# PLASTIC ~~FANTASTIC~~ PLAUSIBLE!

FHK
MA+U

GRAD
LOGBOOK

# Ocean Plastics

# 1

# 1

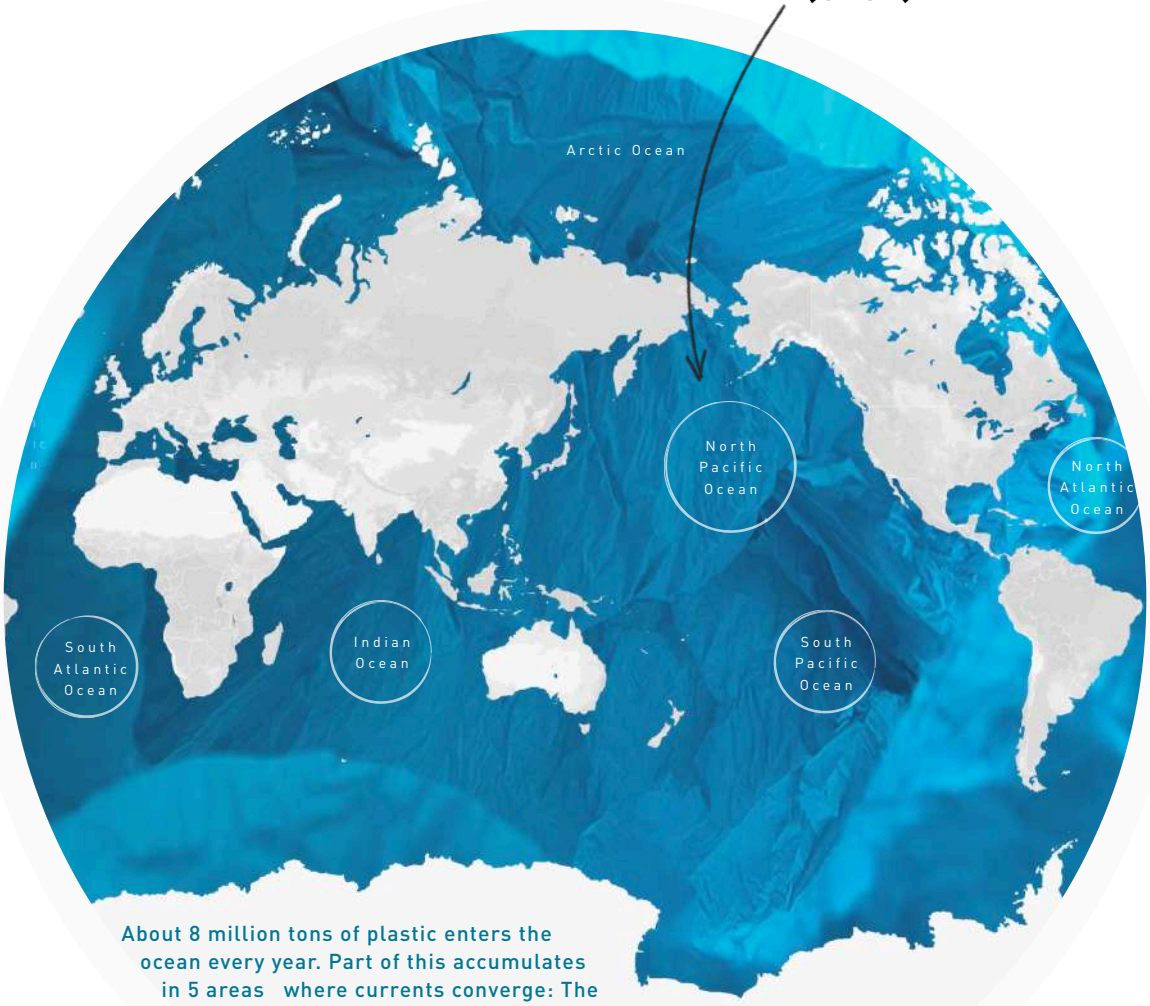
**Life Magazine, 1955, celebrating Throwaway Living**

2

**Seahorse latching on plastic cotton swab, 2017, Justin Hofman.**

## Plasic Consumption

Just over a century ago the first plastics made from fossil fuels
became available. They came into widespread use after World War II and are found today in everything from buildings to cars to food wrappers. Their useful lifetime varies. Once disposed of, they break down into smaller fragments that linger for centuries.




About 8 million tons of plastic enters the ocean every year. Part of this accumulates in 5 areas where currents converge: The gyres. At the least 5.25 trillion pieces of plastic are currently in the oceans, a third of which is concentrated in the infamous Great Pacific Garbage Patch.pieces of plastic currently in the oceans, a third of which is super concentrated in the infamous GPGP.

# Plasic soup

There are five large rotating sea currents in the world, these are called 'gyres'. These giant rotating currents accumulate plastic waste by the rotational force that slowly 'sucks' the plastic waste to it's center core. The assumption that these accumulated cores are giant floating islands of plastic are very false. Although not as visible as one may assume, the problem is not less dramatic, in-fact in many aspects it makes the problem harder to identify and even more difficult to solve.

Part of this issue is that plastic does not dissolve, but slowly disintegrates due to sunlight, oxygen and the movement of the oceans. In this process, large plastic elements that we can identified slowly break down into smaller pieces and continue to break down to the point that we cannot see it with our own eyes, these units are called microplastics. The process of fragmentation doesn't impact the amount of plastic in the ocean but it changes the composition of the plastics.

The process of continuing fragmentation causes major environmental problems; they are impossible to remove and are infiltrating systems and living organisms  more and more.
For stake of this research i will focus on the fragments that can be collected, and search for possible building applications.

## *Ocean plastics as a resource?*

# Throwaway plastics

Plastic is a reflection of the throwaway/ disposable society that took wind after the second world war. More and more traditional products are being replaced with plastics. Products made from polyethylene plastics are often stronger and lighter than products of glass of ceramics, with a modern design and funky colors, these new products made their way into every day households.

Our society surrounds itself with plastic products, never before in history have so many products been affordable for such a low cost. Plastic is has made mass production possible on a new scale. Due to the low cost of plastic products people can afford to have it easily break of only be used once.

# Plasic Consumption

Global annual plastic consumption has now reached over 448 million (448.000.000 ) tonnes with more plastic produced in the last decade than ever before. A significant amount of the produced material serves an brief purpose and is rapidly converted into waste. A small portion may be recycled or incinerated while the majority will either be discarded into landfill or littered into natural environments, including the world's oceans. While the introduction of synthetic fibers in fishing and aquaculture gear represented an important technological advance, accidental and deliberate gear losses became a major source of ocean plastic pollution.

***Global plastic production over time (total)***

***Global annual plastic consumption has now reached over 448 million tonnes with more plastic produced in the last decade than ever before.***

The largest market for plastic today is for packaging materials. This category also accounts for nearly half of the plastic waste generated globally.
The useful lifespan for many of these products can be measured in minutes, whiles other applications can be much more sustainable. Especially in building and construction plastics have a vastly longer lifespan - up to 35 years.

## Throwaway plastics

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## Disposable dominance

since the eighties, the world production of plastic has increased by factor five to six. The fact that plastic often have a short lifespan plays a big factor in the increase of plastic production. This is especially applies to packegingmaterial and consumerproducts. These plastic packaging accounts for roughly 40 procent of the worlds production of plastics. Everyting that is produced from plastic becomes waste at a certain point. Plastic products that last a long time are a exception. The avrage lifecycle of cheap plastic products is short. many of these products are even designed to have a short lifecycle, encouraging a more rapid consumption of cimilair products.

## Wonder-material for mass consumption

Never before in history where so many products for dale for so little money. The majority of these products are from plastics. Consumers are flooded with products that they don't meed and whose lifetime is very short. Plastic is the wonder-material for the mass consumption.

The United Nations has calculated that between 22 and 43 precent of plastics used worldwide end up on landfills, which is a reasonably big waste of natural resources.

## Platic as building material

The materials in a building can generally be expected to last 30-50 years without change, but plastics itself can last much longer. Recyceling plastics in the building and construction sector minimises the fequency to recycle new products.
Plastic's flexibility, durability, light-weight and performance make it the sustainable choice for building and construction. Using these materials is essential if we are to reduce our impact on the earth. It is also essential if we are to achieve a more resource efficient, circular economy.

## Royal Dutch Shell

Shells conection to plastics is fundementilly rooted within the natural recources it mines. Oil and naterural gasses are the primairy raw materials used for manufacturing plactics.99% of platics produced are made from chemicals sources from fossil fuels. Because plastics production is part of the fossil fuels suppy chain, companies like Shell own plastic producing facilities. Even though most of the fossil fuels mined by shell is used for energy production and transportation, with the high demand of competitive clean energy solutions, Shell wil become more riliant on the production of plastics in the future.

## Throwaway plastics

The Ocean Cleanup is a Dutch non-profit organization set to developing and applying advanced technologies that rid the worlds oceans of floating plastic. The main idea behind The Ocean Cleanup is to let the ocean currents do the work. An installation of U-shaped screens channels floating plastic to a central point. This way plastic concentrates and can easily be extracted and shipped back to land.
The Ocean Cleanup initiative has deployed it's first full-scale cleanup system on September 8th 2018. The Ocean Cleanup anticipates that the first plastic will be collected and returned to land within 6 months after. This marks the first time that ocean plastic will have been successfully collected at sea. After returning the plastics to land, it can be recycled and redesigned.

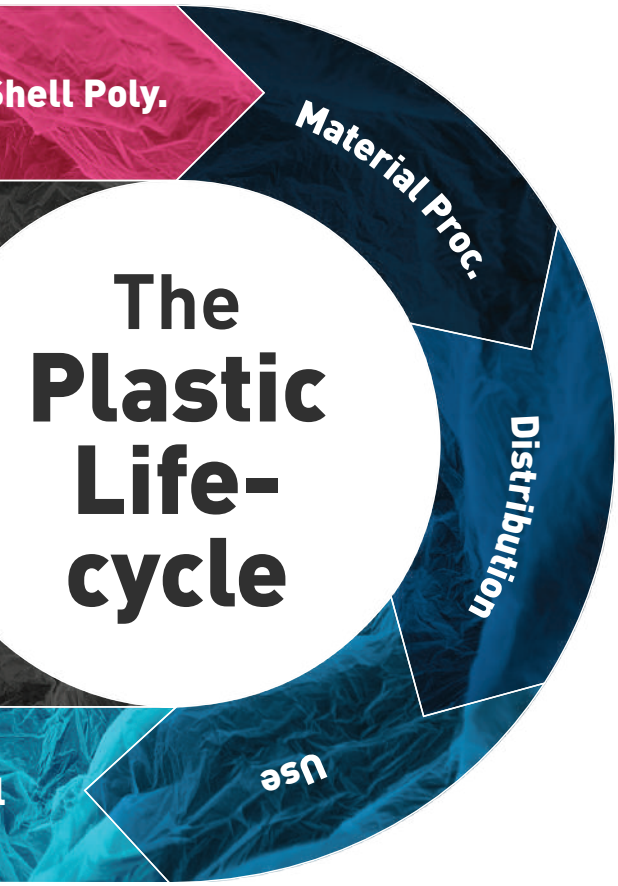
## Shell Chemical / Polymere

The plastics production process often begins by treatin
process." This process results in the conversion of th
as ethylene and propylene. Further processing leads
chloride, ethylene glycol, terephthalic acid and many
into chains called polymers. The different combinatio
properties and characteristics

## Use & Disposal

Plastic has become a major part of our society due to
versatility allows is to be used in everything from buil
they are stored in. So how is it that plastics have be
dominating material for so many varied applications?
at economical costs. Plastics have the unique capabili

g components of crude oil or natural gas in a "cracking
hese components into hydrocarbon monzomers such
to a wider range of monomers such as styrene, vinyl
others. These monomers are then chemically bonded
ons of monomers yield plastics with a wide range of




how dependent we are on it in day to day life. Plastics
dings, car parts ,soft drink bottles to the refrigerators
ecome so widely used? How did plastics become the
Plastics provide the things consumers want and need
ty to be molded to most needs that society has today.

## Material Processing

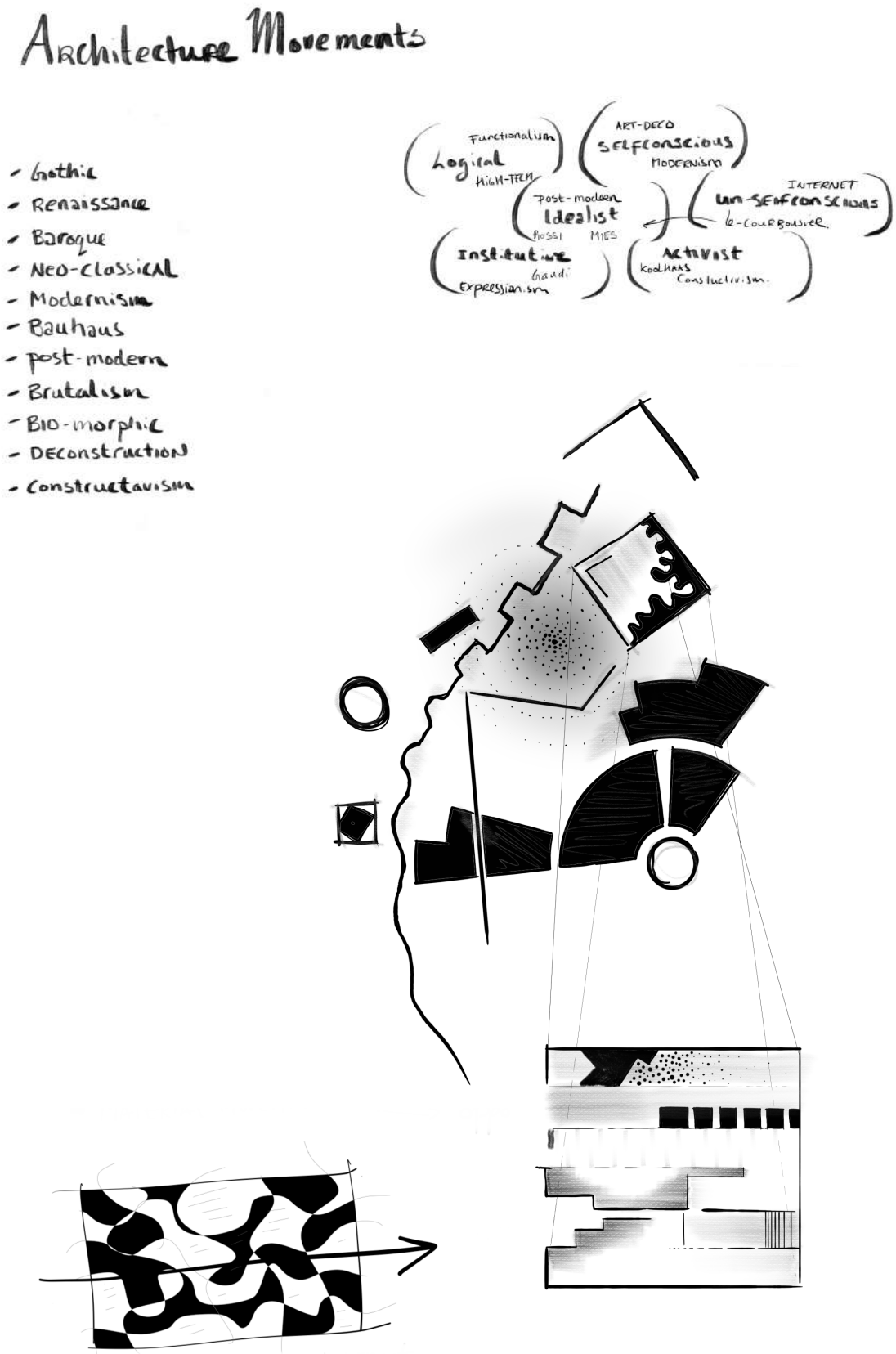
There are several different processing methods used to make plastic products. There are four main methods in which plastics are processed to form the products that we use and build with, such as plastic bottles to facade cladding to piping and food wrappers. All methods start with pallets produced in the polimirization process.
Extrusion: In this process the pallets are fed into an extruder, which is a long heated chamber, in which the raw plastic is forced. By melting the material and pressing it through a small opening at the end, it results in a shape of the finished product. These methods are used for producing window frames
Injection: In this process the pallets are melted down to a liquid state. The resin is then forced into a cooled, closed mold. After cooling to a solid state the product is formed.
Rotational Molding: In these molds are mounted on two moving axes. The molds are filled with pallets and melted down to a liquid by heating the mold. By rotating the mold a uniform coating is formed after cooling the product is done.

## Distribution

When the plastic product is not the end product itself, distribution takes a detour to a factory that uses the plastic product to serve the initial product, food and household products are clear examples. After this step the plastic products are available for consumers.

# Logbook

# Sketches & notes



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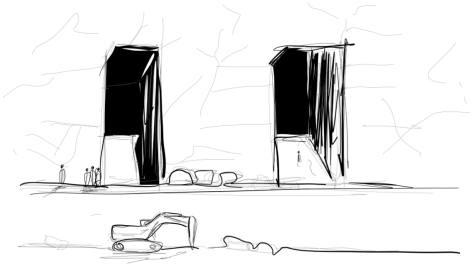
# Sketches & notes

## * Materiality as a Narrative

ARCHITECTURAL APPROACHES TO MATERIALITY

- PROCESS
- AGGREGATION
- PATTERNING
- GEOMETRY
- TECTONICS

MATERIALITY AS A NERRATIVE



marble quarry
defined by the material, as "Architecture" involved.

How do we engage the physical?!

- PROCESS
- Aggregation
- pattearning
- Geometry
- Tectonics

} 5 ARCHITECTURAL APPROACHES to MATERIALITY.

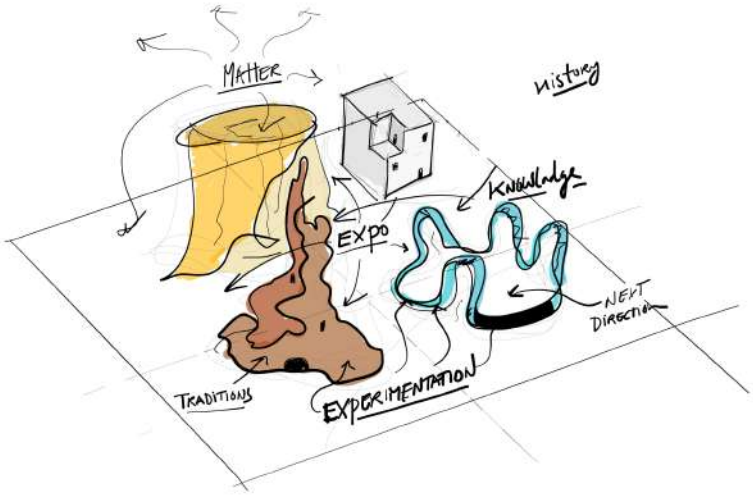
## * Themes

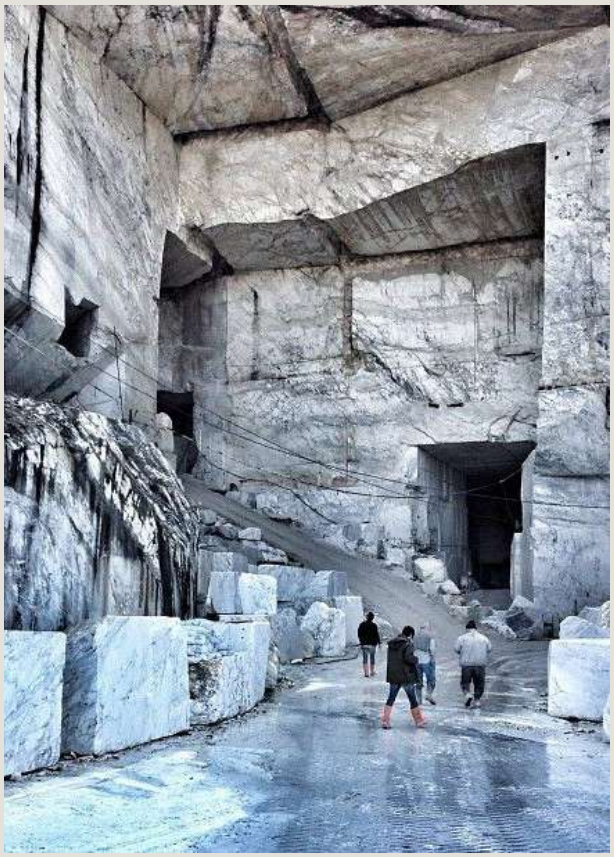
"Each material has it's specific caracteeistics which we must understand if we want to use it. This is as less true for steel and concrete"

Material themes:

- PROCESS - posibilities
- Manipulation
- properties
- performance
- Transformation
- Natural processes
- Material application
- Synthesis
- Inovation & fabrication
- premise
- Material space
- Tectonics

Expo





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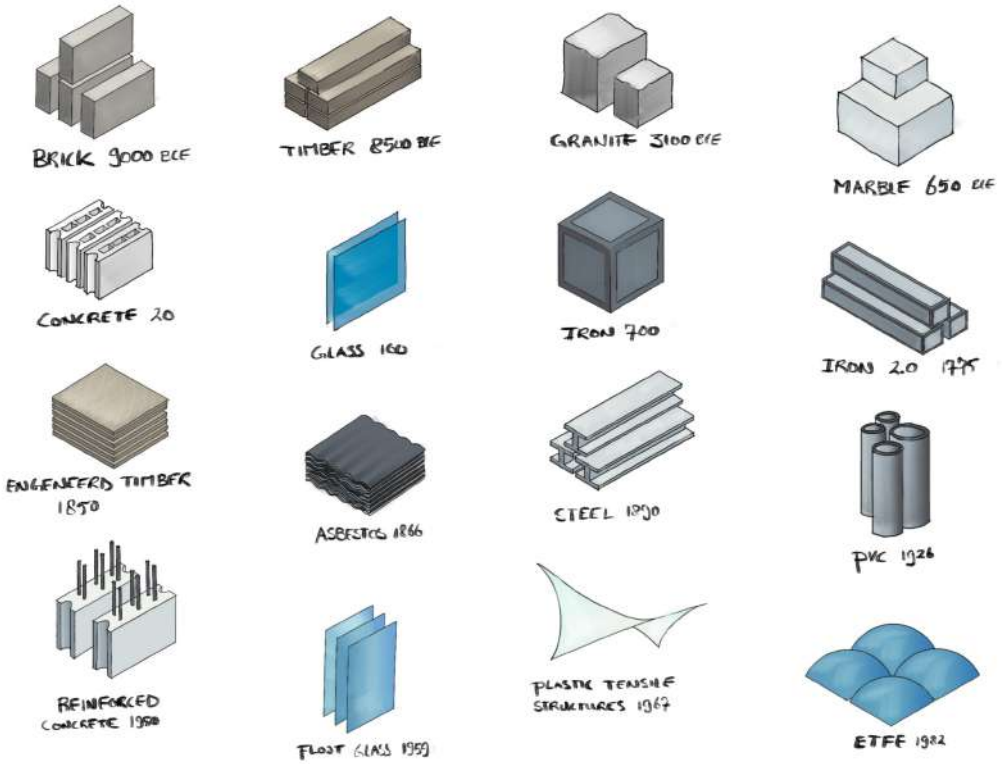


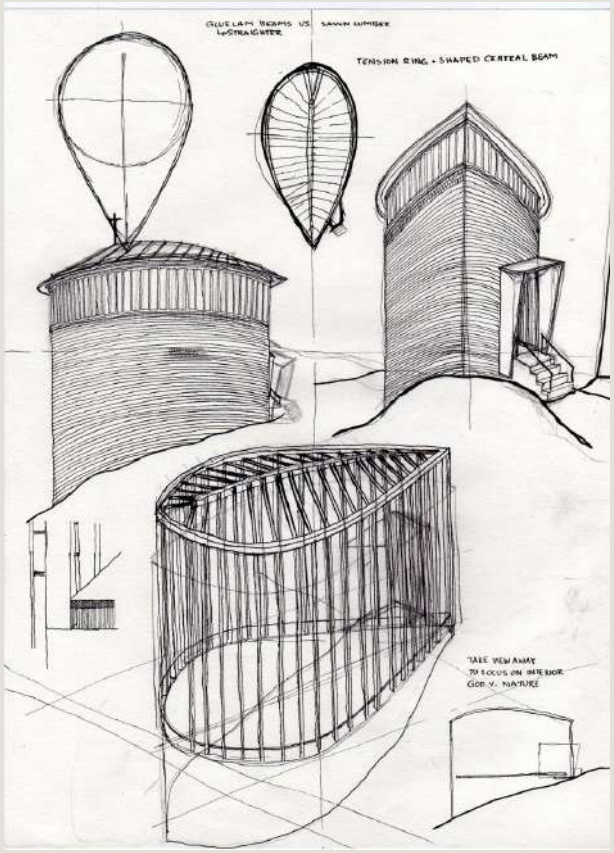
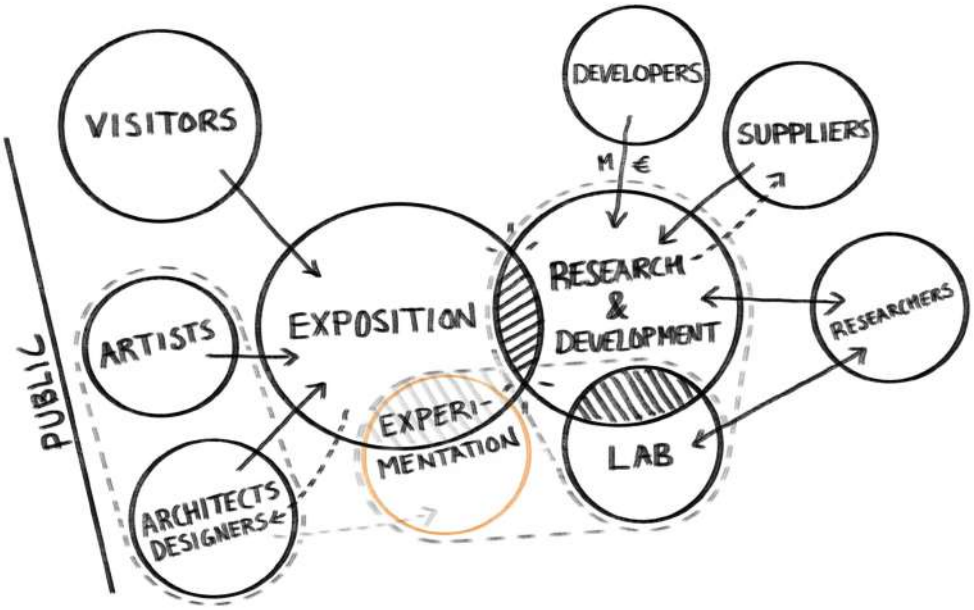
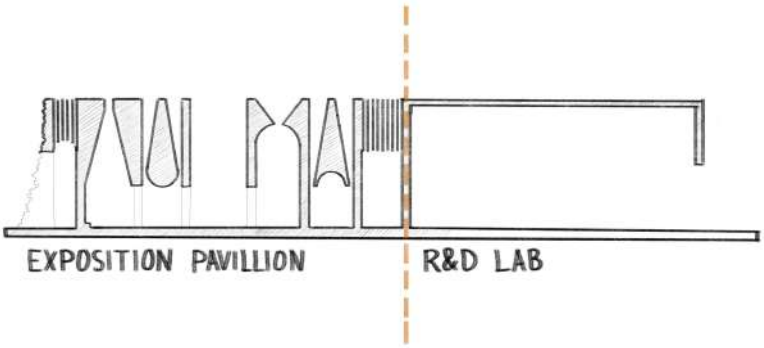
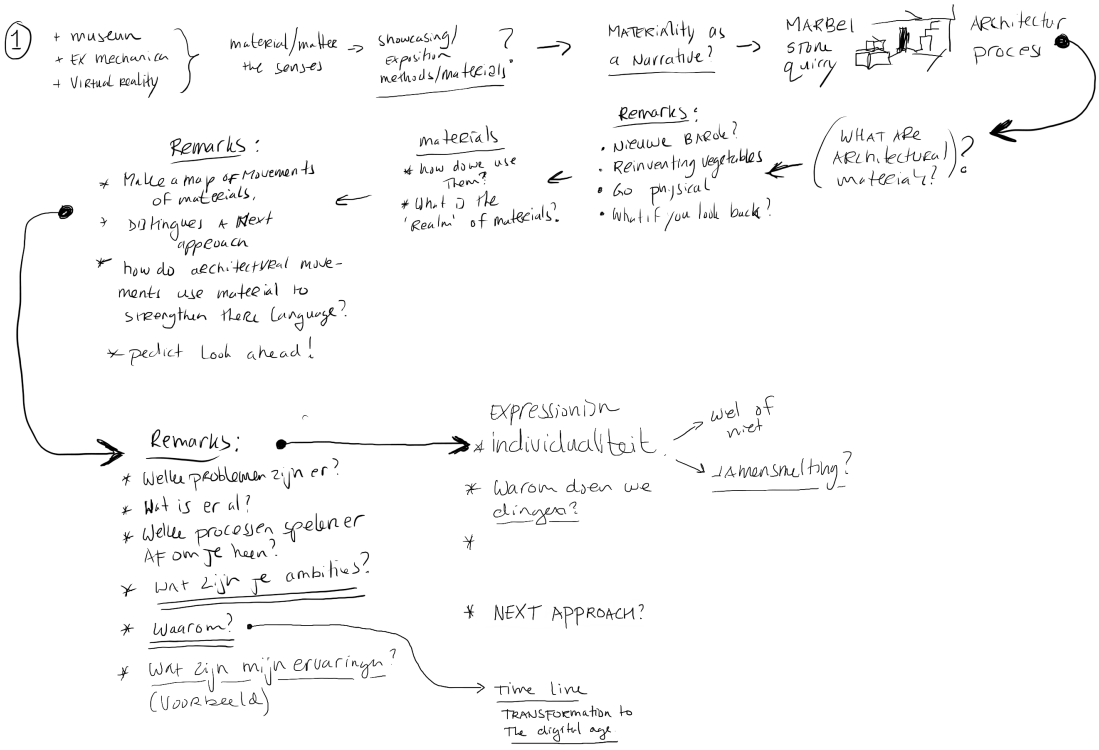

GLUE LAM BEAMS VS SAWN LUMBER
STRAIGHTER
TENSION RING + SHAPED CENTRAL BEAM
TAKE VIEW AWAY
TO FOCUS ON INTERIOR
GOD V. NATURE

image ©A

# Sketches & notes

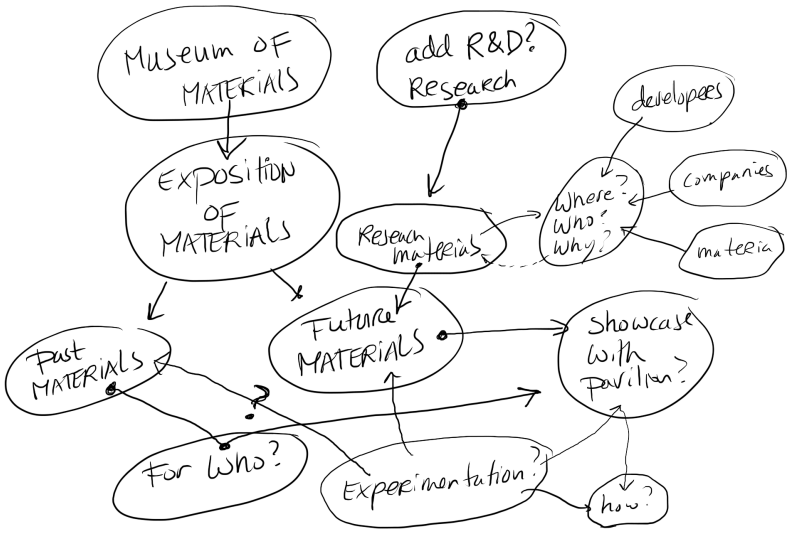


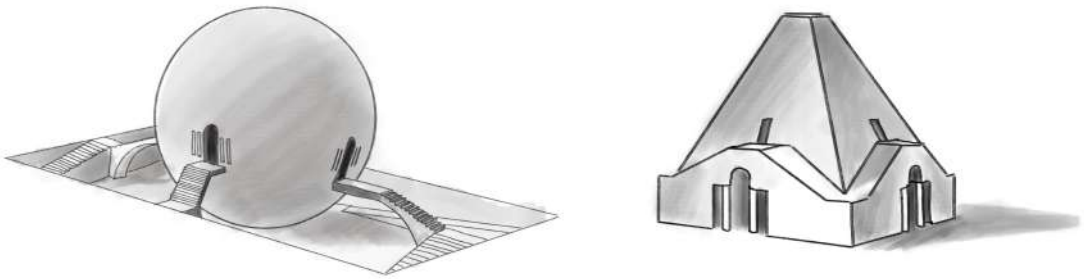



MoMA

# Sketches & notes



Ledoux, Haus des Gaertners, 1789

- NATURAL MATERIALS
- INDUSTRIAL MATERIALS
- SYNTHETIC MATERIALS
- DIGITAL MATERIALS
- SMART MATERIALS

"Each Material has its spesific characteristics which we must understand if we want to use it. This is no less true of steel & concrete."

MATERIAL PROCESS
MATERIAL AGGREGATION
MATERIAL PATTERNING
MATERIAL GEOMETRY
MATERIAL TECTONICS

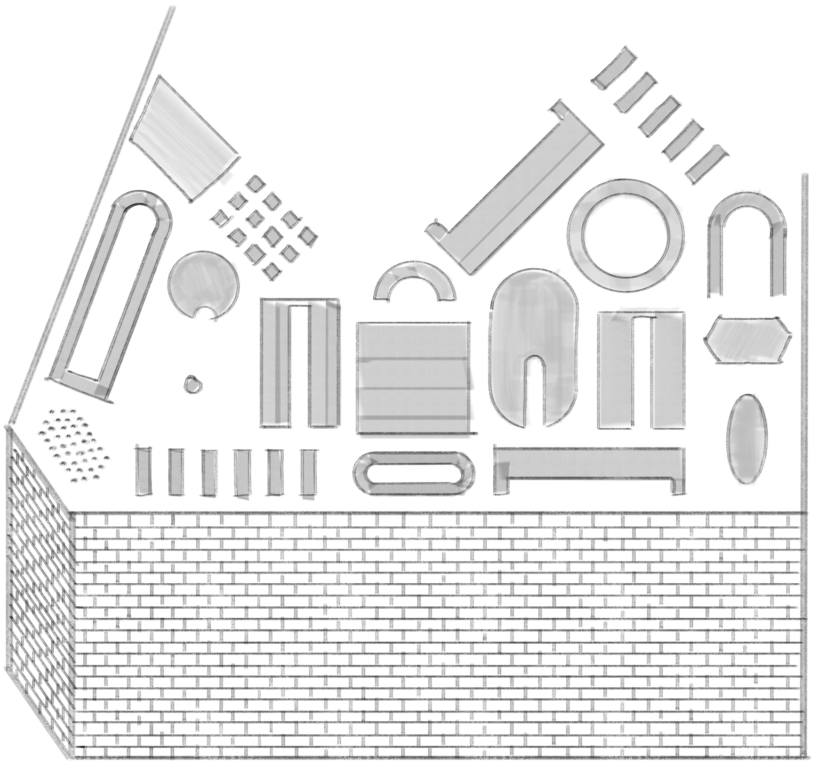
ARCHITECTURAL APPROACHES

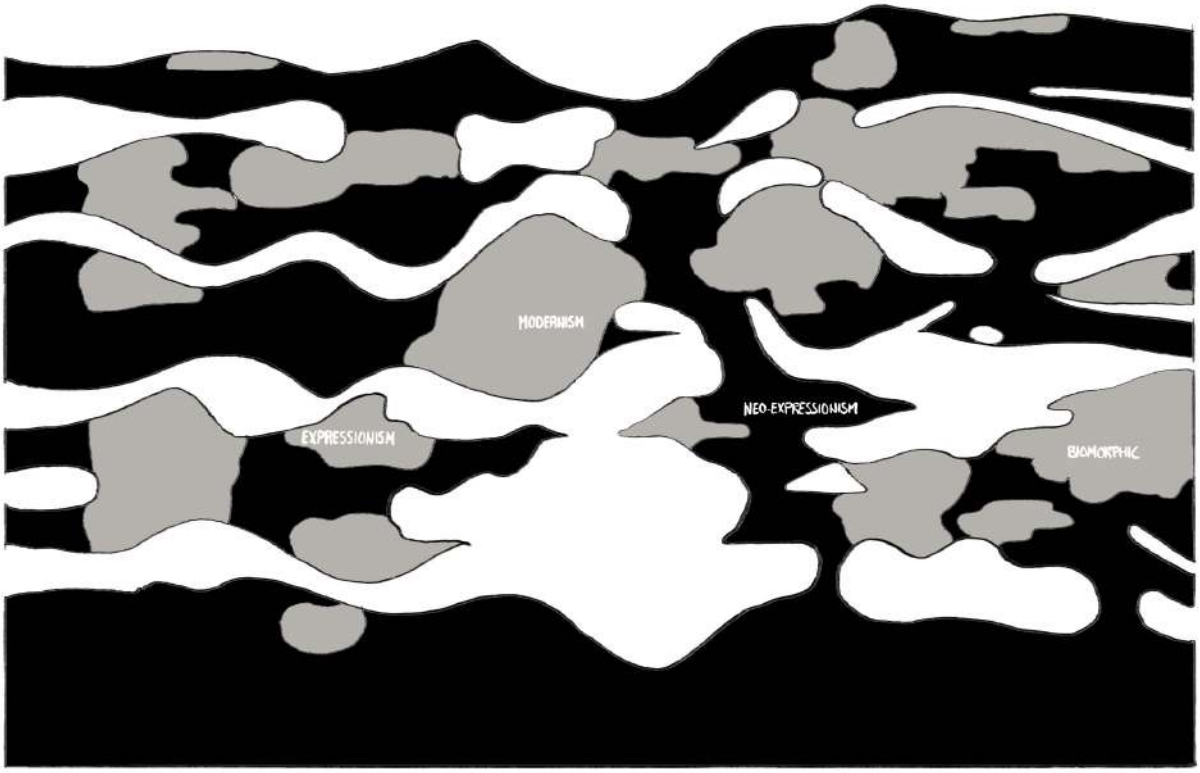
SKETCH DESIGN W1 SCHEME

MATERIAL CATAGORIES

REFERENCES CONCEPT DESIGN

When you are designing in brick, you must ask what it wants. Brick will say, I like an arch. you say, but arches are difficult to make, and are expensive, brick will say: i like an arch.




MODERNISM
NEO-EXPRESSIONISM
EXPRESSIONISM
BIOMORPHIC

Survey Design

# Presentation Survey Design

Survey of urgencies + sites + assignments + vision.

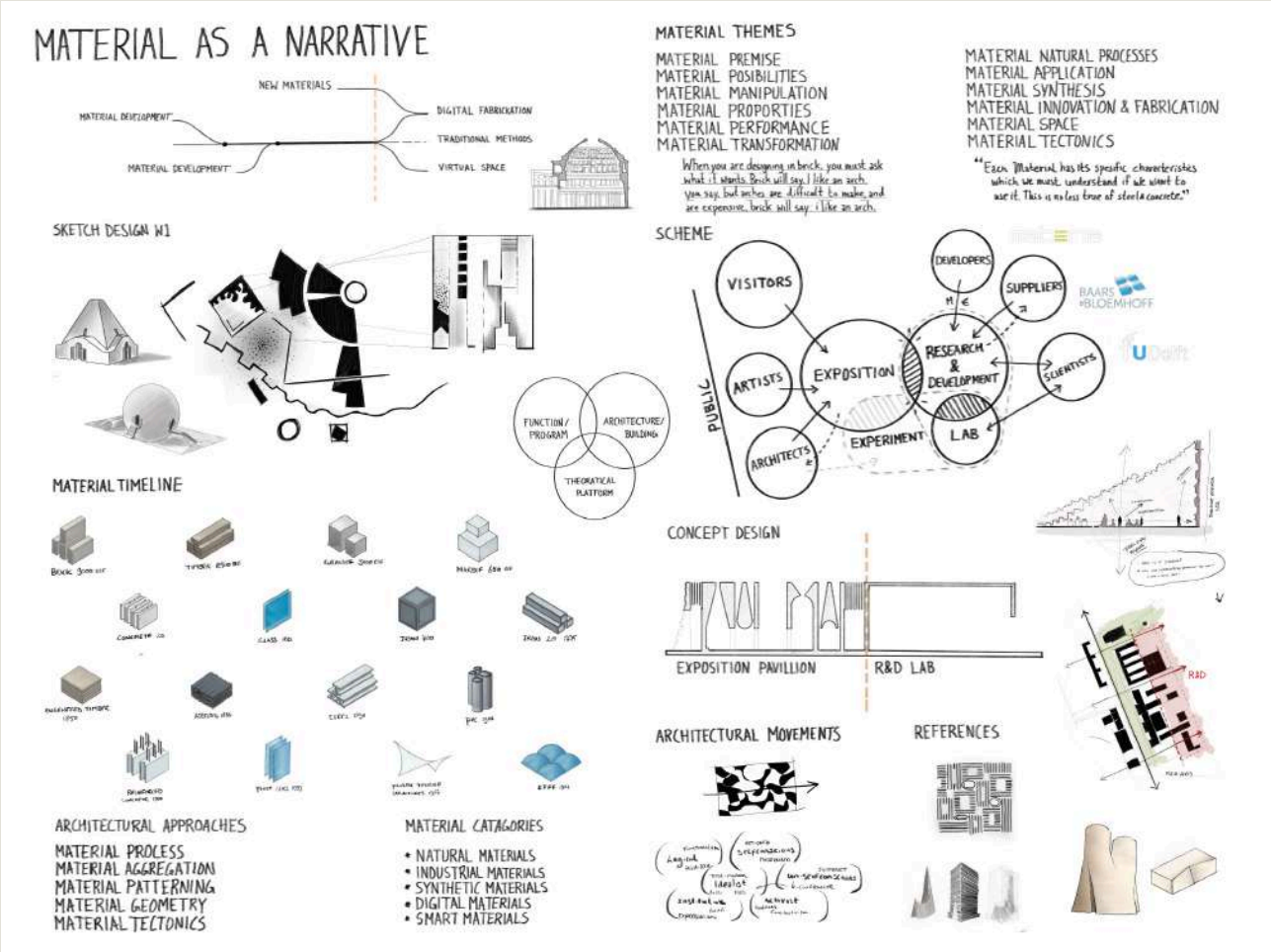
Format is free: booklet, film, documentary, model, newspaper, brochure, website, etc. The logbook. The survey is supported by an essay of 2000 words. It is a vision that reflects ahead from research towards project with the authentic position of the designer. The tutor has been planned ahead of this presentation and is present.

Shares the discoveries and conclusions of the survey and analysis phase with the studio. It includes a proposal for wo external examiners (for both one preferred and one in reserve): motivated and linked to the subject.

Participants apply a parallel working process: individual or in sub teams under their own hypothesis. At the same time an individual process takes place for the individual hypothesis that slowly will get shape and will be described and documented in the next phase; the project specifications.

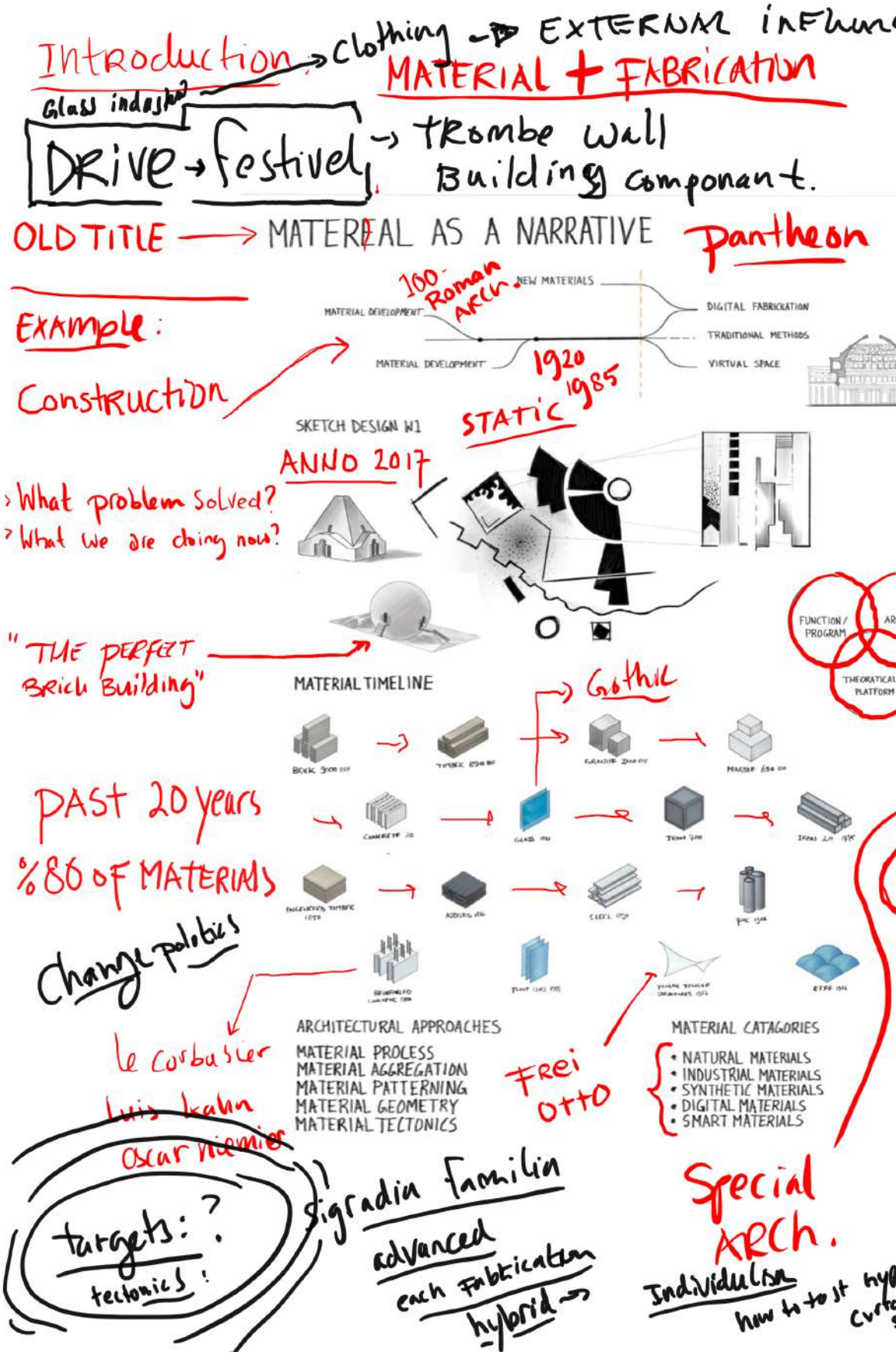
Emphasis in this phase mainly focuses onto the team and/or individual hypothesis. The basic mindset is positive-critical to reflect and interpret the hypothesis.

