

DUMOULIN
IPW III PROJECT: PIPE AND BRICK FACTORY WIJTSCHATE



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Begeleider

Prof. Barbara Van der Wee

In samenwerking met



ETWIE
Expertisecentrum voor Technisch,
Wetenschappelijk en Industrieel Erfgoed

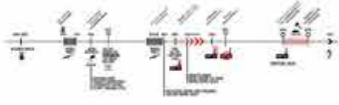
LIBERAAL
ARCHIEF
Liberas
CENTRUM VOOR
DE GESCHIEDENIS
VAN HET VRIJE DENKEN
EN HANDELEN

OD'GDD
TECHNOLOGIECAMPUS
GENT

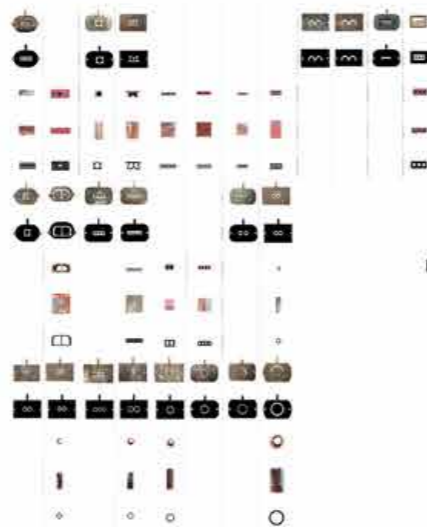


Opdracht - Doelen

Historische
Analyse



Inventarisatie



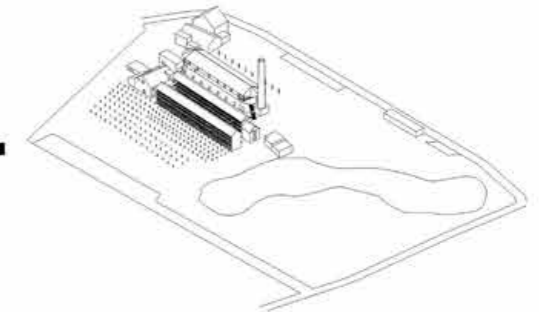
Productie
Proces



Bunker
WOI

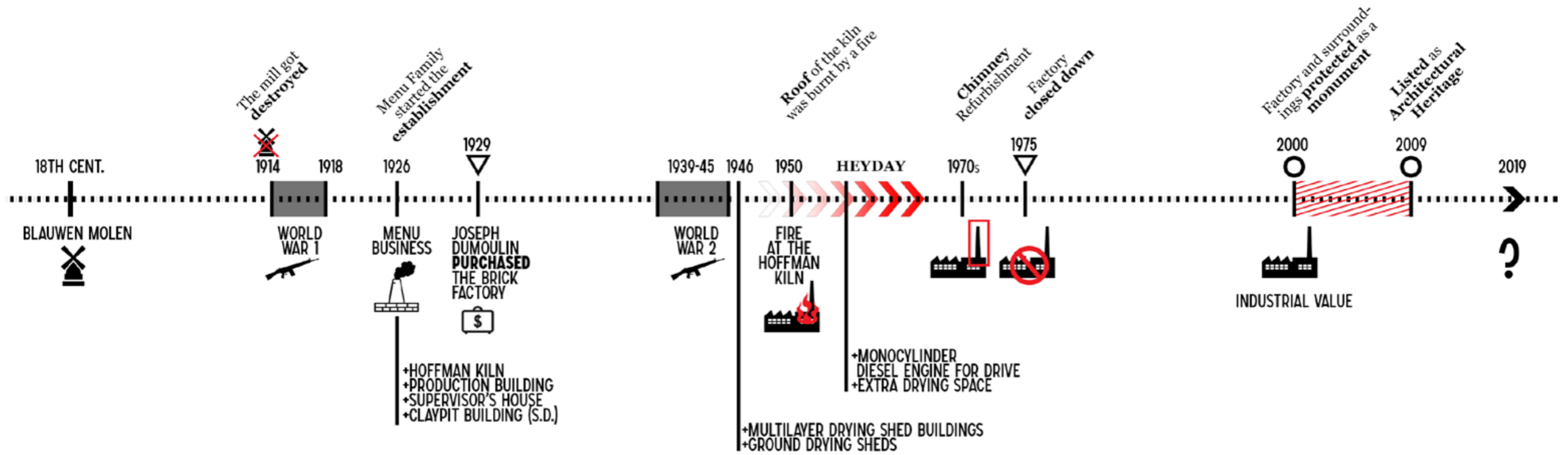


Documentatie

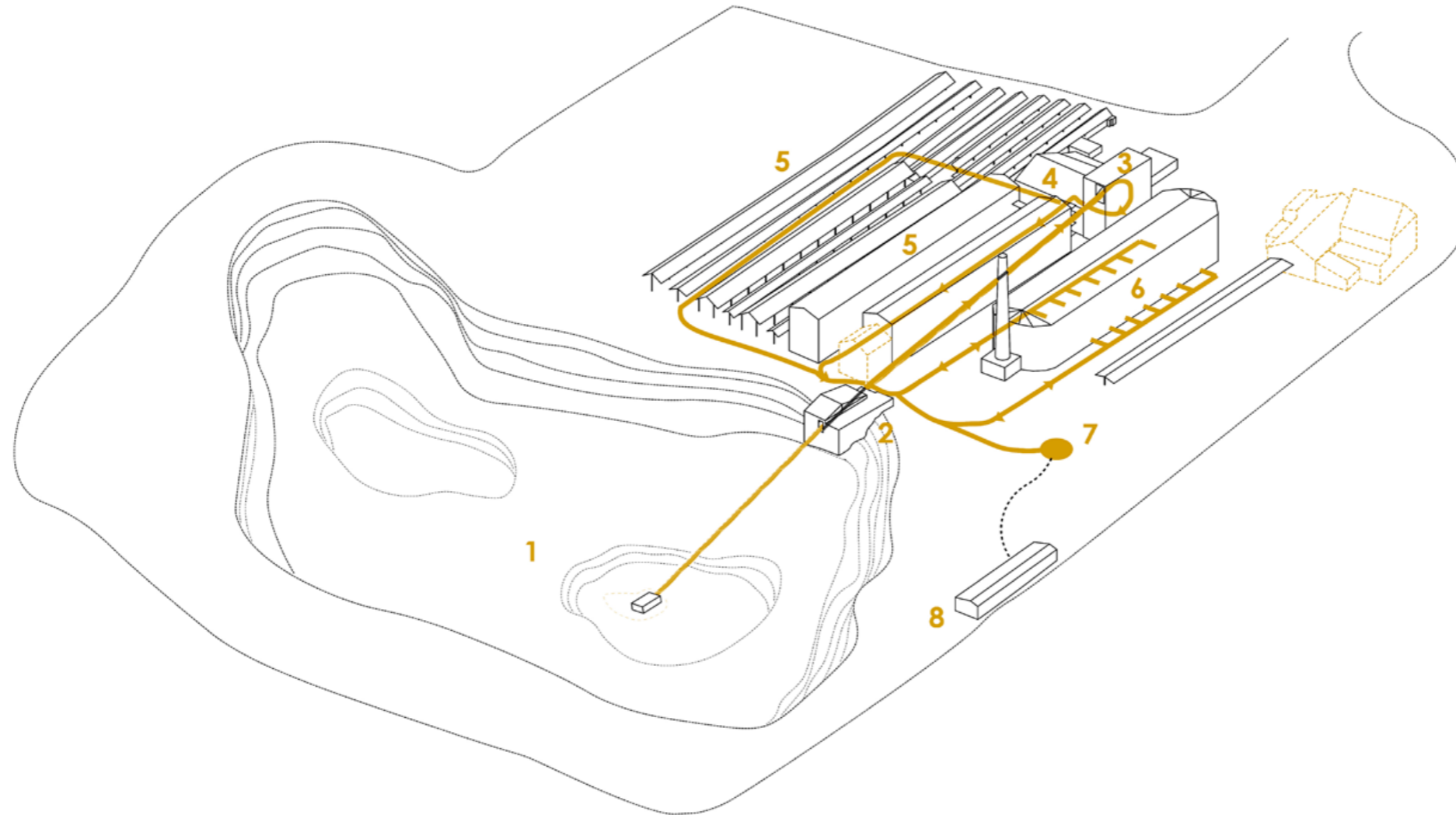


Masterplan
Bescherming + Toekomstvisie

Historische Analyse - Tijdlijn



Historische Analyse - Productie Proces



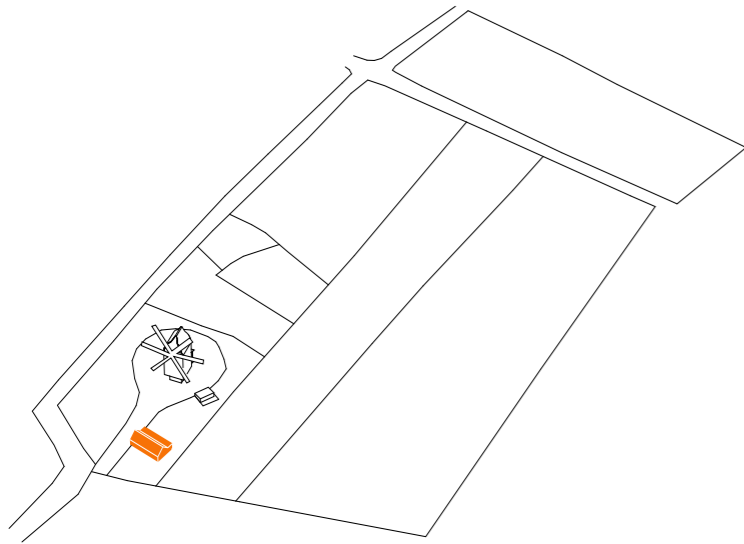
Procedure (1-8)



