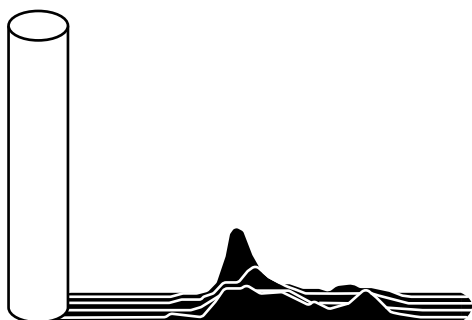


sonoduc



"Layering of urban history could be made manifest, rather than suppressed."

Alison and Peter Smithson



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...on the edge

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ABSTRACT

More and more people are moving to the cities. Today there is 50% of population that lives in the city, if it continues like this there will be 75% in 40 years time. This migrations caused urban spreading in all directions, and yet big percentage of space within is wasted on void. No meter does it come lost between built area or in a form of brown field like we have in Nantes.

Bas-Chantenay is Located west of the town, below the hill of Sainte-Anne. We can cross very quickly Bas-Chantenay without realizing the wealth of the territory. At the bare end stands a Silo, almost as an mountain that guides the area. It dominates the space and it's visible from all around. I found it as an attractive potential landmark of the new era of a City founded on its industrial leftovers. A Monument that writes history and continues new future, new use and development.

How can we imagine changes while keeping the character and the spirit of the place? How can we transform such a heritage and still keep the history?

The aim of the project is revitalization and reuse of an existing industrial state in the are of Bas Chantenay. With a focus on main landmark of the area, Sodistock silo later refereed as Sonoduc or museum of sound.

Project went trough 3 phases: analyses, new proposals and redesign. Both urban and architectural, micro-scale, are elaborated in conceptual form.

..on the edge

INTRODUCTION

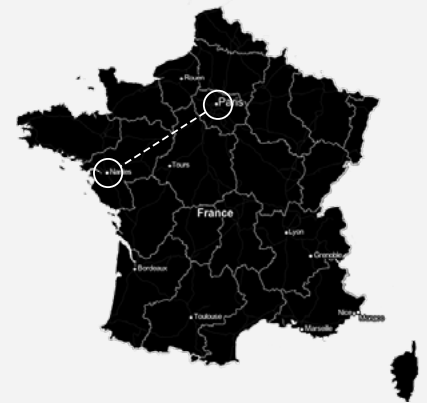
Nantes is a city in western France on river Loire only 50km far from Atlantic coast. City has this special charm of grungy industrial character. Former harbor today is main urban area of Nantes, with all the cranes and machines standing proudly and giving a history lesson. Trough years Nantes urbanization and overall development was based on a concept of recycling and redesign of old. The city layout is a spectacle, Specially when we talk about 'ile de machines". The atmosphere is like walking trough Jules Vernes books with giant mechanical creatures, moon as a playground and cranes that are like isles guardians.

Riverbank development:

In the situation of serious difficulty and disorientation, need for metamorphose of particular urban sequences is crucial.

Urban layering - this beautiful act that gives so many diversities and tells a story of an development, this appearance of something majestic and similar to Platons idea- leaves parts that are like scars on the body, usually worn out by the industrial activity they served.

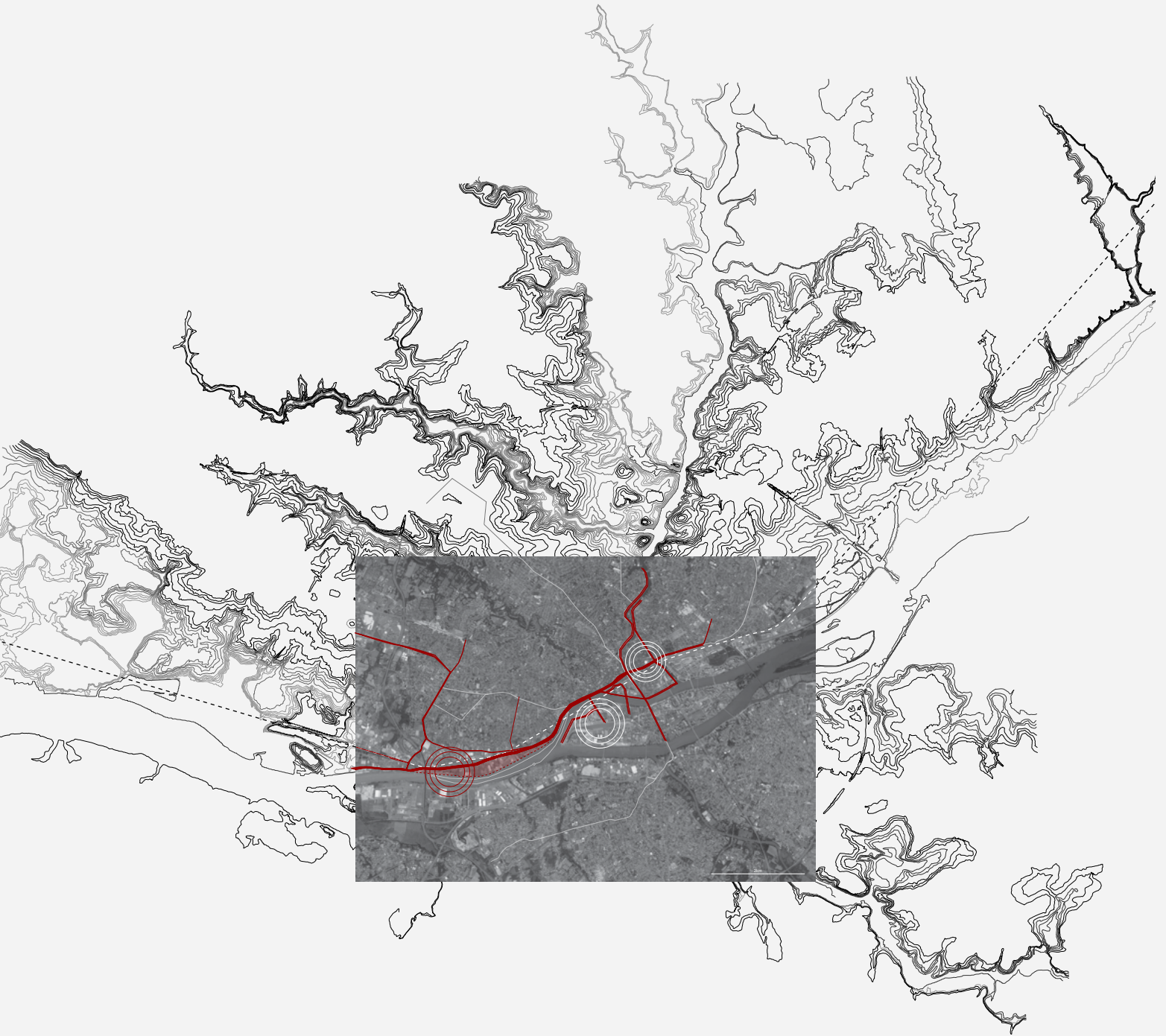
Nantes a metropolis that lays on the banks of river Loire in France. Trough History was a great harbor, up until 1980 and closure of shipyard. Nantes was left with a big hole in the middle of city. Big harbor once again become an abandoned dying area. Not long after, the banks of the Loire on Nantes are redesigned. The old docks, shipyards have become the paths for artistic, recreational or memorial walks, as well as festival gathering spaces. Offering beautiful view on Loire and hills. However, this is no longer shared when we approach Bas-Chantenay. Located west of the town, below the hill of Sainte-Anne, this industrial meadow is structured by major East-West roads (Boulevard Cardiff, boulevard Maréchal Juin, rue des factories) and railways and contains large industrial and port facilities. We can cross very quickly Bas-Chantenay by using these axes of fast traffic without realizing the wealth of the territory.

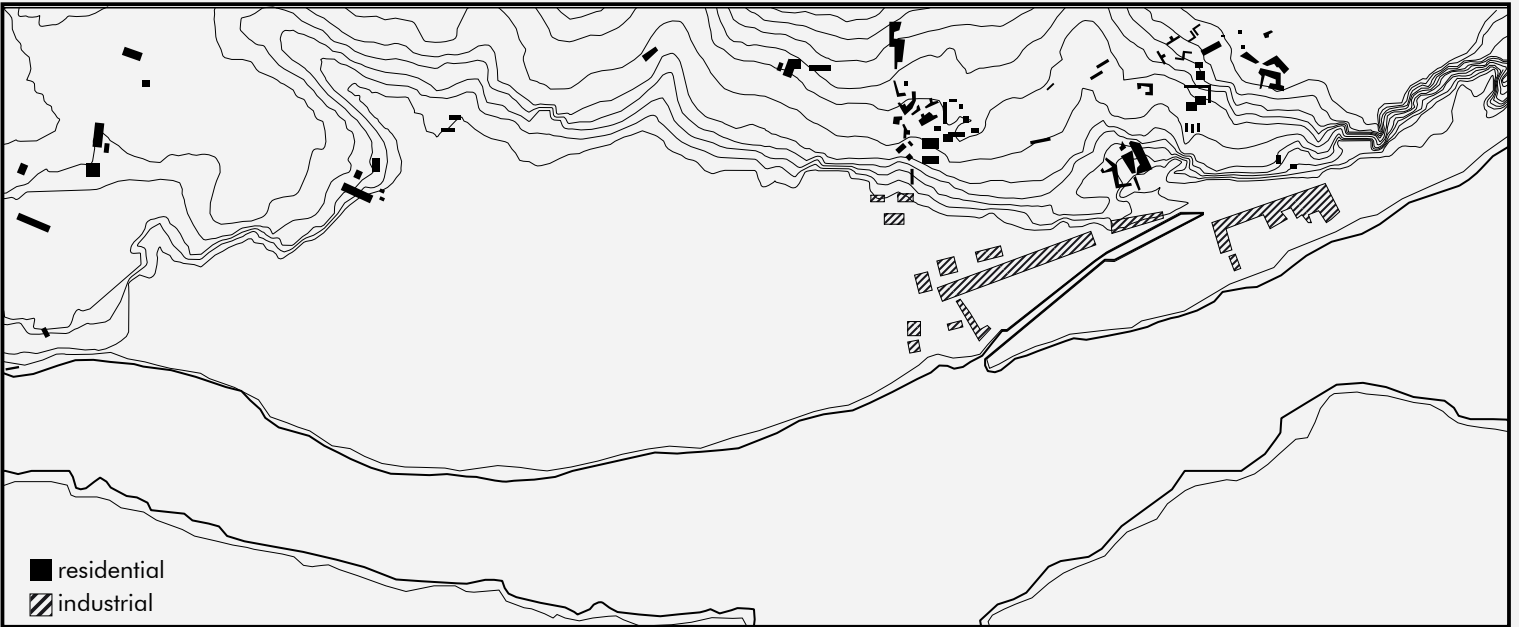
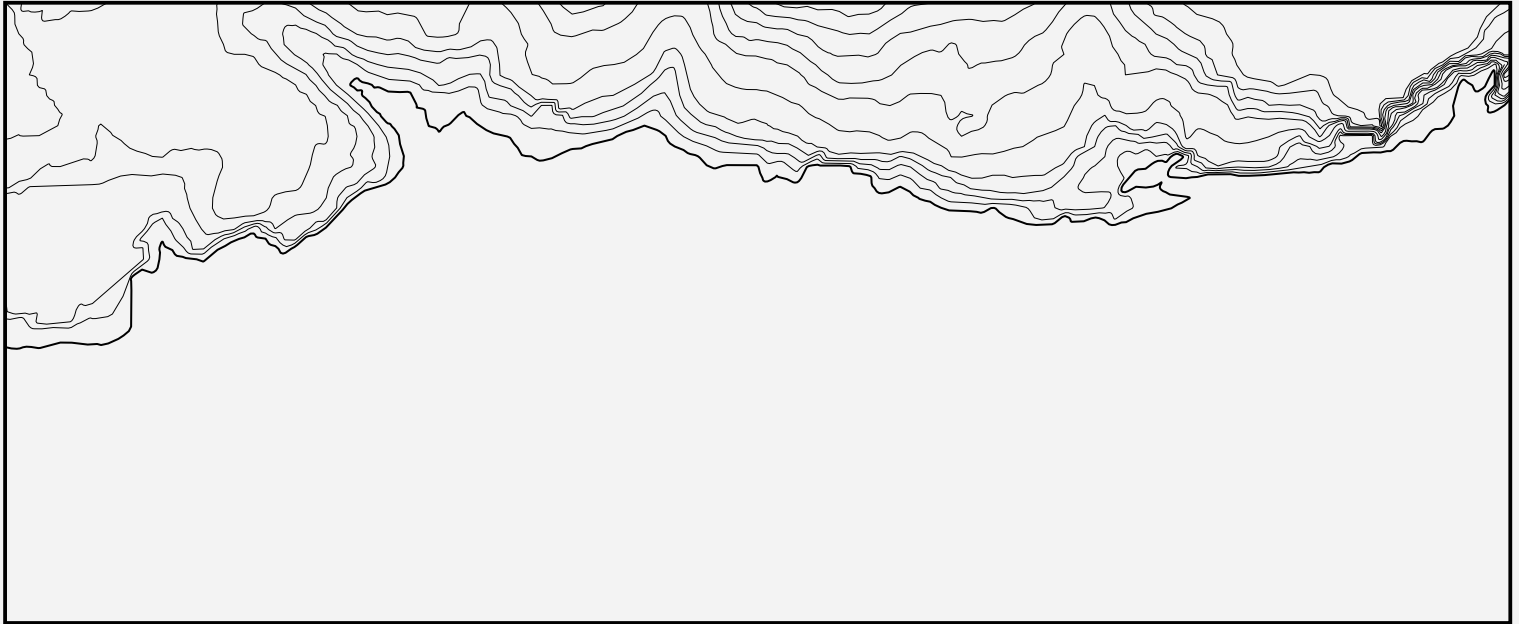


Map of France showing the relation Paris- Nantes

right:

City of Nantes, white circles are representing current center, and their relation with Bas Chantenay.





HISTORY OF BAS-CHANTENAY

Original state:

Ancient time : The river Loire is spreading until foot of the hill. Depending of season, level evolution caused some large flooded swamps, that were due To :

“Slope left over” due to erosion (rain, wind, etc)

“Sediments left over due to the soil sedimentation that u can find in the water

Early nineteenth:

To overcome the floods and natural whims of the river, people started changing the bed of the Loire, thus changing the geography of the site.

Half a century before the worlds “industrial revolution” (mid-19th century), the first development of land for industrial purposes are made in Chantenay by the Crucy brothers, they opened a shipyard, also divided the site in different parcels with easy access to the Loire. Chantenay Canal (currently Chantenay Boulevard, filled at the end of the 19th century) is dug. Fertilizer companies are moving in as well, as Dubigeon from 1841. This piece of territory is therefore made for the industrial needs, what is confirmed with law of 1810, asking for the movement of polluting activities from the city center.

Late nineteenth:

The railway line was built in 1850, resulting in the extension of the shipyards to the East and the growth of the Chantenay population on the hill-sides.

Urban functions co-exist despite the physical break between the top and bottom formed by the rails. “People lived in upper part and worked in down”

Main shipyards:

Chantier Crucy

Dubigeon construction site,

The new Chantenay shipyards in Nantes

Main industries:

Manufacturers of oils, pulp, fertilizers, chemicals, soap factories, refineries, Brewery Burgelin

Saint-Gobain Chemical Plant

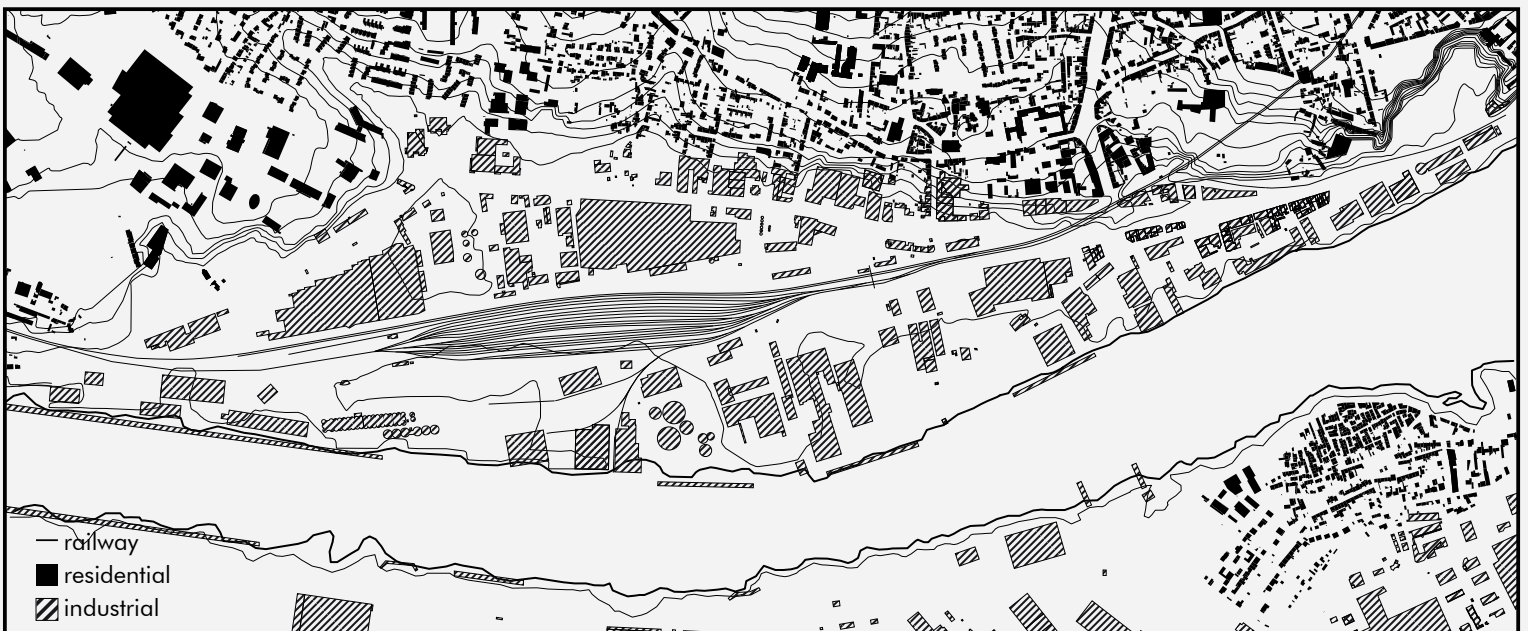
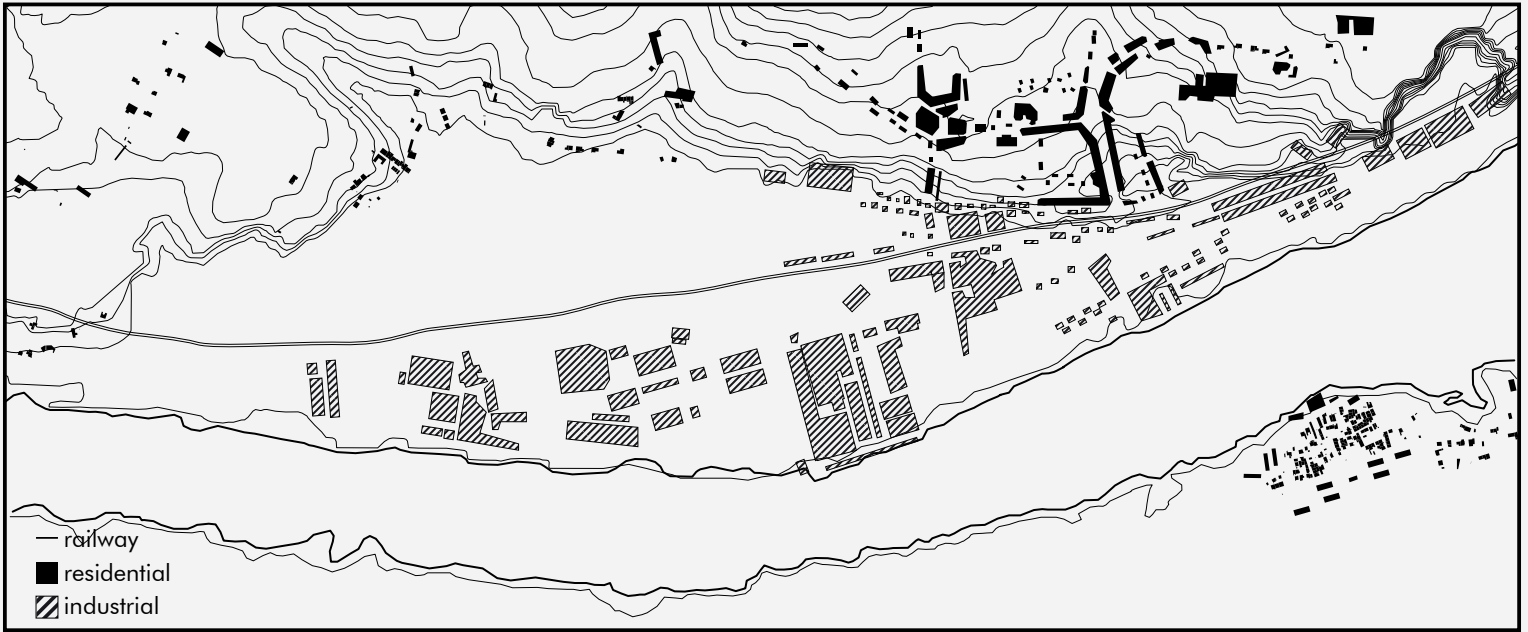
Chantenay Sugar Refinery

right:

1.Bas Chantenay before human intervention

2.19th century occupation of swamp and first land developments

3.late 19th century extension of shipyards and first rail.





