



# RUINOPHILIA

VIA BELGICA



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objective  
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via Belgica  
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contemporary identity  
via Belgica nu

## DESIGN

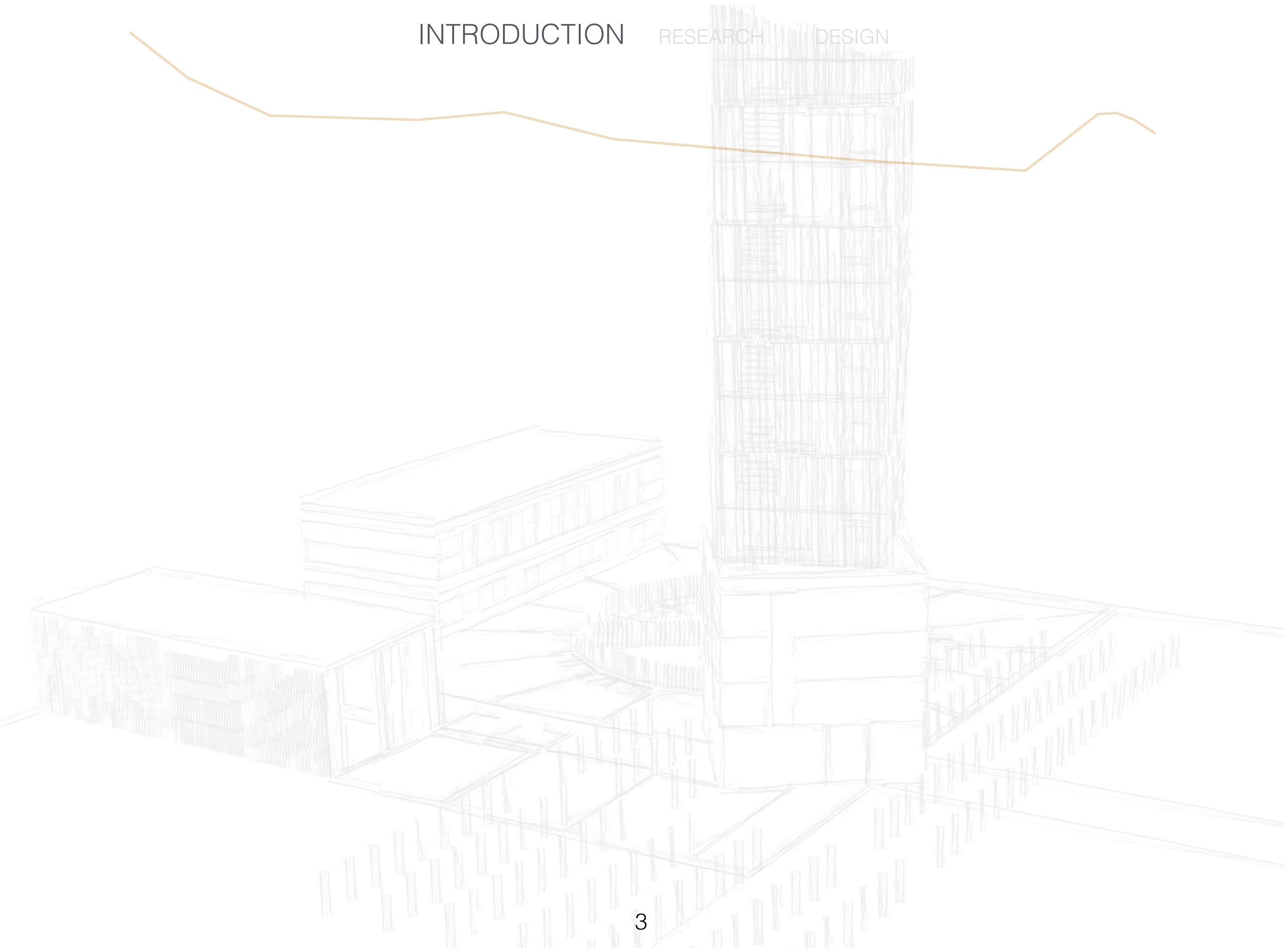
locatie  
concept  
wijnproces  
bezoekers  
materialisatie  
klimatisering  
draagconstructie



INTRODUCTION

RESEARCH

DESIGN



# IBA PARKSTAD



IBA, international building exhibition, is an approach to contribute to the development of Limburg.

Search for: IDENTITY

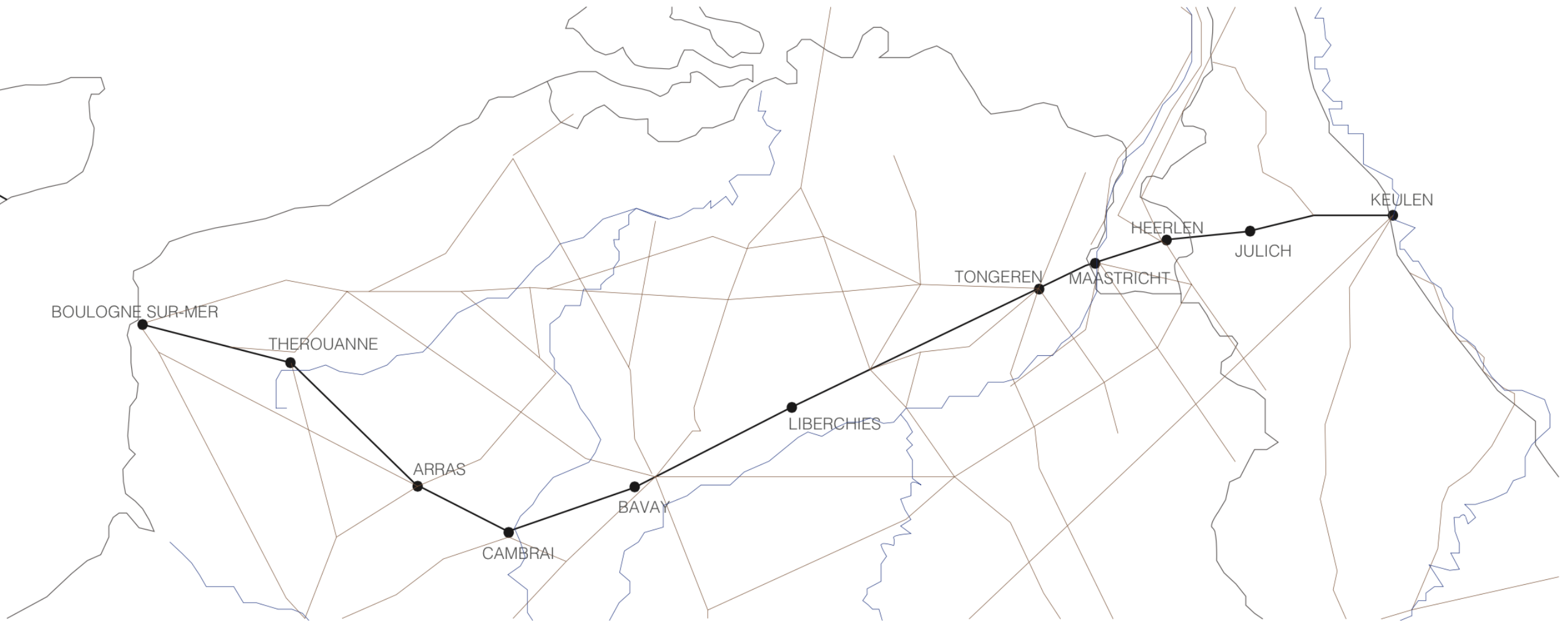
# IBA PARKSTAD



Parkstad contains a lot of evidence of Roman habitation. Heerlen, known as the 'Coriovallum', was situated at the crossing point of two major road, the via Belgica and the via Trevorum.

# IBA PARKSTAD

The via Belgica is a 400 km long Roman road, starting in Boulogne-Sur-Mer and ending in Köln. The via functioned as a fundamental development axis for the area.



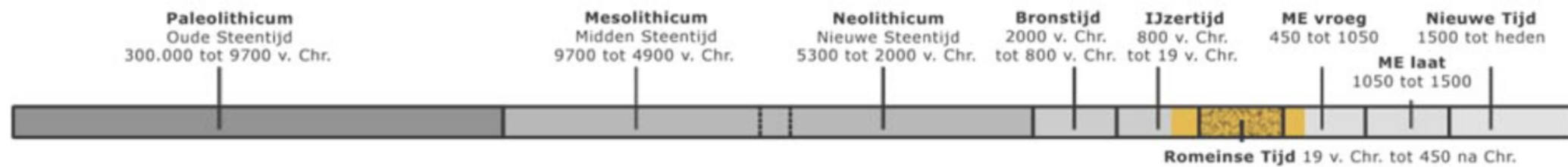
# OBJECTIVE

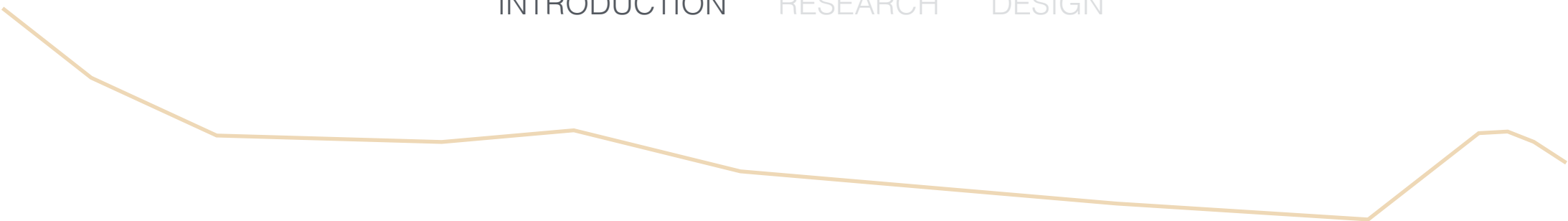
MAIN INTENTION:

RESEARCH THE QUALITIES OF THE AREA AND IDENTITY OF THE ROMAN CULTURE AND OTHER RELEVANT LAYERS IN TIME AND TRANSLATE THIS TO THE PRESENT IN A NEW LAYER

via Belgica as unifying concept

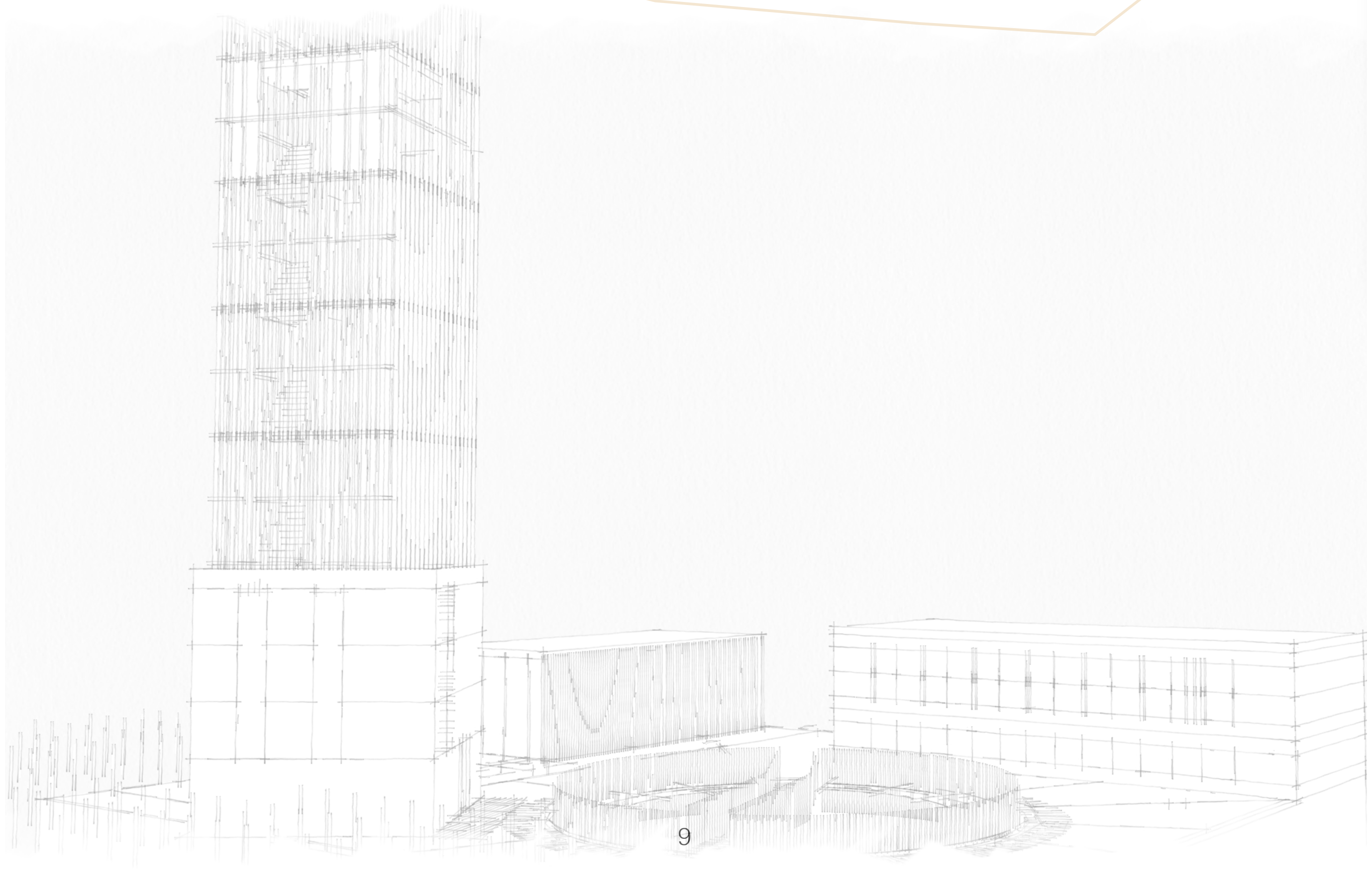
use of the cultural history as an opportunity for spatial development and the use of historical elements



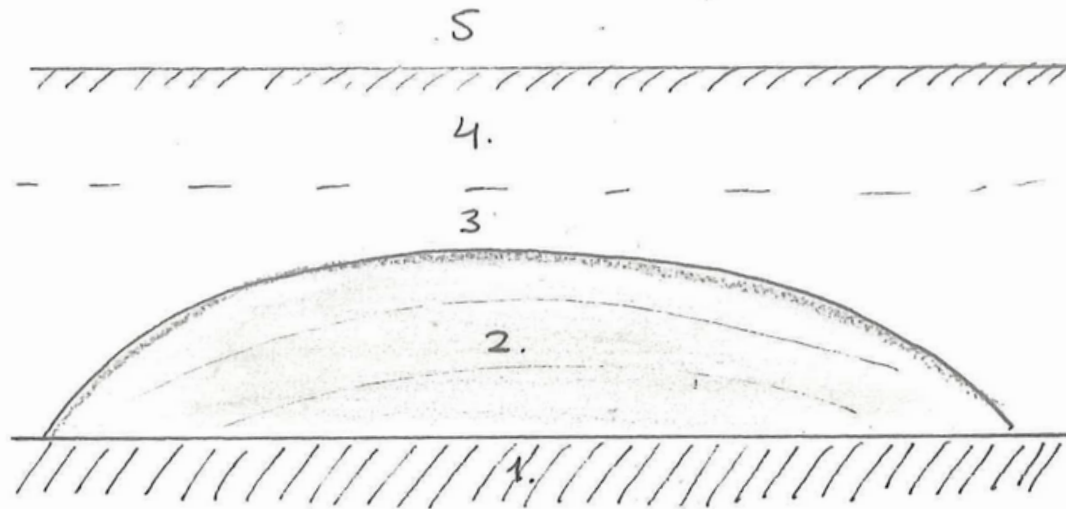


HOW TO REINTERPRET THE CULTURAL HISTORY OF THE VIA BELGICA, WITH A FOCUS ON THE DEVELOPMENT OF THE AREA ALONG THE ROAD, WITH THE AIM TO MAKE THE AREA RECOGNISABLE AND VALUABLE BACK AGAIN USING THE VIA AS A PRIMARY CONNECTING AXIS?





# VIA BELGICA



1. de ondergrond, waarop de weg is aangelegd. Deze werd eerst recht gemaakt, voordat de verharding werd aangebracht.
2. de daadwerkelijke weg. Deze is bolvormig zodat het regenwater kan afstromen. De verharding bestaat uit brokken kalksteen, afgedekt met meerdere lagen leem met kiezel en grind. Om de weg te onderhouden, werd er met de tijd steeds meer lagen kiezel en grind aangebracht, waardoor de weg steeds breder werd. Op z'n breedst is de weg 9 meter.
3. De weg is na de Romeinse tijd afgedekt door afgespoelde löss-grond van de heuvels, colluvium. Hierdoor is de weg goed bewaard gebleven.
4. Vlak onder het maaiveld ligt de bouwvoor. Dit is een laag waarin alle sporen verdwenen zijn door ploegen en bodemvorming.
5. Het huidige maaiveld niveau. De Romeinse weg ligt minder dan een meter onder de grond.

## mijlpalen - markering aan de weg

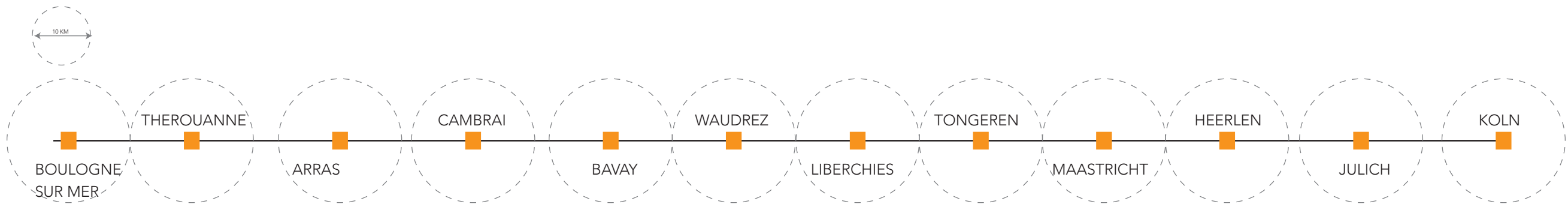
1. afstand
2. plaatsen waartussen de weg is gelegd
3. naam van wie de weg had aangelegd, en de keizer in wiens naam het werk was verricht



# VIA BELGICA

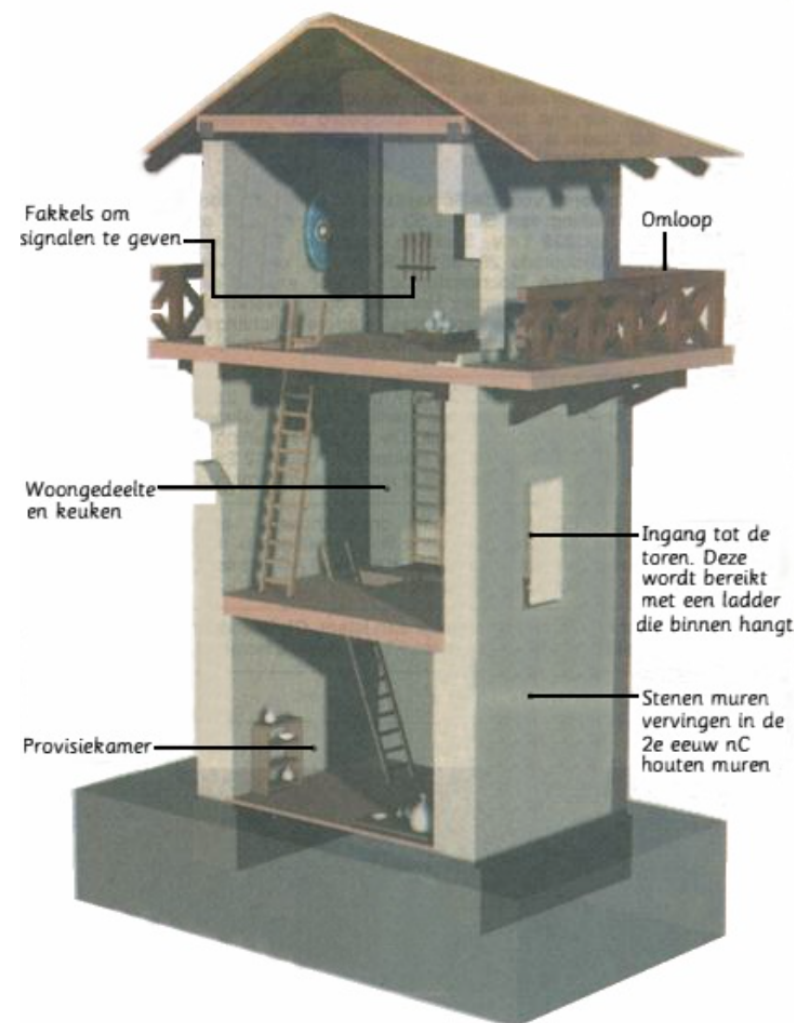
ONONDERBROKEN TRANSPORT SYSTEEM BESTAANDE UIT EEN VERHARDE WEG, MET DAARAAN GERELATEERD EEN NETWERK VAN FACILITEITEN VOOR REIZIGERS.

1. ROL IN HET MILITAIRE SYSTEEM, WELKE DE EENHEID EN STABILITEIT VAN HET ROMEINSE RIJK VERZEKERDE
2. INTERNATIONALE HANDEL

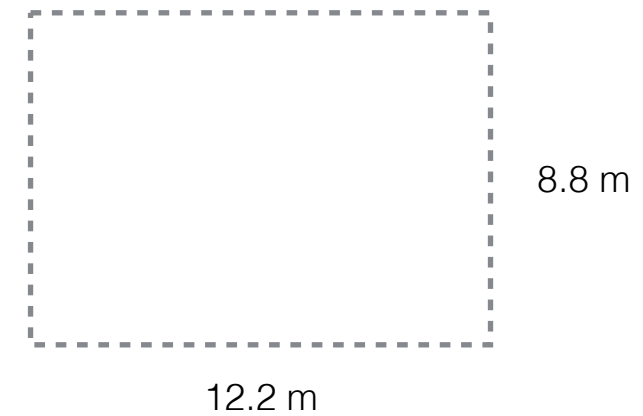


# VIA BELGICA

## 1. MILITAIRE VERDEDIGING: WACHTPOSTEN



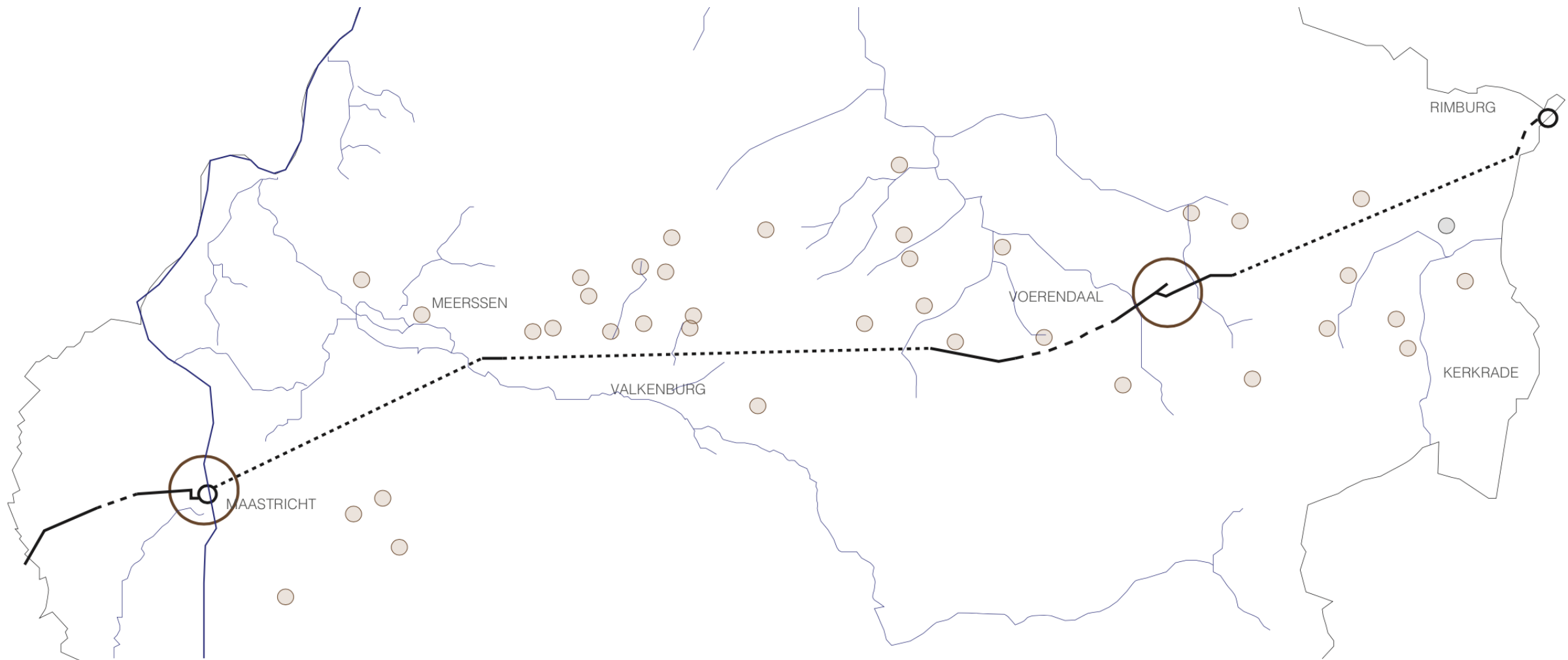
Fundamenten Romeins wachttoren bij Goudsberg, Limburg



signaaltorens: bedoeld voor de communicatie. Berichten werden via vuren doorgegeven, waarbij men afstanden tot 50 m? kon overbruggen.

# VIA BELGICA

## 2. HANDEL EN NIJVERHEID

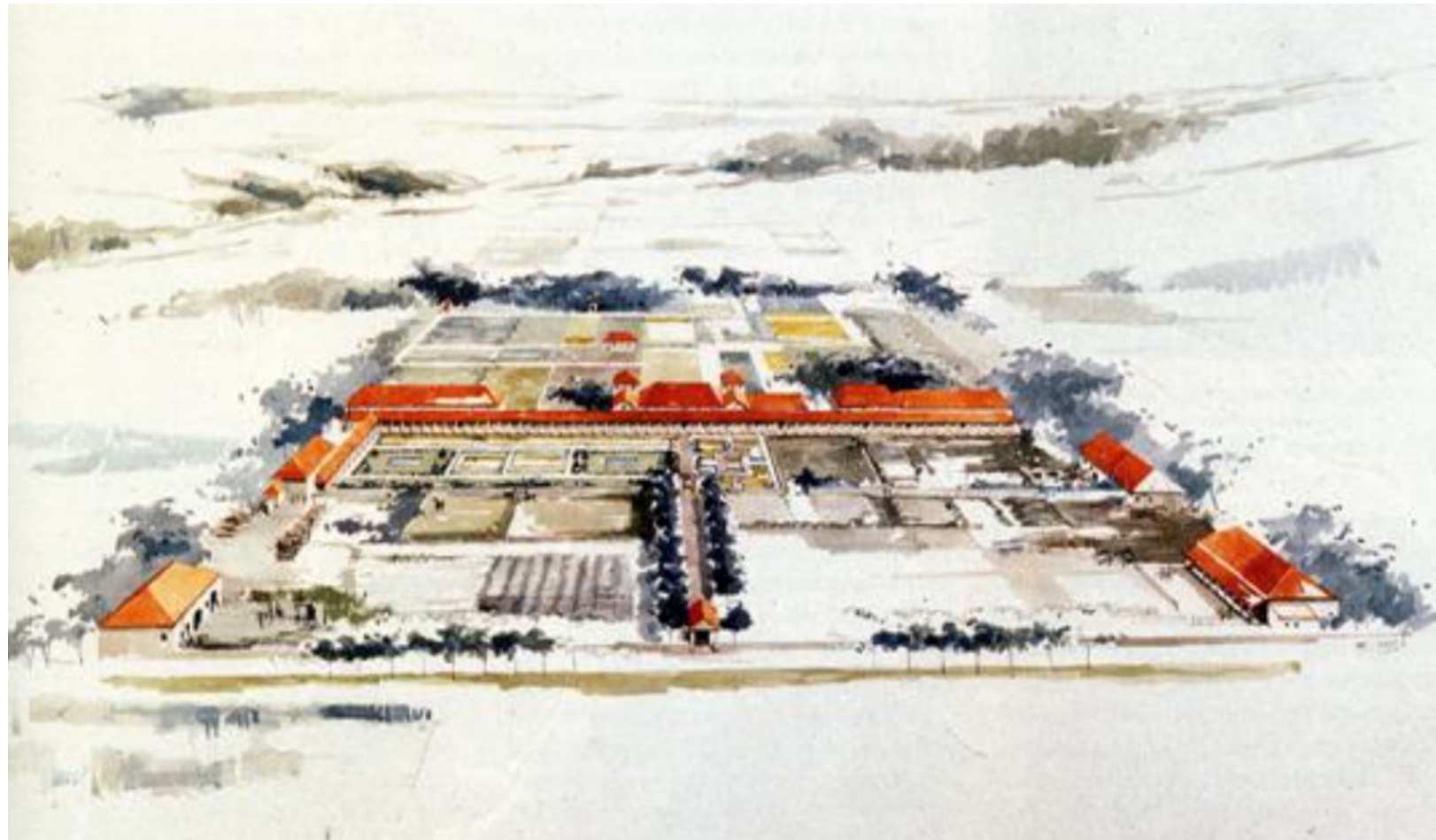


### VILLA'S - BETEKENIS VOOR DE CULTUUR-ECONOMISCHE IDENTITEIT

herenboerderijen waar grootschalige landbouw werd bedreven ten behoeve van de garnizoenen als civiele nederzettingen

# VIA BELGICA

VILLA RUSTICA - VILLA URBANA - VILLA SUBURBANA - VILLA MARITIMA



# PALIMPSEST



RUINS IN THE REGION OF LIMBURG ARE THE STARTING POINT OF THE DEVELOPMENT OF LIVING IN THE REGION, AND THEREFOR OF CRITICAL VALUE.

CONSIDERING THE CITY AND THE LANDSCAPE AND THE LANDSCAPE WITH THEIR RUINS AS A TIMELY LAYERED PALIMPSEST, WE CAN RECOVER THE LOST IDENTITY OF THE REGION.