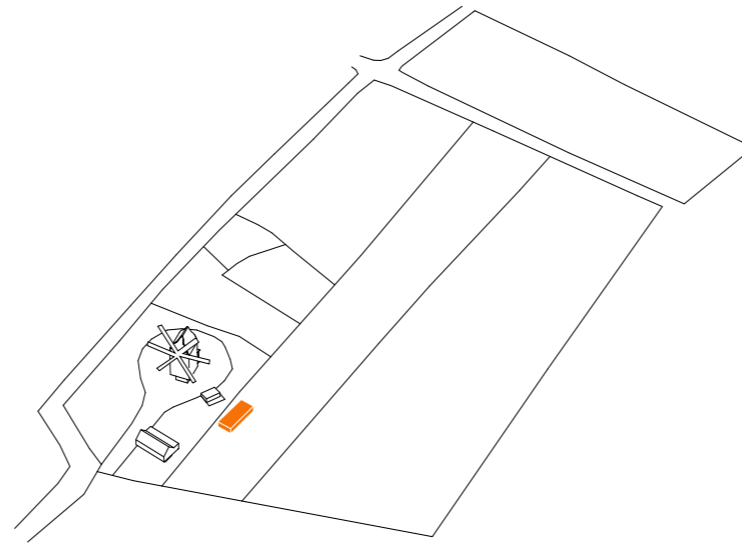
Historische Analyse - WWI Bunker



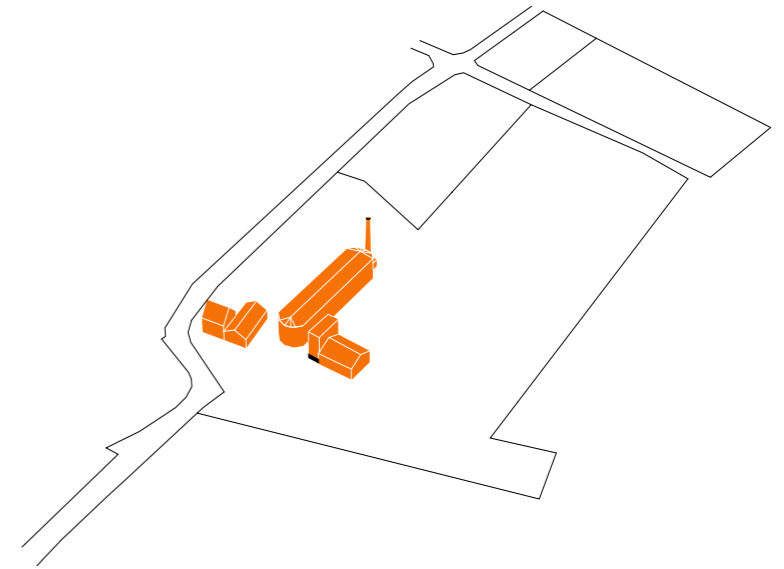
Historische Analyse - Kadaster



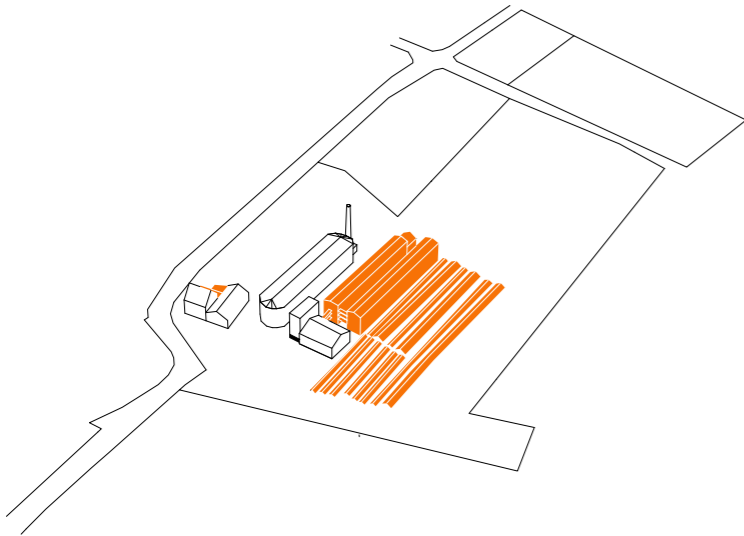
1883 - 1884



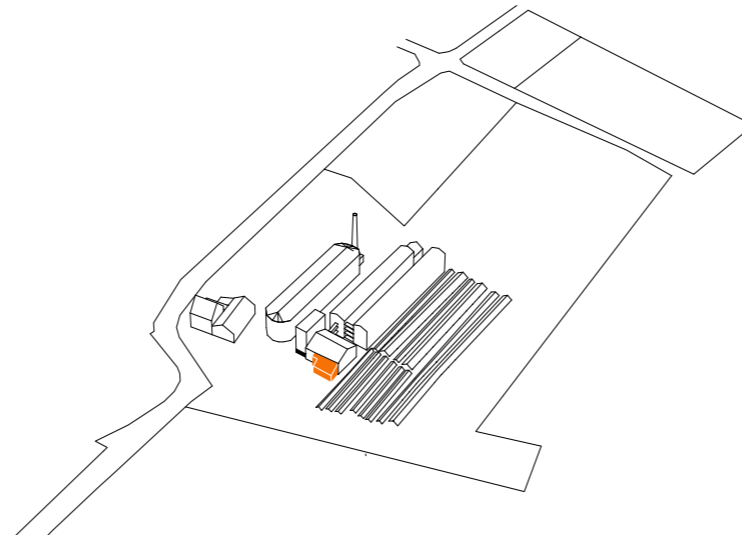
1914 - 1918



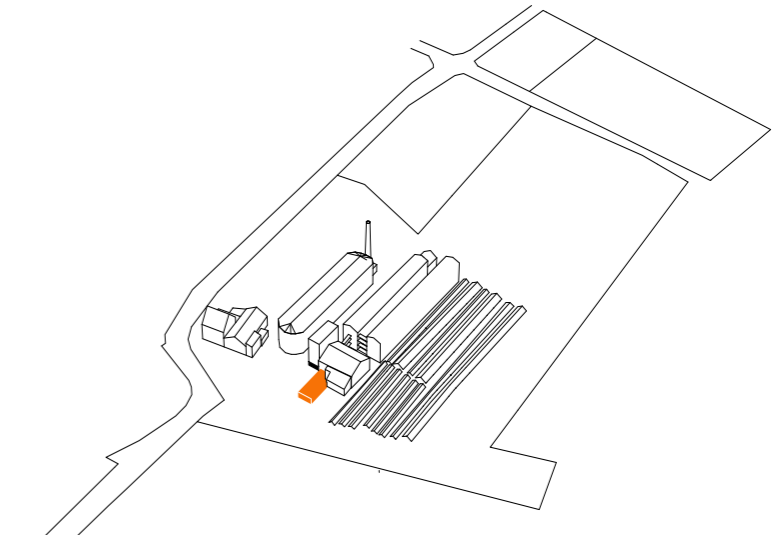
1926 - 1929



1946

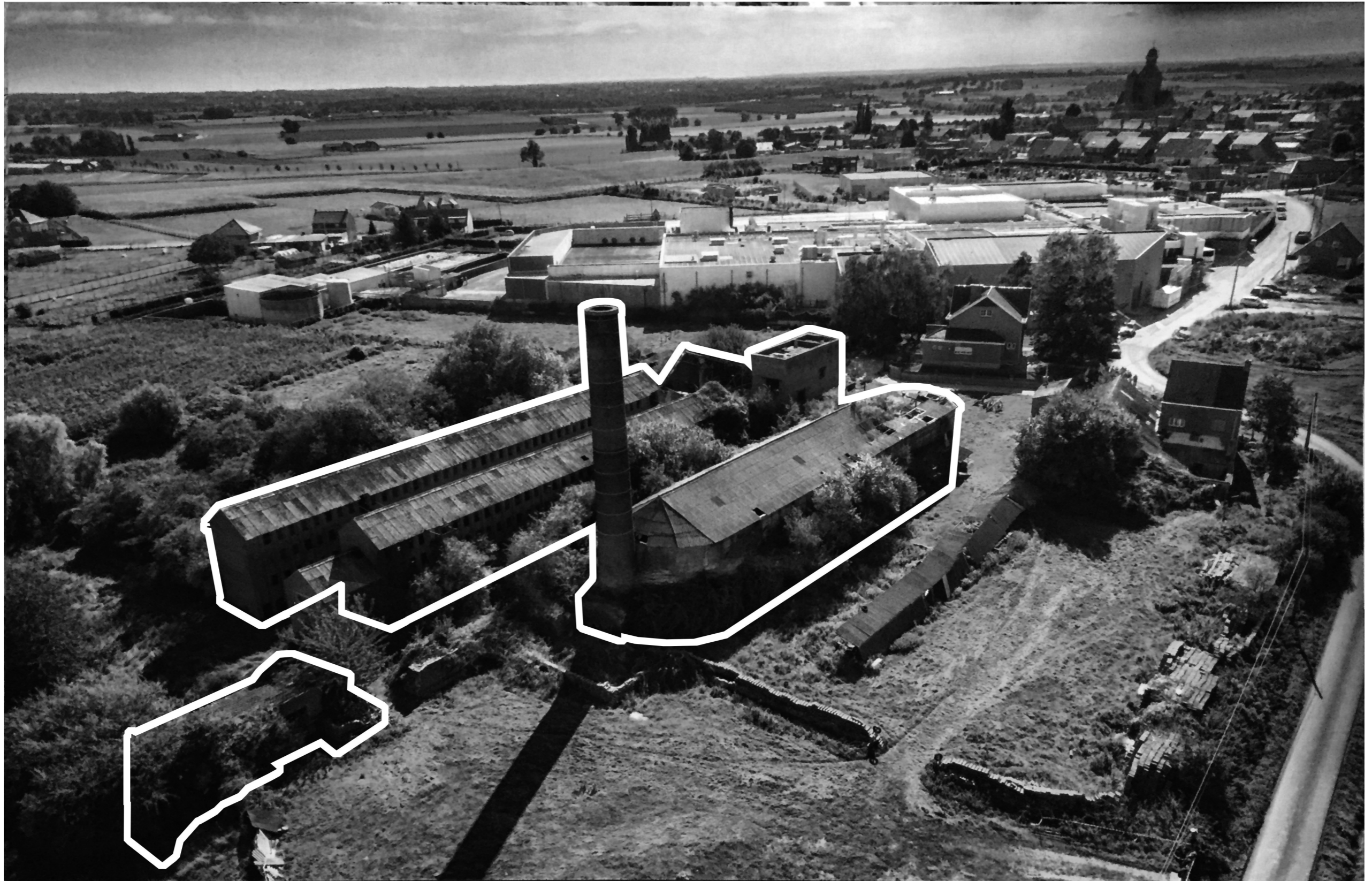


1953 - 1954

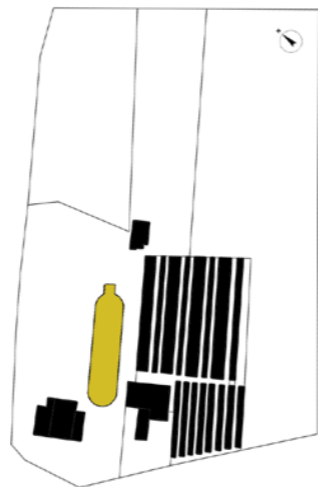


1958

Site Analyse - Perimeter



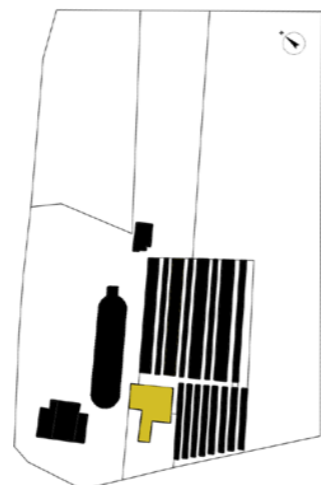
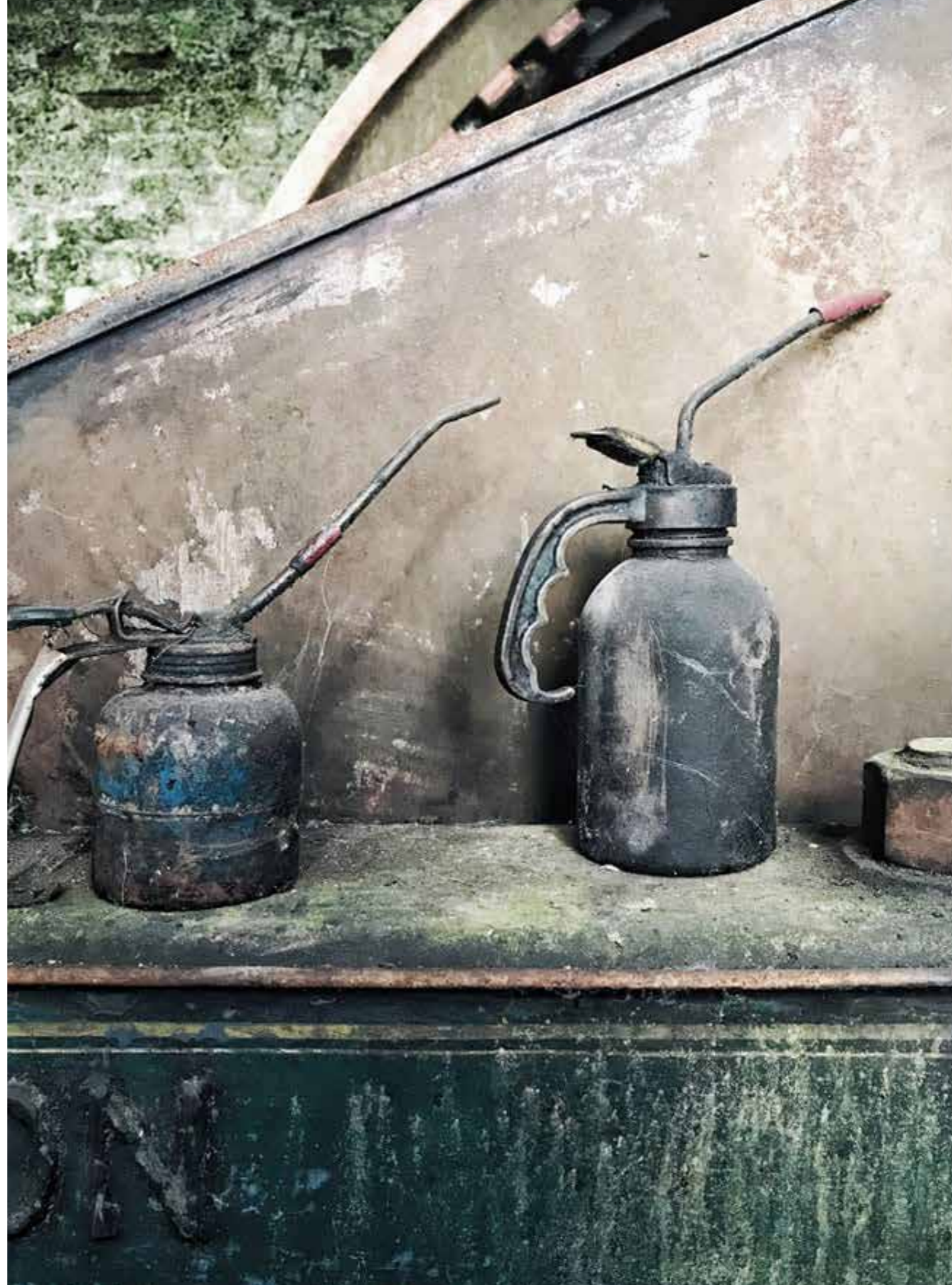
Site Analyse - Hoffman Kiln



Site Analyse - Droogloodsen



Site Analyse - Productie Gebouw

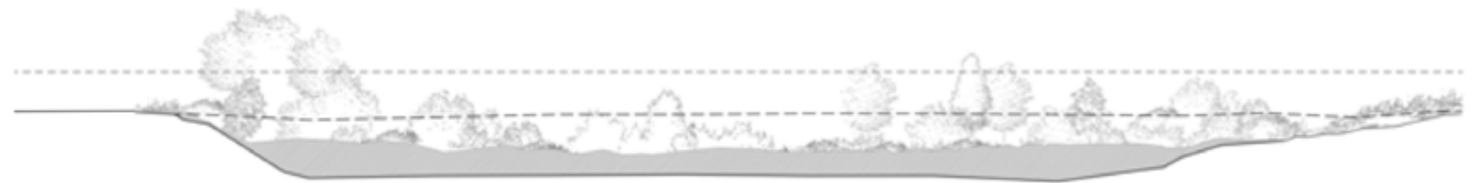


Site Analyse - Kleiput

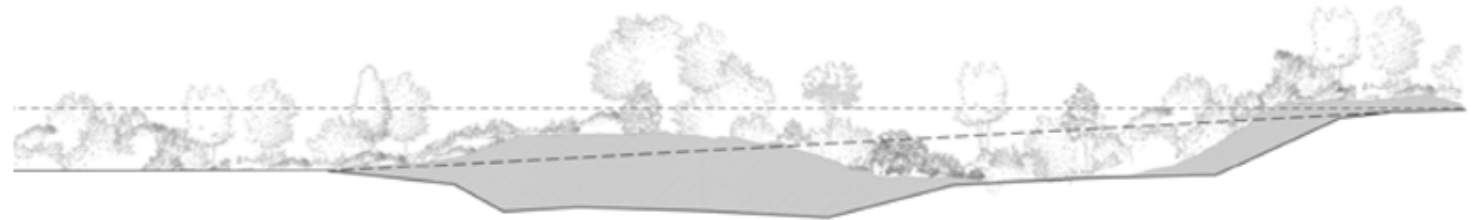
SECTION A-A'



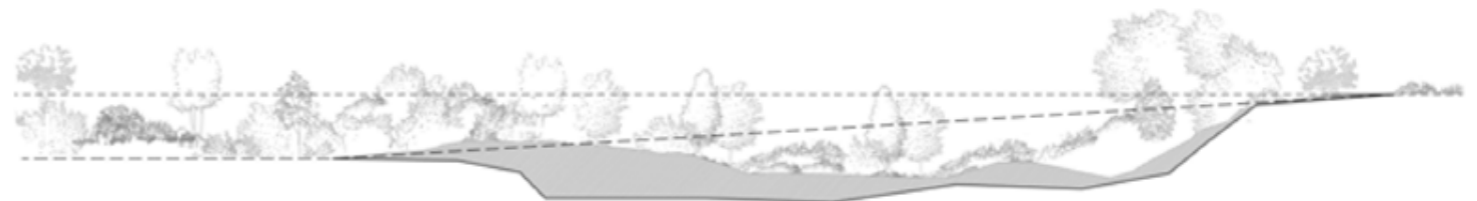
SECTION B-B'



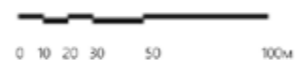
SECTION C-C'