Early 20th:

The industry extends along the banks, south of the rails.

Mid 20th century:

This is the highlight of the port industry: the industries occupy the land on the banks of the Loire and foot of the hill. We note the presence of housing, gardens and social buildings related to Bas-Chantenay factories.

Current state:

The port industry has given way to other types of businesses; industrial character is preserved, but the activities are less and less popular.

At the same time, the residential hillside has developed without any link with the industrial area.

The meadow and the hillside have become two independent entities.

right:

- 1.early 20-th century
- 2.mid 20th century
- 3.current state

BAS CHANTENAY QUARTERS

The district of Bas-Chantenay is divided into 5 sectors:

In the South:

The Industrial meadow settled between the Loire, the ring road, Boulevard Maréchal Juin. This area made of large railway, large plots linked to logistic and production activities, as well as plots of smaller size in form of trade markets. River bank side outline is compound of industrial halls mainly storages, from different periods, some of them fully abandoned and some recently built. This part is an closed territory that limits visual or physical access to the Loire.

In the West, beyond the ring road:

The residential area of Roche-Maurice. This predominantly residential village is located in the continuity of the Industrial area, between 2 traffic axes, and crossed by the railways, although number is reduced here. Eventhough sorrounded by high speed infrastructure, neighborhood has kept a certain dynamism with its workshops, restaurant and cafe on the banks of the Loire, and square which is nearly 1/4 of the neighborhood. The view of the Loire is direct here.

In the North:

The mixed neighborhood of Saint-Martin and Bois-Hardy, located between Jean-Moulin and Liberté boulevards.

The hillside contains individual homes and collective housing (built during 1950s to 2013), with some neighborhood shops (bakery, pharmacy) and three schools (one primary school and two high schools). The central part Boulevard Maréchal Juin is composed of different activities,shops and services. These companies form a discontinuous urban front without alignment, with facades and parking spaces of low quality.



Bas Chantenay

right:

Current state uses division in 5 districts

Roche Maurice

Industrial zone

Saint Martin and Bois Hardy

Jean Marce

Saint Anne

ROCHE-MAURICE
6h
residential area

INDUSTRIAL AREA
100h
industrial activities
creative workshops

SAINT-MARTIN ET BOIS-HARDY
33h
residential area, small business

JEAN MARCÉ
14h
park Oblates

SAINT-ANNE
25h
residential, business



In the North-east:

From Liberty Boulevard to Avenue Lusançay is the residential area Jean Macé. Its a small quarter named by the palace around which its formed, its probably the only cultivated green area of the place. Cardiff Boulevard is occupied by new offices, some of which have historical value: the workshops of the Caroff vinegar factory and factory for mail boxes Dejoie et Cie.

This district is marked by the strong presence of the plant: park, plantations on roads.

In the east: :

Quarter of Sainte-Anne, in continuity of the city center and separated from the Jean Macé district by the Misery quarry, vast undeveloped space, there is some planes for building an artificial tree that will spread trough all quarry. For now area just serves for open air festivals.

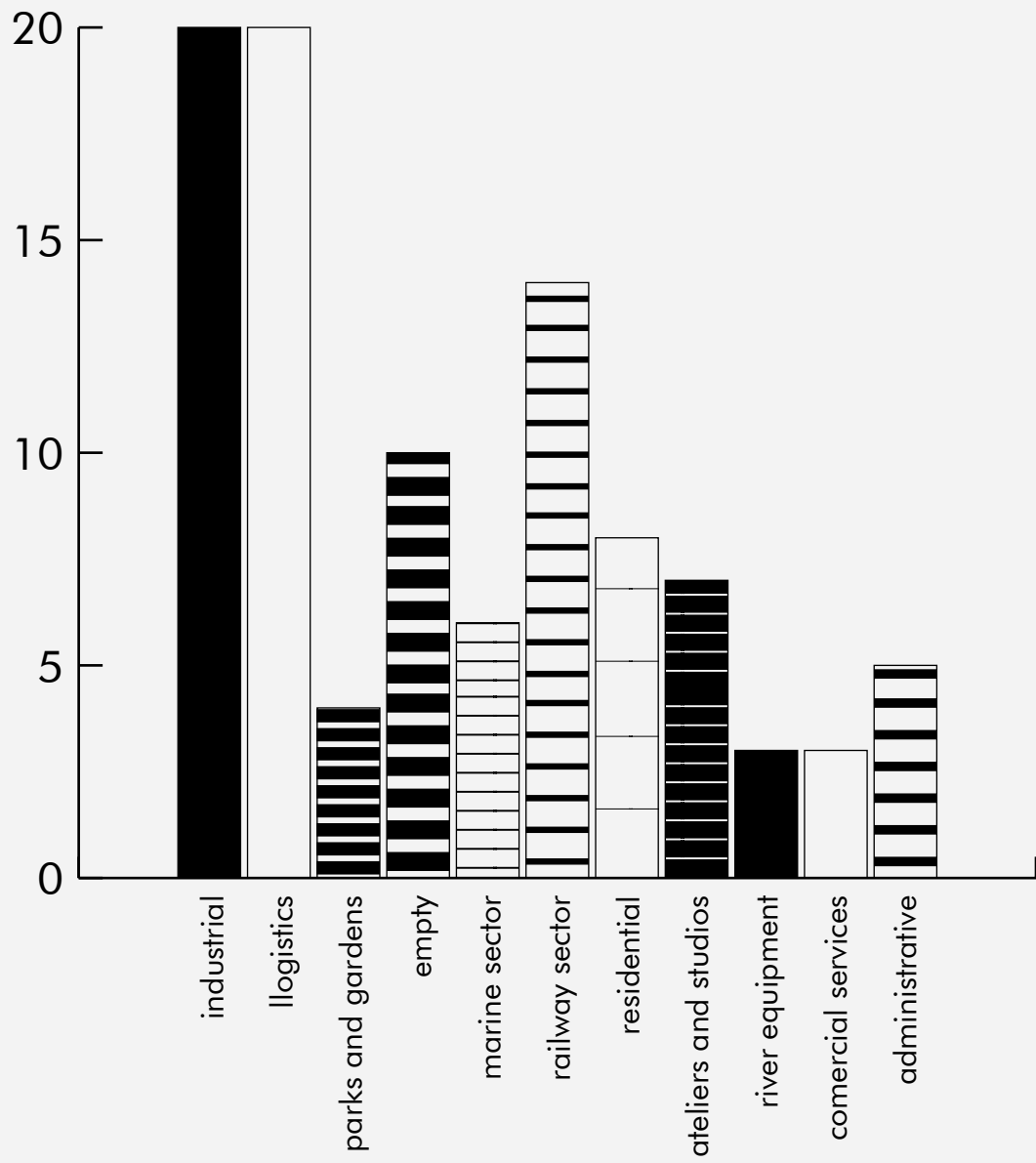
This predominantly residential area is mostly built on the hillside, offering very beautiful views of the Loire, and is connected to the city by the set of offices of the ICC. Centrality is organized around the linear square of Garennes that is finishing with Ste Anne staircase.

Le Bas Chantenay today lives in co-habitation of, generally divided, 11 different functional areas, abandoned spaces, where private and public is not specified, gates and fences, infrastructure and dangerous unprotected areas are the biggest boundaries between different parts.

Crossing Bas Chantenay second impression will probably be disappointing, after seeing a beautiful skyline of cranes water towers shed roofs and machines, secondary impression is possessed by danger signs caution and exclamation mark.

Functional occupancy of area:

industrial (20%), logistics (20), parks and gardens (4%), empty spaces (10%), marina sector (6%), railway sector (14%), residential (8%), ateliers and studios(7%), river equipment (3%), commercial services (3%), administrative (5%).







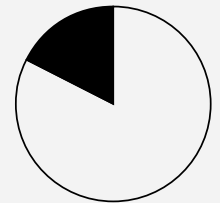
BUILT AREA

Disregarding the parcel division and public private relation, built up area is taking just 17,5% of the all site. Having that in mid there is 82, 5% of unbuilt, unused space. That is potential land of development.

This space is a ghost like, people are passing every day. They see it from the coast or river, this voids, usually overpowered by nature. Rivers banks that are created by the fight of waste and green are big part of Bas Chantenay. Passing the streets one would think that area is overcrowded with different uses, because of different boundaries that are hiding whatever is happening behind caution signs. There is big amount of free space that is over flooded with waste and hard material. This things are staying there probably since the industrial golden era when human greed overpowered the river and built up industrial oasis, that soon become burred in industrial waste. Passing trough the land,one can only see high walls and buildings making sort of membrane between human and river. One would feel almost claustrophobic.

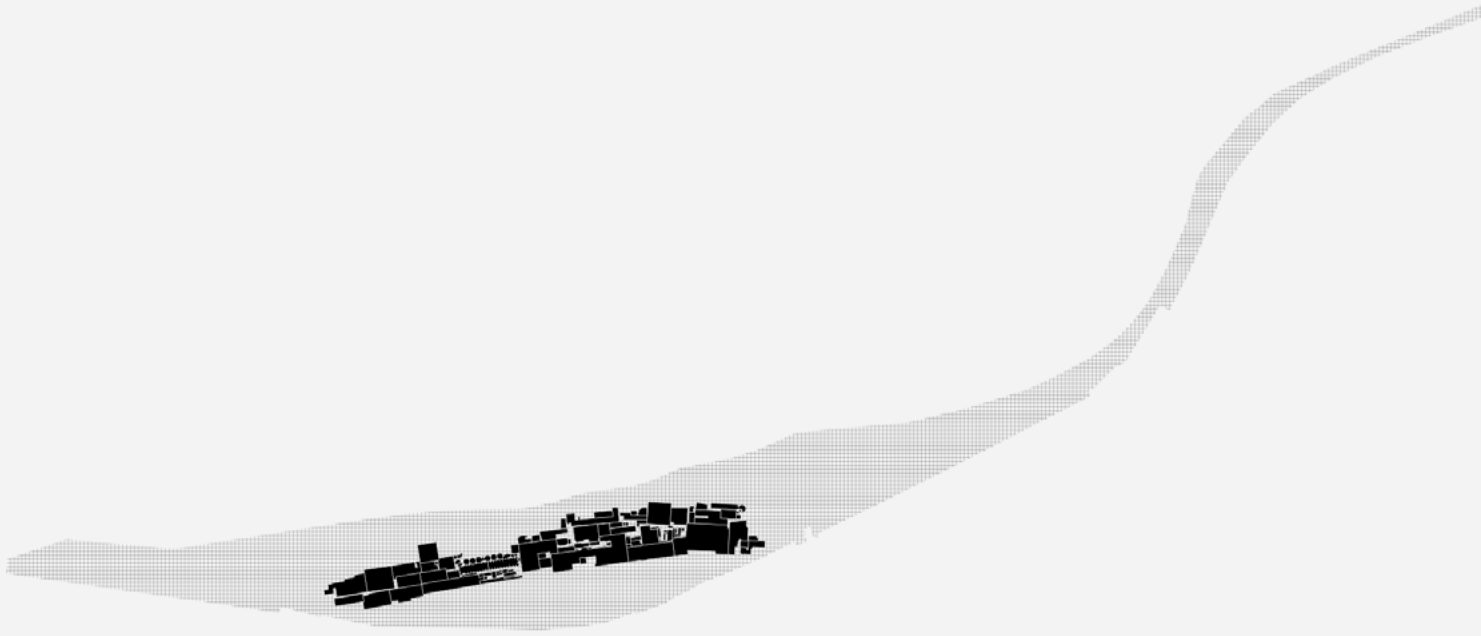
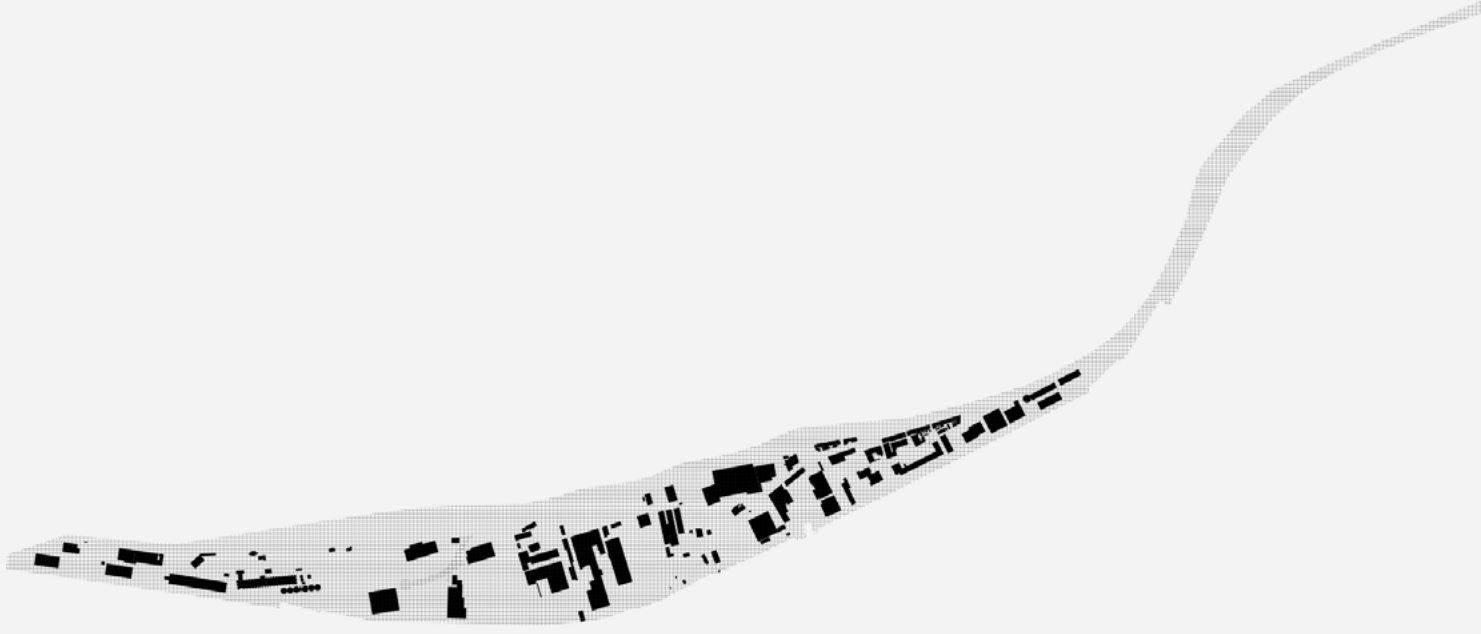
Trough this proposal the main goal is to make people aware of this spaces, crated by industrial heritages. To unpack their potential of unexpected and unknown. With cultural social and empowering functions.

Here we come to the question: how we can develop a potential of post industrial urban voids lost between built and unbuilt, between nature and waste?



Pie diagram:
relation built(black) -17,5% and
void (white) -82.5%

right:
the visual ratio of built up and void



ANALYTICAL PHASE

Situated between hills and river Bas Chanteney is an artificial meadow specially formed for industry, in such environment there was no thought about human scale. Humans are suited up to hill and meadow was for working, I like to compare it with Karlín, in northern part of Vitkov hill, it was an industrial zone of Prague with factories and just on the other side of hill there was housing, they even made a tunnel to connect these 2 parts. Today Karlín is still developing area it's one of the sub-centers of Prague working life. Similar thing is happening to Chantenay that maybe is not cut by the hill from the rest of urban layout, but by big rails that become an obstacle for this area.

Overcoming the boundaries was always main task for planners, some things are just a strong mark on the land that changing them usually is out of possibilities. Railway takes up to 14% of all. Half of them served for industry that is not case anymore, Min rail is connecting Saint Nazaire-Nantes-Paris, and middle part is currently storage of used trains. Map (on the right) is showing all the possibilities to approach Bas Chantenay. Currently all the paths are dead ends, walking through the area one has to jump over fences or climb walls in order to see a bit of river, other interactions with water are not possible.

To reach Bas Chantenay mostly used transportation systems are:

Public transportation: there is one line of bus from the city, usually overcrowded especially during rush hours, the bus will stop at the bigging, right in front of Reno car service. First thing to notice is a quarry, abandoned bank building bunch of caravans with junkies and in the far right small district of houses specific for this area, without whom it would be more of a ghost town than a neighborhood. The rest of area could be approached on foot.

Bicycle tracks: towards Bas Chantenay and through them they are already in pretty good shape they are ending by the approach of Toussaint Louverture square.

And finally main ally of Bugenville continued with Rue Jules Launey and finished with Rue des Usines. Is the longest connection line running from city towards the meadow. In the end there is also a train station Gare de Chantenay currently out of function.



500m

- working rails
- ▨ industrial buildings
- housing
- ⋯ greenery
- ▩ industrial storages on the main site
- hills
- civic amenities
- - - car roads
- - - exit paths
- parkings
- ▨ schools
- rivers
- ⋯ boat path

Map (on the right) is showing all the possible paths through area and river. They are creating some sort of linear grid that gave the place more human scale.

