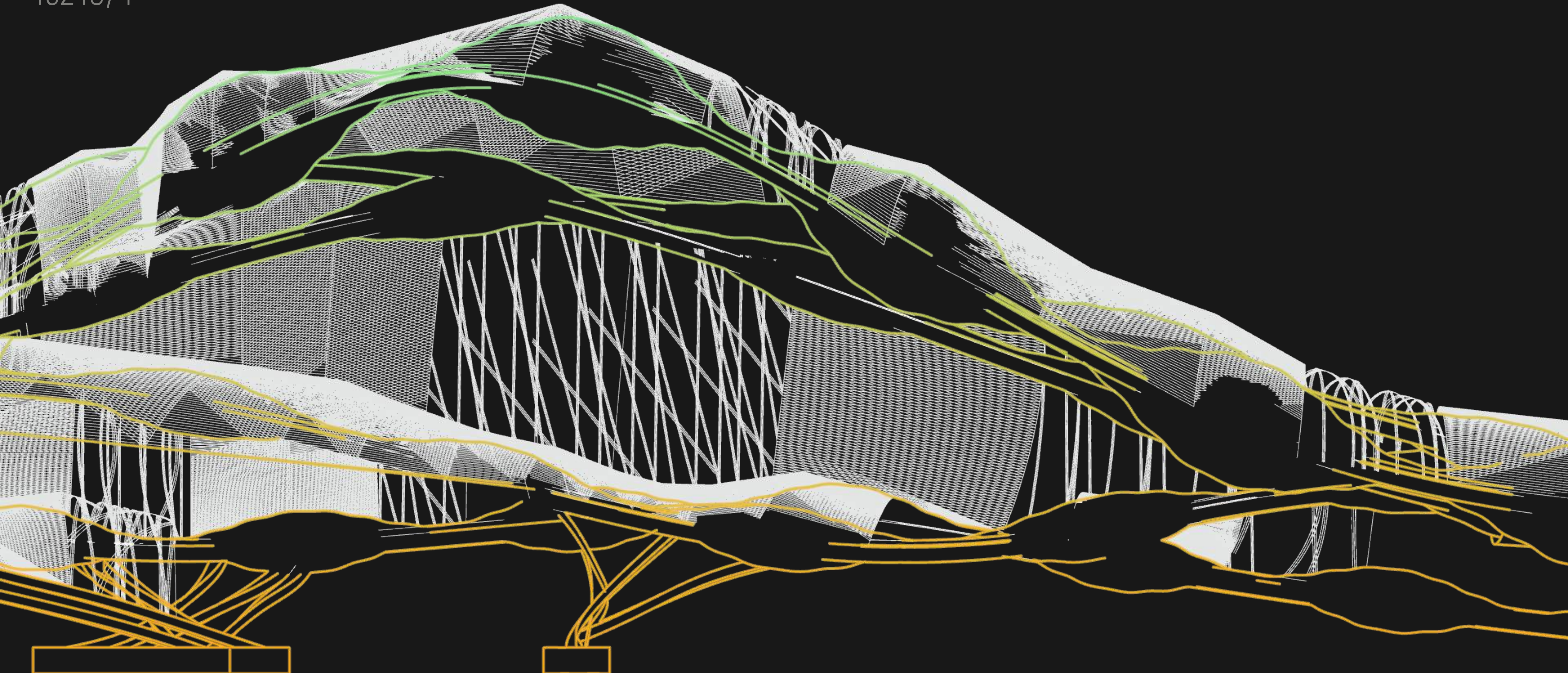


BRIDGING HETEROTOPIA

P5 PRESENTATION

TURKUAZ NACAFI

4624874





Bridging Heterotopia*



Bridging Heterotopia*

How can a structure be designed in order to promote social integration through empathetic experience in Rotterdam?

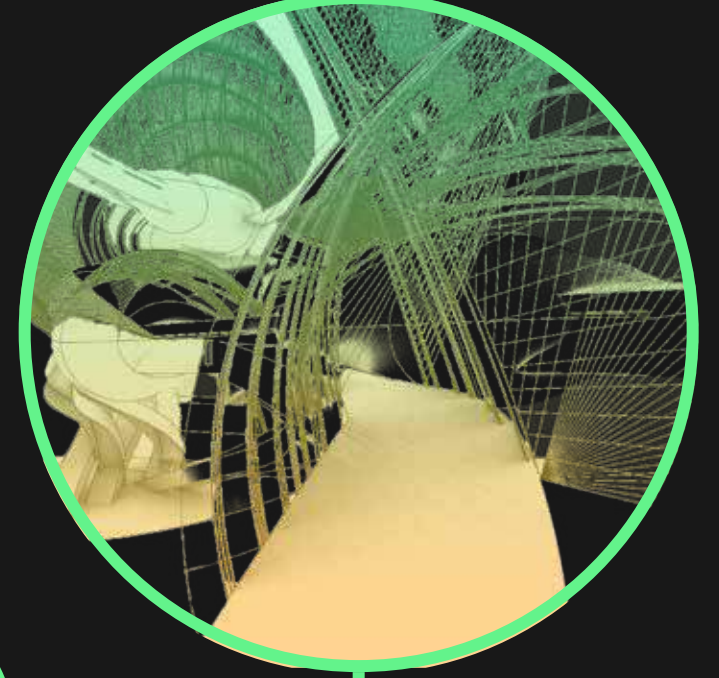
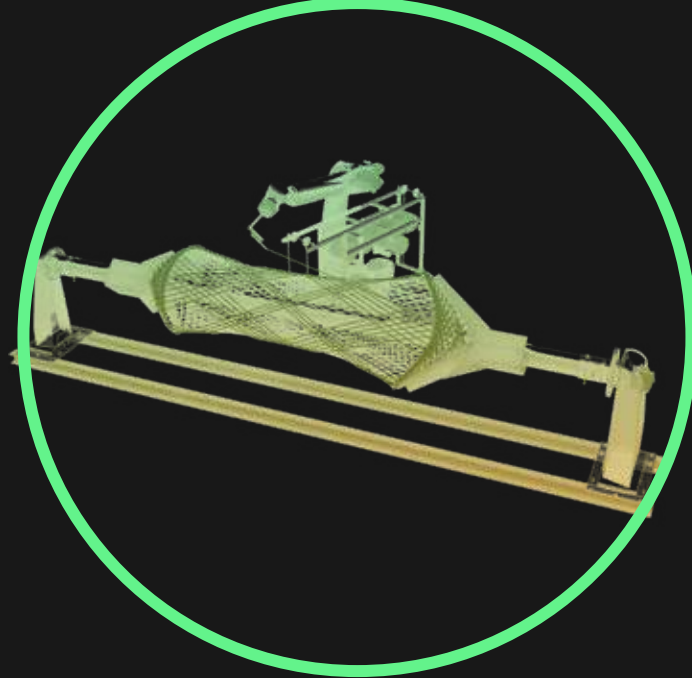
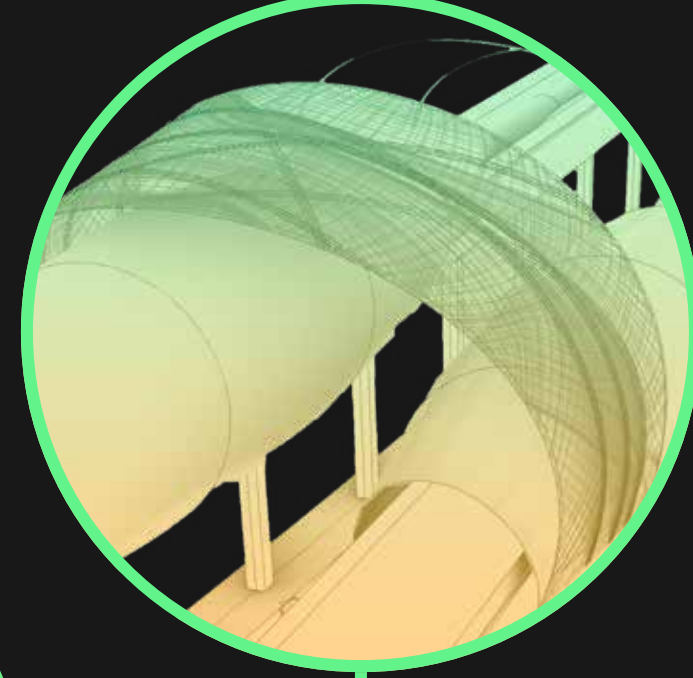
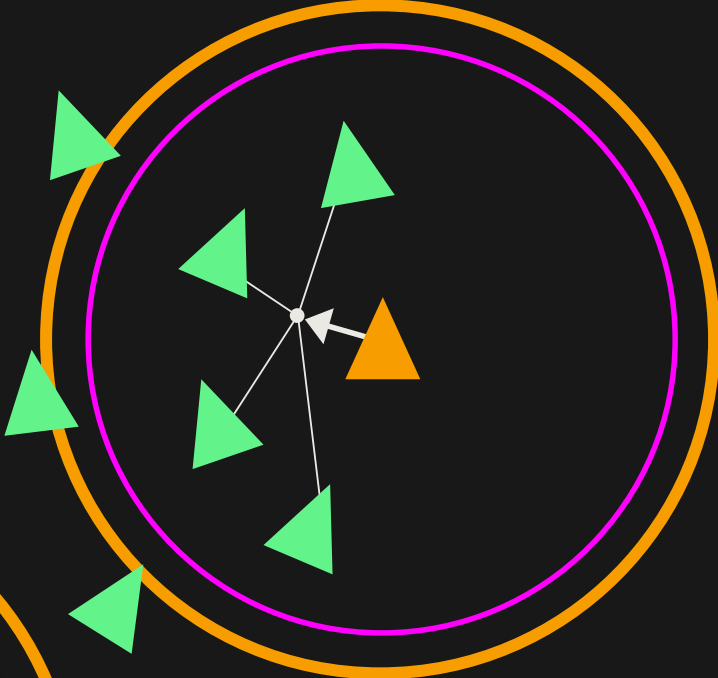
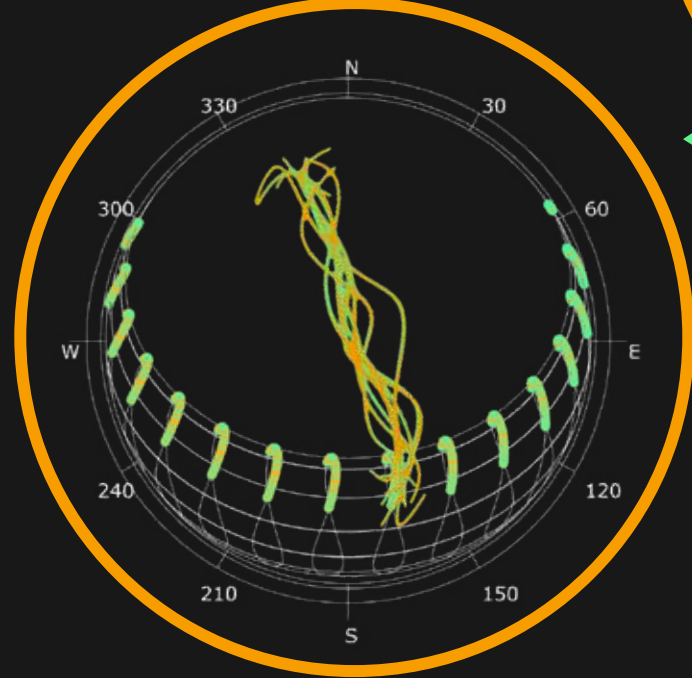
The guiding principle is the juxtaposition in real space of many spaces together that would normally be incompatible

presentation outline

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analysis

∩
design

∩
D2RP & O

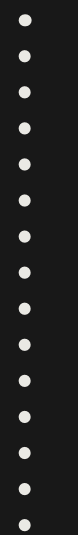
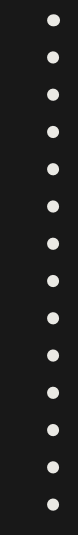


RC
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concept

CS
computational
strategy

MD
materialisation
details

IR
impressions
reflection

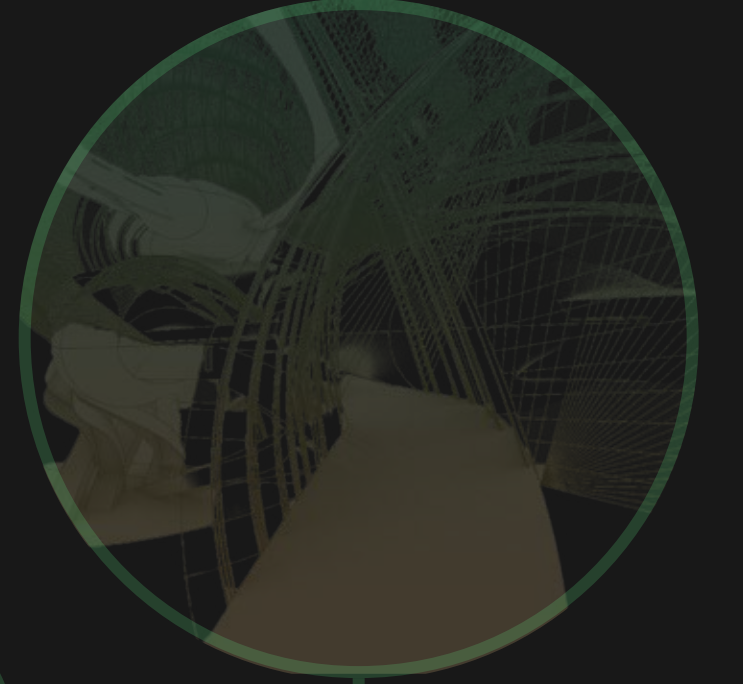
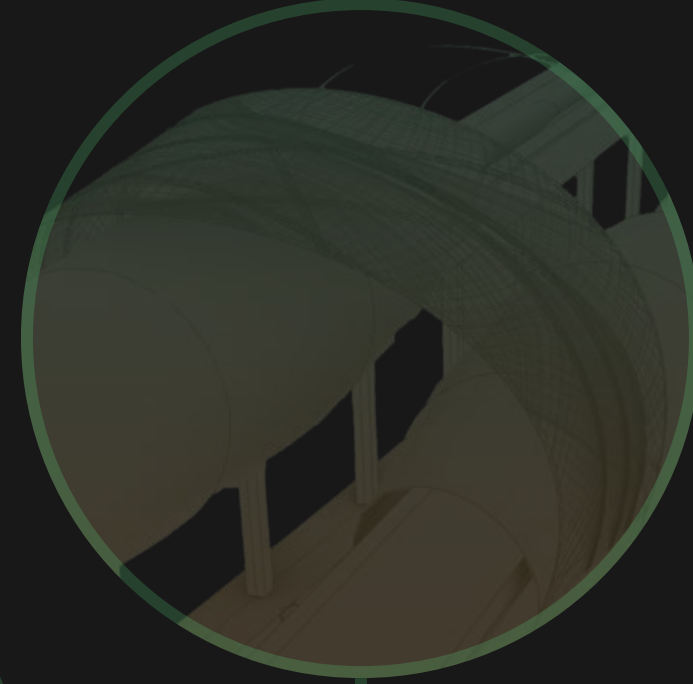
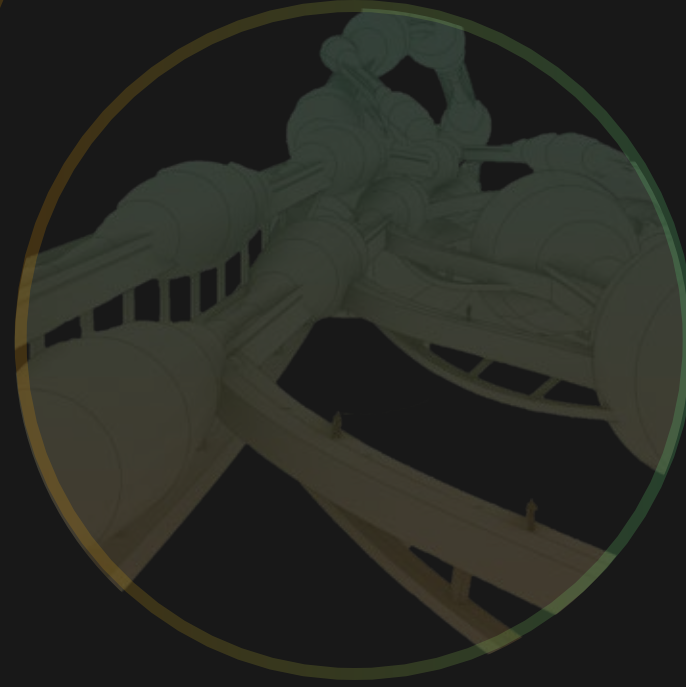
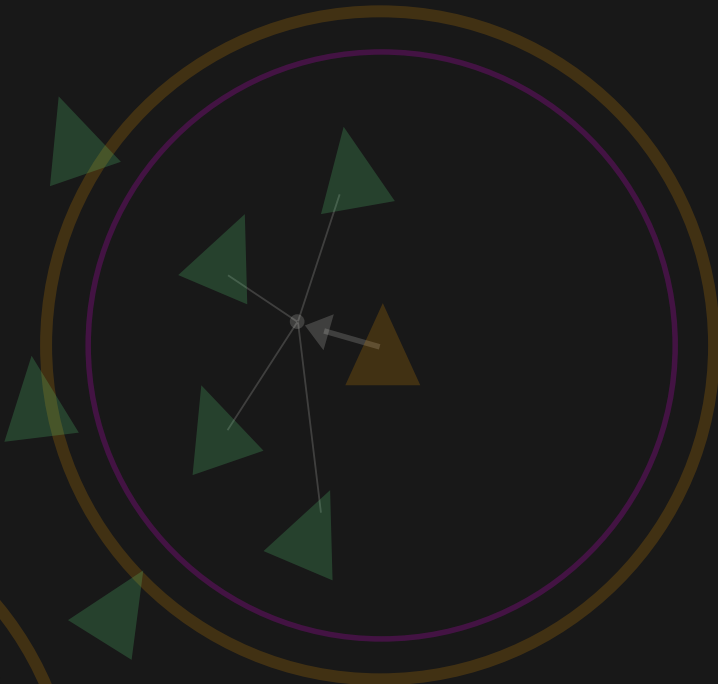


presentation outline

A
analysis

D
design

P
D2RP & O



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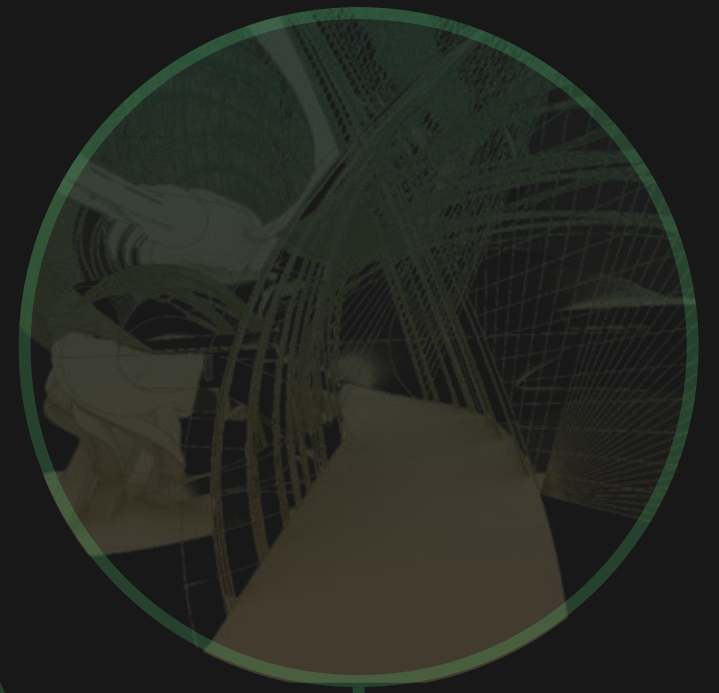
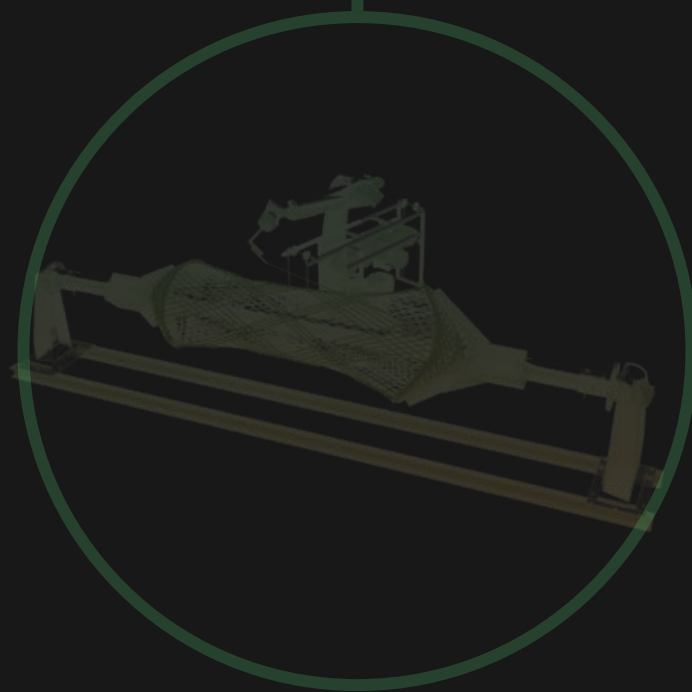
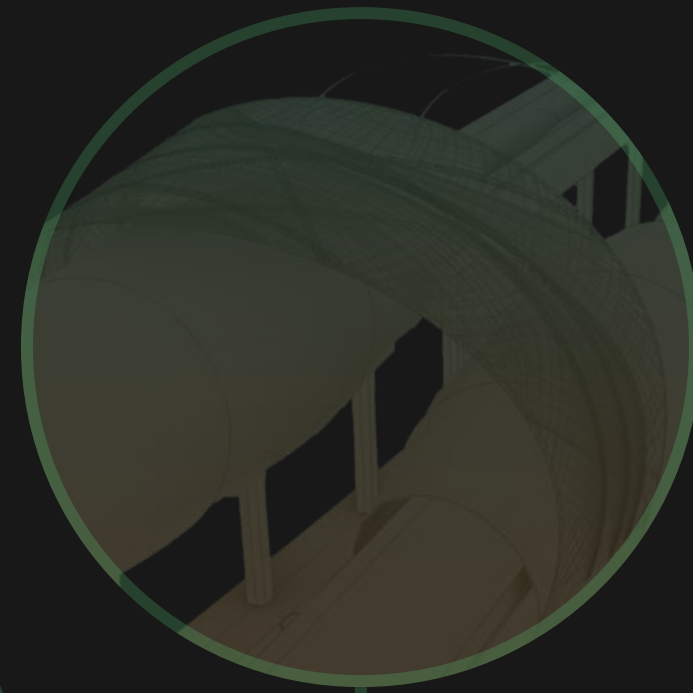
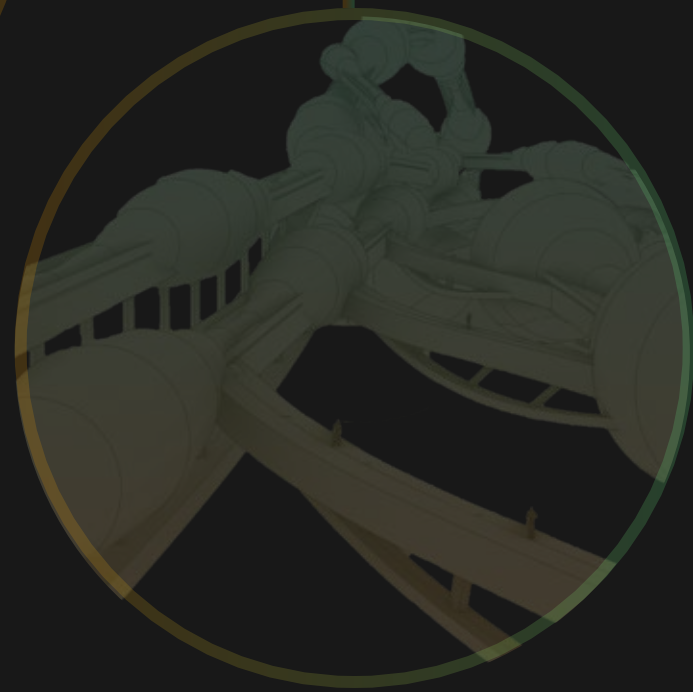
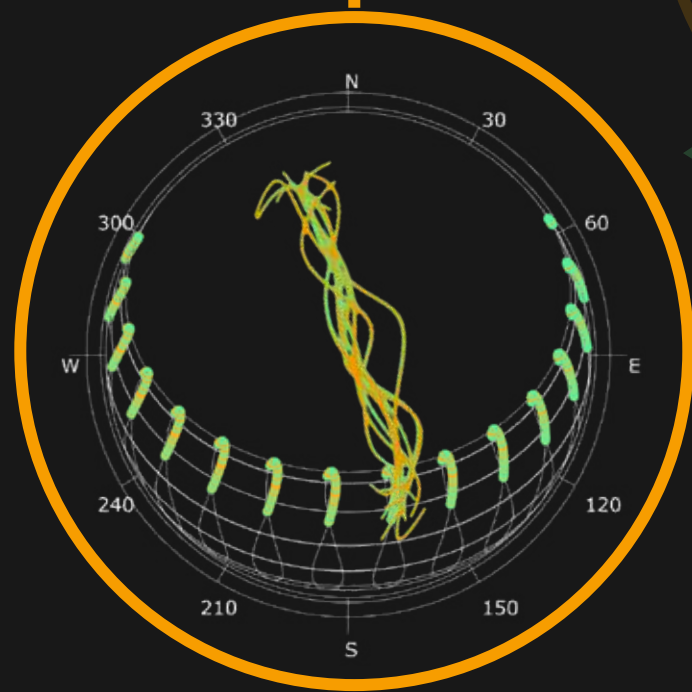
IR
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reflection

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D2RP & O



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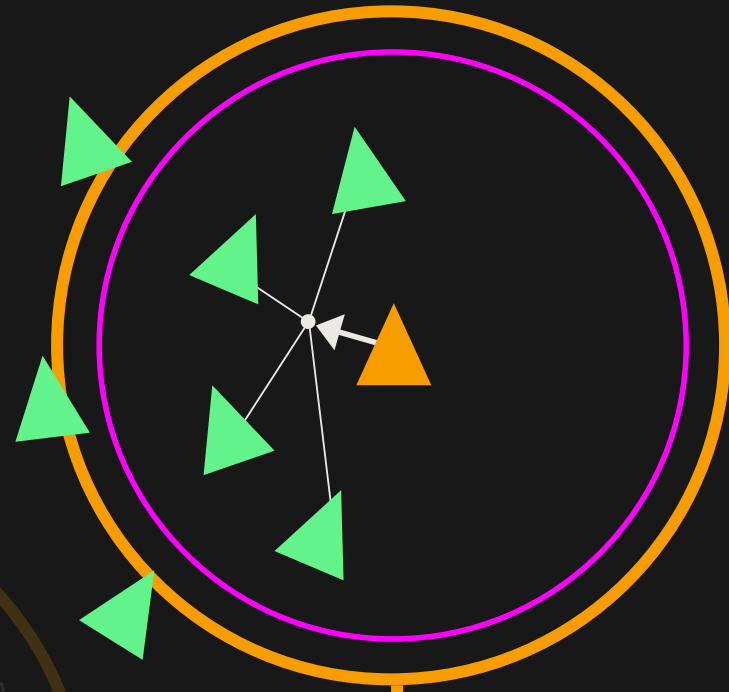
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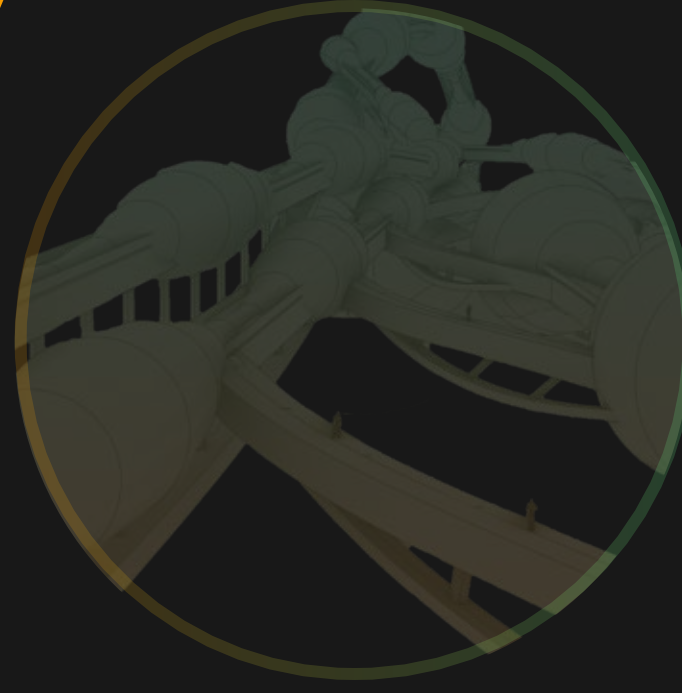


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strategy

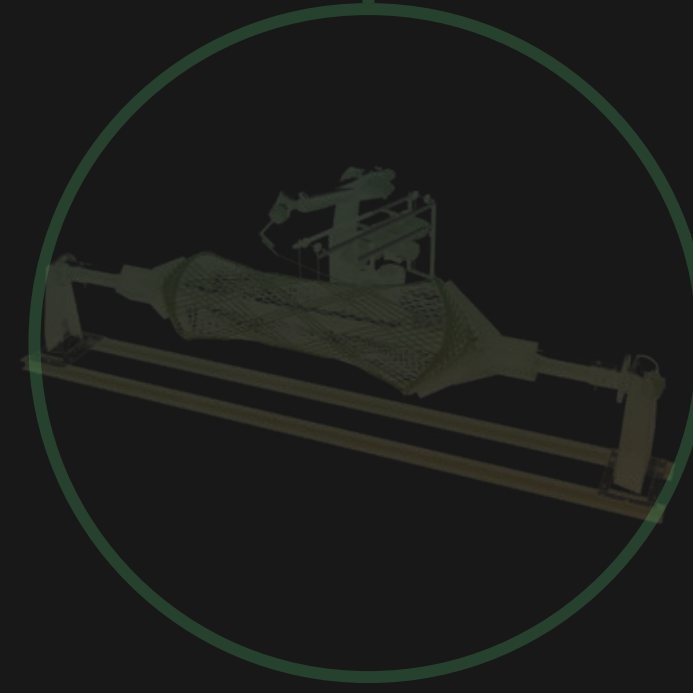
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design



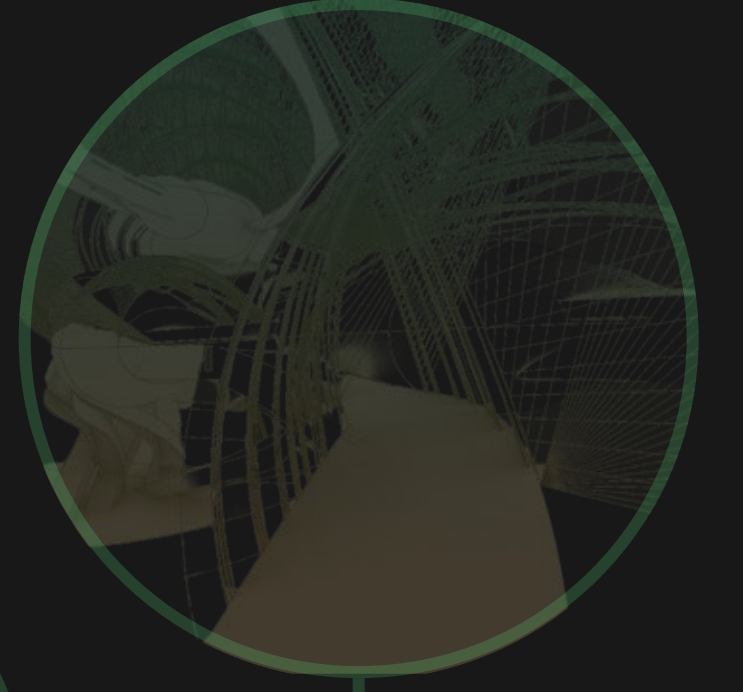
MD
materialisation
details



P
D2RP & O



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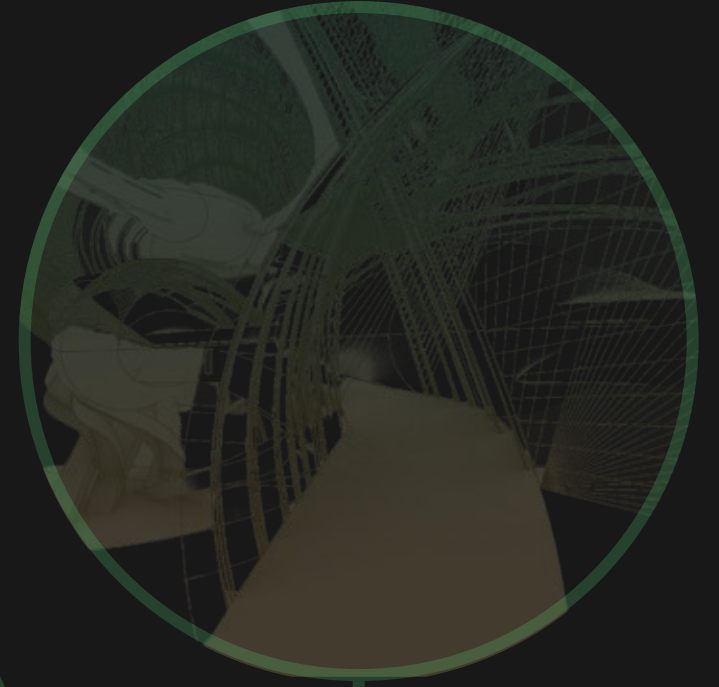
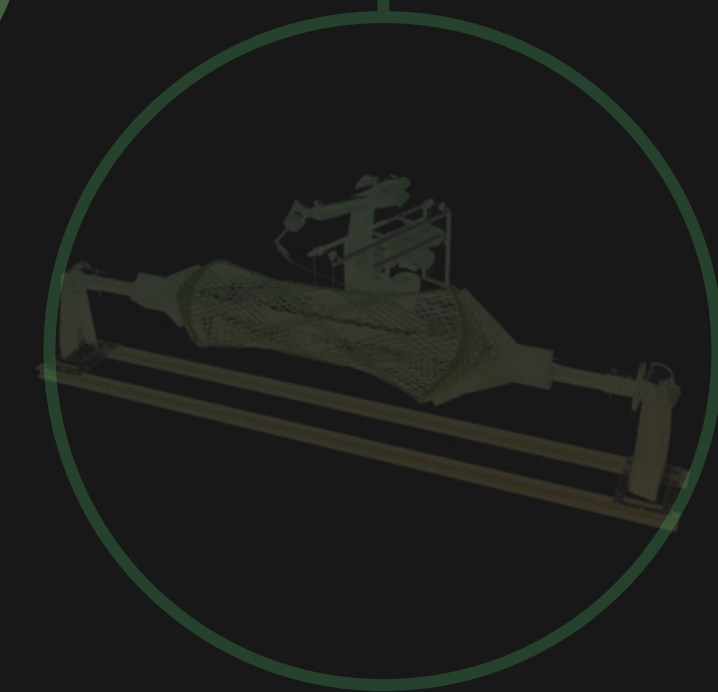
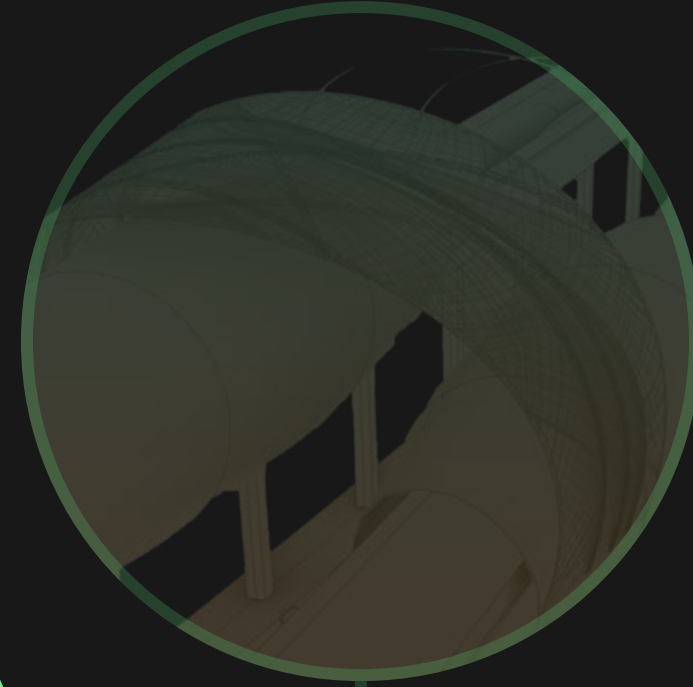
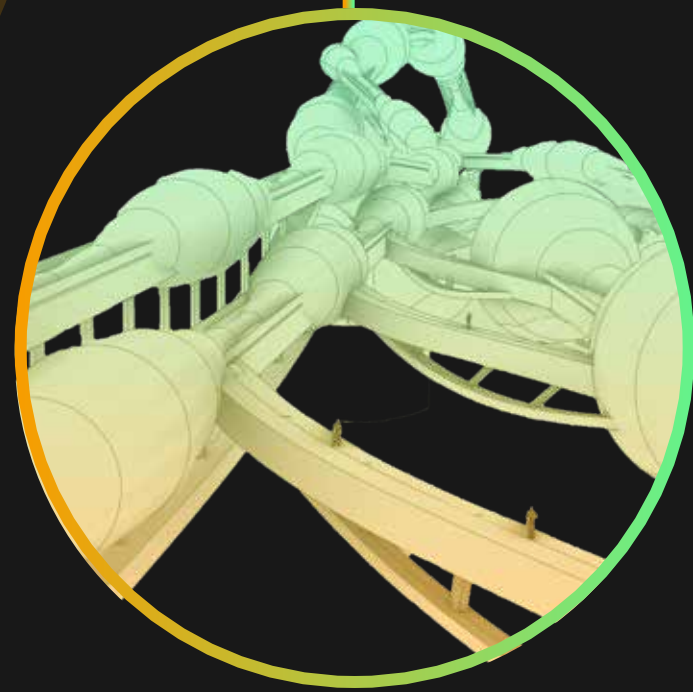
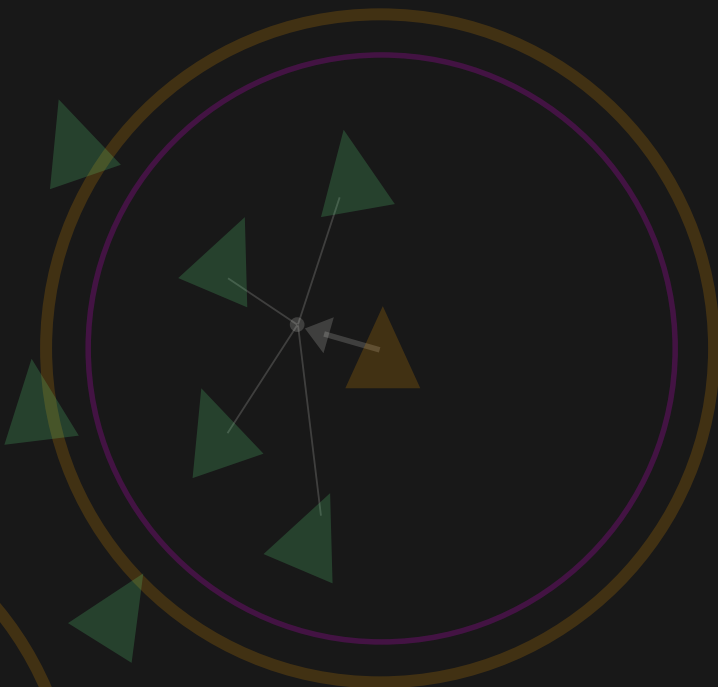
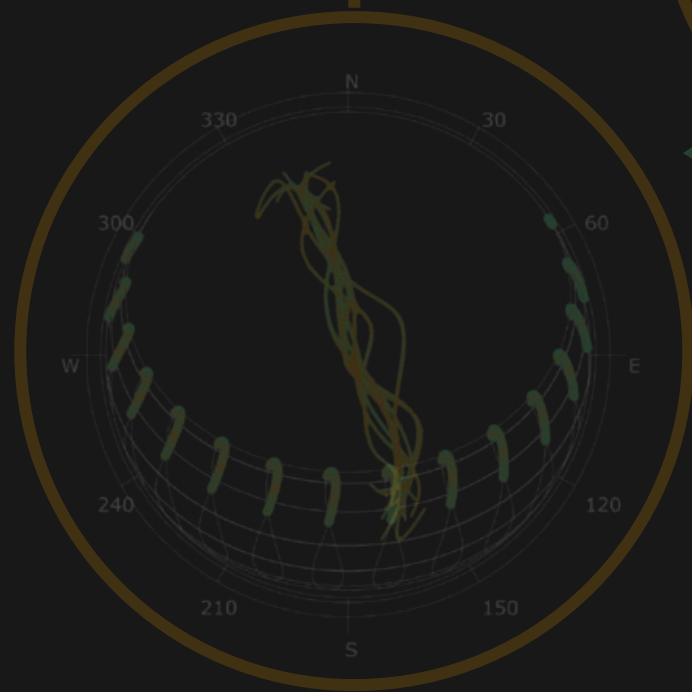


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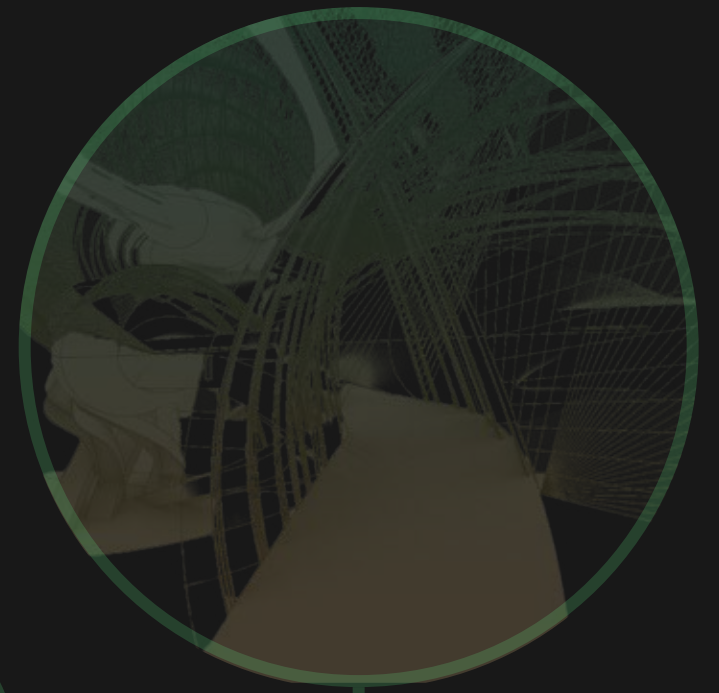
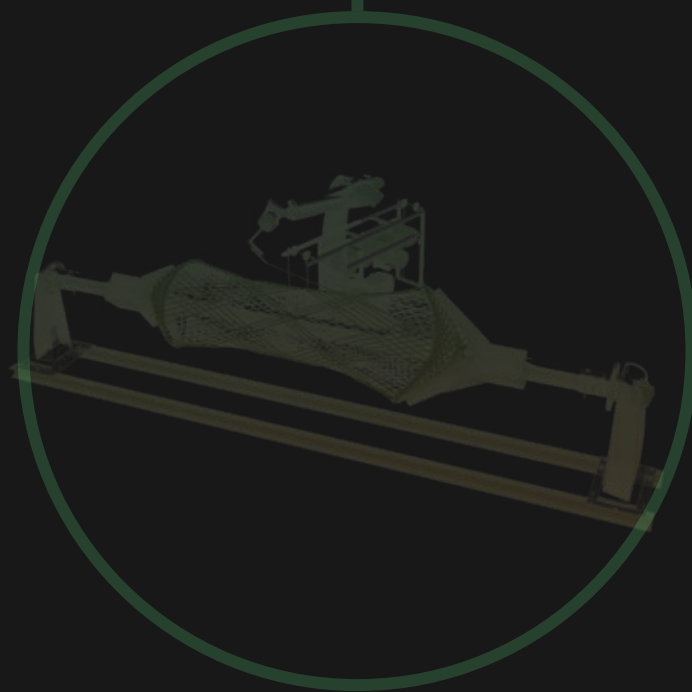
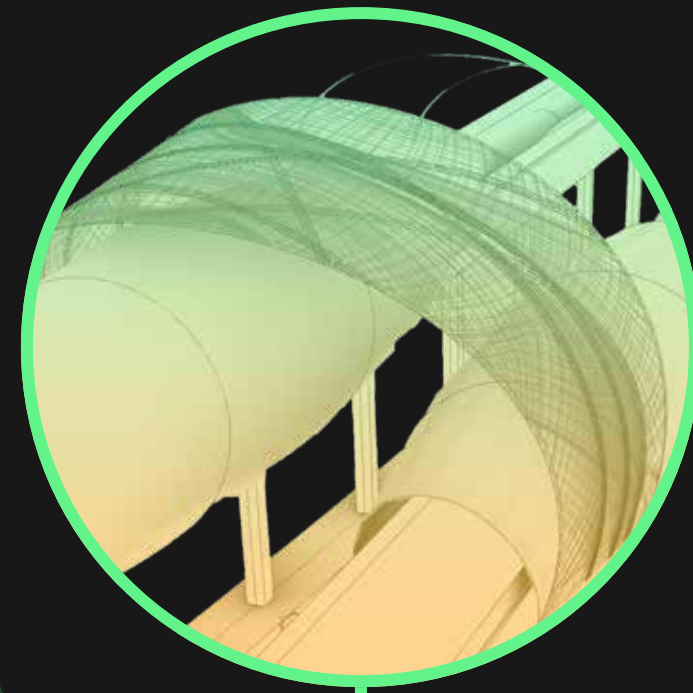
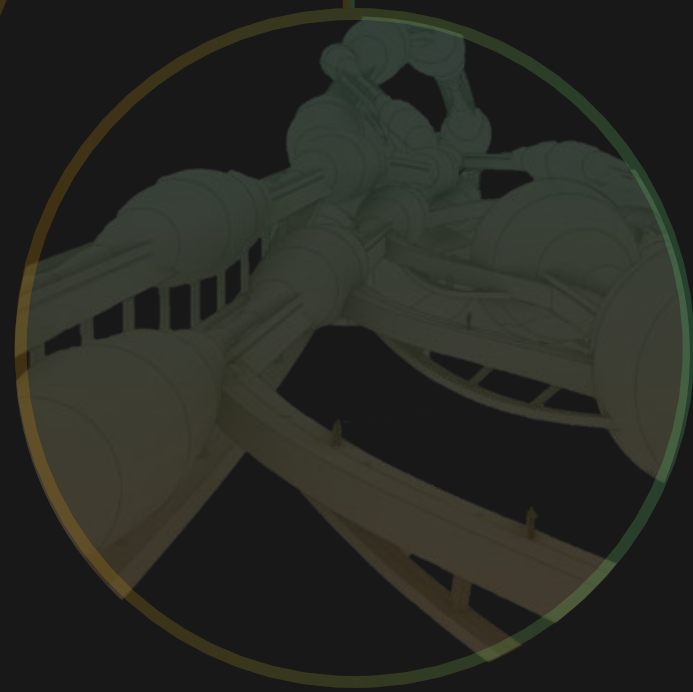
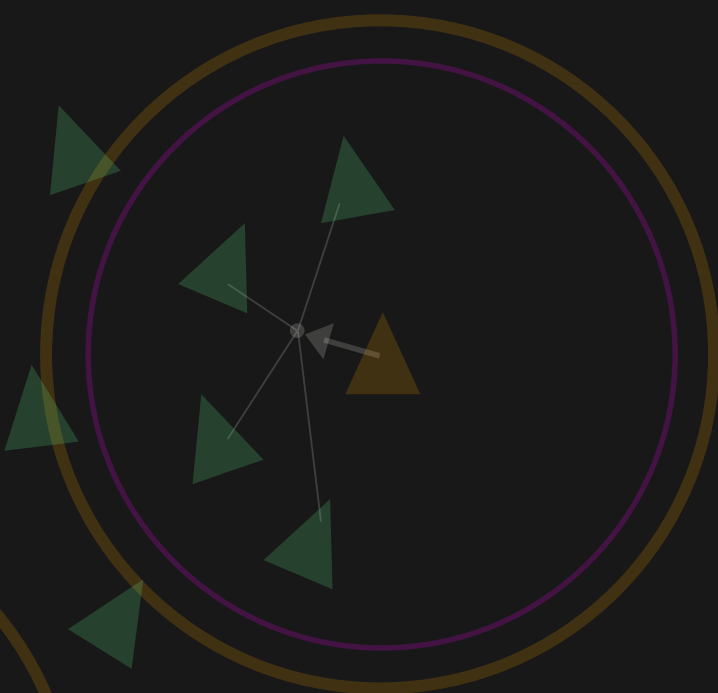
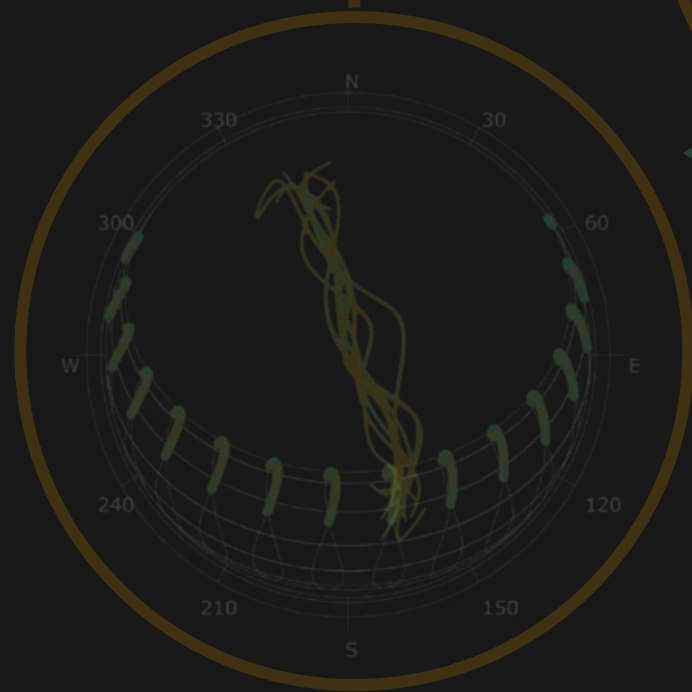
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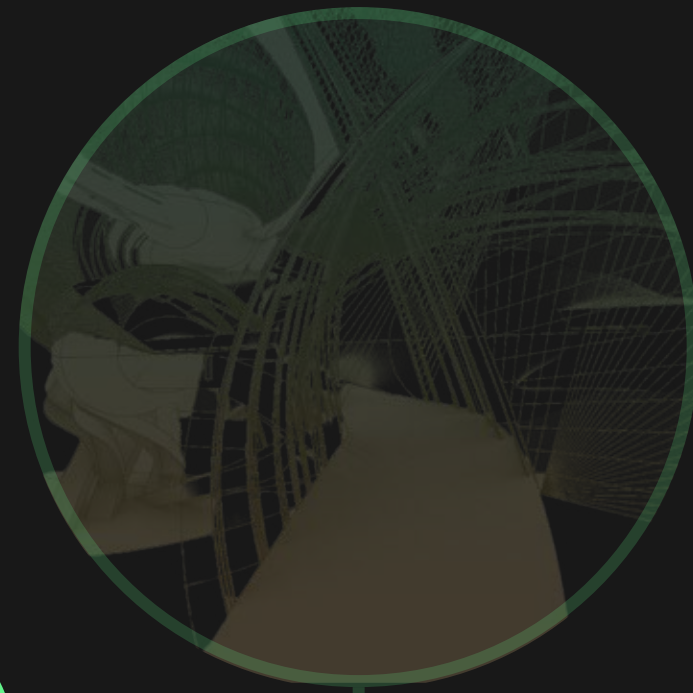
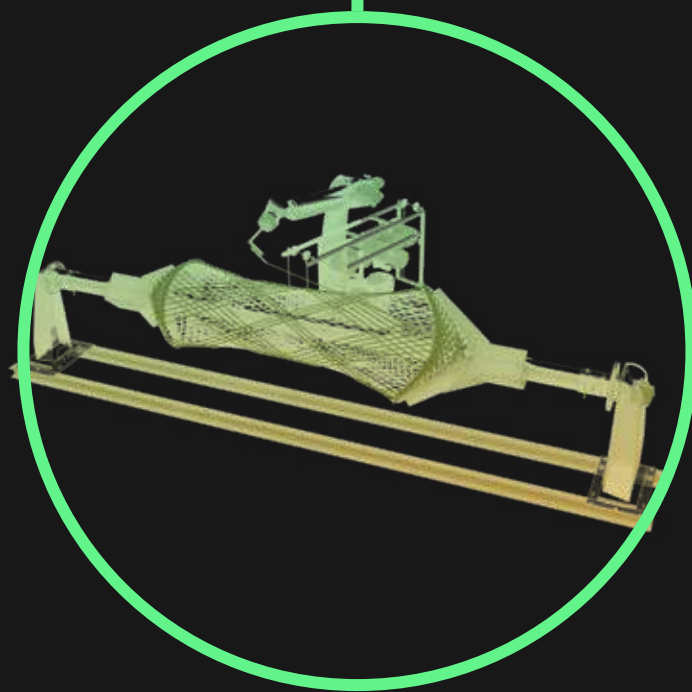
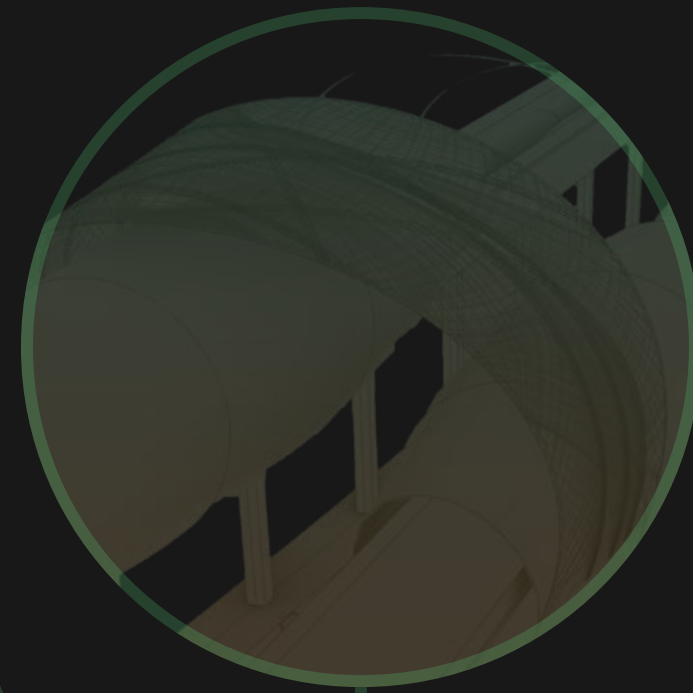
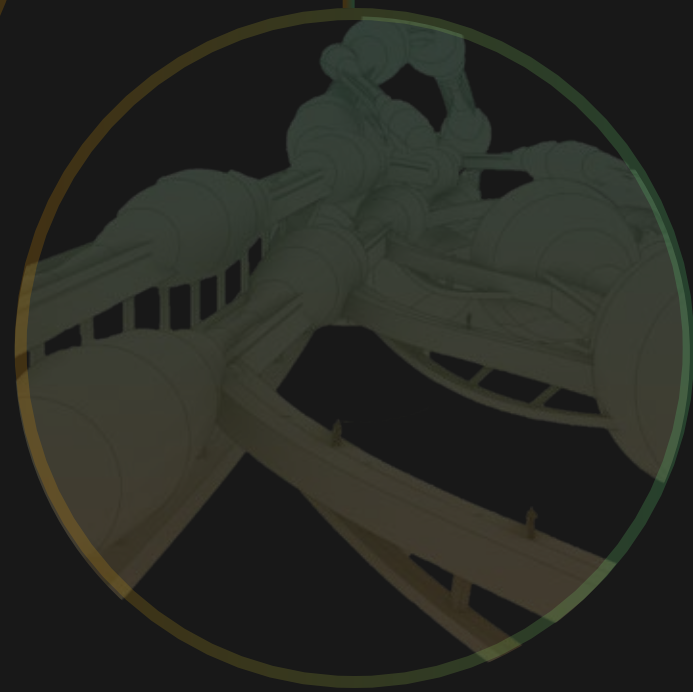
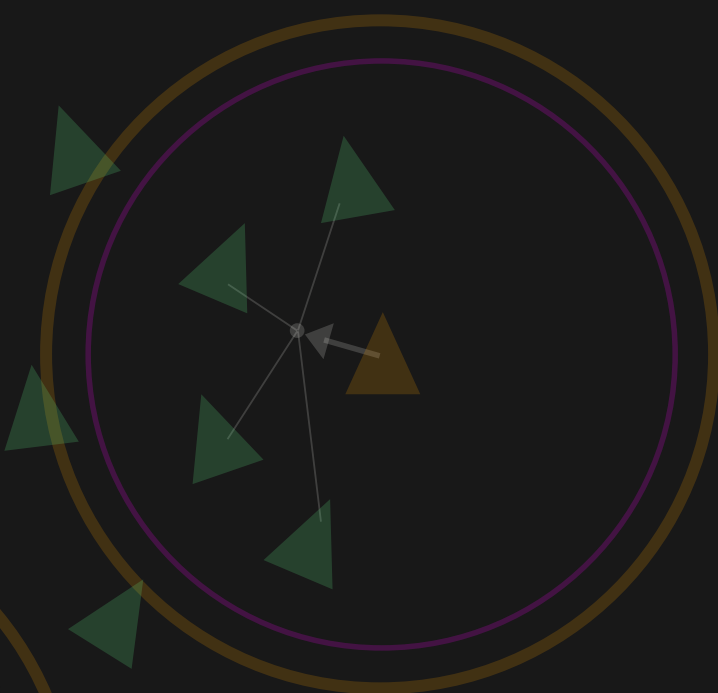
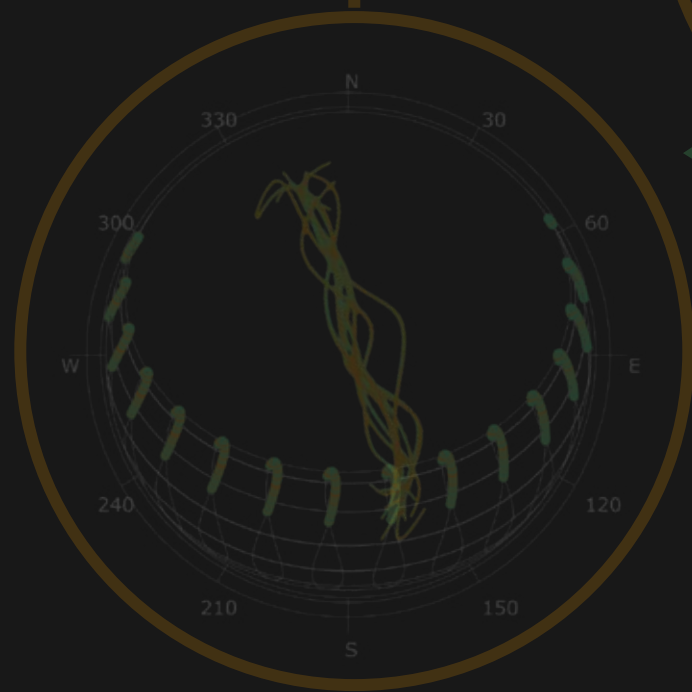
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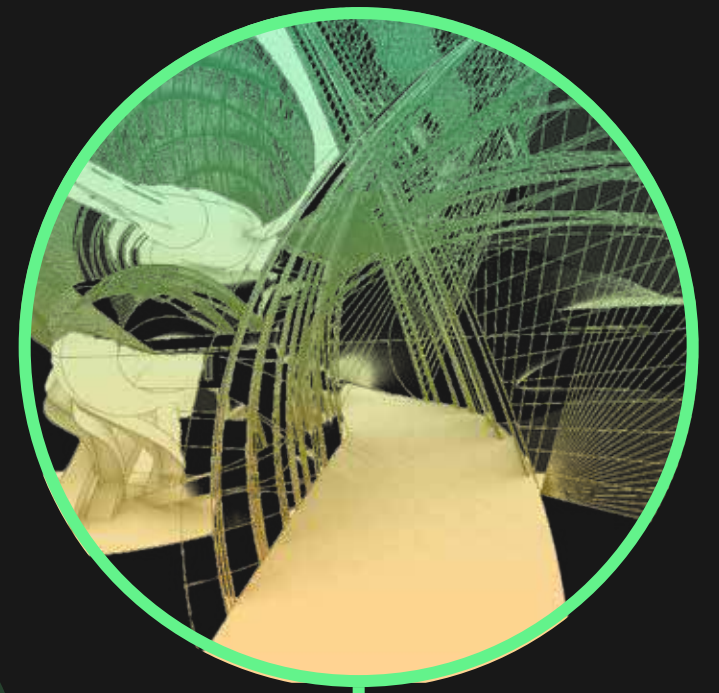
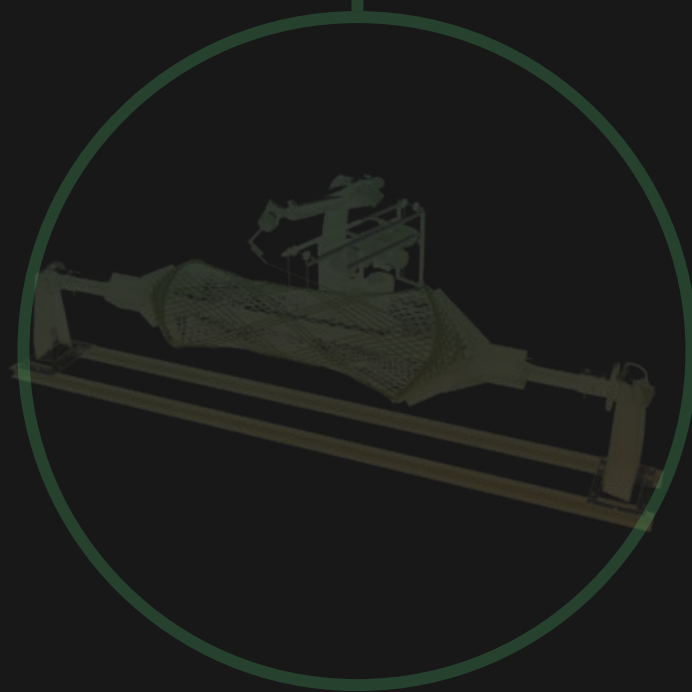
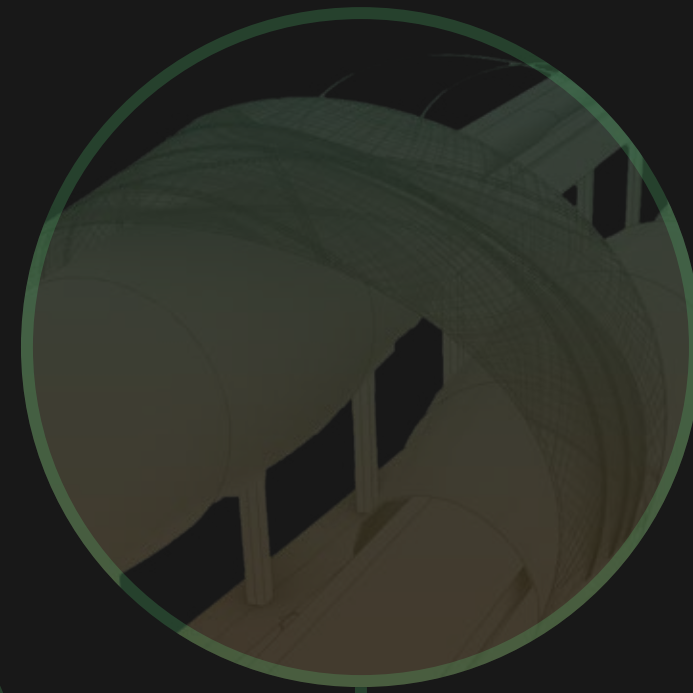
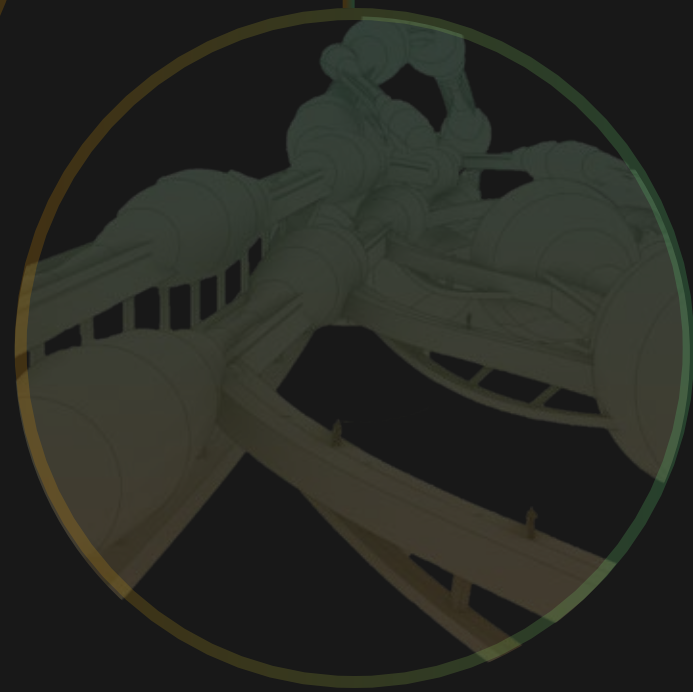
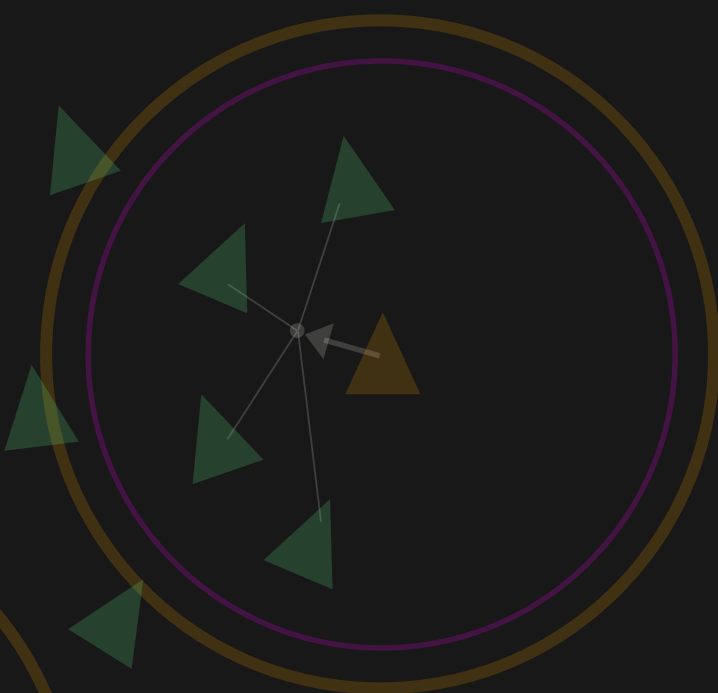
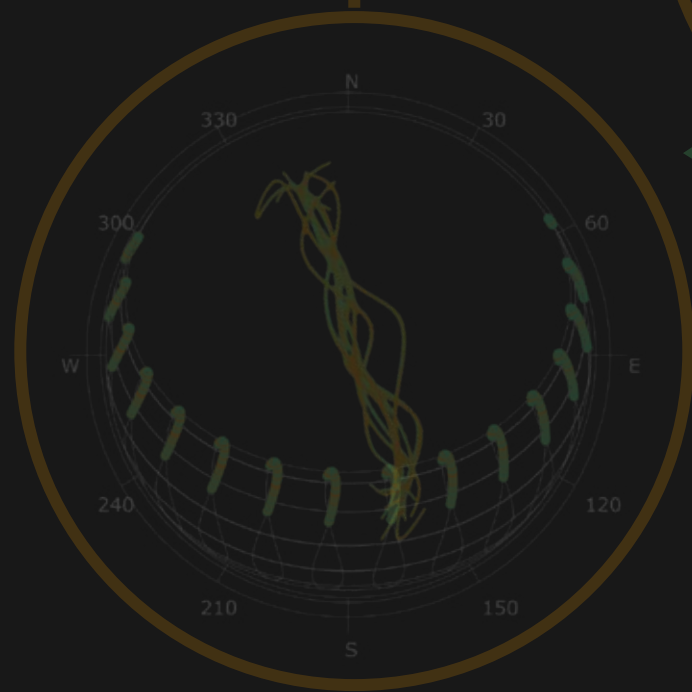
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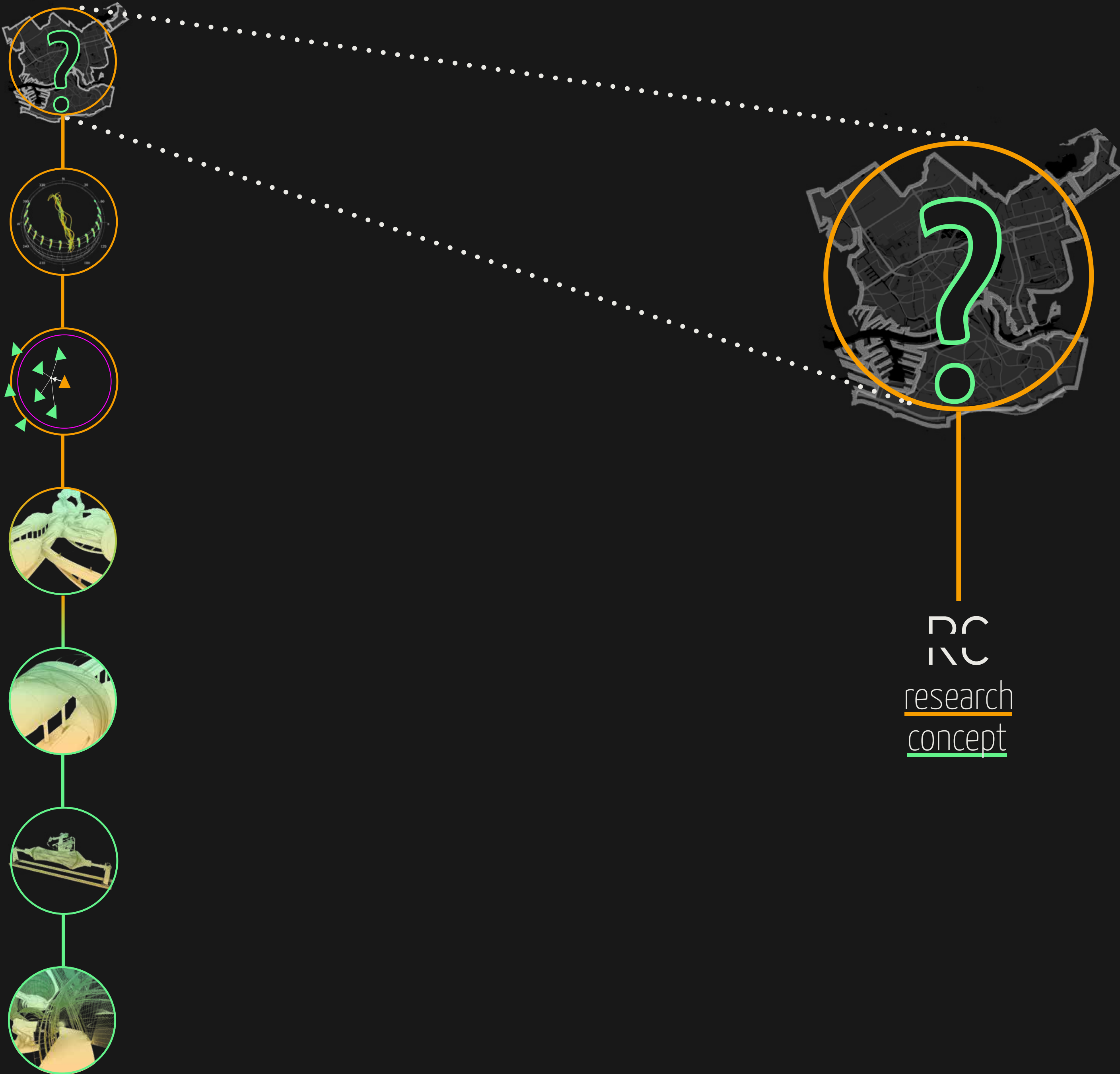