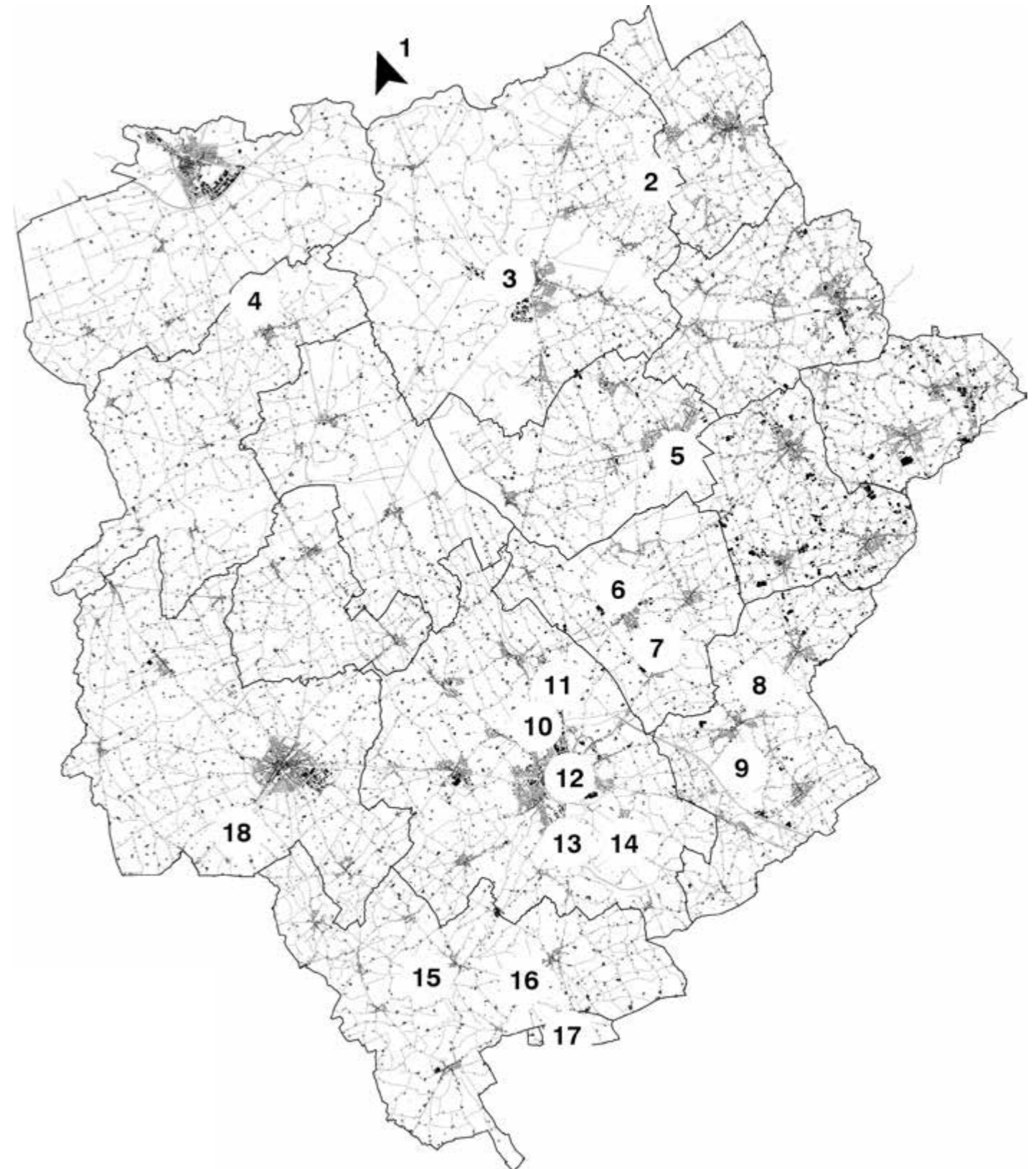
SECTION D-D'



- Zero Line
- Ground level before dumb
- Garbage
- Current ground level
- - - Planned dumb level



Stedelijke Analyse - Macro



legend

date of submission: 14/04/2014
criteria: (ii)(iv)(vi)

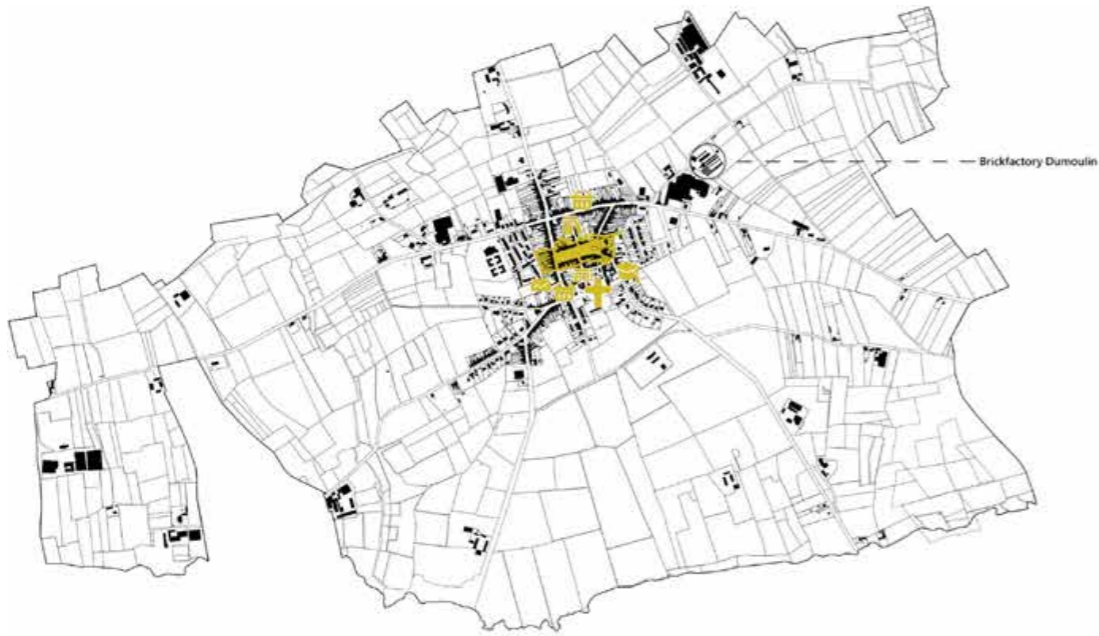
serial & transnational selection:
france: 80 / belgium: 24

1. nieuwpoort memorial
2. german military cemetery of vladlo
3. yser tower
4. belgian military cemetery of oeren
5. belgian military cemetery of houthulst
6. german military cemetery of langemark
7. the brooding soldier
8. tyne cot cemetery
9. polygon wood cemetery
10. essex farm cemetery
11. pilkem ridge
12. menen gate
13. bedford house cemetery
14. military cemetery commonwealth palingbeek
15. military cemeteries kemmel
16. military cemetery commonwealth spanbroekn
17. island of ireland peace parc
18. ljissthoeck military cemetery

Stedelijke Analyse - Meso



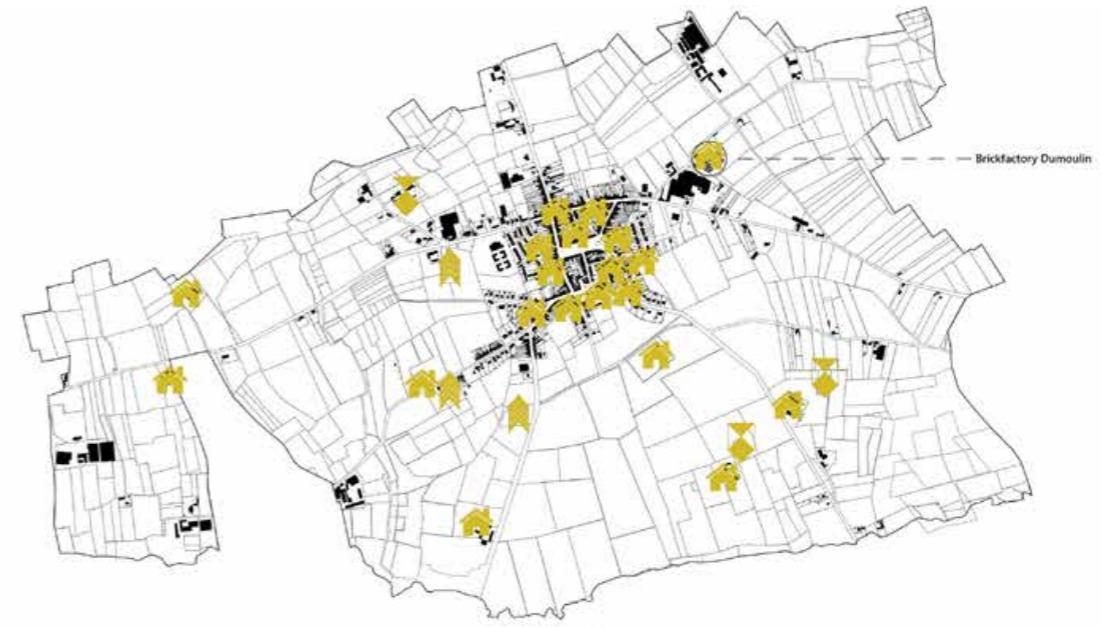
Stedelijke Analyse - Meso



200m legend

- Town center
- + Sint- Nicholas Church
- 🏛️ Townhal
- 📖 Public Library
- 🎓 School
- 📧 Post Office
- 🏪 Shops, markets

Physical Assets - Public Spaces



200m legend

- 🏠 Listed buildings
- ◆ Protected architectural monuments
- 🏠 War monuments

Physical Assets - Heritage



200m legend

- i Tourist info
- 🏠 Hostel, B&B
- X Restaurants, bars

Physical Assets - Tourism Accommodation



200m legend

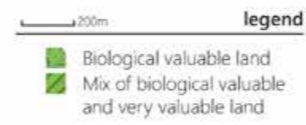
- Line 72: Le Bizet - Mesen - Wijschate - Ieper
- every 2h: Ieper - Mesen: 24 min

Physical Assets - Public Transport: Bus

Stedelijke Analyse - Meso



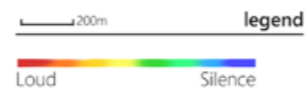
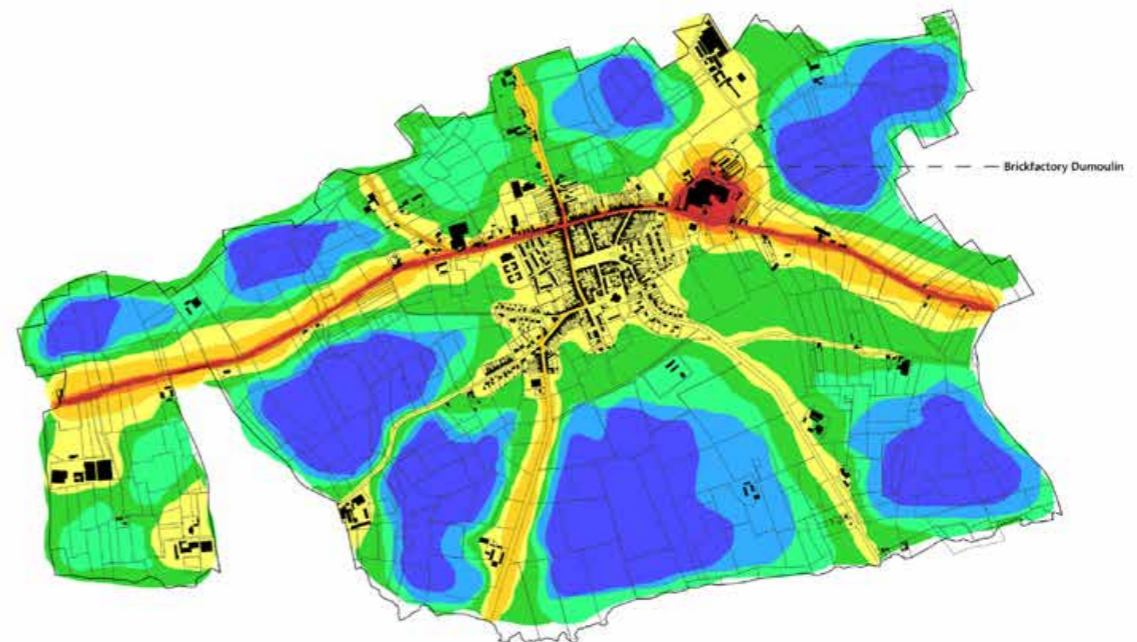
Physical Assets - Cycle tours