The process goes from memory (history), via analyzing and comparing, understanding, interpreting and evaluating to applying and creating (future).


MATERIAL AS A NARRATIVE
NEW MATERIALS
MATERIAL DEVELOPMENT
MATERIAL DEVELOPMENT
DIGITAL FABRICATION
TRADITIONAL METHODS
VIRTUAL SPACE
MATERIAL THEMES
MATERIAL PREMISE
MATERIAL POSIBILITIES
MATERIAL MANIPULATION
MATERIAL PROPORTIES
MATERIAL PERFORMANCE
MATERIAL TRANSFORMATION
When you are designing in brick, you must ask what it wants. Brick will say, I like an arch. You say, but arches are difficult to make, and are expensive, brick will say: I like an arch.
MATERIAL NATURAL PROCESSES
MATERIAL APPLICATION
MATERIAL SYNTHESIS
MATERIAL INNOVATION & FABRICATION
MATERIAL SPACE
MATERIAL TECTONICS
"Each Material has its specific characteristics which we must understand if we want to use it. This is no less true of steel & concrete."
SKETCH DESIGN W1
FUNCTION/ PROGRAM
ARCHITECTURE/ BUILDING
THEORATICAL PLATFORM
SCHEME
VISITORS
DEVELOPERS
SUPPLIERS
ARTISTS
EXPOSITION
RESEARCH & DEVELOPMENT
SCIENTISTS
PUBLIC
ARCHITECTS
EXPERIMENT
LAB
BAARS +BLOEMHOFF
MATERIAL TIMELINE
CONCEPT DESIGN
EXPOSITION PAVILLION
R&D LAB
R&D
ARCHITECTURAL MOVEMENTS
REFERENCES
ARCHITECTURAL APPROACHES
MATERIAL PROCESS
MATERIAL AGGREGATION
MATERIAL PATTERNING
MATERIAL GEOMETRY
MATERIAL TECTONICS
MATERIAL CATAGORIES
• NATURAL MATERIALS
• INDUSTRIAL MATERIALS
• SYNTHETIC MATERIALS
• DIGITAL MATERIALS
• SMART MATERIALS

***Poster 1***

# Sketches & notes



ces →

→ THEMES → mash

Ambition:

New! way → how is it going to develop.

Create a platforma to

Inbetween!

MATERIAL THEMES

MATERIAL PREMISE
MATERIAL POSIBILITIES
MATERIAL MANIPULATION
MATERIAL PROPORTIES
MATERIAL PERFORMANCE
MATERIAL TRANSFORMATION

MATERIAL NATURAL PROCESSES
MATERIAL APPLICATION
MATERIAL SYNTHESIS
MATERIAL INNOVATION & FABRICATION
MATERIAL SPACE
MATERIAL TECTONICS

Godfrit semper.

When you are designing in brick, you must ask what it wants. Brick wants to be an arch. You say, but I want to make it flat. Brick will say, I know, but if you are expensive, brick will say, I like an arch.

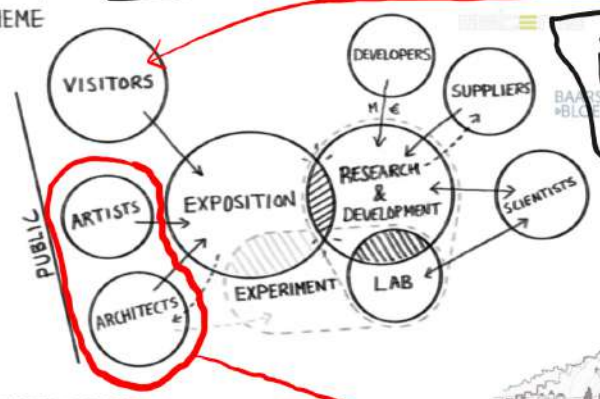
Archi

"Each material has specific characteristics which we have to understand if we want to use it. This is making true of steel & concrete."

Food

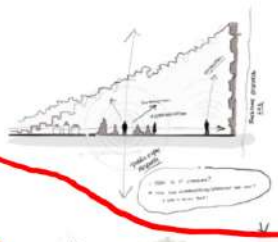
user/aplicatun

SCHEME




identifie pols

> Who are the USERS?
> Define the Location!
> RESEARCHERS
> proffesional users
> TRANSFORMATION defines the users.
Living Lab.
Living museum



CONCEPT DESIGN

To structured:

> PROFESIONAL USERS

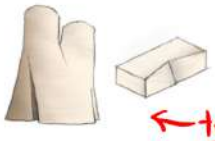
DIFFERENT TESTS.

← DEIFT R&D + EXPO

ARCHITECTURAL MOVEMENTS

REFERENCES

Sound pavillion



algamii

NEXT STEP

← temp setup

Questions:

New Fabrication lead to New Movements?

speculative → forward thinking power

team

3) juggle 3 Topics (Investigate)

→ Function 3 2 1
→ ARCHITECTURE
→ Theoratical platform HAND-ON

(test) subject itself

# Sketches & notes

## EXTERNEL TUTOR

1st choice

NAME: Robert Henderson
FUNCTION: Development Director
EDUCATION: MArch - University of California.

EXPERIANCE: UN-Studio 2010 - 2017
- Architect
- Associate
- Knowladge Research Coordinator

Etcetera Design & Innovation
- Founder
- Development Director.

Reasons: Experiance in every scale of design and production

"passion for new materials, detail and the combining of components as key elements to achieve novel and elegant design"

## EXTERNEL TUTOR

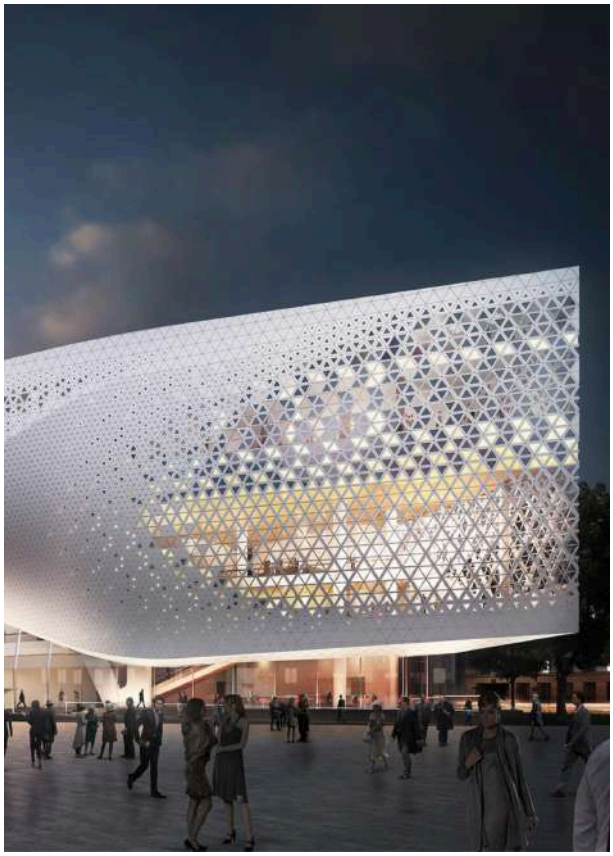
2nd choice

NAME: Peter van Assche
FUNCTION: Founder and architect
EDUCATION: MArch - University of A.S. Rotterdam

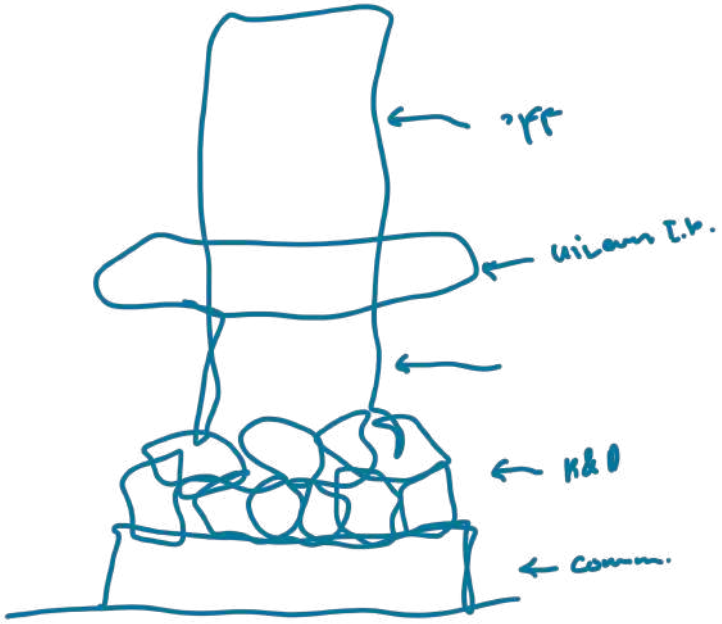
EXPERIANCE: bureau SLA 2002 - now
- Architect
- Principal

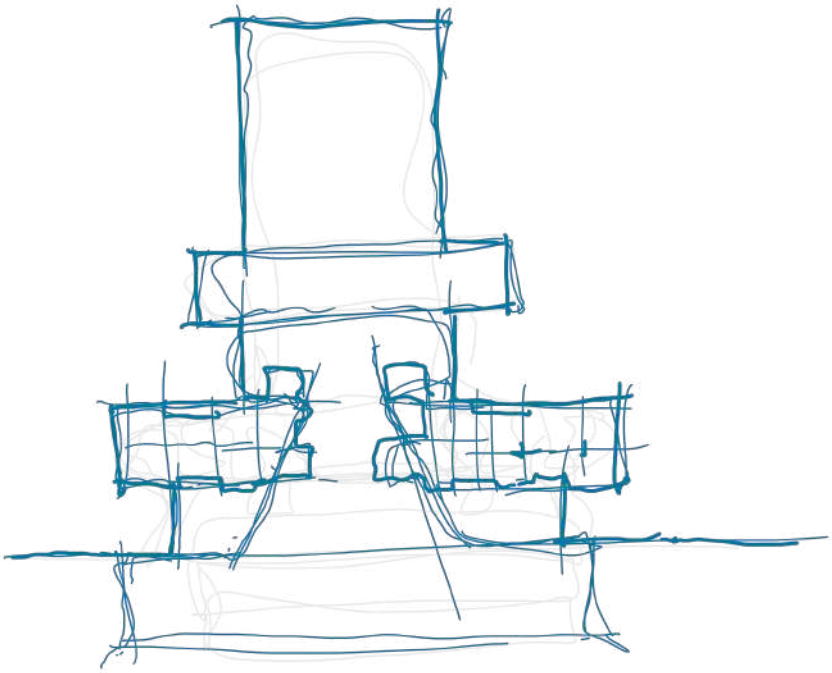
Reasons: "Buro SLA gives shape to rapidly changing Society by designing, researching. Inventing and buildings"

SLA invented and Build The people pavillion with 100 % Borrowed materials with an Innovating Recycled plastic Facade.



# Sketches & notes



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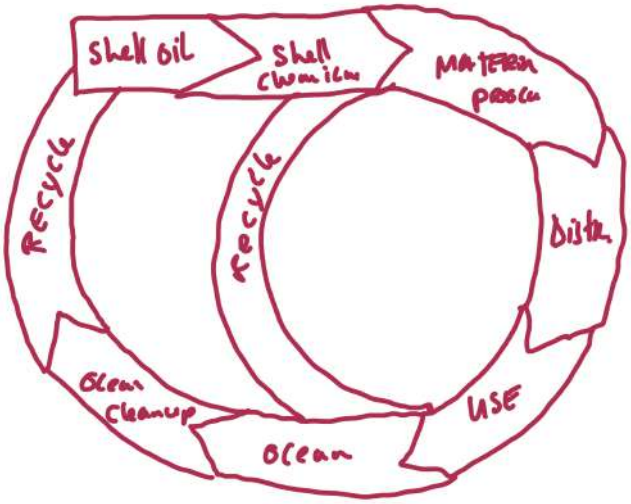


# Sketches & notes

## PROGRAM

### OFFICE
- Office space
- Conference rooms

### PUBLIC SPACE
- public Green
- visitors center
- shell shop

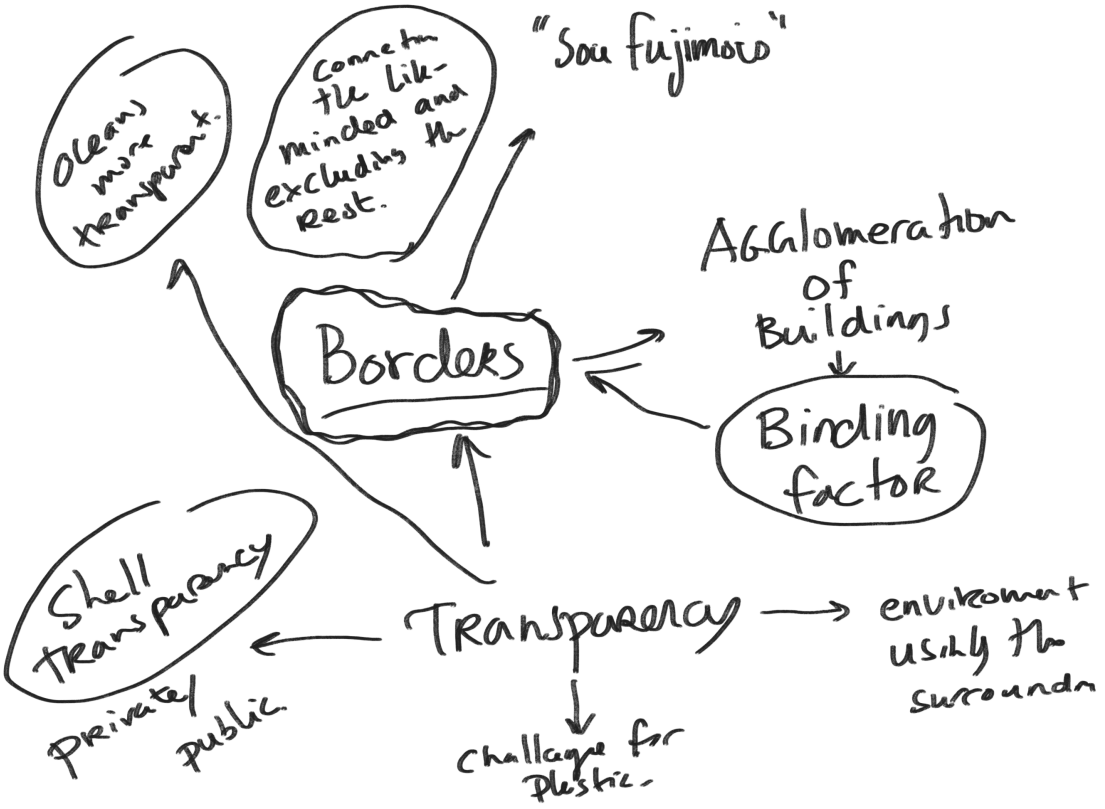
### R&D
- Research and development facilities
- Auditorium space
- incubator space

### AMENITIES:
- Cafe
- Coffie bar
- Fitness facilitie
- Lodge / Resting
- parking

## RELATIONS

- What is the Relationship between Shell as a Company and plastics?
- What Responsibility Do they have for plastic waist / polution?

- In what way can plastic be used as an architectueal tool but also symbolic for sustainability & usefull as a marketing tool.



San Francisco Bay Trail
Facebook Building 2
Facebook Building 21 Rooftop Park
Henderson
Kelly Park
Flood County Park

# Sketches & notes

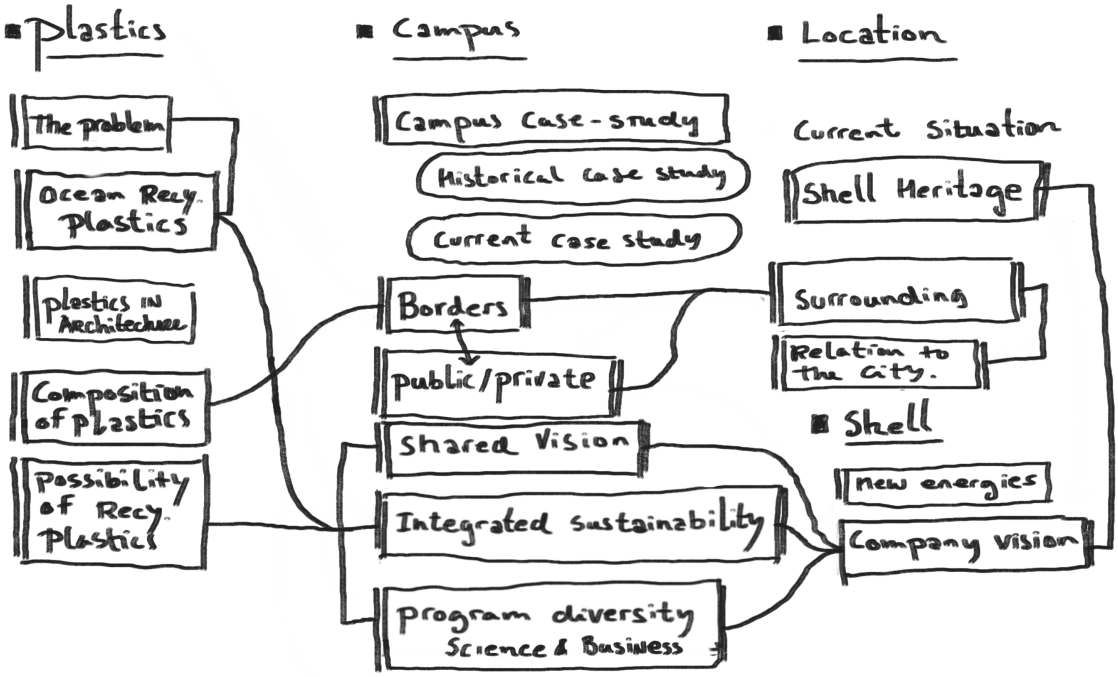
## Hypothesis.

World's Largest fossil fuel companies takes it responsibility in using and offering Innovative solutions in using Ocean recycled plastics as Building material for a new sustainable hub for Innovation and development of new Future energies.

## Research Question.

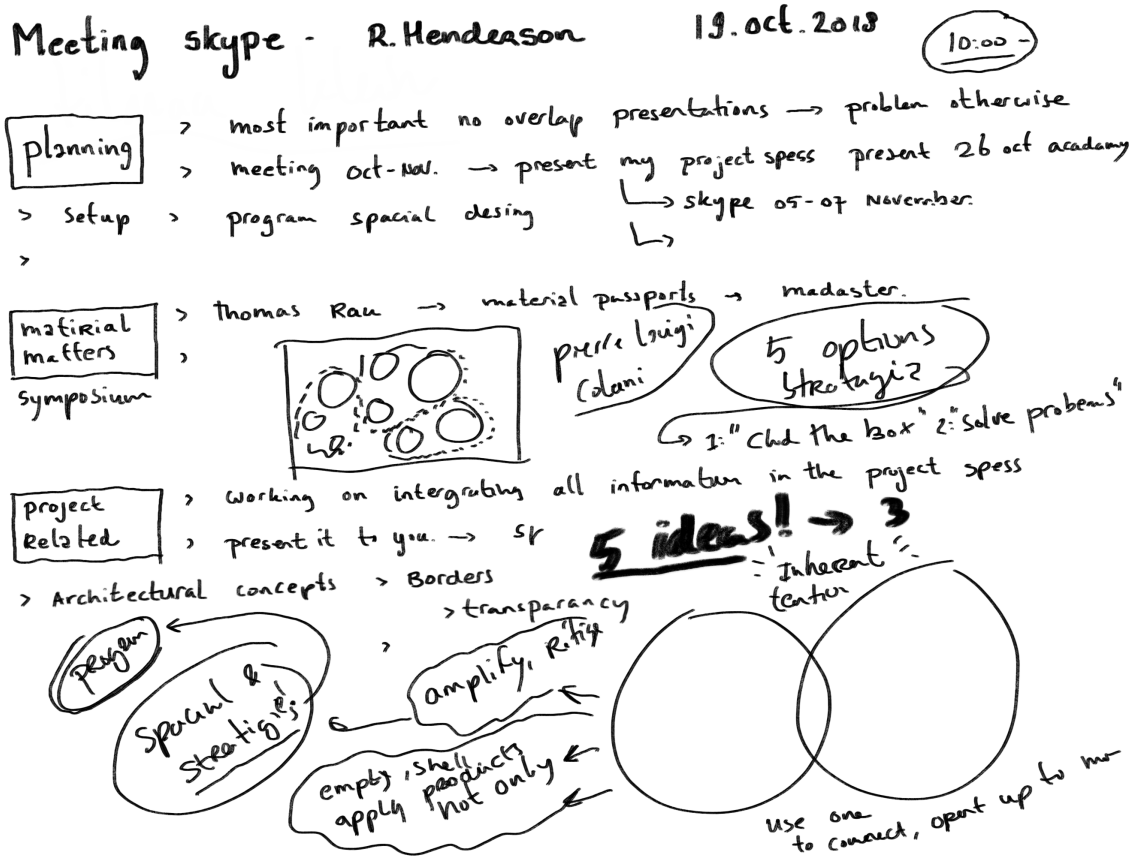
Can Ocean Recycled plastics Be Re-used and Re-designd as the "Binding factor" for shell's new Energie Campus in The Hague.

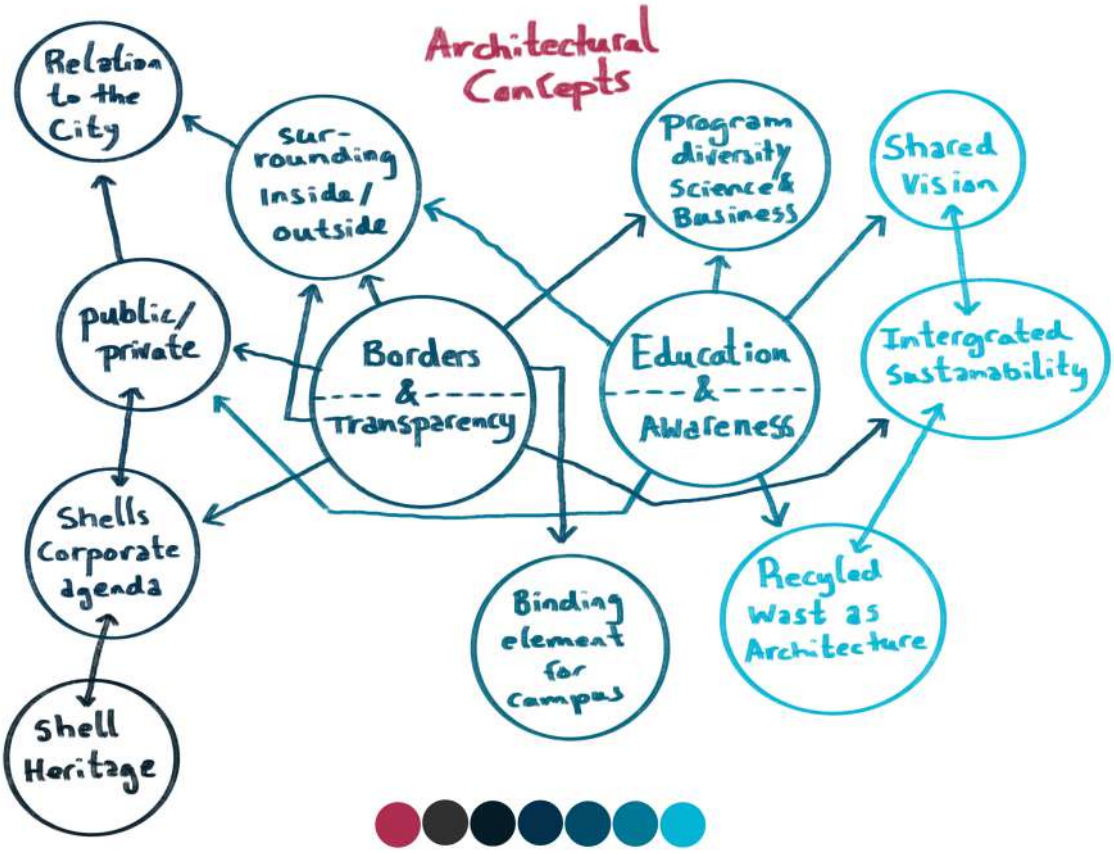
## MAIN TOPICS



Fred Meyer
Walker Road Fred Meyer Shopping Center
Aquatic Center
SW Walker Rd
SW Bridgeport Rd
SW Edgeway Dr
SW Baseline Rd
SW Cornell Rd
SW Jay St
SW Jenkins Rd
SW Meadow Rd
SW Gibbs St
SW Linda Ln
MARLENE VILLAGE
Meadow Park Middle School
Nike Miller Building (Burnside)
Nike APC Center (Advanced)
Nike The Park Parking Garage
Jerry Rice Building (Nike)
Nike World Headquarters
Tiger Woods Center (Nike)
Mokpi Ryan Building (Nike)
Costco
WATERHOUSE LINEAR PARK
Standard Bag Manufacturing Company
Reser's
Triax Metal Products
SW Meeklo Rd
SW Bonnybrae Dr
SW Far View Dr
JOHNSON CREEK
SW Denny St
SW Walker Rd
Barnes Elementary School

# Sketches & notes



Apple Inc.
Apple Park
The Hyperion
Forge 1
Forge Dr
Kaiser Permanente Santa Clara Medical Center
Hospital Building
Cupertino Village
Hyatt House Hotel
Vallco Shopping Mall
Vallco Mall
Vallco Parkway 2a
Vallco Parkway 2b
R&D Facility
L.P. Collins Elementary School
Calabazas Creek
Stevens Creek Blvd
Wolfe Rd
Tantau Ave
Pruneridge Ave
Apple Park Way
Mariani Ave
Melody Ln
Stuart Ln
Merritt Dr
Anderson Dr
Pear Tree Ln
Amelia Dr
Olivewood St
Berkman Pl
Lennet Dr
Parnell Pl
Sevanne Pl
Liverpool Way
Londonderry Dr
E Homestead Rd
Leighton Way
Lorne Way
London Ave
Tilton Ave
Calabazas Creek
Christian Ave
Baldwin Dr
Hancock Dr
Magellan Ave
Dr Sony Ave
Bandelier Ave
Core Ct
Wolfe Rd
Tantau Ave
Stevens Creek Blvd
Pruneridge Ave
Mariani Ave
Calabazas Creek
Apple Park Way
Vallco Parkway
280
85
280
280
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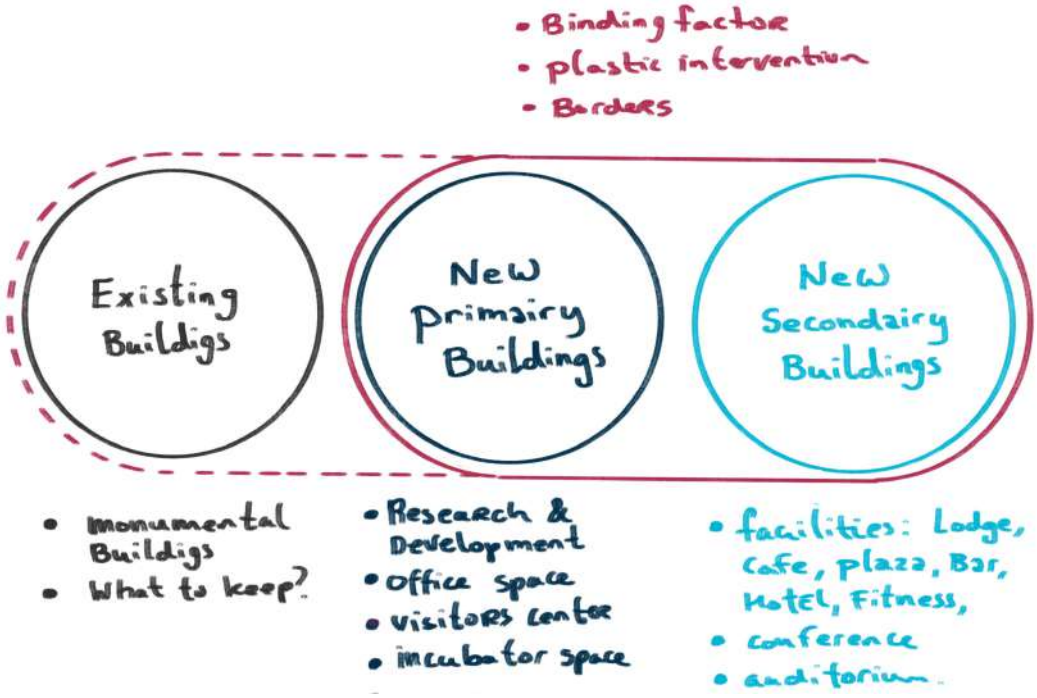
280
280
280
280
280

# Sketches & notes

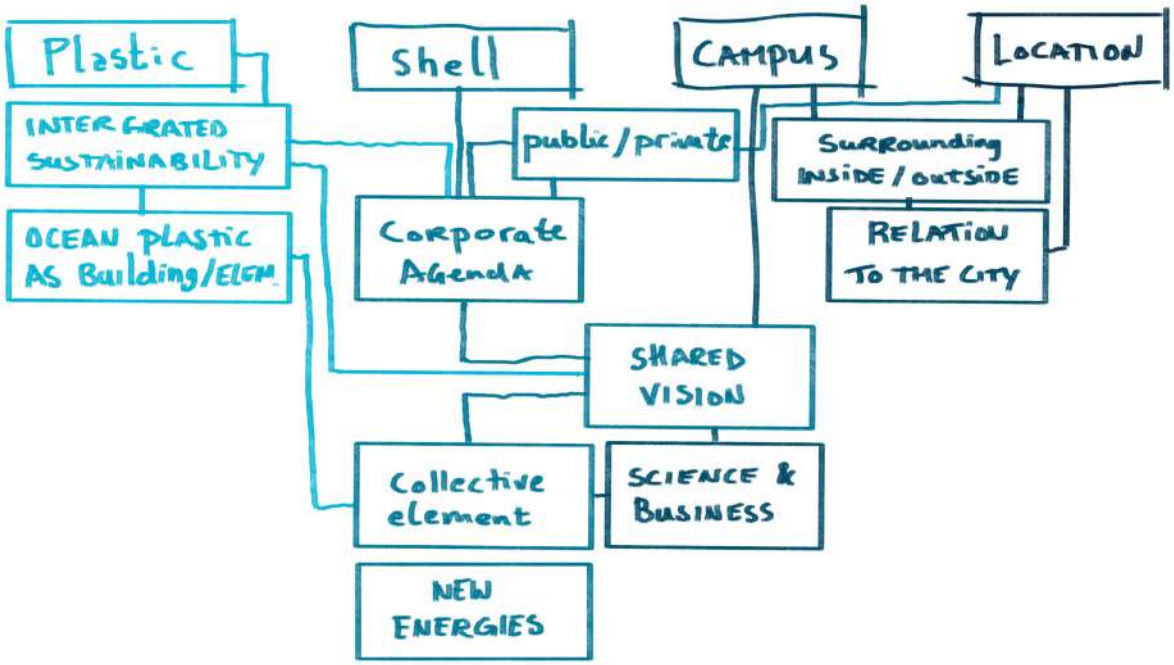
Design task

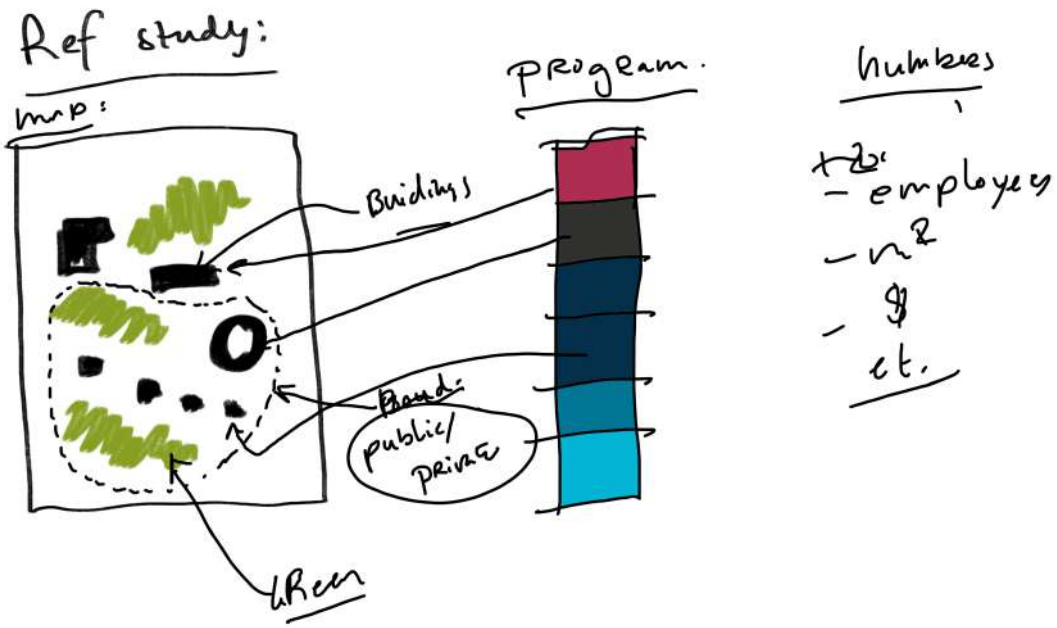



- Campus Architecture
  - Historic Case study → Cambridge → The Campus vibe / The Collegiate Atmosphere / The walk in the woods
  - The corporate campus
  - silicon valley model
- Borders & Transparency
  - public & private
  - corporate agenda

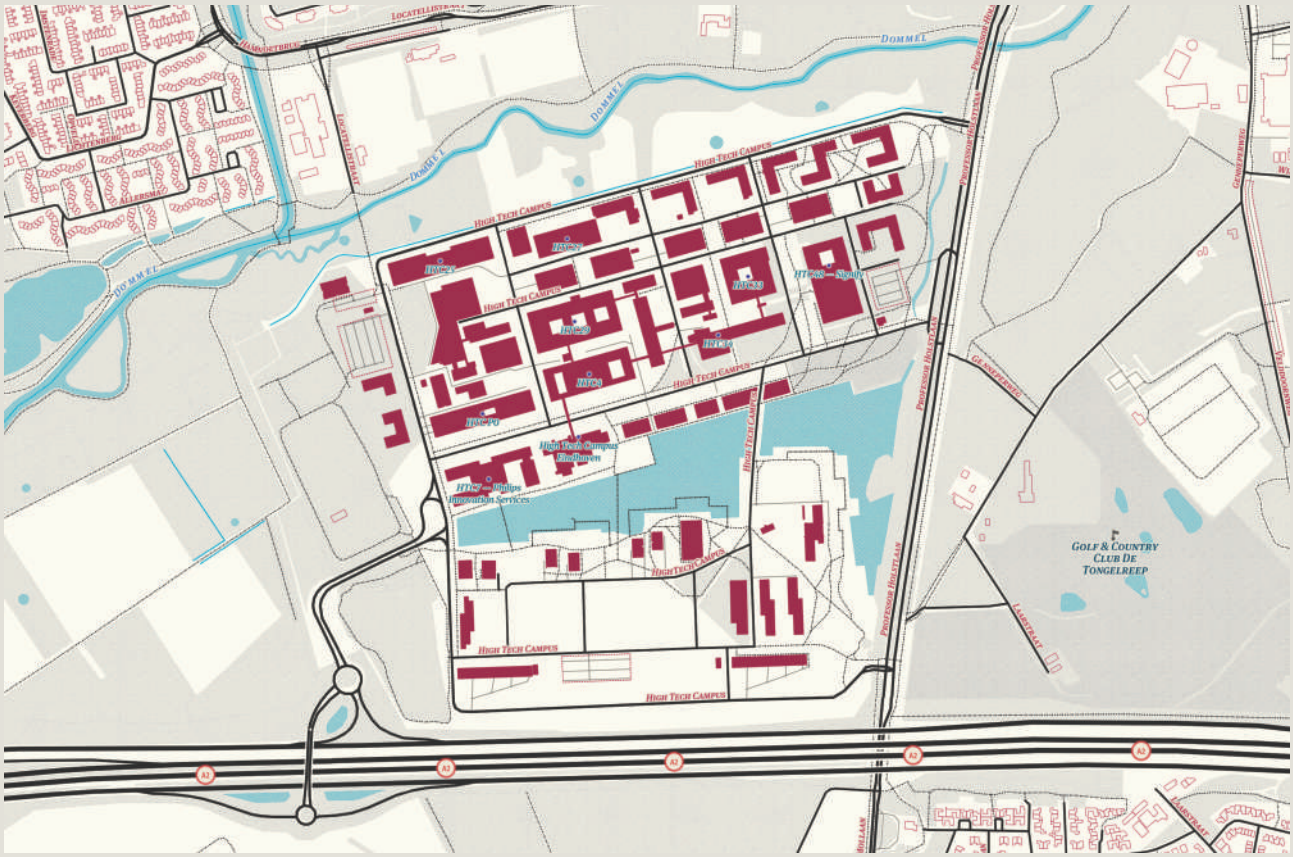
- Awareness & Educating
  - Intergrated sustainability
  - Science & Business - programmatic dyversity
  - Common ground/shared vision

# Sketches & notes



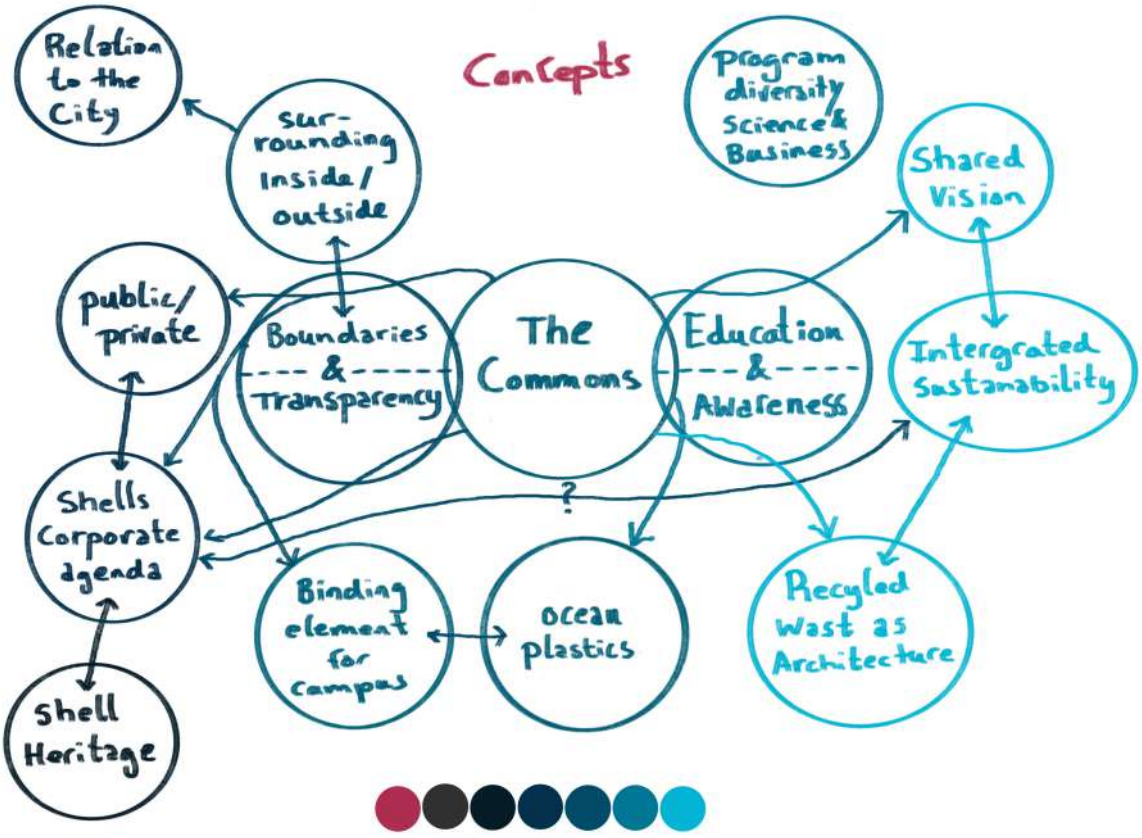

- existing Buildings?
-


Dommel
High Tech Campus
Golf & Country Club De Tongelreep
Professor Holstlaan
A2

# Sketches & notes

## Tutor meeting 26.10.2018

- planning.
  - update
  - meetings Do → Exam
  - presentation. 21 December?
- Research
- Asigment
  - Desing task
  - Architectural concepts
- Questions
  - Contact shell - shared vision
  - program -



FLEVOPARK
Joodse Begraafplaats Zeeburg
Tie Breakers
OOSTER RINGDIJK
Amsterdam Arena
Science Park
Anna's Tuin en Ruigte
Science Park Amsterdam
De Hof van Eden
Gemeenschapshuis
Amstel

# Sketches & notes

Van geen tregevoedgde wereld — Ruimtelijke kwaliteiten

Negatieve ruimte
intern silhoegie

Bestaande kwaliteiten

→ Negatief kijken

primitieling
"Quantum sprong"?

→ Contextual. — the yellow — organisatie → ruimtelijke

→ Programma verschippen! — VOC → morphologie?

Voorbeelden van openbare ruimte

→ publiek!

→ informatie uitwisselen — participatie

→ legacy. — → involvement — onderdeel zijn van

→ interface van de gebouwde bestekten — → Comitted

→ de primitive —
→ hedendaagse —
→ Nieuwe model —

Commons

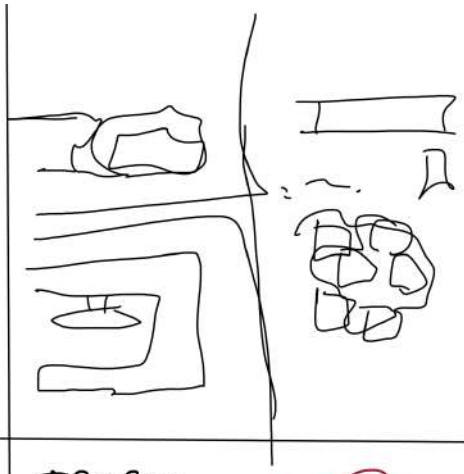
# Sketches & notes

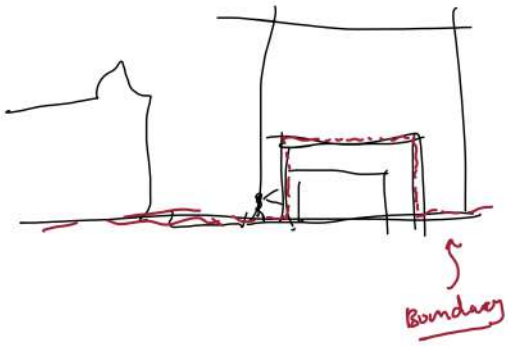
> formal: approach?

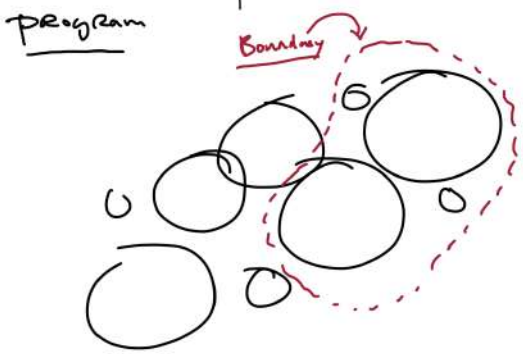
> morphologie? → New building.

> program

> use?