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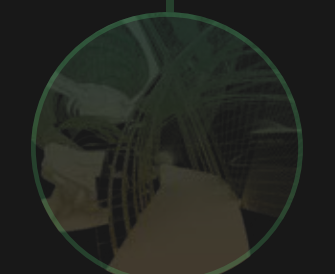
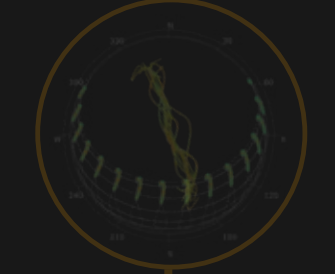


figure 1. CNN news

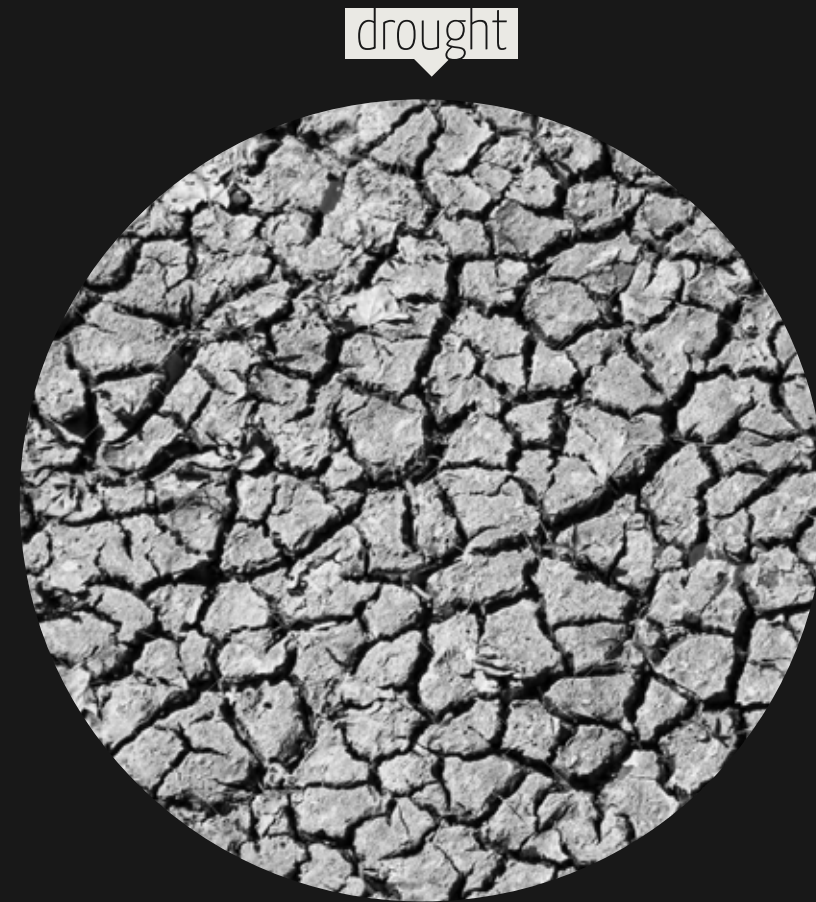


figure 2. CNN news



figure 3. CNN news



figure 4. CNN news

migration



figure 4. CNN news

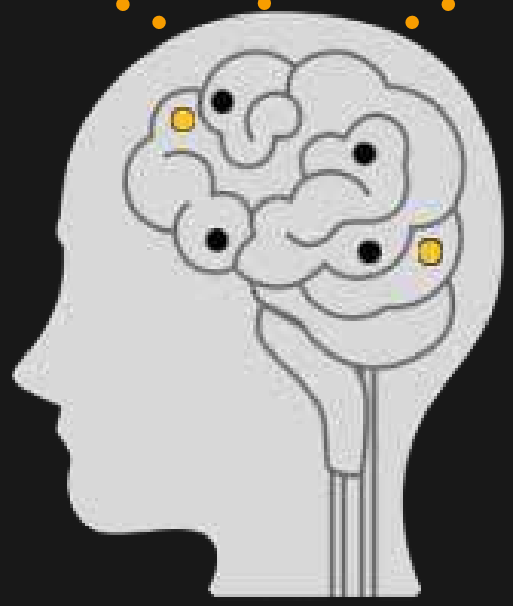


figure 5. CNN news



figure 6. CNN news

migration



desensitization

figure 7. uni. of sydney



desensitization

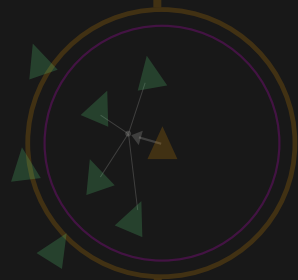
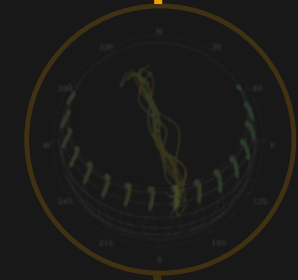
figure 7. uni. of sydney

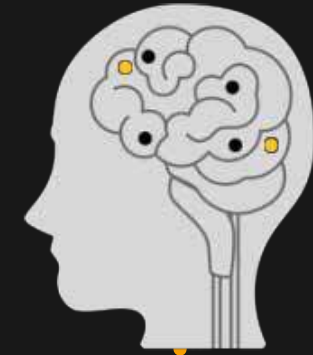
fear of unknown



lack of social integration

figure 8. CNN news





desensitization

figure 7. uni. of sydney

fear of unknown



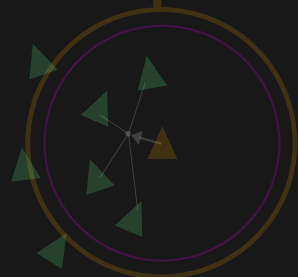
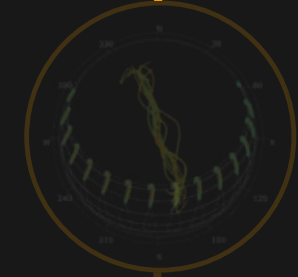
lack of social integration

figure 8. CNN news



migration

figure 4. CNN news





desensitization

figure 7. uni. of sydney

fear of unknown



migration

figure 4. CNN news

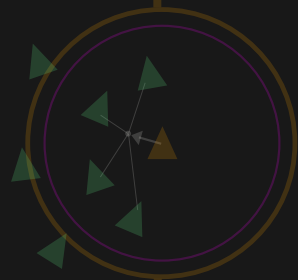
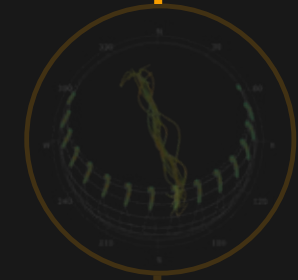
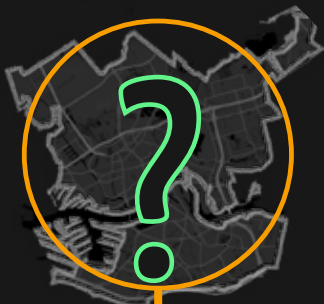


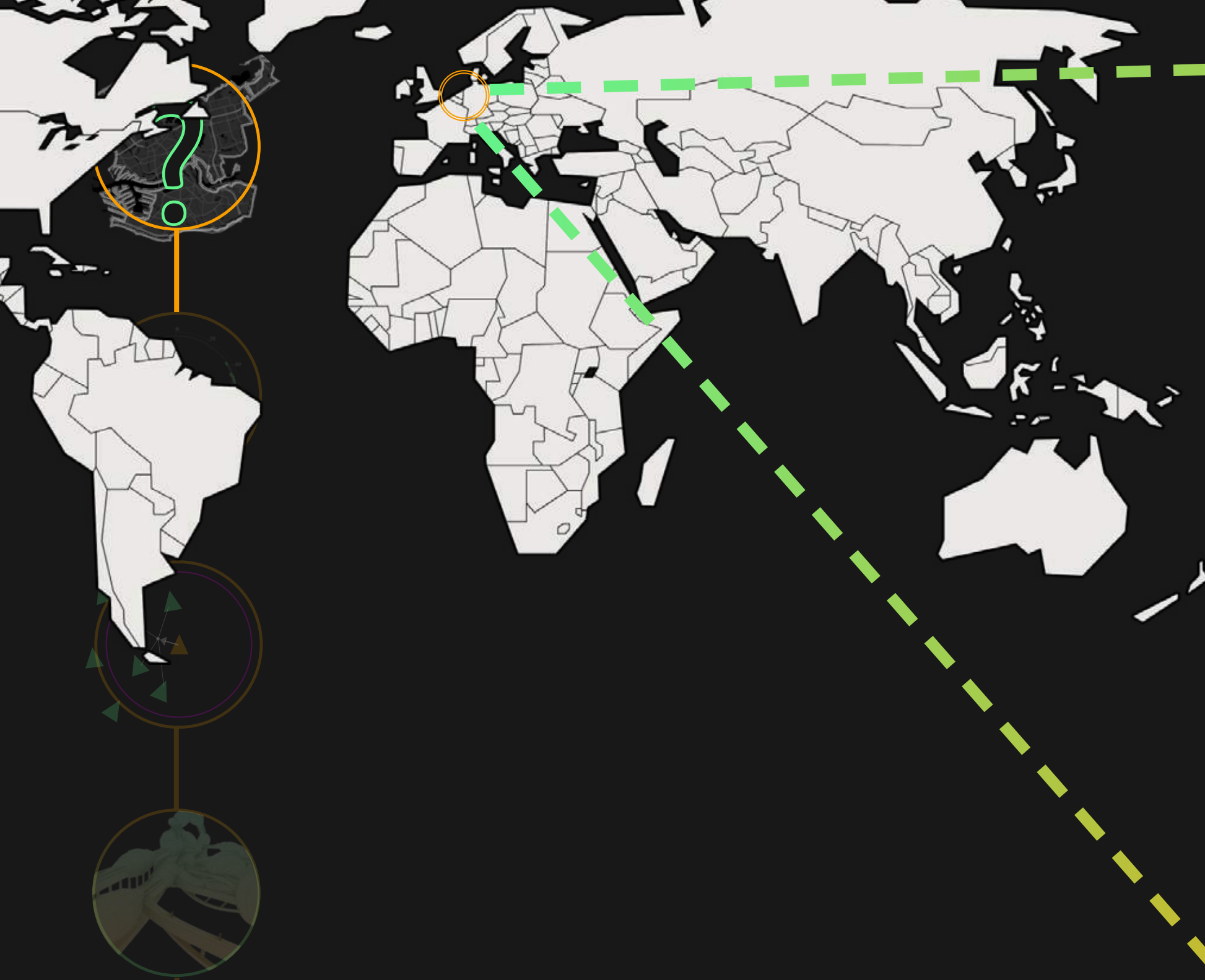
lack of social integration

figure 8. CNN news



identity





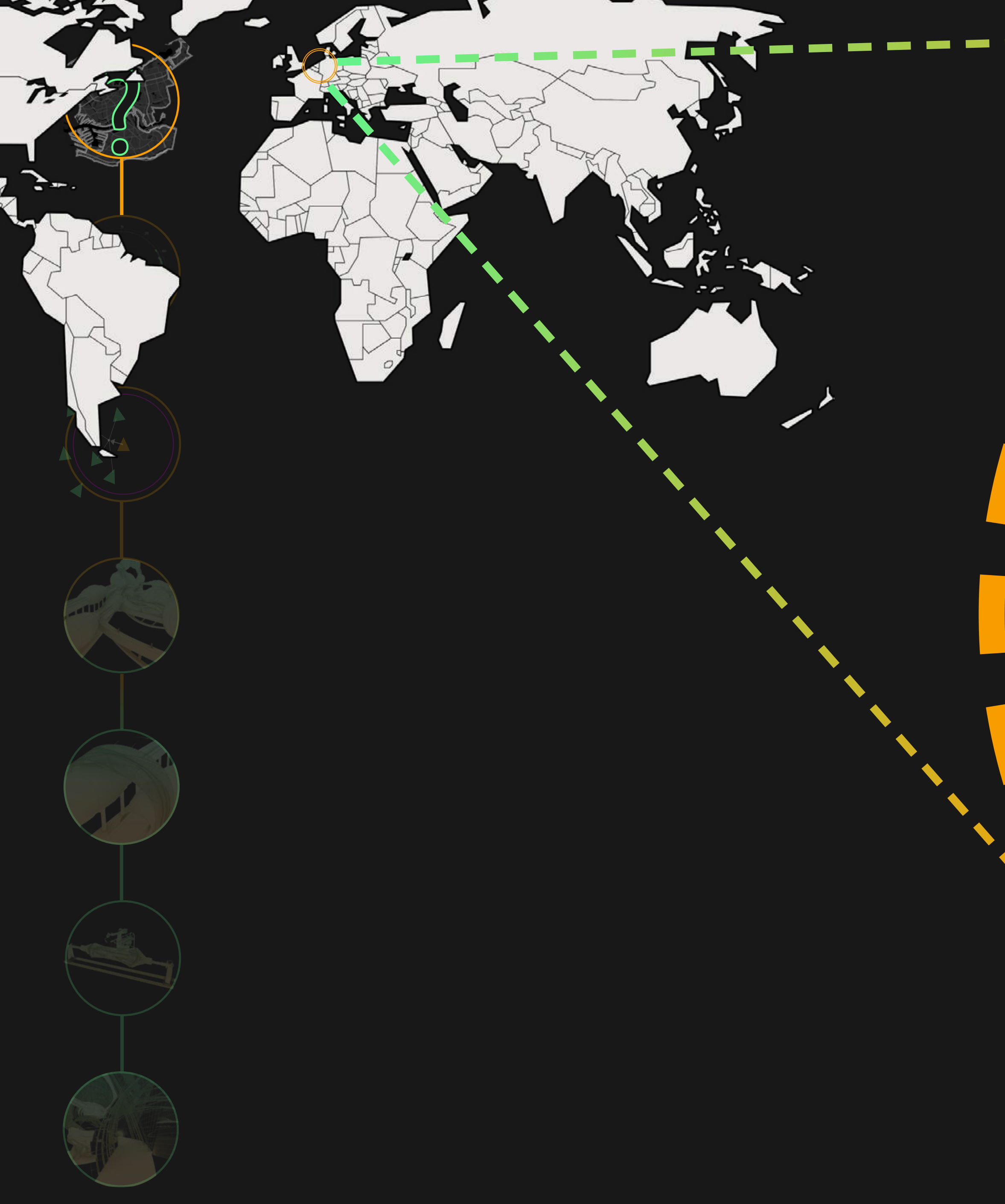
the site



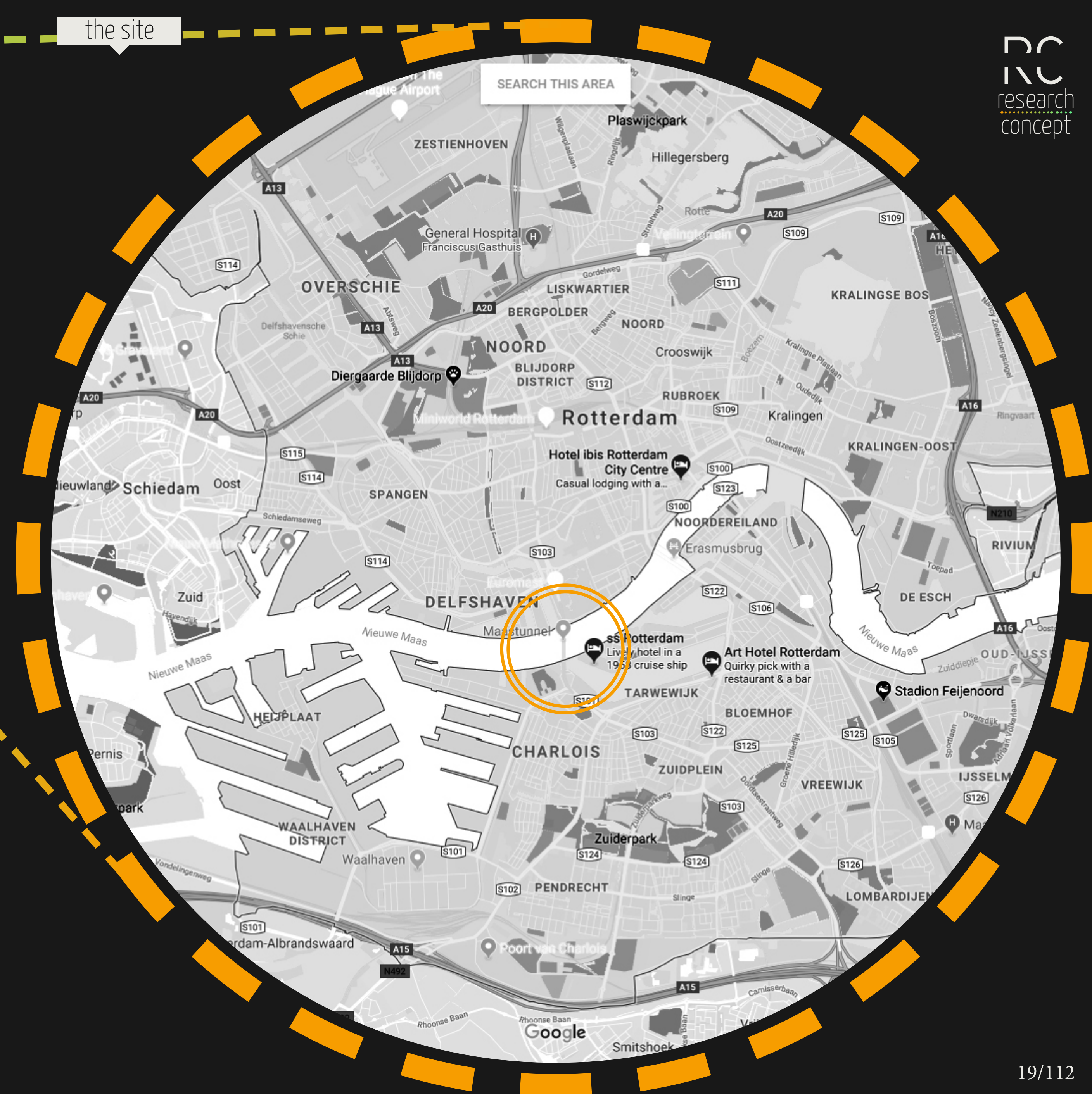
“...The Maas could be considered an **urban, economic** and **social barrier** between the northern and southern part of the city.”

HAN MEYER CITY AND PORT

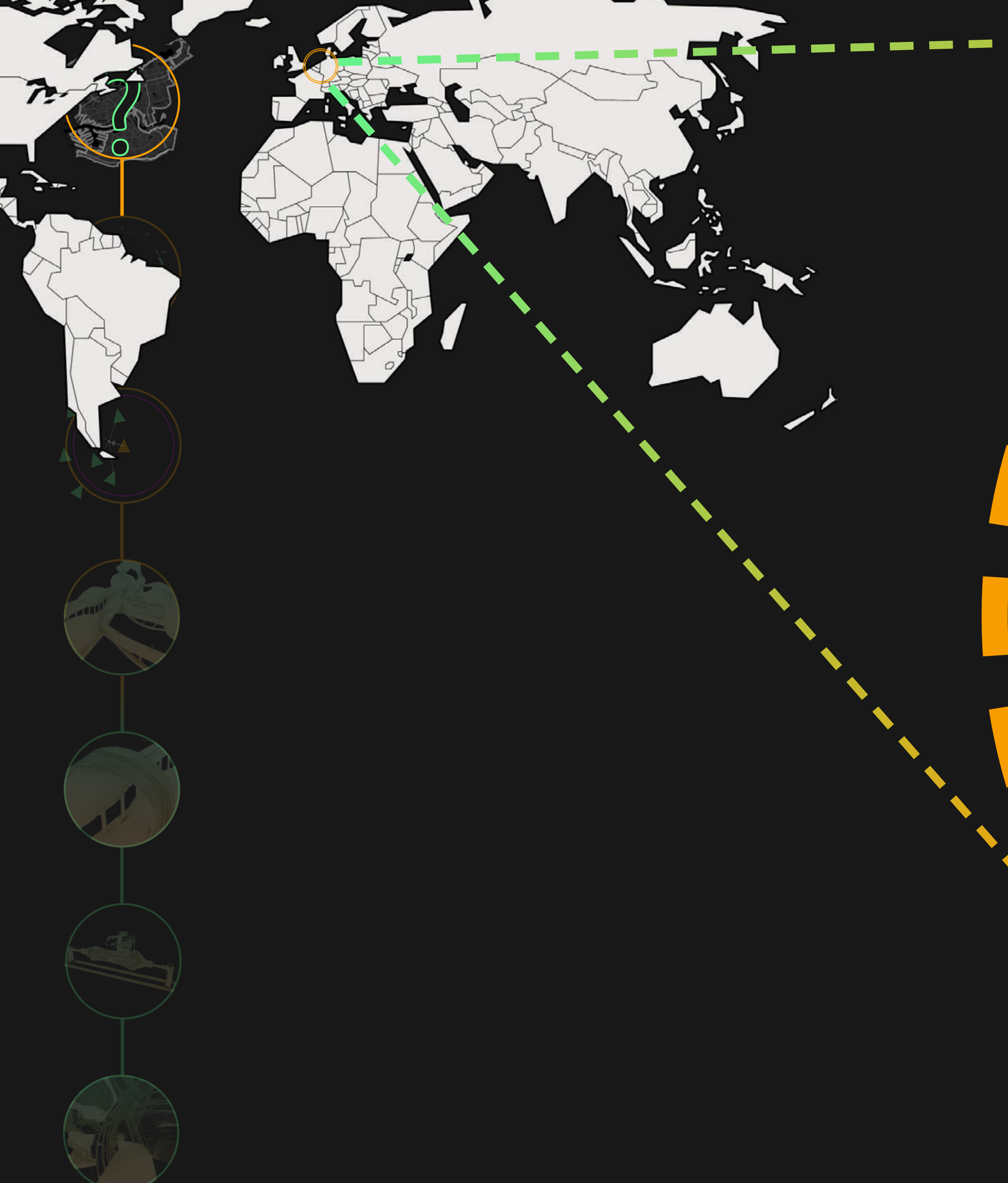




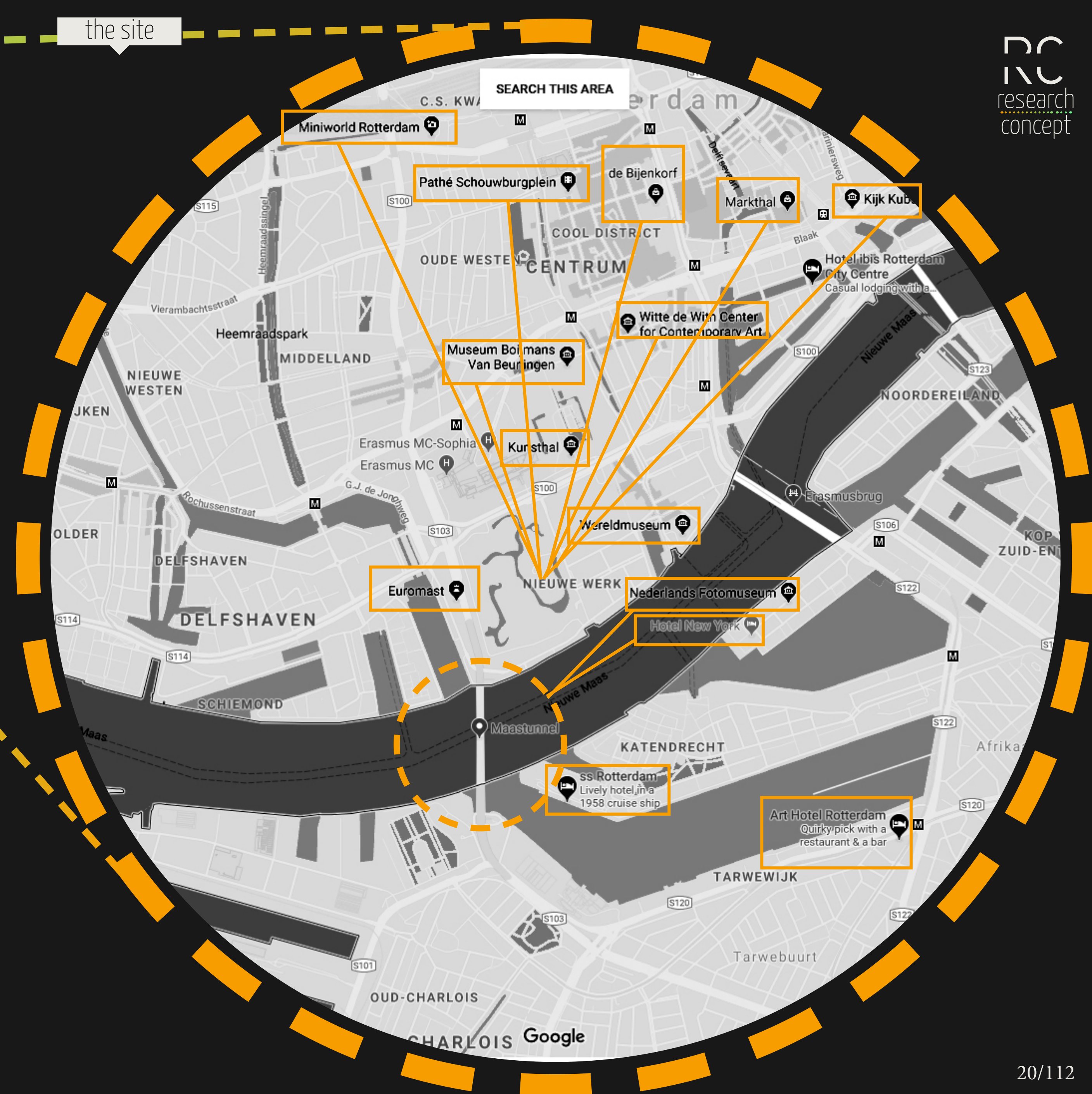
the site



SEARCH THIS AREA



the site



SEARCH THIS AREA

Miniworld Rotterdam

Pathé Schouwburgplein

de Bijenkorf

Markthal

Kijk Kubus

Witte de With Center for Contemporary Art

Museum Boijmans Van Beuningen

Kunsthal

Wereldmuseum

Euromast

Nederlands Fotomuseum

Hotel New York

ss Rotterdam
Lively hotel in a 1958 cruise ship

Art Hotel Rotterdam
Quirky pick with a restaurant & a bar

Noordzee

history of the port



1970 - 2008

2008 - 2030

1960 - 1970

1948 - 1957

1929 - 1949

1934 - 1946

1906 - 1922

1400 - 1800

1800 - 1900

GOEREE - OVERFLAKKEE

WESTVOORNE

HELLEVOETSLUIS

BRIELLE

WESTLAND

MAASSLUIS

NISSEWAARD

MIDDEN - DELFLAND

VLAARDINGEN

KORENDIJK

Spijkensluis

DELFT

SCHIEDAM

OUD-BEIJERLAND

ALBRANDSWAARD

PIJNACKER - NOOTDORP

BINNENMAAS

ROTTERDAM

BARENDRECHT

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CAPELLE A/D IJSSEL

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RIDDERKERK

KRIMPEN A/D IJSSSEEN

ZUIDPLAS

ALBLAS

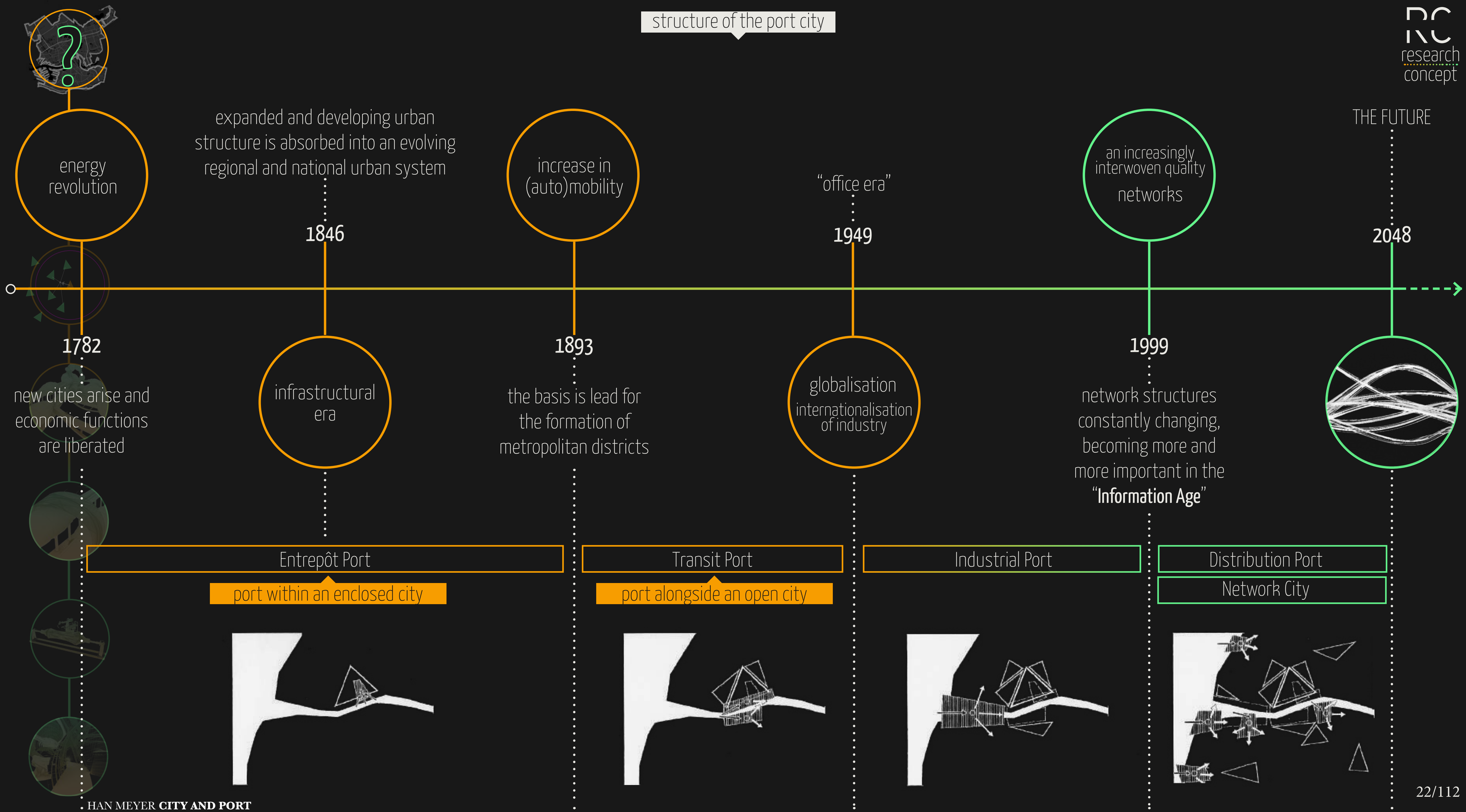
MOLE

WADDINXVEE

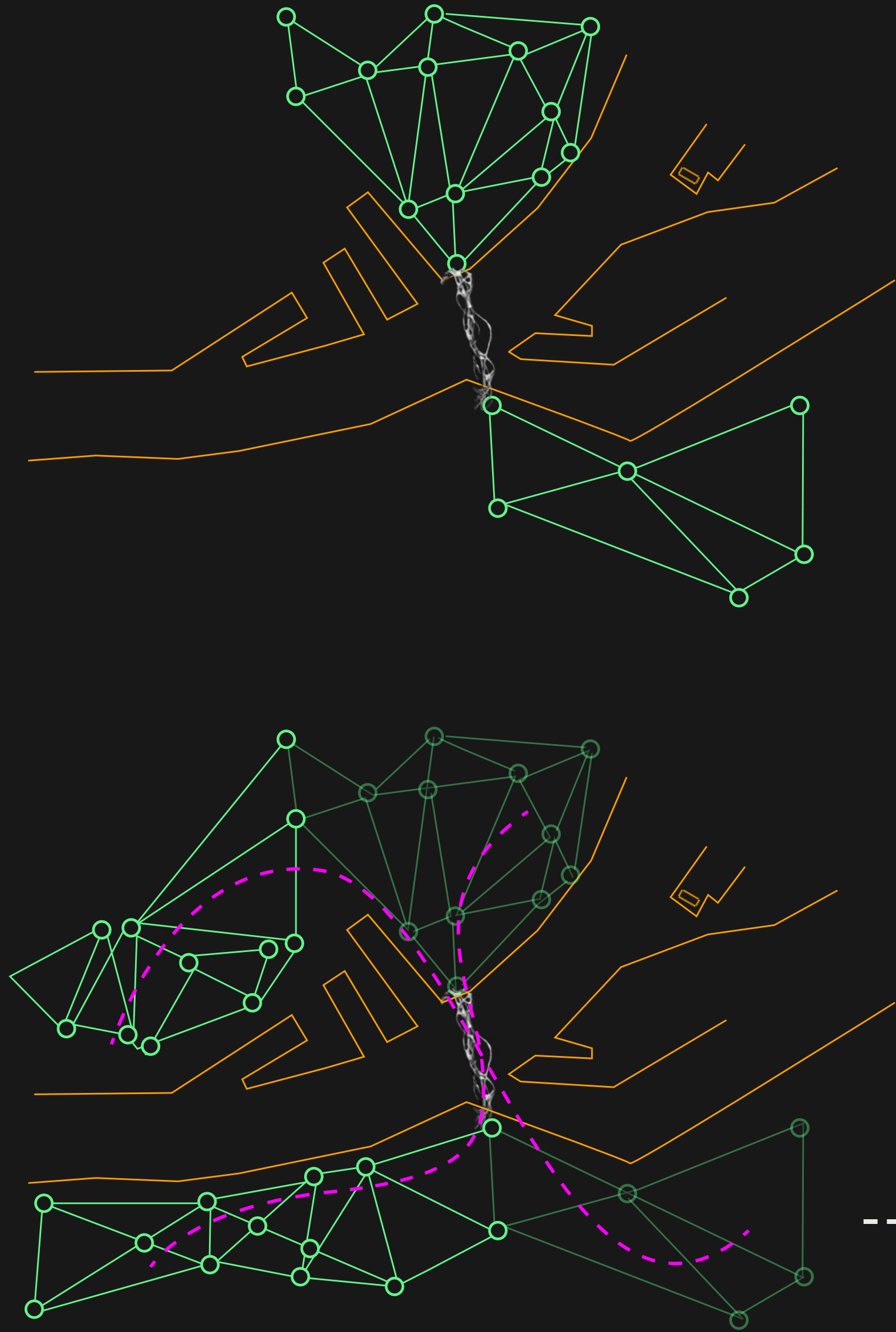
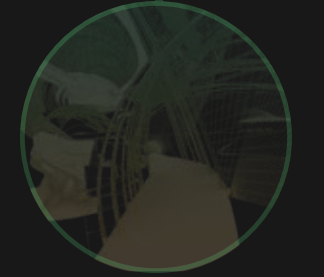
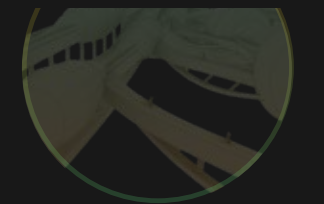
HENDRIK-IDO-AM

DORDRECHT

structure of the port city

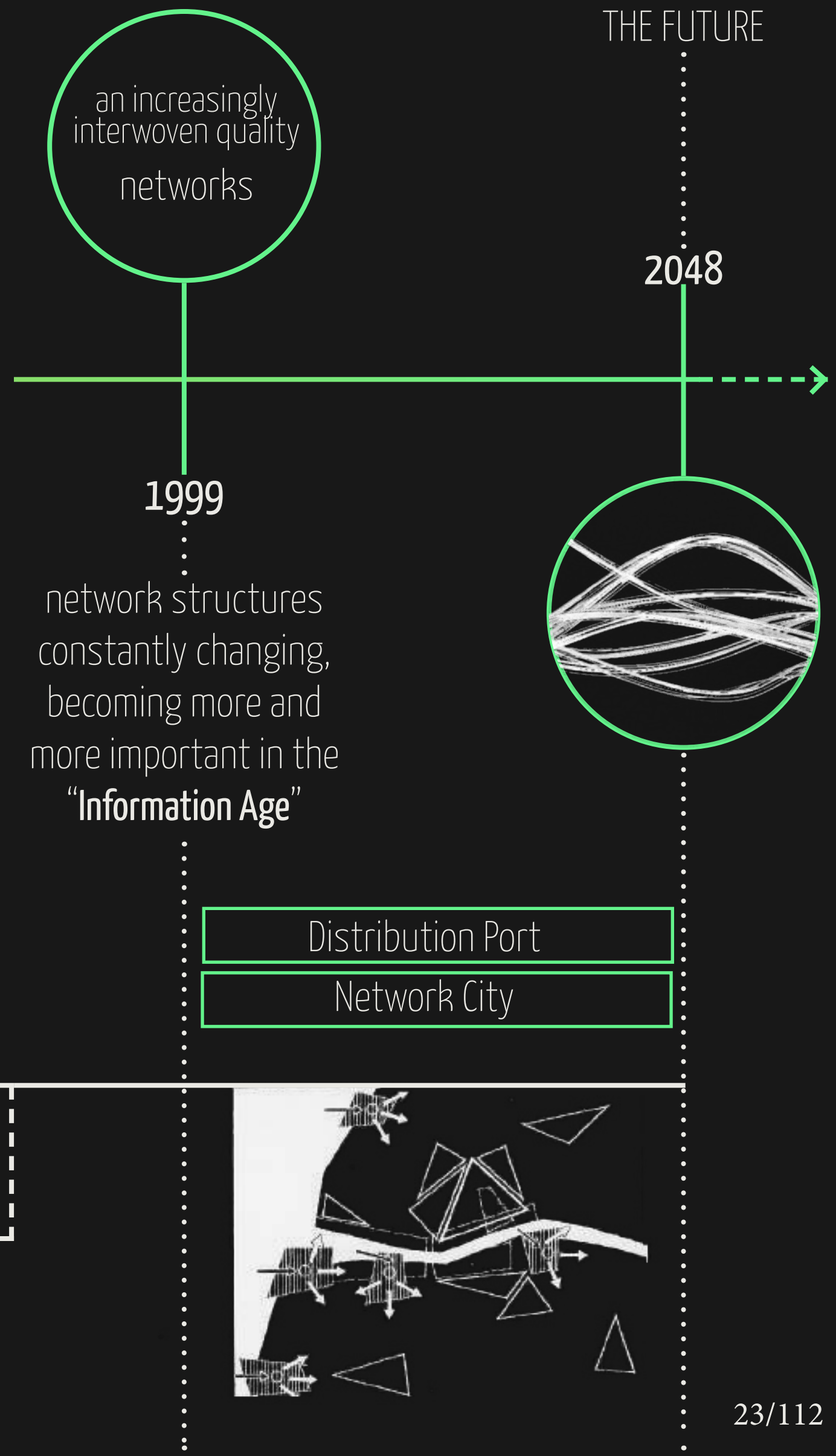


structure of the port city

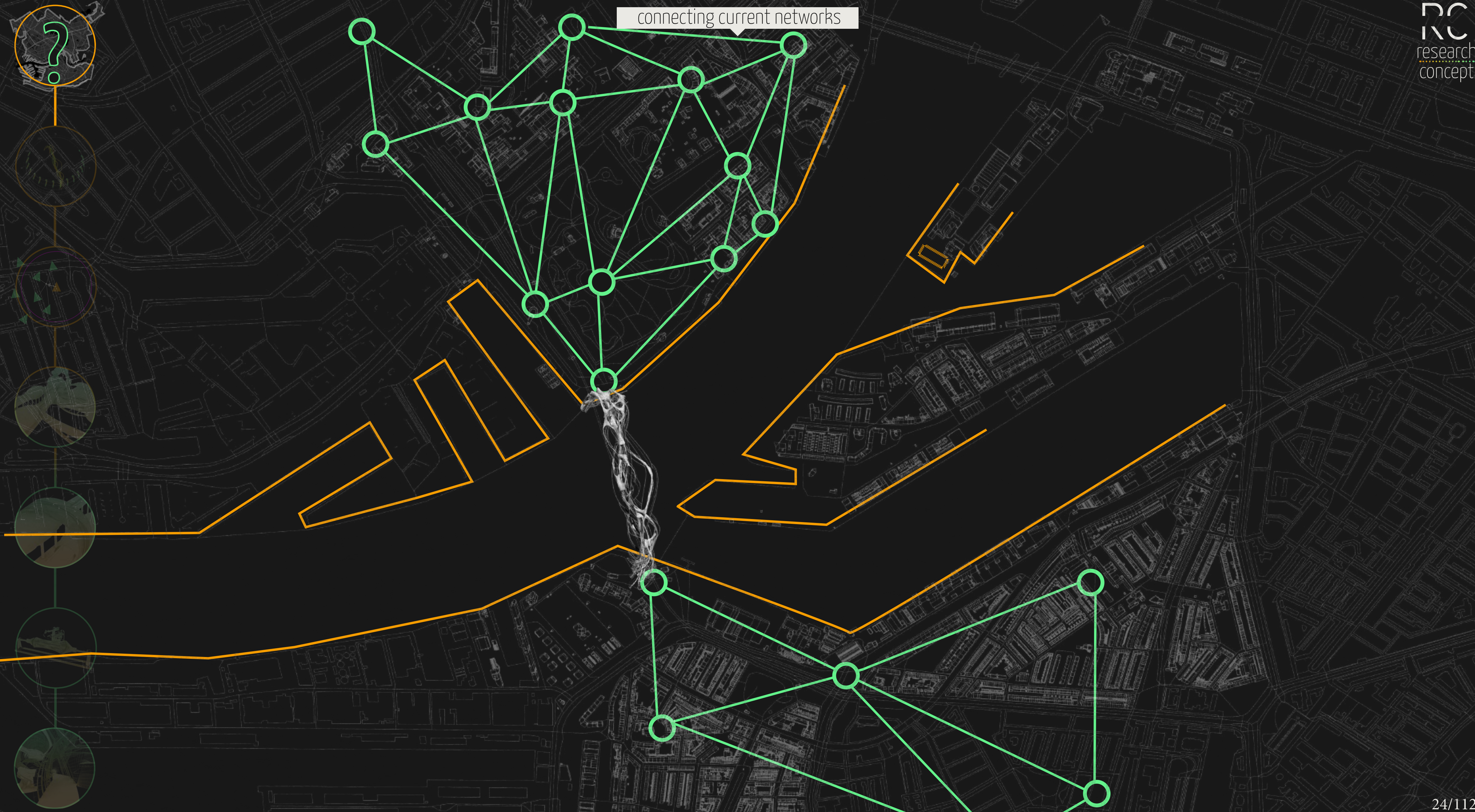


various specialised distribution hubs
which together form a network

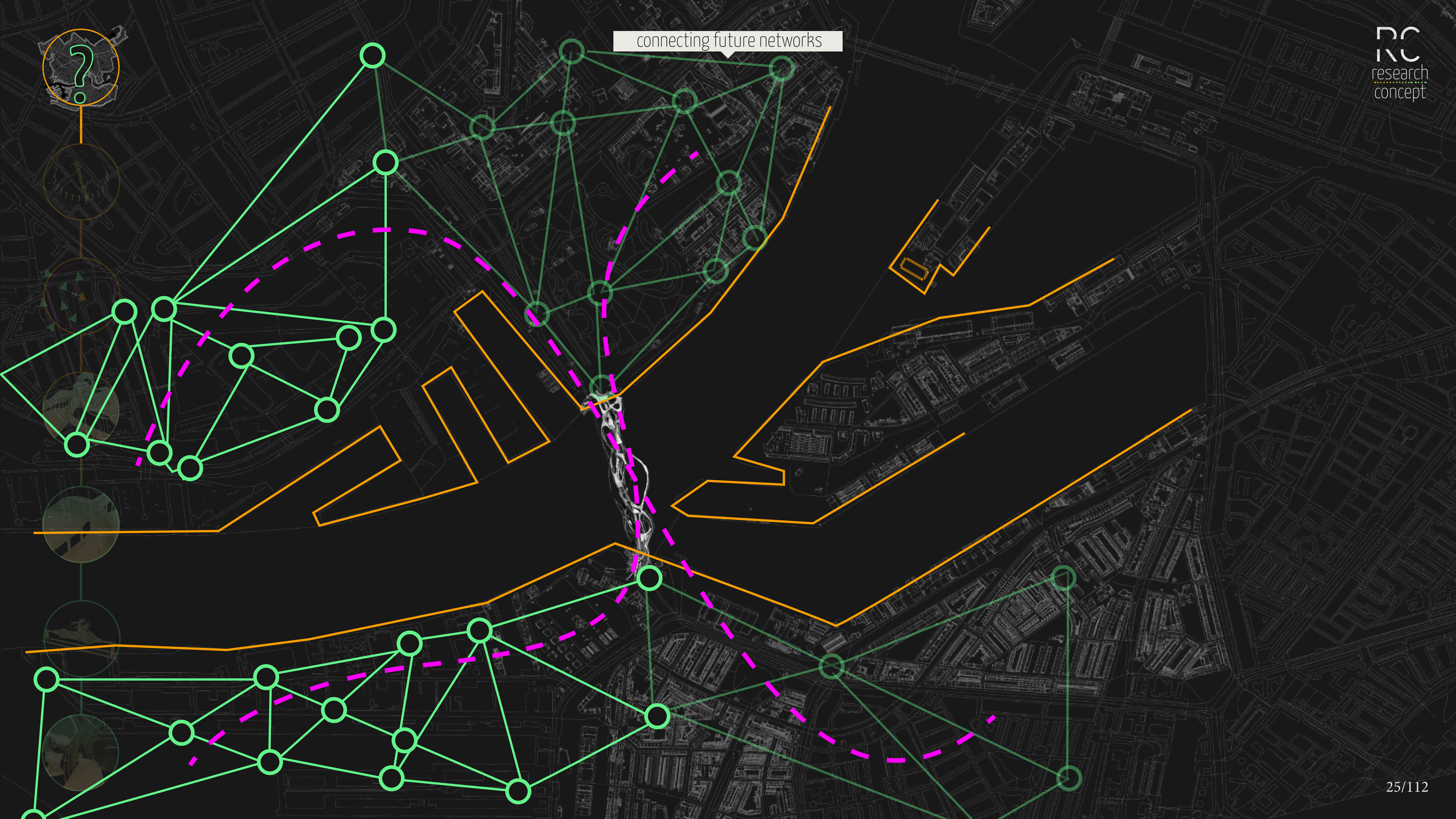
the port is rediscovered by the city
as a part of the urban landscape

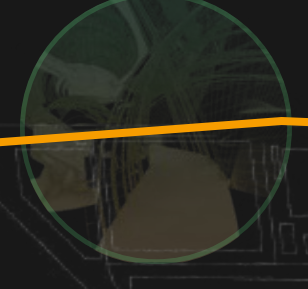
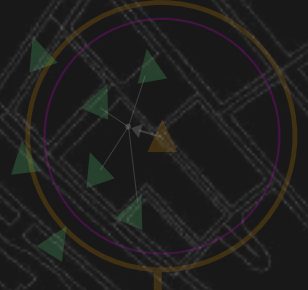
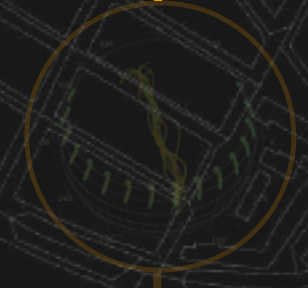


connecting current networks



connecting future networks





welcoming symbols

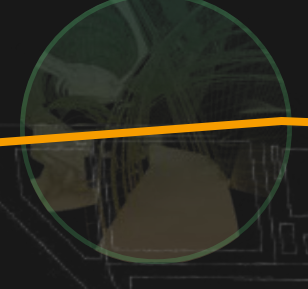
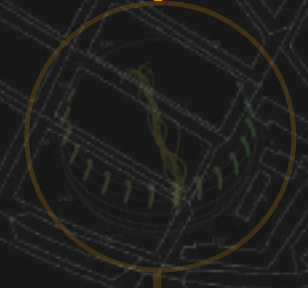


boompjes

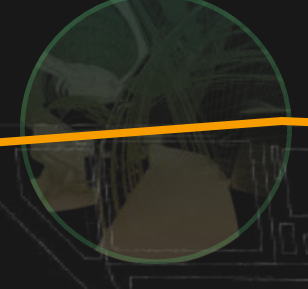
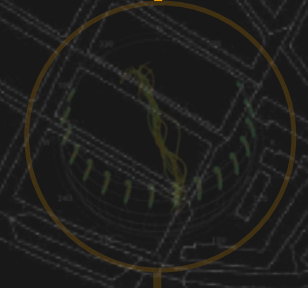
welcoming symbols



hotel new york



welcoming symbols

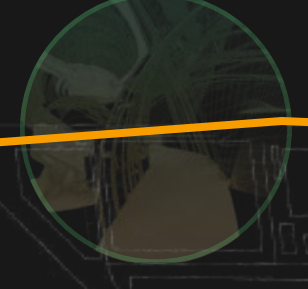
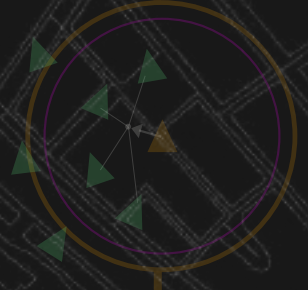
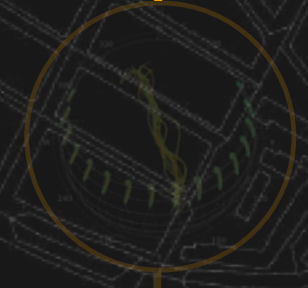


erasmus bridge

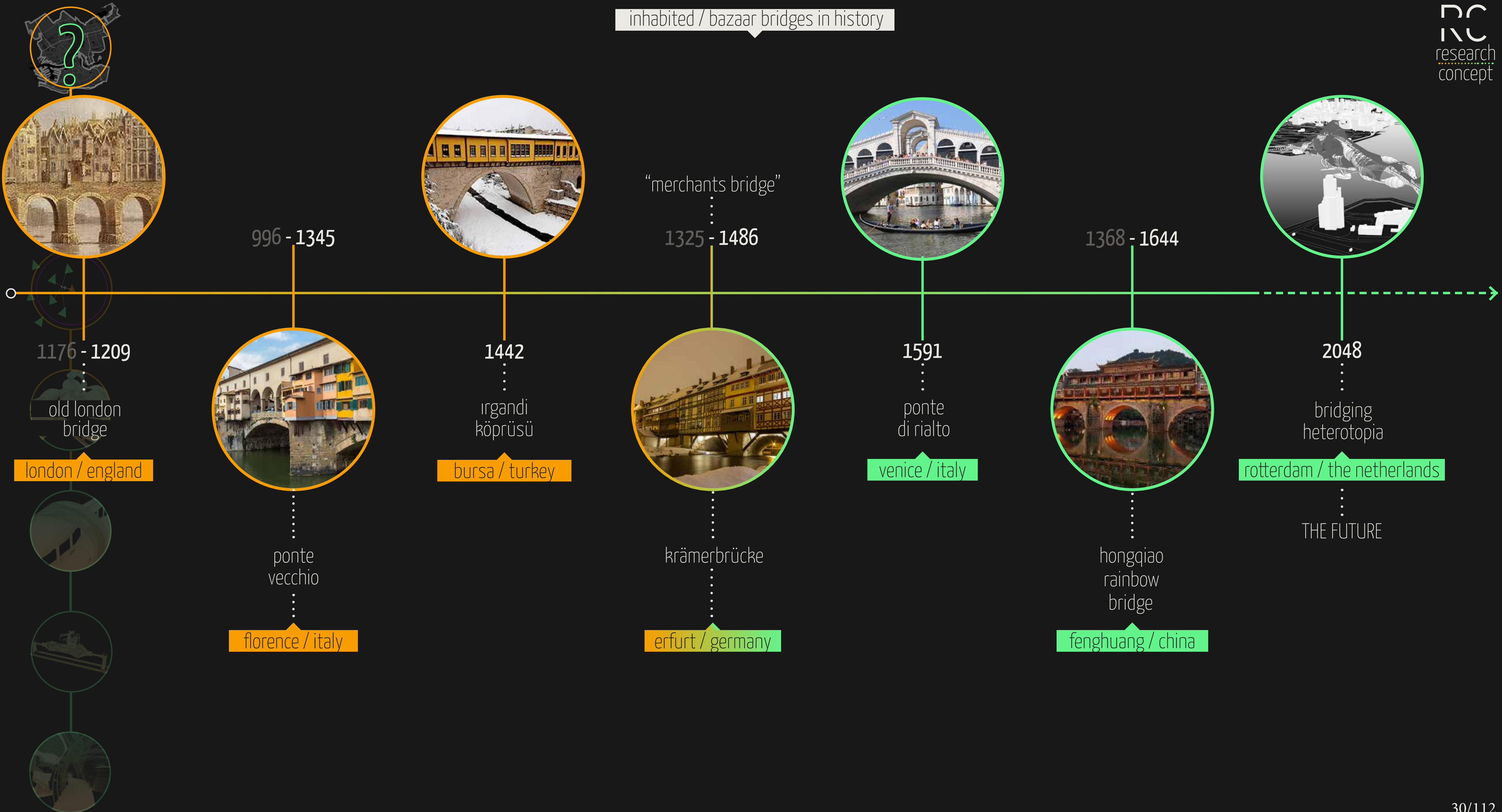
welcoming symbols



bridging heterotopia



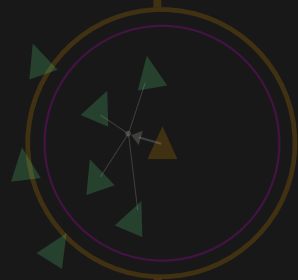
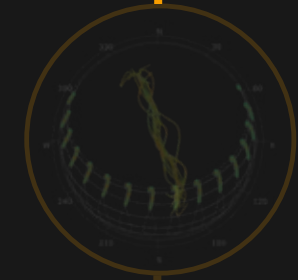
inhabited / bazaar bridges in history



the maastunnel



“...It’s as if you’re in a **time machine**; you leave one world and you enter another one **without any transition**.”





ROTTERDAM RIVER FRONT

“...the **city centre** and the **riverfront** locations in particular have become **popular residential** environments.”



PUBLIC SPACES

“...**Public spaces** have had a **real overhaul**. Pedestrian routes meander from the city centre towards the river front, leading through **green-lined promenades** with little or **no car traffic**...”

