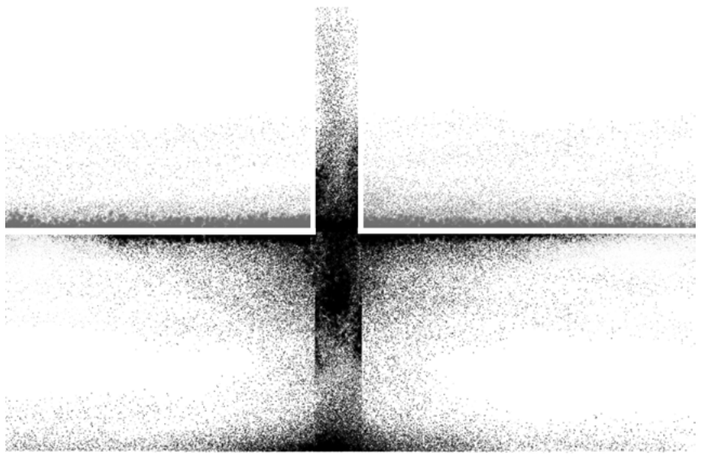


3. synchronize with human body

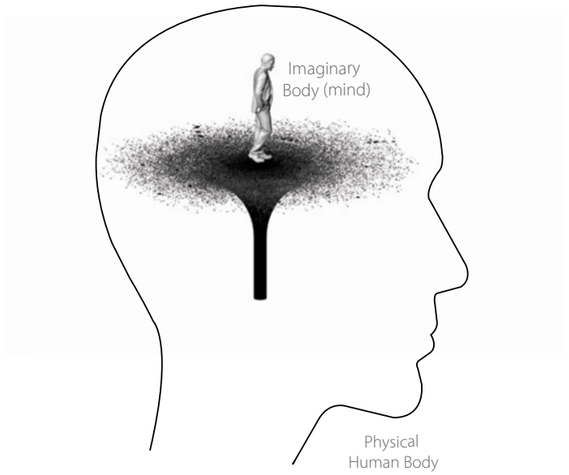
space visualised



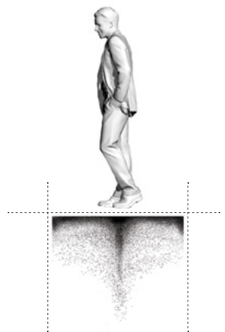




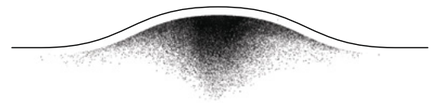
Quality of Sound visualised

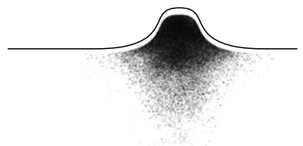


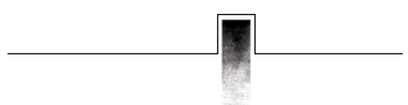
Pitch



Intensity

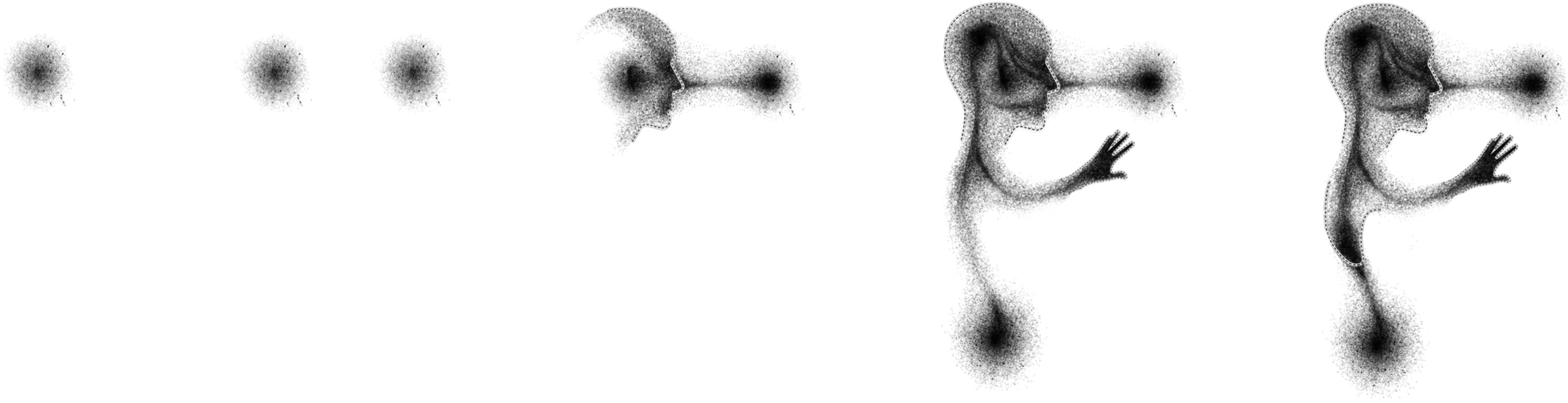




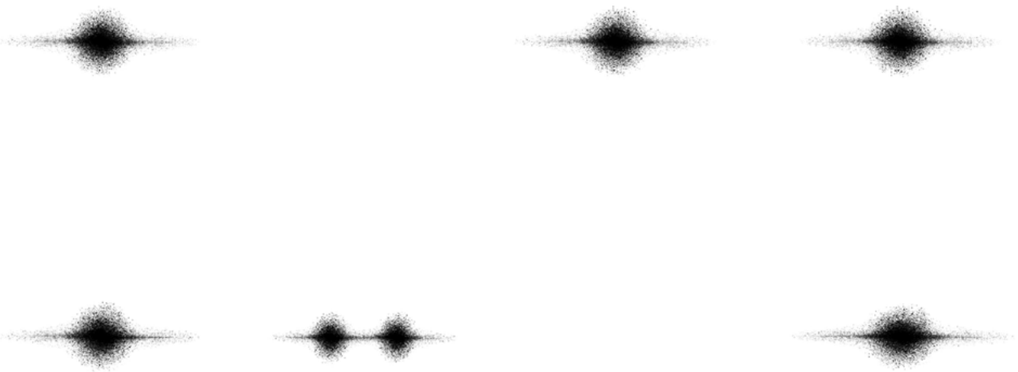


Softness

Music as synthesis of sounds
(Interdependence between Individuality and Wholeness)



Rhythm - Distribution and Division



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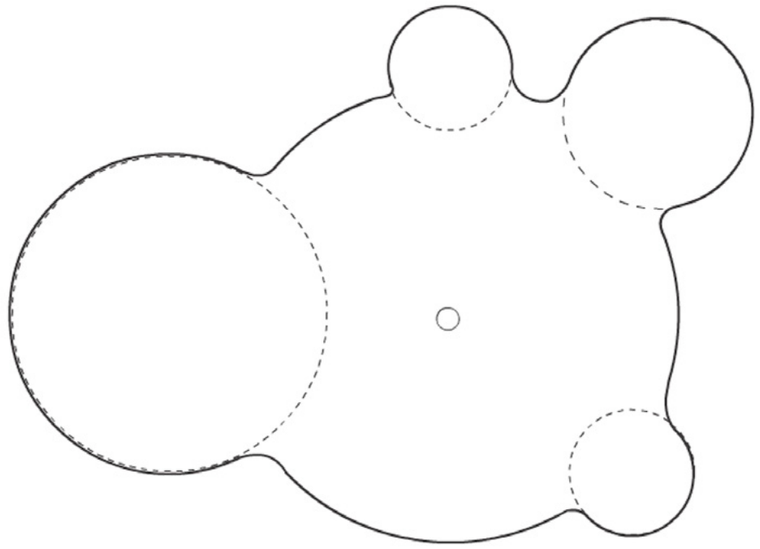

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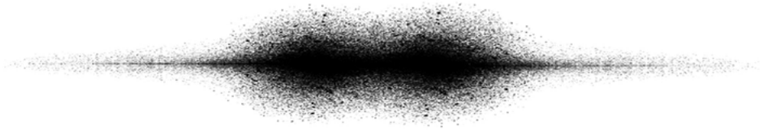

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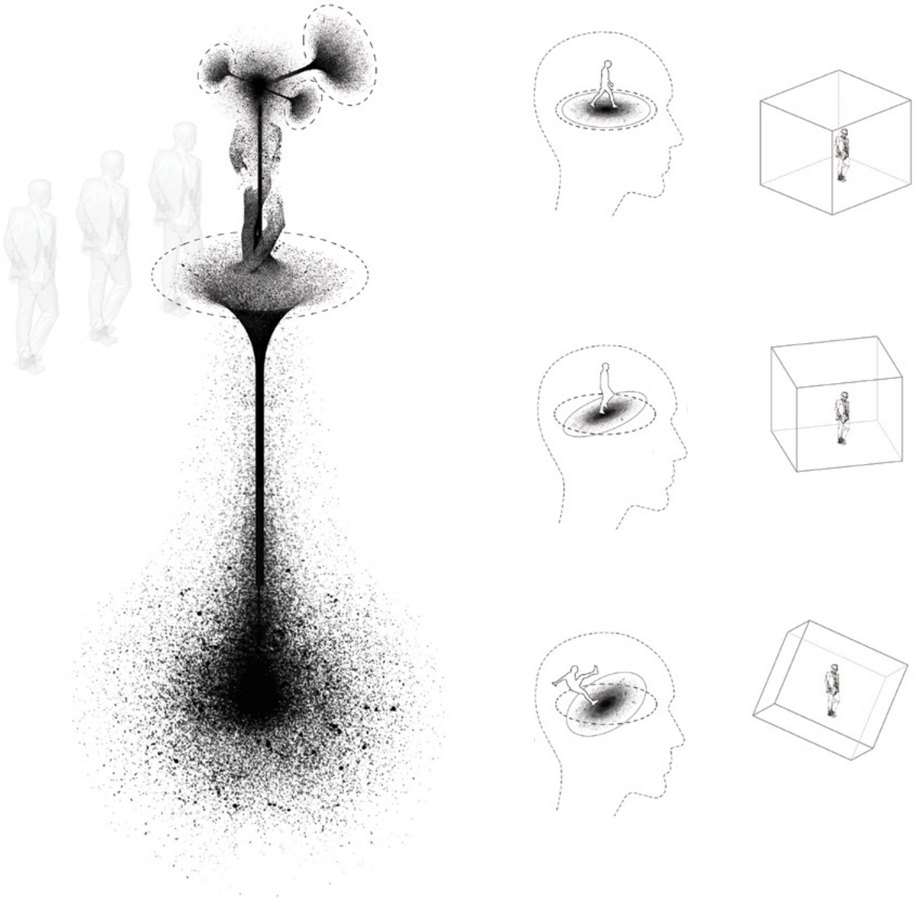
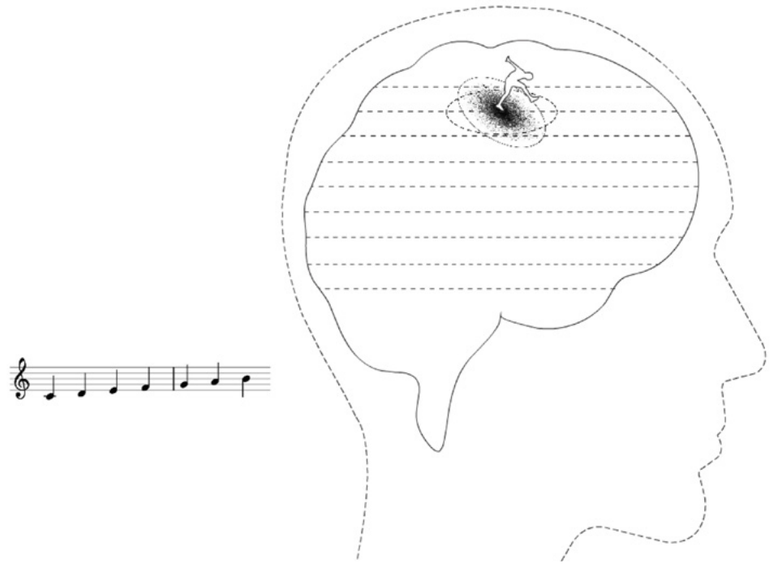
Harmony - Stability





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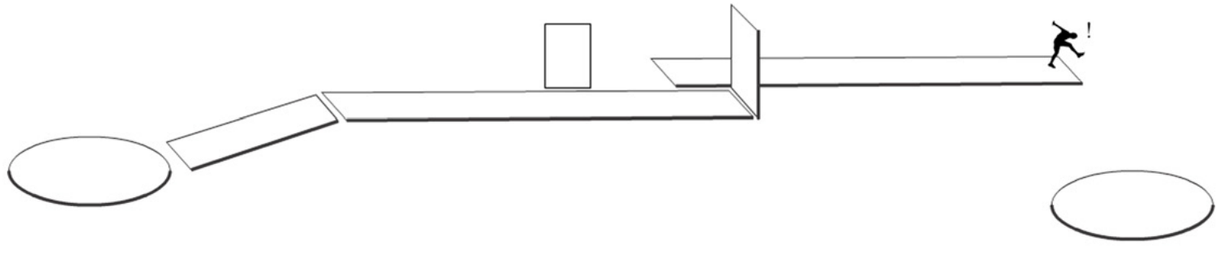

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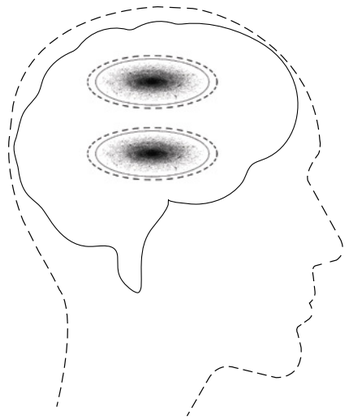
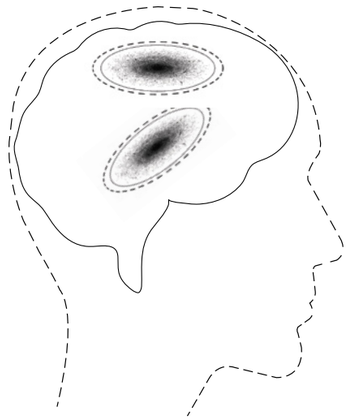
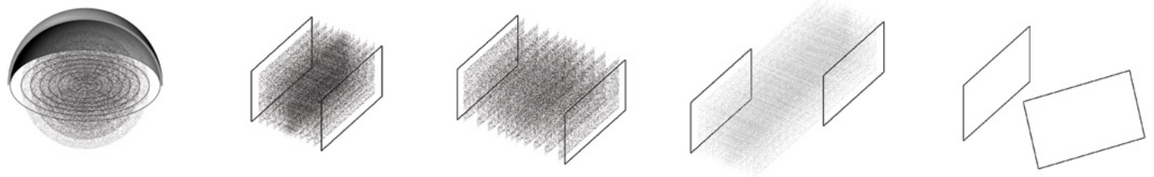
Harmony - Tonality

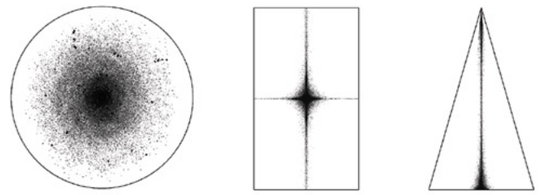


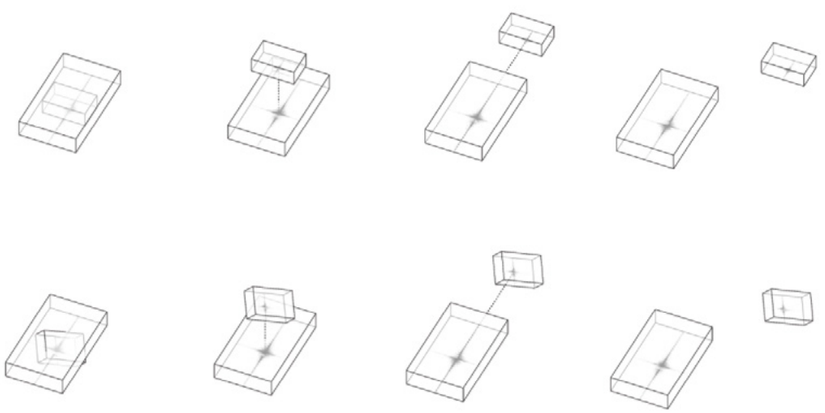
Consonace (cohesion)



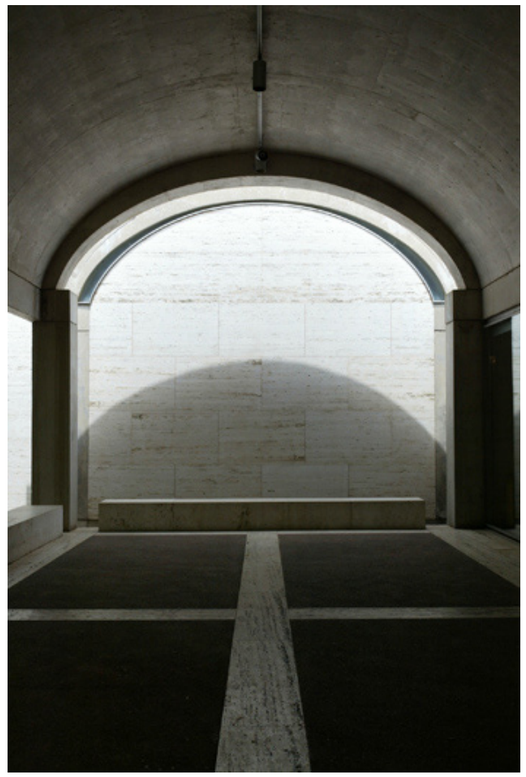
Dissonance (Repulsion)





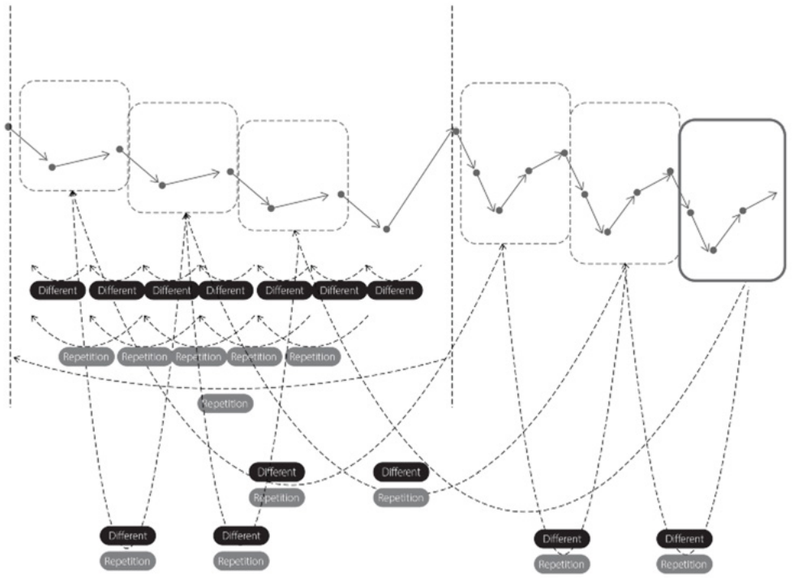


Harmony - Cohesion and Repulsion



(Left) Louis Kahn, Kimbell Art Museum (Fort Worth, Texas, 1972).
(Middle) Tadao Ando, Church of the light (Ibaraki, Osaka, 1989).
(Right) Daniel Libeskind, Jewish Museum Berlin (Berlin, 2001).

Continuity and Variations



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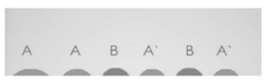
Schubert: Walzer

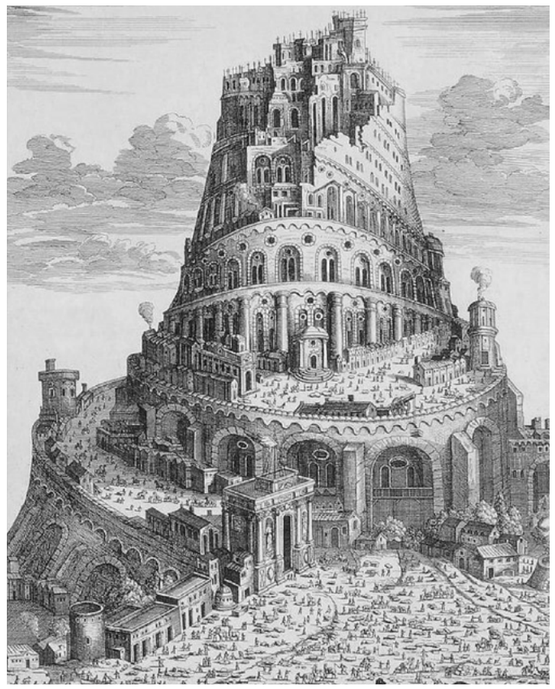


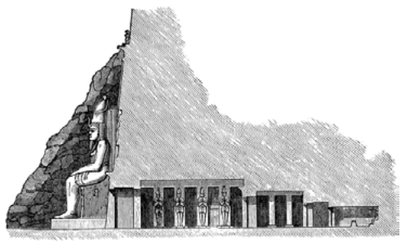
Foster the people: Pumped up kicks

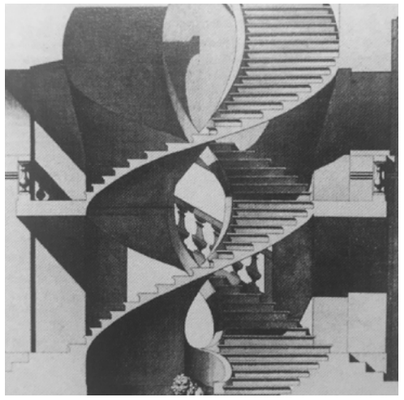
Ben Fold: One angry dward

Mahler Symphony No. 4 Movement 1

TEDx Talks. "Unlocking music with neuroscience | Ardon Shorr | TEDxCMU 2012." YouTube, 19 Apr. 2012, <https://www.youtube.com/watch?v=eswhOCKQZ7Q&t=830s> accessed 20 March 2019.

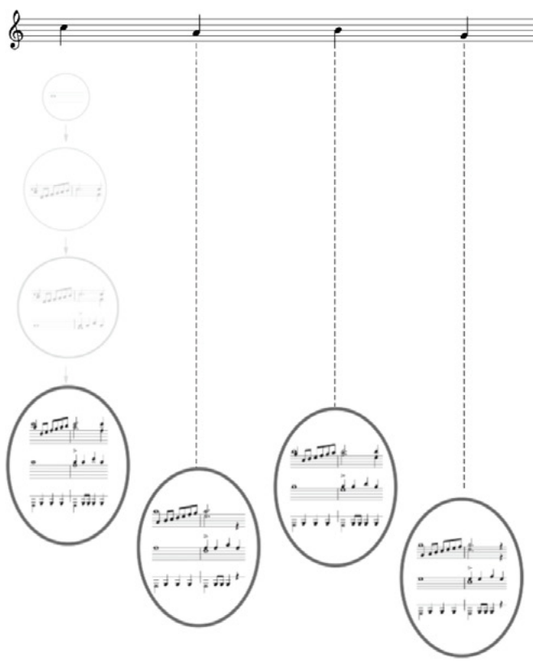


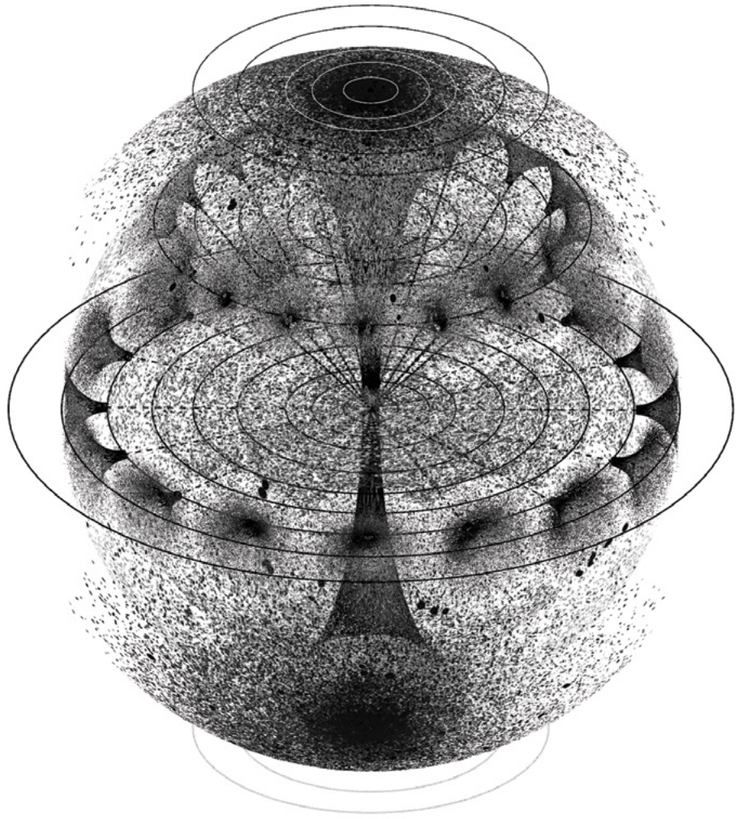


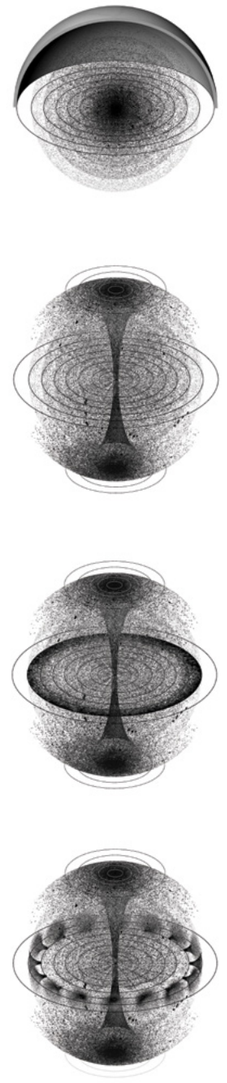


(left) Pierre Fourdrinier, Tower Of Babylon, 2016.
(Top Right) A. Rosengarten, Cross Section of the Great Temple at Abu Simbel, 1985.
(Bottom Right) Nicolas de Camus de Mézières, staircase in the Halle au Blé. From Robin Evans, The projective Cast: Architecture and Its Three Geometries (Cambridge: MIT Press, 1995).

Layering and complexity



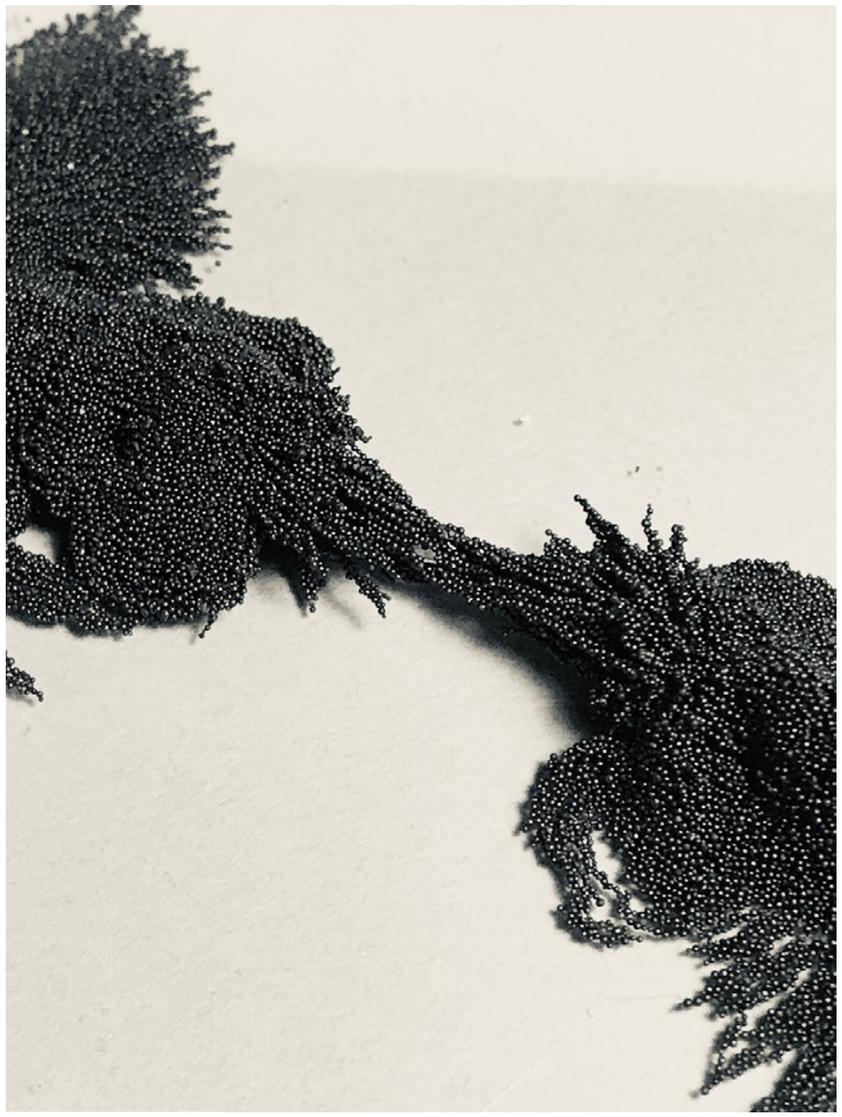


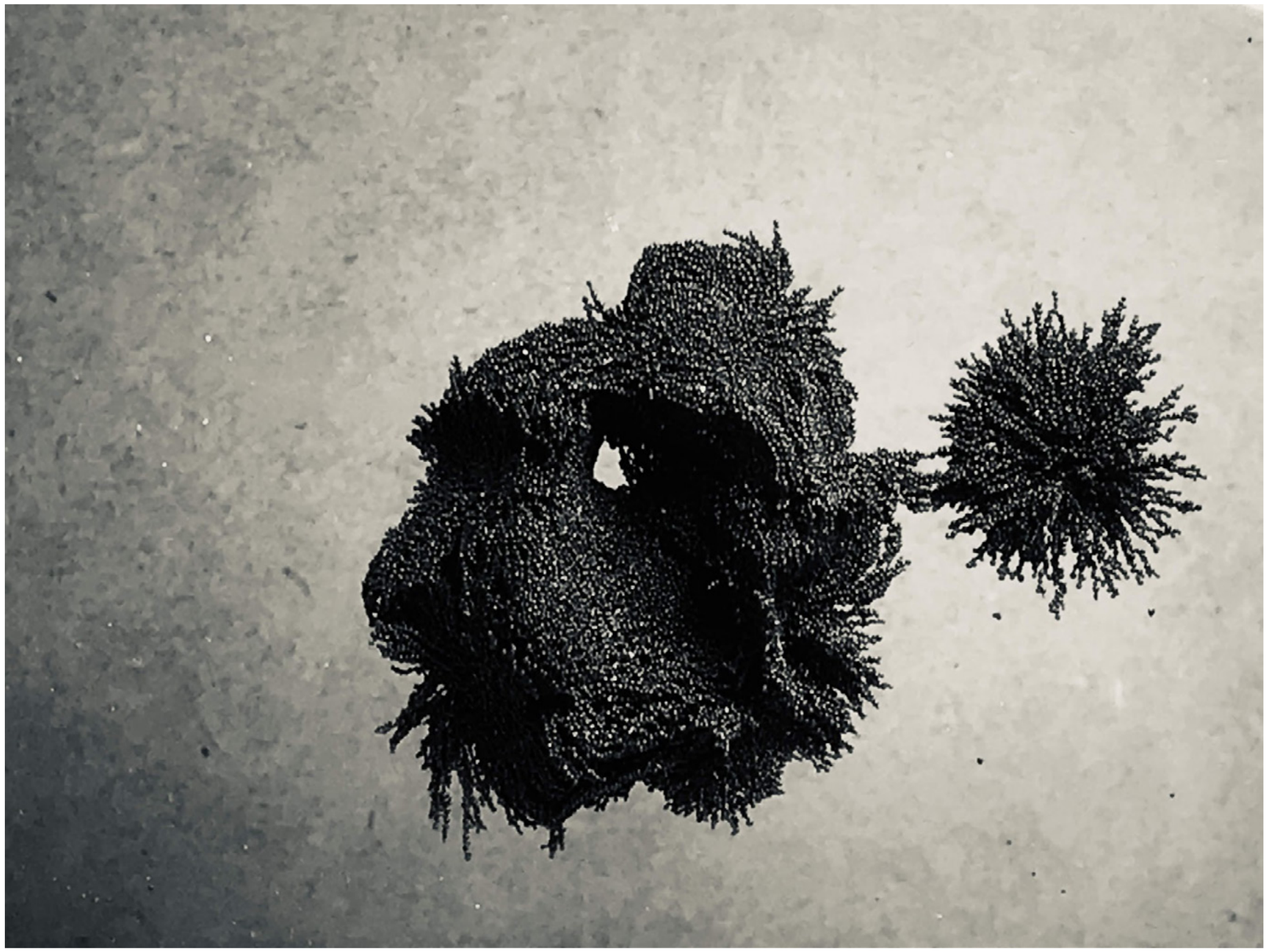


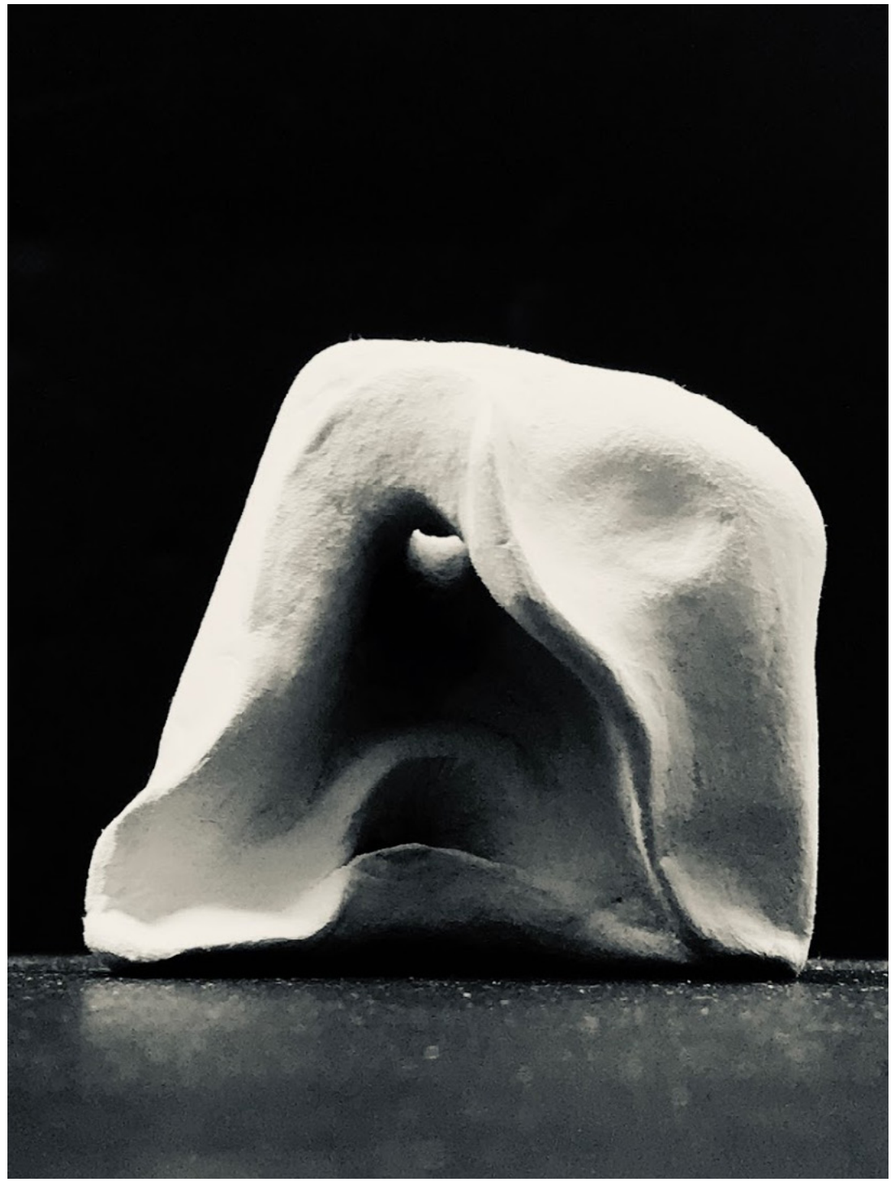
[click link to video]

https://youtu.be/-lhlLppSwX0

Form experiments

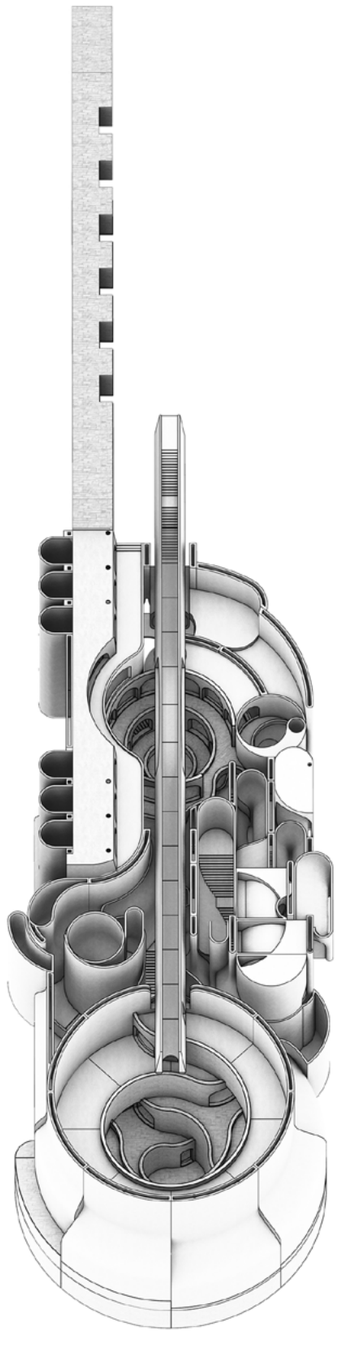






An unique piece of frozen music creation

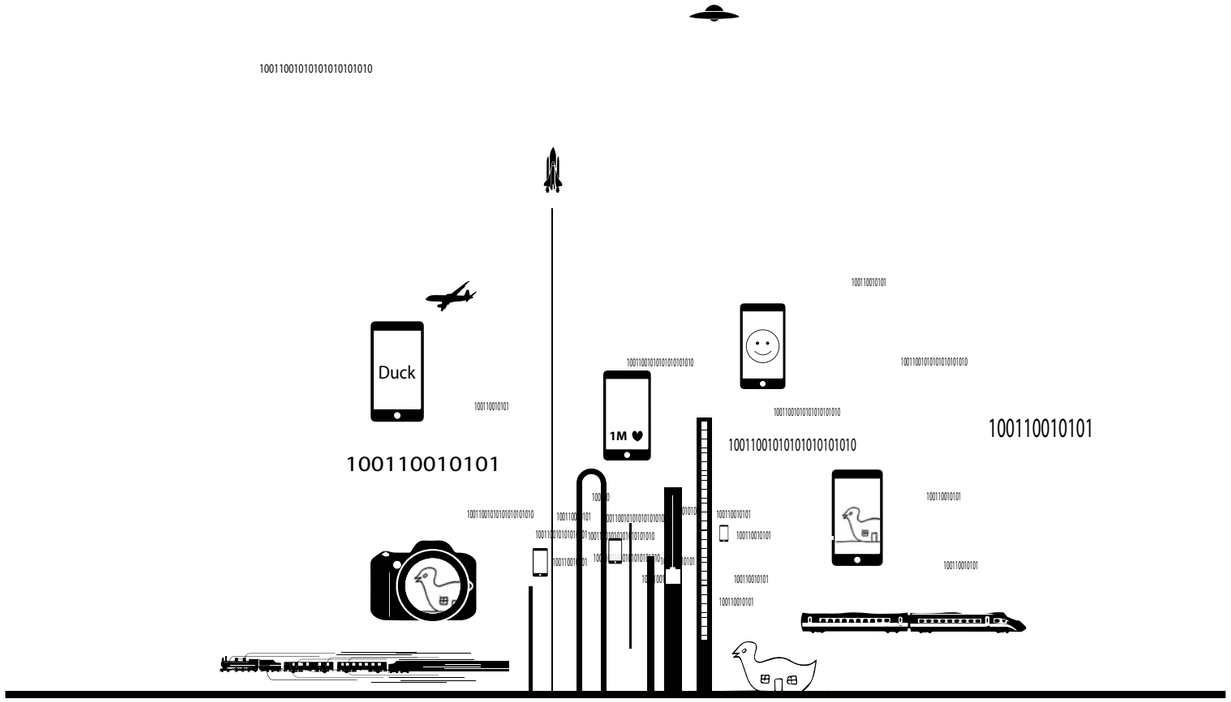
Building body as frozen melody to:

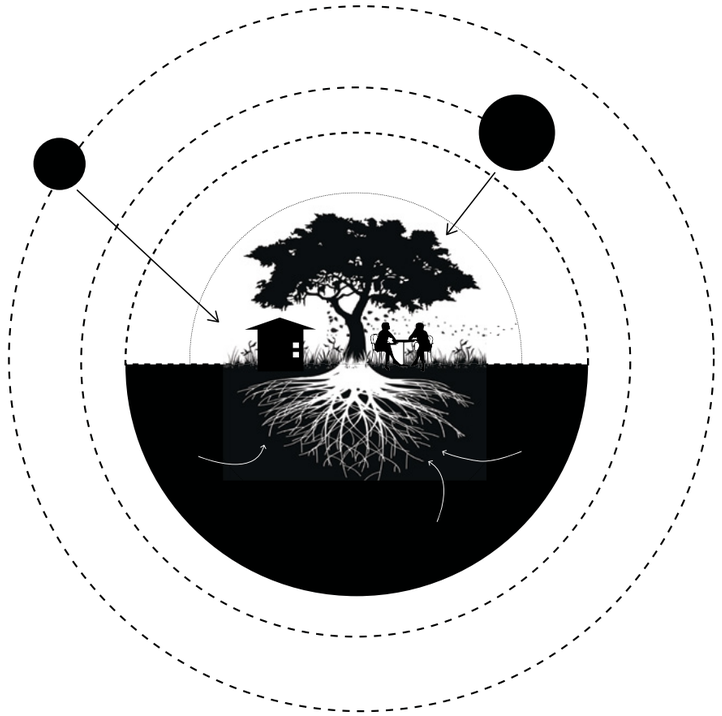


1. reflect on human beings in changing worlds
2. retreat from the overwhelming informativeness and fragmentation
3. introduce new plot re-connecting the memory and future of a particular place

reflection on human beings in changing worlds

Linear progression	Cylic continuity
Alienated	Harmony
fragmented	holistic
exterior framed	inherited
individual style	reciprocal
replicable by copies	reproductive with uniqueness
quantative driven	qualitative driven





time - compressing in different form of experience

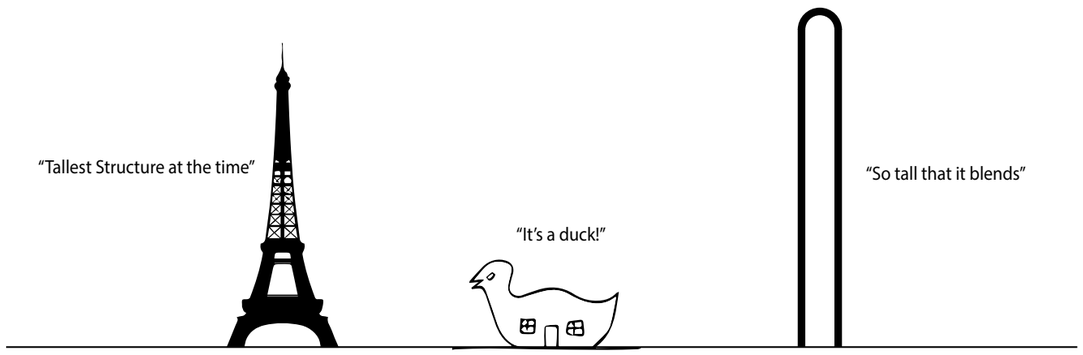
Symphony: averge time: 30 - 45 mins

Pop songs: averge time: ~ 3-4 mins

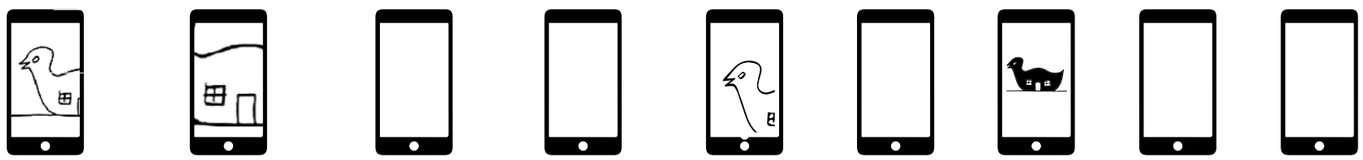
Image

Instead of an existentially grounded plastic and spatial experience, architecture has adopted the psychological strategy of advertising and instant persuasion; buildings have turned into image products detached from existential depth and sincerity.