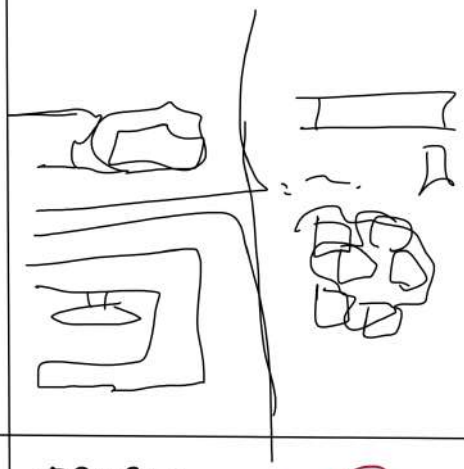



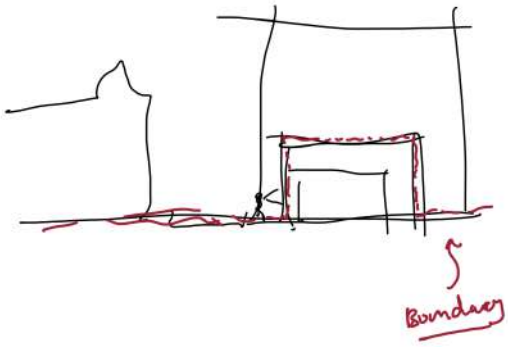

> formal: approach?

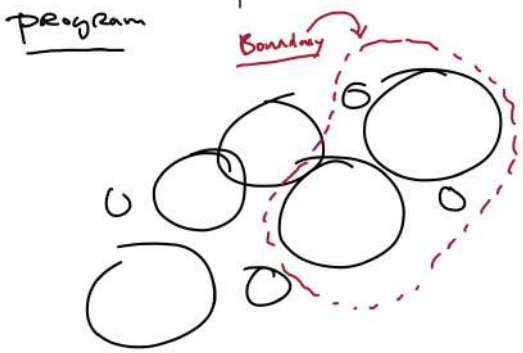
> morphologie? → New building.

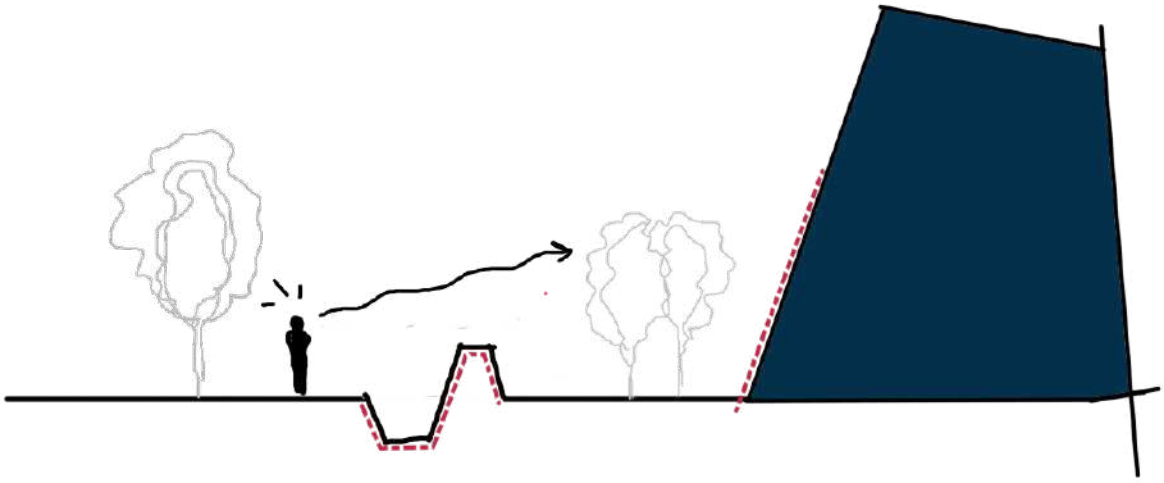
> program

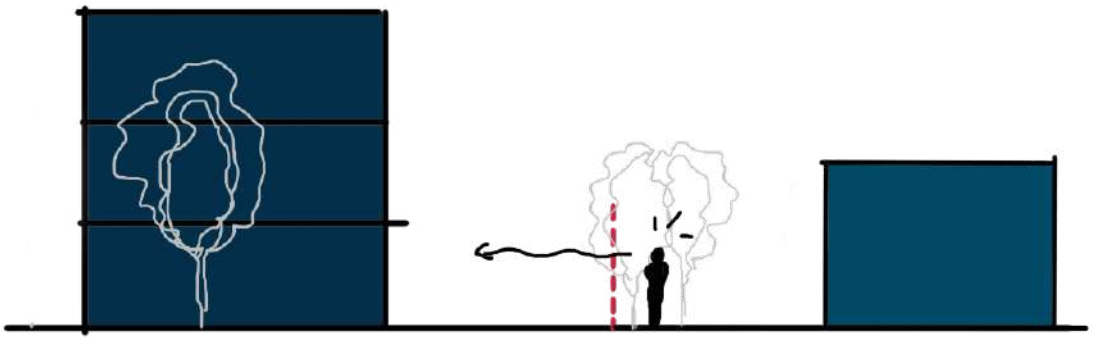
> use?









# Sketches & notes

Skype 20-11-2018 Robert.

> Talking points:

> Crytereia for what model? → opportunities for plasters
> opportunities for in-between-spaces
>

> topics: > morphologie - urban
> Access → Boundaeys -
> programme - archiler → p:

> To add:
Programatic Diagram
- insight in the boundary

Model: > started
Finnish

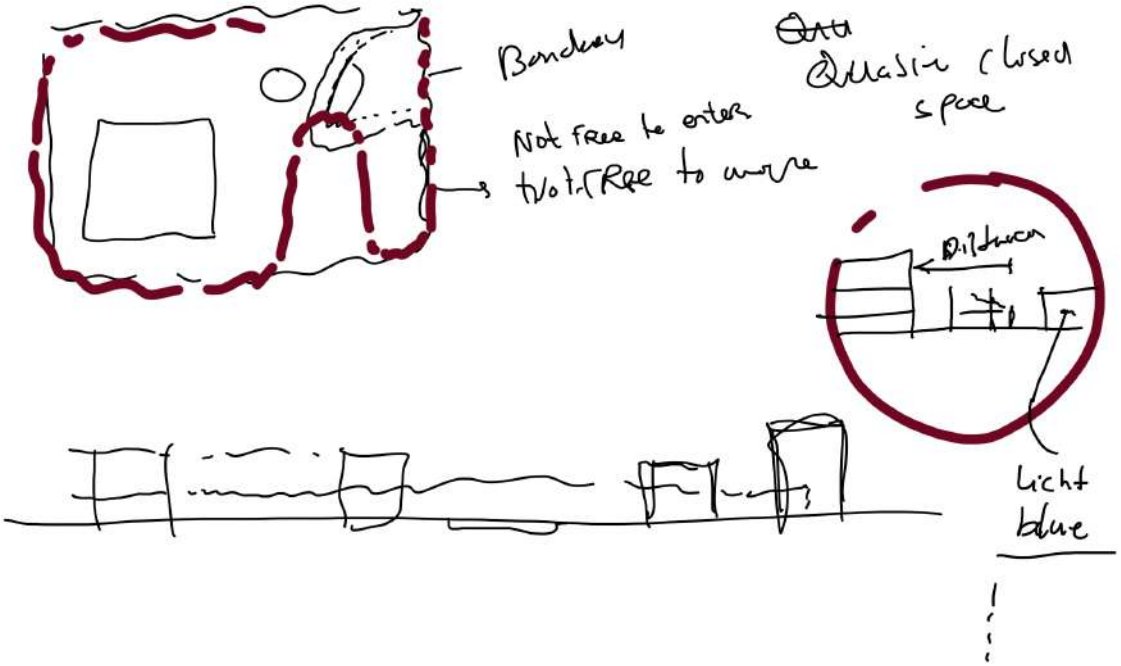
Scale

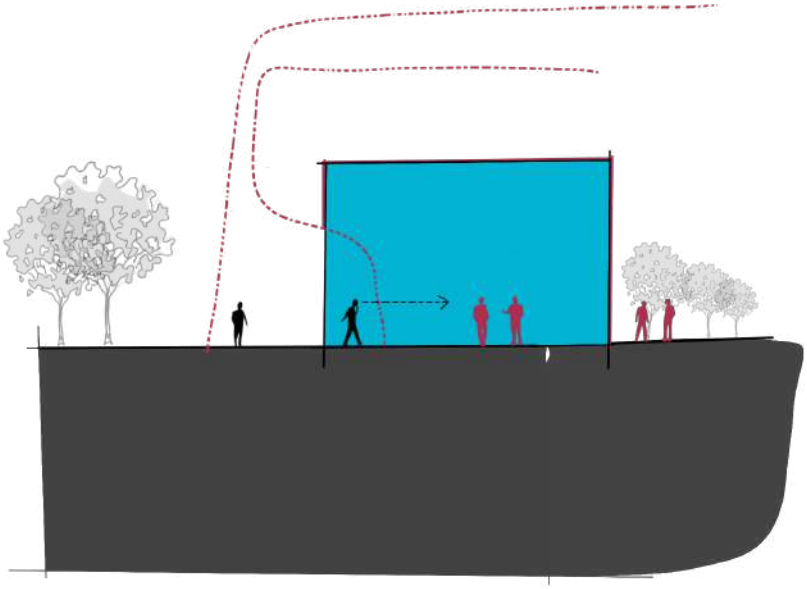
facebook groundscraper
Floating sandwiches

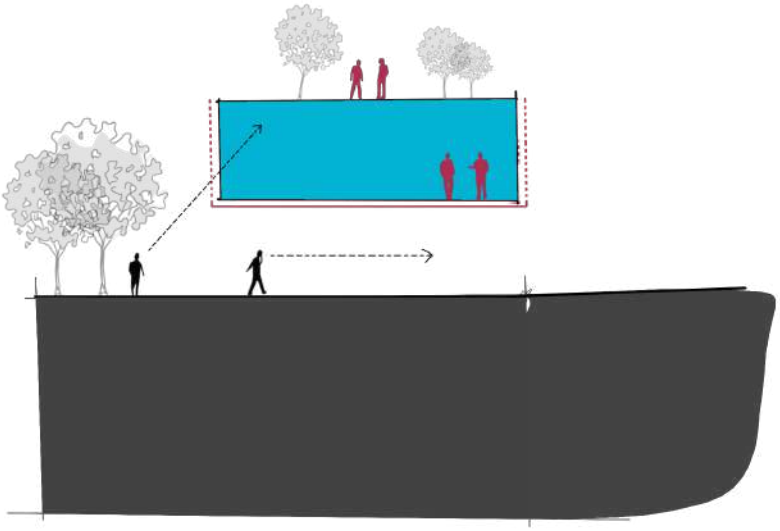
idee: intro page: new campus!

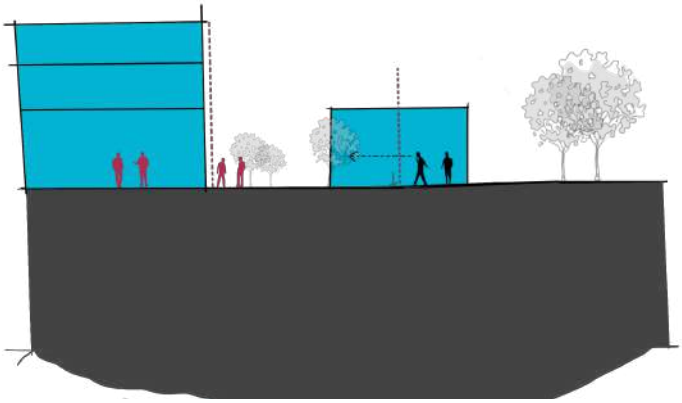
Apple

Understan the critical Relation to the city

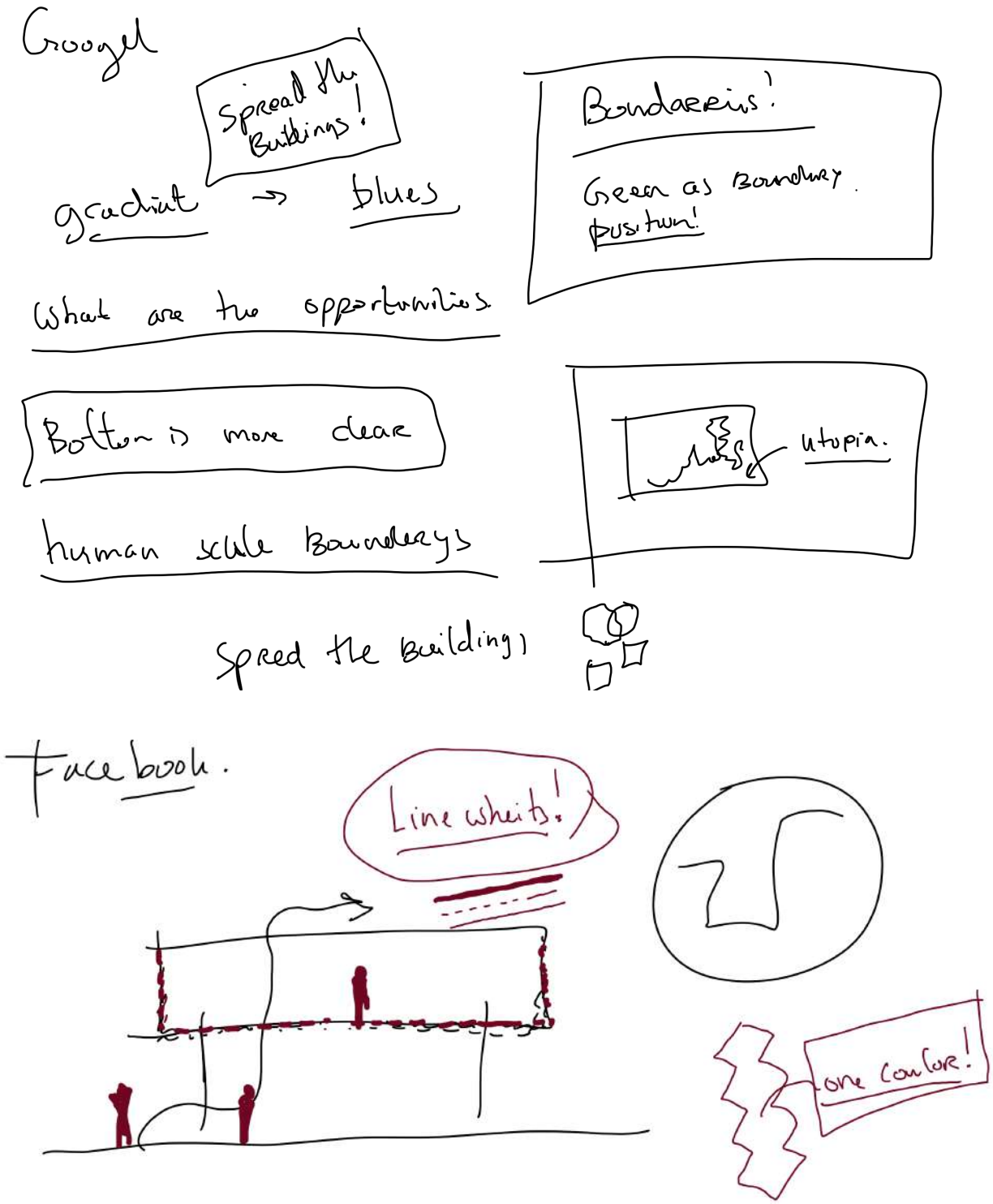








# Sketches & notes



Spatial. Design

# Presentation Spatial Design

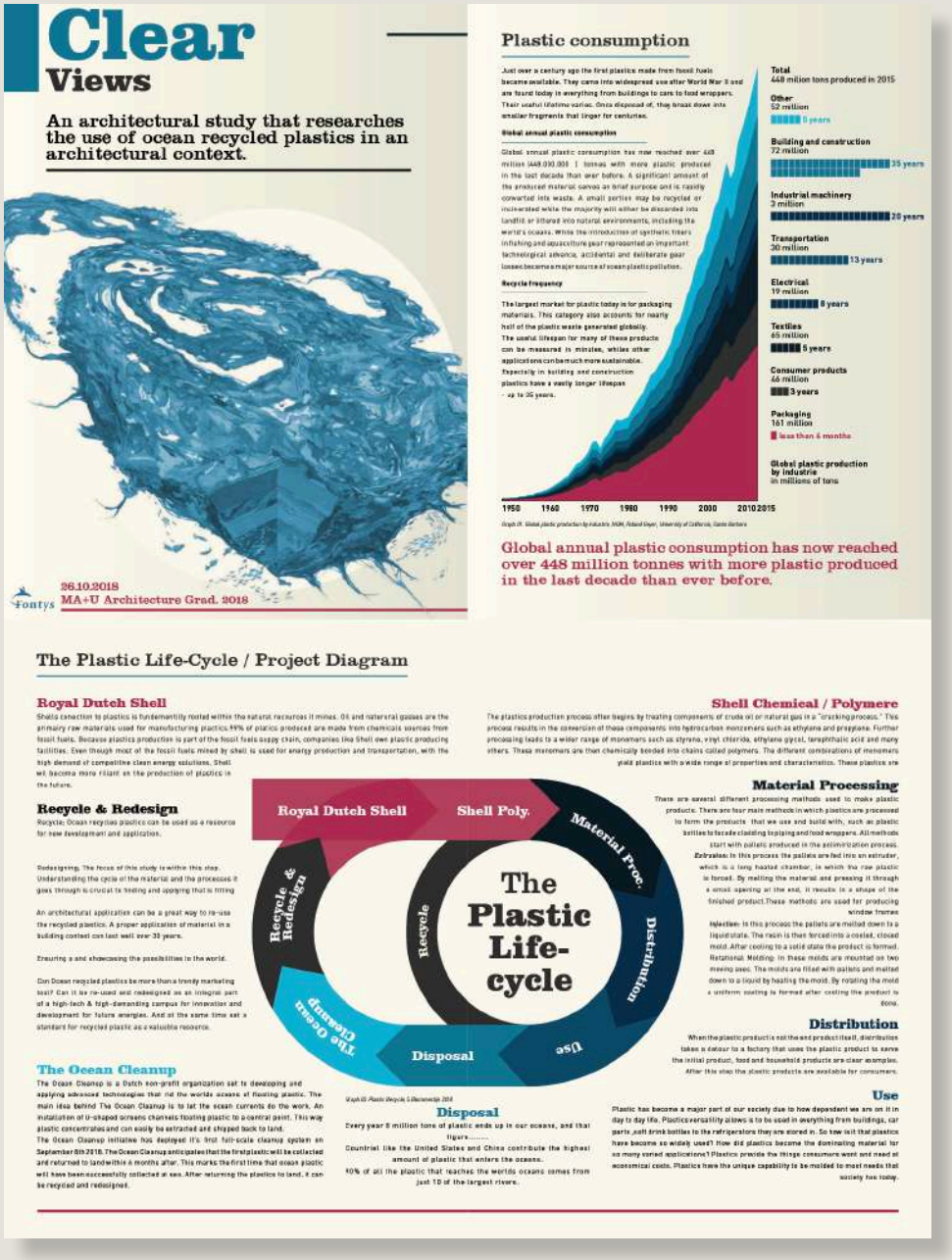
Conceptual design on all urban and architectural scale levels. Comprehension, reflection, perspective, creativity, new ideas.

Format: a minimum of 3 x A1 landscape 200 dpi, an urban model and three inserted conceptural models, the logbook and all further material (drawings, sketches, diagrams, etc) according to personal understanding, the 1000-word essay.
Scale levels 1:2000, 1:500, 1:200 or different if required.

Three different concepts are presented within the site and context, including an assessment to proceed with the best concept.
It is about the outcomes of three different approaches and not three alternatives of just one approach.

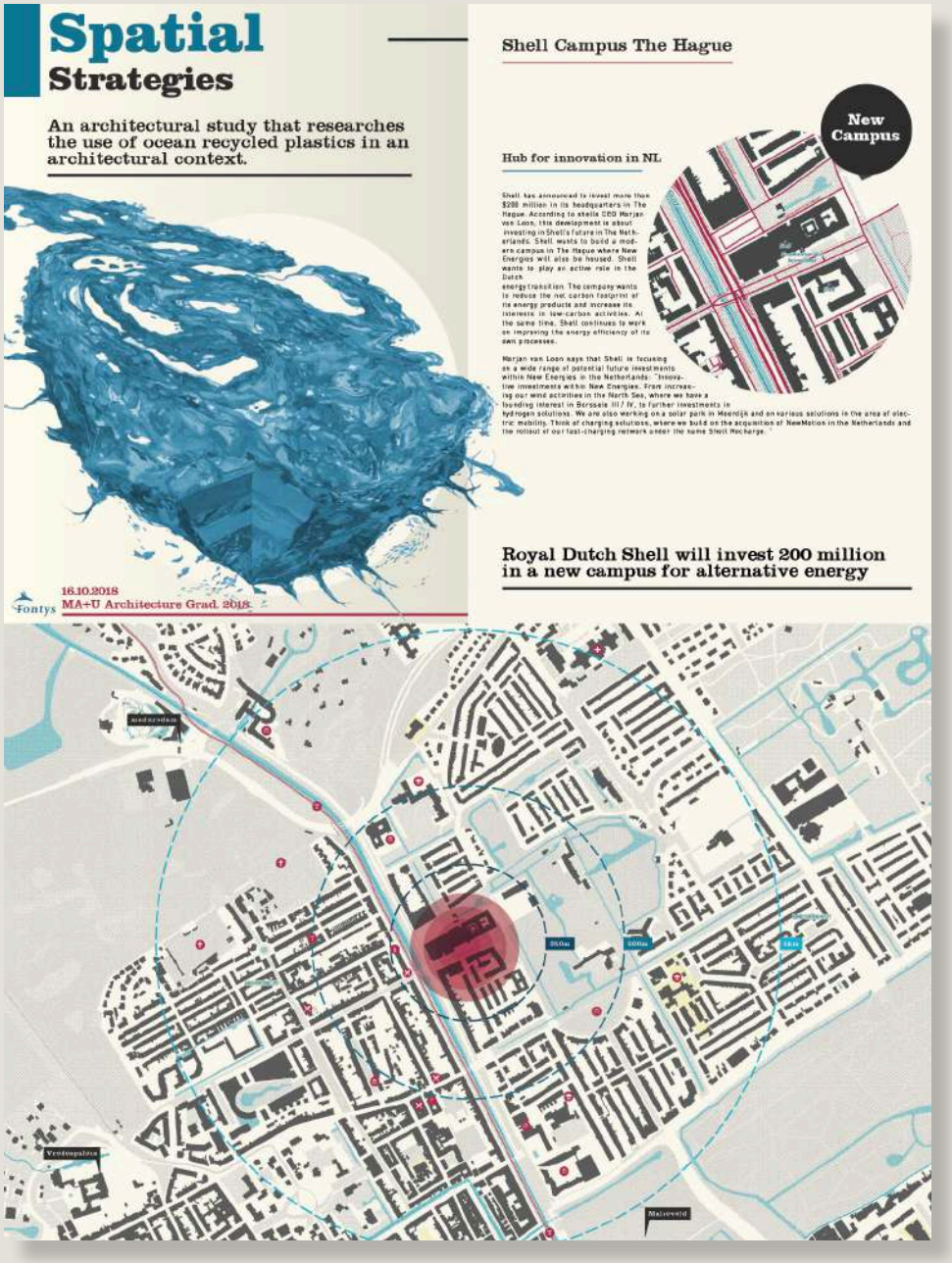
The elaboration and testing of programmatic requirements on site in urban and architectural perspective make the basis of project development.
Programmatic requirements can be constructed by analysis and interpretation of a number of well chosen reference projects.

It is not just a programmatic translation, but also urban, landscape and architectural themes, as spatial qualities are integrated on urban and architectural scale levels.



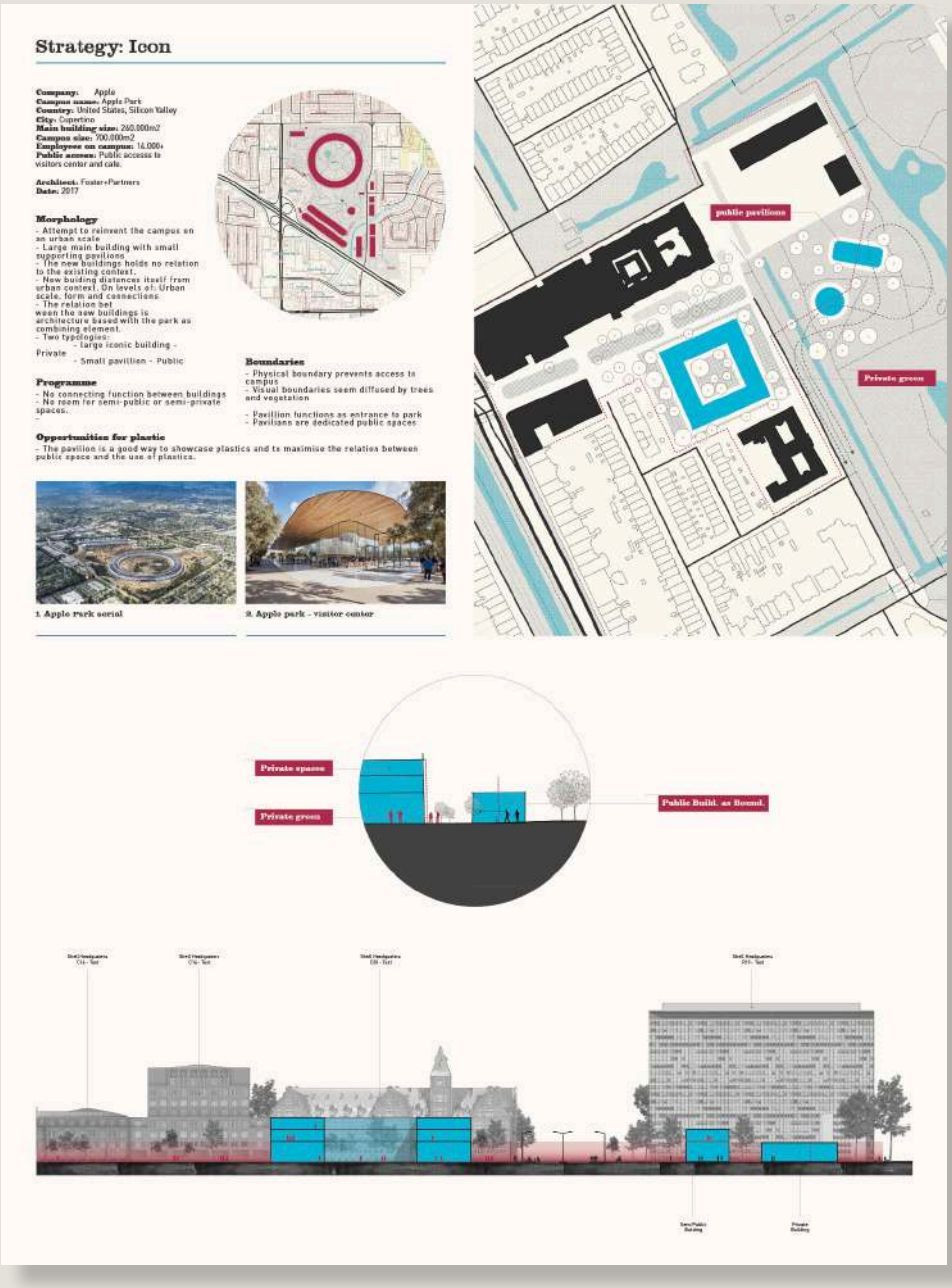

## *Poster 1*

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman



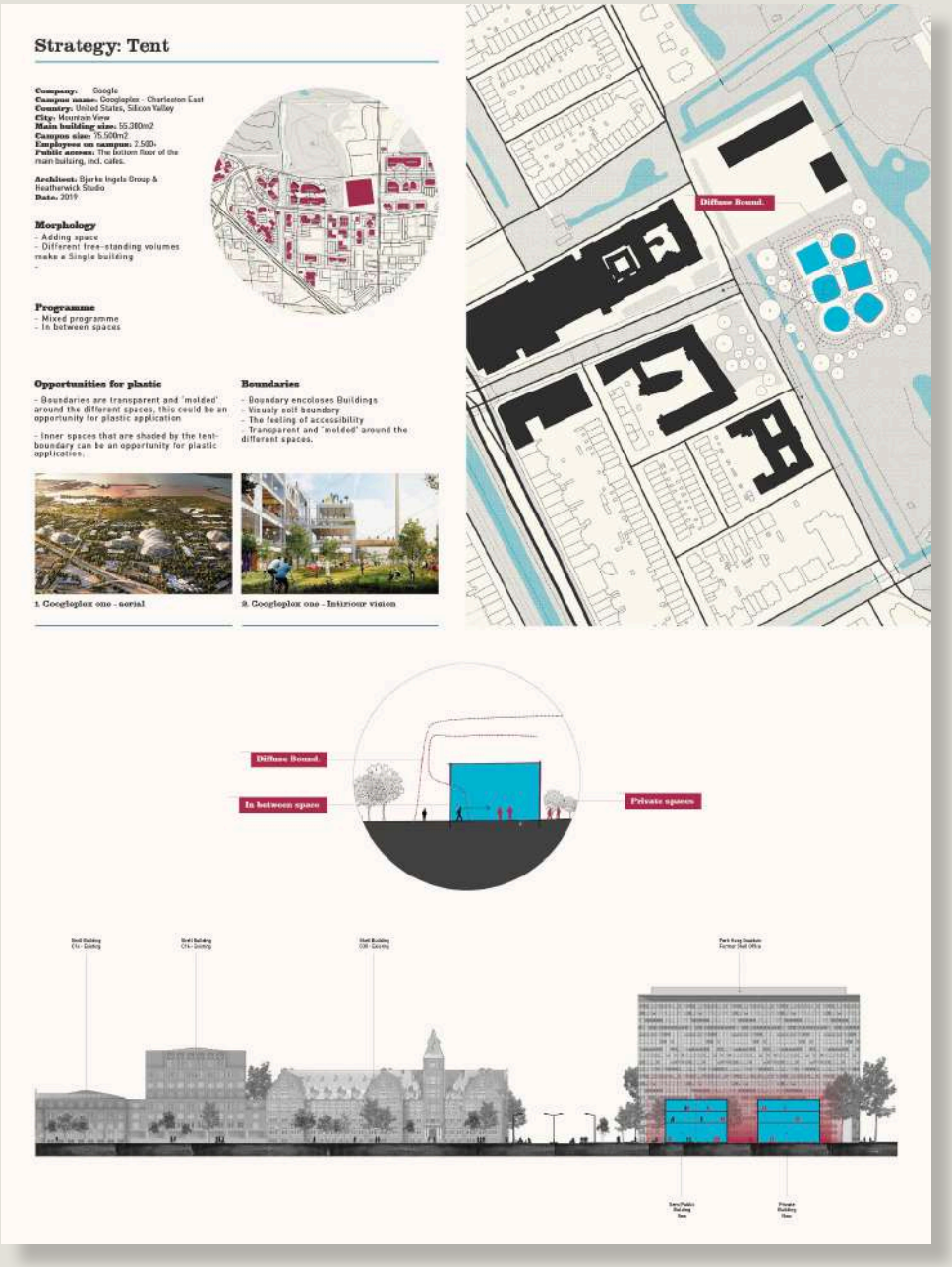

## *Poster 2*

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman



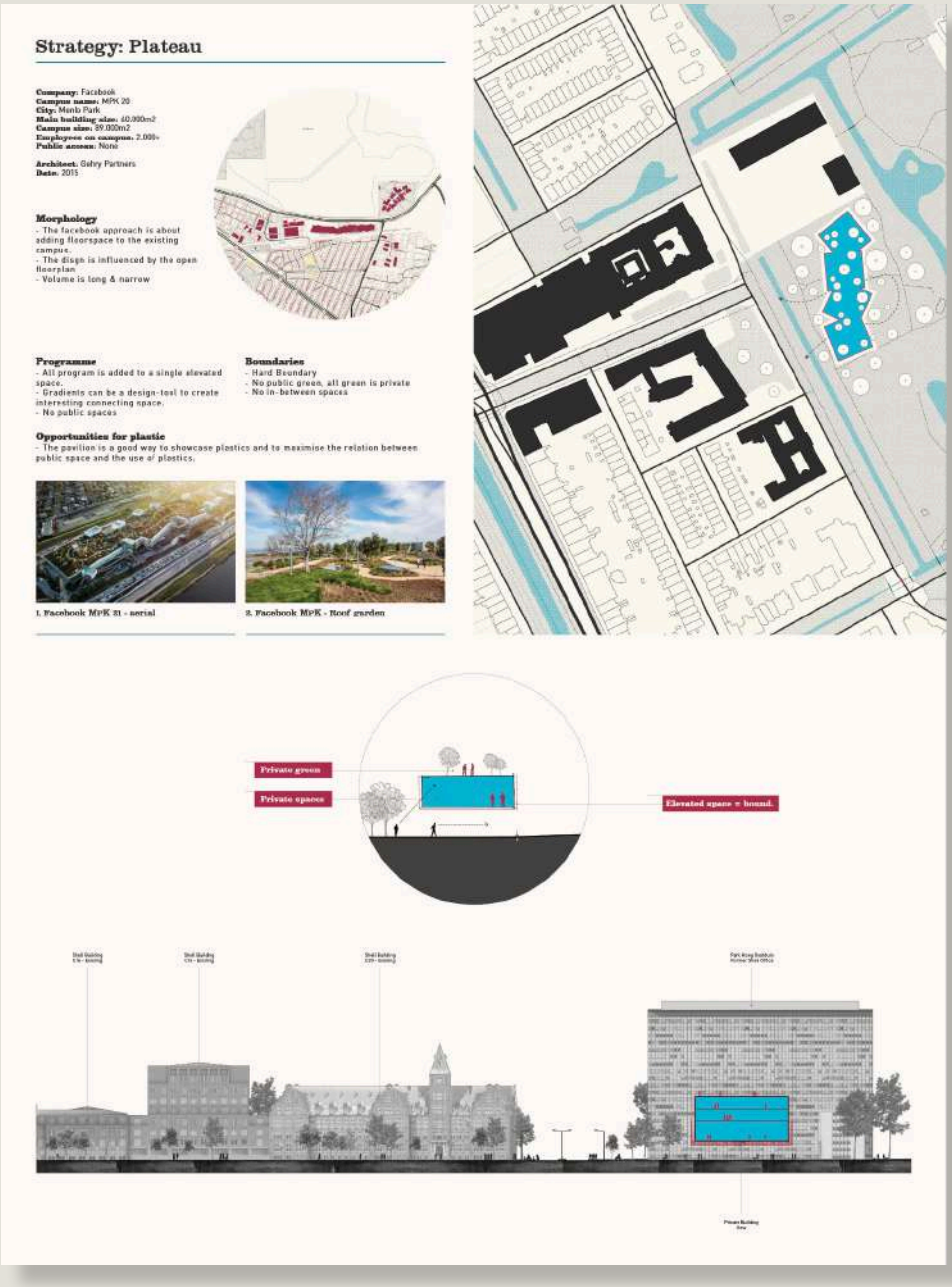

## *Poster 3*

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman




## *Poster 4*

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman




## *Poster 5*

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman

# Sketches & notes

presentation:

- Introduction → Robert Development Director-
- Not to focus ocean plastics, But:
  - spatial strategies, programatic strategies → lead to right intervention for the material. Application

Two Reasons:

- plastic consumption growing exponentialy
  - short lifespan
  - Recycle in Buildings! 35
- fossil fuel companies → 20%

  [Shell can benefit from using plastics]
  Apply & Innovate with its own material.
- plastic lifecylle.

---

- PARALLEL TO THIT issue -
  Shell announdec to Build a new hub for Sustainable Energie sourcess in the hage
- the target is to use ocean Recycled plastics, for this hub Building material. But First! Programatic & spacial influances.

## Campus!

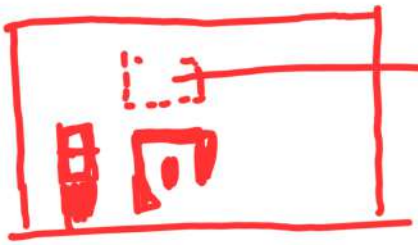
- Campus Design isnt limited to the Academic Realm.
- TEAM 'corporate campus' speaks of a shift in how Businesses WANT to profile themselfs
- This new model has Requirements however: must Be: - photogenetic
  - promote values.
- Silicon Vally model:
  - Clearest example of this.
  - sports, healthcare -
  - Focus → Retain talented staff "Bubble world"

"palaces of informality to house workers driven by a belief in a technology driven utopia"

# Sketches & notes

pieter Robert JAN-WILLEM

JW:



To easy!
- NEGATIVE space?
- Quantum leap!
- 1+1=3!

Ref: oma, world expo, Boundaries.

Analize the context as the Case-studies!
Document, it beter!

Robert: Hide behind your concept!
make the Rules, let it lead.

Den Haag is conservatief! WAT BETEKEND dat?

Like apple: What is shell's corporate identity, desings philosophy, Esthetic.

Pieter: explore the different urban tissues
Ref: Jean Nuvel
Shell; "Eat!" other companies, maybe; introduce startups

other "shell" Buildings

map the history of shells Buildings!

## To do:

- Find out more about shell,
- Find out more about the Buildings, Like the rof studies.
- Map shell's Behavior, make conclusions
- make an approach → "Hide Behind your concept!"
- → approach → program → go wild!
  - ↳ models

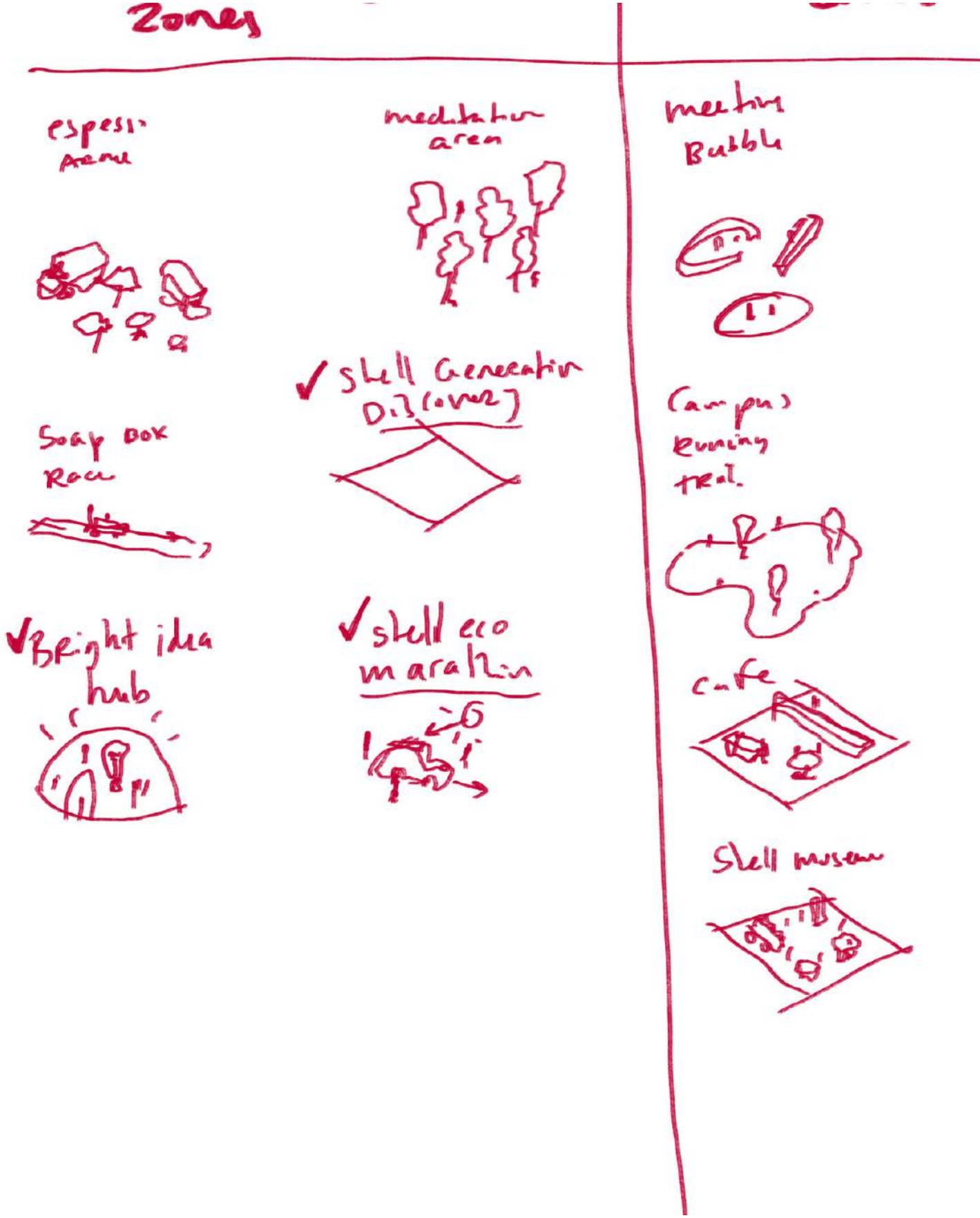
IDEAS:

- MAP shell Behavior, Buildings ↳
- MAP shell historie, Attitude
-

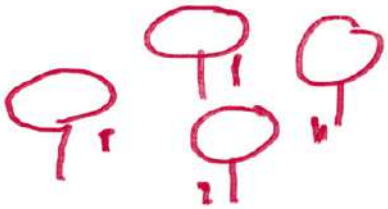
## to do general:

- Conclutions, casestudie
- Work on programme diagram,
- 3d enviroment.

# Sketches & notes



meeting umbrella



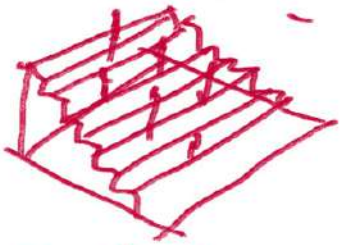
Fitness

Skull shop

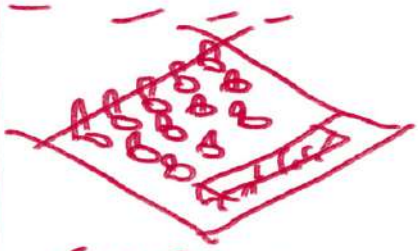
Restaurant

employee Garden

R&d zone



Auditorium.



Conference Spaces

walk in the woods

Incubation Space.

visitors centre.

# Sketches & notes

Historie of shell

19e eeuw Samuel & Co. (1830) → Japanse schiaschelpen / Lampolie → Shell Transport Trading Company

1900 mosselschelp → st jacob.

1907 N.V. Koninklijke Nederlandse petroleum Maatschappij + Shell transport.

→ = Koninklijke/Shell Groep.

1915 Shell Company of California. → Tankstation + Spaanse bonden → Rood/Geel.

2004 → transperantie en aanspreekbaarheid.

→ 2007 → Royal dutch shell plc. → hoofdkantoor den haag.

2015 → oost duinst ontwikkeling. Sep. okt, nov, Dec.

Jurre van Driel

Contact Shell – 070-3779111

Begin vorige maand → omwonende bijeenkost was M.B.T. campus – ontwikkelingen.

Jurre van Driel. programme Manager HQ Redevelopment Shell Real Estate

→ student Academy bouwkunst in tilburg – Master of architecture

- parrallel project →

- theoretisch Rackvlok.

Case afstuder onderzoek:

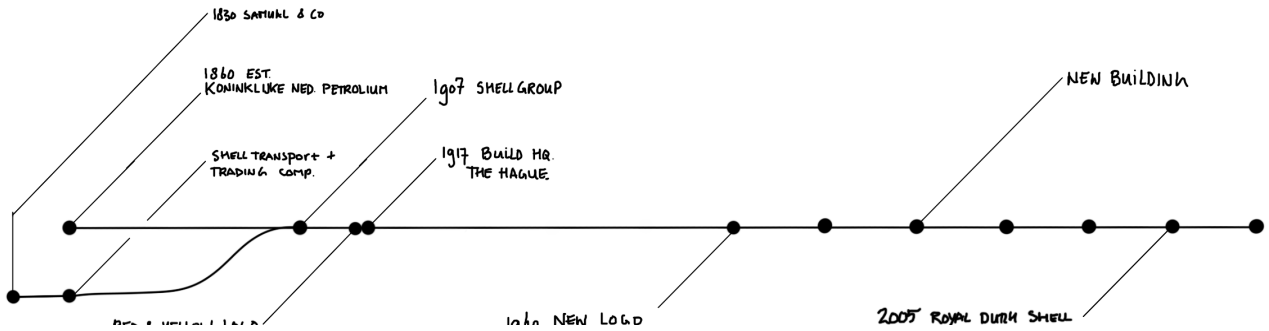
Shell campus den Haag.

- inzicht bestaande

- Bezoek?

-

Move Real.


1830 SAMUEL & CO
1860 EST.
KONINKLIJKE NED. PETROLIUM
SHELL TRANSPORT +
TRADING COMP.
1907 SHELL GROUP
1917 BUILD HQ.
THE HAGUE.
NEW BUILDING
2005 ROYAL DUTCH SHELL

# Sketches & notes

plastic fantastic  MATERIAL DISTRICT.  12-12-2019

Els zijlstra

1. thermoplasten
2. thermohardeers
3. biodegeidble. → 4 bioplastics.

