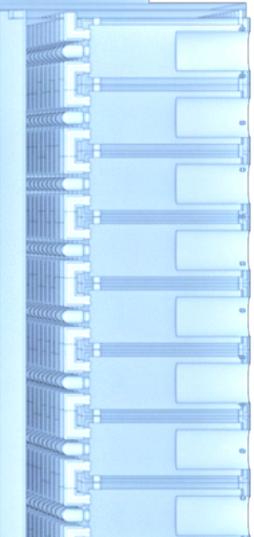
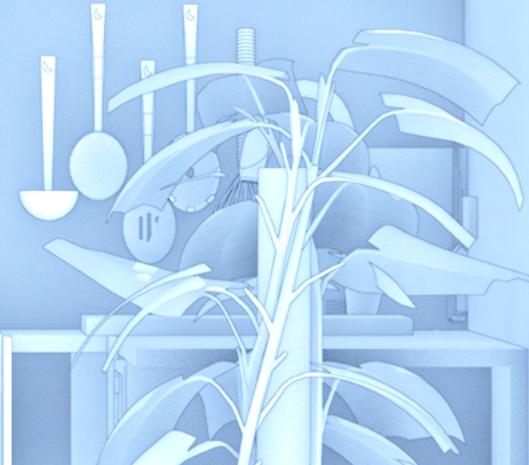


# INTER-SPECIES SHELTER

RABAN OHLHOFF



MAIN INTENTIONS

HOMELESSNESS

CONTEXTUAL INTEGRATION

CONCEPT

SITE

UNIT DESIGN

TEMPORALITY

ASSEMBLAGES

FOLLOW-UP

REFERENCES

**SHELTER**  
**MAIN INTENTIONS**

**tackling the problem of  
HOMELESSNESS**

759 Homeless People in Brussels

1/3 Of Brussels population lives below the poverty line

Poverty and real estate prices increase every year



Offer affordable transitional housing

Propose use of undeveloped fallow land

Supply restart possibility

**integration into the  
CONTEXT**

Astonishing pre-existing biodiversity

Existence of rare organisms and ecosystems

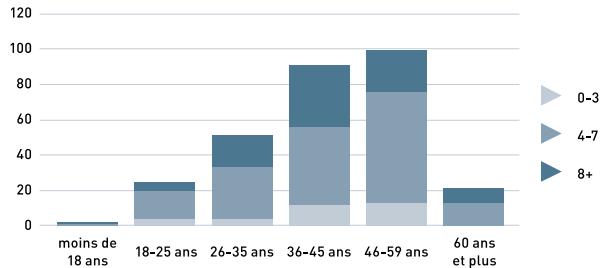
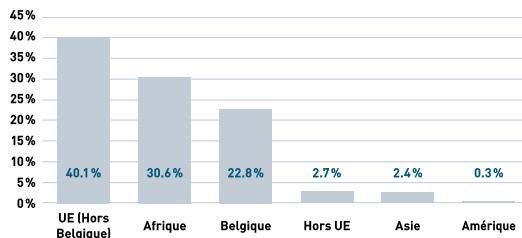
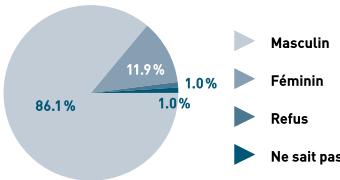
Landscape as a co-product of nature and people



Careful analysis of existing species and their interactions

Attempt to integrate architecture into existing structures

# DATA HOMELESSNESS



Situations de vie	2008		2010		2014		2016		2018		Evolution 2008- 2018
	#	%	#	%	#	%	#	%	#	%	
Espaces publics	269	15,6	329	16,9	412	15,8	707	20,9	759	18,2	+182,1%

Zones	2008		2010		2014		2016		2018		Evolution
	#	%	#	%	#	%	#	%	#	%	
3 gares principales	143	54,6	181	55	132	32	123	17,4	119	15,7	
Pentagone	78	29,8	99	30,1	171	41,5	274	38,7	227	29,9	
Hors Pentagone	41	15,6	49	14,9	109	26,4	310	43,8	413	54,4	
Total	<b>262</b>	<b>100</b>	<b>329</b>	<b>100</b>	<b>412</b>	<b>100</b>	<b>707</b>	<b>100</b>	<b>759</b>	<b>100</b>	