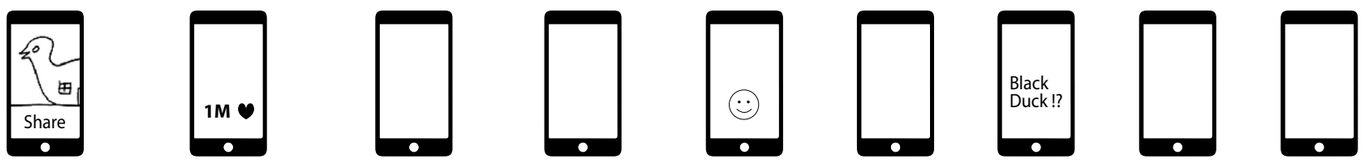
Juhani Pallasmma



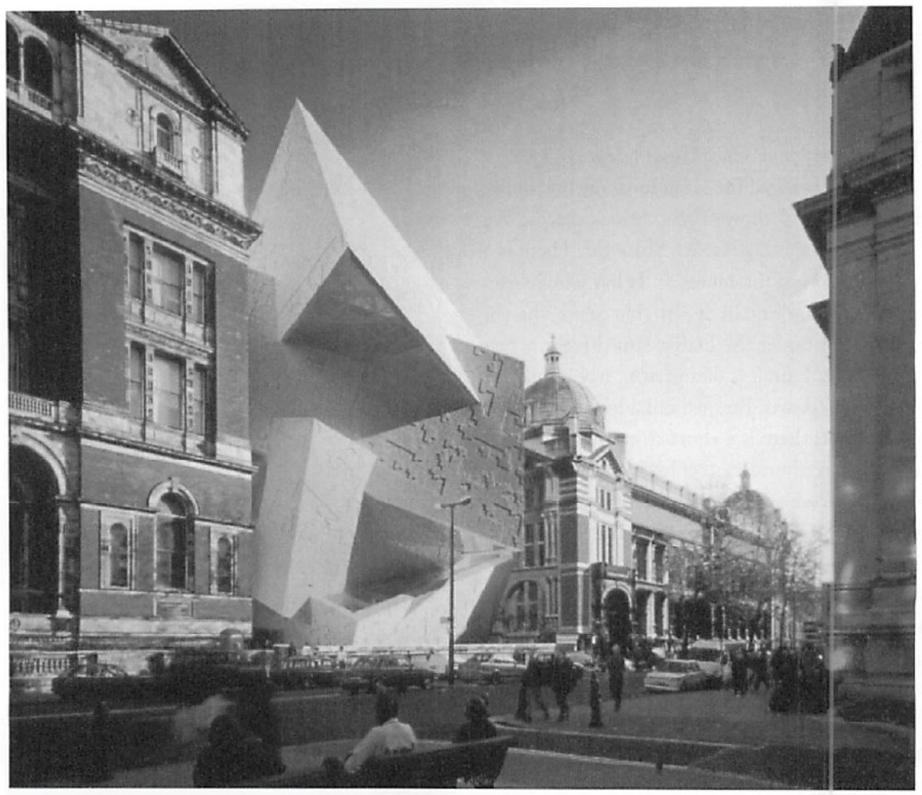
Visual Image Impact



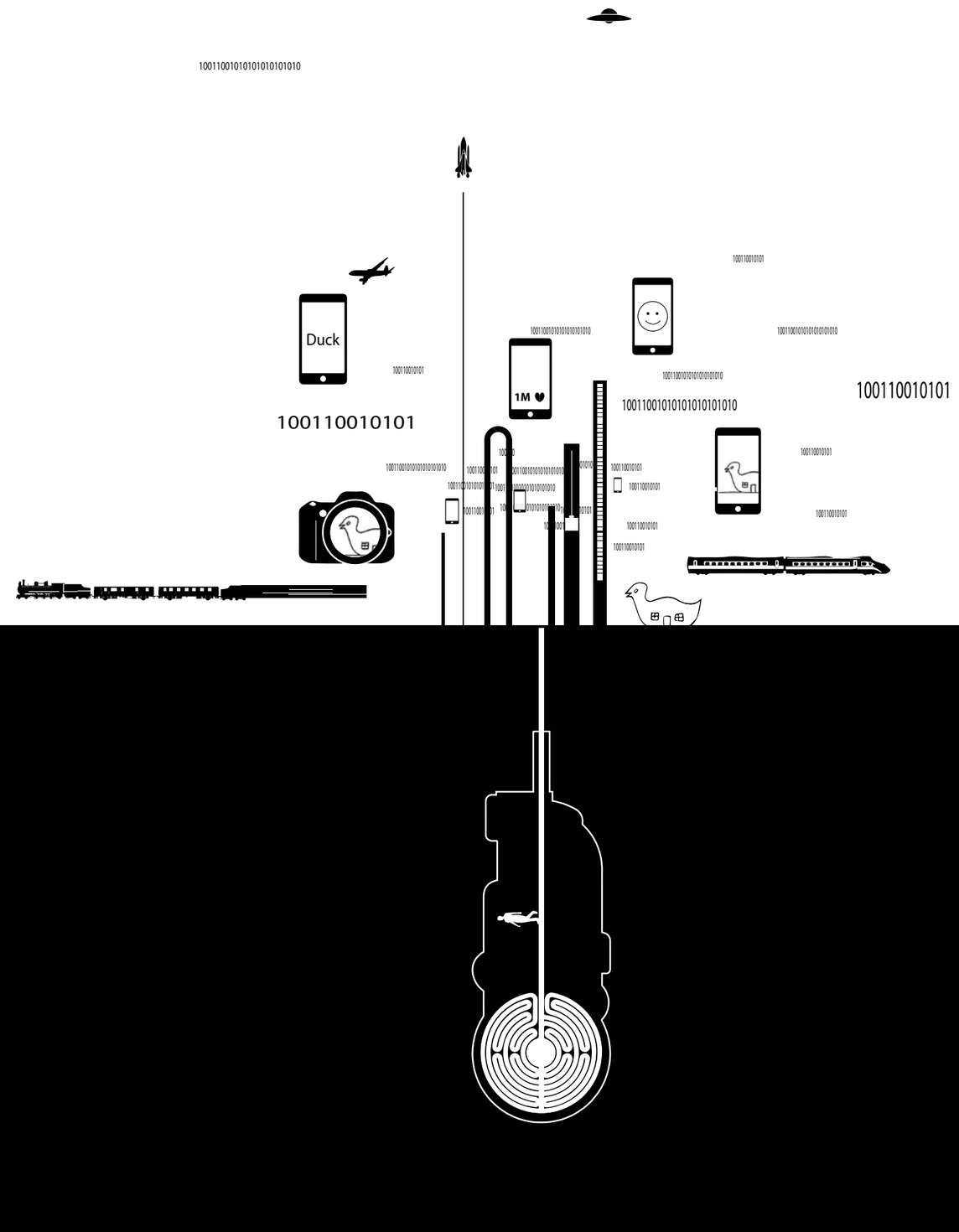
Superficial, Fragmented, Duplicated, Instant Copies



Abtract Reaction and Reponse



The buildng as a retreat from and counterpoint against the overwhelming informativeness and fragmentation



Reference

Haus Rucker co. Palmtree Island (Oasis) Project, New York, New York Perspective. 1971

The two “force”

Change of Speed

Depth

La Petite Ceinture Paris stopped service in 1937

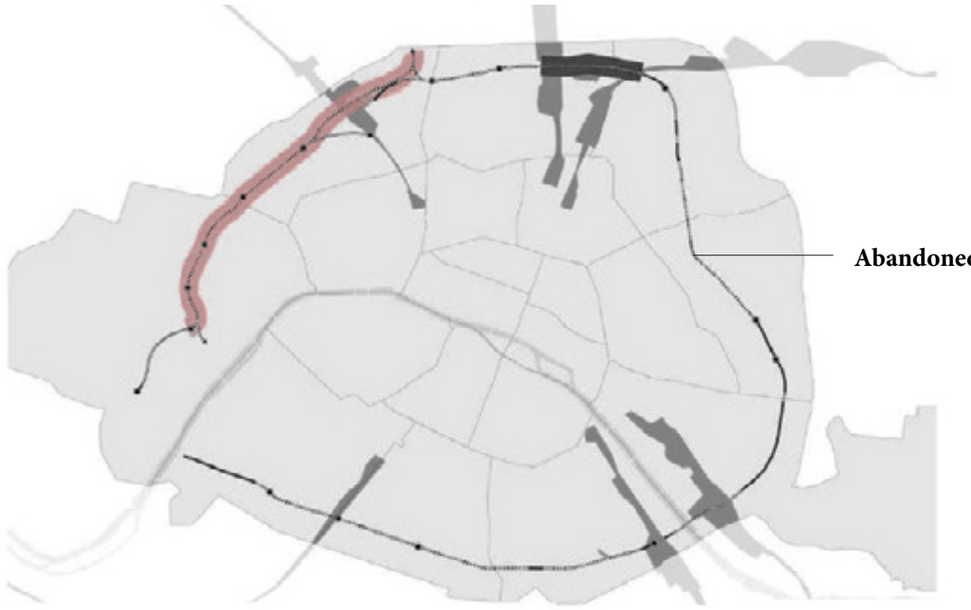
Nature returning and sprawling onto man-made infrastructure

Life of La Petite Ceinture Paris

1852-1854 | 1854 - 1862 | 1862 - 1869 | 1869 - 1934 | 1934 - 1941 | 1941 - 1985 | 1988 - 1993

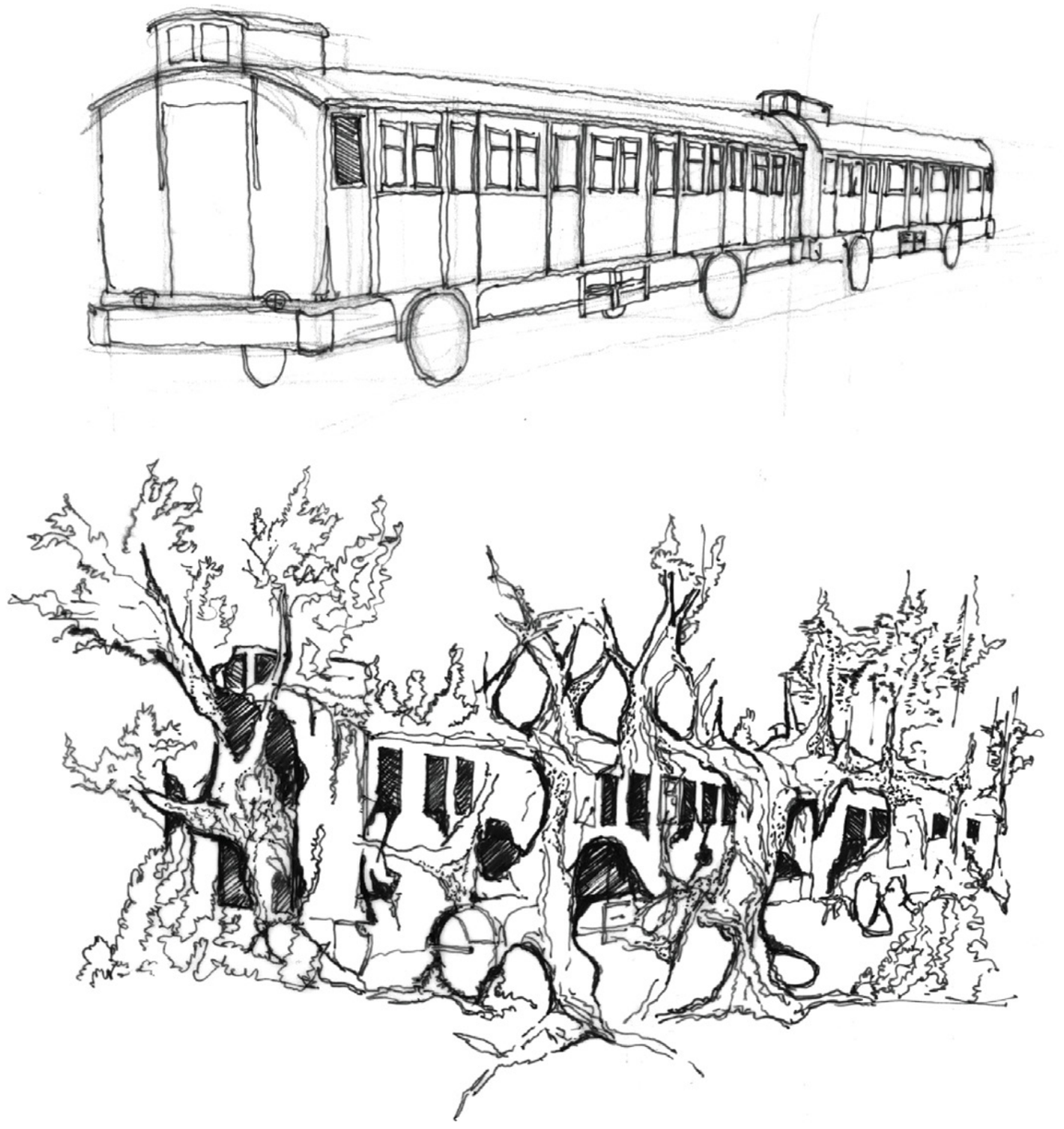
Still in use sections

(For Goods) (For Passager)

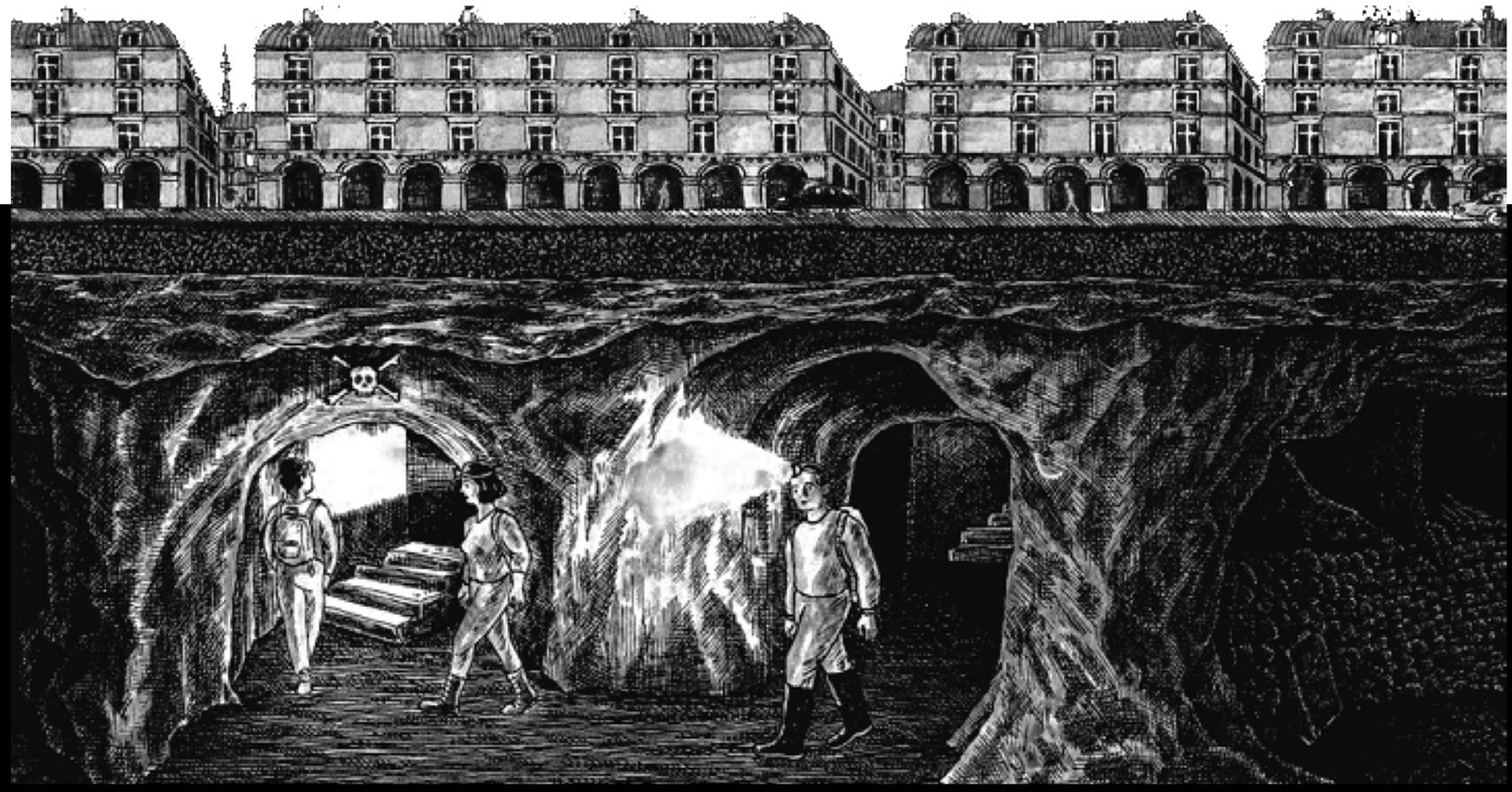


Abandoned sections

Transformation of body under new context



The historical depth of Paris



The growing underground world since mining

1st to 12th century

12th century

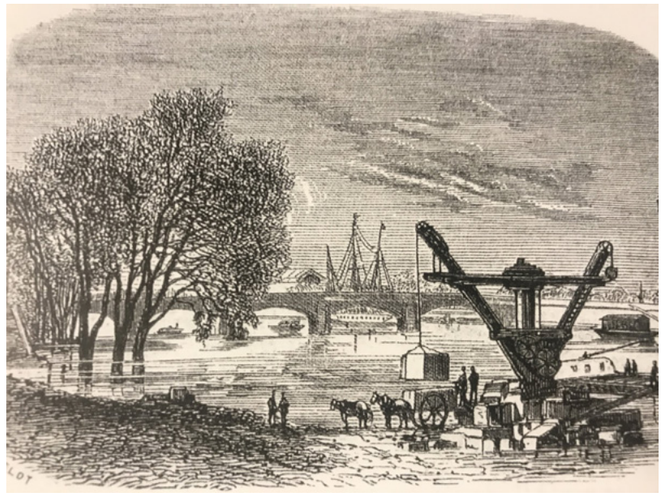
15th century

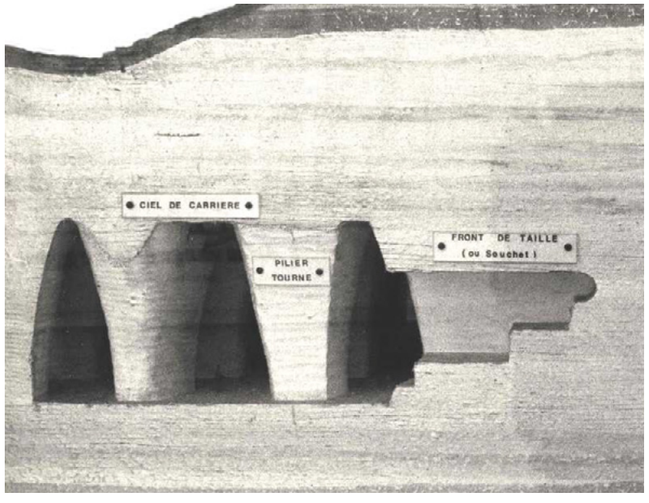
16th to 17th century

18th century

18th to 20th century

... Suspended





The underground world exposed itself and challenge the upperground world

FIGURE 1

FIGURE 2

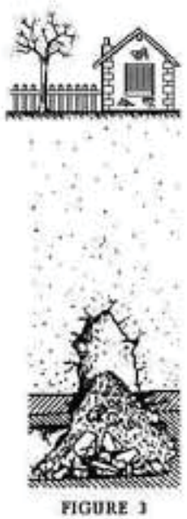


FIGURE 3

FIGURE 4

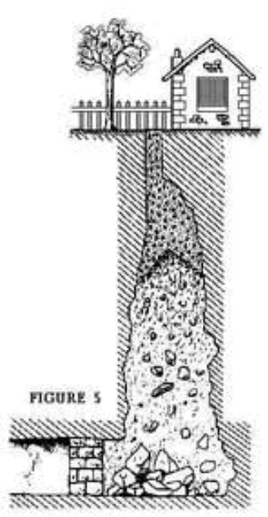


FIGURE 5

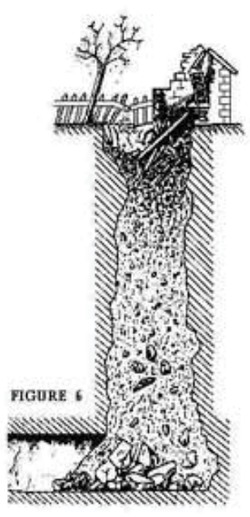
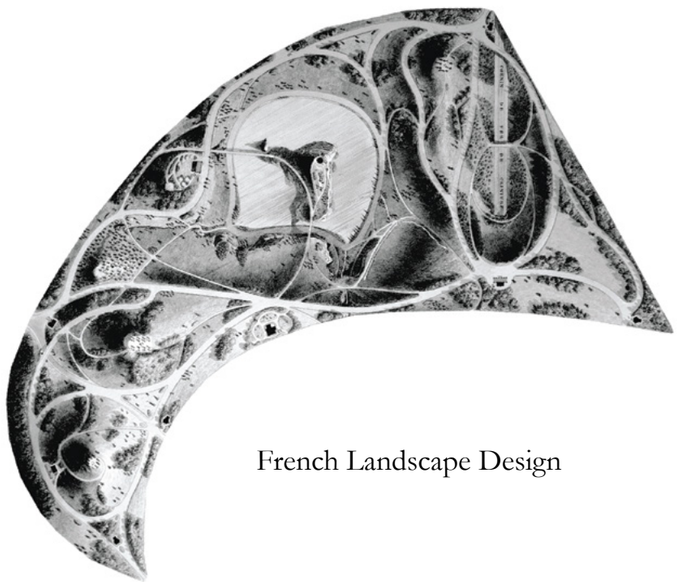


FIGURE 6

Two stories intertwine at ....

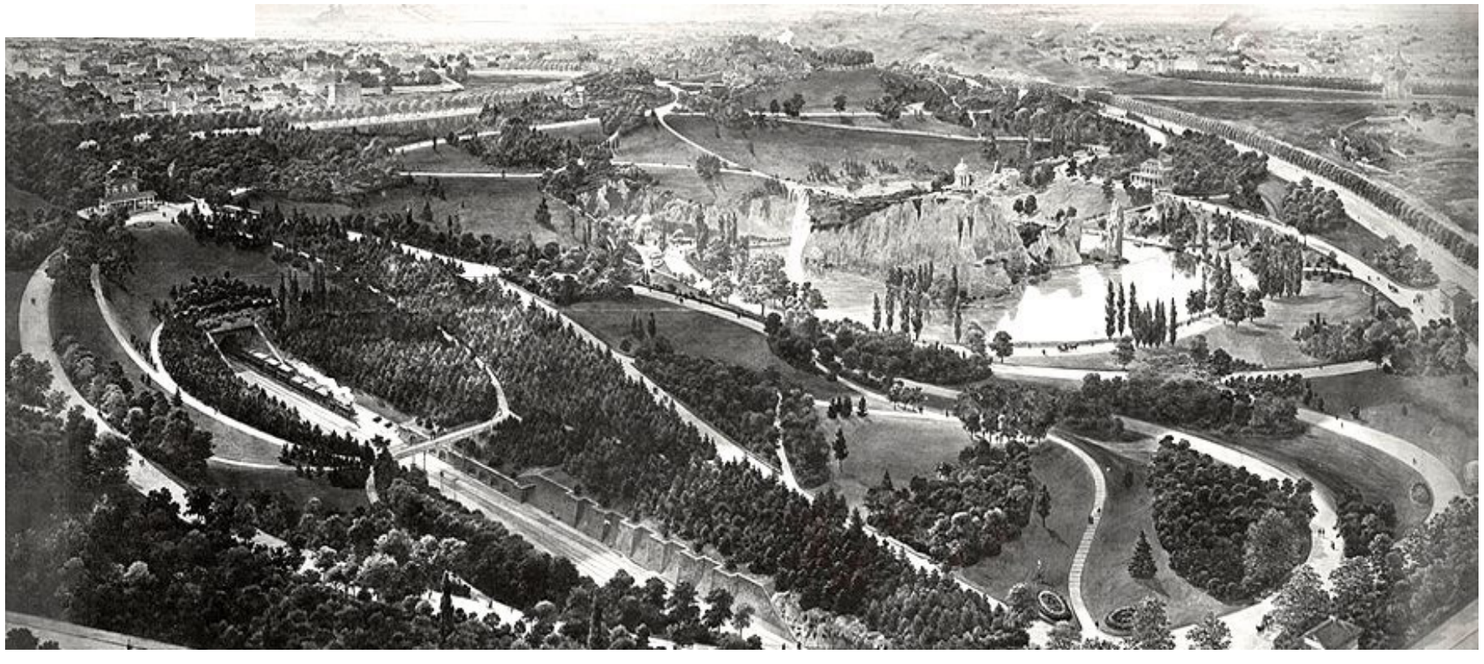
Parc des Buttes - Chaumont



French Landscape Design

La Petite Ceinture

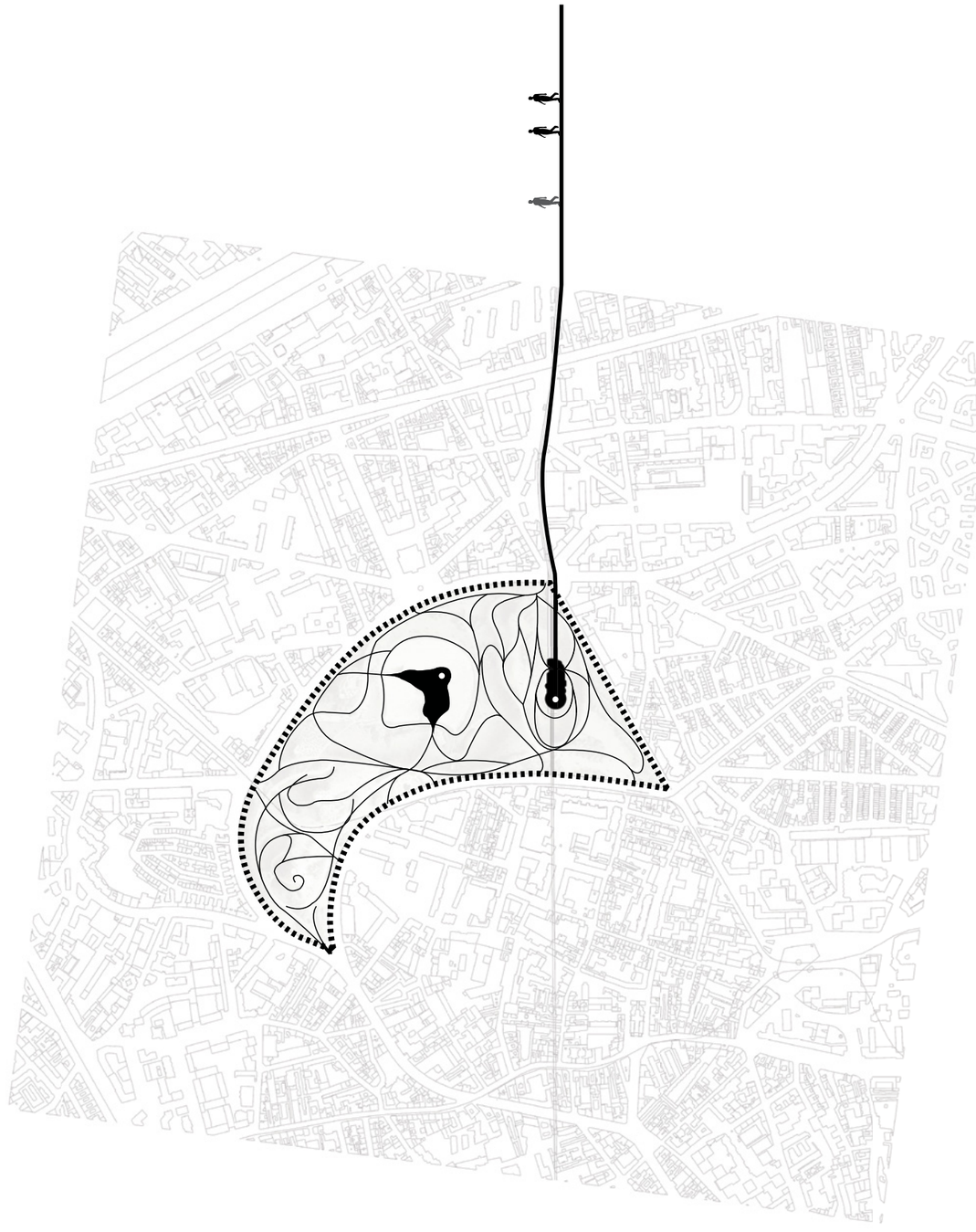
Remaining of Gypsum Mining Site



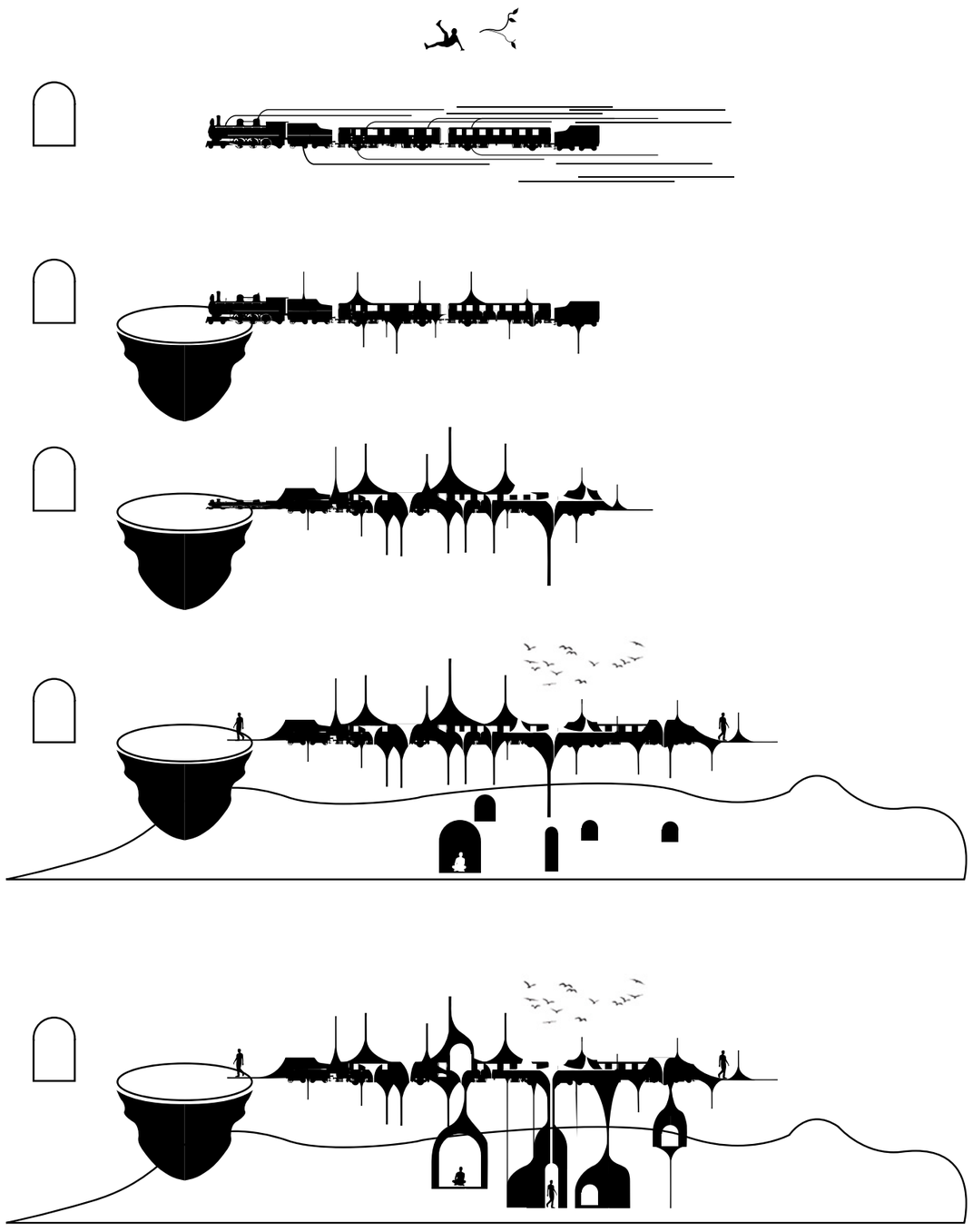
The urban wildscape

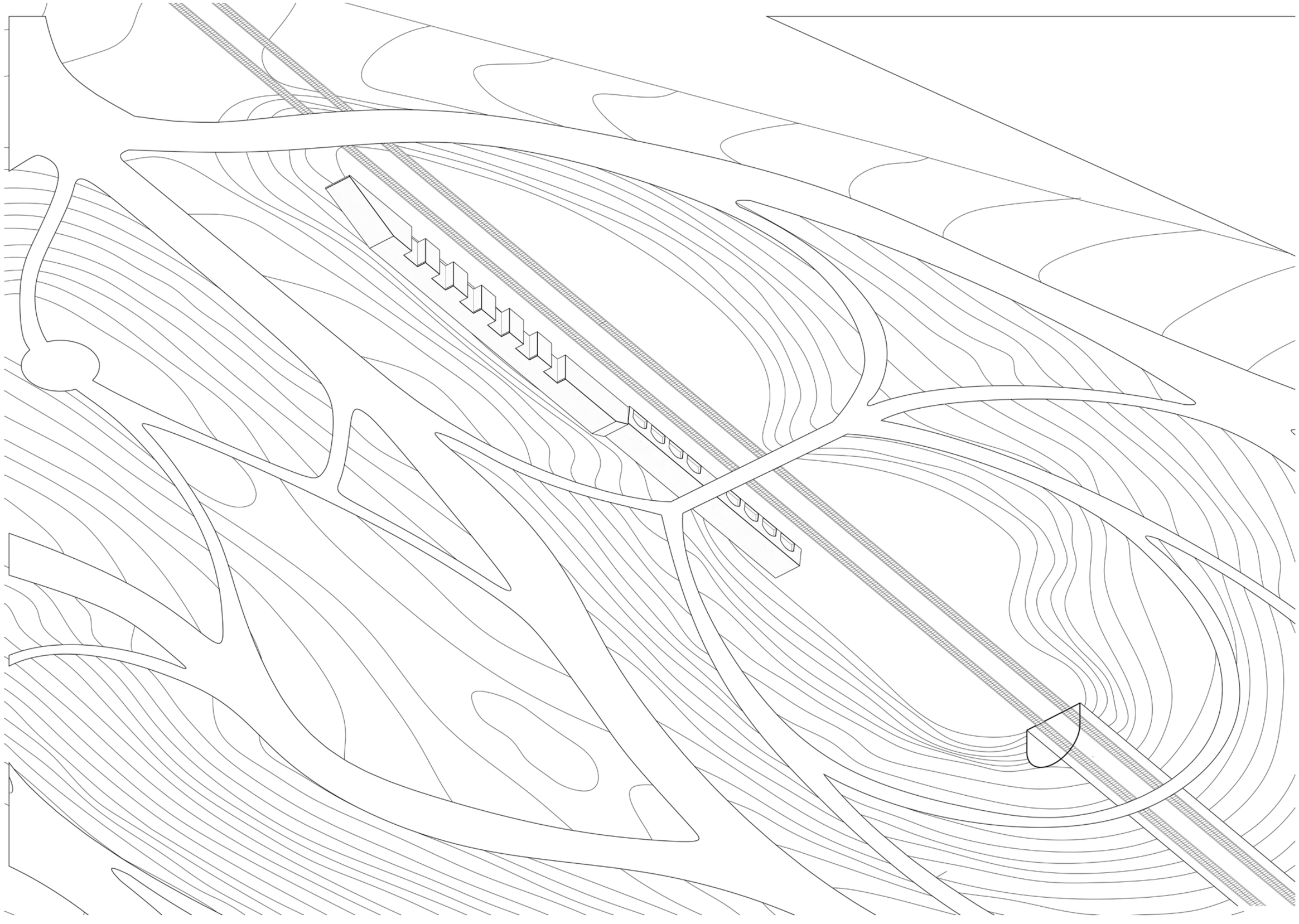
Above ground

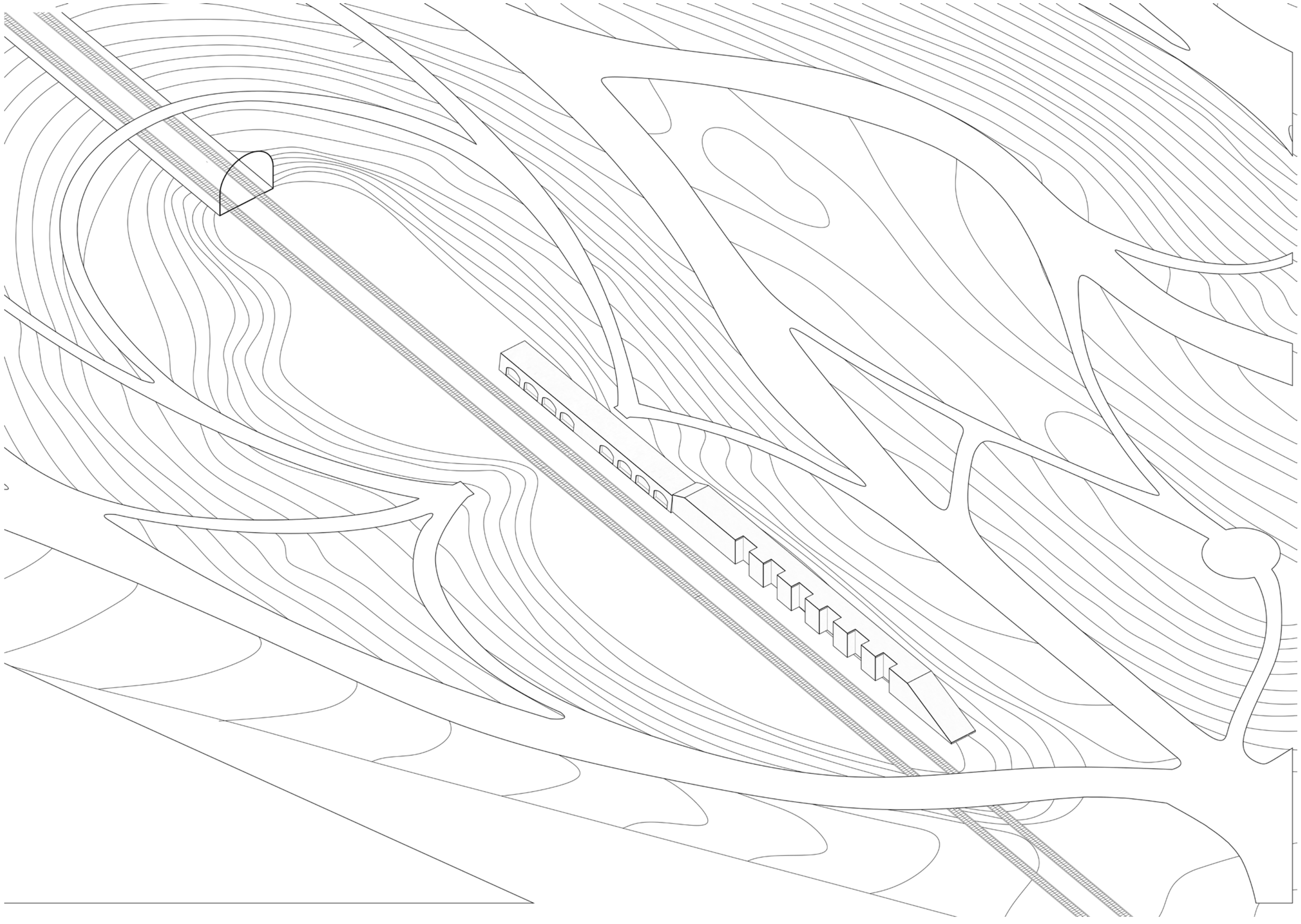
Below ground

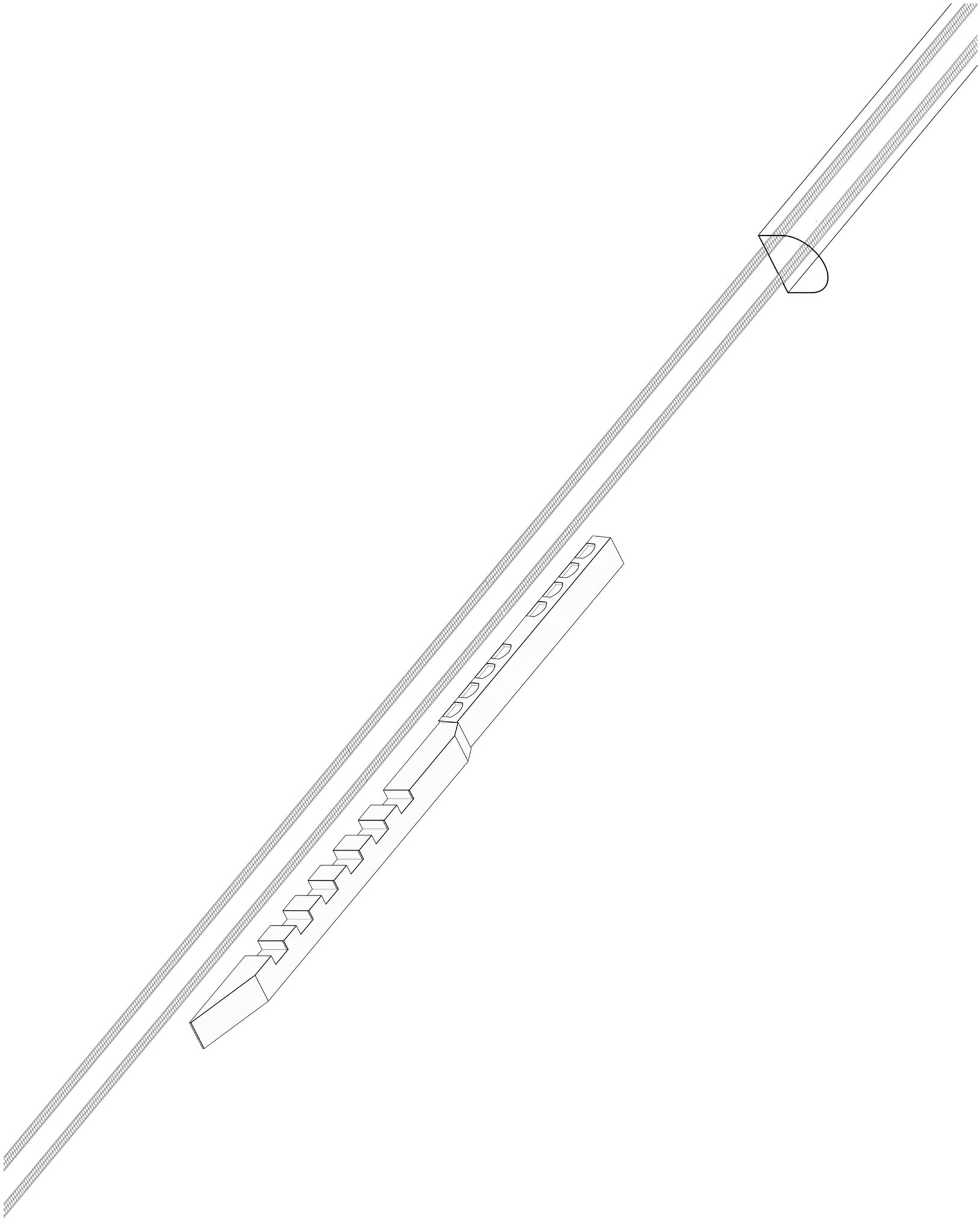


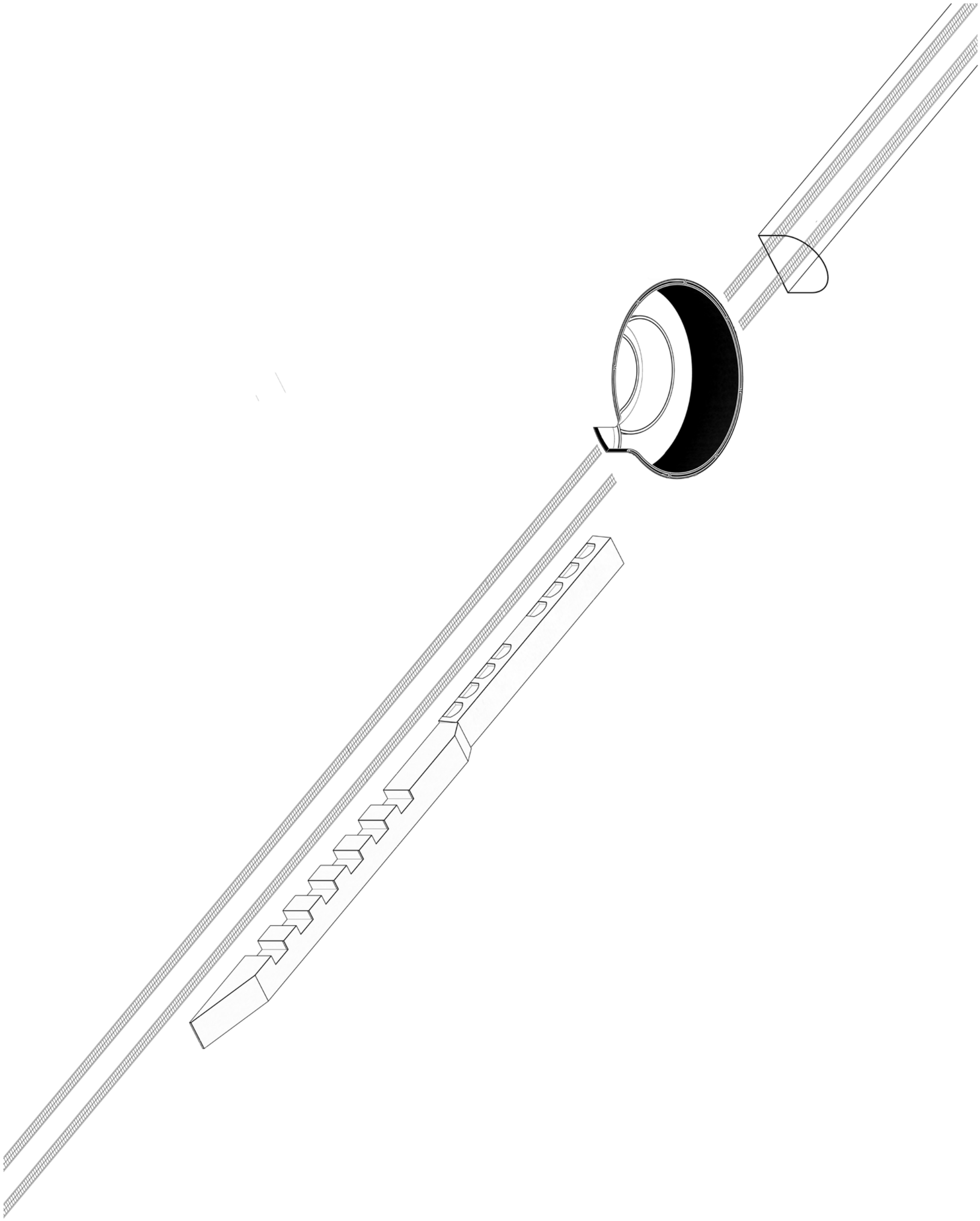
Two stories merge as one “melody”