Natural Assets - Biological Valuable land

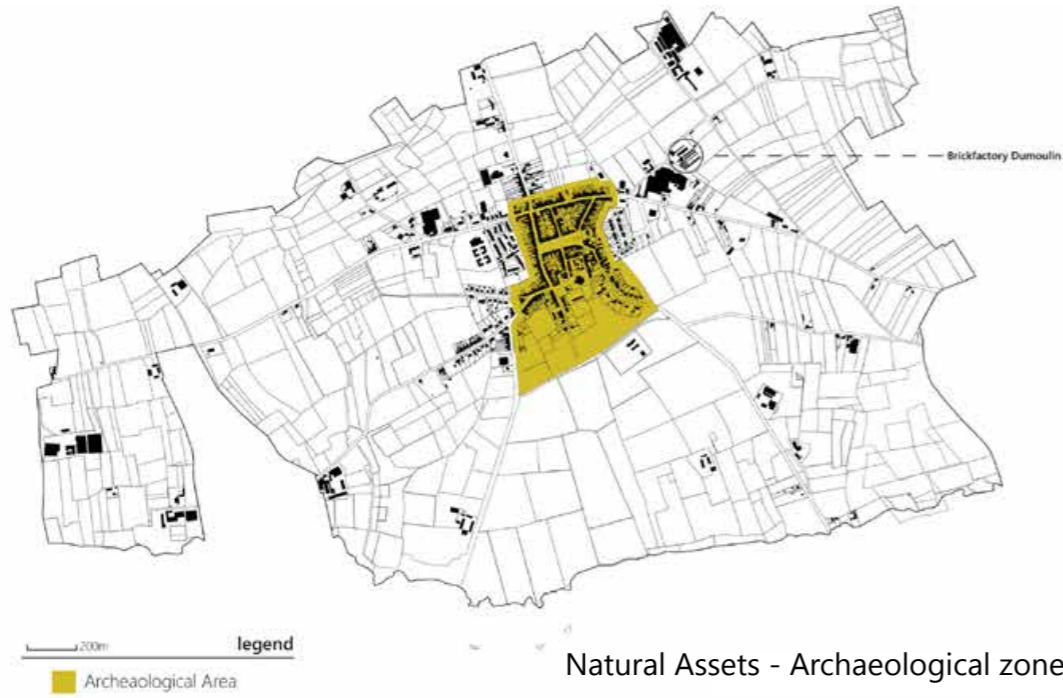


Natural Assets - Green zones

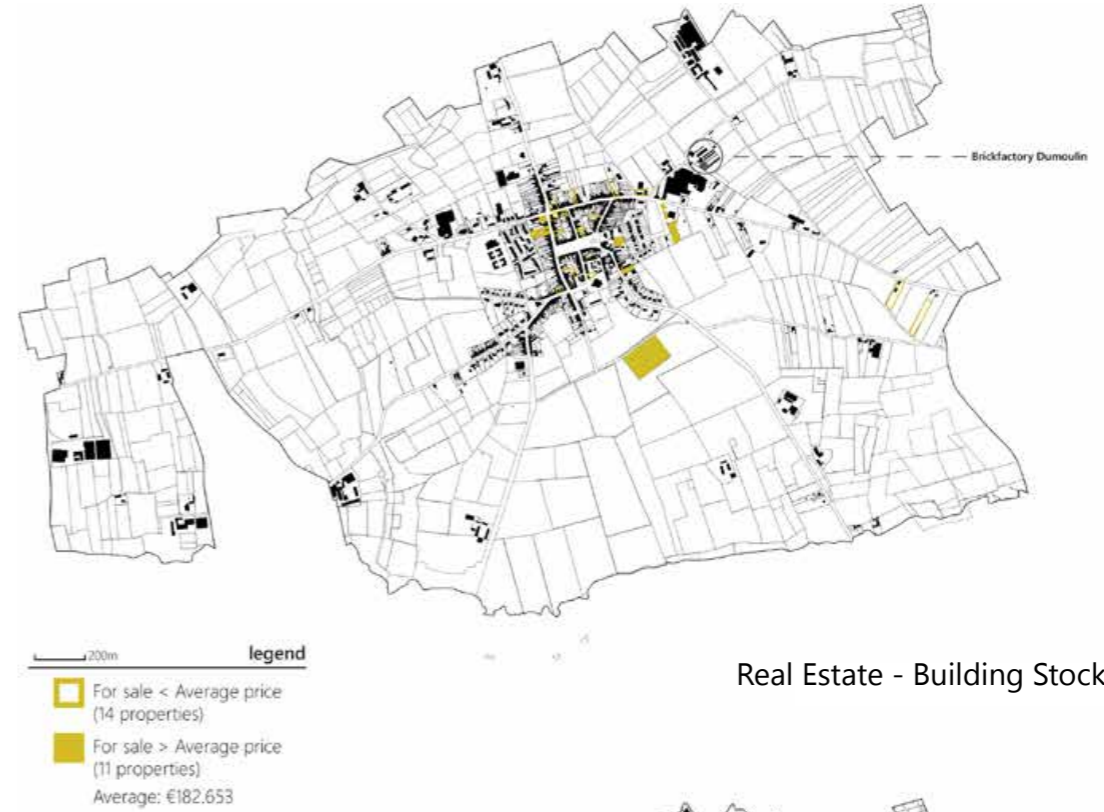


Natural Assets - Sound Mapping

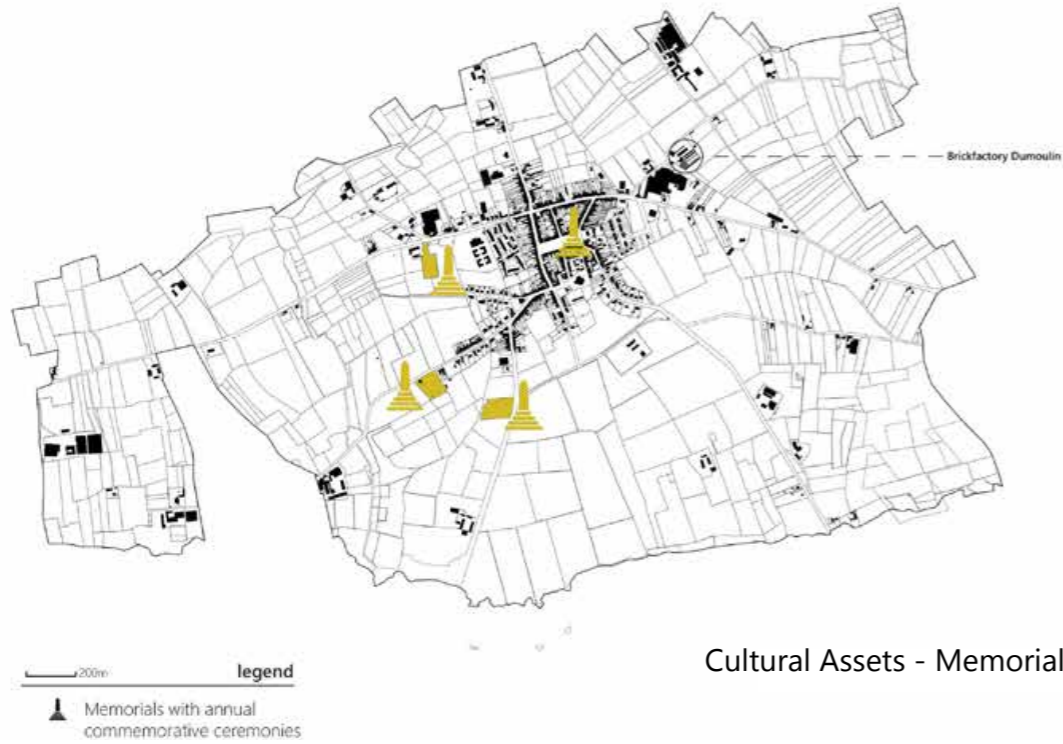
Stedelijke Analyse - Meso



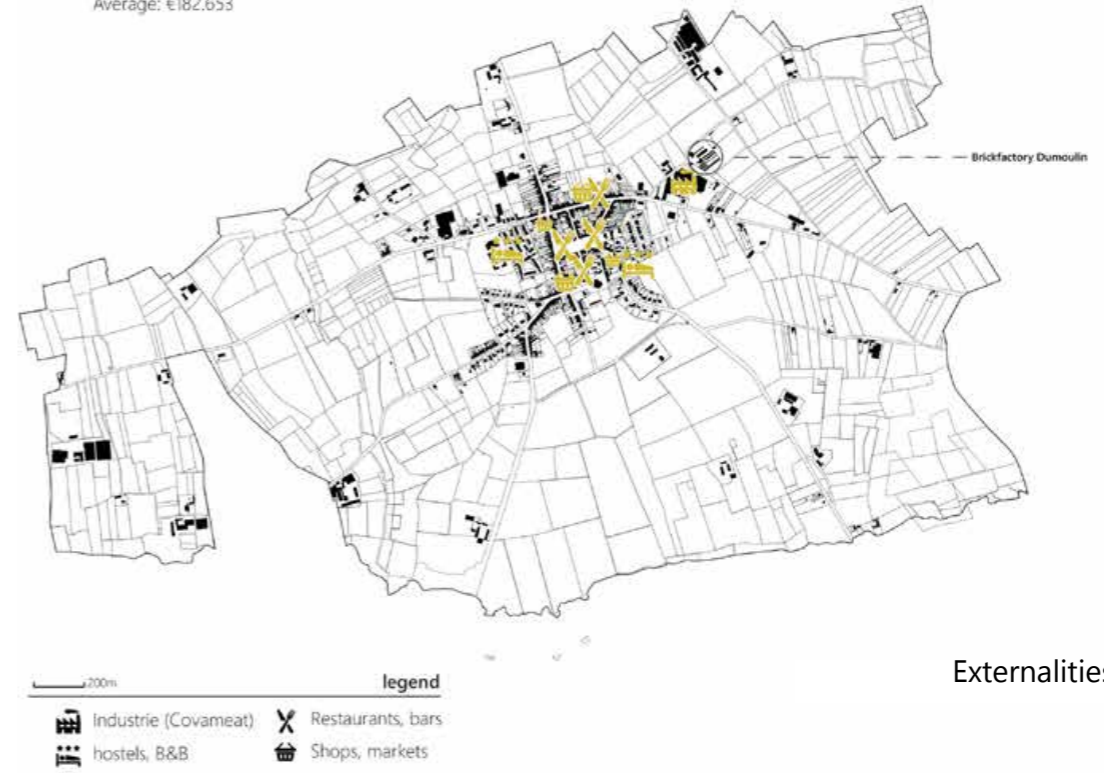
Natural Assets - Archaeological zone



Real Estate - Building Stock



Cultural Assets - Memorials

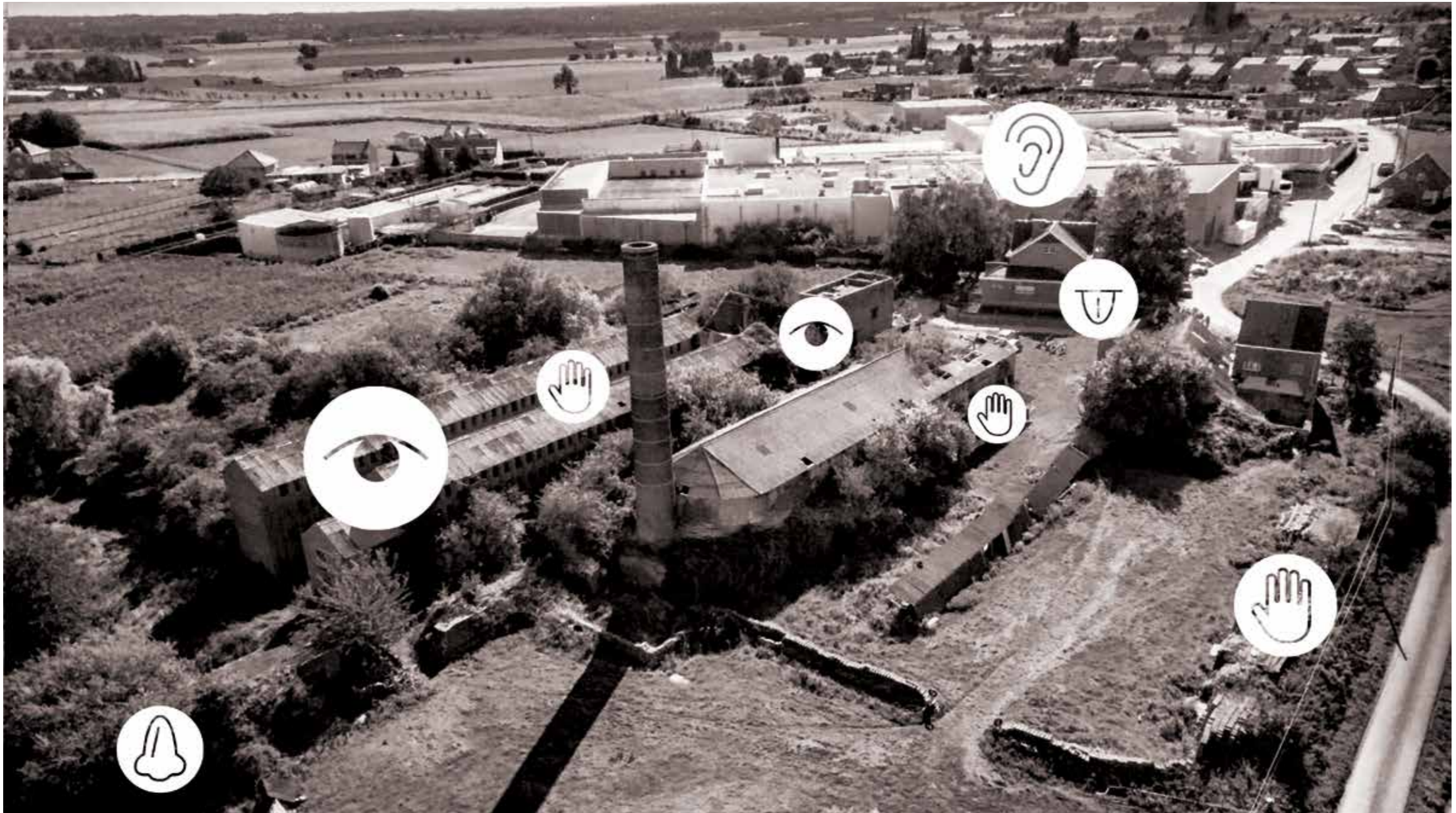


Externalities

Stedelijke Analyse - Herkenningspunten



Stedelijke Analyse - Micro



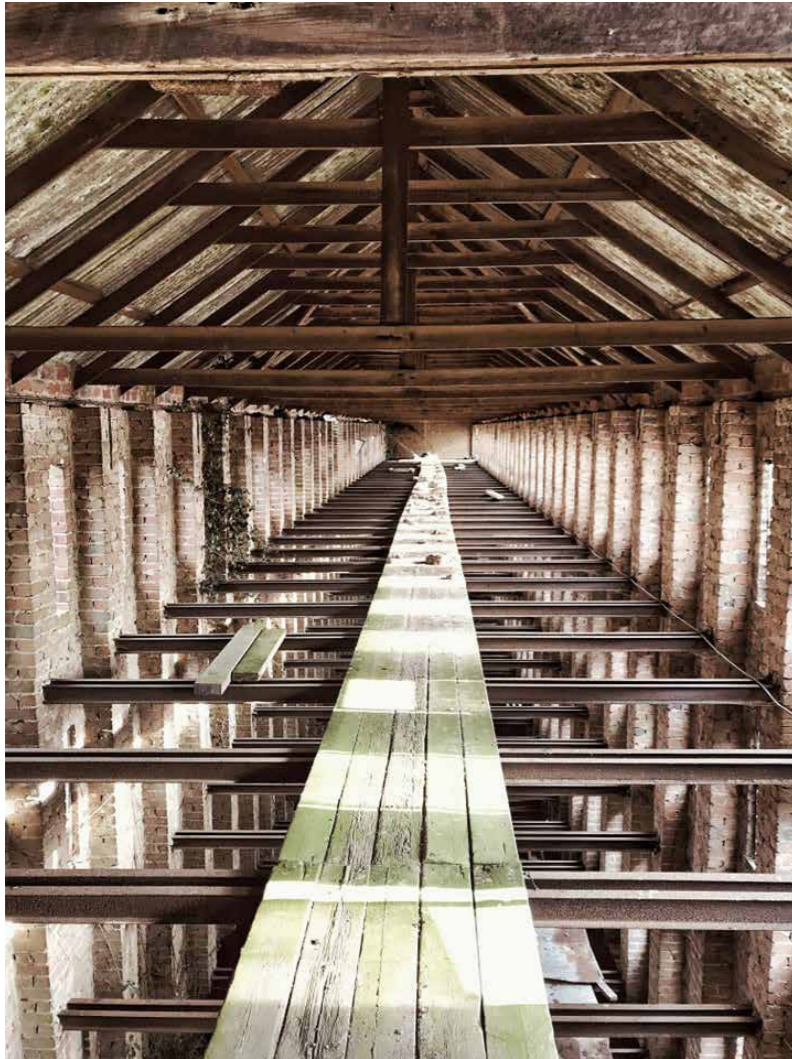
legend

- | | |
|---|---|
|  Sight |  Touch |
|  Smell |  Sight |
|  Hearing | |

Waardebepaling - Nara Grid

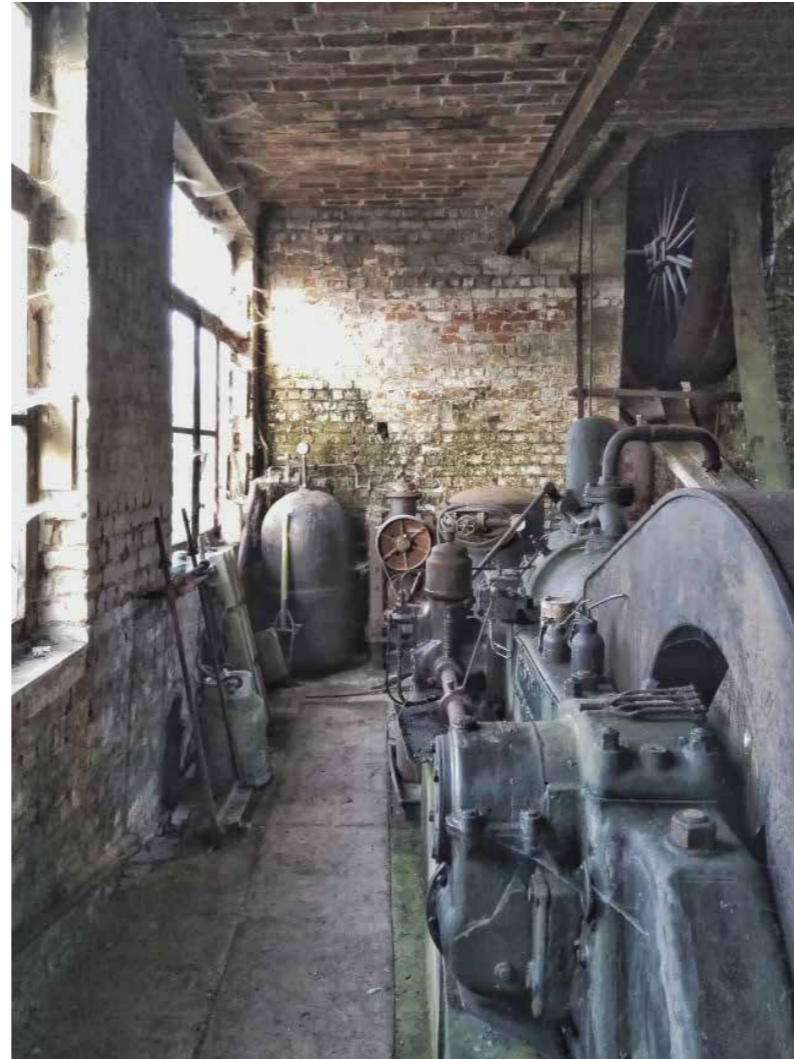
Aspects	Artistic	Historic	Social	Scientific
Dimensions				
Form + Design	Form follows function: The buildings' design and forms work together with their own functions following the production process. General form of the factory is a testimony to the typical procedure of brick production. Architectural quality; perception of volume by means of depth and height in the drying sheds, continuation of spatial levels, linearity, and lighting and visual continuity.	Hoffman Kiln - Testimony of more advanced method of brick baking. The factory complex was established on top of the existing German bunker	-	Hoffman Kiln - elliptical use of typology catalysed the production of bricks in a more continuous way. - drying buildings , in which every floor is continuous and long enough, it's a typical characteristic of industrial architecture
Materials + Substance	Parts of the building constructed from the bricks made in the factory. The integration of steel and concrete highlights the industrial character of the building.	Materials for instance steel and the rails from the German frontlines left from the first World War, are reused and integrated within the functioning of the factory complex as well as building parts.	-	The clay was locally extracted. Consequently the bricks produced in that area have their unique composition of ingredients (e.g. unique colour)