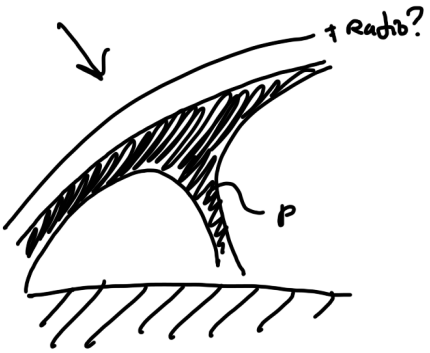
chelk → - Ellen McArthur foundation.
- IKEA CHAIR.

duurzaamheid i.r.t. levensduur.
levensduur staat i.r.t. toepassing.
L.C.A. Berekening.

---

STUDIO SIMONE PUST.

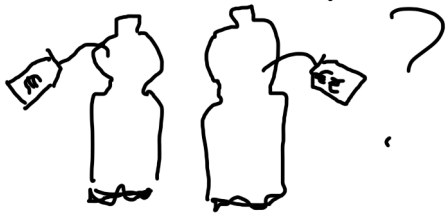
MATERIAL passport - Thomas Rau.




Benamingen → onderwijs.
↳ marketing. →

→ estheatica van gerecyclede producten?
→ golven van gerecyclede producten, door de geschiedenis

OCS? sloot?



→ Waarde van plastic & Afkomst?

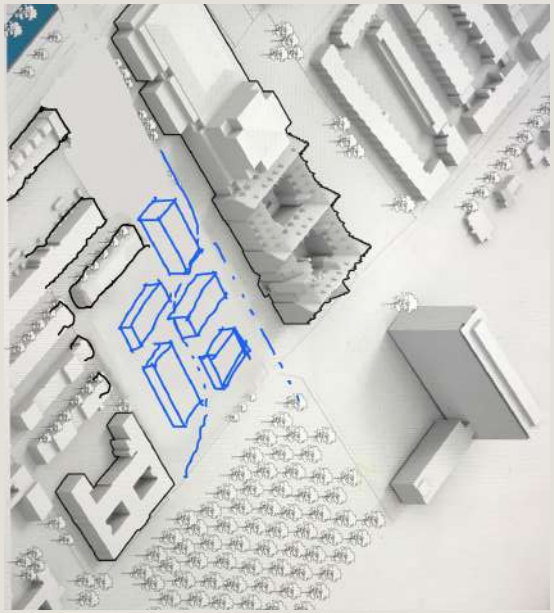
MoMA

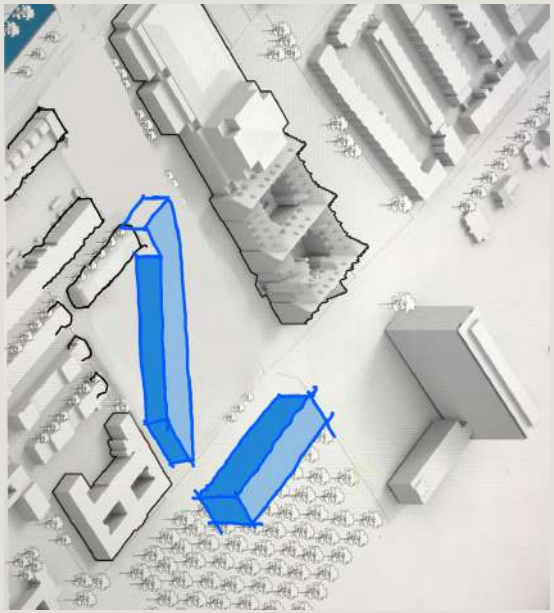
# Sketches & notes

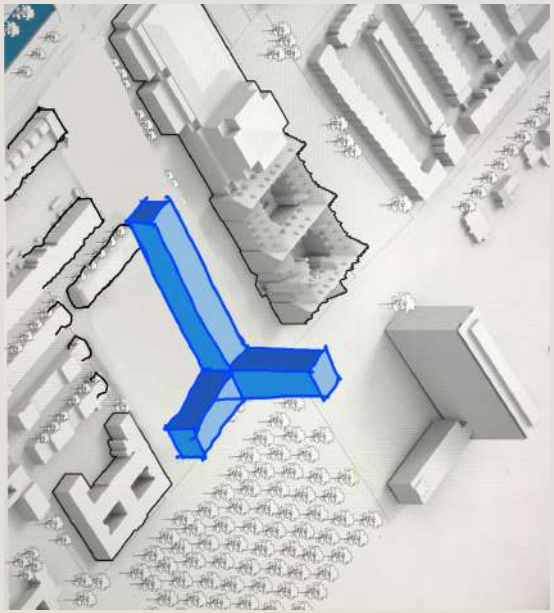
- make your hypothesis clear in 3 secentenses.
- WIE ZIJN DE ACTOREN? → shell → overheid?
- explore a larger terrain arround the plot.
- investigate in what way shell hose Expundand in the city ~~throughout~~ of the hague.

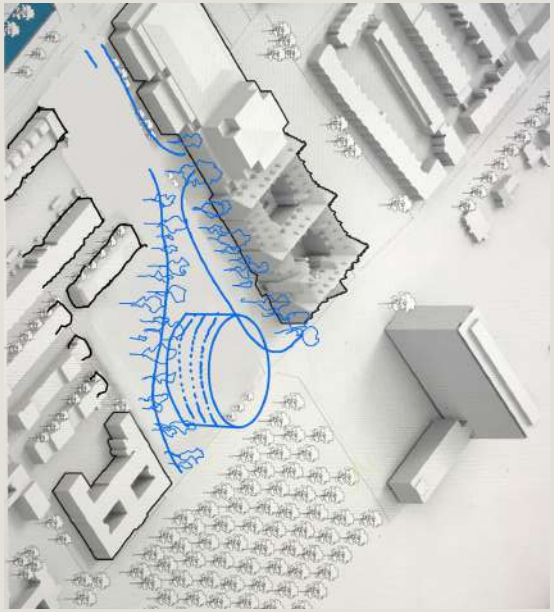
---

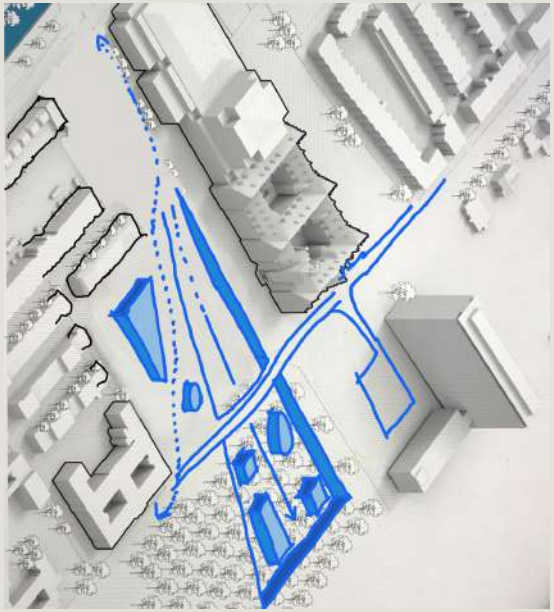
- Check REFERENCE → Koolhaas bienalle., overlap is what makes it interesting.
  → taking away boundaries.
- Shell has a culturore of agglomerate, maybe ad startups to the new program
- Shell's having no regard for it's surrounding, Discarding it's former office Buildings,
  in what way can shell expand,
  → negative space?
  → Expand in it's current manner?
-

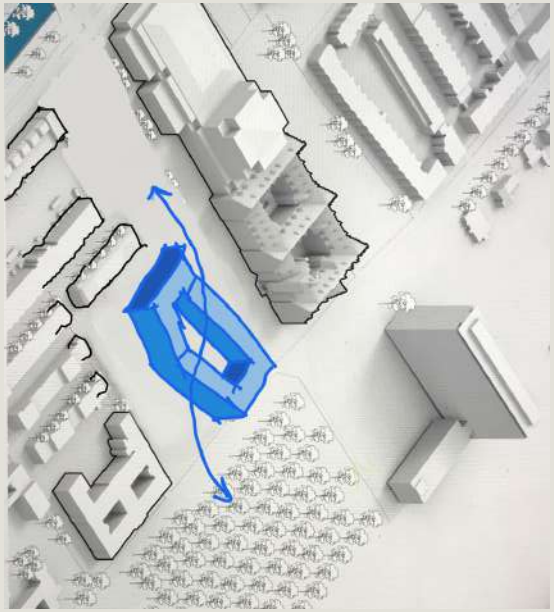




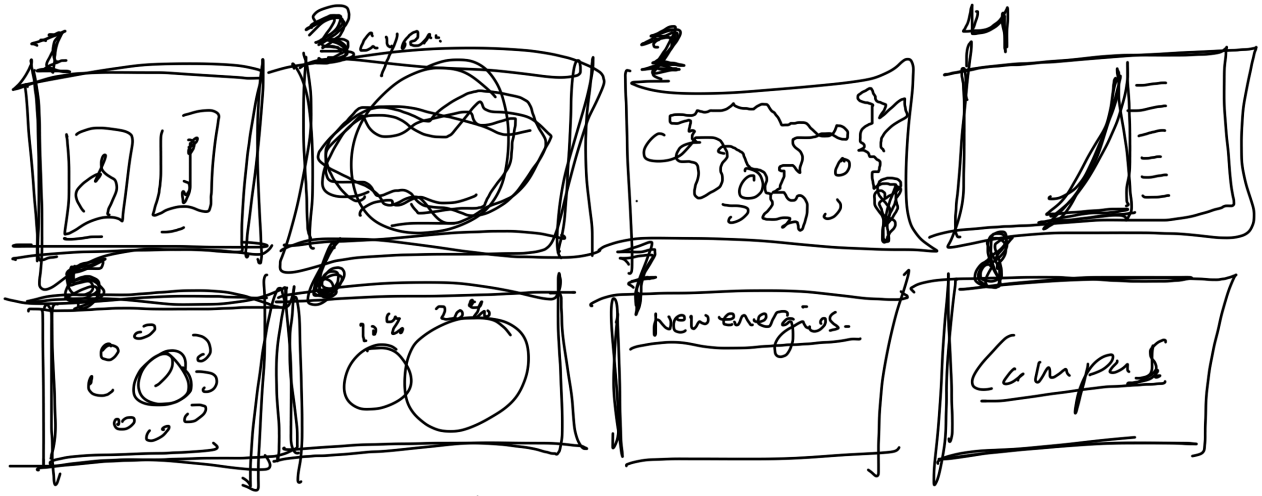






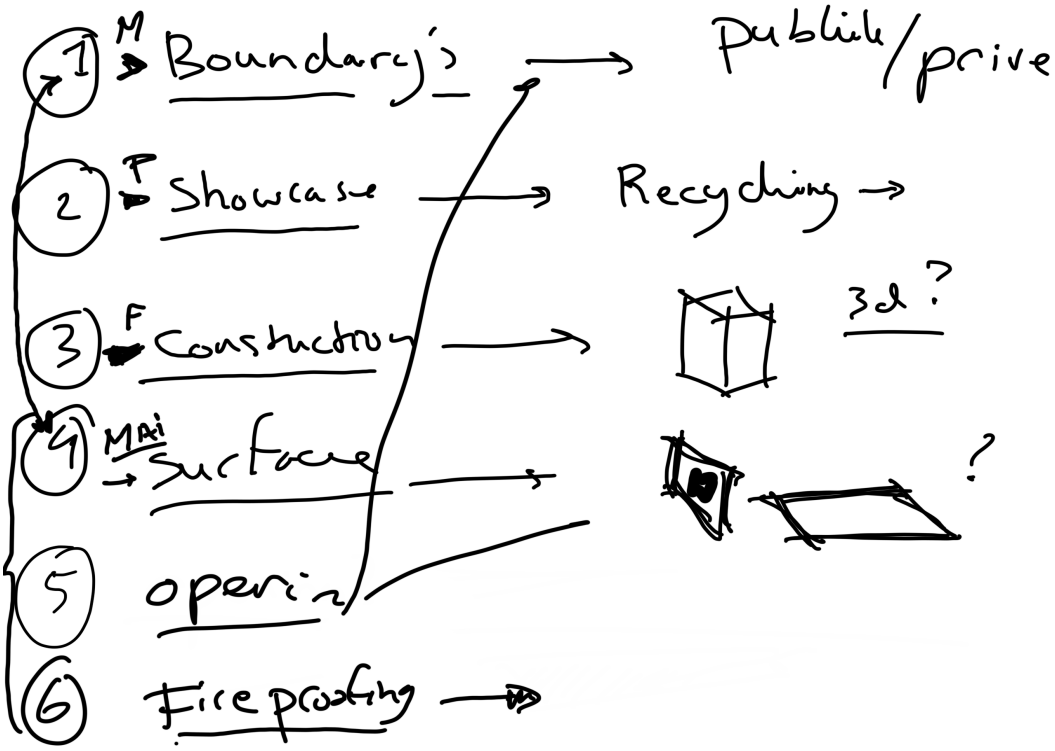


# Sketches & notes




~~Email → understand~~

understand without words. → tag line.



Boundaries
Construction
Showcase
Planes / surfaces

- thank you.
- Introduction, Sebastiaan... → Acadamy 4the master → Rotterdam → little to stressede. Restart... help
  - Graduation - march → April.
  - Working on document thesis, Disstilled version, Rob
- ① Relationship with plastics. → Comfort hase made us depend.
  - how dependend we have become → What it results too.
- ② ends up in ocean - problematic than Landfills.
  - stopping the problem. → 8 million tons
  - Time is of the essence
  - ocean plastics is ar

"mopping the floor with the tap wide open"

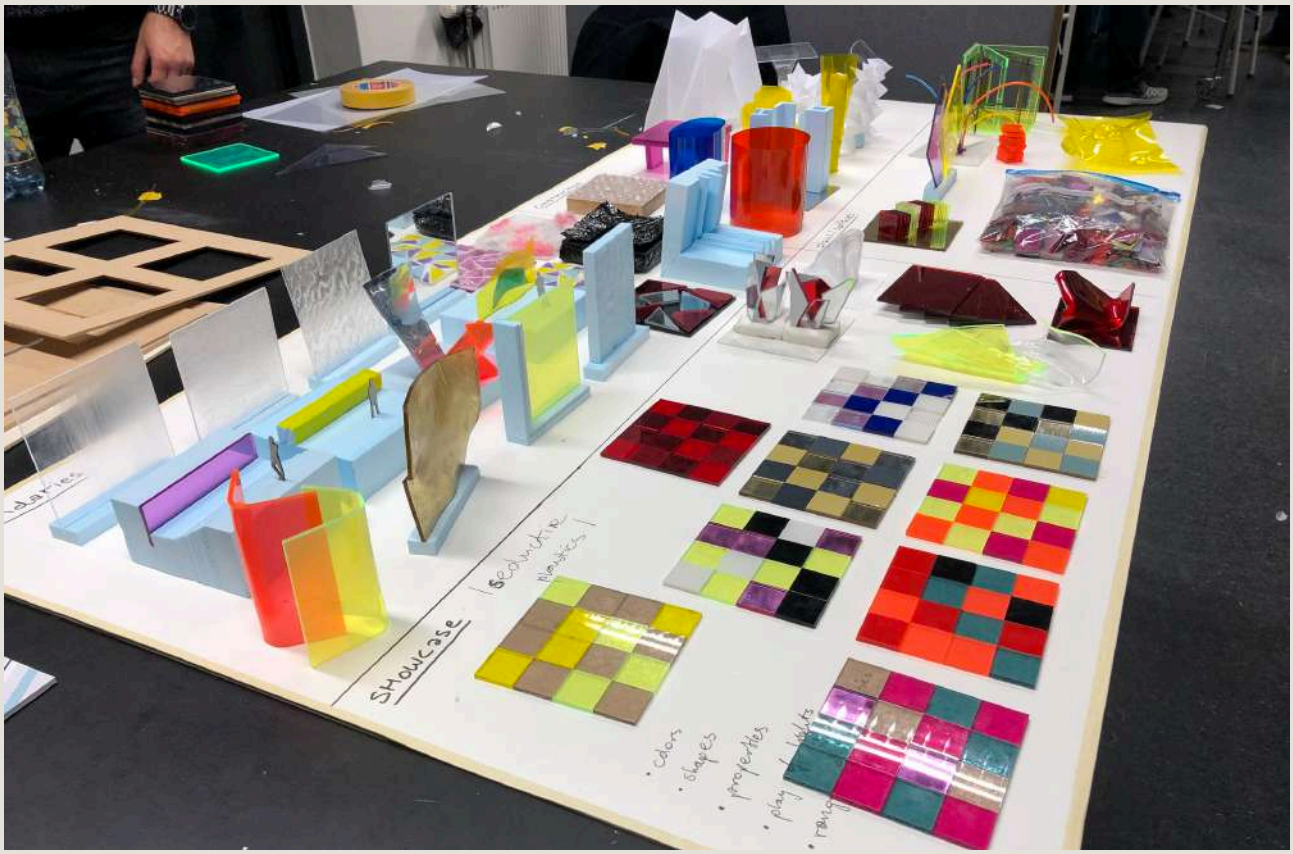
- ③ Ocean plastics as a resource.
  - sertain companies take advantage →
  - treat it as a commons = cultural and natural resources accesible to all members of a society.
- ④ plastic production
  - When we have a resource, we can start to think of applications
  - presure on Long-cycle applications.

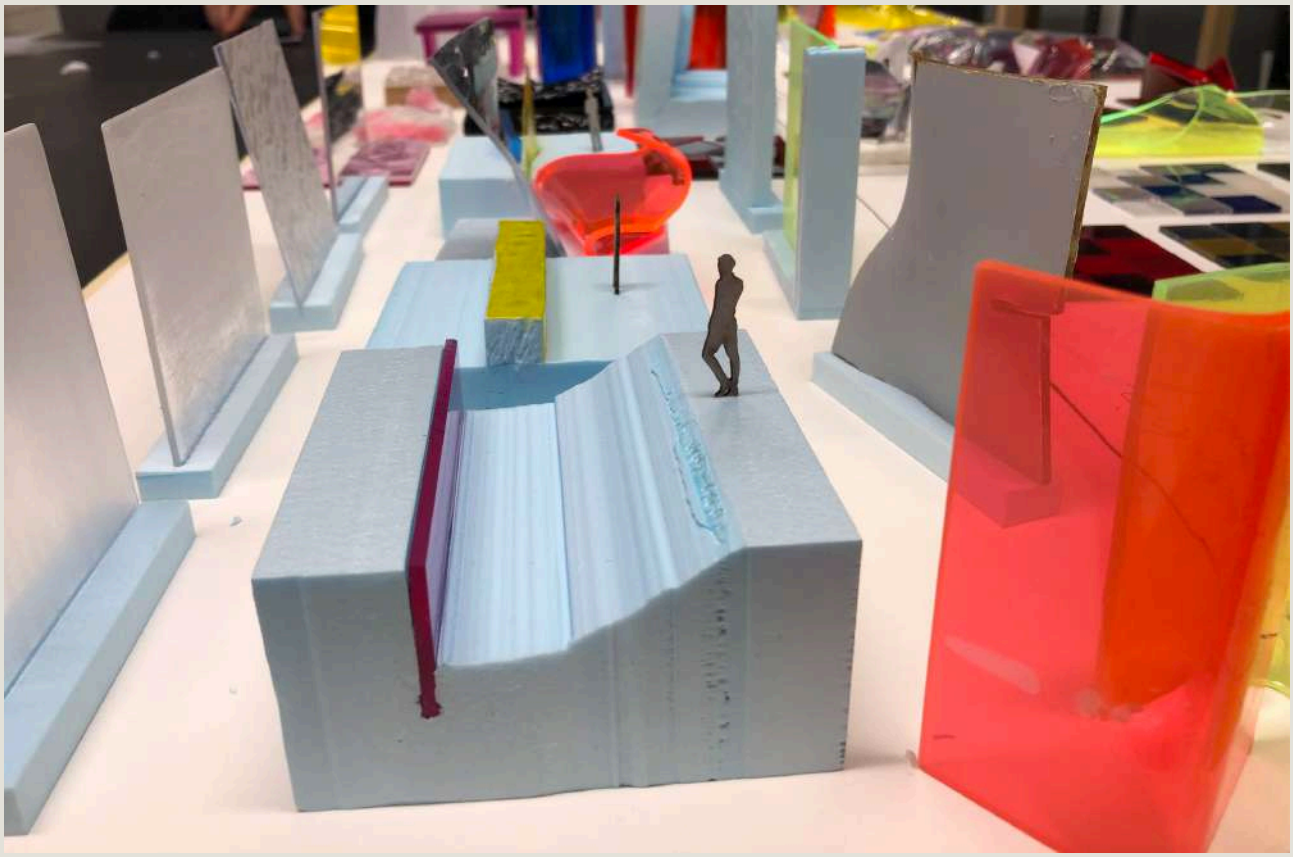
① Relationship with plastics
Comfort hase made us dependent
- Result

② - OCEANS
- LANDFILLS,
Mopping the floor, !
time is of the eccence!

③ Ocean plastics as a recource!
- lable it as a commons!

④ When you have a recoarce you can start thinking of an application
Long cycle application!


SHOWCASE
· colors
· shapes
· properties



# Sketches & notes

INTEREST BOTH:

Business sided people | Critical abo Plastics

shell positive

shell is taking responsibility

→ sink → sink

more positive

- positive site opportunities
- education institutio
- → shell plastics new face.
  - ↳ future use to it →

how does it all come together

↳ museum (on all together)

project exposure !! →

plastics replace materials

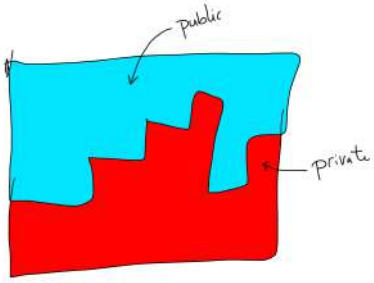
→ simplicity →

→ application → different function for plastics.

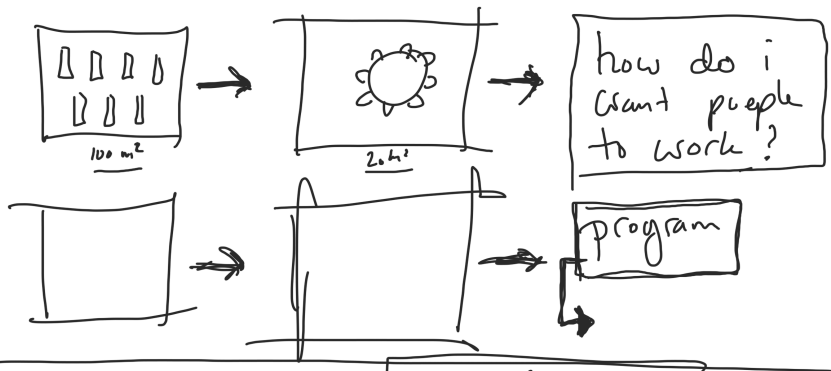
Flexible!

shiny and recycled

entry pavilion: draw people in

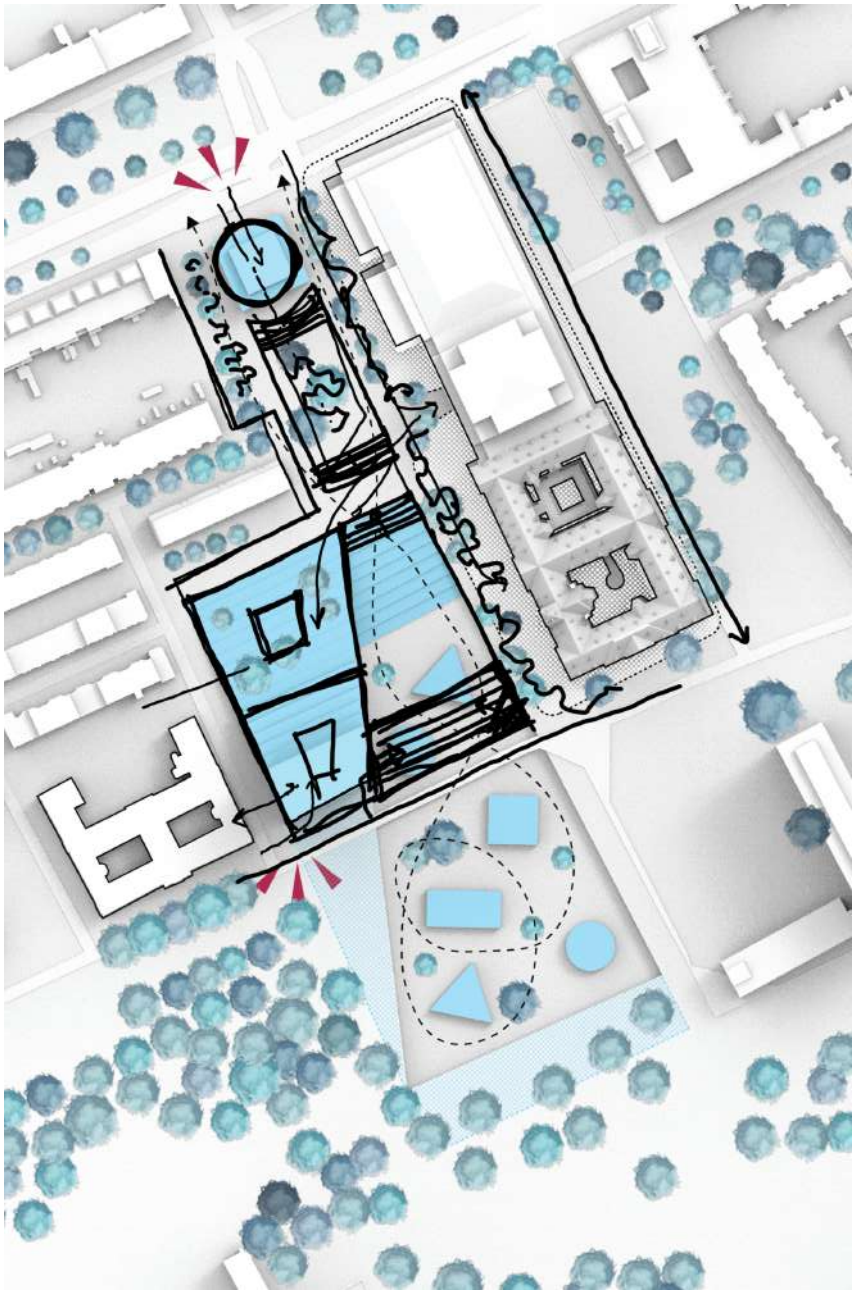


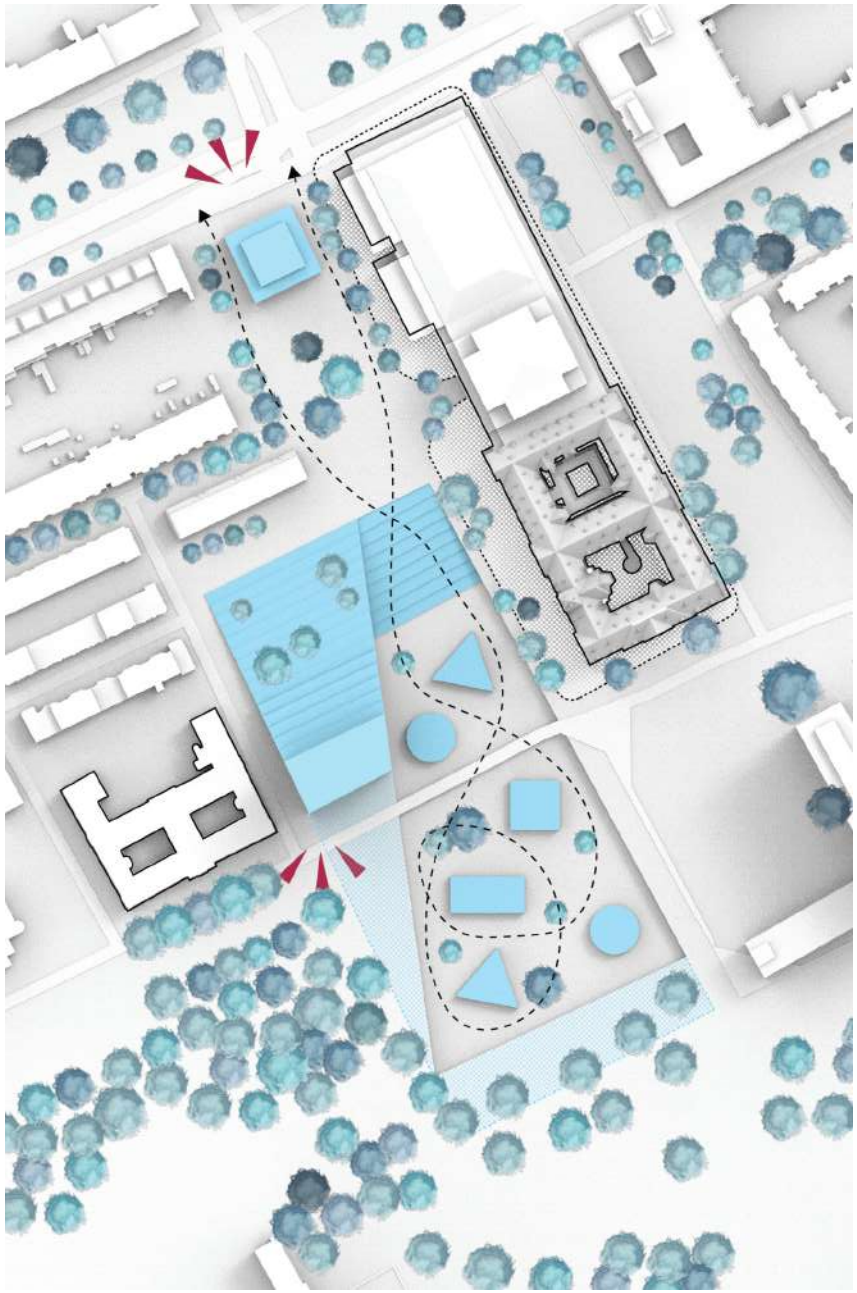

- What is it i want to show?
- how do you want the people to work?




people they attracted → best for shell

detail the program! →





# Sketches & notes

18-02-2019

+ Winterschool
  - Grade? — 5
  - TAK — 9

+ Could you use your model?
  - no

+ Design
  - Where are you on youre Designe?/ Are you out of conceptual Designe?
  - 40 %

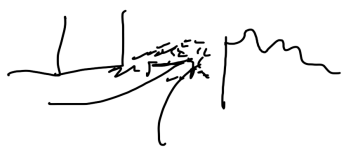
+ Essays
  - how is the feedback? -> do you racongnized the comments.
  - your essay is outdated?
    - sources?
    - → Architecture a topic? → do you write about it?
    - → do you need graphics? → No!

tip: Make desitions!

+ preliminary design !

Ruberic -
- present pages
- Not traditional Linear Line
- essence - story telling
- how is material used?
- Instalations? how are they used?
- models are just a repreduction? Added value!

Problem



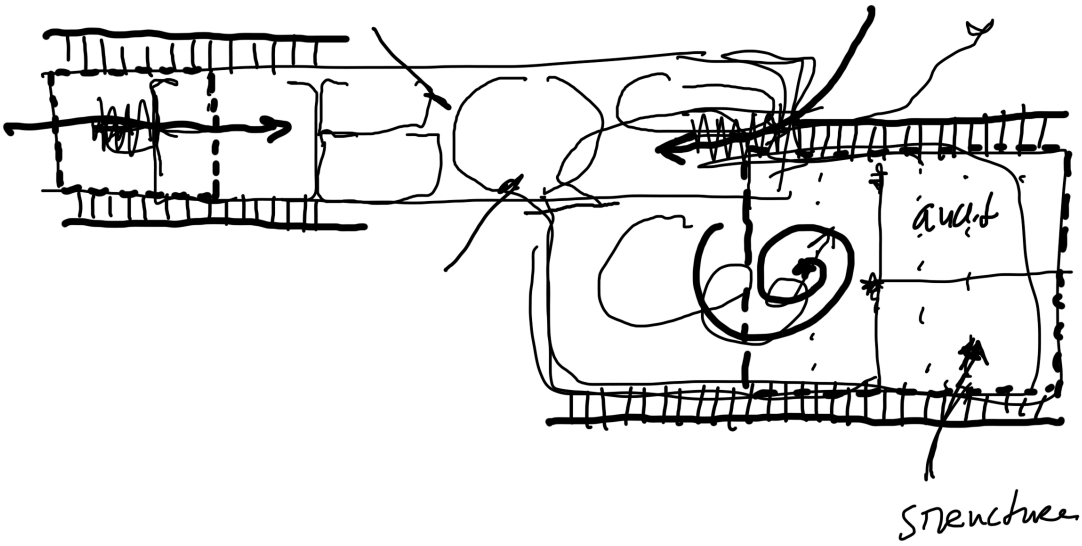
Project B

Bijna een oplossing

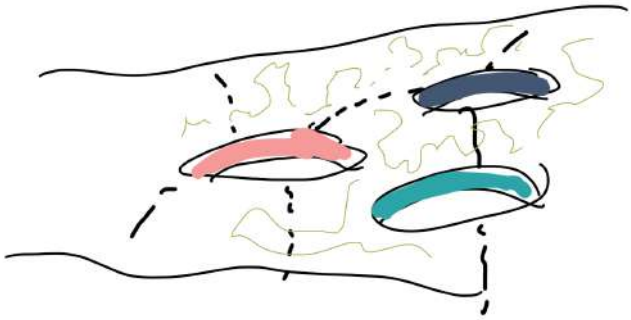
Parijs

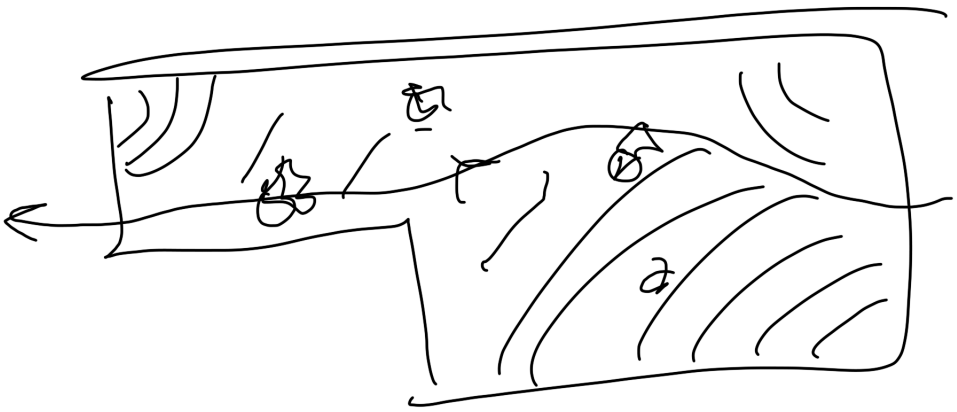
- BP - Parijs
- OMA - marrokeko (duinen) landschap contra wal.
-

Drogen!




Area- Landscape





# Sketches & notes

18-02-2019

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  - Where are you on you're Designe?/ Are you out of conceptual Designe?
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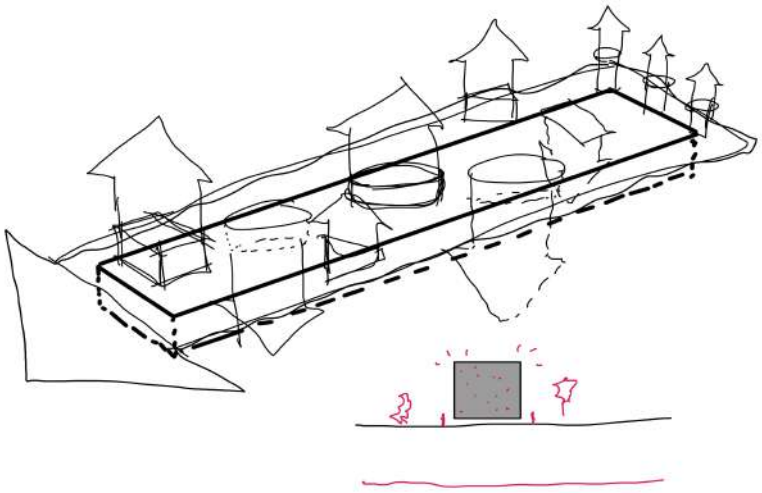
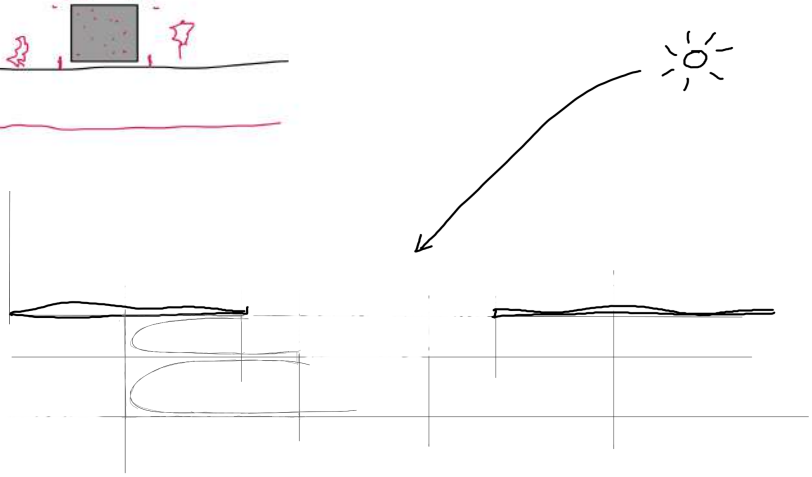
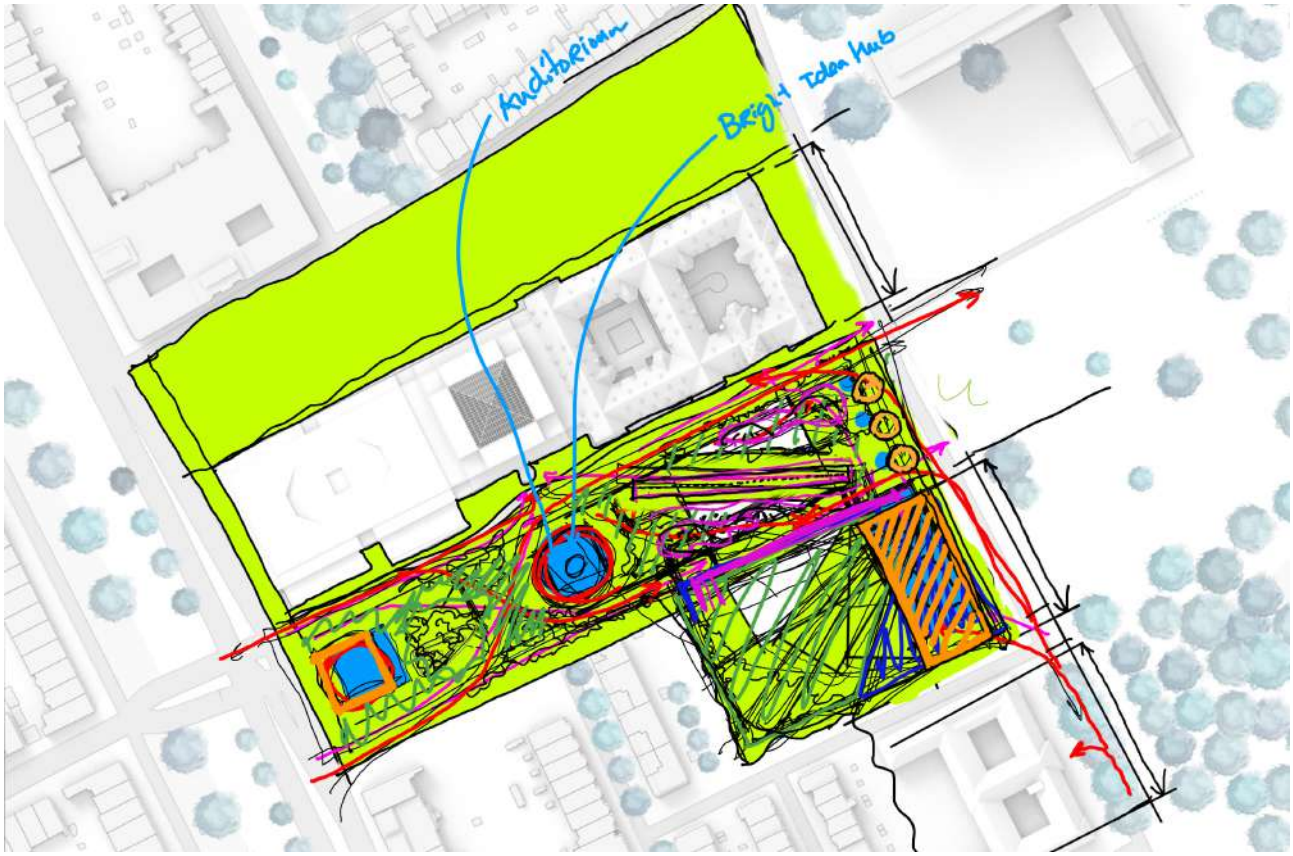
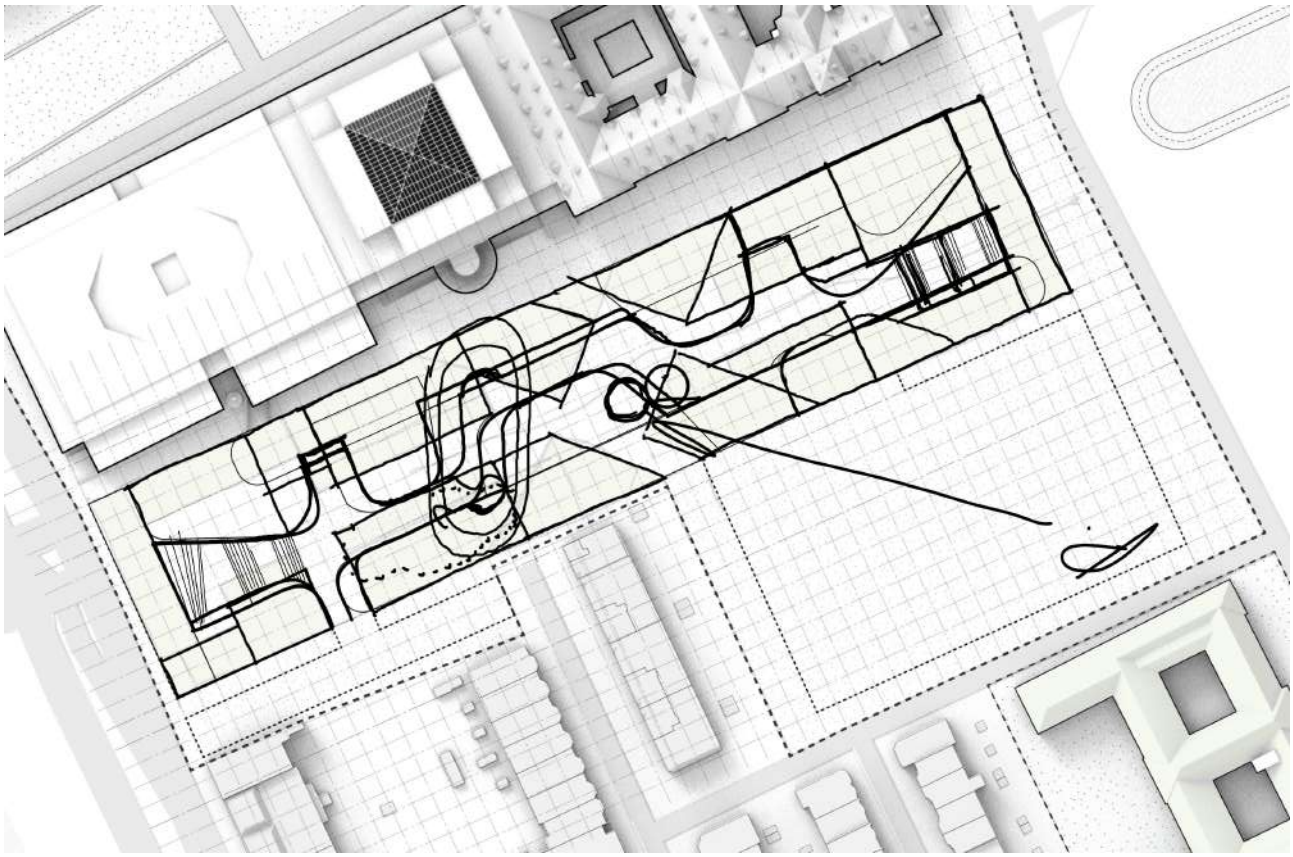





Kindergarten
Bright Idea Hub



Prelim. Design

# Presentation Preliminary Design

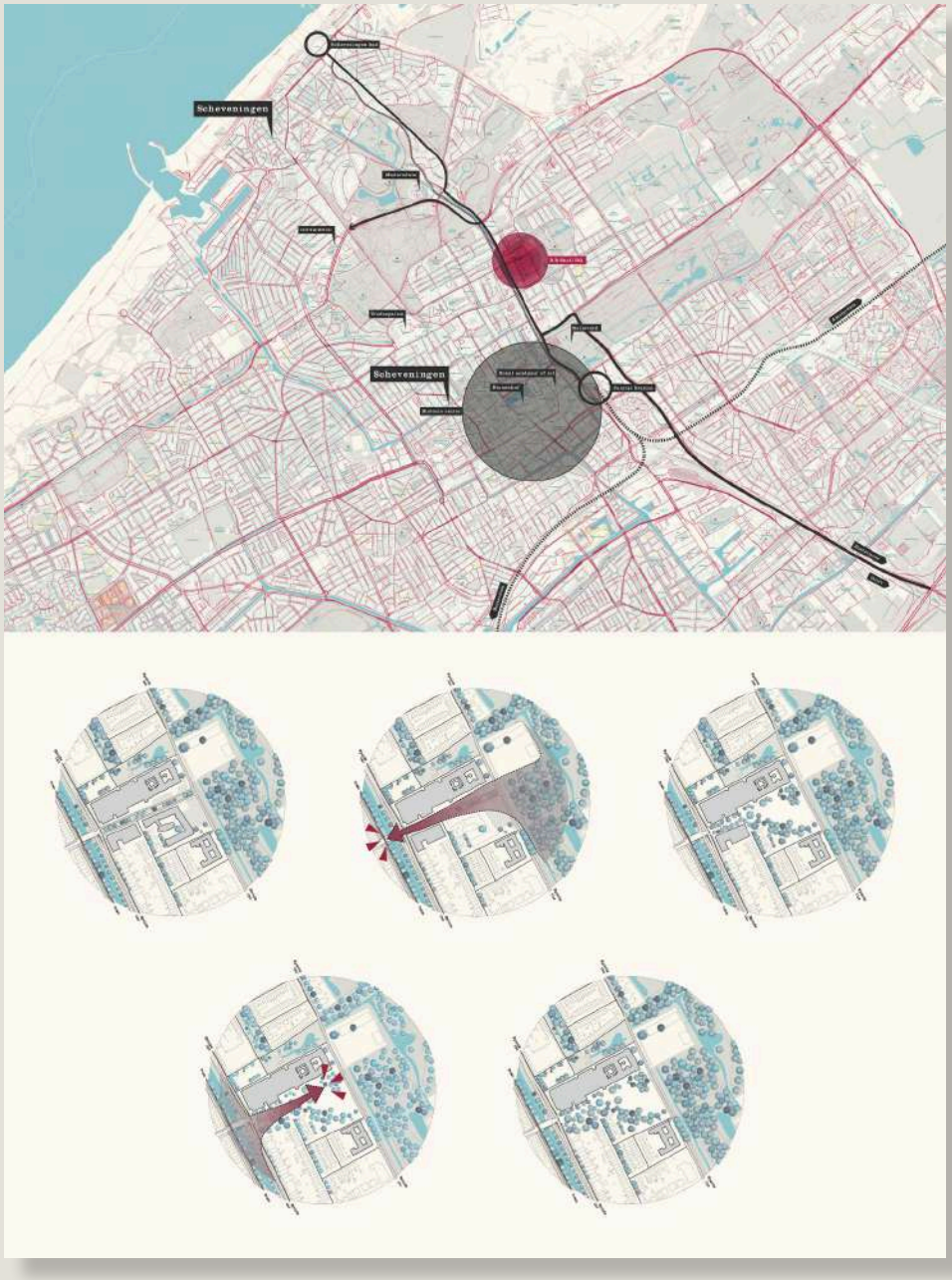
Pre design as a link between concept and detailed elaboration.