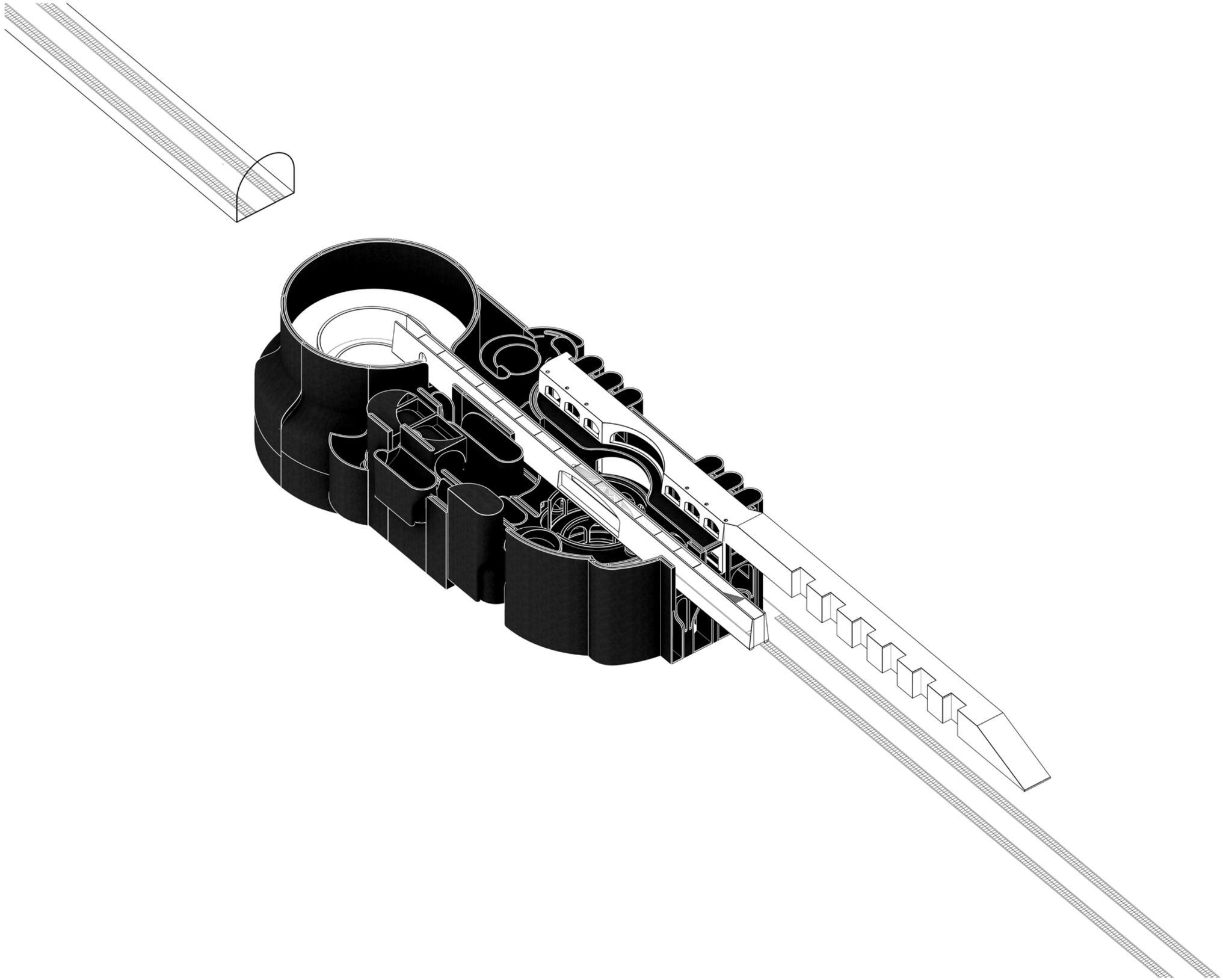


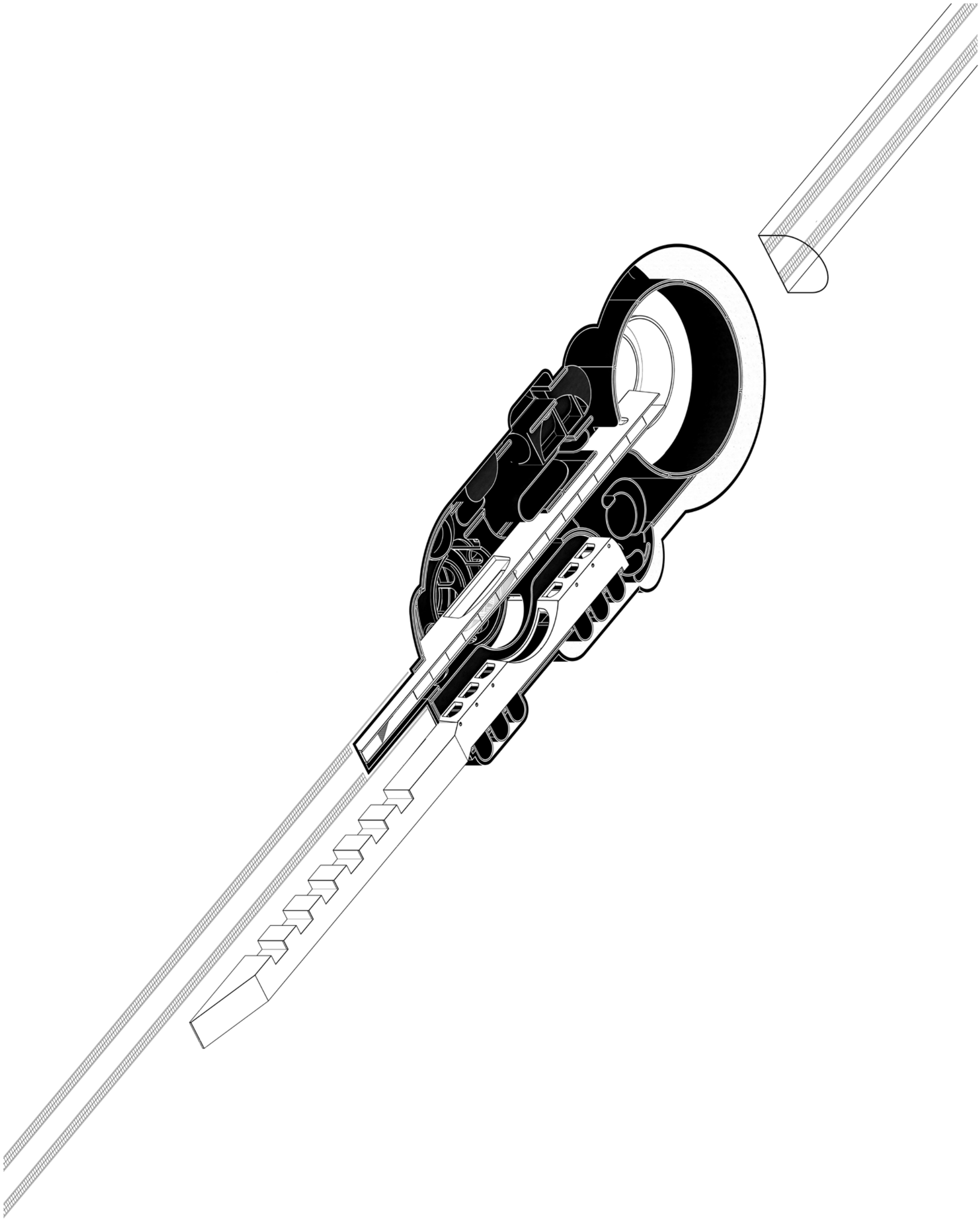


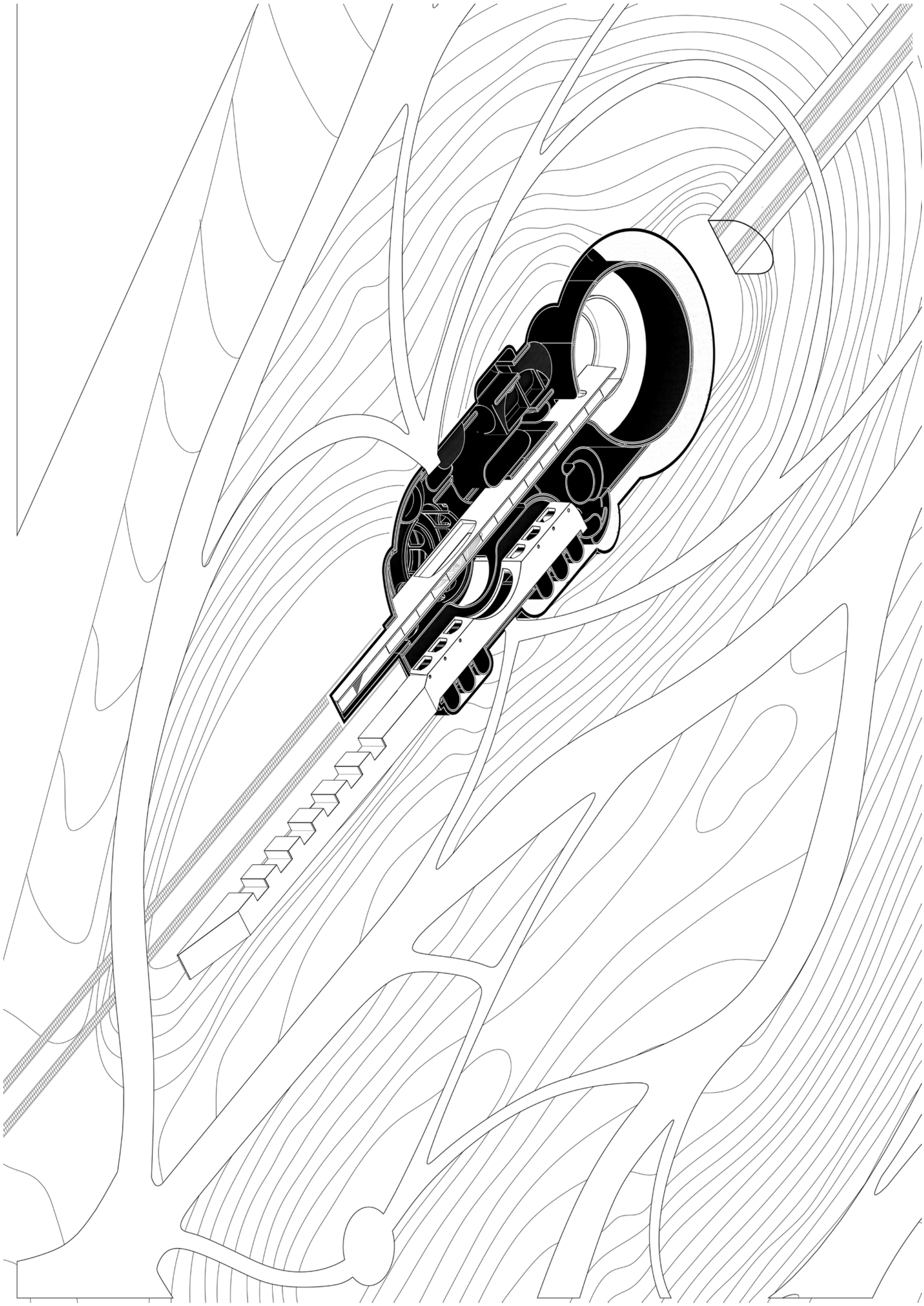


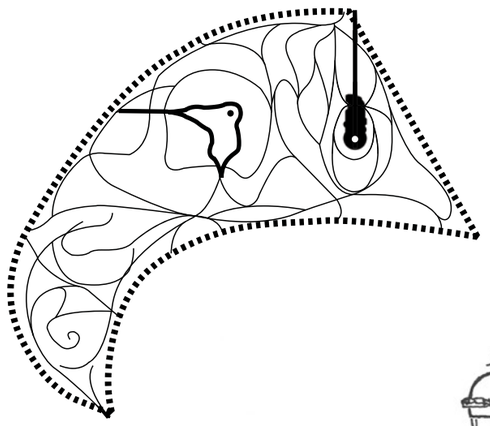


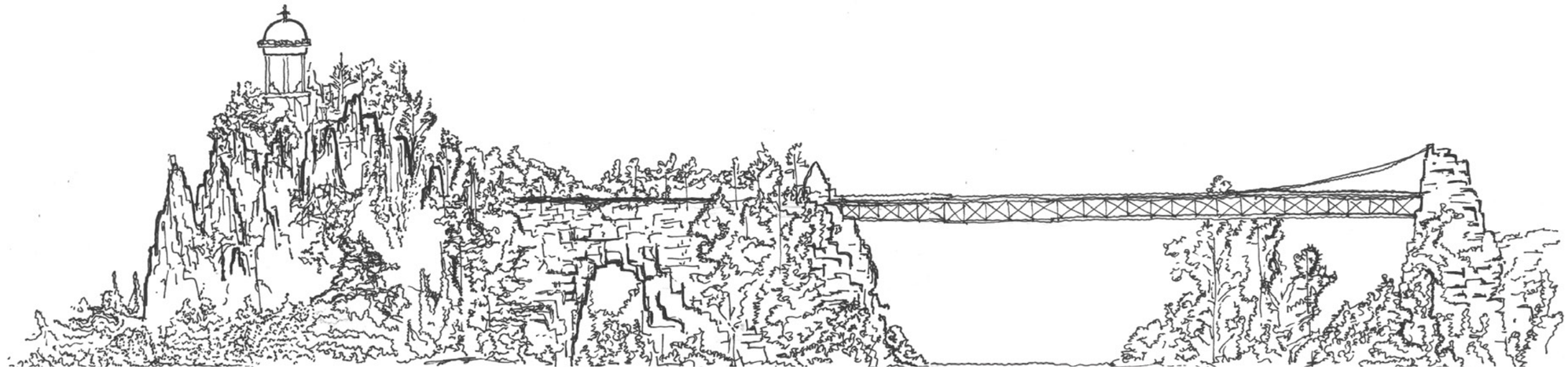


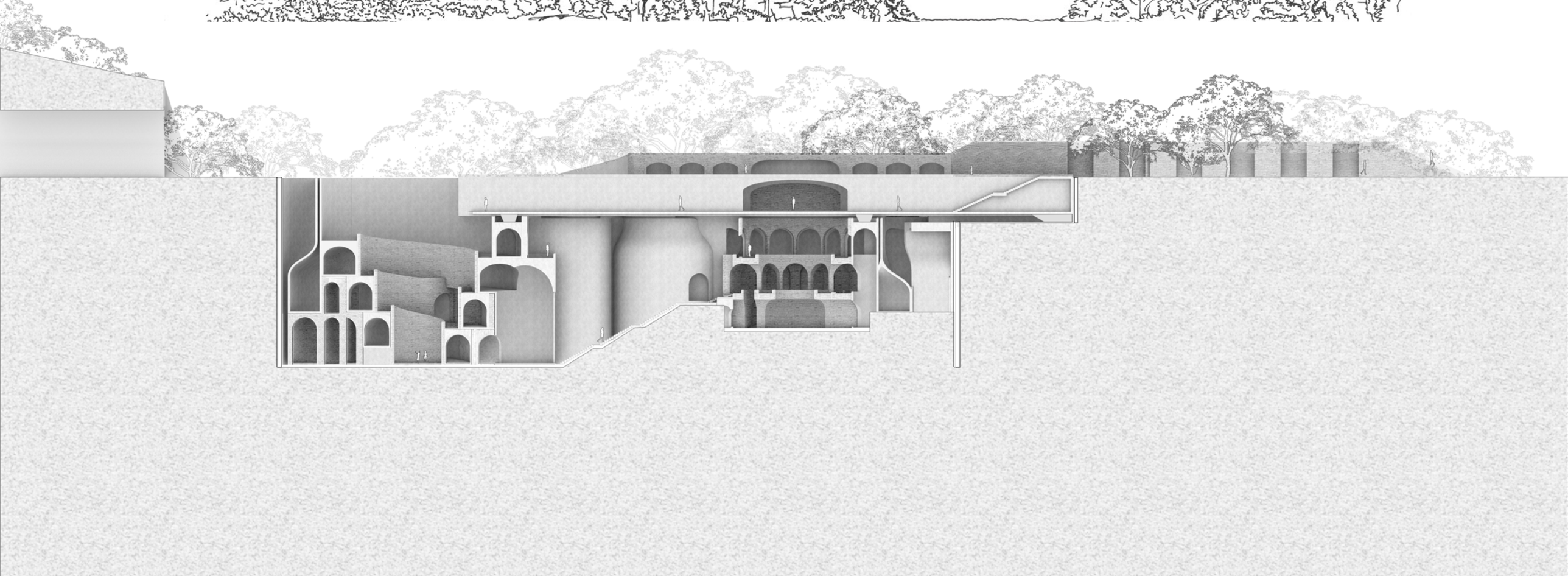


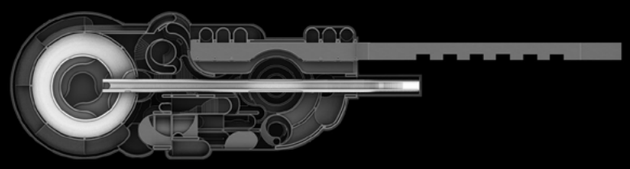


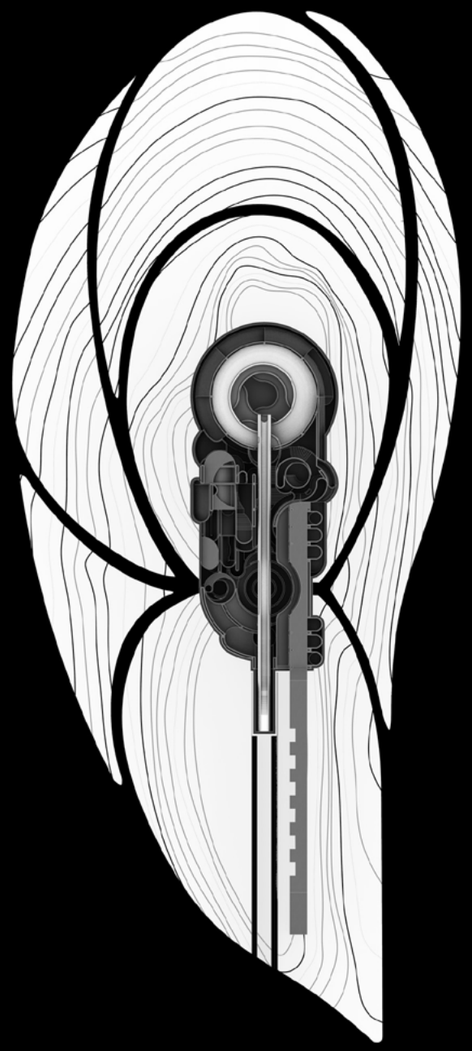


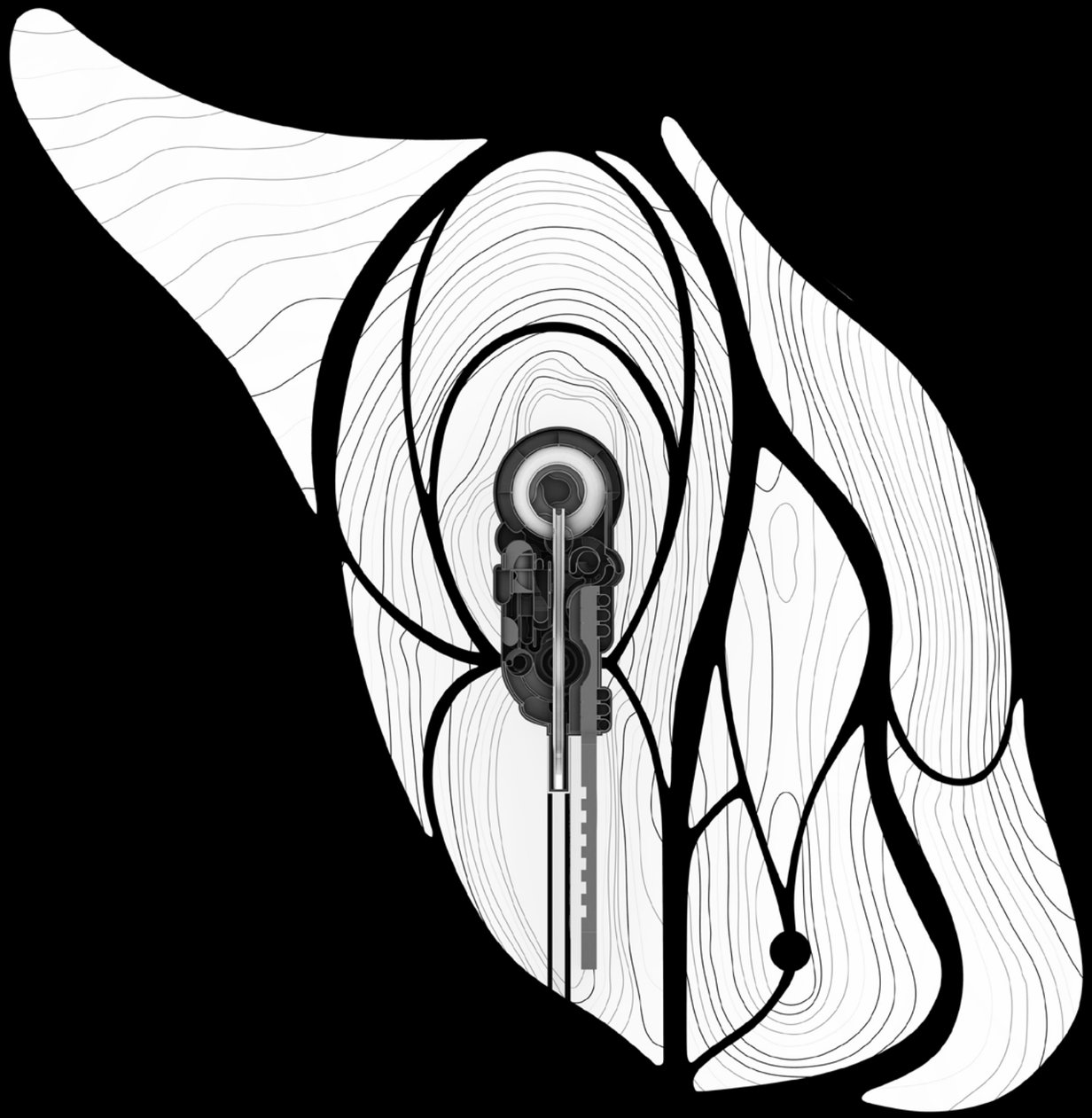


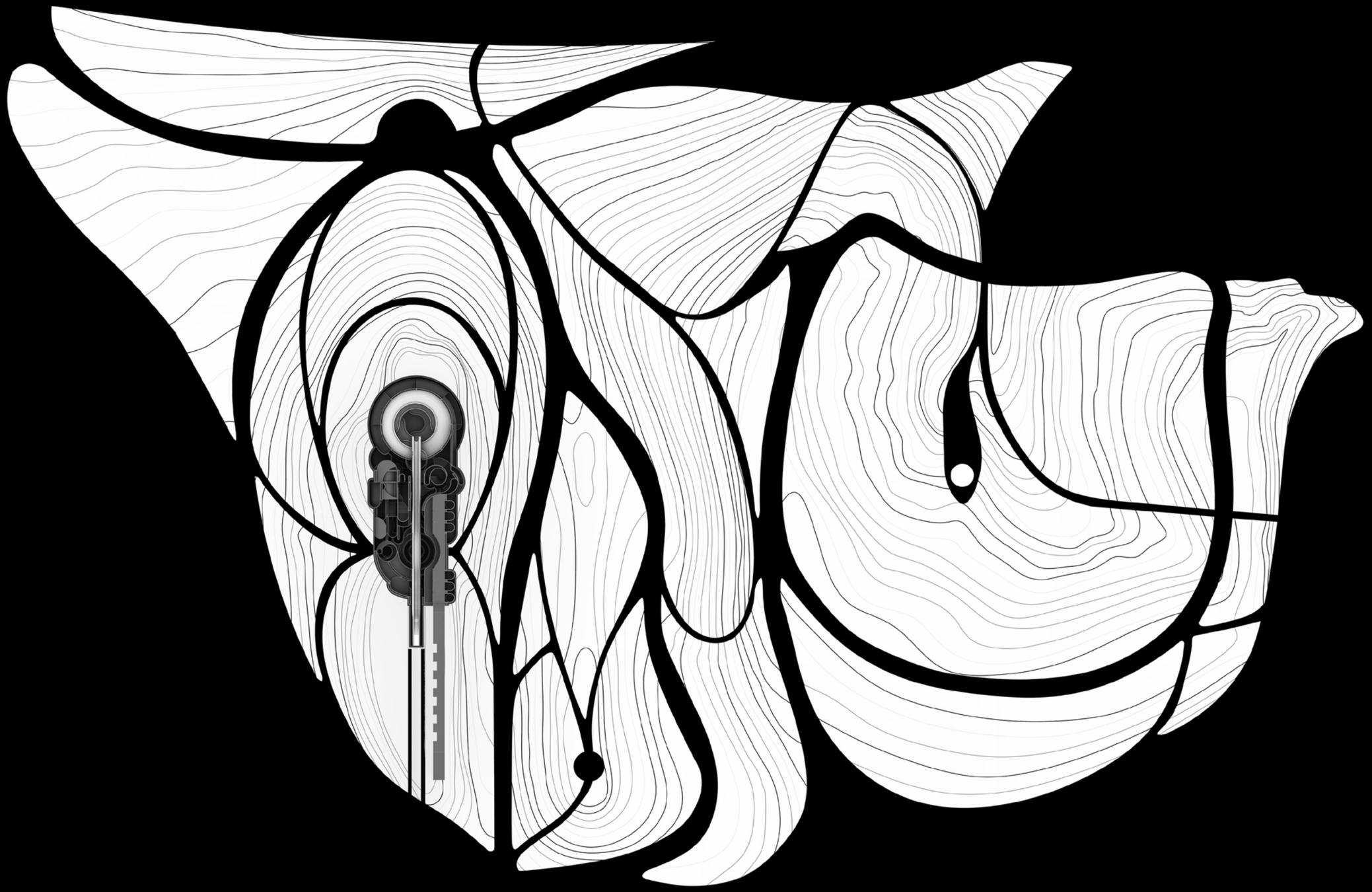


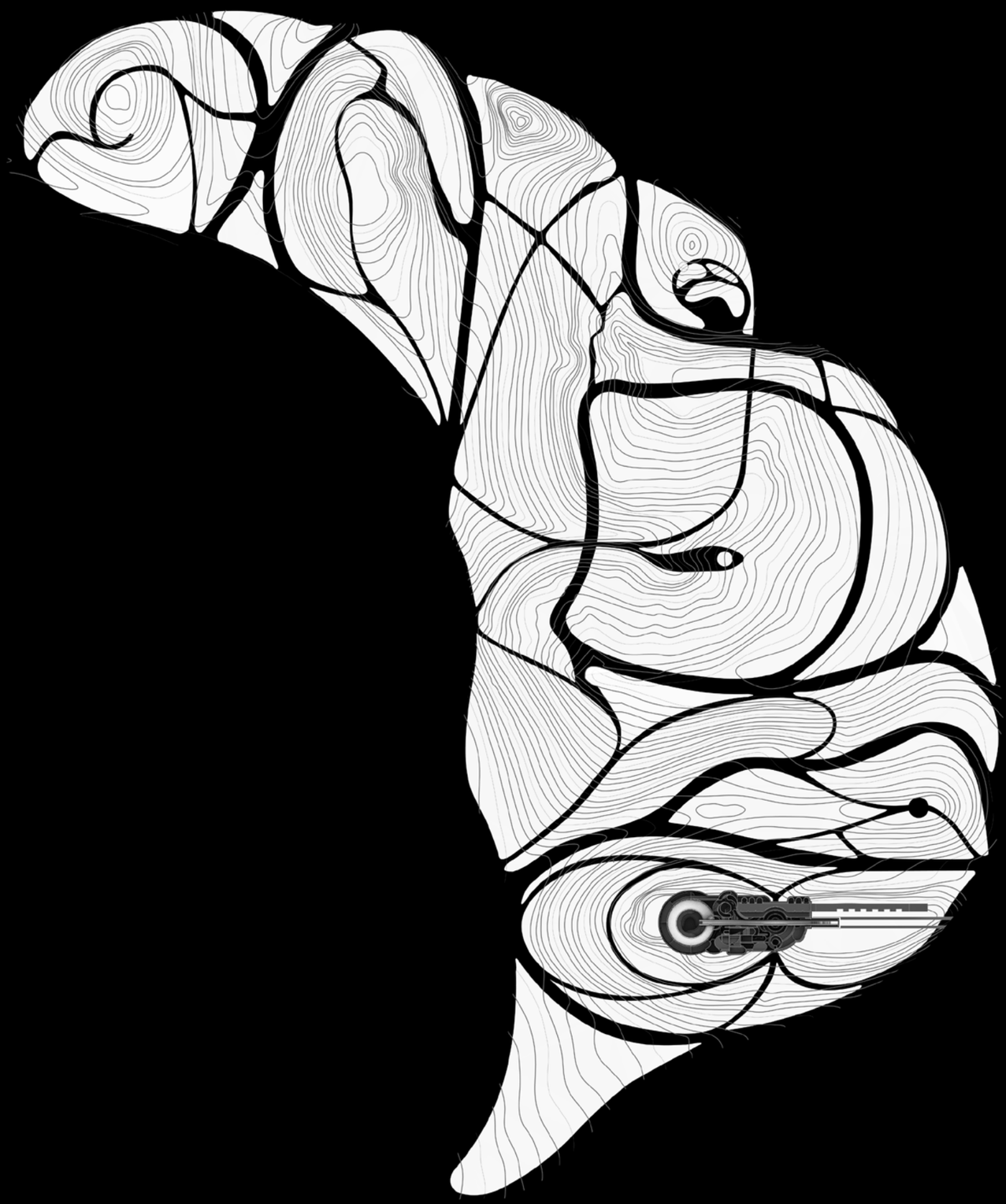


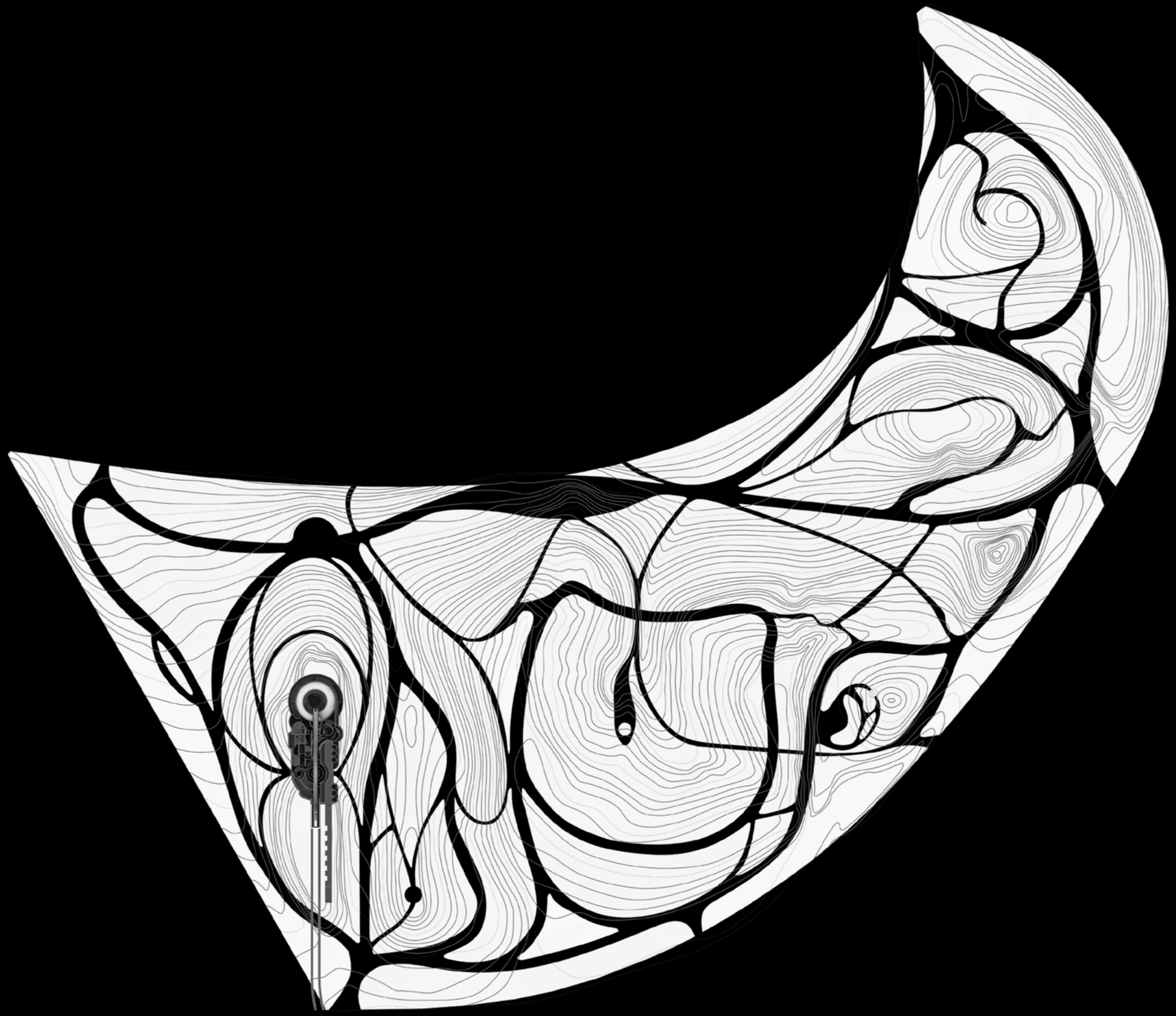


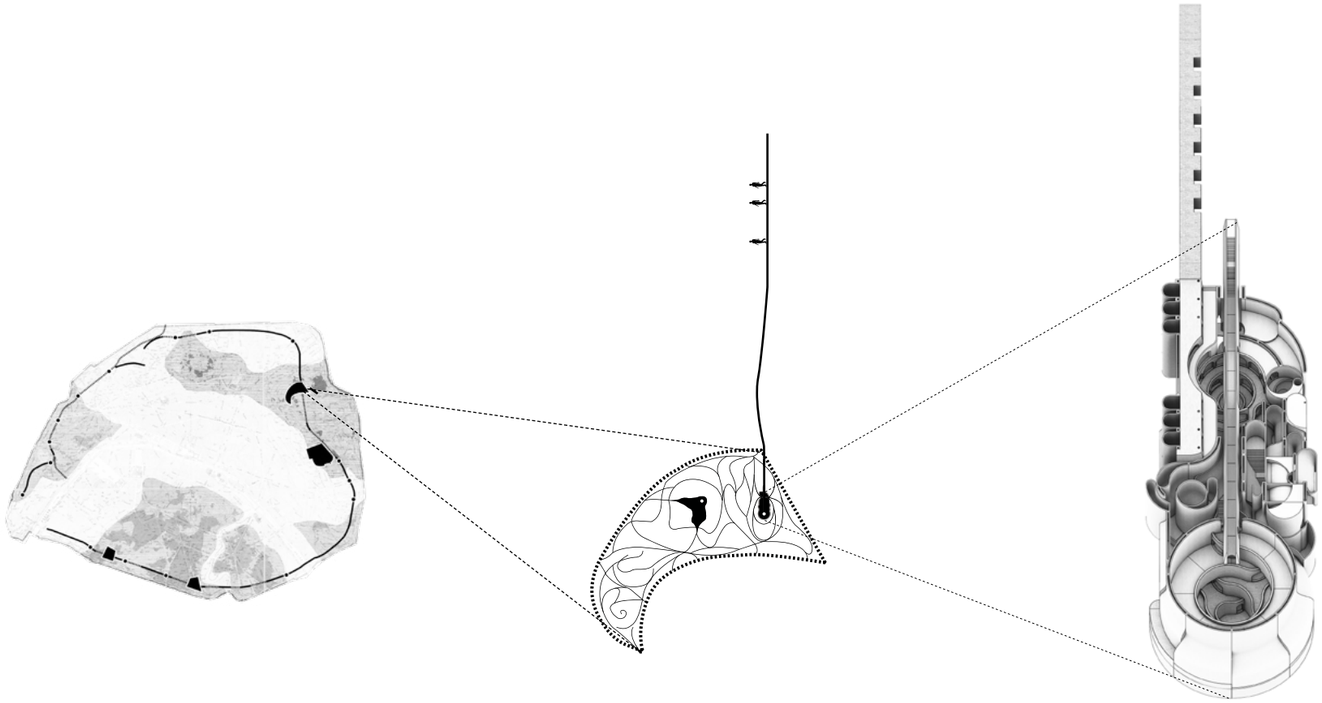


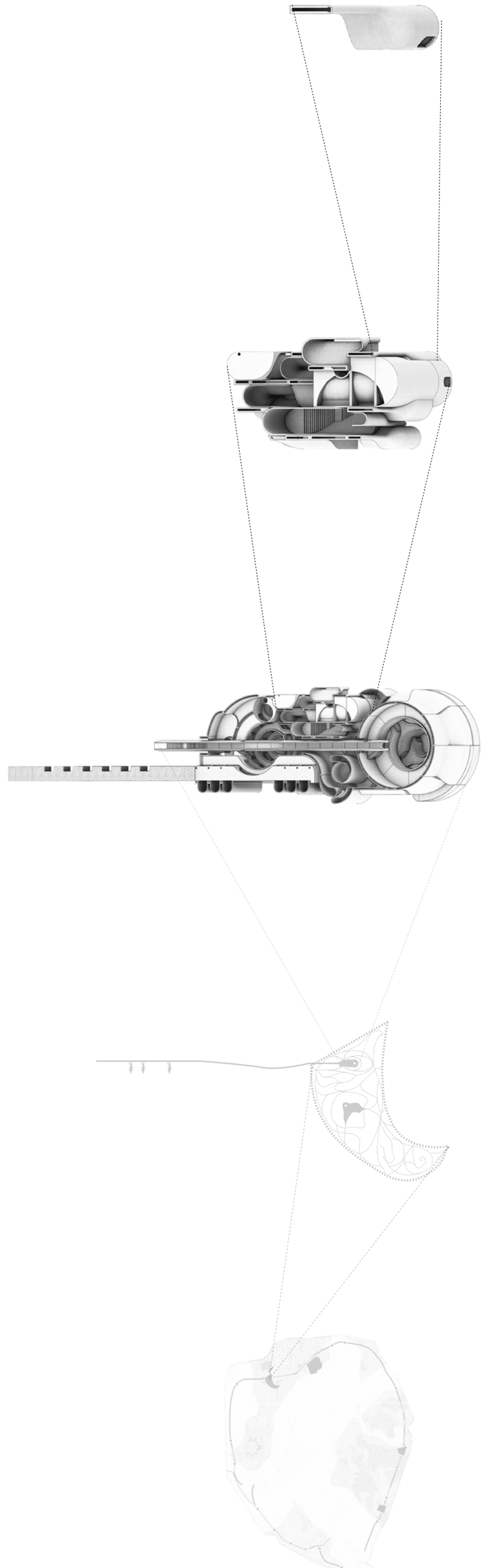




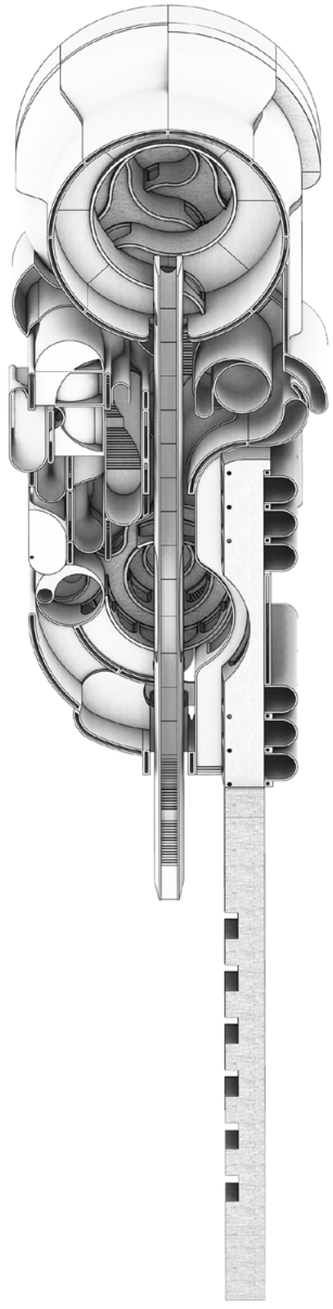


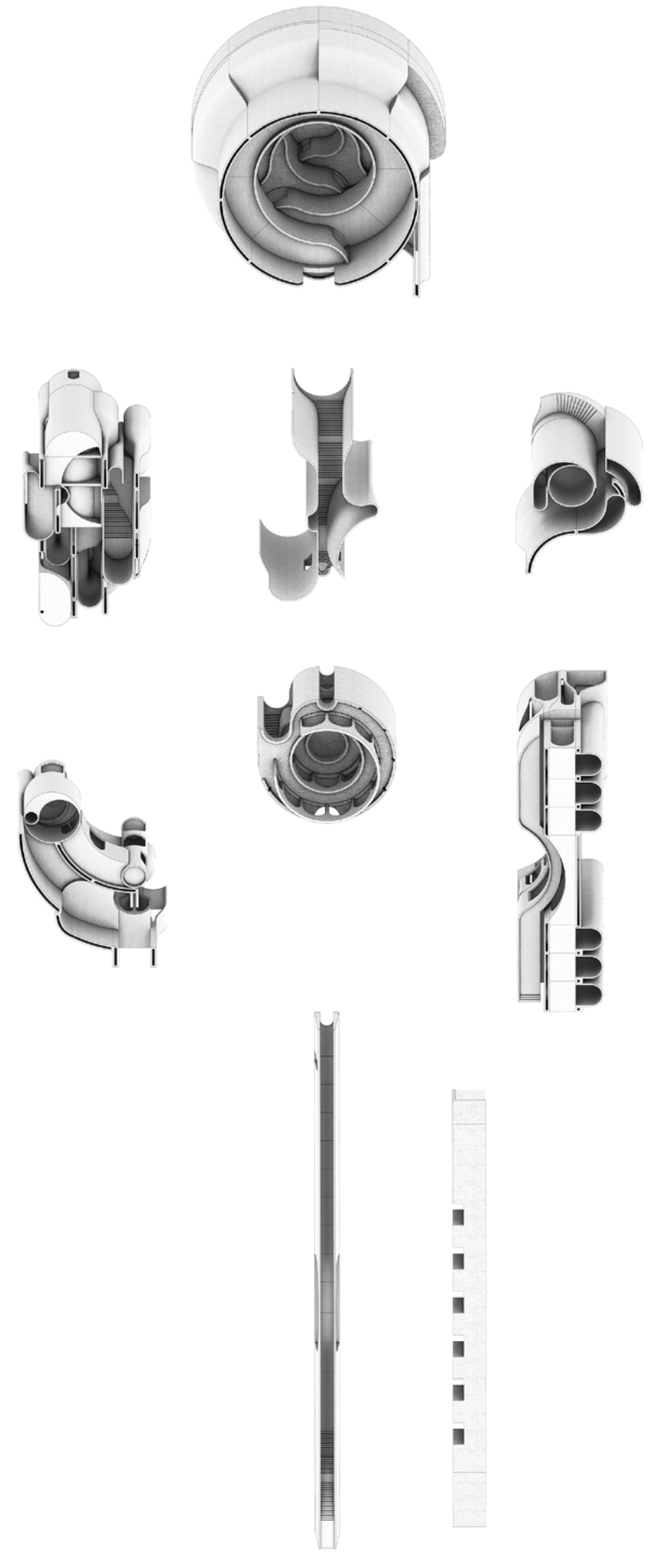






Holistic structure

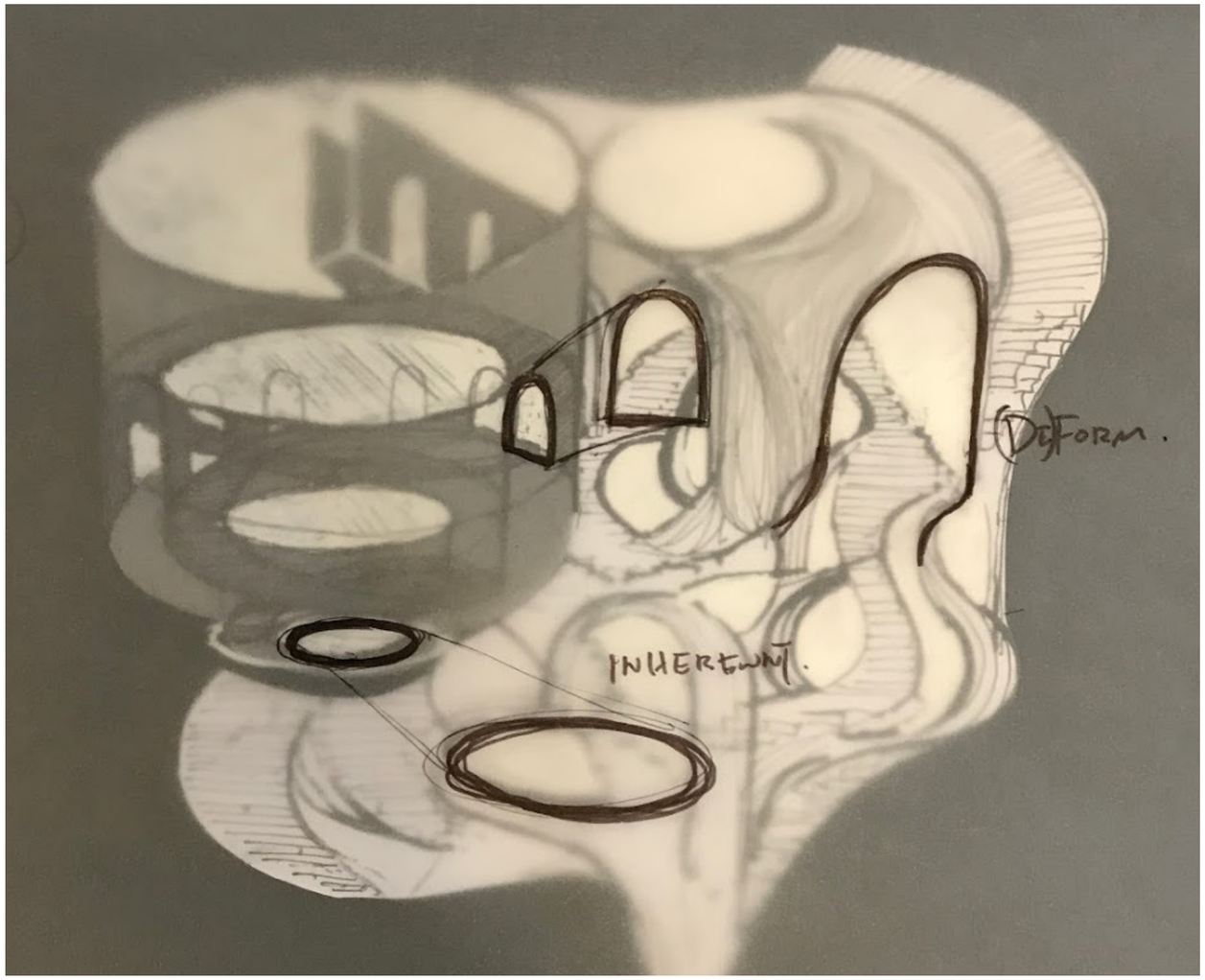


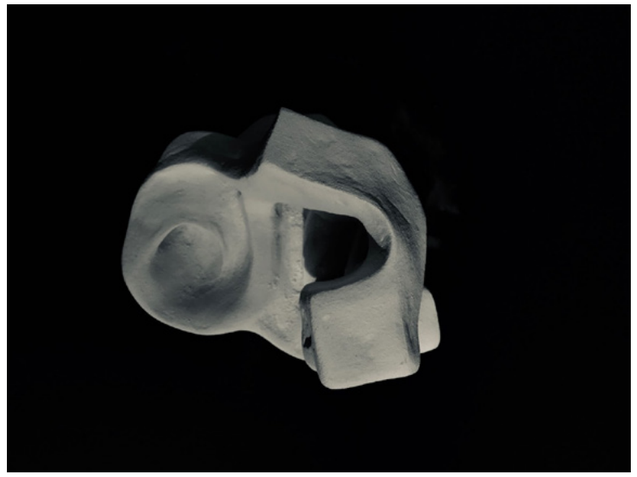


reproduce the essence of growing

experimental sketches & models

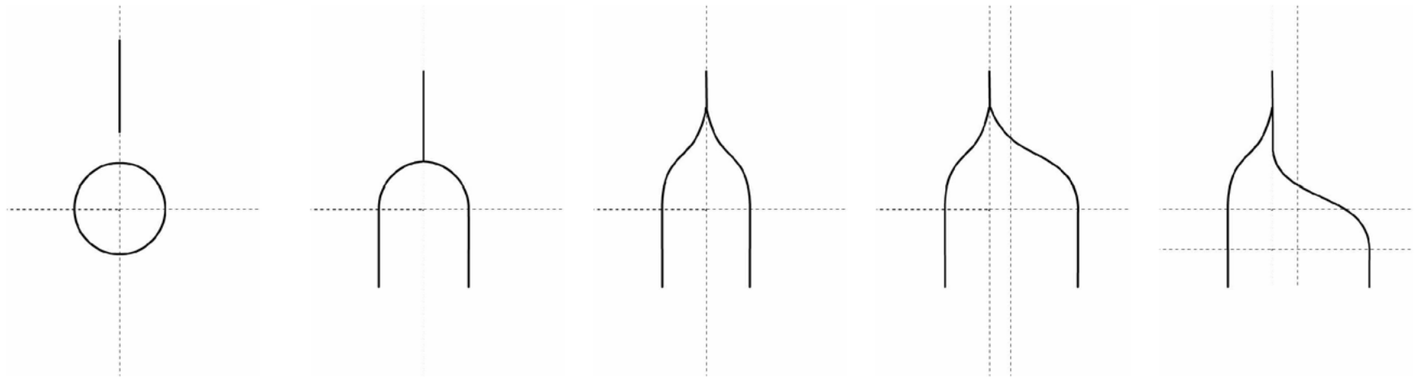
experimental sketches & models





experimental models

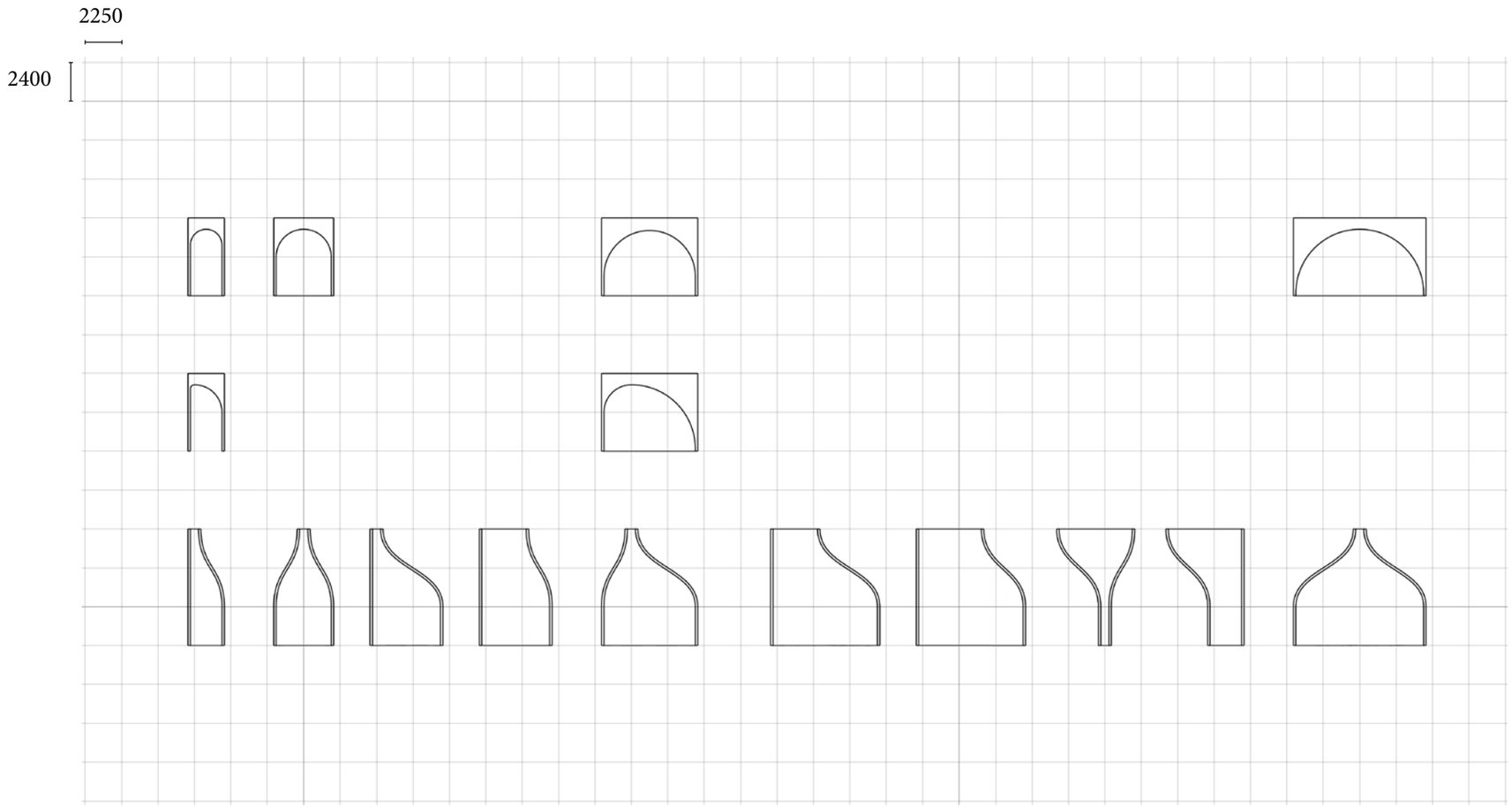
section generating and differentiating



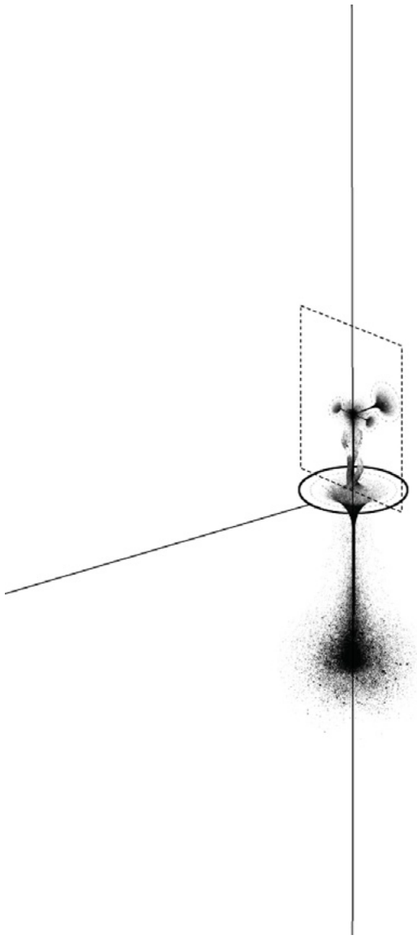
[click link to video]

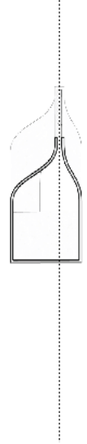
https://youtu.be/TARc8F1IFBU

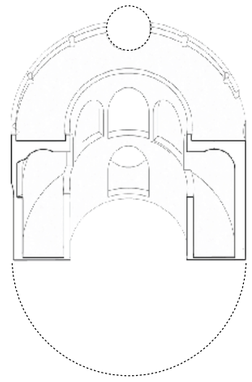
Variations with controlled dimensions

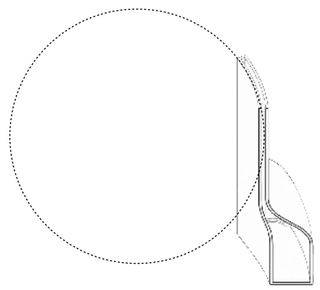


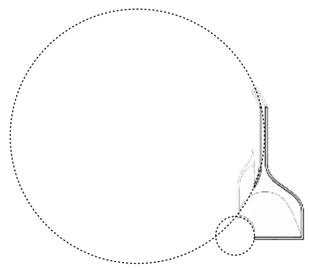
Section and Plan generate the form







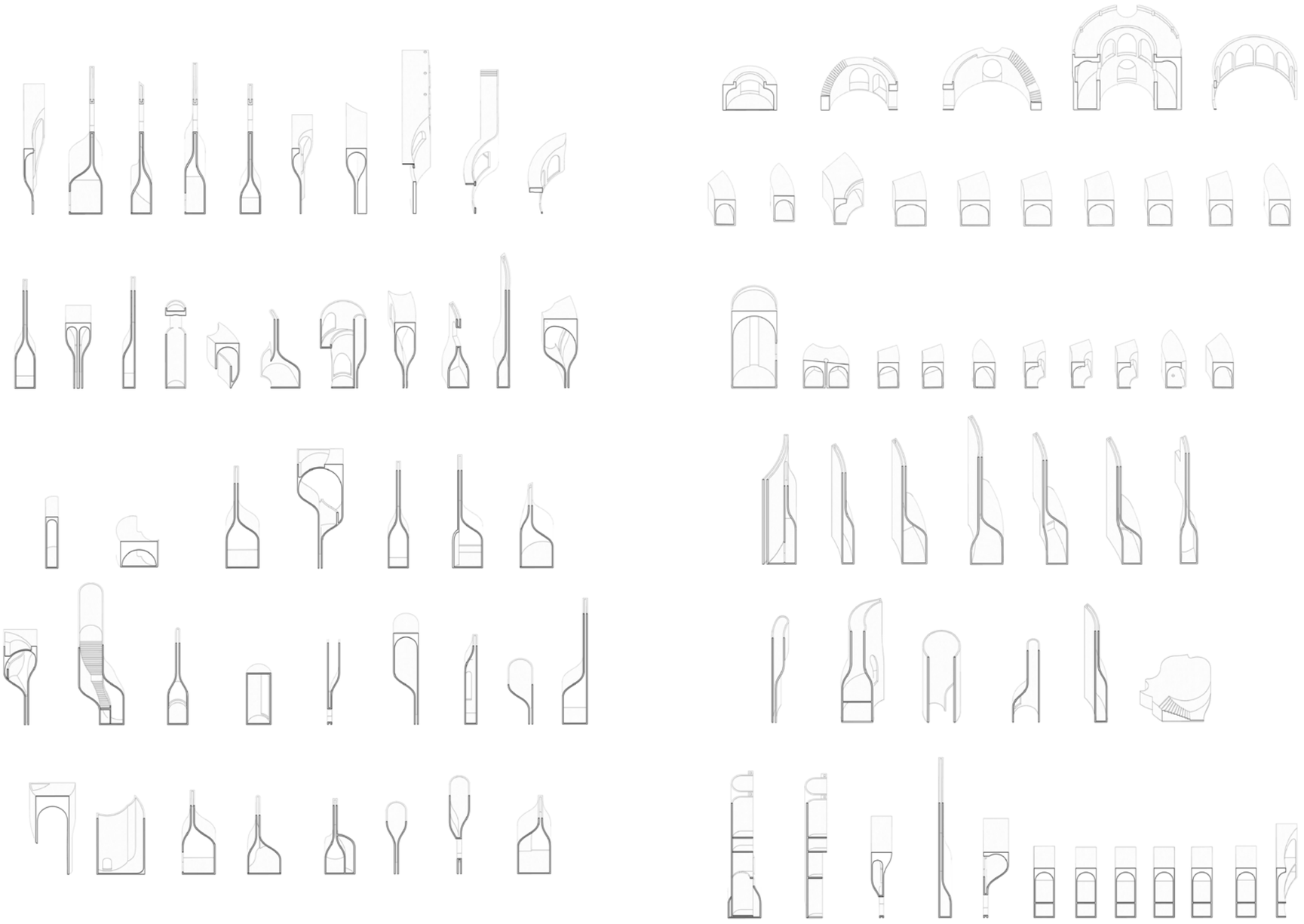


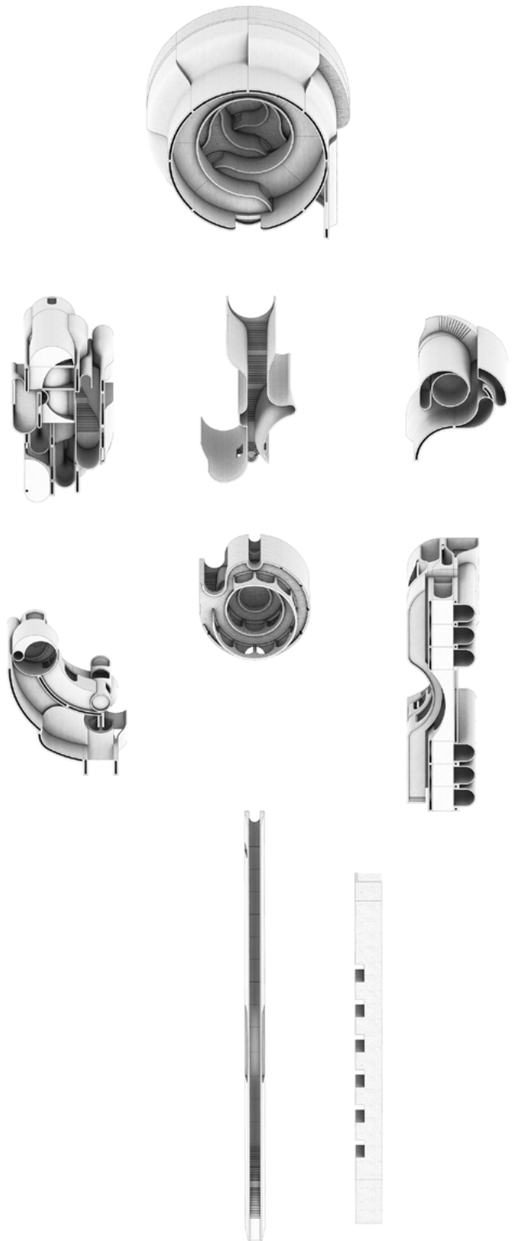


[click link to video]

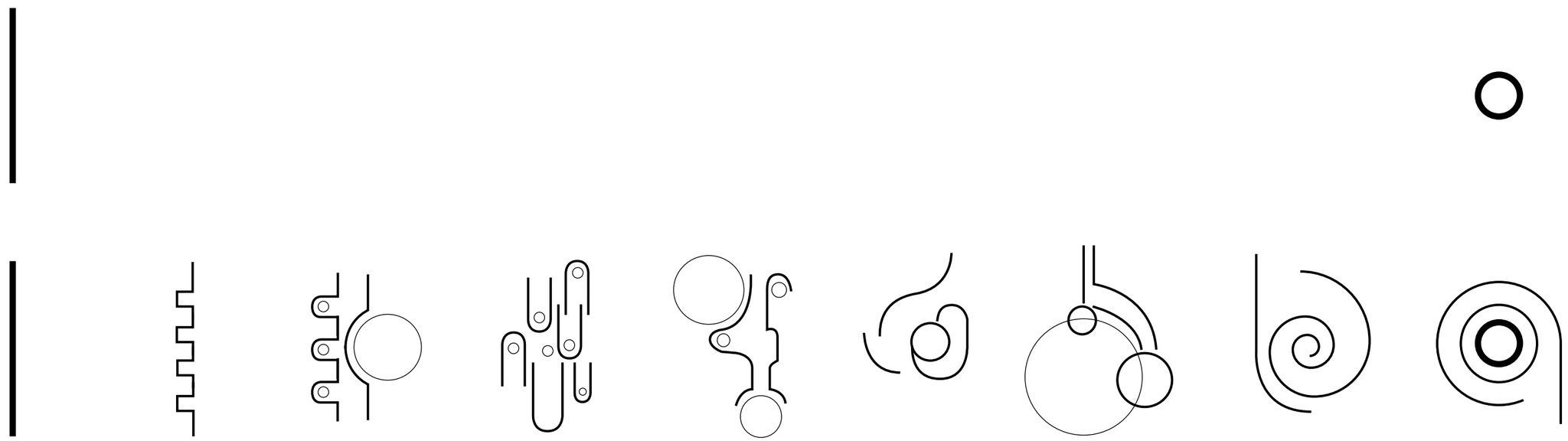