LE DÉLAI D'ATTENTE POUR UN LOGEMENT SOCIAL  
(44000 MÉNAGES CONCERNÉS)  
EST DE +DE 10 ANS

MEDIAN INCOME  
HOMELESSNESS

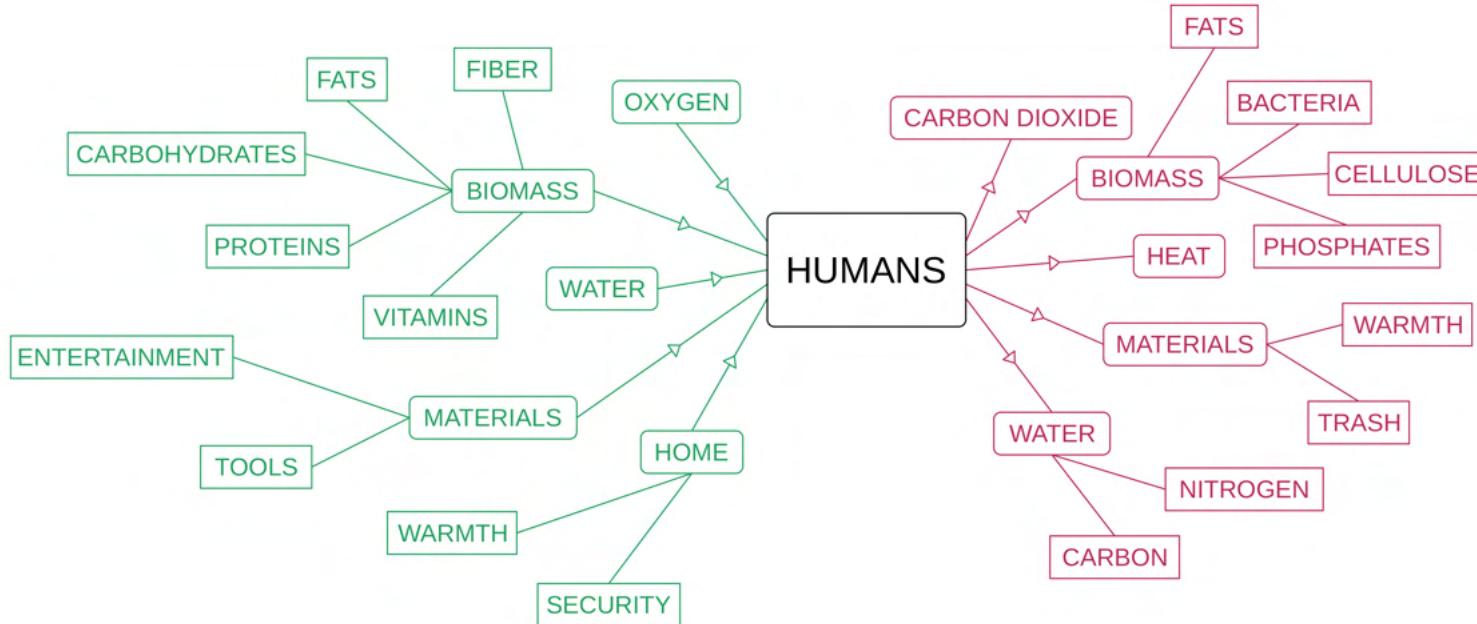


EXAMPLE  
HOMELESSNESS

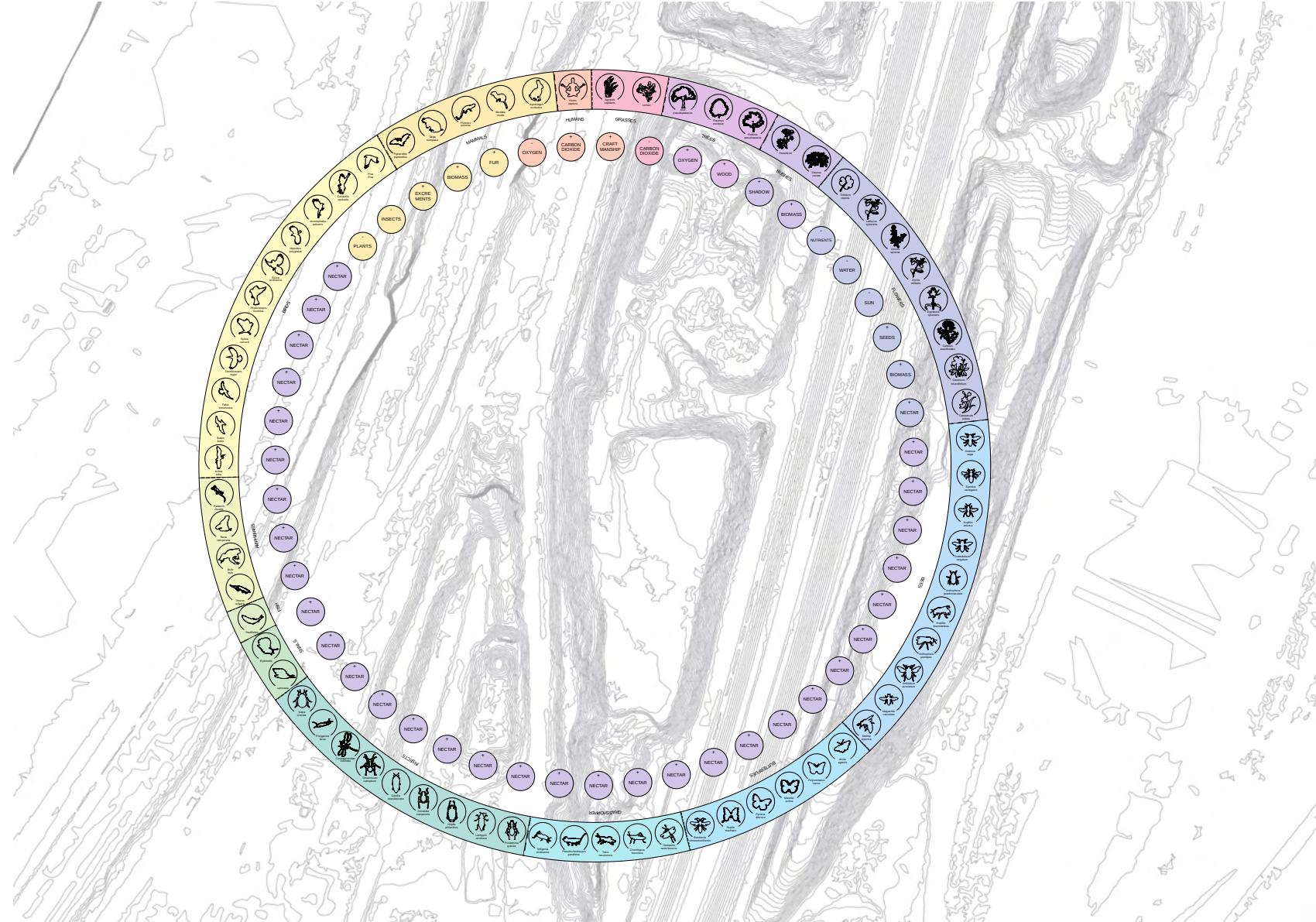


400  
TOITS | DAKEN

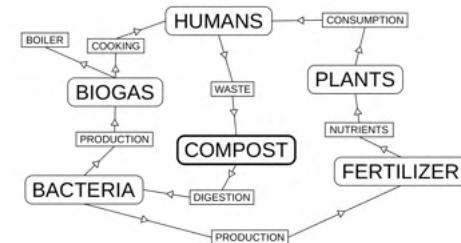
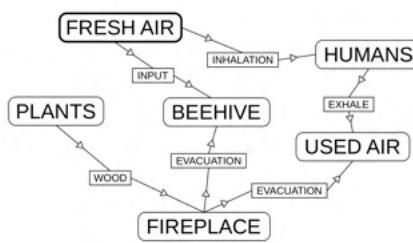
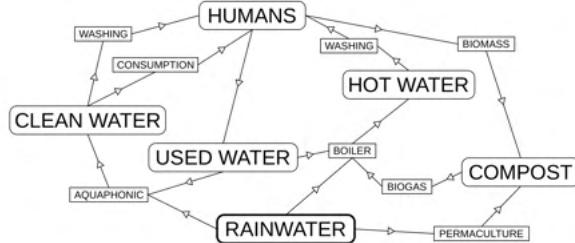
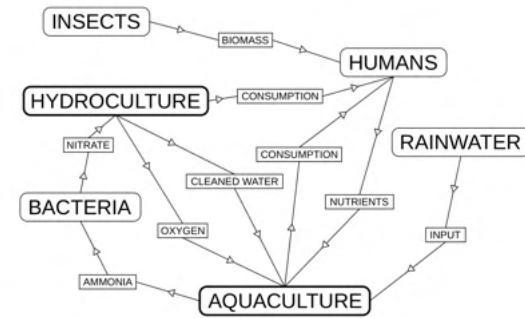
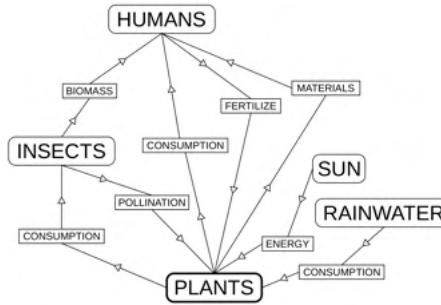
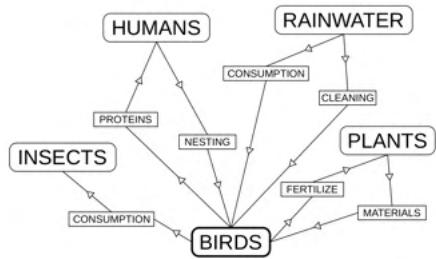
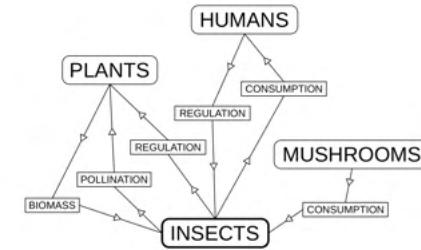
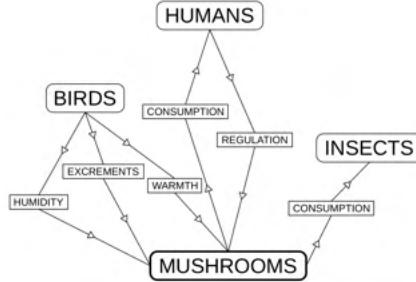
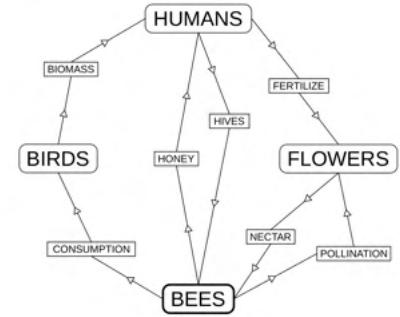
INPUT/OUTPUT  
CONTEXTUAL  
INTEGRATION



NET  
CONTEXTUAL  
INTEGRATION

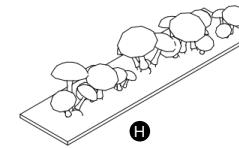
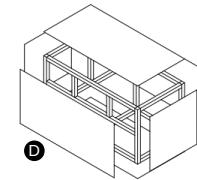
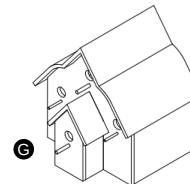
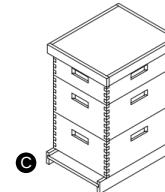
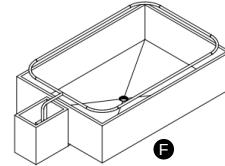
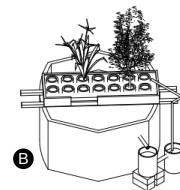
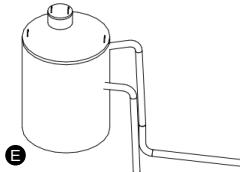
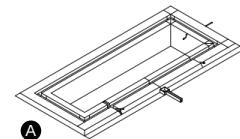


SYSTEMS  
CONTEXTUAL  
INTEGRATION

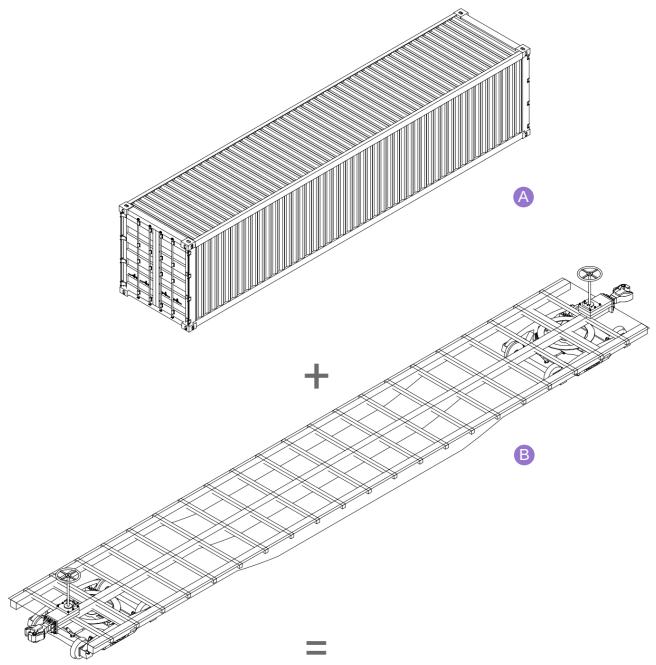


UTILITIES  
CONTEXTUAL  
INTEGRATION

- Ⓐ BIOGAS DIGESTER
- Ⓑ AQUAPHONICS
- Ⓒ BEEHIVES
- Ⓓ CRICKET FARM
- Ⓔ RAINWATER CISTERN
- Ⓕ COMPOST
- Ⓖ BIRD NESTING
- Ⓗ FUNGI-CULTURE