Rotterdam Port Vision 2030



LAND USE

USE LAND MORE EFFICIENT



REDEVELOP 'STADSHAVENS'



	LEADER	TIMEFRAME
● Redevelop the West Waalhaven area and Eemhaven area to break bulk and short sea hub.	Business community	ONGOING
● Realise Rotterdam Cool Port.	Business community	2015 2020 2025 2030
● Further redevelopment of the RDM site.	PoR	2015 2020 2025 2030
● Redevelopment of the East and South side of the Waalhaven area into an attractive site for maritime industries, for nautical and business services.	PoR	ONGOING
● Transformation of the Vierhaven and Merwehaven areas into an area for urban economic functions.	Municipality	2015 2020 2025 2030

ENSURE FLEXIBILITY IN SPATIAL DEVELOPMENT OF THE PORT



	LEADER	TIMEFRAME
● Fased construction of Maasvlakte 2.	PoR	ONGOING
● Keep land as strategic reserve.	PoR	ONGOING
● Design flexible zoning plans.	Municipality	ONGOING

RESERVE LAND FOR POSSIBLE FUTURE USE



"Design flexible zoning plans"

"Transformation of the Vierhaven and Merwehaven areas into an area for urban economic functions"

ONGOING

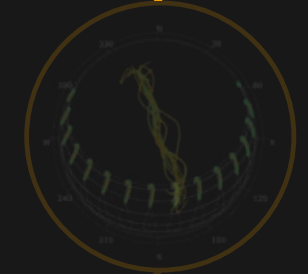
2030

Rotterdam Port Vision 2030



“Develop a coherent urban and regional housing programme”

2015



“Improve the quality of public space in the port, region and Rotterdam”

ONGOING



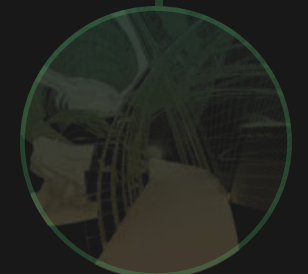
“Improve the recreational facilities in and surrounding the port”

ONGOING



“Develop high quality facilities for the international community”

2020



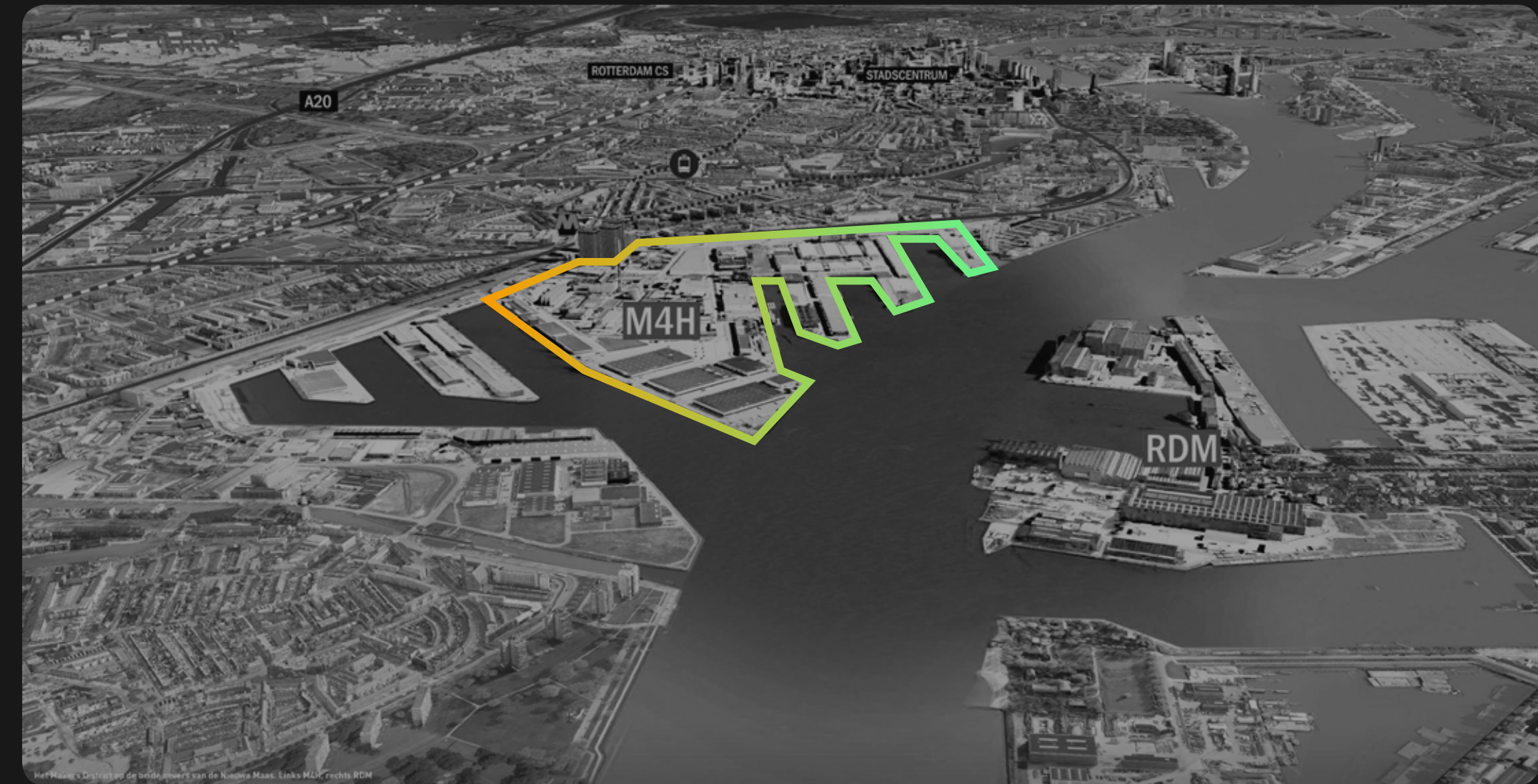
CITY AND REGION

MAKE LIVING AND WORKING IN AND AROUND THE PORT MORE ATTRACTIVE



- Carry out the actions that are listed in the City's Vision.
- Develop a coherent urban and regional housing programme.
- Improve the quality of public space in the port, region and Rotterdam.
- Improve the recreational facilities in and surrounding the port.
- Develop high quality facilities for the international community.

LEADER	TIMEFRAME
Municipality	ONGOING
Stadsregio Rotterdam	2015 2020 2025 2030
Municipality	ONGOING
PoR	ONGOING
Municipality	2015 2020 2025 2030



M4H ROTTERDAM MAKERS DISTRICT



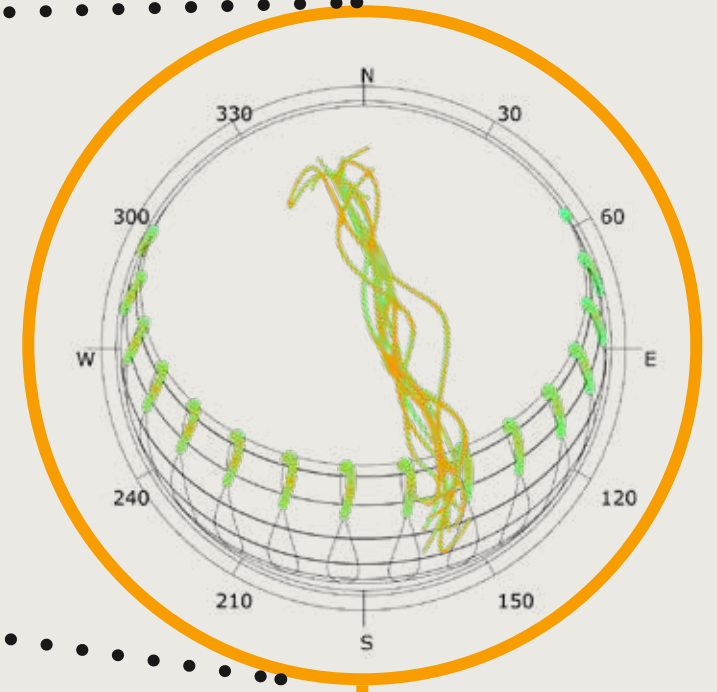
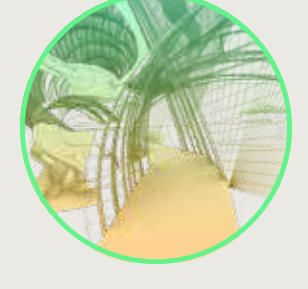
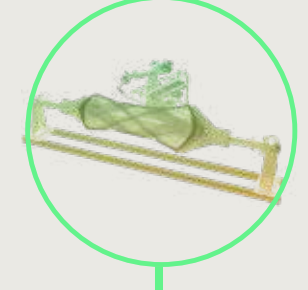
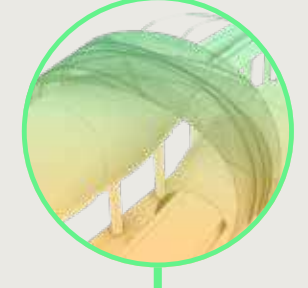
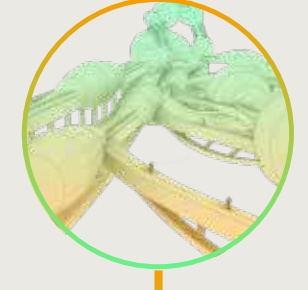
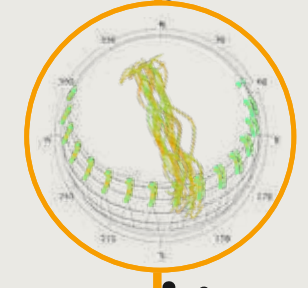
ROTTERDAM CITY CENTRE

*“In **2030**, Rotterdam city centre will have been **transformed** on a **big scale**.”*



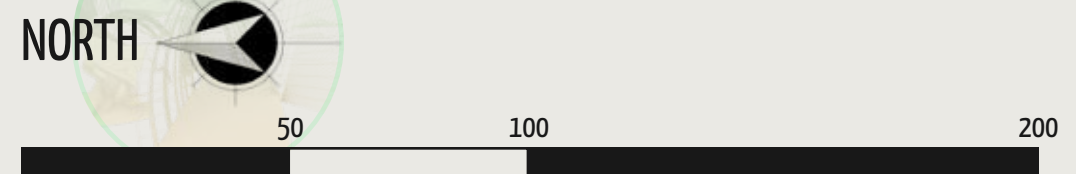
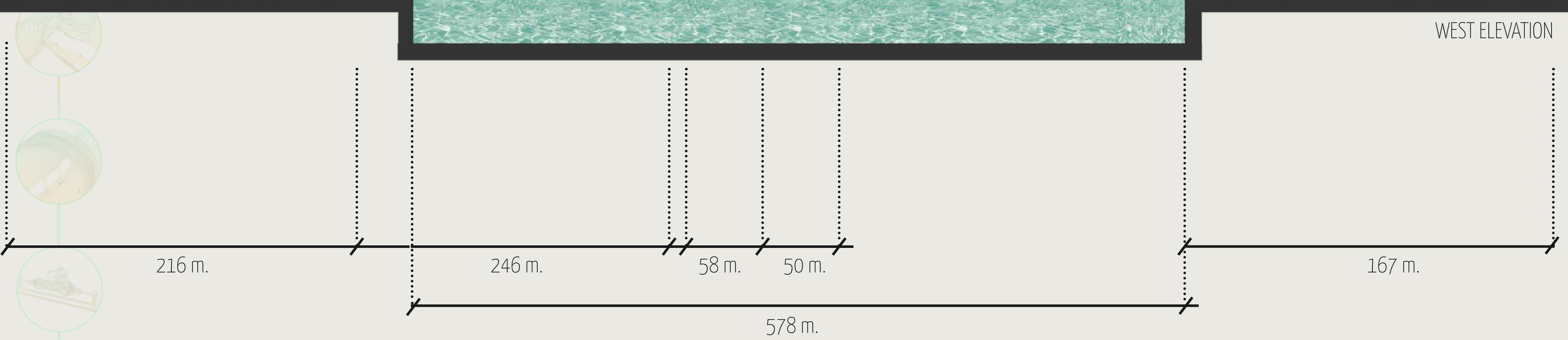
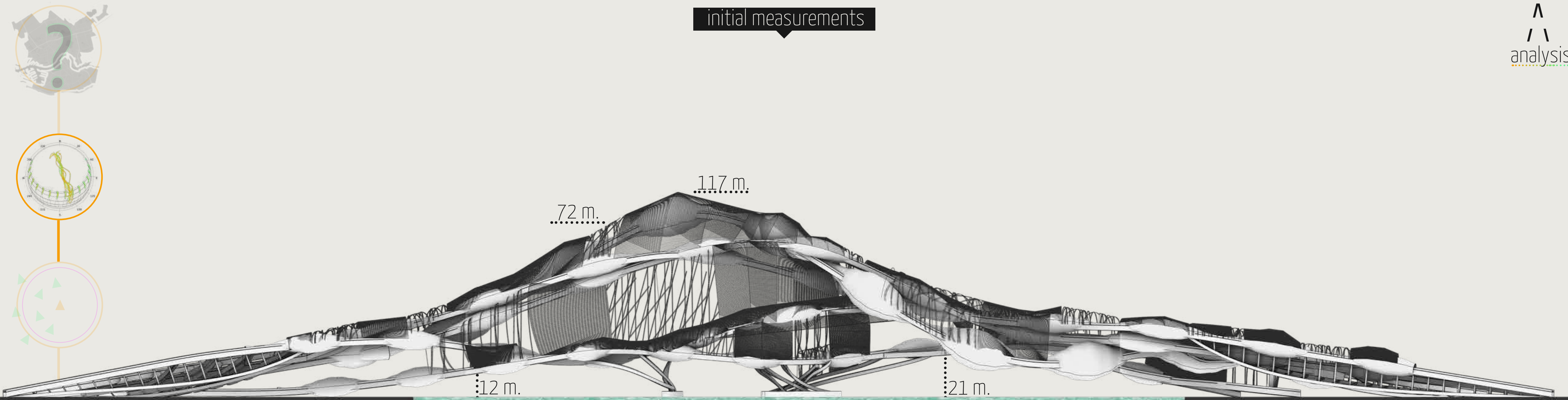
FESTIVALS IN ROTTERDAM

*“...Rotterdam is widely known as Western Europe’s **festival city**...”*

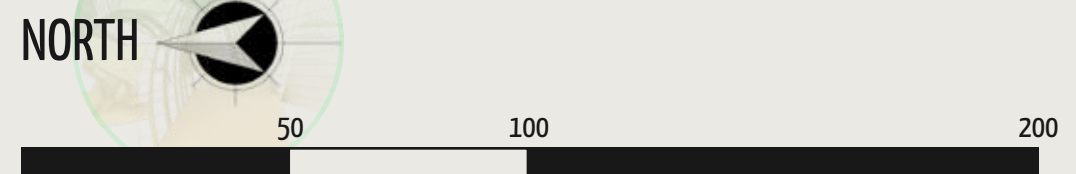
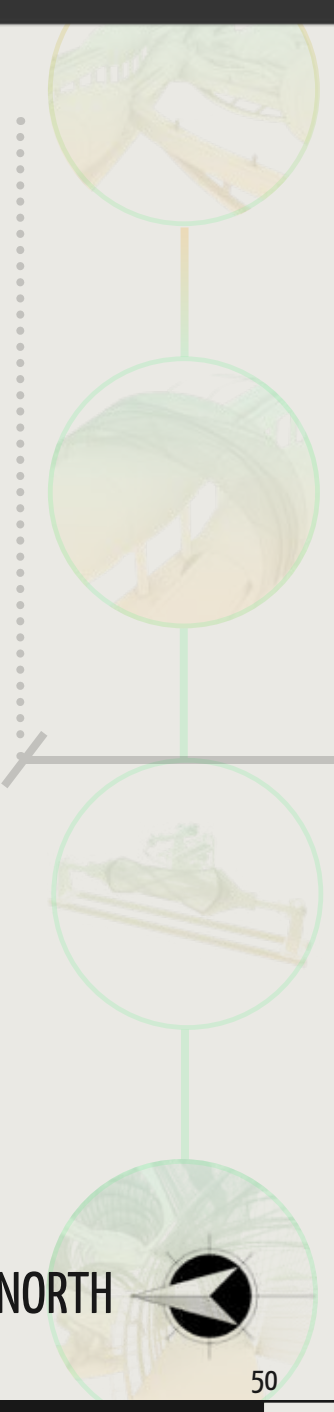
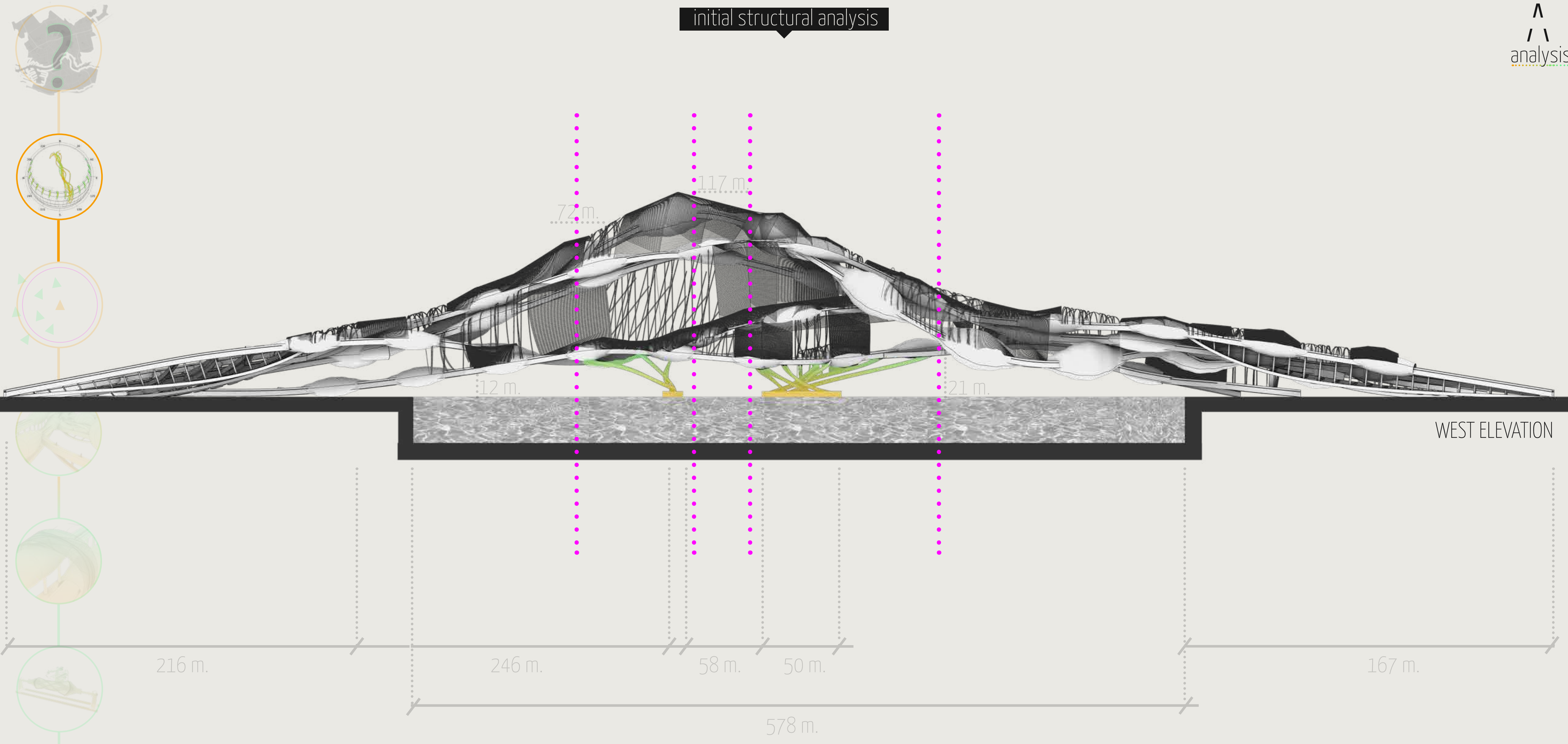



analysis

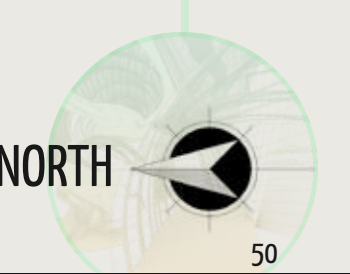
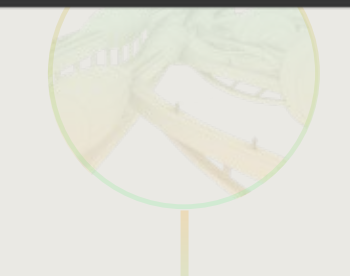
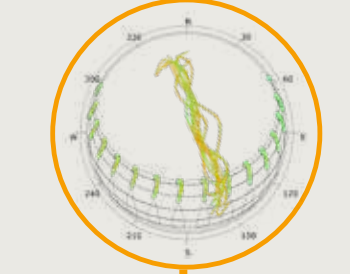
initial measurements



initial structural analysis

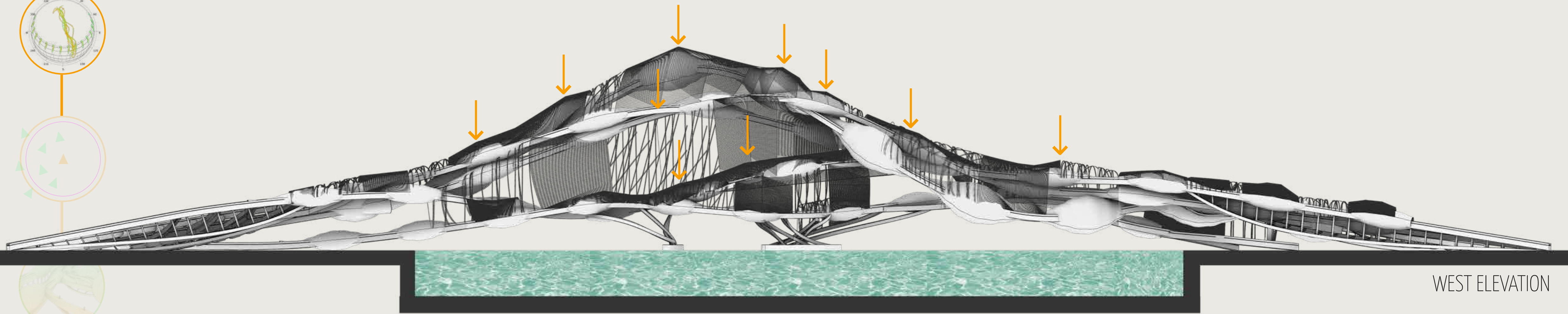
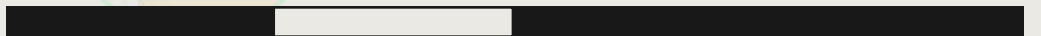


structural forces



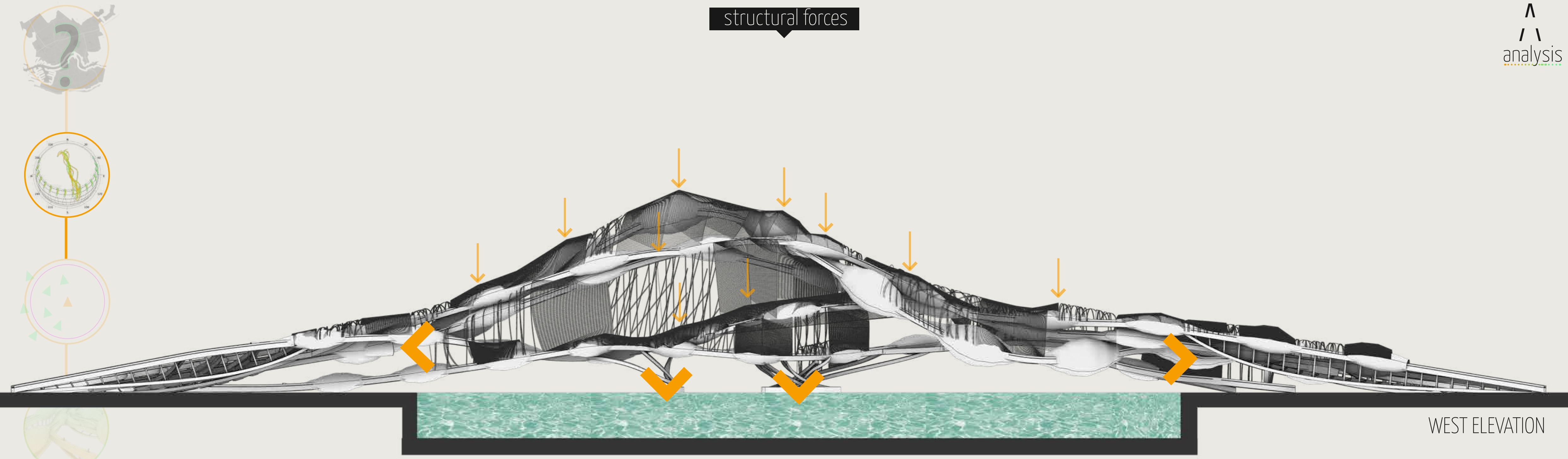
NORTH

50 100 200



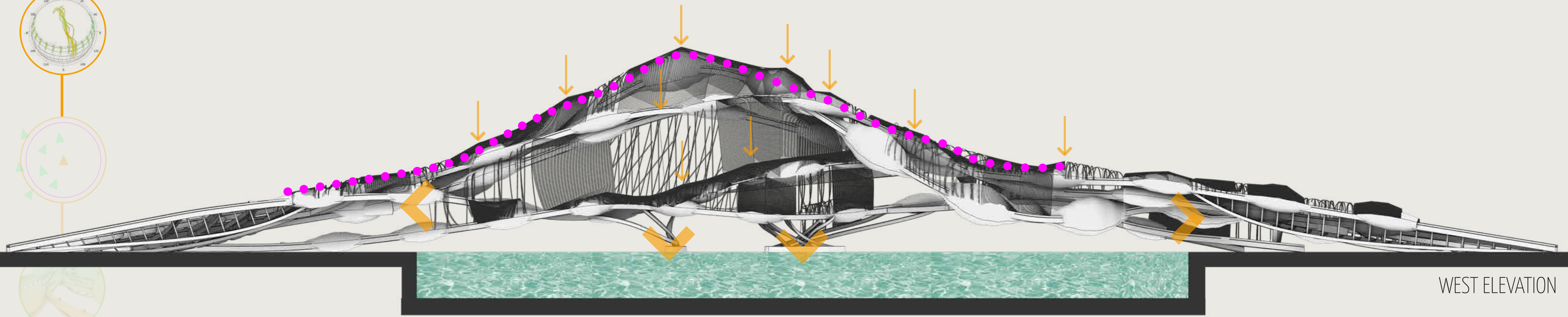
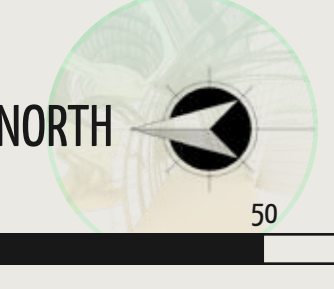
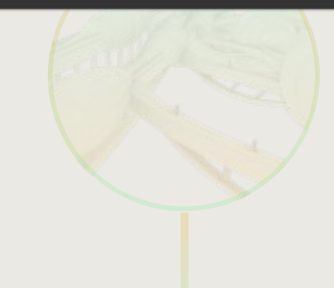
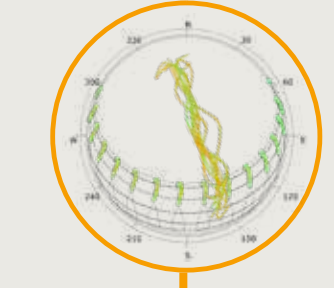
WEST ELEVATION

structural forces



WEST ELEVATION

structural forces

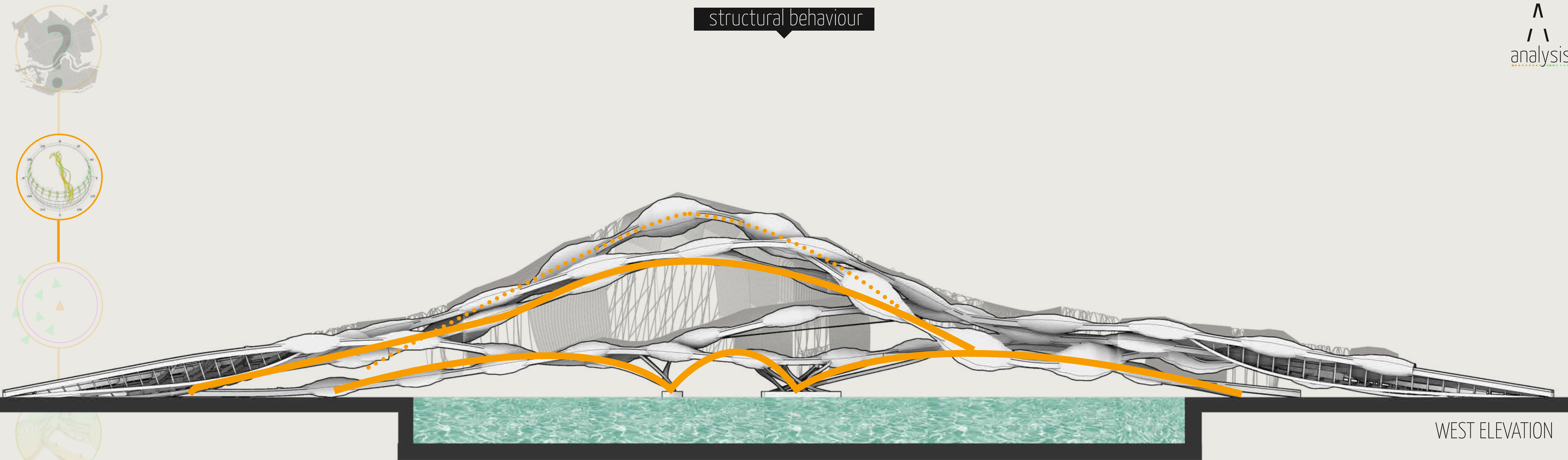


WEST ELEVATION

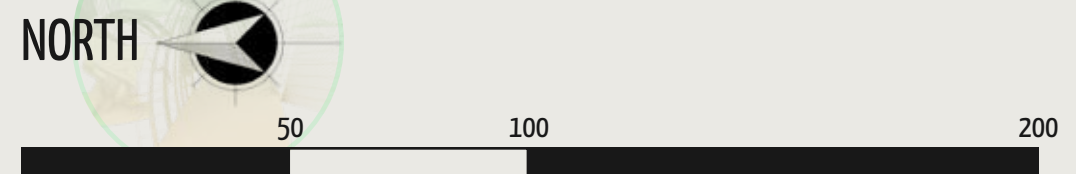
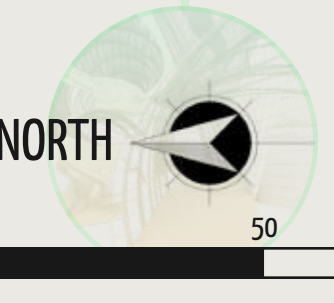
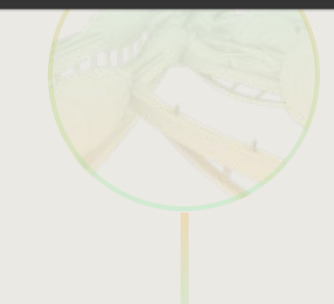
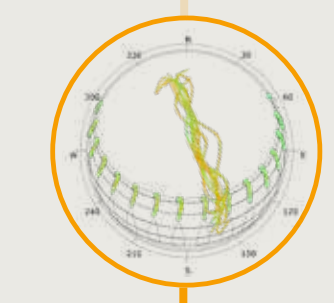
NORTH



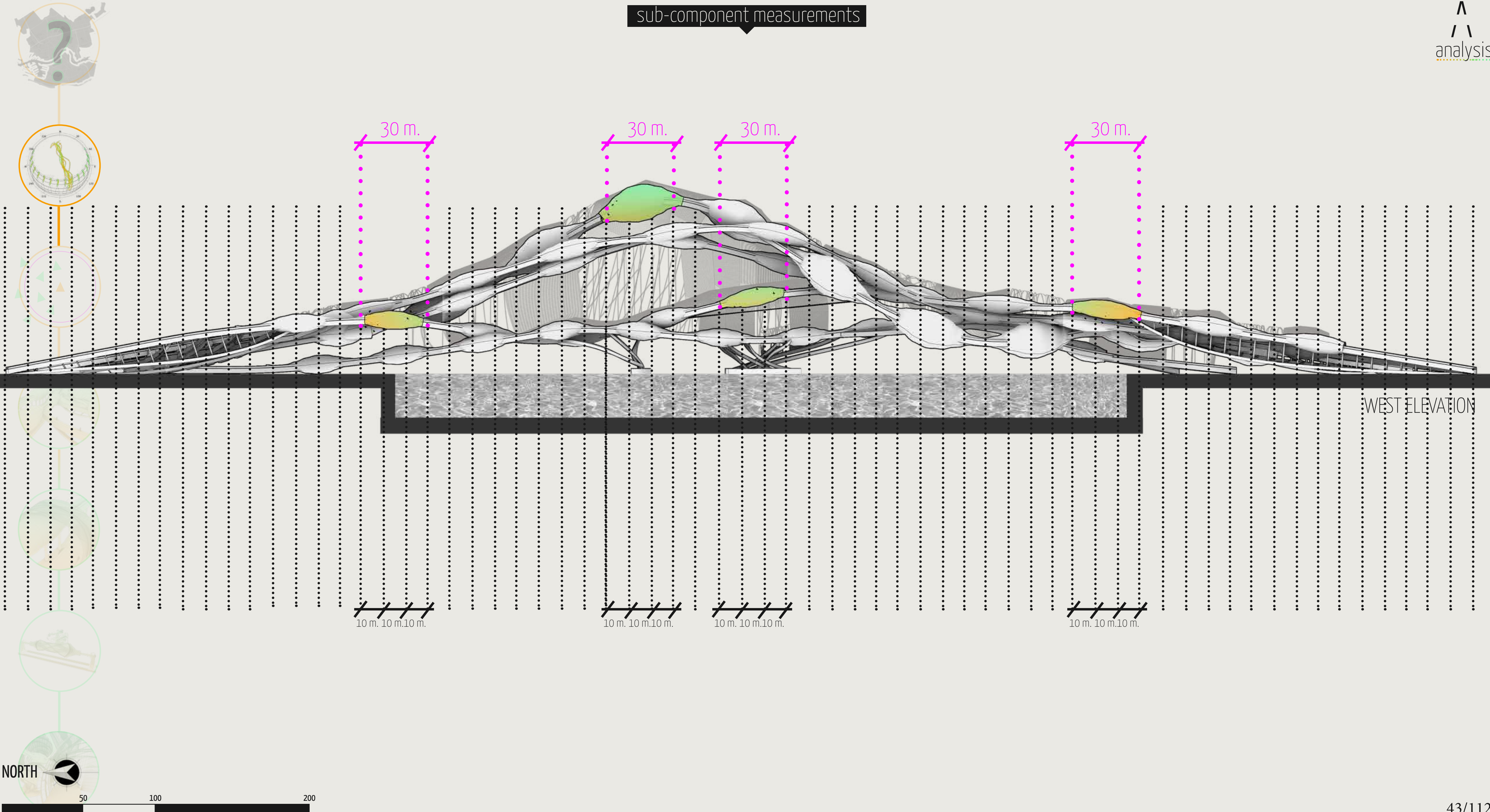
50 100 200



WEST ELEVATION



sub-component measurements



WEST ELEVATION

10 m. 10 m. 10 m.

10 m. 10 m. 10 m.

10 m. 10 m. 10 m.

10 m. 10 m. 10 m.

30 m.

30 m.

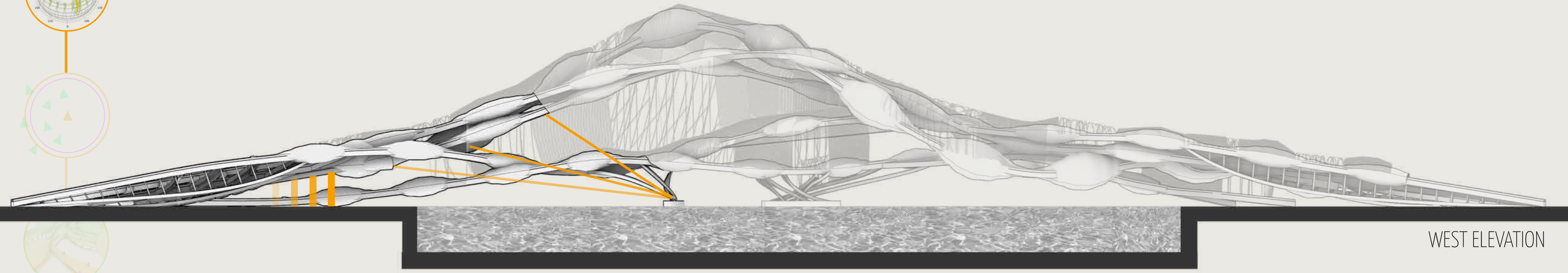
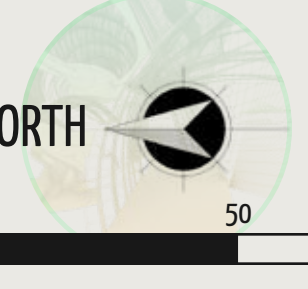
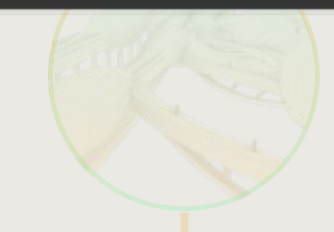
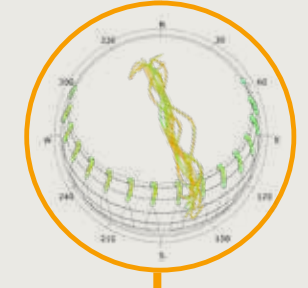
30 m.

30 m.

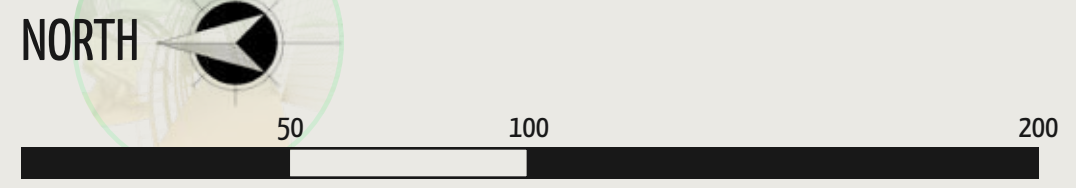
NORTH

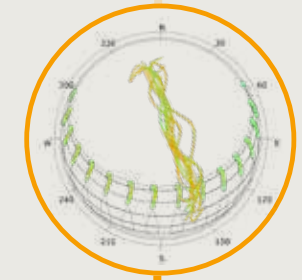
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support structures and transportation

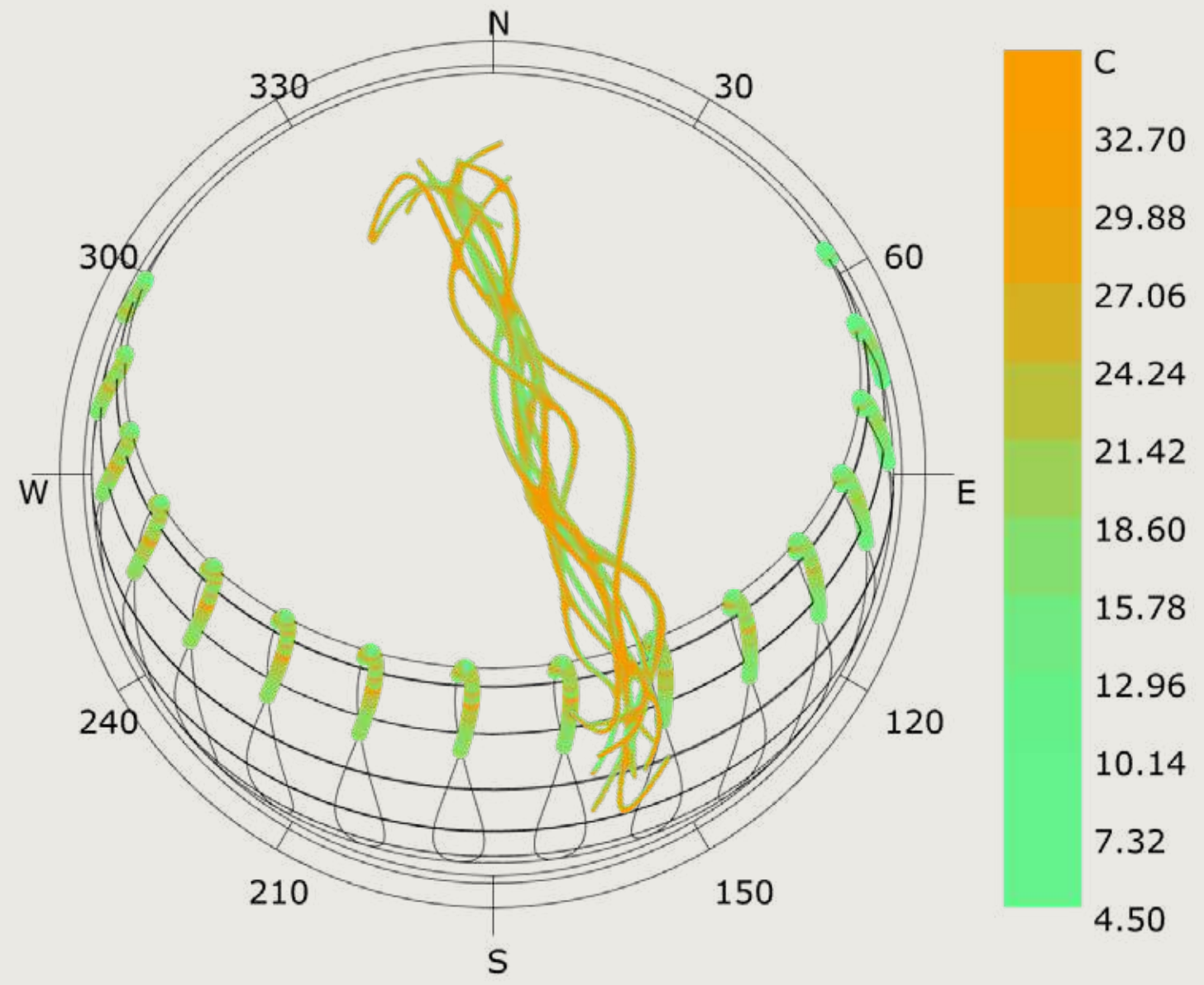


WEST ELEVATION

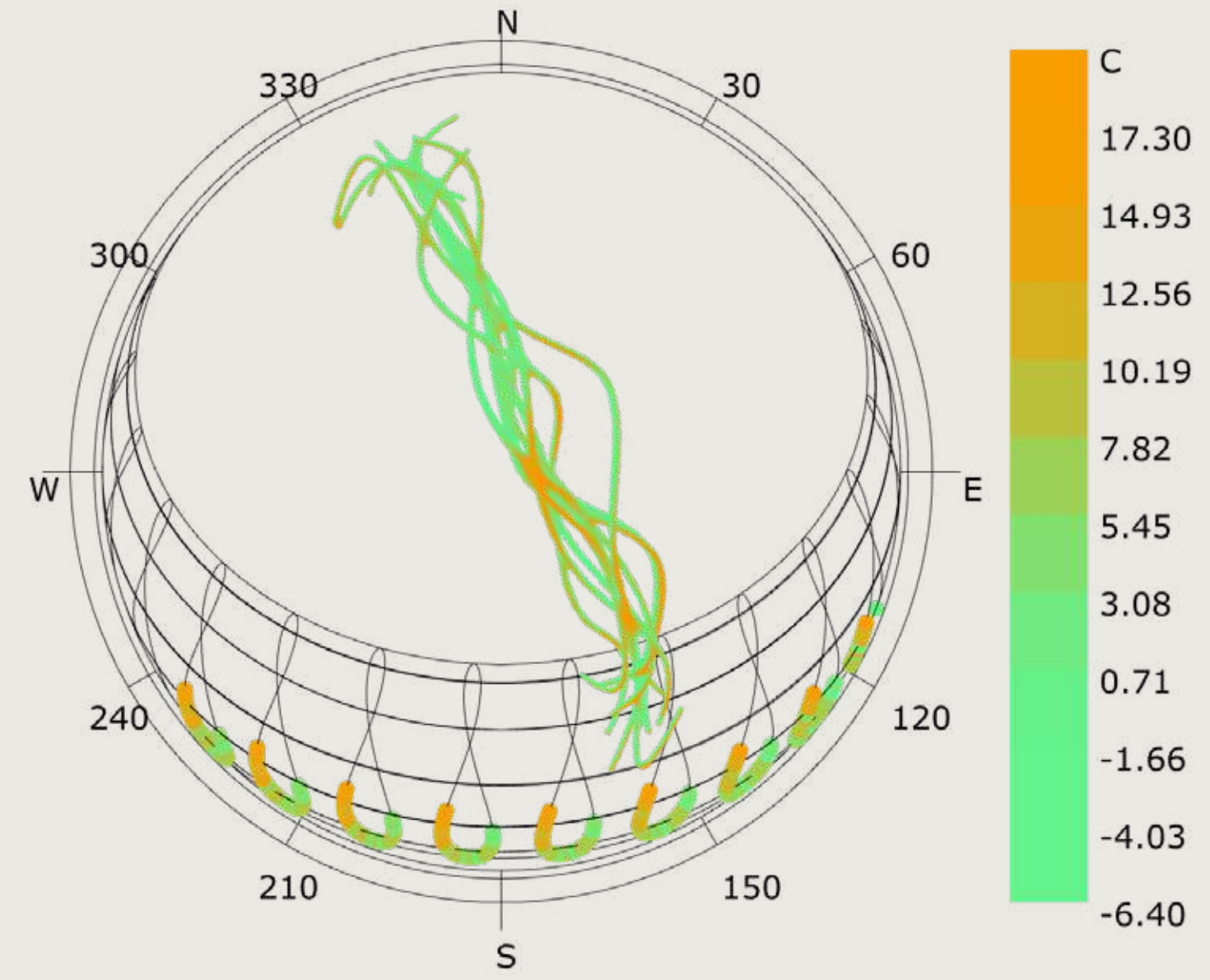




radiation analysis



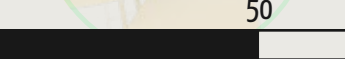
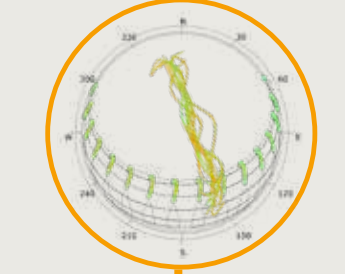
summer



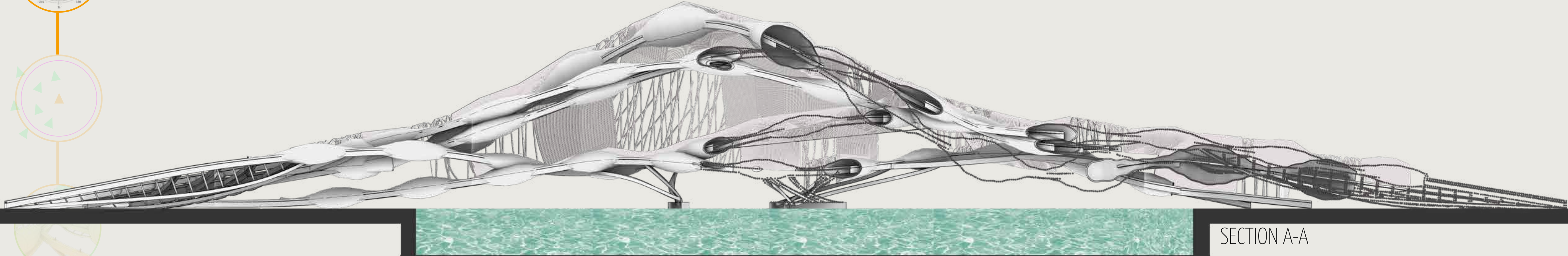
winter



section a-a

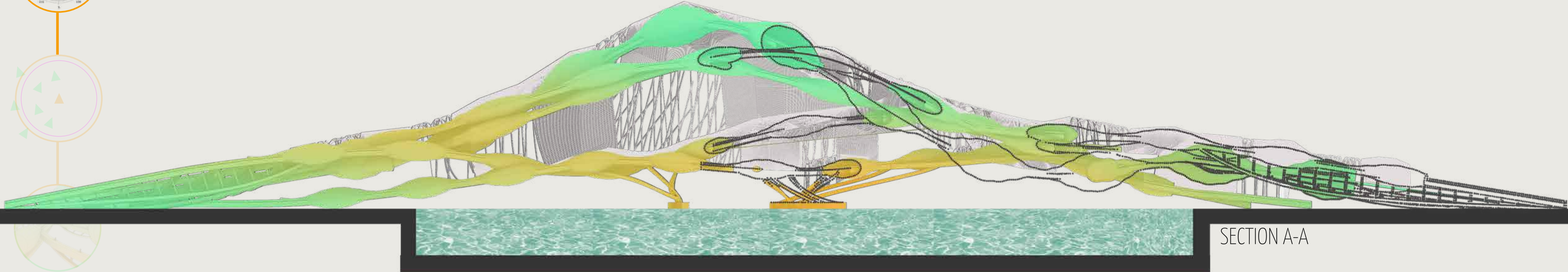
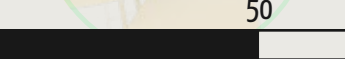
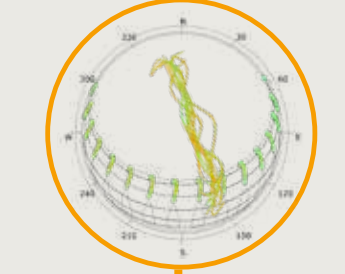


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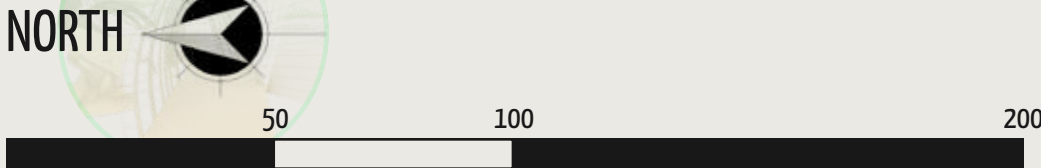


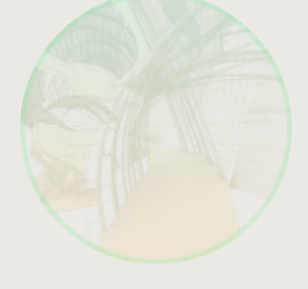
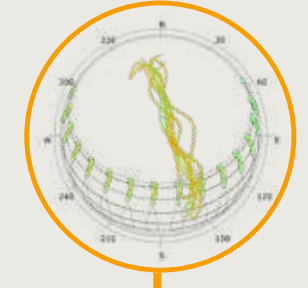
SECTION A-A

section a-a

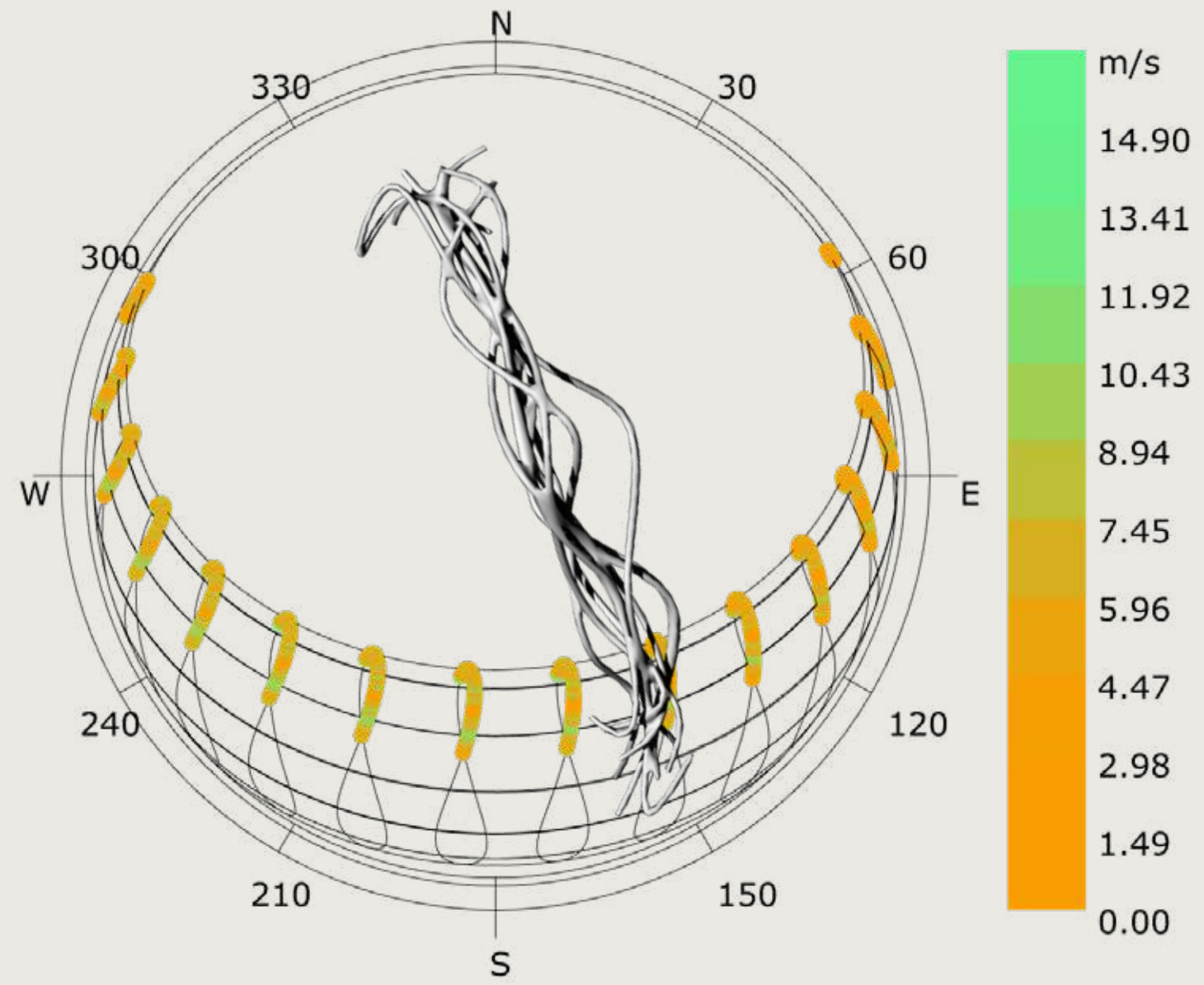


SECTION A-A

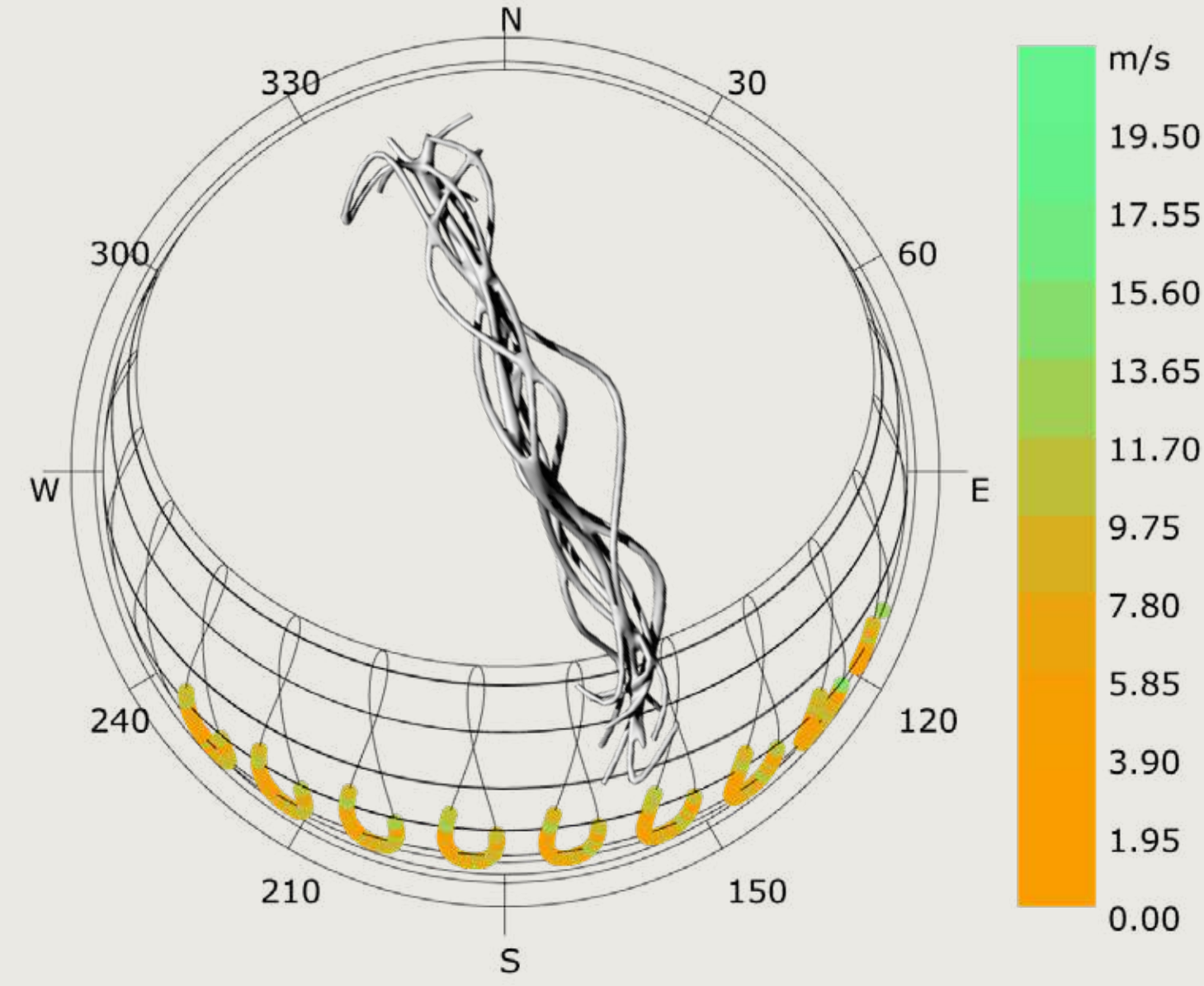
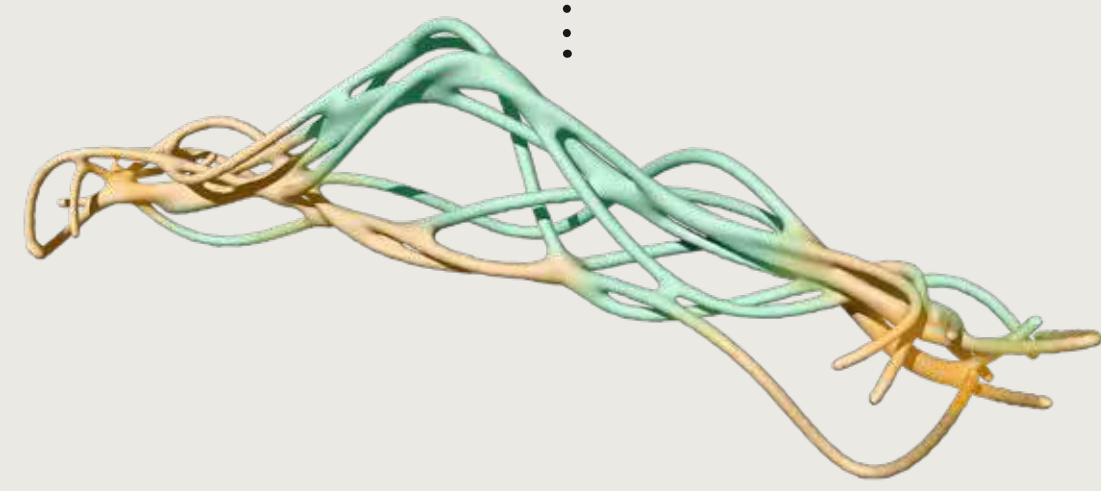




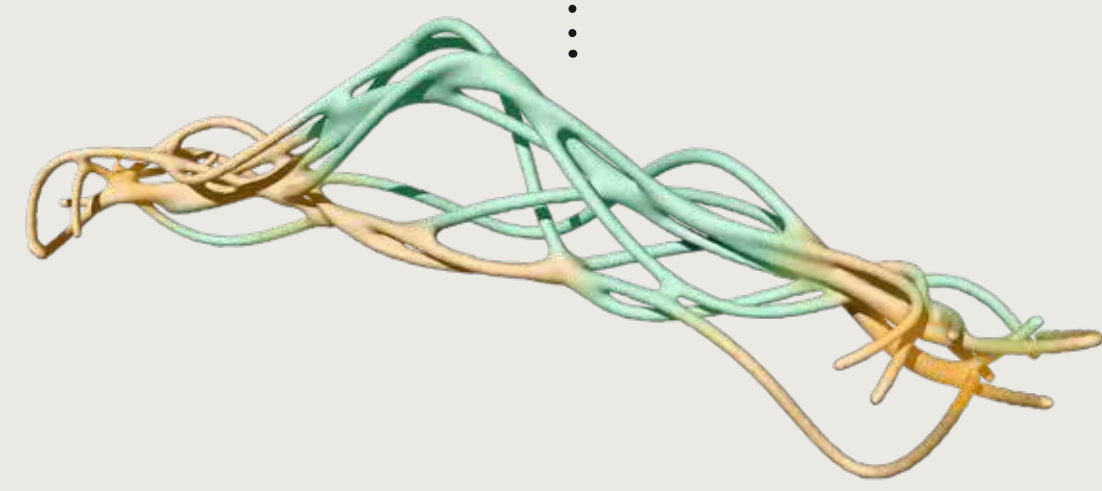
wind analysis

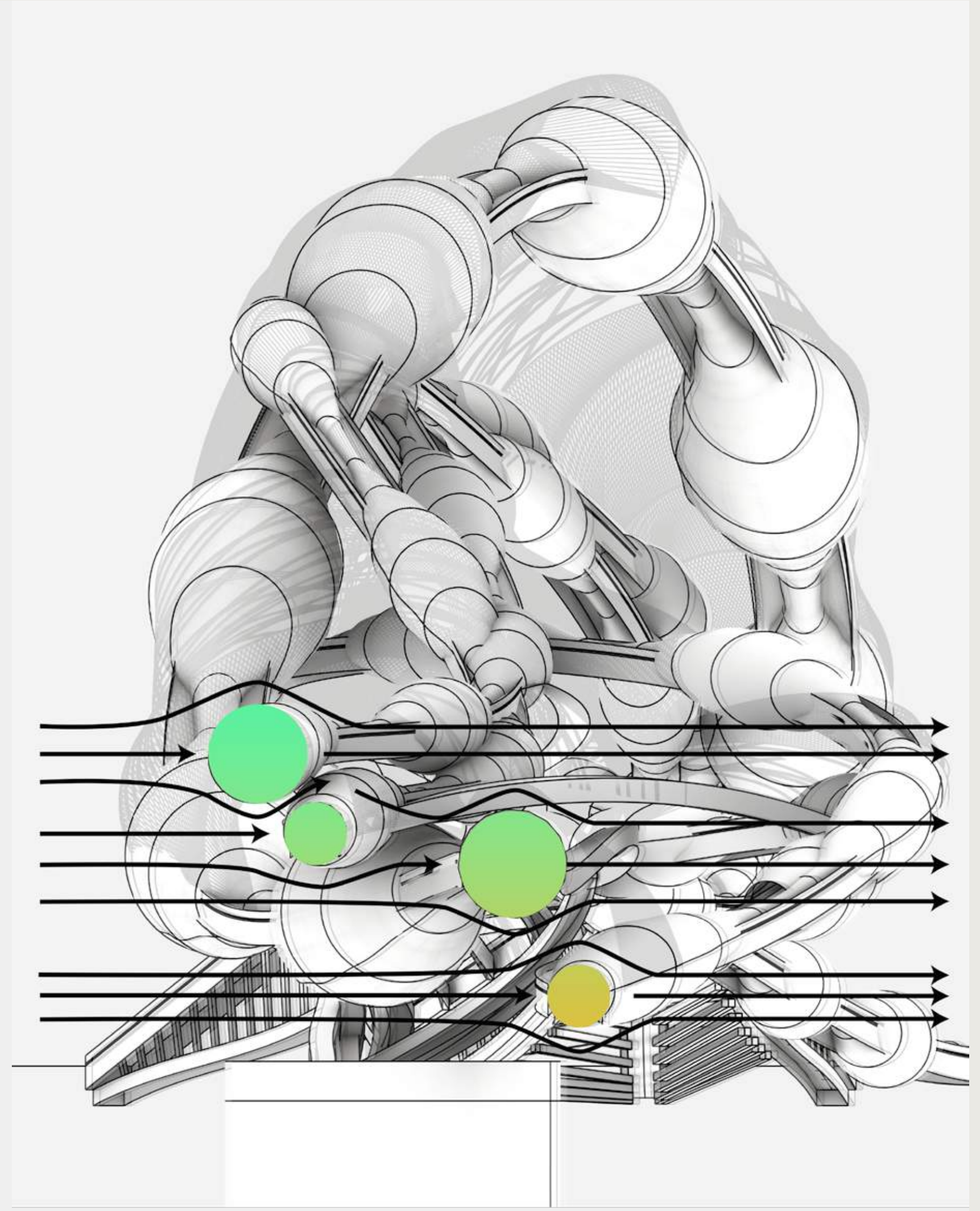
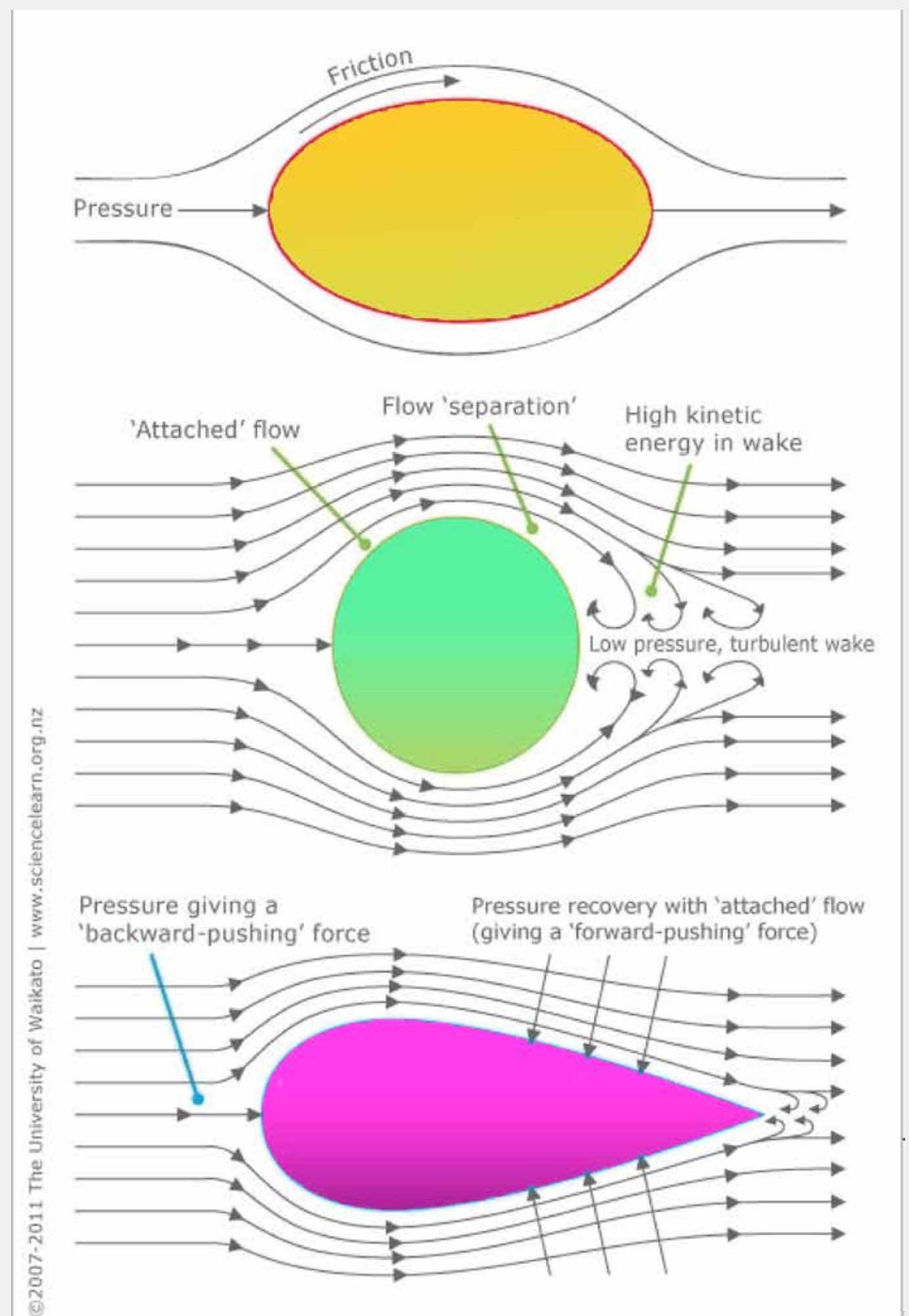
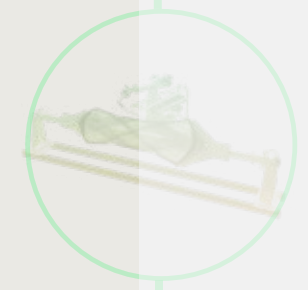
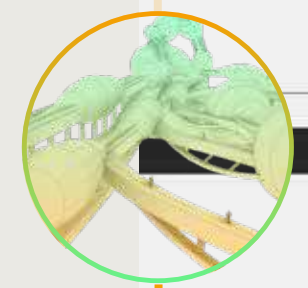
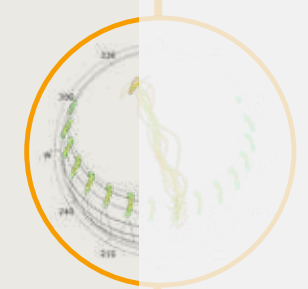