https://youtu.be/CuZdOghK_fQ

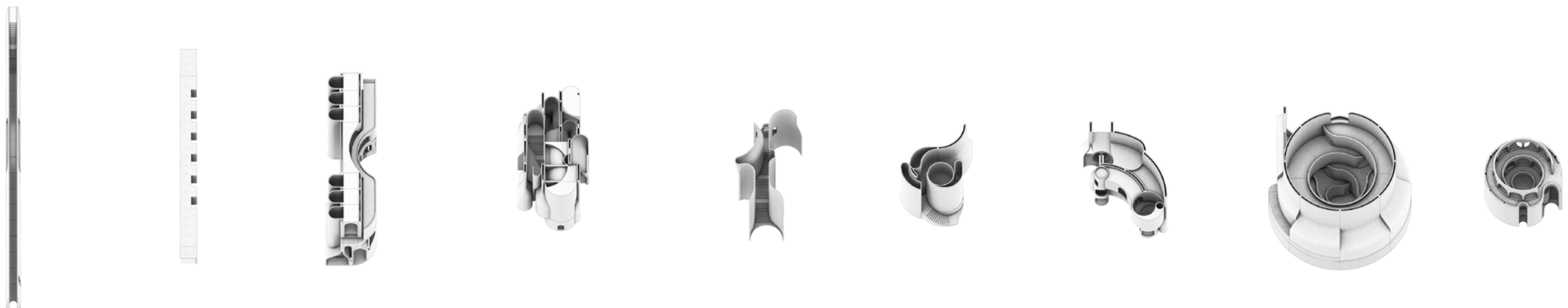
elemental differences



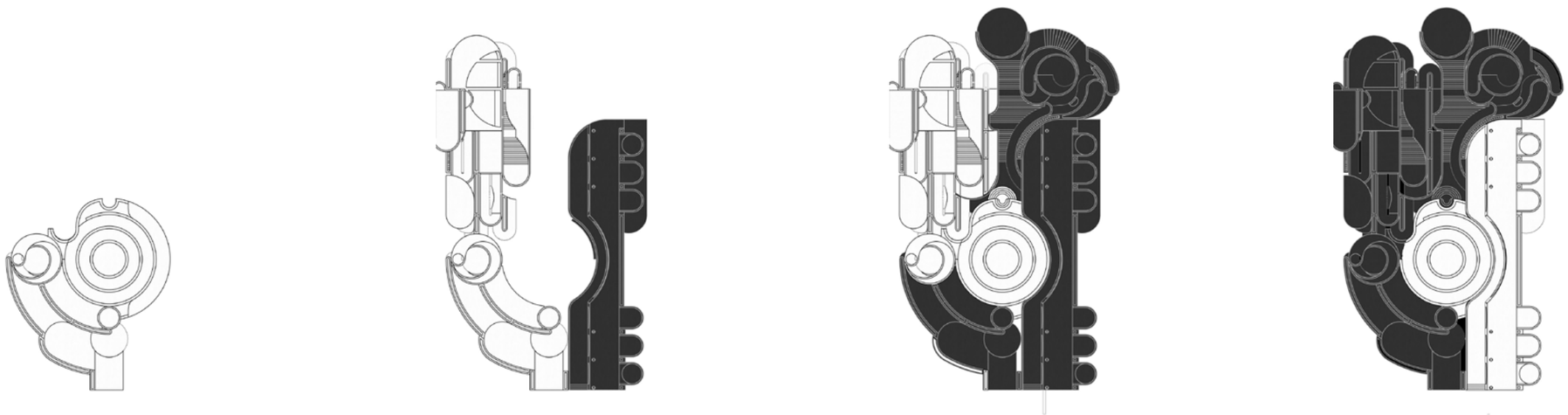


Form generated from interaction of the linear and circular "force"

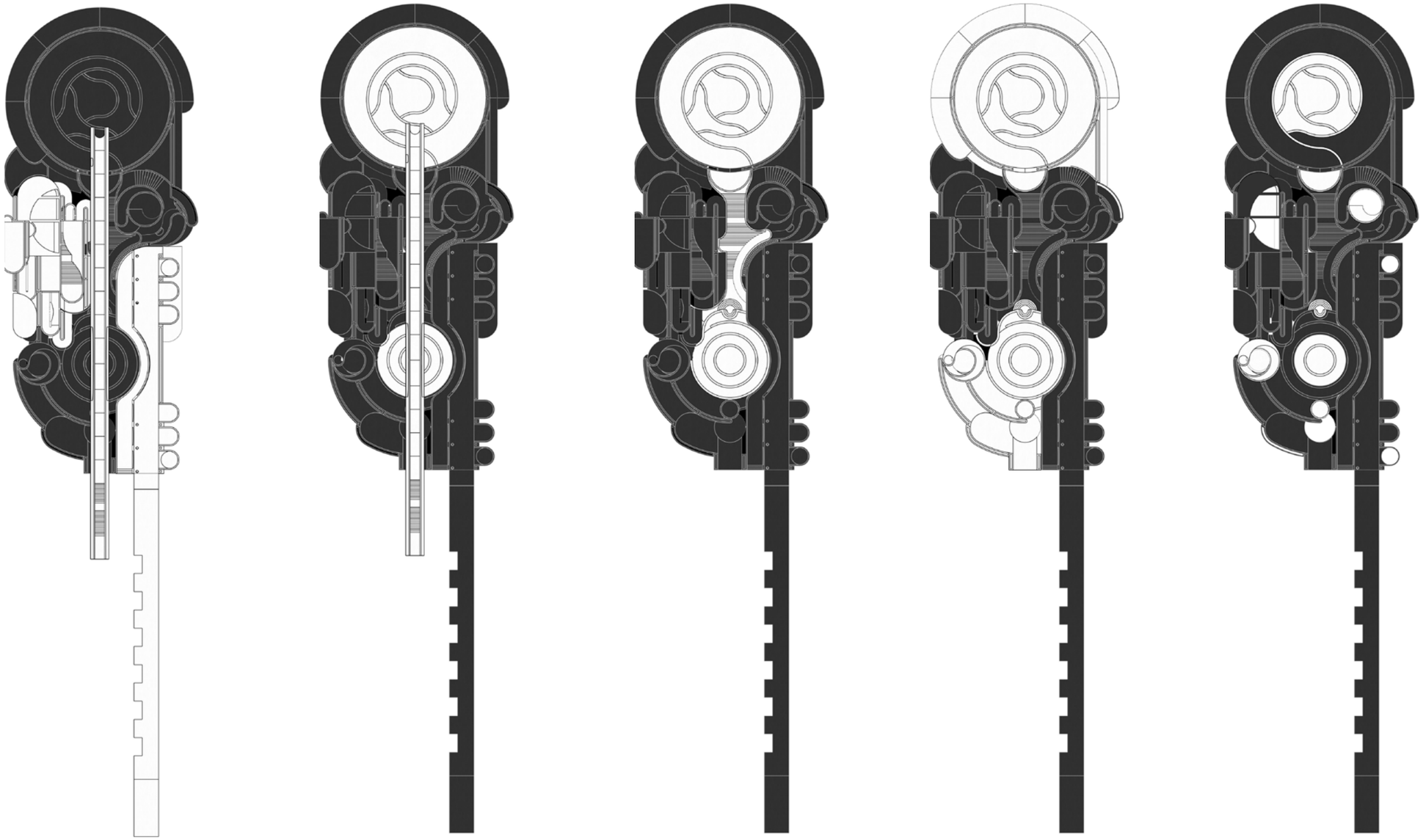




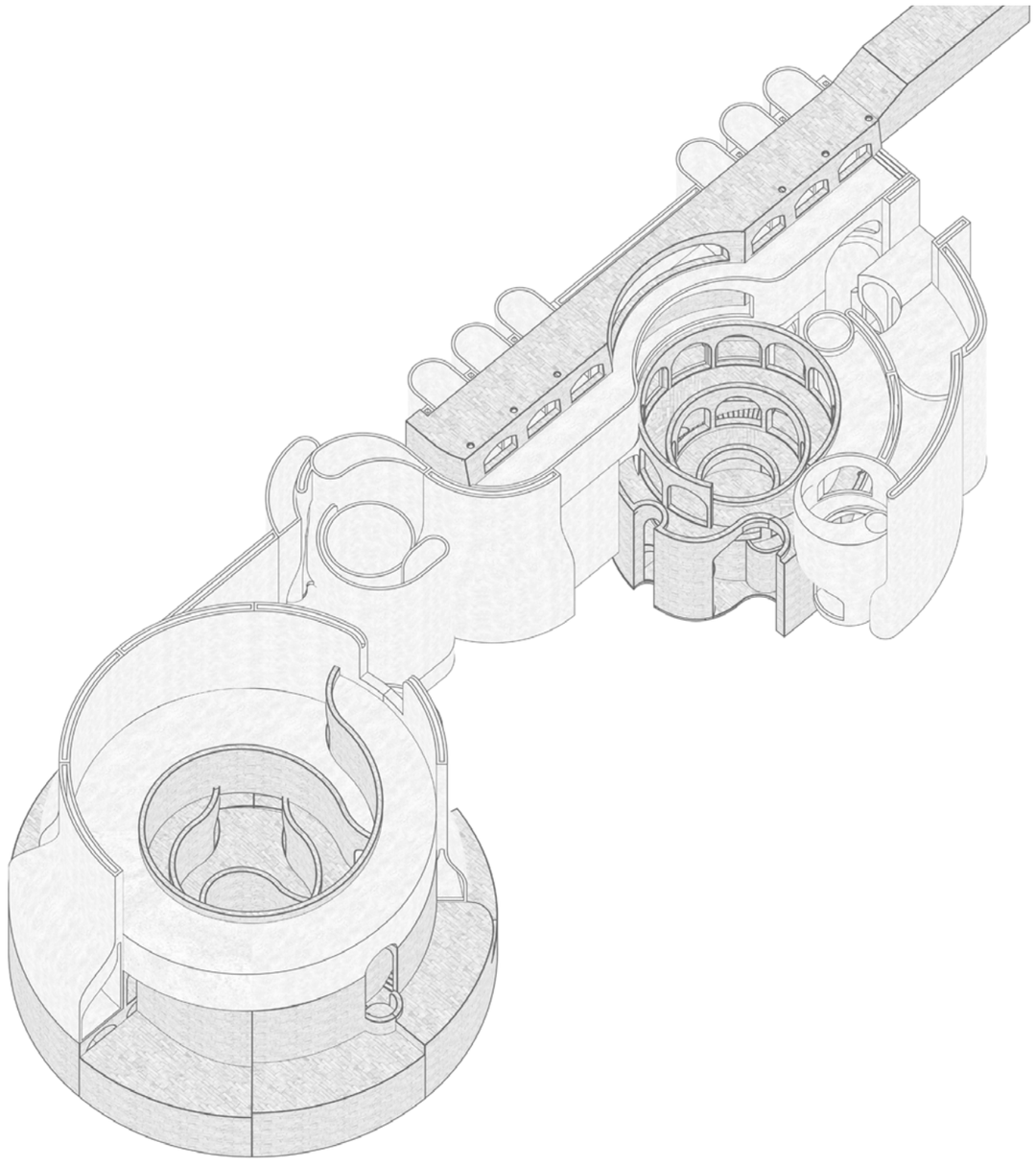
Ambiguity created from assimilating and differentiating

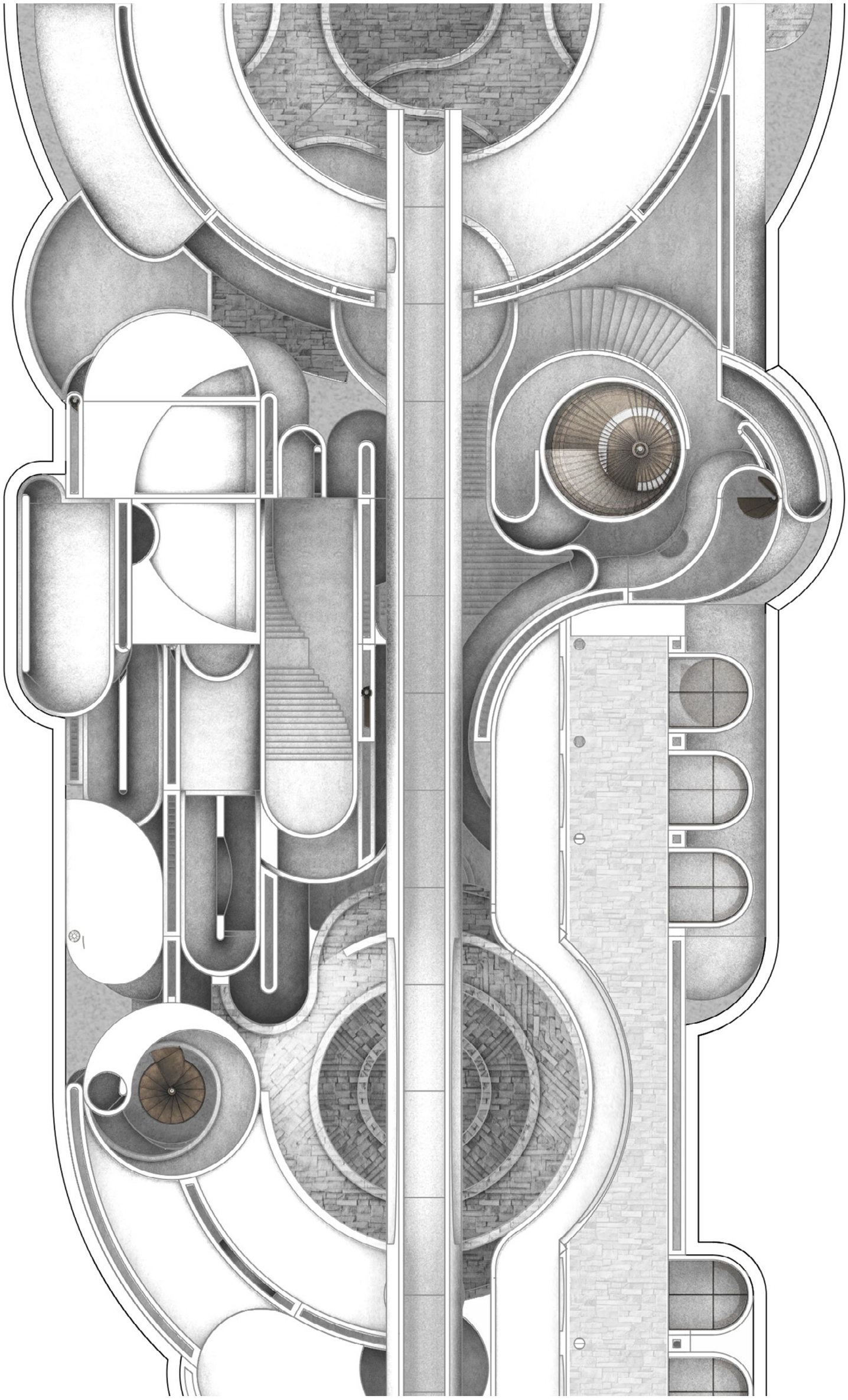


Ambiguity created from assimilating and differentiating

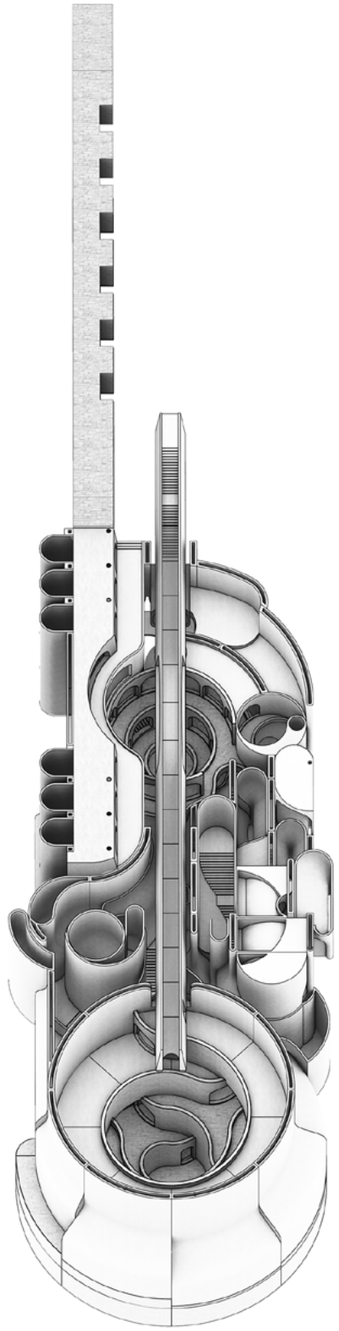


form and choice of materiality





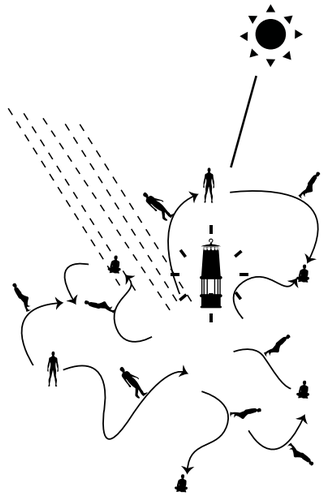
Experiencing the “Melodies”



Building body as **Frozen** “Melody”

Installation as “Accents”

Improvisations



Flow

Muses: a person or personified force who is the source of inspiration for a creative artist (oxford dictionary)

Joos de Momper (1564–1635), Helicon or Minerva's Visit to the Muses (c 1610)

Who is experiencing?

Tim Enderson - four categories of play in the urban wildscape

Adventurous

Seeking Excitment

E.g. Searching for unknown

Hedonistic

Mental **Release**

E.g. Drinking, Smoking, Drug tak

Destructive

Challenging the limit

E.g. throwing stones, breaking things

Artistic

Temporary territorialised

E.g.Speedy Drawing

Explorative

Expressive

scenarios imagined

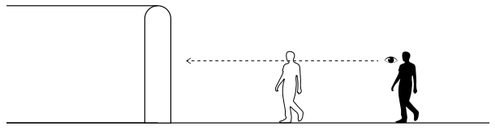
Doubts

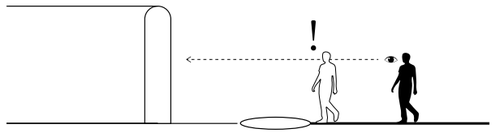
Reflection, aware of previous moment

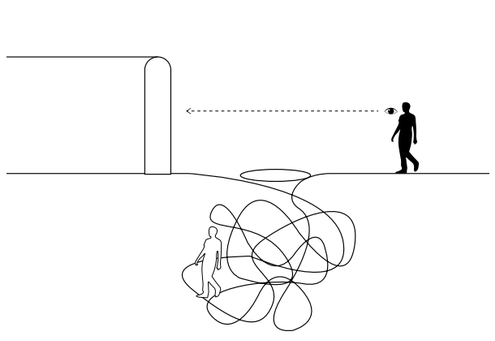
Exploring unknown

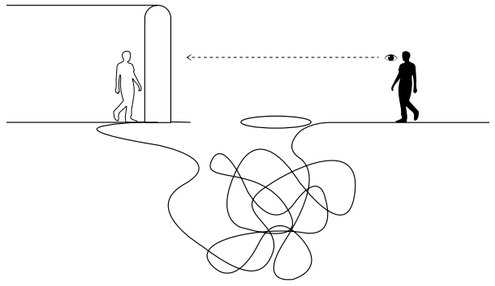
Encounter someone or something,
which bear stories.