Format: a minimum paper equivalent of 3 x A1. An urban context model with inserted project models that explain program and basic logistics, structure, materials and colors. The logbook.

The presentation will include urban and architectural themes and decisions, made in coherence with the points of departure, the elaborated design, explanation of the decisive moments of choice, interpretation of the elaboration into an integrated and full design in the light of points of departure and decisions.

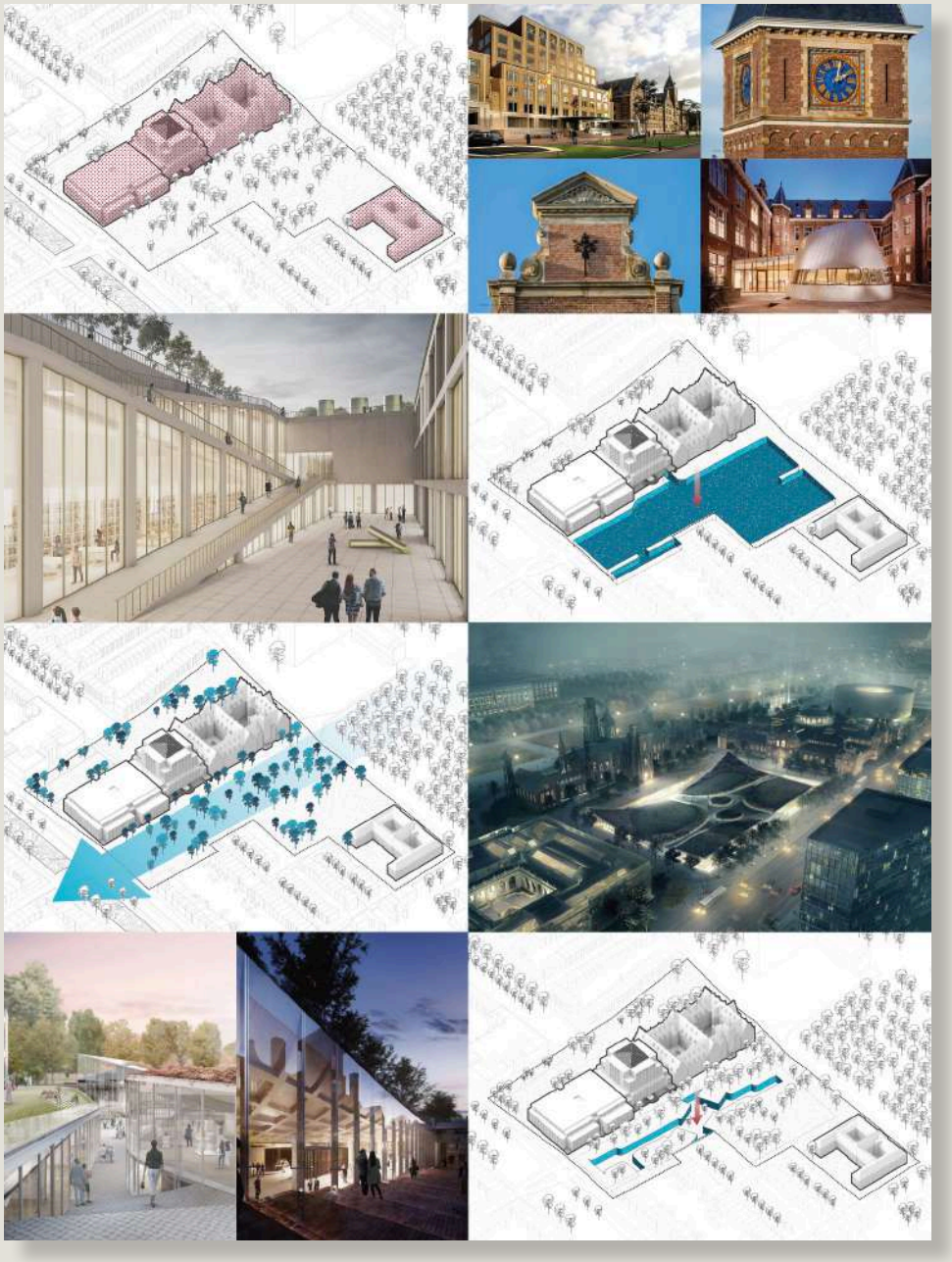
This moment is a point of no return as it will be impossible to elaborate another conceptual design after this within the current planning. This presentation marks the beginning of definitive design. The preliminary design is fixed and right now it is all about criteria, points of departure and choices dealing with further elaboration, technical issues, phasing, materials, details in definitive design.

It is advisable to consult experts from the beginning of preliminary design in order to already integrate technical thinking within the urban / architectural design.




## *Poster 2*

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman

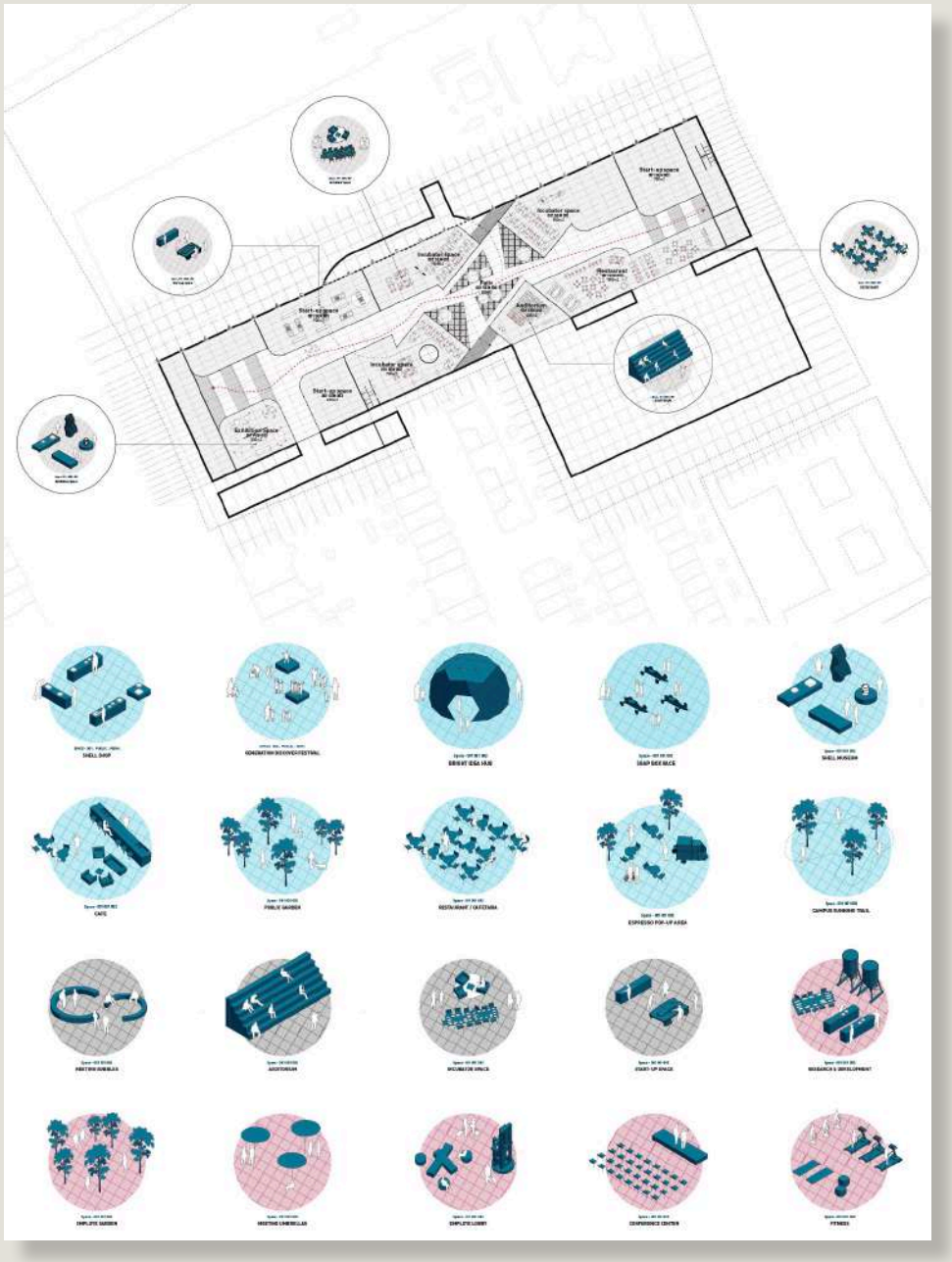


***Poster 1***

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman

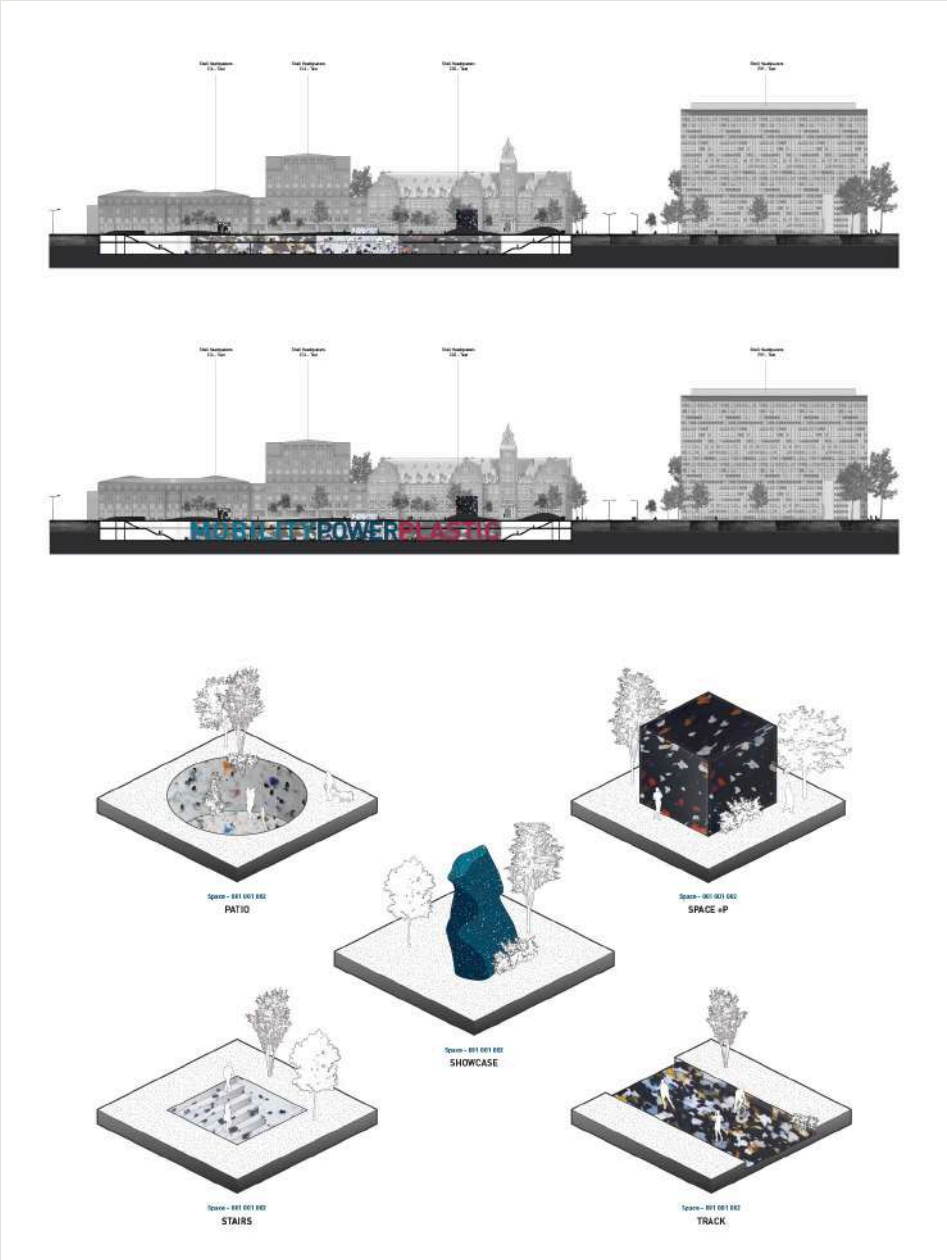
## *Poster 2*

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman



## *Poster 3*

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman



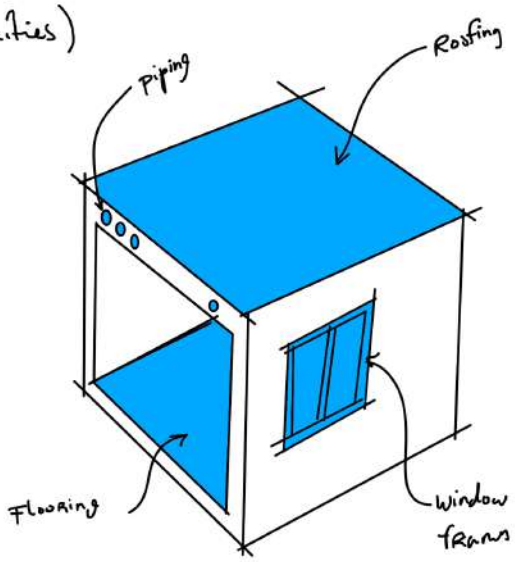

## *Poster 4*

Seahorse latching on plastic cotton swab, 2017; “a photo i wish didn’t exist” Justin Hofman

# Sketches & notes

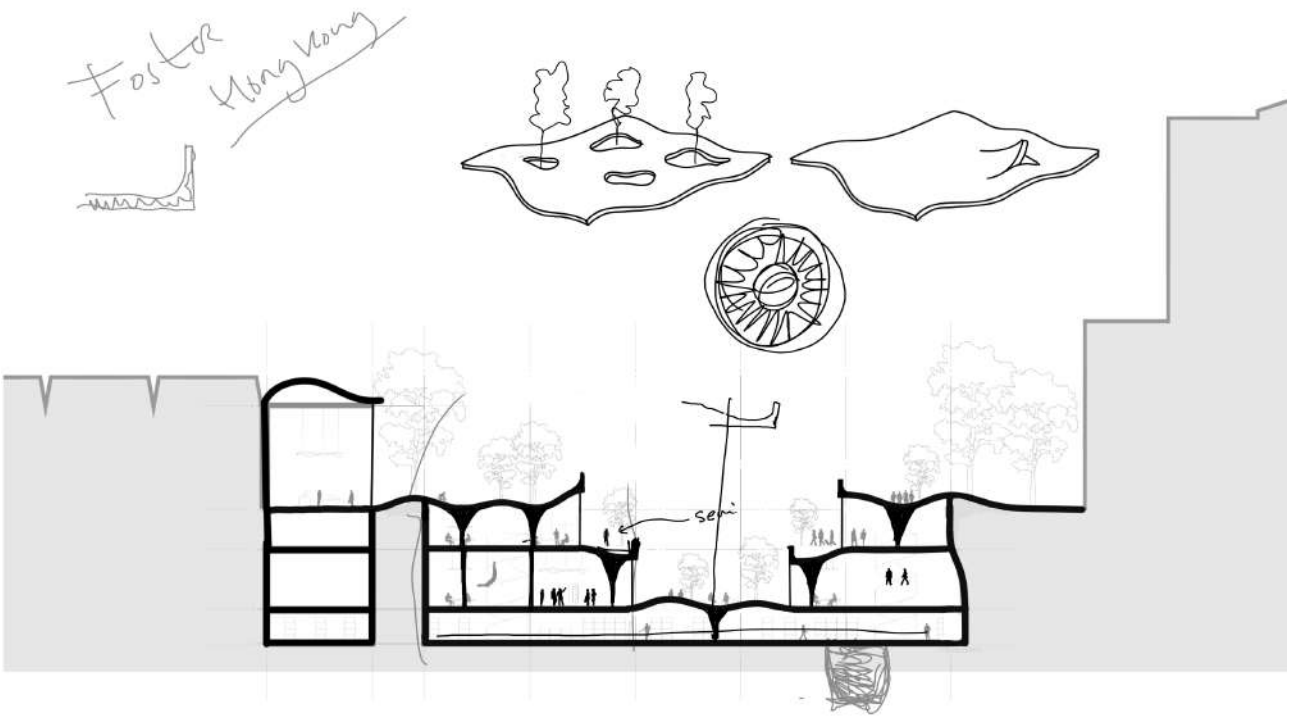
## plastics in construction

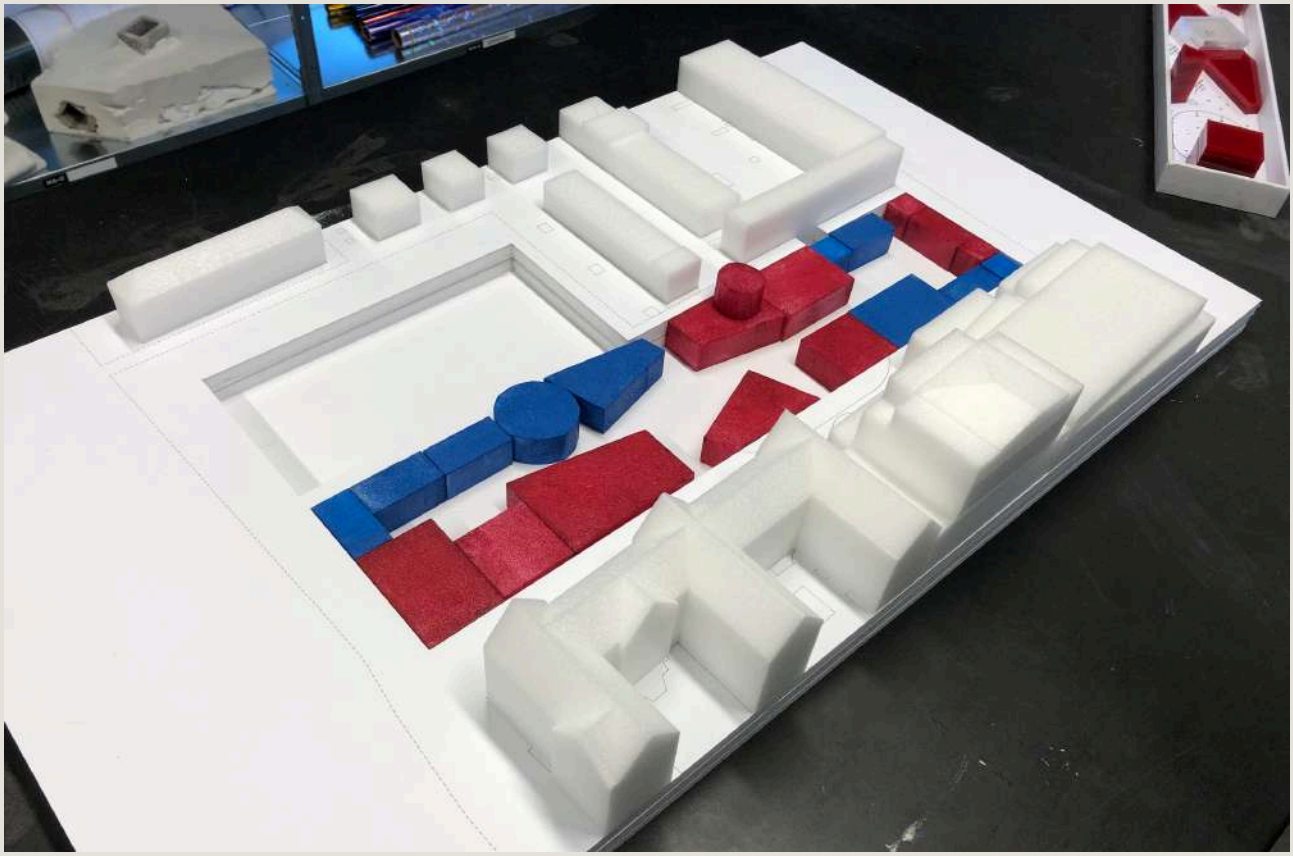
+ plastics are strong, yet lightweight.
+ plastics are durable, knock & scratch resistant.
+ there is no rust or corrosion
+ installation possibilities.
+ design opportunities. (limitless opportunities)
+ Range of coulors
+ insulation possibilities
+ Water tight seals
+ non conductive (electricity)
+ high conductive (Light)

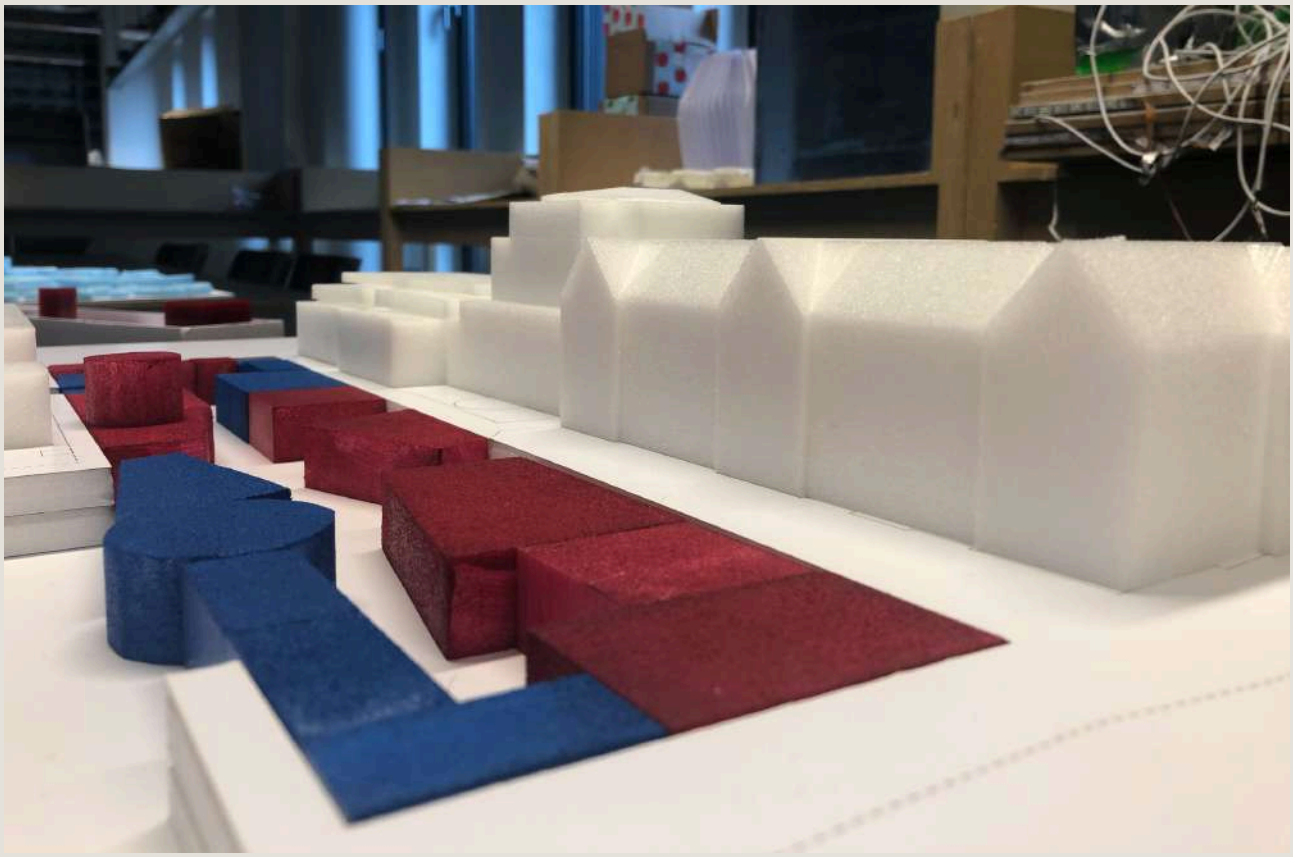



## Limitations

- Degration under UV
- flamibility
- Thermoplastics soften under temperatures
-





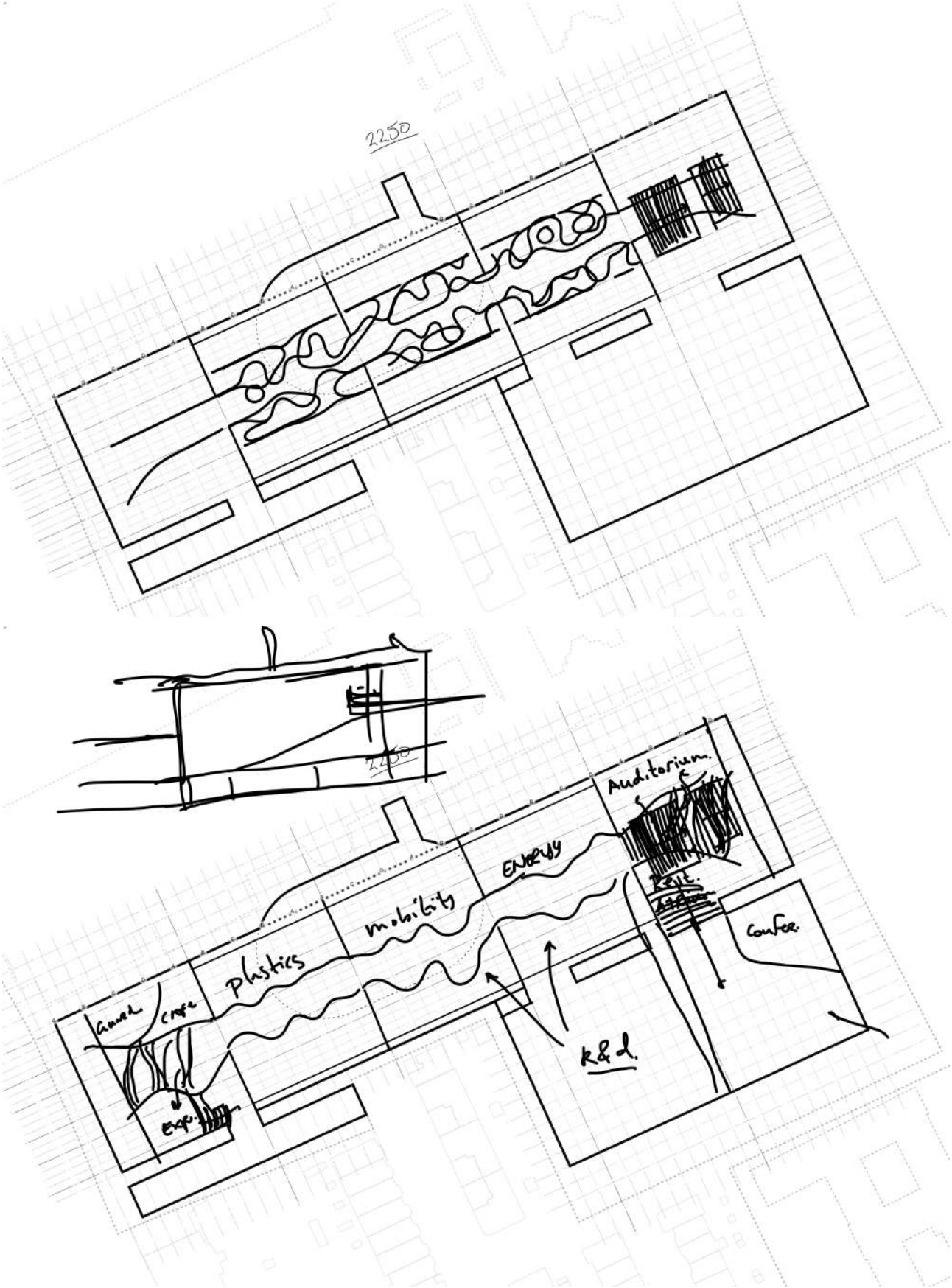


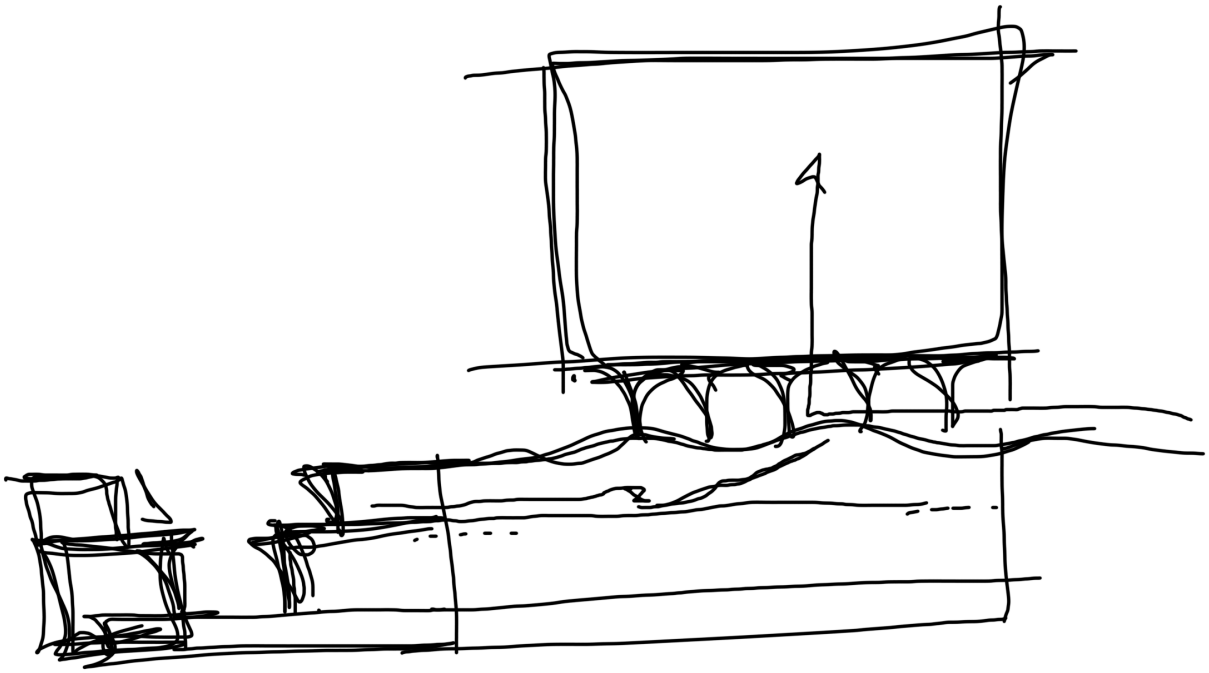
# Sketches & notes

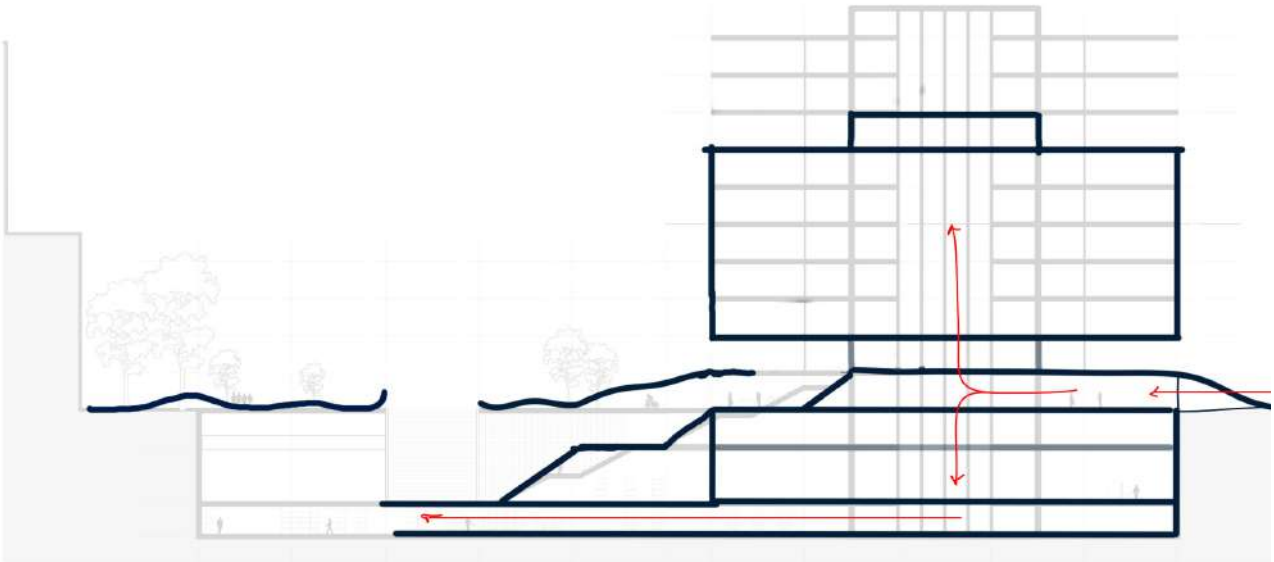
Start-up space
Incubator space
Patio
Start-up space
Exhibition Space


Start-up space
Incubator space
Patio
Start-up space
Exhibition Space
Mobility

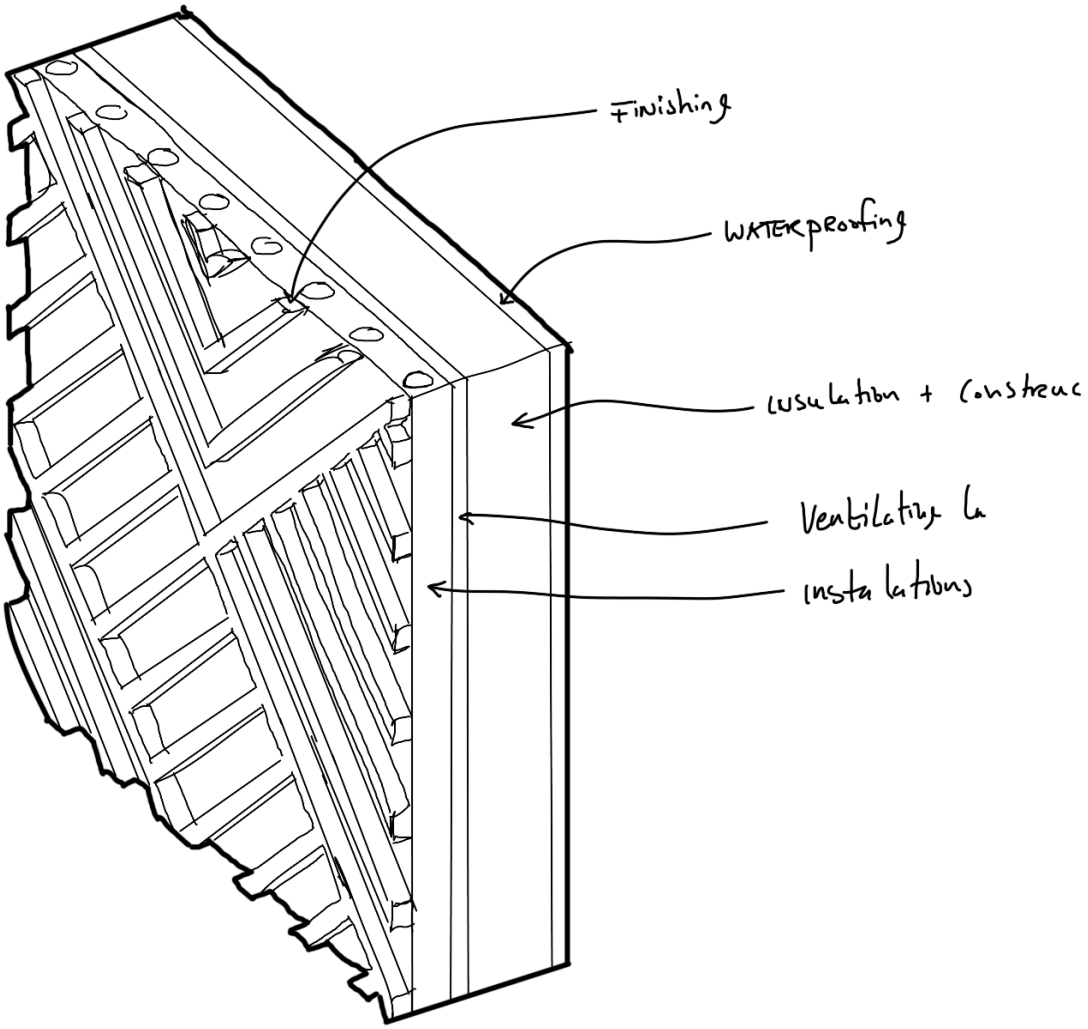
# Sketches & notes

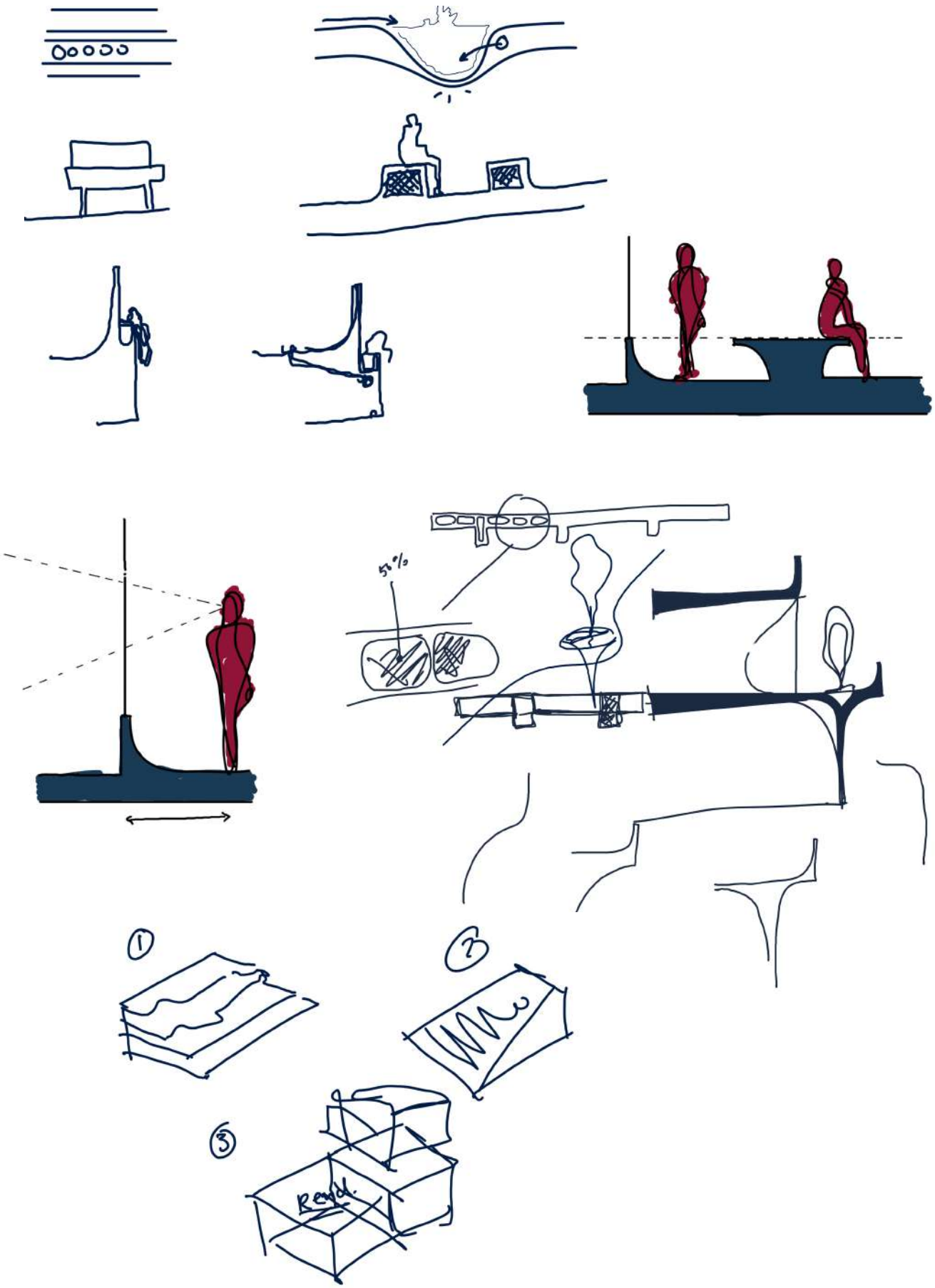






# Sketches & notes




50%
1
2
3
Rend.

Def. Design

# Presentation Defenative Design

Elaboration into detailed spacial qualities, technical issues, materials and detail levels

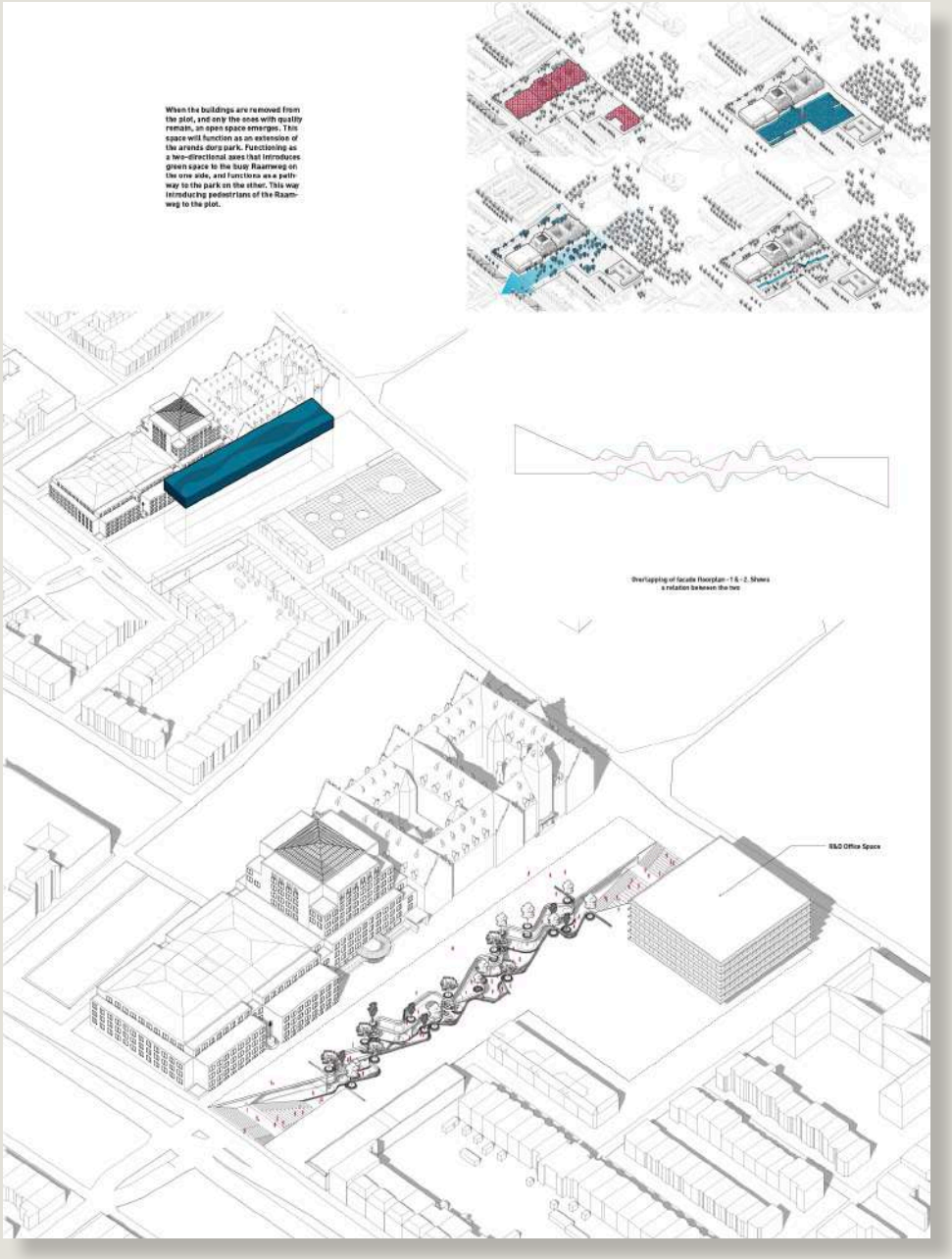
Format: a minimum paper equivalent of 4 x A1, a further detailed project model and logbook. Basic scale levels: urbanism 1:2000/500, architecture 1:100/1:20

Many technical issues are dealt with, but also contextual embedding and relations with history, context, programs and urban/architectural spatial qualities are involved.