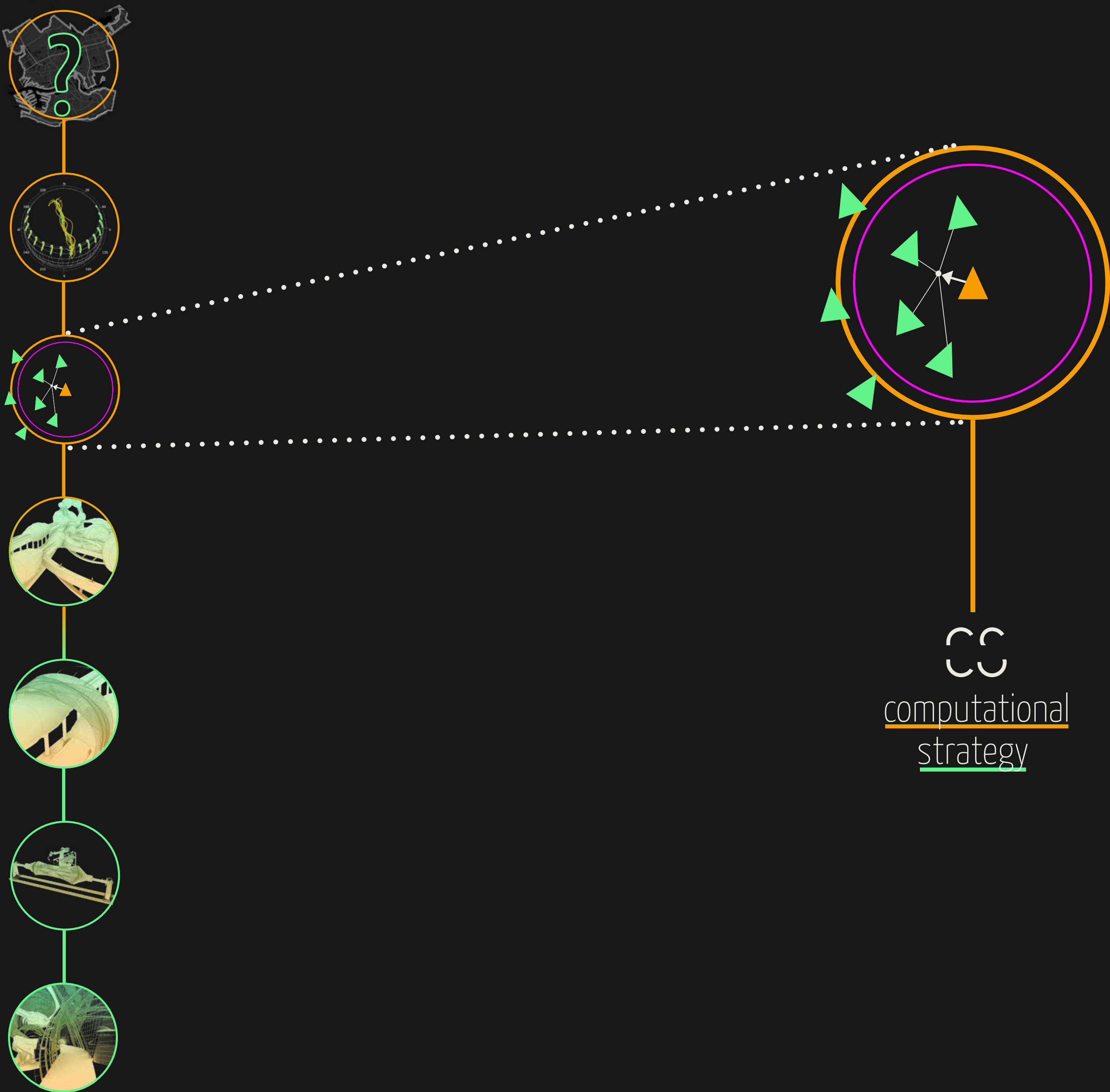
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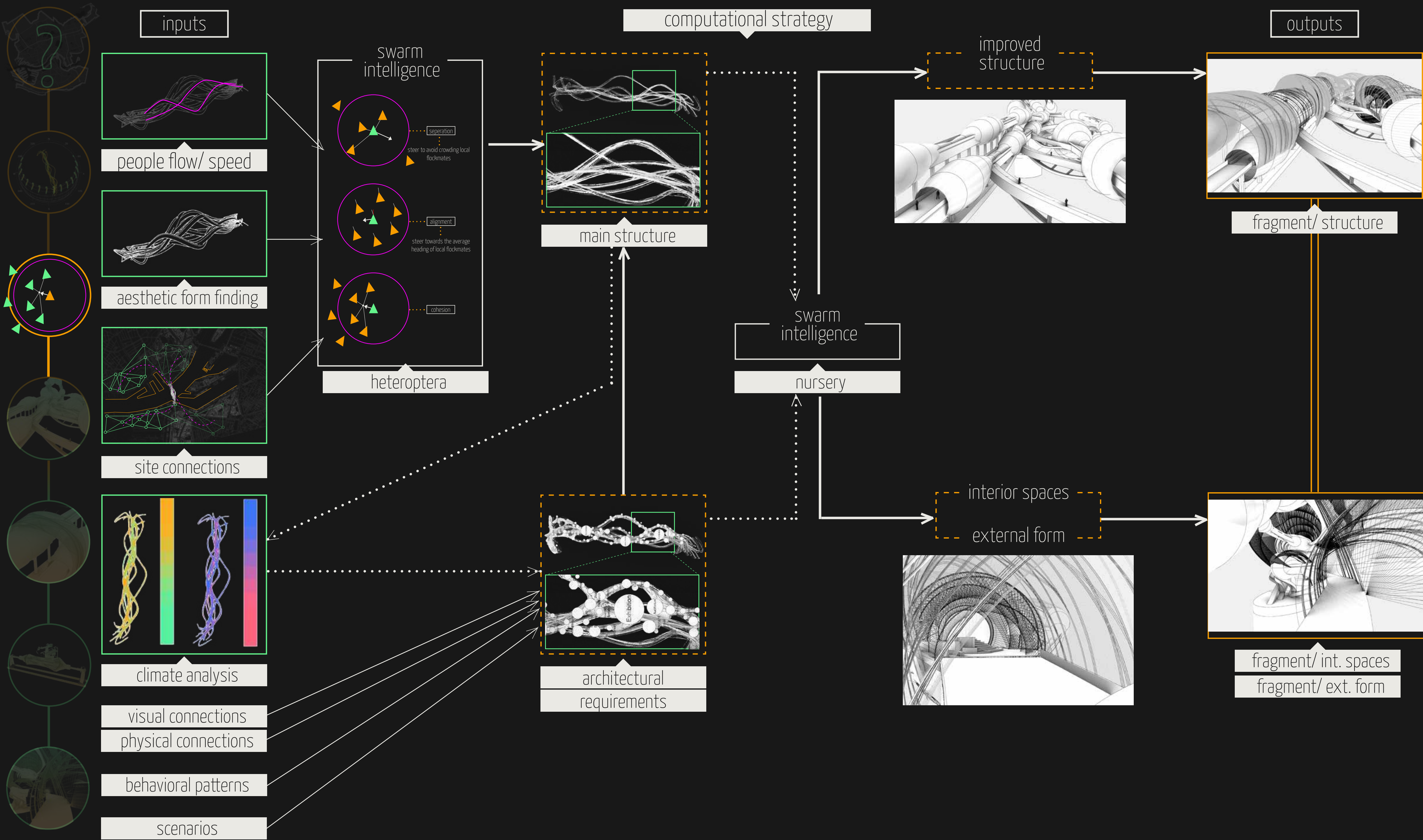


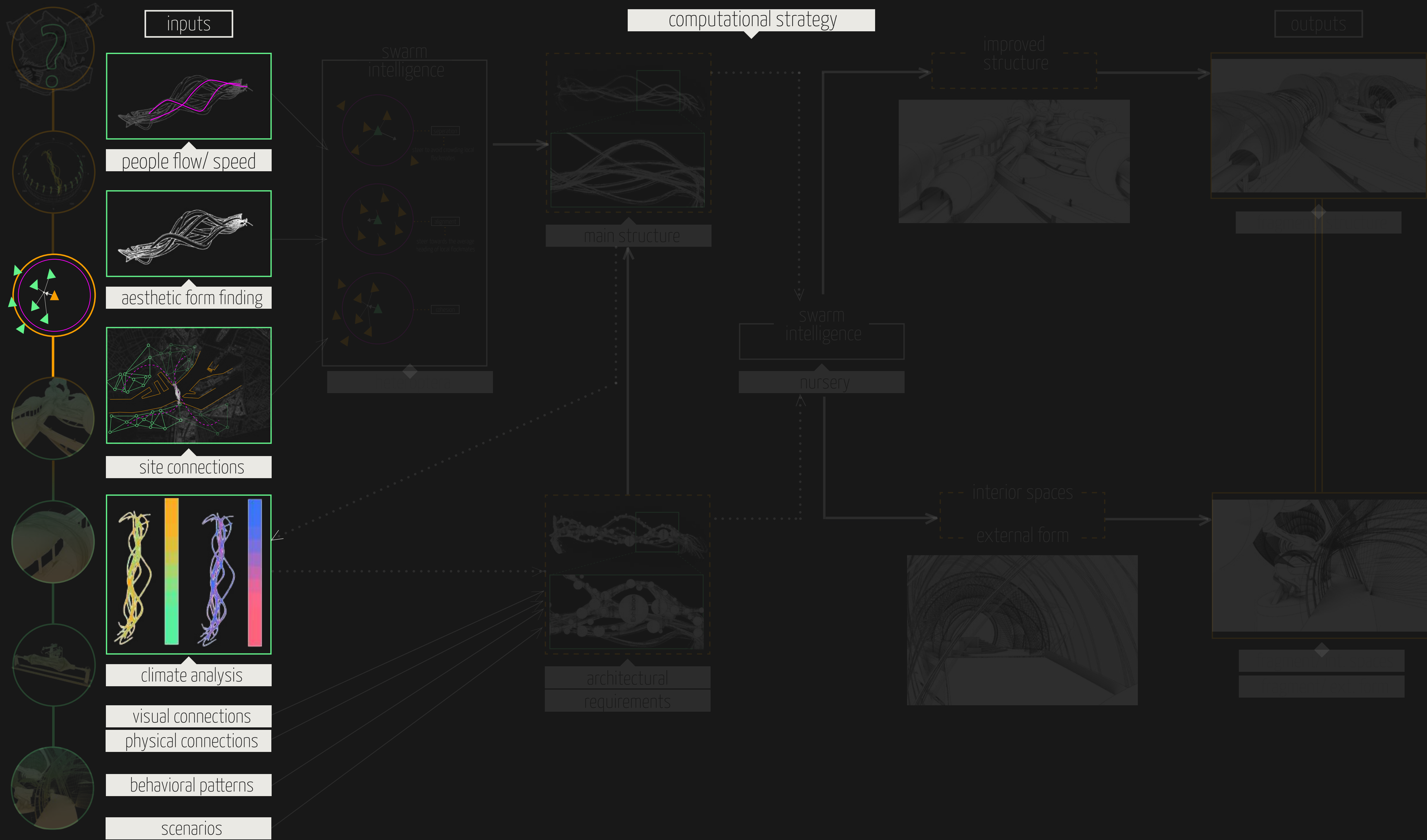
winter

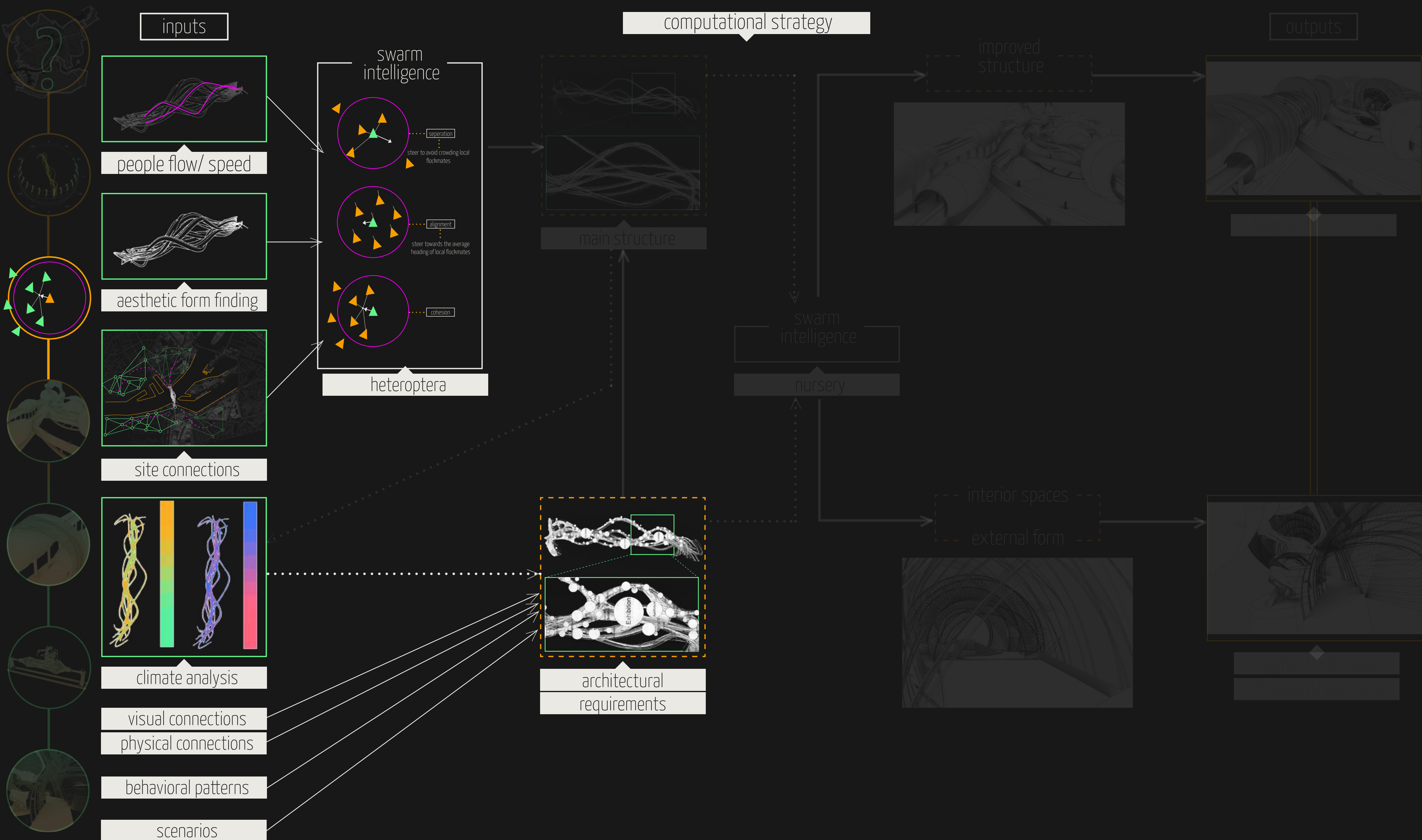


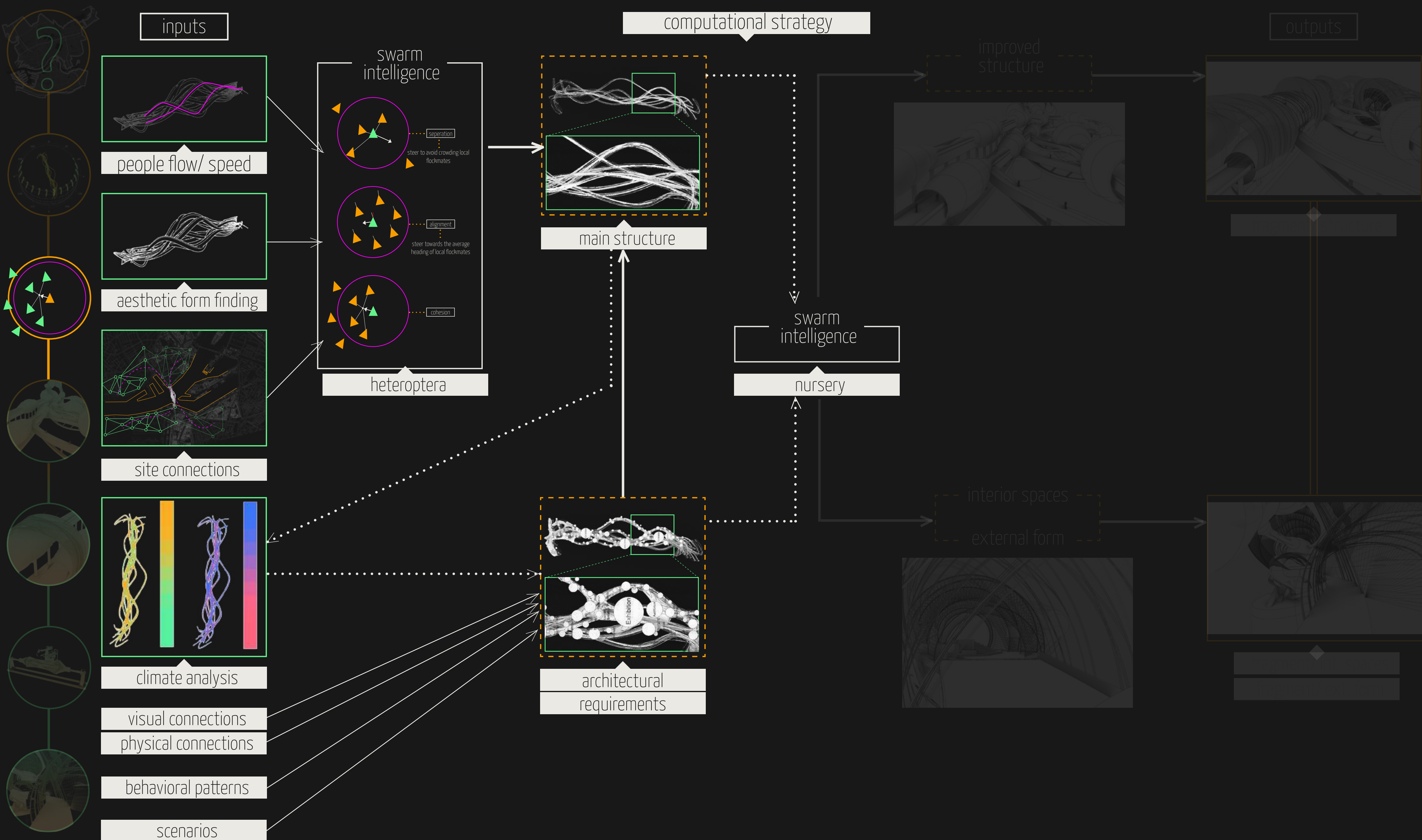


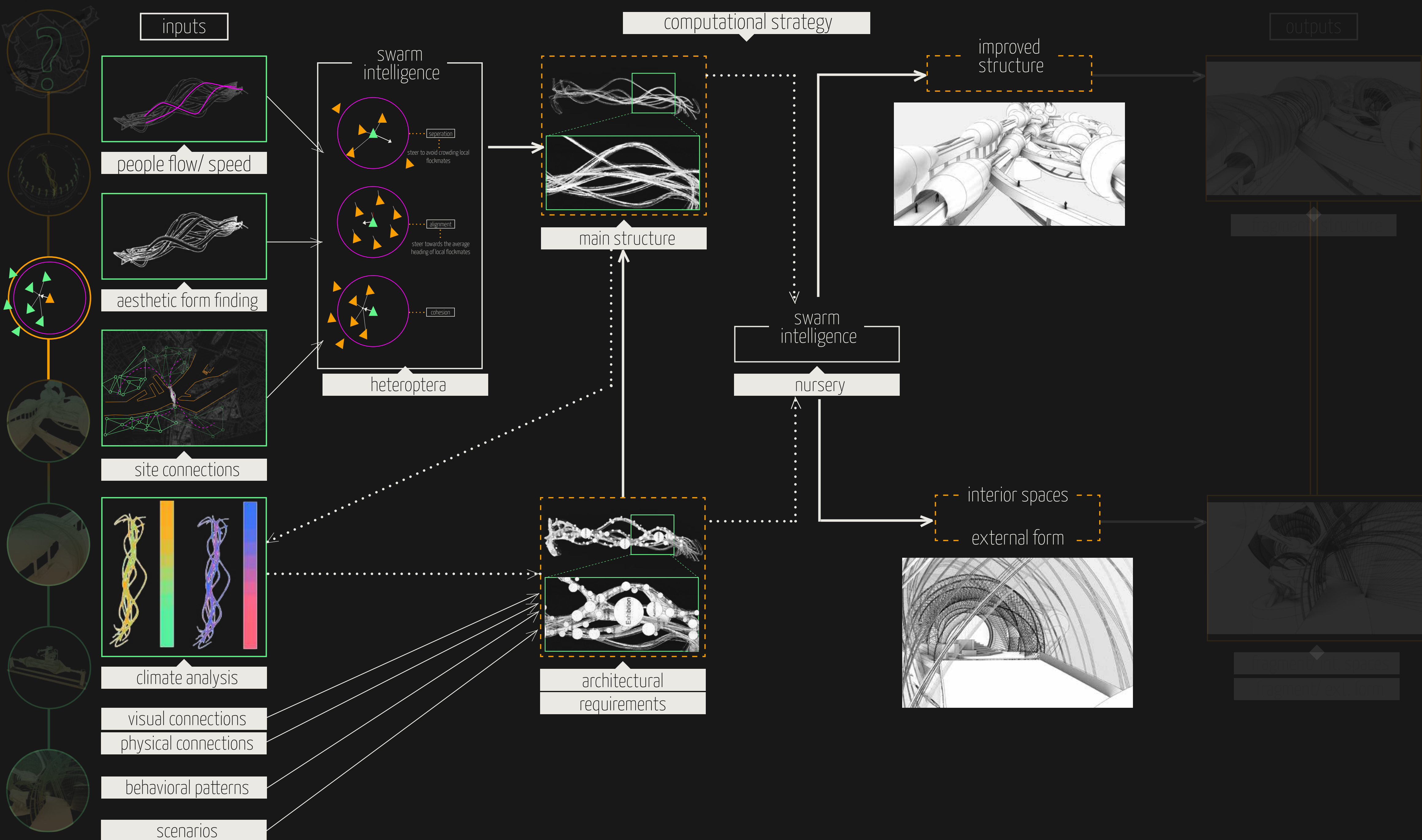


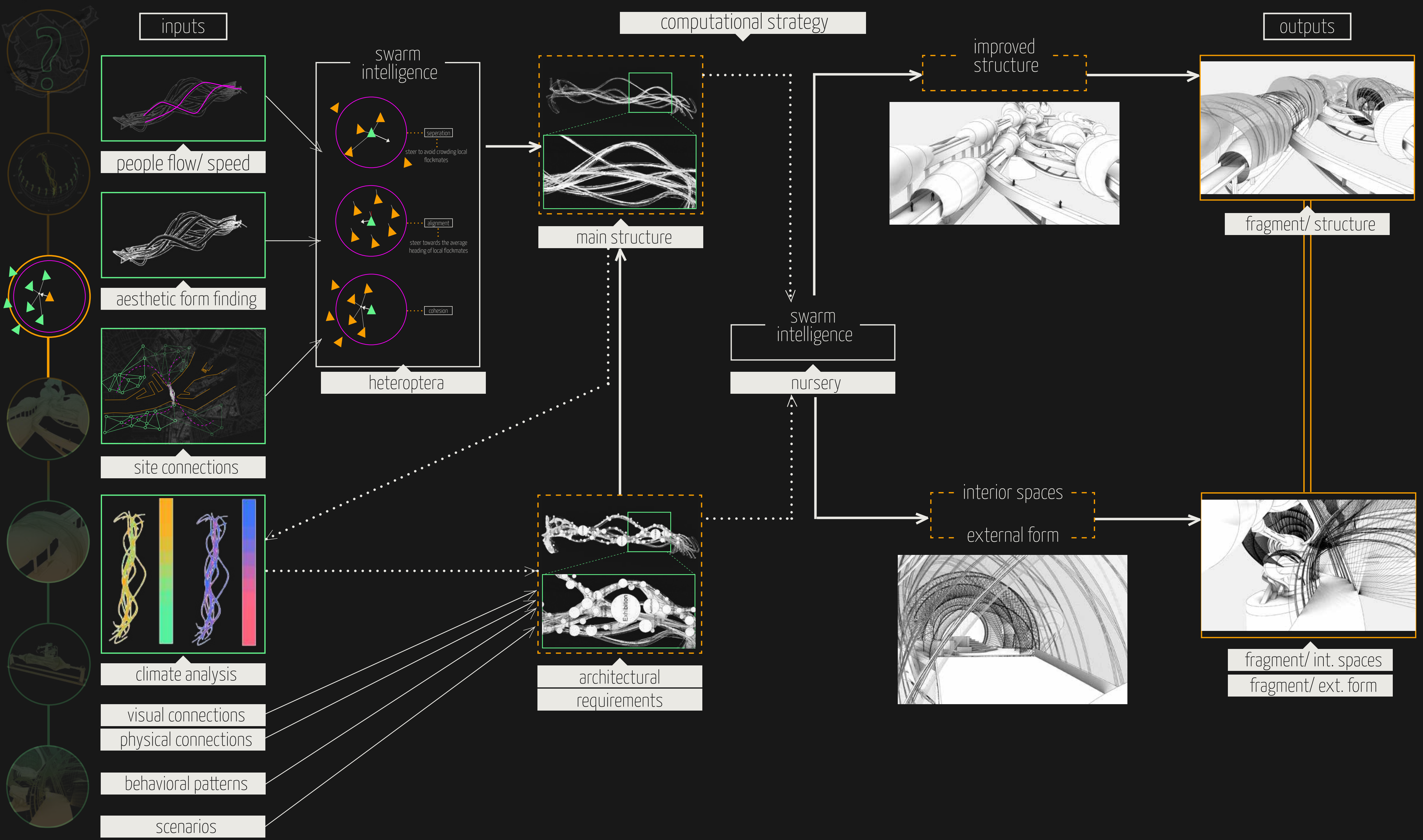


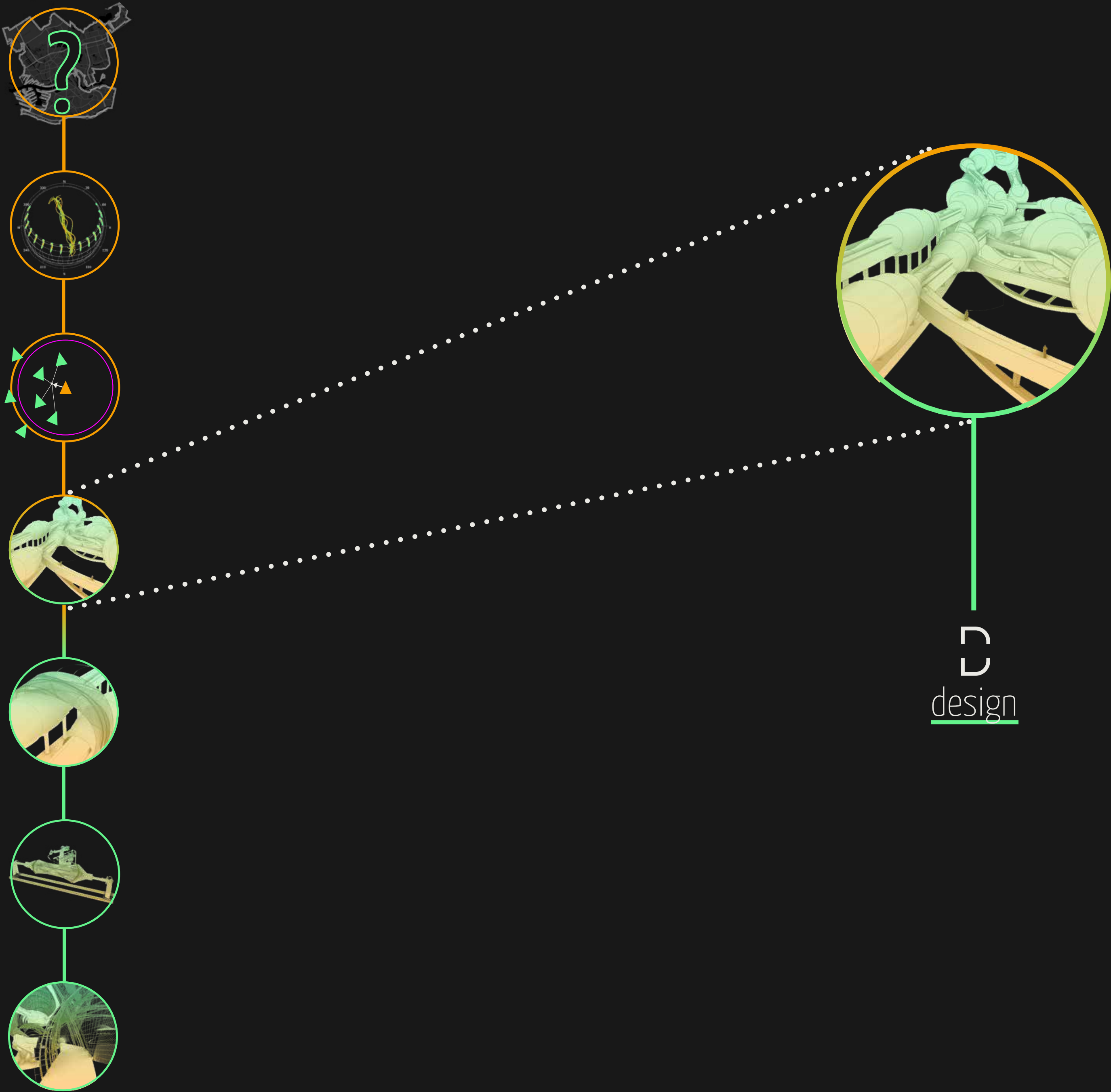










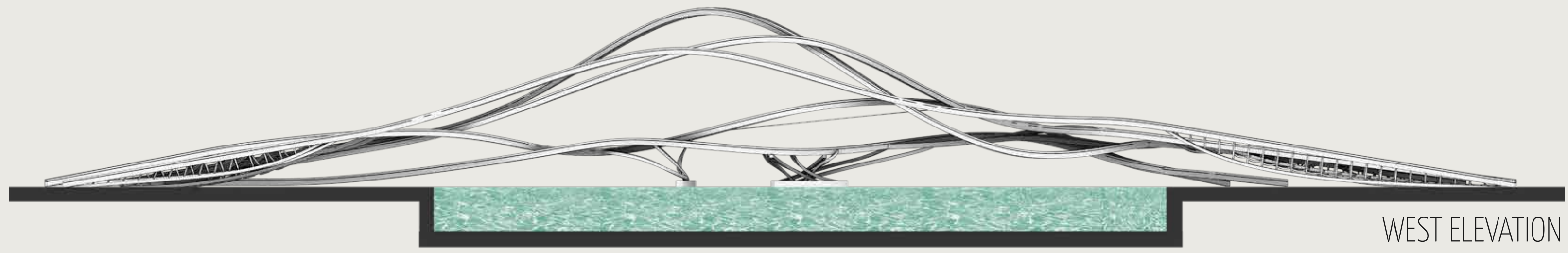



design

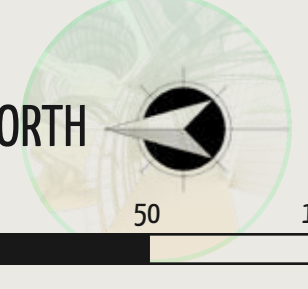
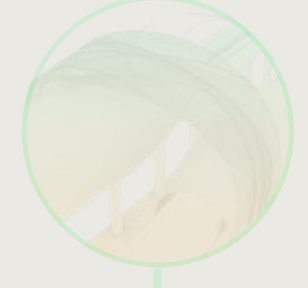
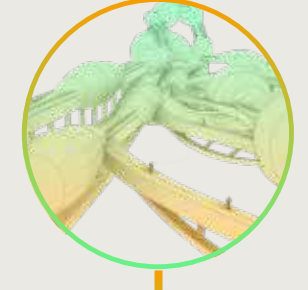
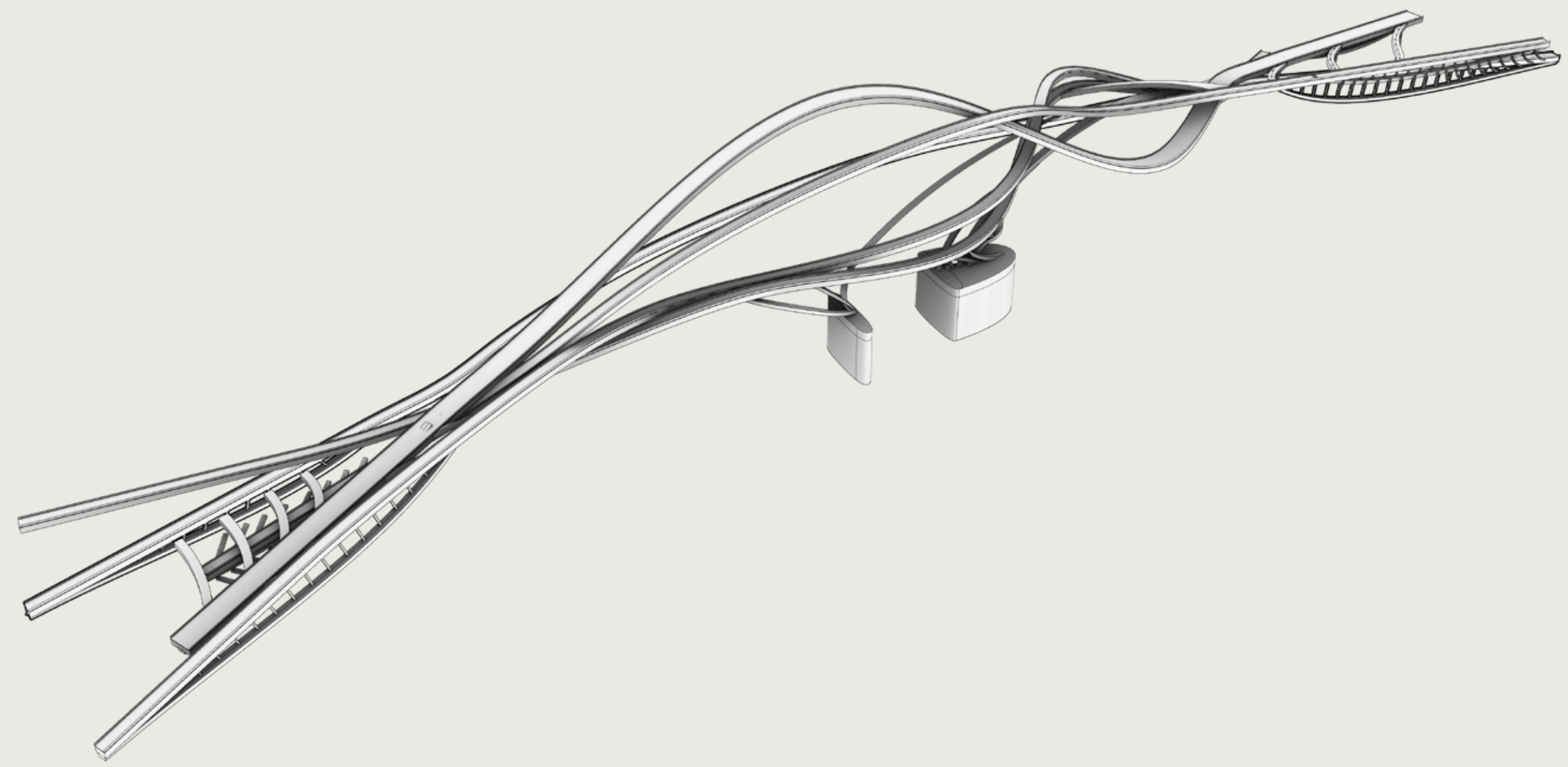
systems

SUB - STRUCTURE

SPINES



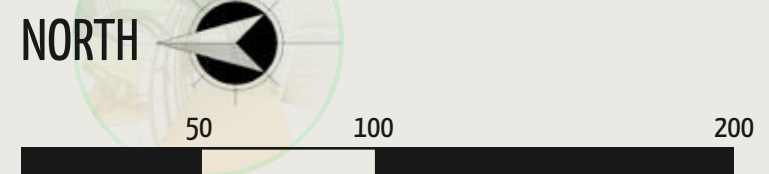
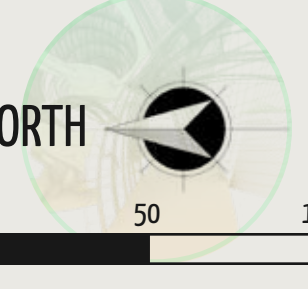
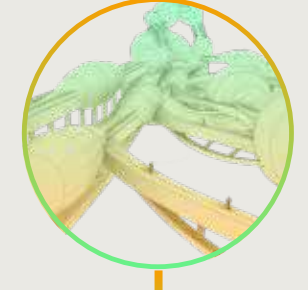
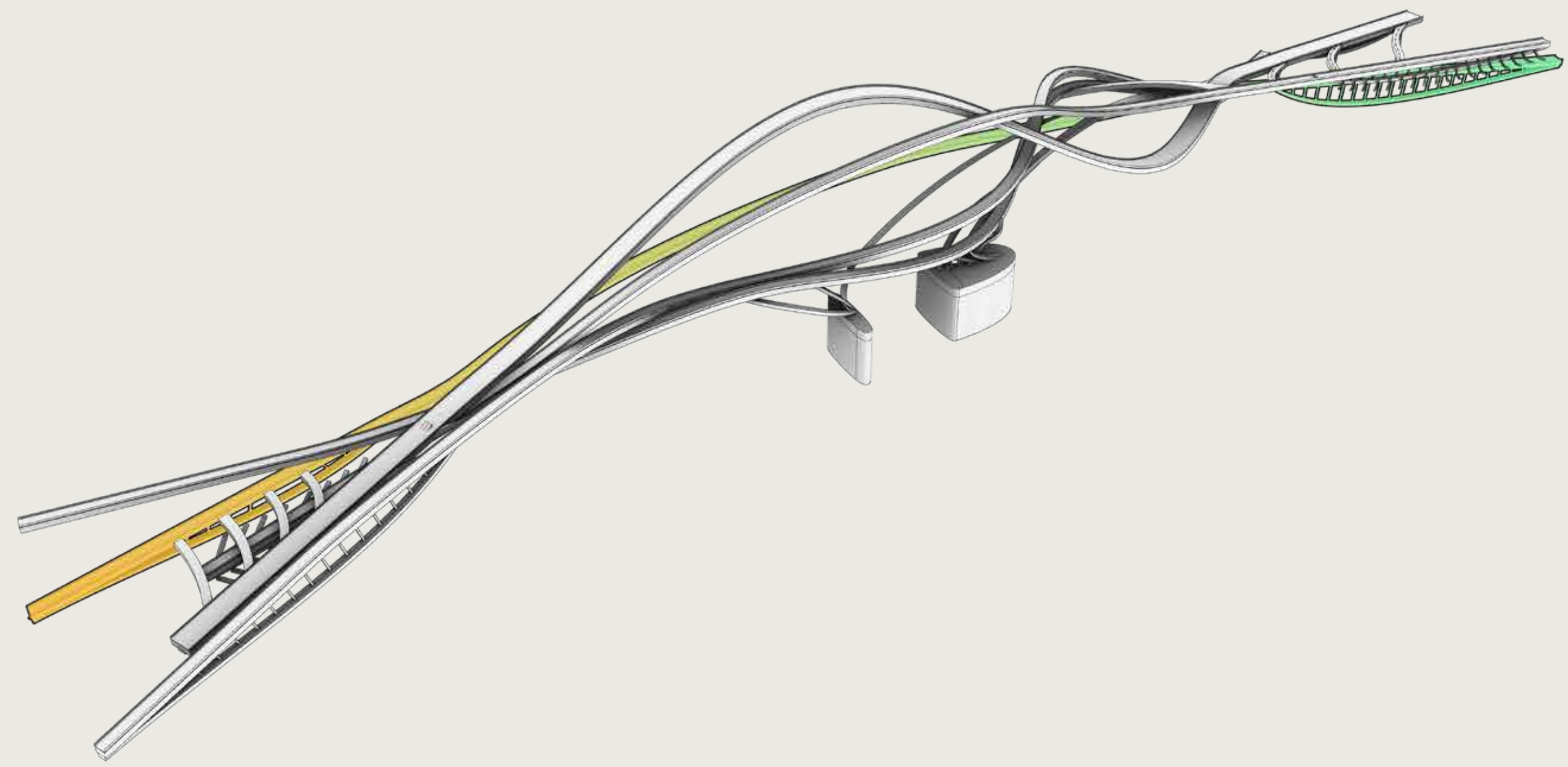
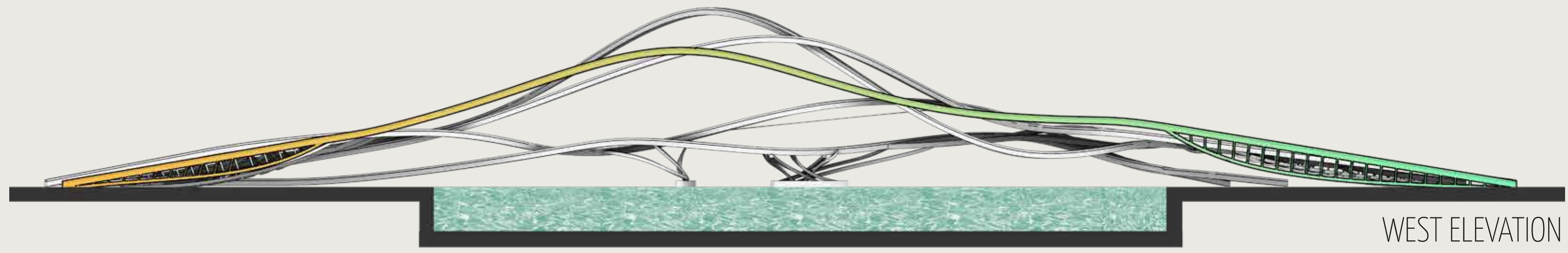
WEST ELEVATION



systems

SUB - STRUCTURE

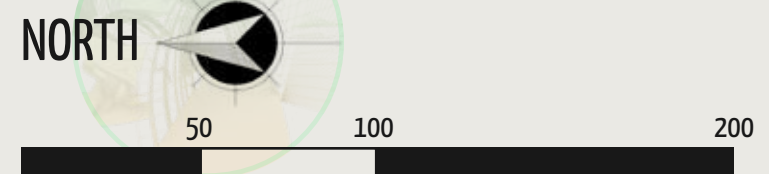
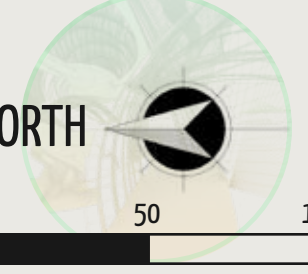
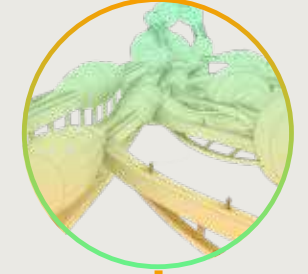
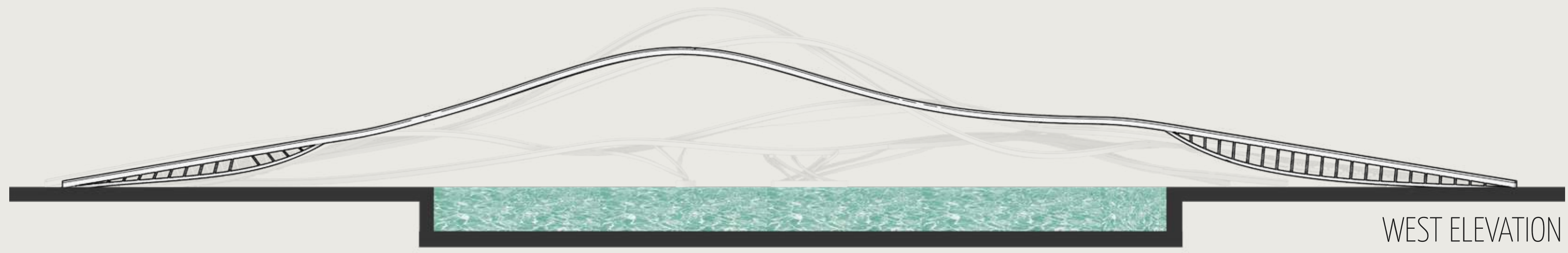
SPINES



systems

SUB - STRUCTURE

SPINES

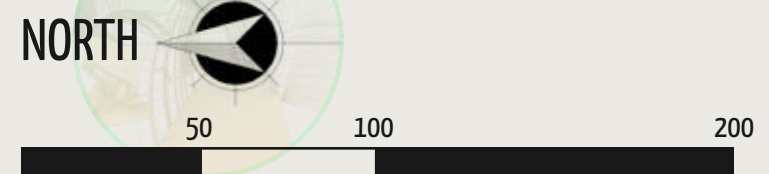
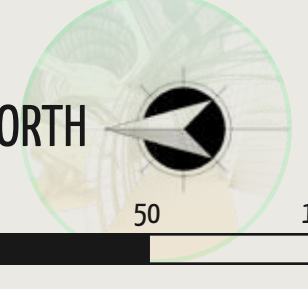
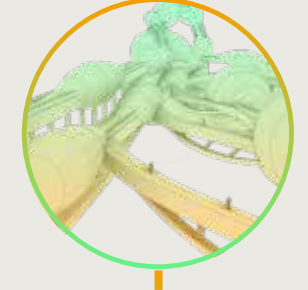
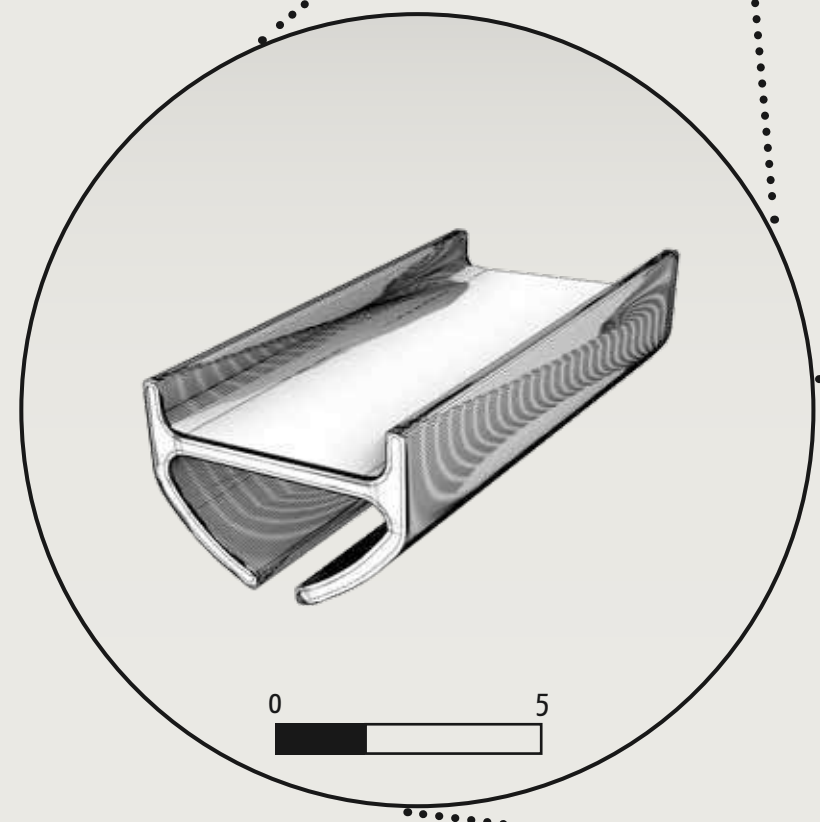
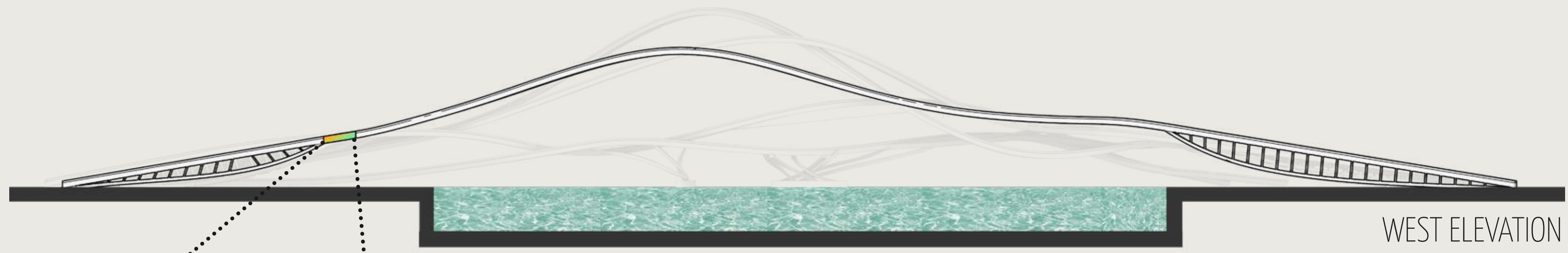


systems

SUB-STRUCTURE

SPINES

COMPONENTS

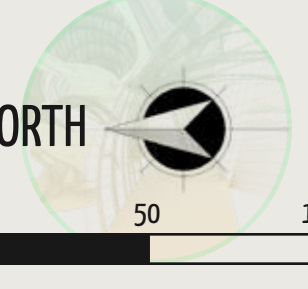
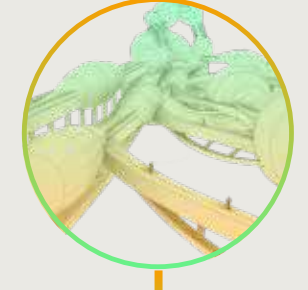
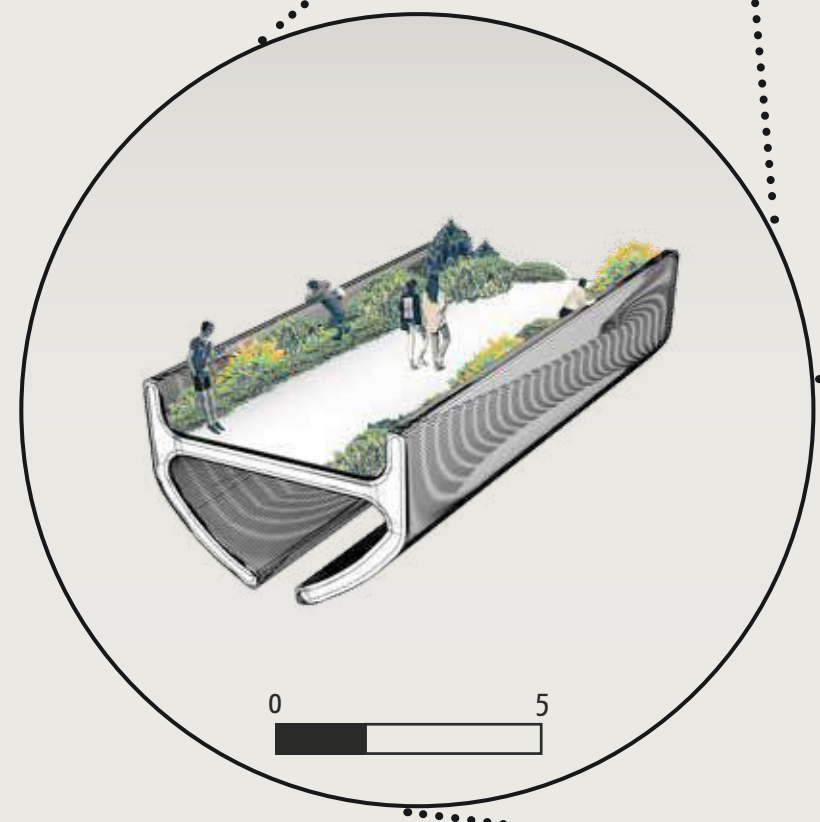
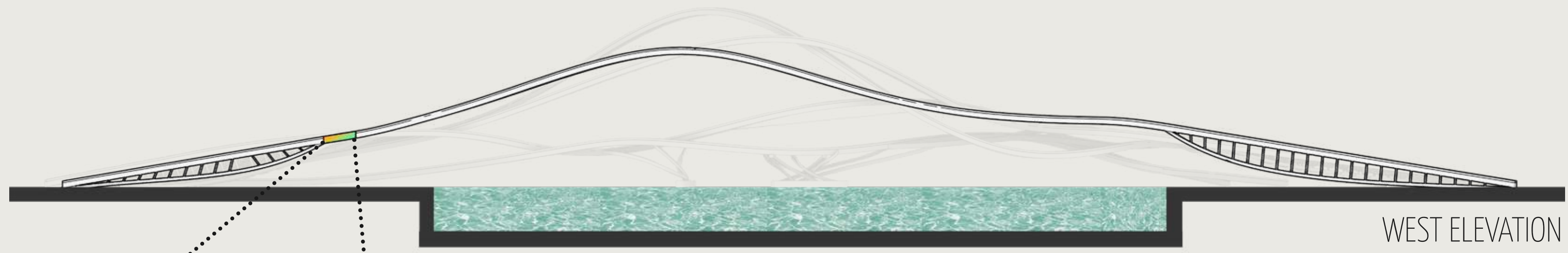


systems

SUB-STRUCTURE

SPINES

COMPONENTS



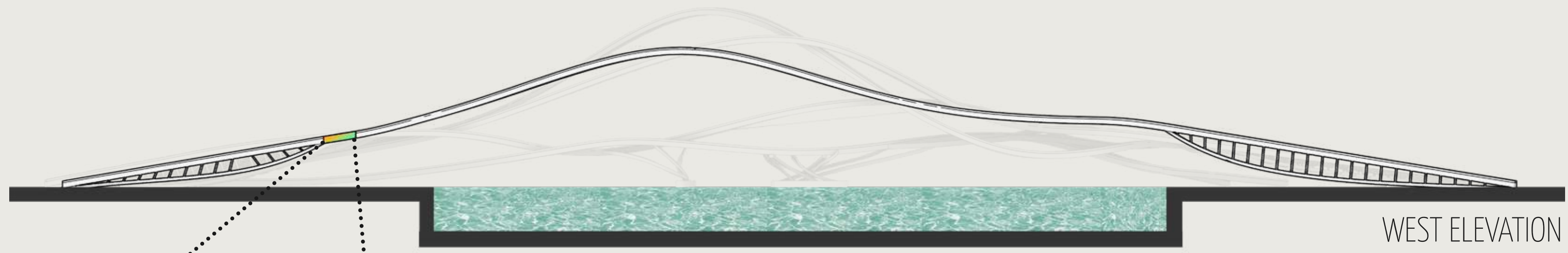
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systems

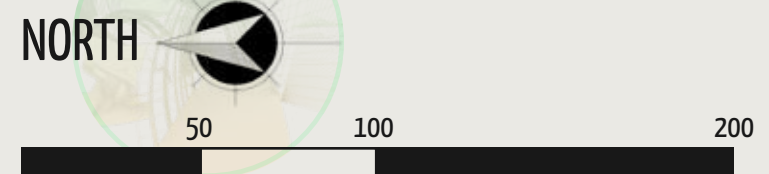
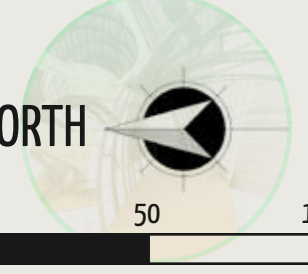
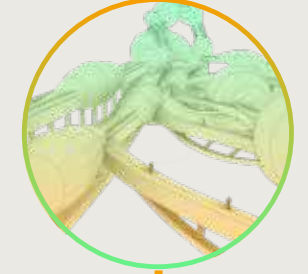
SUB-STRUCTURE

SPINES

COMPONENTS



buga pavillion 2019

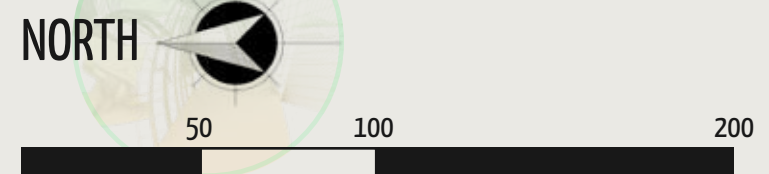
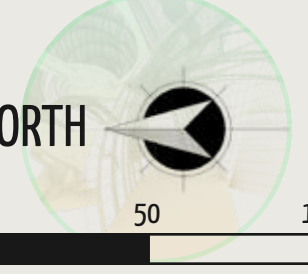
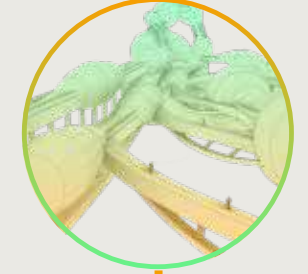
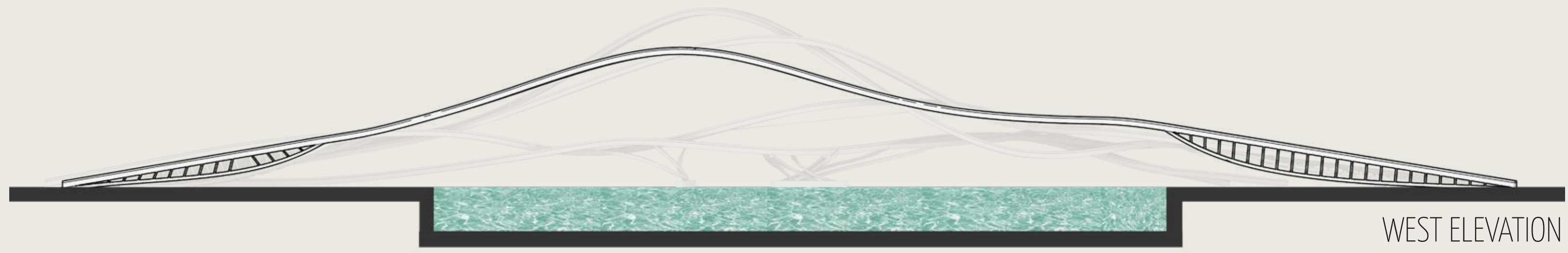


systems

SUB-STRUCTURE

SPINES

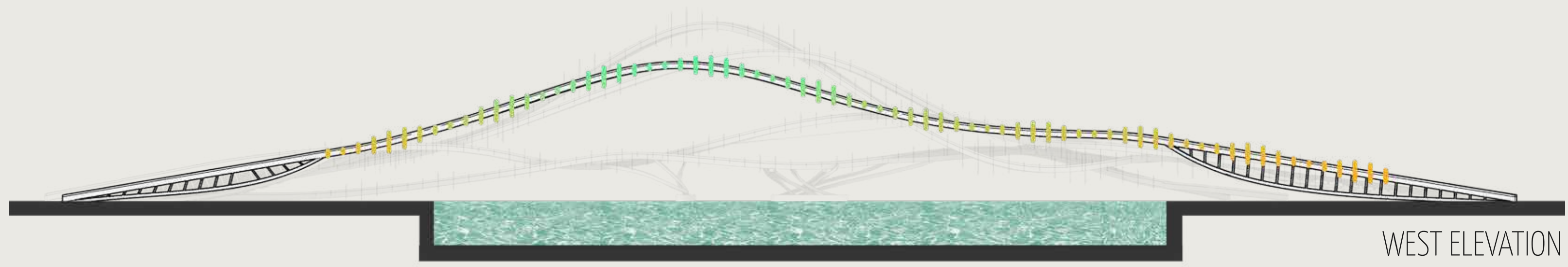
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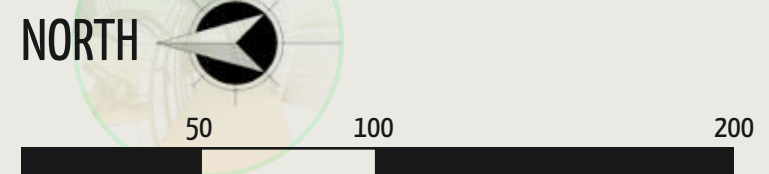
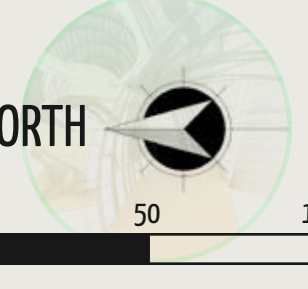
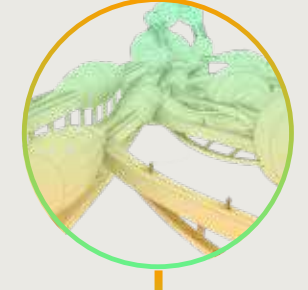
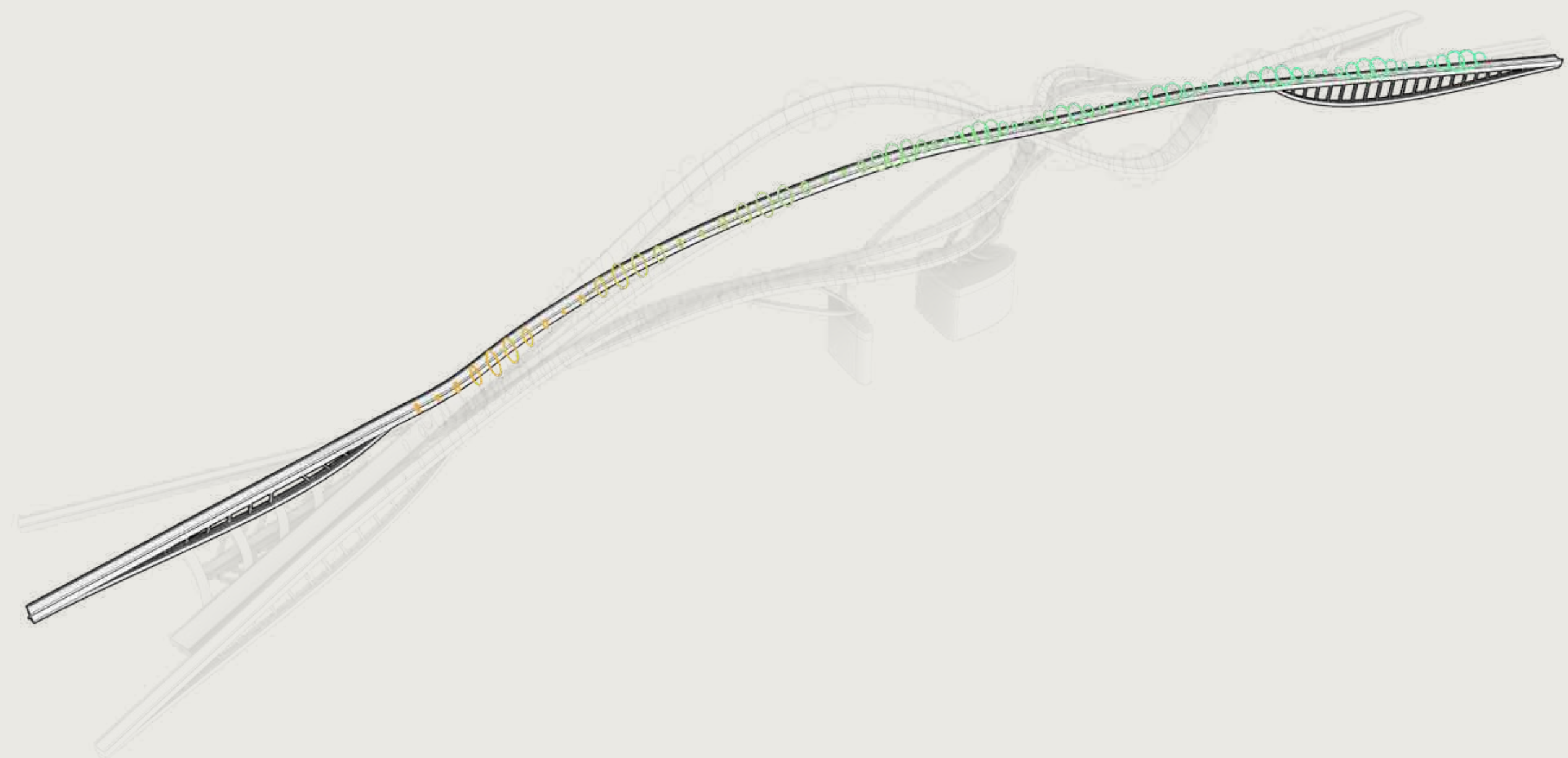
systems