*Palimpsest refers originally to old parchment handwritings, where new text has been applied on top of effaced, but still perceptible, earlier writing. (Kjerrgren 2011)*

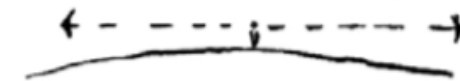
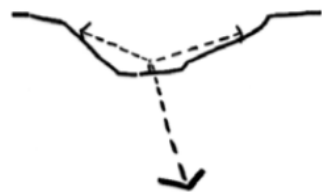
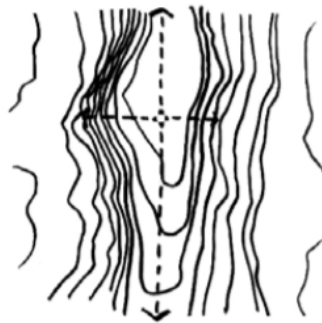


# FORMATION LANDSCAPE

## PRIMARY SPATIAL STRUCTURE OF THE REGION

### FUNDAMENTAL:

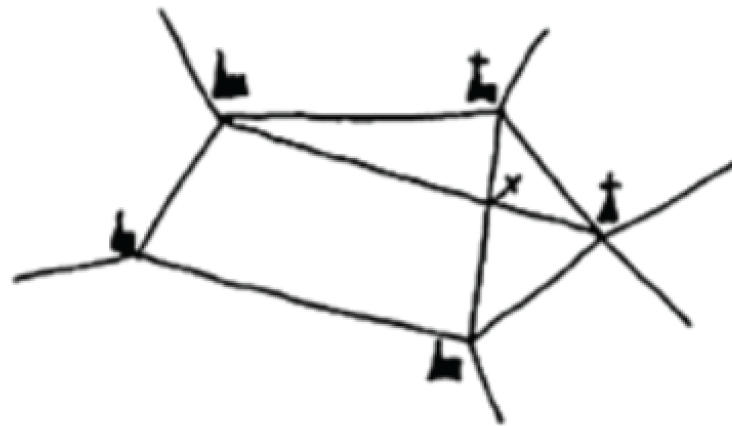
1. SOIL COMBINATION (FERTILE LÖSS)
2. RELIËF
3. WATER



### ENVIRONMENTALLY-DETERMINISTIC APPROACH

natural world is seen to be the principal determining factor of human behaviour. The presence of a certain soil type, a river, a certain type of vegetation and climate determines where people live, and how.

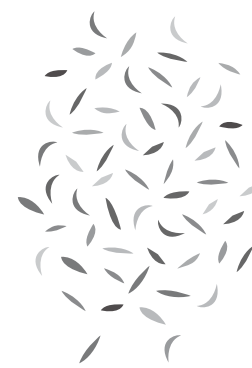
# OCCUPATIE PATRONEN



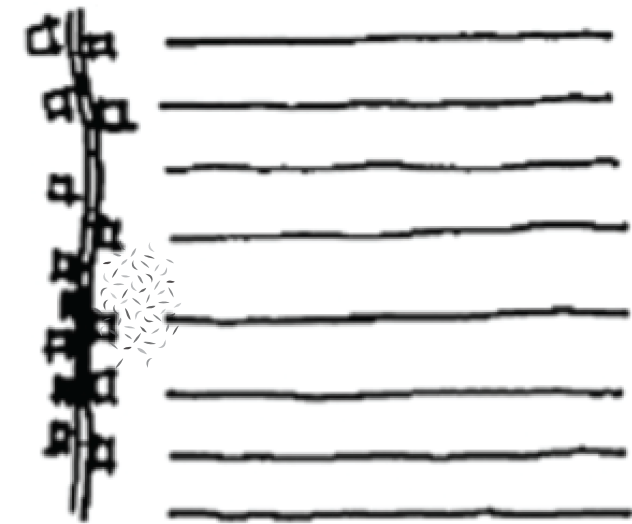
dorpen in web-vormig wegenpatroon



bos



grasland



weg met  
bebouwing

bouwland



# LAYERING LANDSCAPE

different significant historical periods are used to describe the biography of the landscape to contribute in the understanding of the historical development and cohesion in the region, these are:

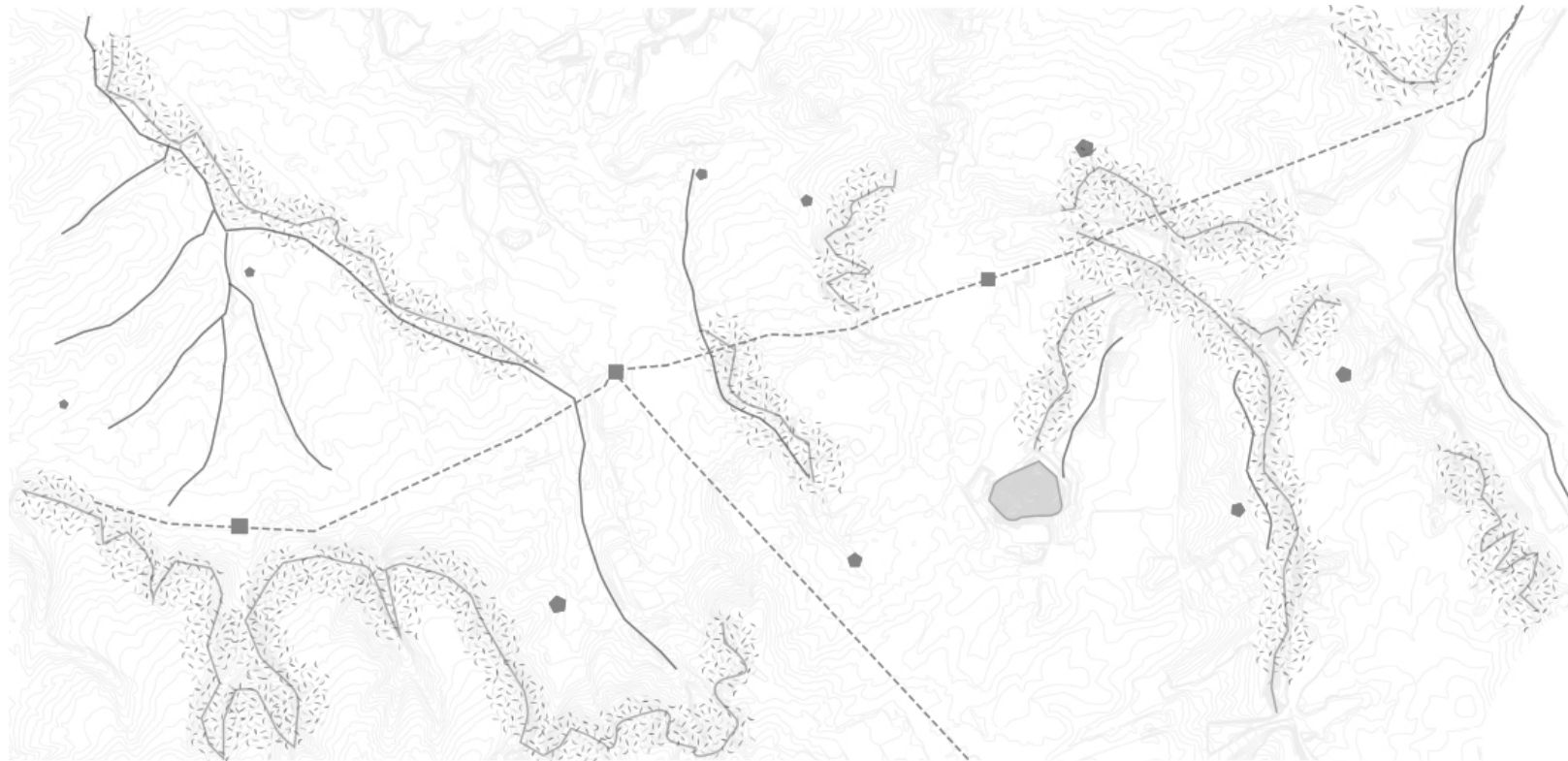
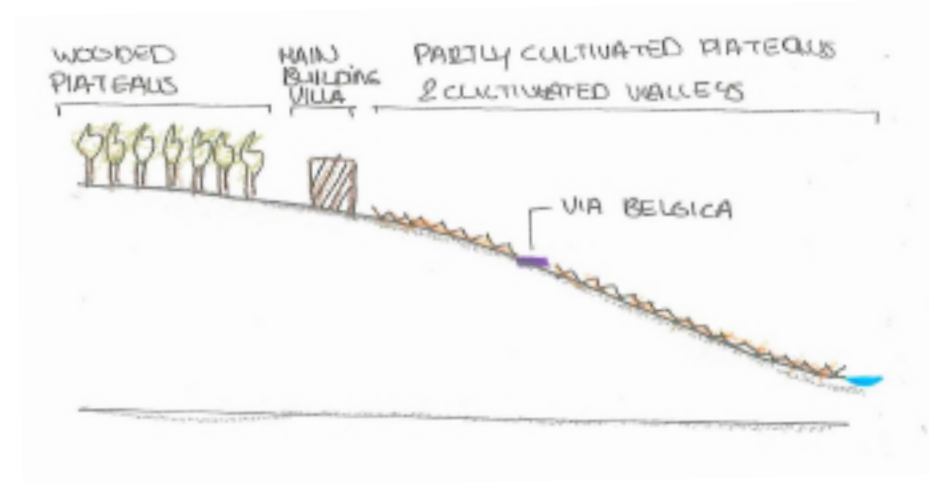
- traces far past
- Roman times
- middle ages
- mining industry
- modern times



# TRACES FAR PAST



# ROMAN TIME



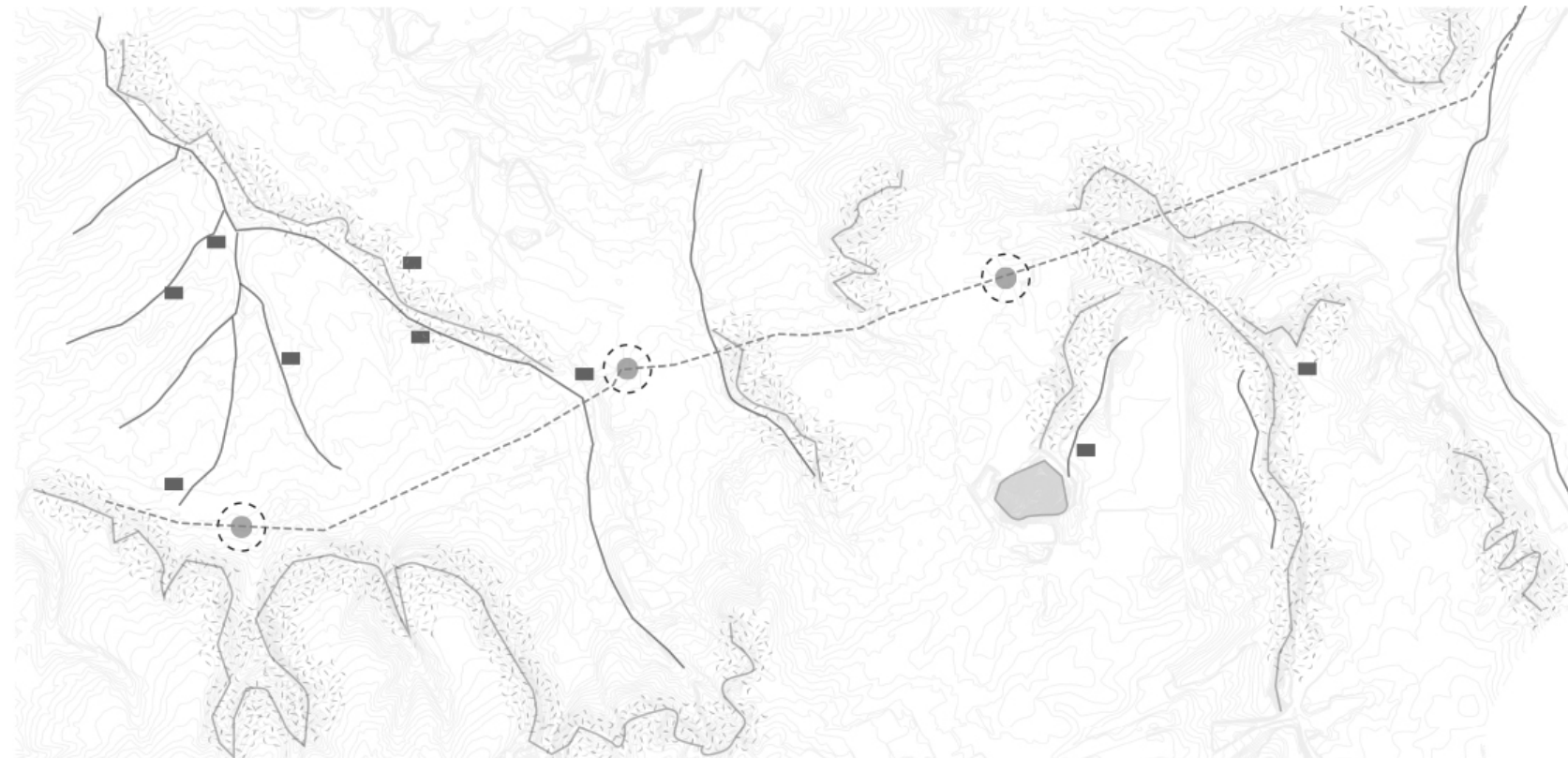
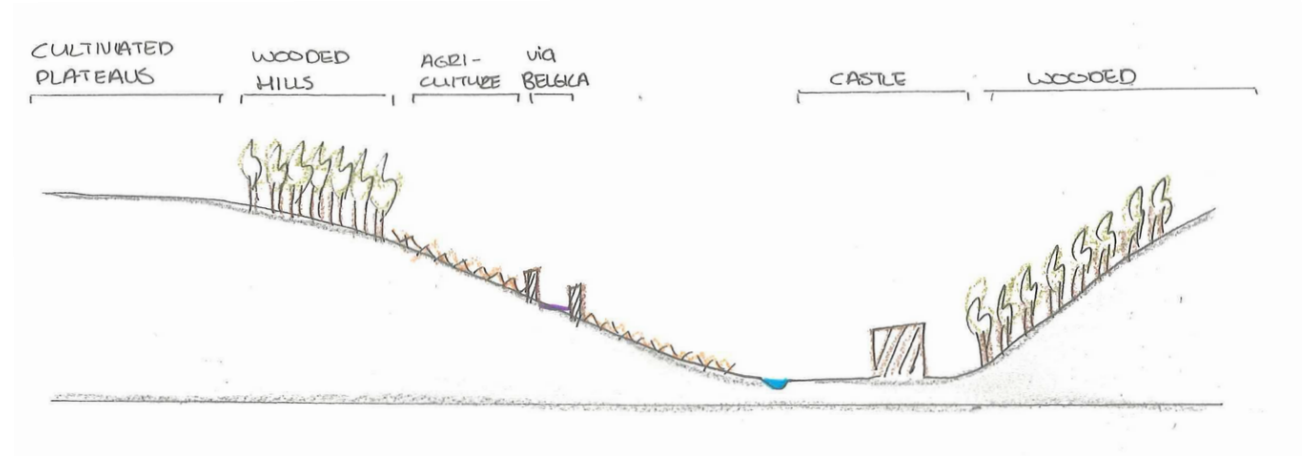
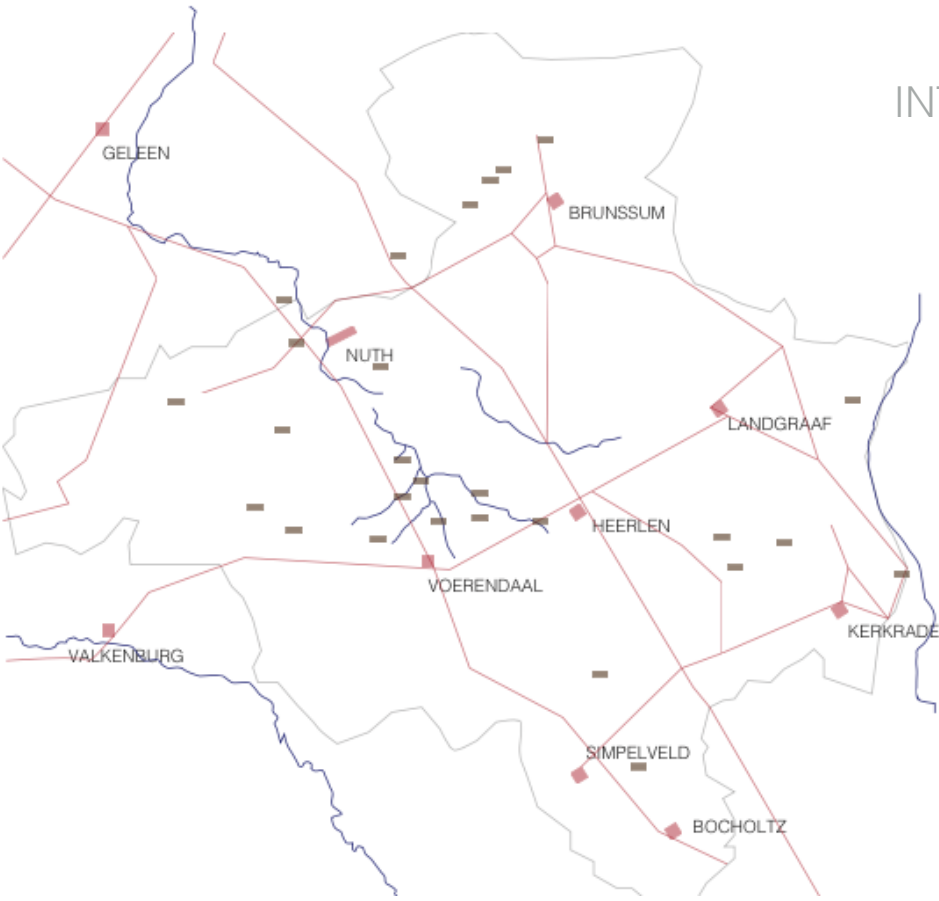
# ROMAN TIME



ROMAN TOWER

- rechthoekige footprint
- buiten omloop
- massieve plint
- hoog gelegen entree
- symmetrische openingen
- steen, romeins beton

# MIDDLE AGES





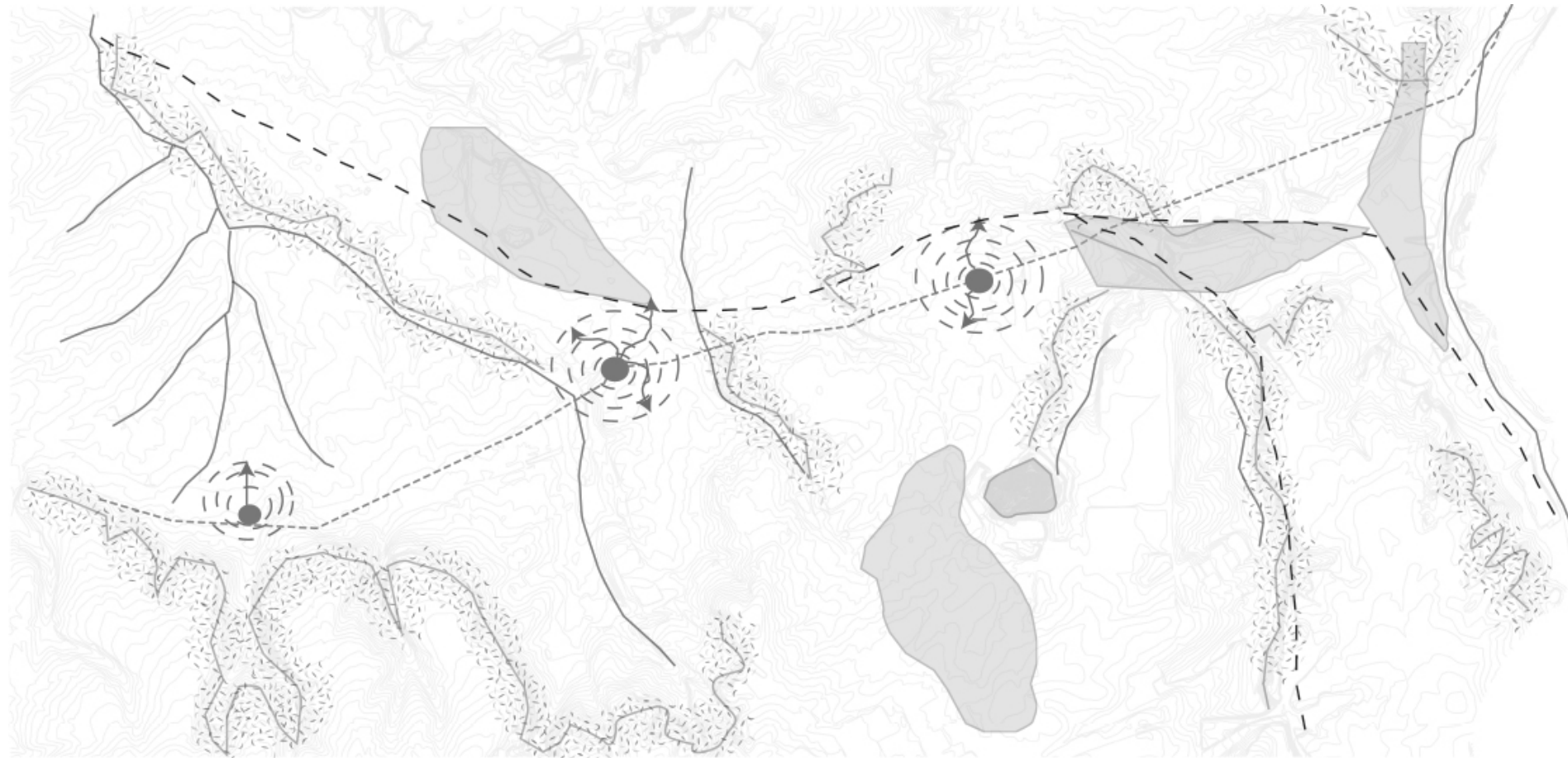
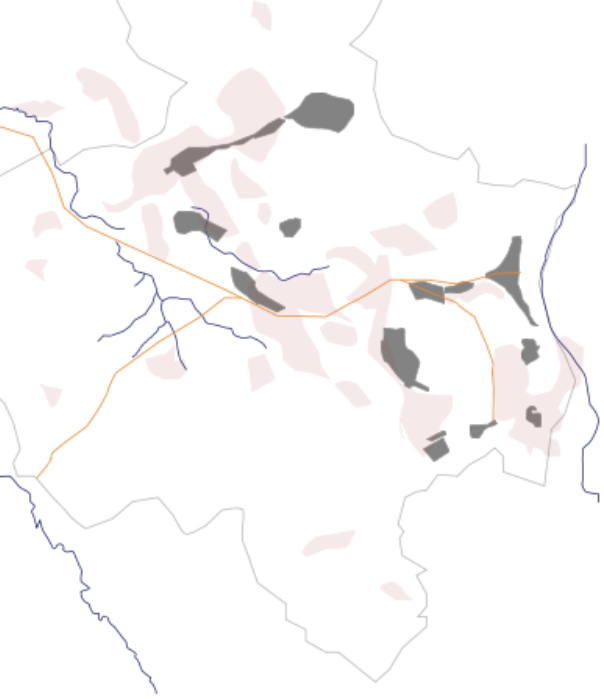
# MIDDLE AGES



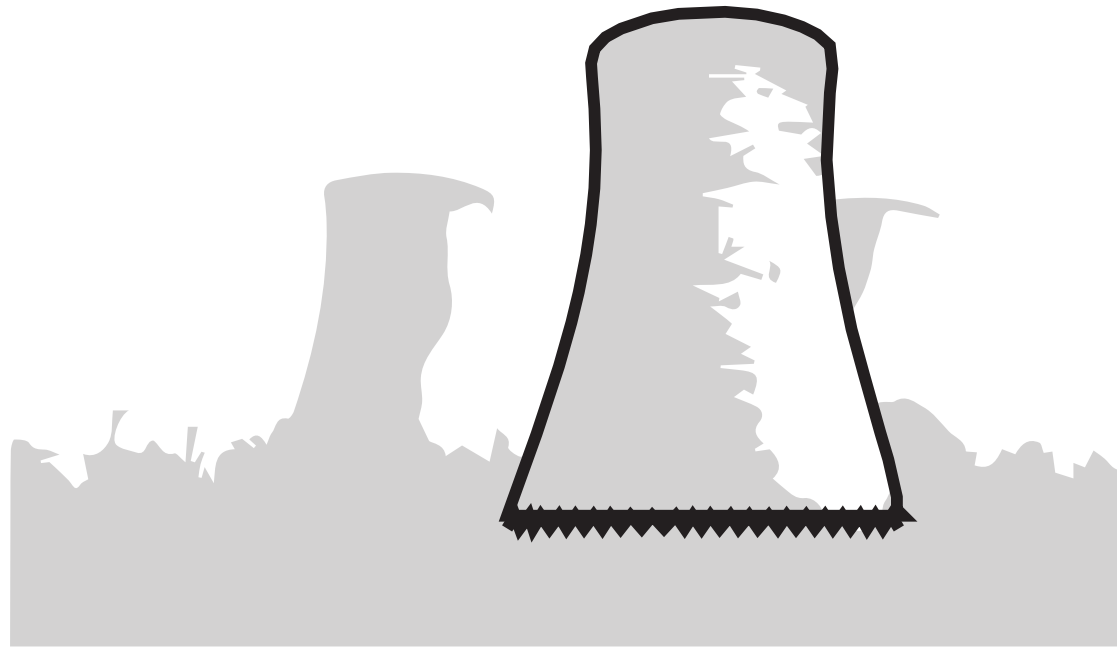
## MEDIEVAL

- rond of rechthoekig footprint
- open dak, geen omloop
- massieve plint
- symmetrisch
- steen

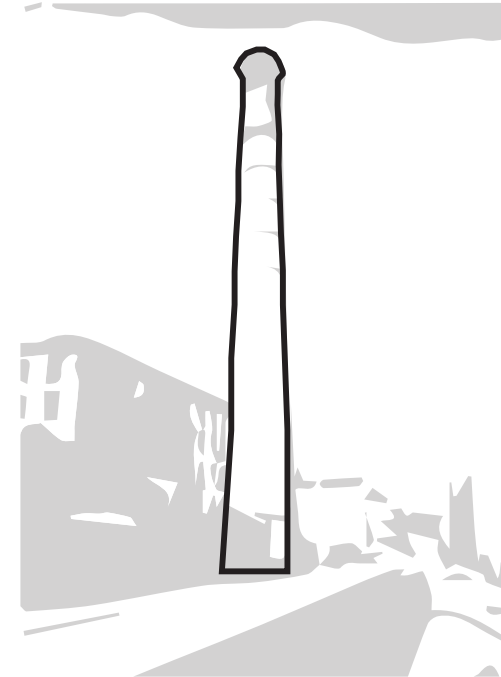
# MINING INDUSTRY



# MINING INDUSTRY



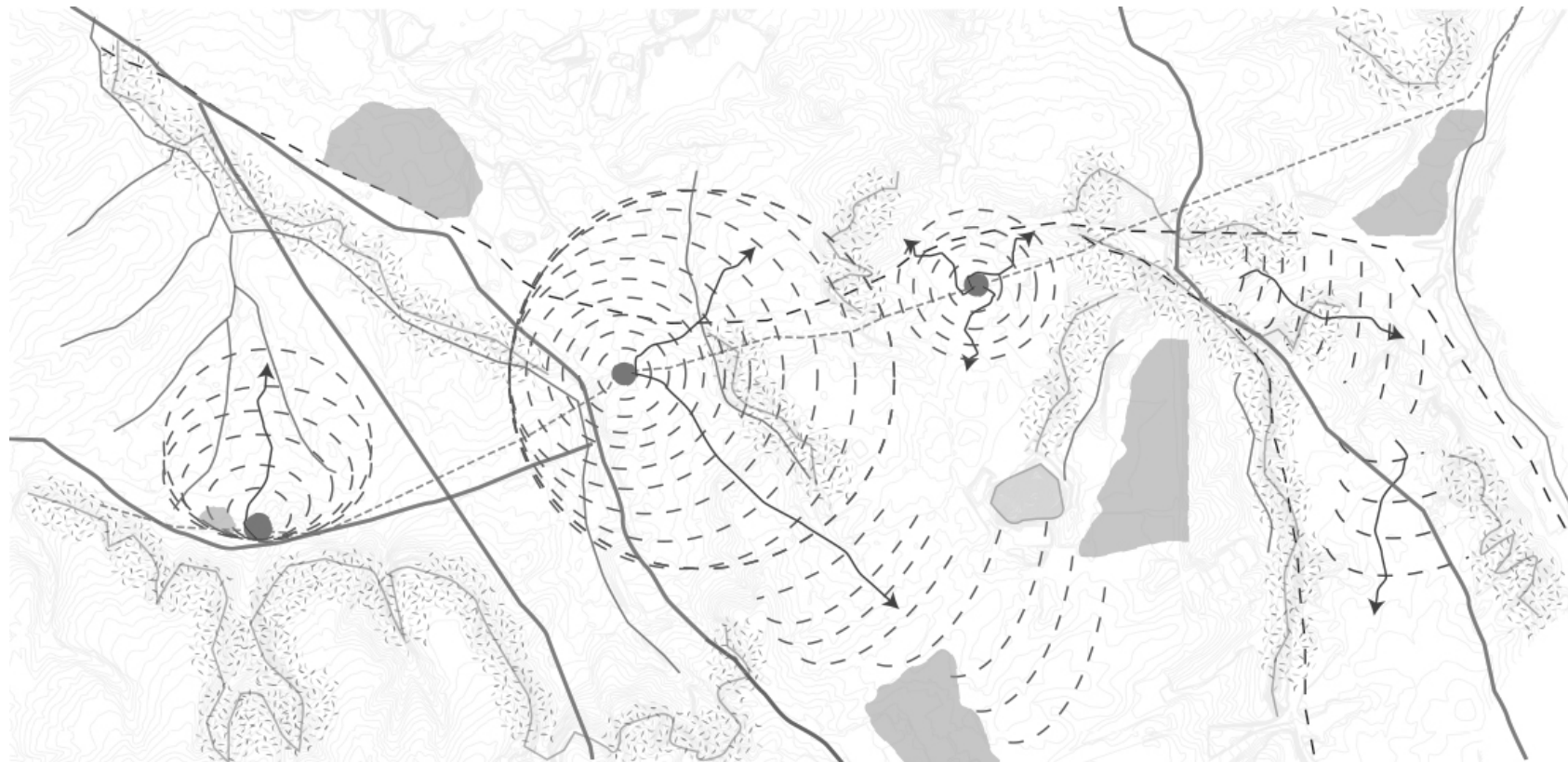
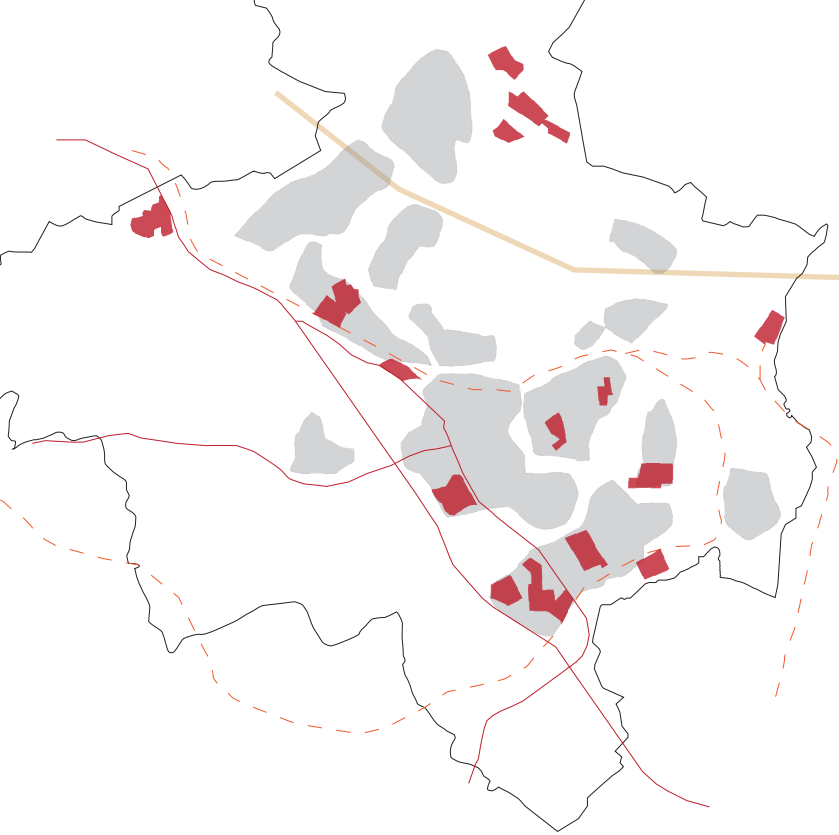
- hyperbolische vorm
- versmalling
- massief
- beton