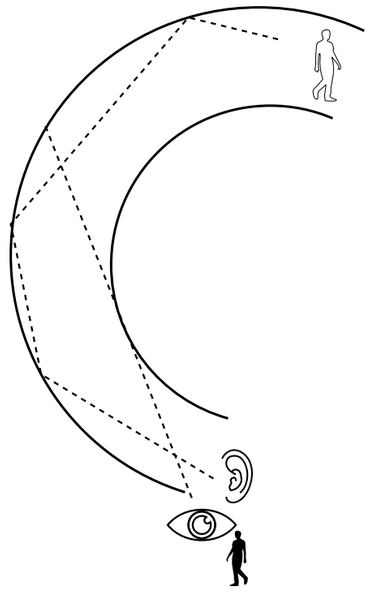
sense of mystery created by twists and turns



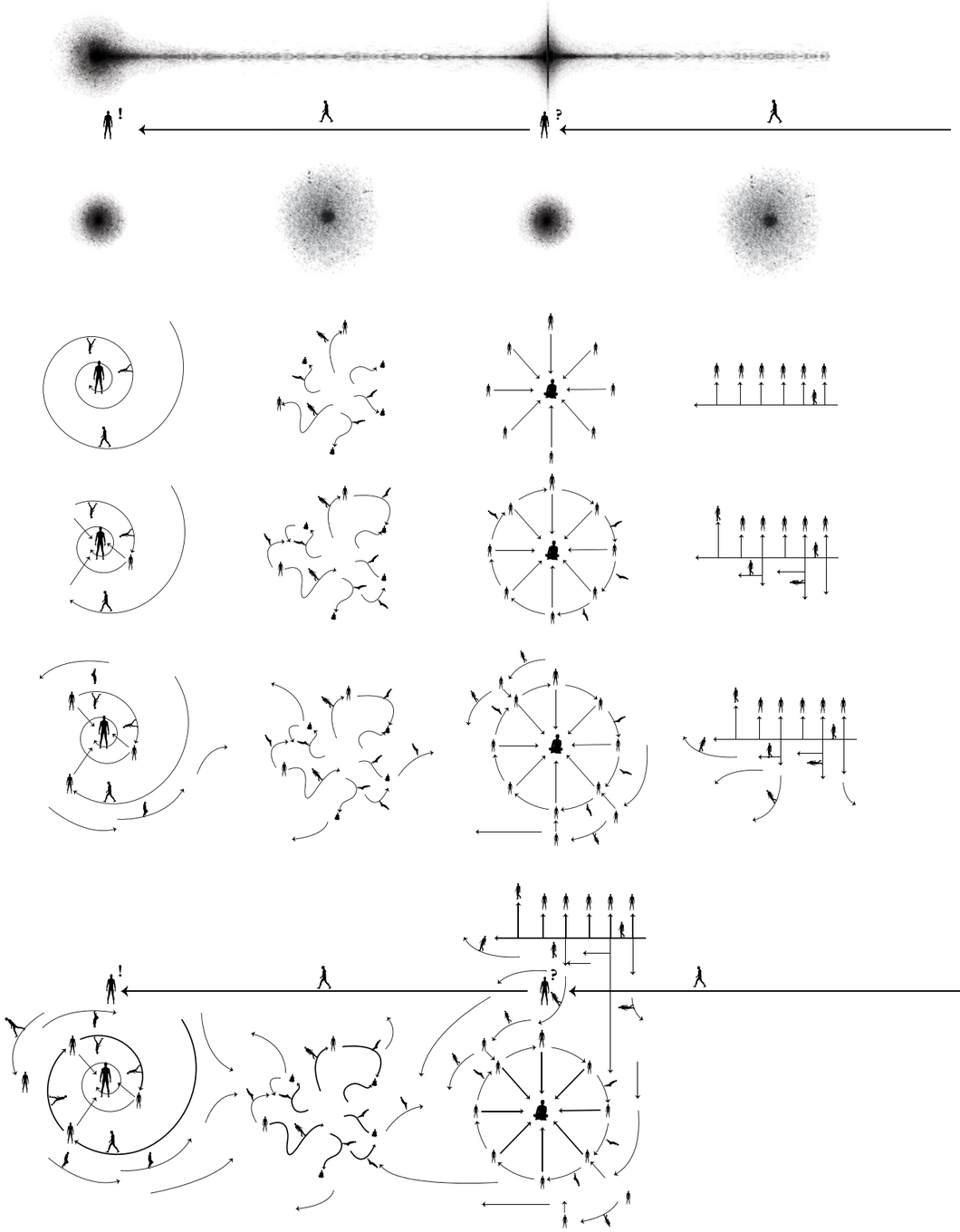




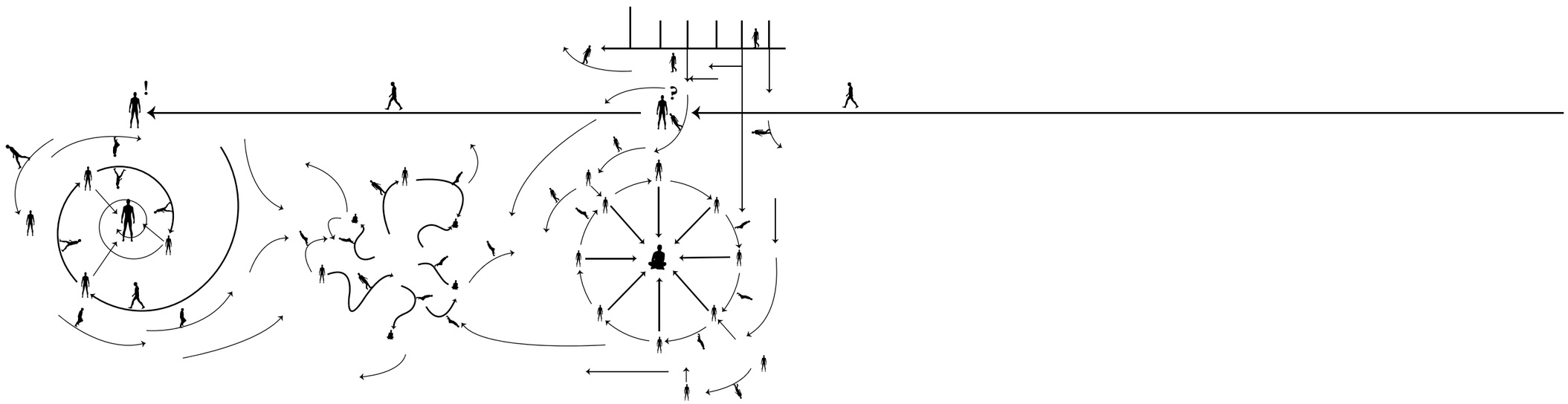


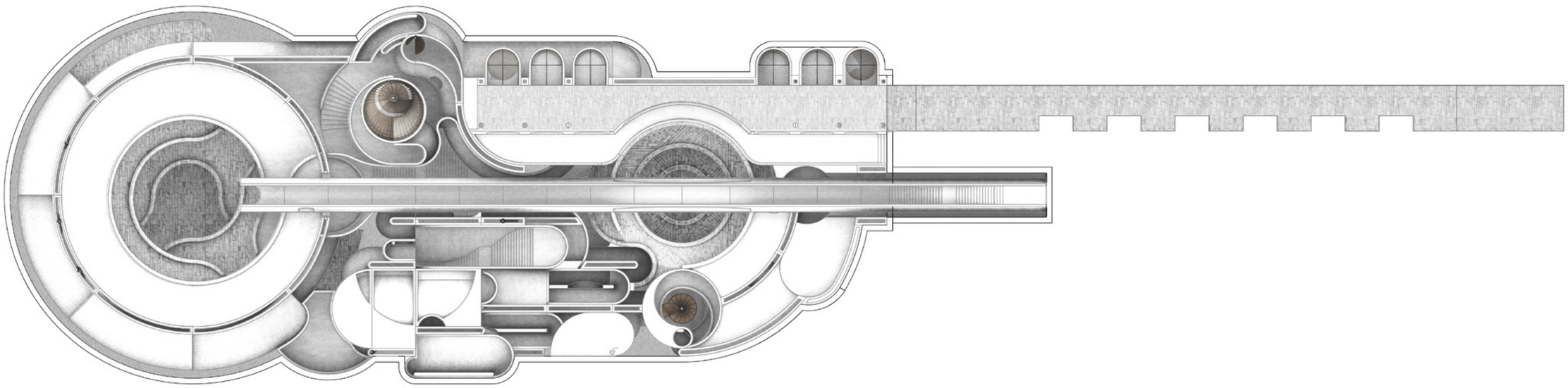


scenarios created as flow of human bodies

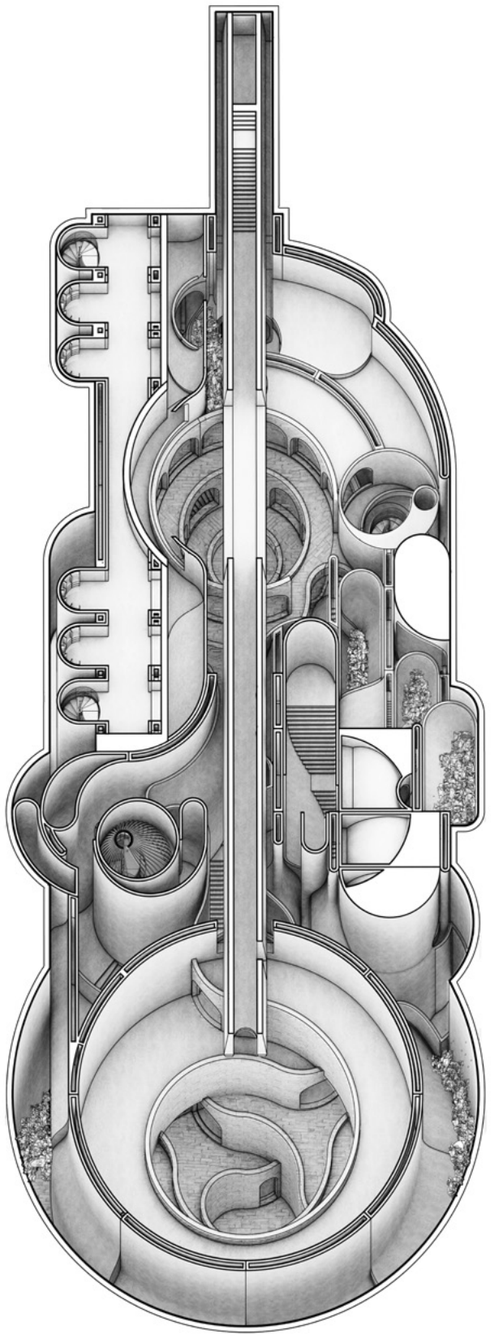


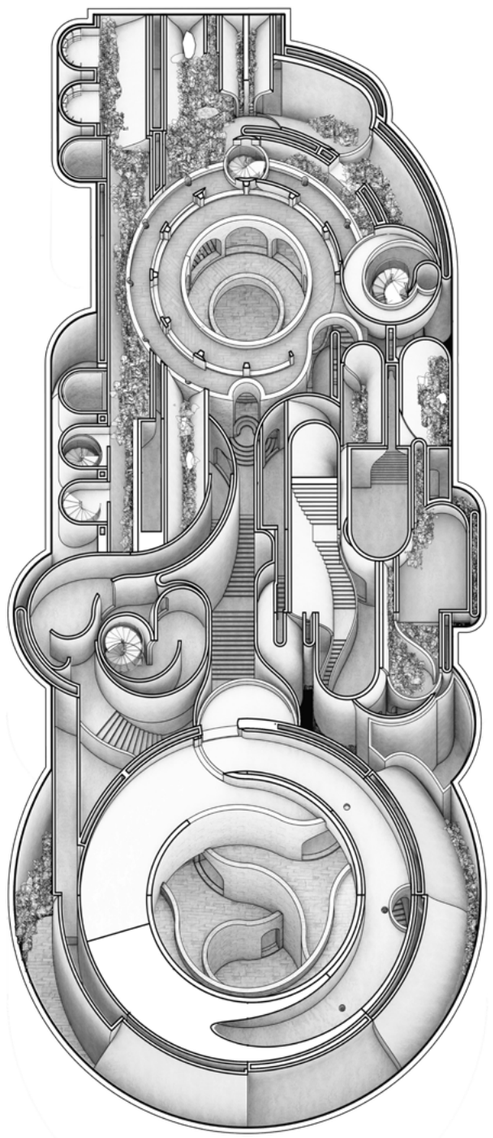
Form follows the flows

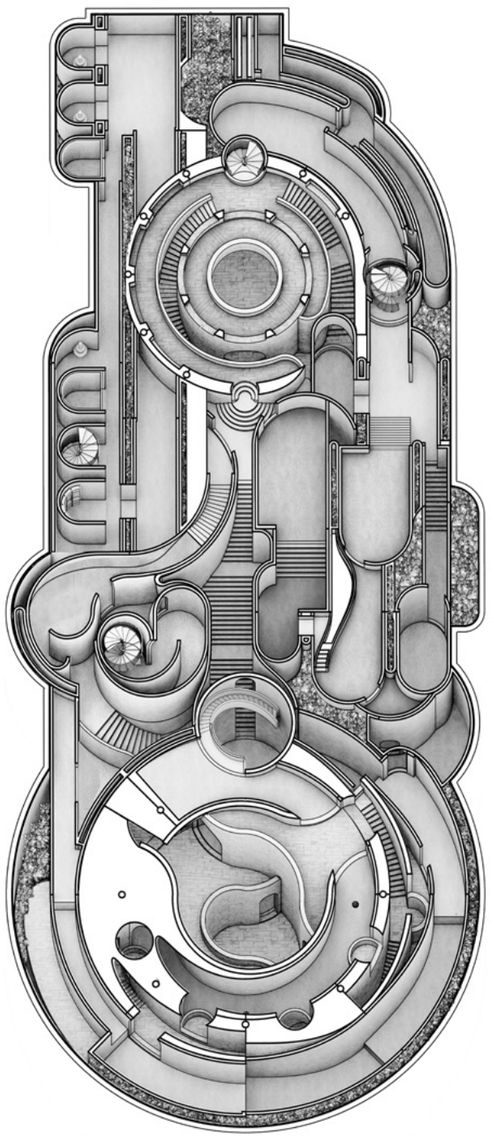




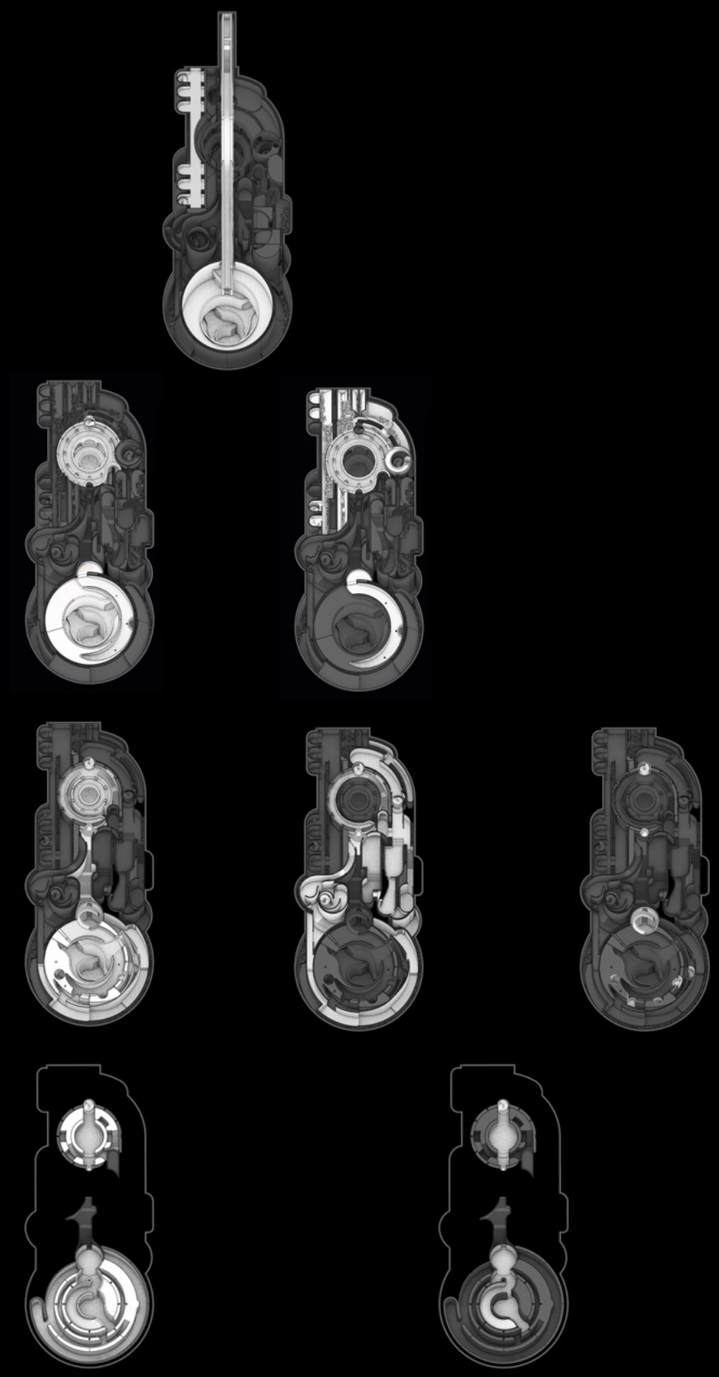
Plans



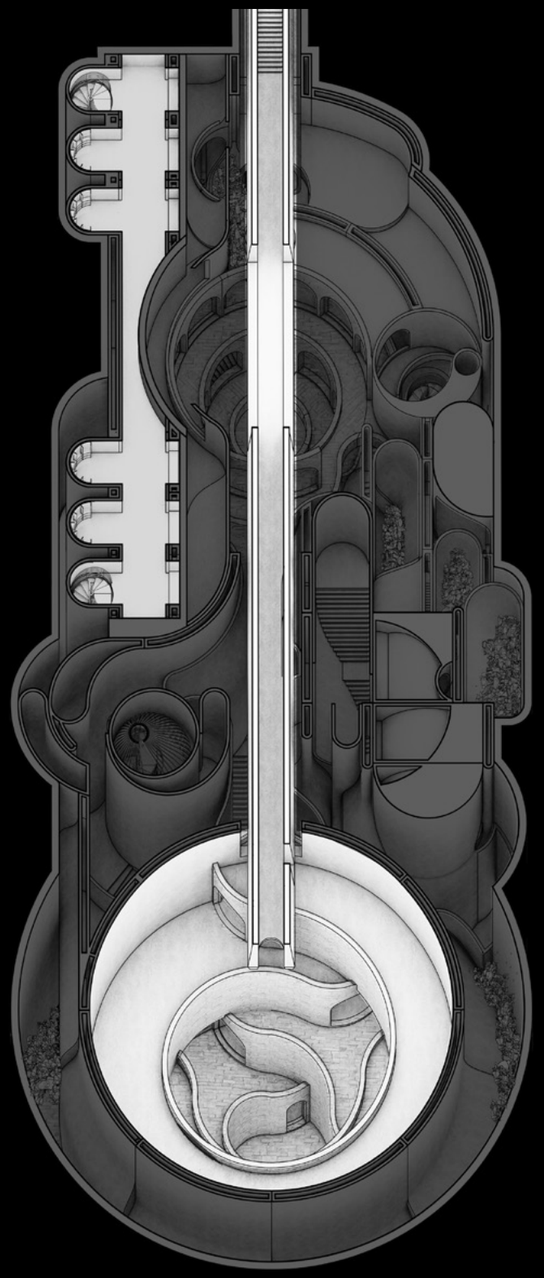


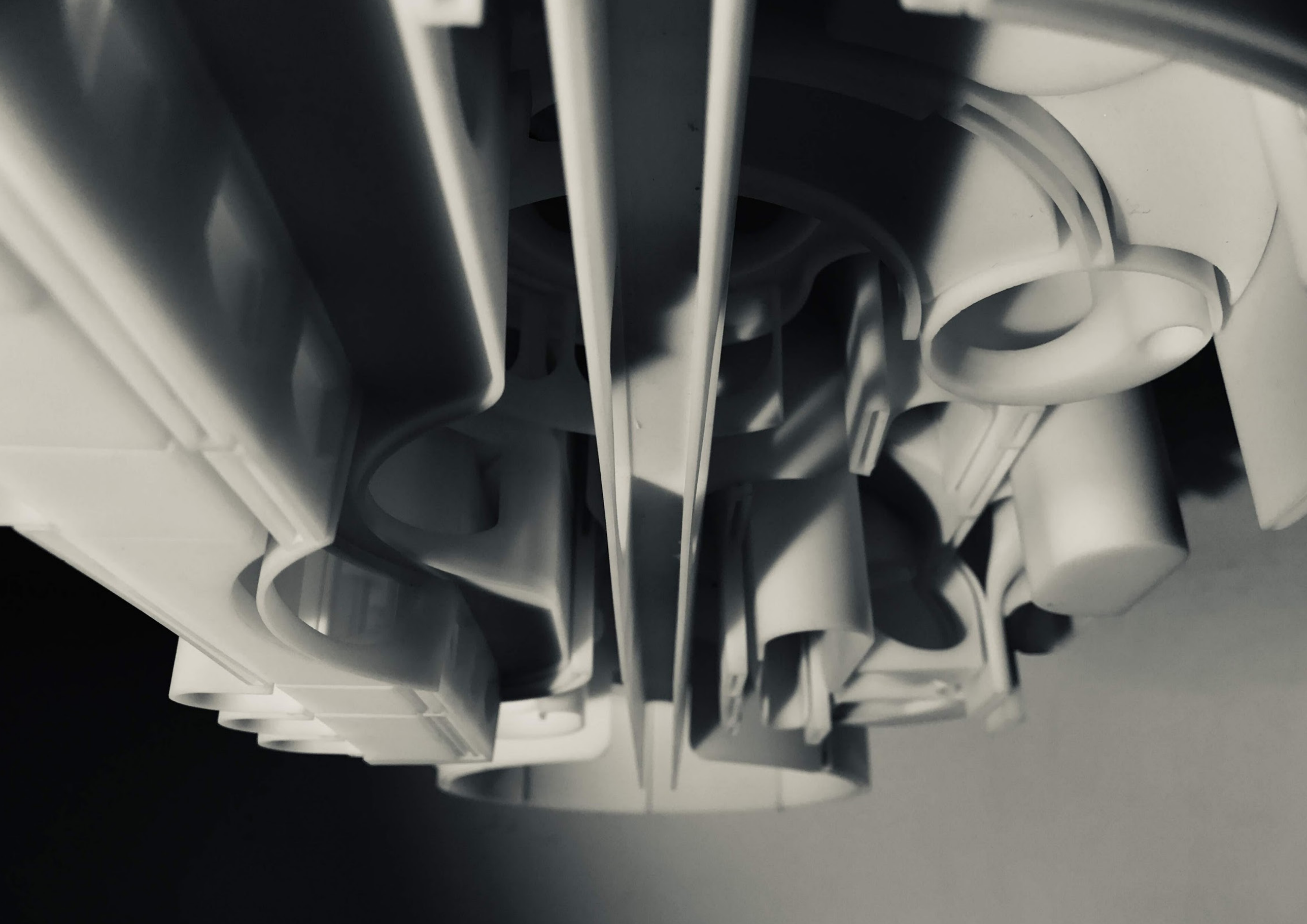


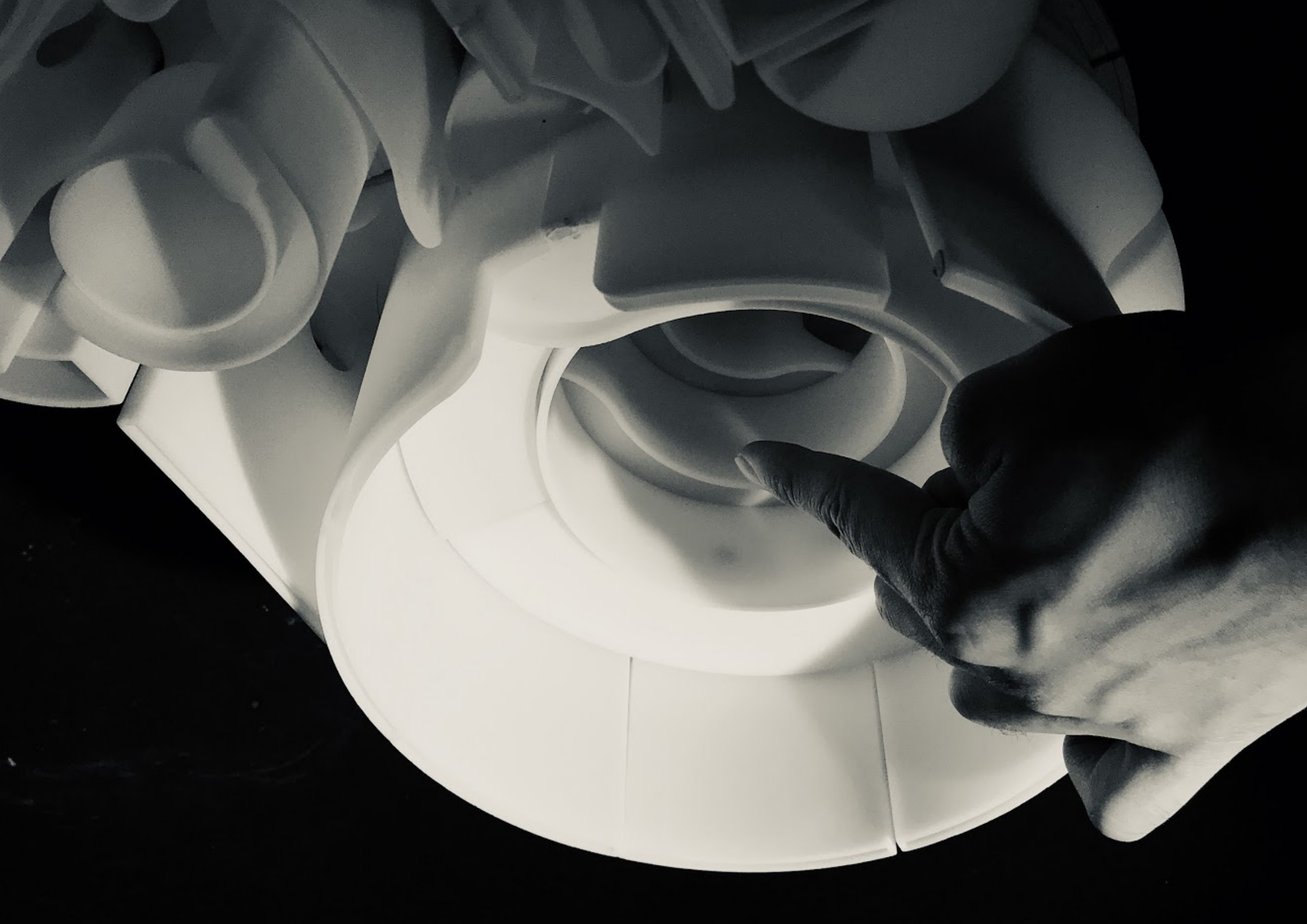
plot development



The introduction







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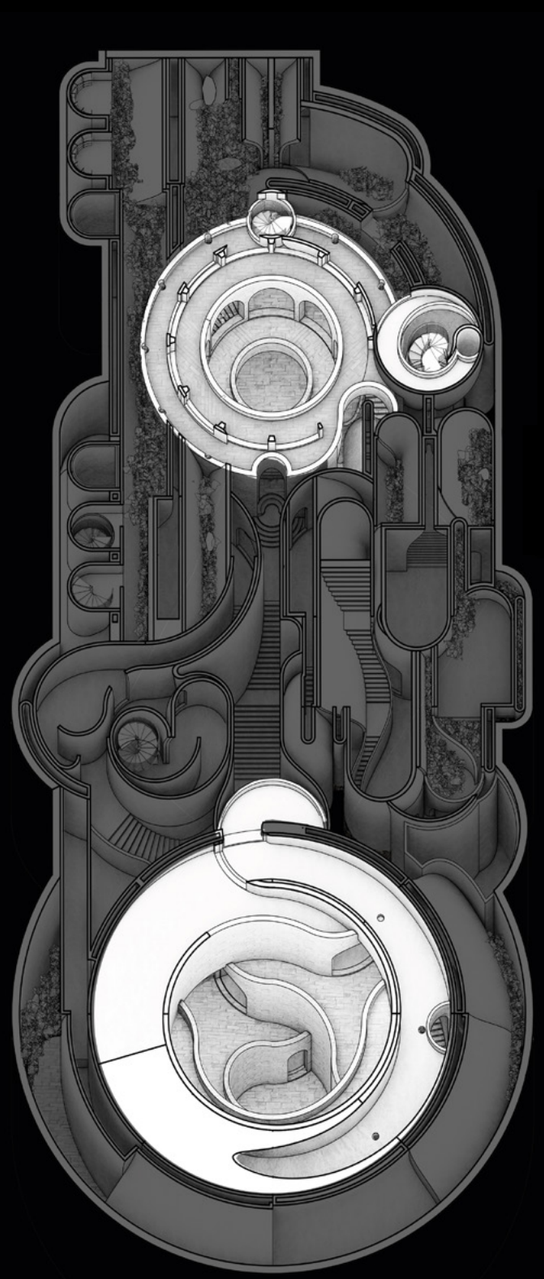
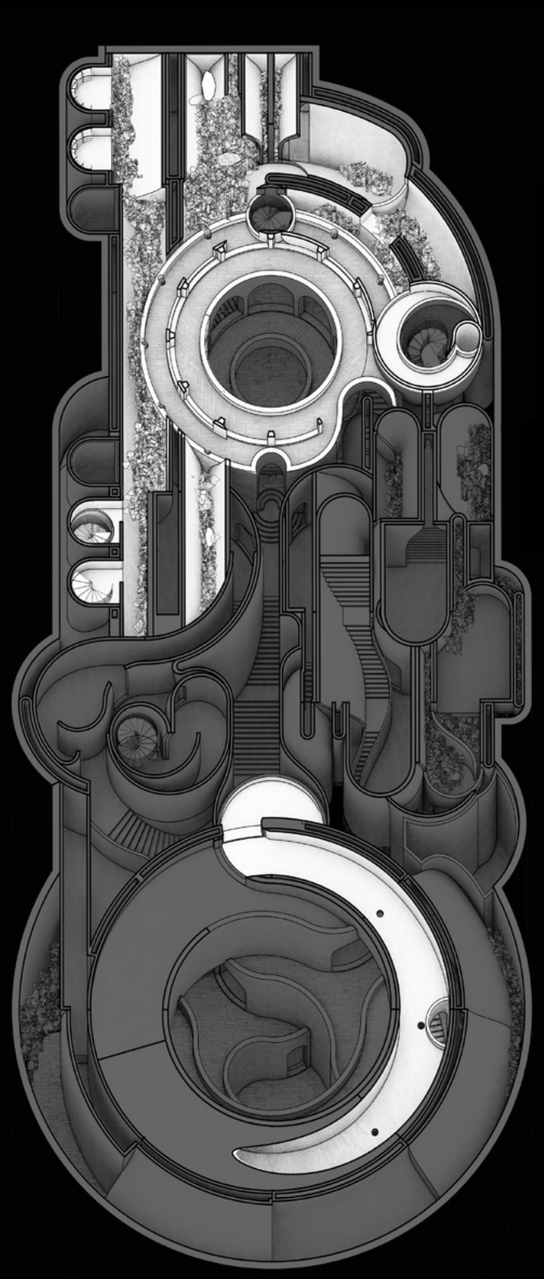
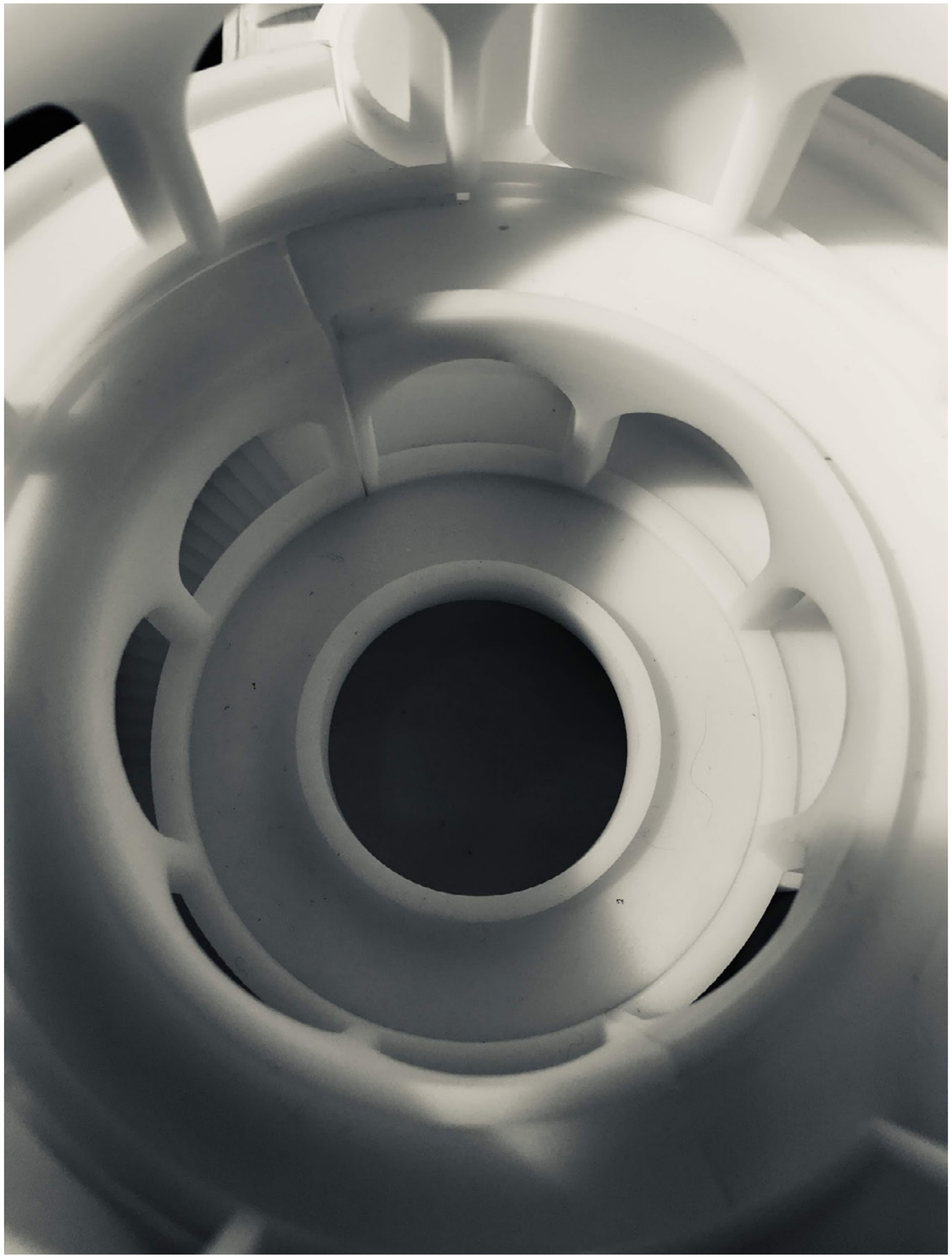
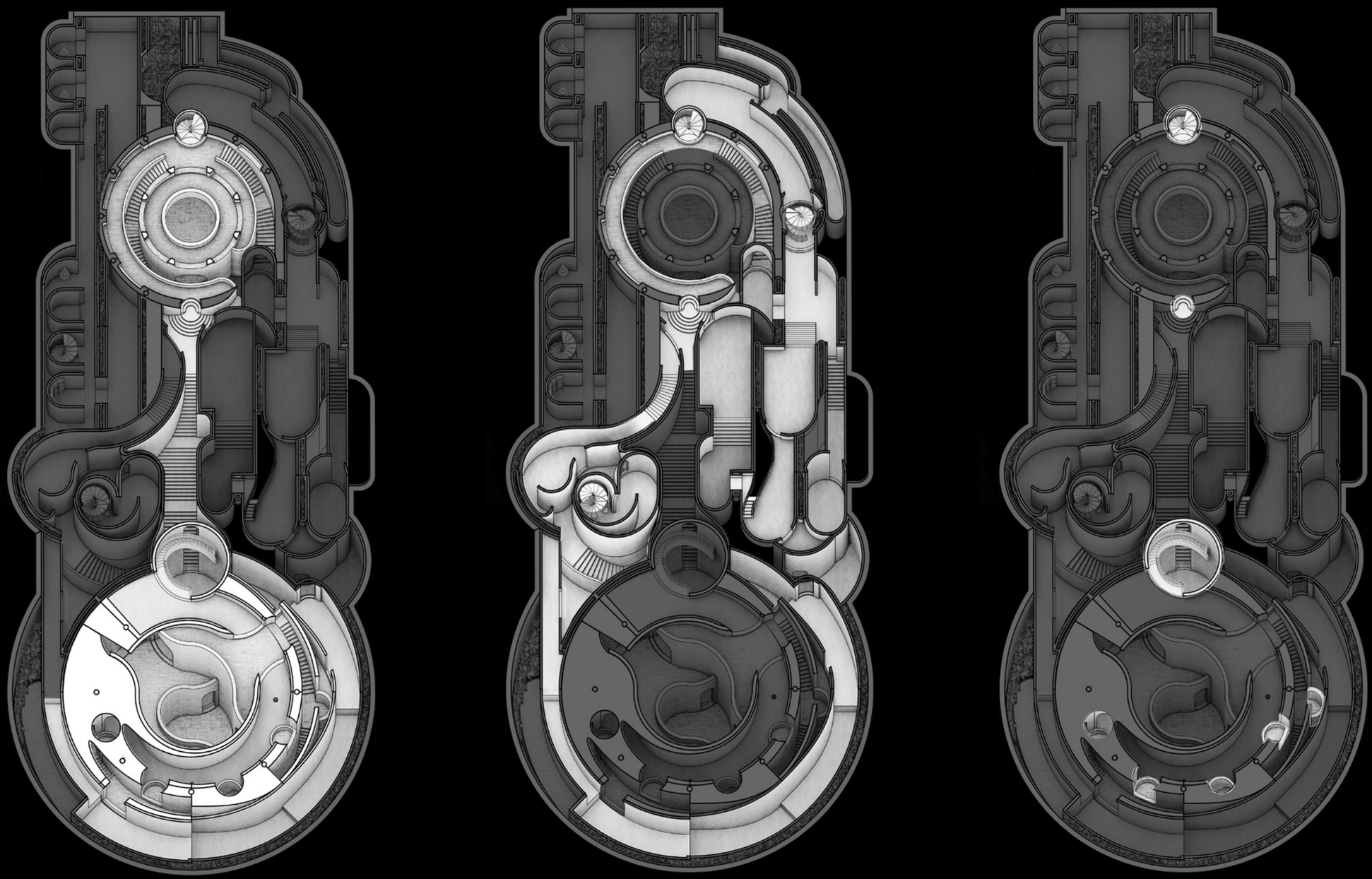


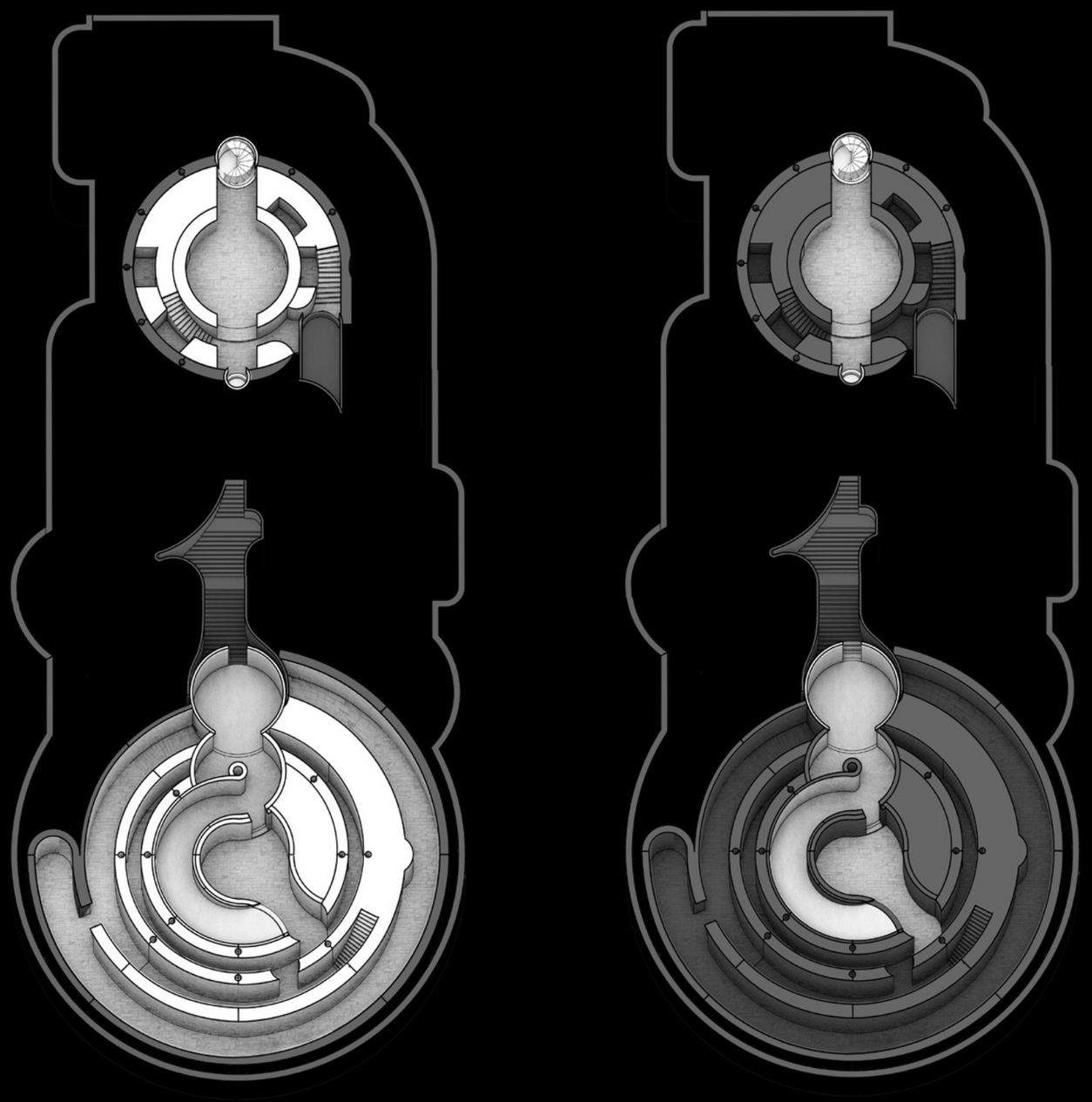




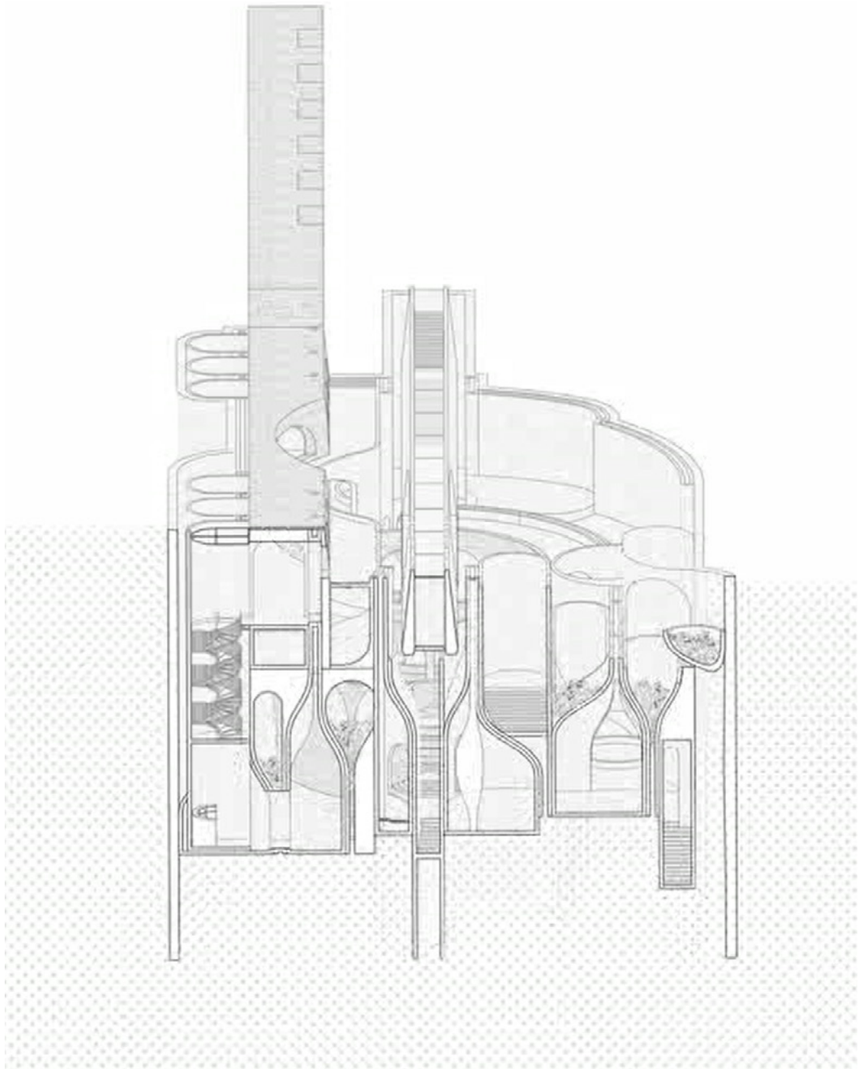
The “Twist”