SUB - STRUCTURE

BARNACLES



WEST ELEVATION



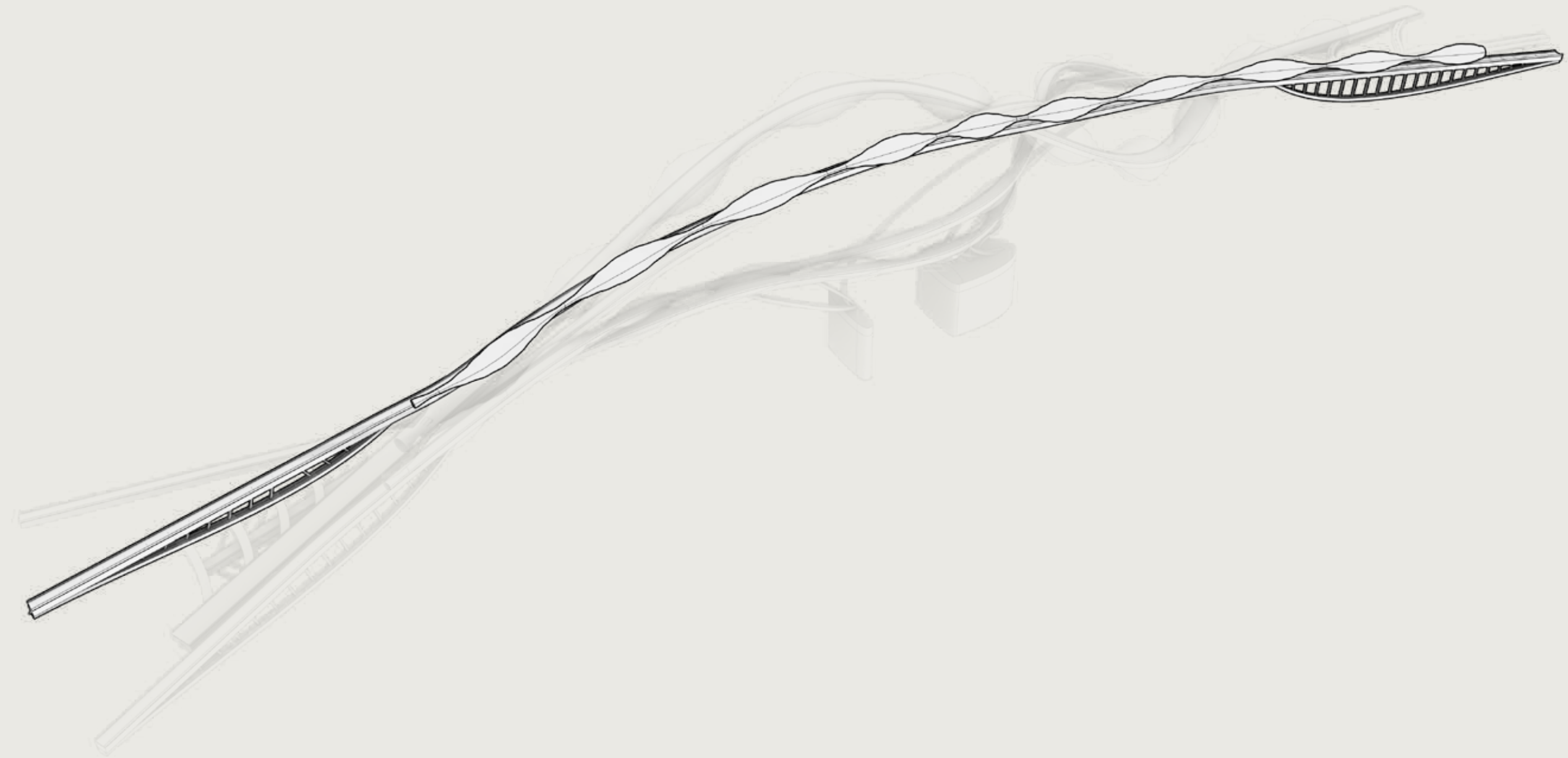
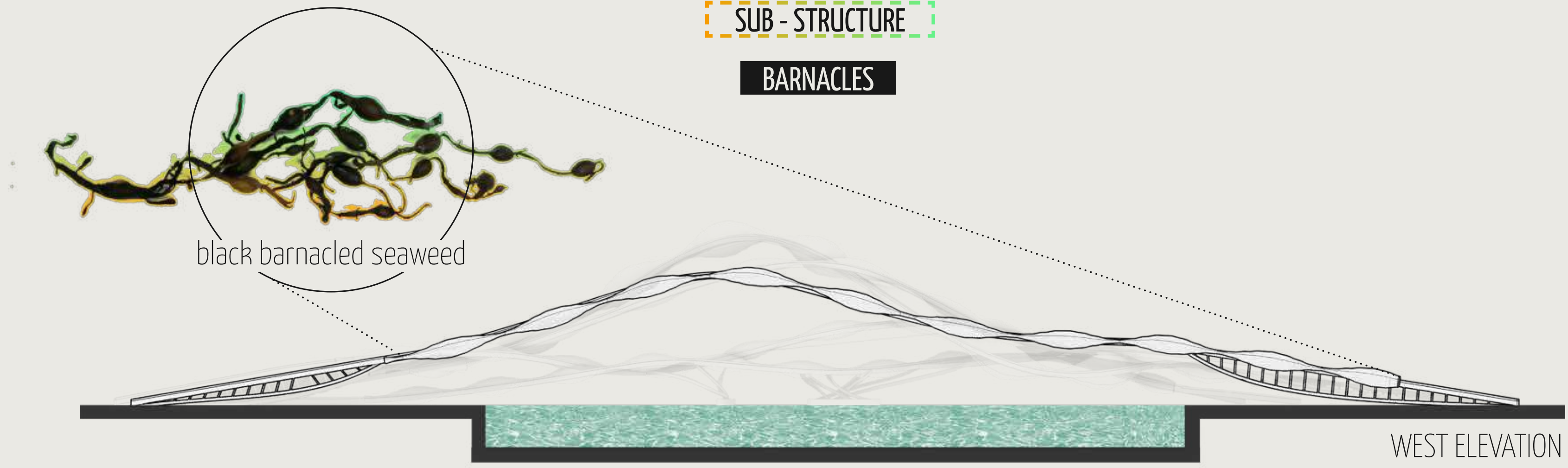
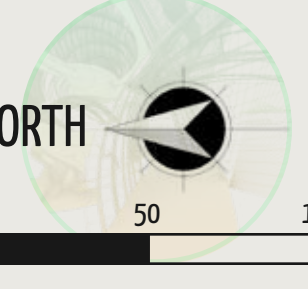
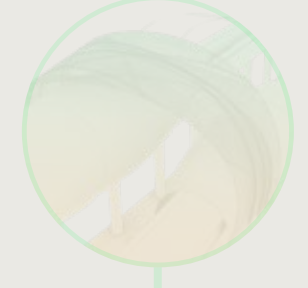
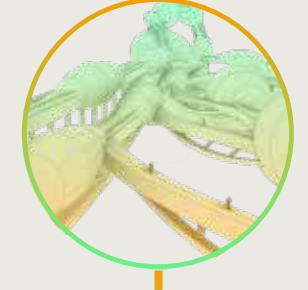
systems

SUB - STRUCTURE

BARNACLES

black barnacled seaweed

WEST ELEVATION

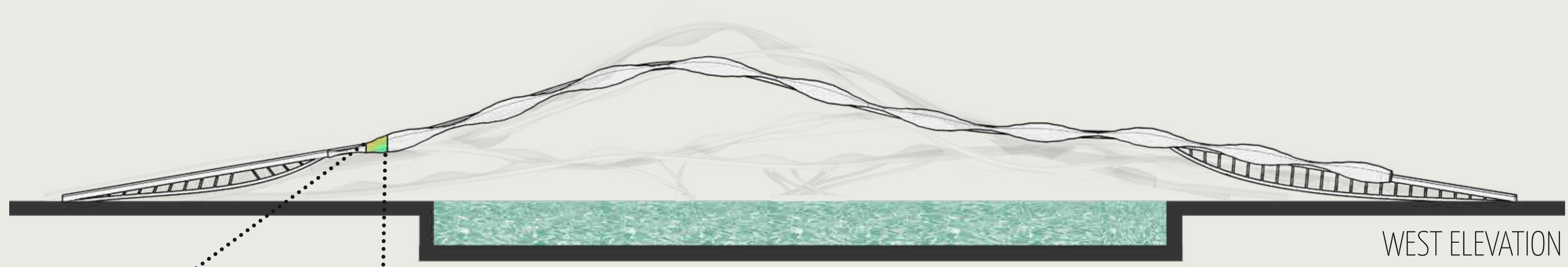


systems

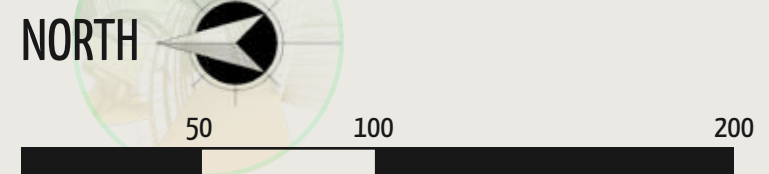
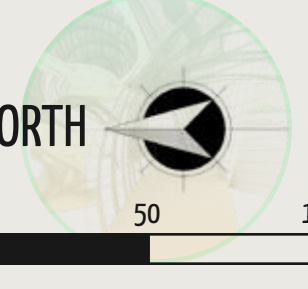
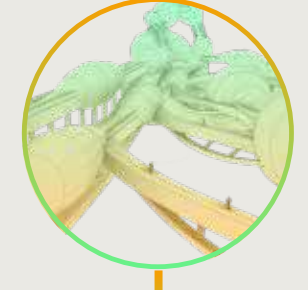
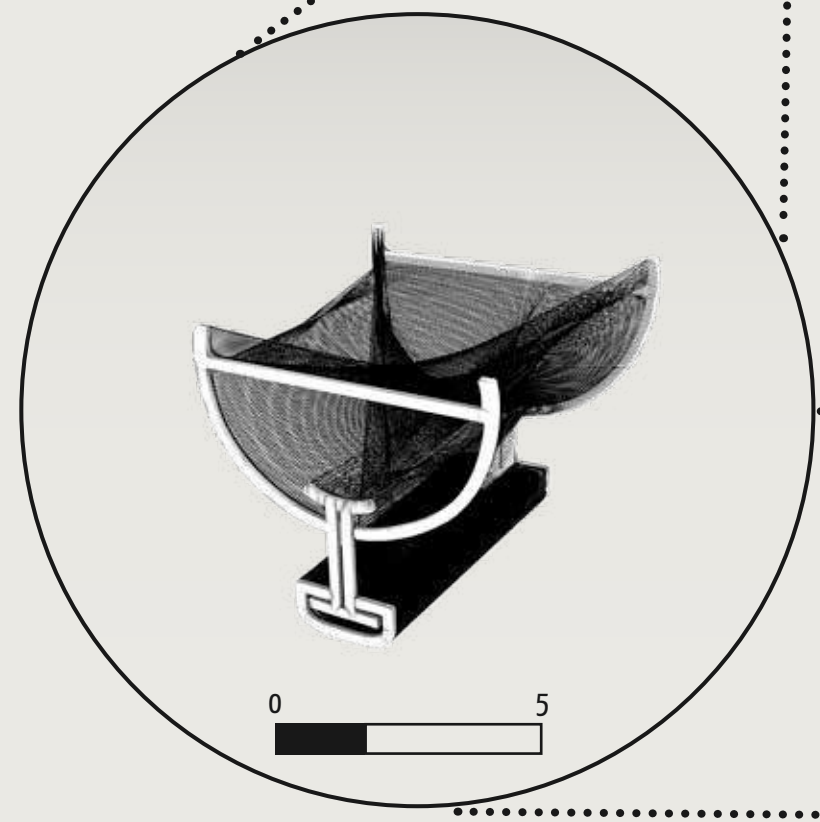
SUB-STRUCTURE

BARNACLES

COMPONENTS



WEST ELEVATION

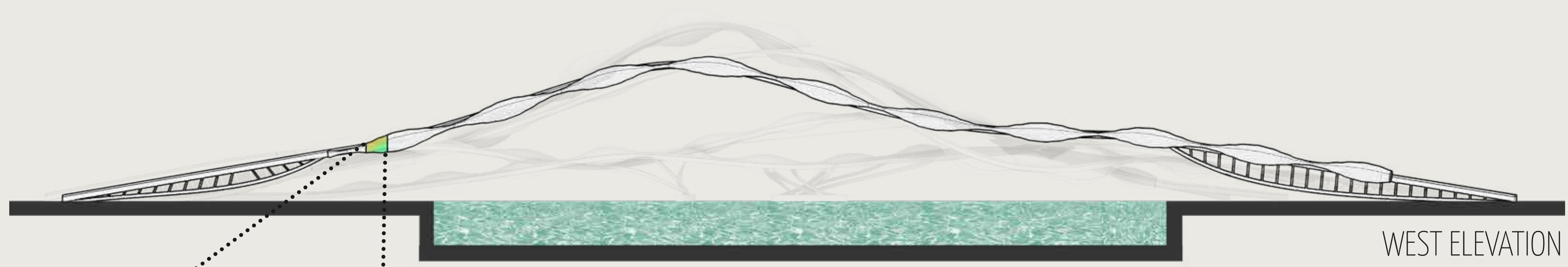


systems

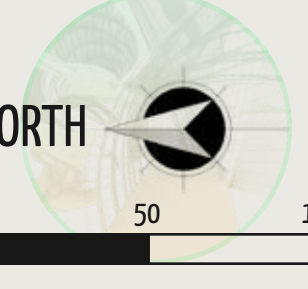
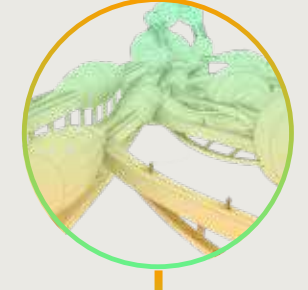
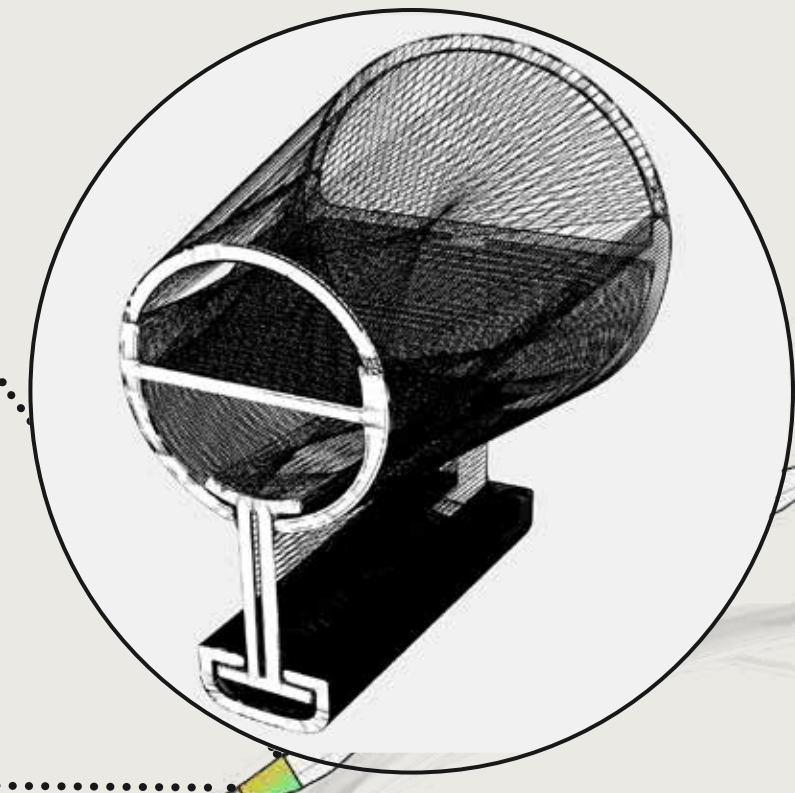
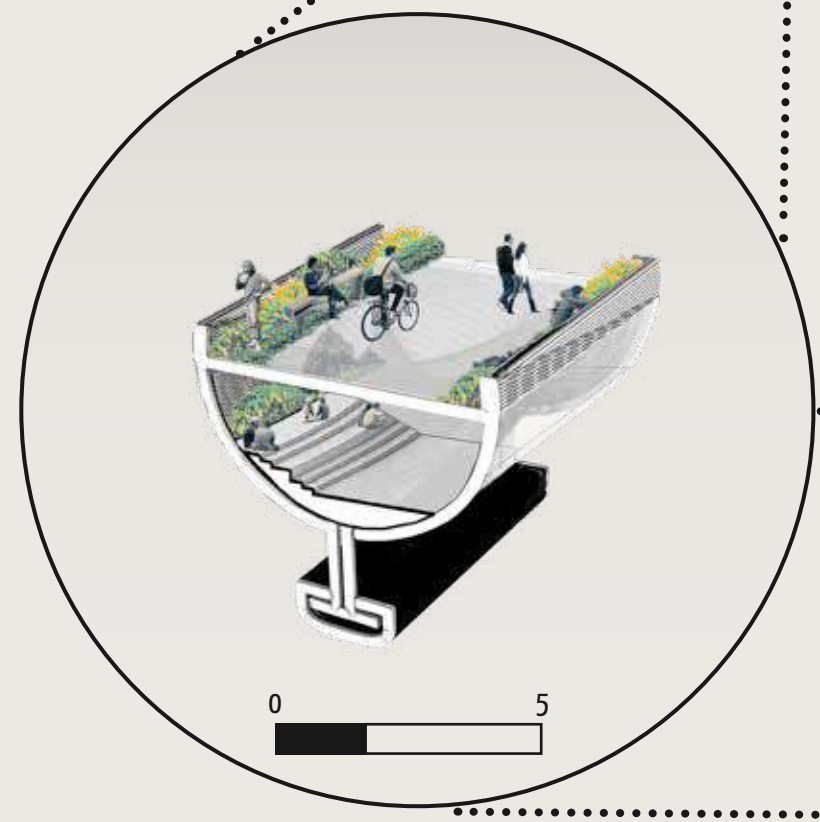
SUB-STRUCTURE

BARNACLES

COMPONENTS



WEST ELEVATION

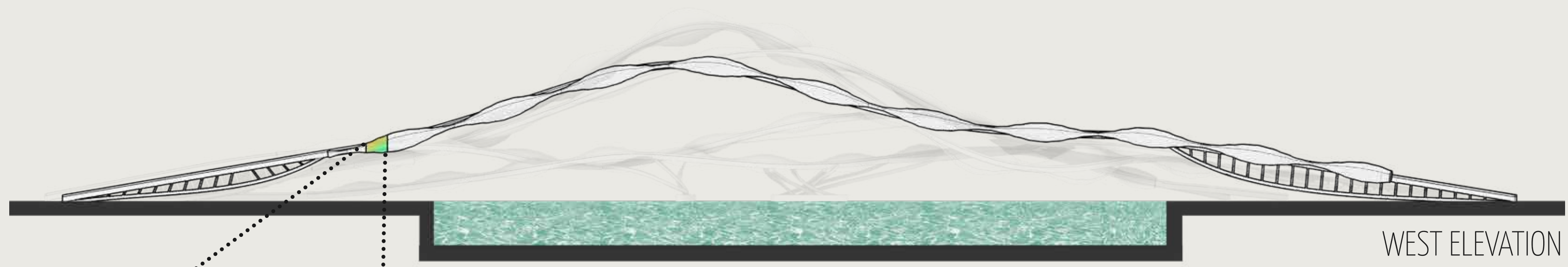


systems

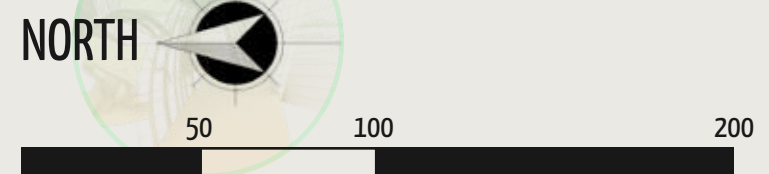
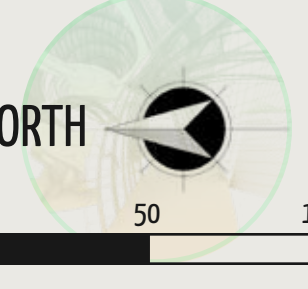
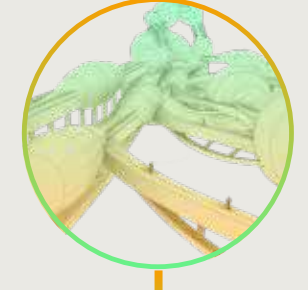
SUB-STRUCTURE

BARNACLES

COMPONENTS



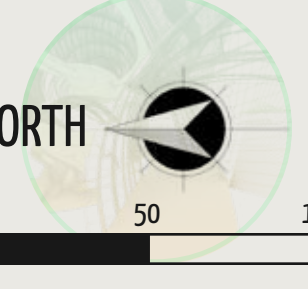
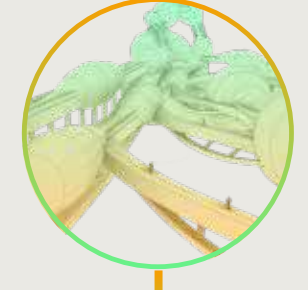
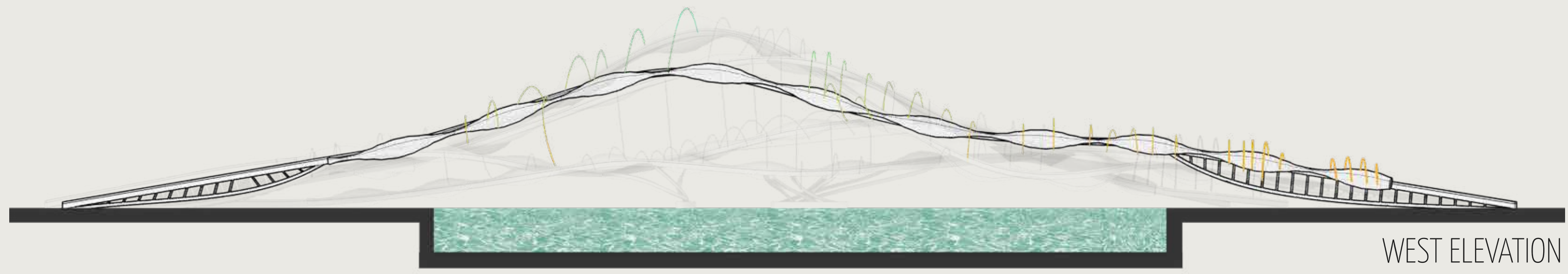
buga pavillion 2019



systems

SUB - STRUCTURE

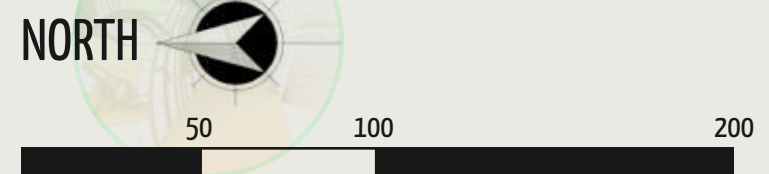
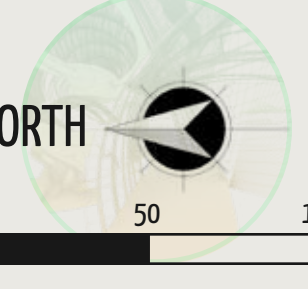
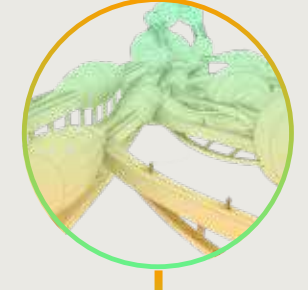
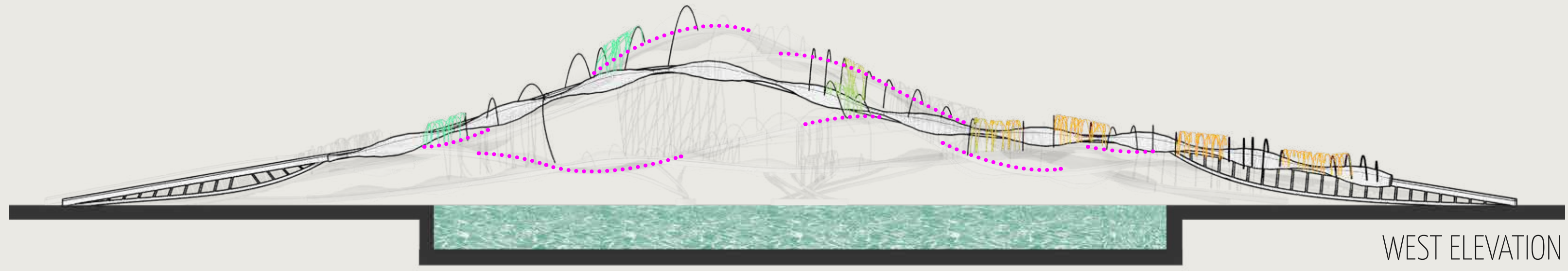
BIG WEAVES - ARCS



systems

SUB - STRUCTURE

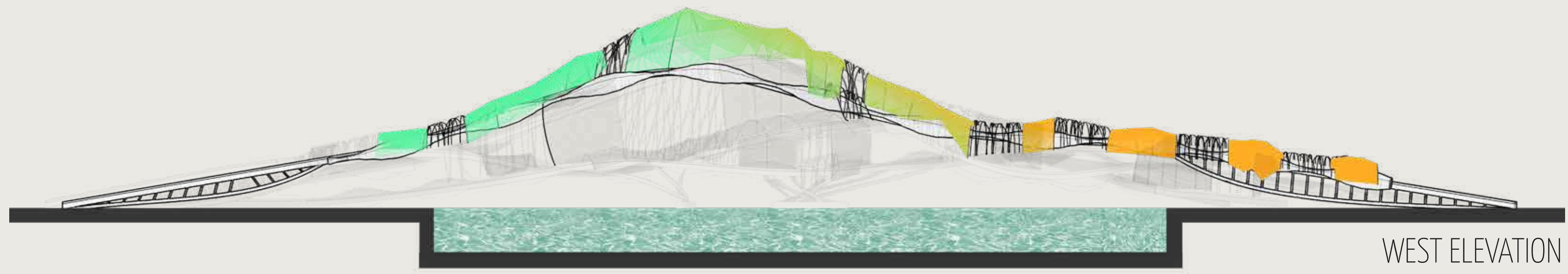
BIG WEAVES - OPEN CHARACTER



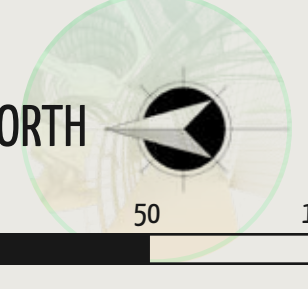
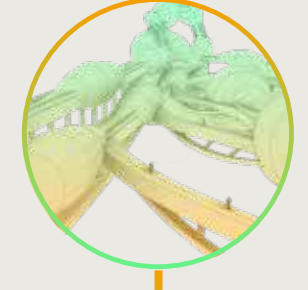
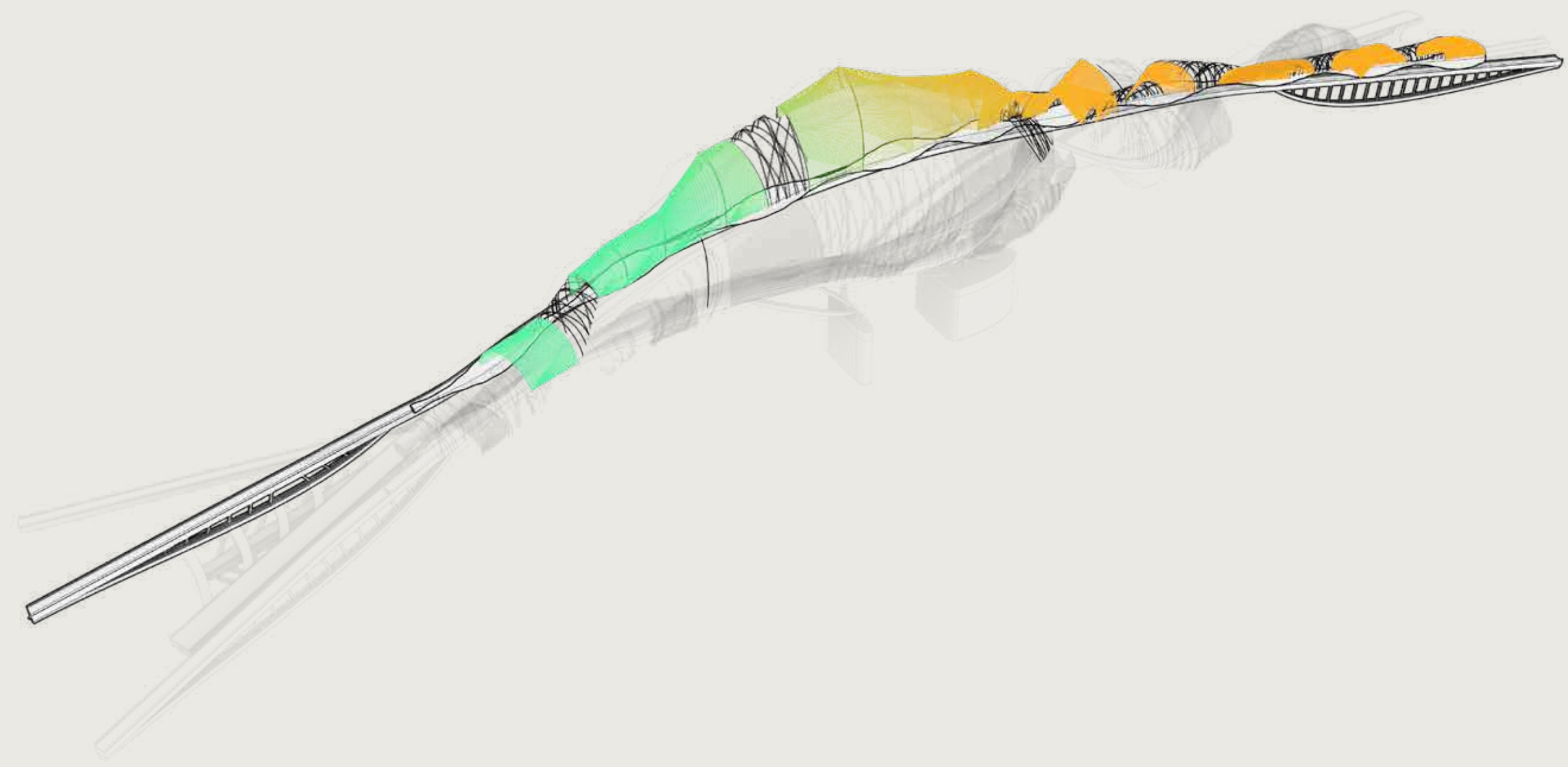
systems

SUB - STRUCTURE

BIG WEAVES - CLOSE CHARACTER



WEST ELEVATION

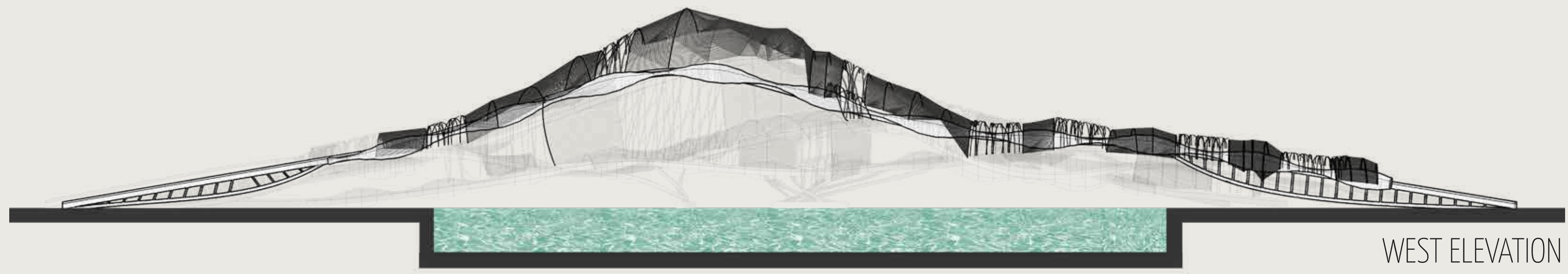


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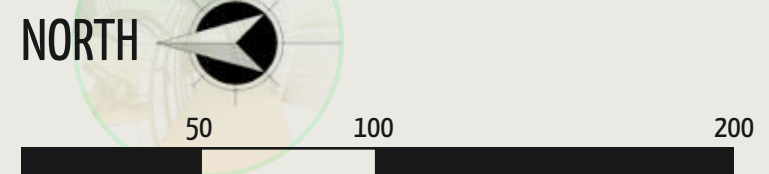
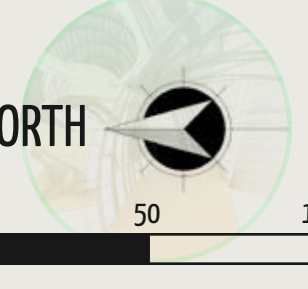
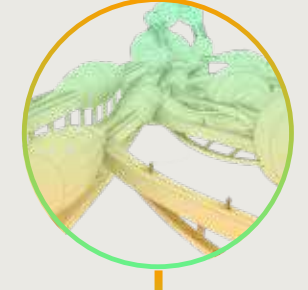
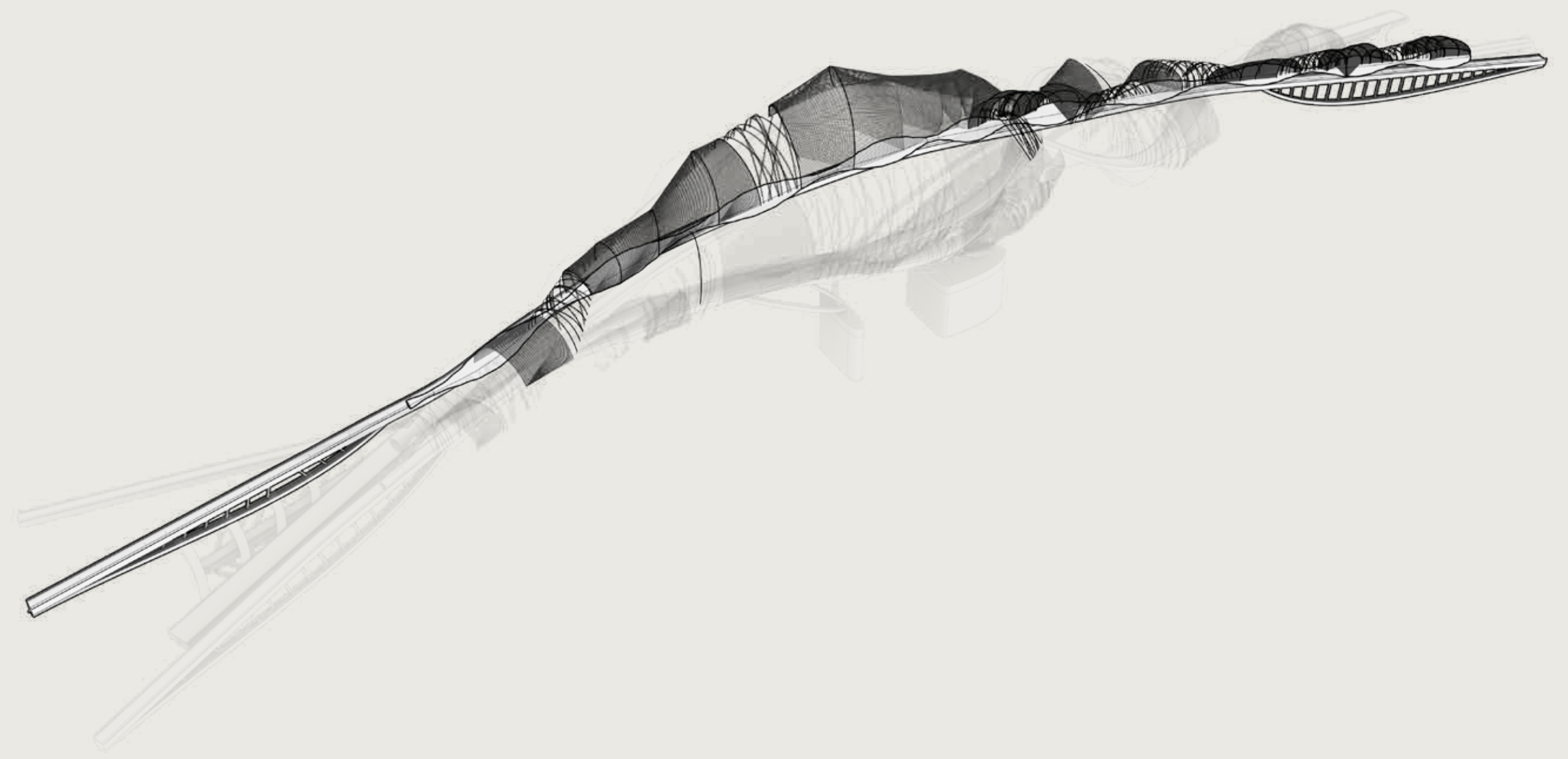
systems

SUB - STRUCTURE

BIG WEAVES - CLOSE CHARACTER



WEST ELEVATION

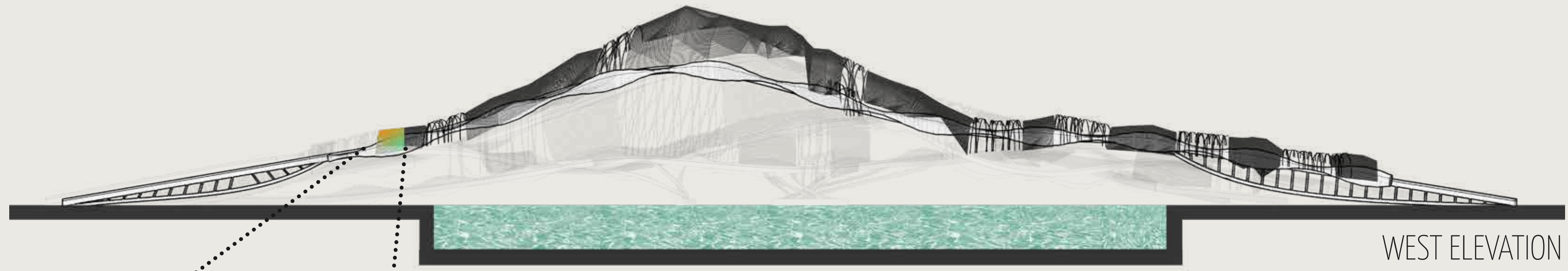


systems

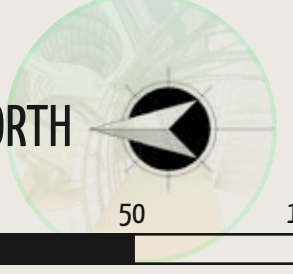
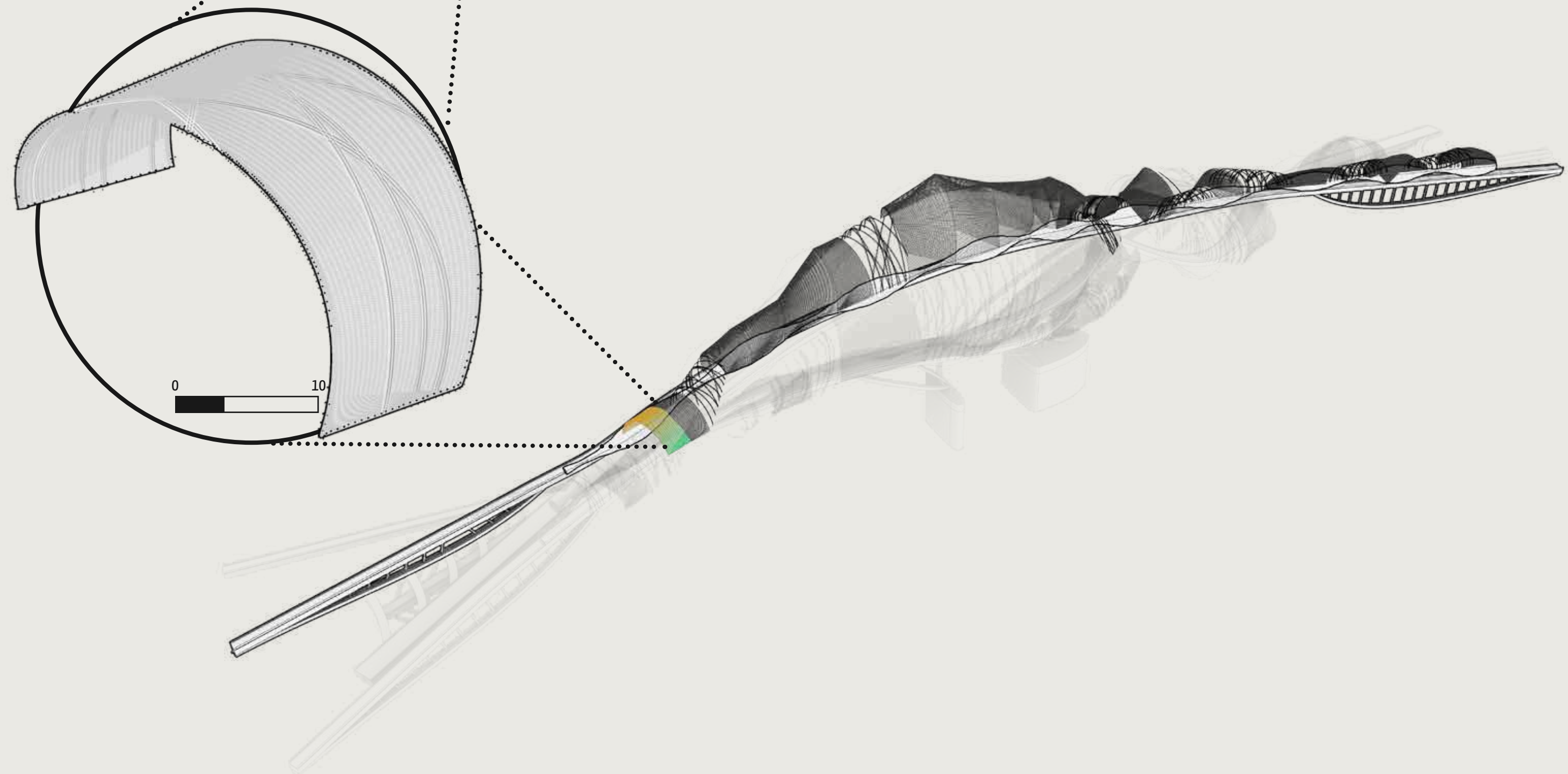
SUB - STRUCTURE

BIG WEAVES - CLOSE CHARACTER

COMPONENTS



WEST ELEVATION

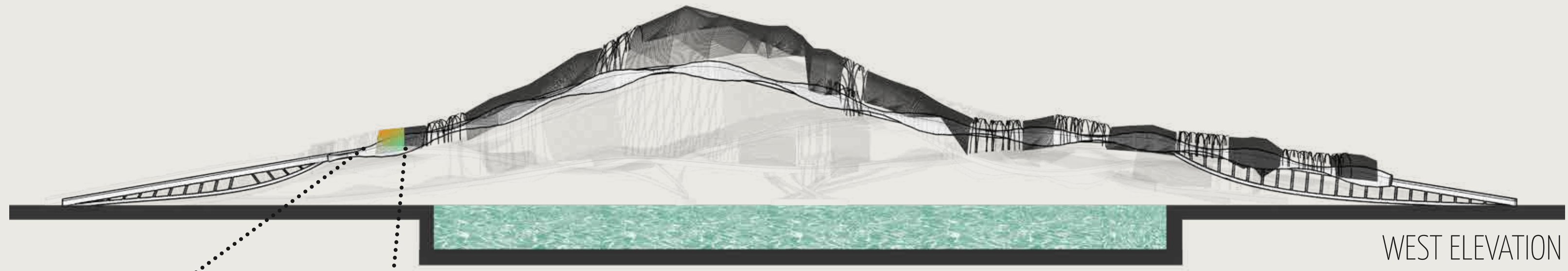


systems

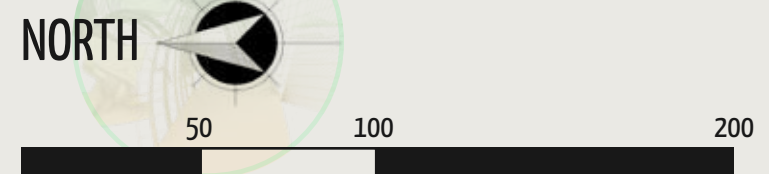
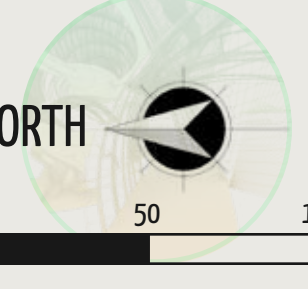
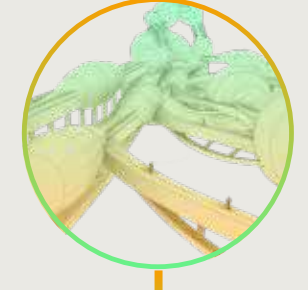
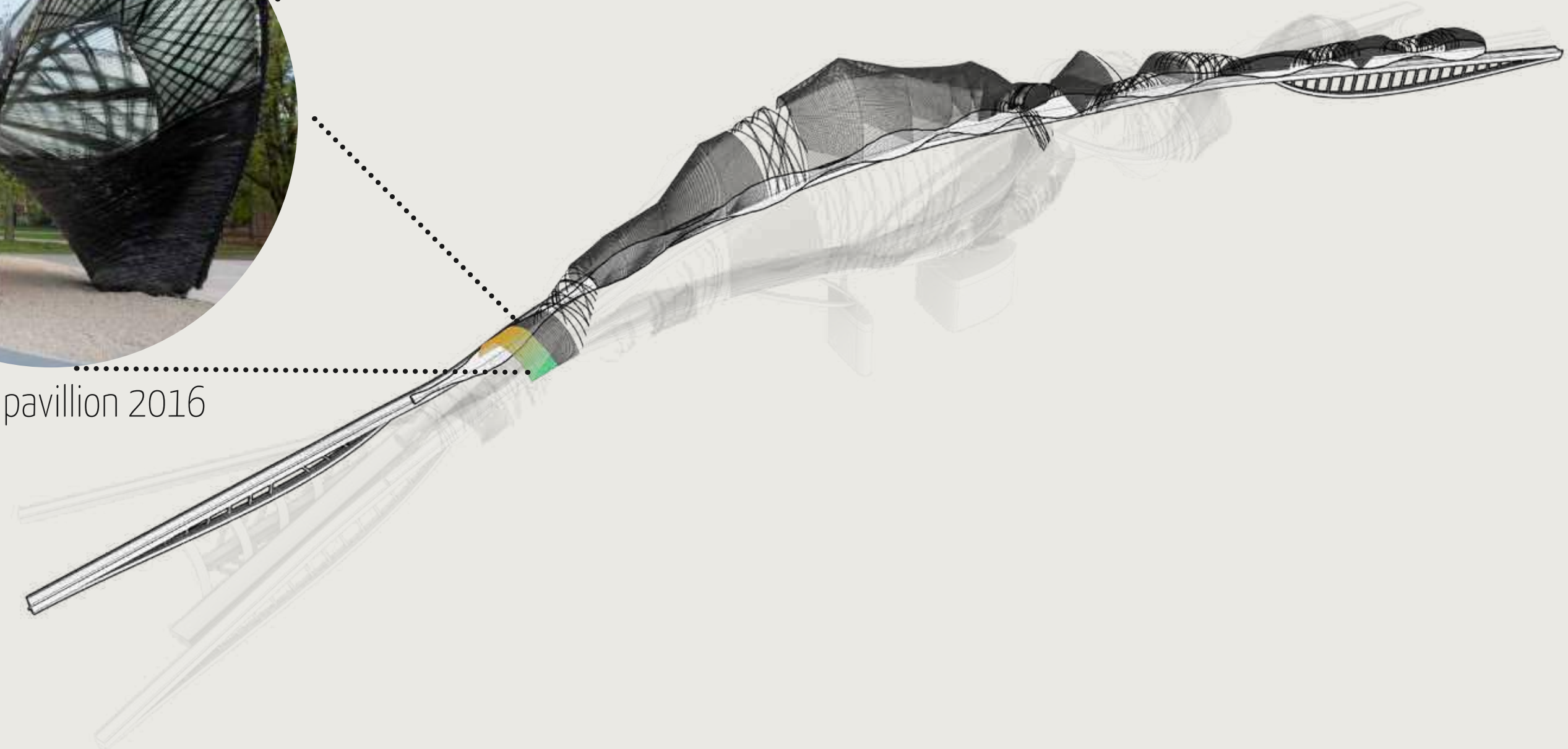
SUB-STRUCTURE

BIG WEAVES - CLOSE CHARACTER

COMPONENTS



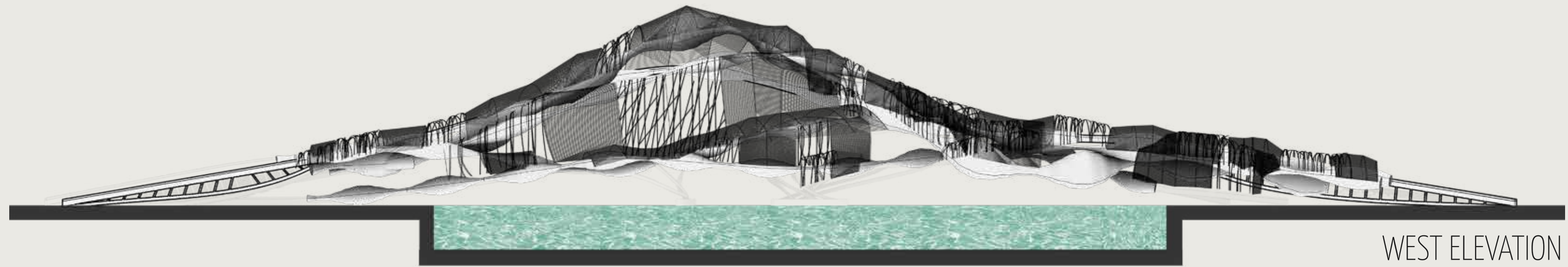
icd/itke pavillion 2016



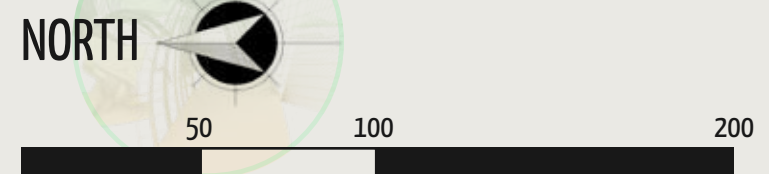
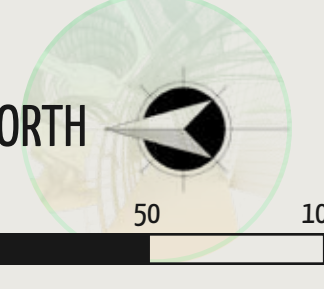
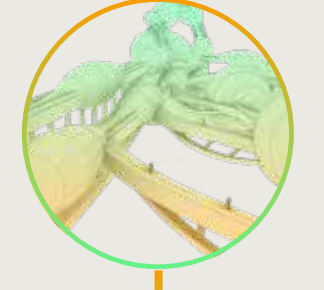
systems

SUB - STRUCTURE

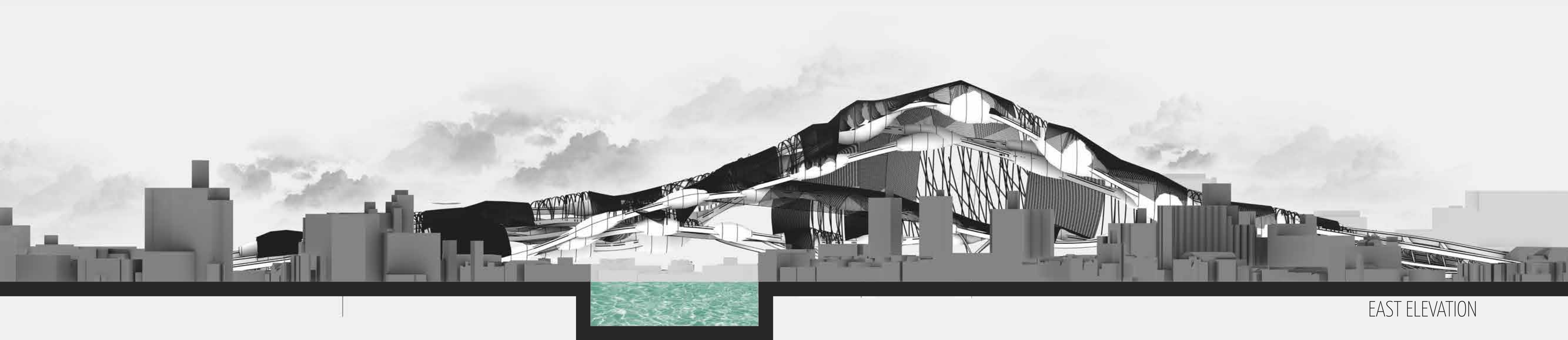
ALL SYSTEMS COMBINED



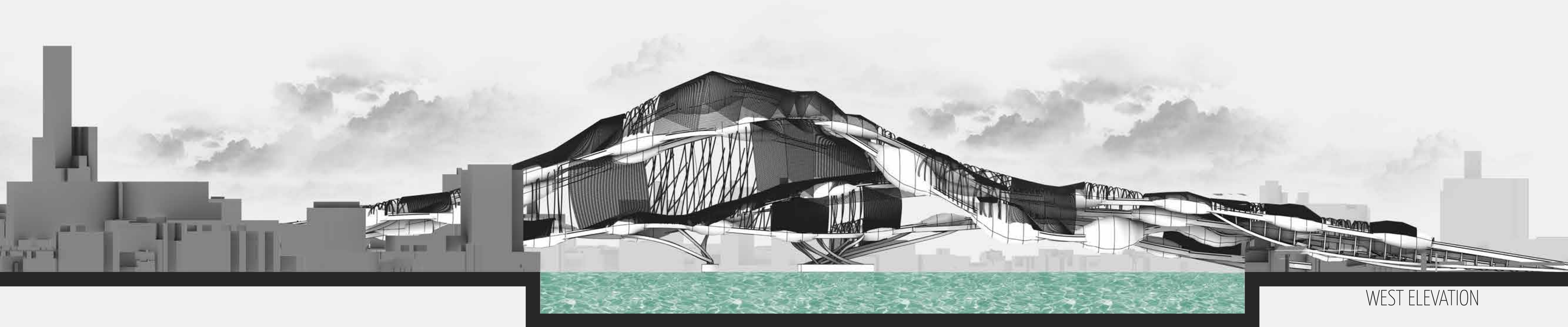
WEST ELEVATION



elevations east and west



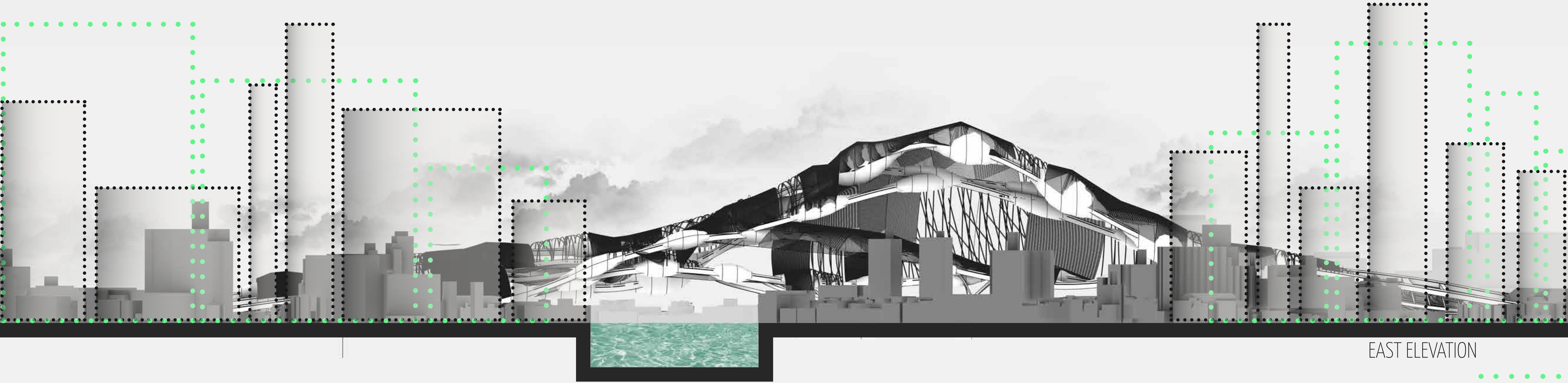
EAST ELEVATION



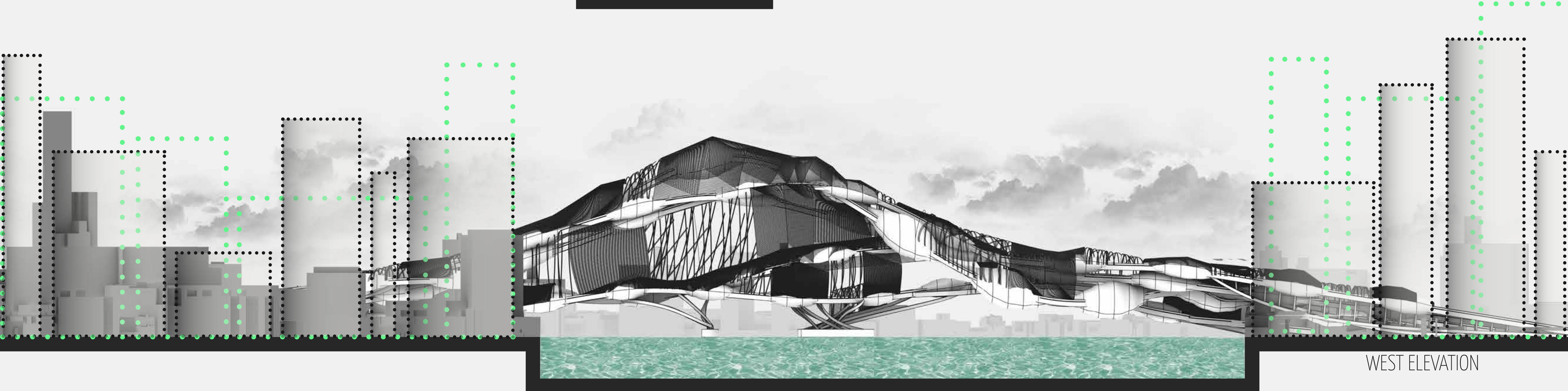
WEST ELEVATION

50 100 200

elevations east and west



EAST ELEVATION



WEST ELEVATION

50 100 200

elevations north and south



SOUTH ELEVATION

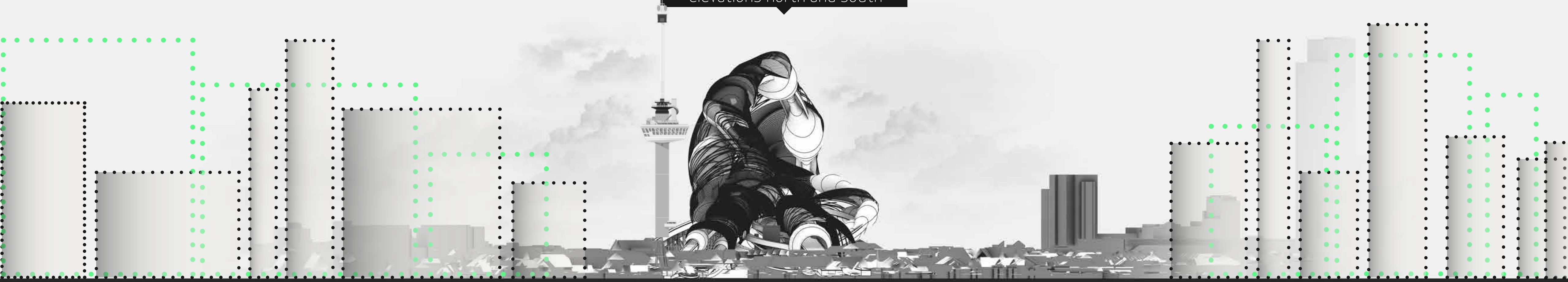


NORTH ELEVATION

50 100 200



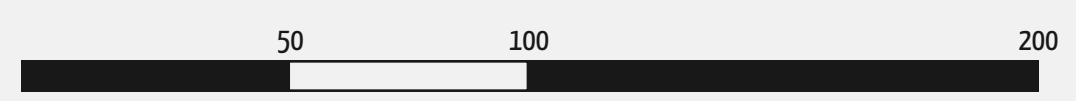
elevations north and south



SOUTH ELEVATION

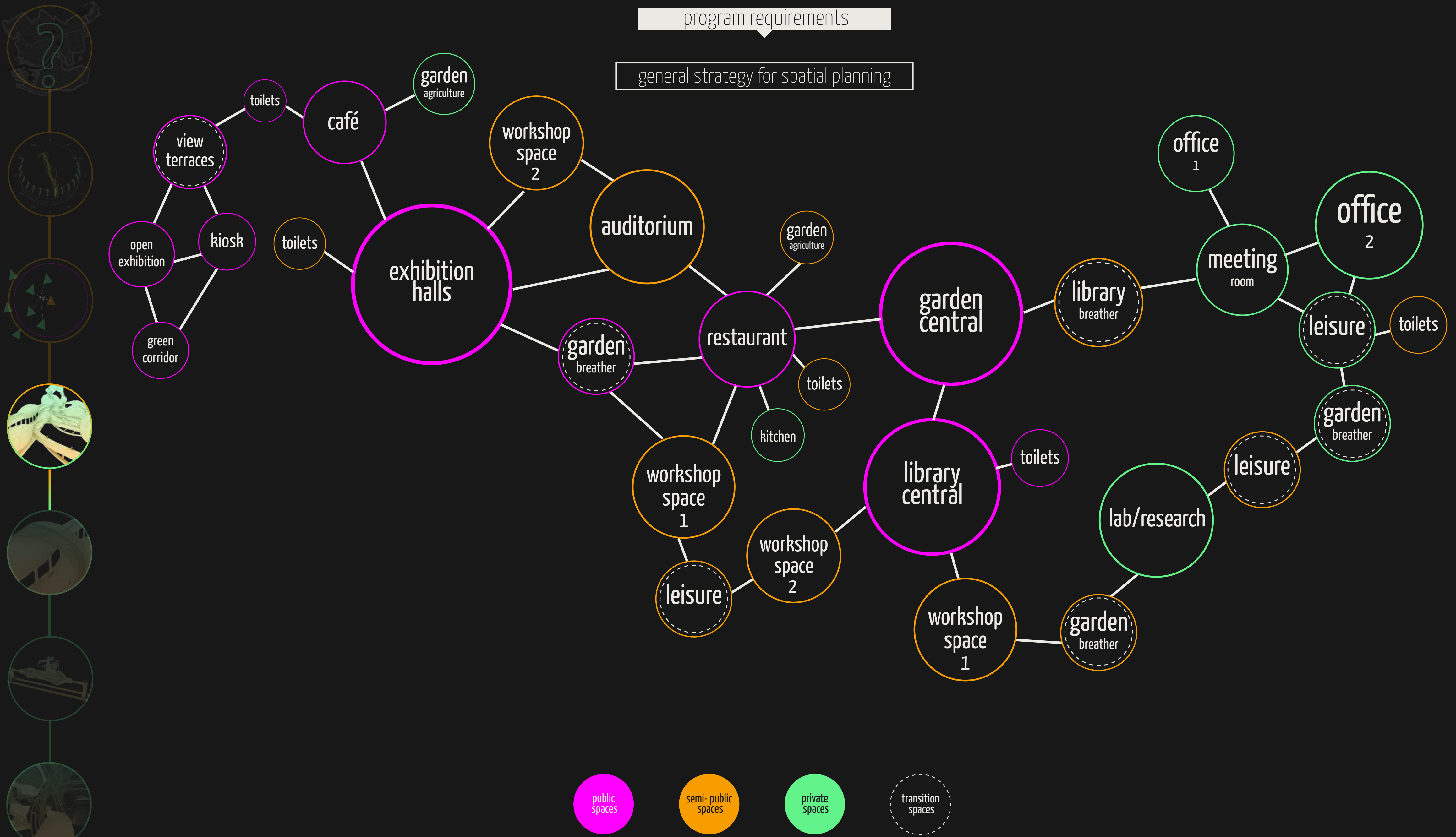


NORTH ELEVATION

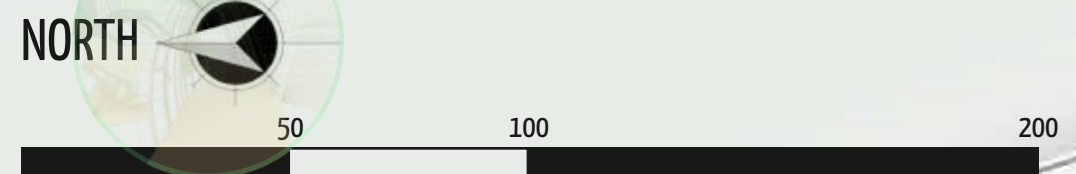
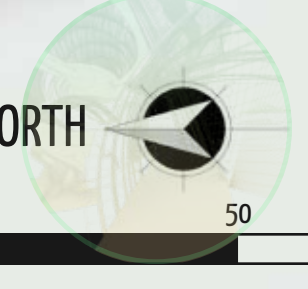
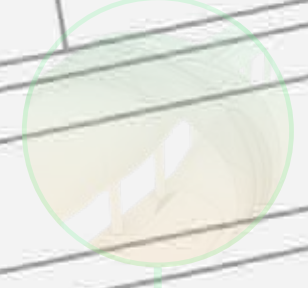
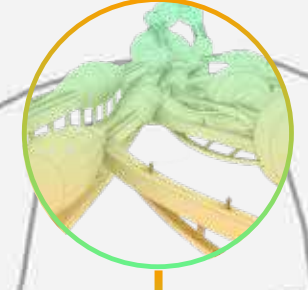
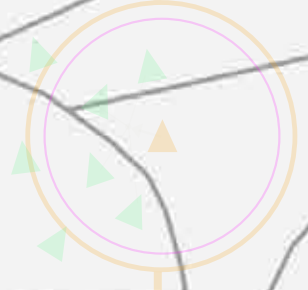
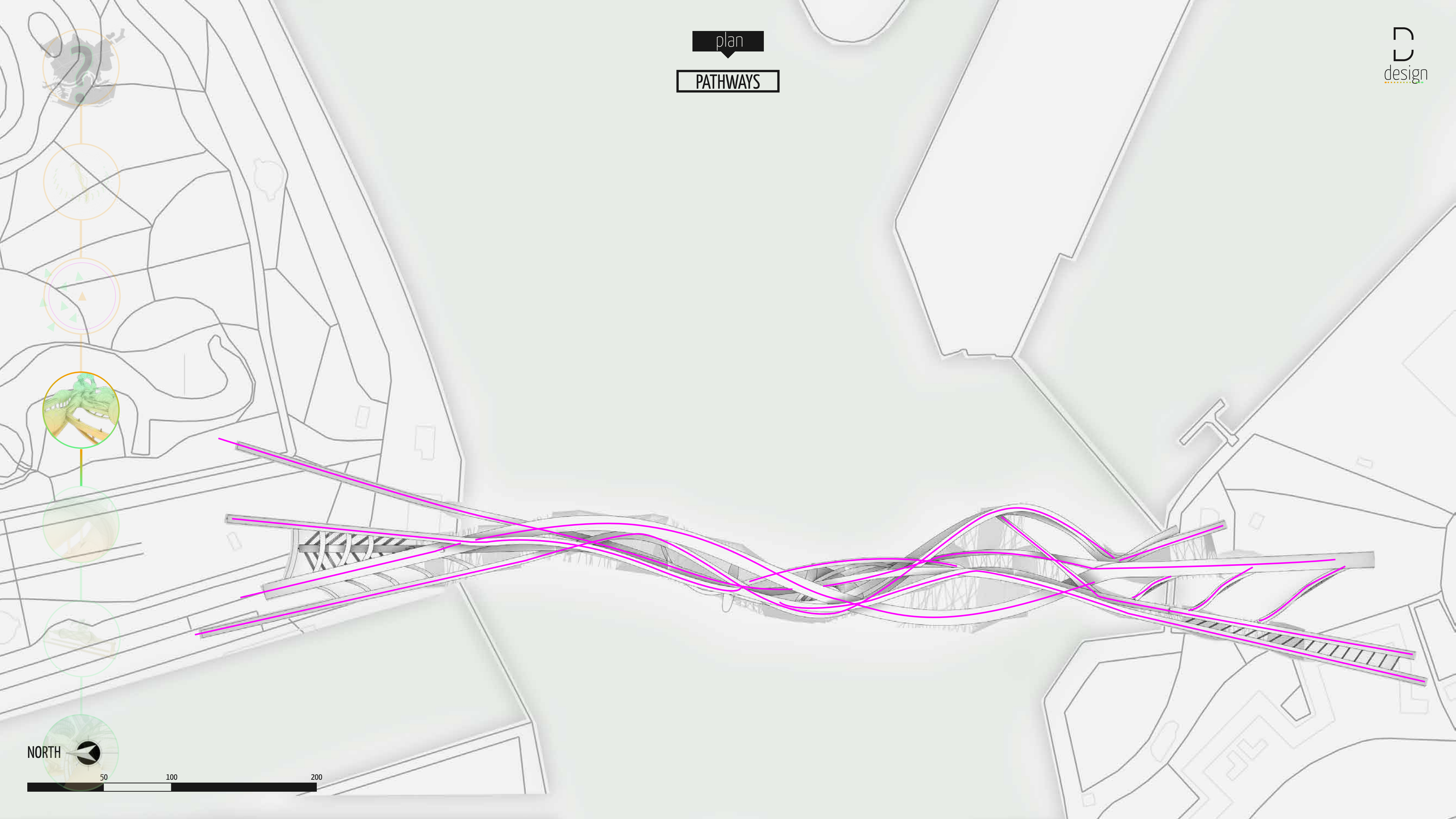