MATERIALS  
CONCEPT



SHELTER  
C



**PLAN  
SITE**

**A** SITE  
[JOSEPHAT HILLS]

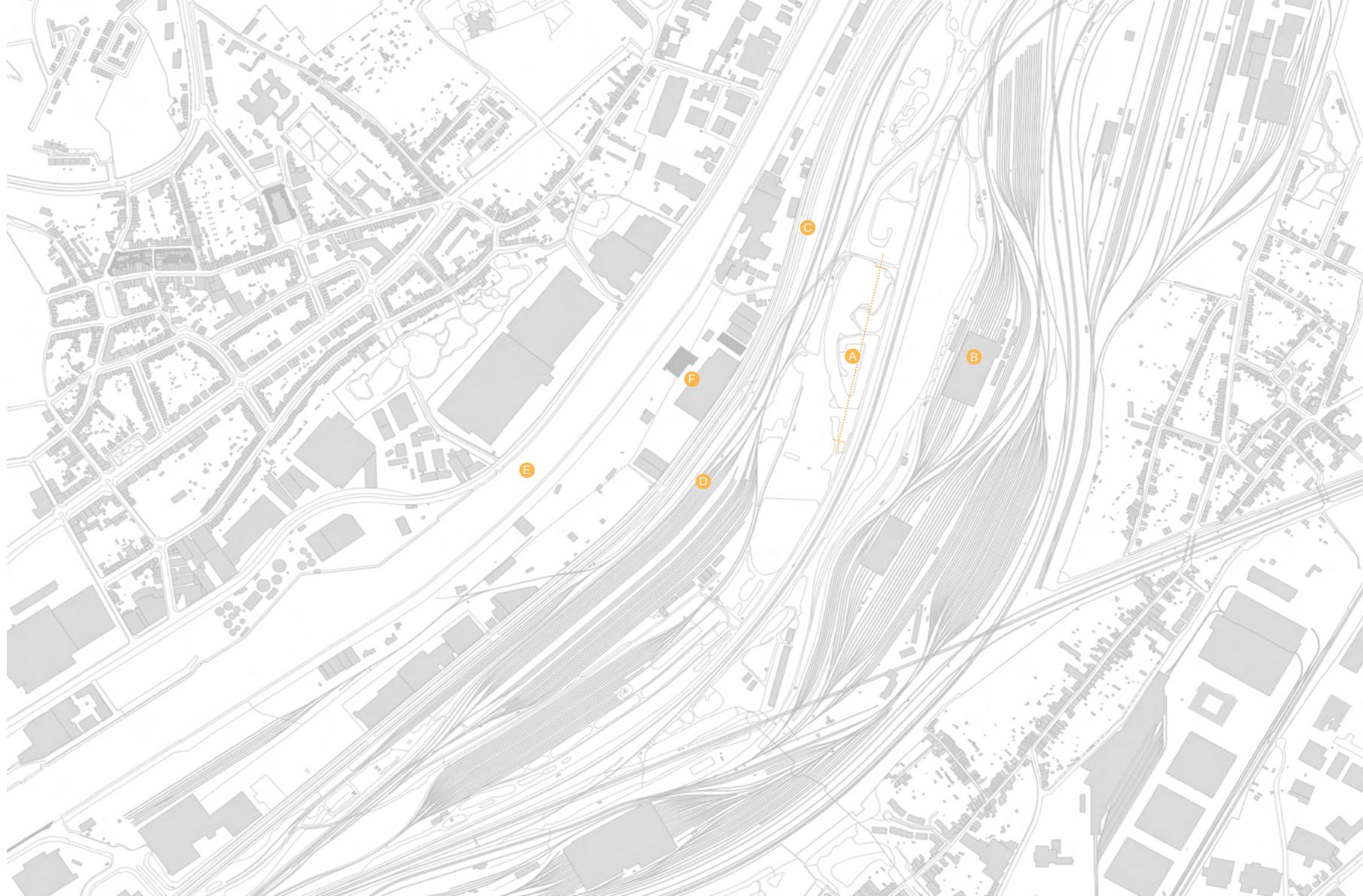
**B** ABANDONED  
HANGAR

**C** BUS STATION

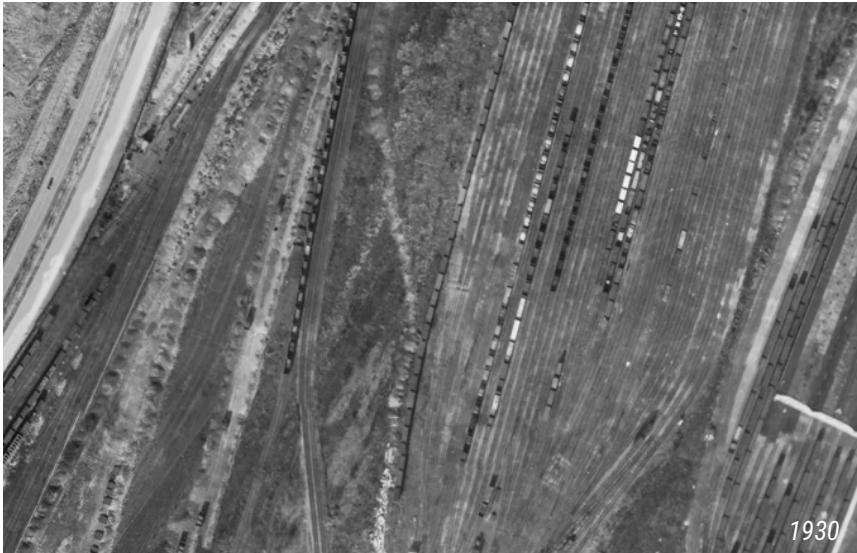
**D** WAGON  
STORAGE

**E** SENNE RIVER

**F** INDUSTRIES



HISTORY  