Main connection would be Boulevard Maréchal Juin connected with 2 bridges over rails with **Rue des Ursines** that is the main artery of Bas Chantenay and in the end river line. This axes are connected with smaller paths that are offering different experiences and views of this urban sequence. Main goal for Bas Chantenay is to become new

extension of the city, to be its new center rather than a scar. That's why **focus is on the extension of riverbank promenade.**

Chantenay was always depending of river, it was main trade connection, main water resource, and in the end it was built on its territory. Opening up to river would be a renewal of this relation, and connection with a city core. Promenade or river line would stretch up until the end of industrial zone finishing with cranes of Grand Port Maritime.



500m

- working rails
- industrial buildings
- housing
- greenary
- industrial storages on the main site
- hills
- civic amenities
- car roads
- exitig paths
- parkings
- schools
- rivers
- boat path
- demolishing
- possible paths to river
- river path
- noods

In order to make an healthy adoptable area, main part of study is to find right connections, than the reason for this connections to exist (Path, nodes and Landmark -Kevin Lynch). City is made for people, and people go where people are.

l'Esclain

Royal De luxes

Sodistock silo

came out as landmarks of historical value for the location.

l'Esclain

is one of the oldest industrial activities of Chantenay. Currently working shipyard and Sailing club part of it space serves for architects and artists of Nantes. The building is maid in many layers without order and design, material is brick and this messiness gives it special charm, the front building towards the river lays in ruins.

Royal de luxes

This is a company of inventors, stunt men, poets and scrap-dealers all at once, led by Jean-

Luc Courcoult. Royal de Luxe are currently considered to be an iconic, almost mythical, street theater company - equal to the Theatre du Soleil for conventional indoor theatre.

The factory produces Machines of Nantes that are famous all over the world. This machines are usually in form of animals of giant dolls that they produce right in this spot.

And at last **SODISTOCK SILO**

The main topic of the design project. Sodistock silo is currently storage of agricultural bulk. Since 2008 its in charge of company called Union Invivo.

Storage contains 57 cylindrical grain elevators in radius of 8m and 6 cylinders in radius of 16m.

Silo was built in in 1970 and since up until today it has same function. As city is extending towards this area industrial functions are banished from this place, the same destiny is waiting for silo. It will be another abandoned giant on the Atlantis cost line.



500m

- working rails
- industrial buildings
- housing
- greenery
- hills
- civic amenities
- car roads
- exit paths
- parkings
- schools
- rivers
- boat path
- demolishing
- possible paths to river
- river path
- noods

metamorphosis



100m

- Surrounding area
- objects of the area of elaboration
- industrial area
- river Loire
- river high-line
- landmarks
- paths of 2. category
- main artery
- green area
- public space
- area of allotment gardens
- car axes
- railway Paris-Nantes-Saint Nazere
- paths of 3 category

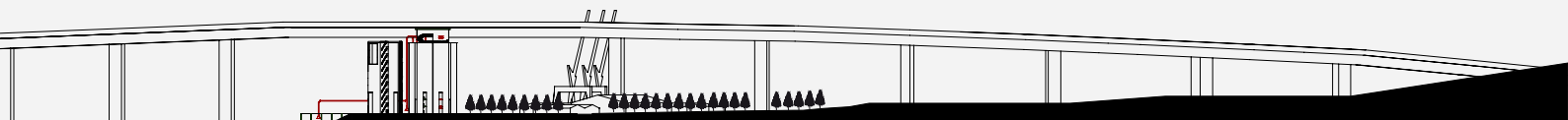
DISCOVERING THE HYBRID

left:
**master plan, mobility and urban
grid**
down:
master plan section

Leaving Nantes Chantenay will be last and first thing one sees and hits the highway no matter what direction. It could be compared with ancient gates of cities. A place that drags people in.

Learning about history its always interesting how former industrial cites like Nantes revitalize and develop in new direction. Usually new development fallows the steps of industry. Before inhabitation of Chantenay, Nantes island was the main part of industrial development. Later on, the industry extended on the river banks. Same thing is happening with introducing new urban revitalization as man concept of Nantes development. The city now uses river for pleasure and city is extending on the banks. Prognoses are that by the next 20 years city will extend in the territory of Chantenay, and industry at least polluting one will be totally displaced. For the area as big as this one introducing new urban tissue takes time. Cities are fiscal manifestation of big forces they play. Developing one has to go layer bay layer. The main idea is based on existing industrial layout, where we have 4 major transportation line Boulevard Maréchal Juin, Rue des Usines, rails and river Loire.

For centuries they served as a connection for transporting goods, and form linear structure of urban matrix. The idea is to bring back mobility of this major elements with some uses change. Railways are out of order and connection trough all area, like some sort of net. Reusing them in form of pedestrian line would be a mold in form new urban connectivity. On the other side is river. Water is always a greatest escape from the narrowness of the city. Thats why river bank plays big role when it come to revitalization of Chantey. River line would connect the exiting promenade of Nantes towards silo and finishing with Roche Maurice neighborhood. 4 great axes, vertically would be connected with net of paths. Main urban matrix is formed in such a way giving the area more human scale for the future development.

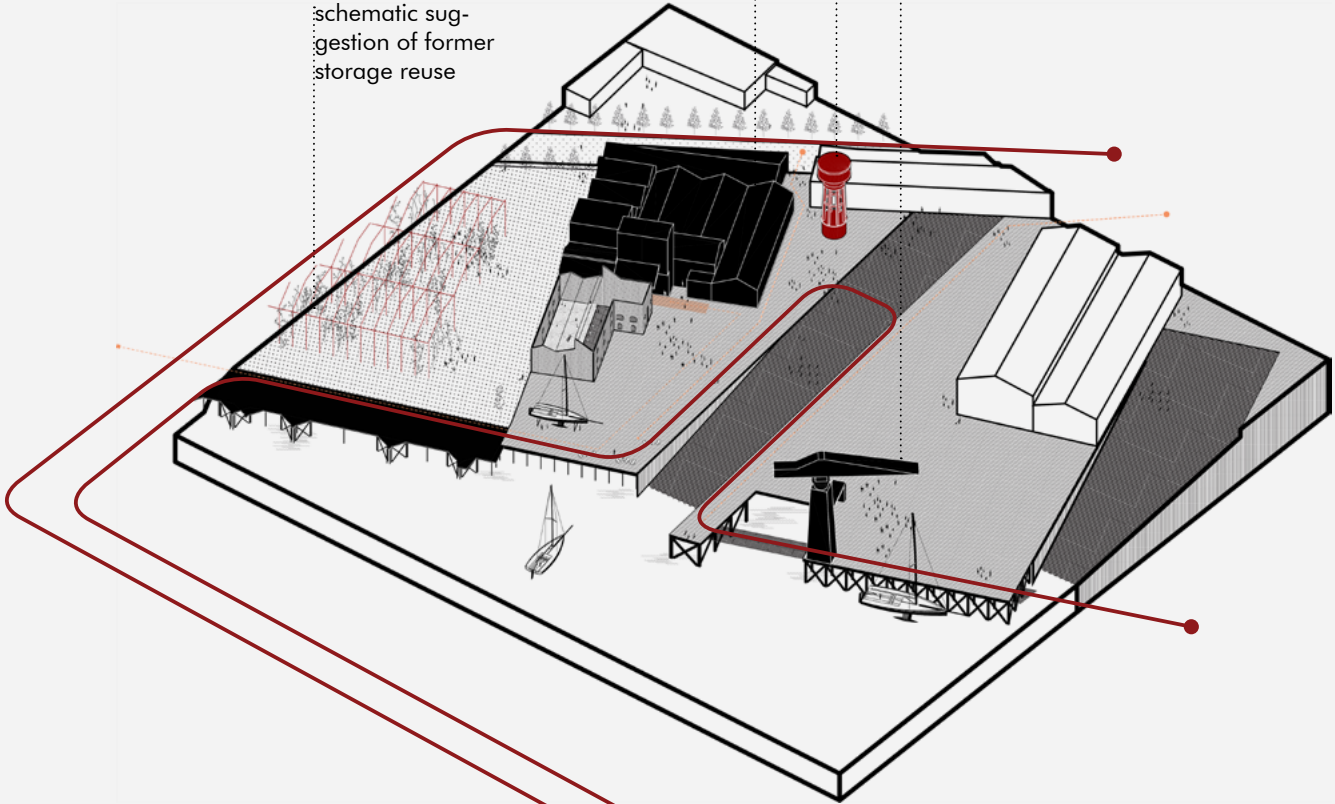


water-tower

l'Escalin

crane Dubigeon

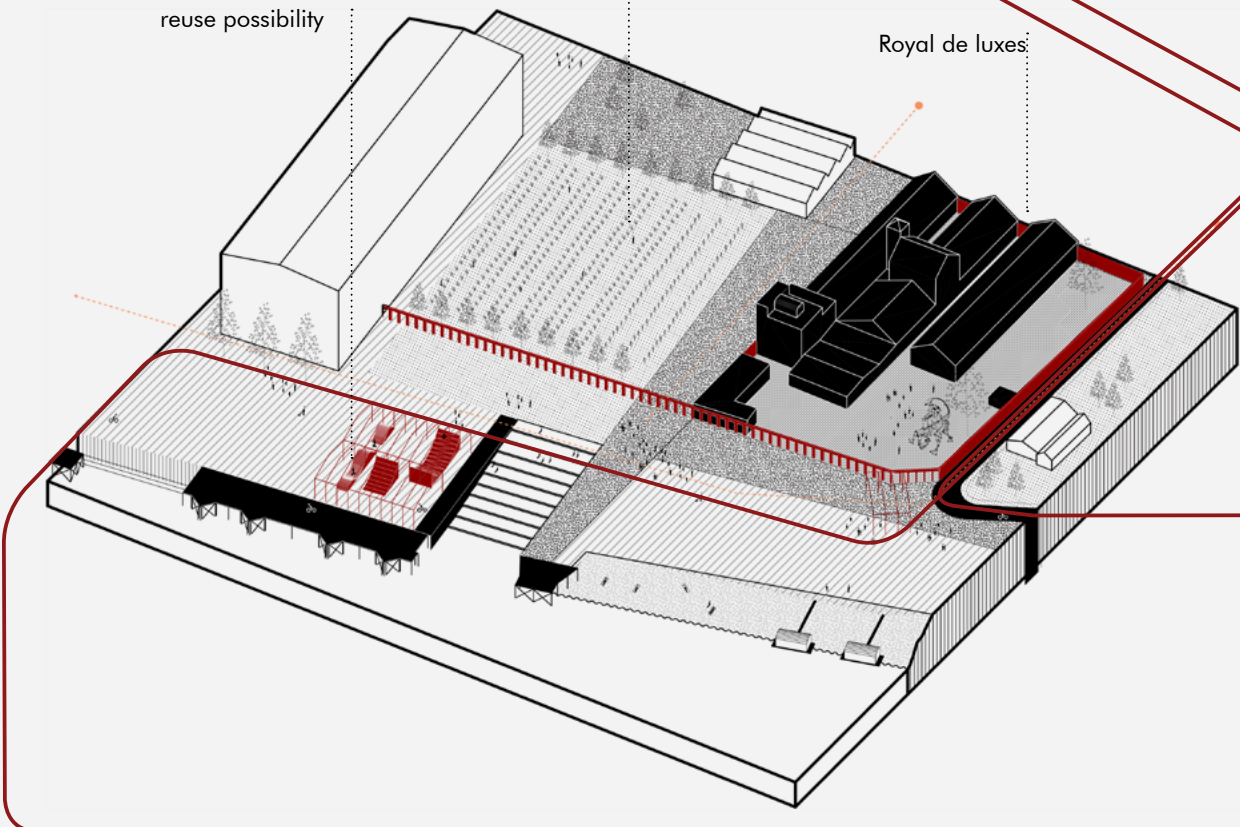
schematic sug-
gestion of former
storage reuse

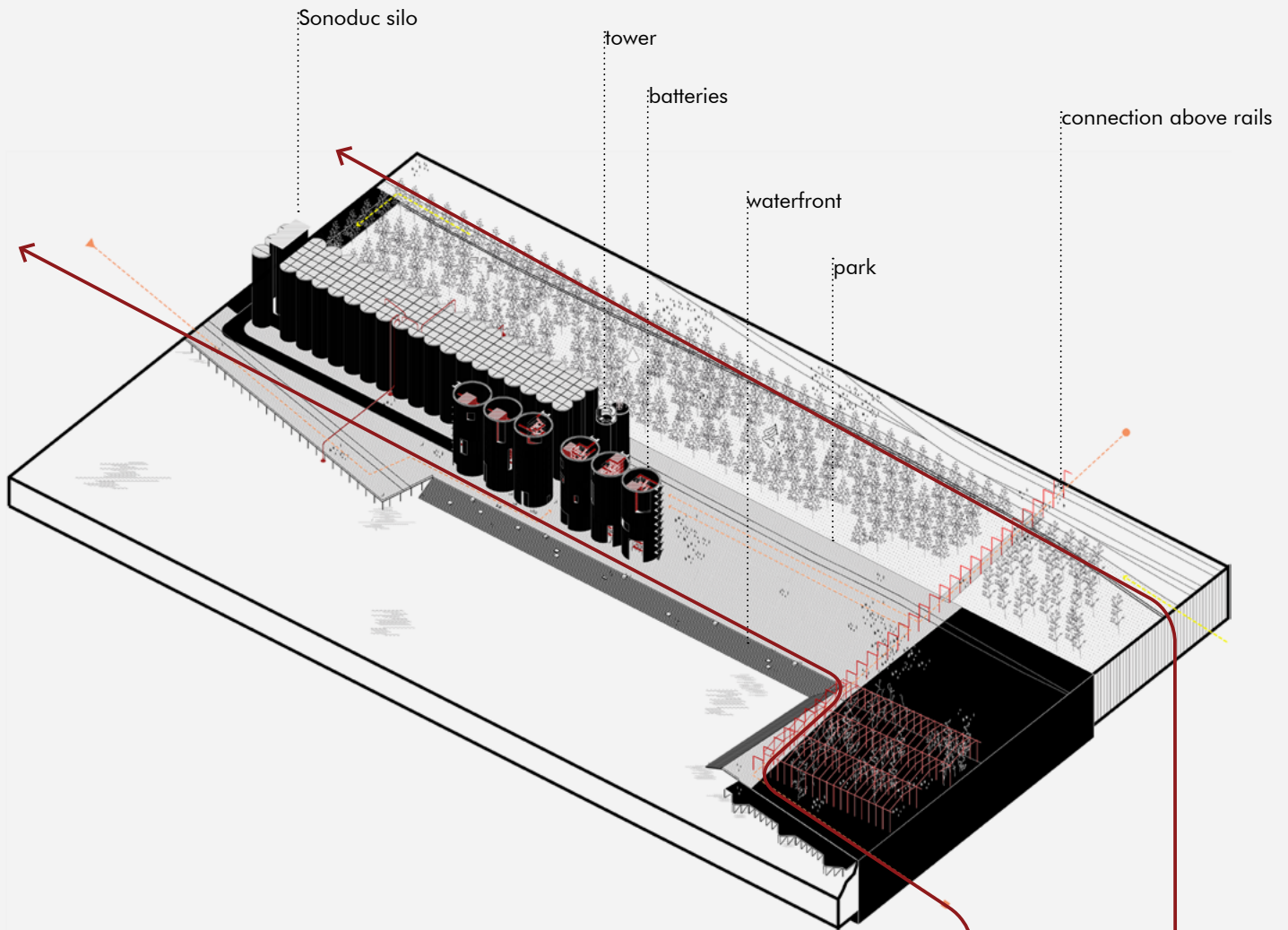


allotment gardens

reuse possibility

Royal de luxes





River line is extending and forming public space towards 3 main points through analysis referred as historical landmarks.

l'Esclain

Keeping the rustic exterior of brick wall the function of the space stays the same with additional uses. Esclain is one of the oldest buildings of the area, and it always served as shipyard for sailing boats and sailors club. Forming a public space around and within ruins would be one of the strategies for bringing people to Chantenay.

Royal De luxes

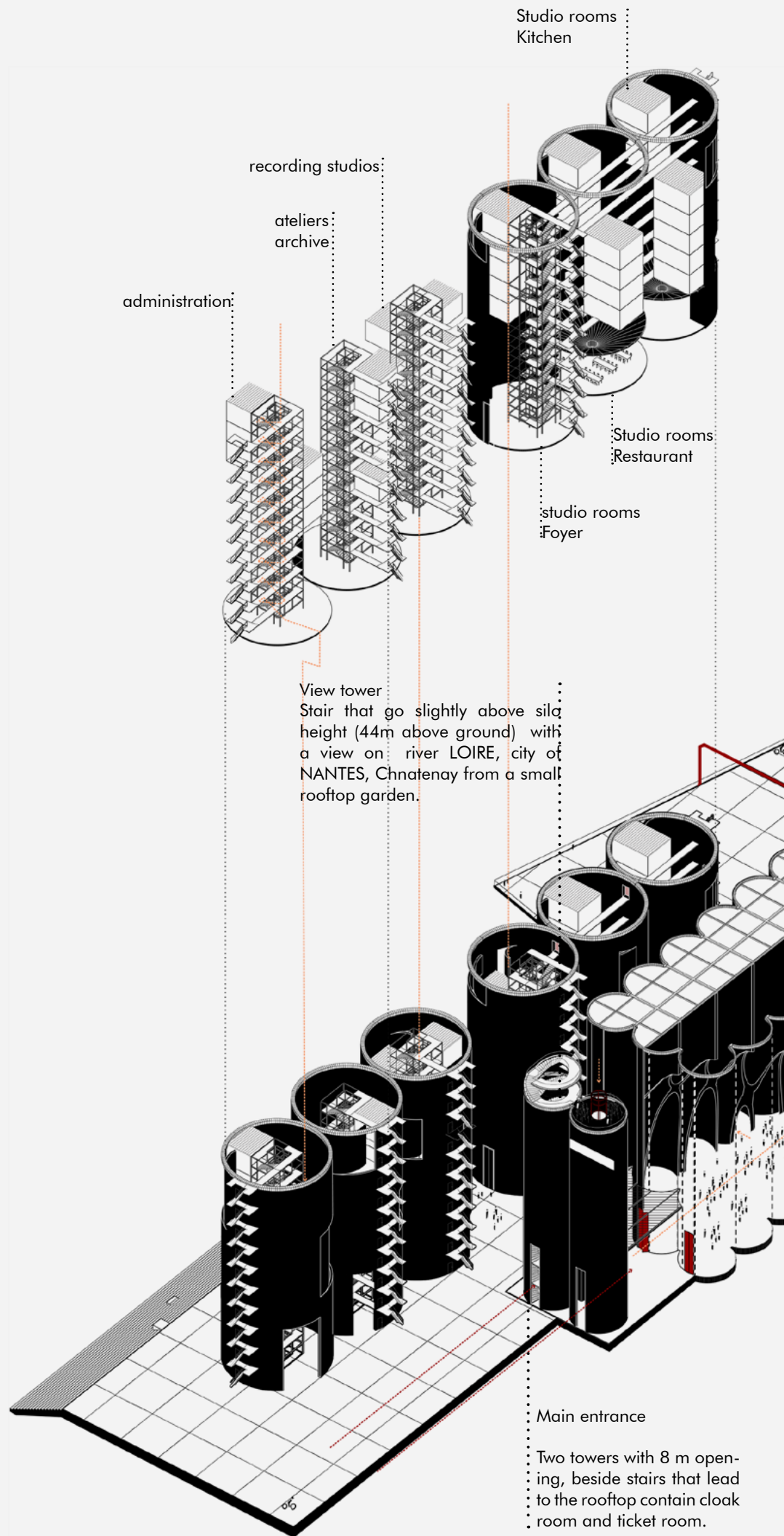
a factory of wander, its a dream of every child. The exhibitional public space, sort of a street theatre.