- ronde vorm
- versmalling
- massief
- baksteen



# MODERN TIMES

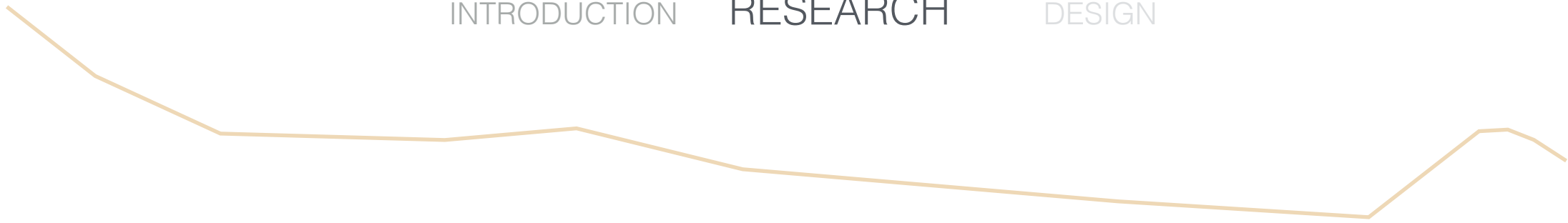




INTRODUCTION

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ROMAN PERIOD

roads are constructed, villa's form an arcadic landscape with agricultural purposes

MINING INDUSTRY

changed the identity into a industrial character

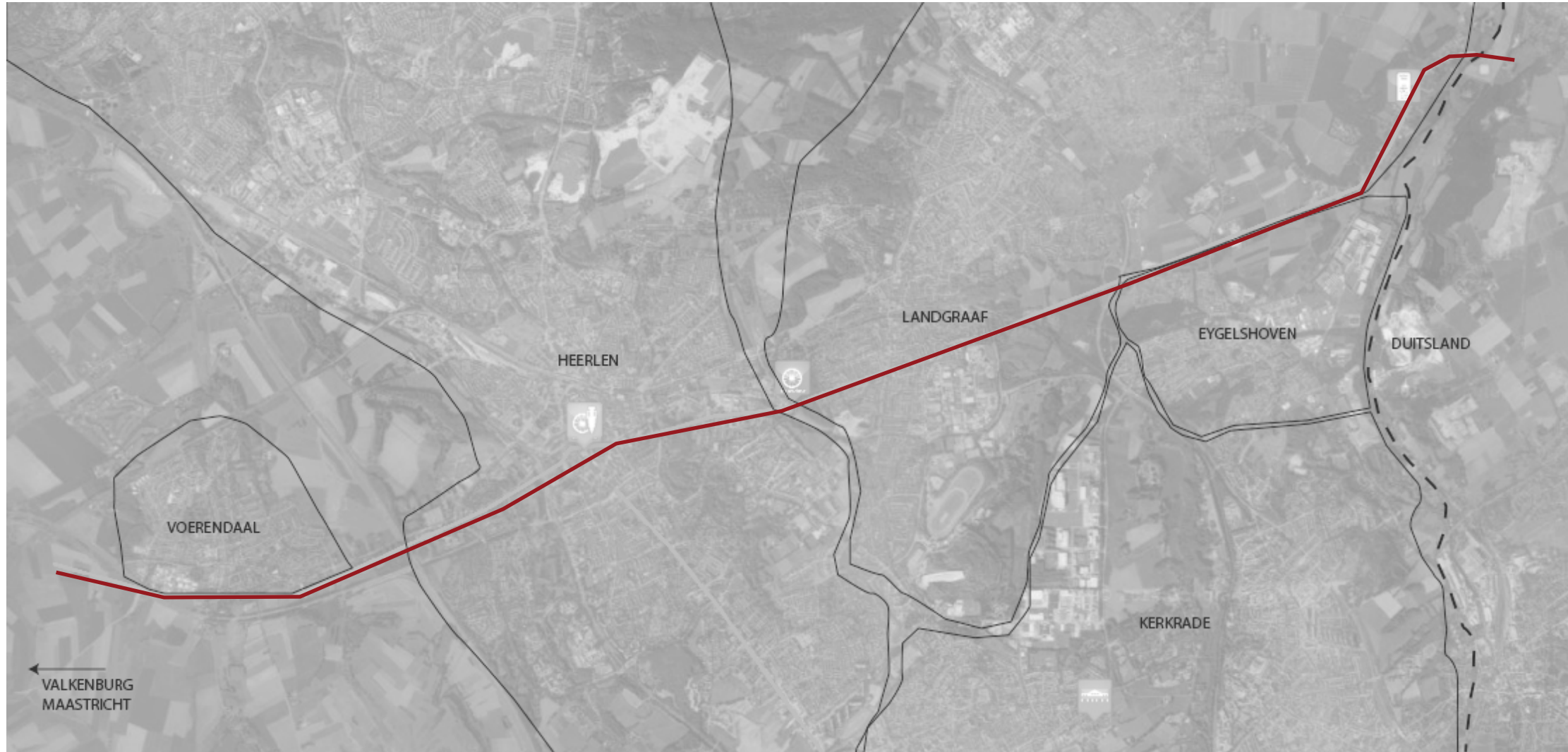
**CONTEMPORARY IDENTITY**

industrial character of the mining period and the agrarian character of the Romans will be recalled












# VIA BELGICA

LANDSCHAPPEN NU



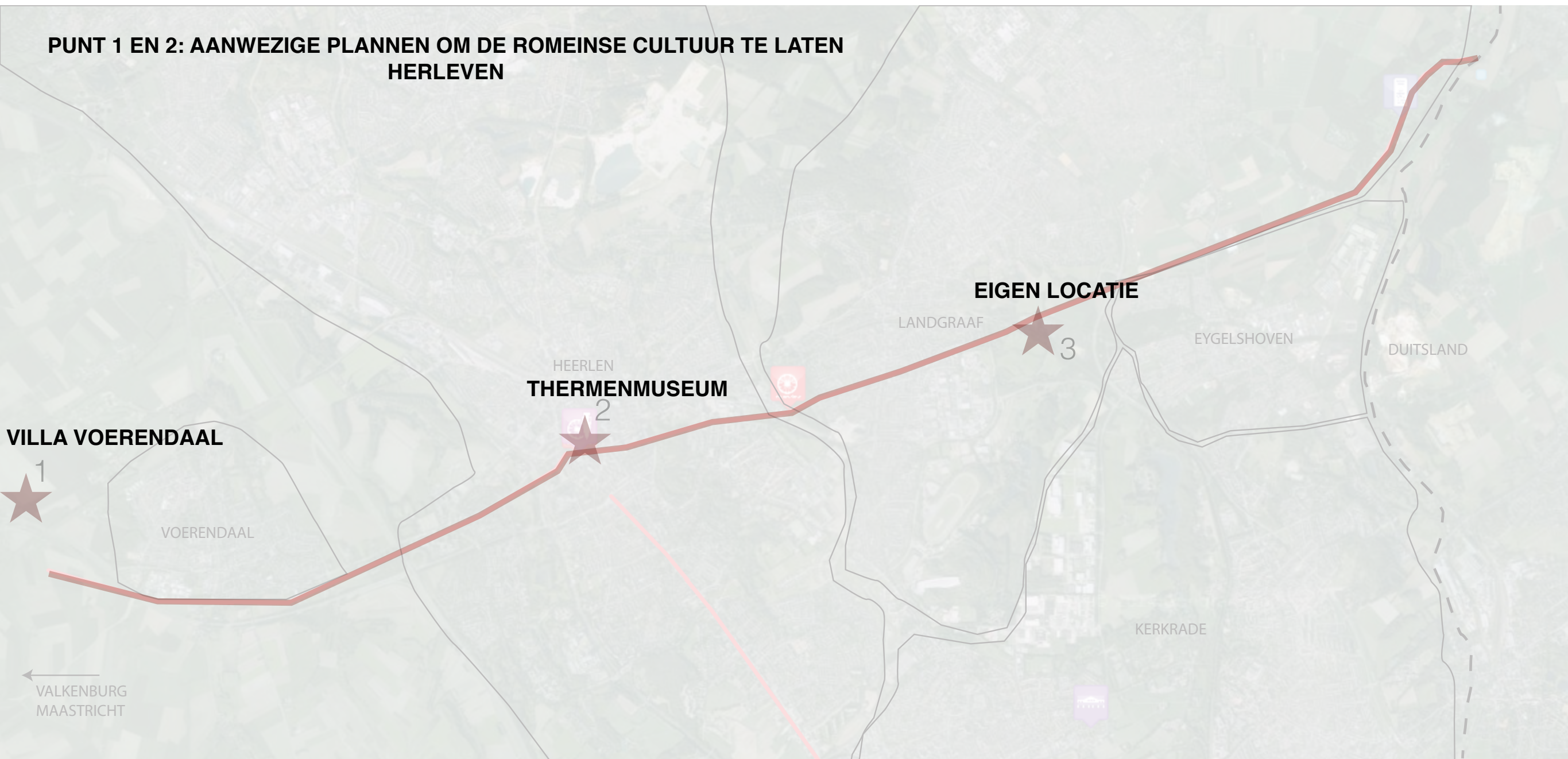


In de context van het omringende landschap van de via Belgica hedendaags is het complex om de resterende delen van de Romeinse weg aan elkaar te knopen, te ontsluiten en toegankelijk te maken voor bewoners en toeristen.

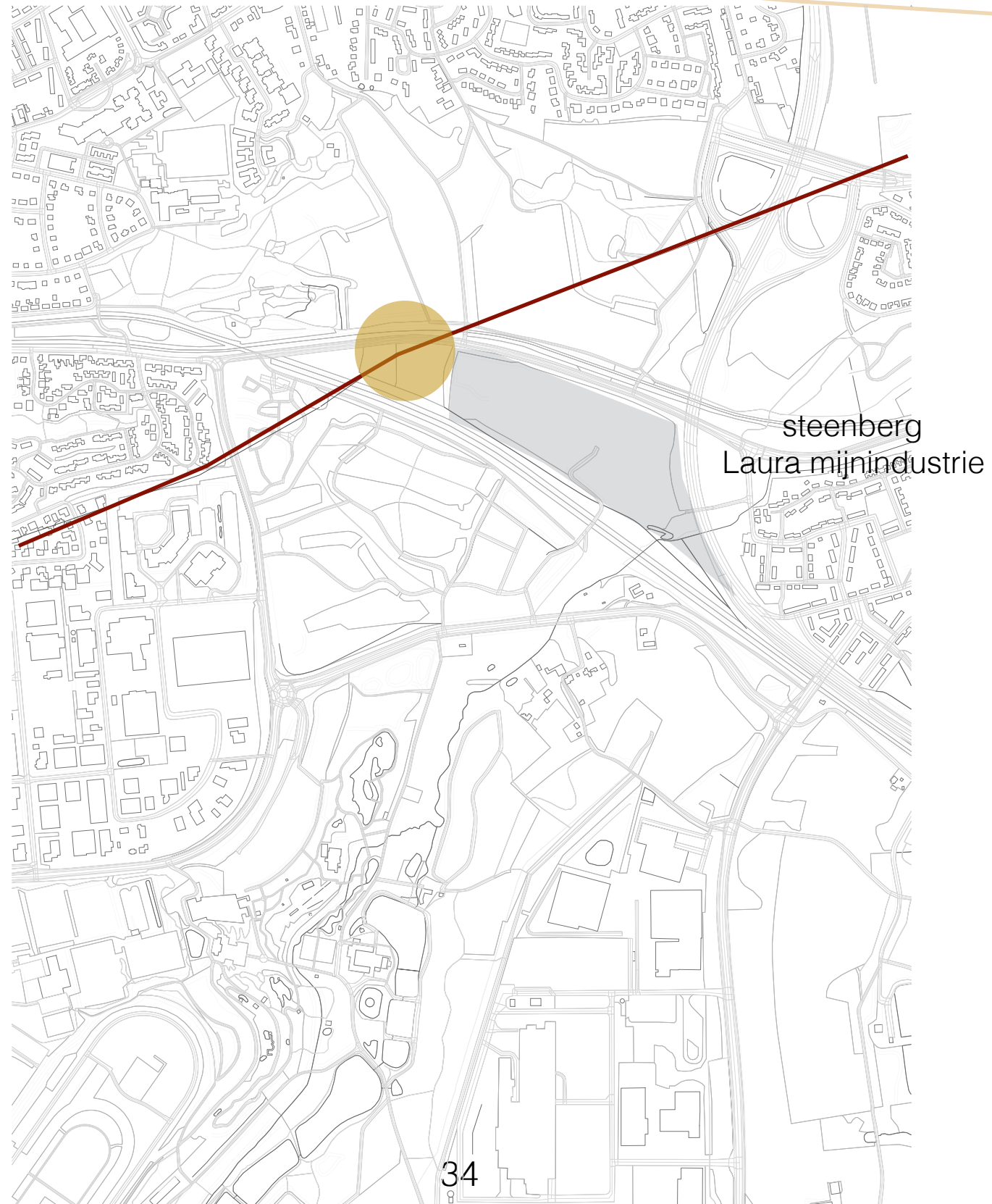
Wel mogelijk is om delen van de weg te laten herleven op plaatsen met een toegevoegde waarde voor de stad, bewoners en/of toeristen.



**PUNT 1 EN 2: AANWEZIGE PLANNEN OM DE ROMEINSE CULTUUR TE LATEN HERLEVEN**



# LOCATIE 1/500



steenberg  
Laura mijnindustrie

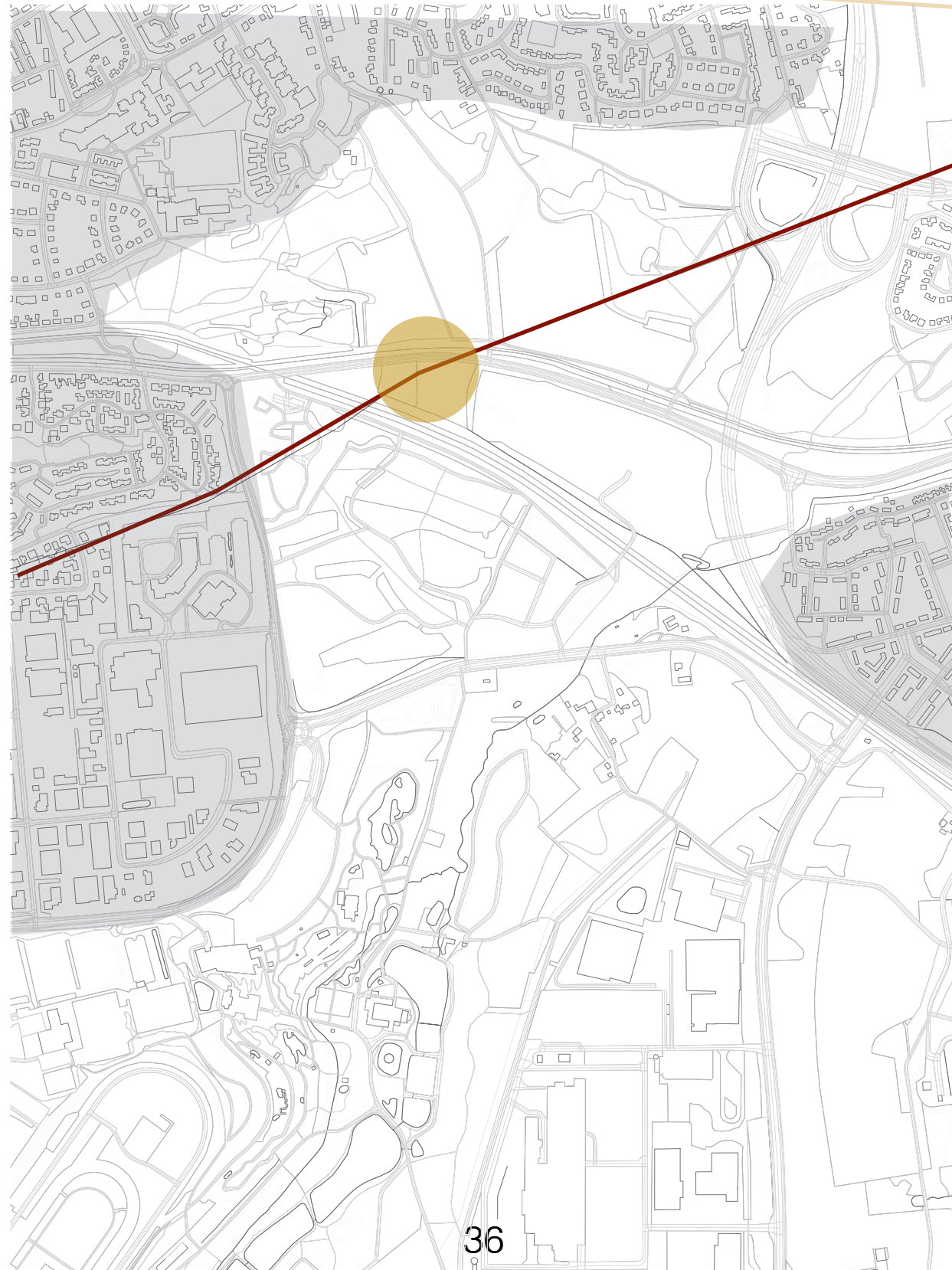


# LOCATIE



Recreatiegebied

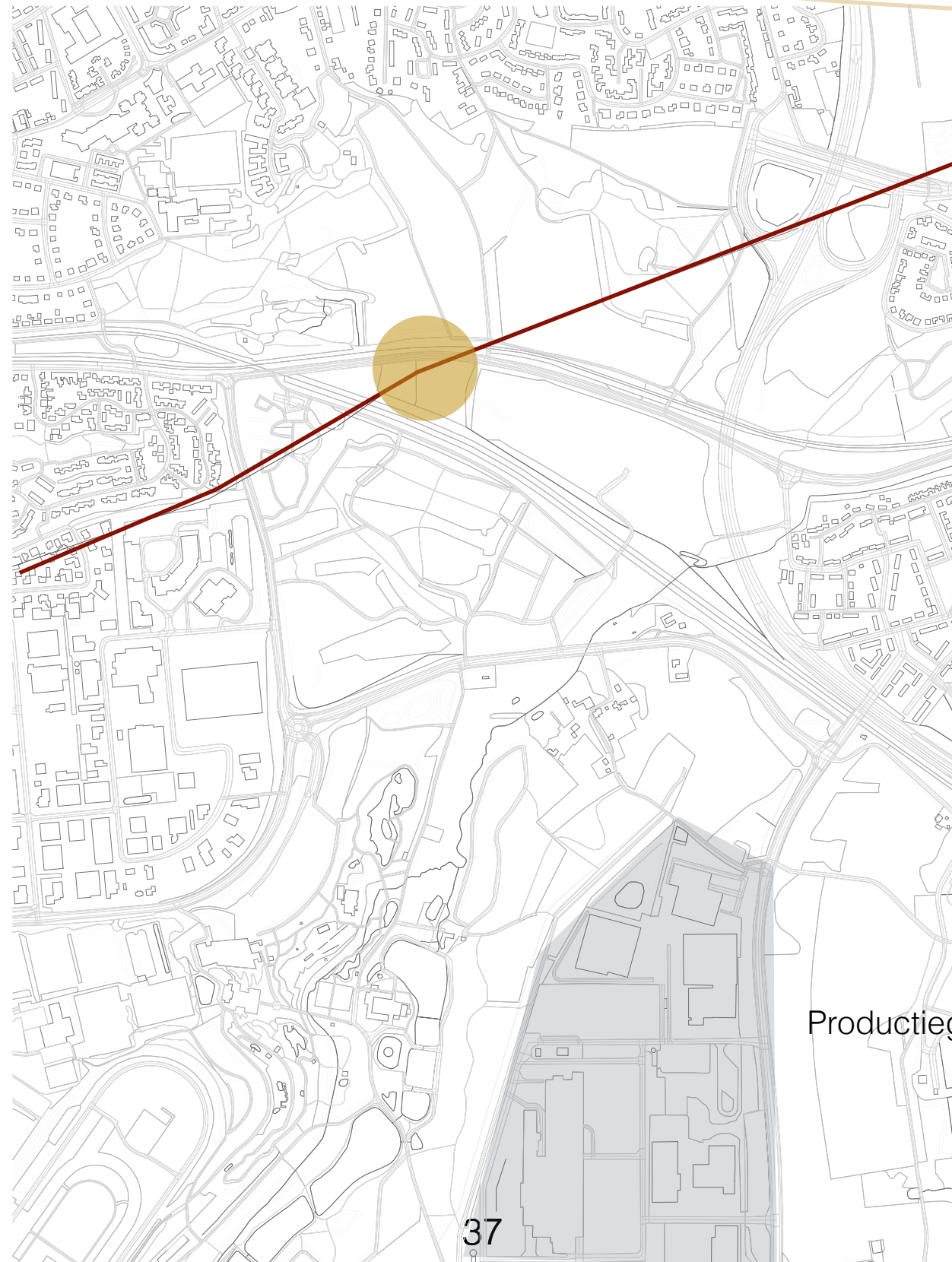
# LOCATIE



Stedelijk gebied



# LOCATIE



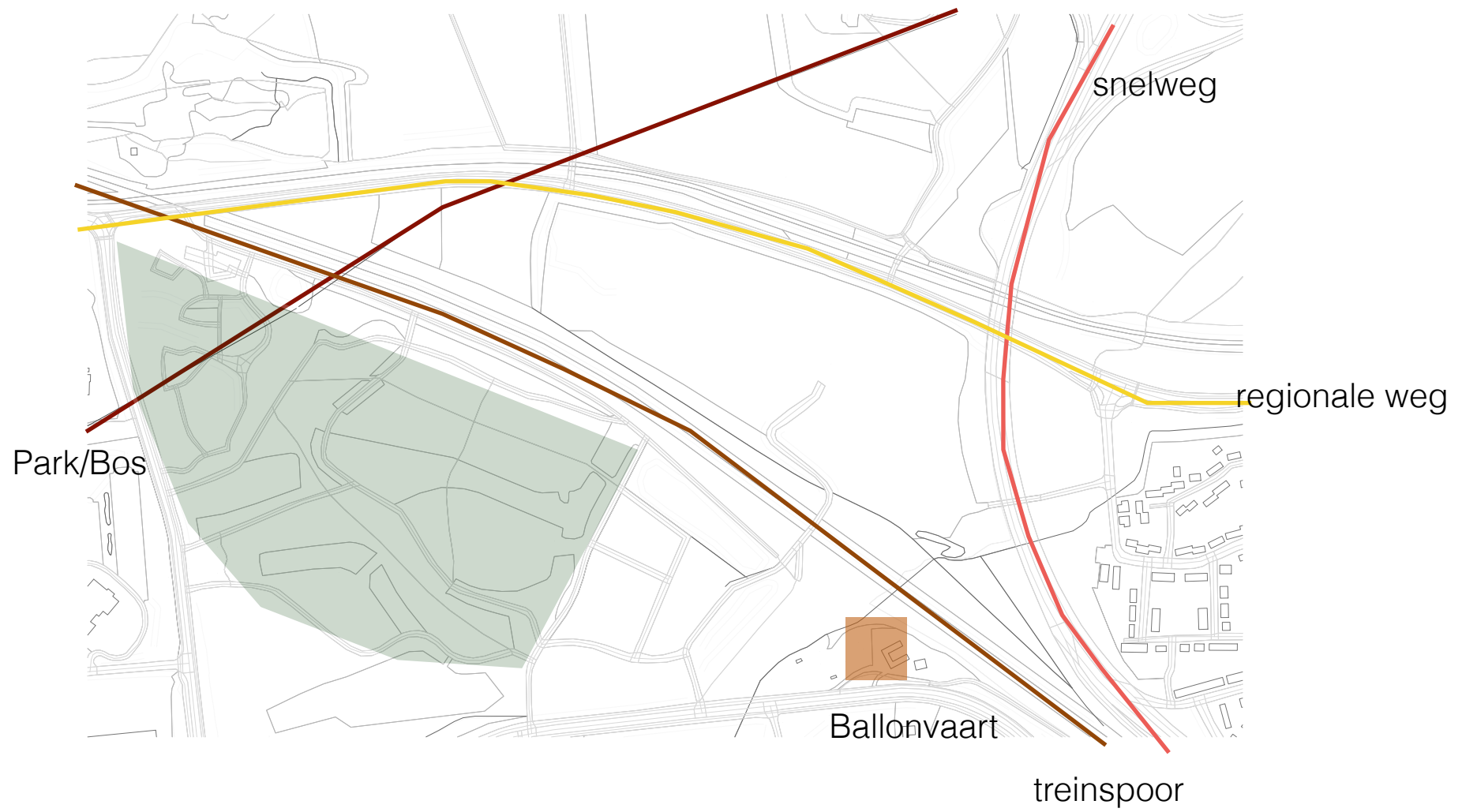
Productiegebied

# LOCATIE



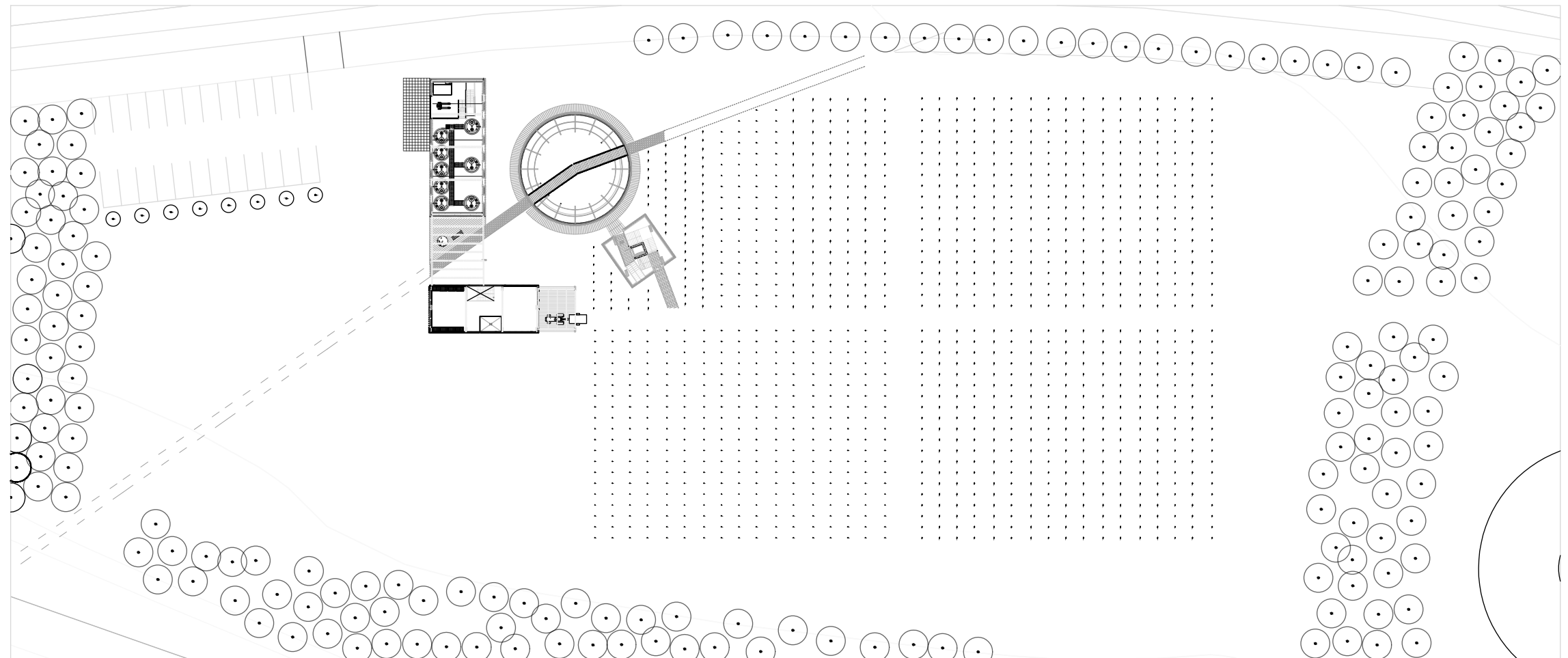
Agrarisch gebied

# LOCATIE 1/500

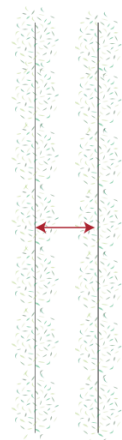
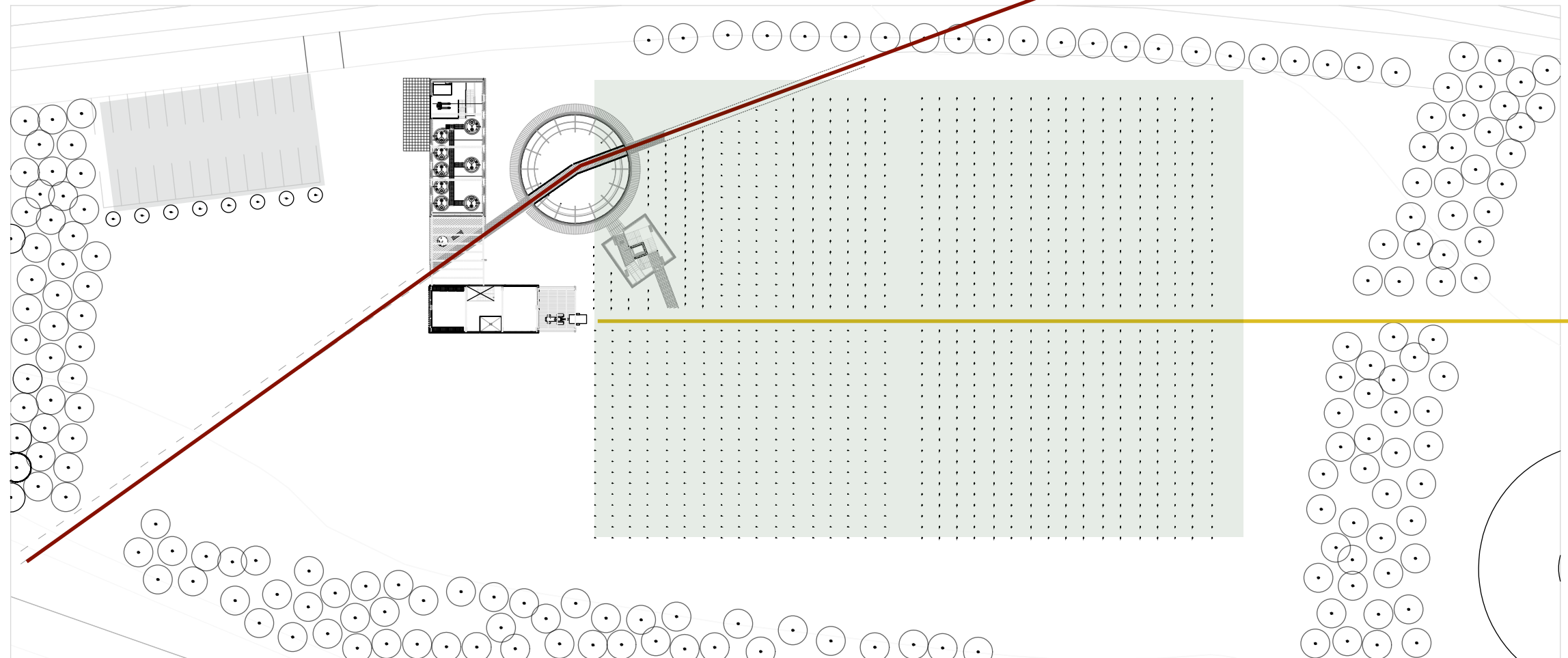