Use + Function	Multi-levelled drying sheds with repetitive windows as part of the whole production process to dry brick by air flow.	The brick factory was inspired to bring the agriculture back to the area by draining the flooded agriculture lands as well as rebuilding the city of Mesen	Provision of jobs for the people after WW1 to uplift the area.	Production of their own variety of products
Techniques + Traditions + Workmanship	-	-	Heritage of labour and craftsmanship	More advanced and contemporary process of brick production (iron casts etc)The use of Ruston Engine as an initiator for the whole production process.
Location + Setting	Commemorative monuments from the world wars are located around the site	The brick factory is located in Messines/Mesen close to the Wallonia border where one of the most important battles of the first World War (Battle of Messines) took place. The landscape is listed because of its importance in World War 1.	As the factory was providing job opportunities to people after the Great War, there were many people relocated from Langemark to Mesen. It's location is directly linked with the re-construction of the town of Messines after it's destruction in WWI.	-
Spirit + Feeling	Parts of the machinery used to produce bricks still exist in the site as well as the products (bricks) which strongly preserve the whole perception of the factory functioning and the industrial culture.	The essence and traces of the war are still evident on the site.	The factory is owned by the Dumoulin family, one of the most historic families in Brick construction in Flanders.	-

Waardebepaling - Focus



Artistiek - Vorm en Ontwerp

Form-Follows-Function
Architecturale Kwaliteit



Vakmanschap

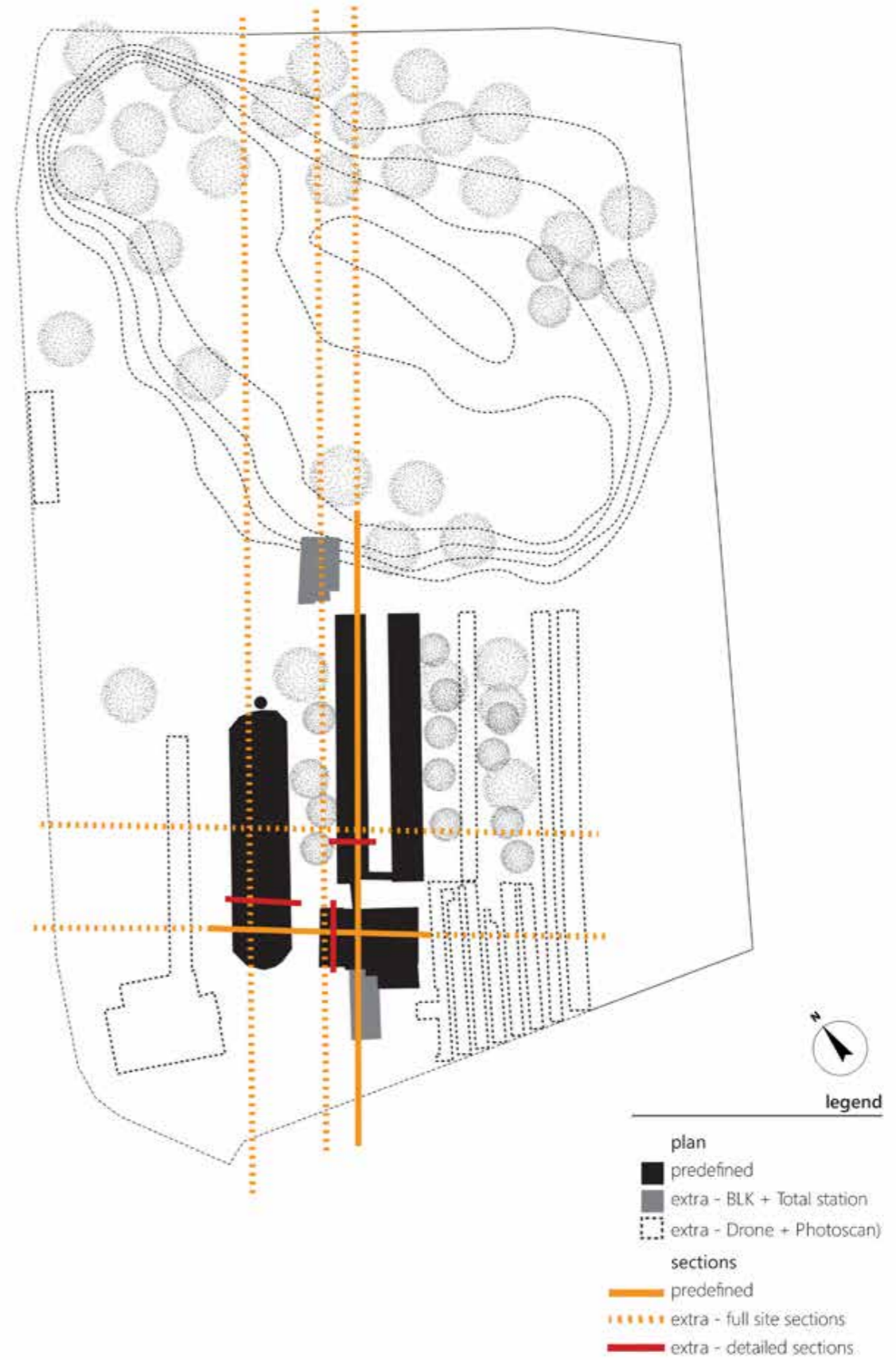
Technieken en Tradities



Historisch - Locatie en Setting

WO Slagvelden

Opmeting - Doelen



Draw.12 Predefined drawings versus produced drawings

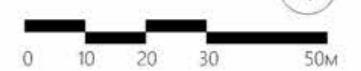
Opmeting - Plannen



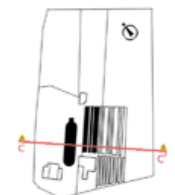
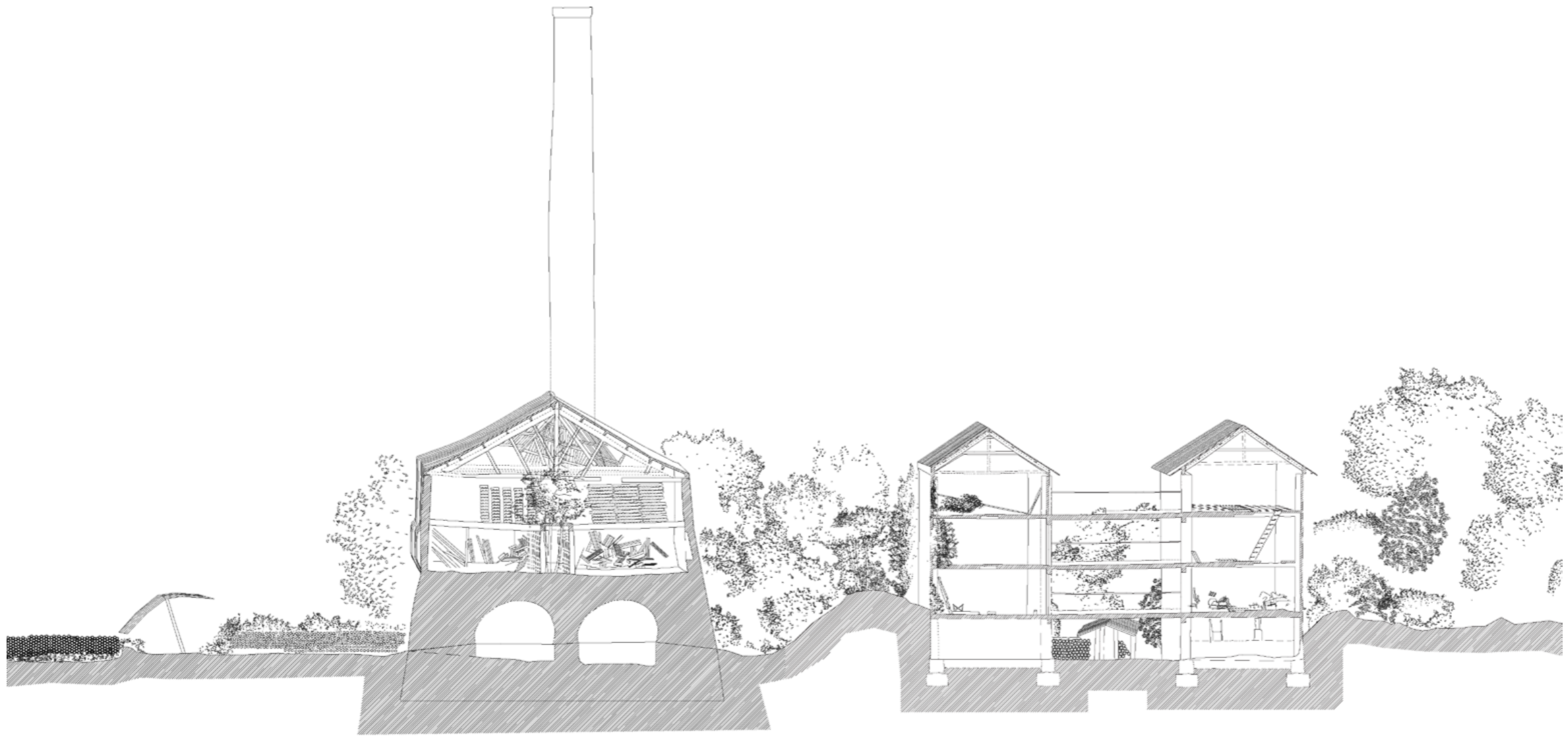
Plan - Ground Floor



Plan - First Floor



Opmeting - Snede

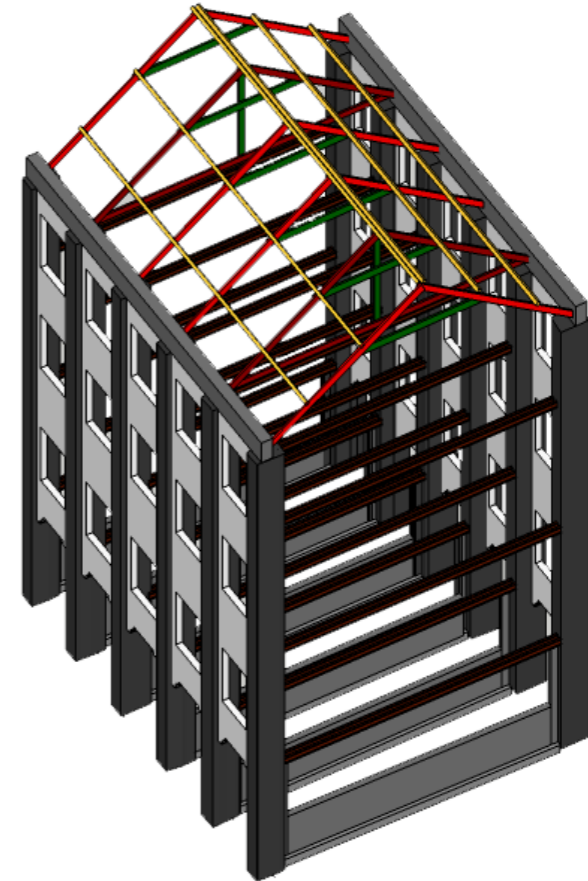
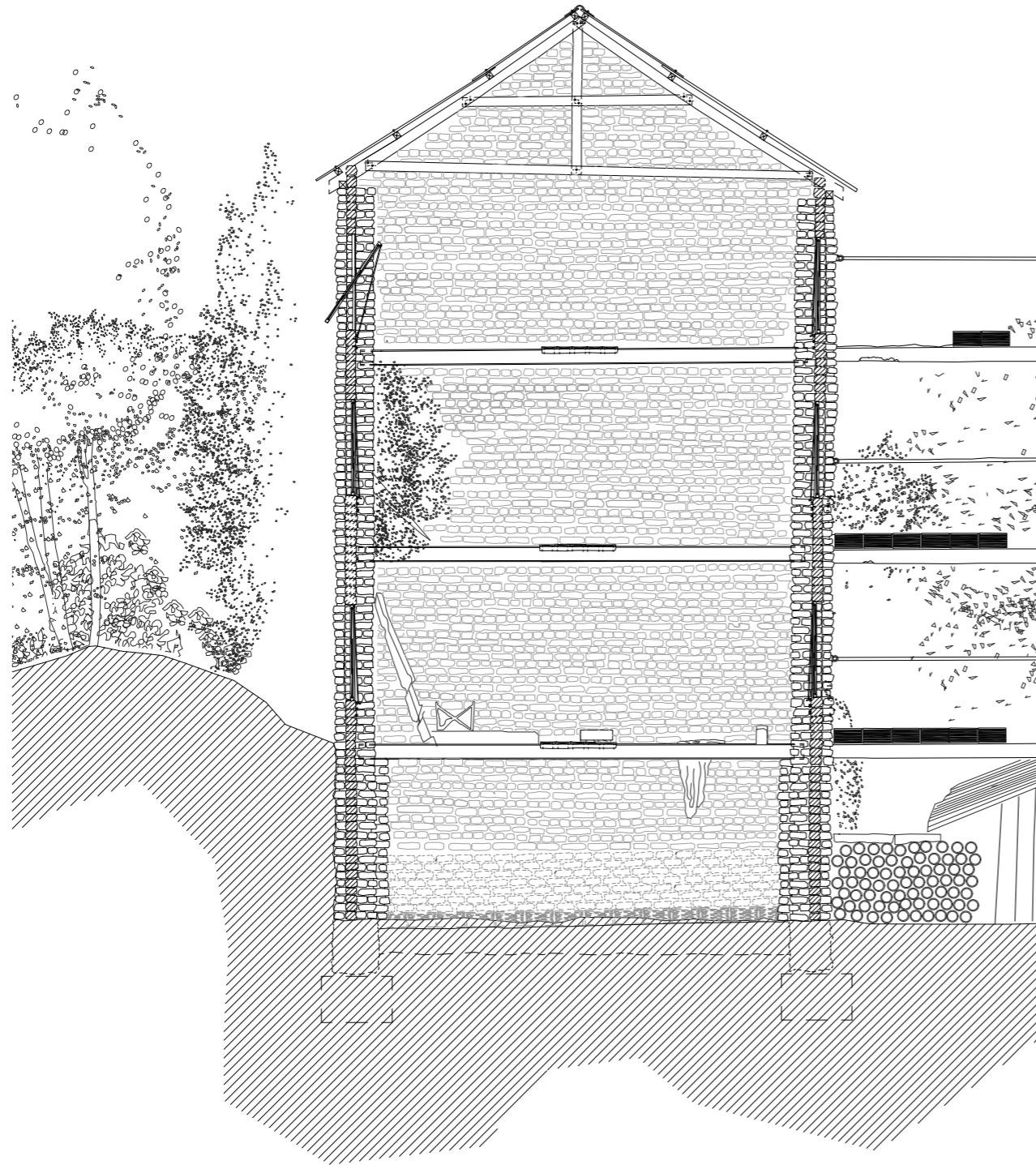