Sodistock silo

Needed a special function. Something to drag people to cross all the area and still have a desire to see more. Finding a function for such a particular space was like never ending journey. I like to compare it with a mountain, anyway all land is made artificially, so in that dimension silo would be a mountain spading by the river. Almost dominating the urbanization of background.

Maybe it was a church, or a cemetery or any of this grate functions could be carried by this giant. It needed something unexpected, it was suppose to be this element of surprise at the end of journey, but still connected to needs of city. Spending few months in Nantes i discovered its rich cultural heritage in field of music and festivals. And structure of the object just implied the idea of crating object inspired by sound. Simply said, sound museum.

Sonoduc



administration:

recording studios:

ateliers:
archive:

Studio rooms
Kitchen

Studio rooms
Restaurant

studio rooms
Foyer

View tower
Stair that go slightly above silo height (44m above ground) with a view on river LOIRE, city of NANTES, Chantenay from a small rooftop garden.

Main entrance

Two towers with 8 m opening, beside stairs that lead to the rooftop contain cloak room and ticket room.

Sound chamber 3.

Music is transmitted through Rubens tube.

The tube is sealed on both ends, but one end is a (Propane-resistant) rubber membrane that allows sound to pass through. A speaker, trumpet, loud sibilant, or any other noise source is placed on this membrane end.

The different amount of gas flow in different areas results in different flame heights, and if amplitude is high enough a defined sine wave emerges from the flames

- : Back entrance
- : Instruments storage,
- : Sound control room,
- : Recording room,
- : Vocal rooms,
- : Dressing room,
- : Engine control ,
- : View tower

Sound chamber 4.

The Concept of chambers is silence. Tubes that are transmitting the sound of surrounding. Sound of voices, river, main sound room, sound of nature.

Diffusers

The system for spreading sound evenly through space. The height can be adjustable from machine room.

Sound chamber 2.

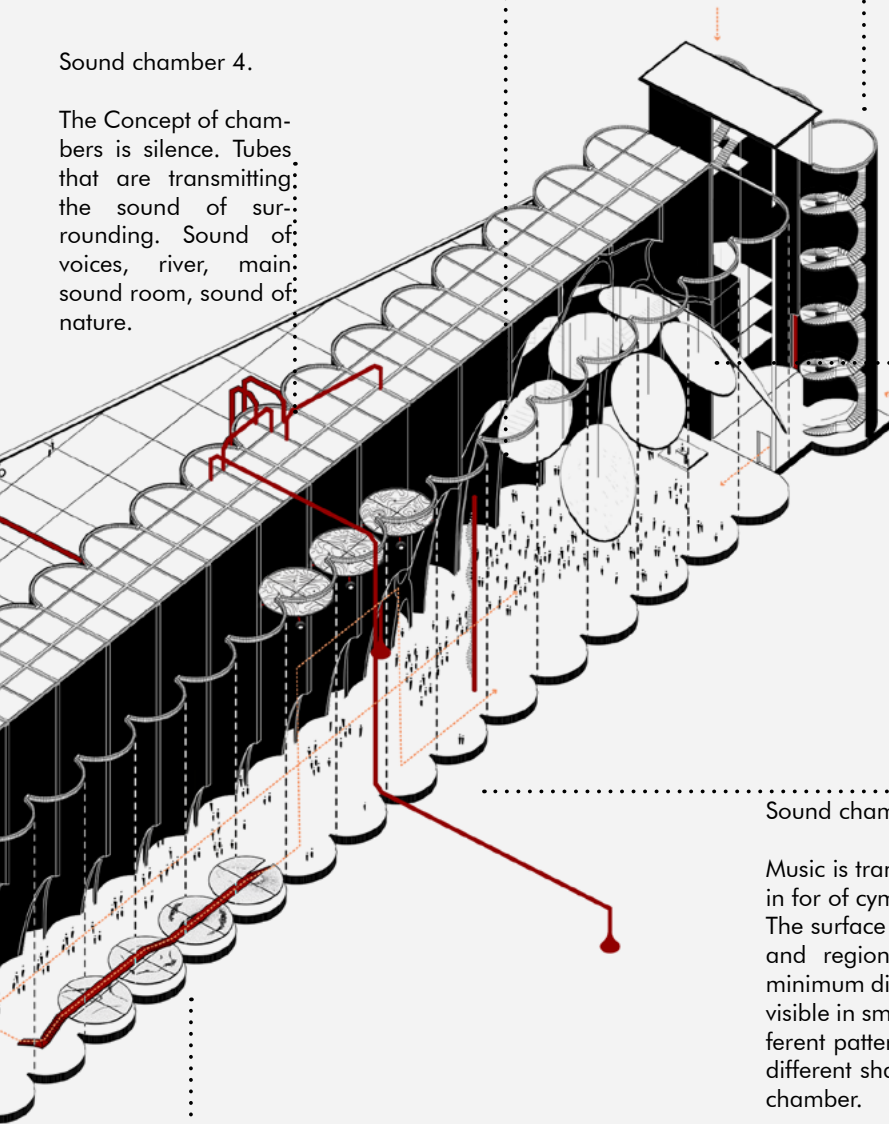
Music is transmitted through space in front of cymatics.

The surface of a plate is vibrated, and regions of maximum and minimum displacement are made visible in a small layer of water. Different patterns emerge in leaving different shadows on the walls of chamber.

Sound chamber 1.

Music is transmitted through space in front of cymatics.

The surface of a plate is vibrated, and regions of maximum and minimum displacement are made visible in a thin coating of particles of sand. Different patterns emerge in the excitatory medium depending driving frequency.



THE IDEA

Sonoduct, a museum of sound. Is a place created to inspire. A place where art and building becomes one.

Silo is a 40 meter tall, row of 57 concrete cylinders. For now, It serves as a storage of grain. Funny is the contradictory of finding some poetic use for a place without soul. That exists just in its great beauty of a shape.

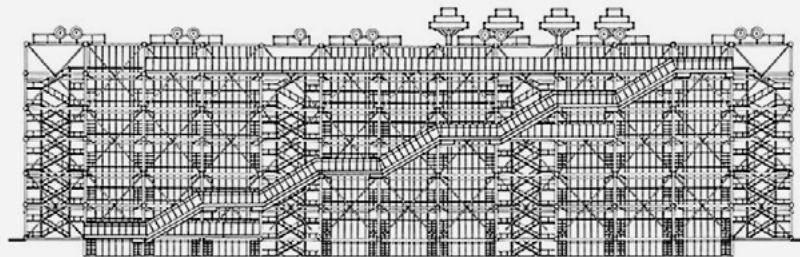
"Stupendous verticals of fifty to a hundred cylinders, and all this in the sharp evening light, everything else now seemed to have been shaped interim to my silo dreams. Everything else was only a beginning." Erich Mendelsohn

Scale is first thing that drags attention. It has this monumentality of a landmark. Standing in front of it one has a feeling of isolation and admiration, that only appears in front of 20th century utopian mega-structures and cathedrals. It is even bigger than that. Light transmission

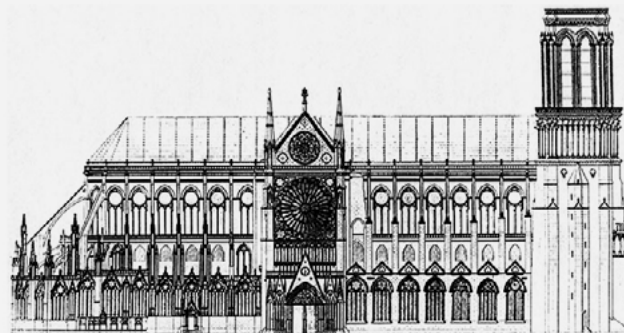
and sound were one of the most interesting and unique experiences it can offer. The shadows that are bathing curved concert walls and slowly despairing until the ground, and the sound is so loud and full of echo just like in caves. This experience become main factor in creating the concept of the project.

Putting the sound trough silo, like trough any other tube, sound wave forms an repetitive amplitude that when echo is created and it disappears in repetition. The idea is to reshape part of the space so the sound wave would be transmitted across the building horizontally in order to get acoustics trough all object.

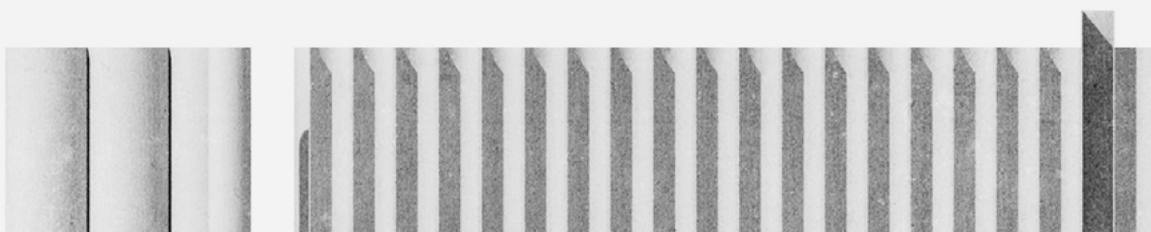
Following the sound and how and where it should spread, the inner core of building was reshaped in surprising way. It appeared in different forms and scales, dragging the light to follow the curve of the wave.



166x42

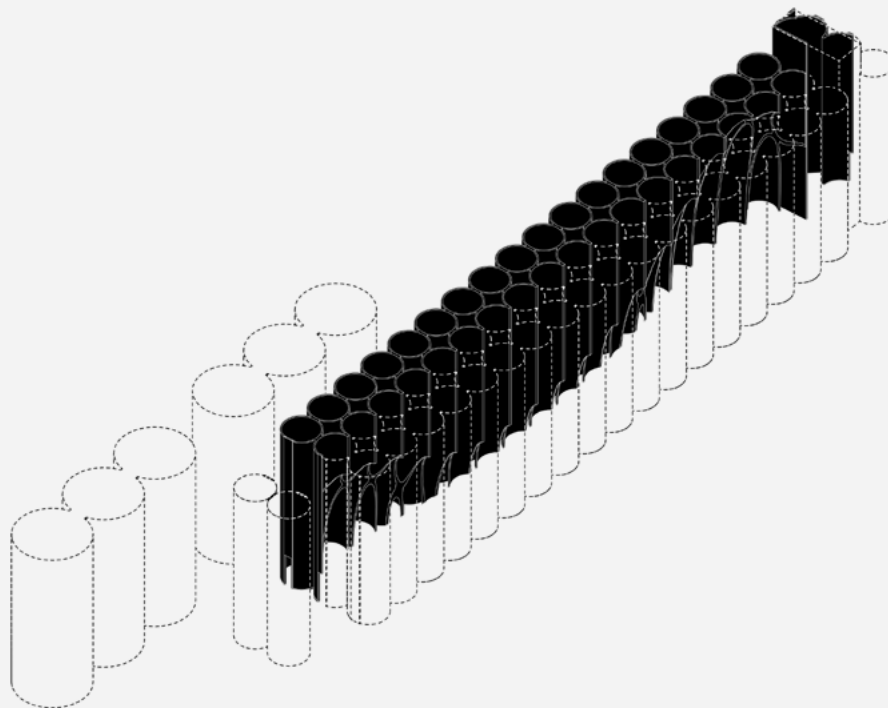
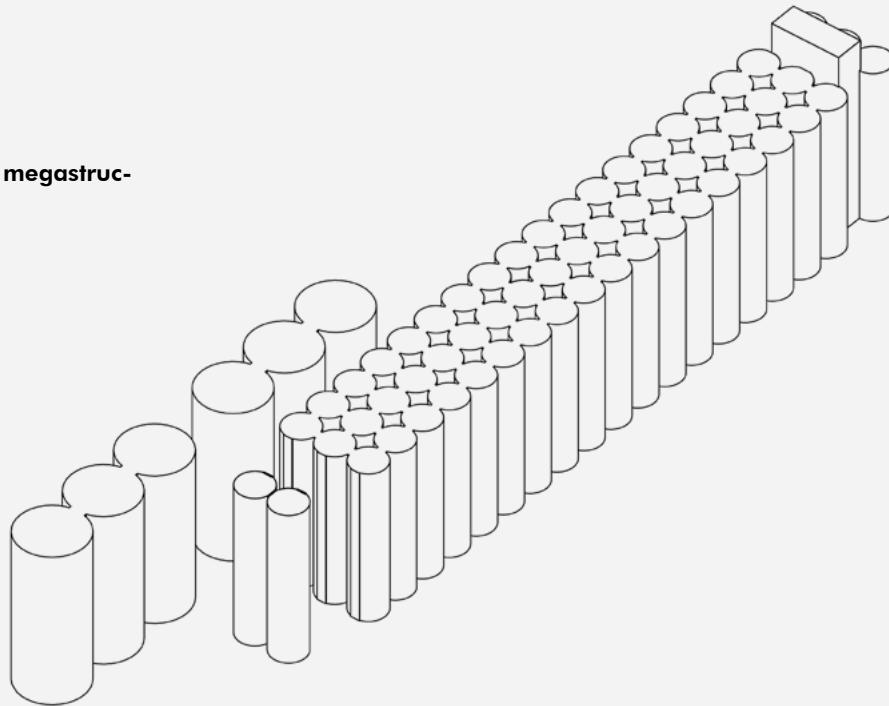


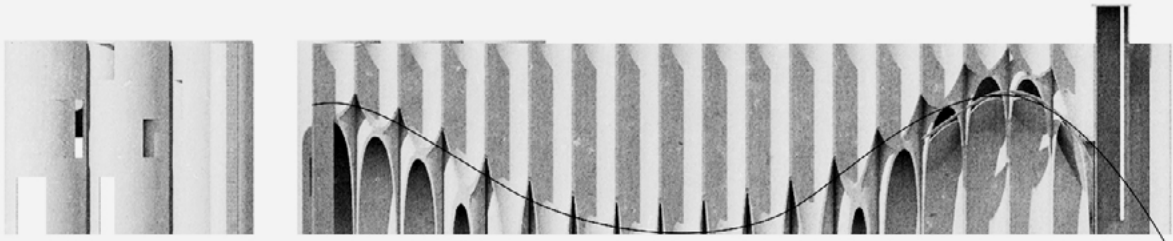
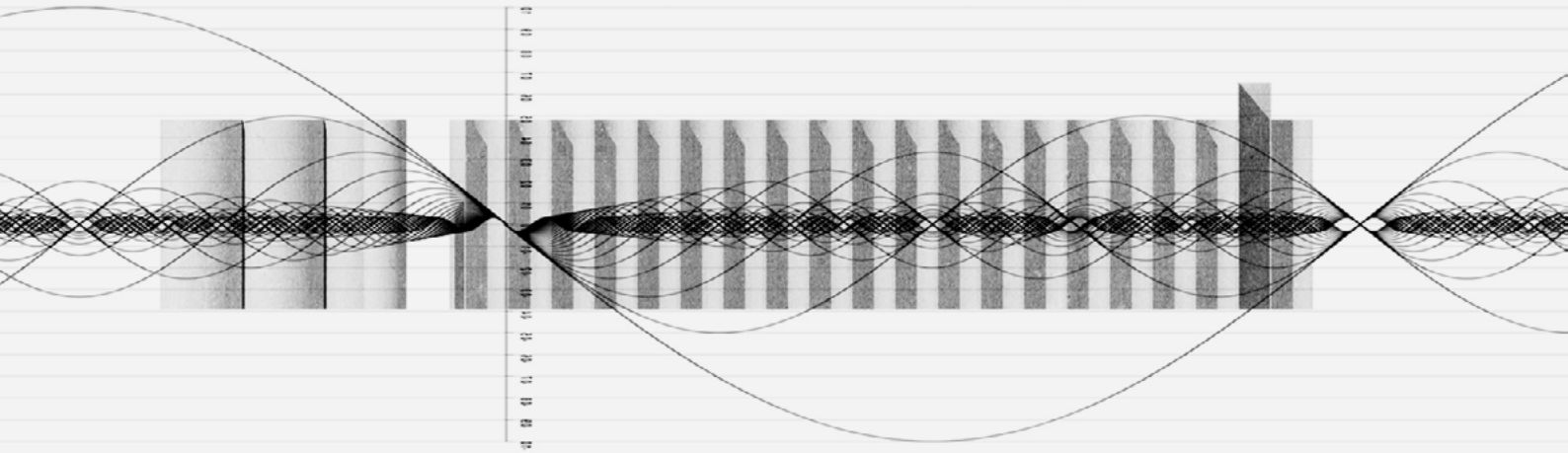
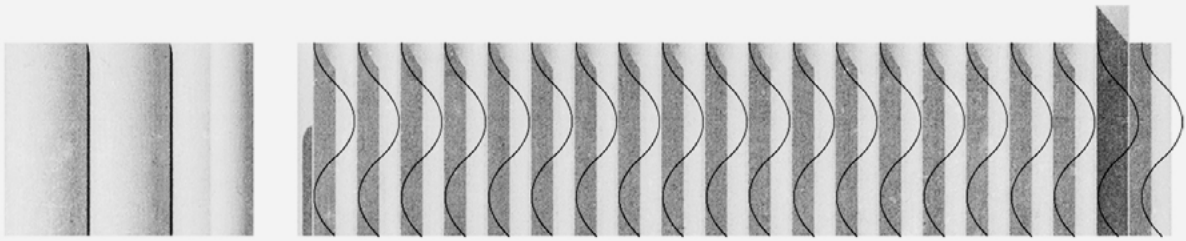
128x69



200x40

up:
original state of silo
down:
sound wave cut
left:
size comparison with megastructures