program requirements

general strategy for spatial planning



plan
PATHWAYS

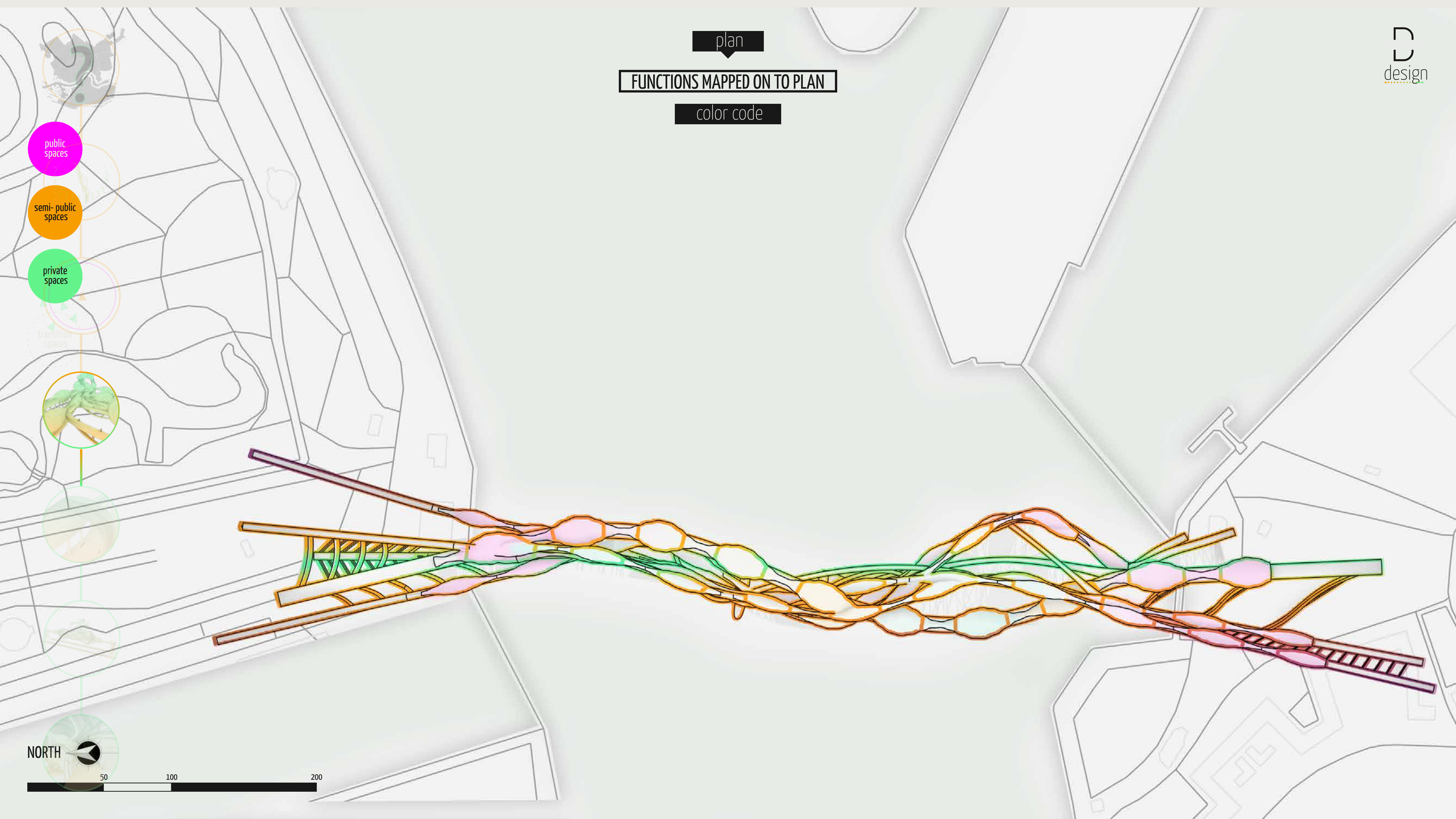
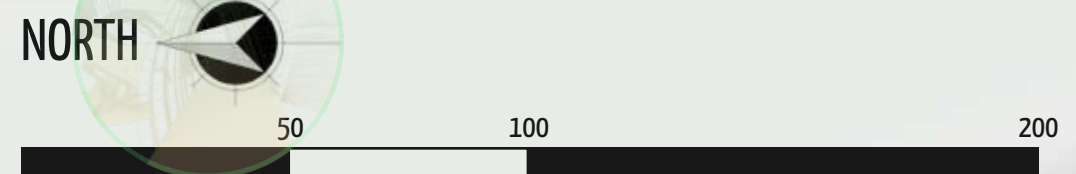


plan

FUNCTIONS MAPPED ON TO PLAN

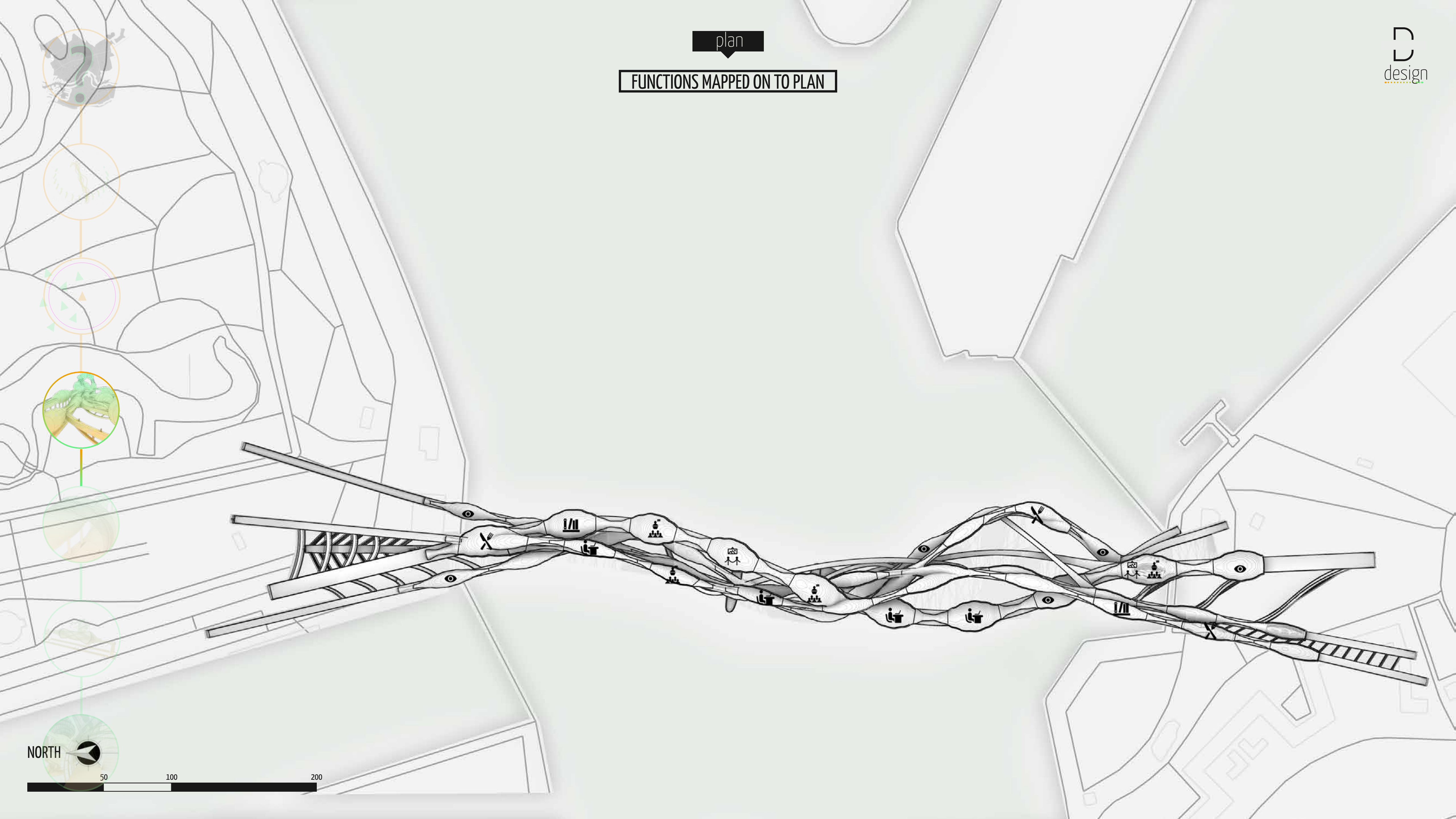
color code

- public spaces
- semi-public spaces
- private spaces
- transition spaces



plan

FUNCTIONS MAPPED ON TO PLAN

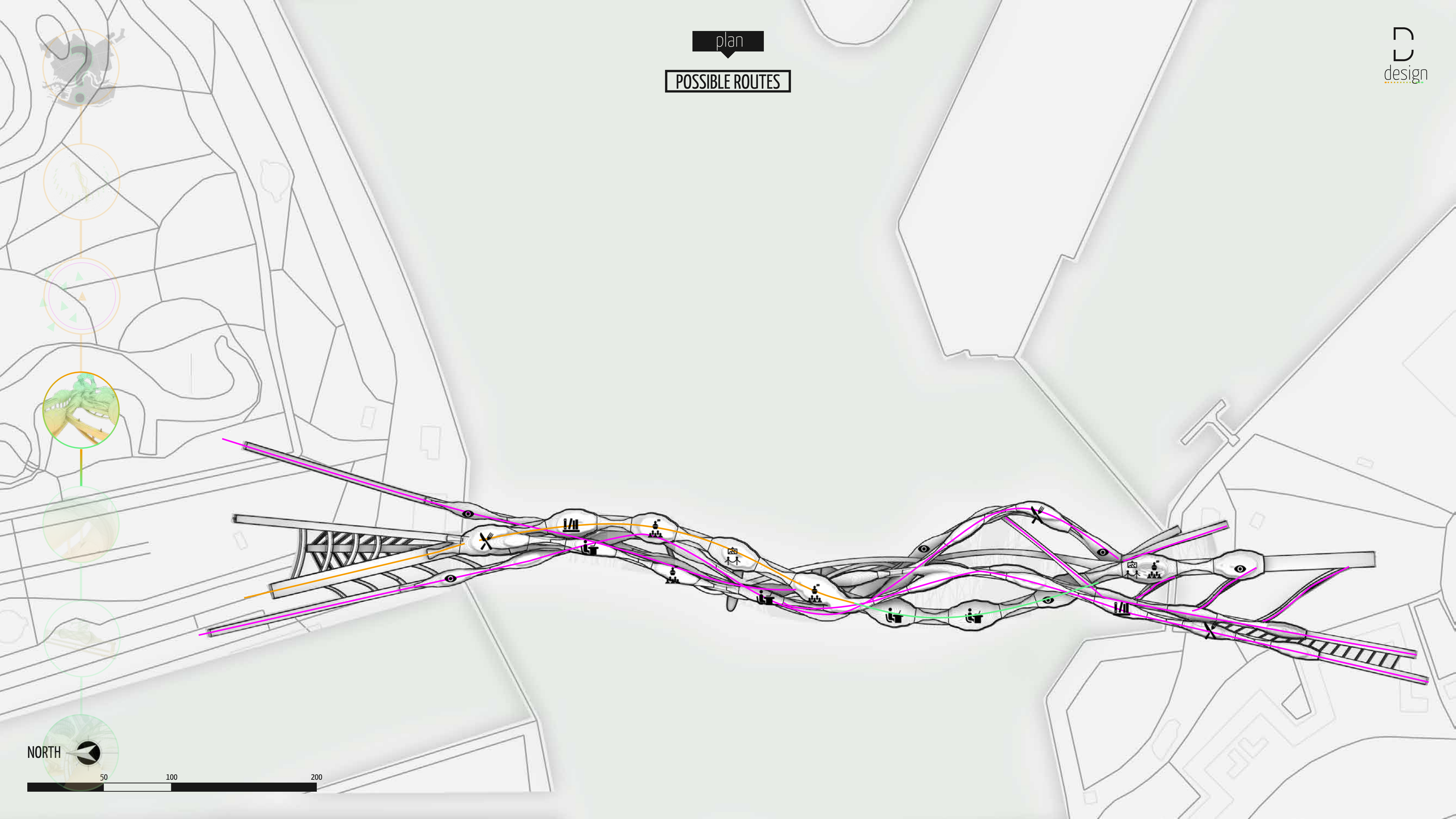


NORTH

50 100 200

plan

POSSIBLE ROUTES



NORTH

50

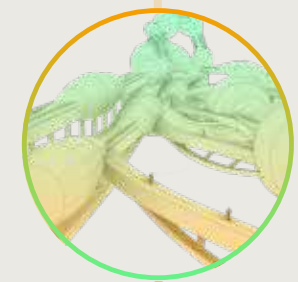
100

200

plan

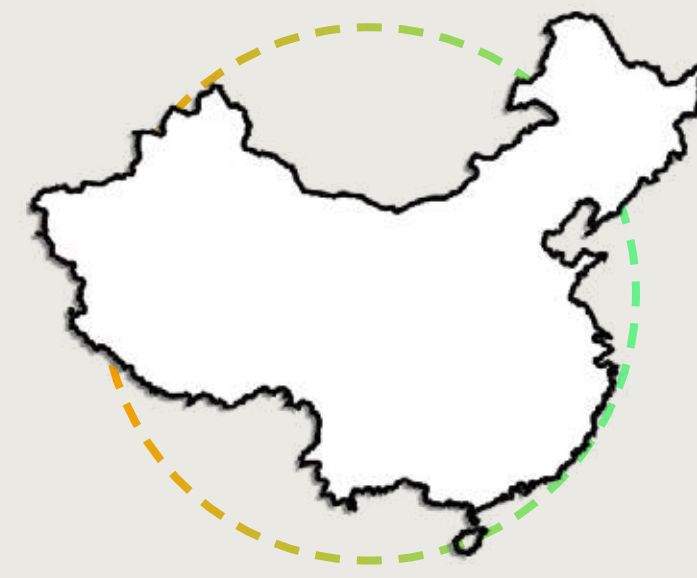
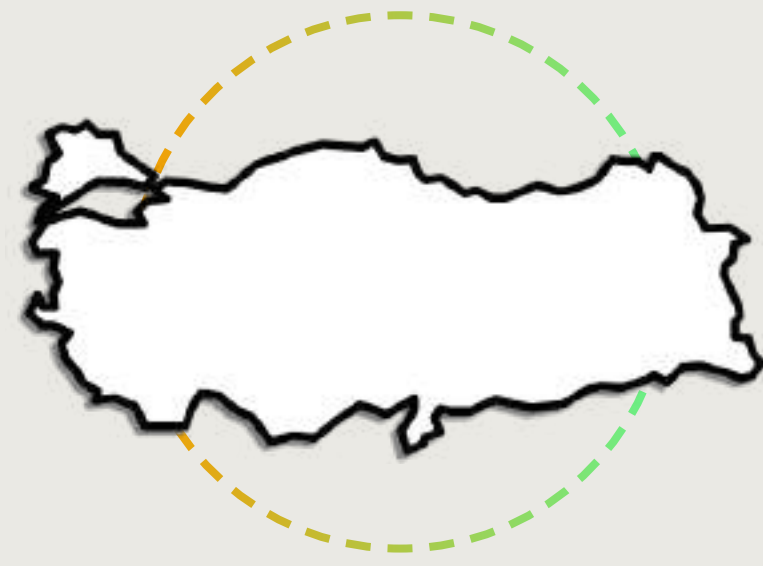
TOP VIEW OF THE STRUCTURE





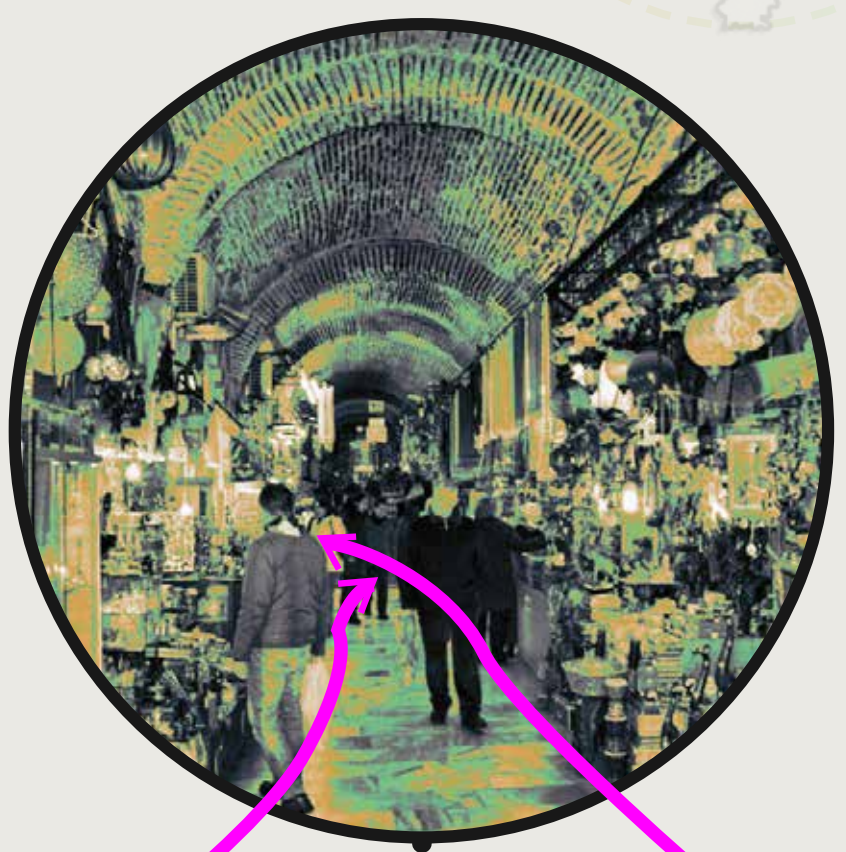
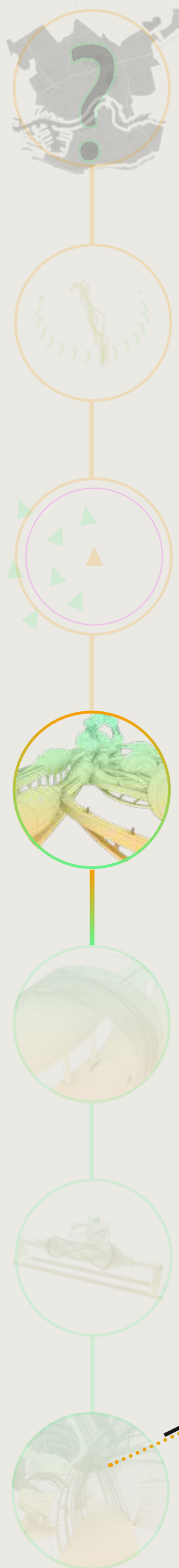
cultures

CHOSEN CULTURES

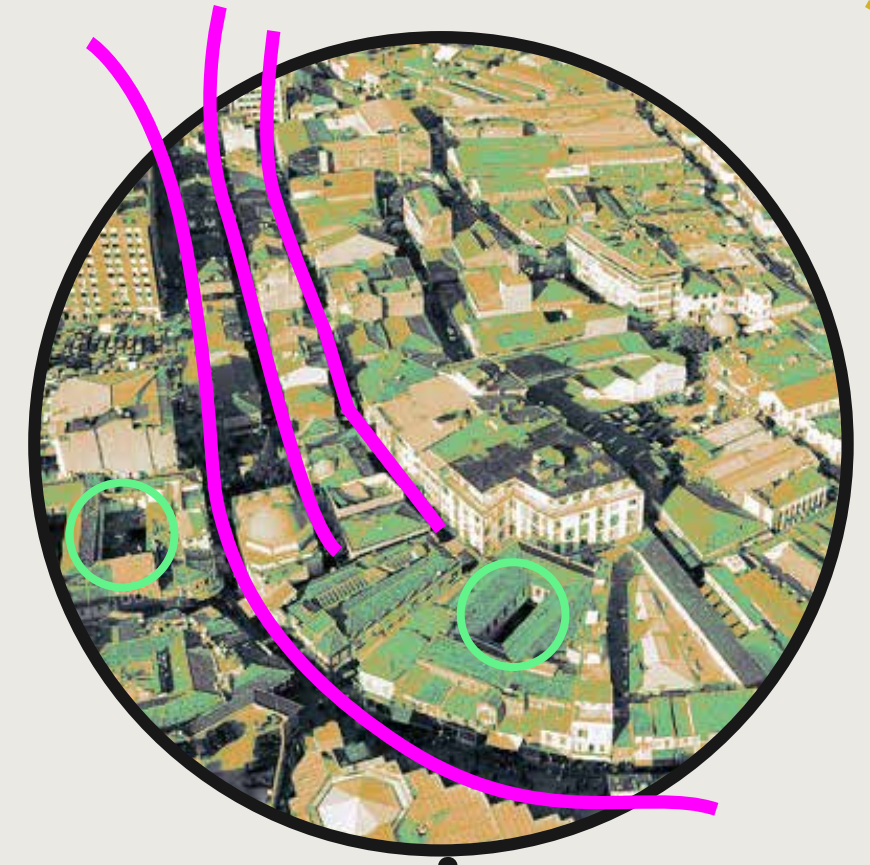


cultures

TURKISH CULTURE



kemeralti bazaar - izmir



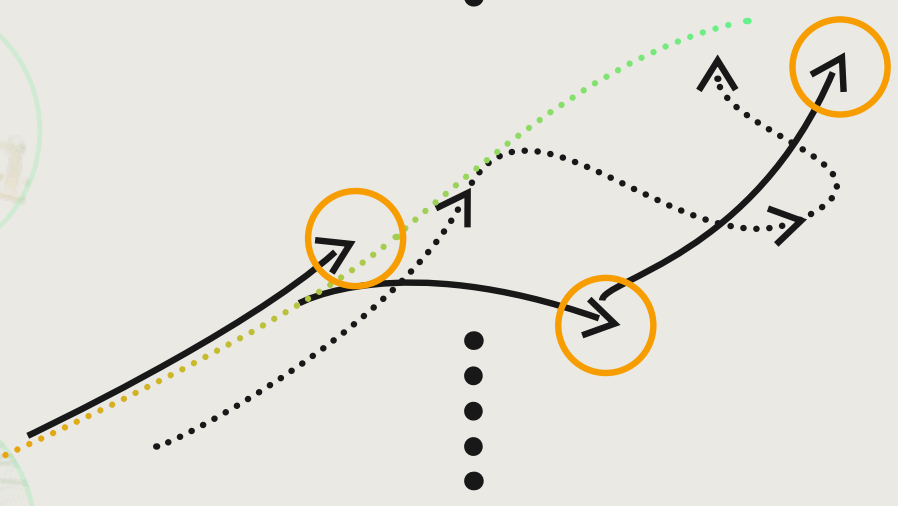
kemeralti bazaar - izmir



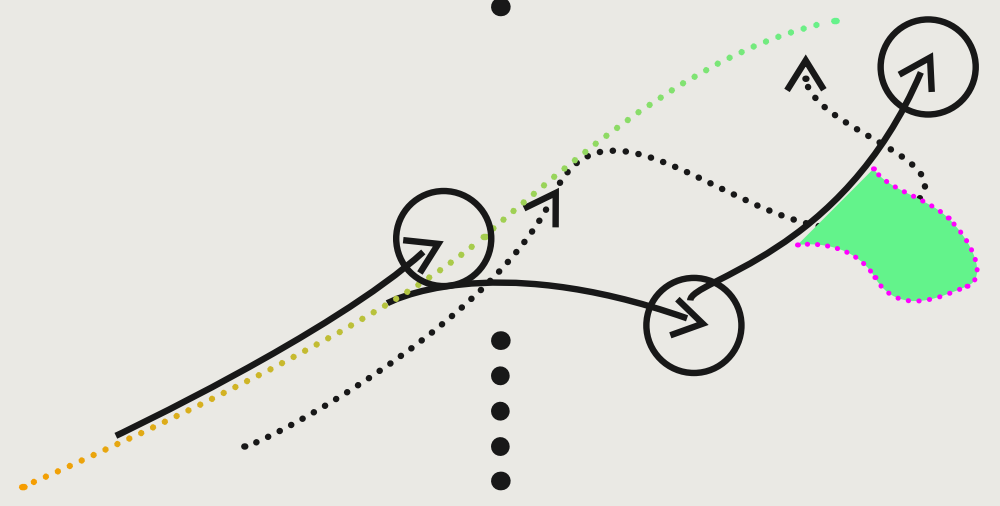
kemeralti bazaar - trabzon



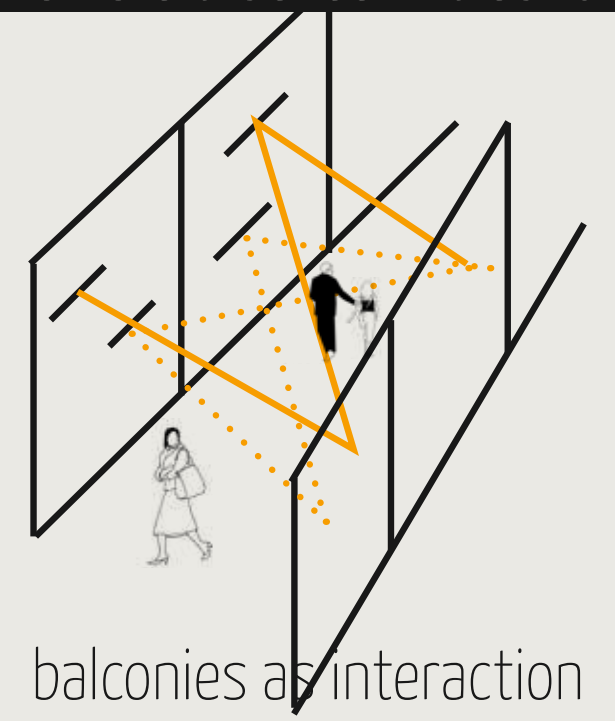
a neighbourhood in balat - istanbul



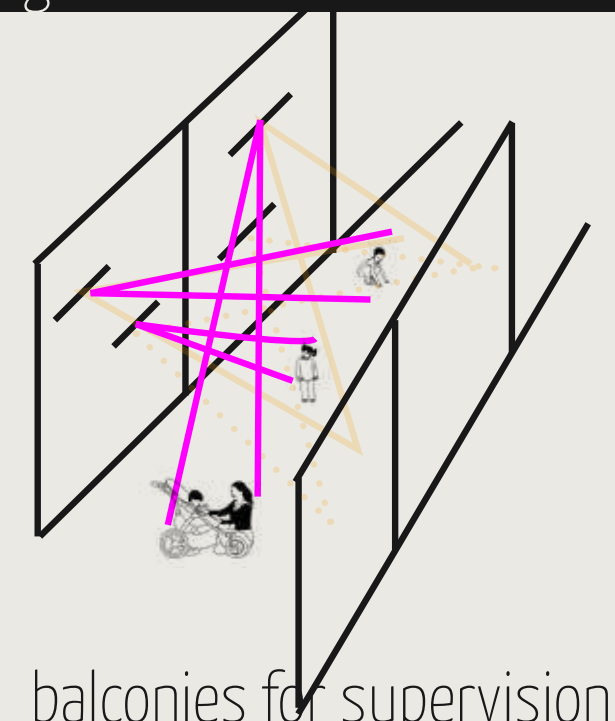
different speeds/experiences



urban pockets



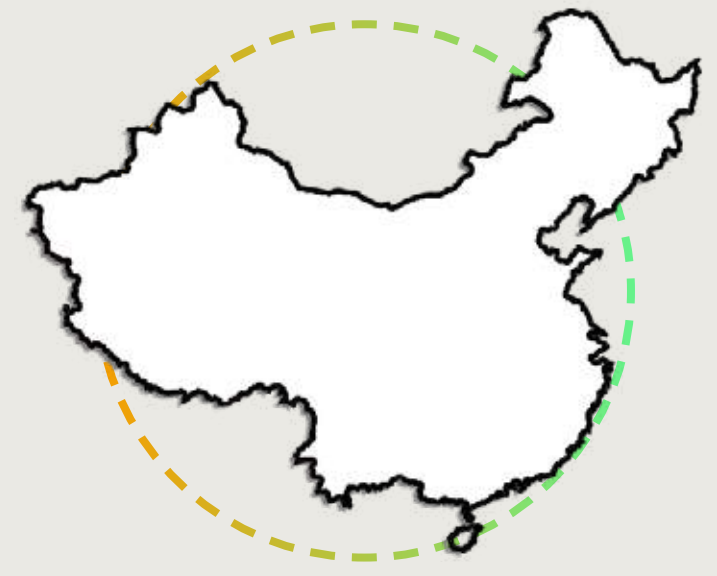
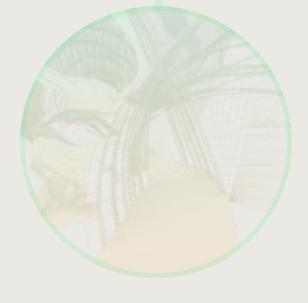
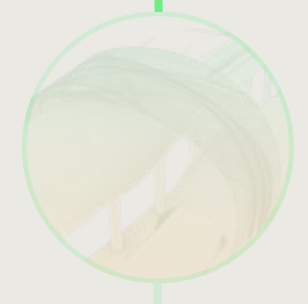
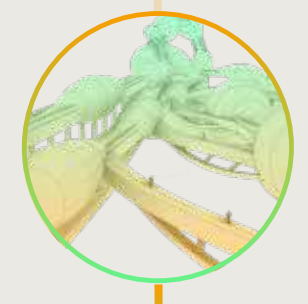
balconies as interaction



balconies for supervision

cultures

CHINESE CULTURE



chinese gardens

creating transition spaces as breathers

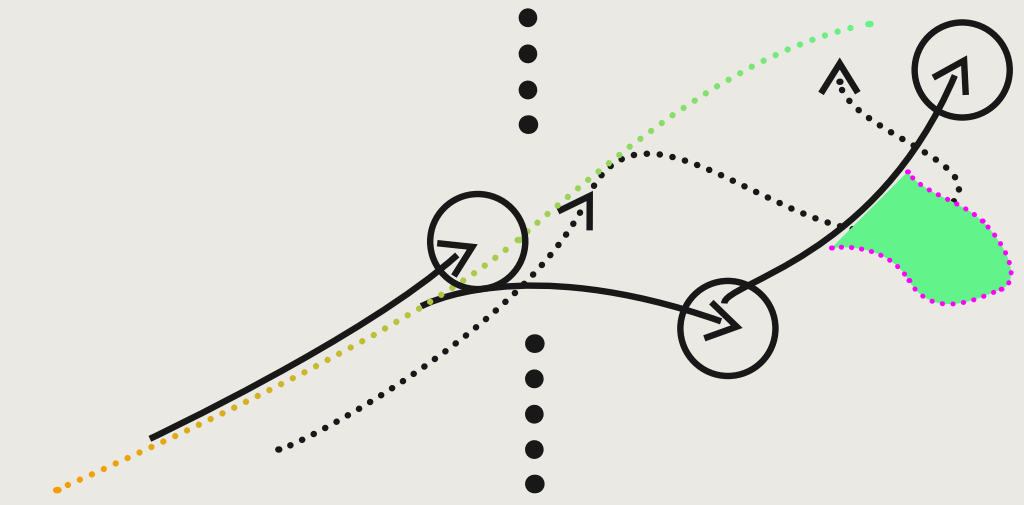


a teahouse in chengdu

fostering urban stability



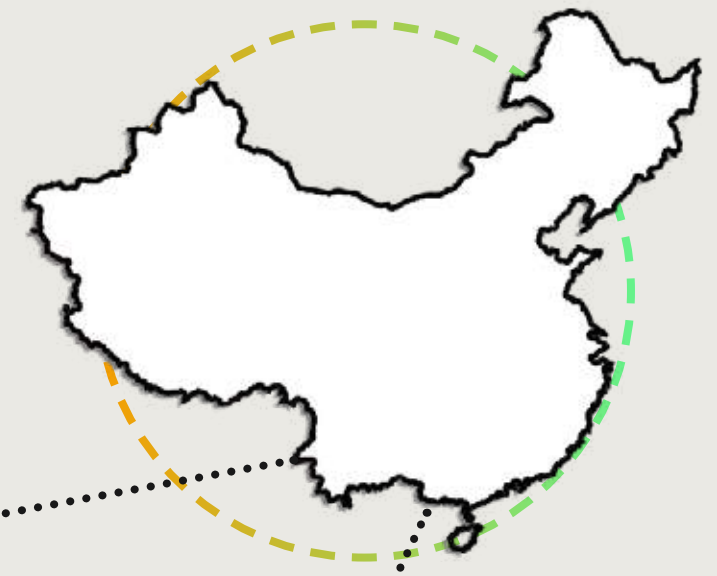
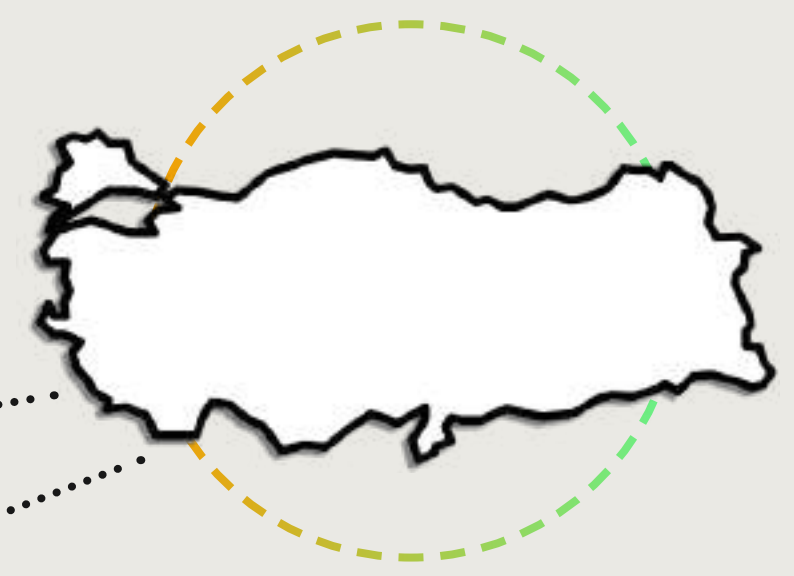
a teahouse in chengdu



urban pockets

cultures

INTERSECTION OF THE CHINESE AND TURKISH CULTURES



ottoman tea/coffeehouse

creating a common place for discussion



çınaraltı kahvesi

enabling breathing points in growing urbanization

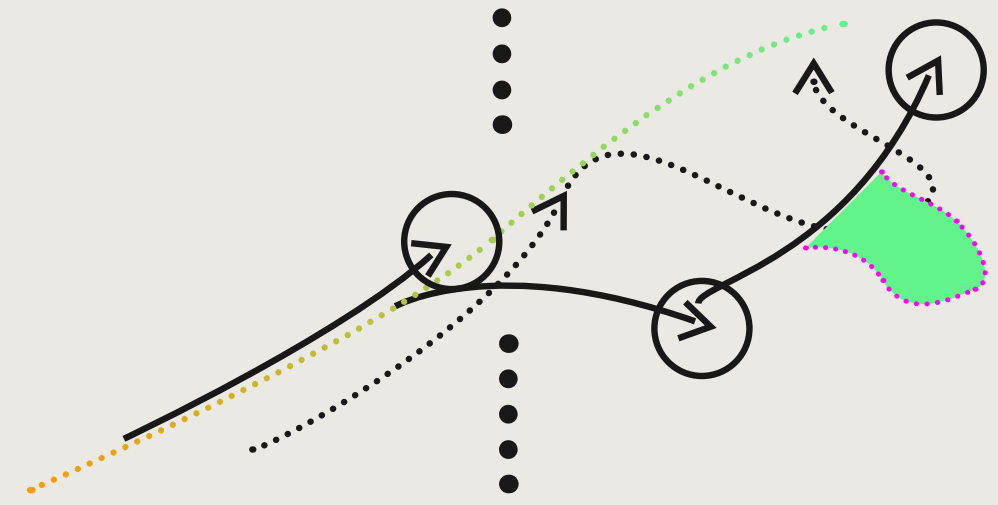


a teahouse in chengdu

fostering urban stability



a teahouse in chengdu



urban pockets

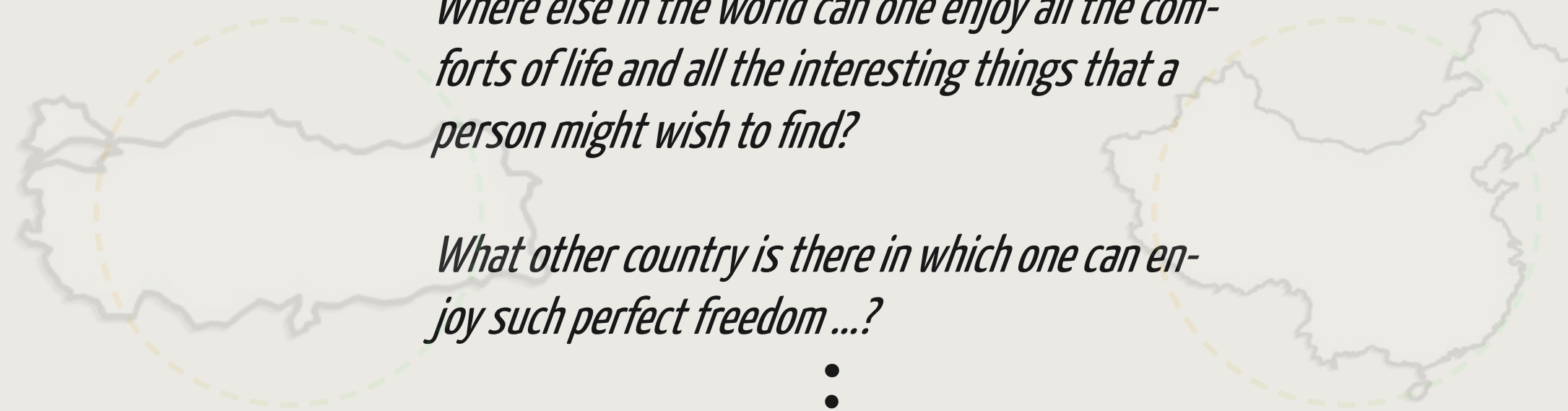
cultures

DUTCH CULTURE



Where else in the world can one enjoy all the comforts of life and all the interesting things that a person might wish to find?

What other country is there in which one can enjoy such perfect freedom ...?



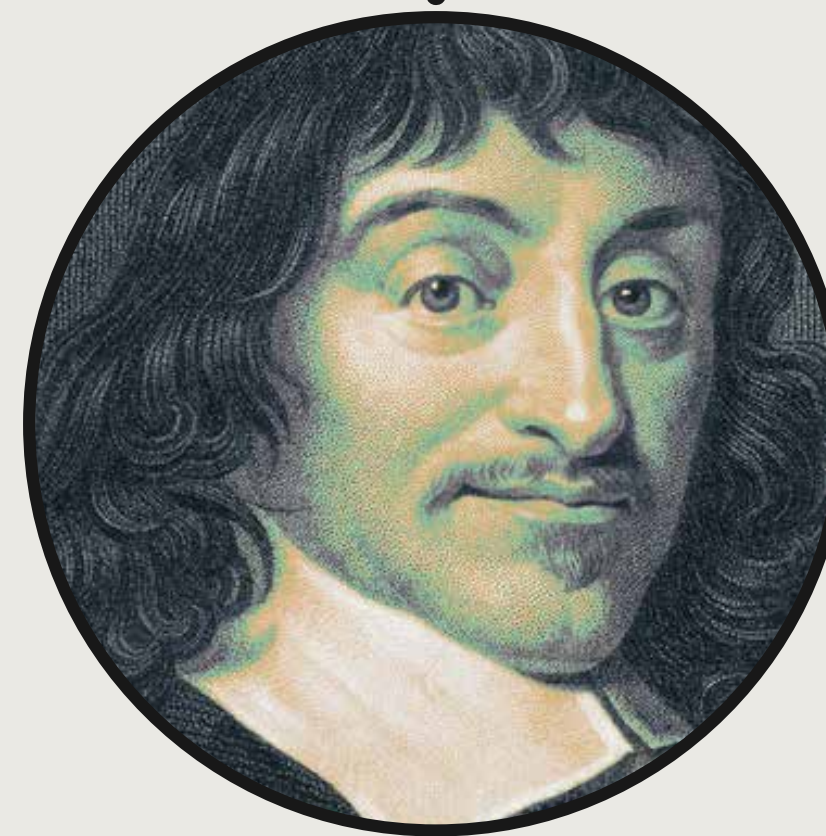
leiden

transparency in way of life



amsterdam bourse

creating common tolerance



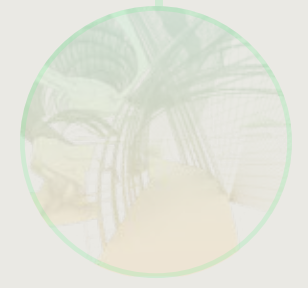
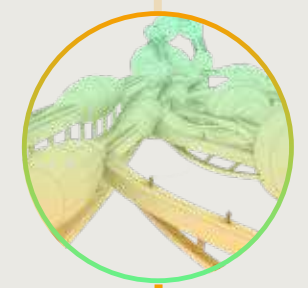
descartes in 1631

openness and freedom



the polder model

negotiation and balance

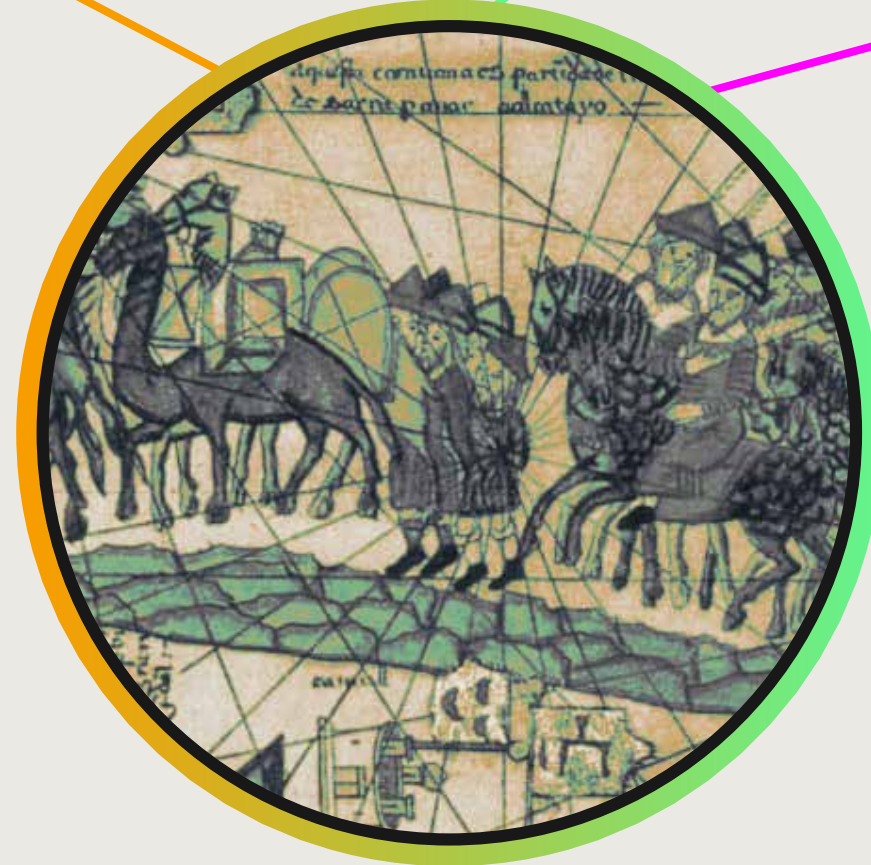


cultures

INTERSECTION OF ALL CULTURES



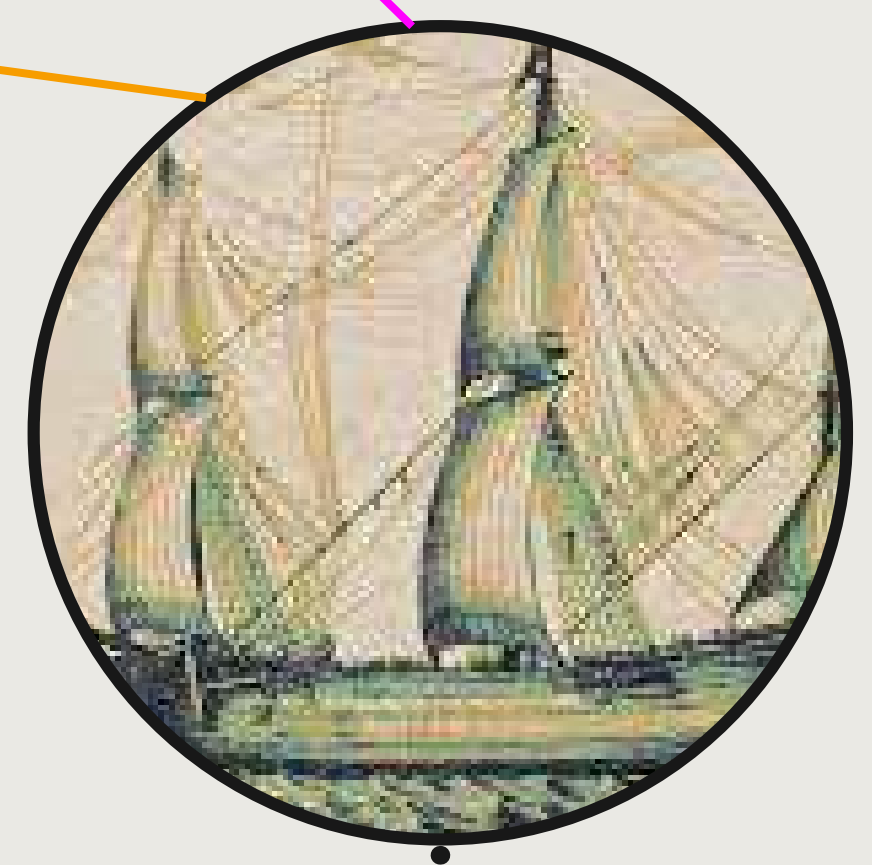
streets / canals



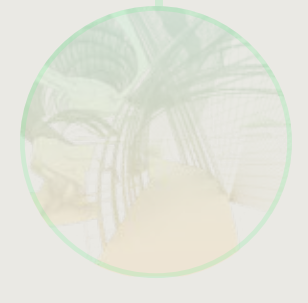
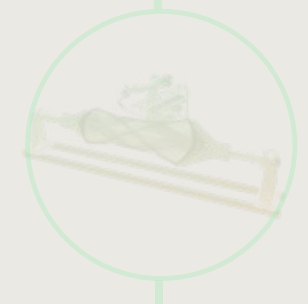
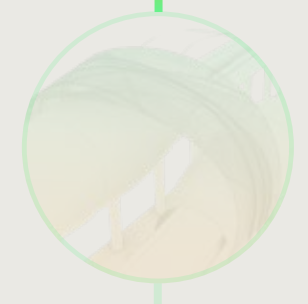
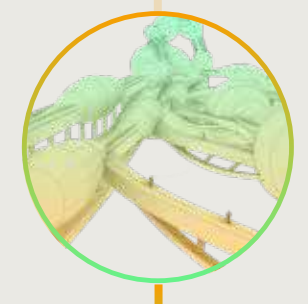
trade



tea

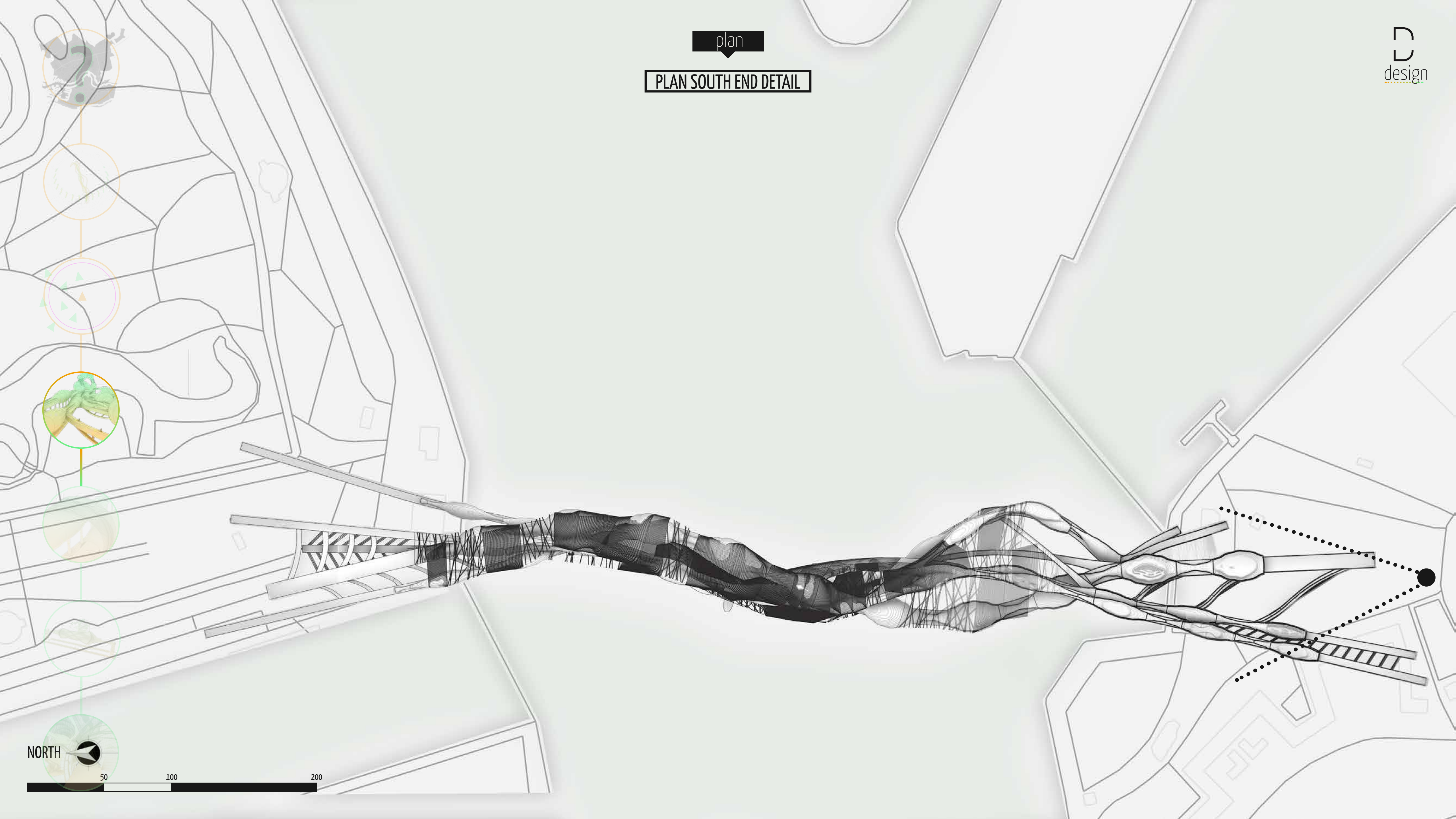


maritime culture



plan

PLAN SOUTH END DETAIL



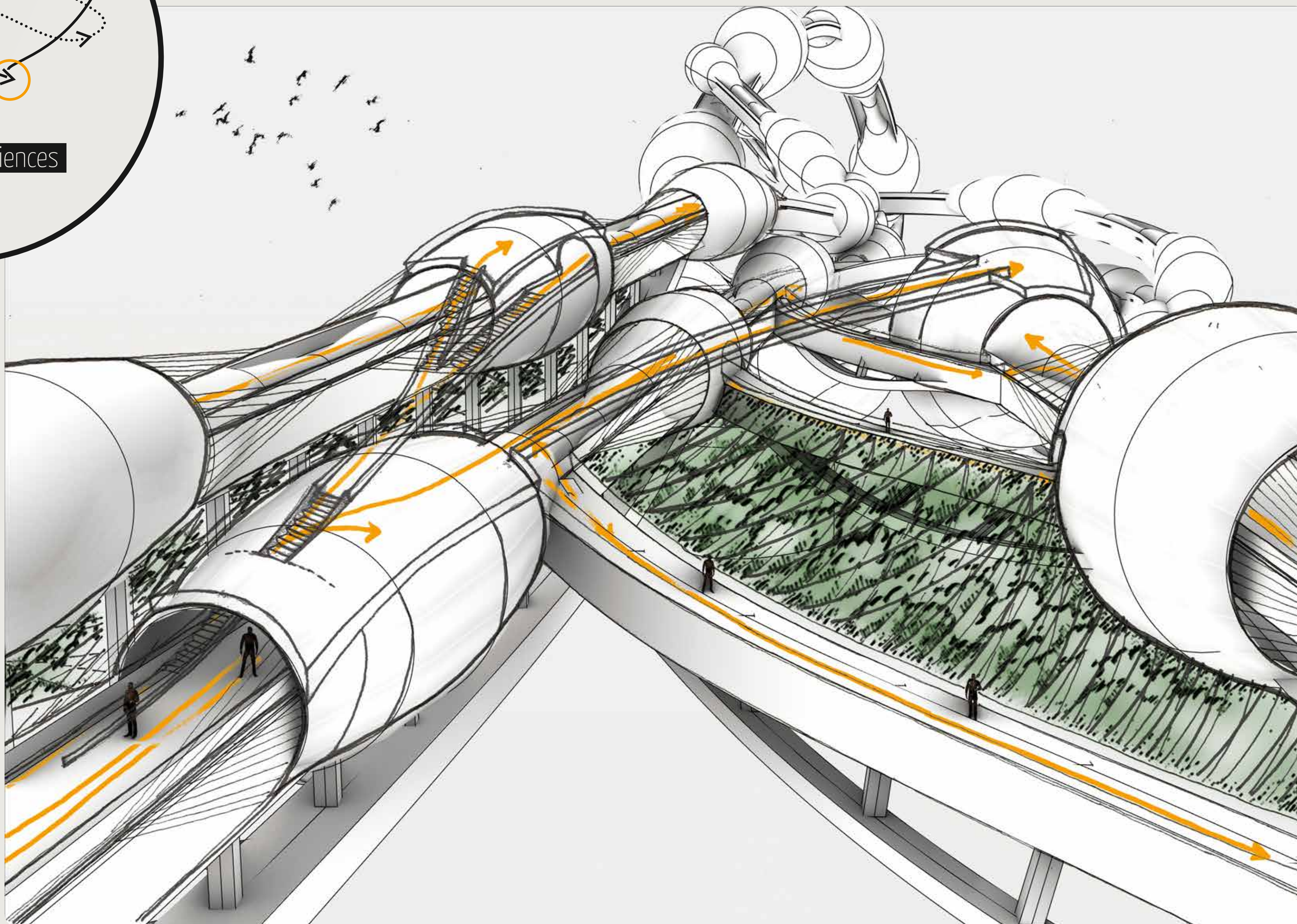
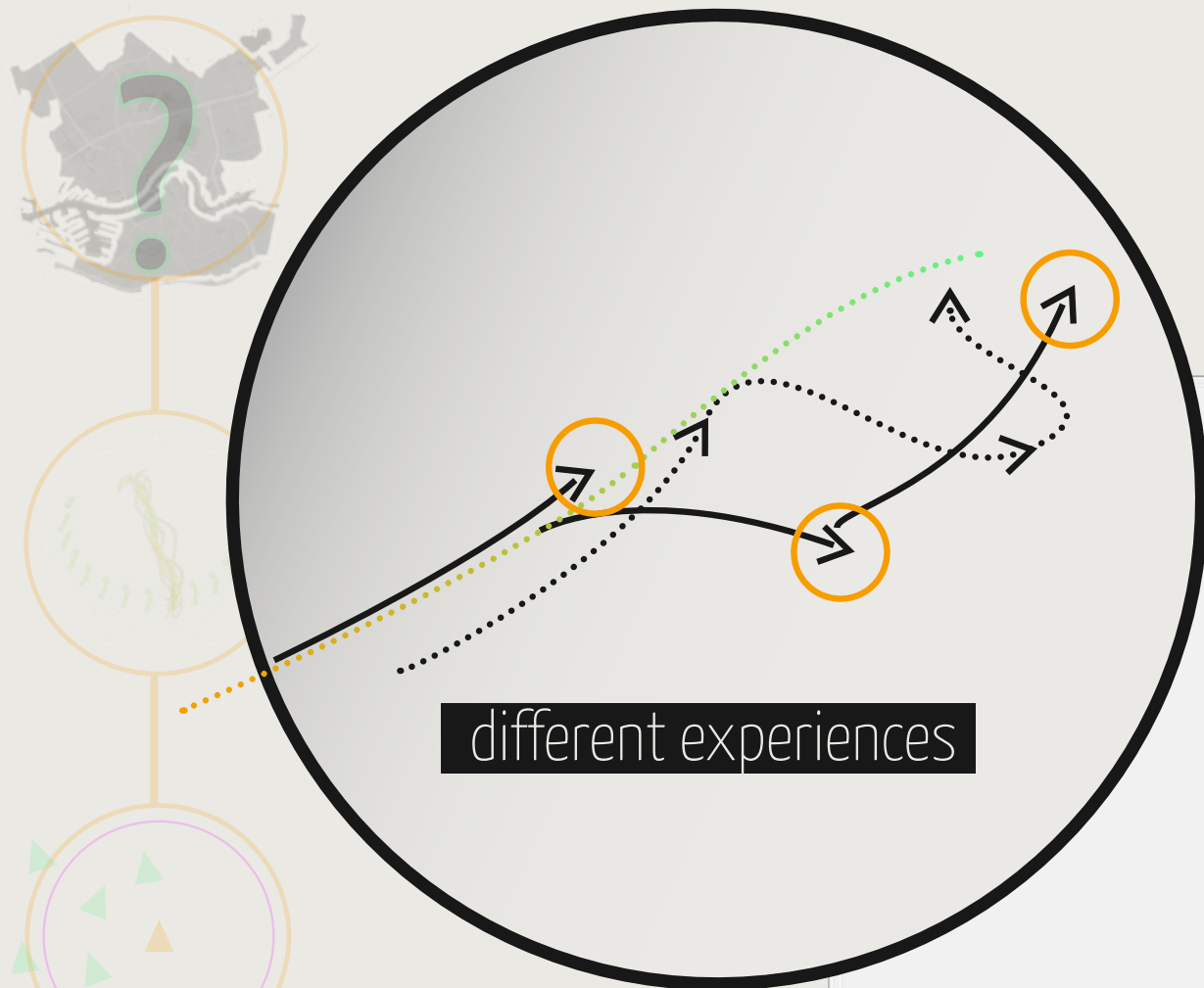
NORTH