# LOCATIE



# LOCATIE



4 Roman ft (1,2 m)  
5 ft suggested for hand cultivation

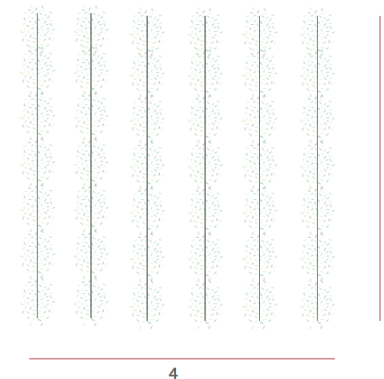
'ONE TO ONE' RULE  
distance between rows equals canopy  
height (for capturing the available sunlight)



OPTIMUM ORIENTATION

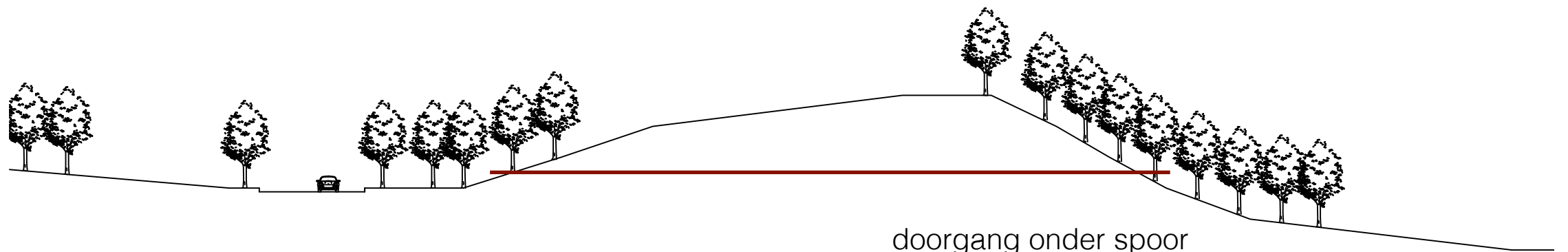
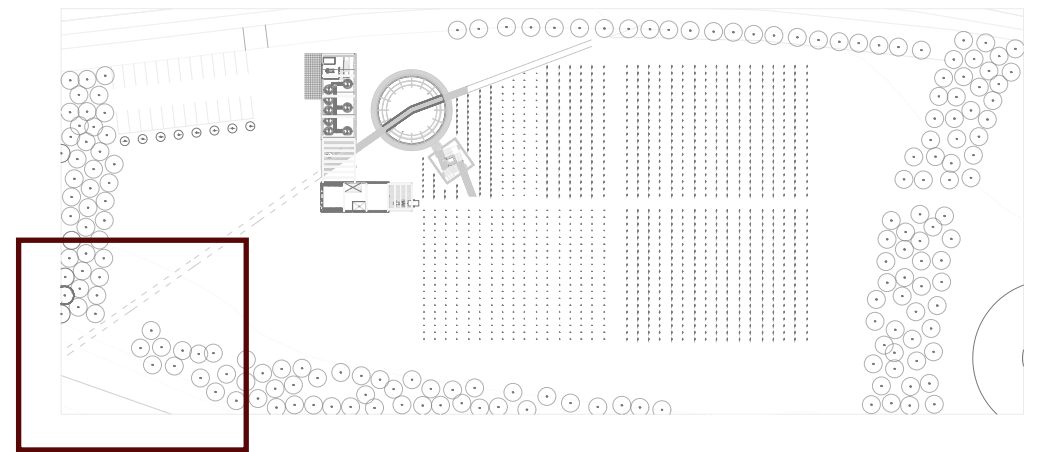
maximize sunlight exposure on  
both east & west side of the canopy

4 - 6' for vinifera  
6 - 8' hybrid/native





# LOCATIE



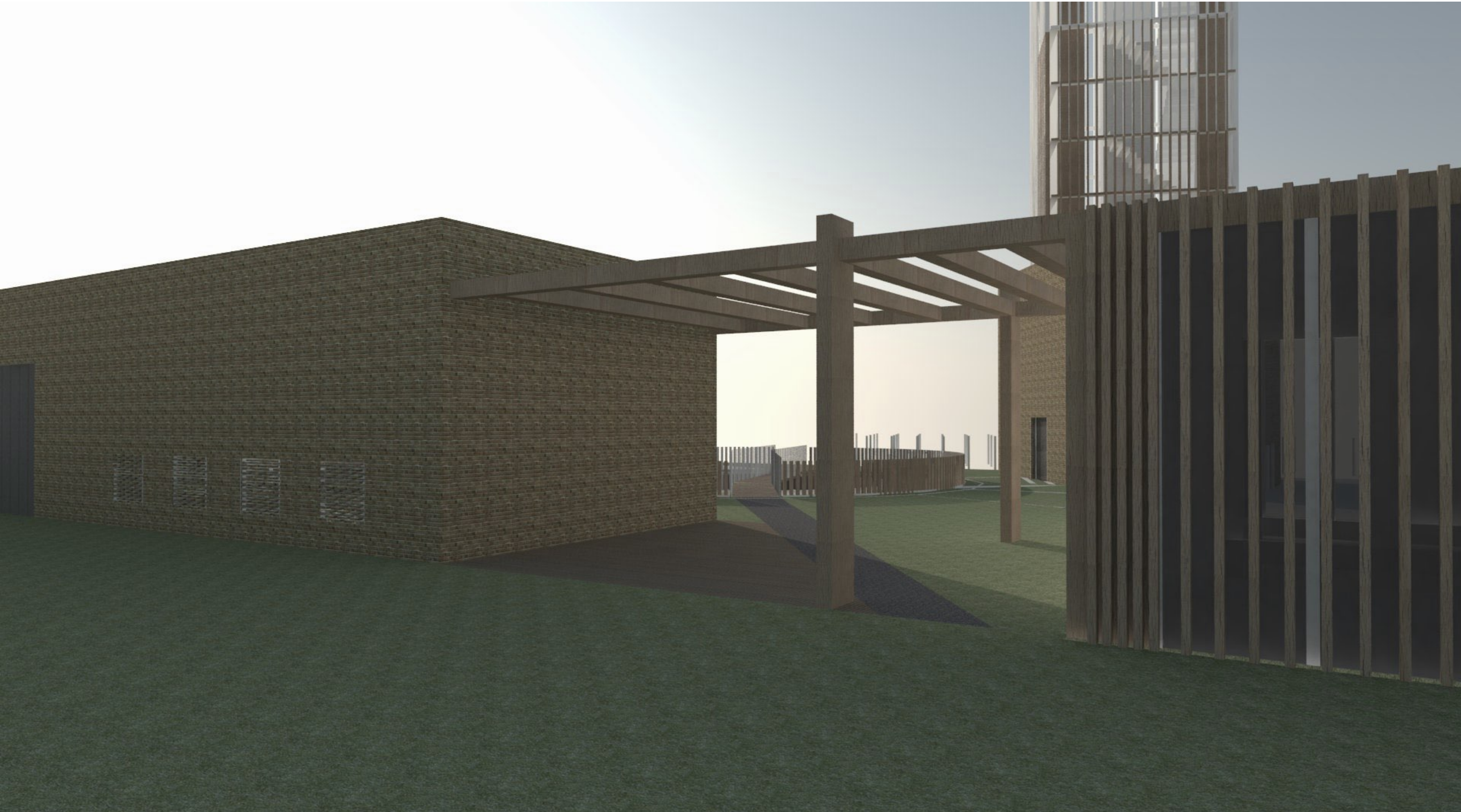
doorgang onder spoor  
ter plaats van  
via Belgica

INTRODUCTION

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# LOCATIE



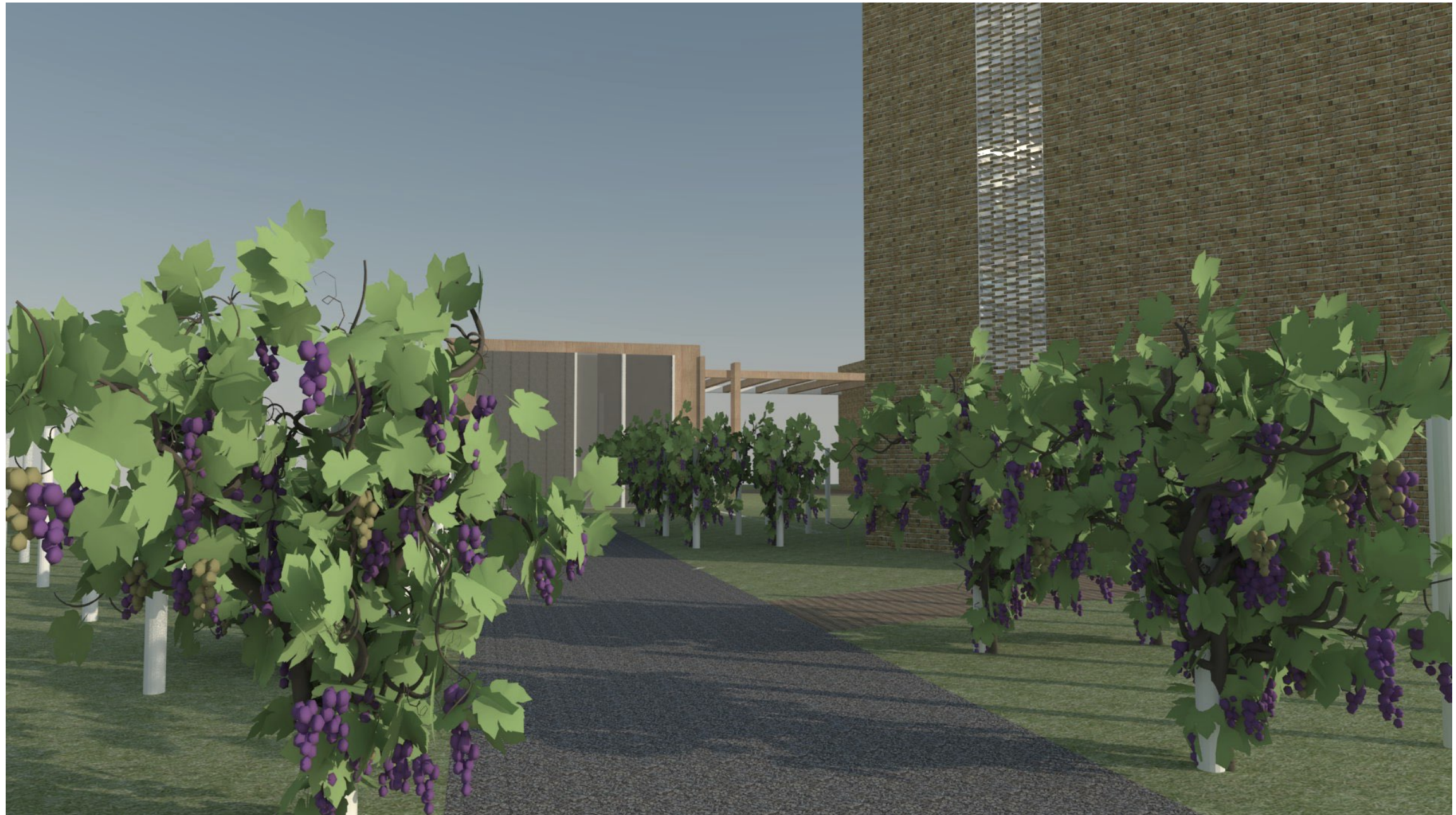
# VIA BELGICA



ENTREE  
PERGOLA



# LOCATIE

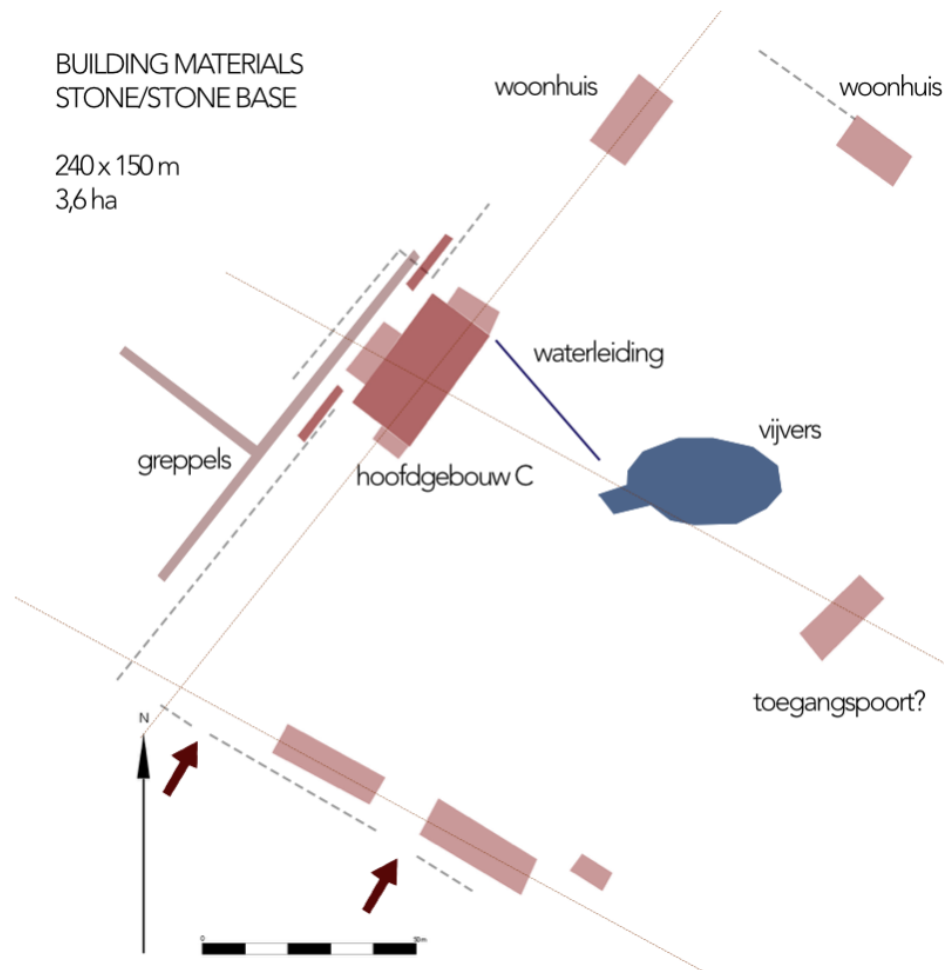


ONTWERP  
GEOMETRIE

VILLA RUSTICA

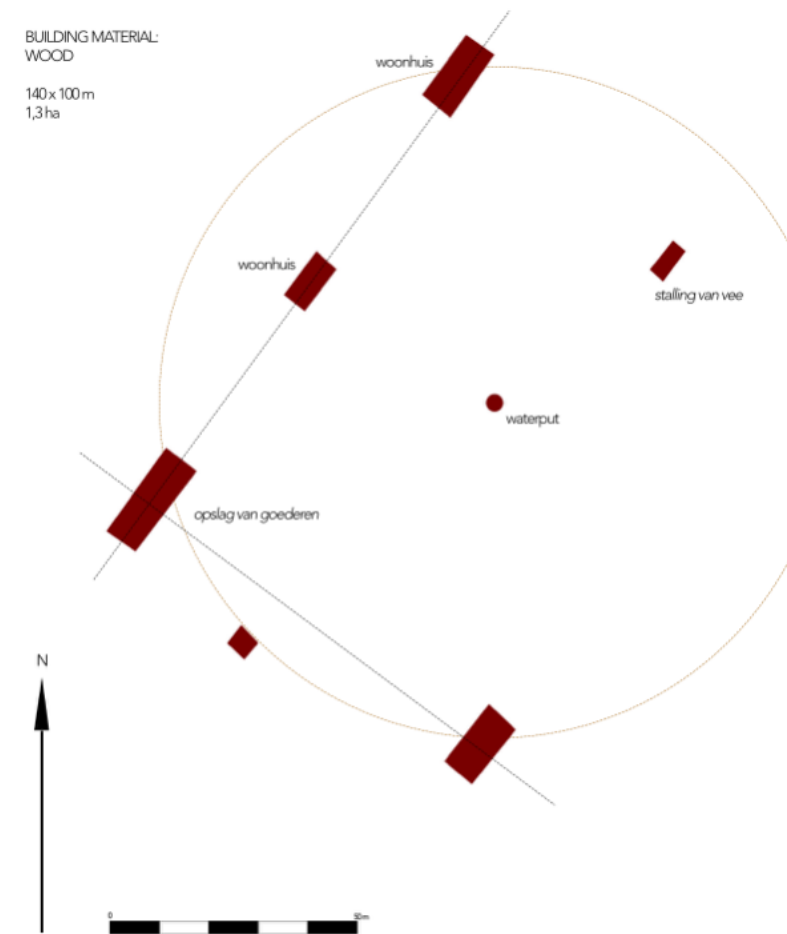
BUILDING MATERIALS  
STONE/STONE BASE

240 x 150 m  
3,6 ha



BUILDING MATERIAL:  
WOOD

140 x 100 m  
1,3 ha



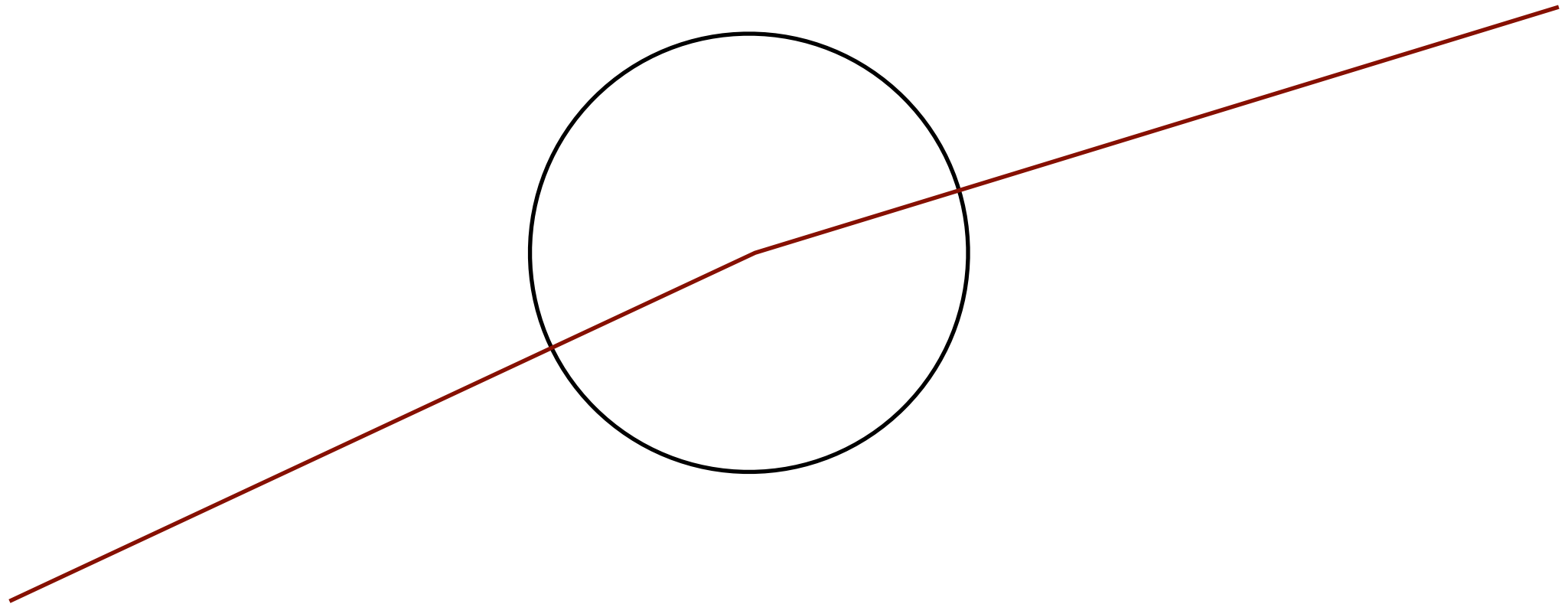


INTRODUCTION

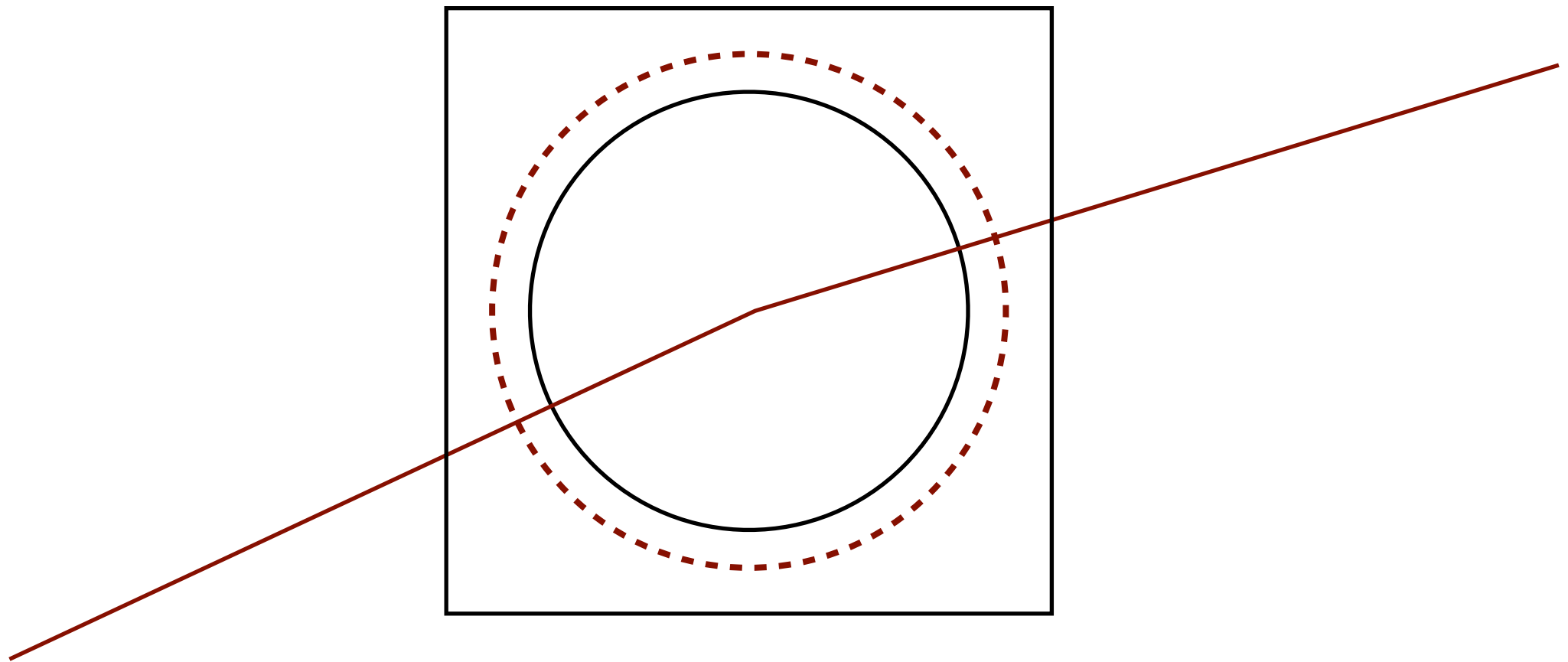
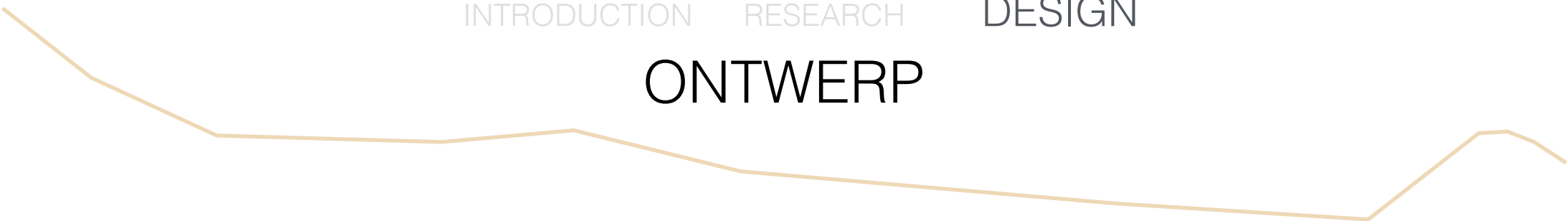
RESEARCH