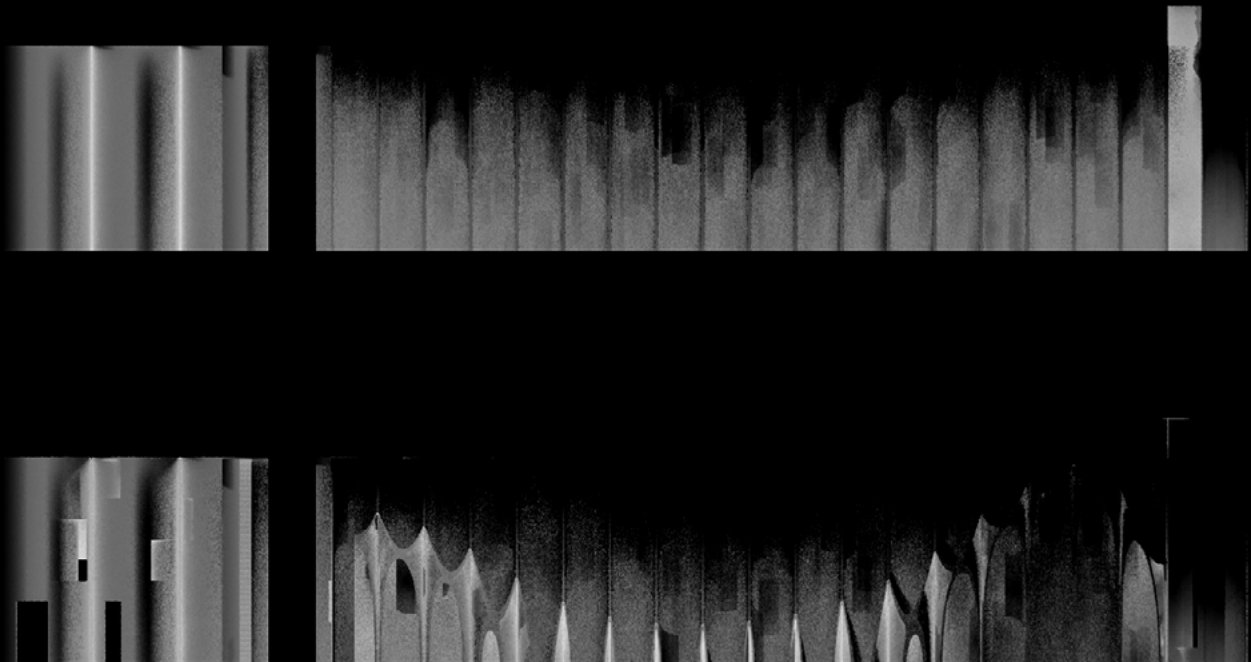


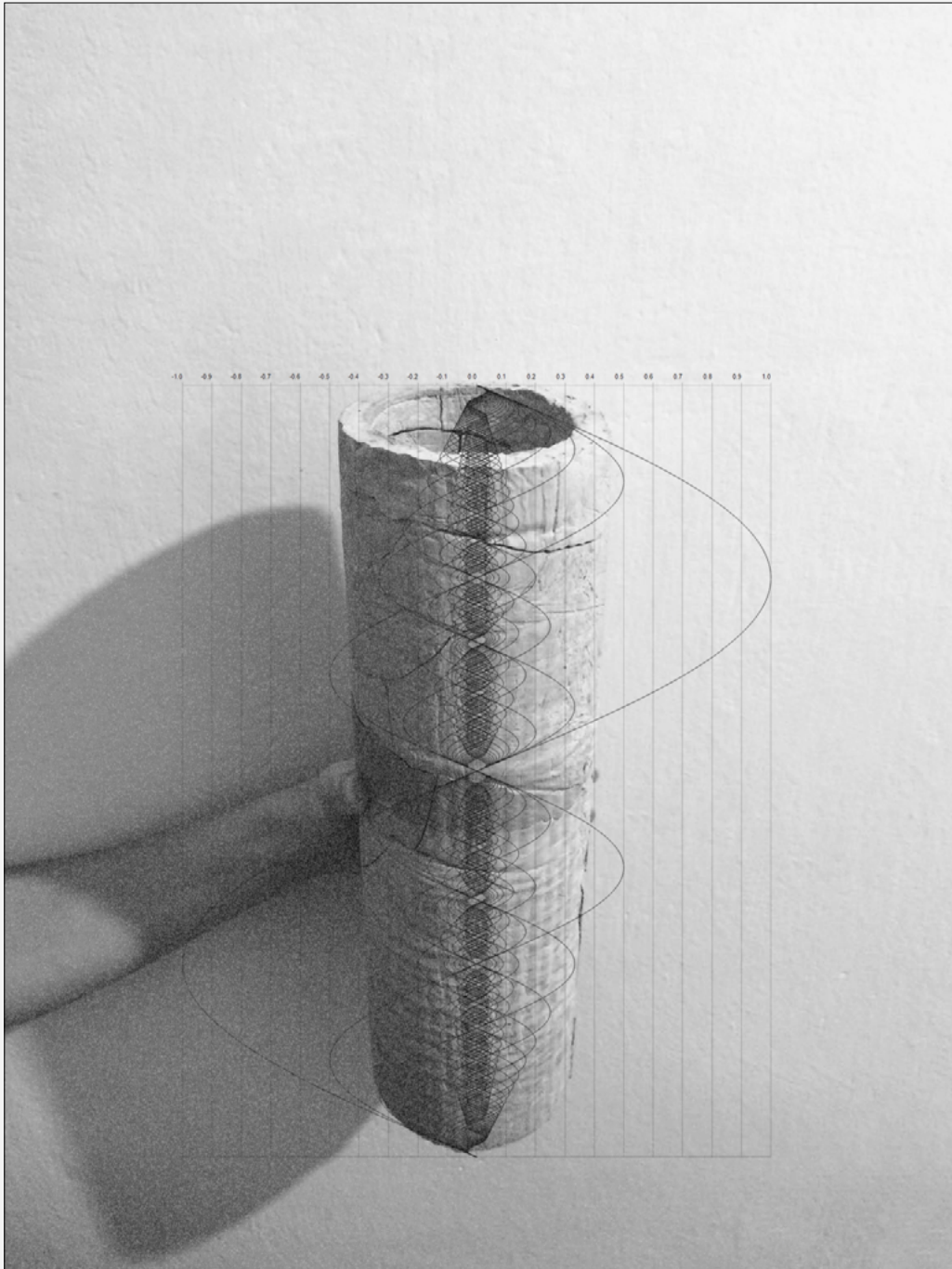


left:
Idea development through 3 stages
down:
Light analyses

Once crossing red door one is in light filled entrance hall that is slowly shrinking towards the main space, that like a surprise comes in full light and sound exposure. That was a new identity that comes from inside of massive outlook.

The core is supported by the 6 batteries on the side, serving as Studio apartments, recording studios, ateliers, archive, administration and in lower floors restaurant and kitchen. While creating this space biggest problem was how to open a concrete cylinder. Idea was inspired by the music box mechanism where you have cylinder with extensions that are creating patterns of sound in form of rectangle. In a structure like that, additional construction like a tree was added. There is an iron base with elevators and staircases and modular cubes hanged on them.





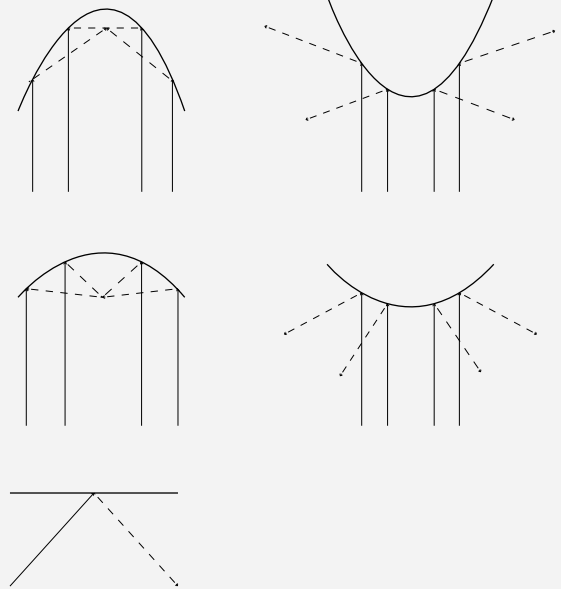
silo amplitude sound wave
right up:
analyses of sound reflection
right middle:
**cymatics example by Nigel
Stanford**
right bottom:
sound shapes by Saul Bass

CHAMBERS OF SOUND

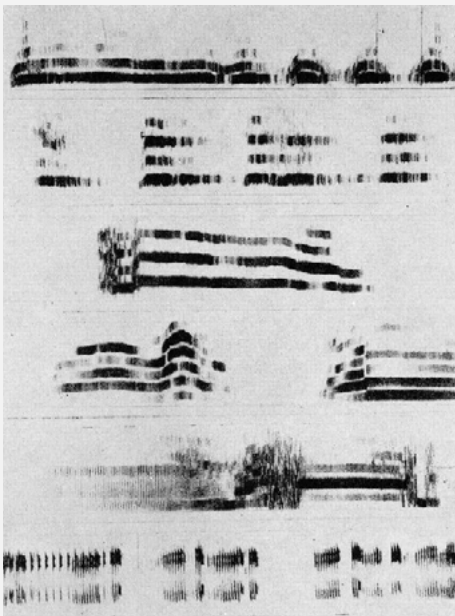
The sides of silo are kept in original shape. And serve as a visual experience of sound in form of cymatic.

Cymatics: Typically the surface of a plate, diaphragm or membrane is vibrated, and regions of maximum and minimum displacement are made visible in a thin coating of particles, paste or liquid. Different patterns emerge in the excitatory medium depending on the geometry of the plate and the driving frequency.

1. Chamber is sand that is on the lower part of cylinder followed with path in different leveling. So one should be able to touch the installation
2. Chamber is water that is placed in upper part of silo vibrated by sound water creates different patterns, that are thanks to light transmitted on the walls of silo.

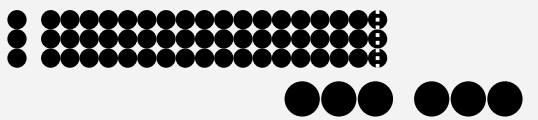


— sound
 - - - reflected sound

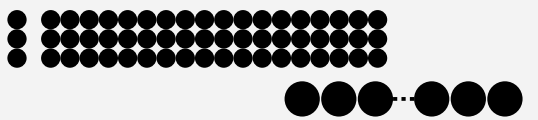


3. Music is transmitted through Rubens tube. The tube is sealed on both ends, but one end is a (Propane-resistant) rubber membrane that allows sound to pass through. A speaker, trumpet, loud sibilant, or any other noise source is placed on this membrane end. The different amount of gas flow in different areas results in different flame heights, and if amplitude is high enough a defined sine wave emerges from the flames.
4. Chamber is a sound catcher with tubes going in different directions catching the sound of water of forest, of people in the street of just in silo. Other chambers are left of utilities and temporary exhibitions.

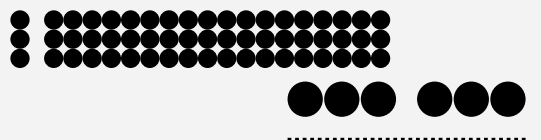
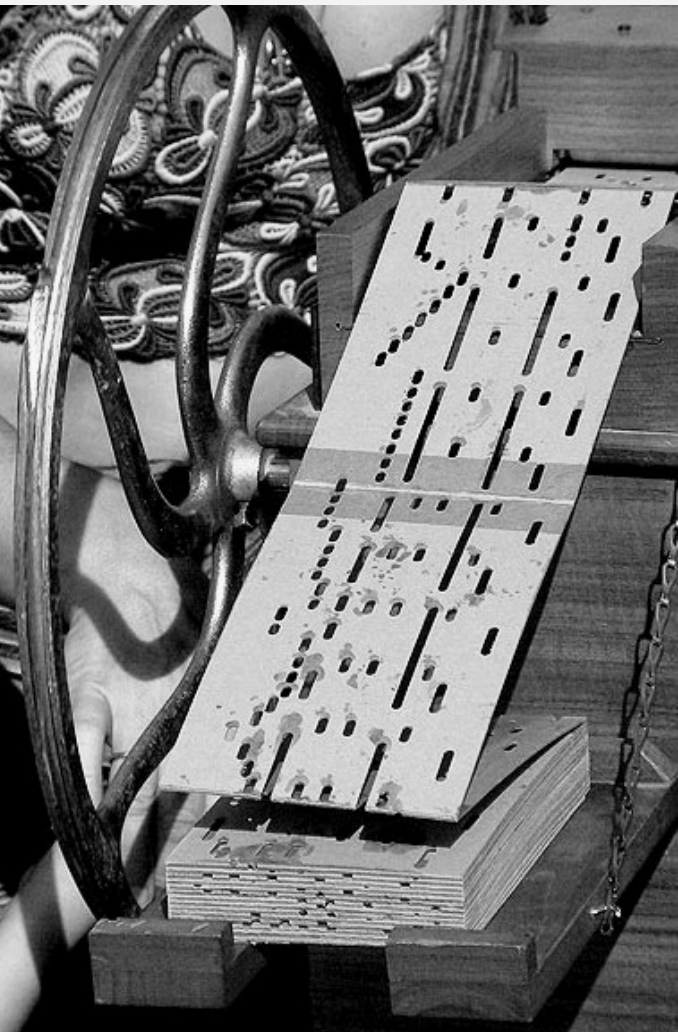
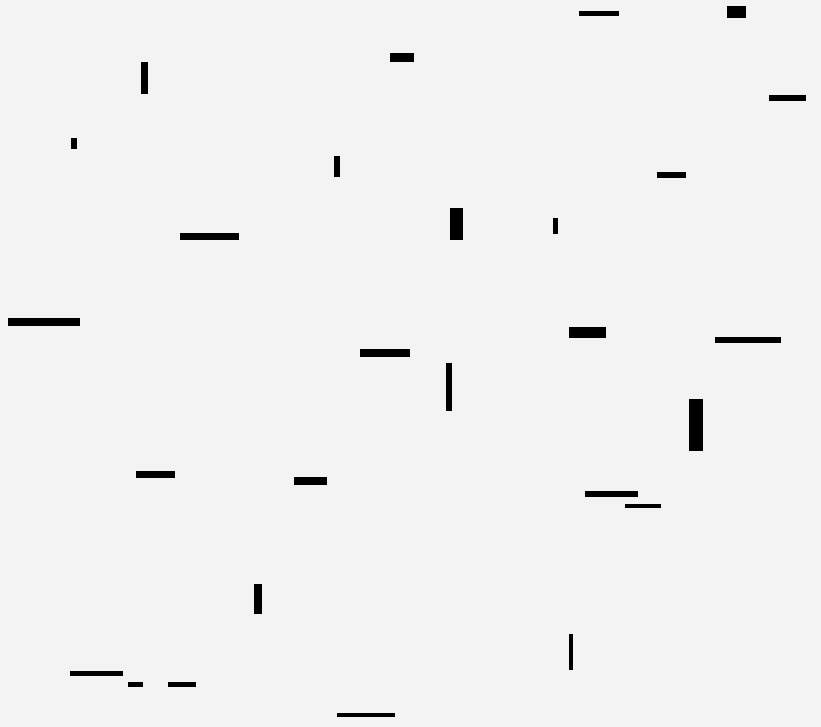
Visual poetry