1/200

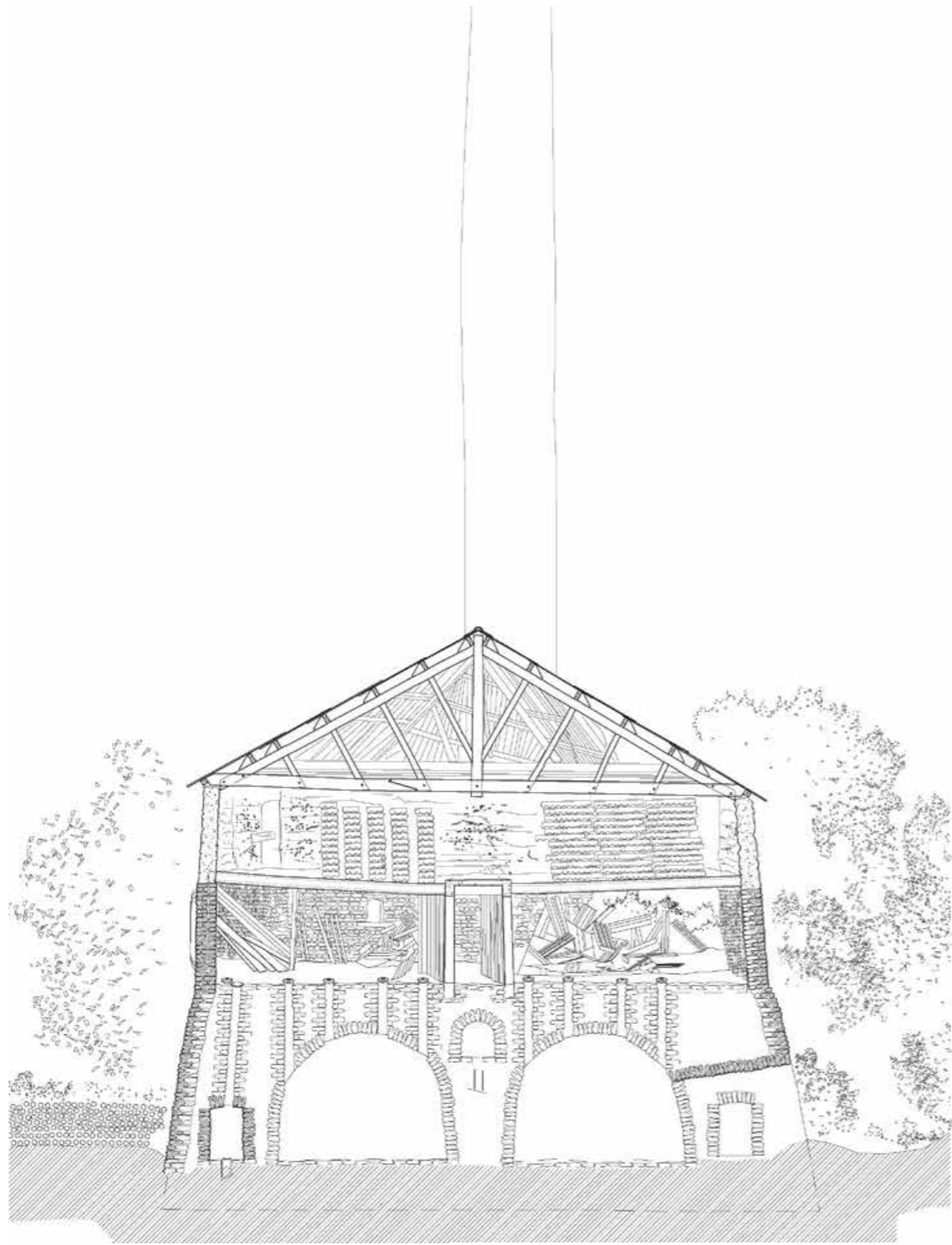


Section C-C

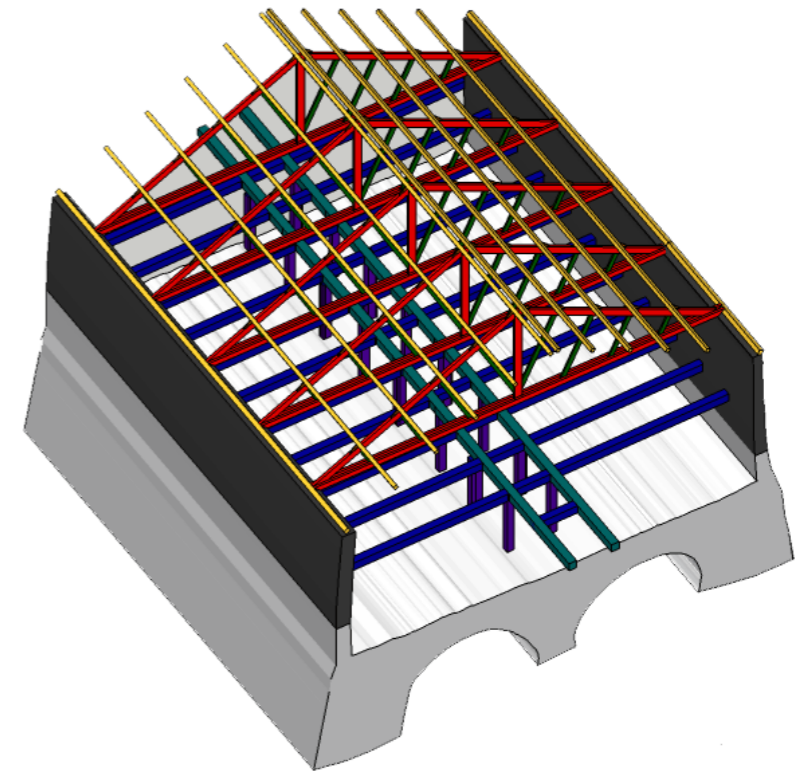
Analyse - Constructie



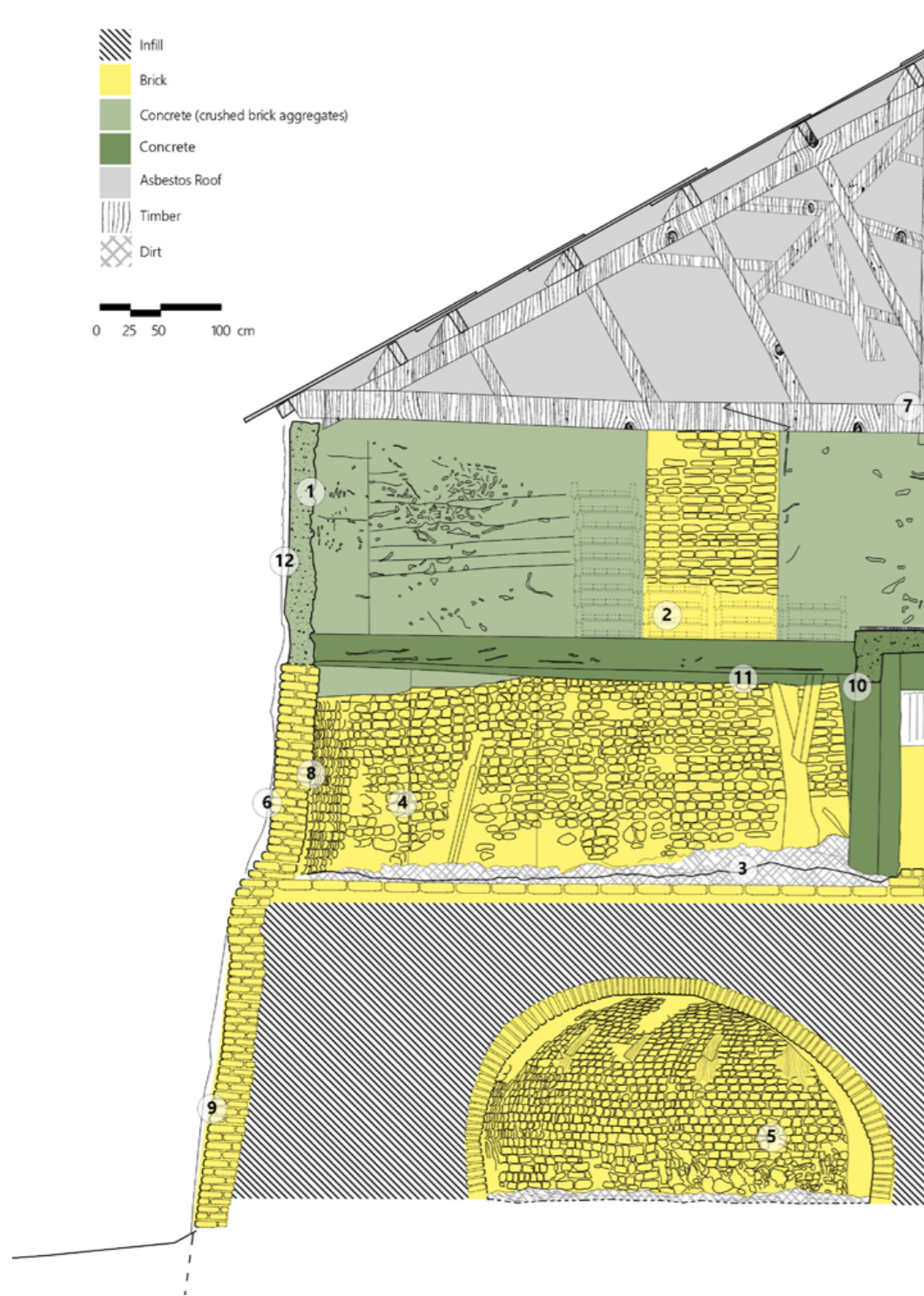
Analyse - Constructie



(1/100) Detailed Section Hoffmann Kiln
0 1 2 3 5 10m



Analyse - Materialisatie

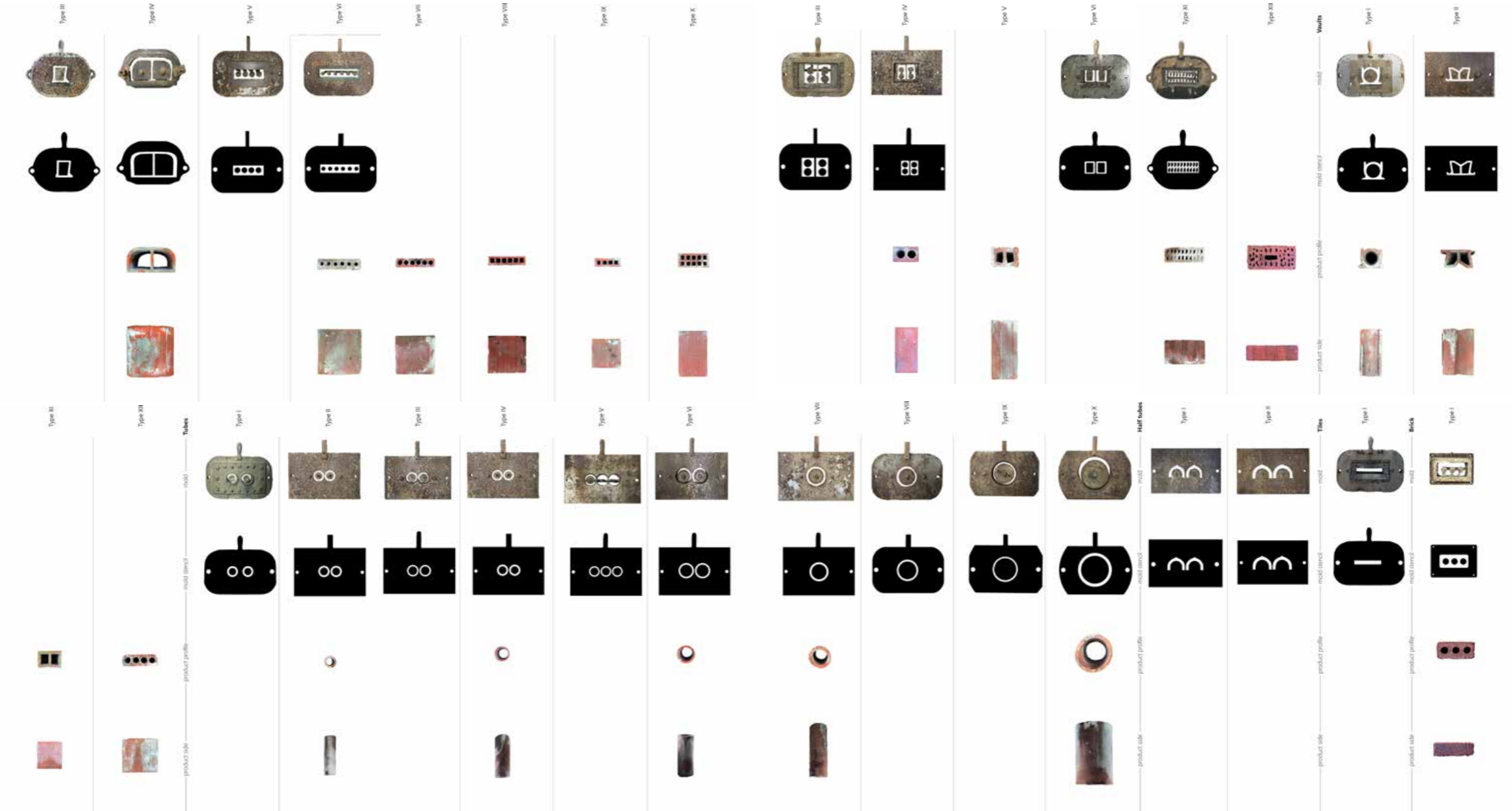


Analyse - Pathologieën

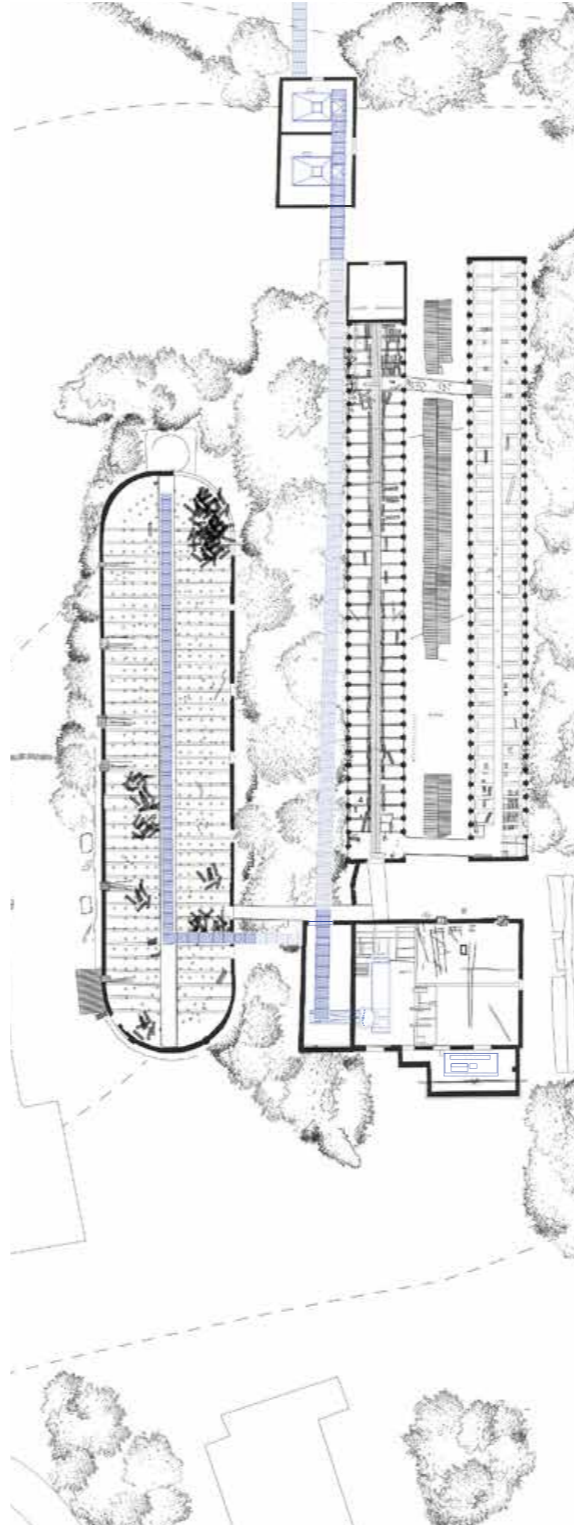


BRICK	BIOLOGICAL GROWTH
	Algae
	Lichen
	Moss
	Higher Plants
	SURFACE CHANGE
	Deposit / Efflorescence
	Deposit / Crypto florescence
	Chromatic Alteration / Moist Spot
	Chromatic Alteration / Staining
DISINTEGRATION	
Detachment / Loss of adhesion	
Loss of Cohesion / Crumbling	
Loss of Cohesion / Powdering	
Layering / Spalling	
Layering / Exfolition	
MORTAR	BIOLOGICAL GROWTH
	Algae
	Lichen
	Moss
	Higher Plants
	SURFACE CHANGE
	Chromatic Alteration / Staining
	Chromatic Alteration / Moist Spot
	Deposit / Efflorescence
	Deposit / Crypto florescence
DISINTEGRATION	
Layering / Exfolition	
Detachment / Loss of adhesion	
Loss of Cohesion / Sanding	
Loss of Cohesion / Powdering	
Loss of Cohesion / Voids	
Loss of Cohesion / Crumbling	
CONCRETE	DAMAGE TO REINFORCEMENT
	Corrosion / Rust Layers
	Corrosion / Pitting
	Corrosion / Loss of rebar diameter
	DAMAGE TO CONCRETE
	Disintegration / Layering / Spalling
	Cracks / Non-connected cracks
	Surface Change / Deposit / Efflorescence
	Surface Change / Deposit / Staining
	Superficial Irregularities / Inhomogeneity
Surperficial Irregularities / Voids-Rockpockets	
Chromatic Alteration / Moist Spot	
Biological Growth / Algae	
Biological Growth / Moss	