SITE



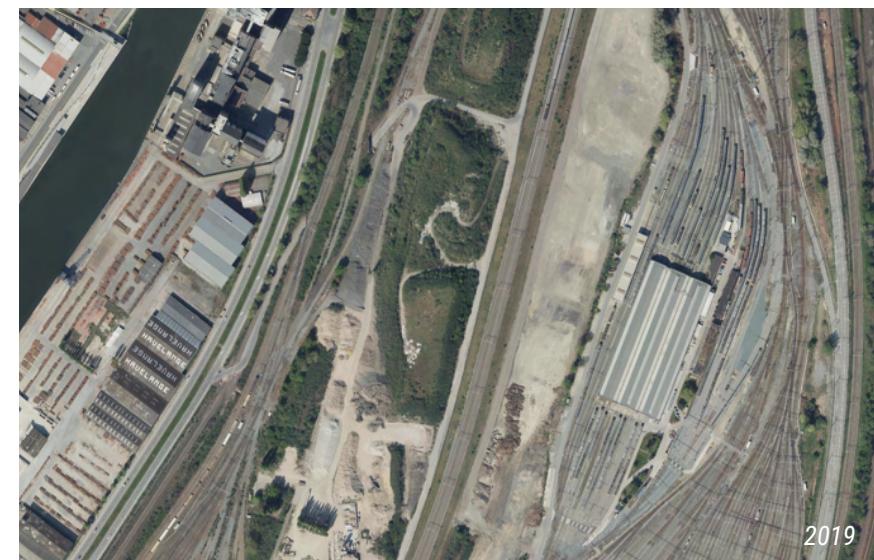
1930



1987

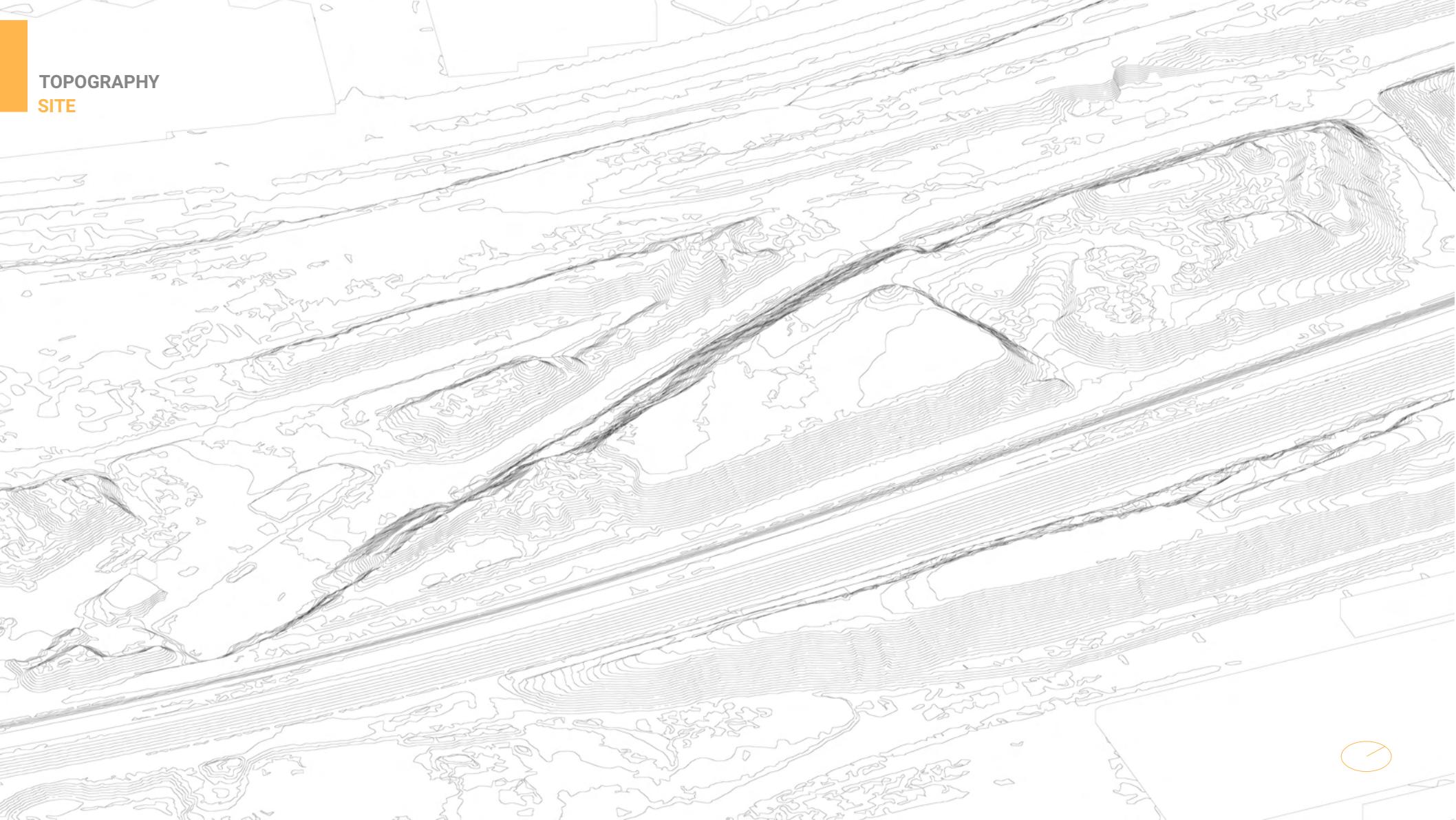


2004



2019

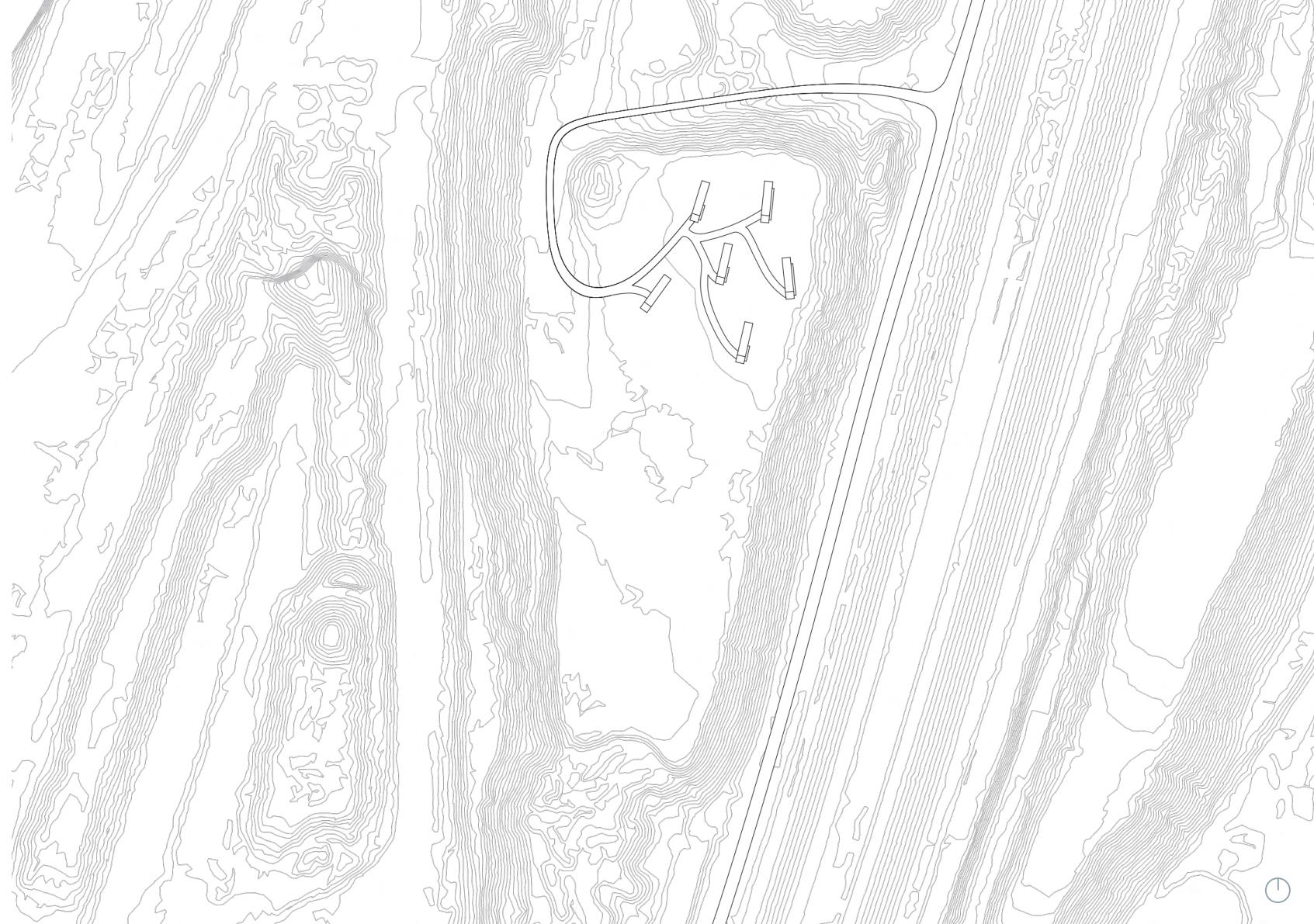
TOPOGRAPHY  
SITE



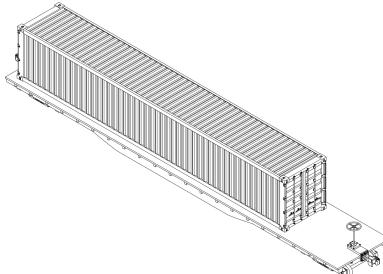
SECTION  