50 100 200

cultures

SOUTH GARDENS VIEW

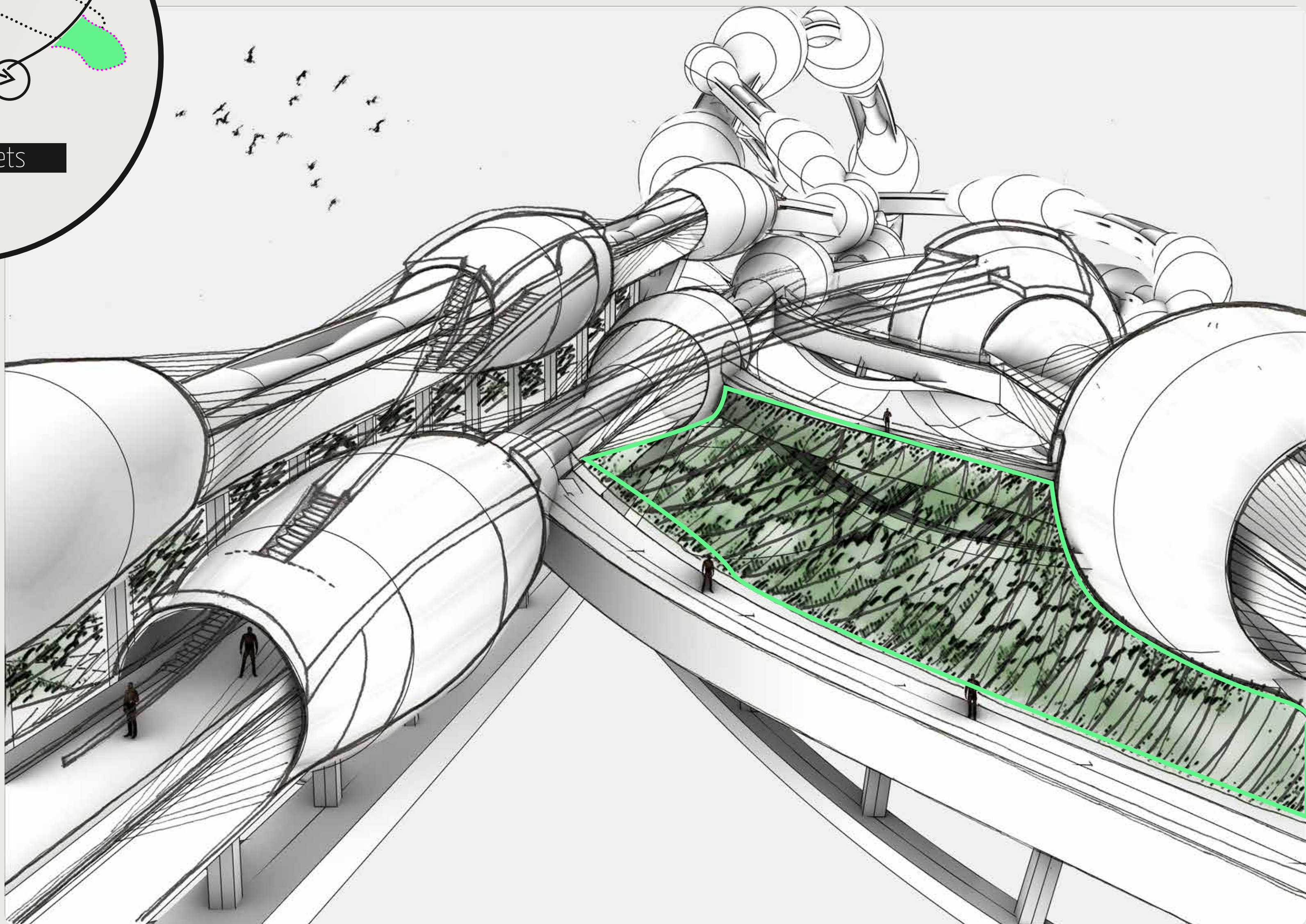
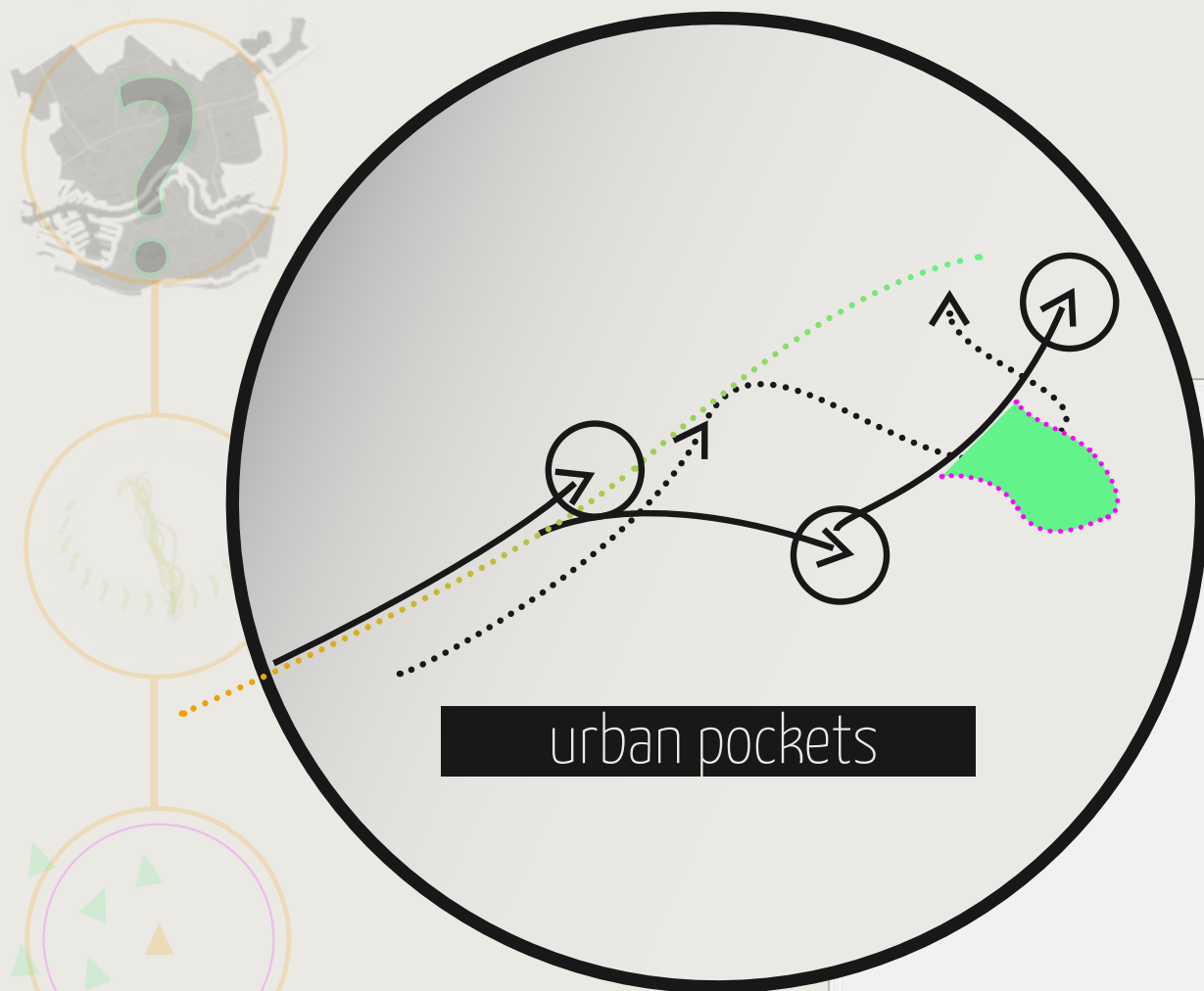
cultures reflecting on the structure



cultures

SOUTH GARDENS VIEW

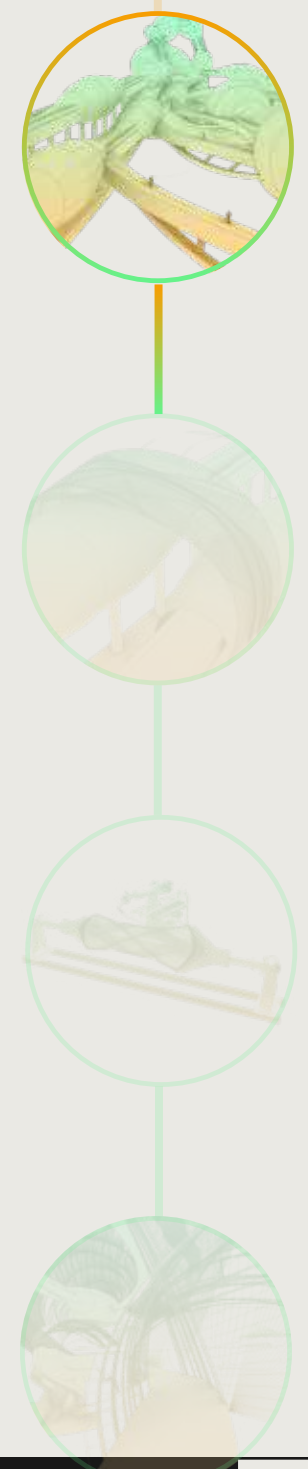
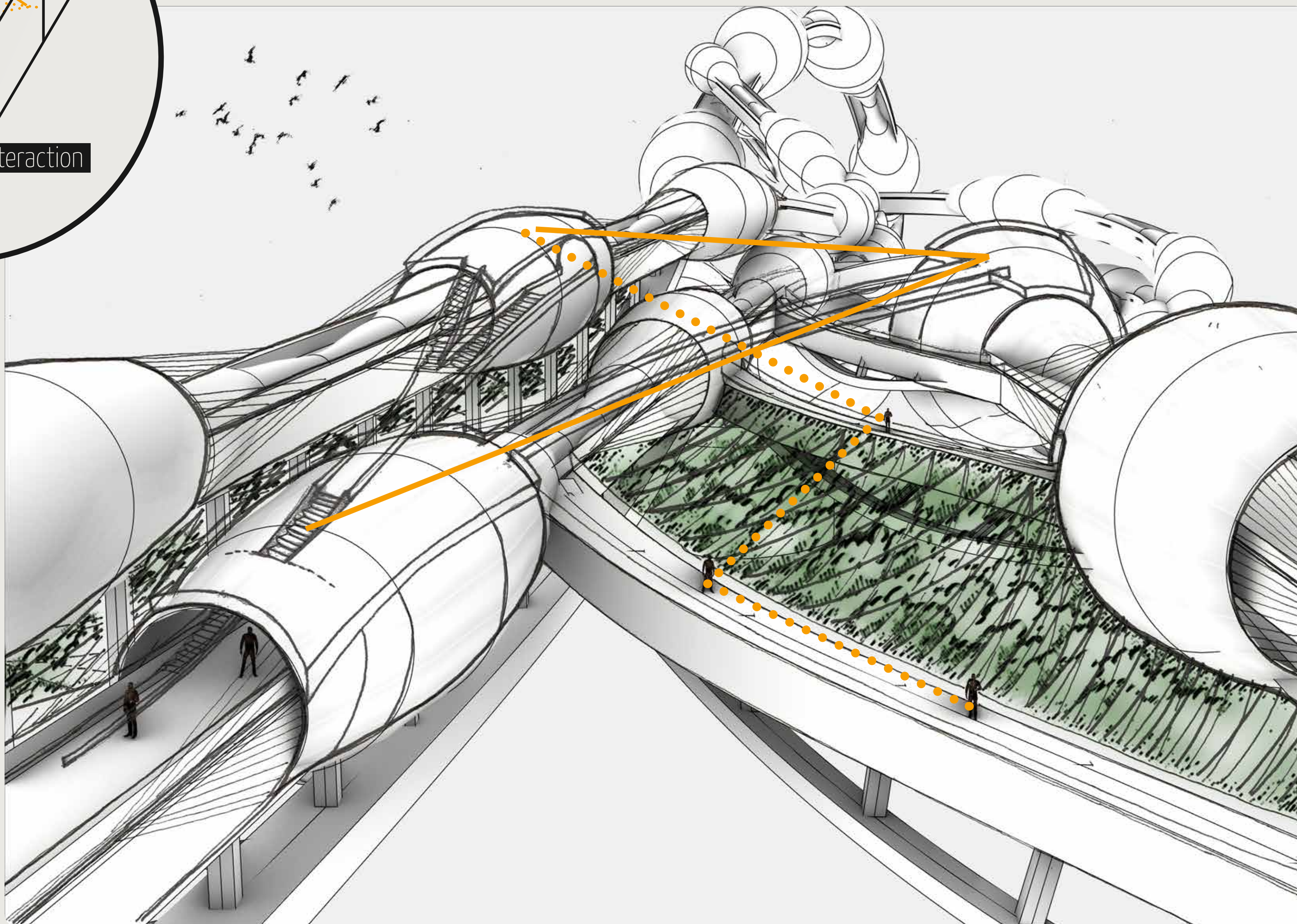
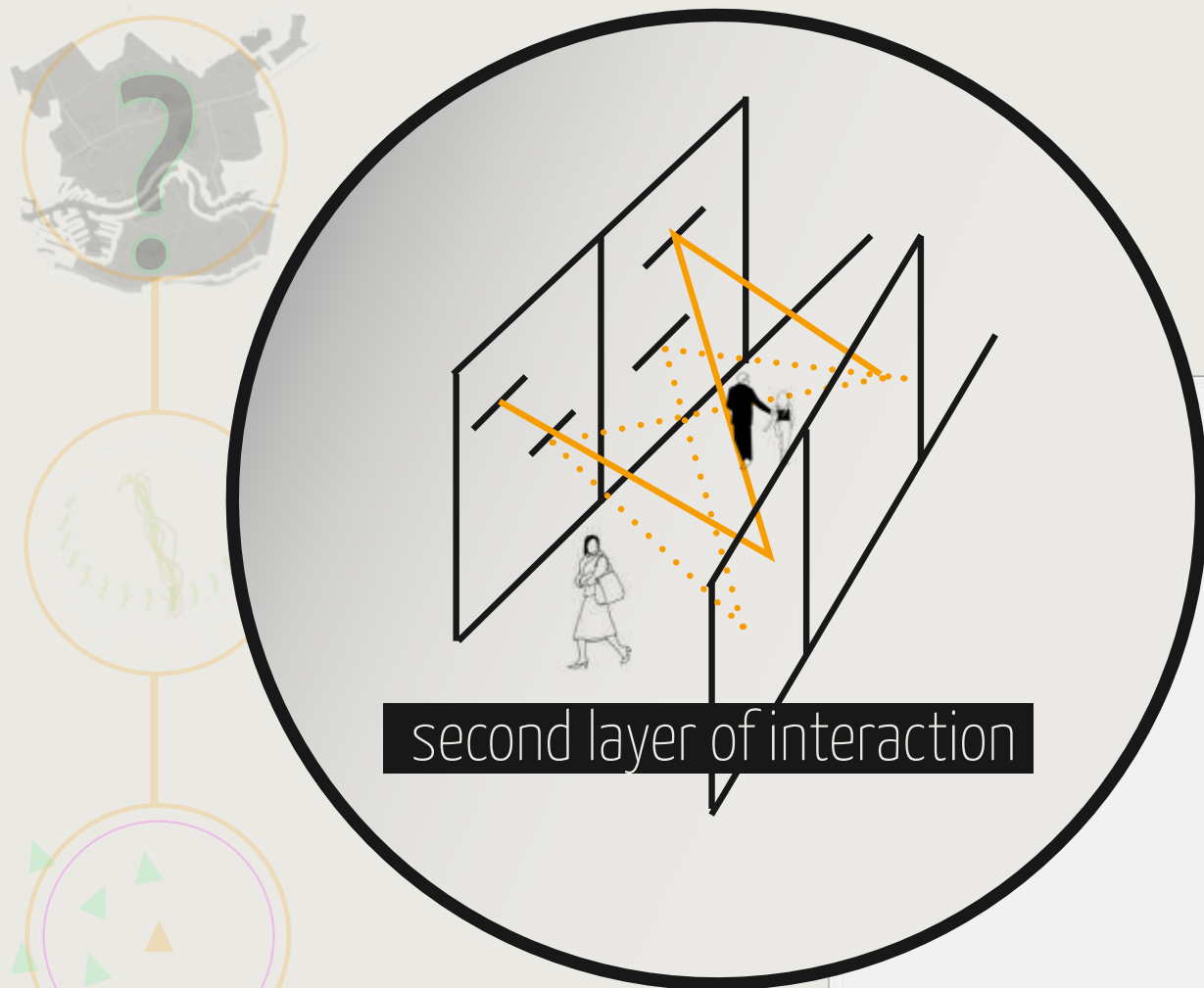
cultures reflecting on the structure



cultures

SOUTH GARDENS VIEW

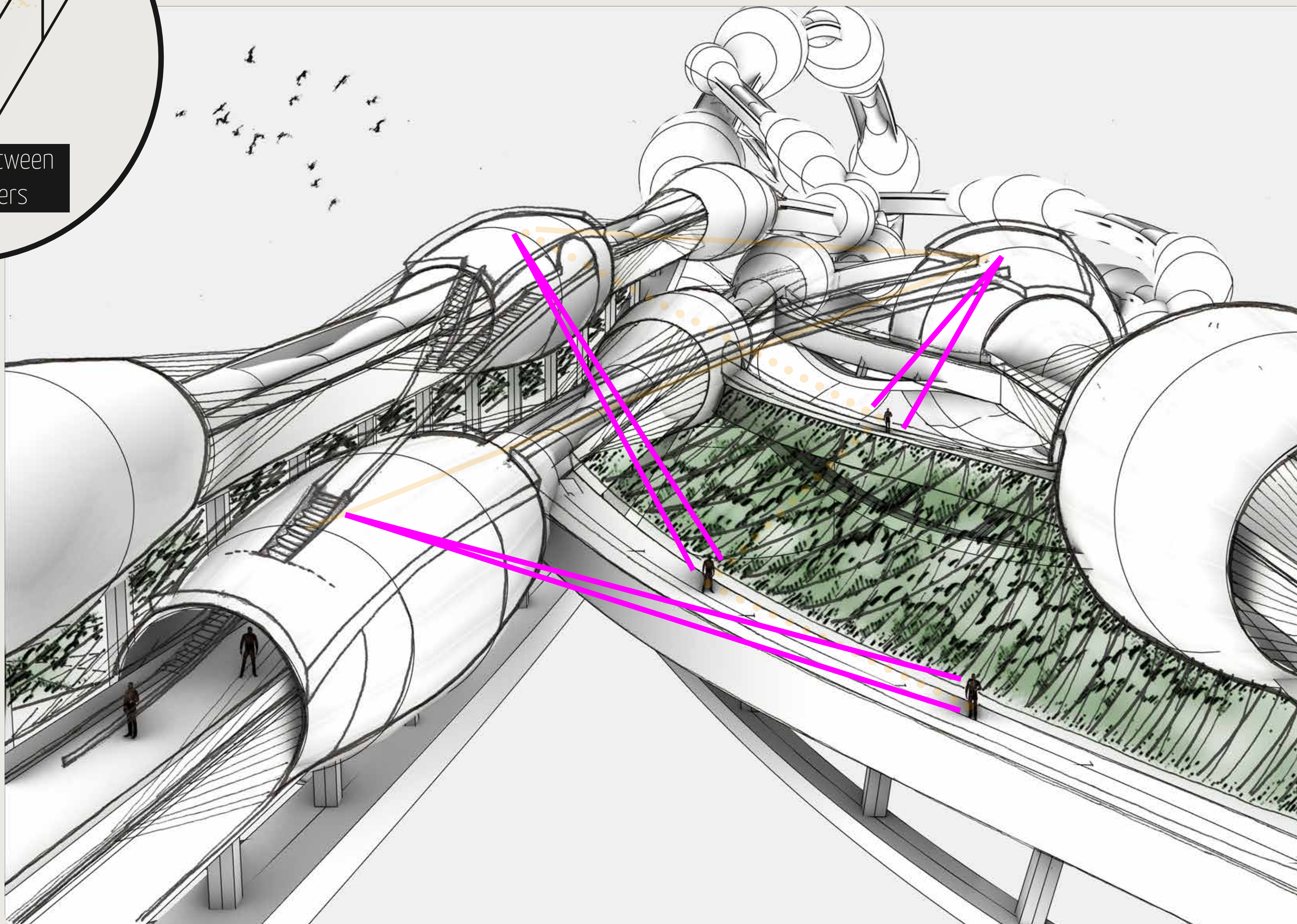
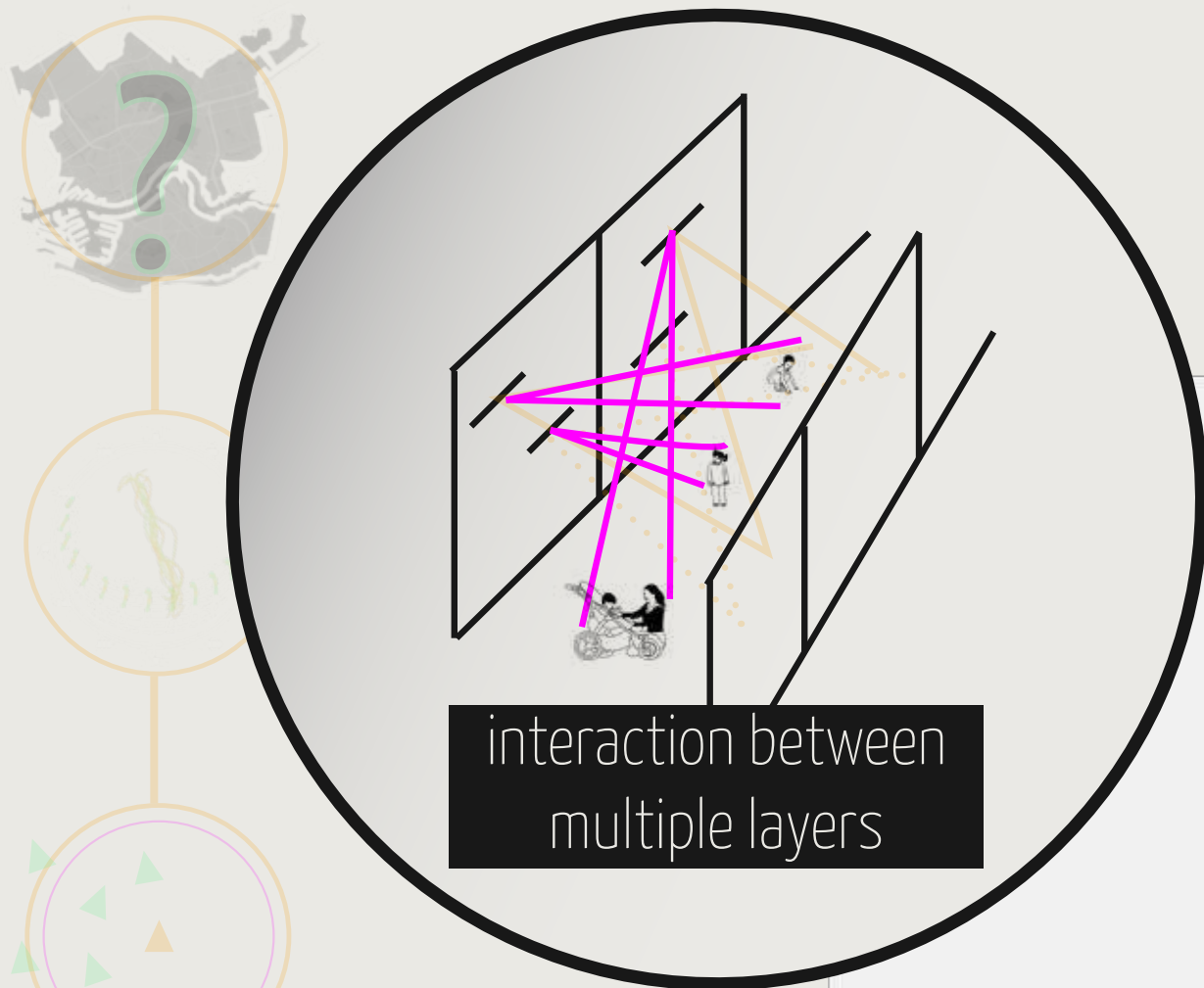
cultures reflecting on the structure

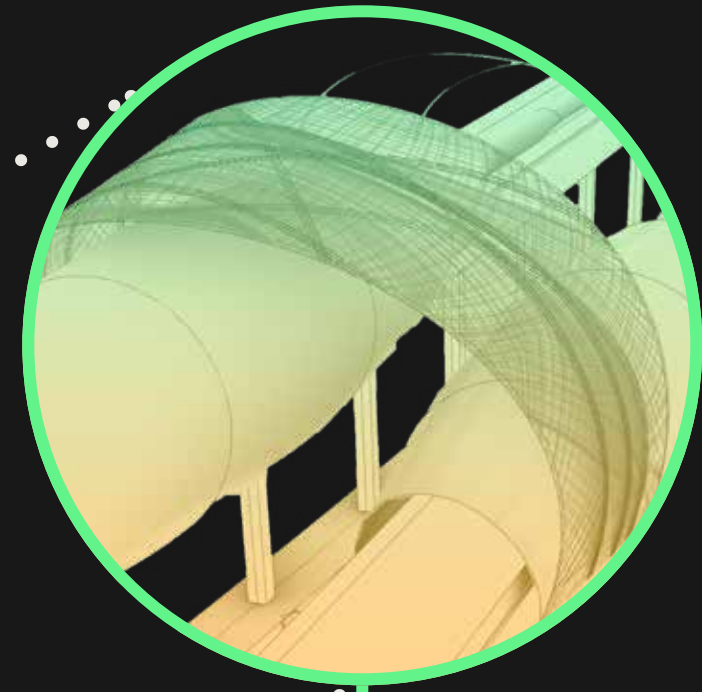


cultures

SOUTH GARDENS VIEW

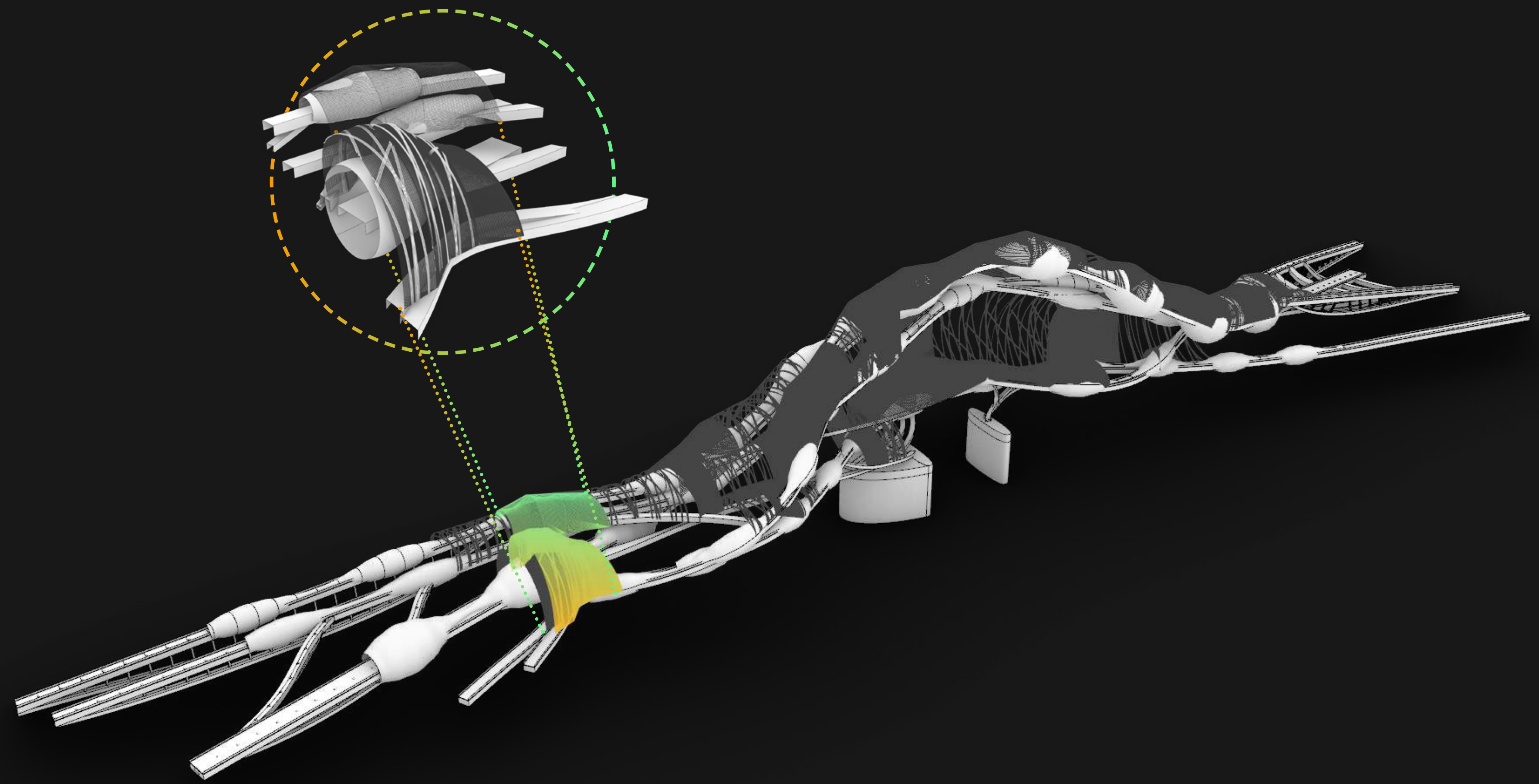
cultures reflecting on the structure



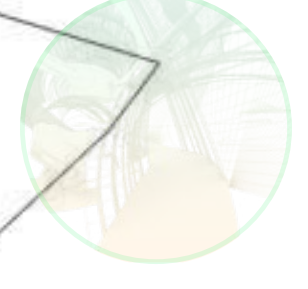
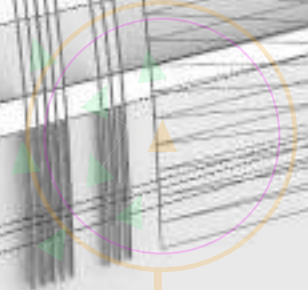
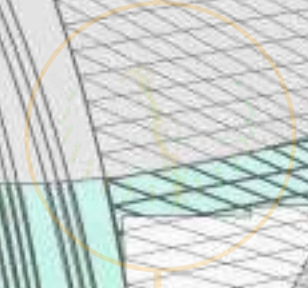
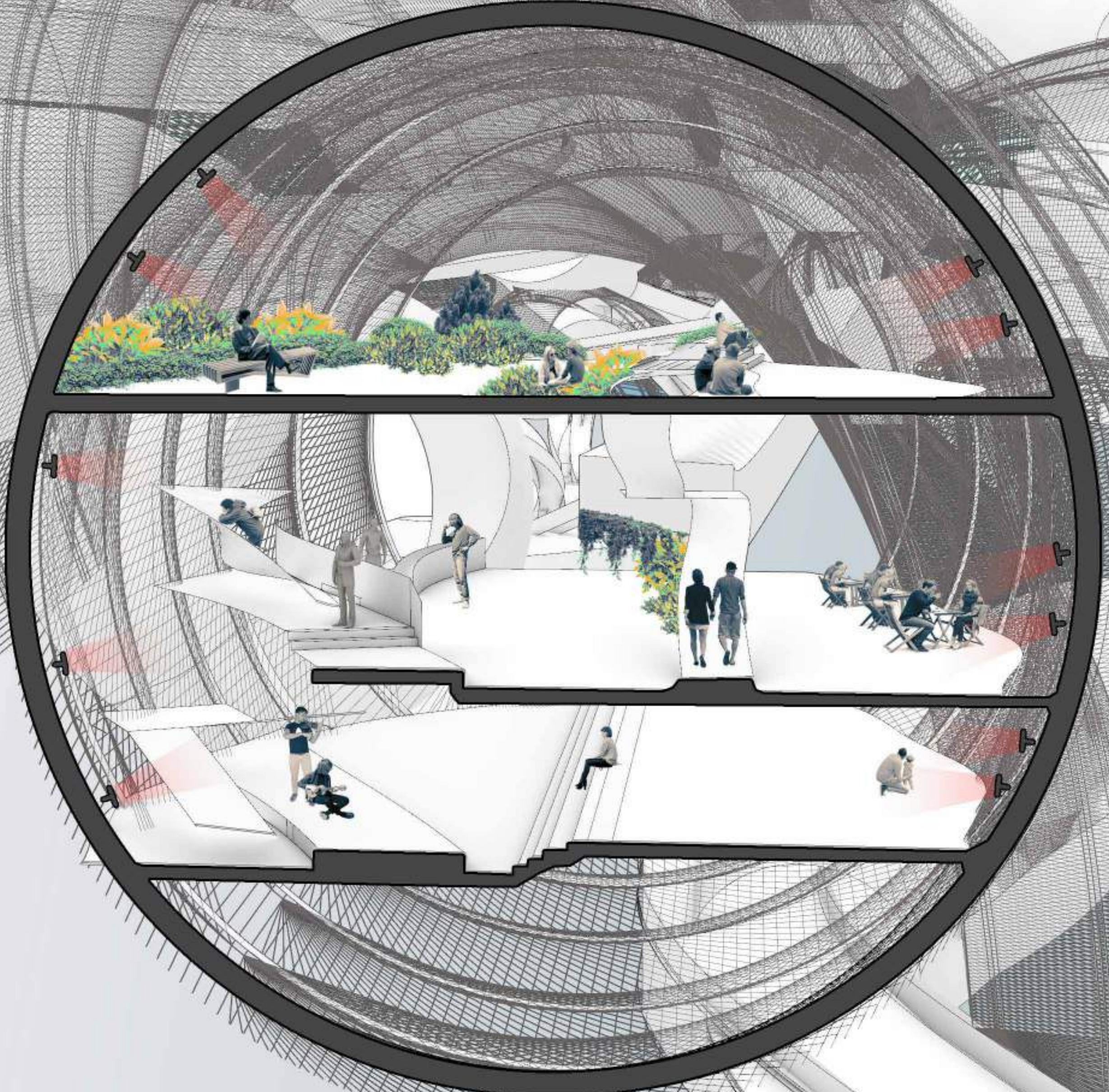


MD
ID
materialisation
details

section 1:20



section 1:20

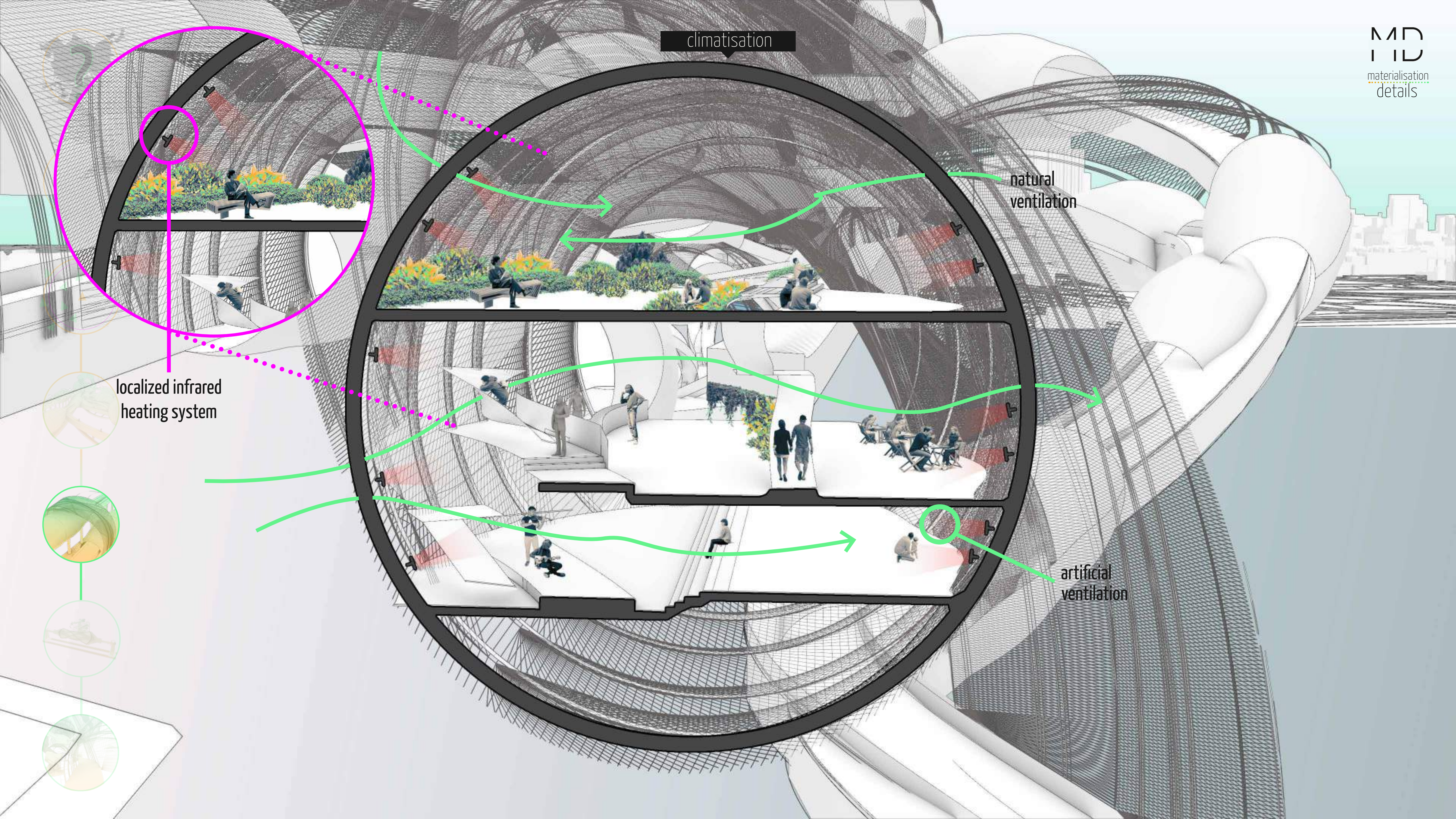


climatisation

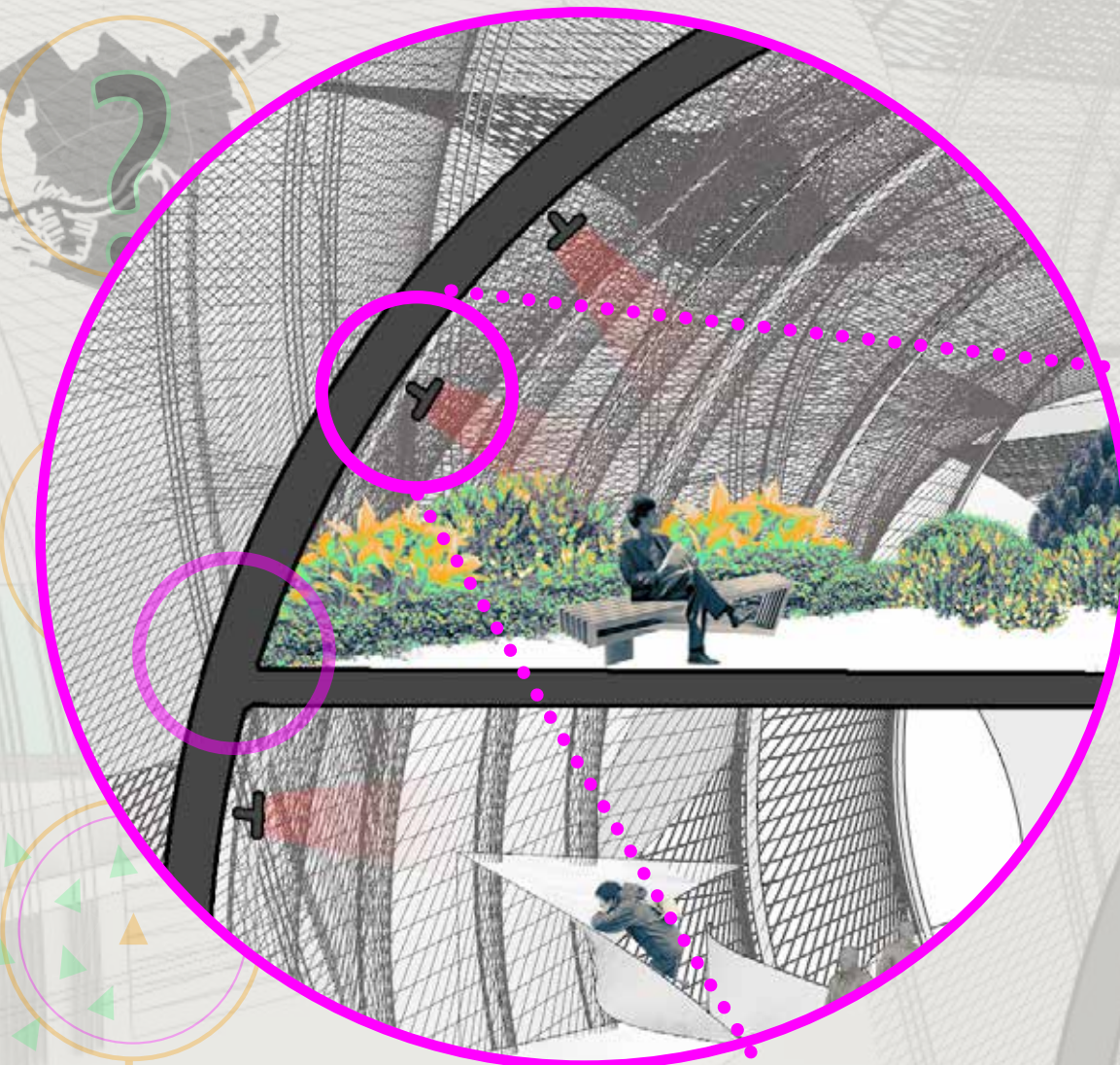
natural
ventilation

artificial
ventilation

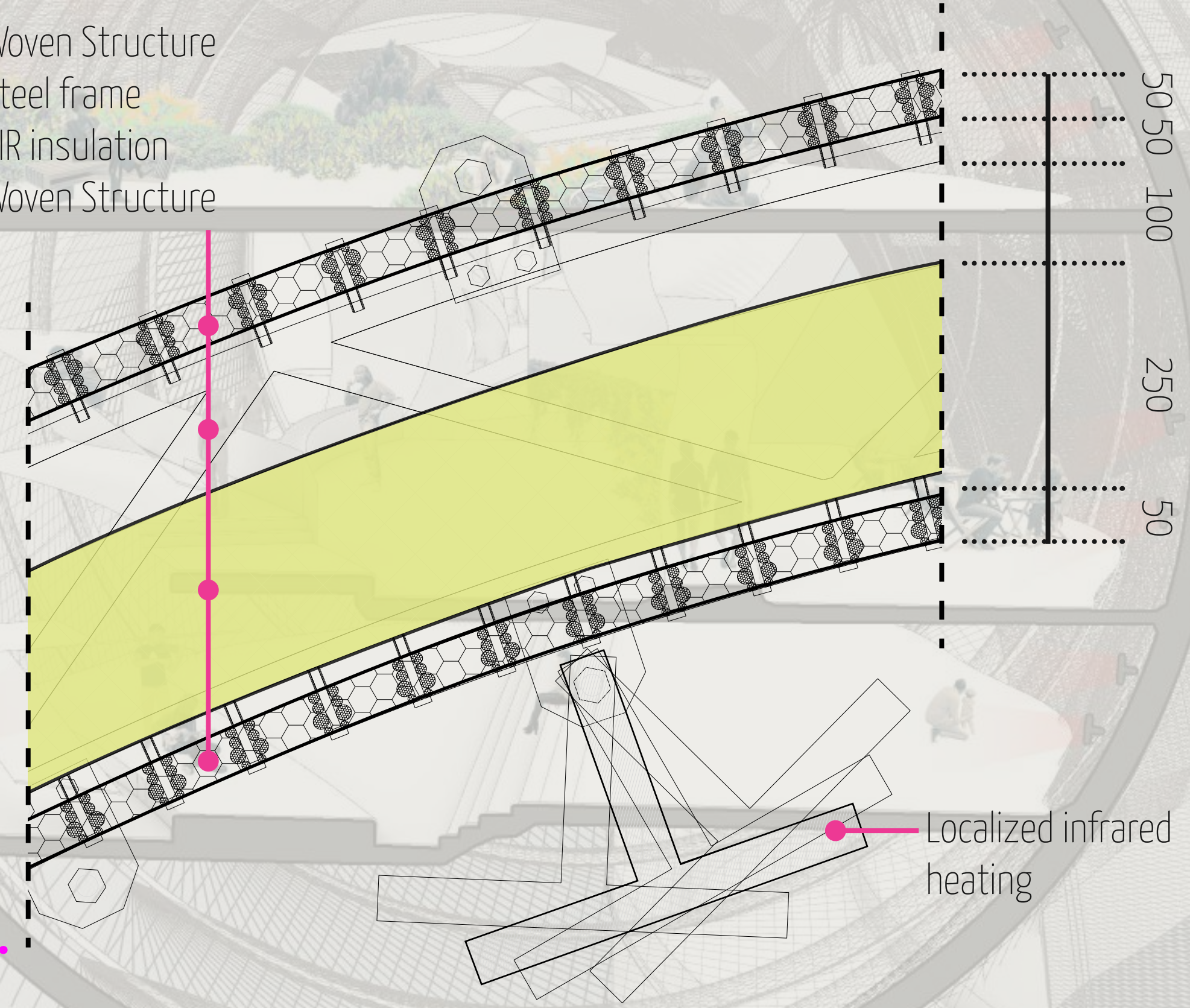
localized infrared
heating system



detail 1:5



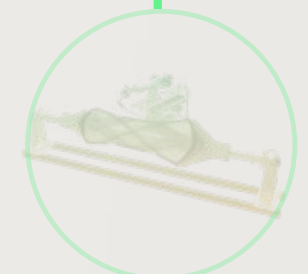
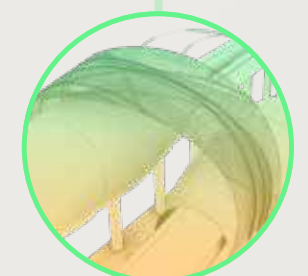
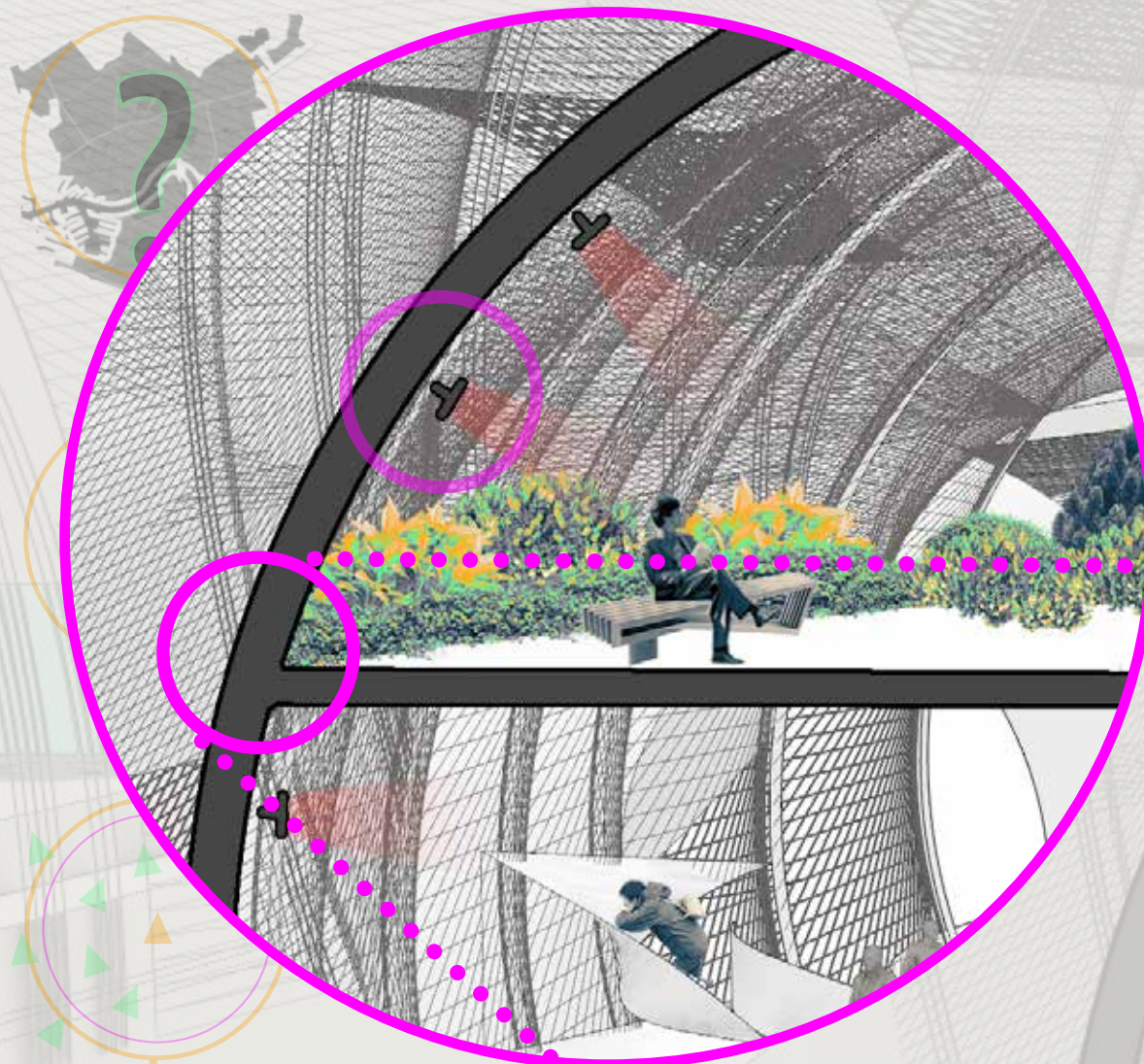
Woven Structure
Steel frame
PIR insulation
Woven Structure



Localized infrared heating

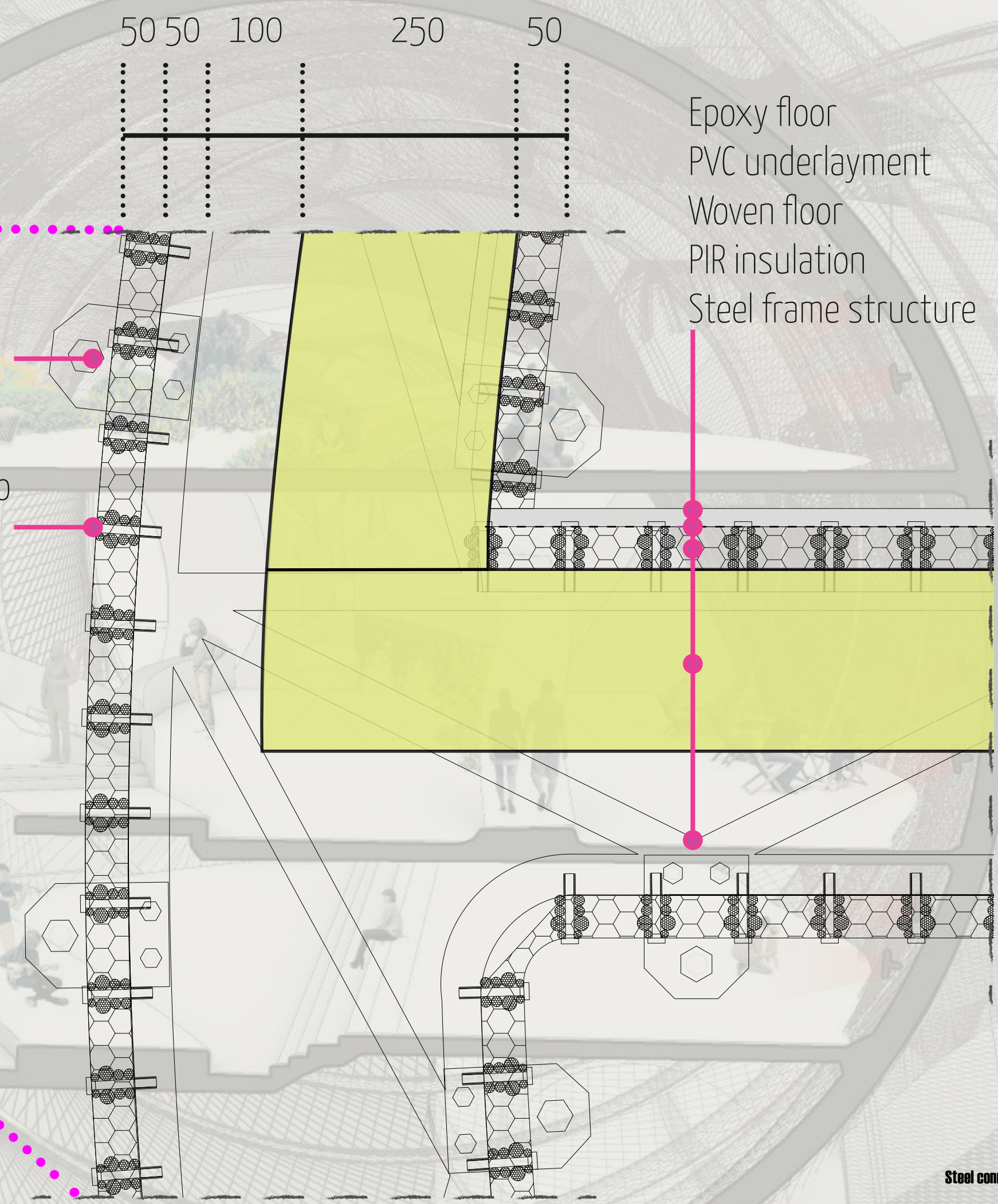


details 1:5



Steel connectors bolted together

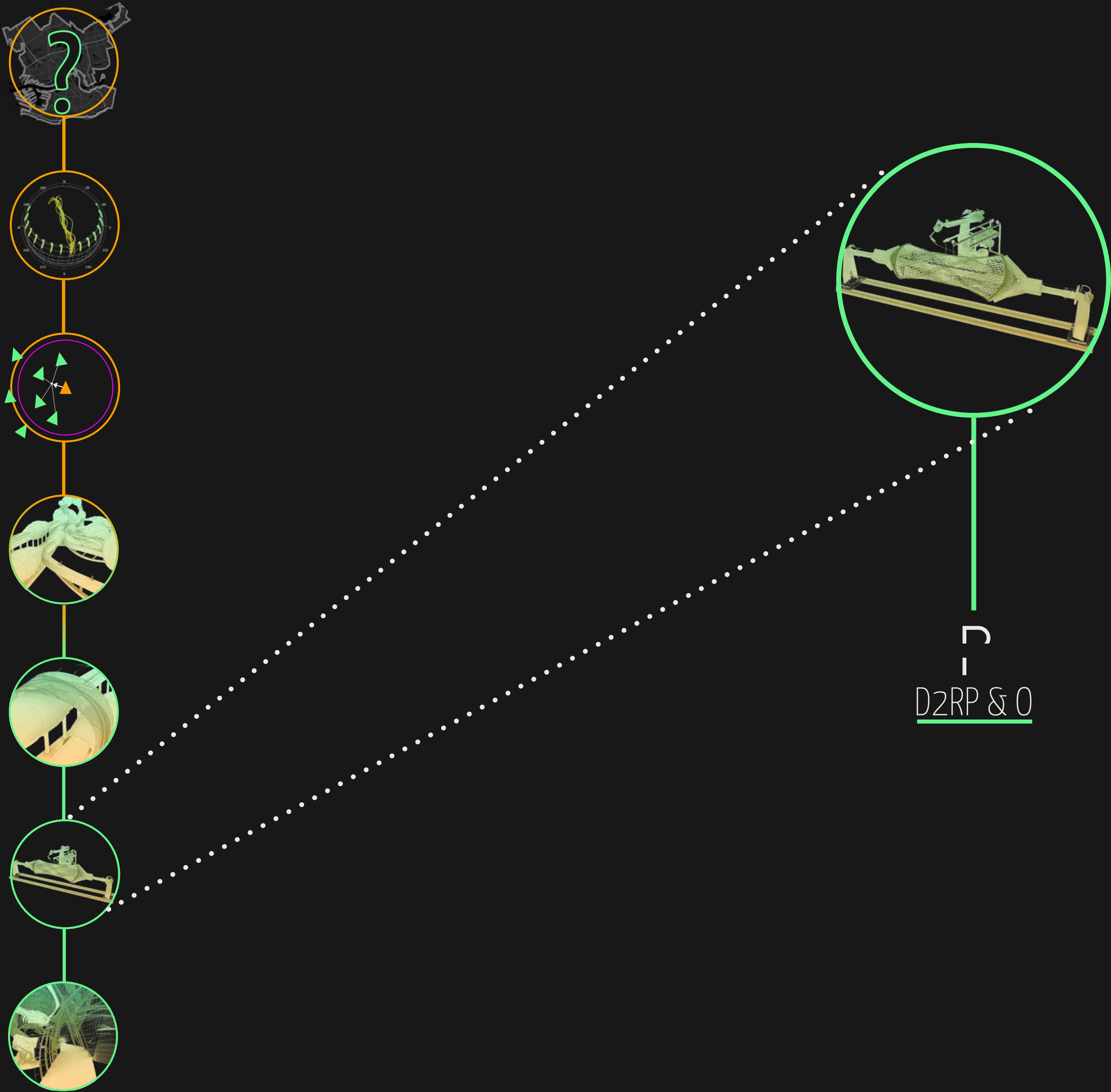
Bolts welded on to the steel frame to weave around

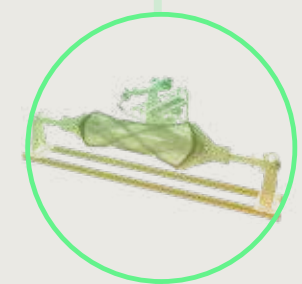


Epoxy floor
PVC underlayment
Woven floor
PIR insulation
Steel frame structure

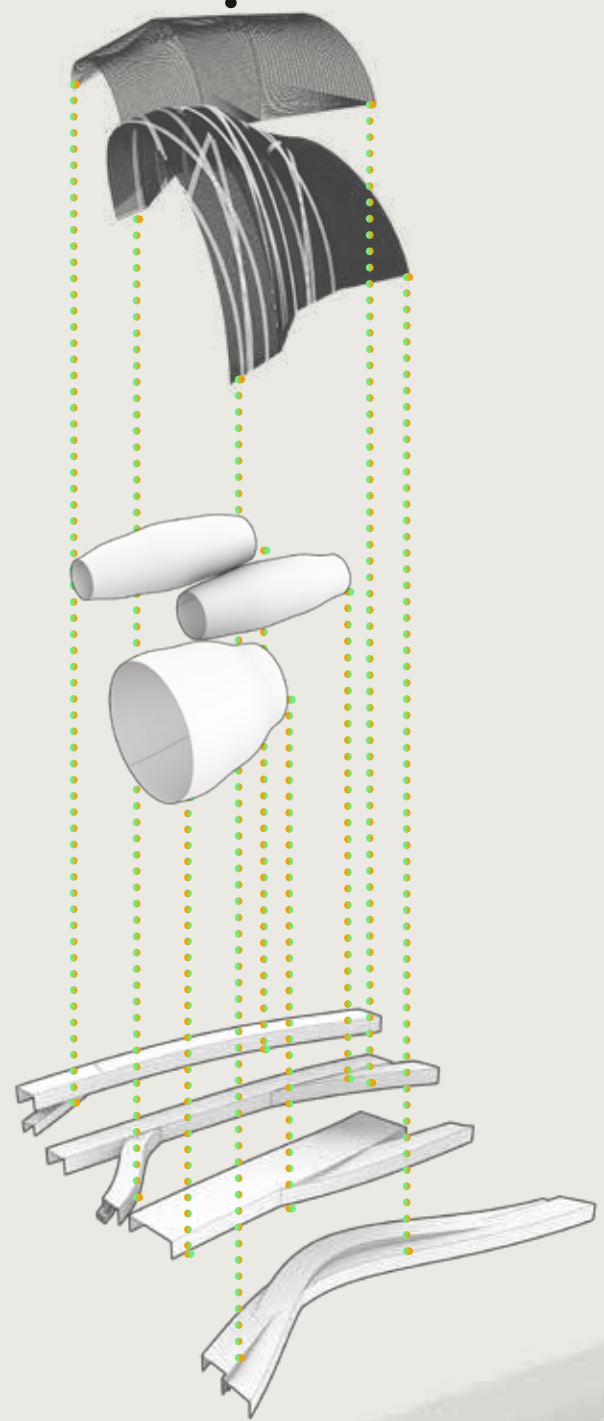
Steel connect

Bolts welded or to weave arou

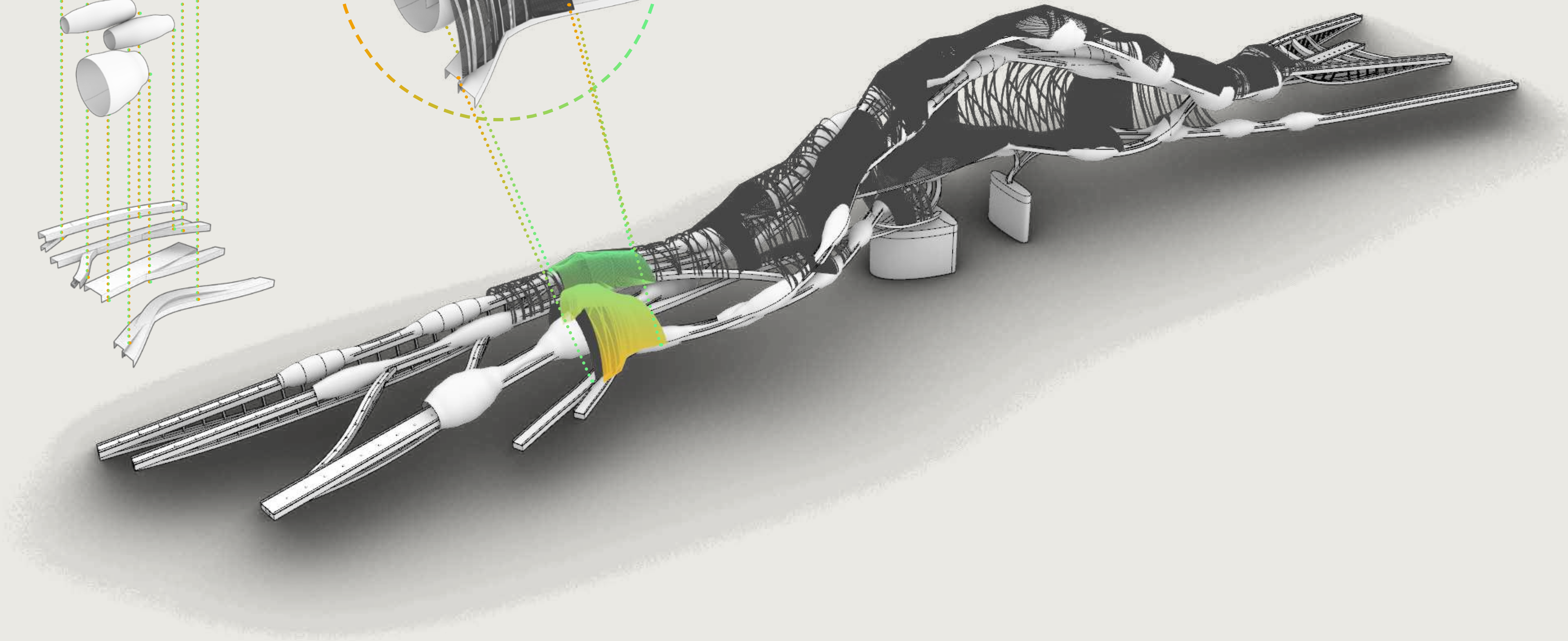
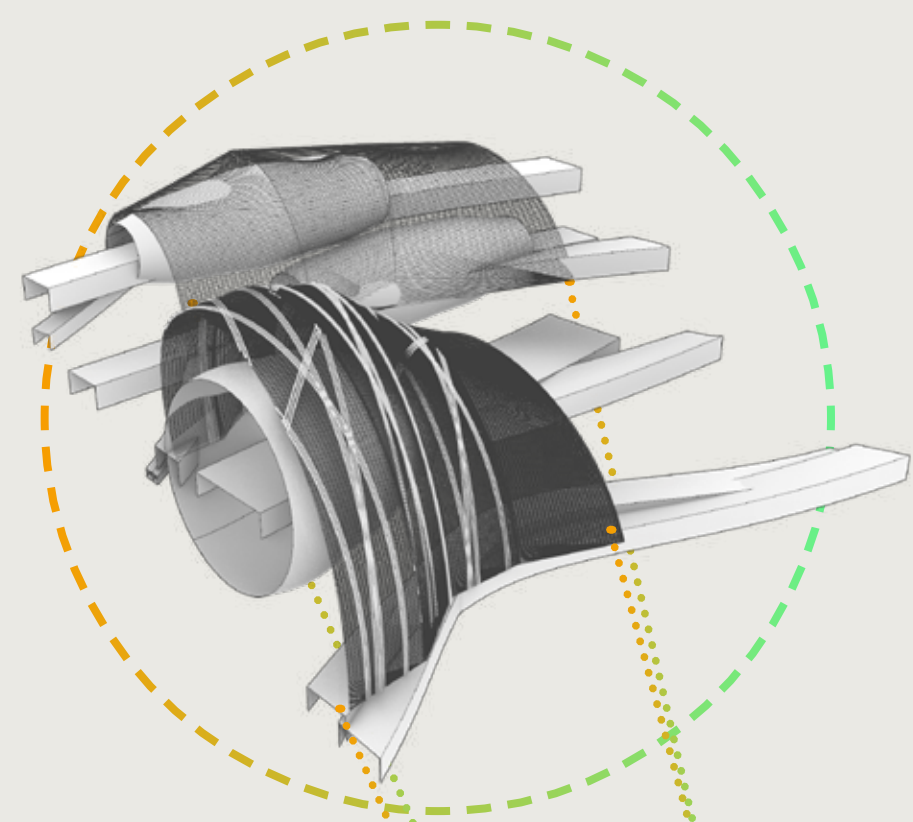