Deformation / Displacement	

Inventarisatie - Mallen & Producten

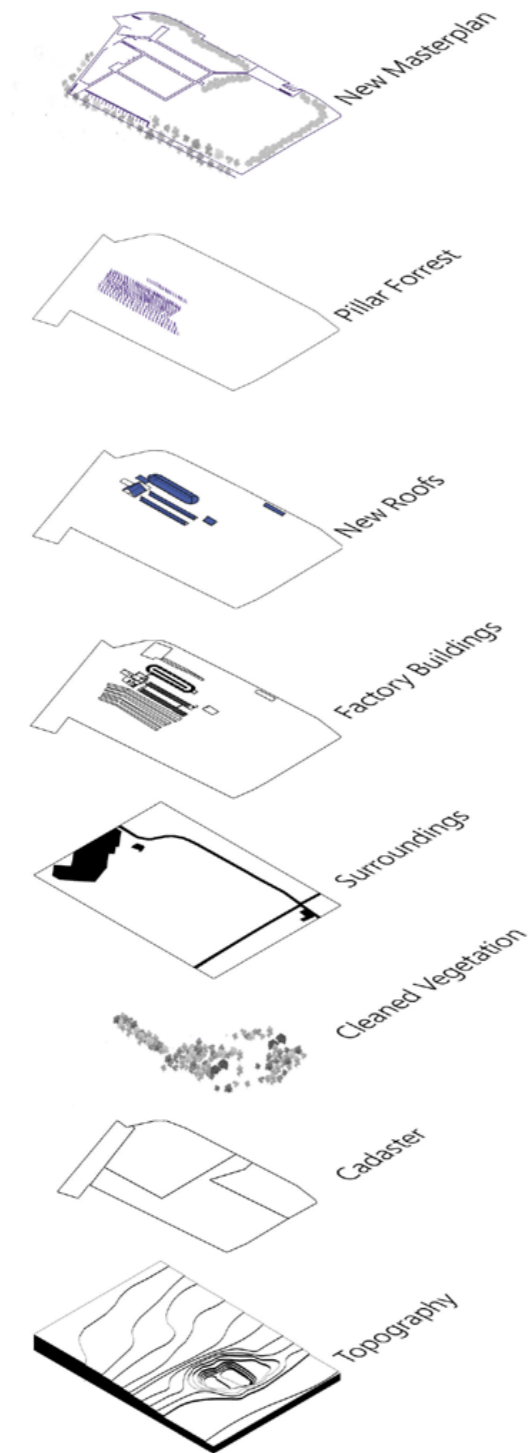


Inventarisatie - Machines



Machine	Brand	Function	Date	Condition
1. Clay excavator	self-made	Digging Clay in claypit		-unknown-
2. Mono cylinder Diesel Engine	Ruston Hor. Oil Engine 10hr-Model 364 283	Driving all machines of the factory	1954	Present on original location
3. Clay mixing machine I	SKF SNS09	Mixing clay with lean earth, ration 3 to 1		Present on original location
- Connected electrical engine	CET	Separate drive for Clay Mixing Machine I		Present on original location
4. Clay mixing machine II	SKF SNS09	Mixing clay with lean earth, ration 3 to 1		Present on original location
- Connected electrical engine	AEG	Separate drive for Clay Mixing Machine II		Present on original location
5. Kneading Tub		Kneading the clay mixture		Disassembled on site
6. Extruder	Samic	Extruding clay in the shape of bricks or tubes (adjustment of the nozzle)		Transferred to Langemark factory
7. Cutting Machine	Hansen La Mécanique Générale N.V.	Cutting the formed clay coming out of extruder in the correct length of bricks and tubes		Transferred to Langemark factory
8. Conveyor Belt		Transporting clay and products over the site. - From claypit to mix building - From mix building to clay tower - From production space to oven - Over length of the oven		Present on original location, partly collapsed
9. Elevators	self-made	Bringing products up in dryingsheds for drying		parts present on site
10. Transport Lorry	self-made	transport of finished products		present on site