SITE



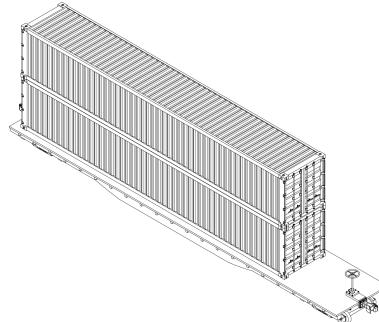
IMPLANTATION  
UNIT DESIGN



2 TYPES  
UNIT DESIGN

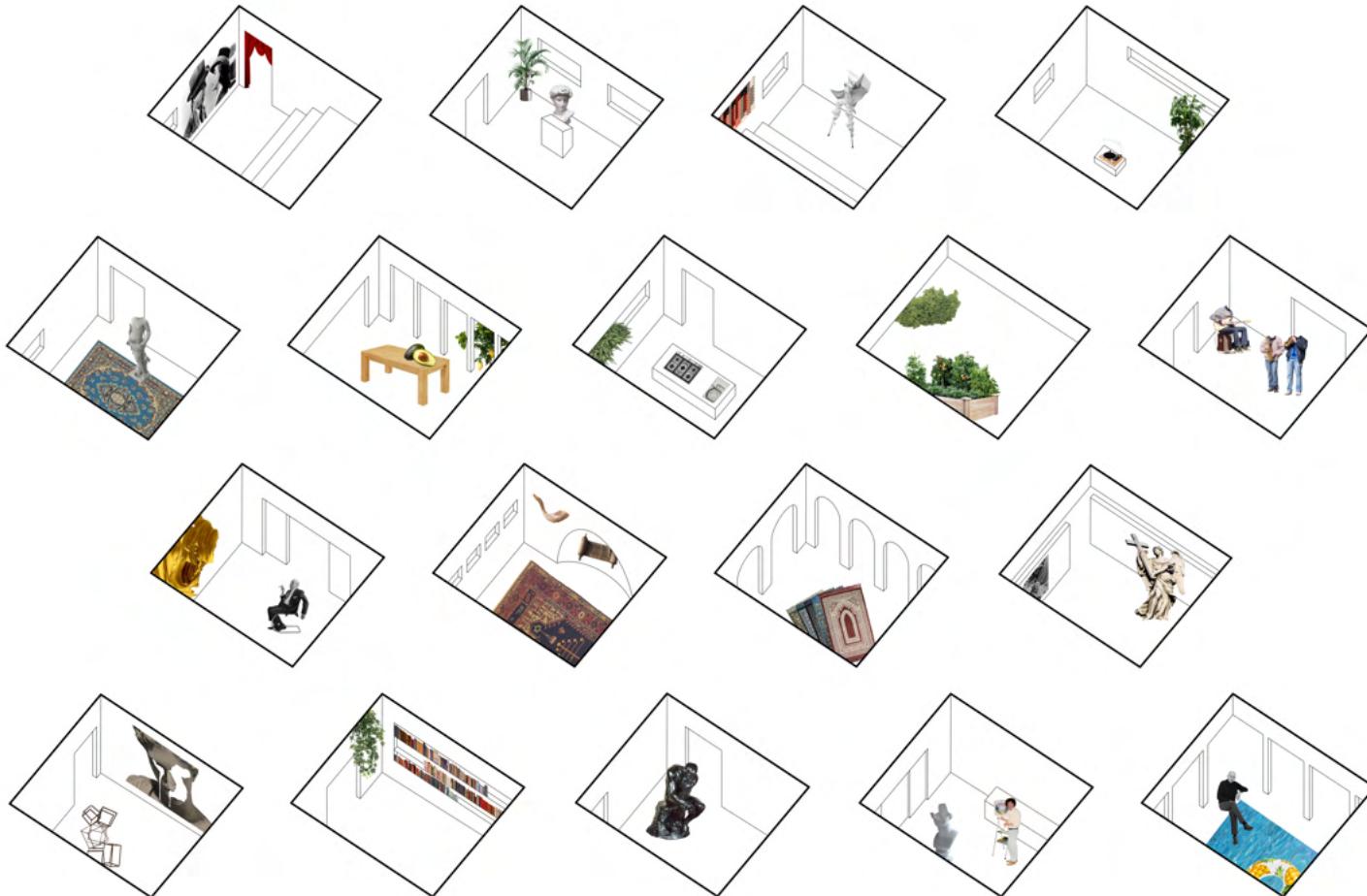


TYPE I [SINGLE]

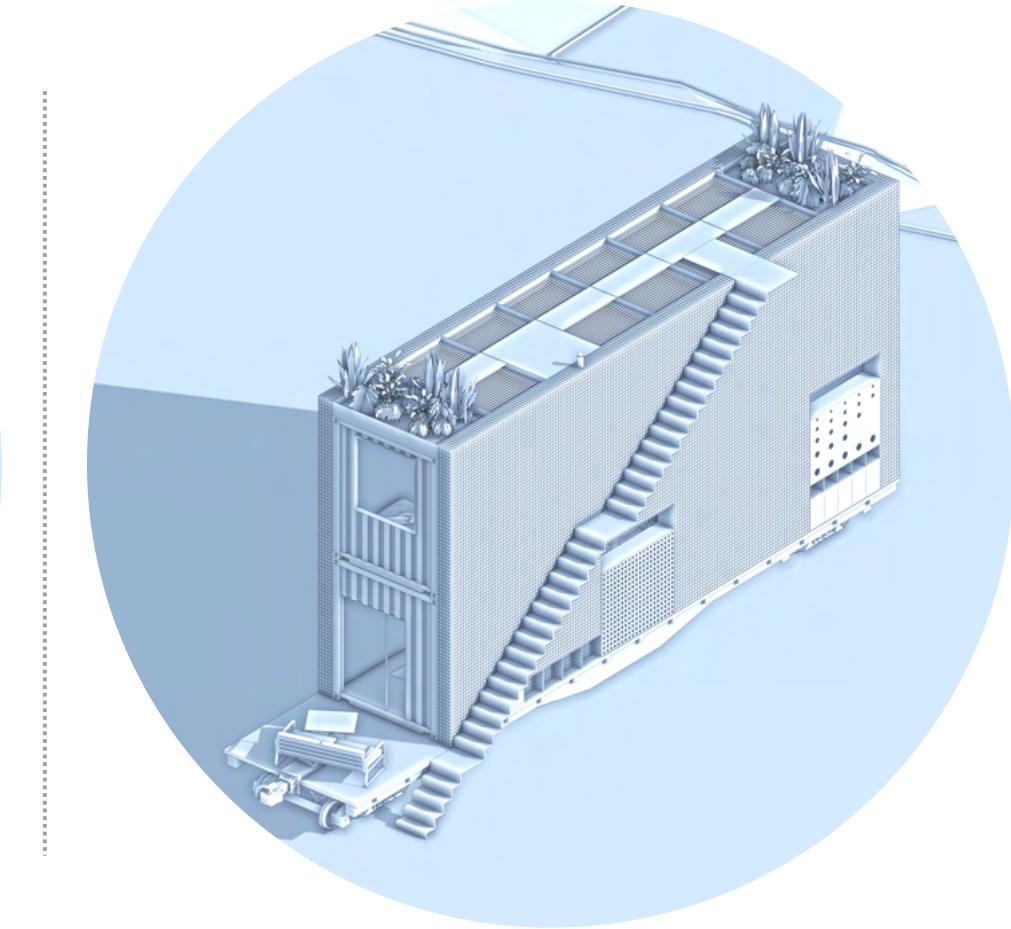
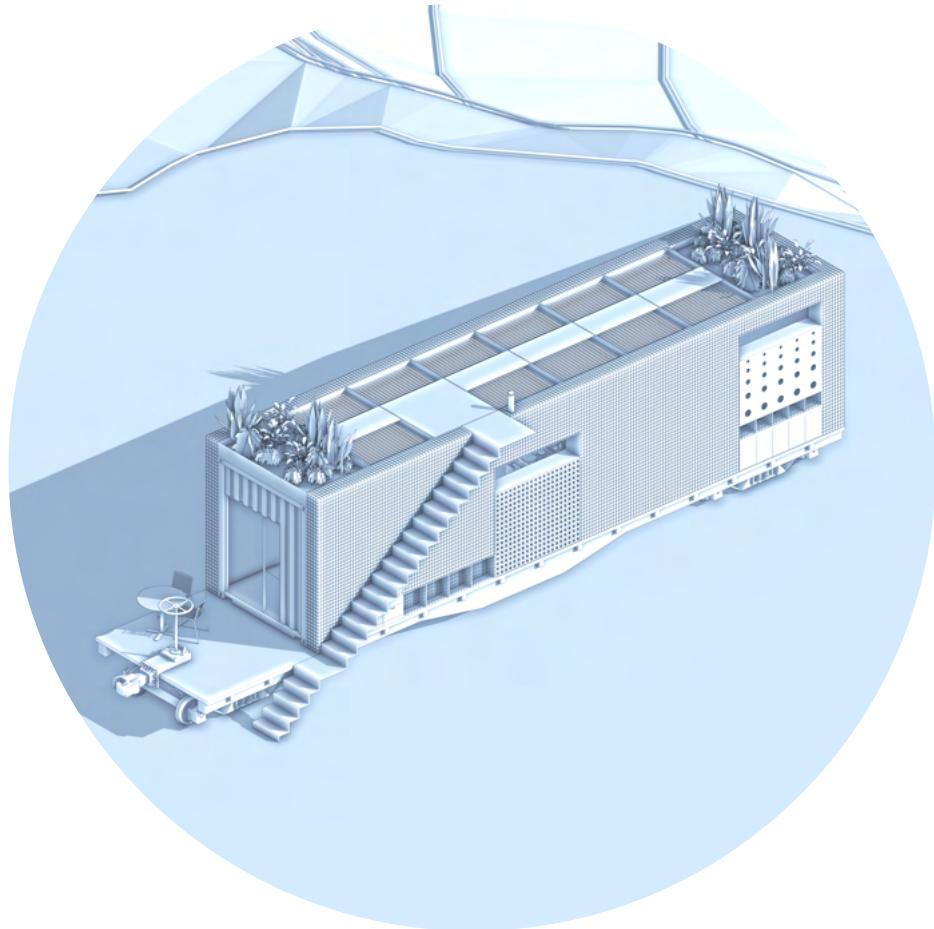


TYPE II [DOUBLE]