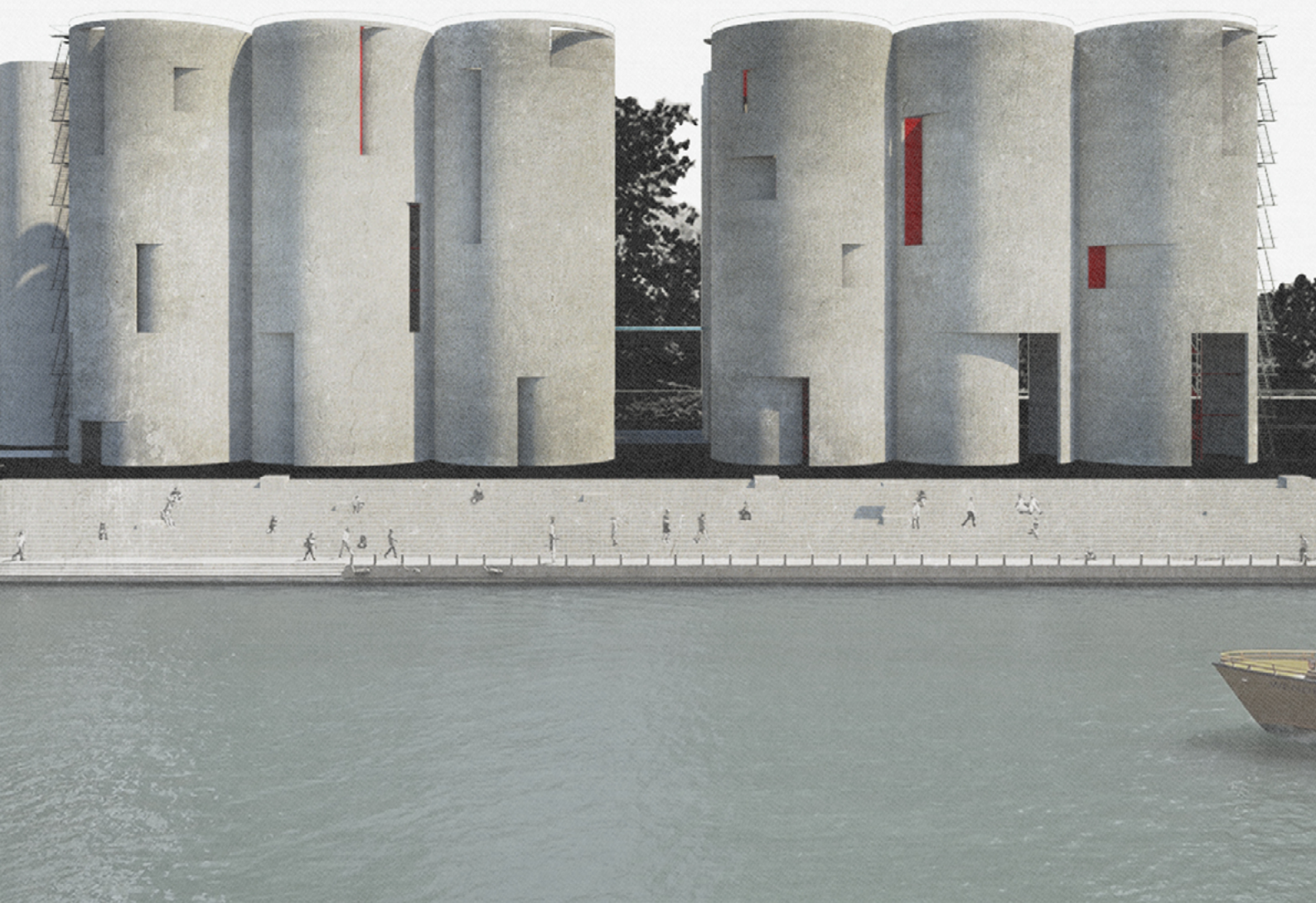


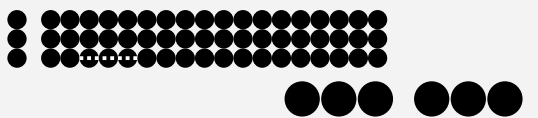




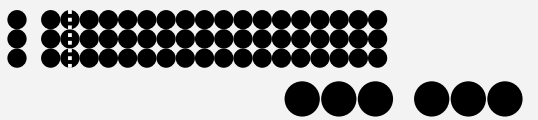


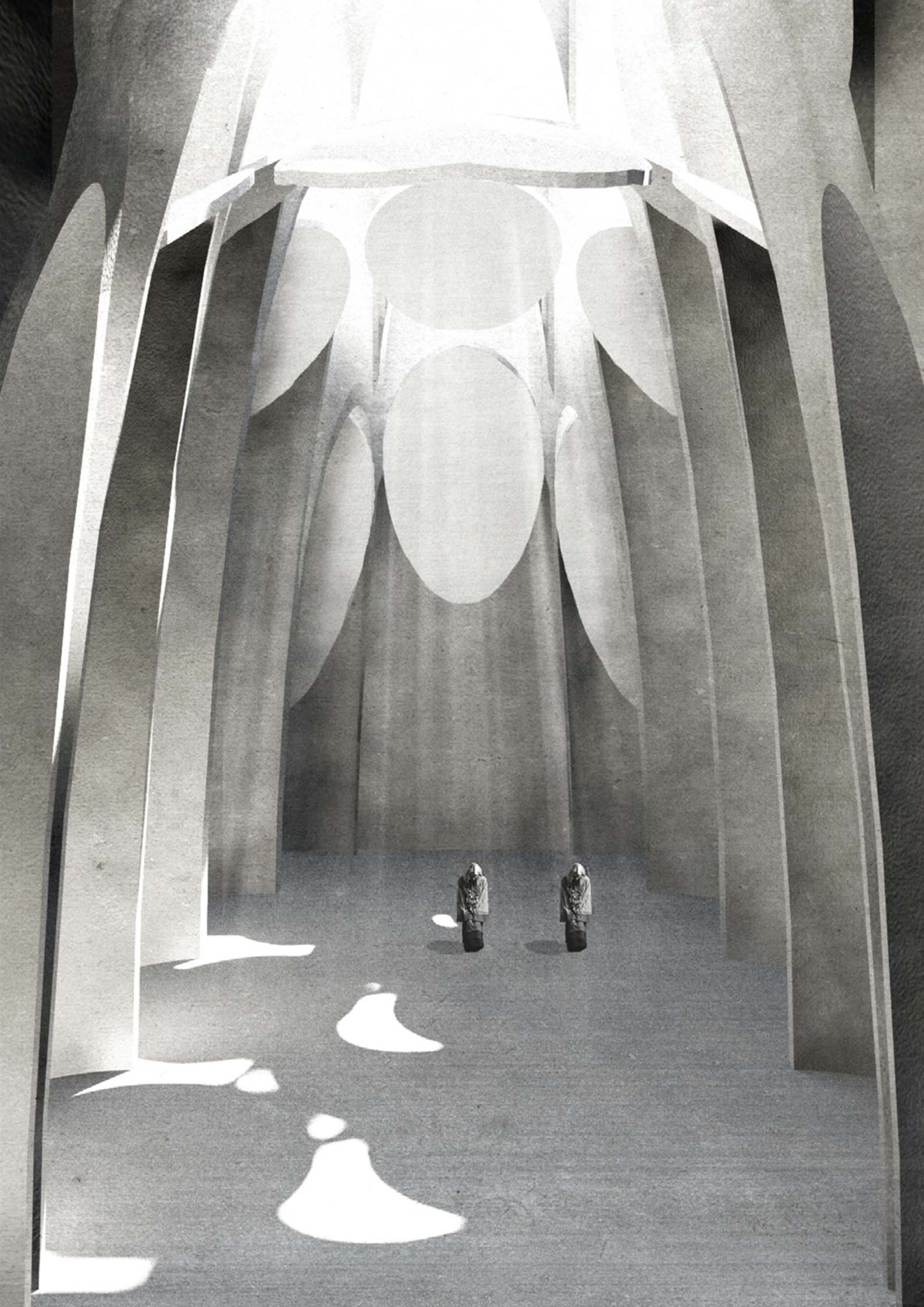




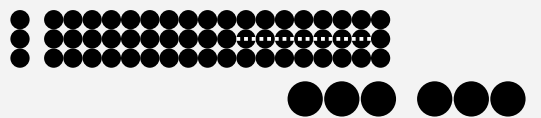


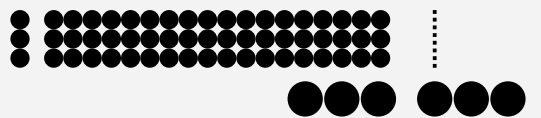


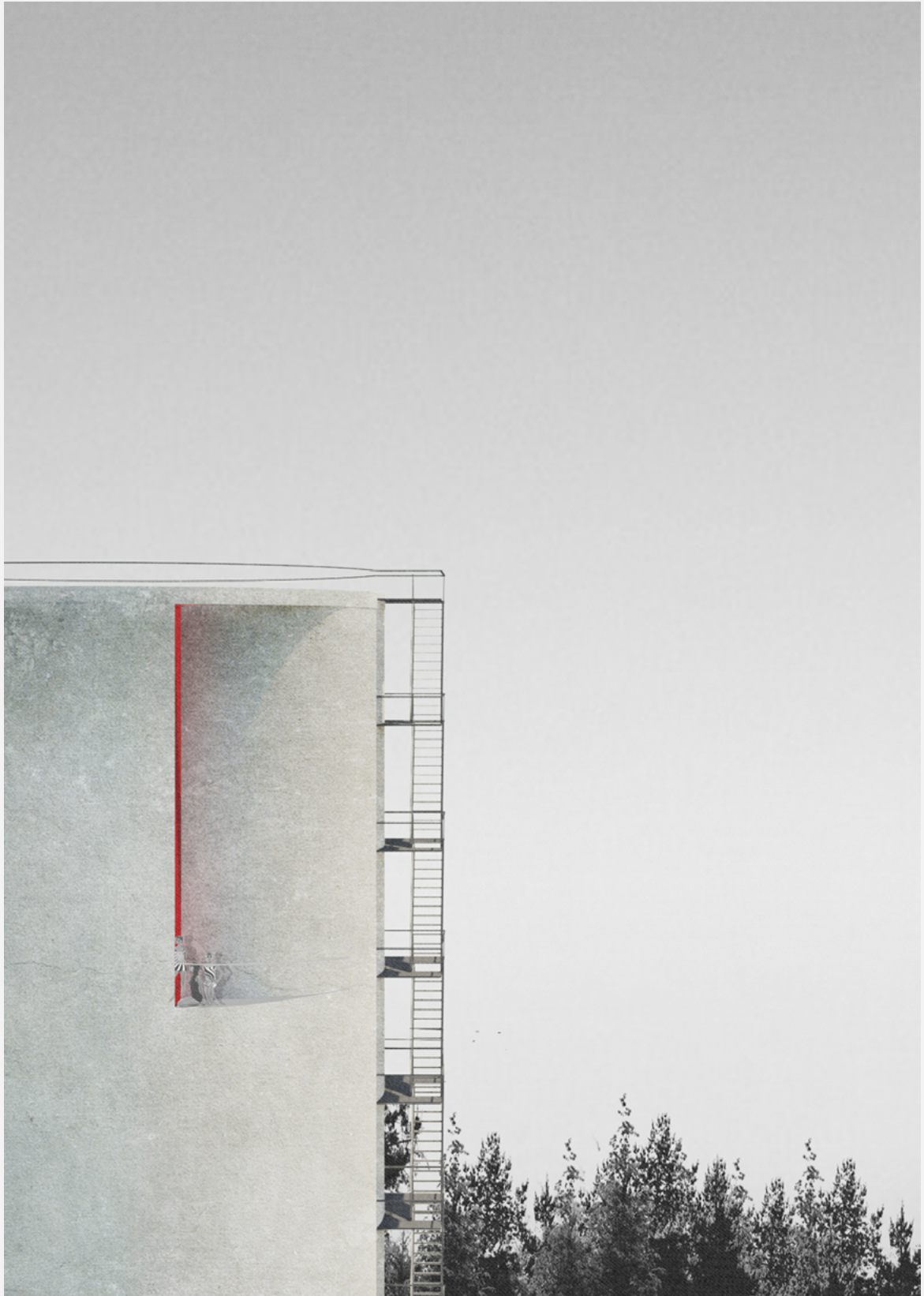


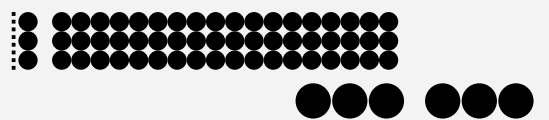
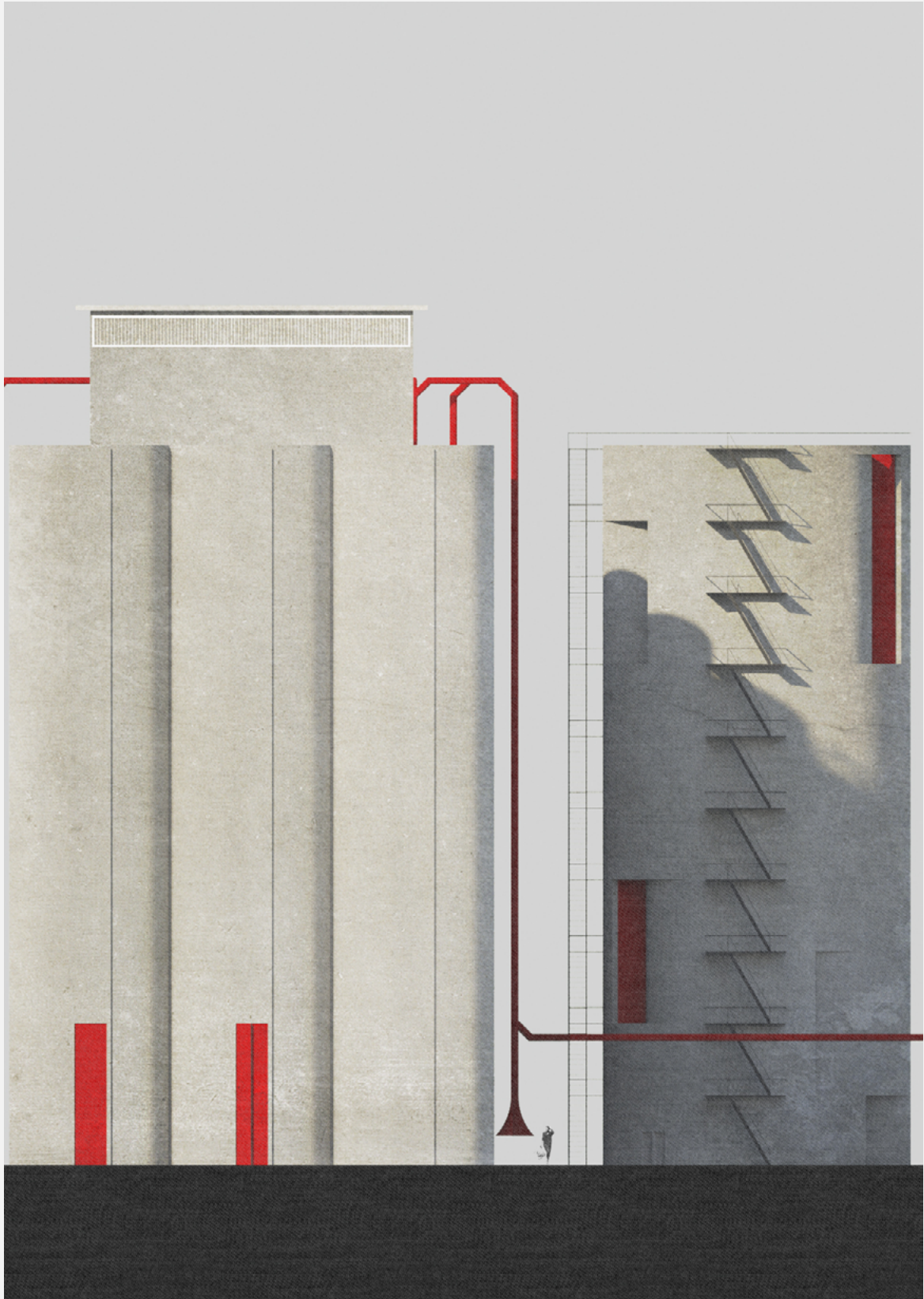


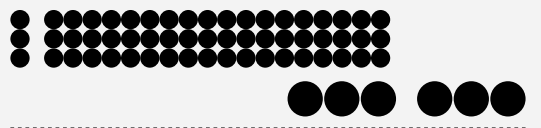








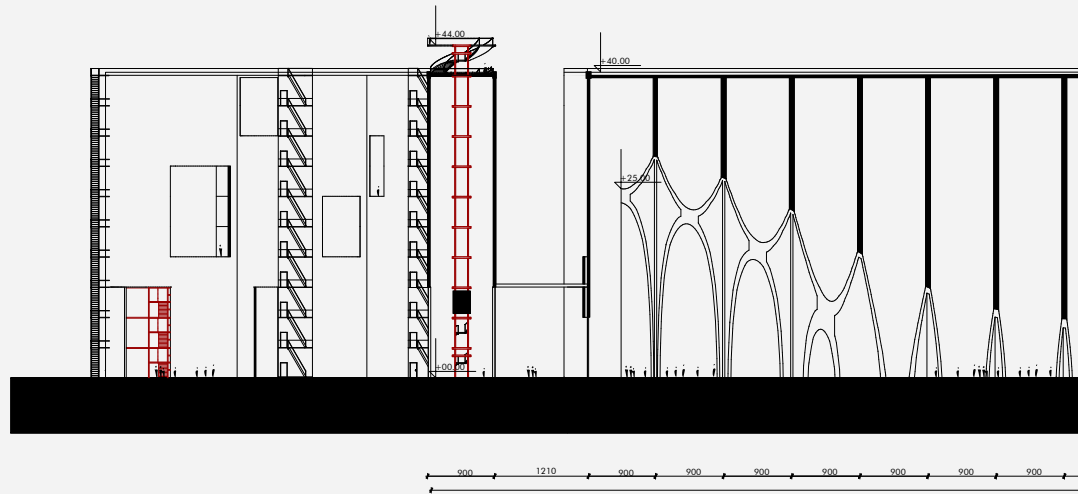


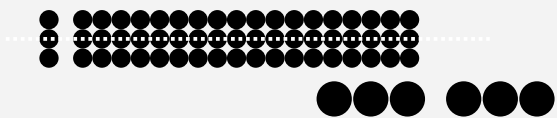
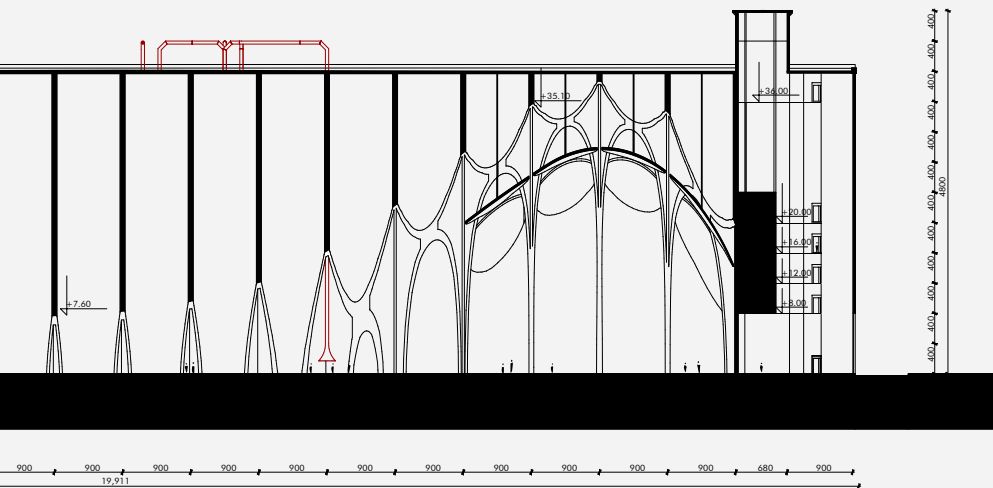


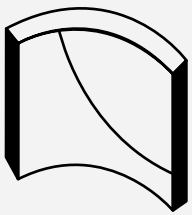
Technical drawings

Sections (1:700; 1:500)

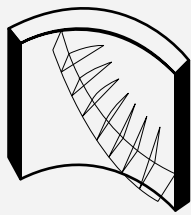
Floor Plans (R !:700)



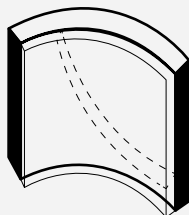




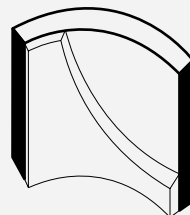
1. Drawing the shape



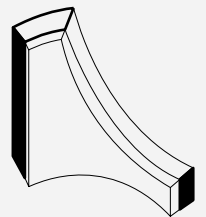
2. Building the mold for concrete



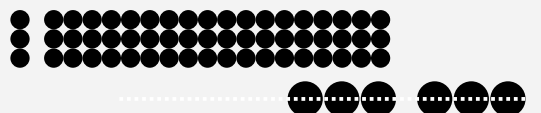
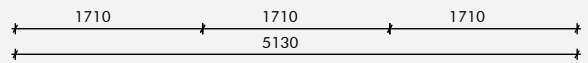
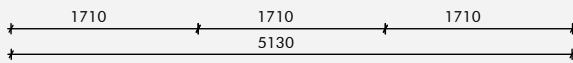
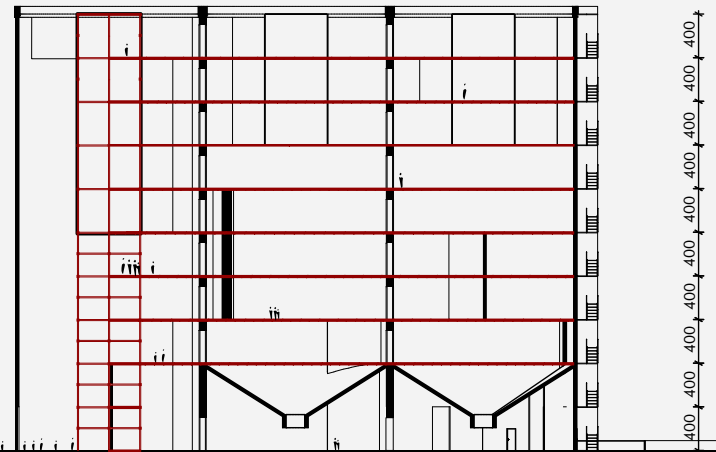
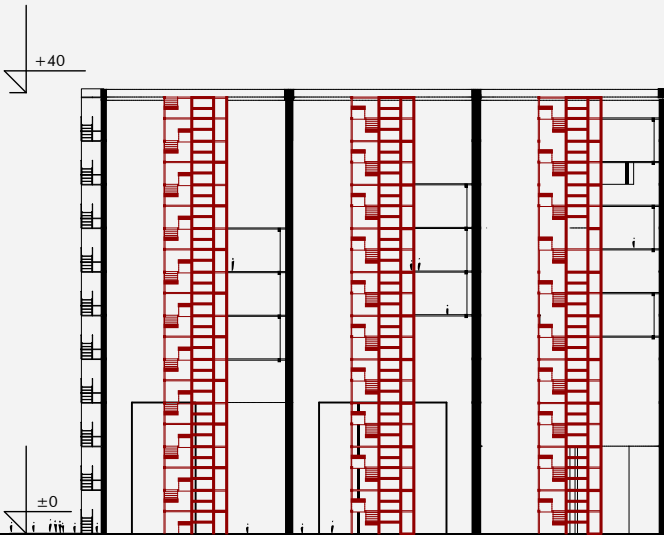
3. Second part of wooden mold