DESIGN

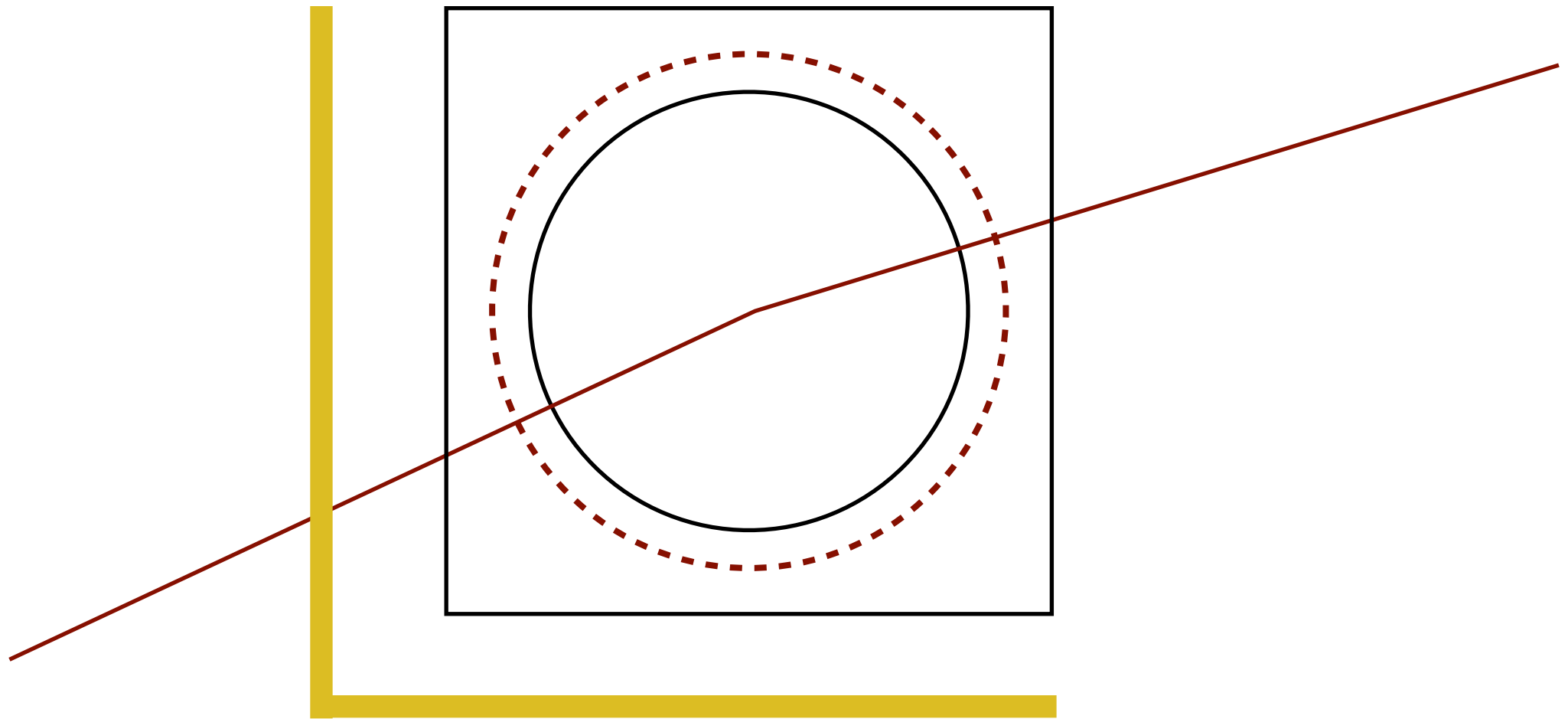
# ONTWERP



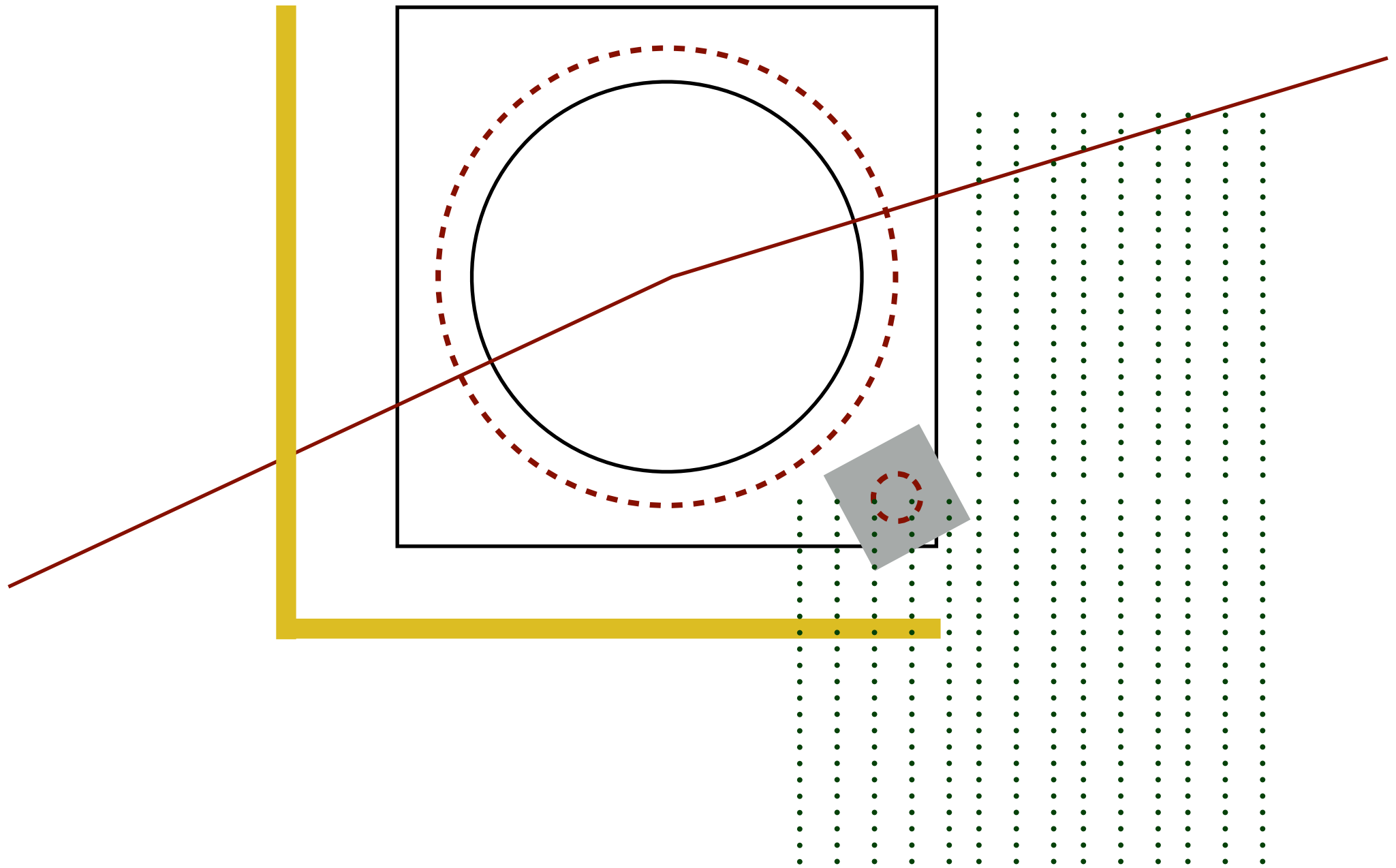
# ONTWERP



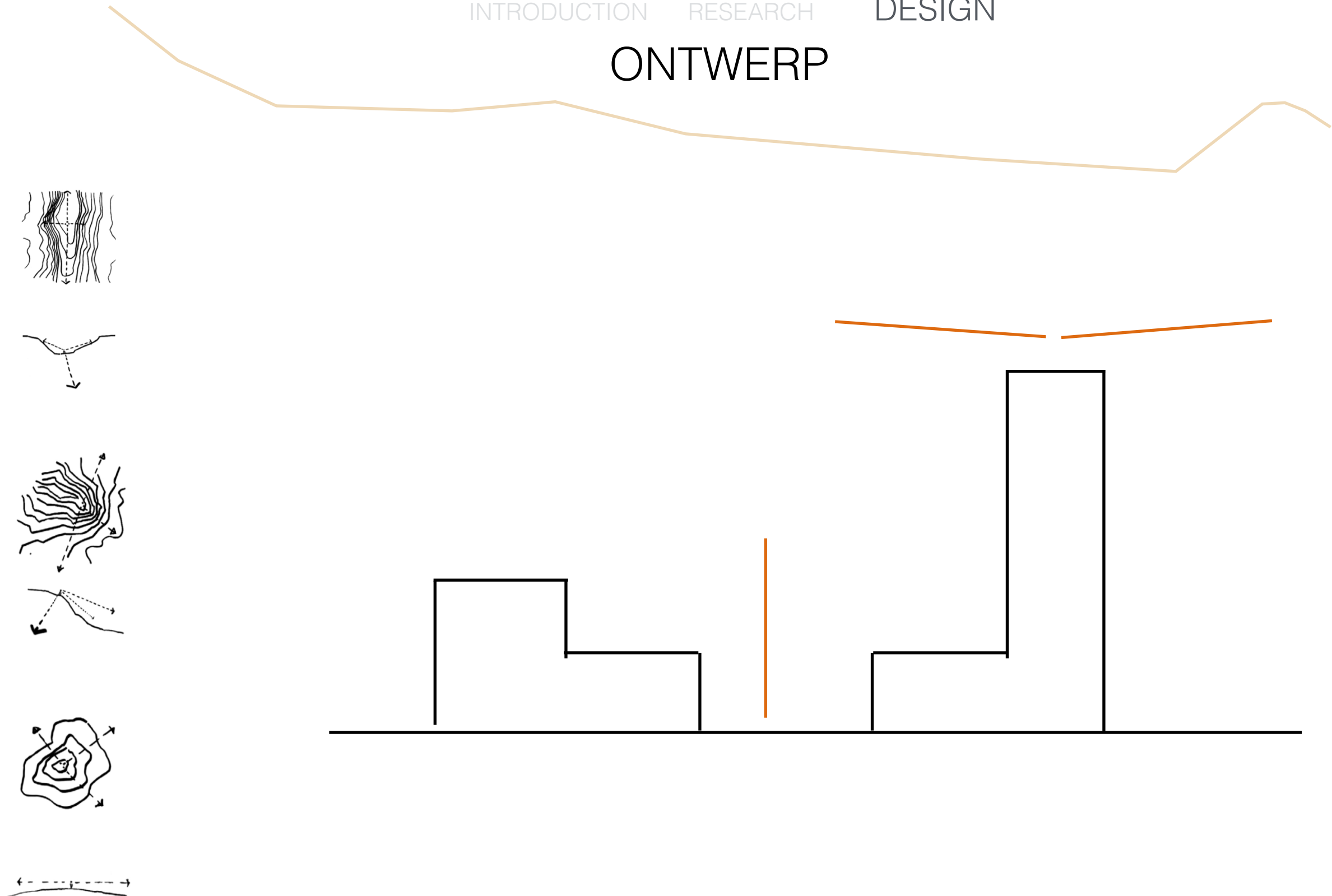
# ONTWERP



# ONTWERP



# ONTWERP





# WIJNPROCES



GATHERING



SORTING



CRUSHING



PRESSING



FERMENTATION



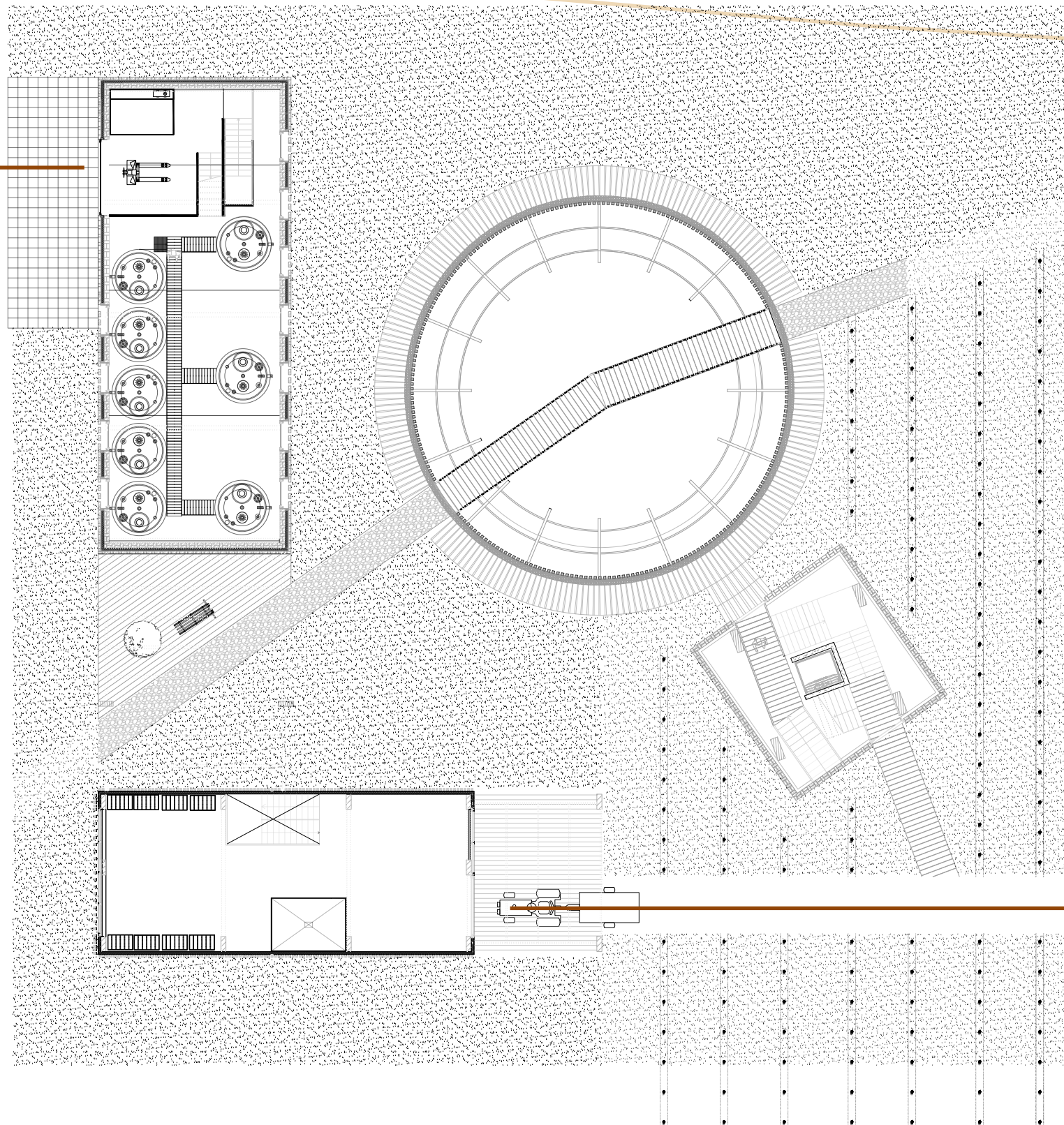
BOTTLING



AGING

# WIJNPROCES

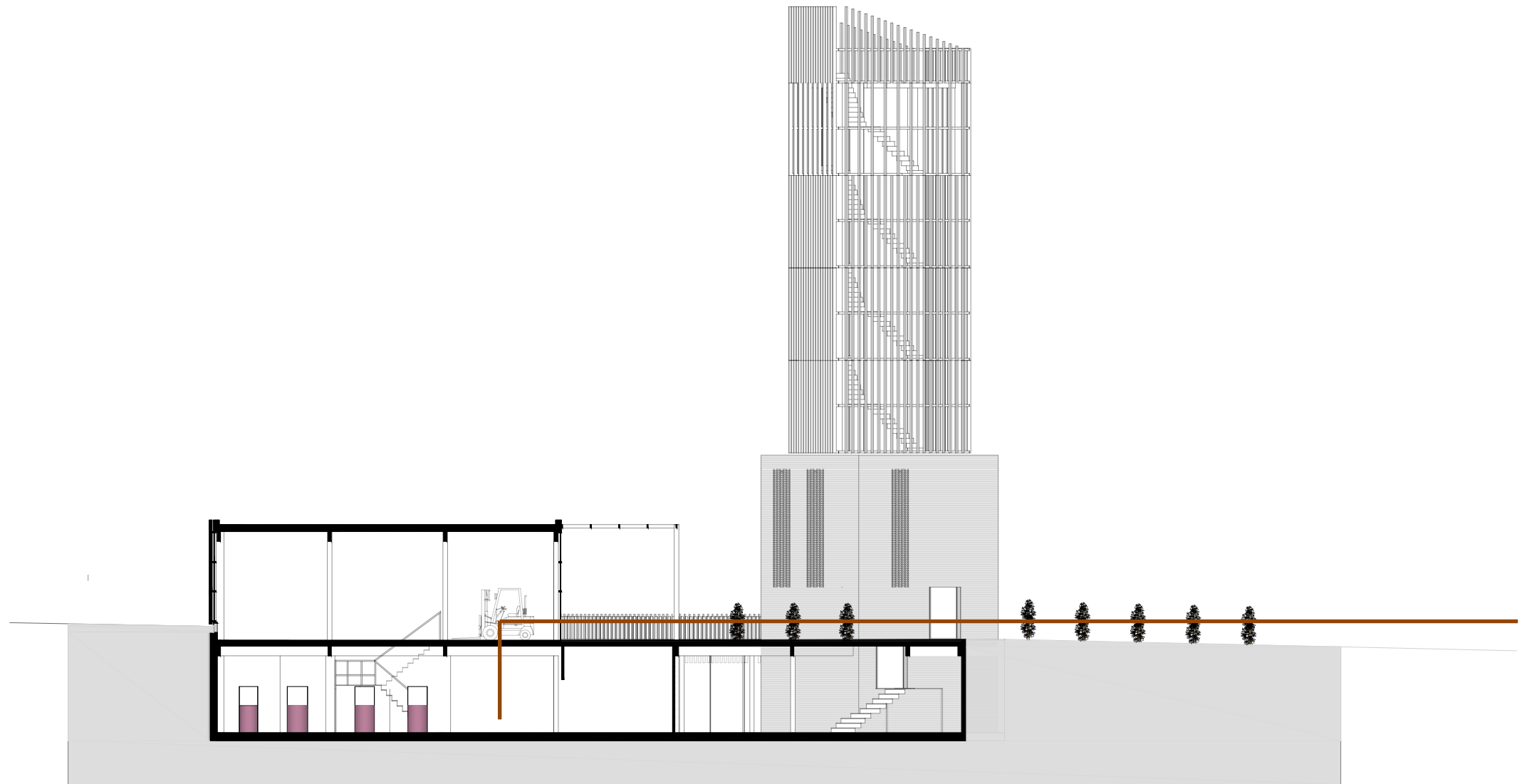
DISTRIBUTIE FLESSEN  
INGANG PERSONEEL



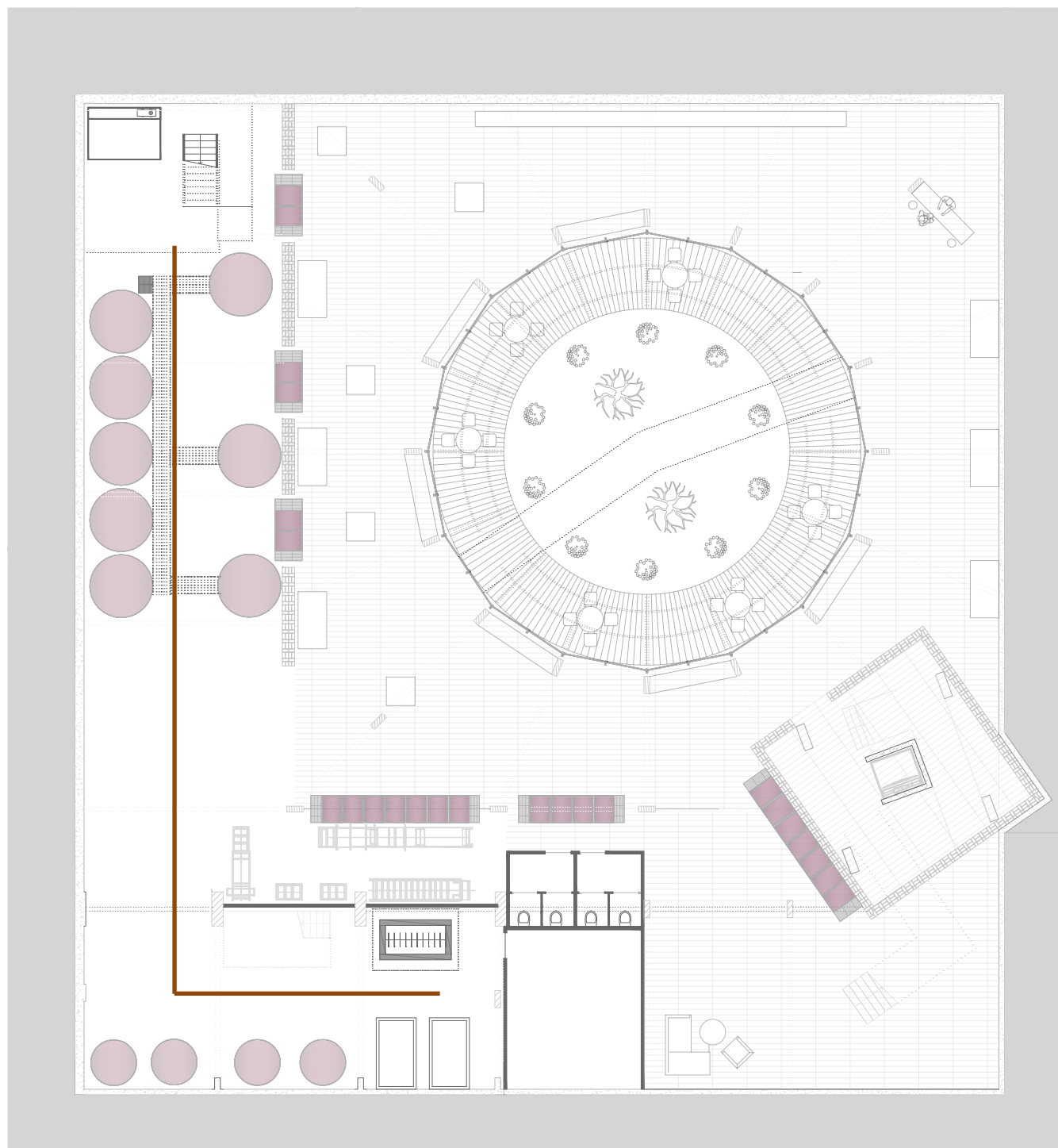
DRUIVEN TOEVOER



# WIJNPROCES

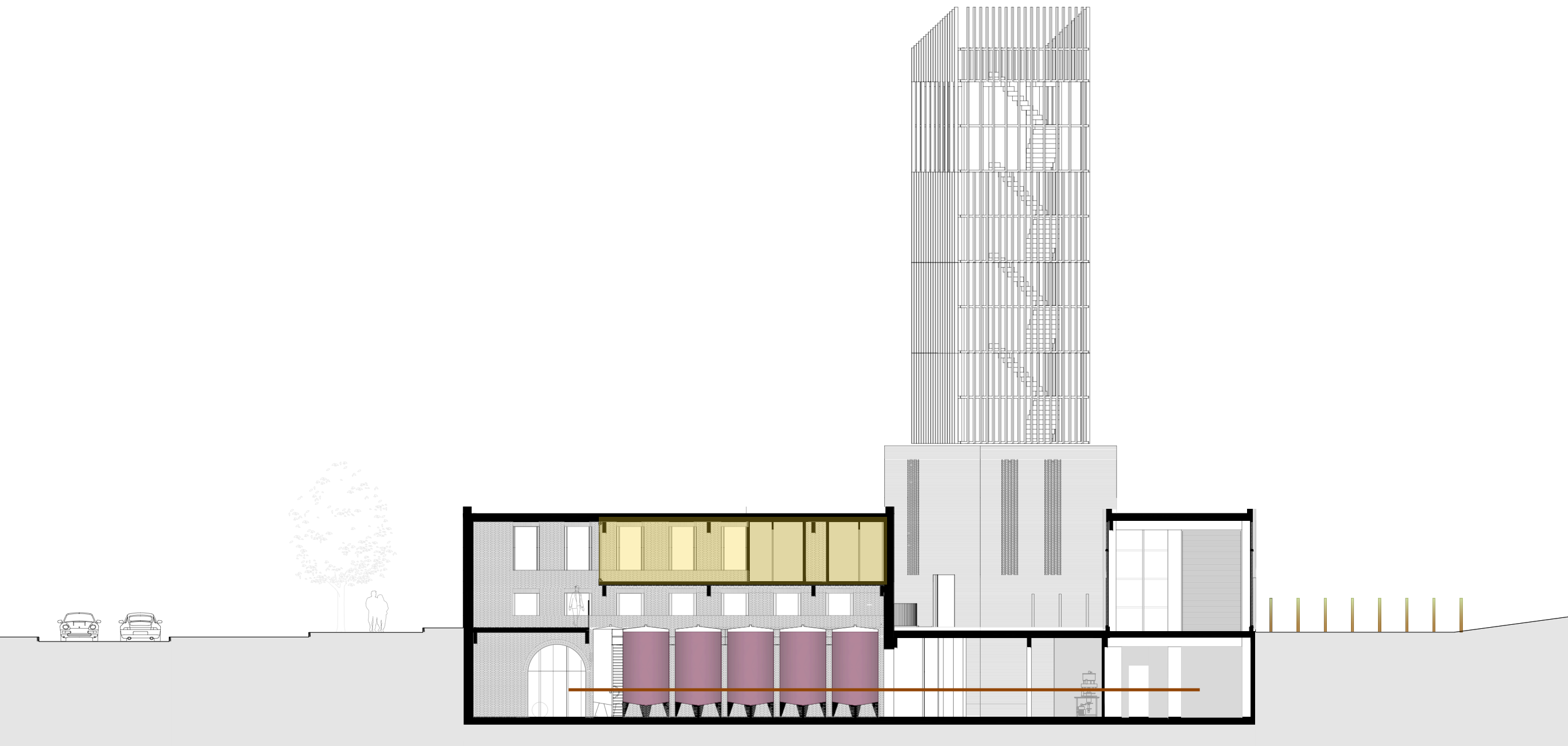


# WIJNPROCES

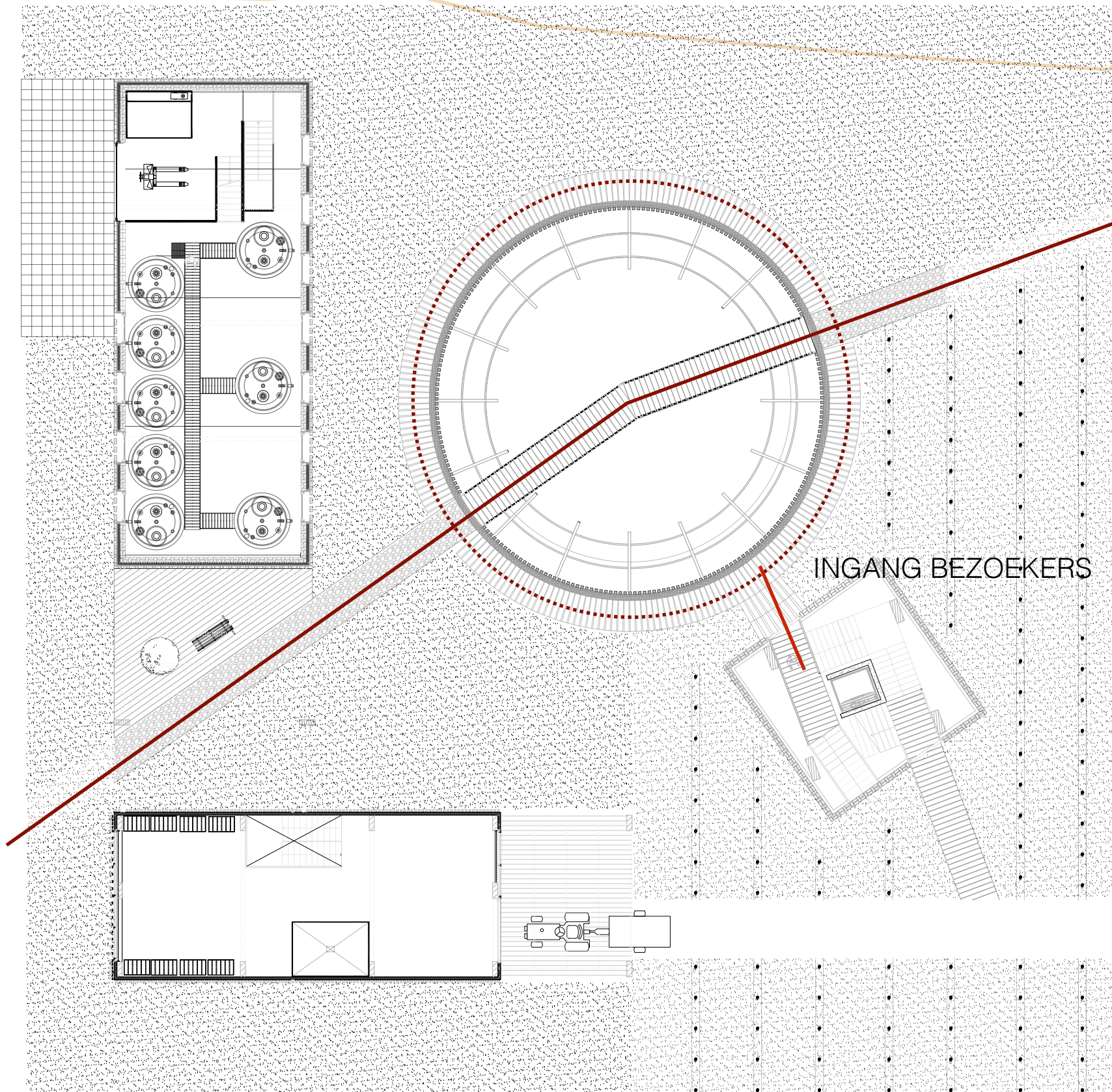




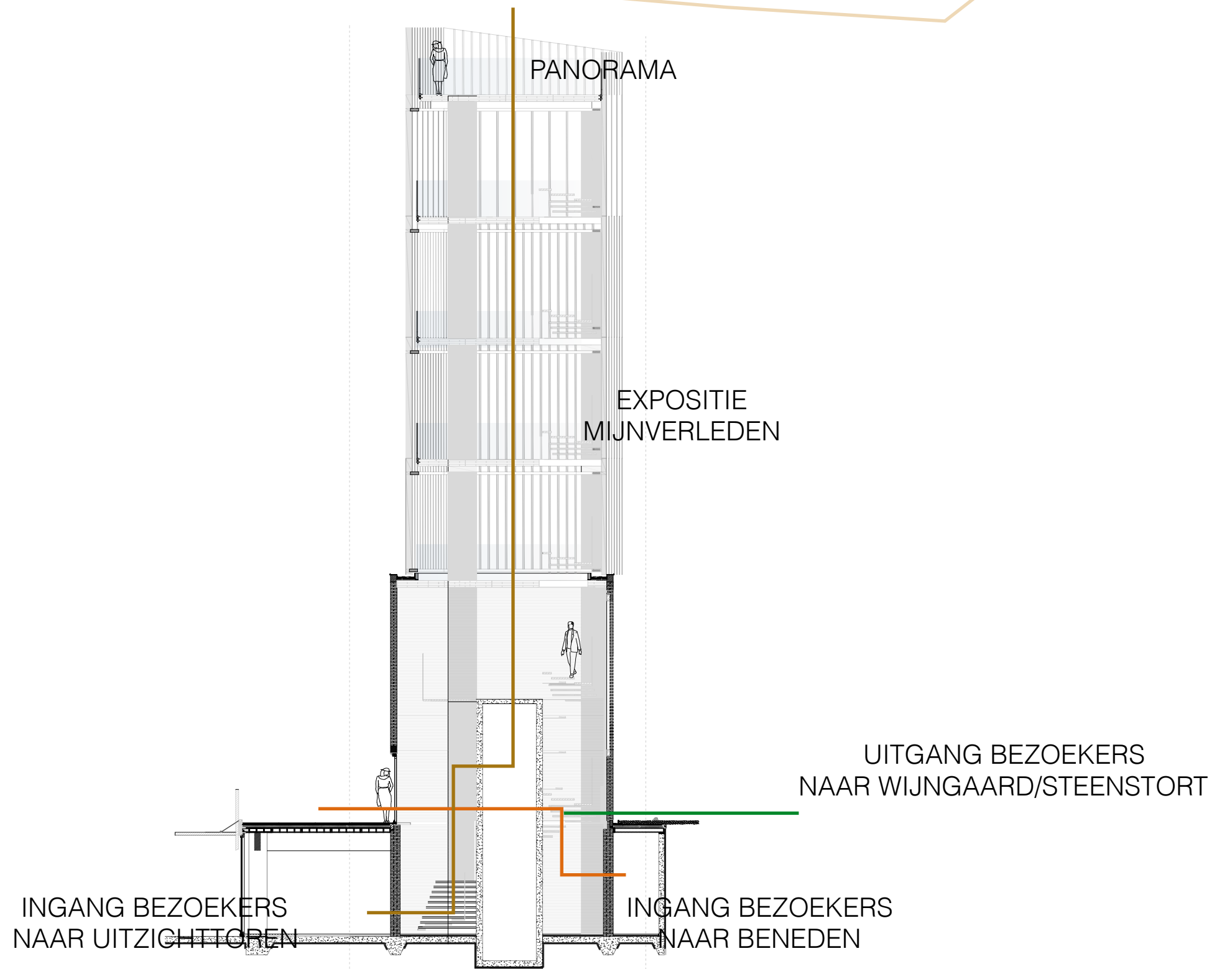
# WIJNPROCES



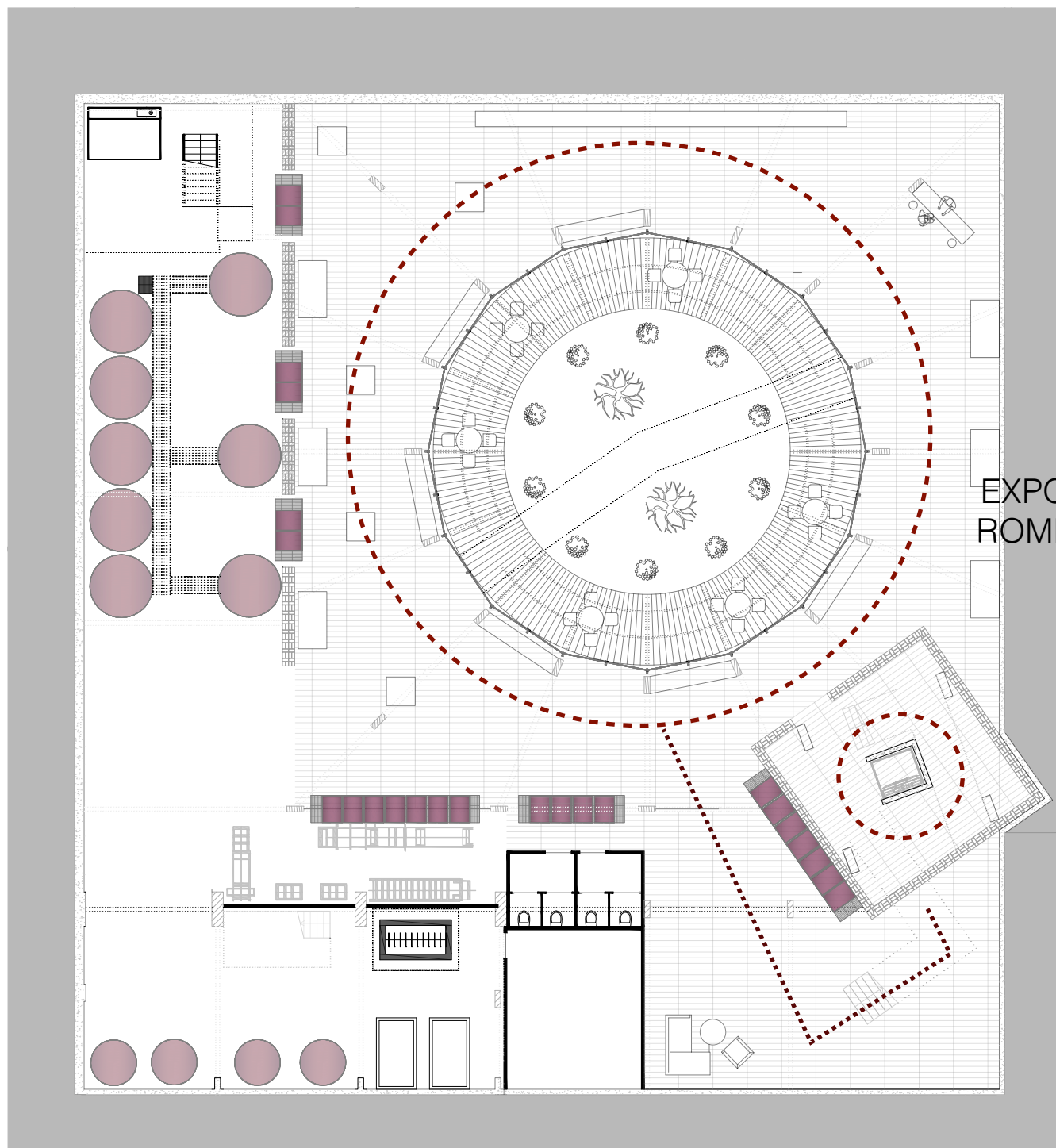