INDIVIDUALITY  
UNIT DESIGN



AXONOMETRY  
UNIT DESIGN



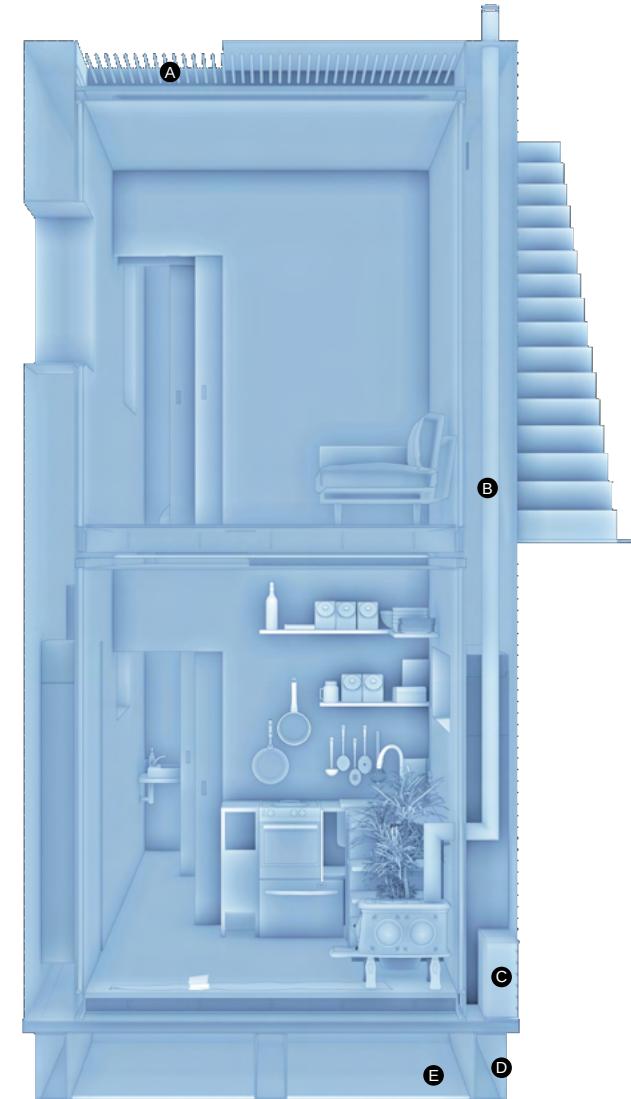
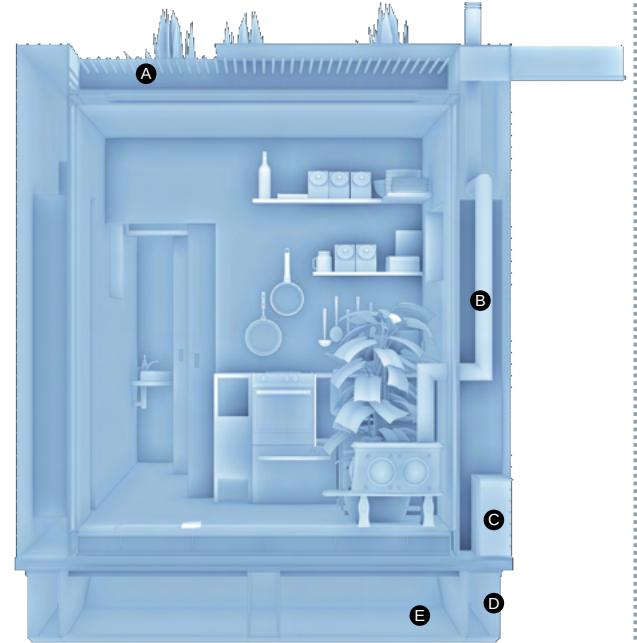
FRONT  
UNIT DESIGN