The Finale



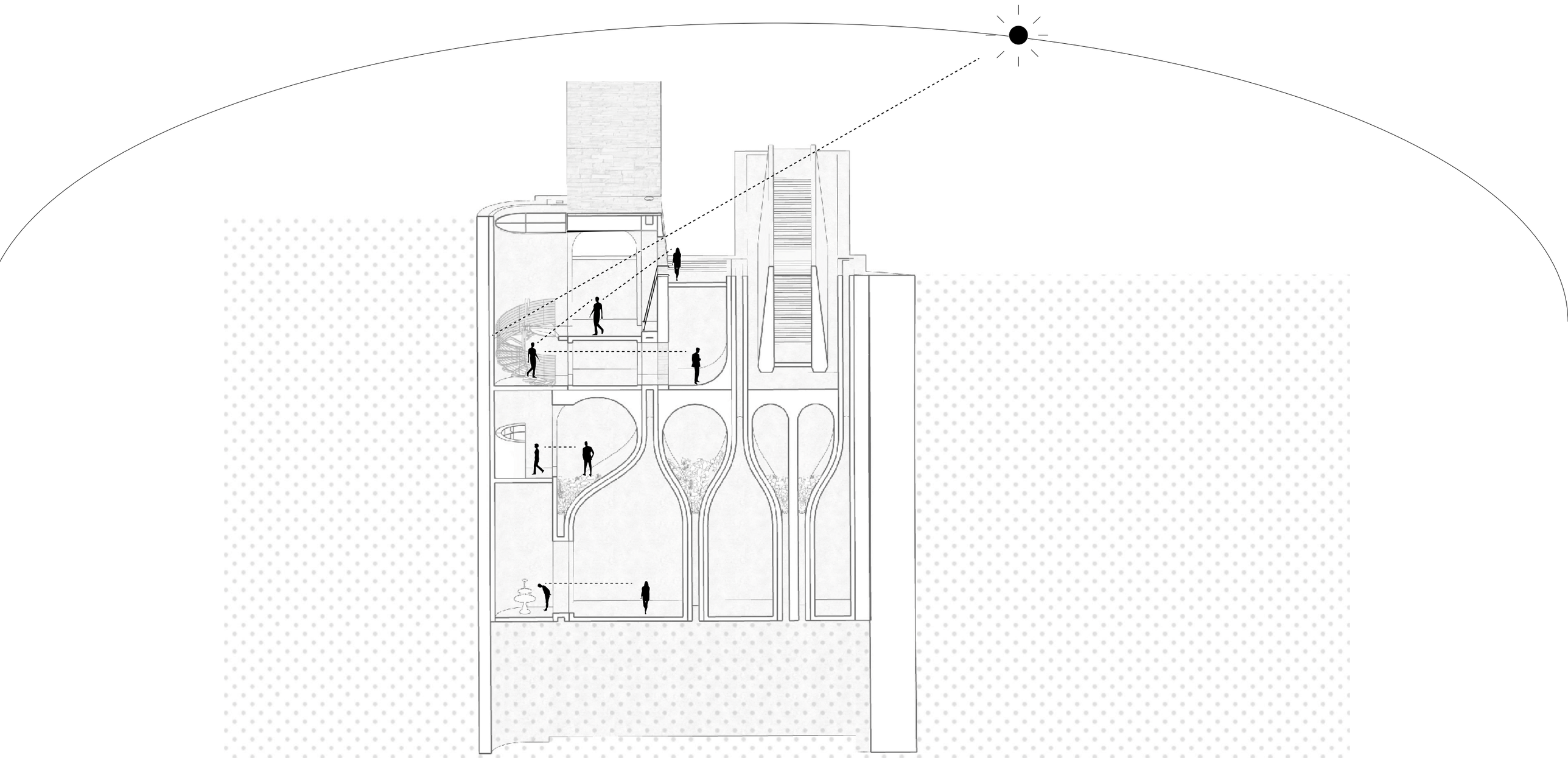
section development



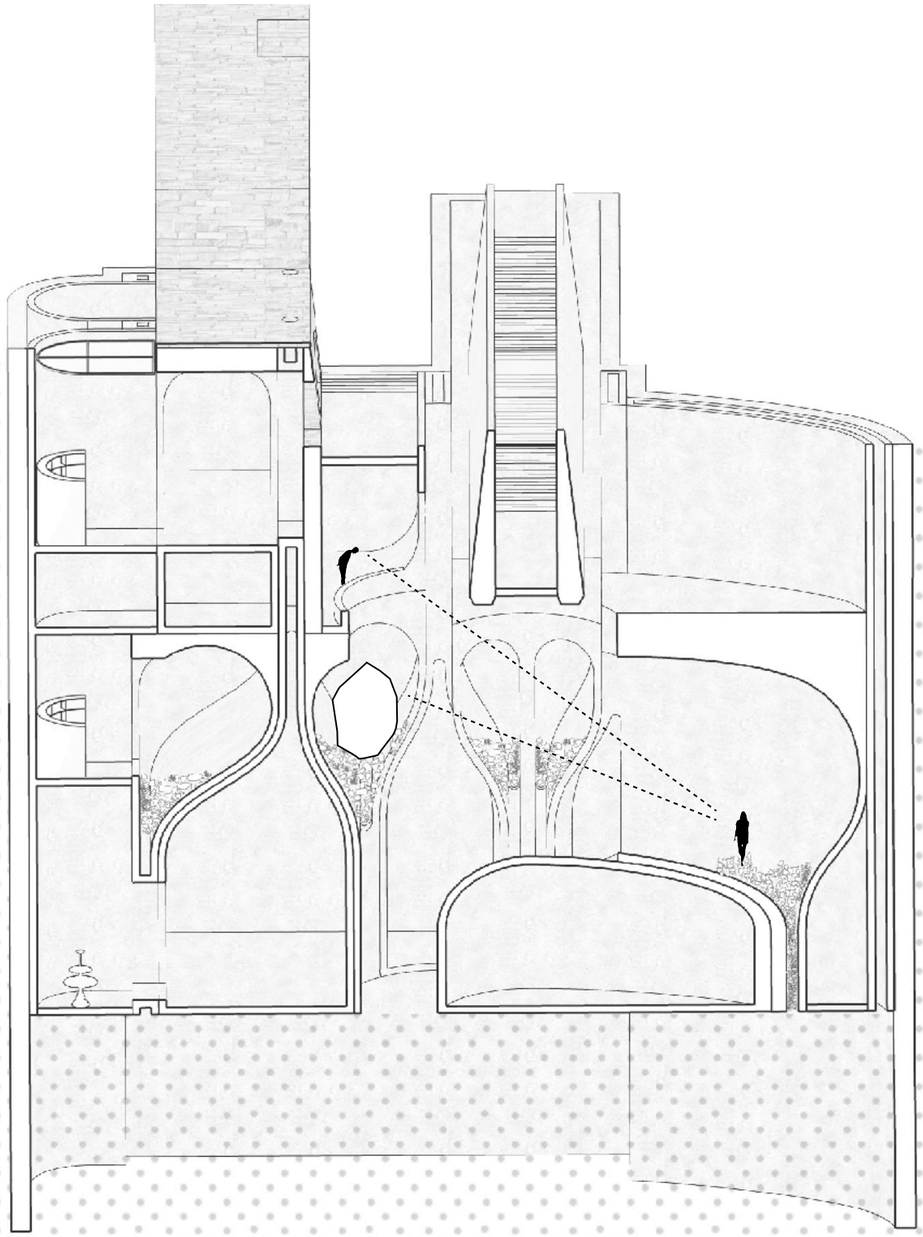
[click link to video]

https://youtu.be/0XJADqrvA8Q

The moments



The moments



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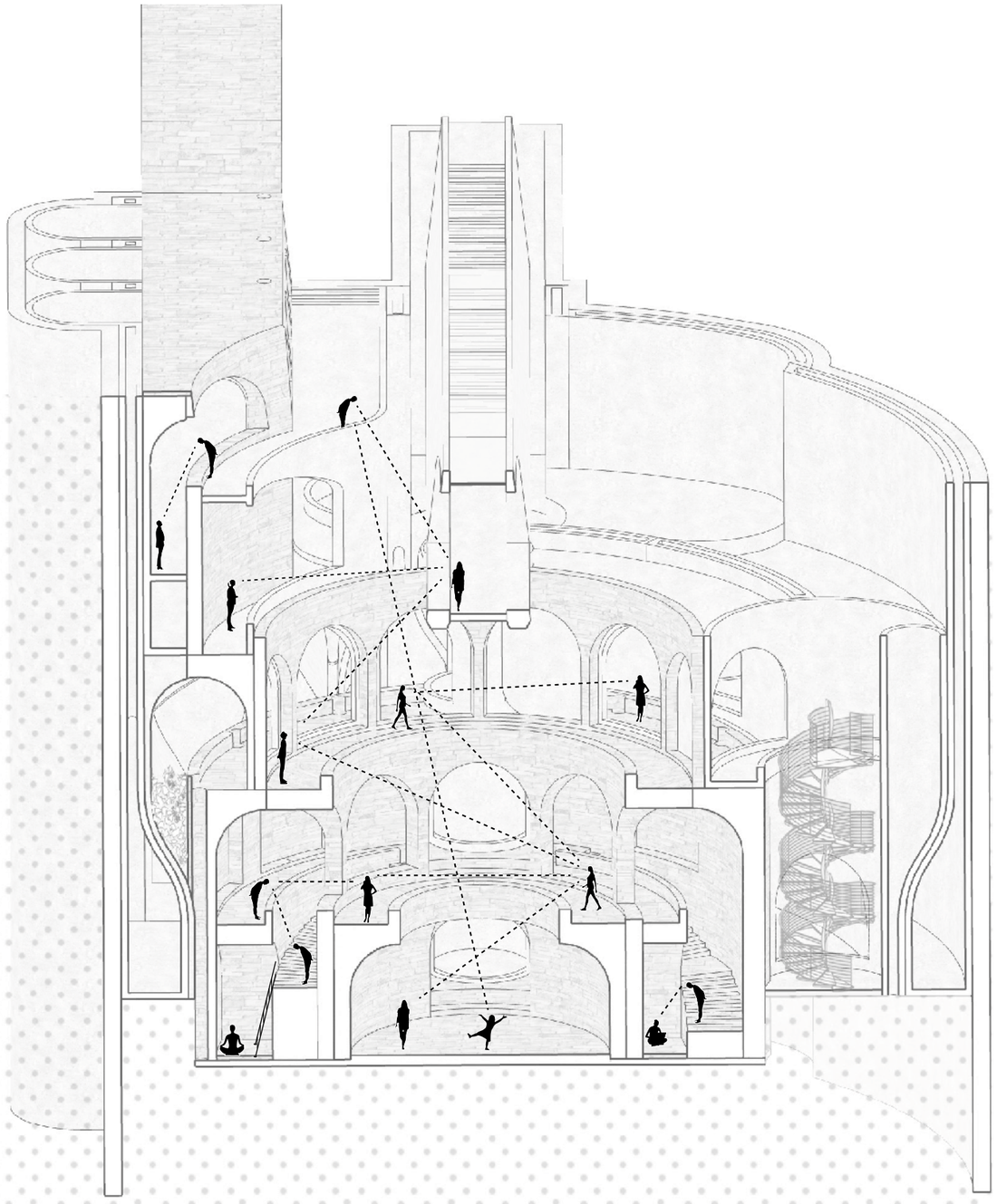

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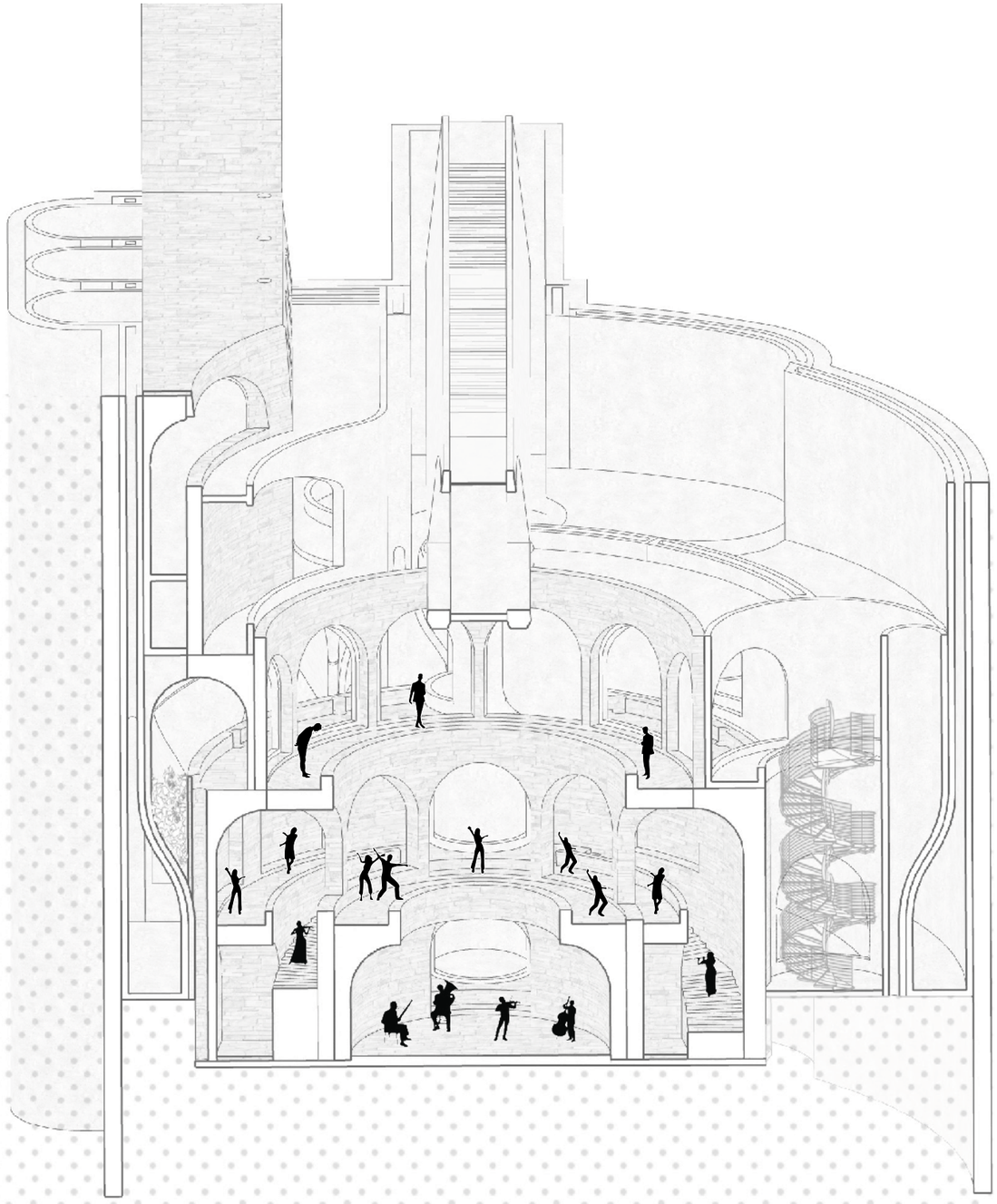

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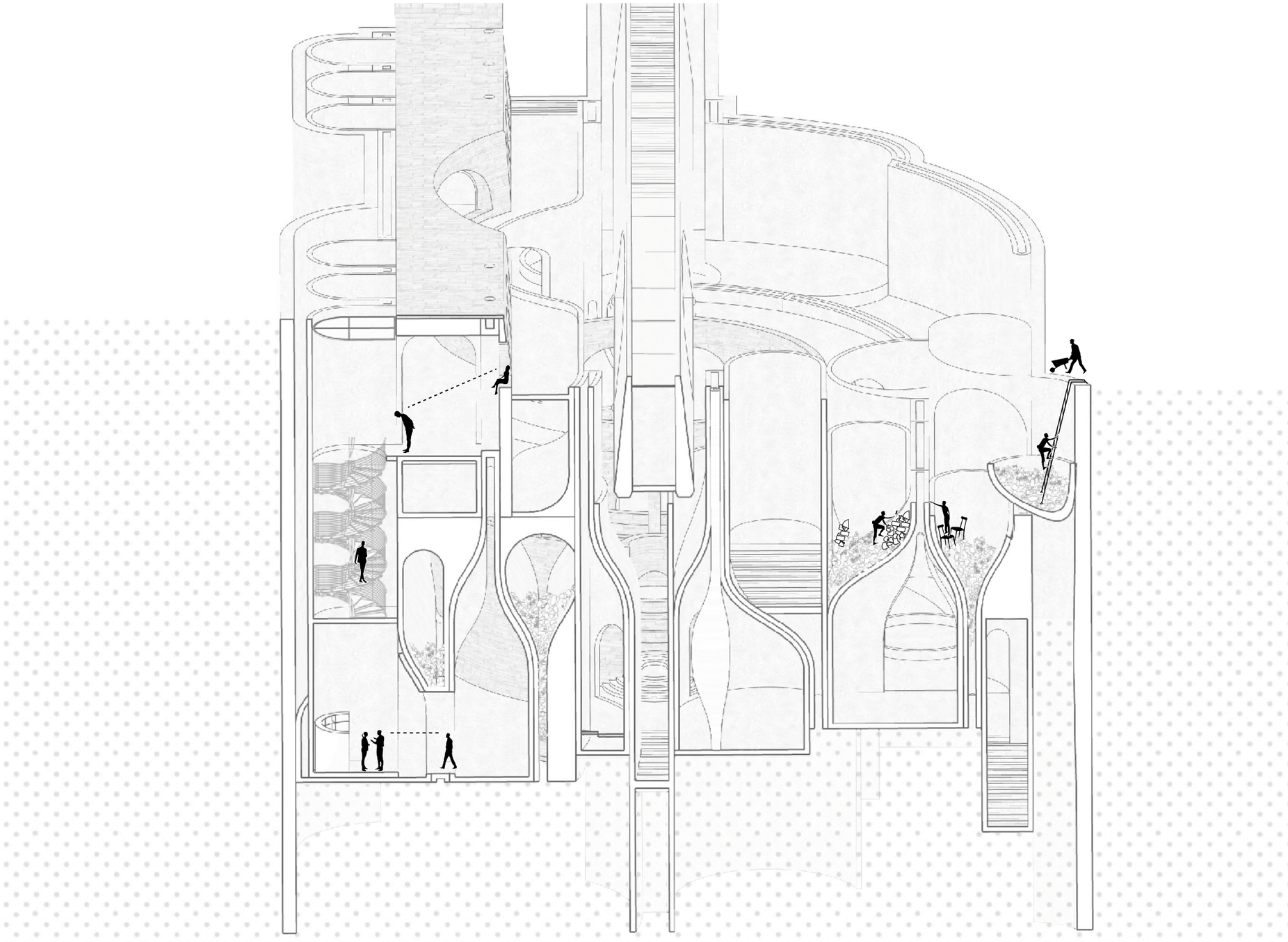

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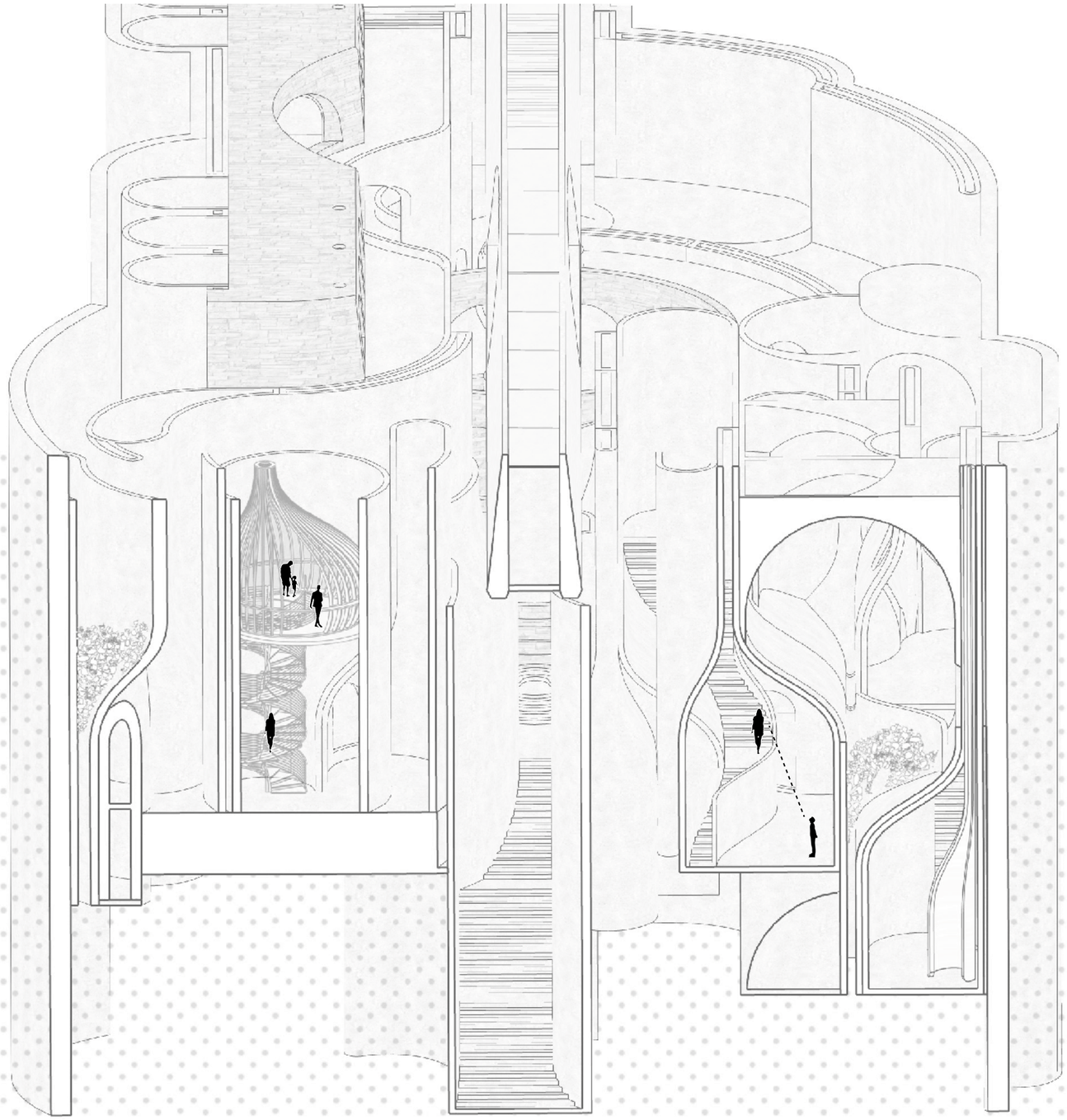
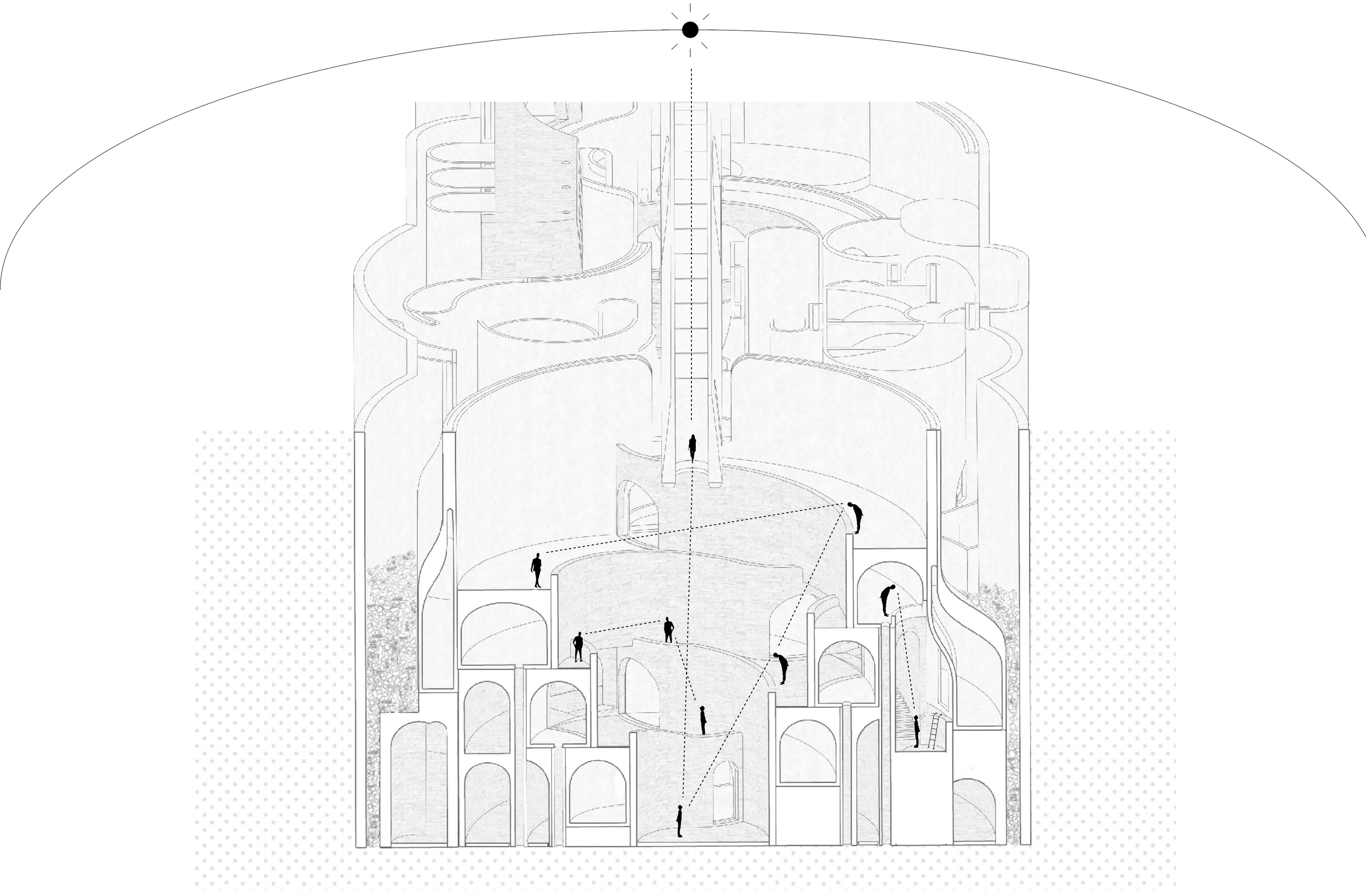
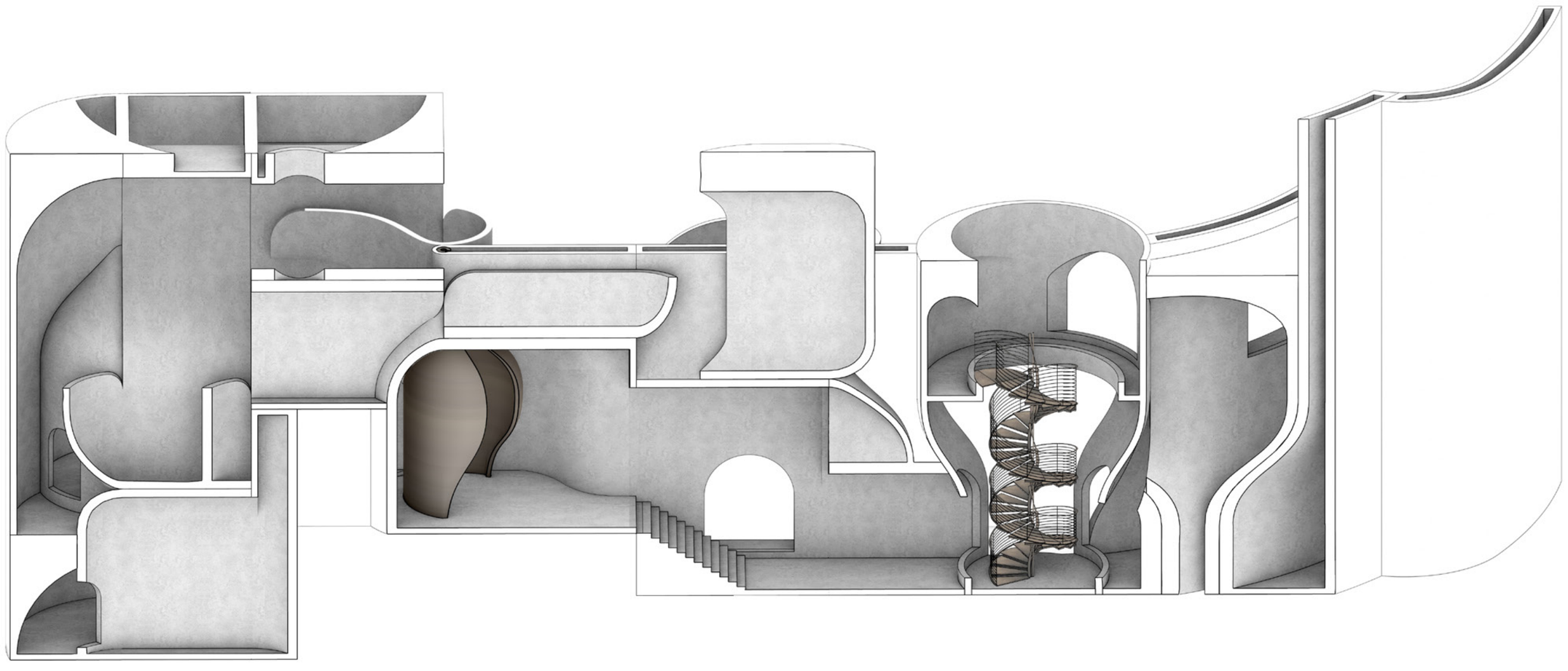
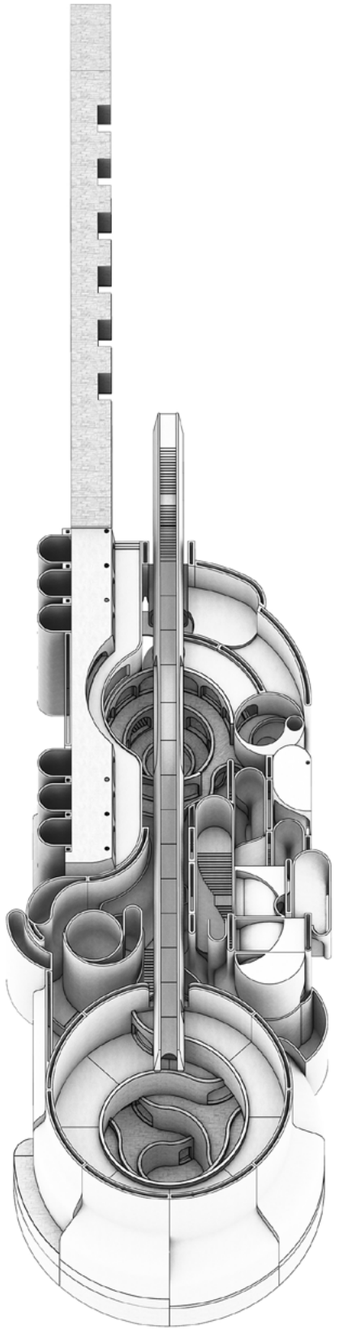




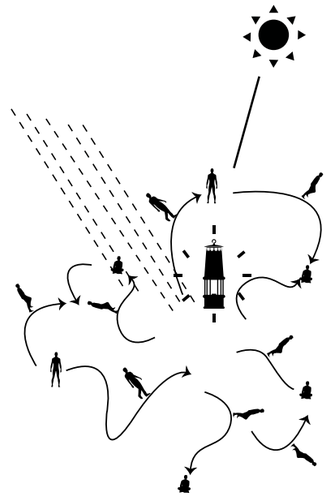


Introducing new layer - “Accents”



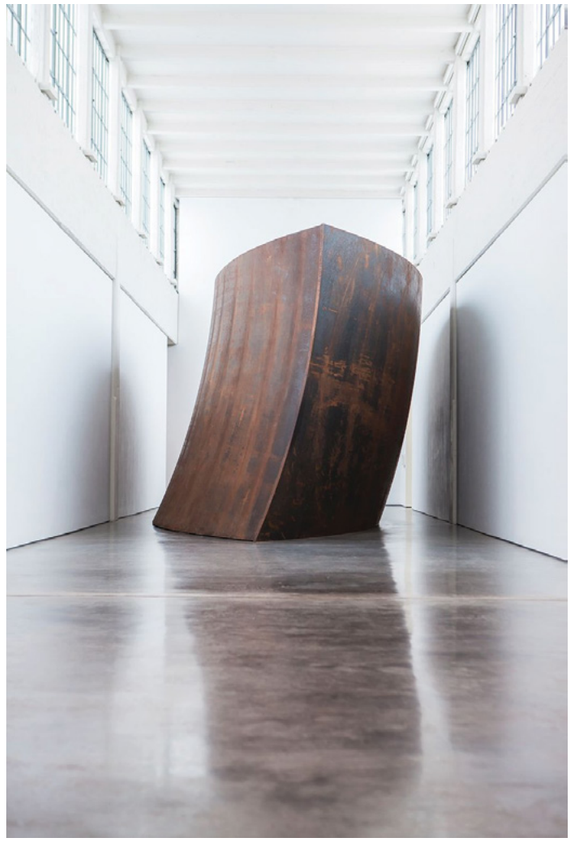
Building body as the “Melody”

Installation as “Accents”

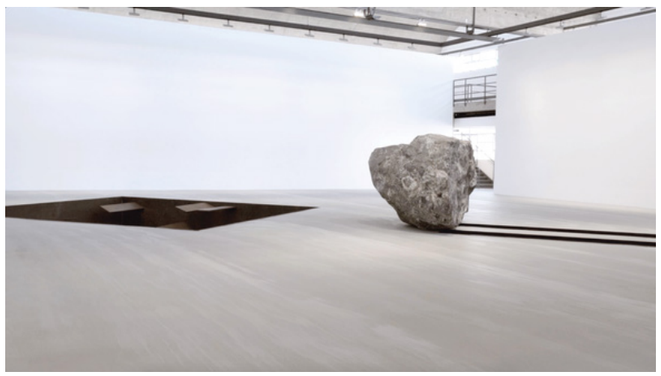


Flow

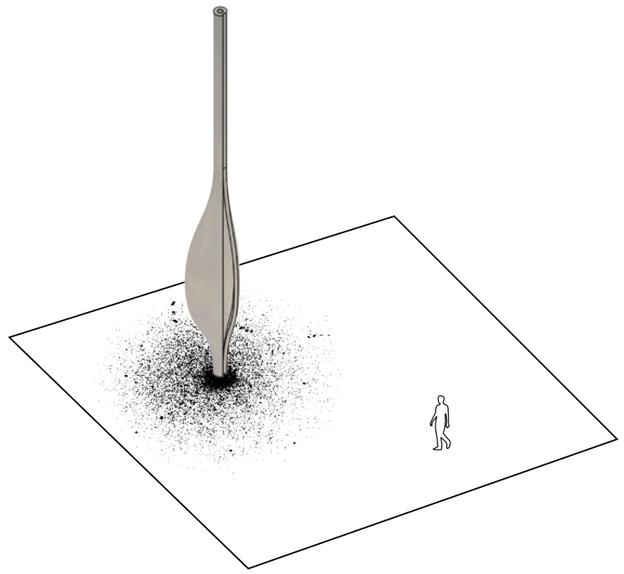
Reference - Richard Serra



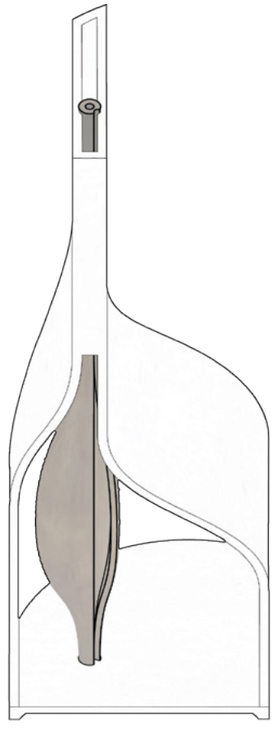
Reference - Michael Heizer

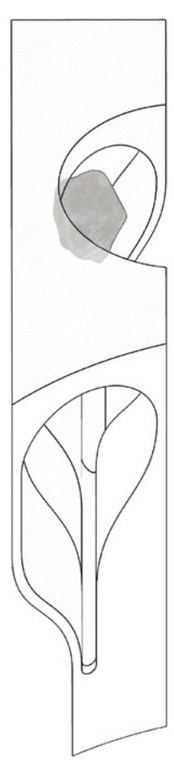


Contact as the accent

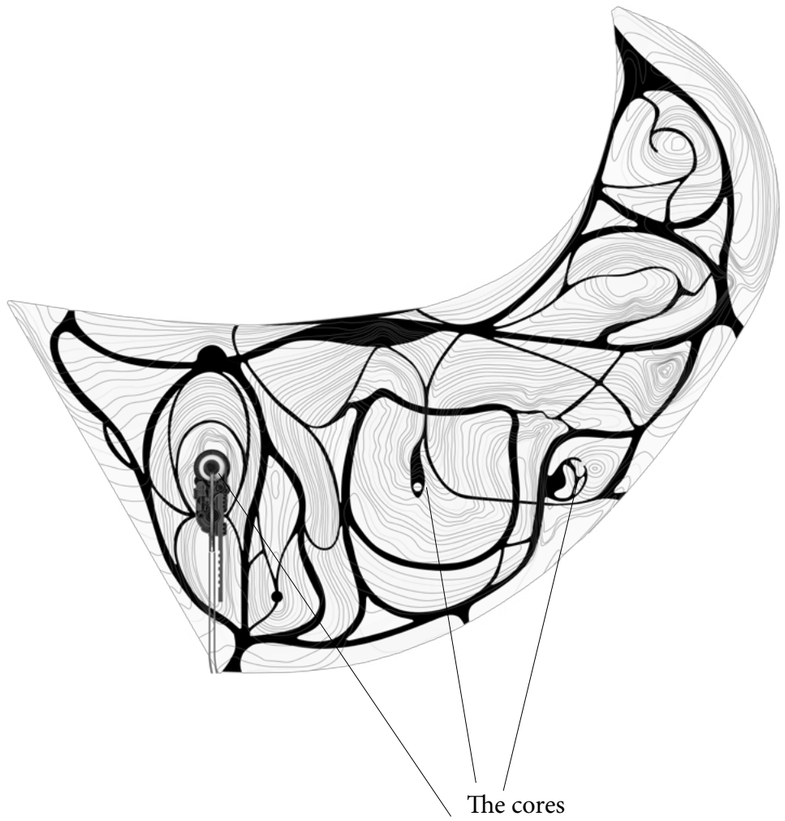


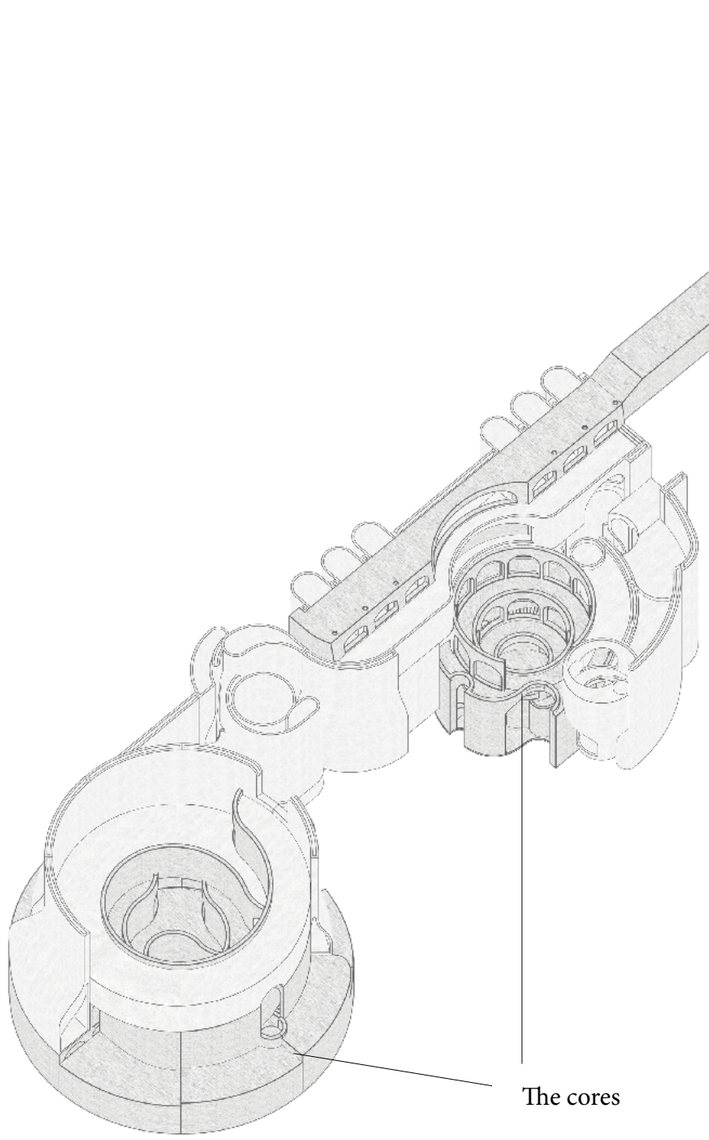
Embodied

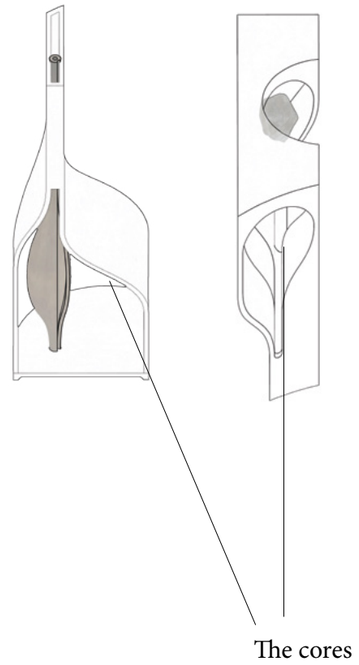




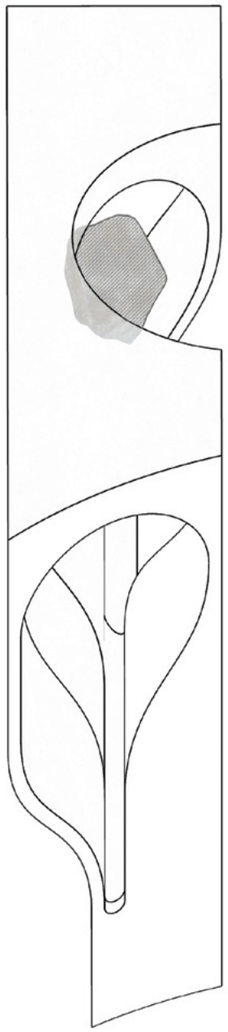
Counterparts in different scales

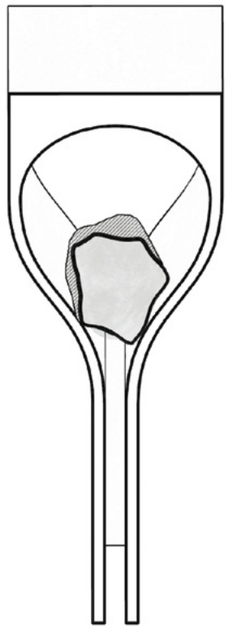


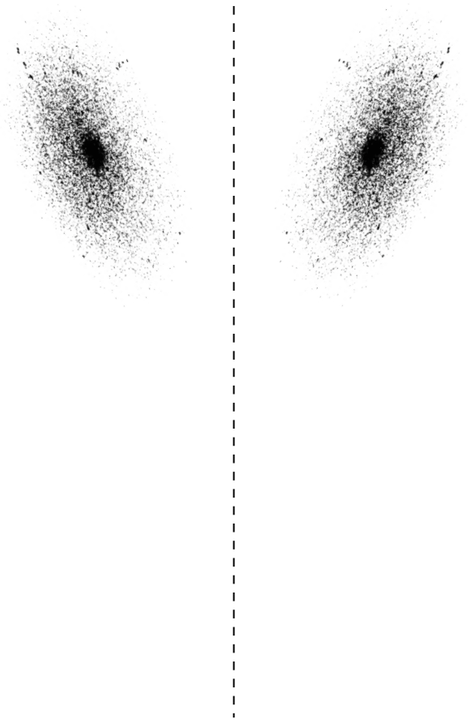


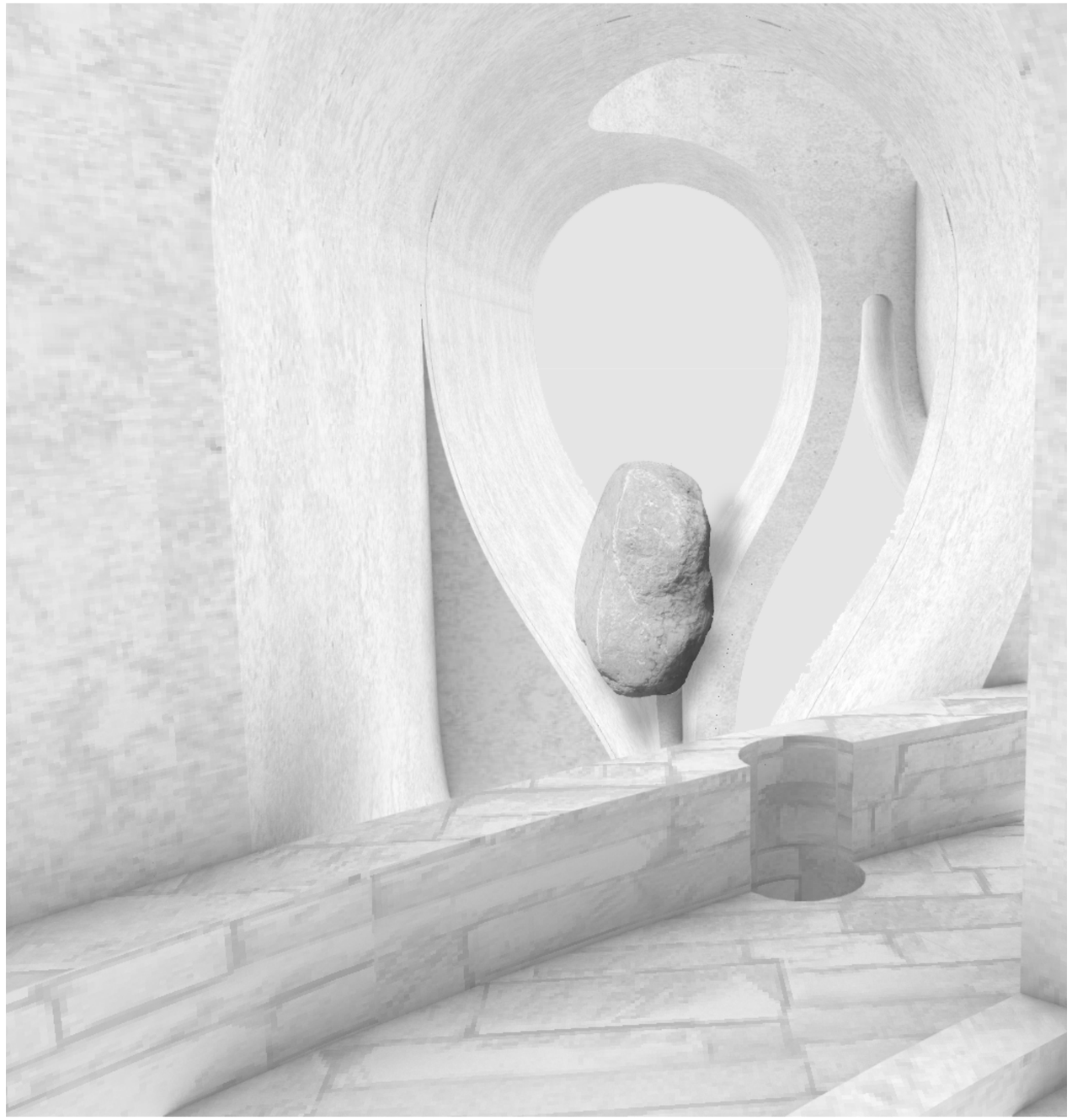


How the stone performs

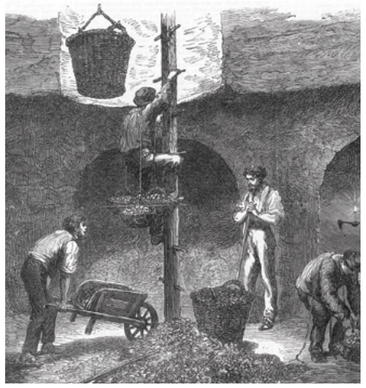








Memories inspired form



How people may react with their bodies

“Let see how it echoes”