# BEZOEKERS



# BEZOEKERS

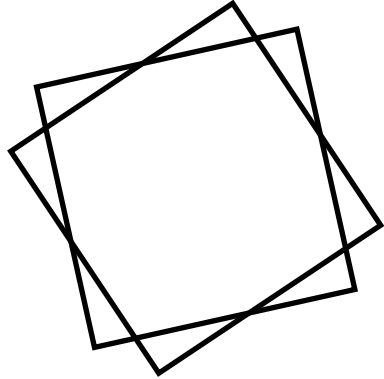


# BEZOEKERS



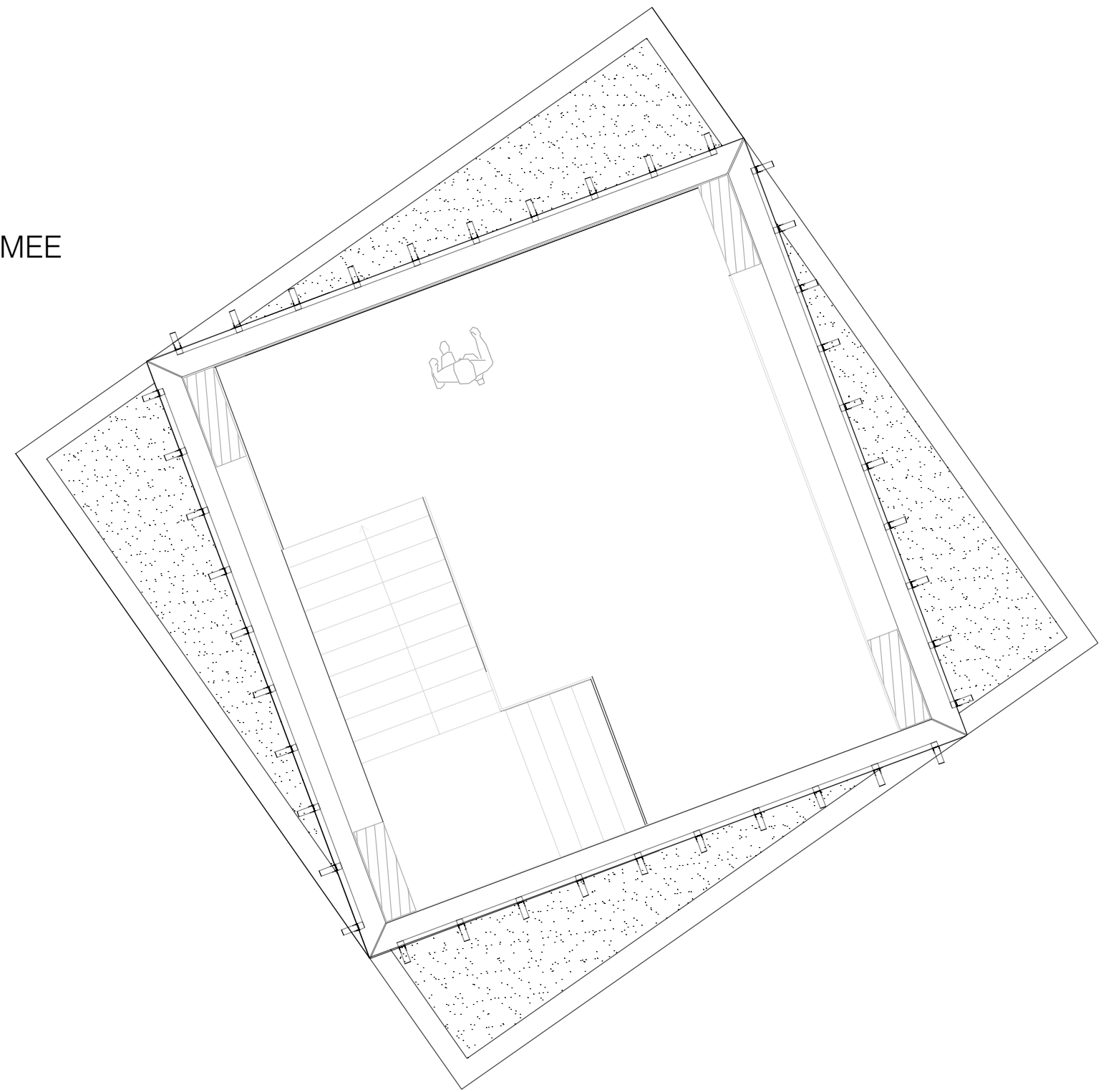


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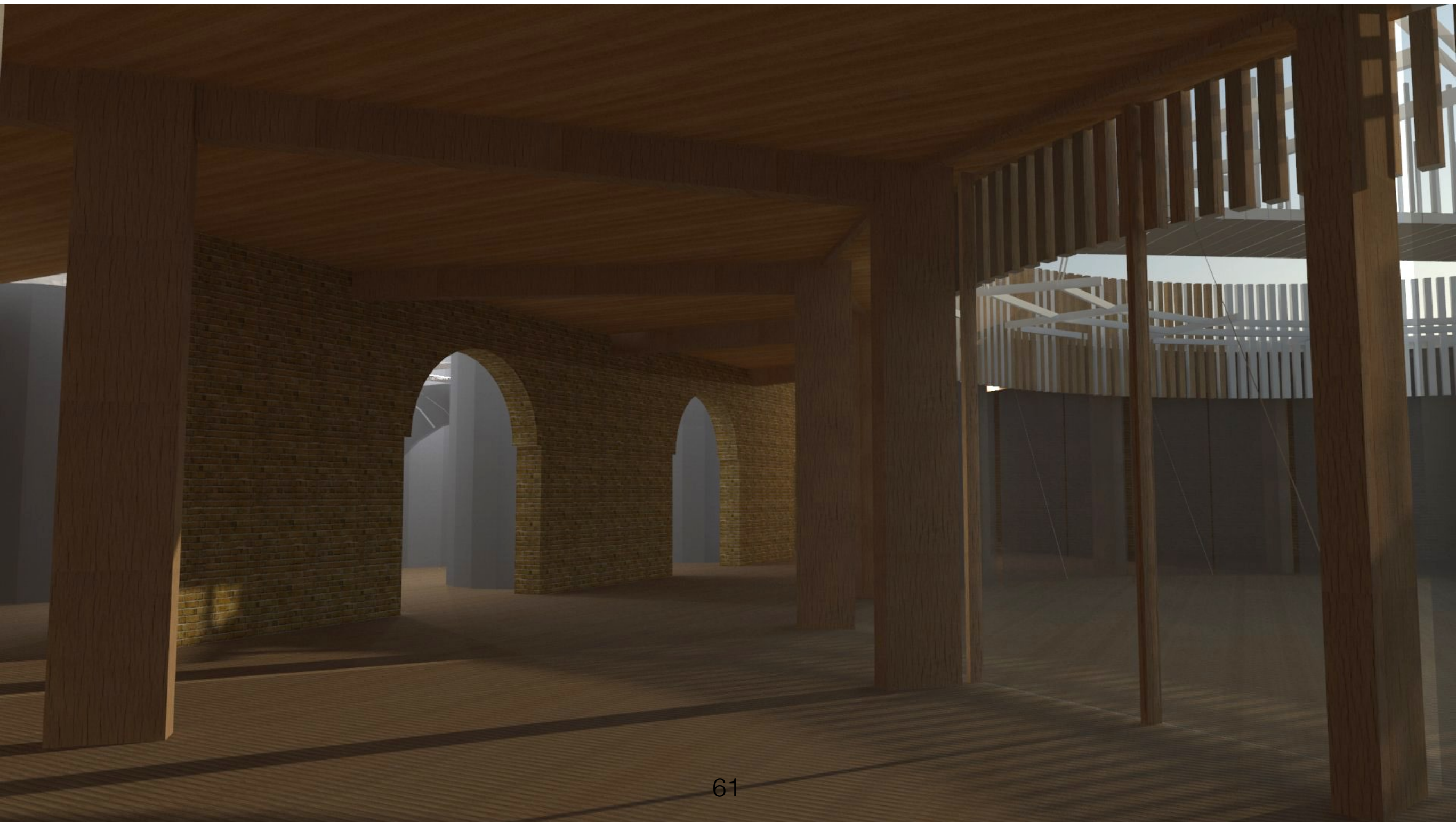


DRAAIING MET KNIK MEE  
VIA BELGICA

DEEL 1 METSELWERK  
DEEL 2 HOUTEN CONSTRUCTIE



# BEZOEKERS





# MATERIALIZATIE

'LAND VAN KALK'



MERGEL, KUNRADERSTEEN

BAKSTEEN & KALKSTEEN  
GEÏNTRODUCEERD DOOR DE ROMEINEN





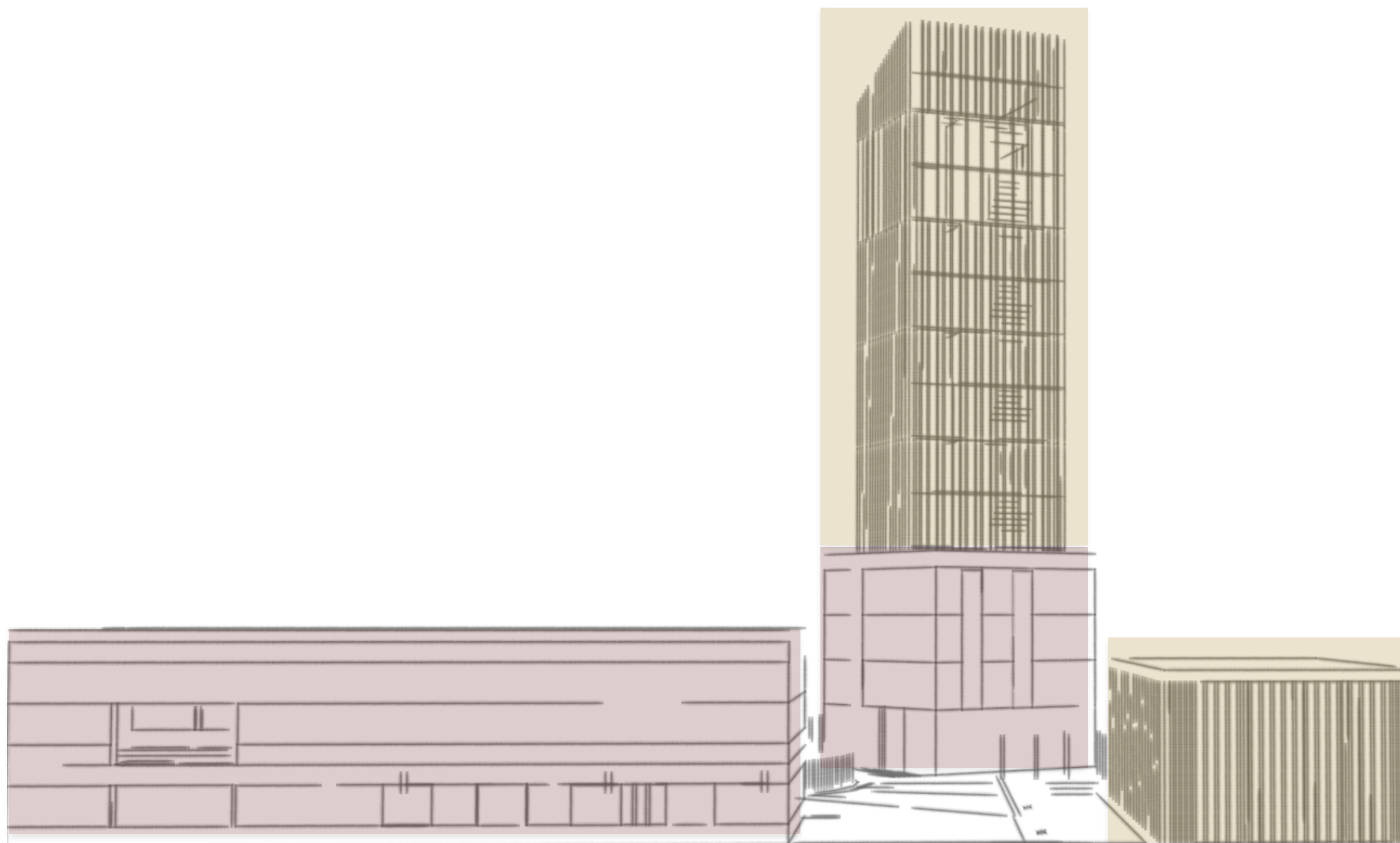
# MATERIALIZATIE



COMBINATIE HOUT & BAKSTEEN KALKHOUDEND VECHTFORMAAT

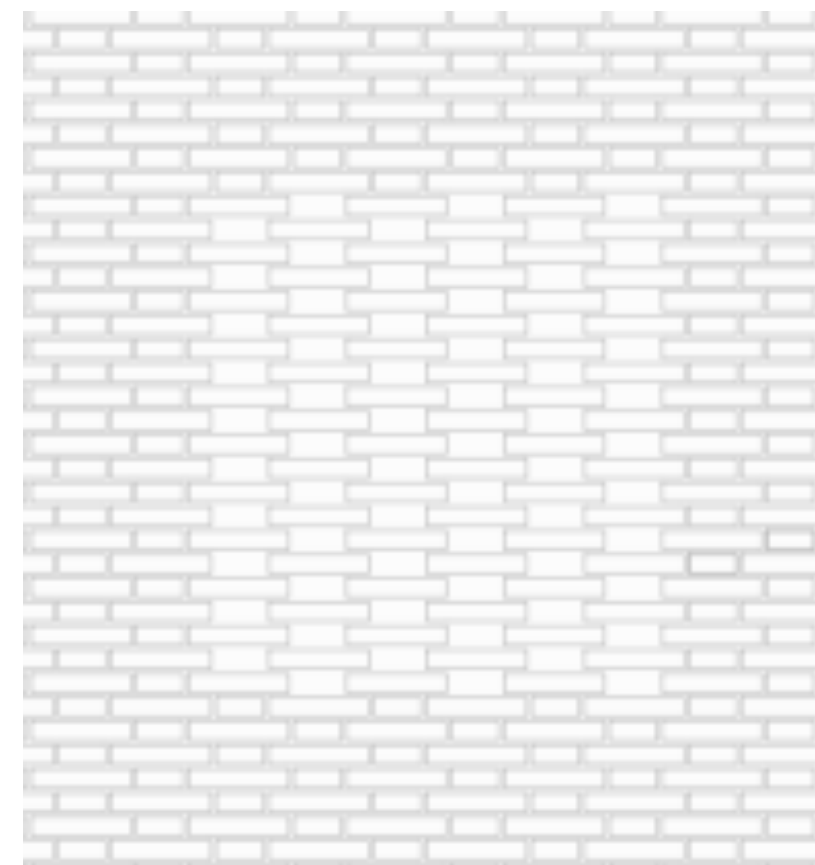
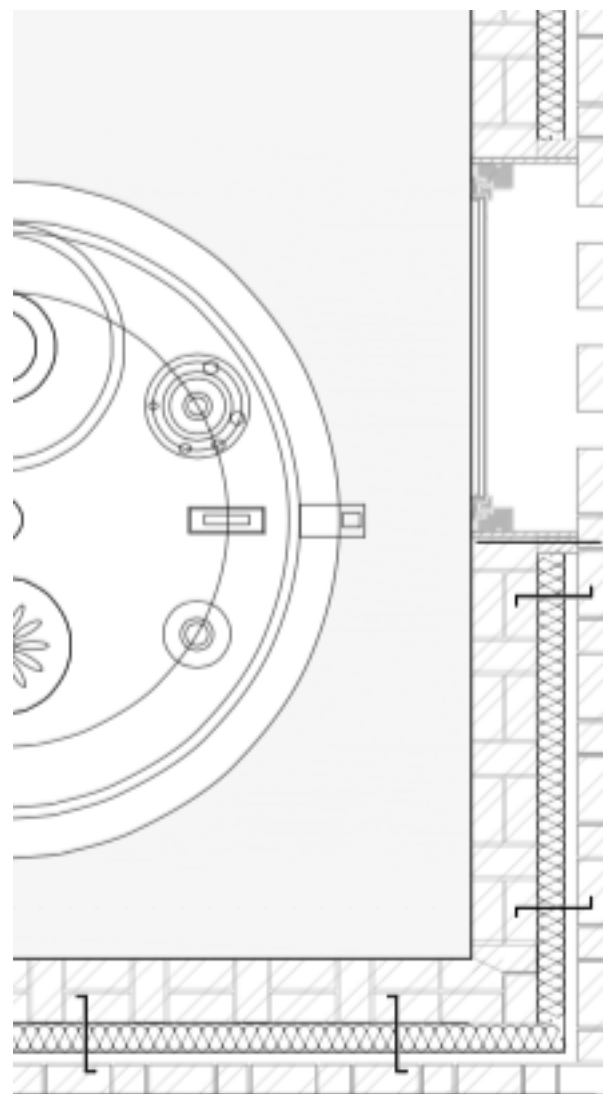


# MATERIALIZATIE

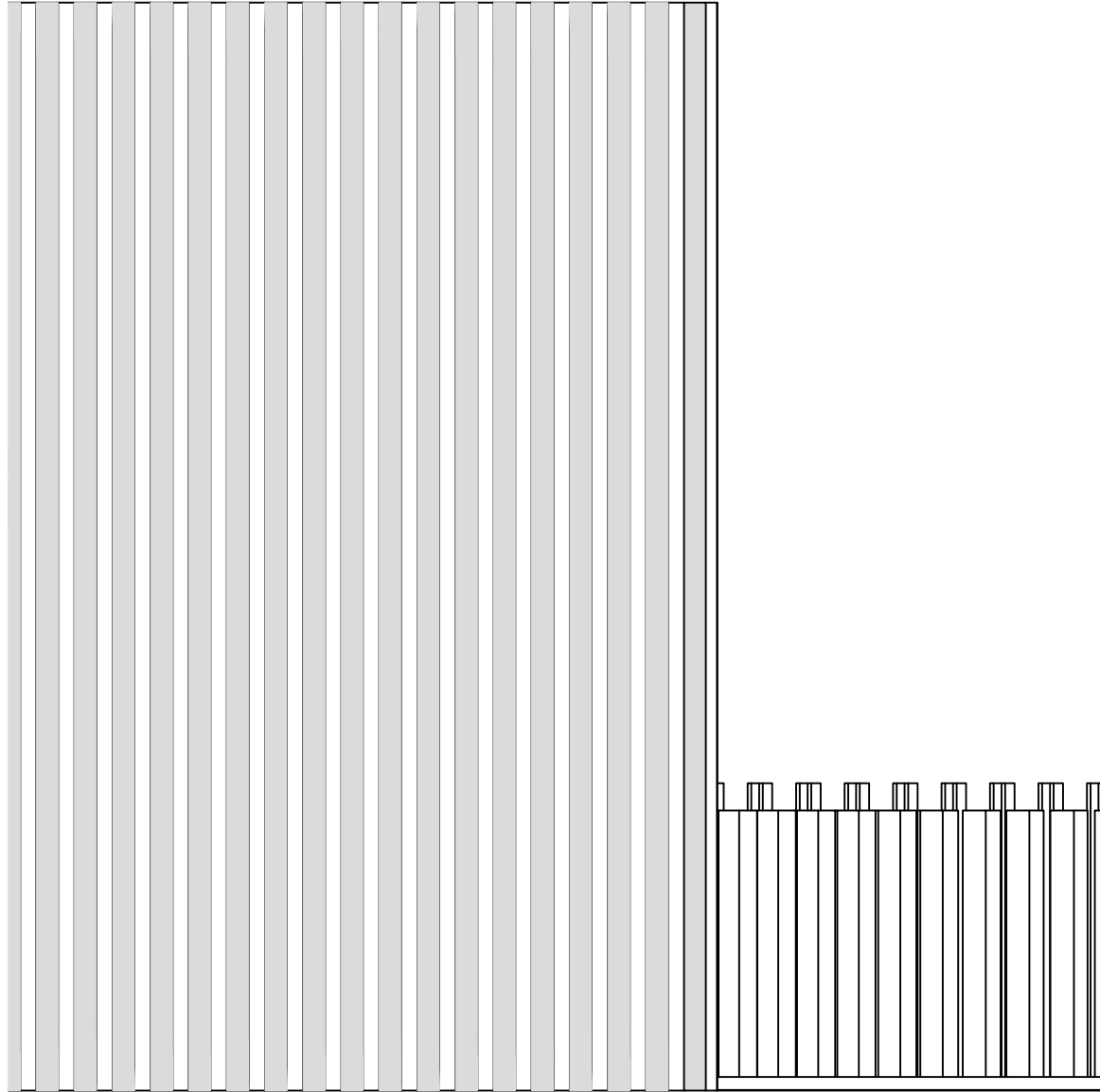
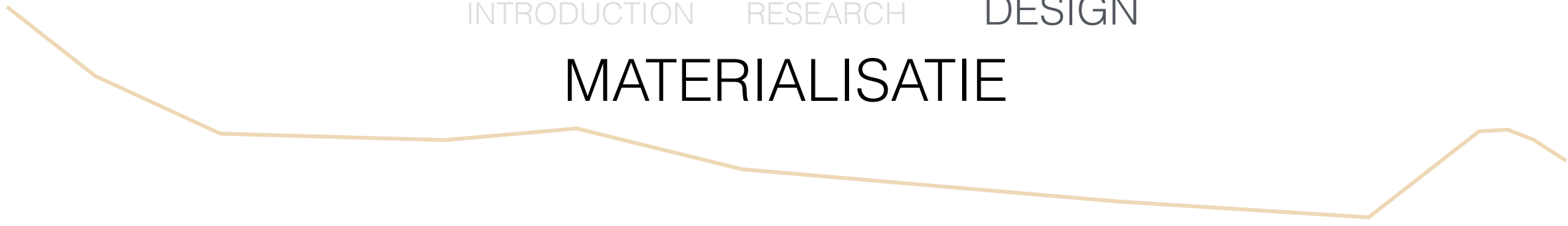