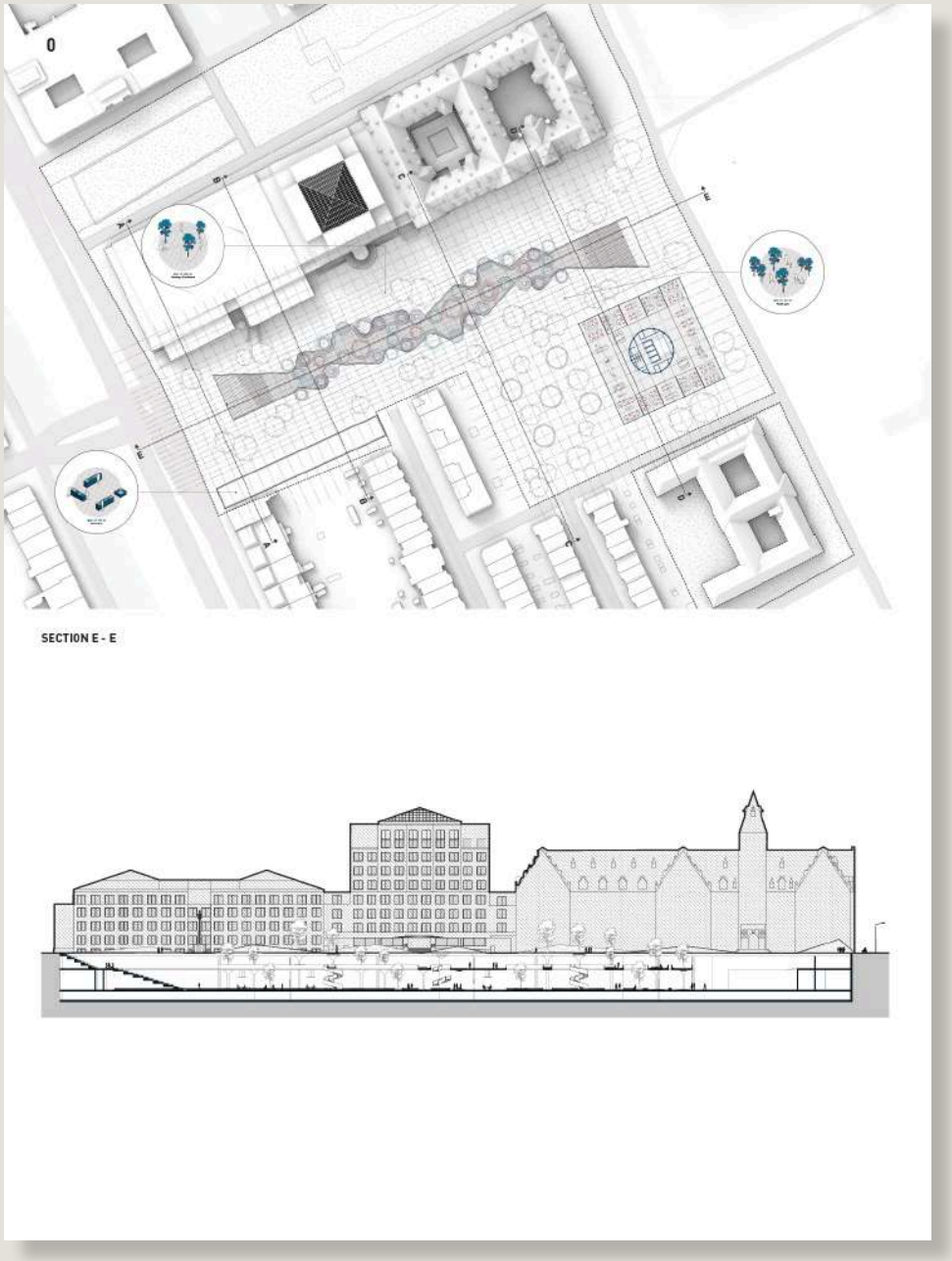
This presentation explains and documents the further elaboration of the preliminary design through technical issues, materialization, phasing, financing, end users, etc. Essential key details will explain and make the project readable for involved experts and will be in coherence with the urban and architectural themes of the project

Most of the programmatic lay out will be frozen, as it is elaborated well right now. So it is important that the program of requirements is logically integrated. A first draft of the essay (500 words) will become definitive at the exam (finally 2000 words).

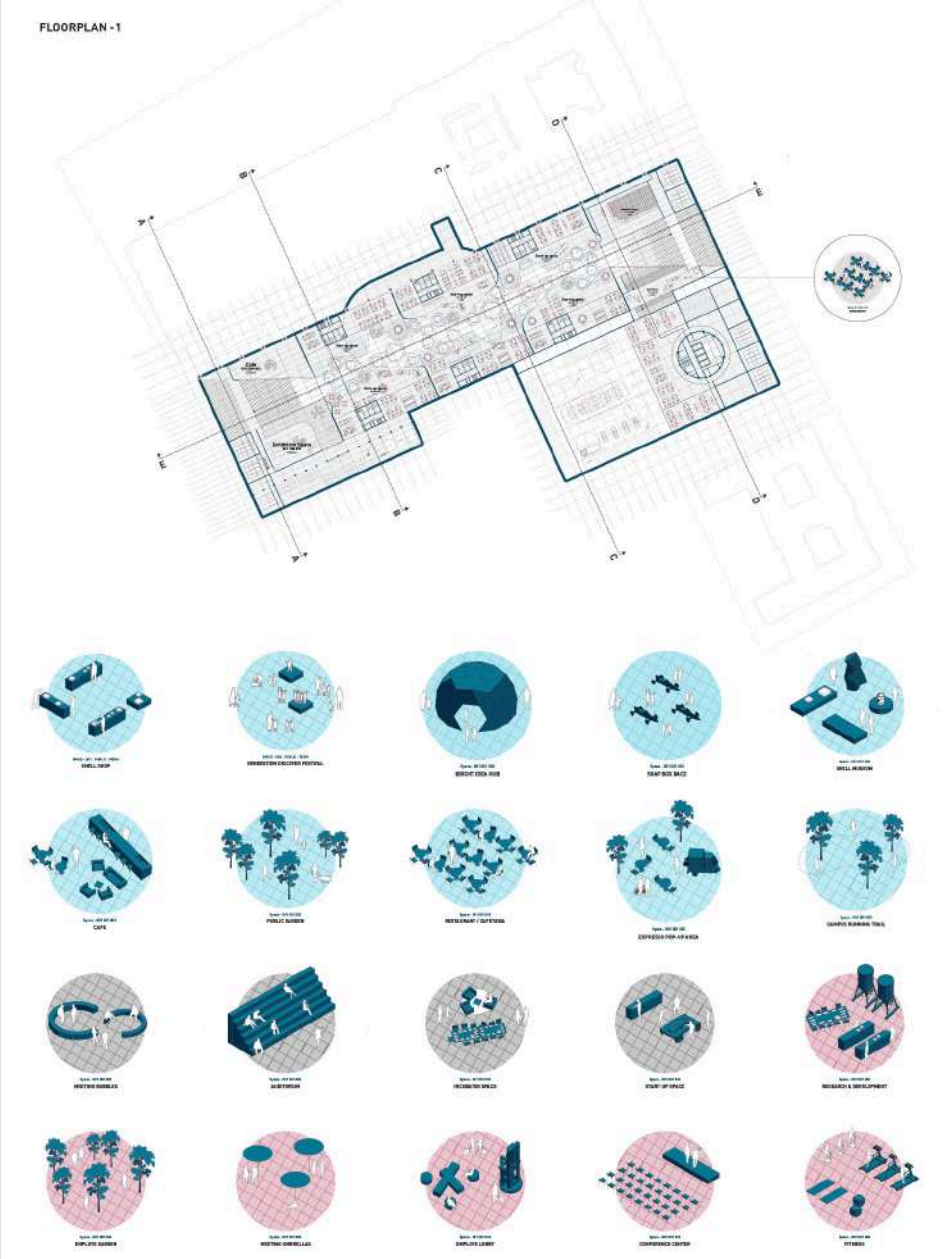
Technical results of consulted experts that are integrated in urban and architectural ways will be explained. A list of consulted experts will be included.


When the buildings are removed from the plot, and only the ones with quality remain, an open space emerges. This space will function as an extension of the arends dorp park. Functioning as a two-directional axes that introduces green space to the busy Raamweg on the one side, and functions as a pathway to the park on the other. This way introducing pedestrians of the Raamweg to the plot.
Overlapping of facade floorplan - 1 & - 2. Shows a rotation between the two
R&D Office Space

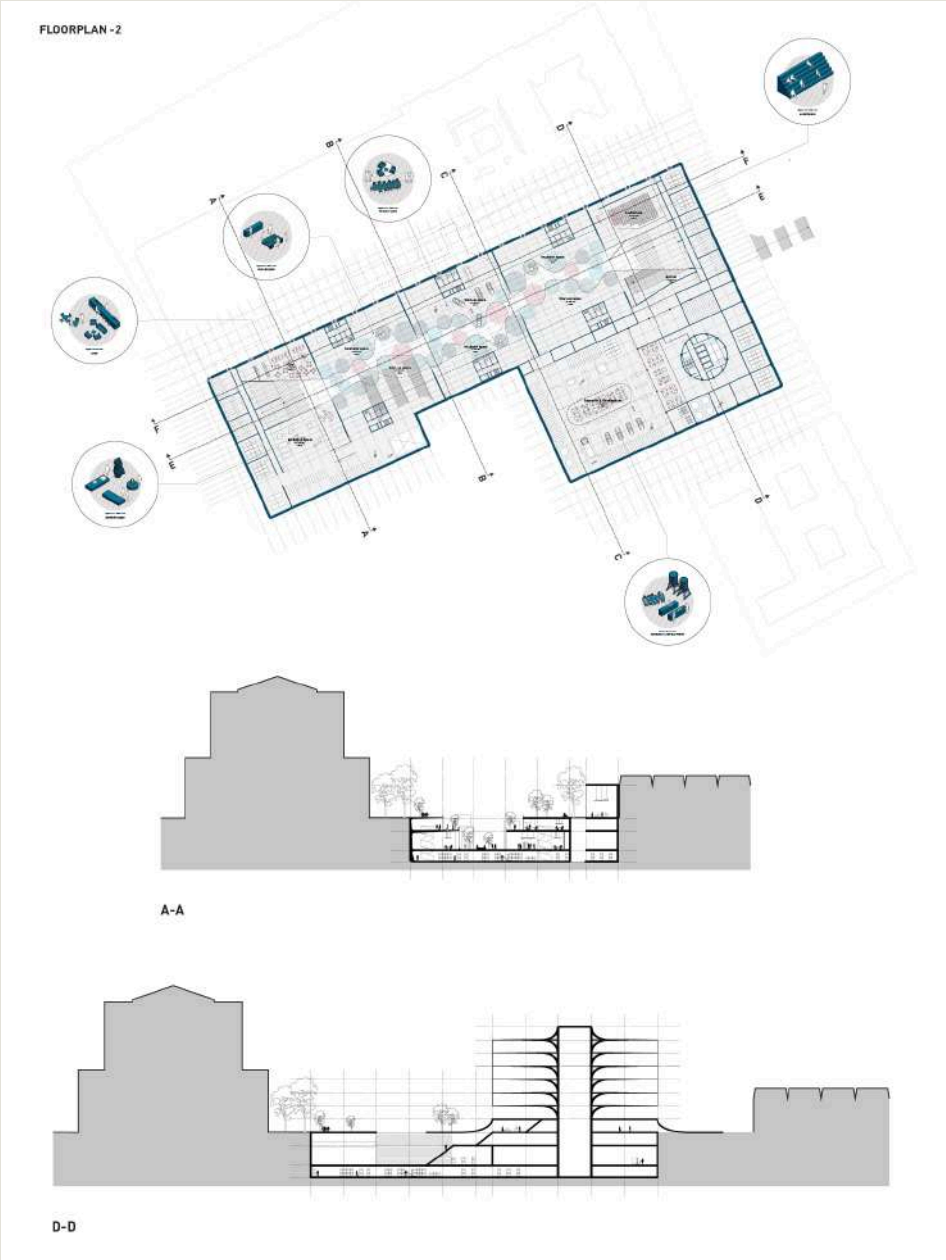
***Poster 1***




***Poster 2***



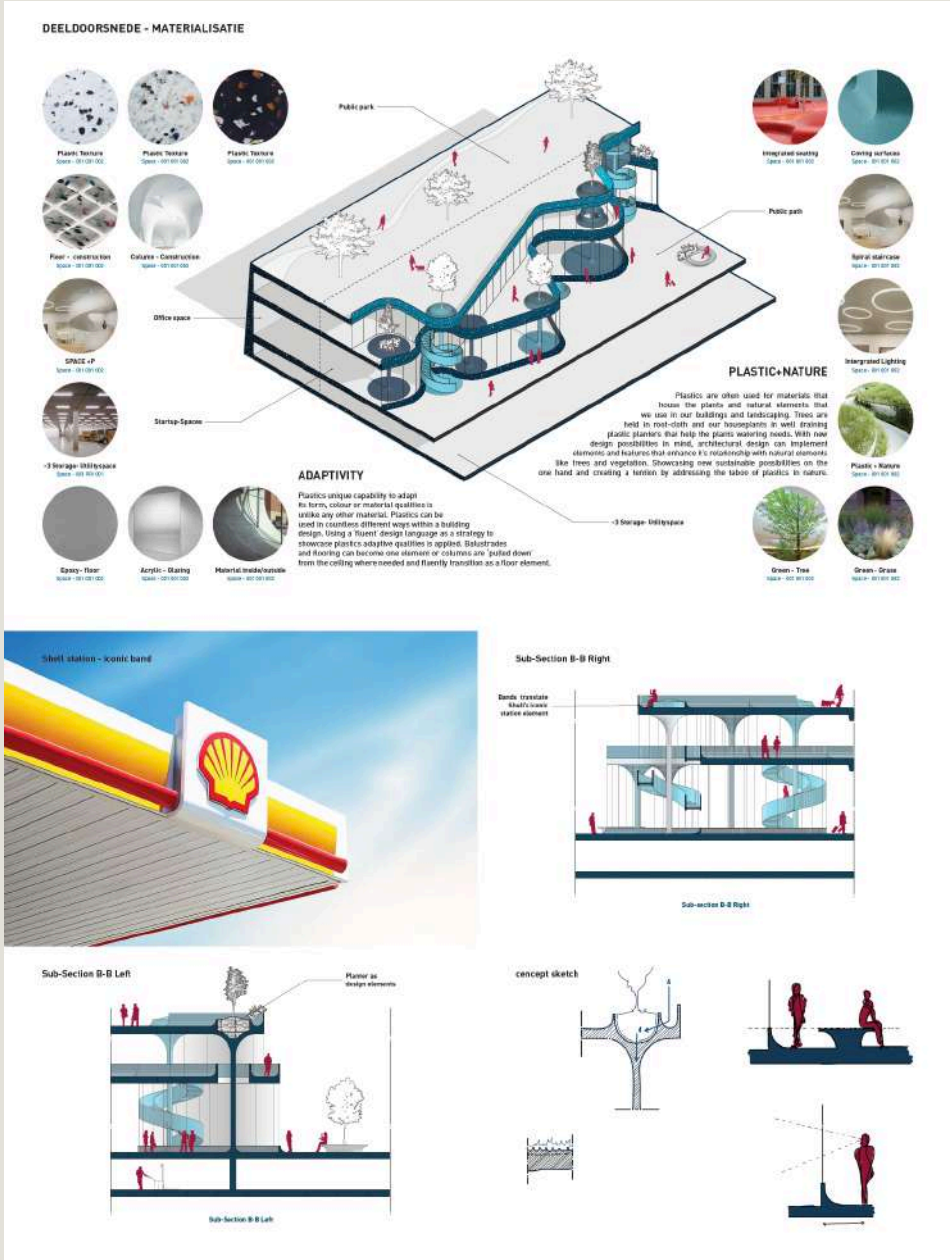

***Poster 3***



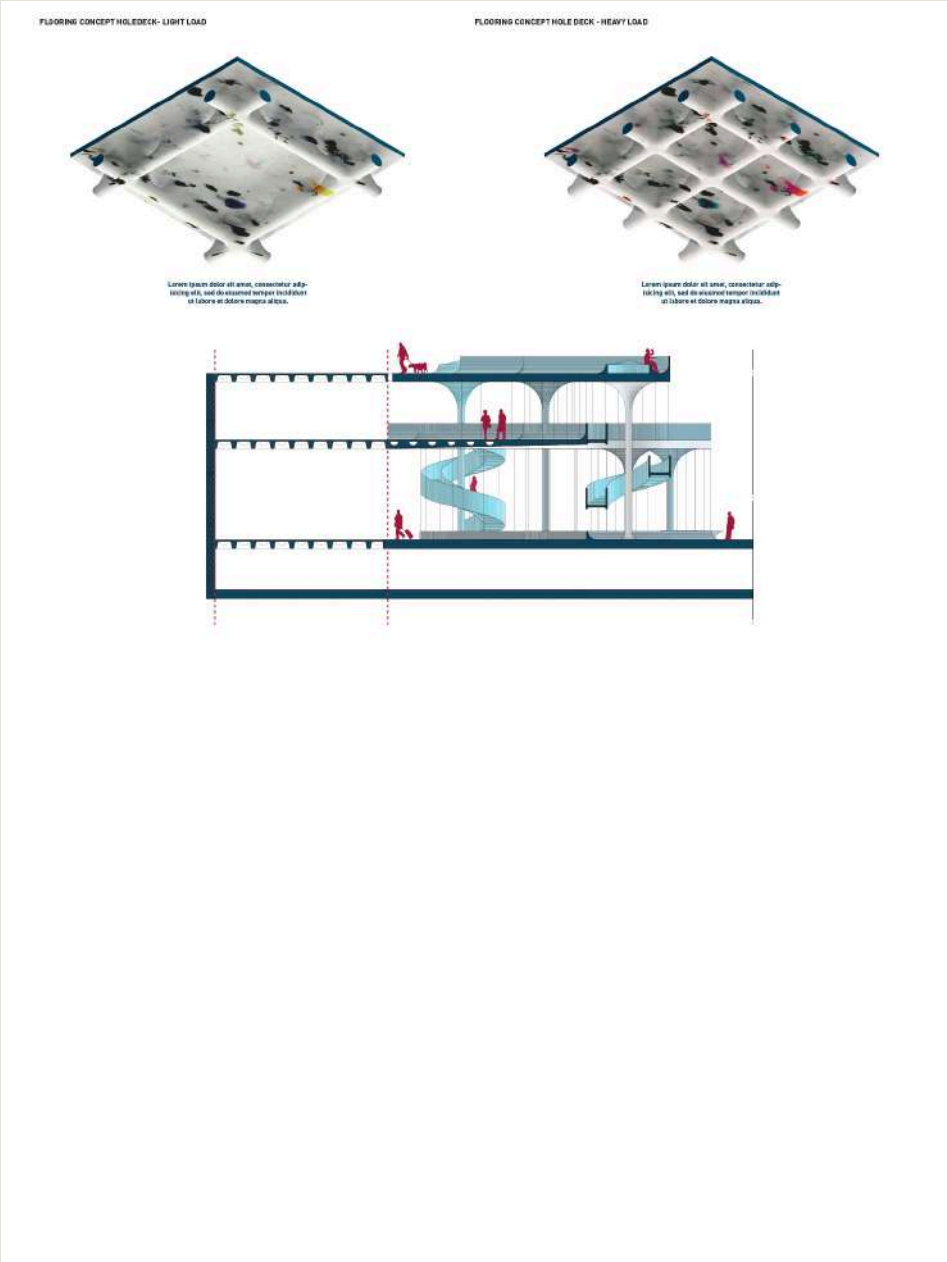

***Poster 4***

AXO - PLAN - 1
Auditorium
Atrium
Startup - Office space
FLEXIBLE SPACE
Positioning the secondary spaces on the far sides of the building envelope leaves a flexible core space that can adapt as the campus needs for space and layout change over time. In future scenarios the building can in- or decrease its sub-campuses, or rebuild the way it showcases itself as plastic innovation and application develops throughout time.
PRAGMATIC SPACES
Research and development facilities and spaces are reliant on well planned and applied installations and utilitarian spaces. The spaces with exception of the 'flexible core' ask for a pragmatic design approach. The material application for these spaces must follow its pragmatic function.
R&D - Office
Cafe
R&D - Utility
Exposition Space
Sec - R&D + Office space
Img. R&D space
Img. gallery
SEC D - D
PRIVATE
PUBLIC

***Poster 5***


DEELDOORSNEDE - MATERIALISATIE
Plastic Texture
Plastic Texture
Plastic Texture
Floor - construction
Column - Construction
SPACE +P
-3 Storage- Utilityspace
Epoxy - floor
Acrylic - Glazing
Material inside/outside
Public park
Office space
Startup-Spaces
Public path
-3 Storage- Utilityspace
Integrated seating
Covering surfaces
Spiral staircase
Integrated Lighting
Plastic + Nature
Green - Tree
Green - Grass
ADAPTIVITY
Plastics unique capability to adapt
its form, colour or material qualities is
unlike any other material. Plastics can be
used in countless different ways within a building
design. Using a 'fluent' design language as a strategy to
showcase plastics adaptive qualities is applied. Balustrades
and flooring can become one element or columns are 'pulled down'
from the ceiling where needed and fluently transition as a floor element.
PLASTIC+NATURE
Plastics are often used for materials that
house the plants and natural elements that
we use in our buildings and landscaping. Trees are
held in root-cloth and our houseplants in well draining
plastic planters that help the plants watering needs. With new
design possibilities in mind, architectural design can implement
elements and features that enhance it's relationship with natural elements
like trees and vegetation. Showcasing new sustainable possibilities on the
one hand and creating a tension by addressing the taboo of plastics in nature.
Shell station - iconic band
Sub-Section B-B Right
Bands translate
Shell's iconic
station element
Sub-section B-B Right
Sub-Section B-B Left
Planter as
design elements
Sub-Section B-B Left
cencept sketch

***Poster 6***


FLOORING CONCEPT HOLEDECK- LIGHT LOAD
FLOORING CONCEPT HOLE DECK - HEAVY LOAD

***Poster 7***

# Sketches & notes

22-Mrt-2019.

feedback def. design.

→ planning. → 26 apr.
03 mei
10 mei → P.P

→ verhaal → - essay
- Logbook.
- visual material

personal reference?

- Wat zijn de ambities van het plastics.
- duidelijk in de presentatie
- doel, middelen, overhouden
- "Corroborating full reference research!"

- grij -
→ eigenschappen
→ gebruik het material!

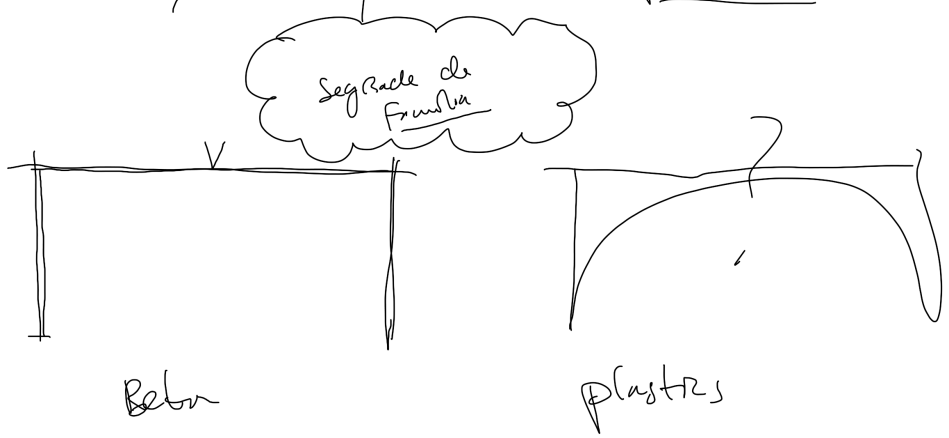
hoe handelt den Haag met publiek ruimte?
↓
Hoe bedienen den haag met openbare ruimte?

→ Reflect? →

→ den haag → verbindingen.
→ koopgoot → galleij. privaat

→ typerlijk van de passage.
Verbindingen leggen!

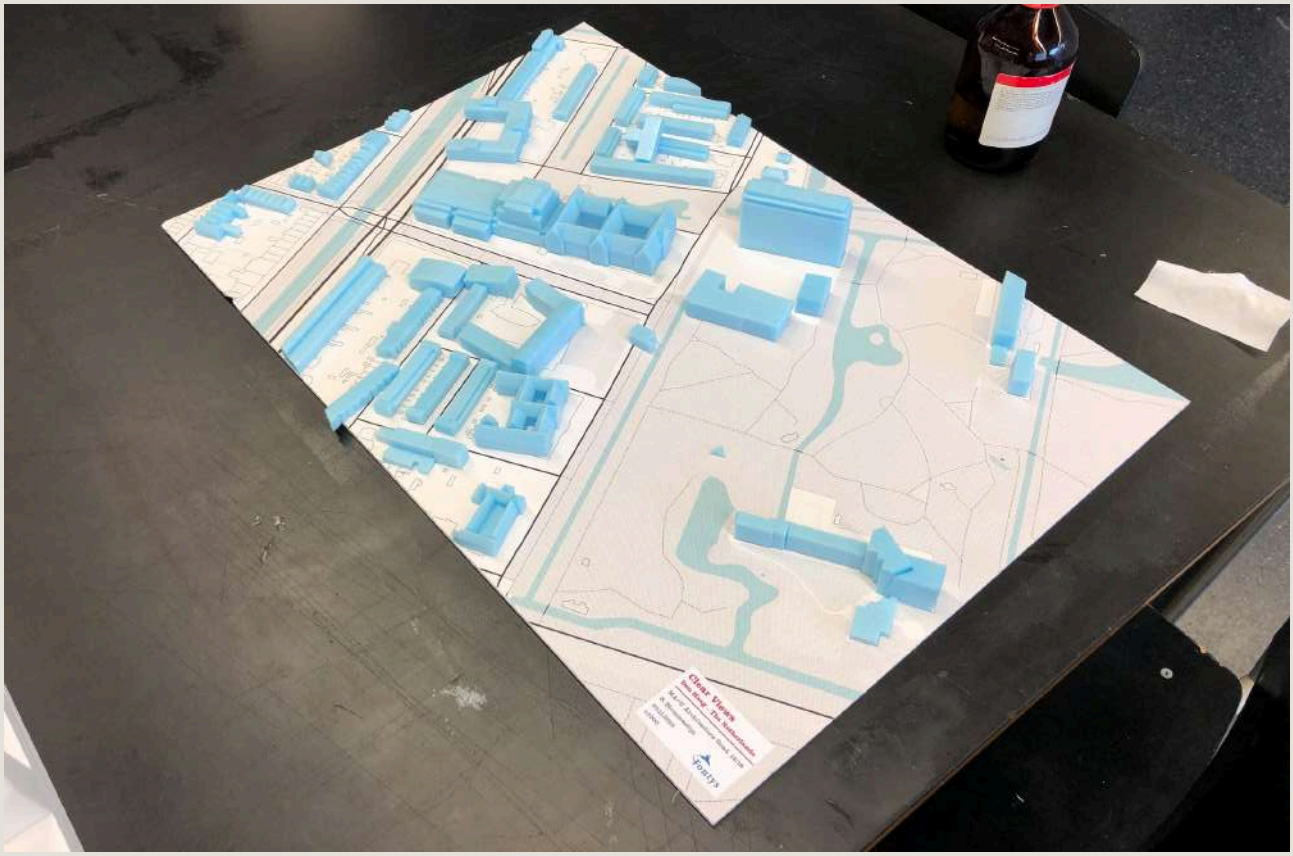
Hout, staal, beton, plastics!

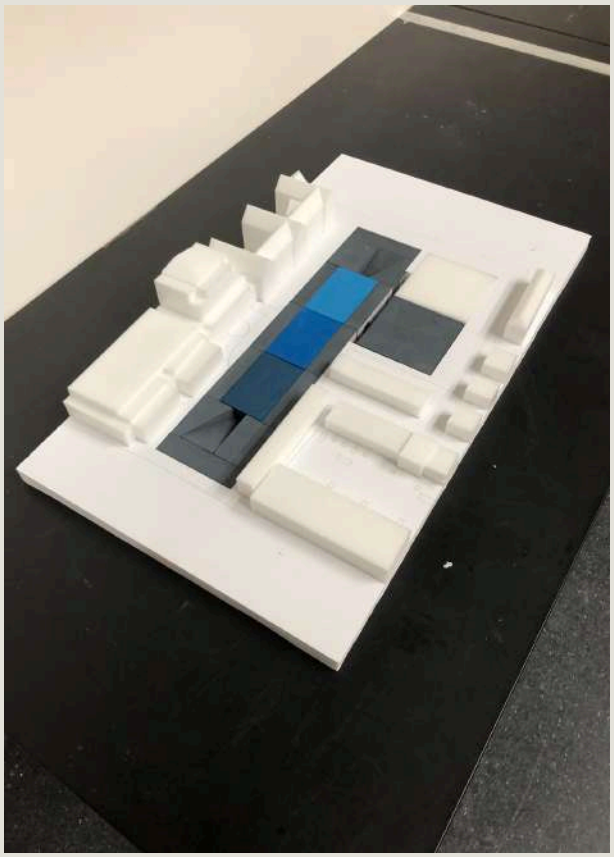



Voorstel! → pultrusion ?
~ extrusion.

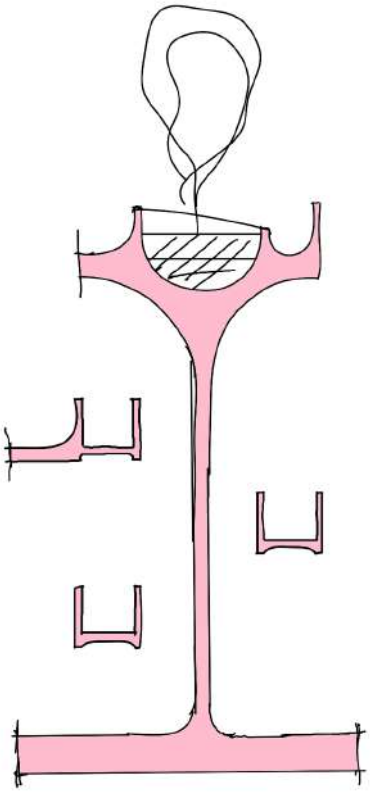
doorsneden? → AKO?

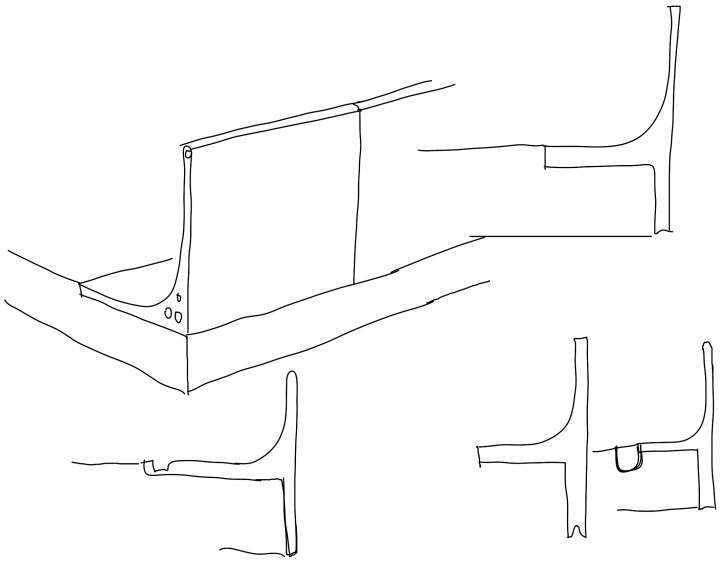
laat zien!

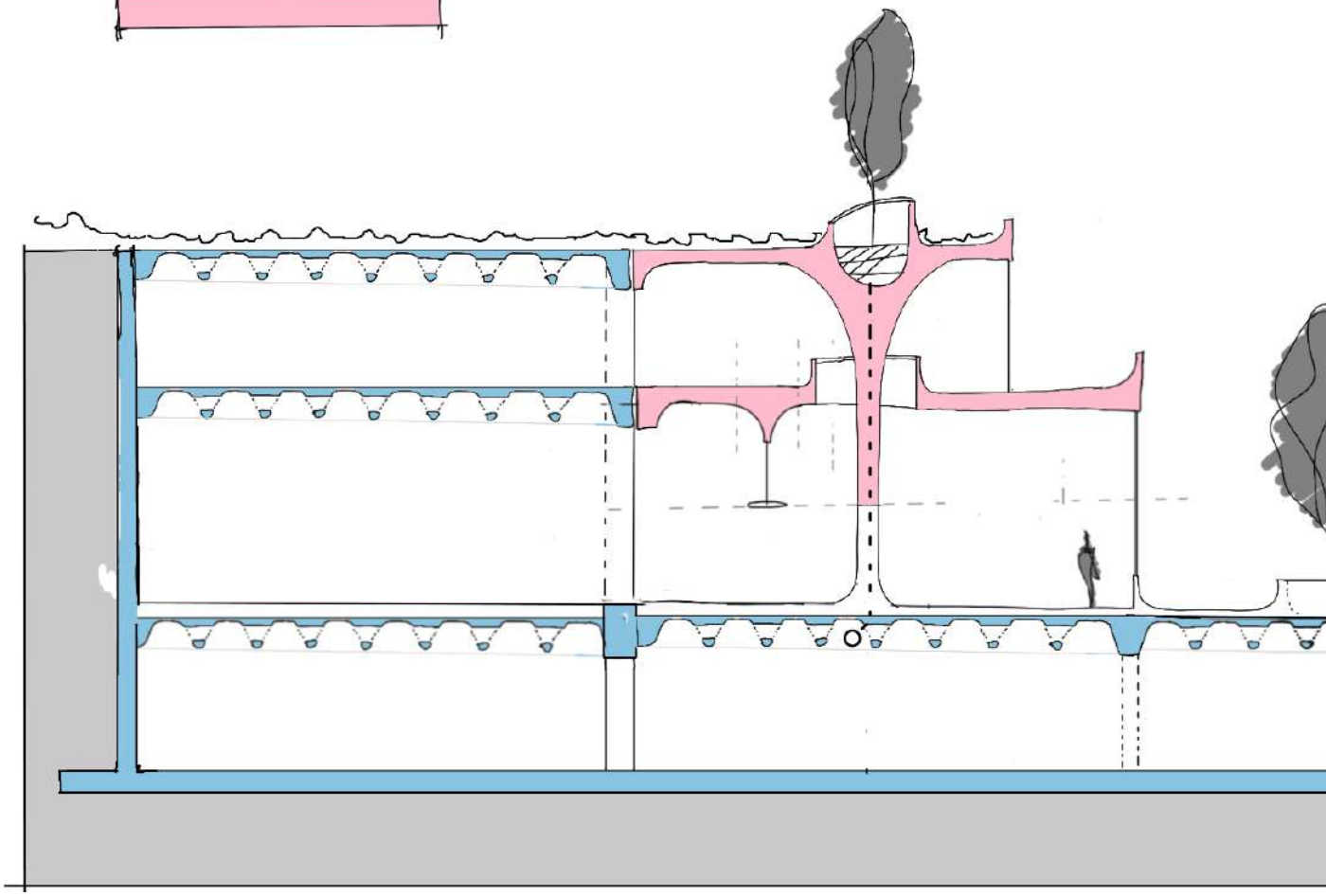

Chair Person
Den Haag - The Netherlands
Master of Architecture - Spatial Design
Delft University of Technology
2020/2021
TOPOTYS