Masterplan - Globale aanpak



1
Site Cleaning



2
Asbestos



3
Drying Shed Buildings Roof



4
Temporary Roof



5
Windows



6
Treatments



7
Treatments



8
Repair and Consolidation



9
Interventions



10
Roof

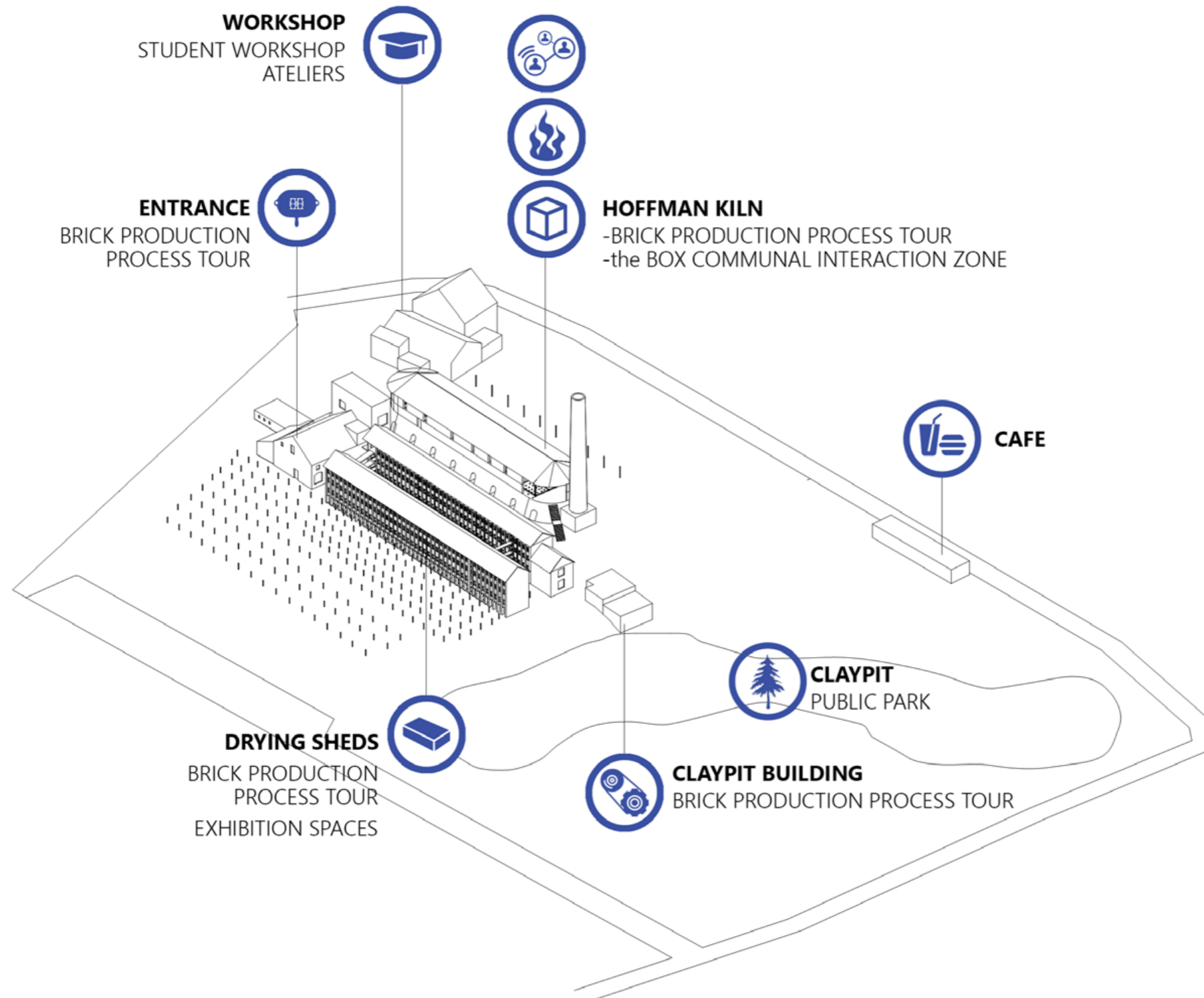


11
Site Drainage System

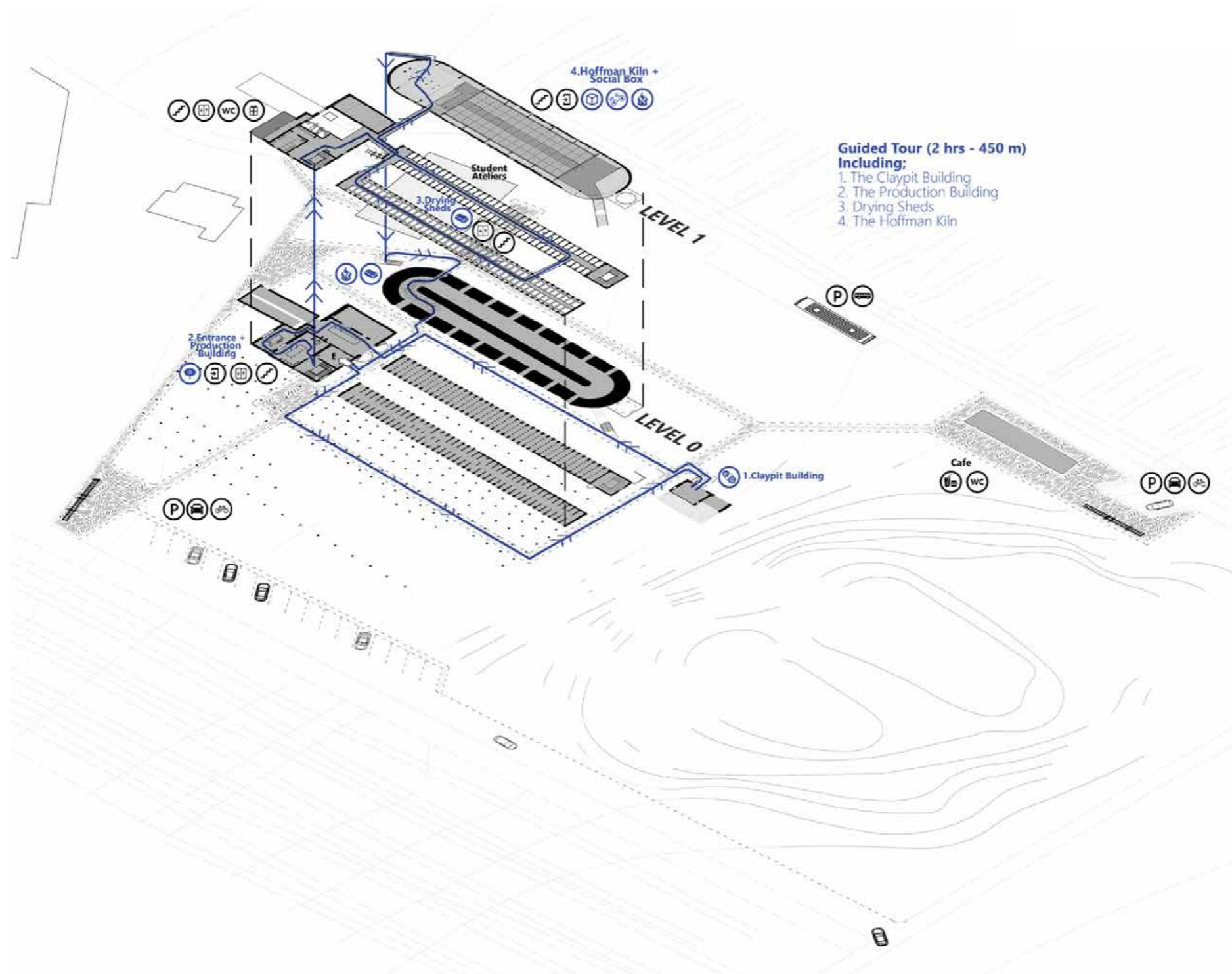


12
Paving

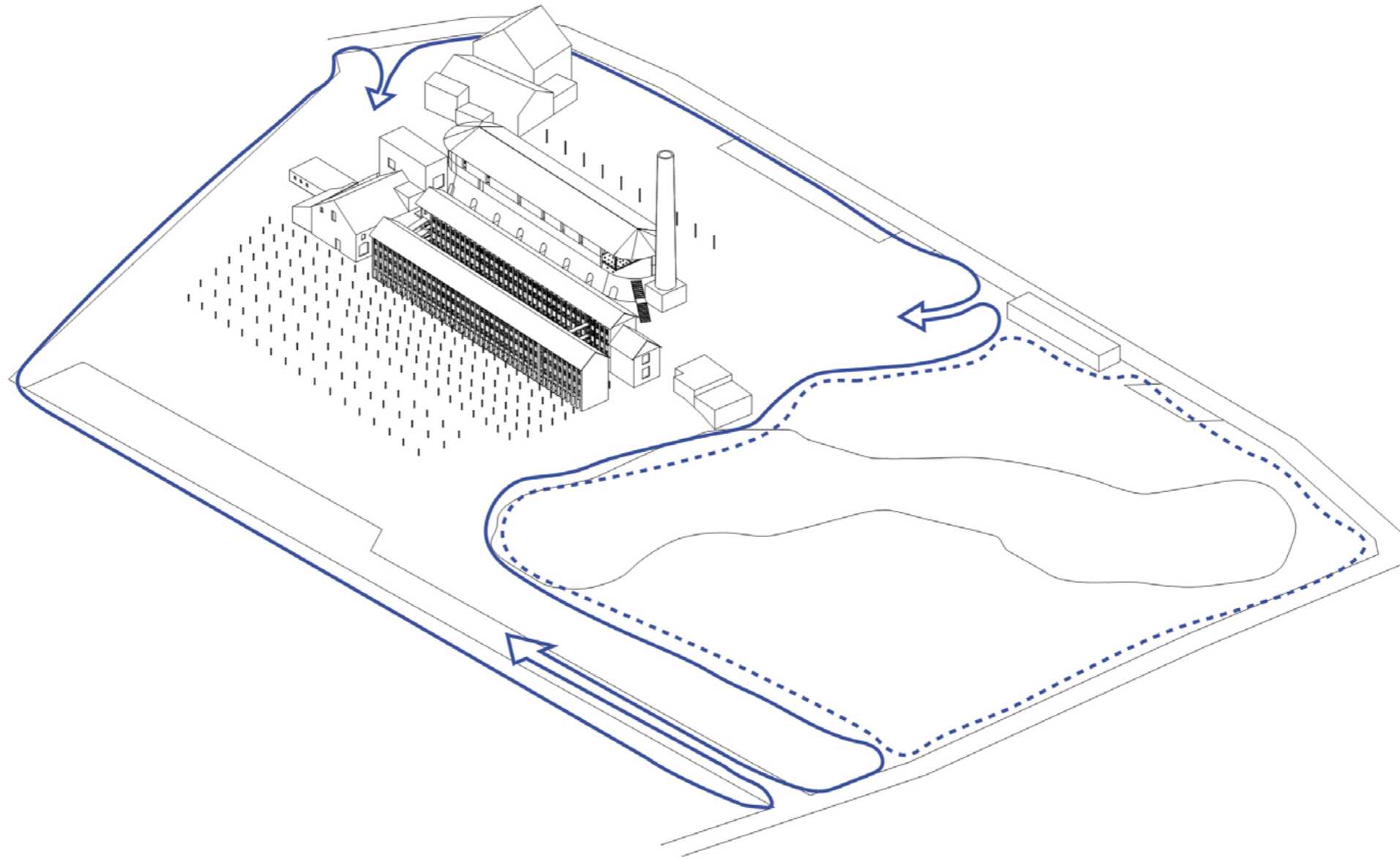
Masterplan - Organisatie



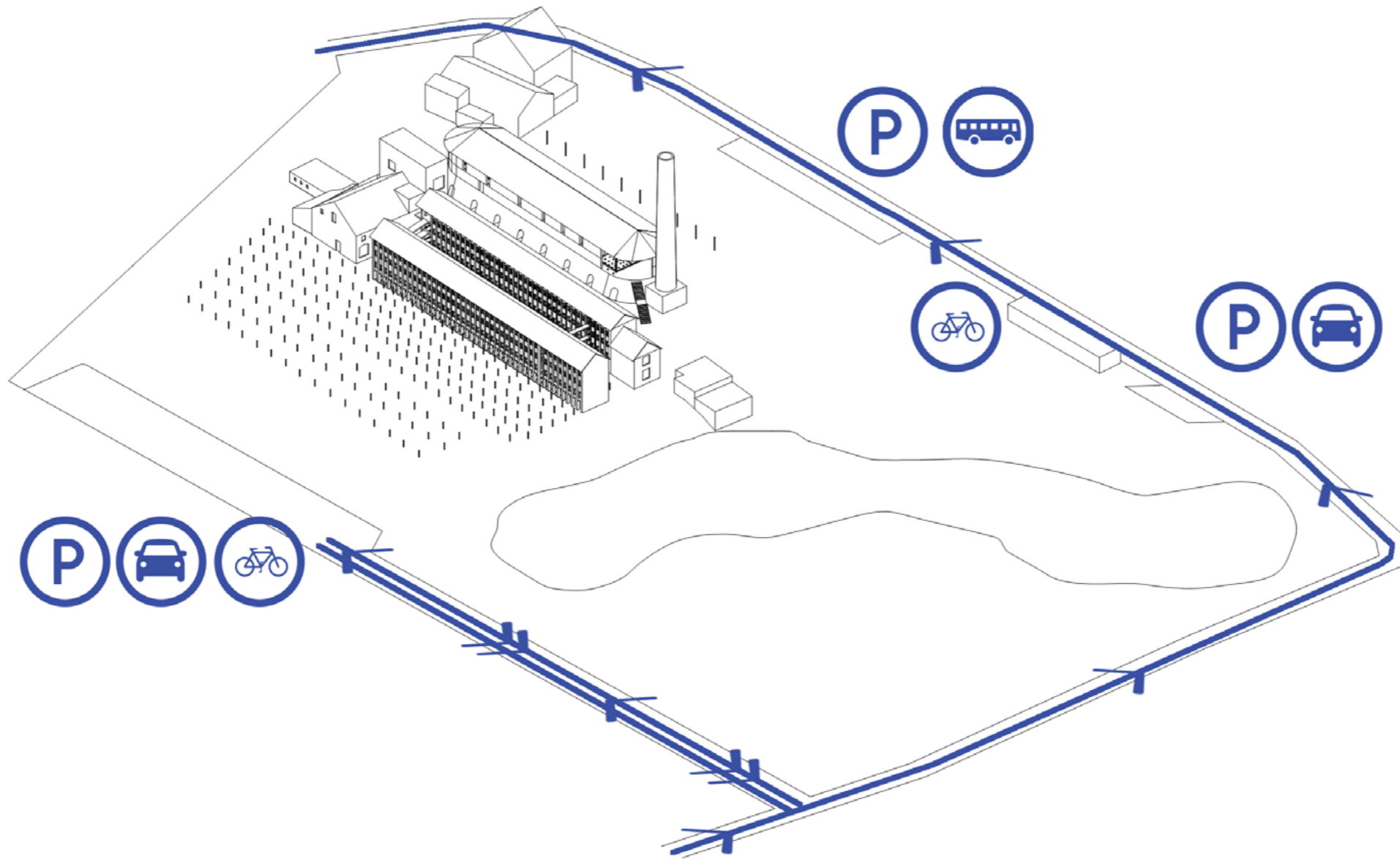
Masterplan - Organisatie



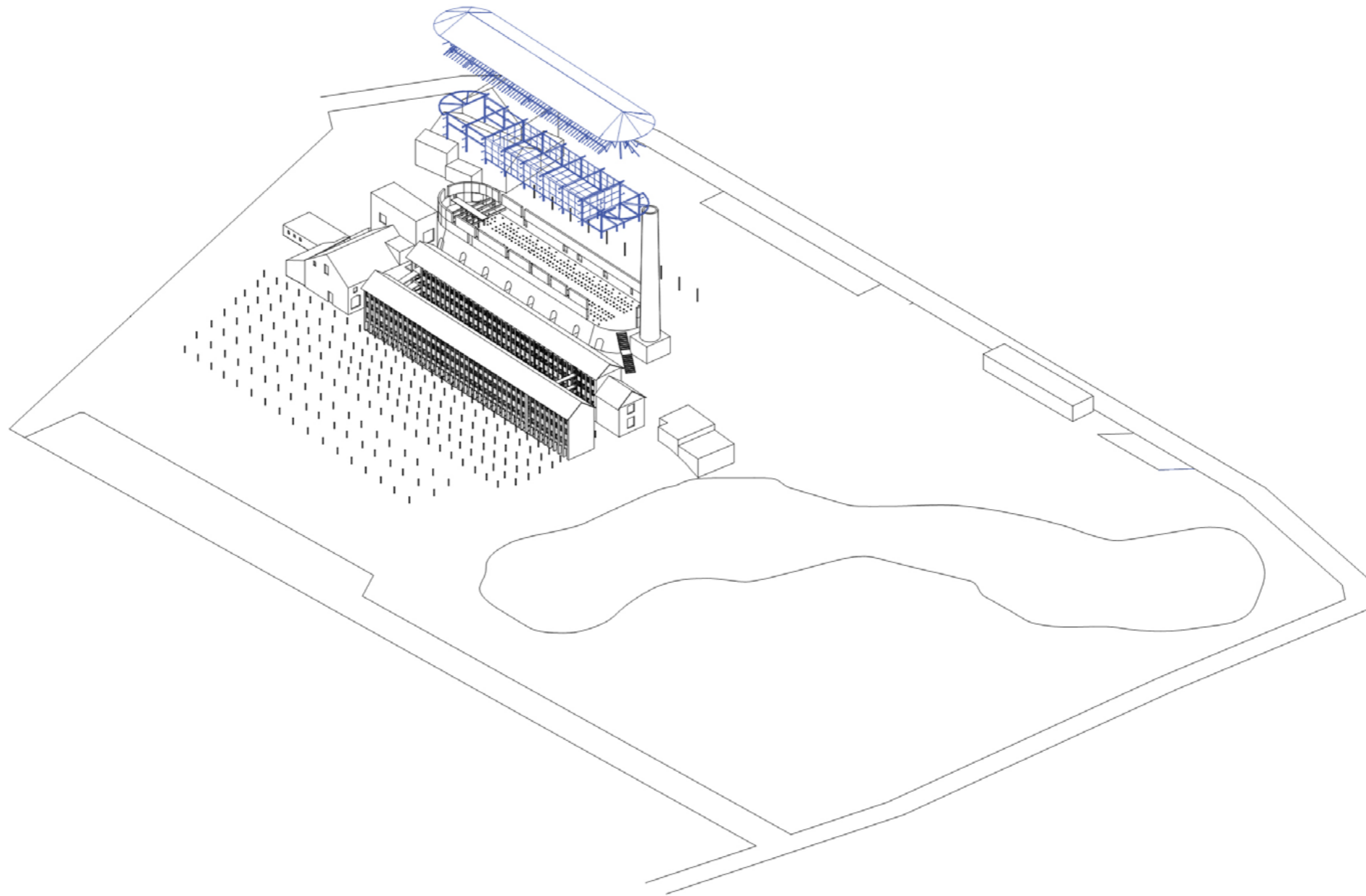
Masterplan - Organisatie



Masterplan - Organisatie



Masterplan - Organisatie

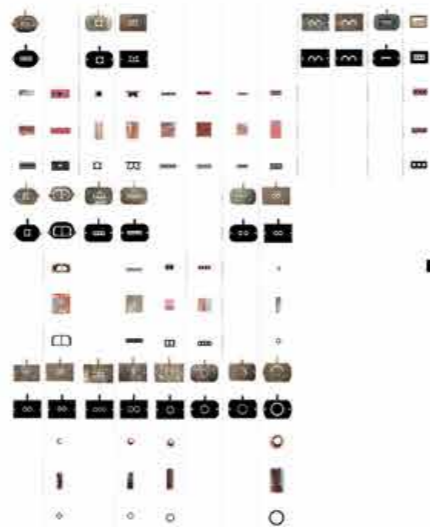


Opdracht - Resultaat

Historische
Analyse



Inventarisatie



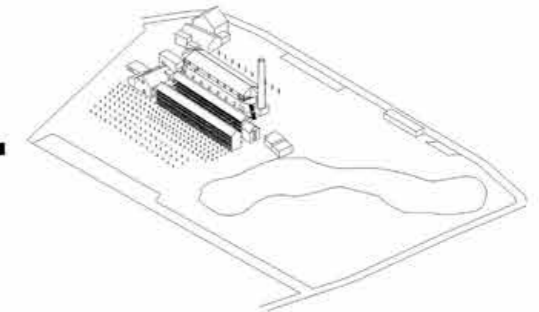
Productie
Proces



Bunker
WOI



Documentatie



Masterplan
Bescherming + Toekomstvisie

Einde

Bedankt voor uw aandacht