# MATERIALIZATIE

VLAAMS VERBAND  
SIER (SPEKLAAG)  
BRAZILIAANS VERBAND

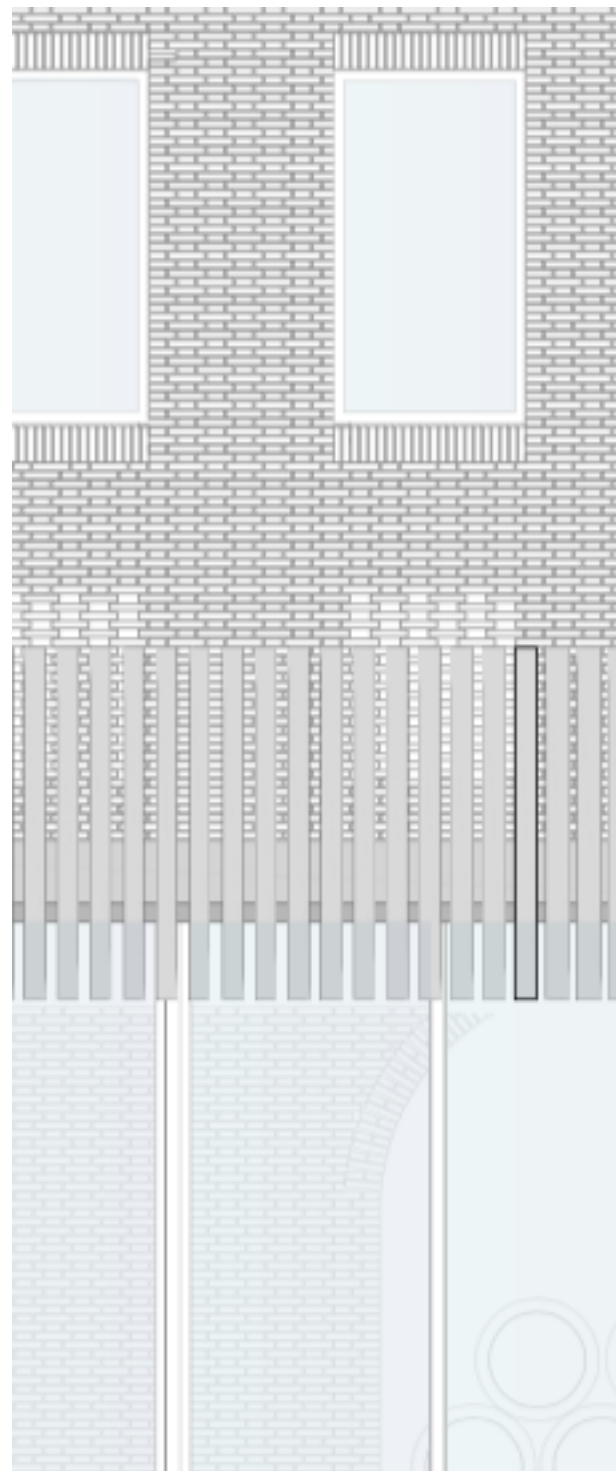


# MATERIALIZATIE



HOUTEN GEVELLATTEN

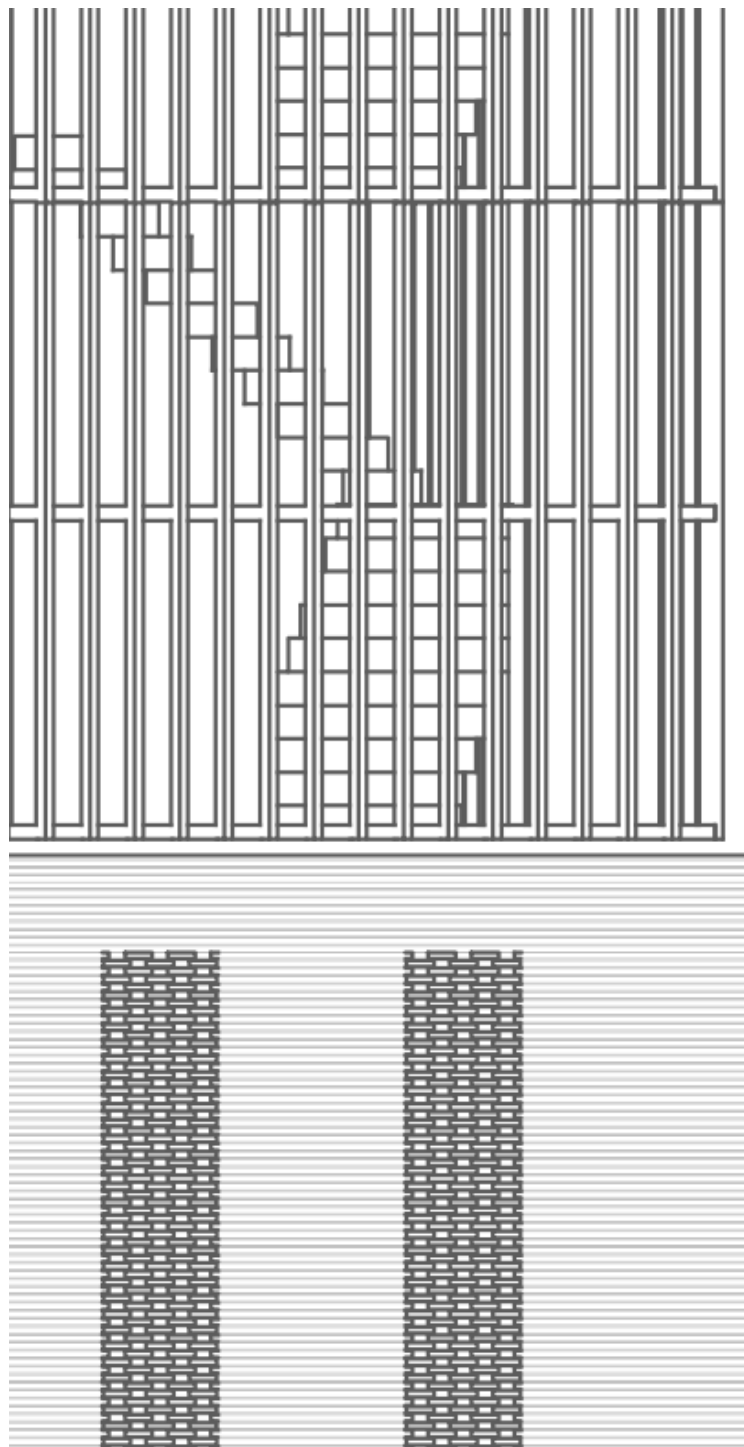
# MATERIALIZATIE



HOUTEN GEVELLATTEN BALUSTRADE  
VLIESGEVEL



# MATERIALIZATIE



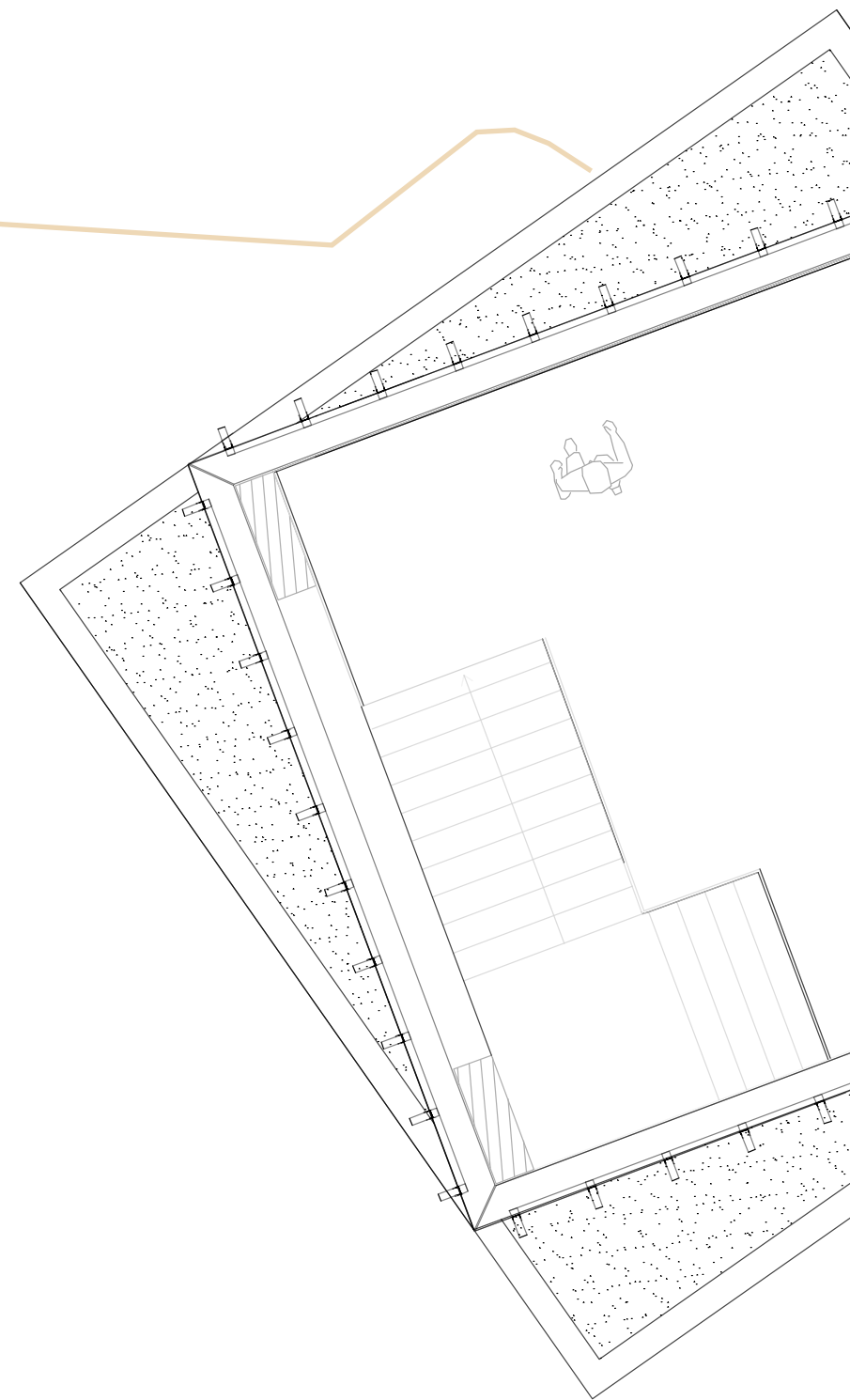
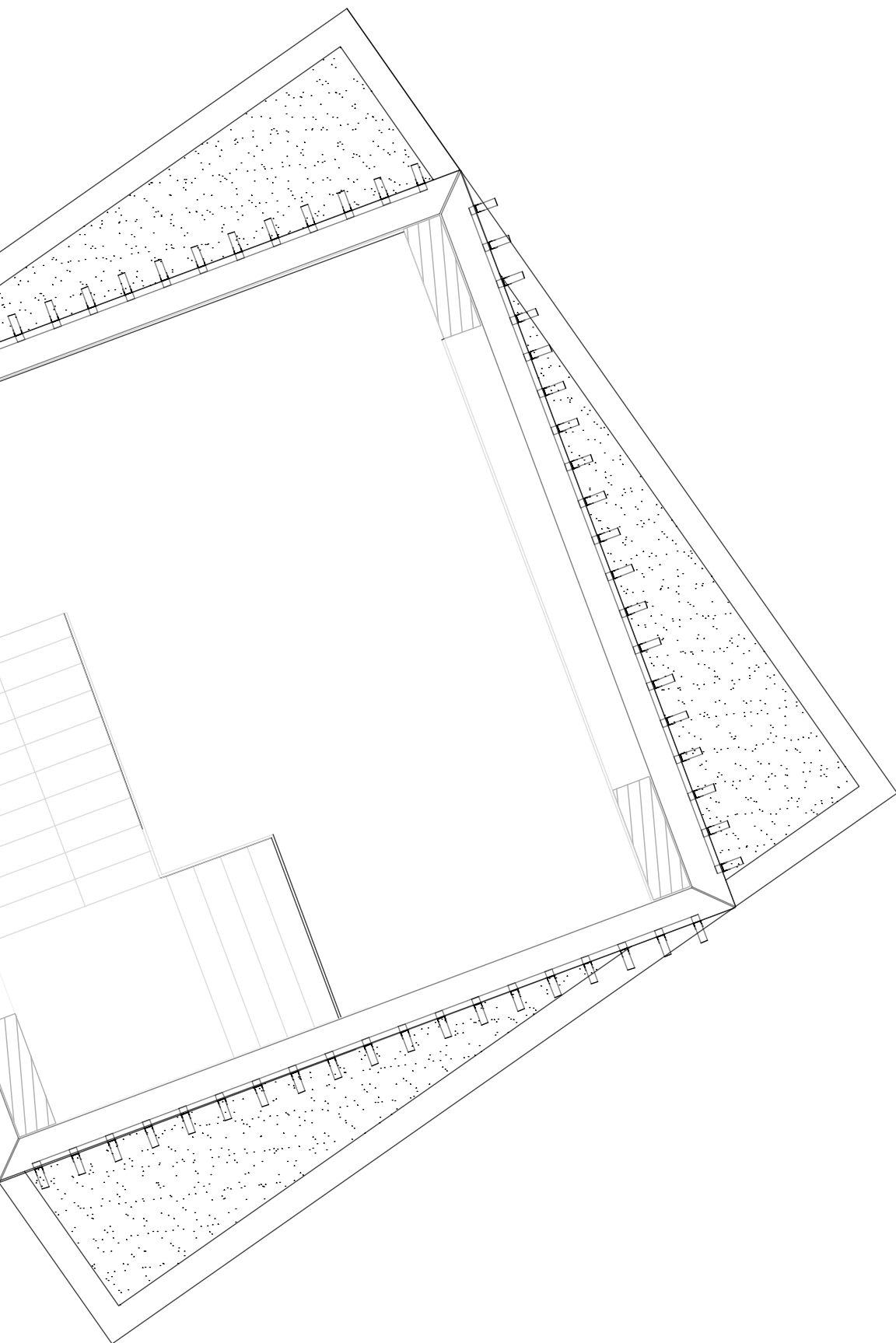
HOUTEN GEVELLATTEN  
UITZICHTTOREN

BRAZILIAANS VERBAND

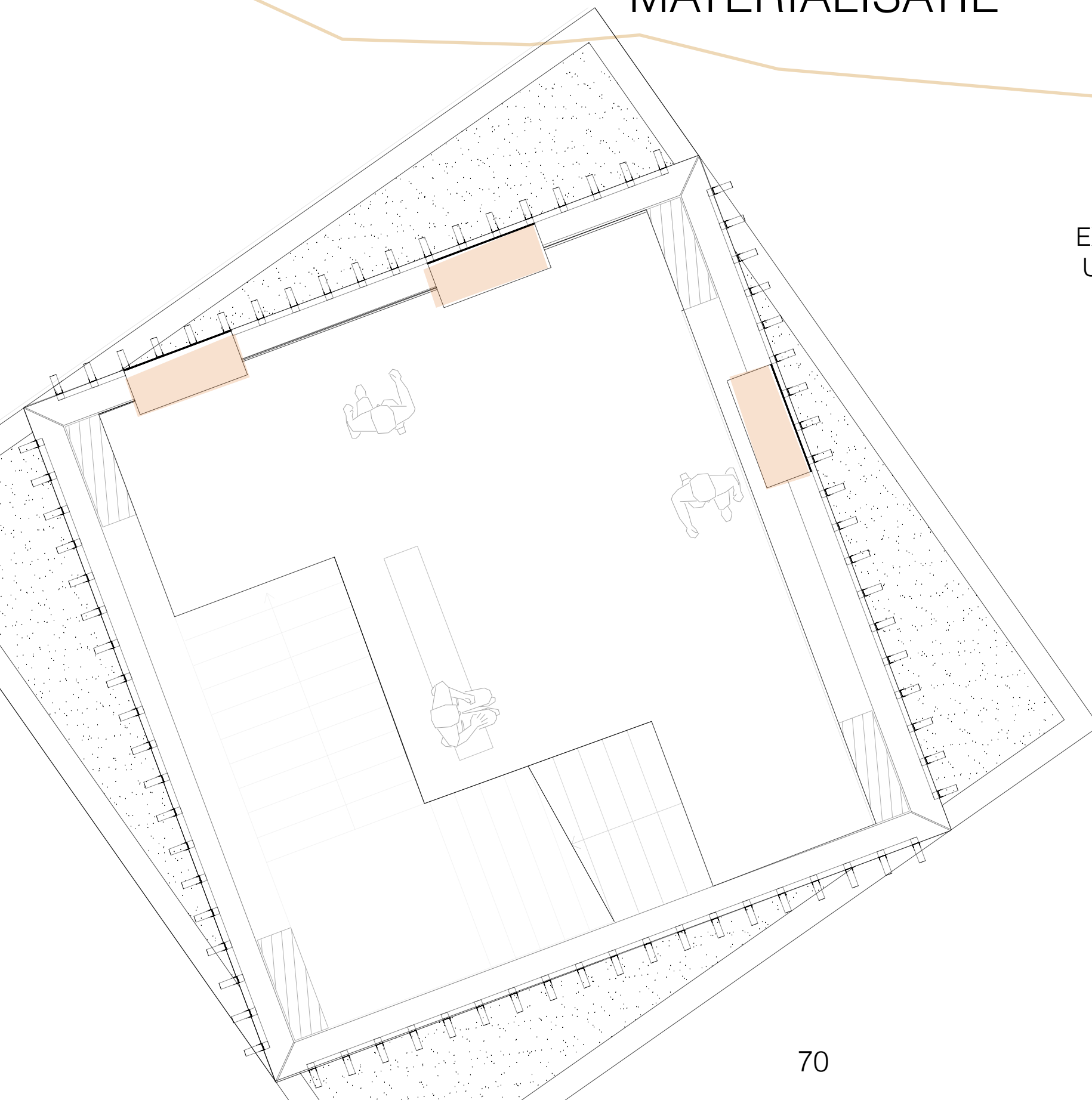
# MATERIALIZATIE

TOREN

HOUTEN STIJLEN

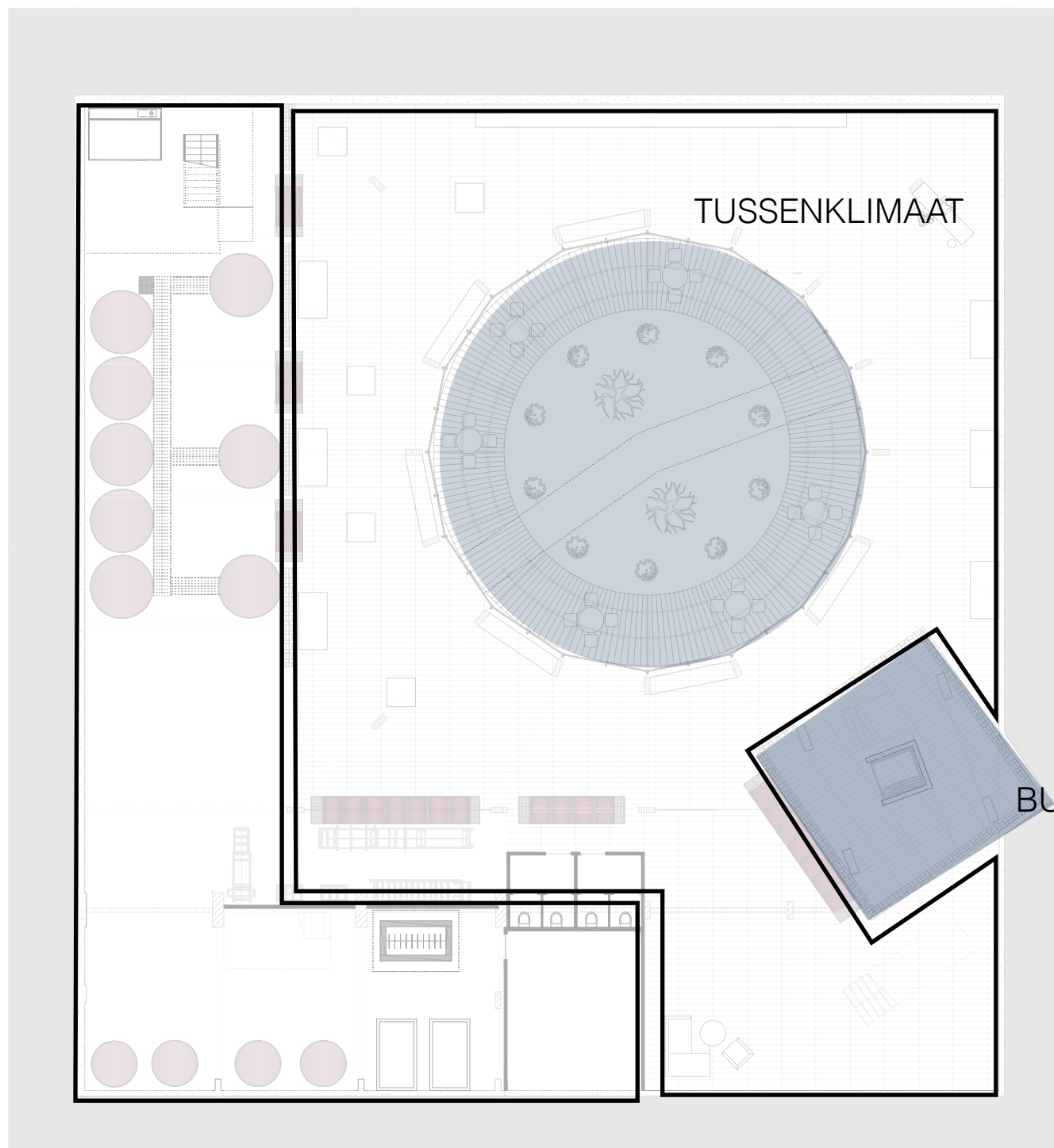


# MATERIALIZATIE



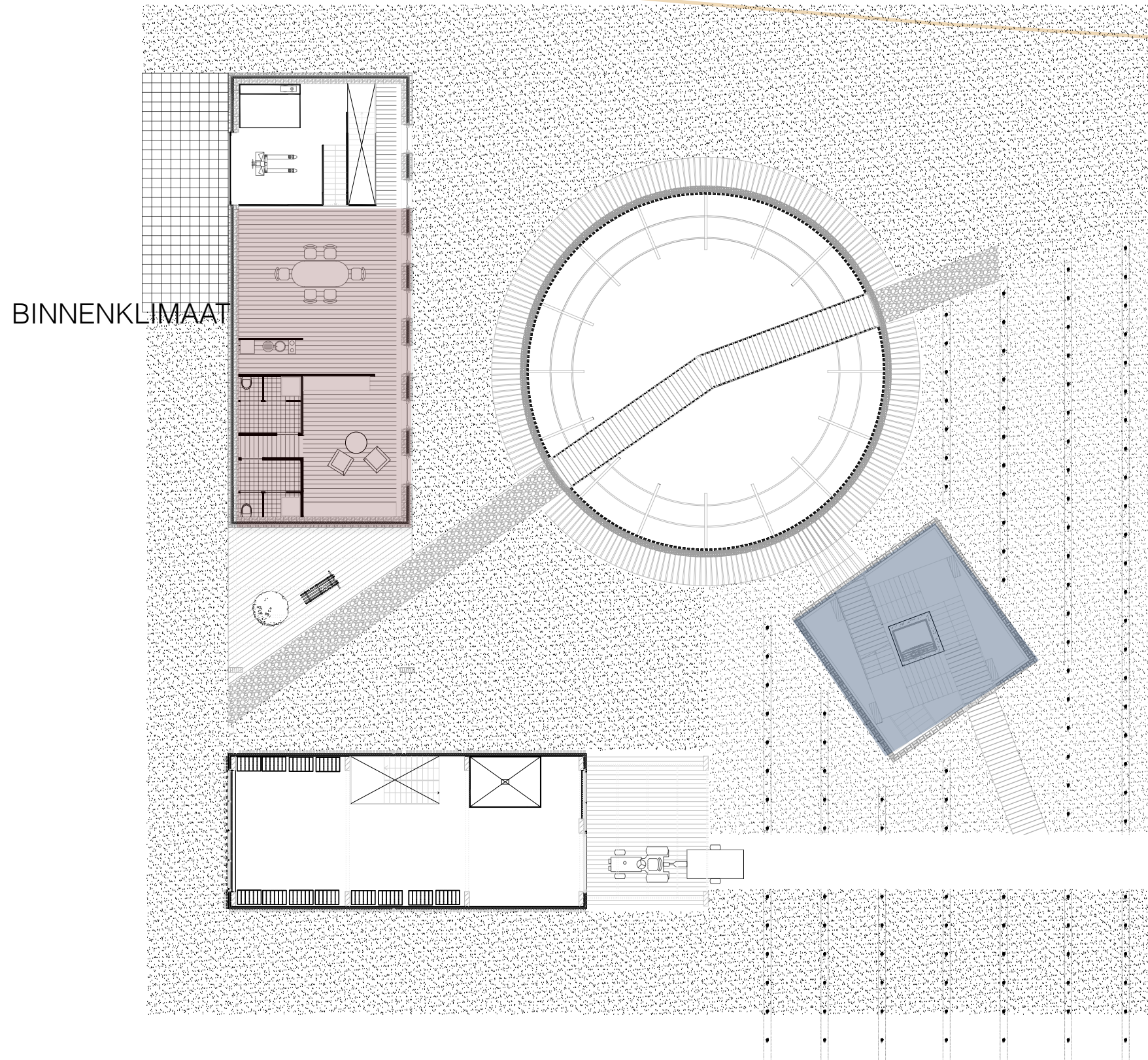
EXPOSITIE TEGEN DE STIJLEN  
UITZICHT OVER LANDSCHAP

# KLIMATISERING





# KLIMATISERING



## KLIMATISERING

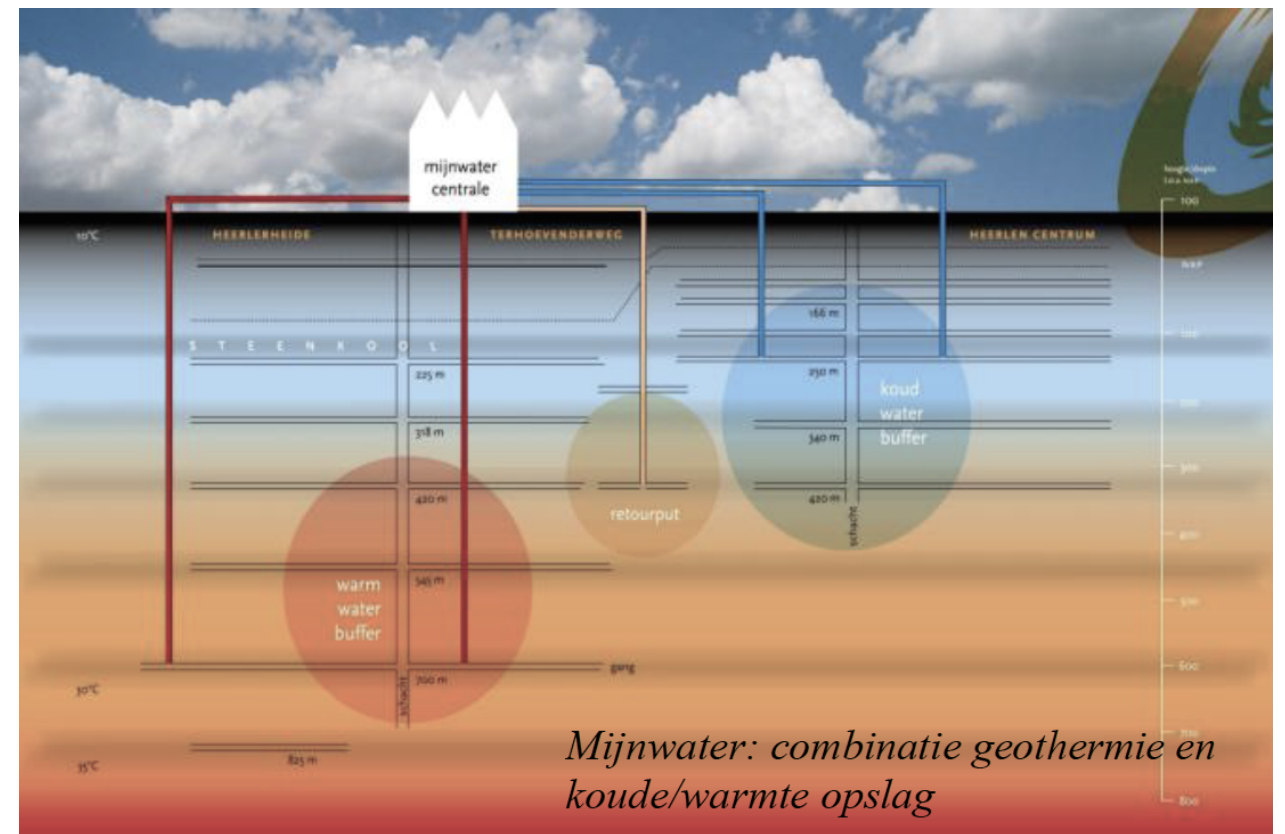
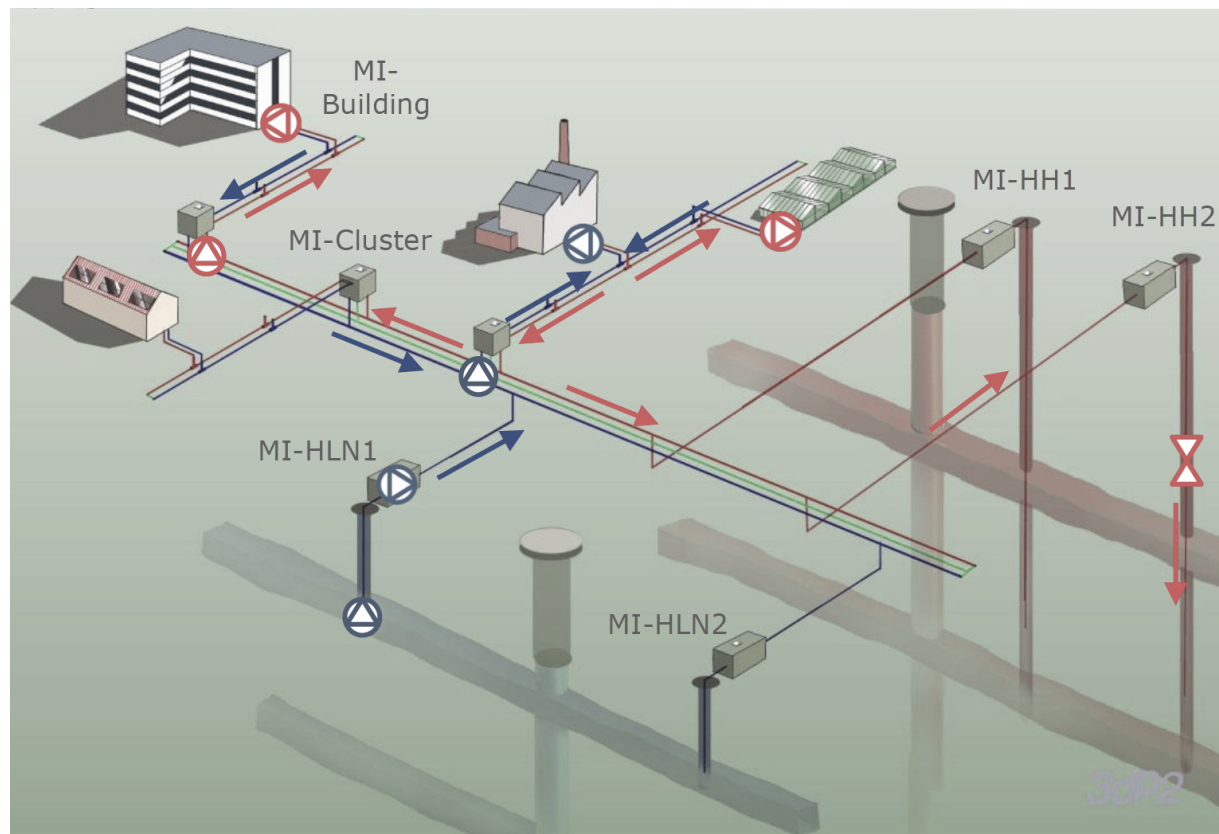
VERWARMEN EN KOELEN  
- VLOERVERWARMING

MIJNWATERENERGIE

Jaar	Actie
Tot 1974	Steenkoolwinning in de mijnen van Heerlen, Parkstad Limburg
1974 – 2003	Mijngangen vulden zich met grondwater, natuurlijke opwarming door aarde.
2003	Diep gelegen water = warm (28 graden), laag gelegen water = koud (16 graden).
2003 – 2004	In opdracht van gemeente Heerlen onderzoek en boringen naar laag temperatuurbron in steenkoolbekkens.
2005 – 2007	Vijf bronnen aangeboord, 8 km leidingen ondergronds aan/afvoer mijnwater.
2008	Eerste Mijnwater Energiecentrale in Heerlerheide (Heerlen). Aansluiting CBS: 22.000 m <sup>2</sup> vloeroppervlakte.
2013 – 2015	6 Mijnwater aansluitingen (kantoren, woningen, sportaccommodatie).
2016	800.000 m <sup>2</sup> vloeroppervlakte in Heerlen en omgeving gerealiseerd.
2016 – 2020	65% reductie CO <sup>2</sup> uitstoot