“If I can sneak in”

“My little world”

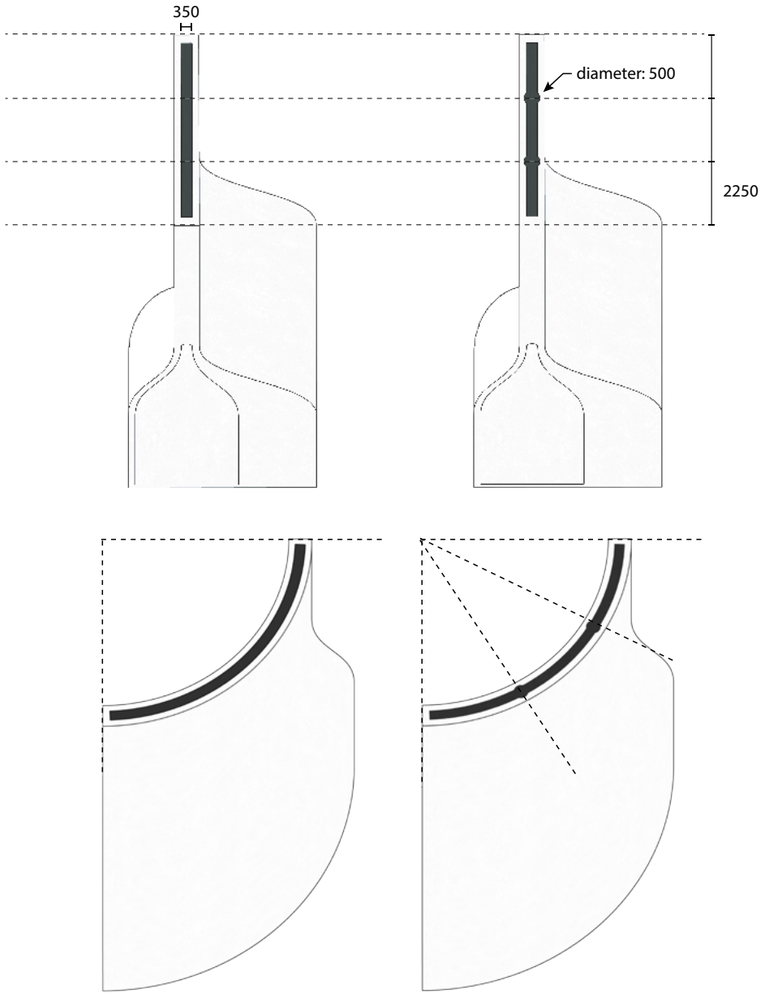
“It fits”

“Come and Hide”

“Chamber music?”

“Dance with this form”

As a “node”



Lighting injection

(Illumination)

Material injection

(Material supply)

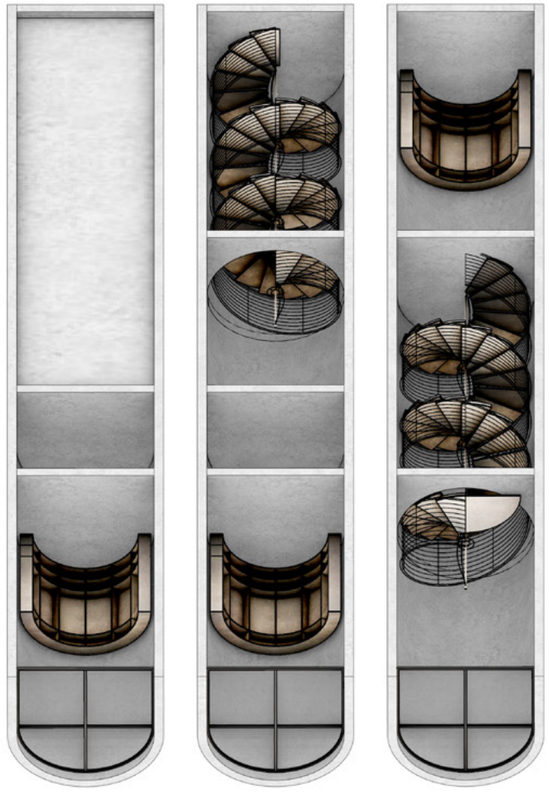
Fixed circulation

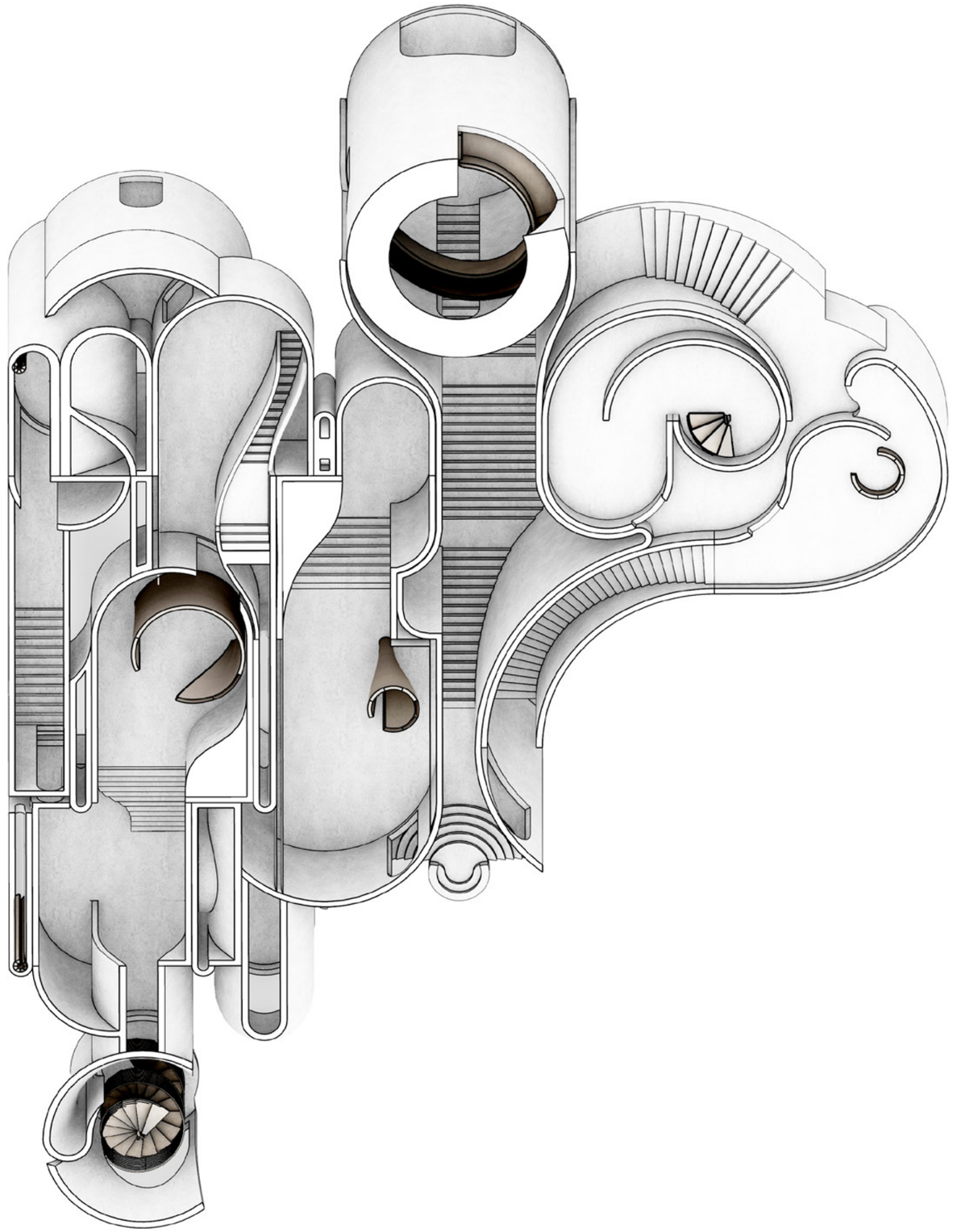
(Circulation)

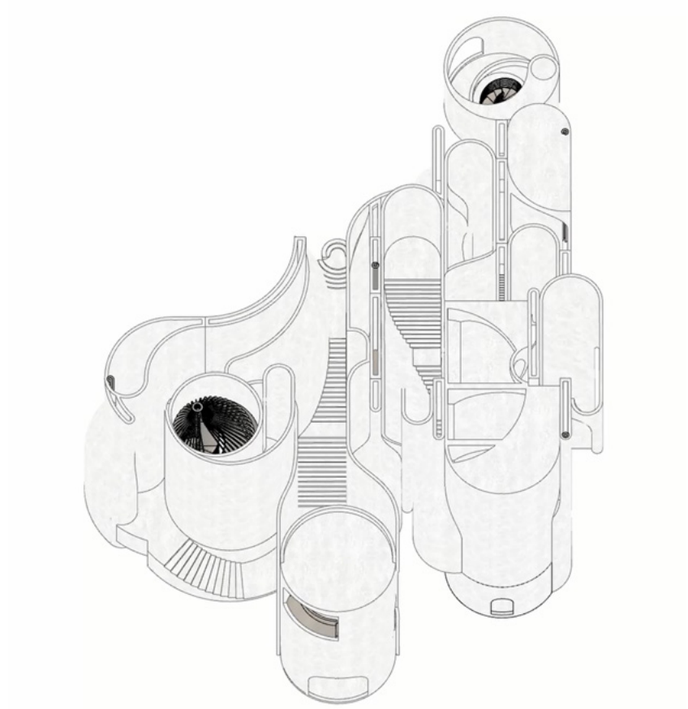
Fixed Instalation

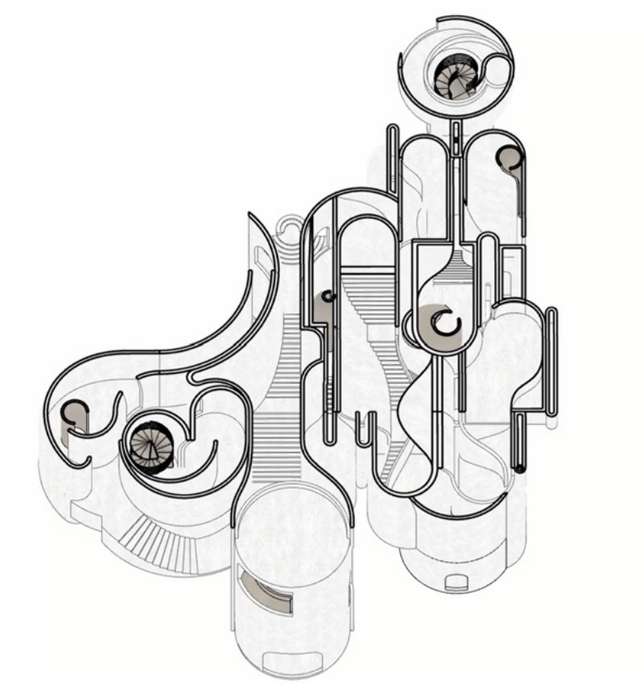
(As space attraction point)

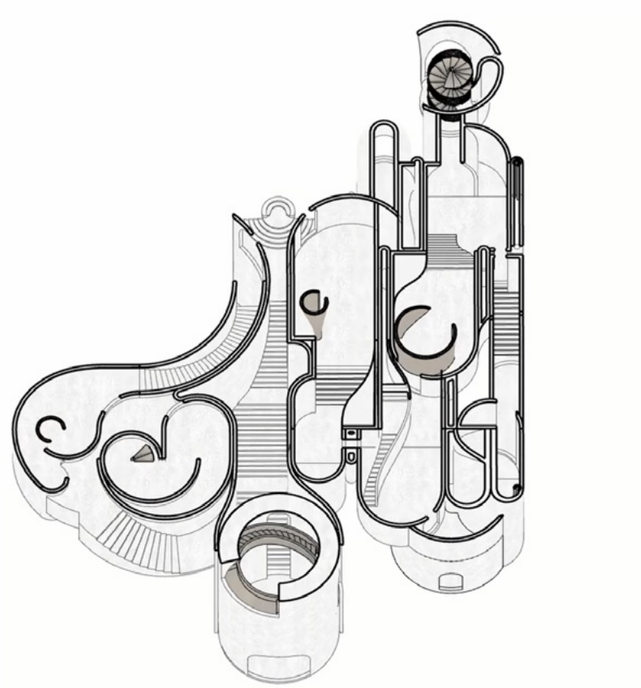
“Accents” at their particular places







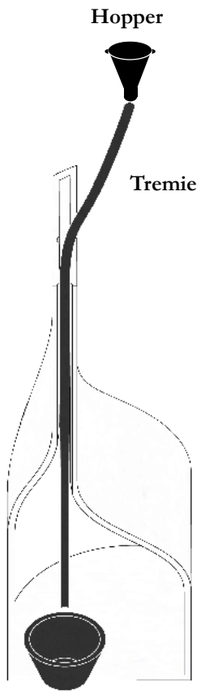




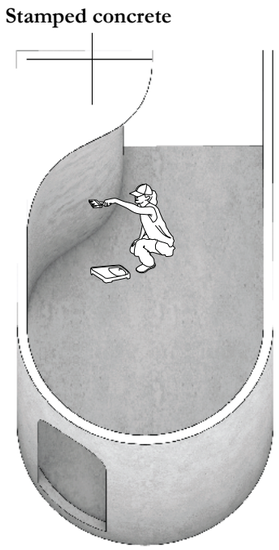
[click link to video]

https://youtu.be/IbP44IcYg7U

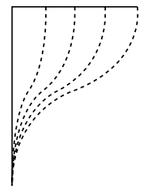
Improvisations merge with the main body



Material Supply

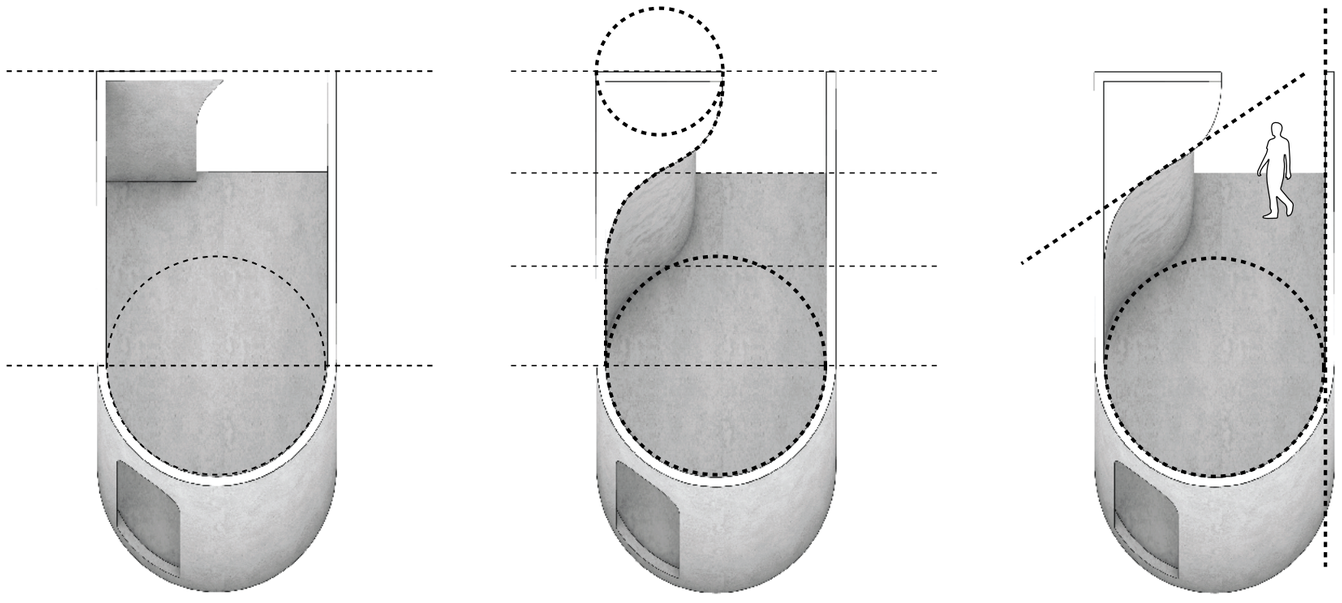


"Improvisor"



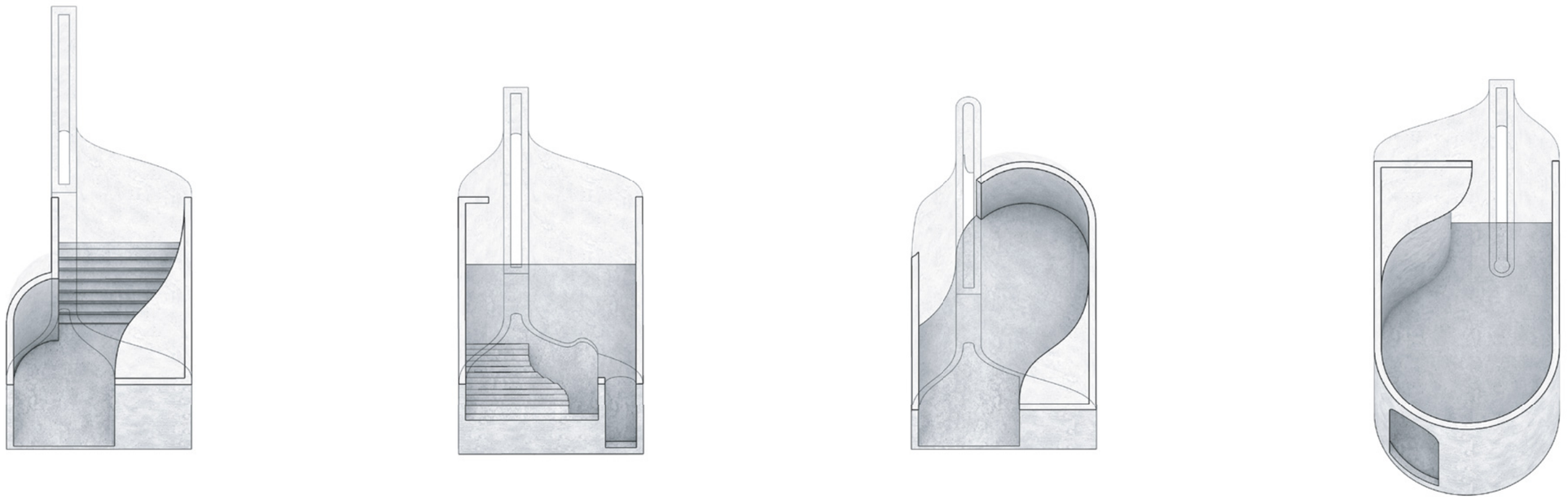
It takes time to form.

new spatial qualities

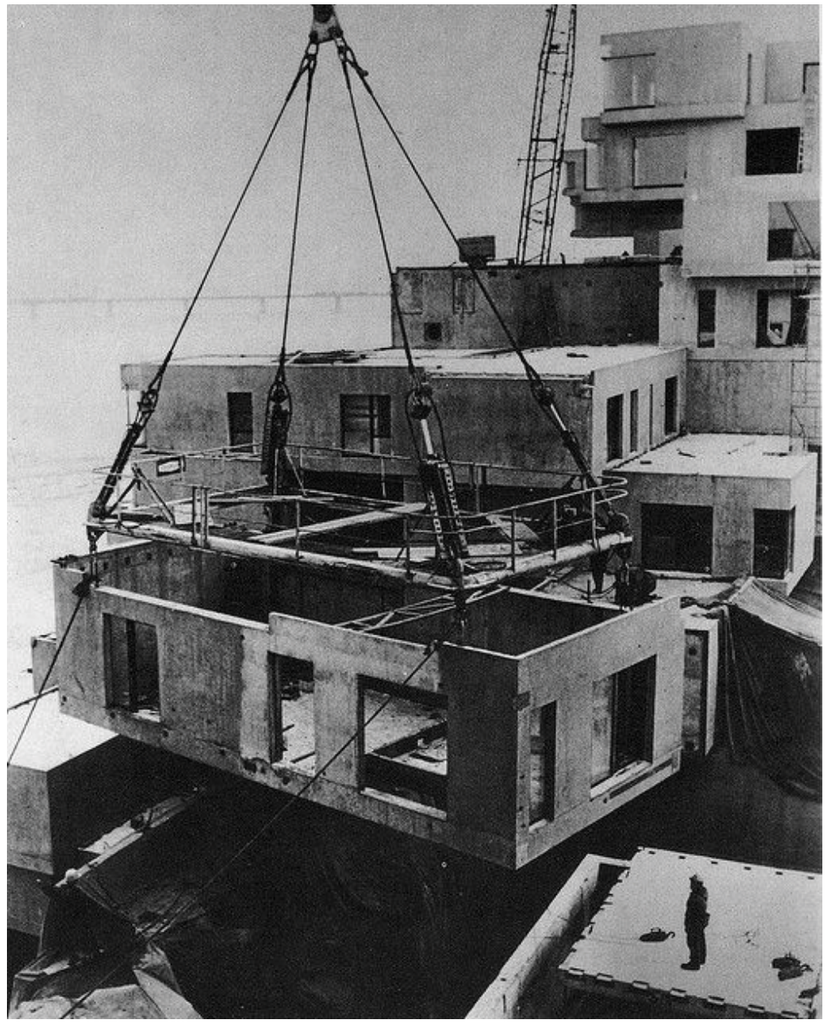


"Swelling"

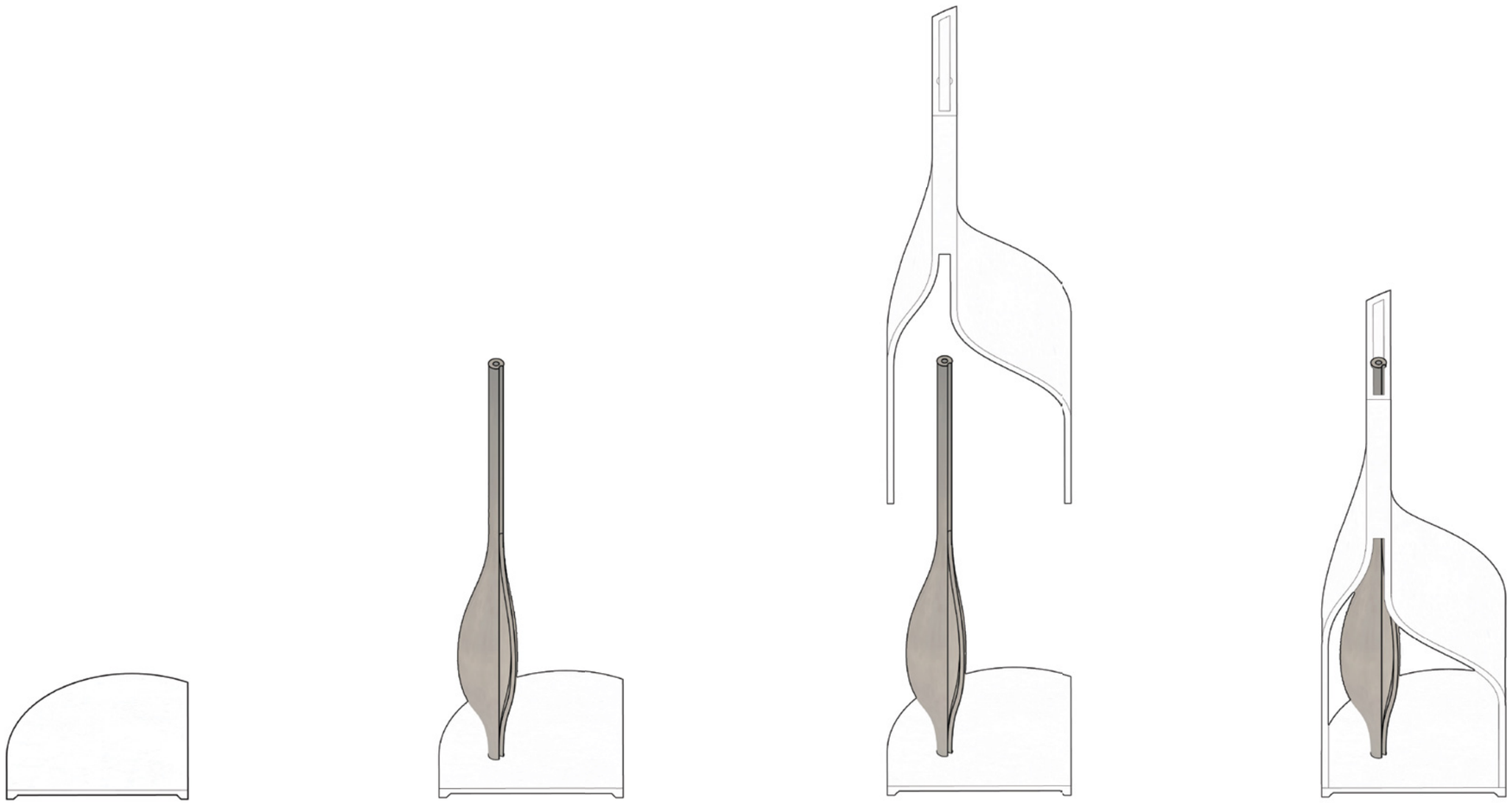
Dynamic

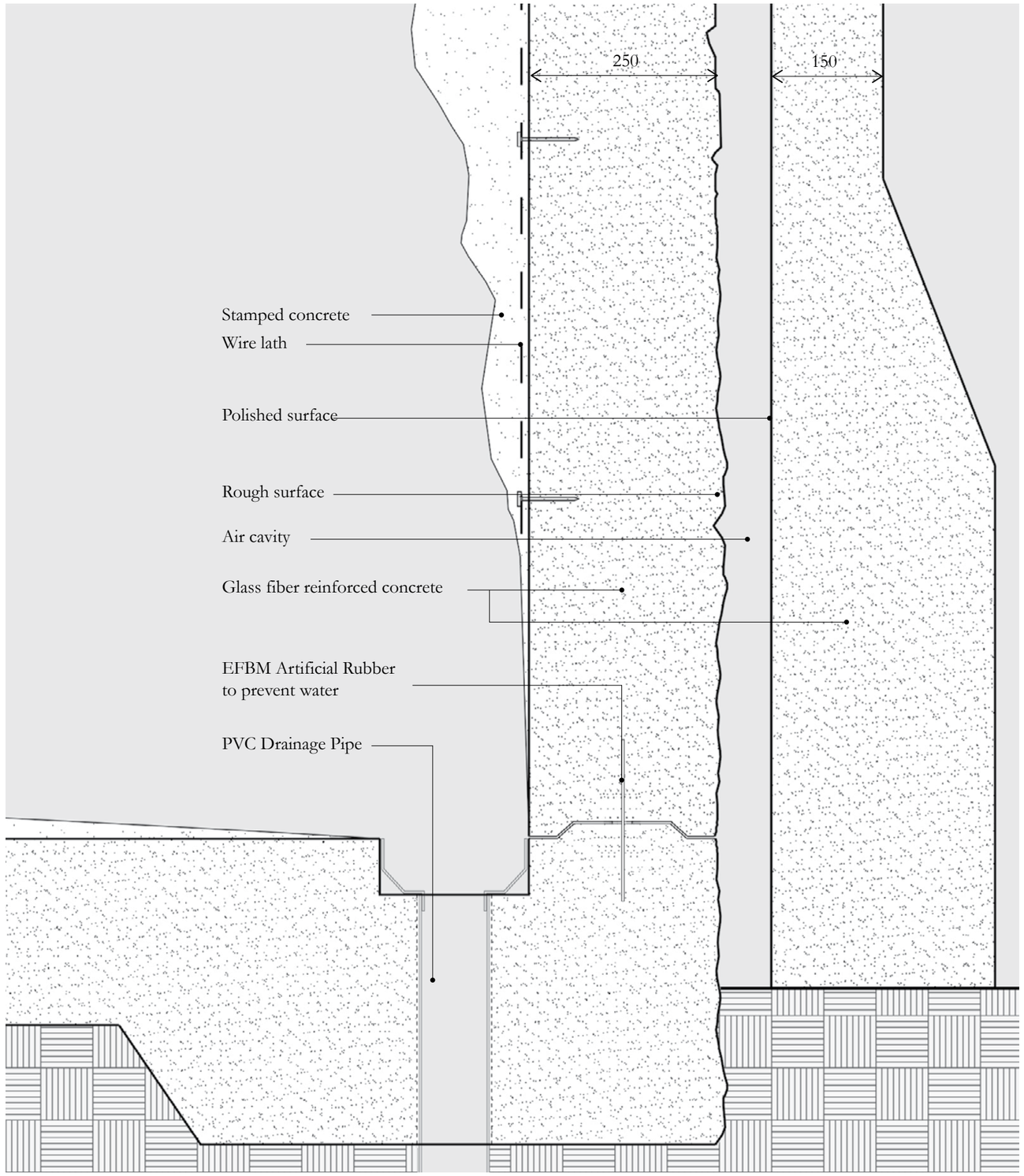


Constructing as a performing



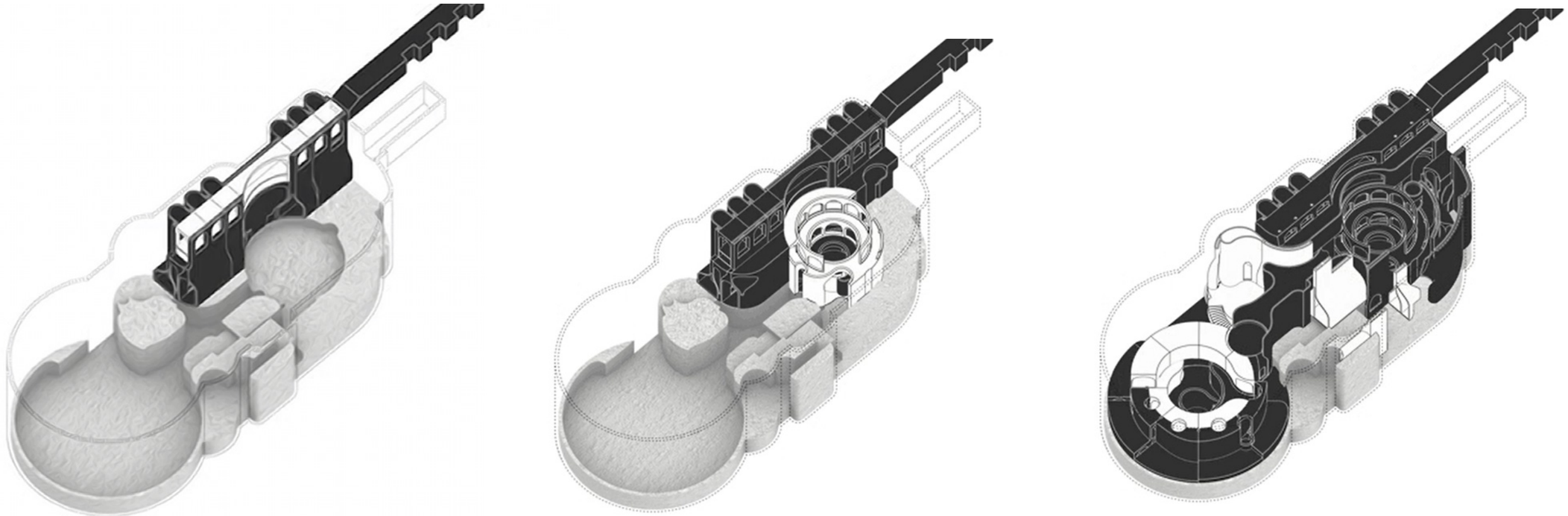
Sequence of assemblage




250
150
Stamped concrete
Wire lath
Polished surface
Rough surface
Air cavity
Glass fiber reinforced concrete
EFBM Artificial Rubber
to prevent water
PVC Drainage Pipe

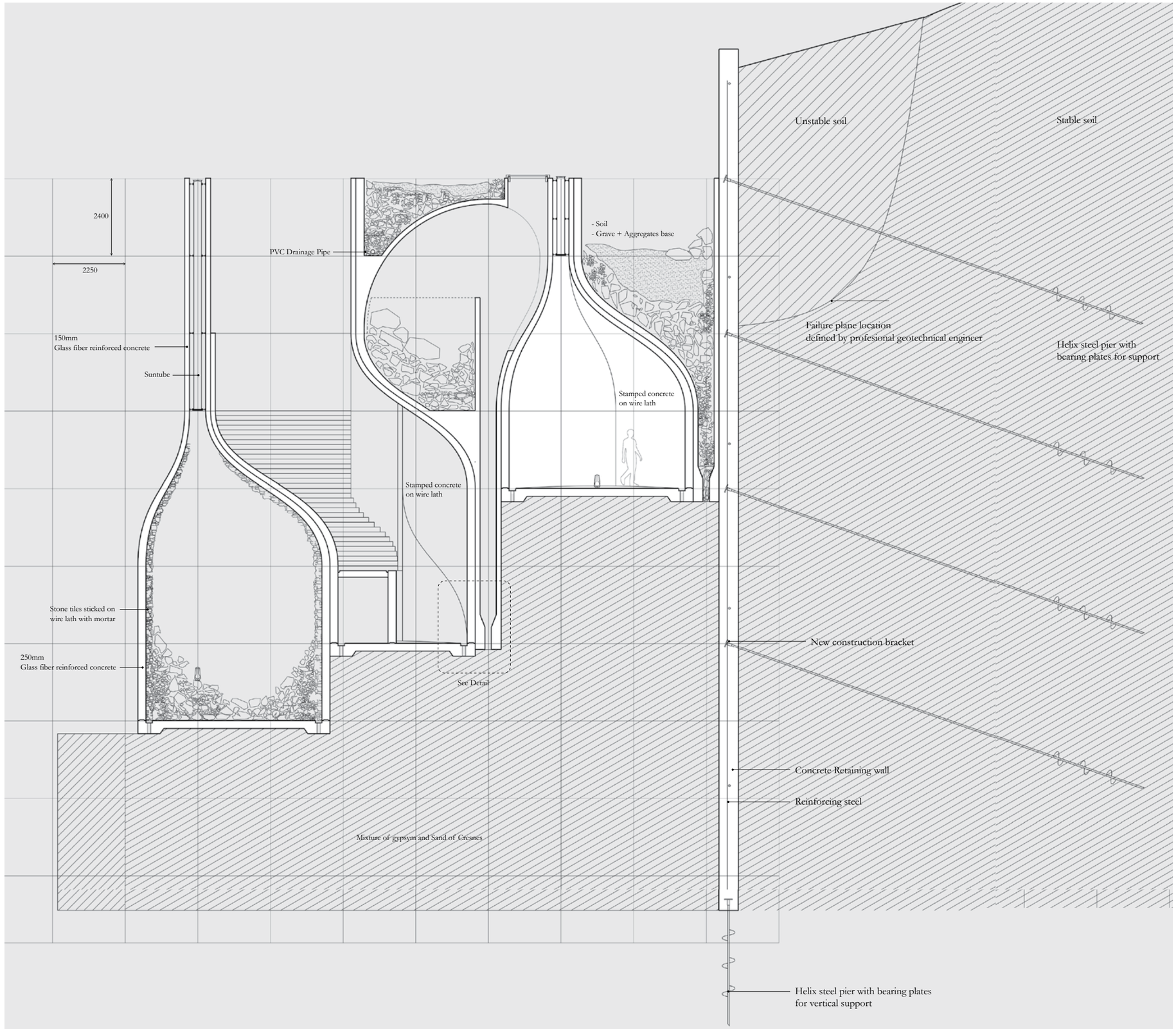
The building is being performed

The building is being performed

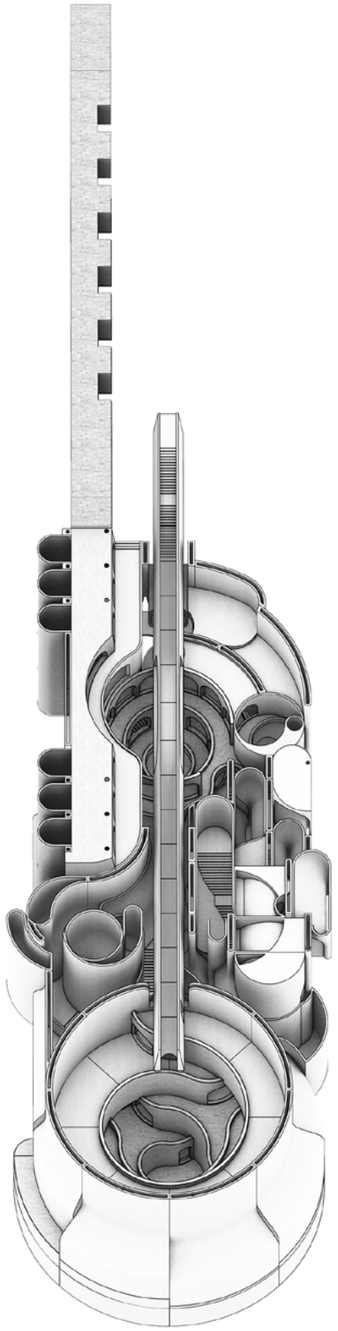


[click link to video]

https://youtu.be/8sNo6Ht_ntQ


2400
2250
150mm
Glass fiber reinforced concrete
Suntube
PVC Drainage Pipe
- Soil
- Grave + Aggregates base
Stamped concrete
on wire lath
Stamped concrete
on wire lath
Stone tiles sticked on
wire lath with mortar
250mm
Glass fiber reinforced concrete
See Detail
Mixture of gypsym and Sand of Cresnes
Unstable soil
Stable soil
Failure plane location
defined by profesional geotechnical engineer
Helix steel pier with
bearing plates for support
New construction bracket
Concrete Retaining wall
Reinforcing steel
Helix steel pier with bearing plates
for vertical support

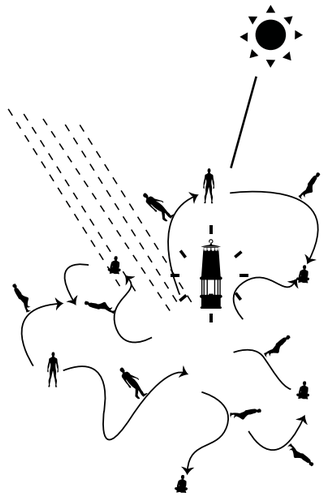
Introducing new layer - “Improvisations”



Building body as the “Melody”