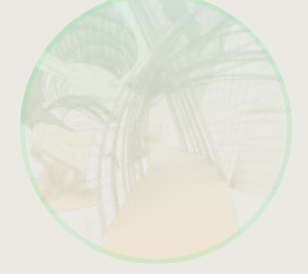
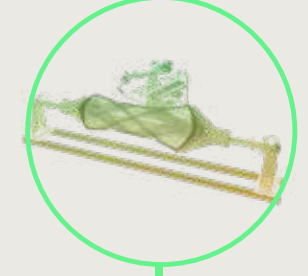


components
axonometric

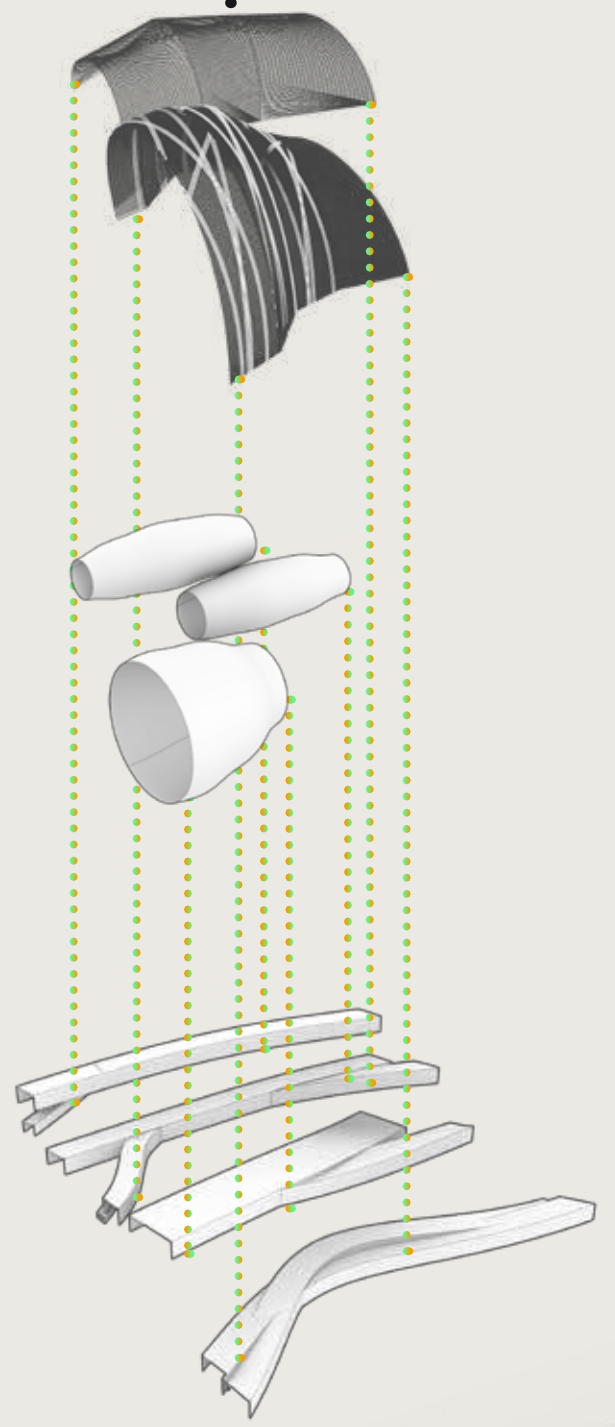


components

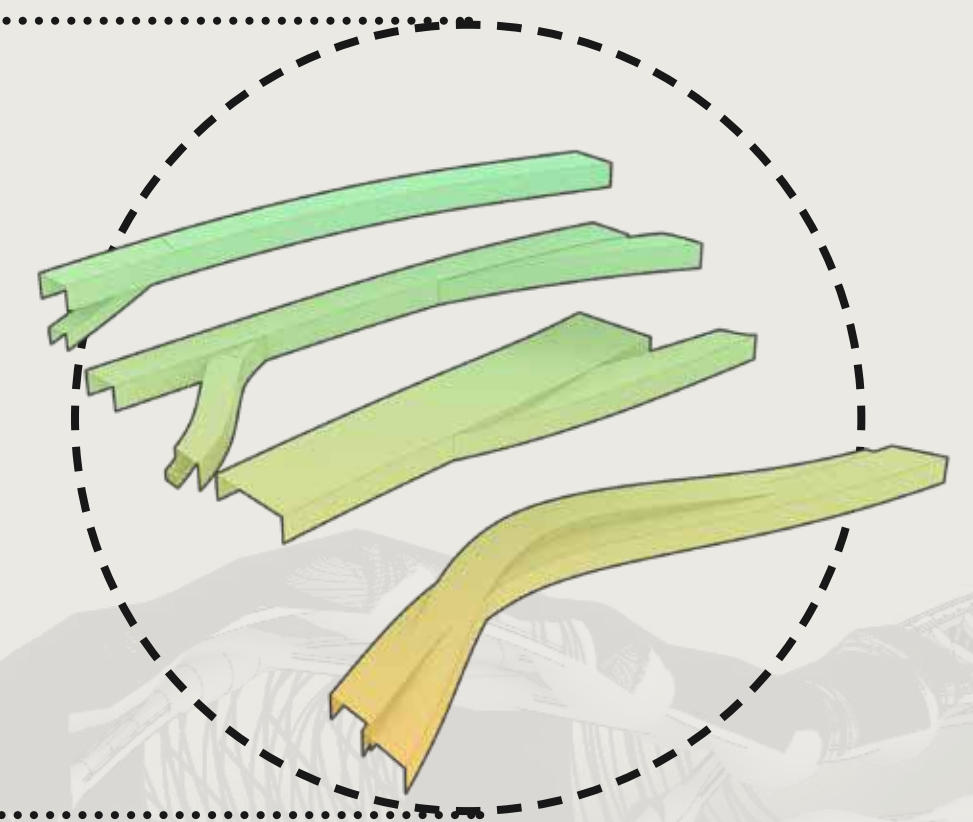
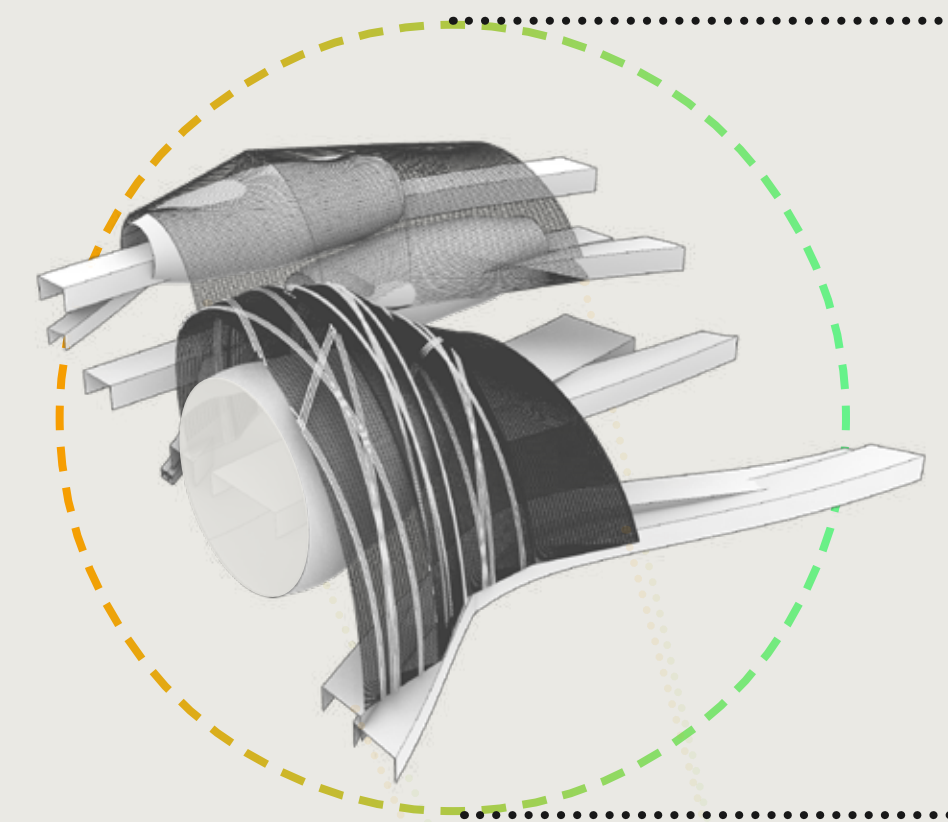




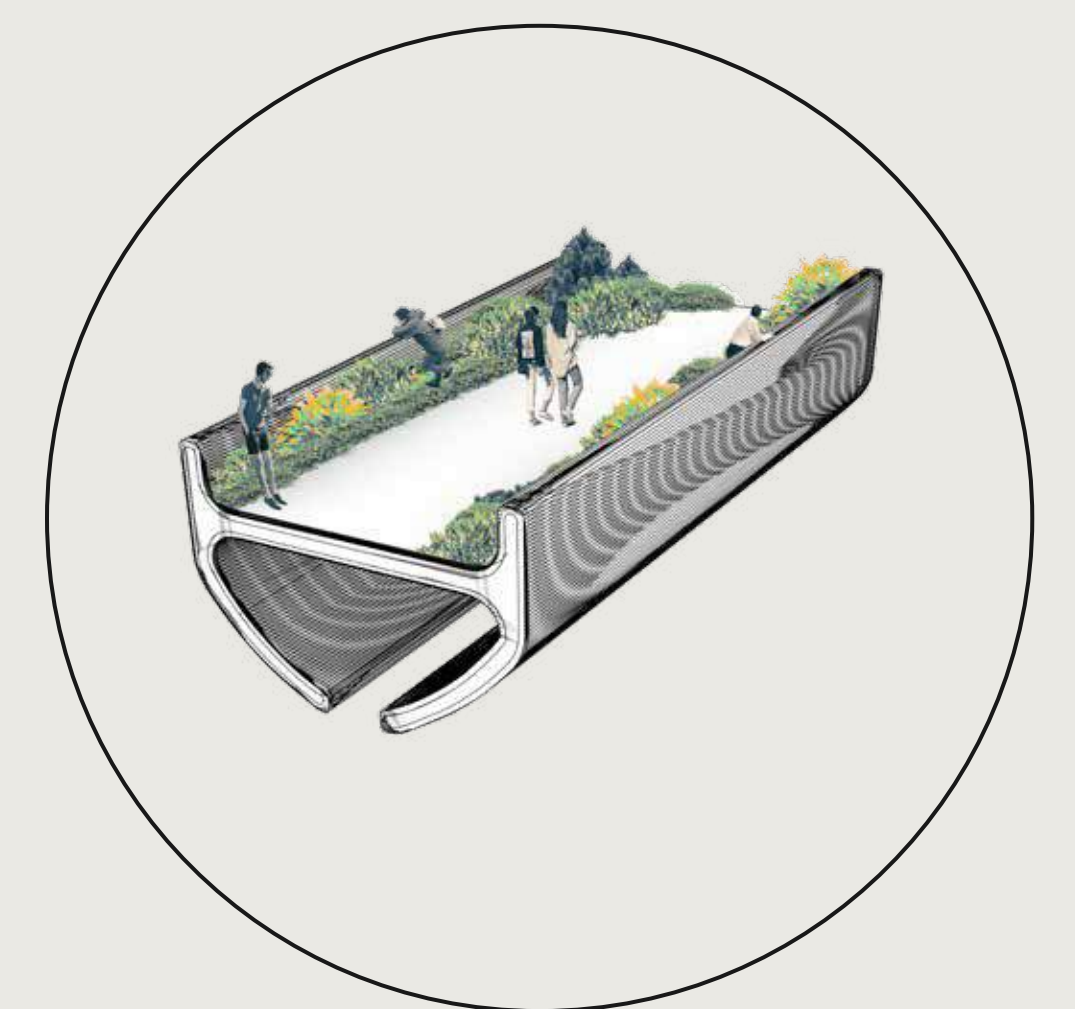
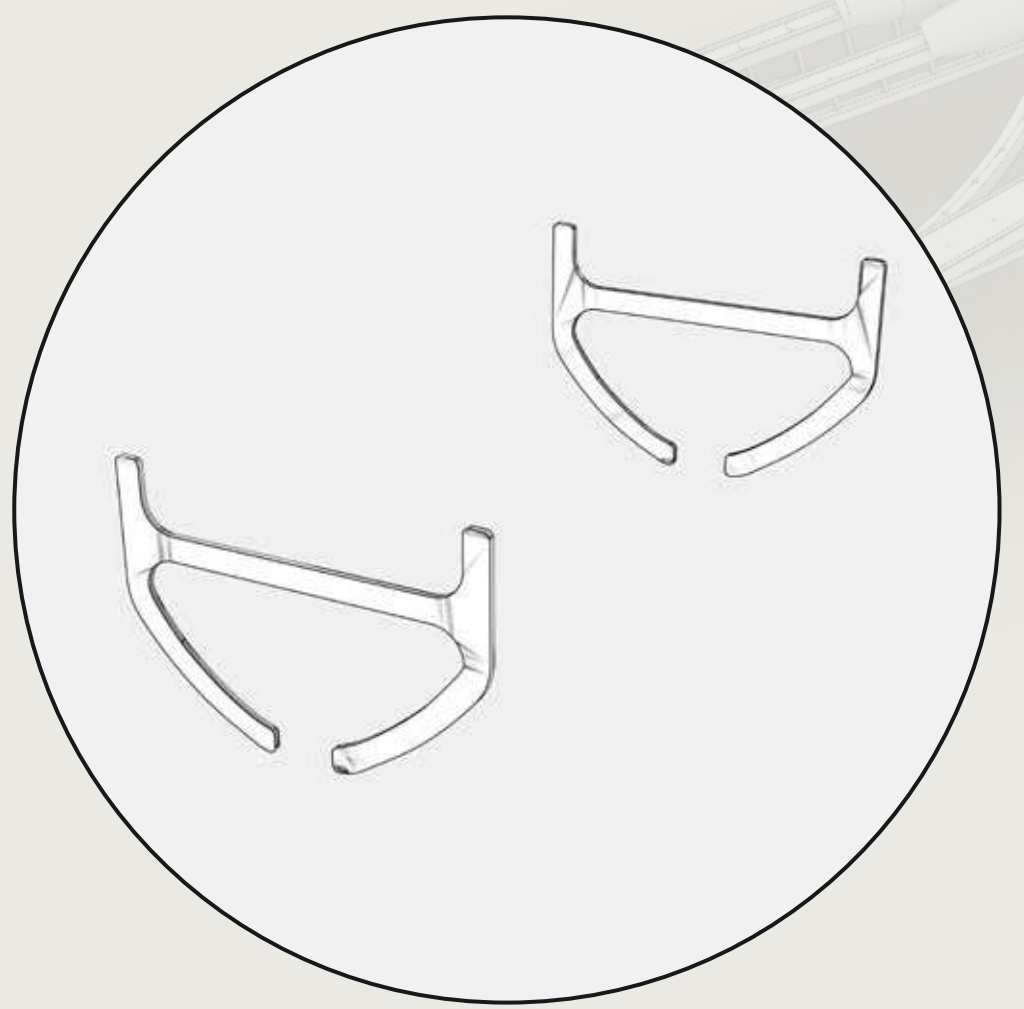
components
axonometric

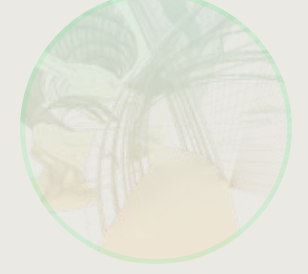
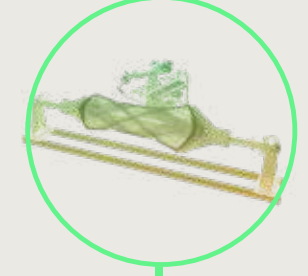


components
SPINES

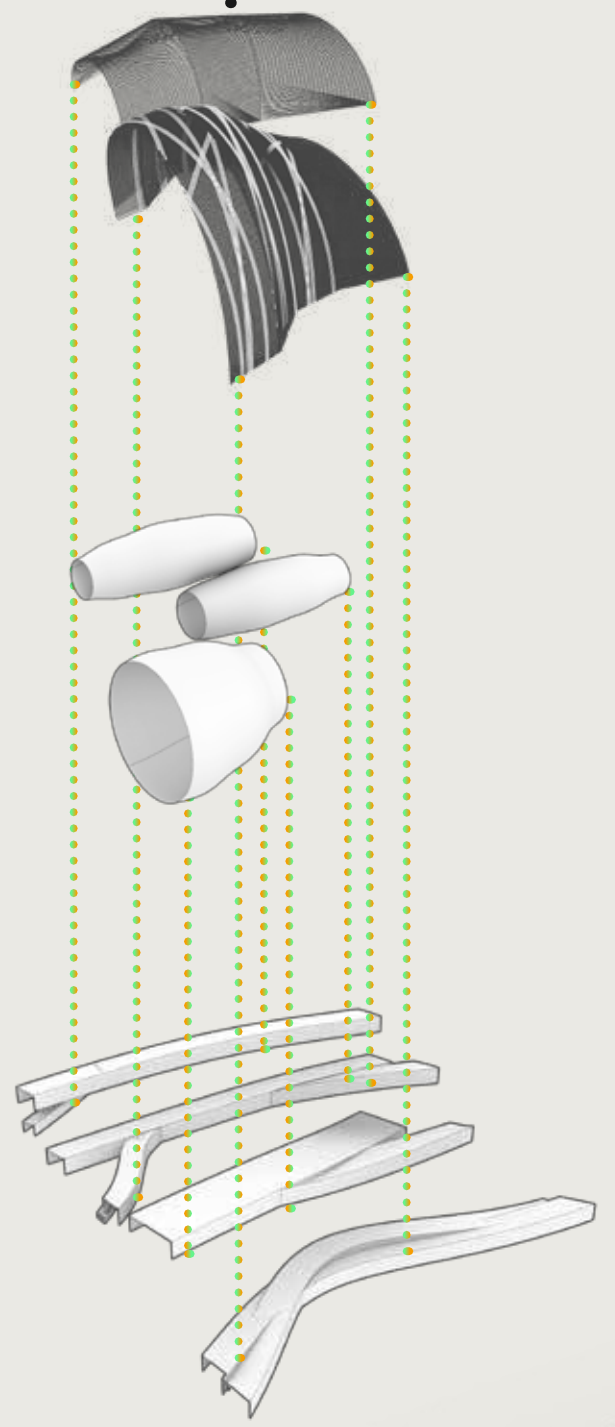


icd/itke
pavilion 2016

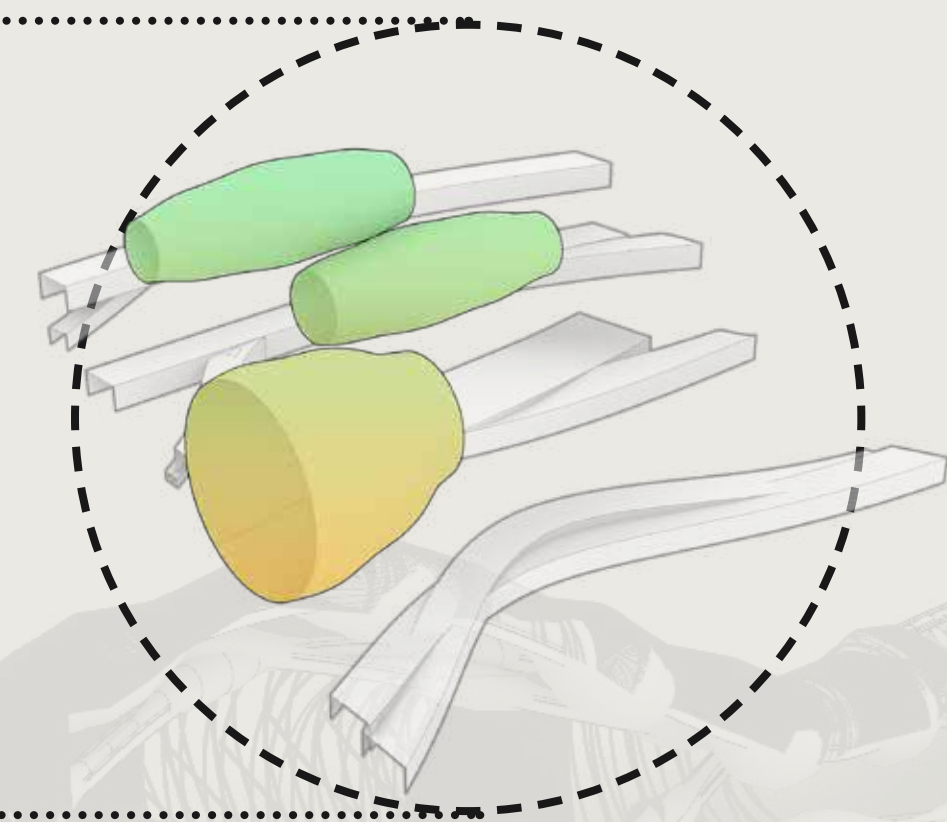
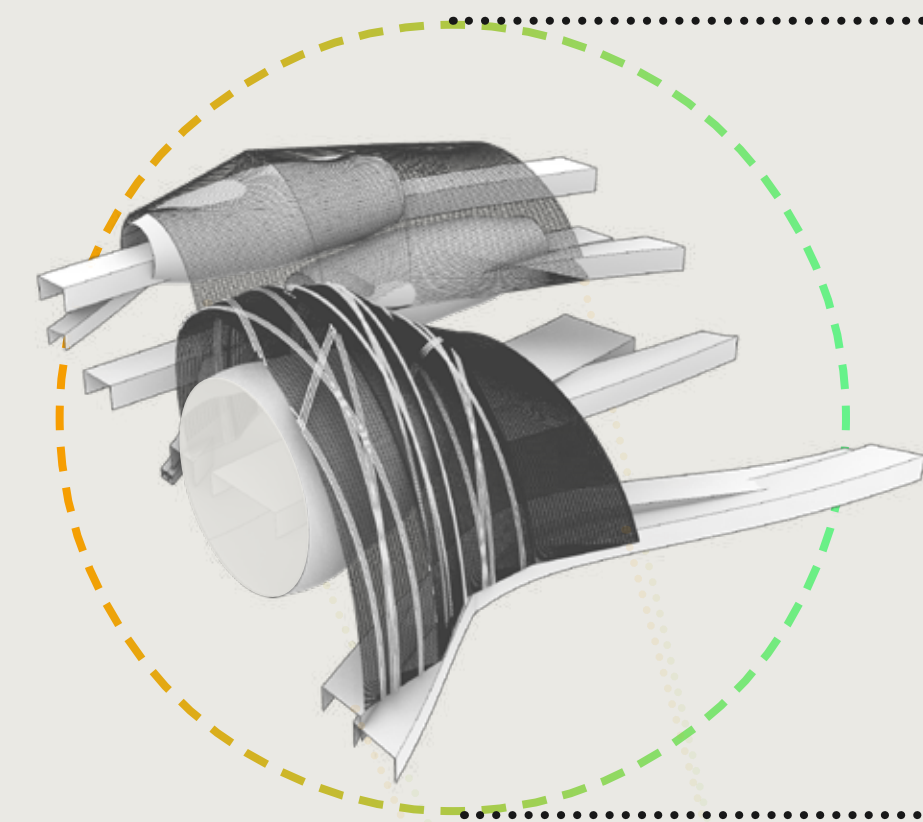




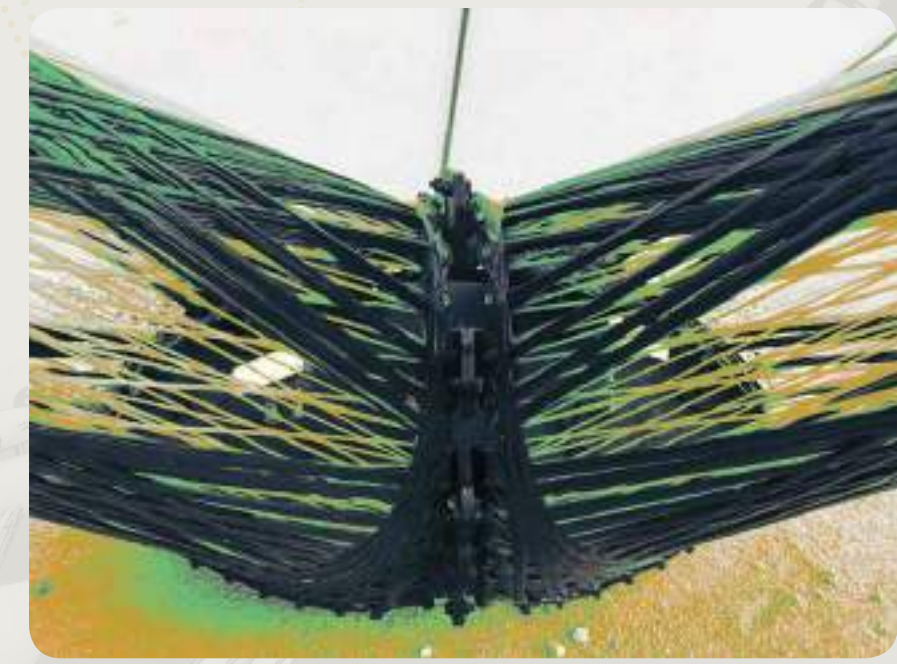
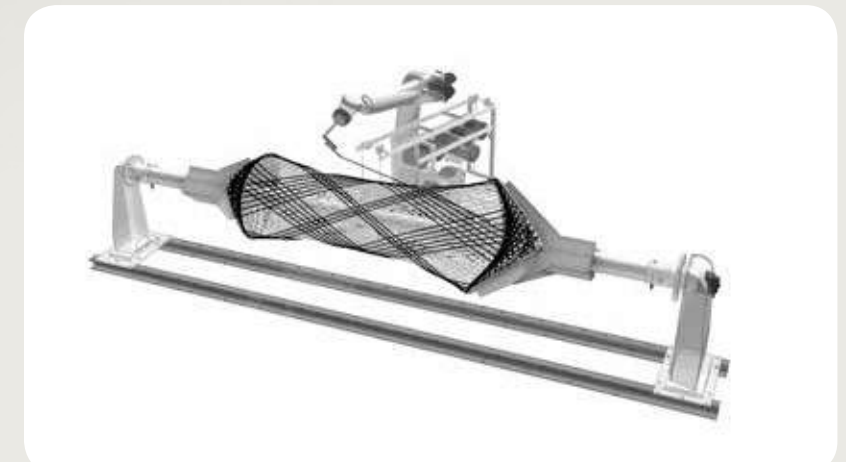
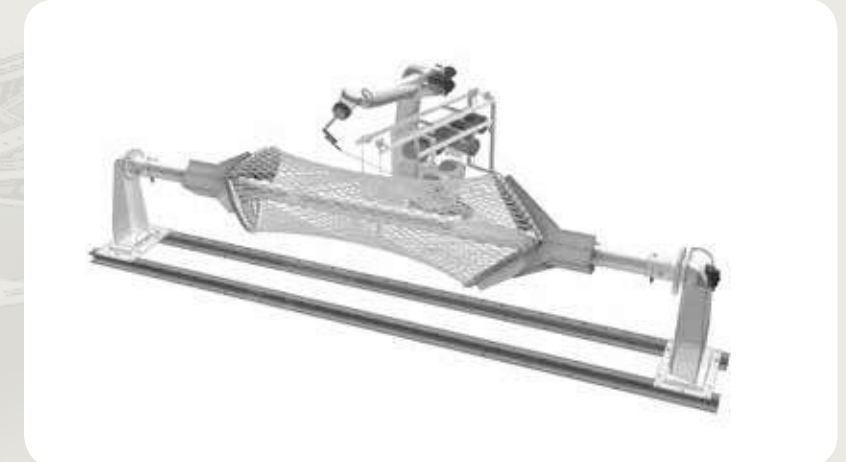
components
axonometric



components
BARNACLES

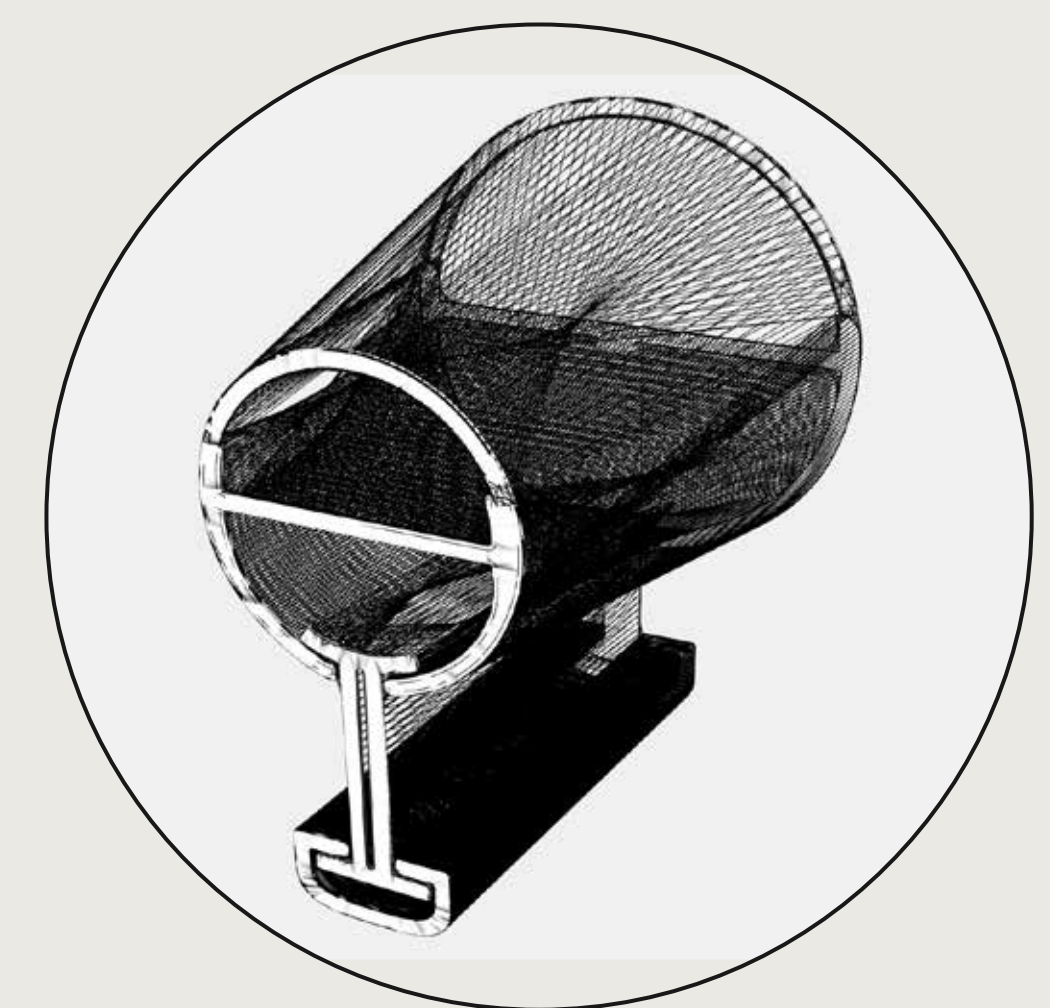
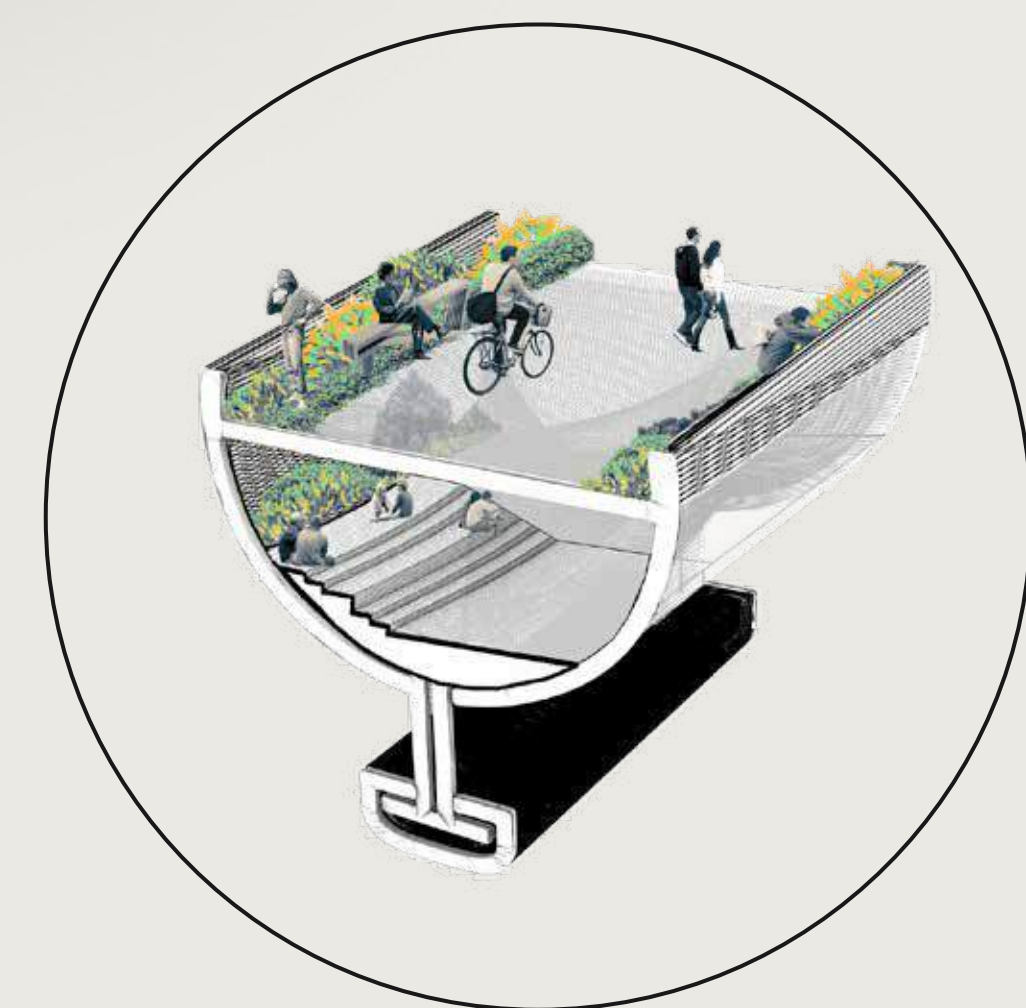
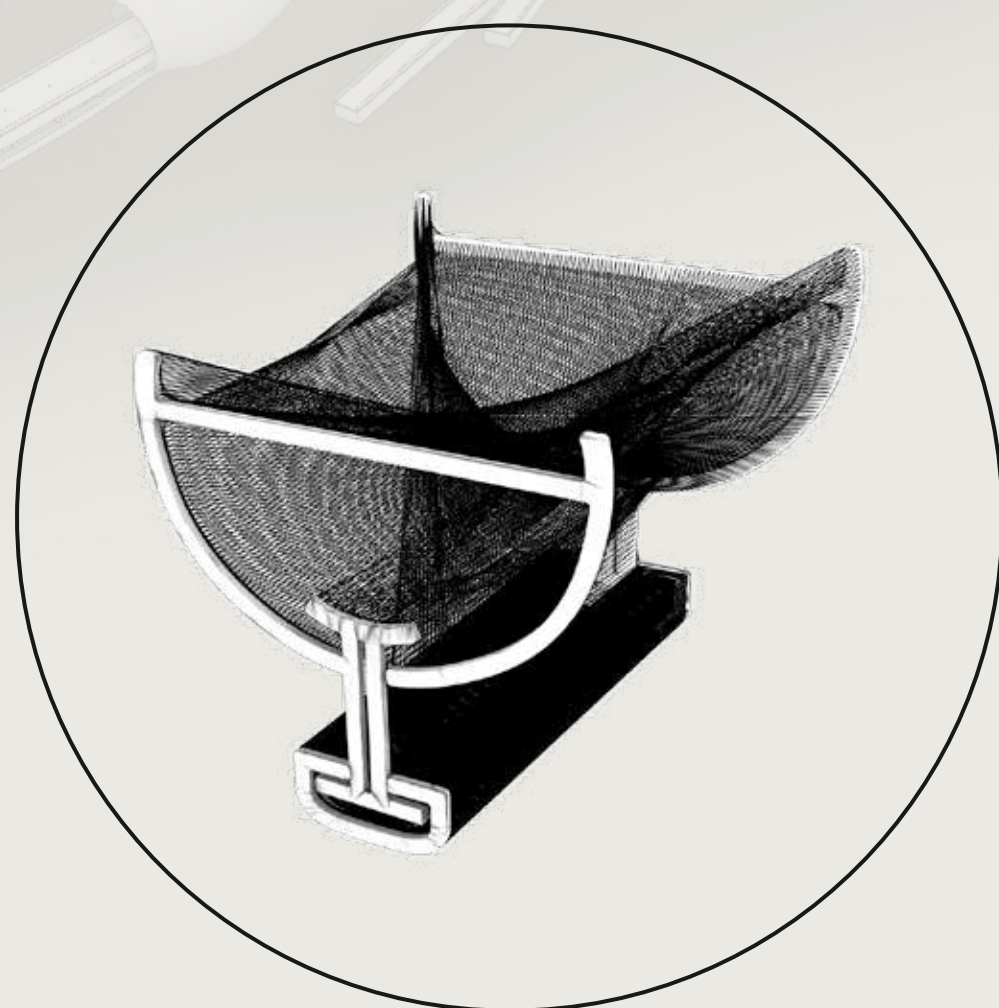


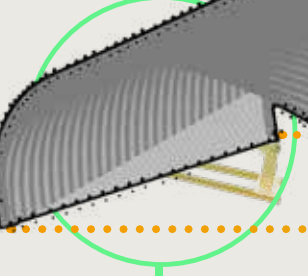
production
phases



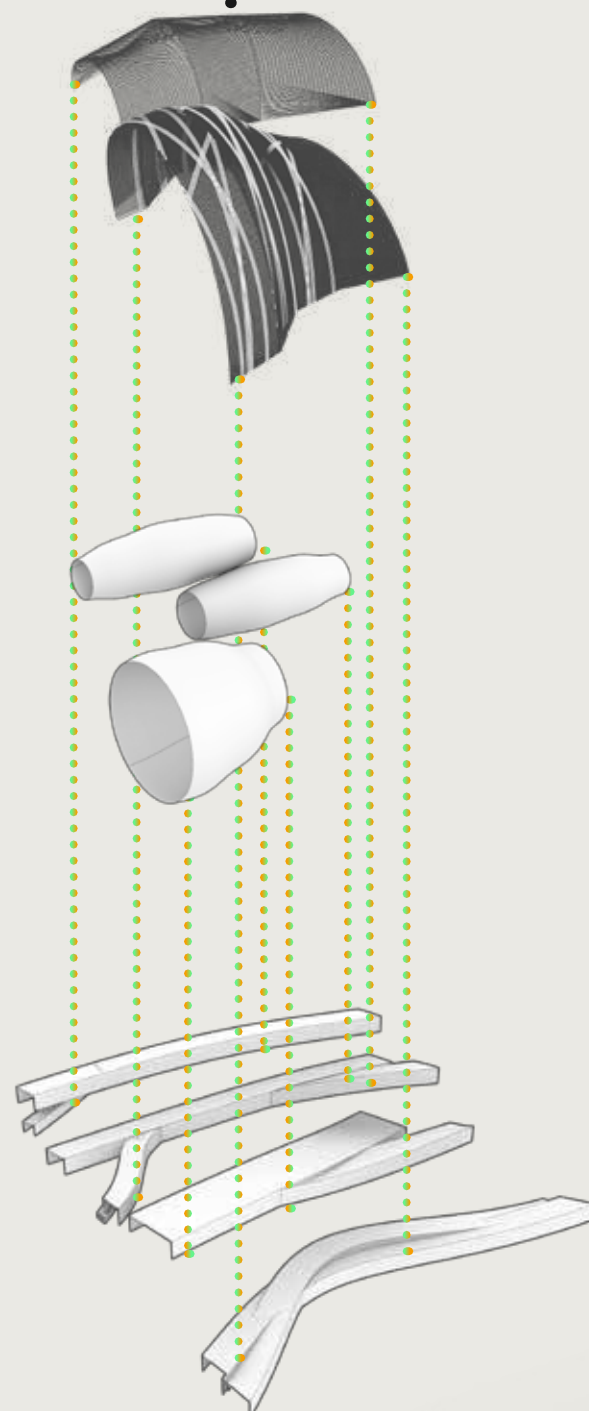
buga
pavilion 2019
enclosures
&
connections

buga
pavilion 2019

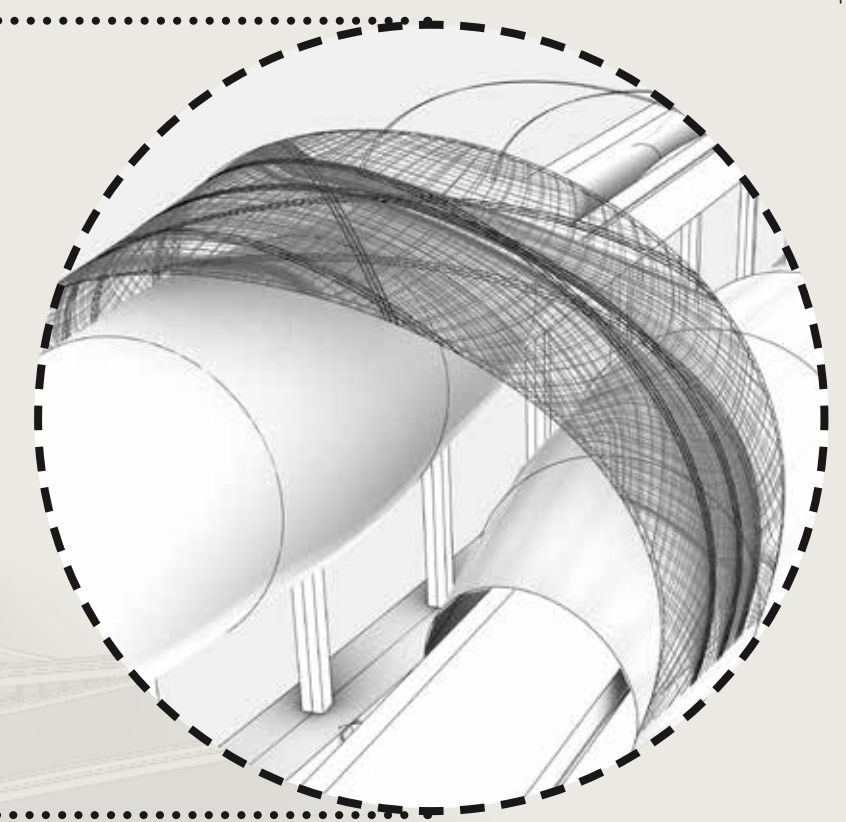
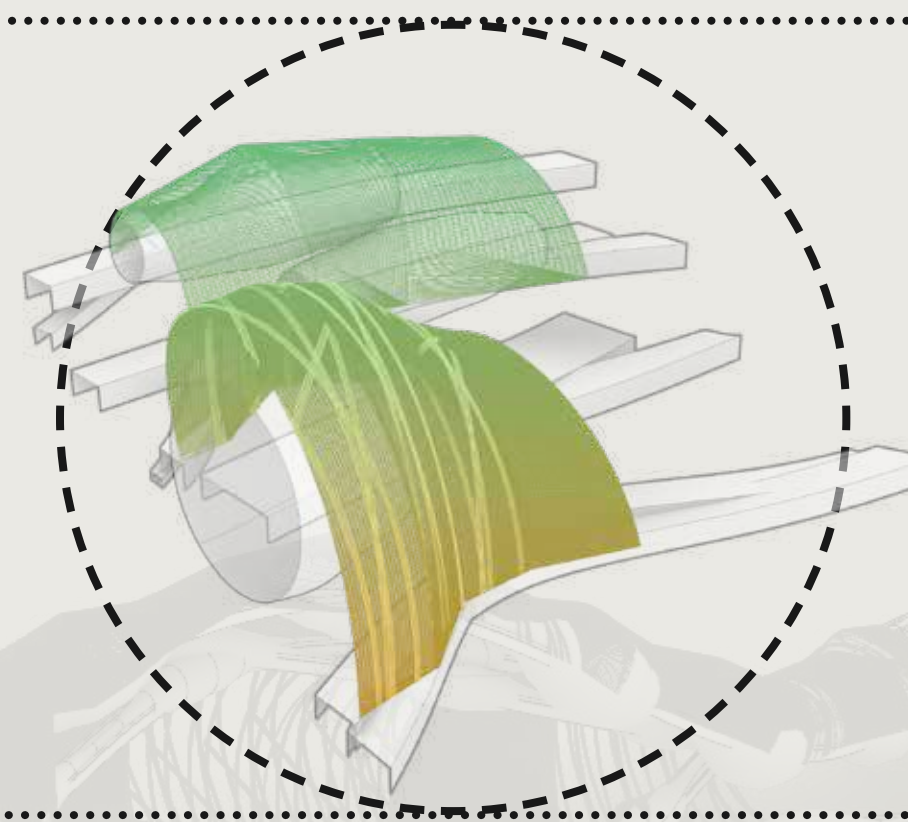
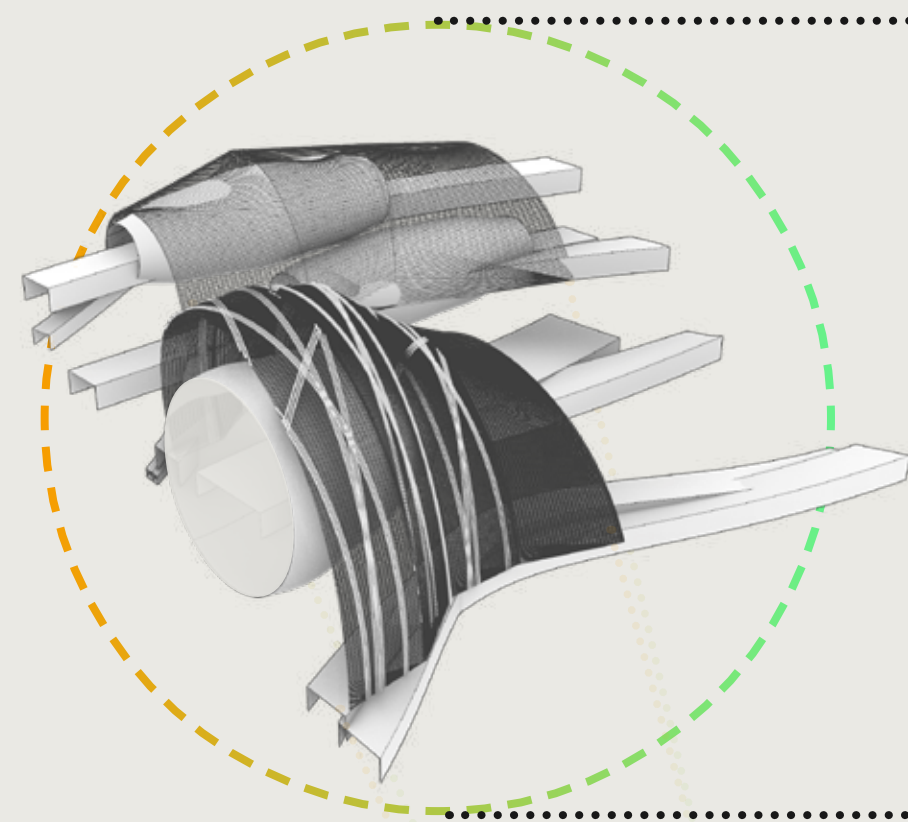




components
axonometric



components
BIG WEAVE



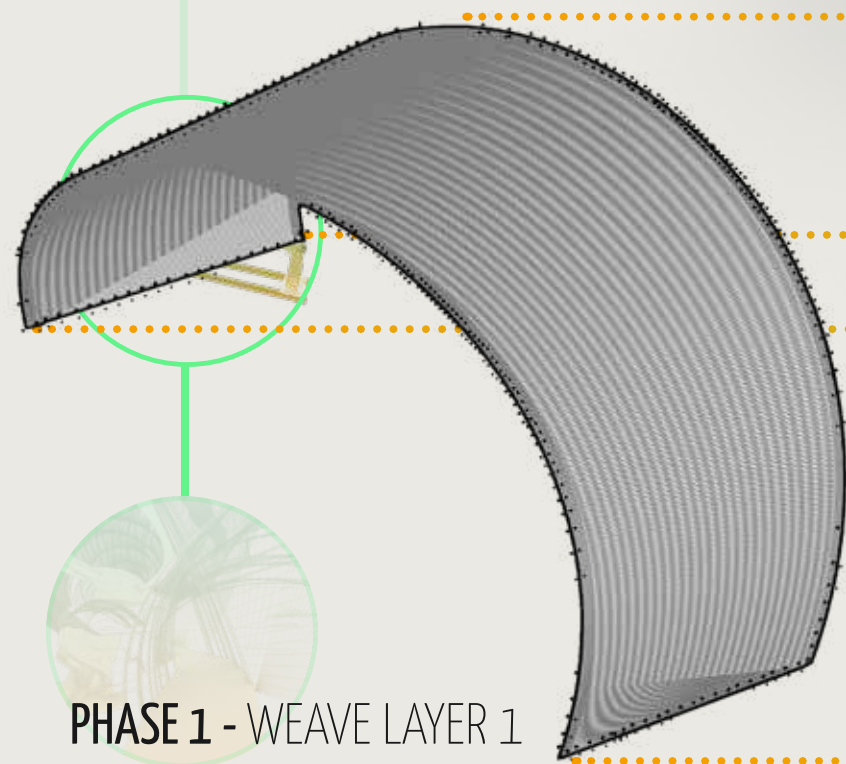
icd/itke
pavillon 2016
varying
thickness
&
multiple layers



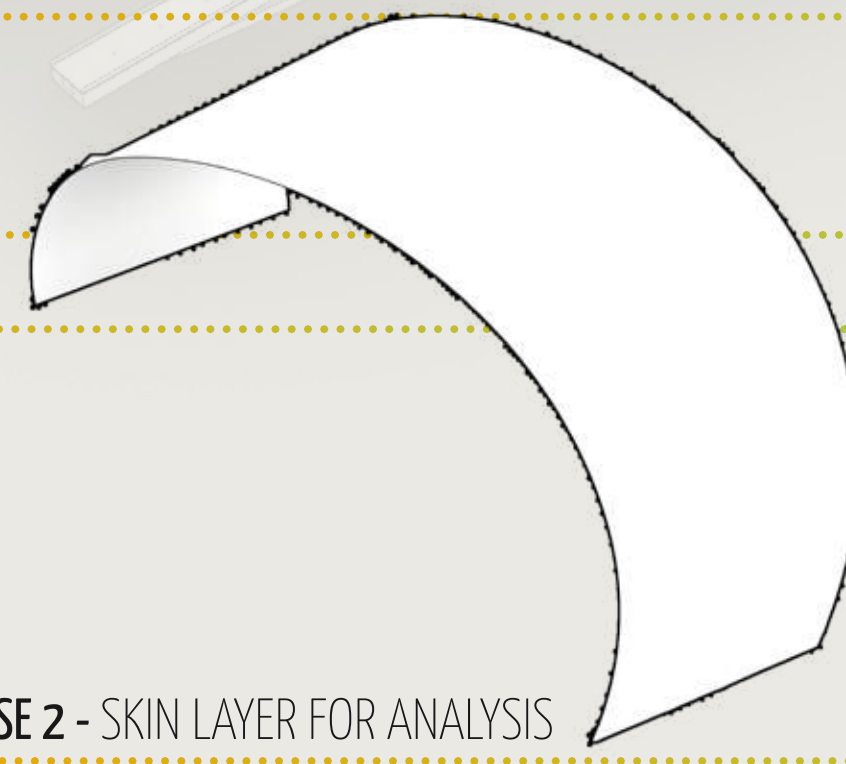
icd/itke
pavillon 2016
robotic
production
&
weaving of the
extra support



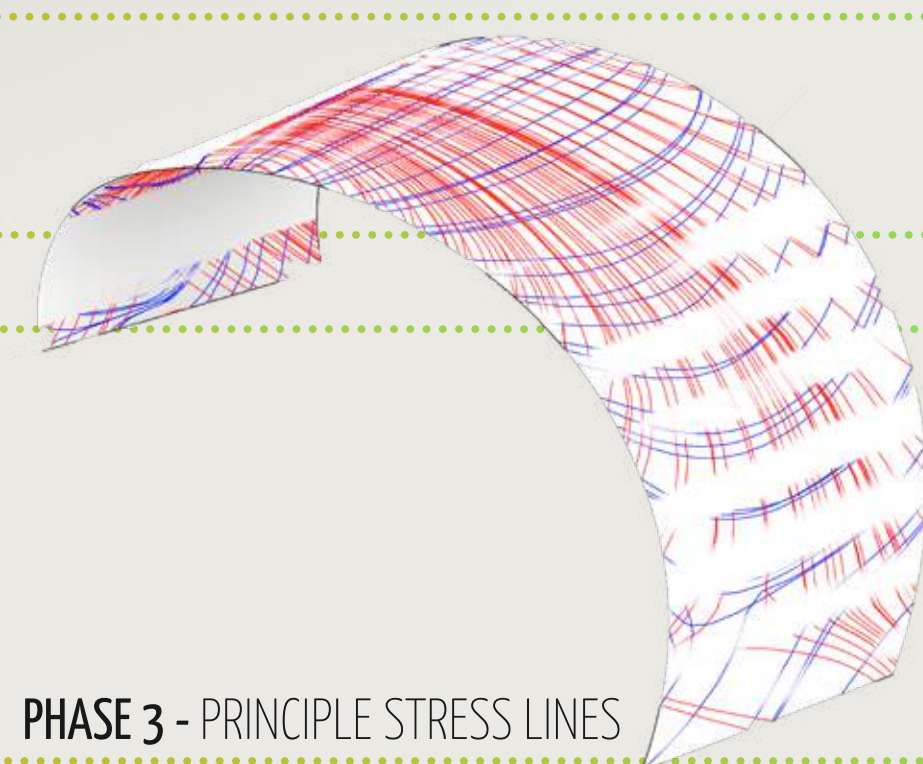
icd/itke
pavillon 2016
varying
thickness
&
multiple layers



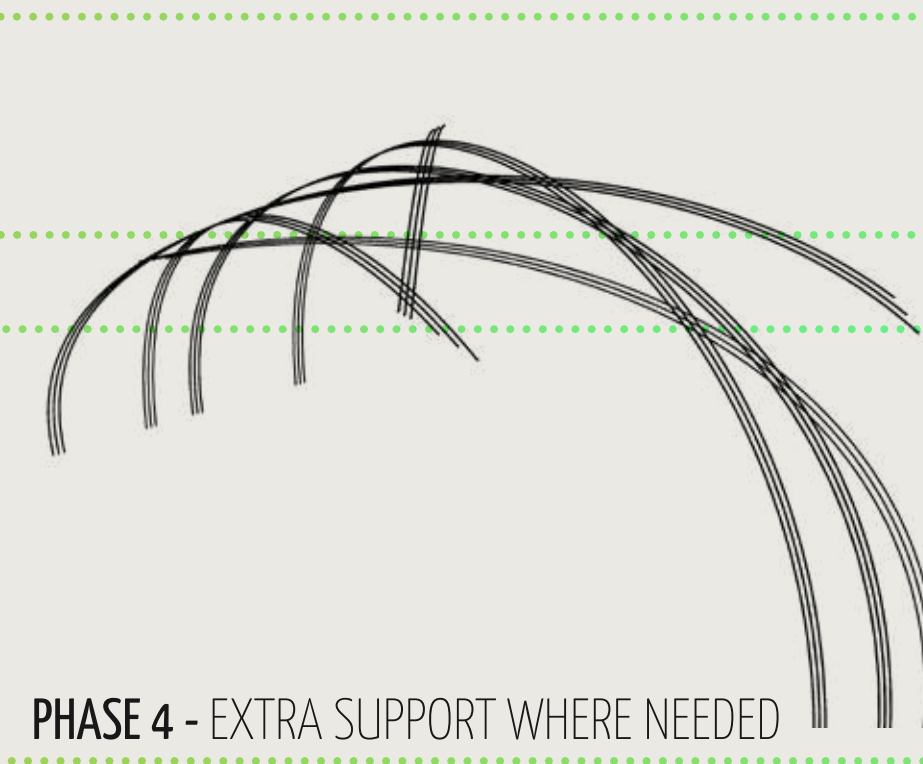
PHASE 1 - WEAVE LAYER 1



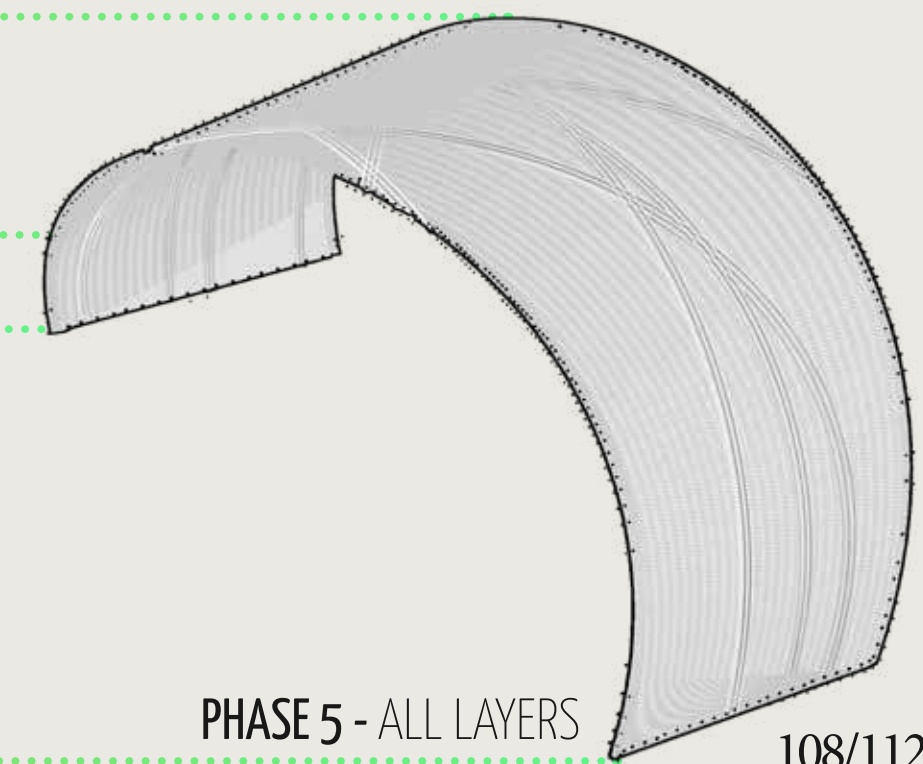
PHASE 2 - SKIN LAYER FOR ANALYSIS



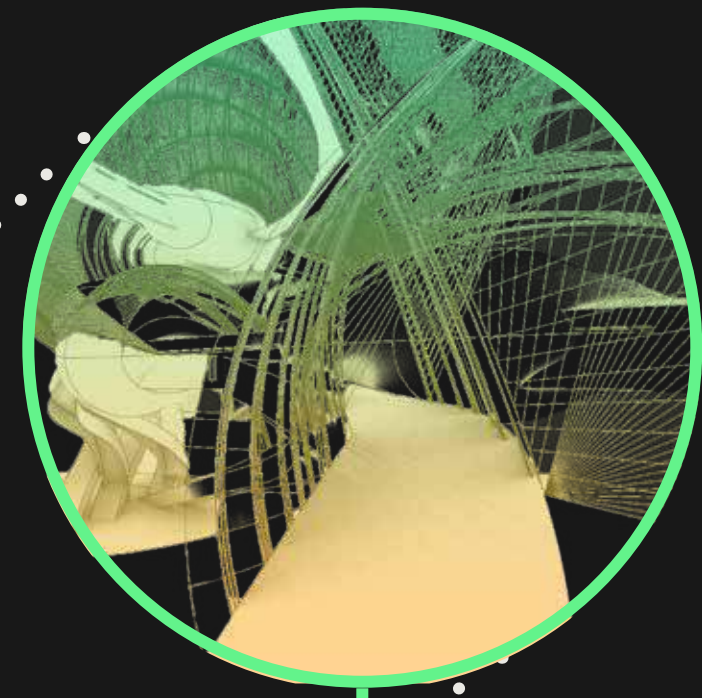
PHASE 3 - PRINCIPLE STRESS LINES



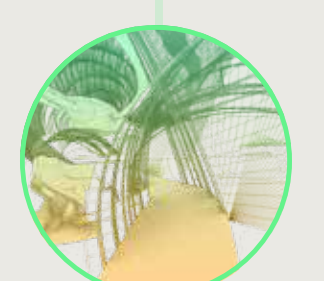
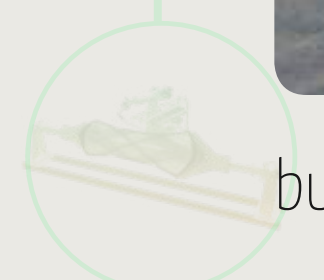
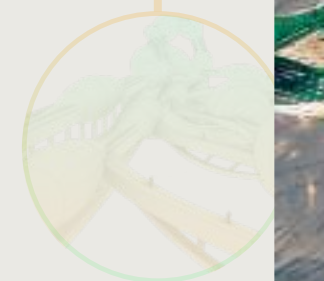
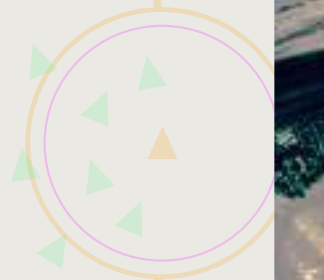
PHASE 4 - EXTRA SUPPORT WHERE NEEDED



PHASE 5 - ALL LAYERS



IR
impressions
reflection



reflection/scale



buga pavillion 2019