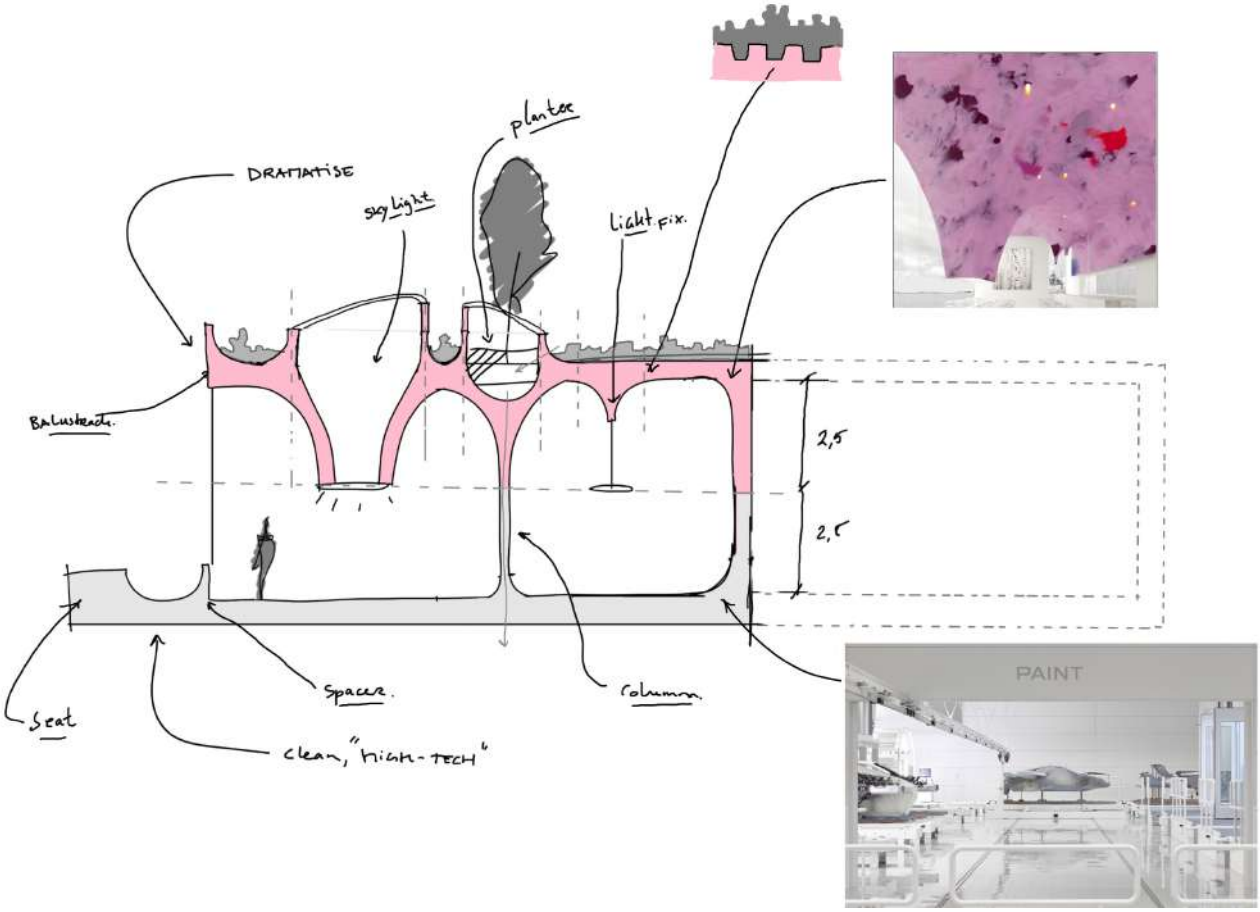


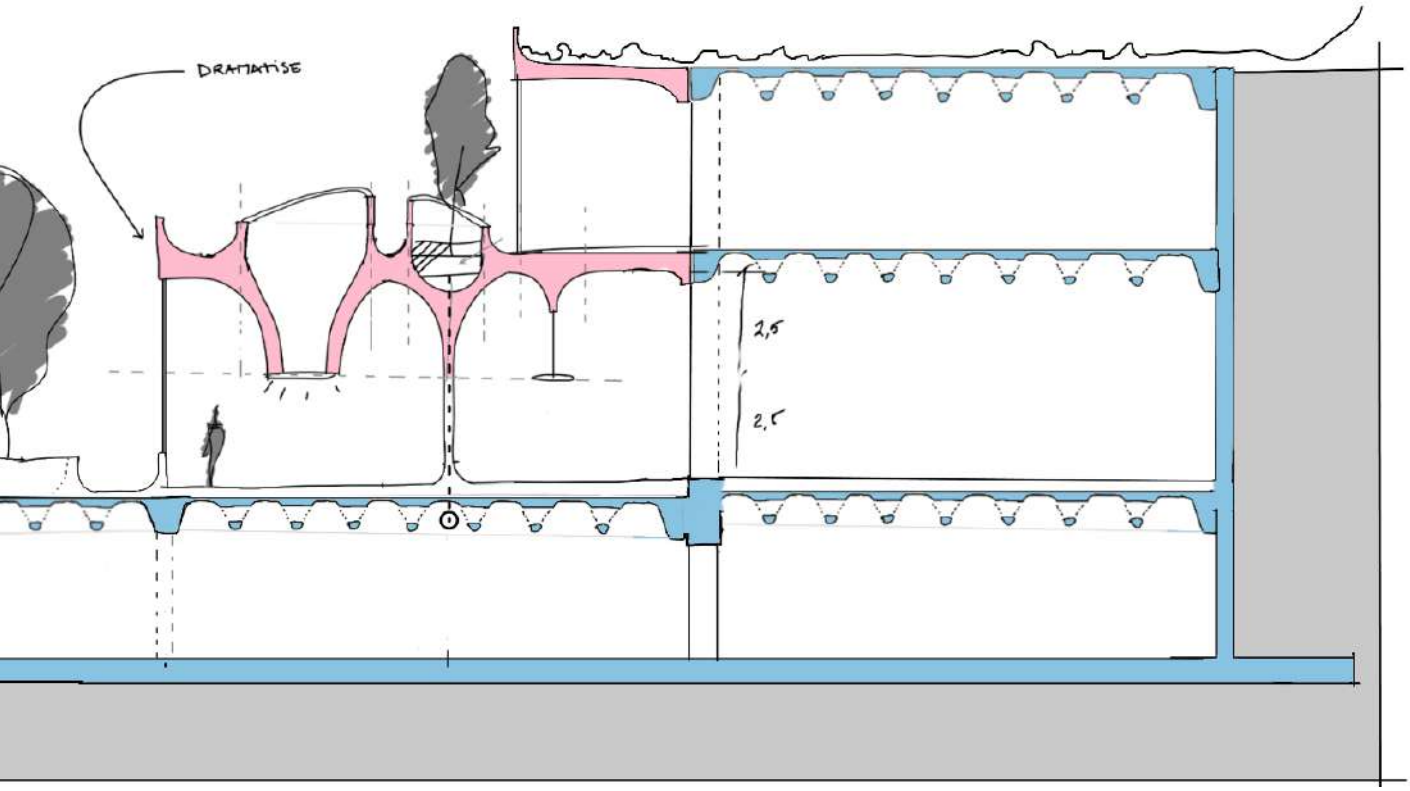
# Sketches & notes



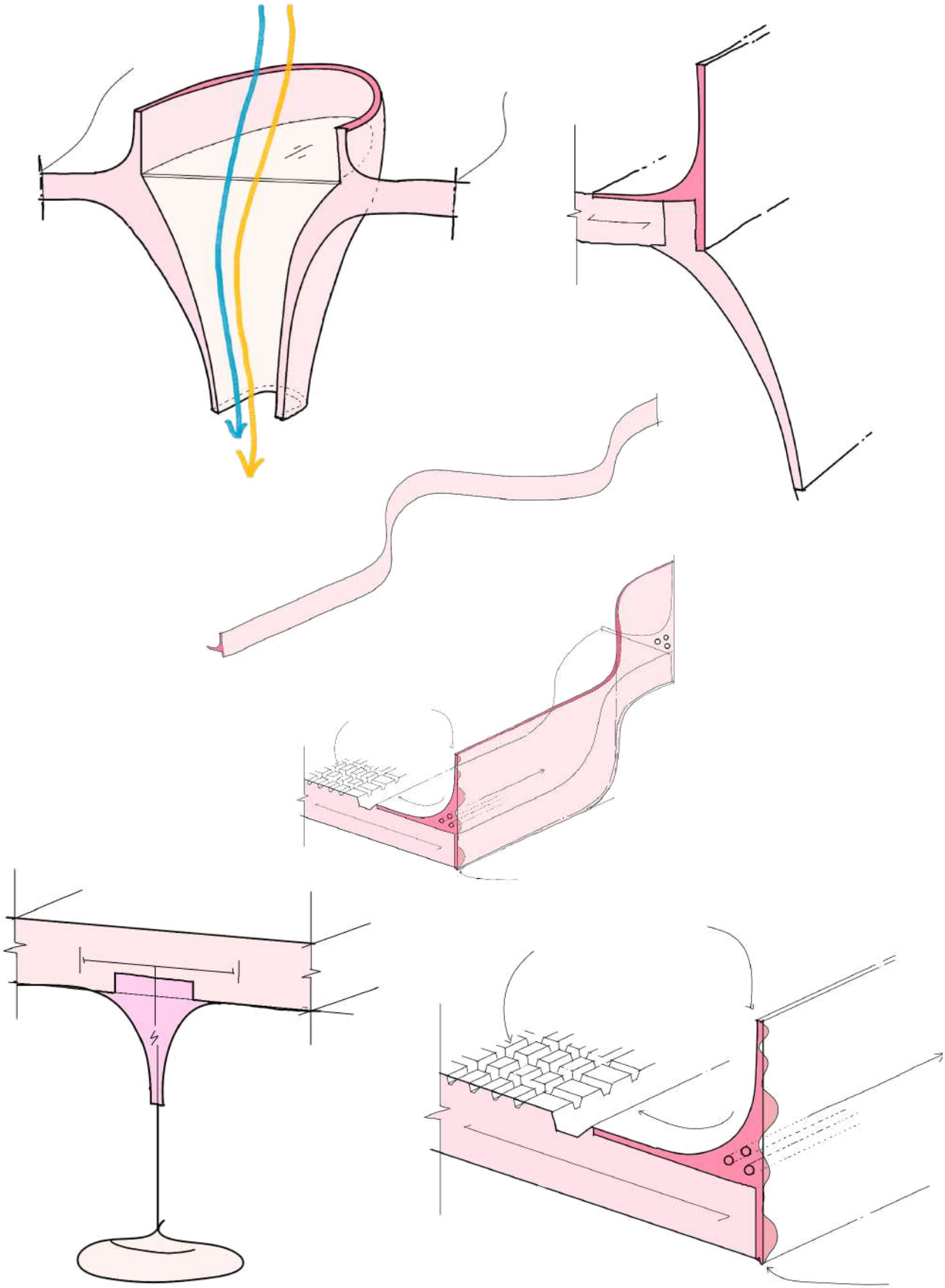


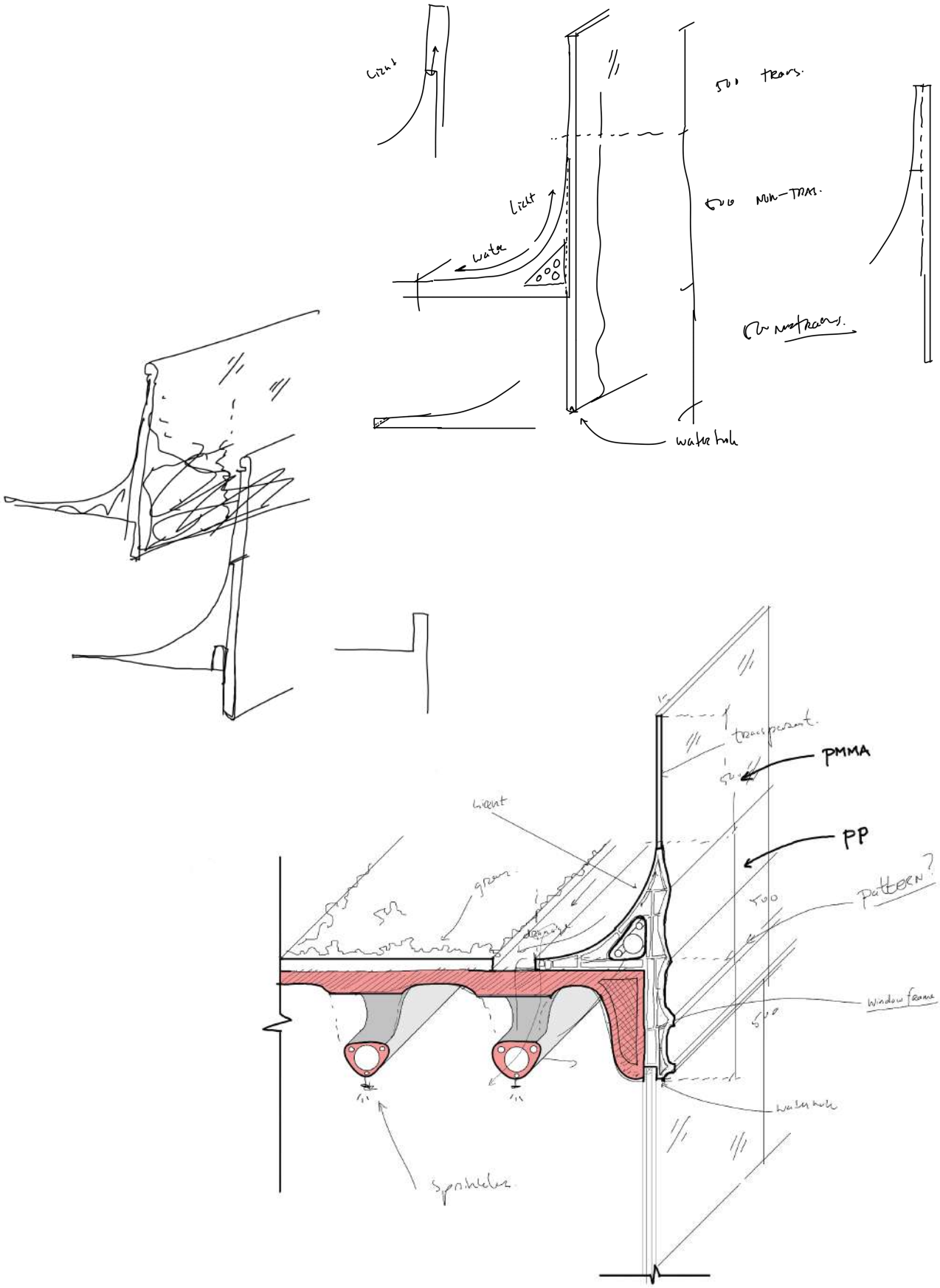



DRAMATISE
skylight
planter
light fix.
Balustrade.
2,5
2,5
Seat
Spacer.
column.
clean, "high-tech"
PAINT

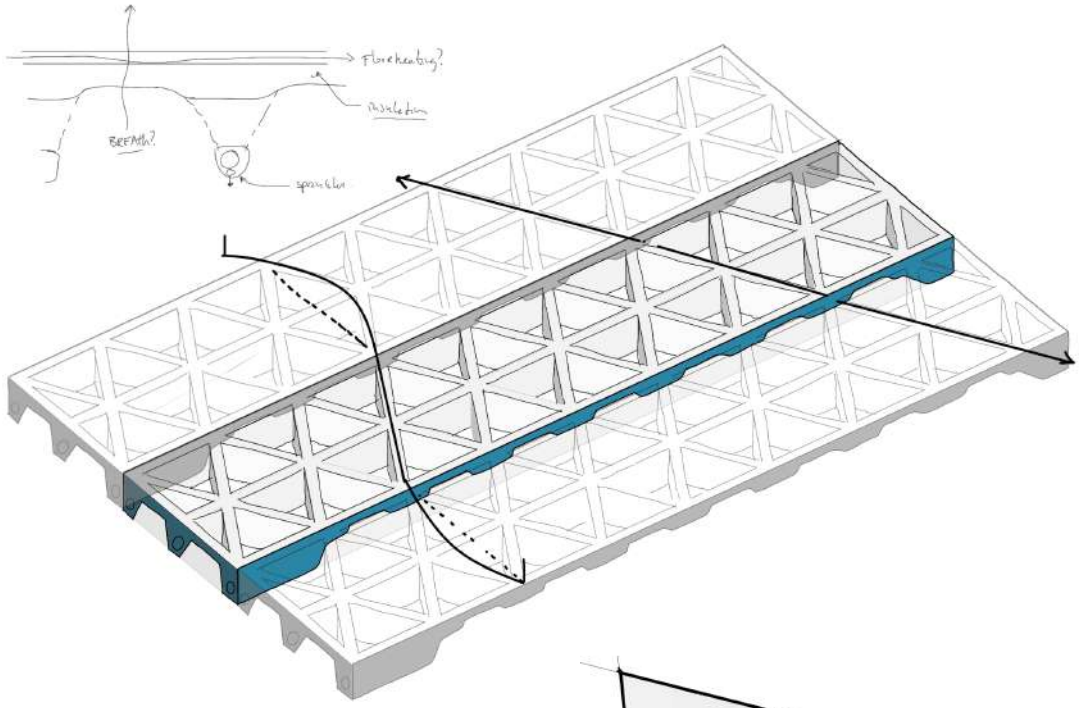

DRAMATISE
2,5
2,5

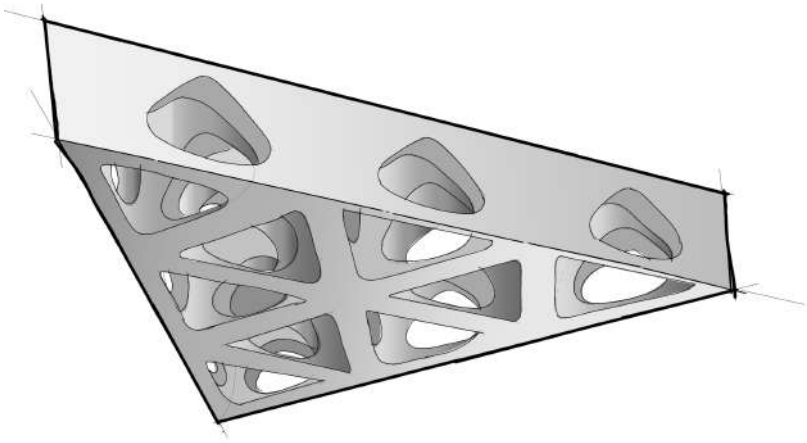
# Sketches & notes

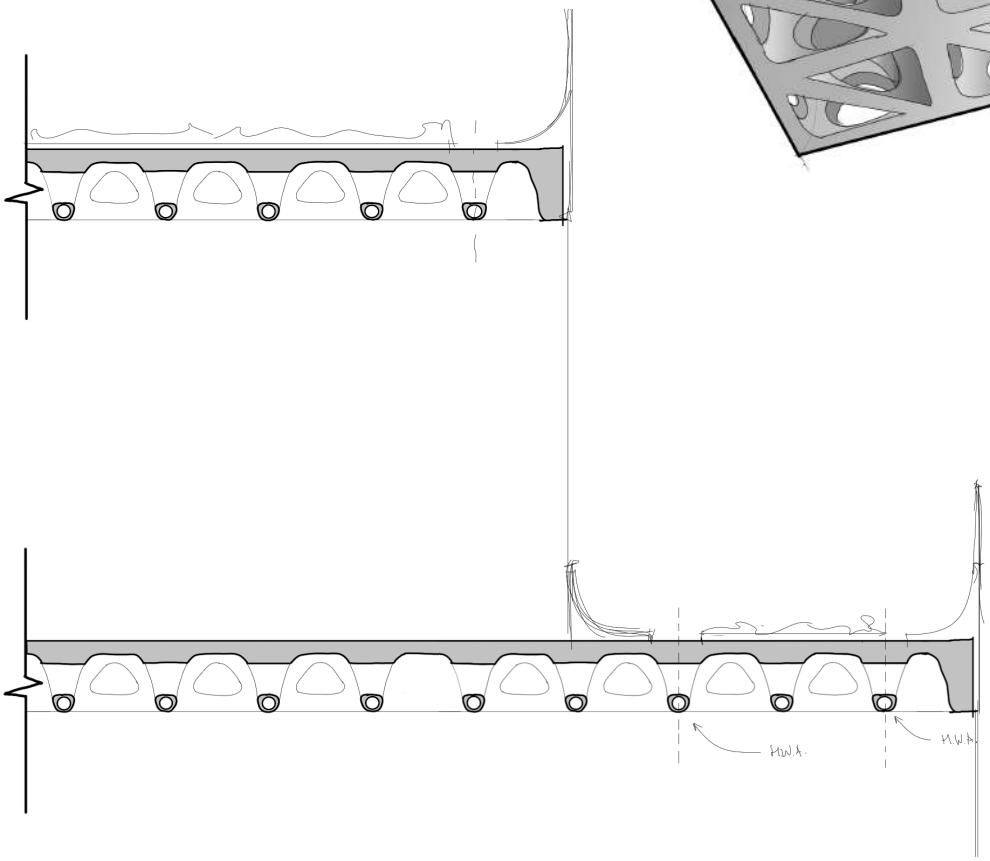


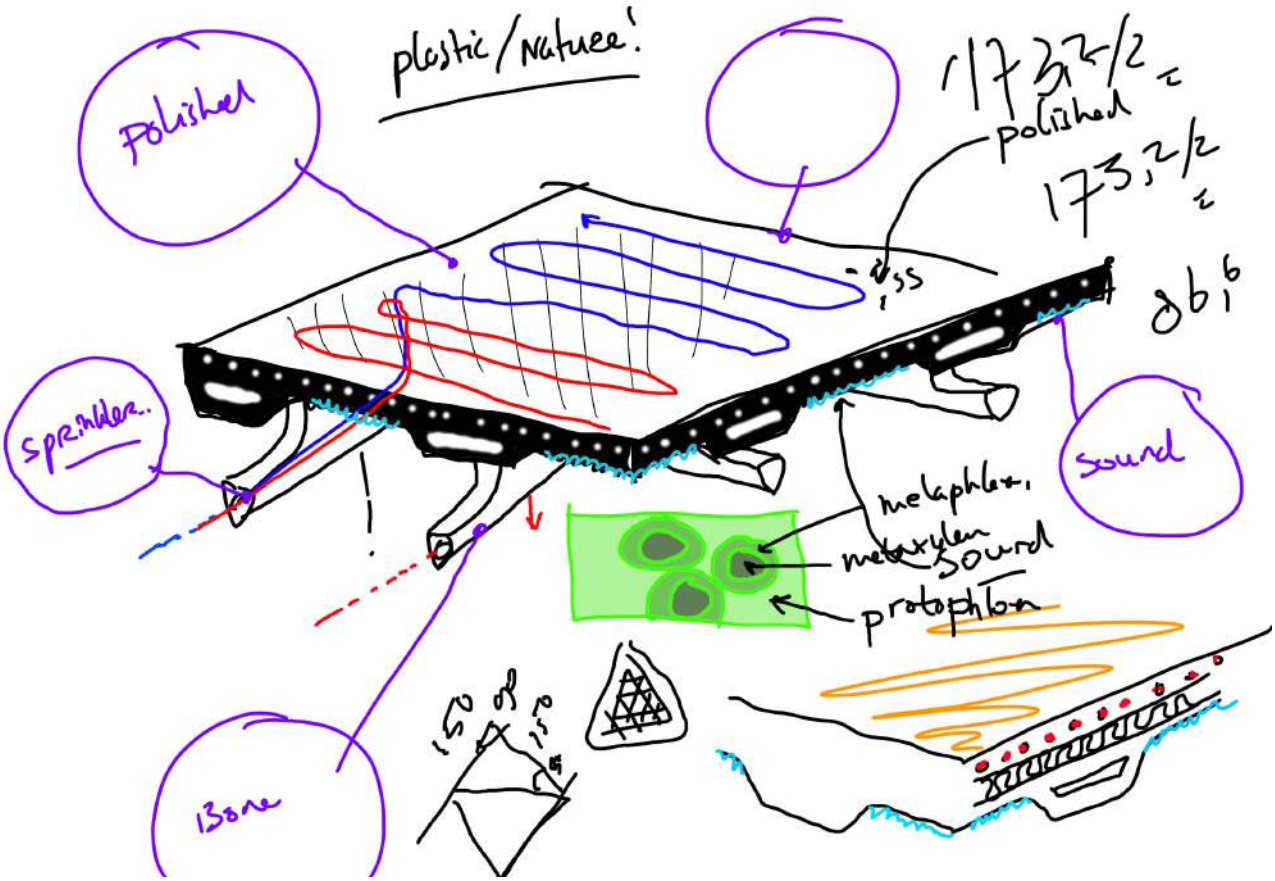

light
500 trans.
light
water
100 non-trans.
non trans.
water tank
transparent.
PMMA
light
PP
grass
pattern?
window frame
water tank
sprinklers

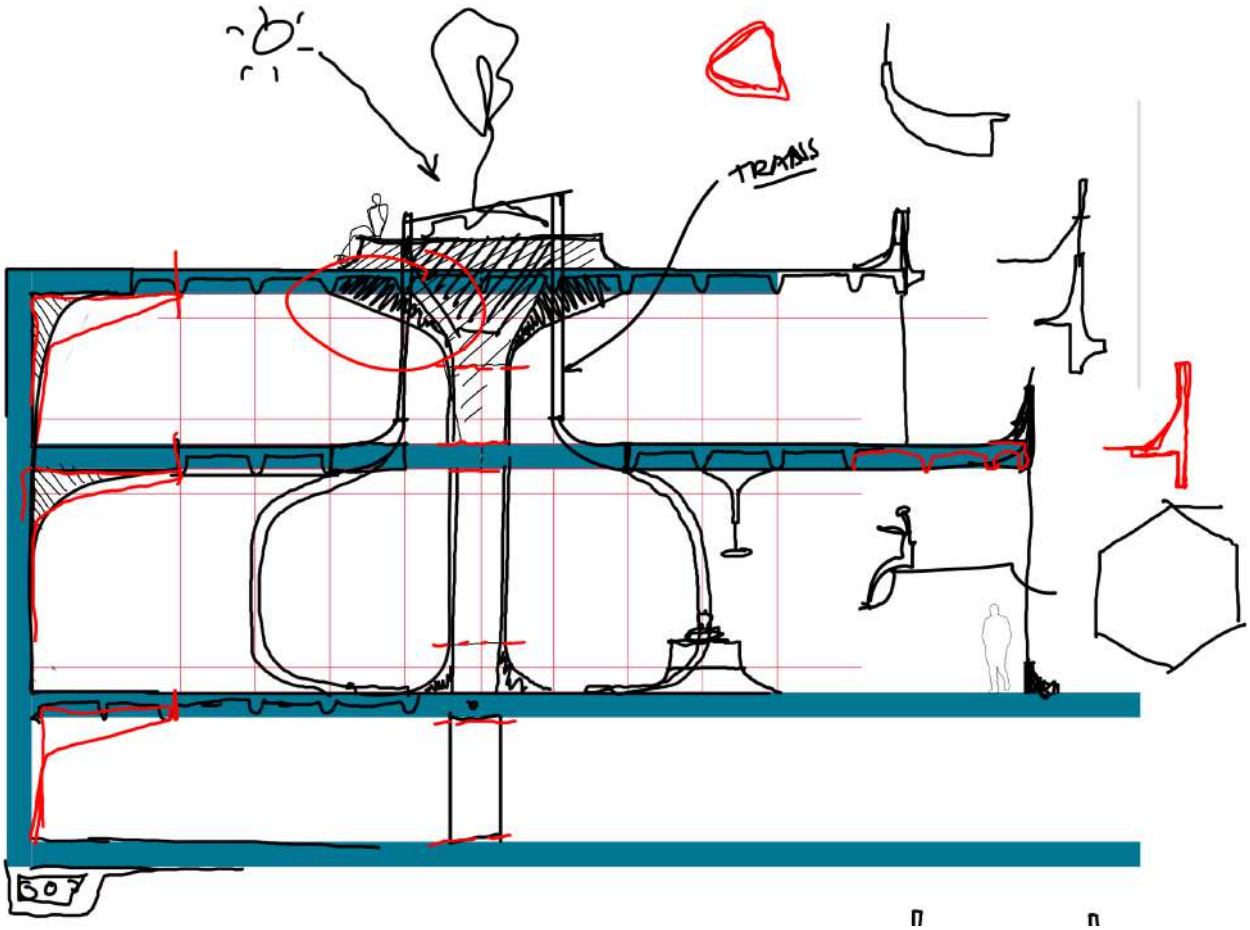
# Sketches & notes



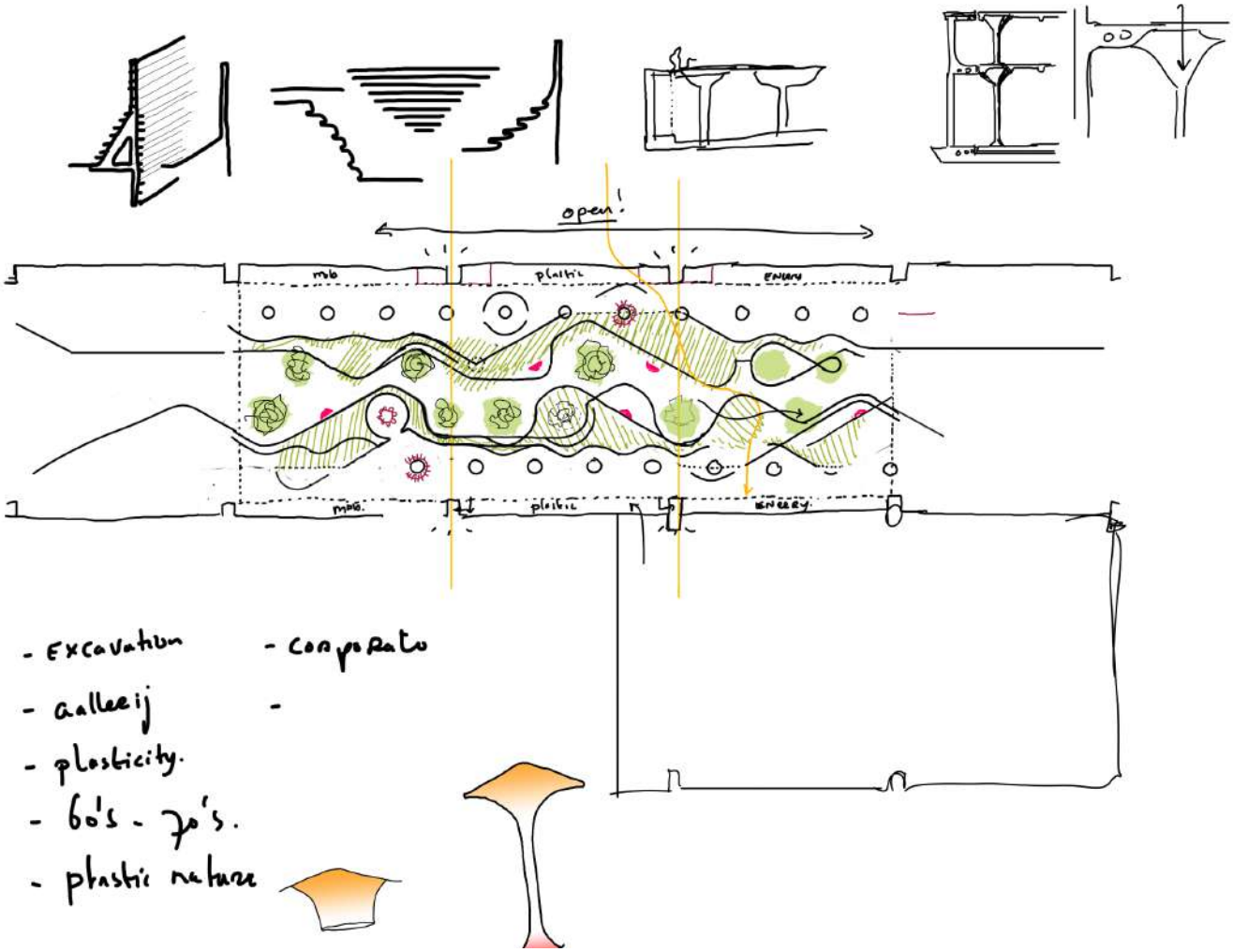



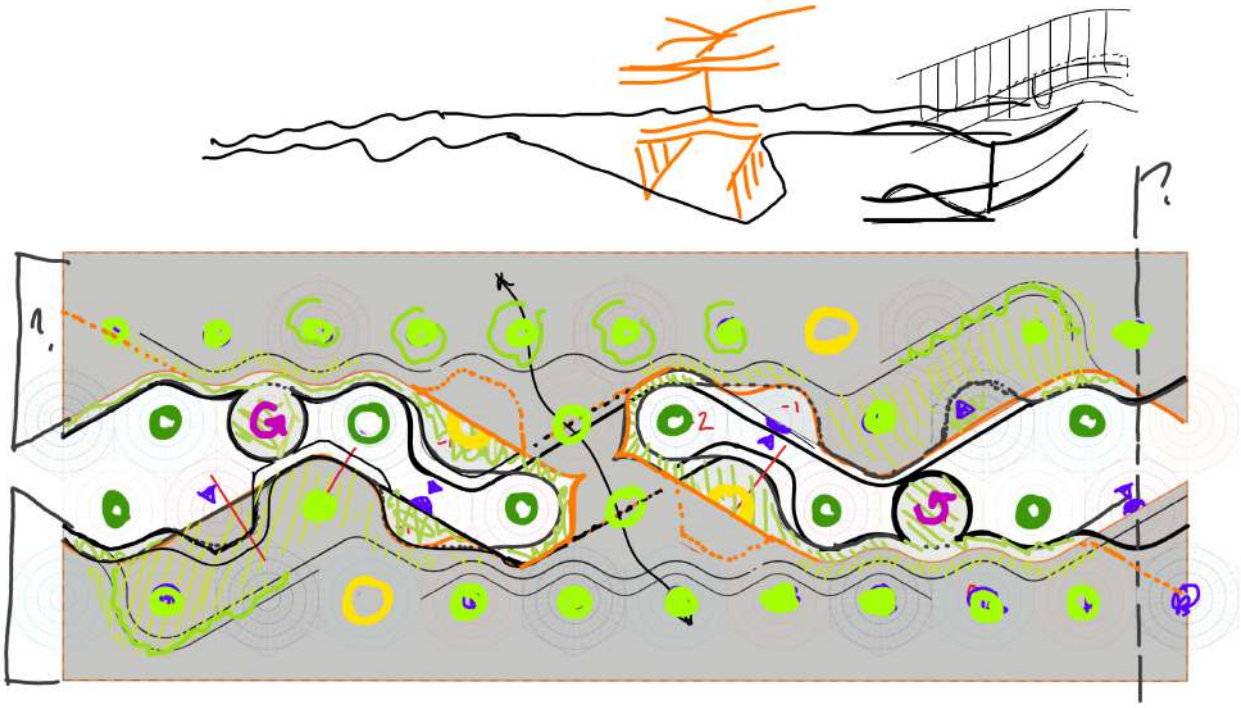


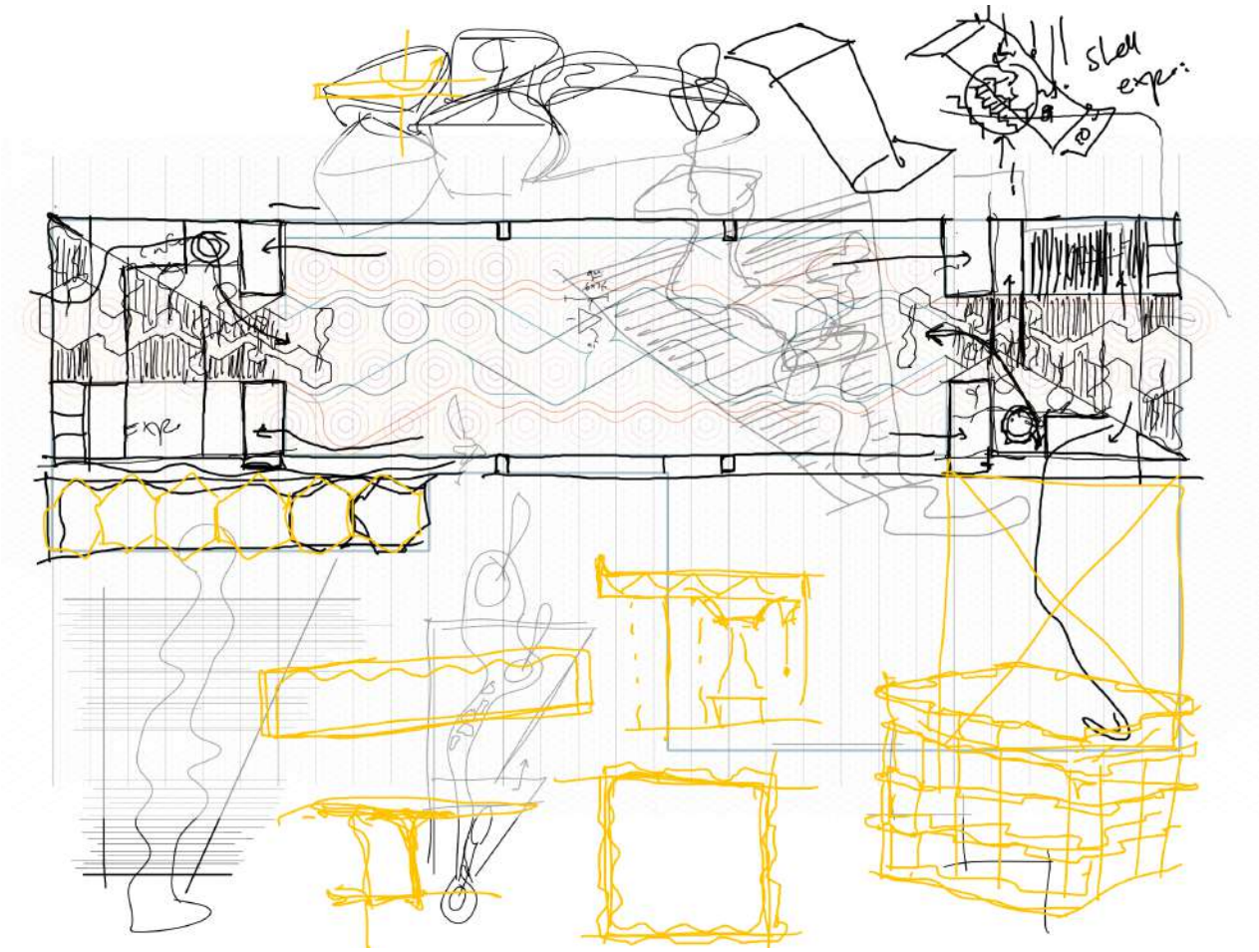

plastic / nature!
Polished
polished
sprinkler..
sound
metaphlex.
metaxylem
sound
protophlem
Bone