- A WAGON
- B CONTAINER
- C ROOF ACCESS
- D BIOMASS ISOLATION
- E PERMACULTURE



CUT I  
UNIT DESIGN

- Ⓐ AQUA-PHONICS
- Ⓑ VENTILATION
- Ⓒ WOOD STORAGE
- Ⓓ RODENT NEST
- Ⓔ COMPOST TO BIO-GAS TANK



CUT II  
UNIT DESIGN

- A SOLAR PANEL
- B HAY + FOLIAGE
- C INSECT NESTING
- D CRICKET FARM
- E COMPOST INPUT

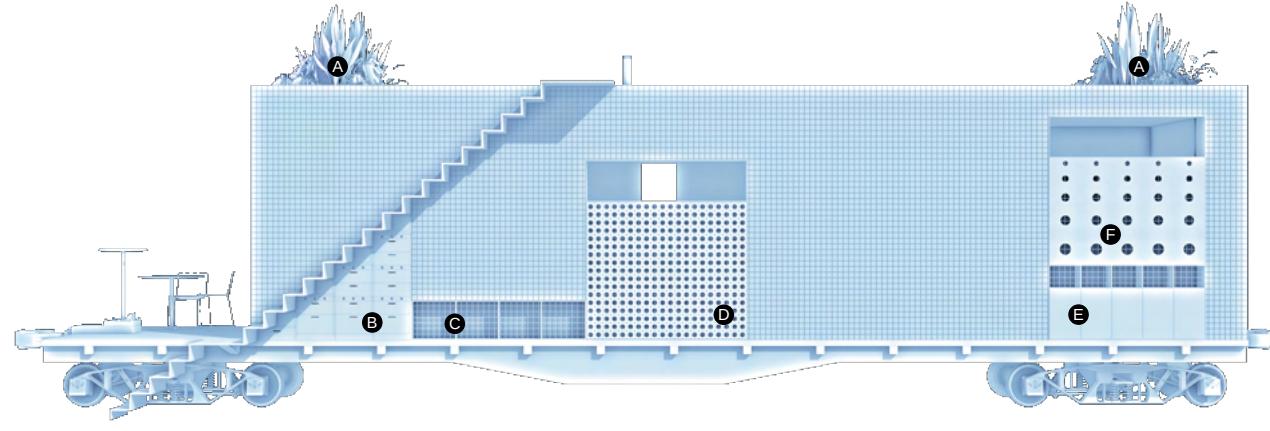


CUT III  
UNIT DESIGN

- A RAINWATER CISTERN
- B BIRD NESTING
- C FUNGI-CULTURE
- D BIOMASS INPUT



## EAST ELEVATION UNIT DESIGN



Ⓐ PERMACULTURE

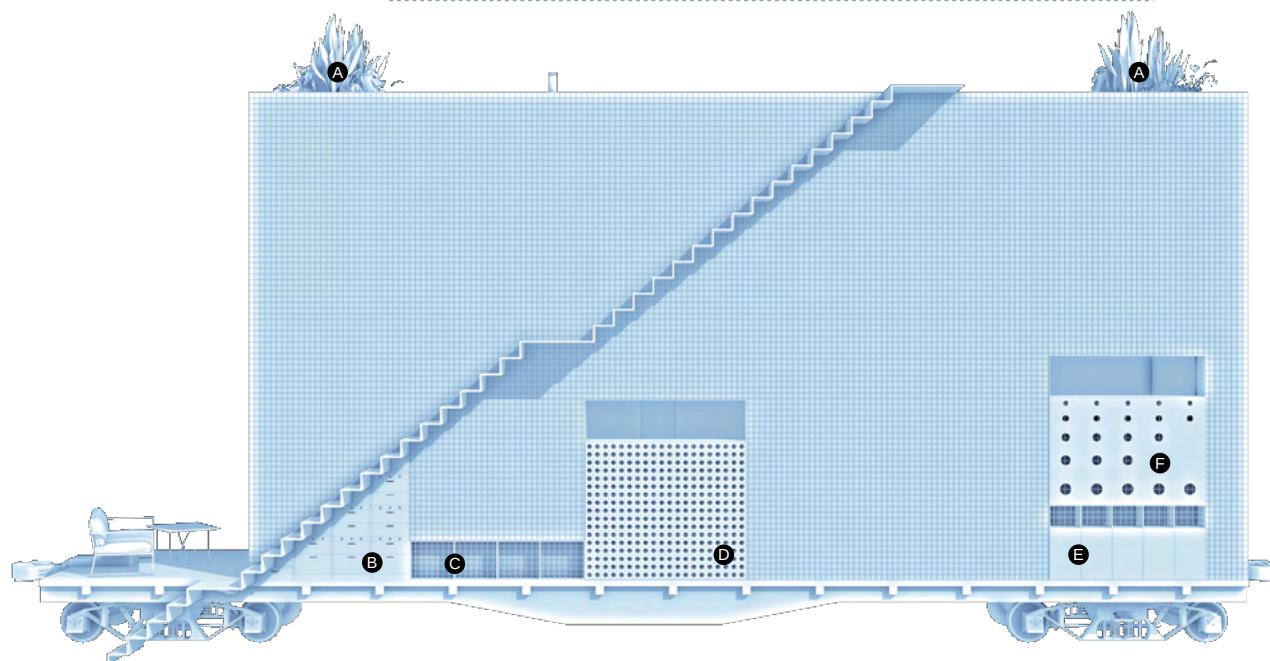
Ⓑ BEEHIVES

Ⓒ WOOD STORAGE

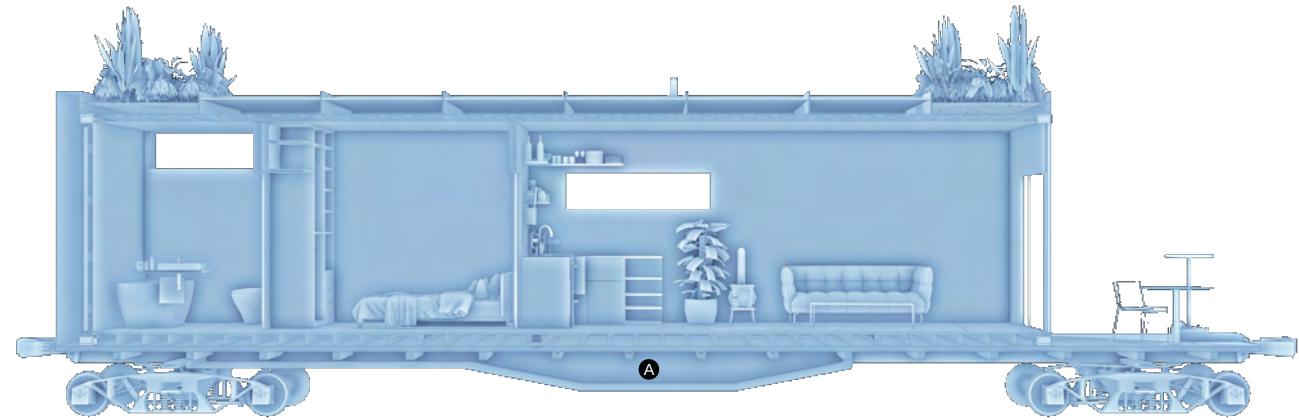
Ⓓ CRICKET FARM

Ⓔ FUNGI-CULTURE

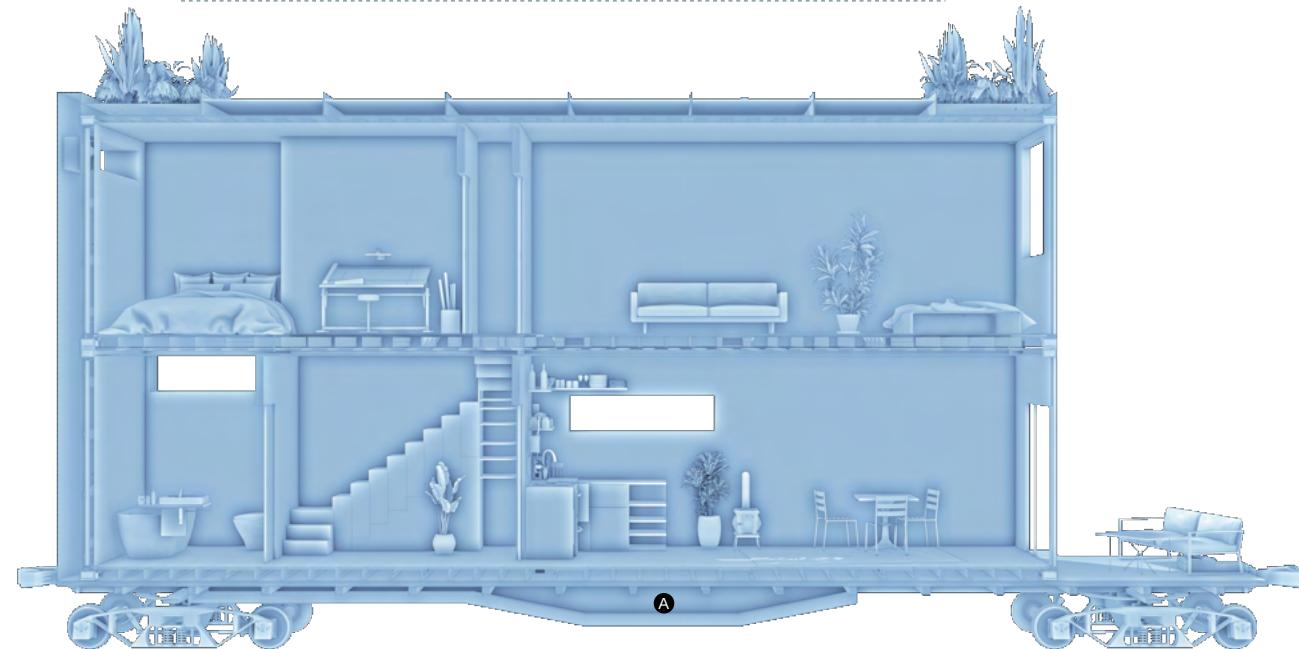
Ⓕ BIRD NESTING



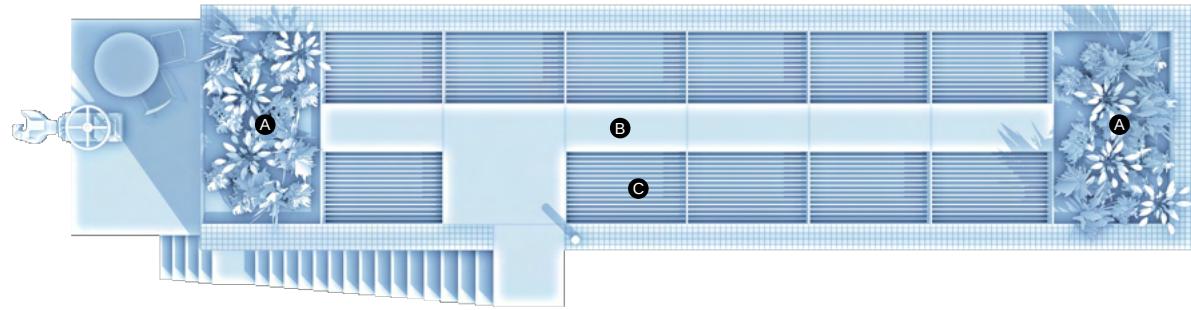
CUT IV  
UNIT DESIGN



A COMPOST TO  
BIO-GAS TANK



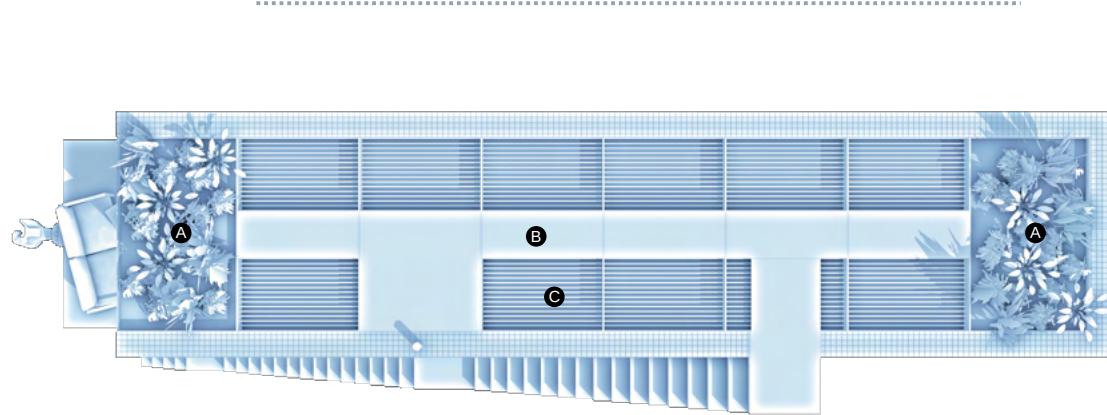
TOP  
UNIT DESIGN



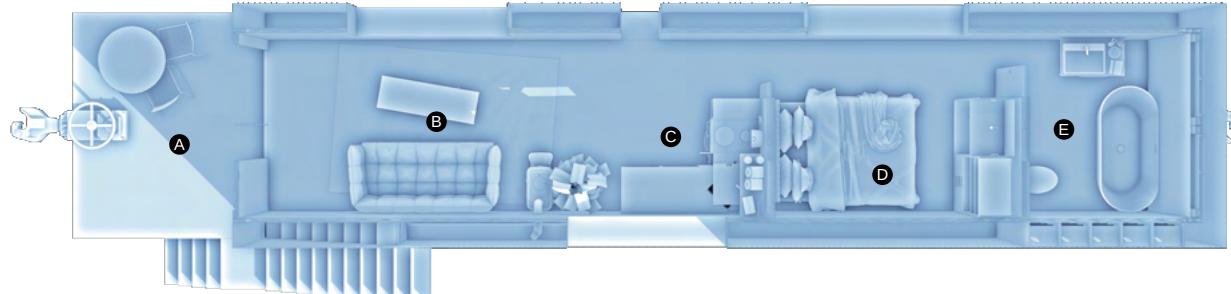
**A** PERMACULTURE

**B** SOLAR PANEL

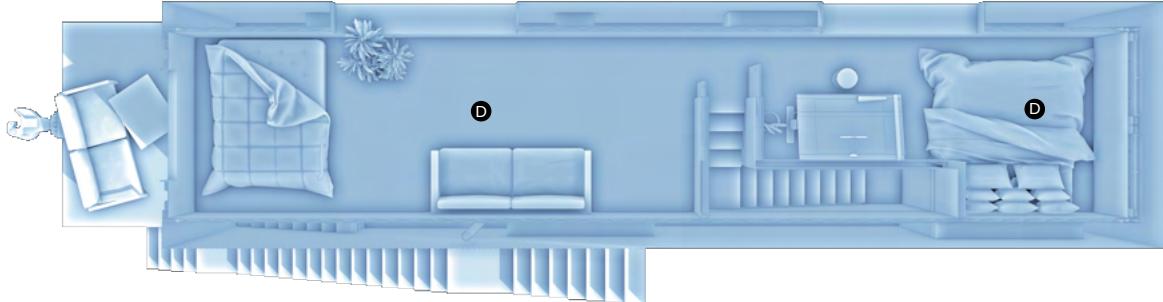