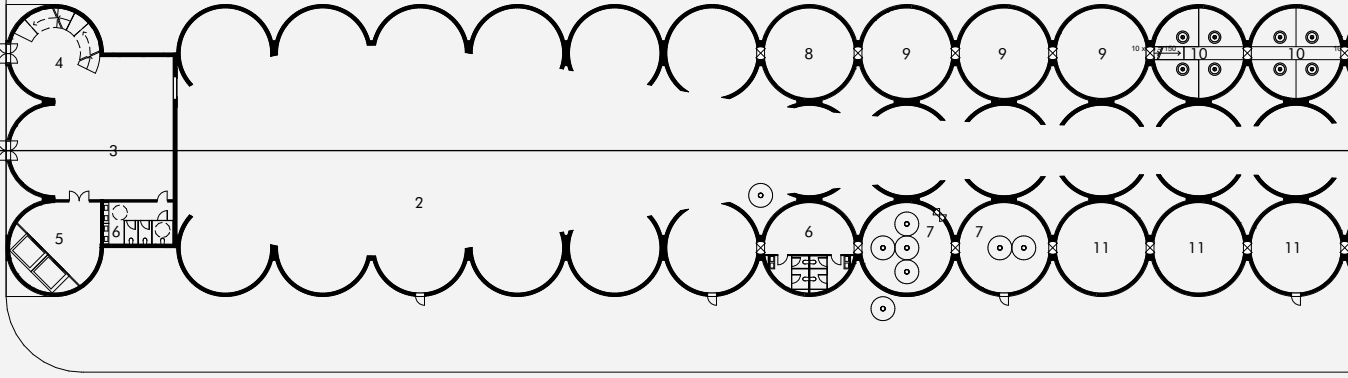
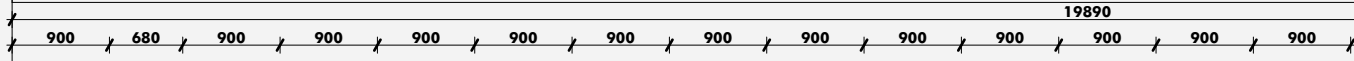
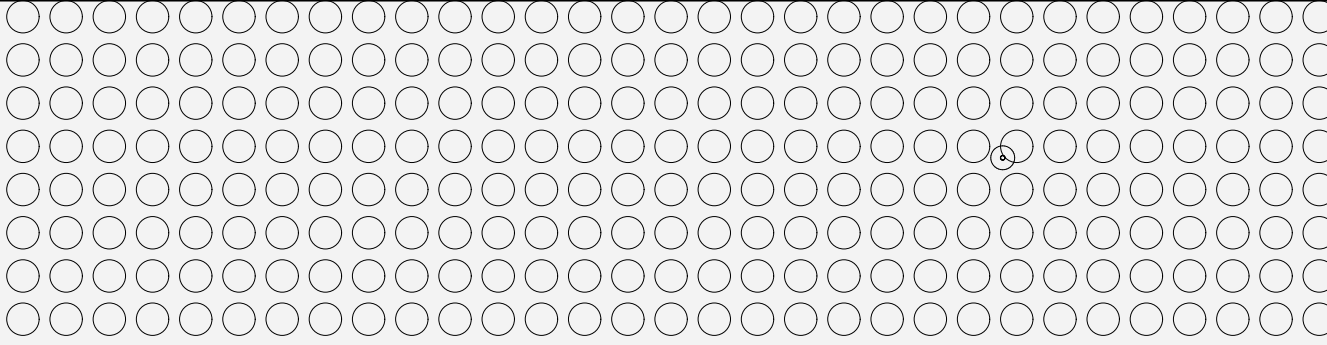


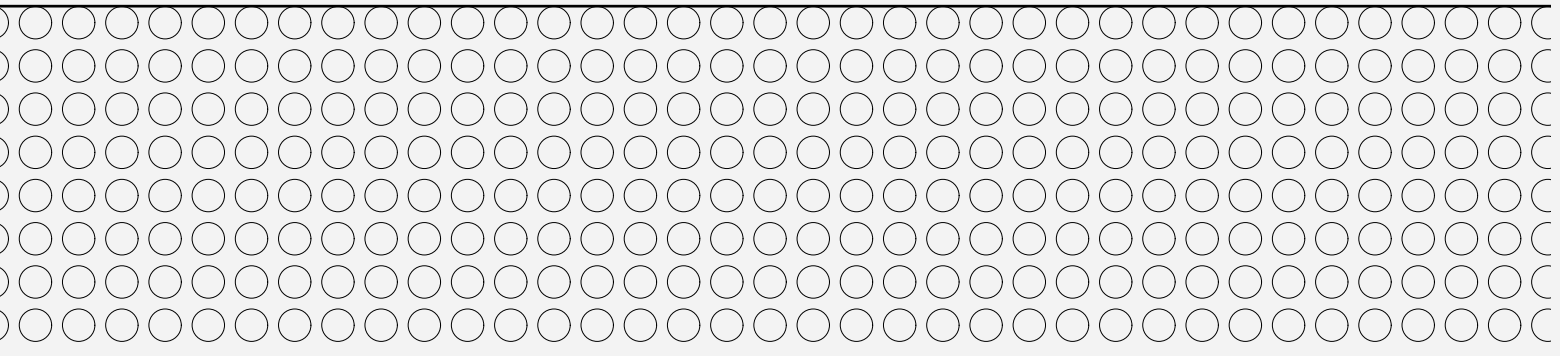
4. Concrete support



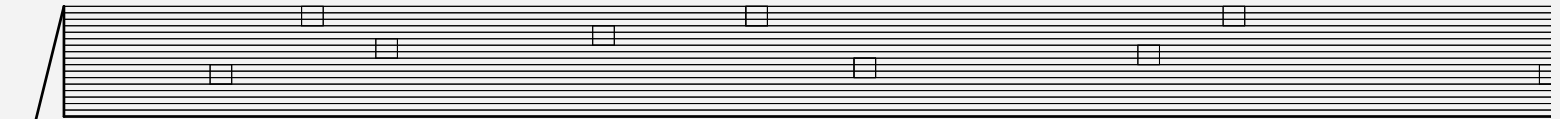
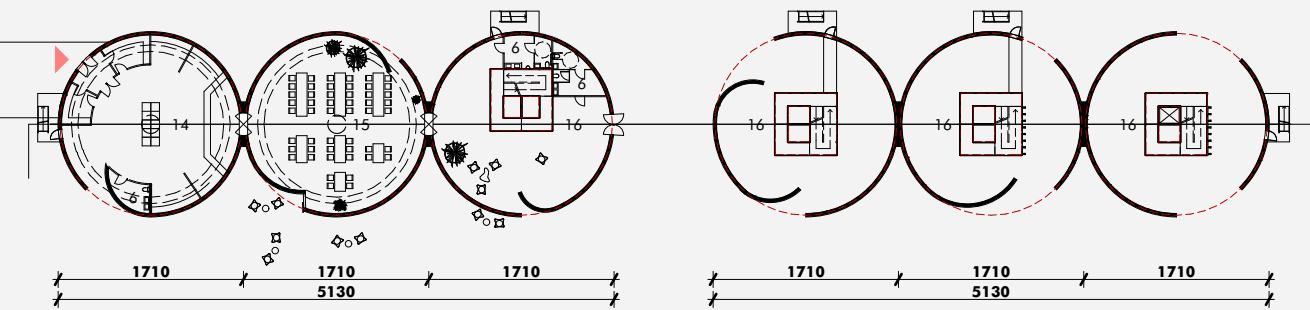
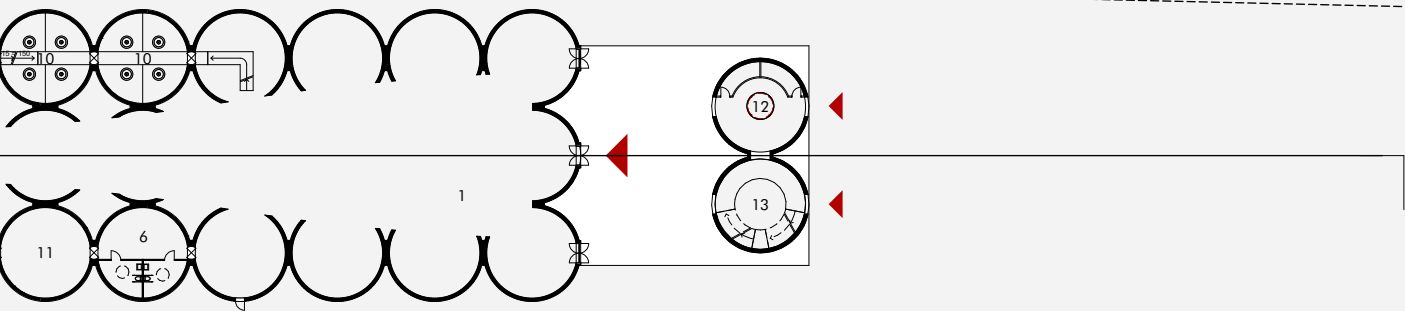
5. cutting the silo





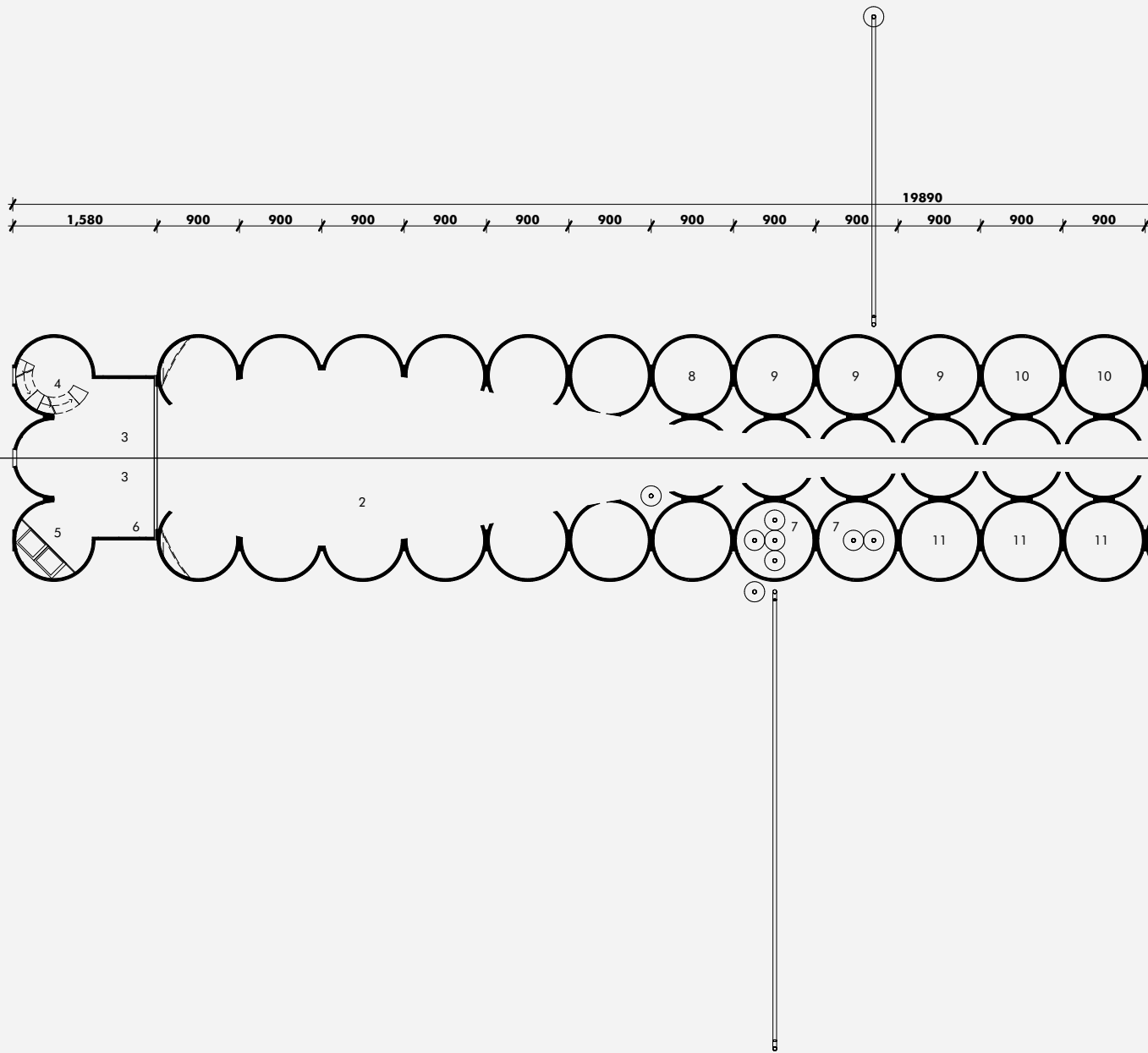


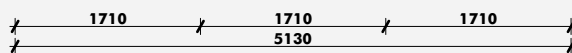
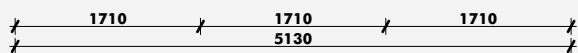
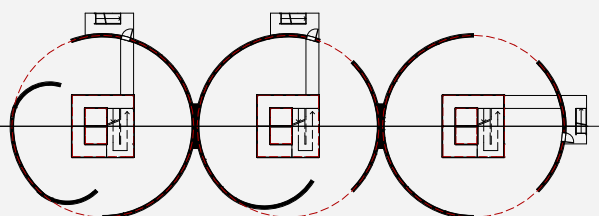
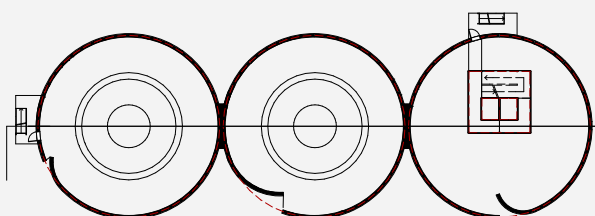
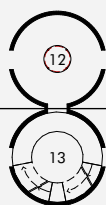
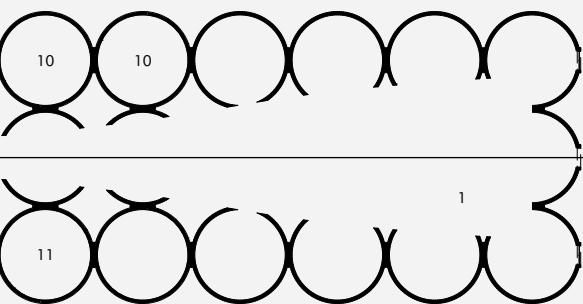
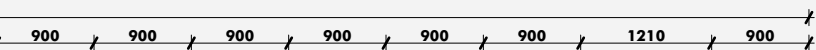
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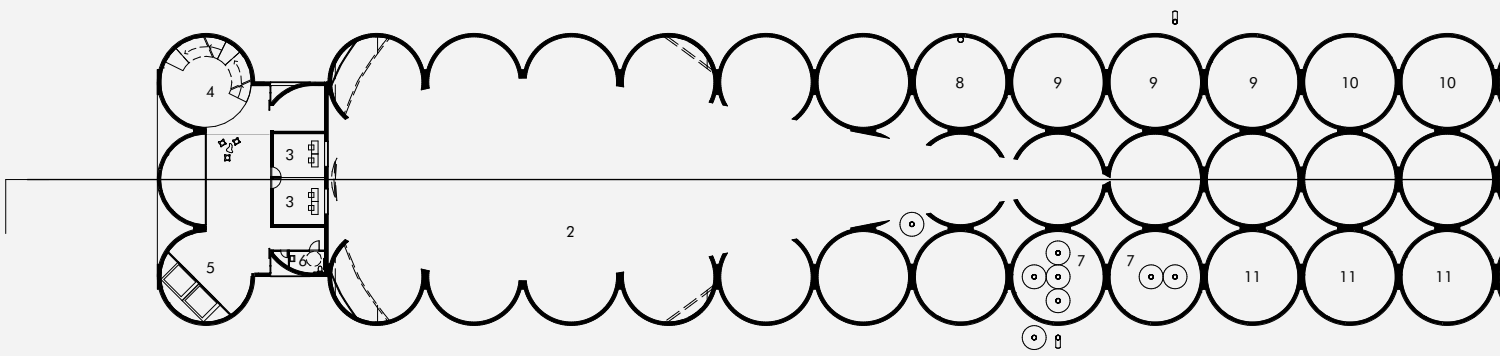
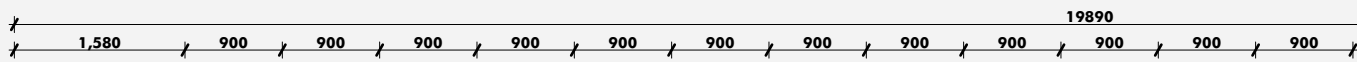
- 1 entrance area
- 2 main area (concert, performance area)
- 3 instruments storage back entrance
- 4 communication
- 5 elevators
- 6 foietes
- 7 sound chatcher chamber
- 8 visual chamber: ruben tube
- 9 visual chamber: water cymatics
- 10 visual chamber: sand cymatics
- 11 temporry instalations
- 12 cloakroom
- 13 ficket selling
- 14 kitchen
- 15 restaurant
- 16 foyer
- ◀ main entrance
- ◀ back entrance

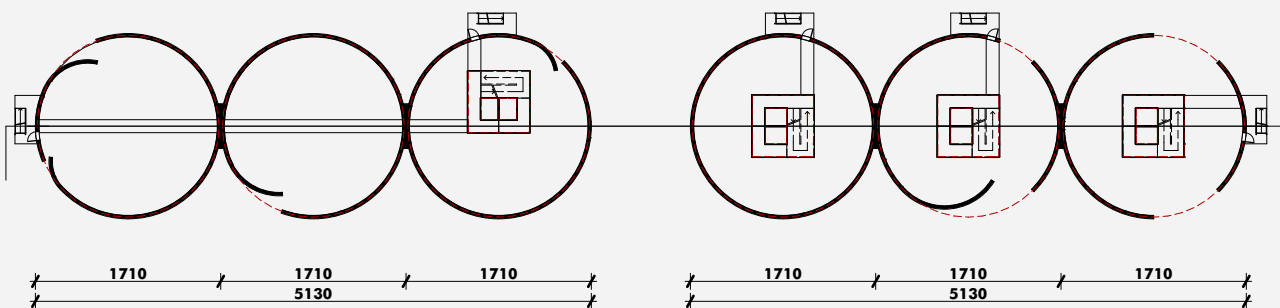
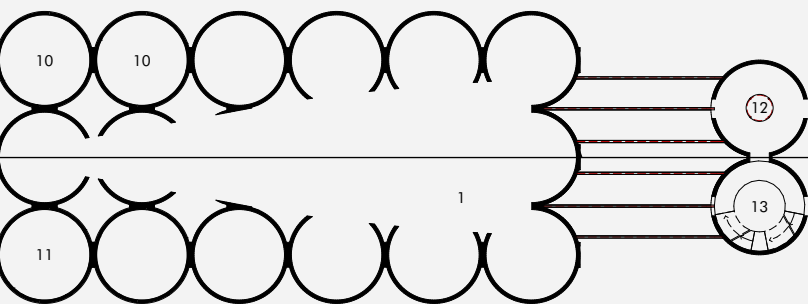
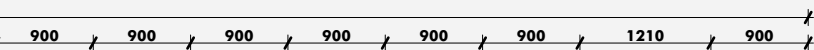