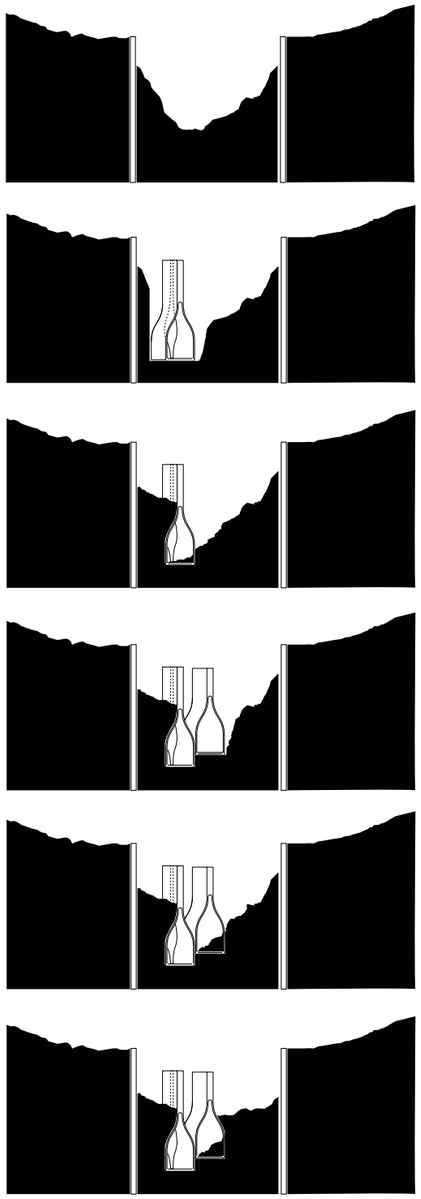
Installation as “Accents”

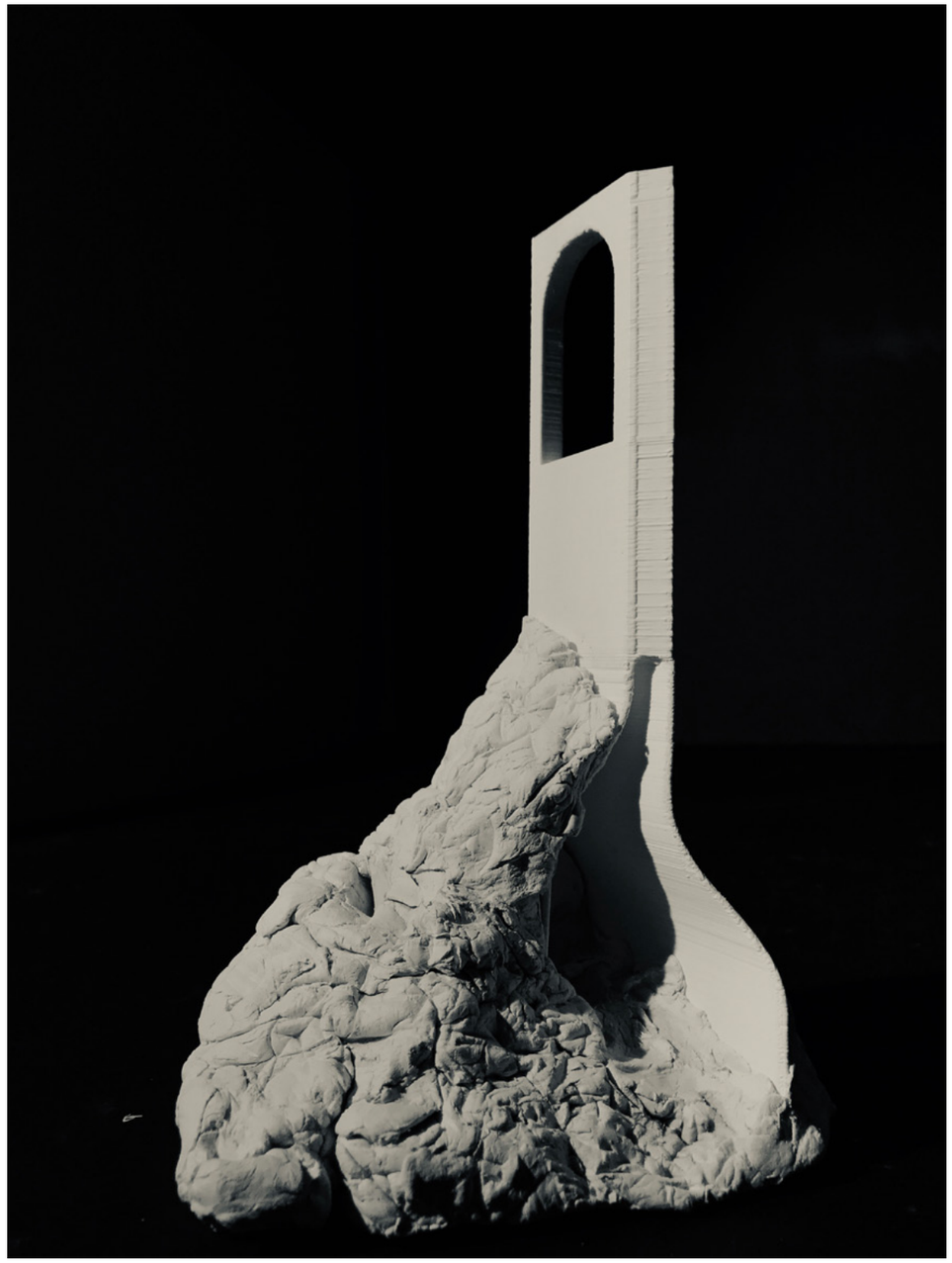
Improvisations



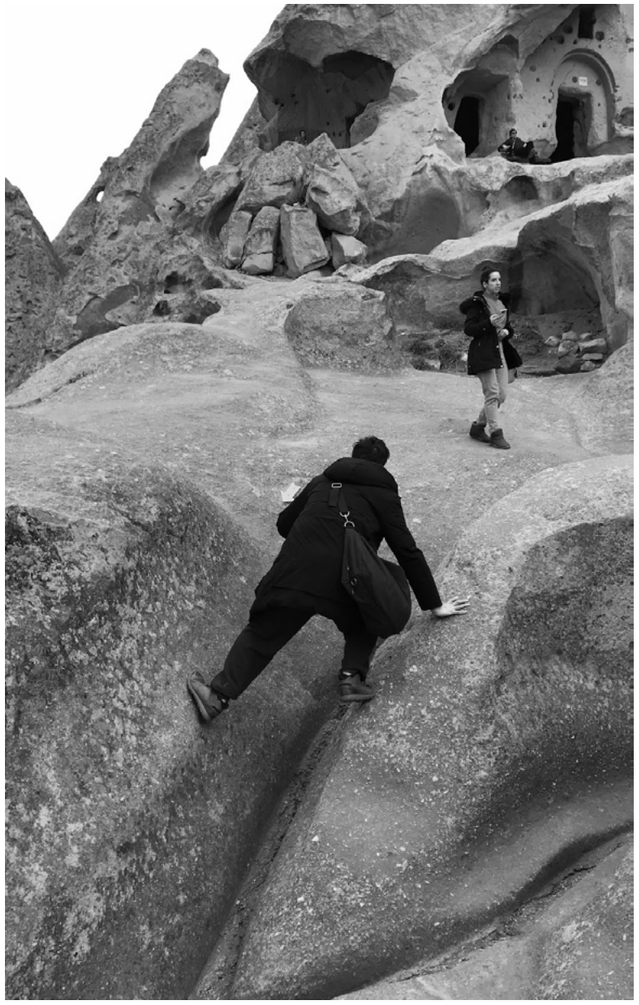
Flow

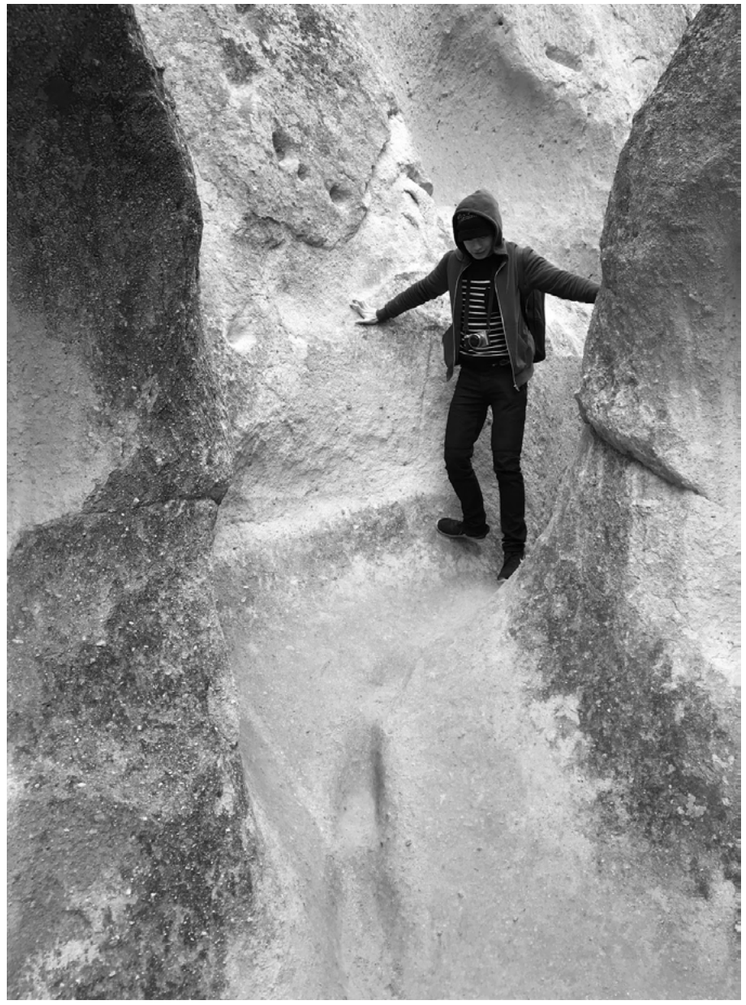
Action of earth by gravity on the building body as improvisation

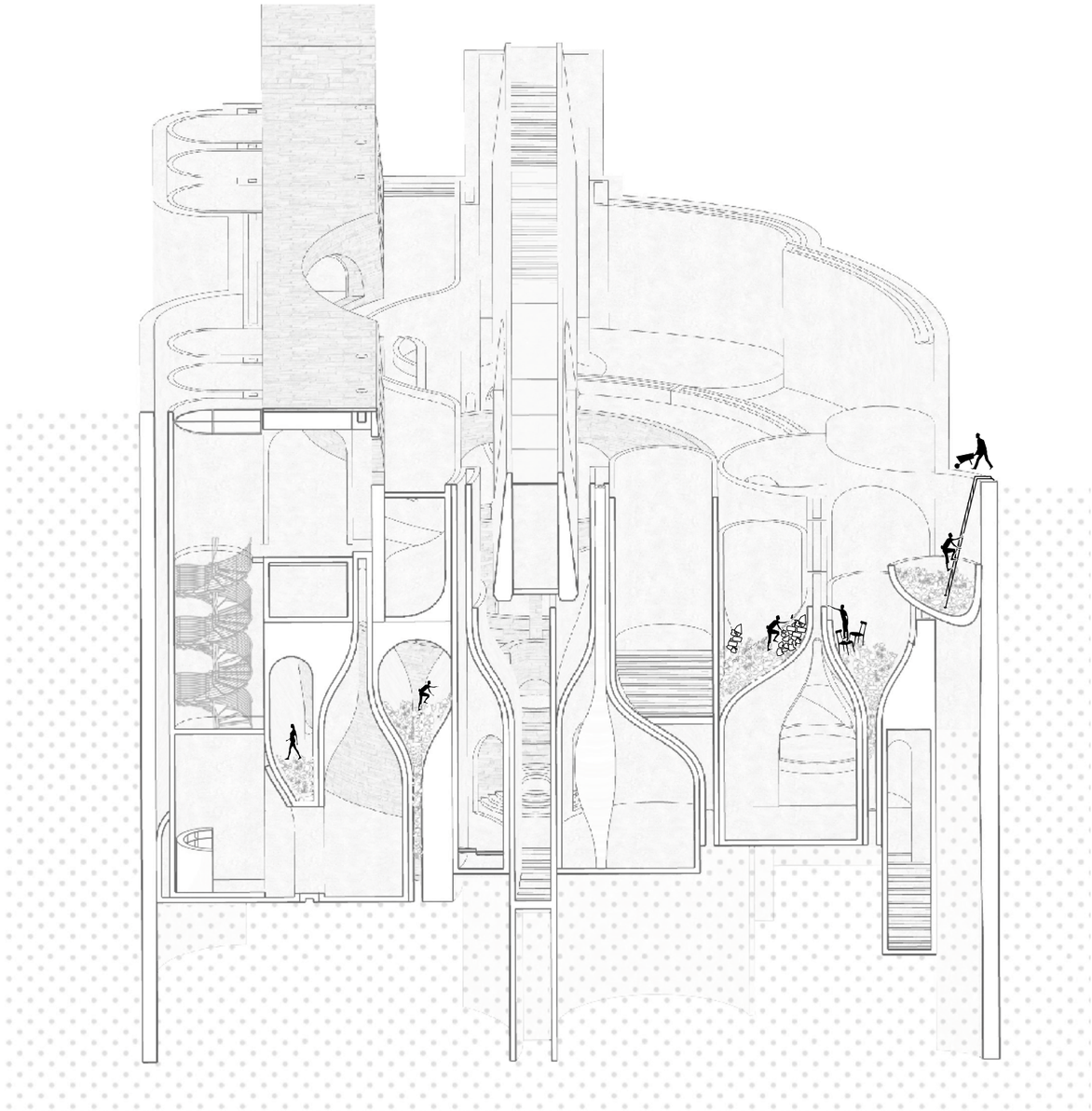


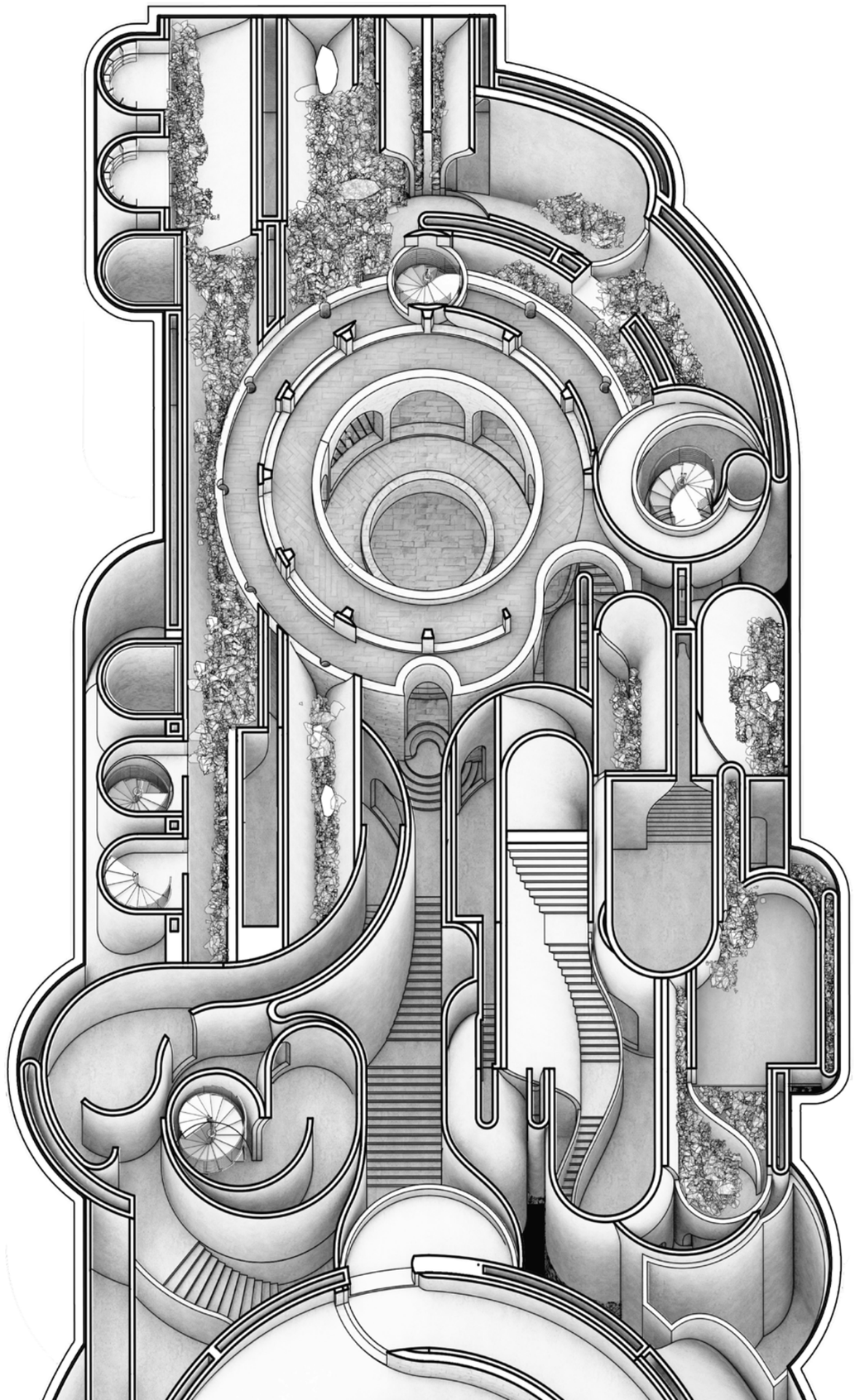


Bodies engagement in creating paths



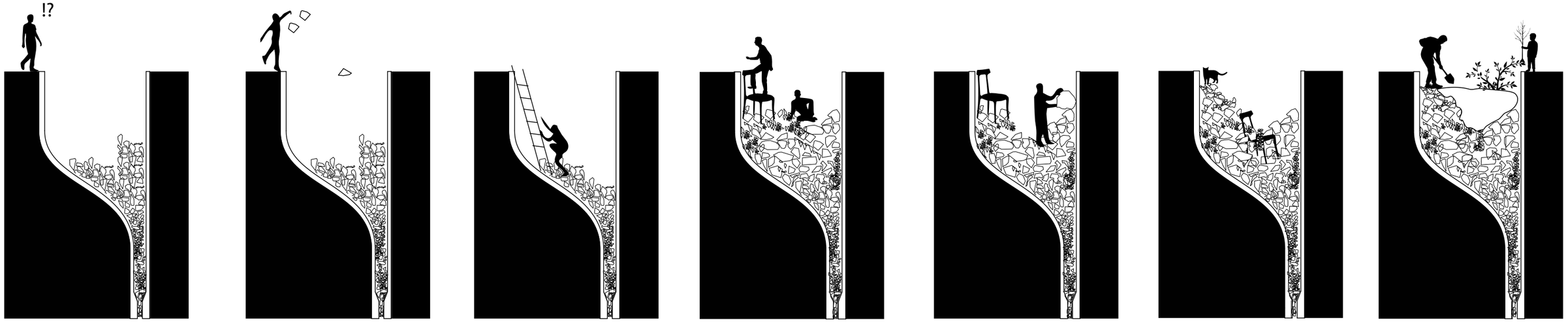




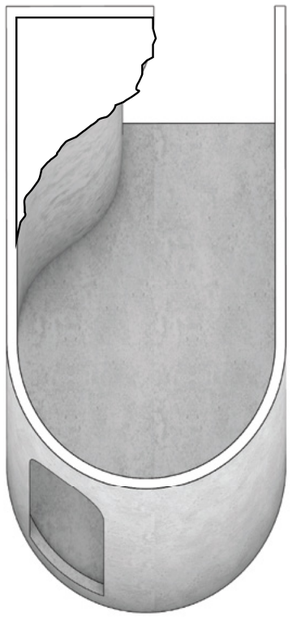


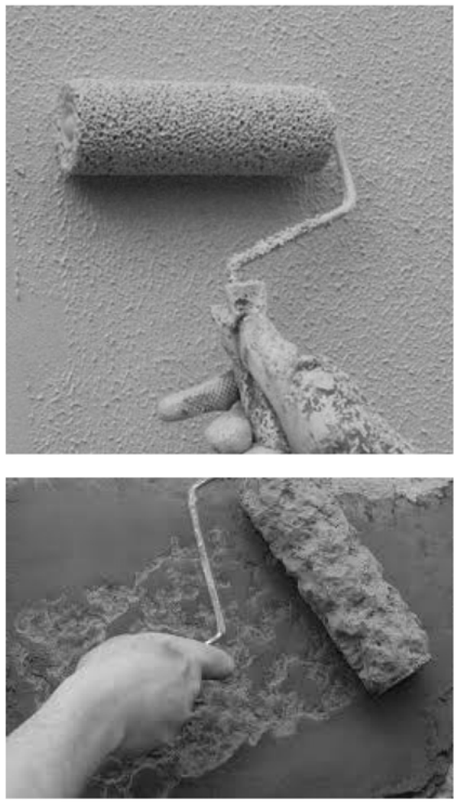
people react and create scenarioes

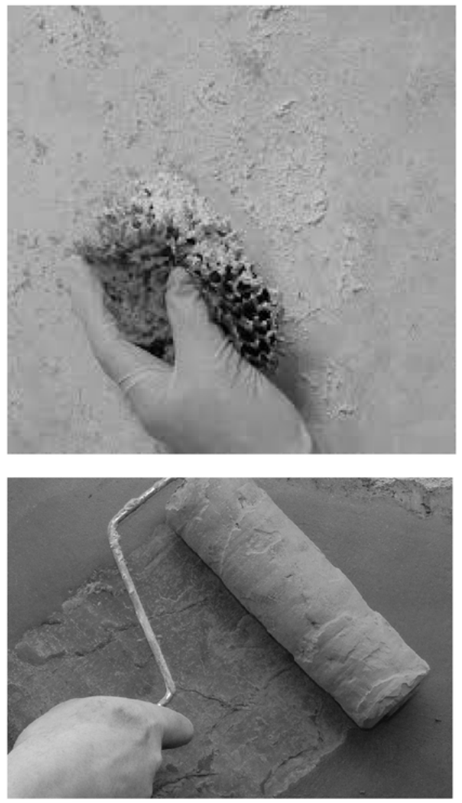
“What are these rocks?”

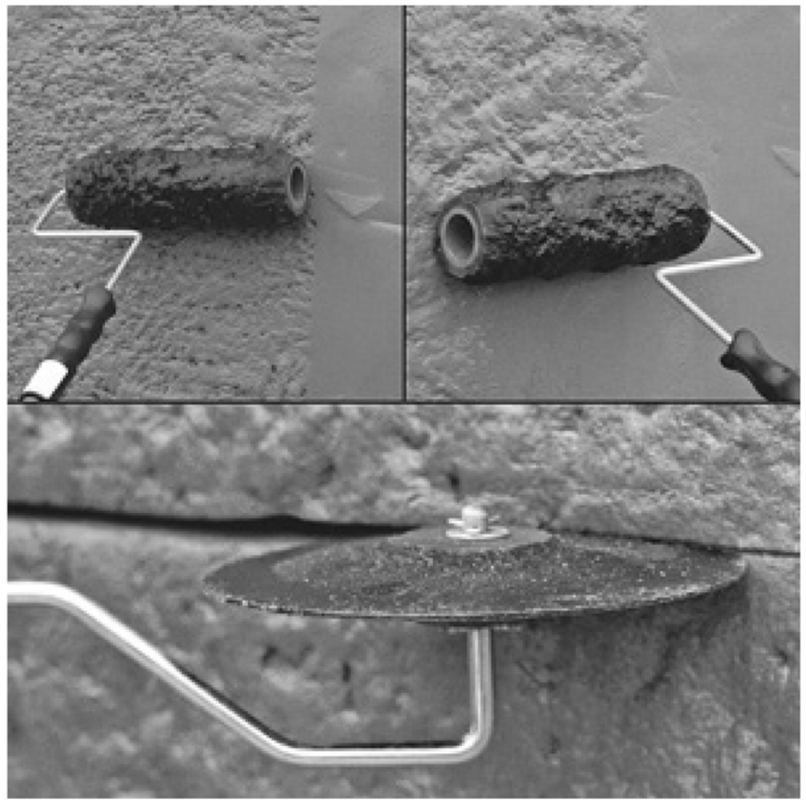


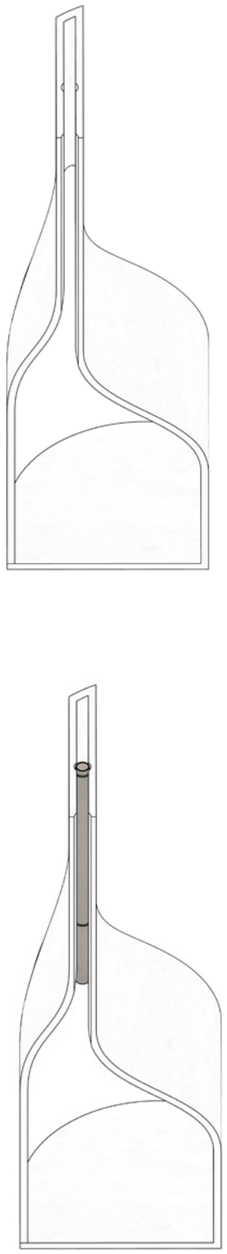
Personal character in fine detail



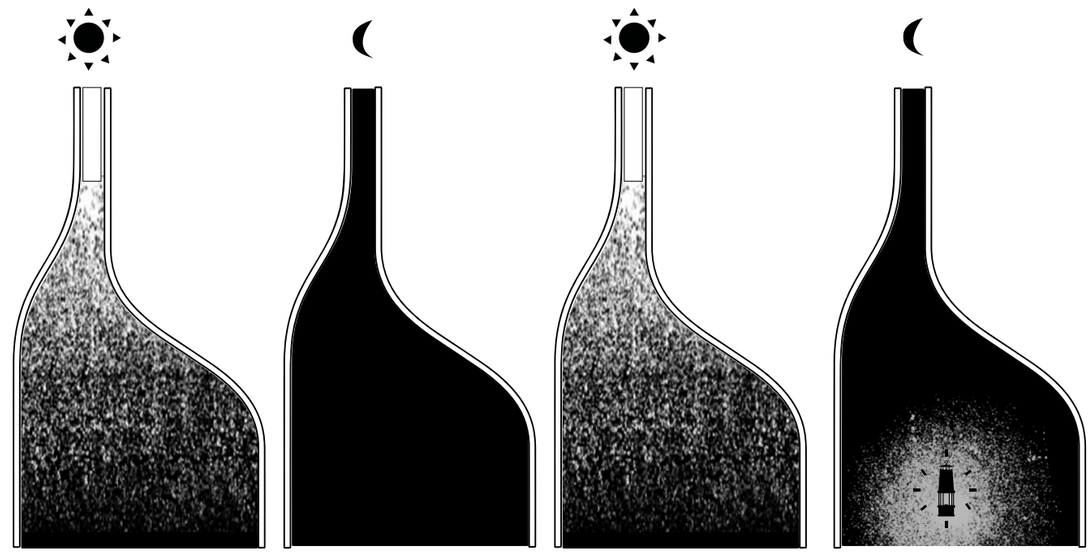




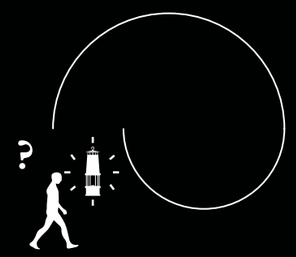


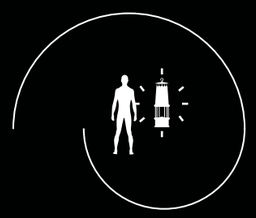


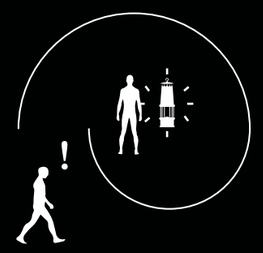
How illuminsation is performed with time



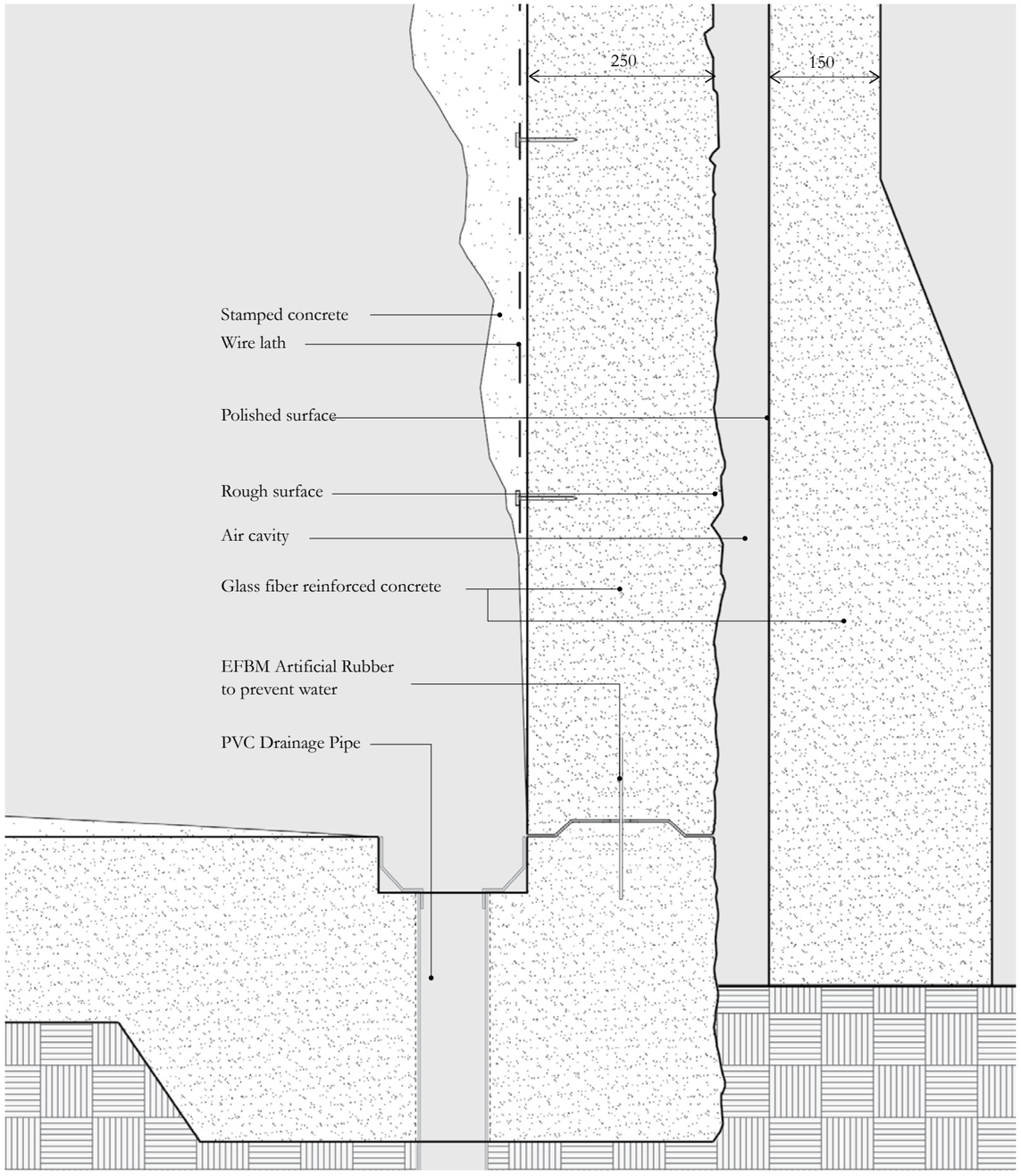
Reflecting moments and places

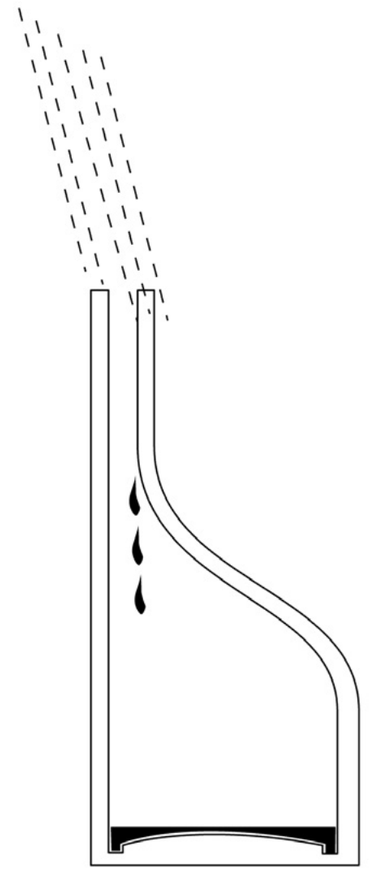




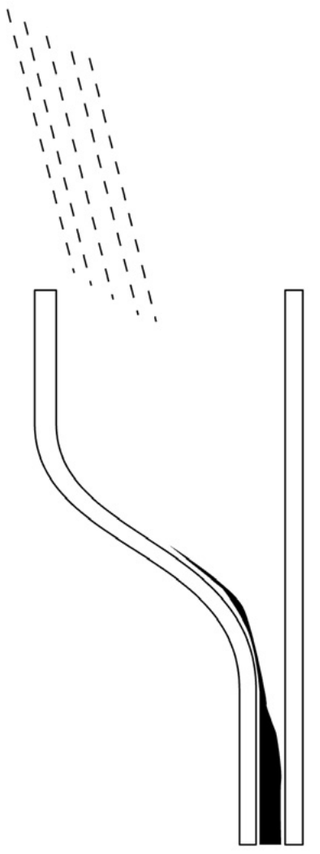


Form directs how water flows



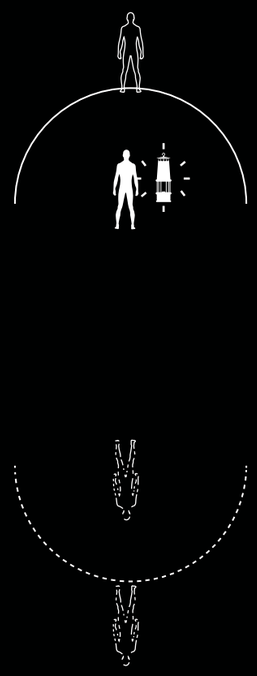


Water stays [time frozen] for a while



Water flows

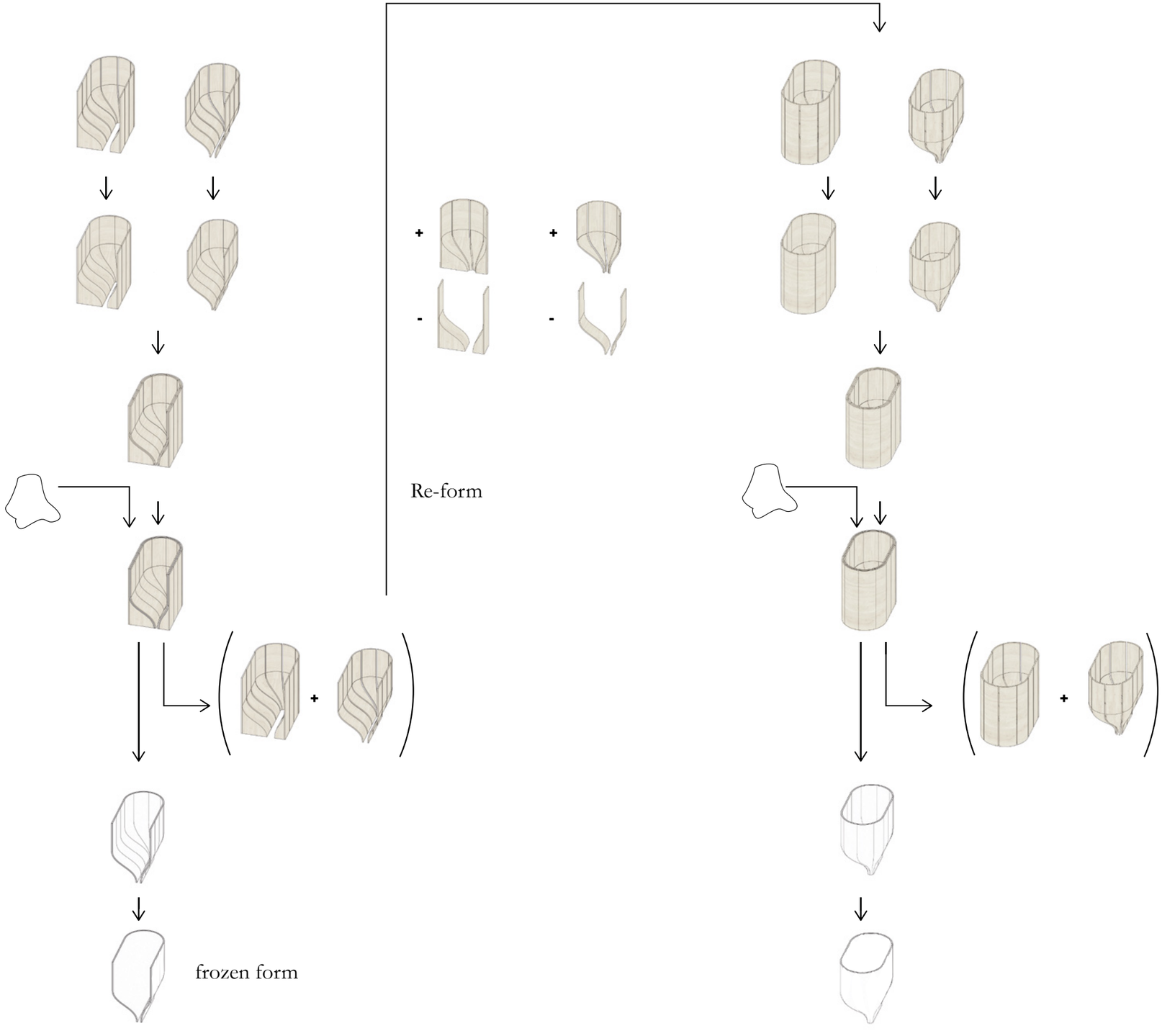
The building form has been placed here.
The texture has been created by someone.
The sun is out.
The rainwater is still here.
You are here.
The light is carried here.

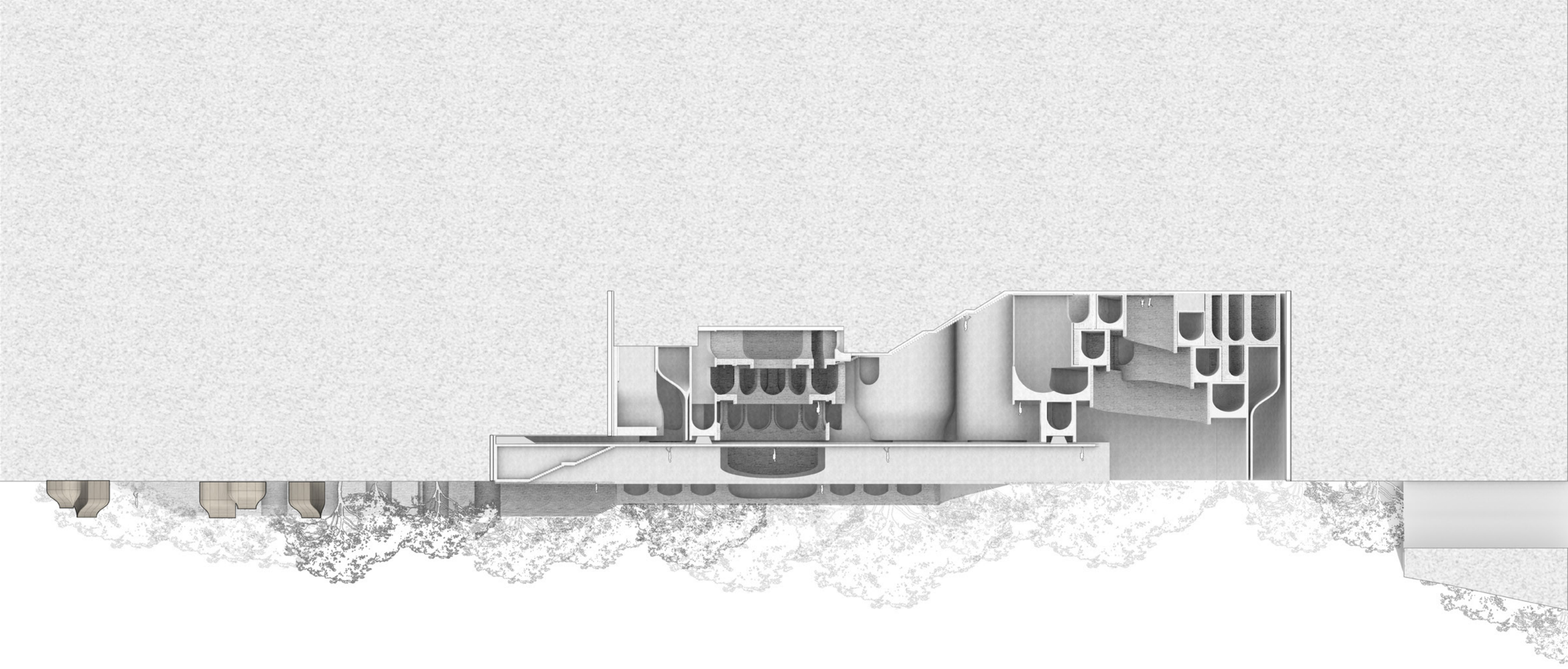


How time is reflected on construction process

The temporary wooden formwork

The long last - concrete work


Re-form
frozen form



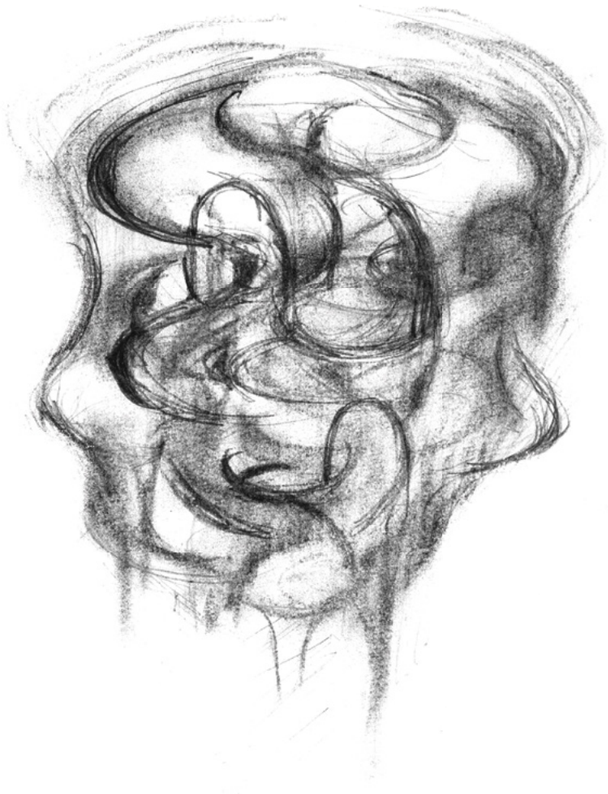
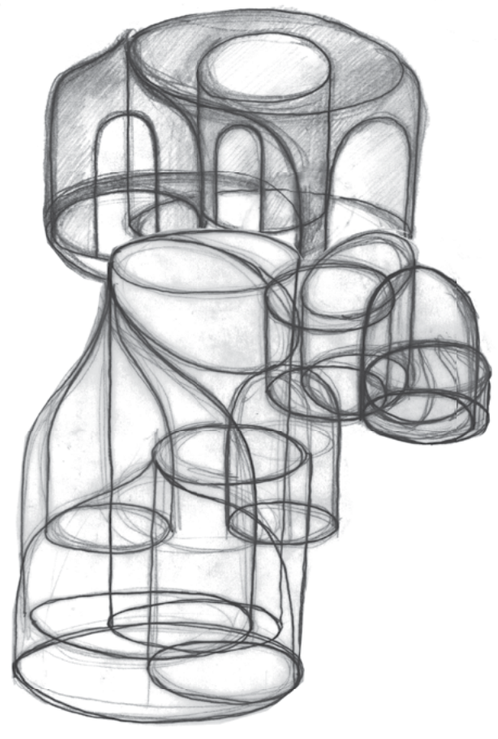
Finale

My building is not an image.
The experience she affords cannot be captured with any single shot.

My building is not a flashing pop song.
The underlying theme is not explicitly told.

My building is a frozen symphony with sophistication.
One takes time engaging to unfold and appreciate her depth.

Creation as acts of intuitiveness and intellectualness

The three sketches indicate three milestone steps in the process.

Left - Visualising the force inherent in music
Middle - Flow of bodies embodied in materialistic body complex
Right - Rationalise the complex into holistic form