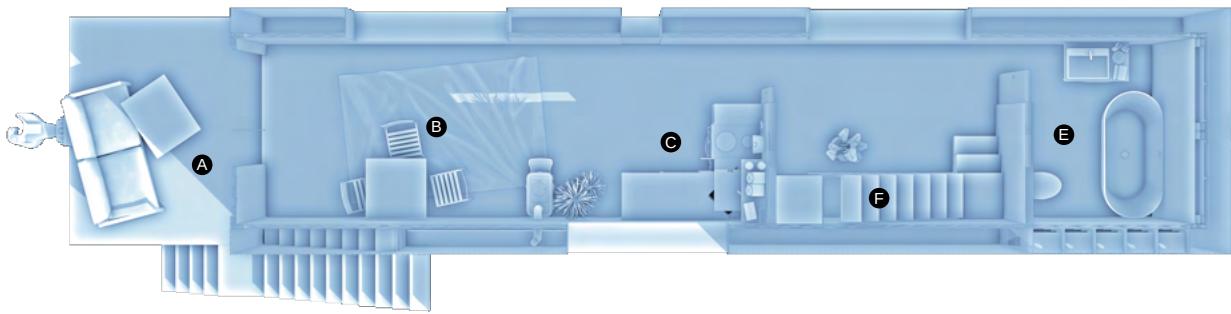
**C** AQUA-PHONICS



FLOORS  
UNIT DESIGN



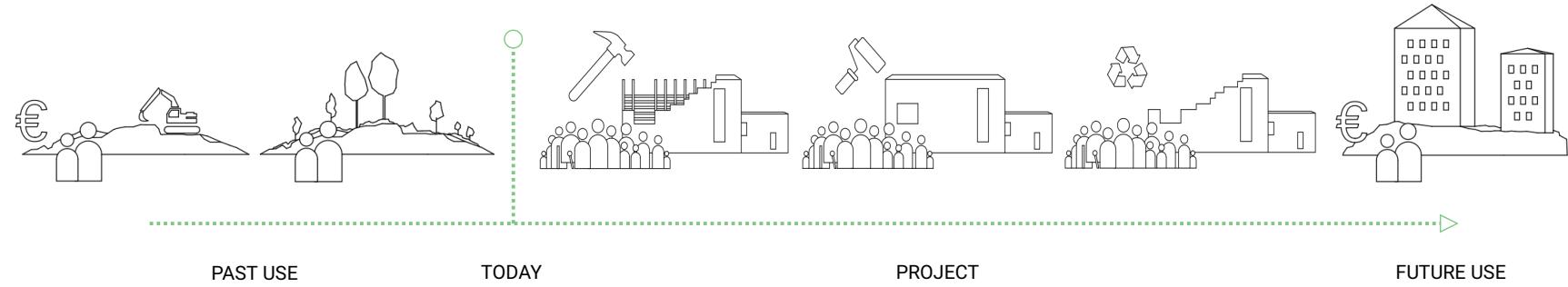
- Ⓐ TERRACE
- Ⓑ LIVING ROOM
- Ⓒ KITCHEN
- Ⓓ BEDROOM
- Ⓔ BATHROOM
- Ⓕ STAIRS



FLOORS  
UNIT DESIGN

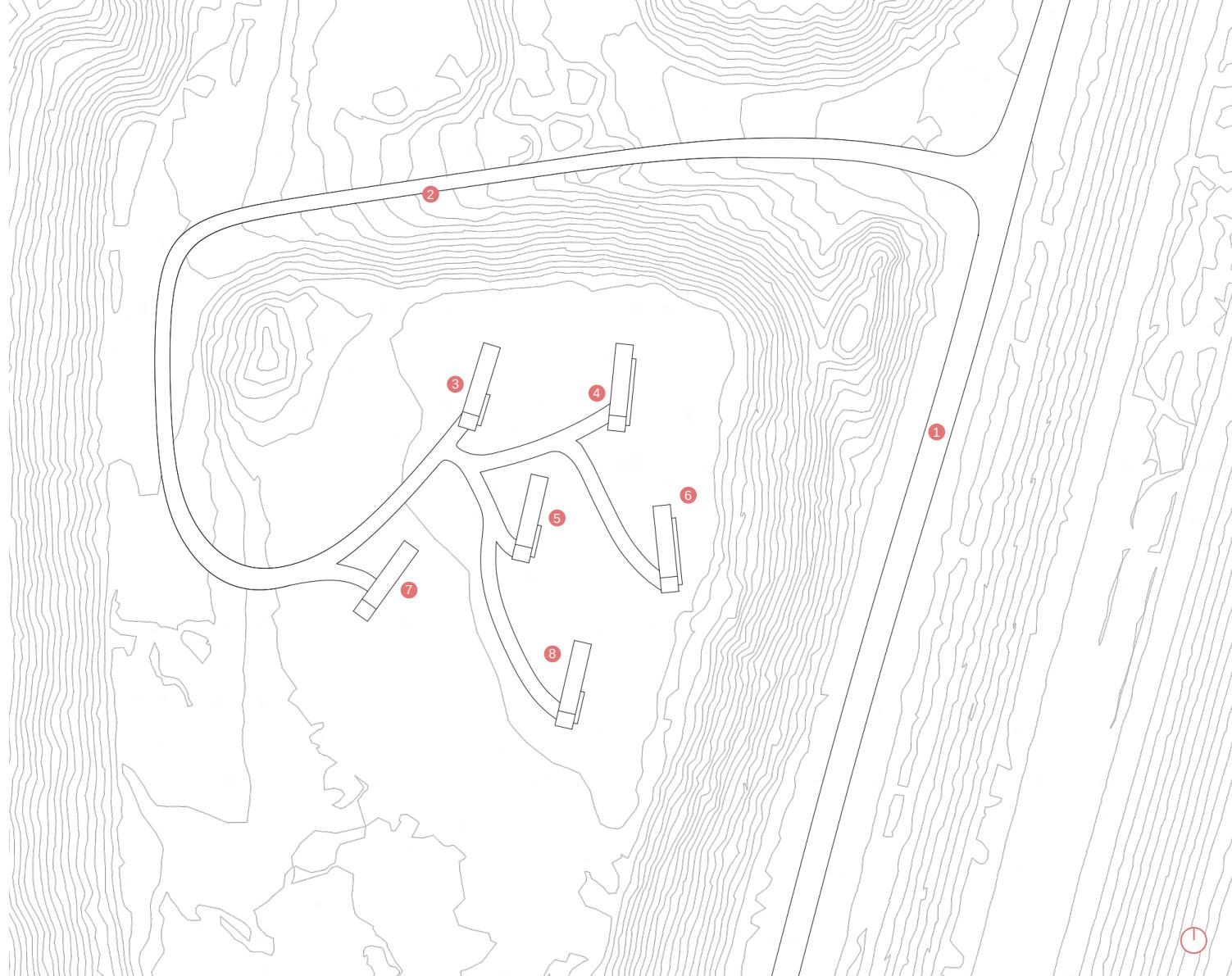


LAND USE  
TEMPORALITY



PROGRESSION  
ASSEMBLAGES

- ① EXISTING ROAD
- ② BUILD TRACK
- ③ FIRST UNIT
- ④ SECOND UNIT
- ⑤ THIRD UNIT
- ⑥ FOURTH UNIT
- ⑦ UTILITY UNIT
- ⑧ FIFTH UNIT



**prefabrication and  
individuality  
PARADOX**

Advantage of prefabrication is efficiency

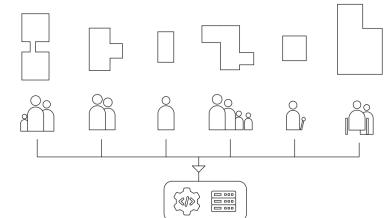
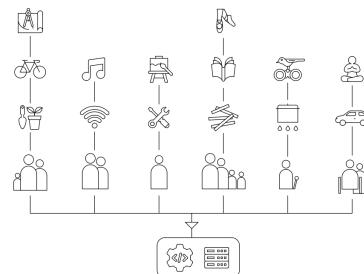
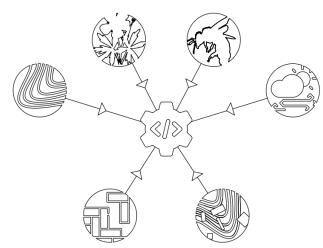
Prefabrication prevents individuality

Individuality is an essential component of  
domestic architecture



Finding a balance between efficiency and  
singularity

Computer-based automation coupled with  
machine learning could provide a solution



LINKS  
REFERENCES