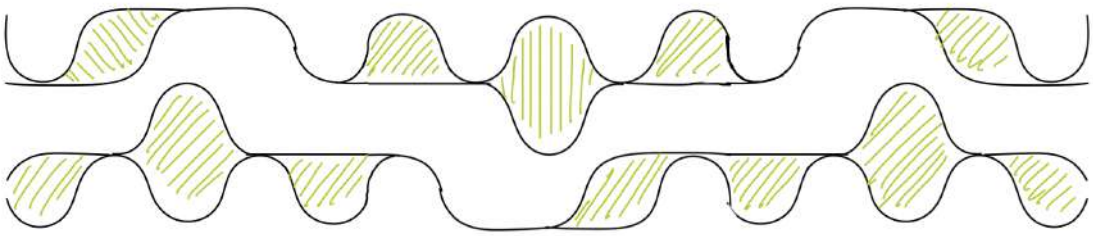

TRANS

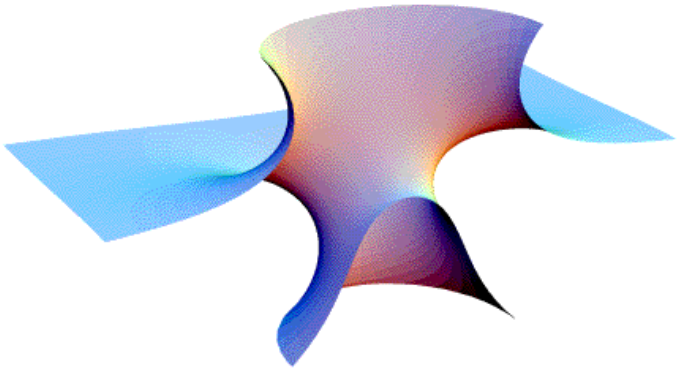
# Sketches & notes



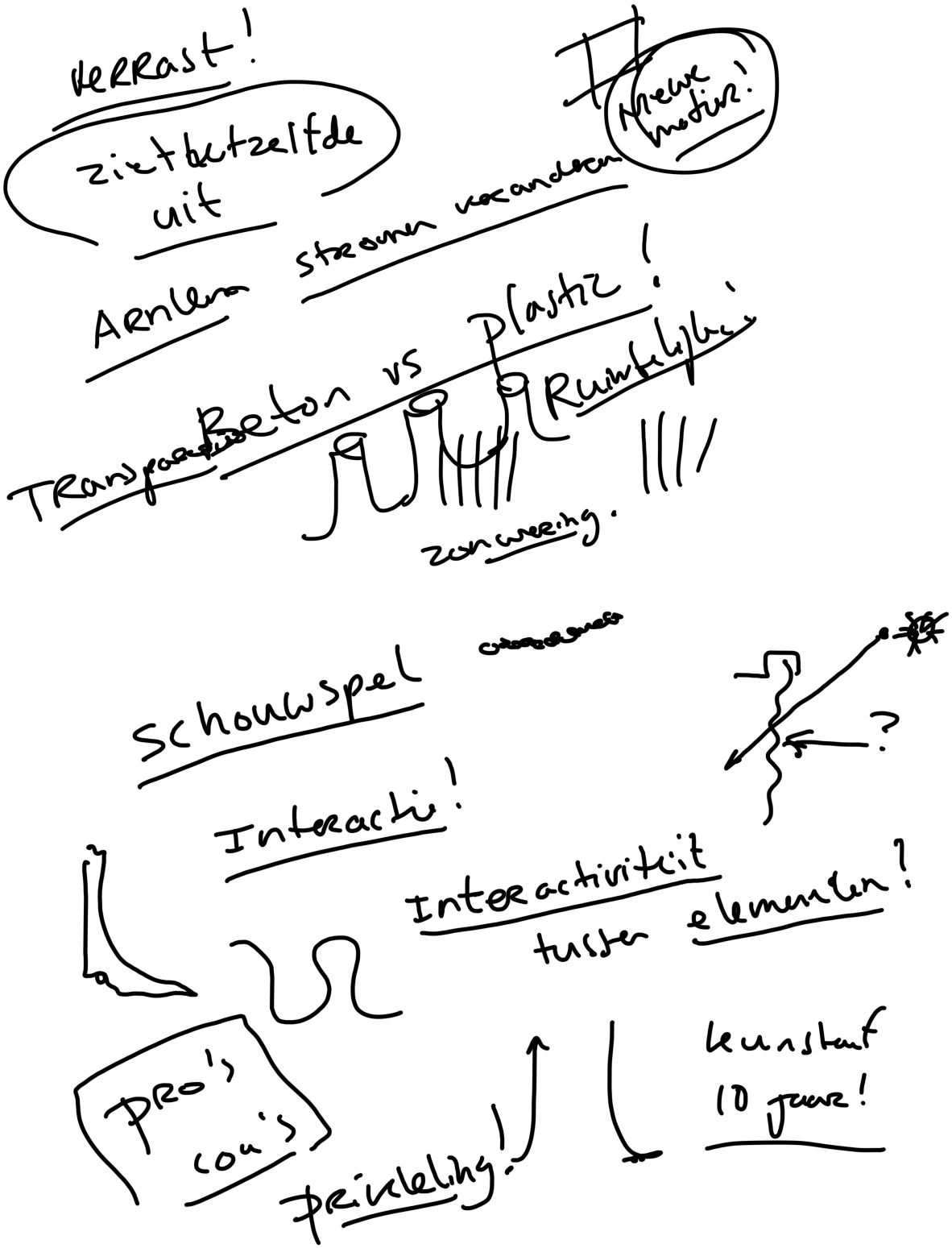



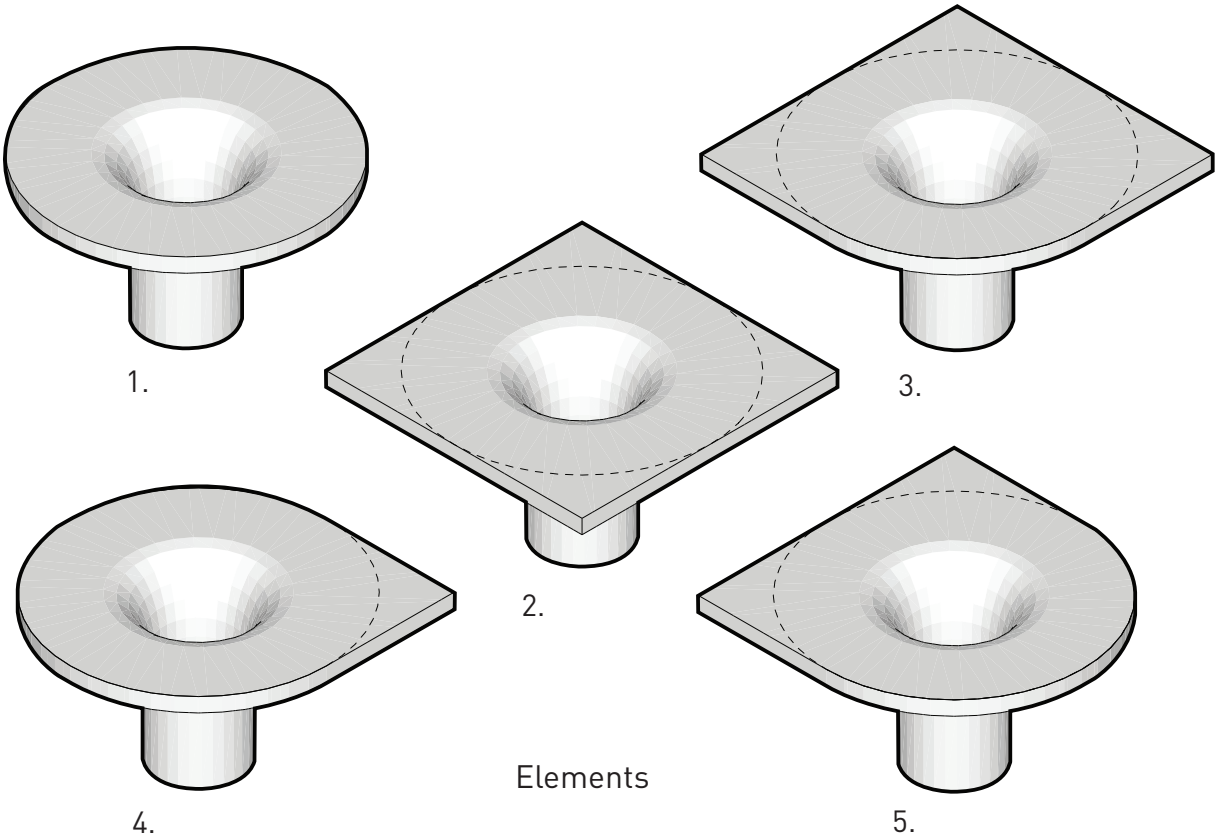

sleu
exp:
EXP



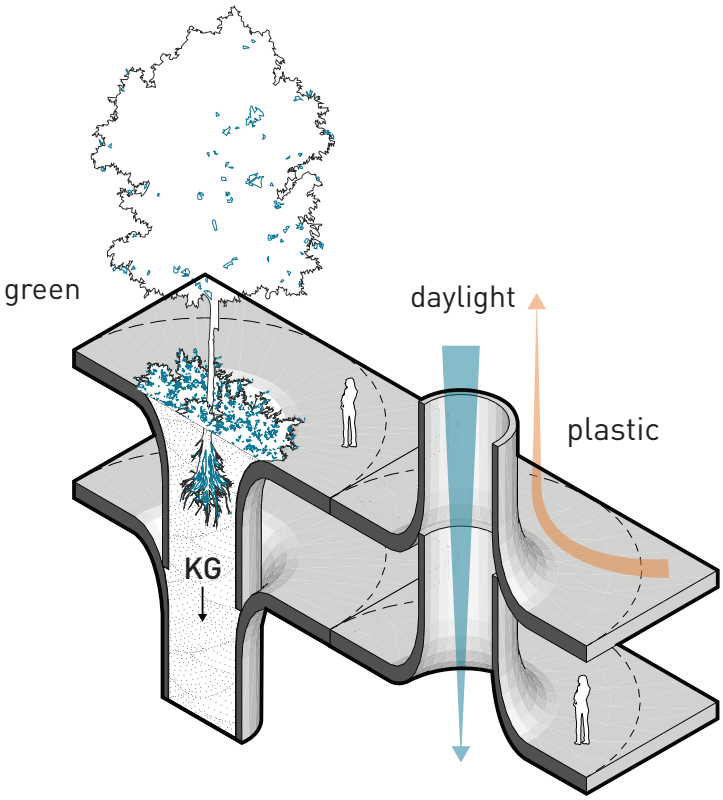


# Sketches & notes



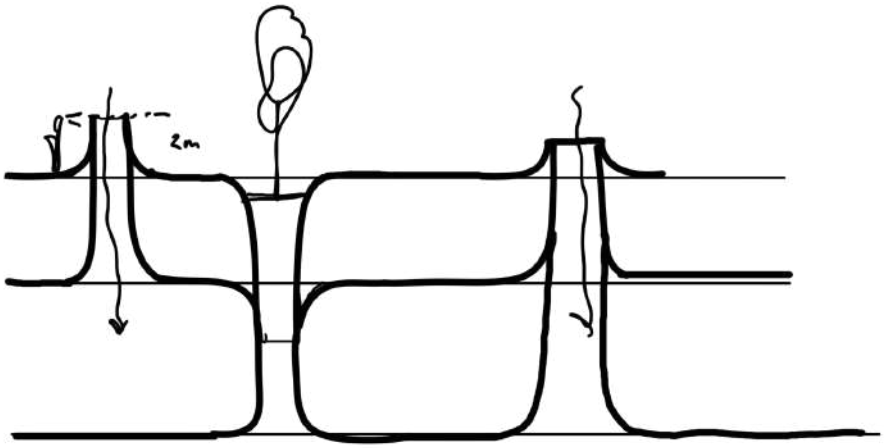


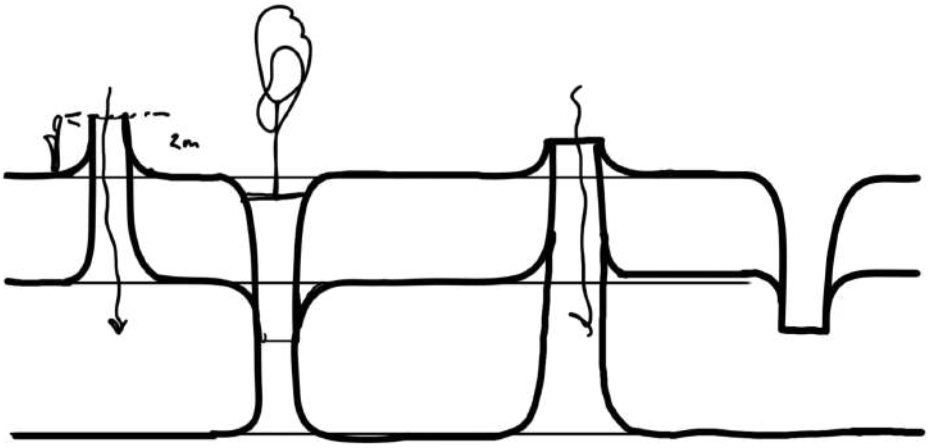

Elements

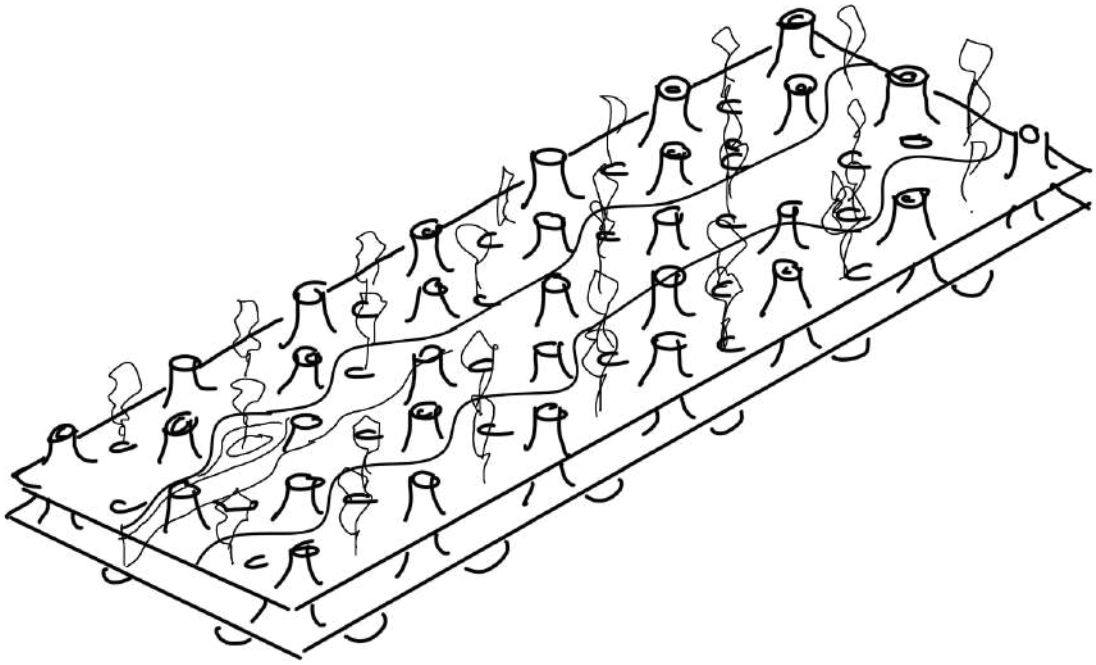


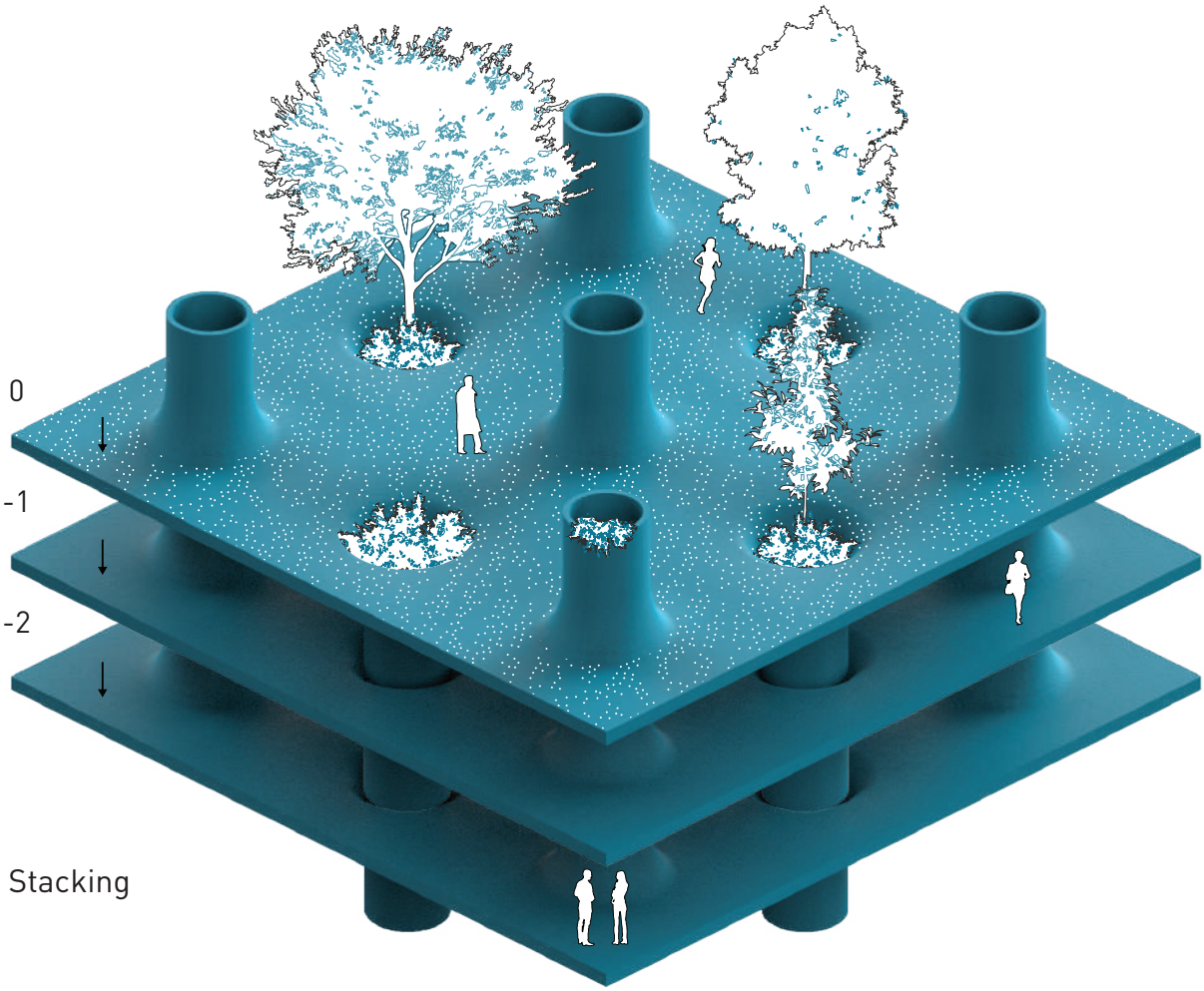

Osmosis

# Sketches & notes



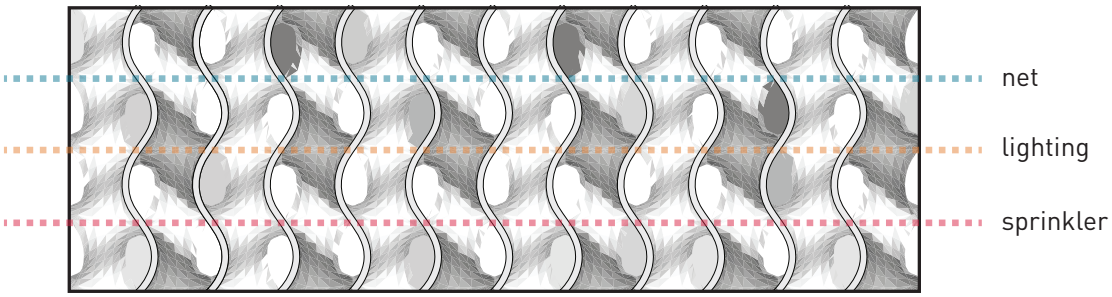



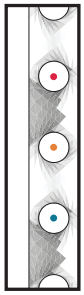



Stacking

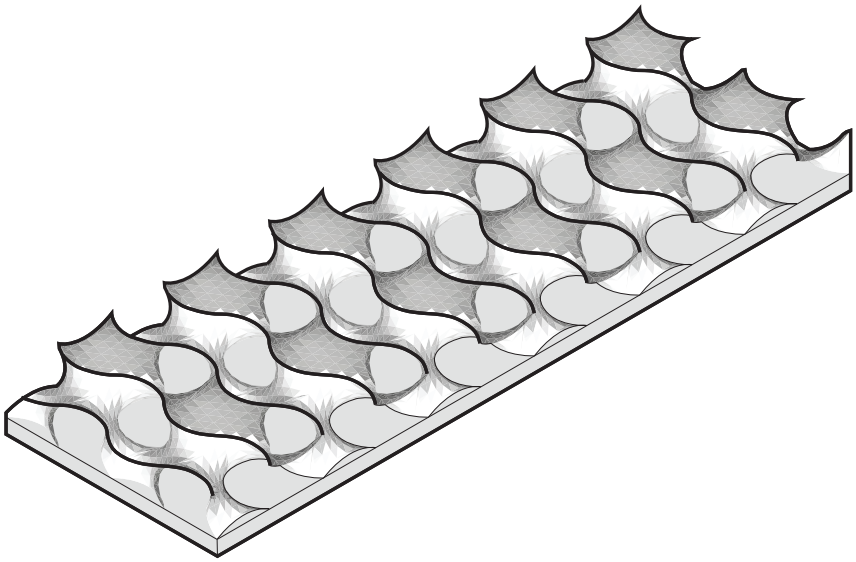
# Sketches & notes



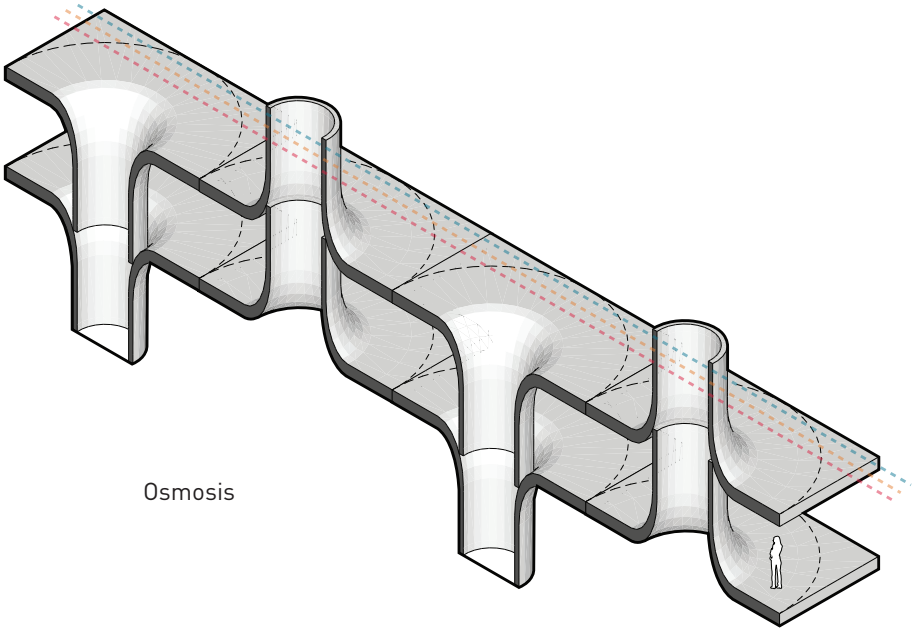

Topview



Sideview

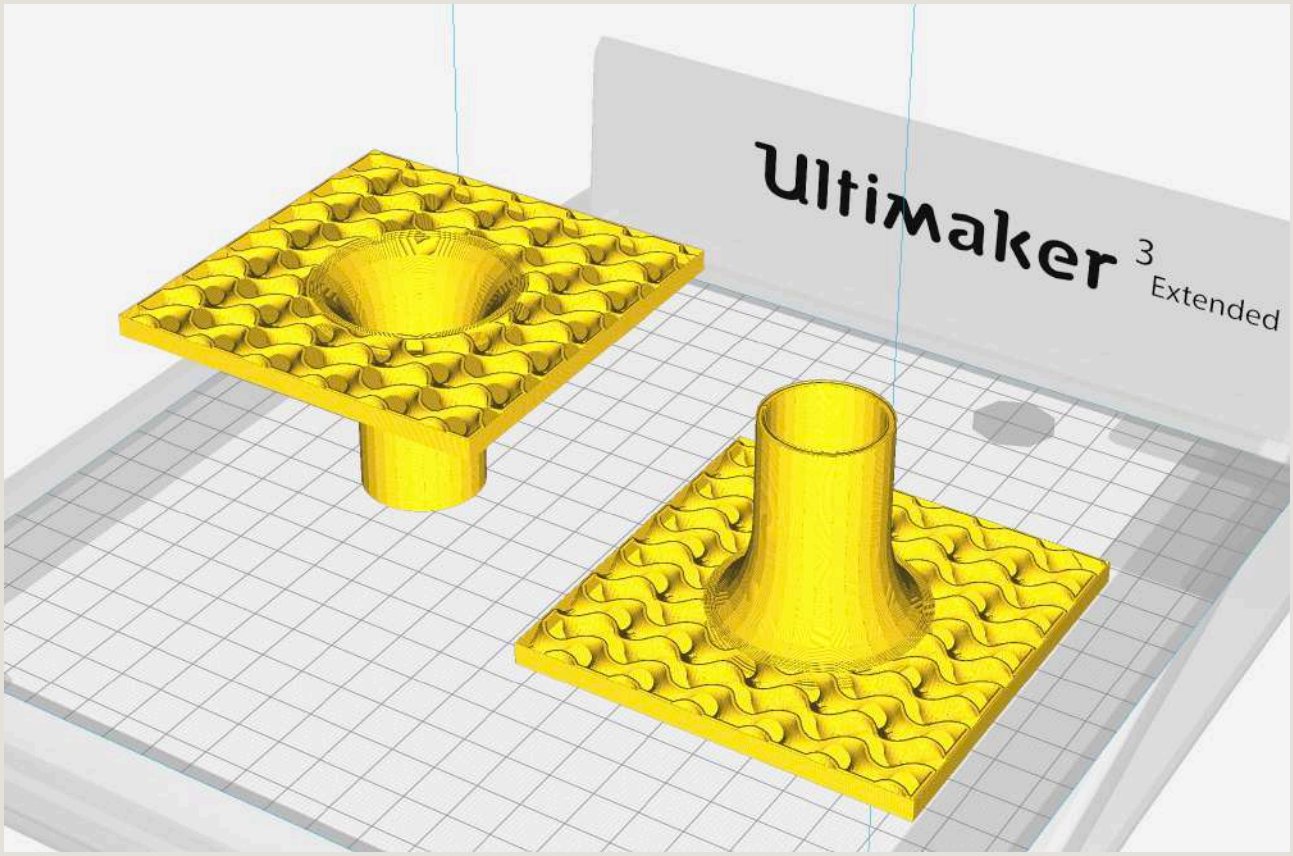


ISO

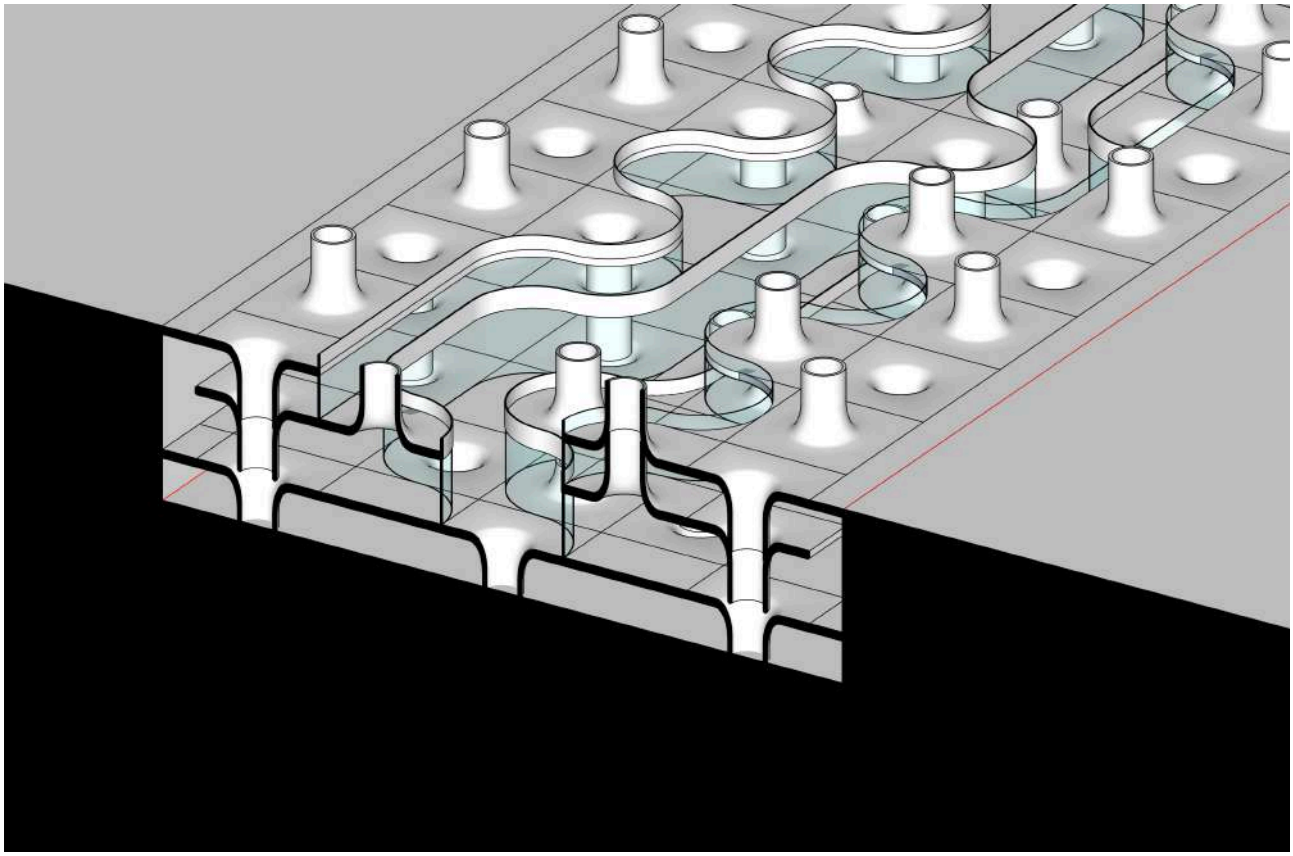


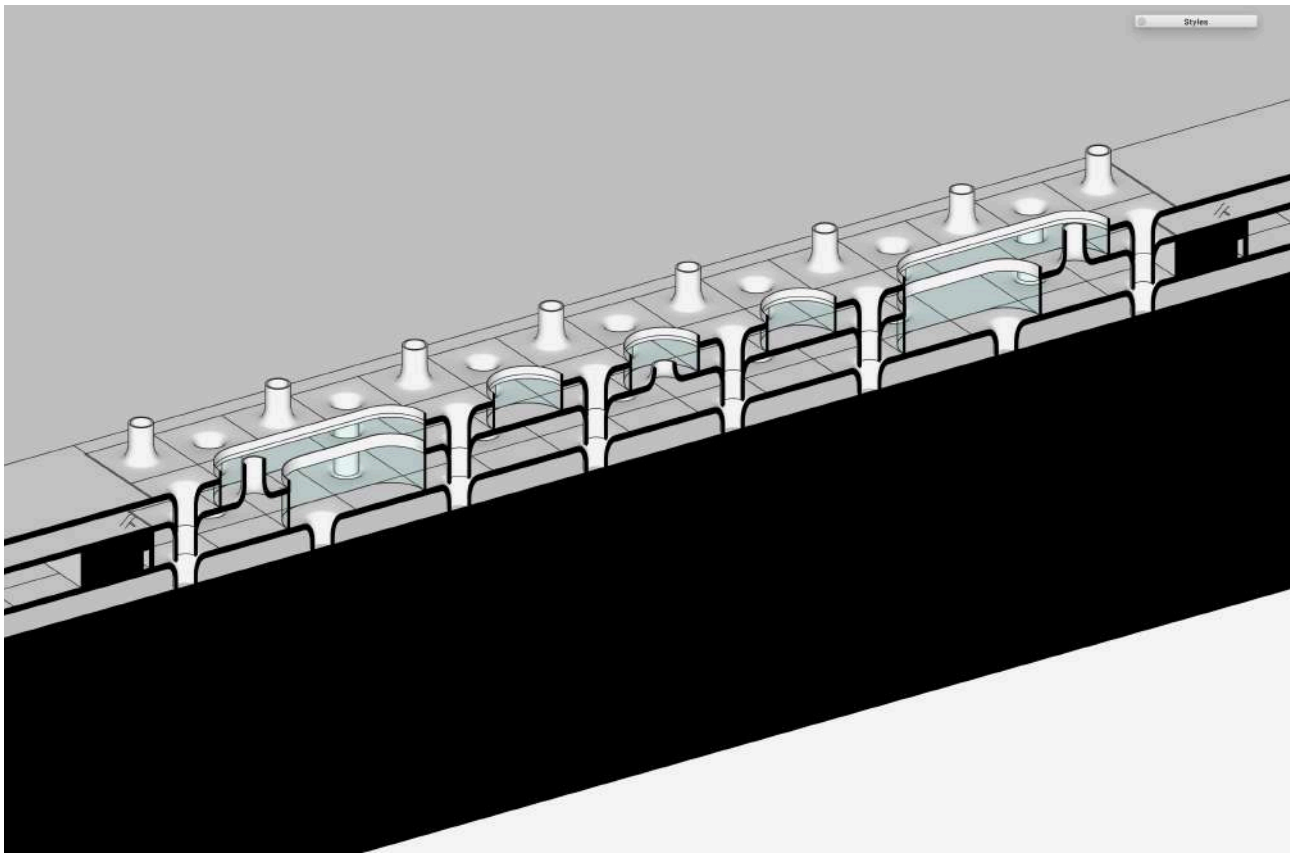
Osmosis

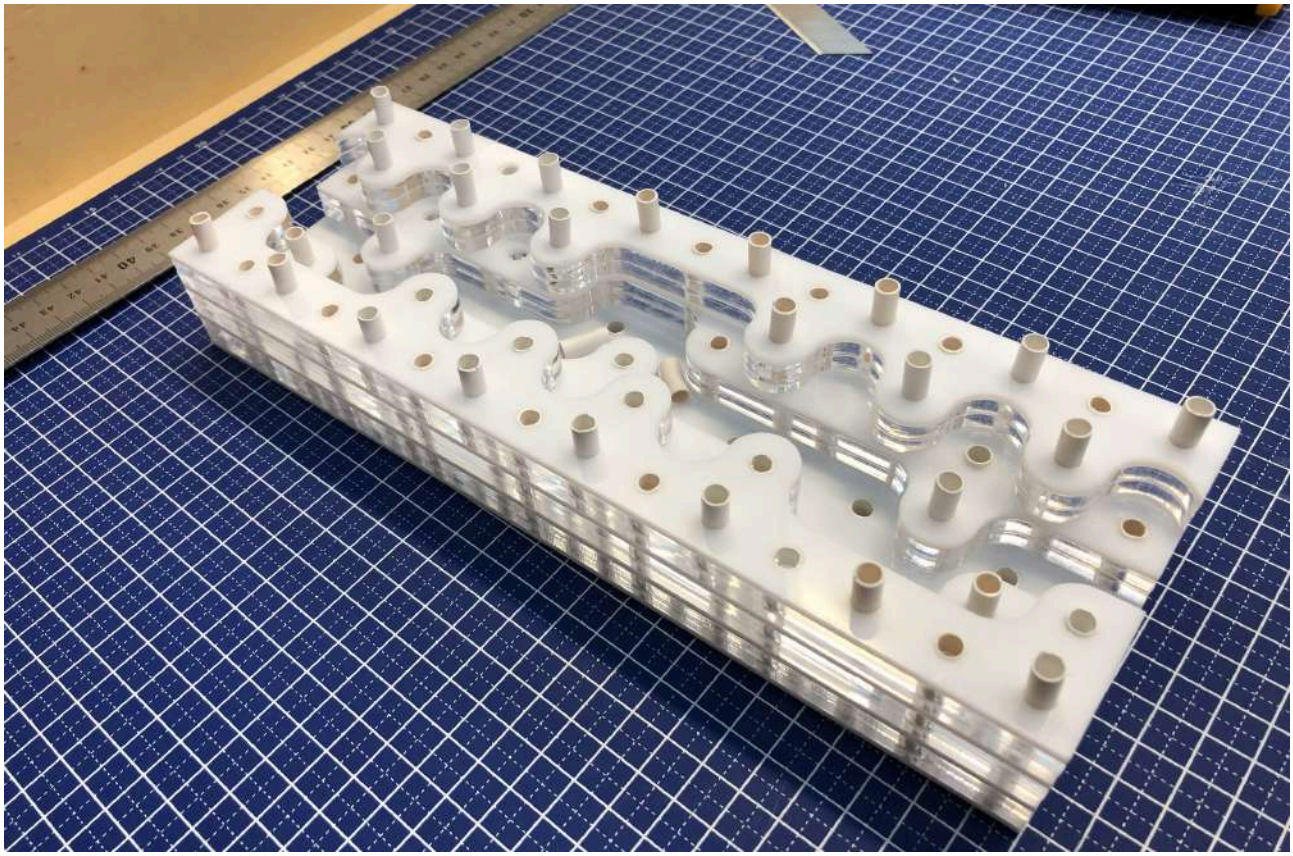
plastic

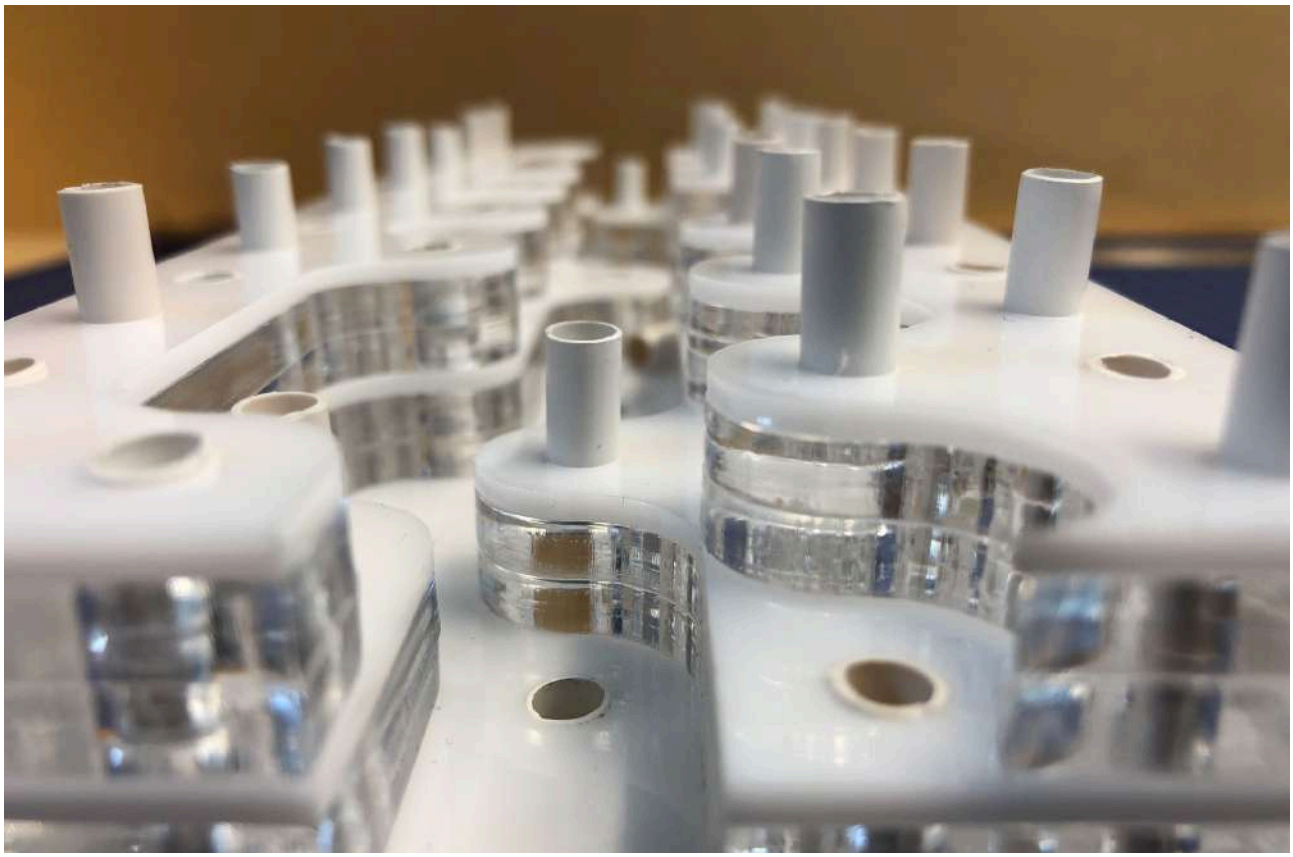

Ultimaker 3 Extended

# Sketches
# & notes

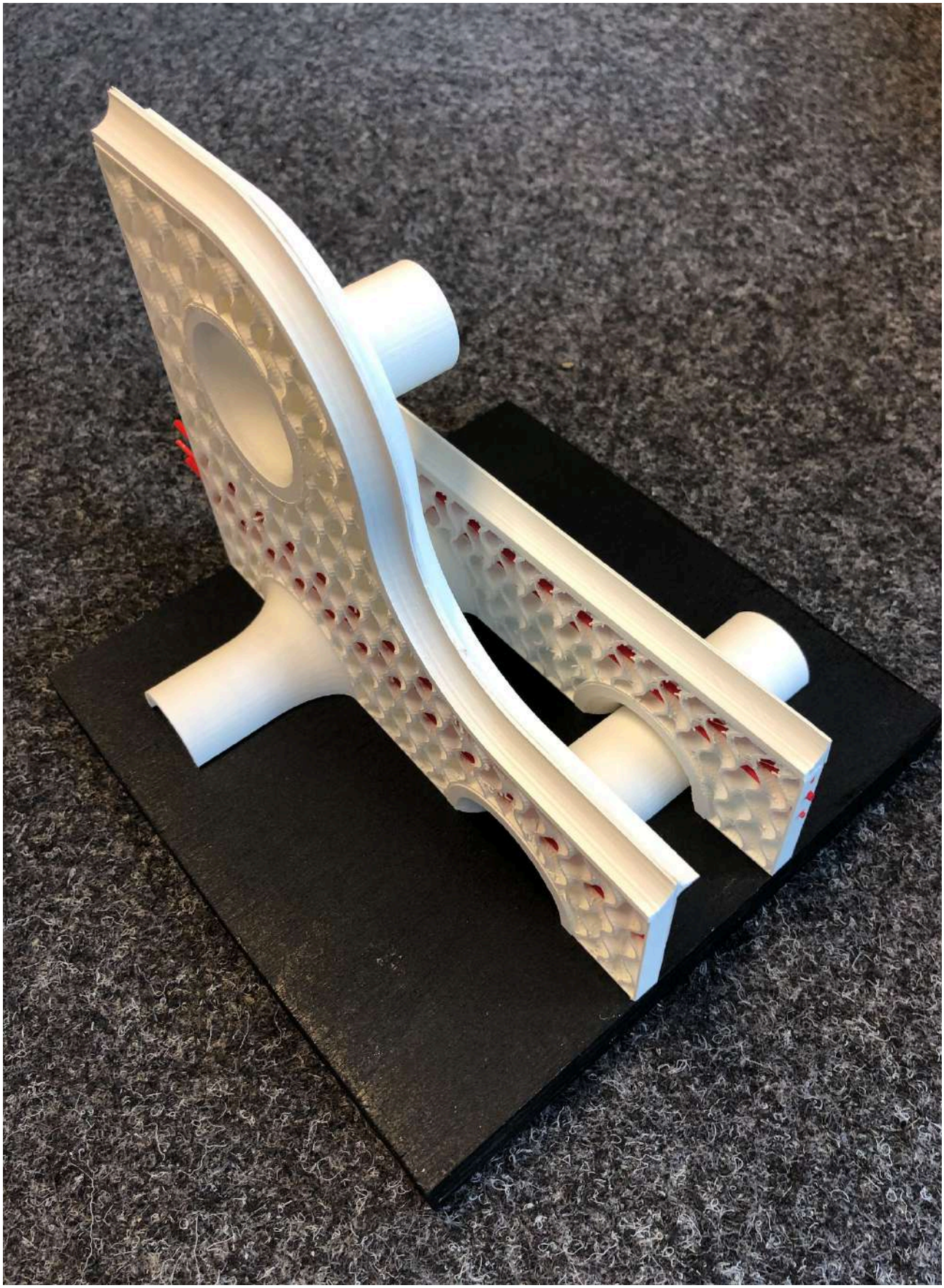








# Sketches & notes



# Presentation Exam

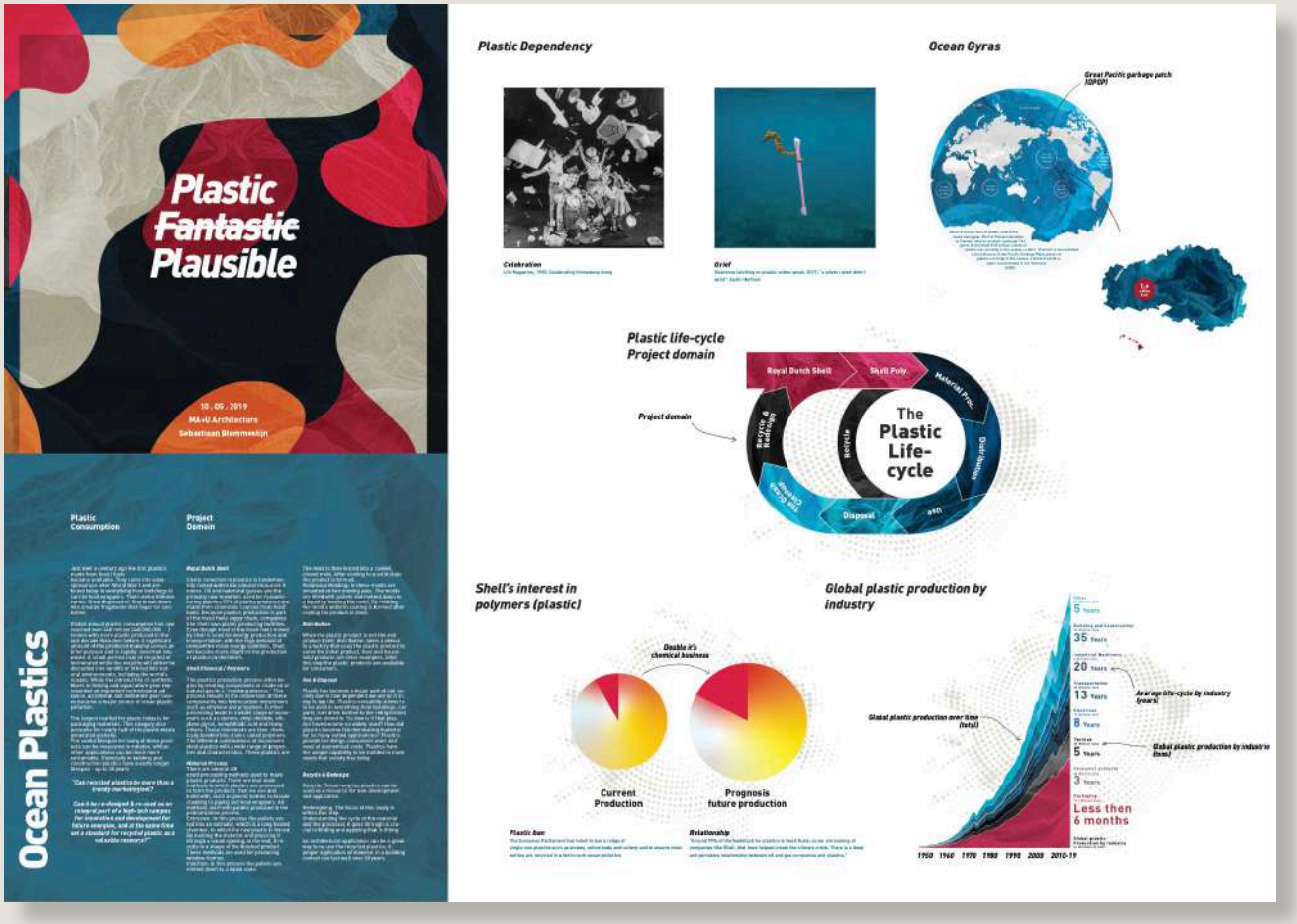
The real professional graduation, the exam.

Format: a minimum paper equivalent of 6 x A1, including all models. More and / or other materials are free to choose. Scale levels: landscape-wise and urban, architectural details level to 1:5. The logbook makes the links between research and design and has the final 2000-word essay as a critical introduction.

The presentation is public and takes place with the examination committee (tutor, extracurricular examiner, Pnina Avidar, Pepijn Verpaalen (urb), Pieter Feenstra and Jan Willem van Kuilenburg) and fellow students and other tutors. The extracurricular examiner reflects from 'outside', delivers feedback and a benchmark grade

Through the exam the professional graduation level is evaluated. It is the full scope of the design,
nothing can be delayed until the ceremony. Issues to deal with: definition of project, the theory (architectural and urban), the integrated and complete design with a technical elaboration related to the points of departure and the design decisions, detailing and materialization, definition of urban and architectural quality, position of the student within the discipline with a scope beyond graduation.

Exam.

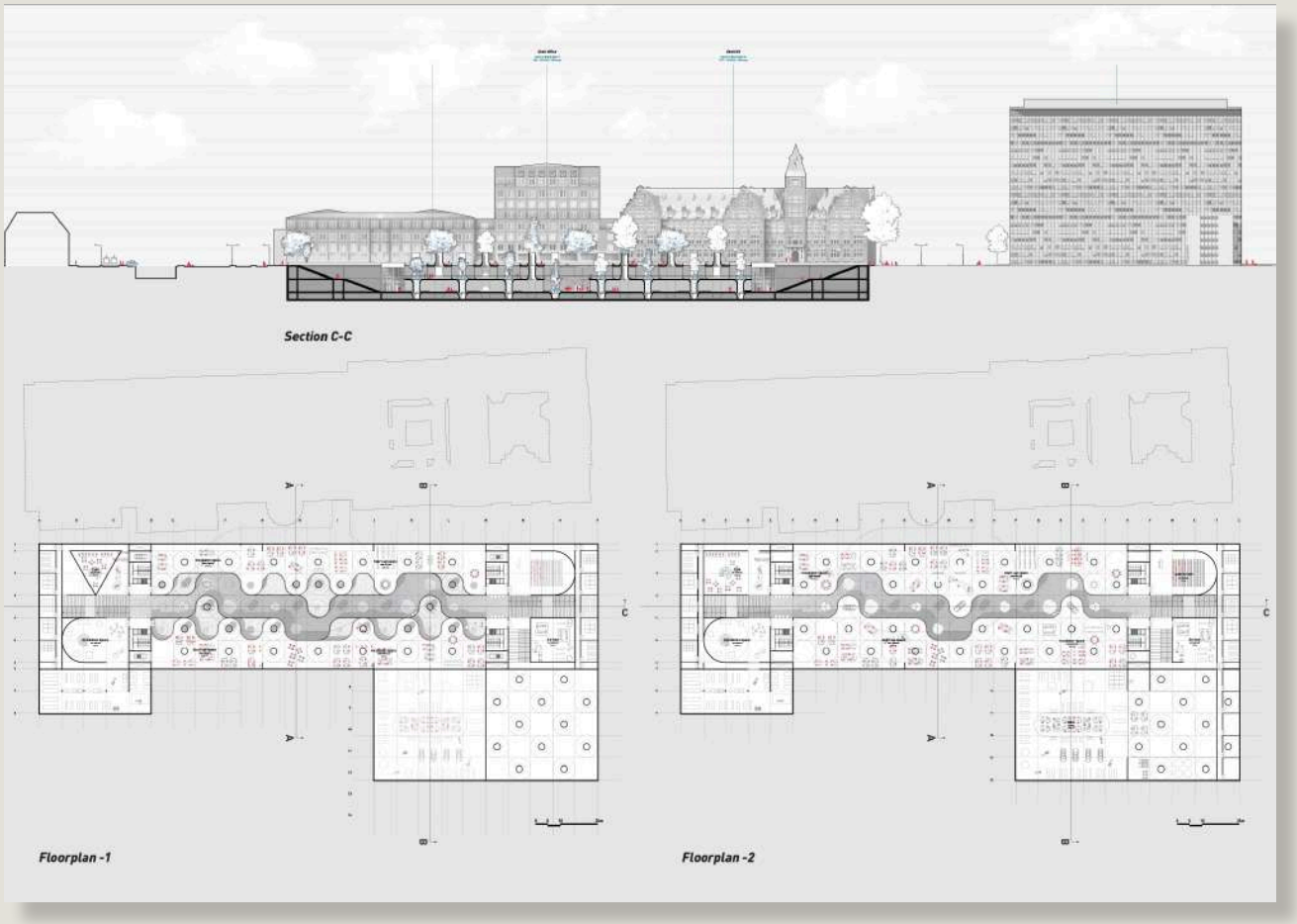

Plastic
Fantastic
Plausible
10 . 06 . 2019
MA-U Architecture
Sebastiaan Blommaaijn
Plastic Consumption
Project Domein
Ocean Plastics
Plastic Dependency
Celebration
Grief
Ocean Gyras
Great Pacific garbage patch (GPGP)
Plastic life-cycle
Project domain
Project domain
Royal Dutch Shell
Shell Poly
Material Proc
Distribution
use
Disposal
The Recycle Chemical
Recycle & Recycage
Recycle
The Plastic Life-cycle
Shell's interest in polymers (plastic)
Double it's chemical business
Current Production
Prognosis future production
Plastic Ban
Relationship
Global plastic production by industry
Global plastic production over time (total)
Average life-cycle by industry (years)
Global plastic production by industrie (tons)
5 Years
35 Years
20 Years
13 Years
8 Years
5 Years
3 Years
Less then 6 months
1950 1960 1970 1980 1990 2000 2010-19

***Poster 1***

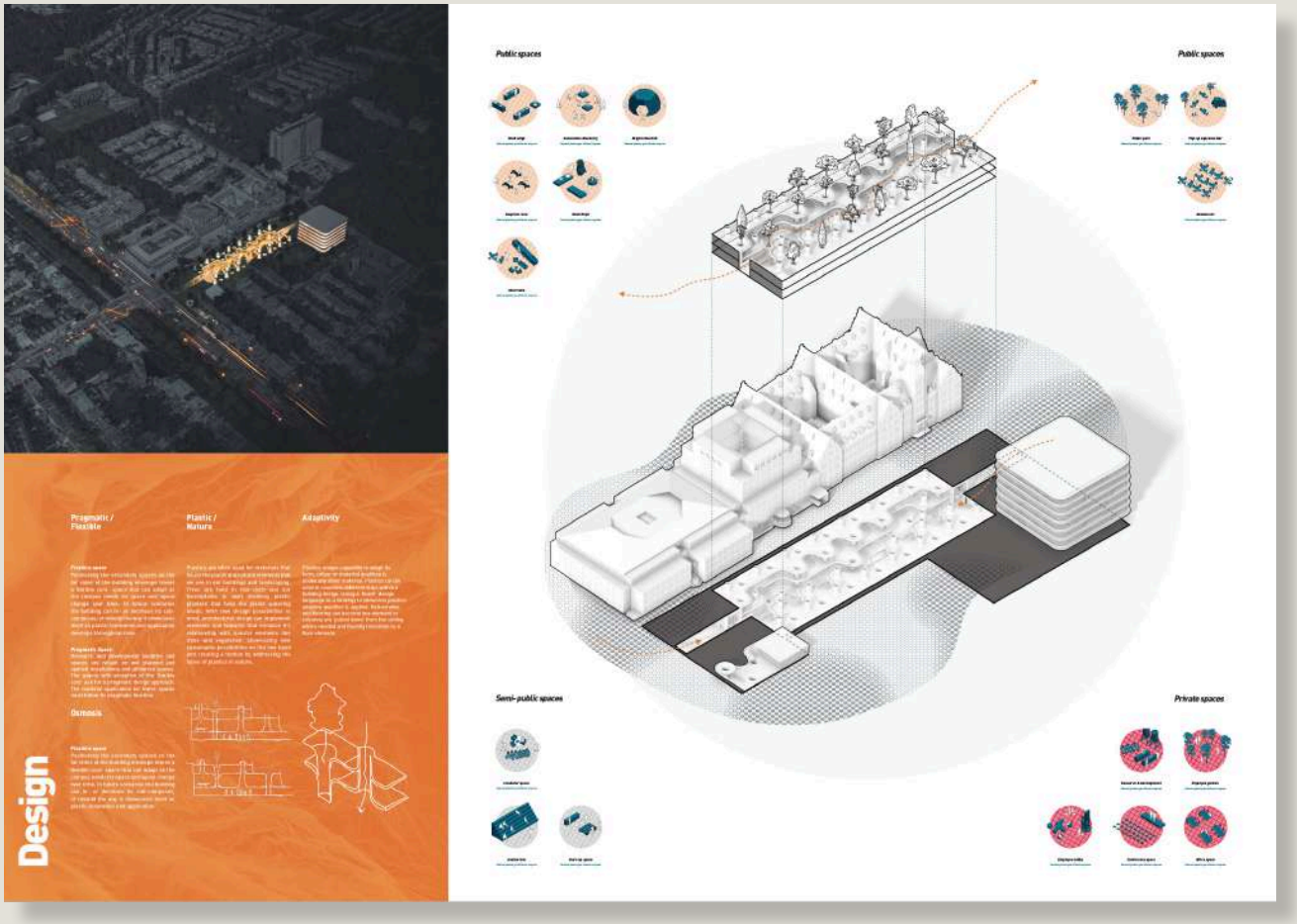
Royal Dutch Shell
Shell New Energies
Shell Model
New fuels
Power
The Hague
Sea Life
Scheveningen bad
Madurodam
ICTY & WFCC
Royal Dutch Shell HQ
Koningscorridor
Central Station

## *Poster 2*

***Poster 3***




# Poster 4


Pragmatic / Flexible
Plastic / Nature
Adaptivity
Design
Public spaces
Public spaces
Semi-public spaces
Private spaces

***Poster 5***

Sub-Section A-A
Detail extrusion
High
Middel
Detail Gyroids
Traditional buildup
Select
Shred
Produce
Application

***Poster 6***

MA+U
Master of Architecture // Master of Urbanism