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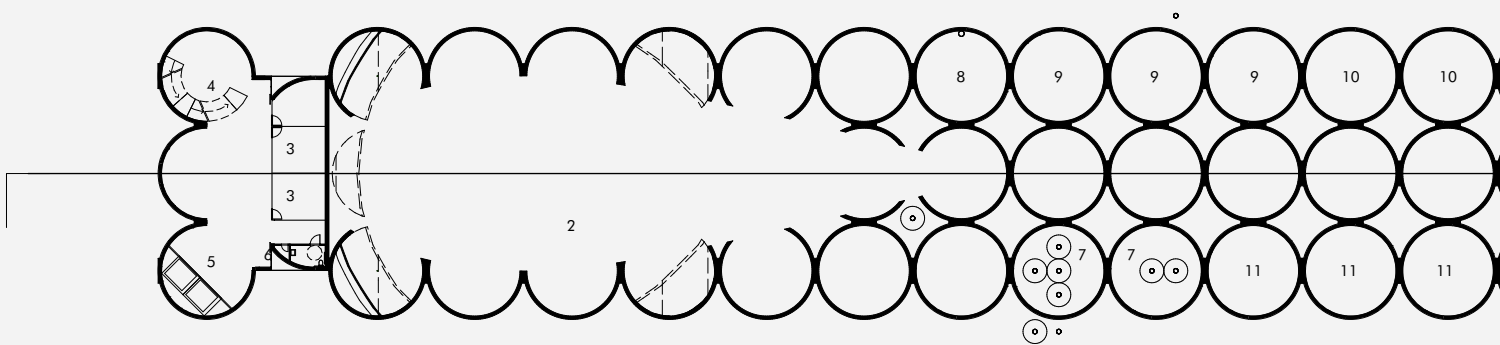
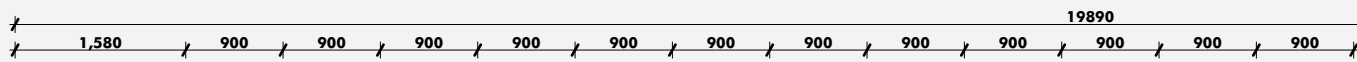
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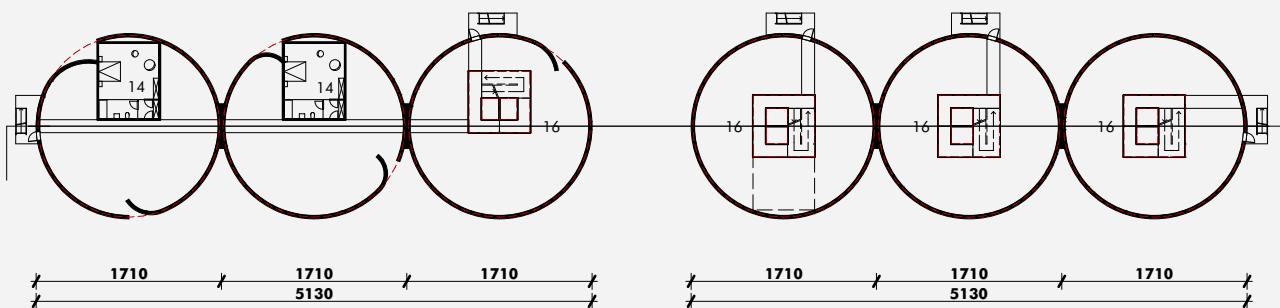
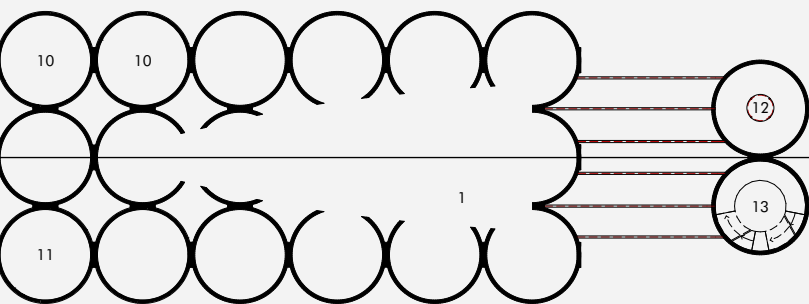
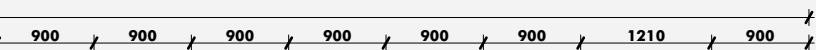




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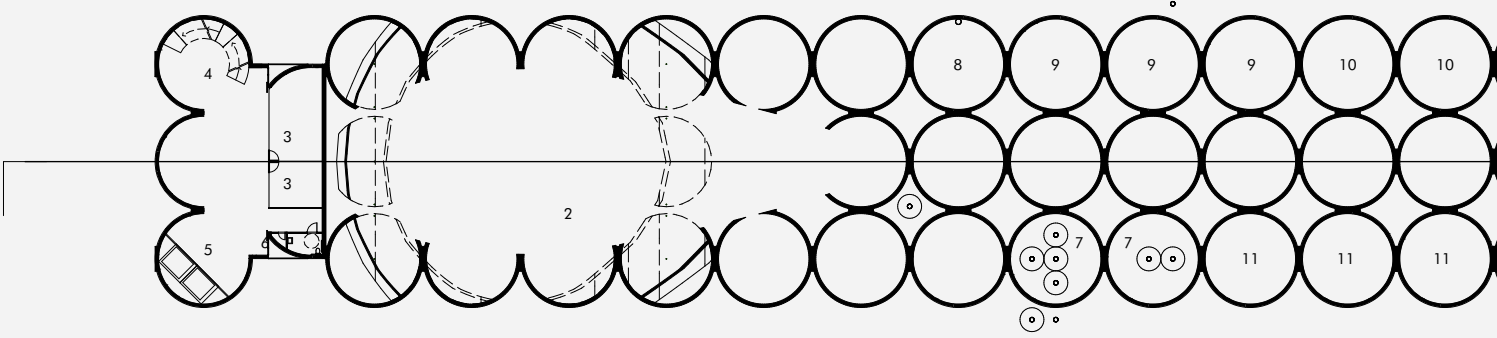
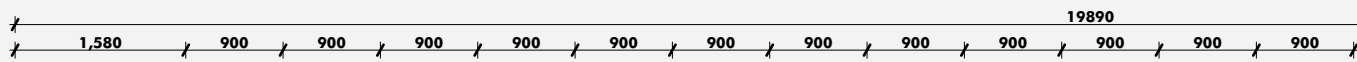
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- 3 control room
- 4 comunication
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- 12 cloakroom
- 13 ticket selling

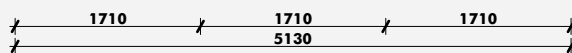
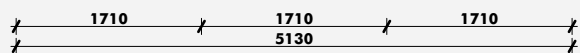
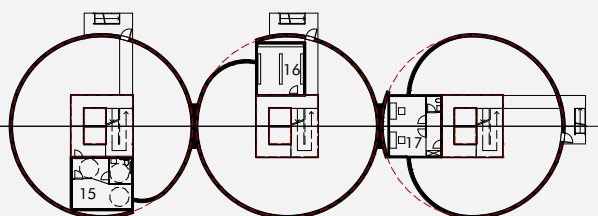
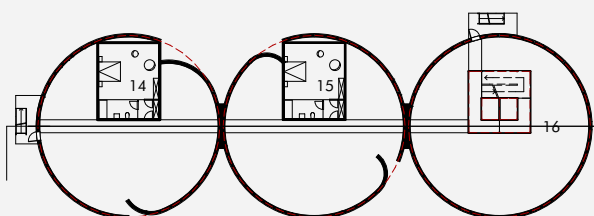
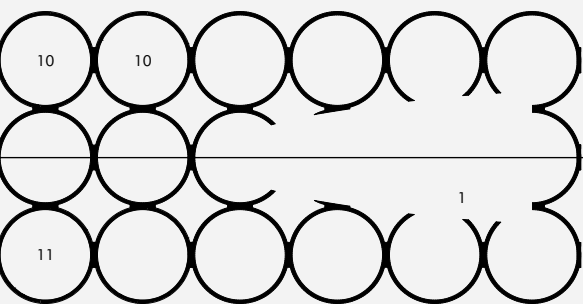
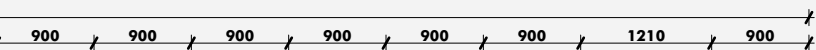




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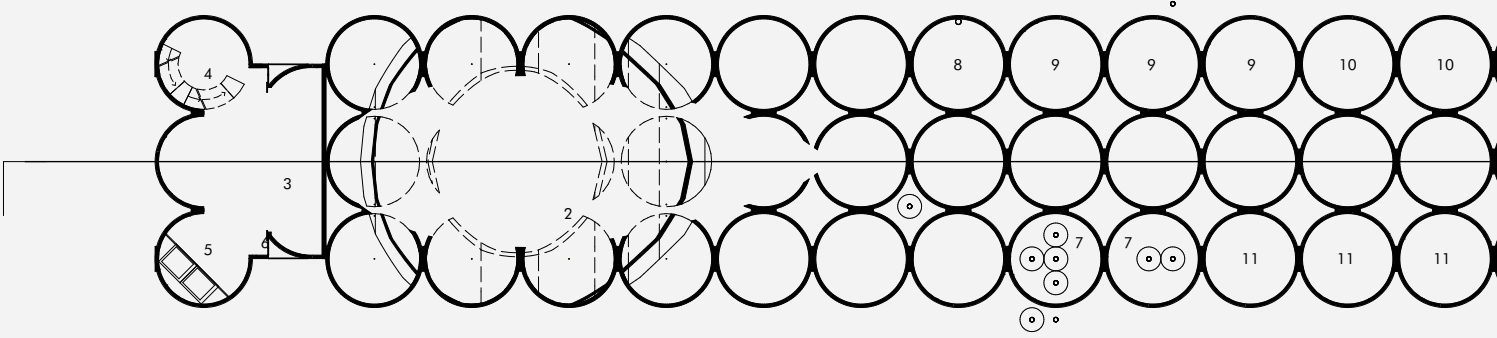
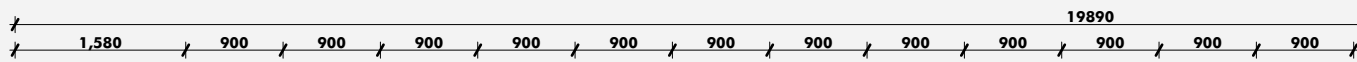
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- 2 main area (concert, performance area)
- 3 rehearsal room
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- 12 cloakroom
- 13 ticket selling
- 14 studio room
- 16 foyer

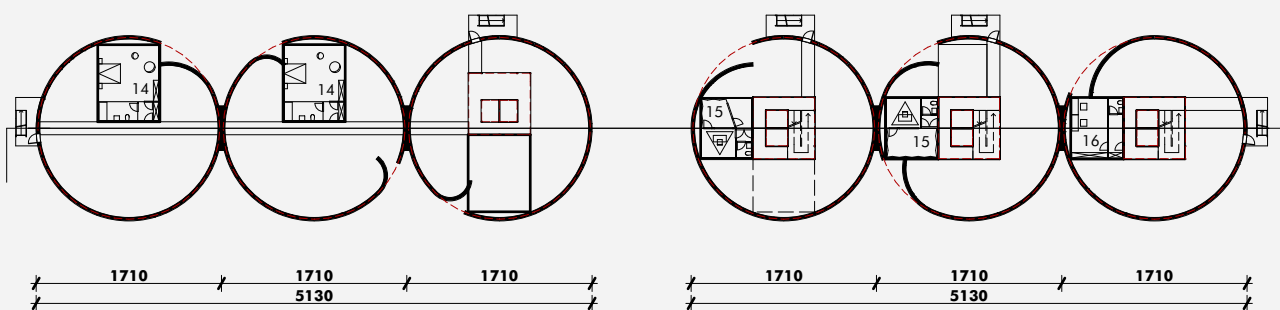
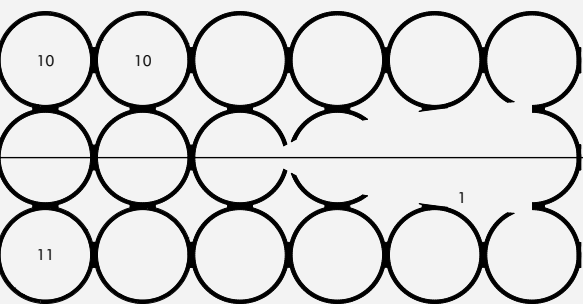
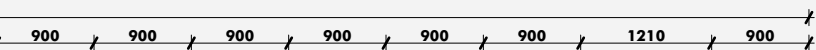




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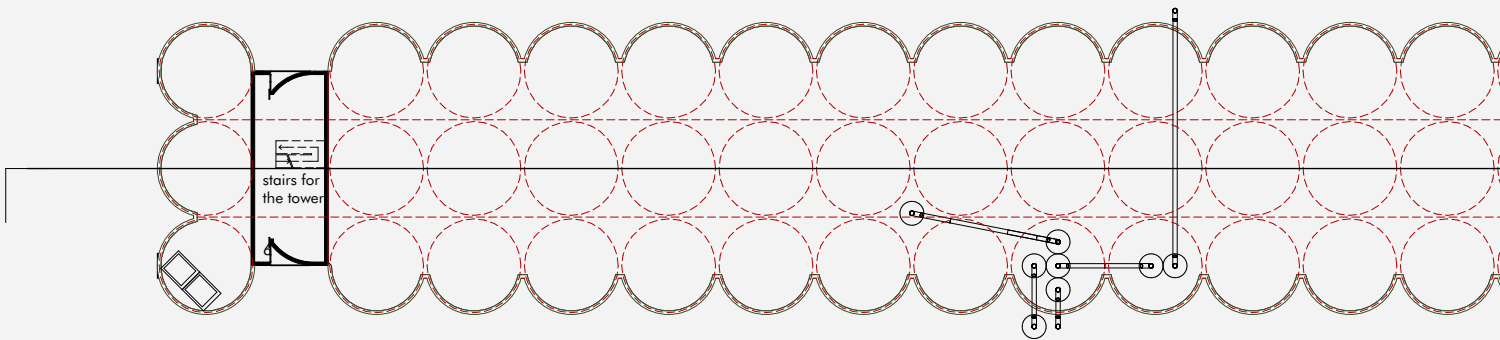
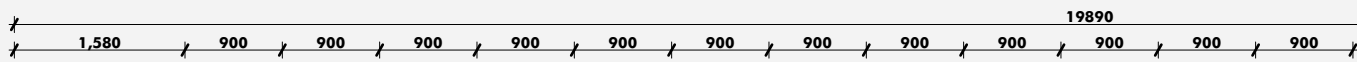
- 1 entrance area
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- 6 toilets
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- 9 visual chamber: water cymatics
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- 11 temporary instalations
- 12 cloakroom
- 13 ticket selling
- 14 studio room
- 15 recording studio
- 16 archive
- 17 offices

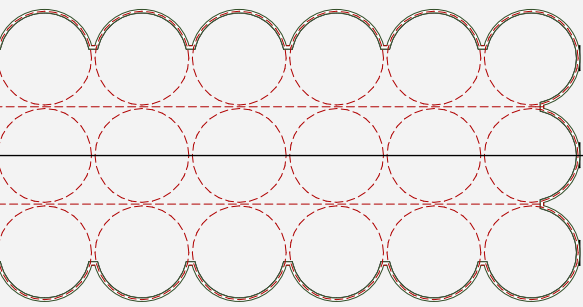
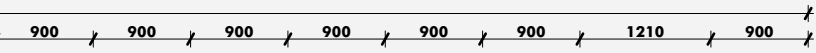




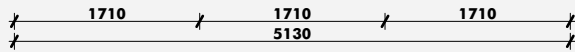
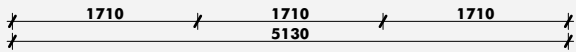
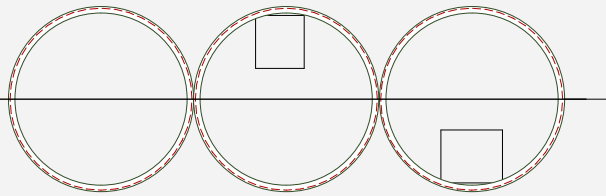
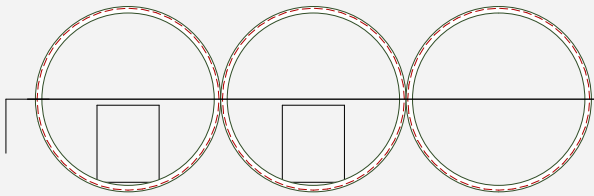
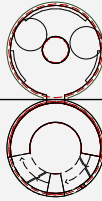
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roof garden



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Emily Ann Thompson "The Soundscape of Modernity"

Jan Gehl "Cities for people"

John H. Lienhard "No. 978: Grain Elevators"

Le Corbusier "Toward an Architecture."

Reichen et Robert & Associés "Nantes- Bas Chantenay diagnostic stratégique/pré-atlas"

Simona Sadler "The situationalist city:

Website :

<http://www.patrimoine.paysdelaloire.fr/accueil/>

<https://www.nantesmetropole.fr/>

<http://nigelstanford.com/Cymatics/?s=youtube&p=Cytext>

Czech Technical University in Prague, Faculty of Architecture

2/ ASSIGNMENT of the diploma project

Mgr. program navazující

Name and Surname: Simona Popadić

Date of Birth: 04.08.1993

Academic Year / Semester: winter 2017/2018

Department Numer / Name: 151 20

Diploma Project Tutor: Vladimír Sitta

Diploma Project Theme: Sodistock silo - Rehabilitation and redesign

Assignment of the Diploma Project:

1/description of the project assignment and the expected solution objective

2/description of the final result, outputs and elaboration scales

3/list of further agreed-upon parts of the project (model)

To this list further attachments can be added according to necessity.

1/ In the situation of serious difficulty and disorientation, need for metamorphose of particular sequences and objects is crucial.

Nantes a metropolis that lays on the banks of river Loire in France. **Bas-Chantenay** is Located west of the town, below the hill of Sainte-Anne, this industrial meadow is structured by major East-West roads (Boulevard Cardiff, boulevard Maréchal Juin, rue des factories) and railways and contains large industrial and port facilities. We can cross very quickly Bas-Chantenay by using these axes of fast traffic without realizing the wealth of the territory. At the bare end stands a Silo almost as an mountain that guides the area. It dominated quickly the space and it's visible from all around because of its grotesque baton brut look. I found it as an attractive potential landmark of the new era of a City founded on its industrial leftovers. A Monument that writes history and continues new future, new use and development of human race.

How can we imagine changes while keeping the character and the spirit of the place? How can we transform such a heritage and still keep the history?

2/ The study will begin with the description of the spatial singularity of Bas-Chantenay, the boundaries and obstacles that need to be solved and identification of landmark points. The main part of a project will be an Architectural design of a Silo suited in the western part of Bas-Chantenay. It will be a practice of redesign and revitalization.

The most convenient scales would be 1:200, and situation scale of 1:500.

To conclude the main idea :

"Layering of urban history could be made manifest, rather than suppressed."

Peter Smithson

Date and Signature of the Student 01.10.2017 *Muhammad Kholil*

Date and Signature of the Diploma Project Tutor *[Signature]*

Date and Signature of the Dean of FA CTU
27 -10- 2017

[Signature]

Light transmission and sound were one of the most interesting and unique experiences it can offer. The shadows that are bathing curved concert walls and slowly despairing until the ground, and the sound is so loud and full of echo just like in caves. This experience become main factor in creating the concept of the project.