# KLIMATISERING

## MIJNWATERENERGIE

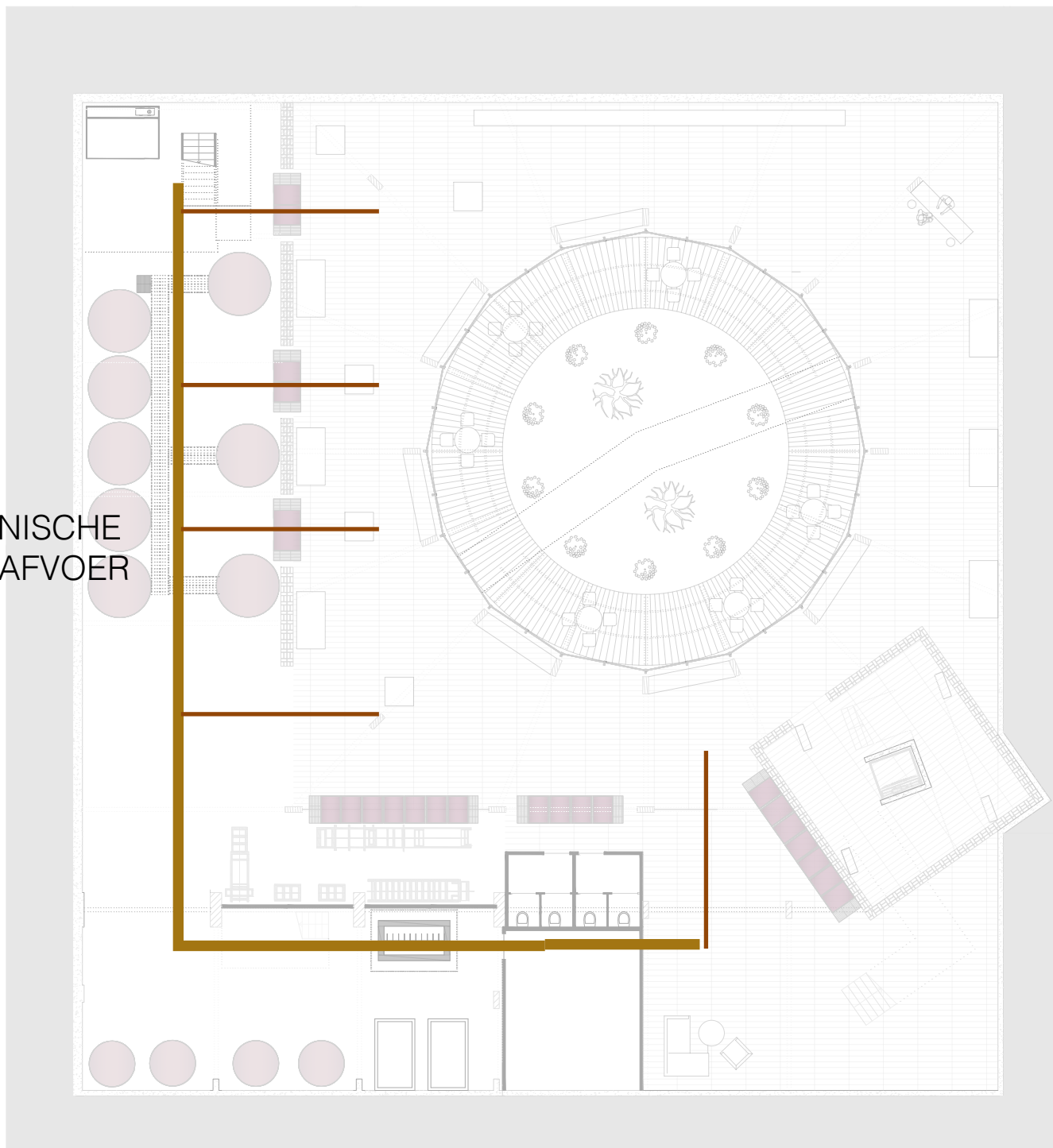




# KLIMATISERING

VENTILATIE

MECHANISCHE  
TOE EN AFVOER

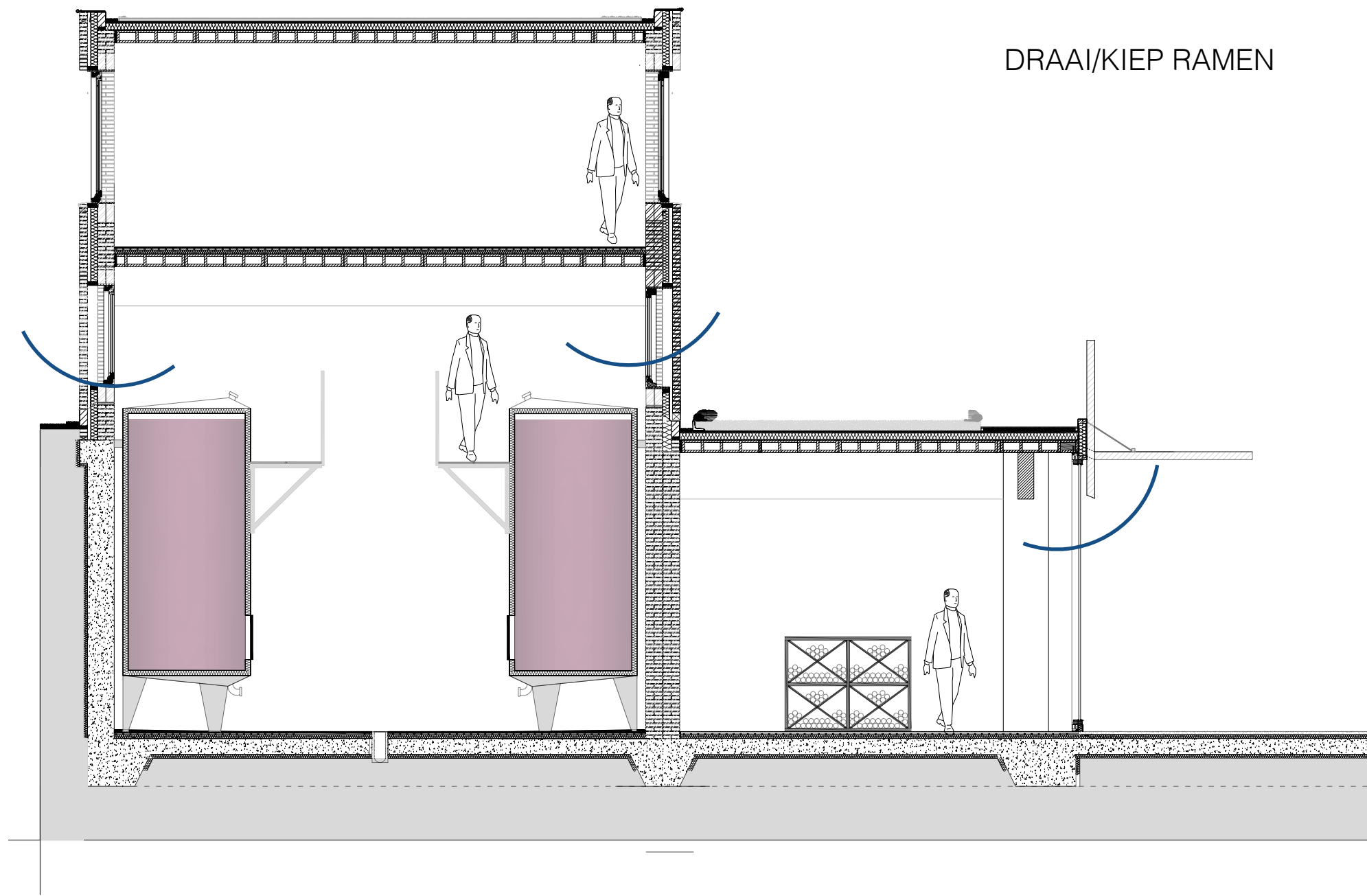




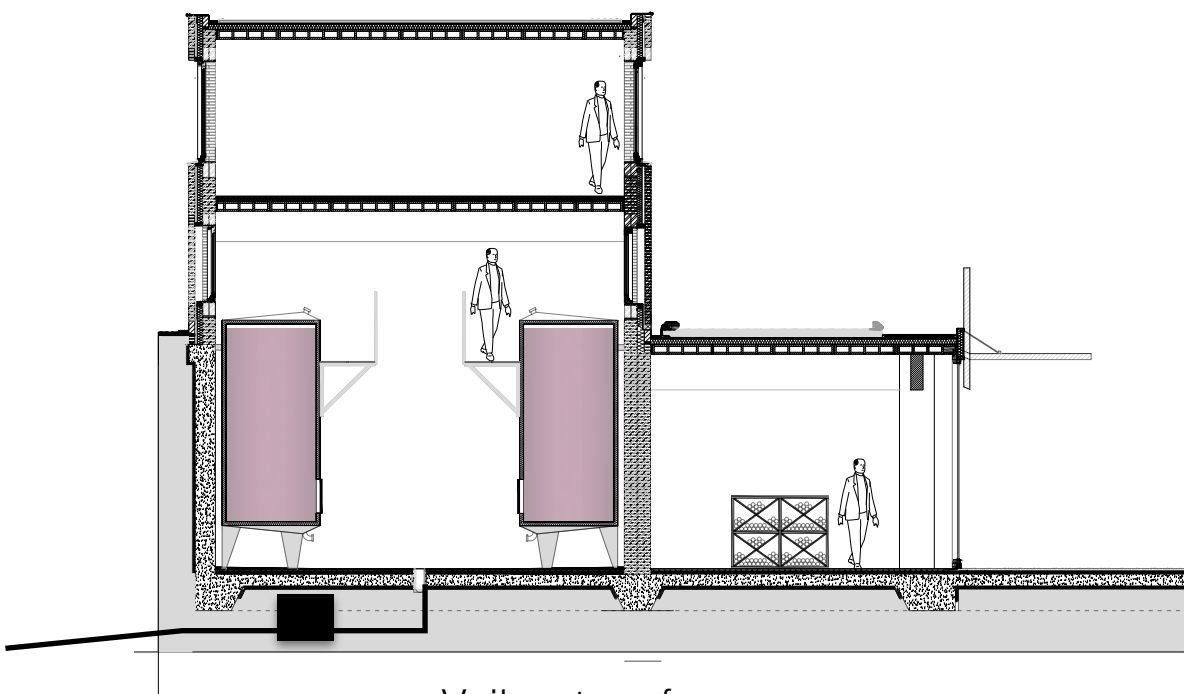
# KLIMATISERING

VENTILATIE  
NATUURLIJK

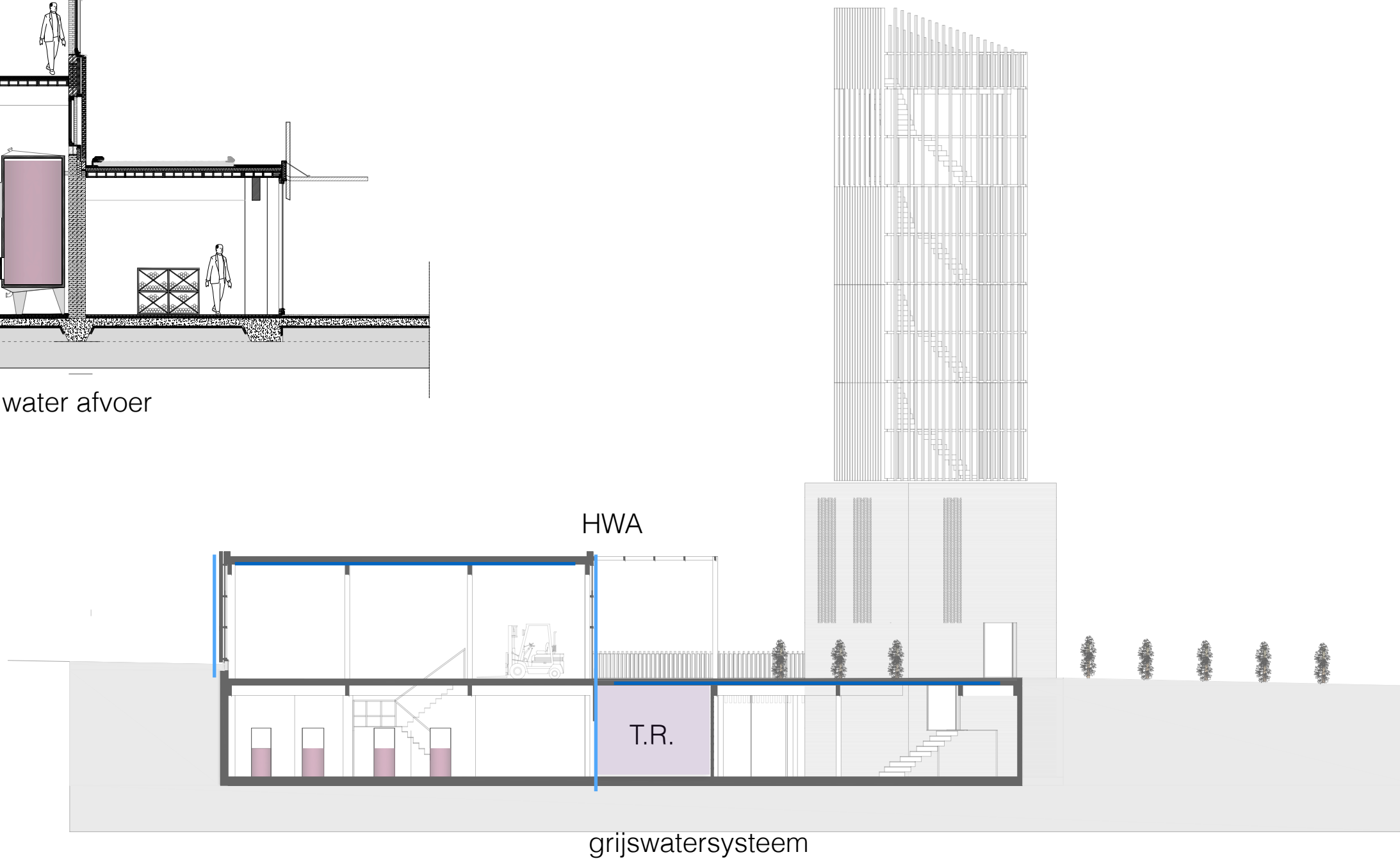
DRAAI/KIEP RAMEN



# KLIMATISERING



Vuil water afvoer

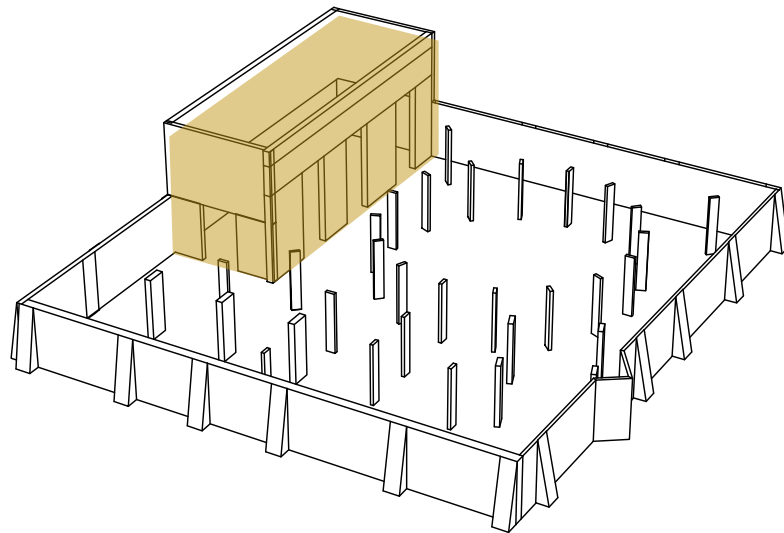


HWA

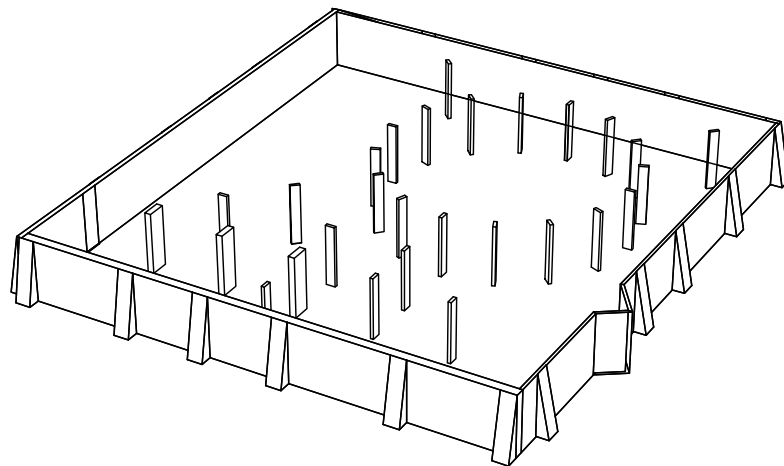
T.R.

grijswatersysteem

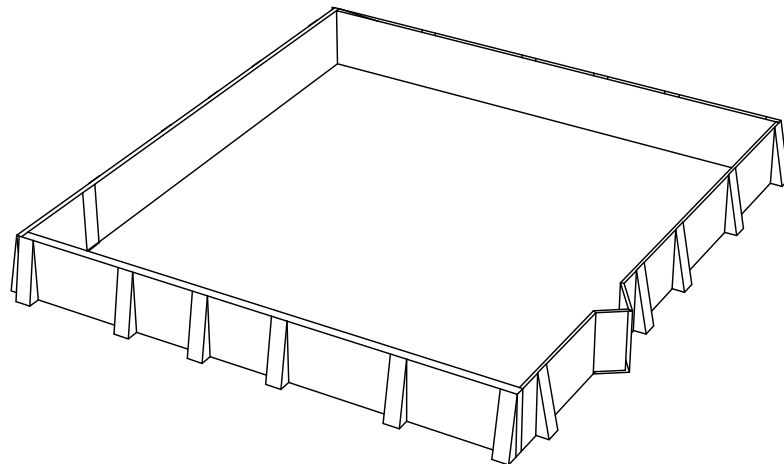
# DRAAGCONSTRUCTIE



dragend metselwerk



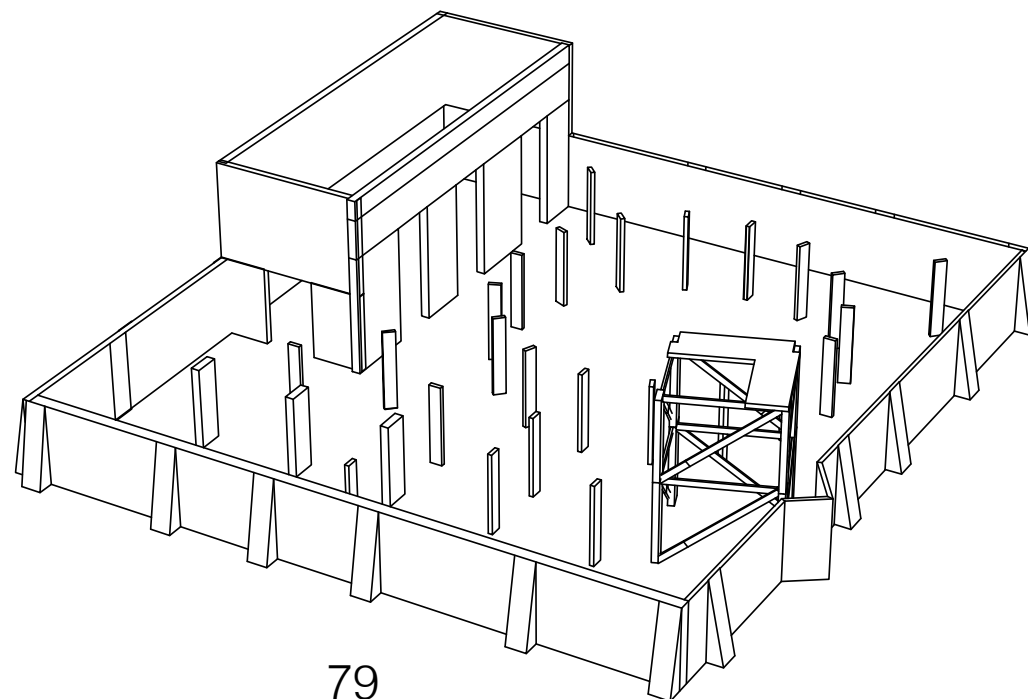
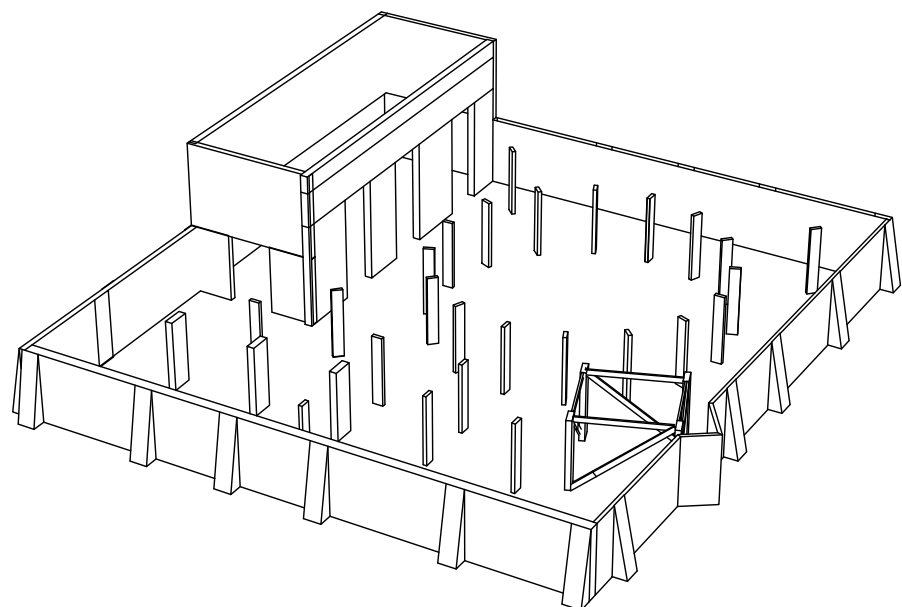
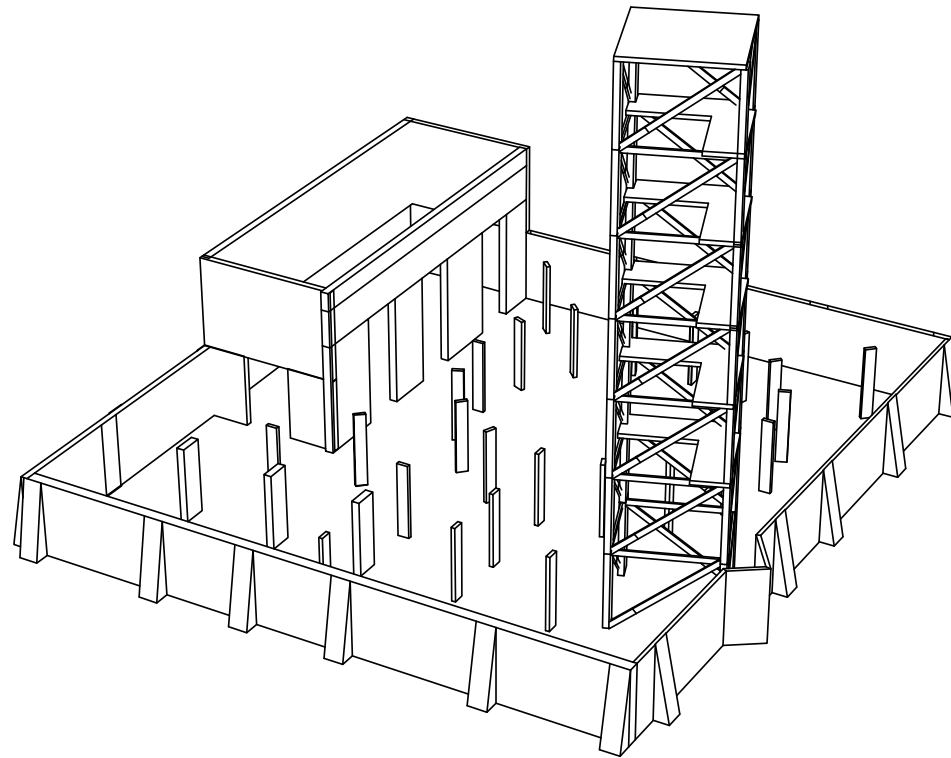
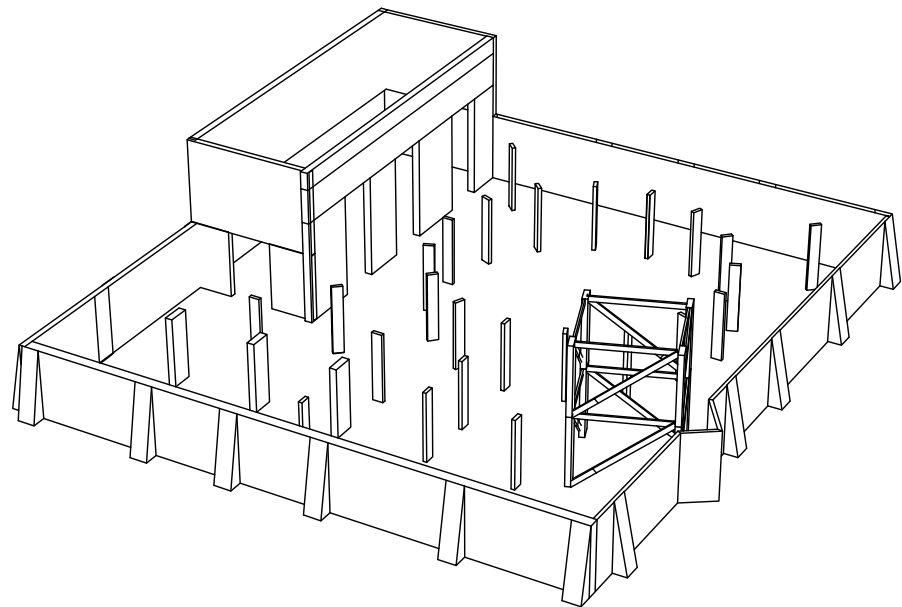
houten kolommen



Gestort beton  
steunberen

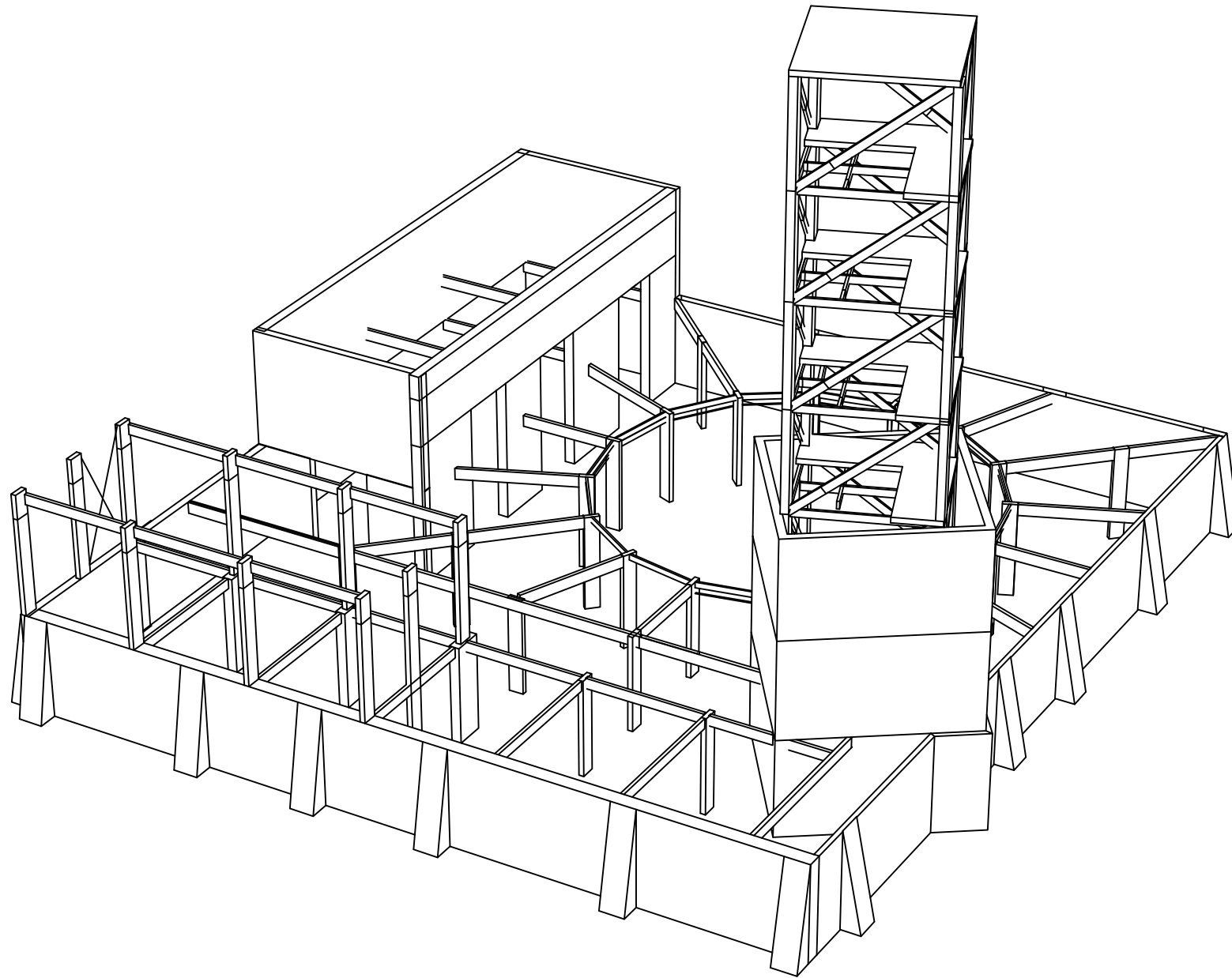
# DRAAGCONSTRUCTIE

Houten kolommen  
stalen schoren  
houten CLT vloeren



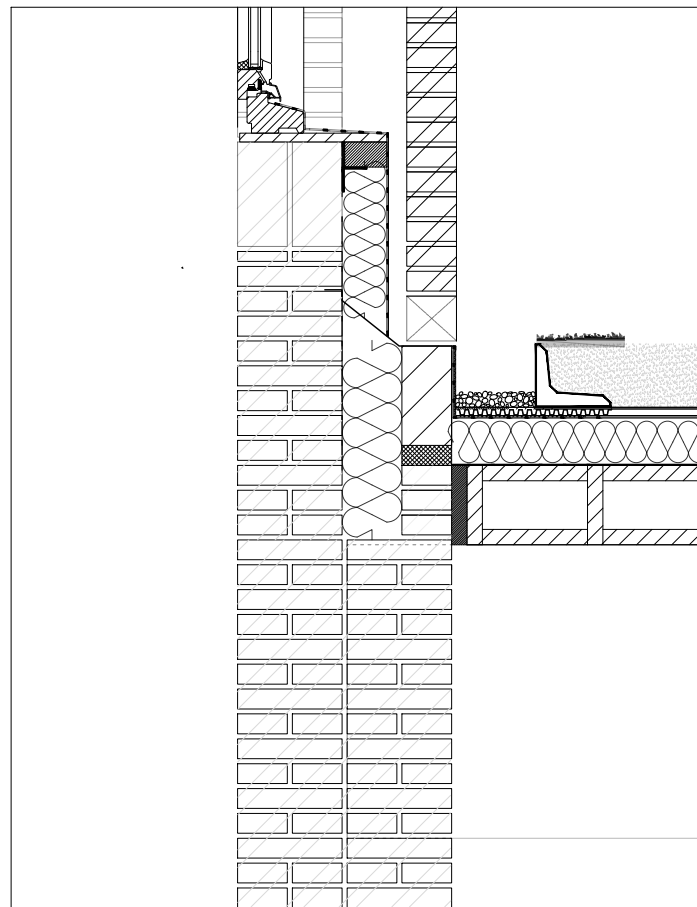


# DRAAGCONSTRUCTIE

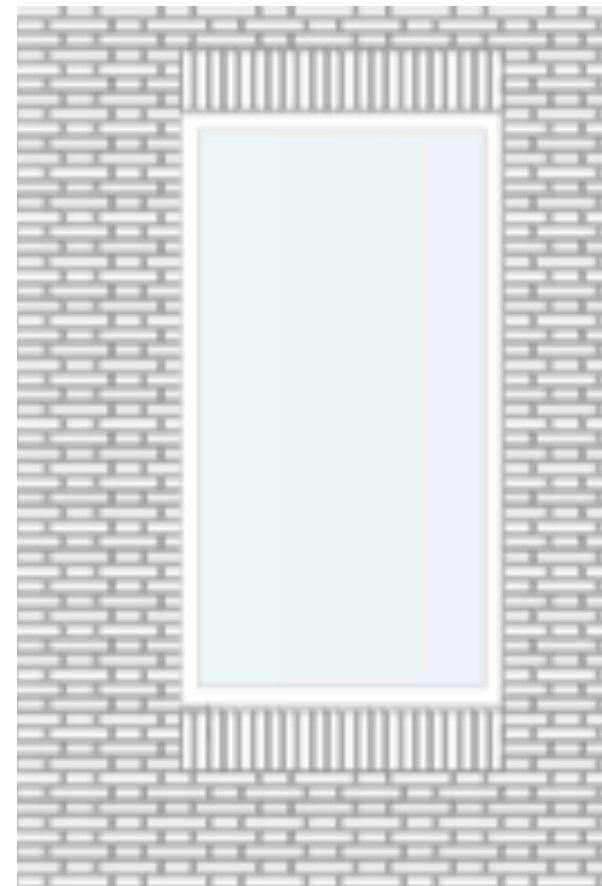


# DRAAGCONSTRUCTIE

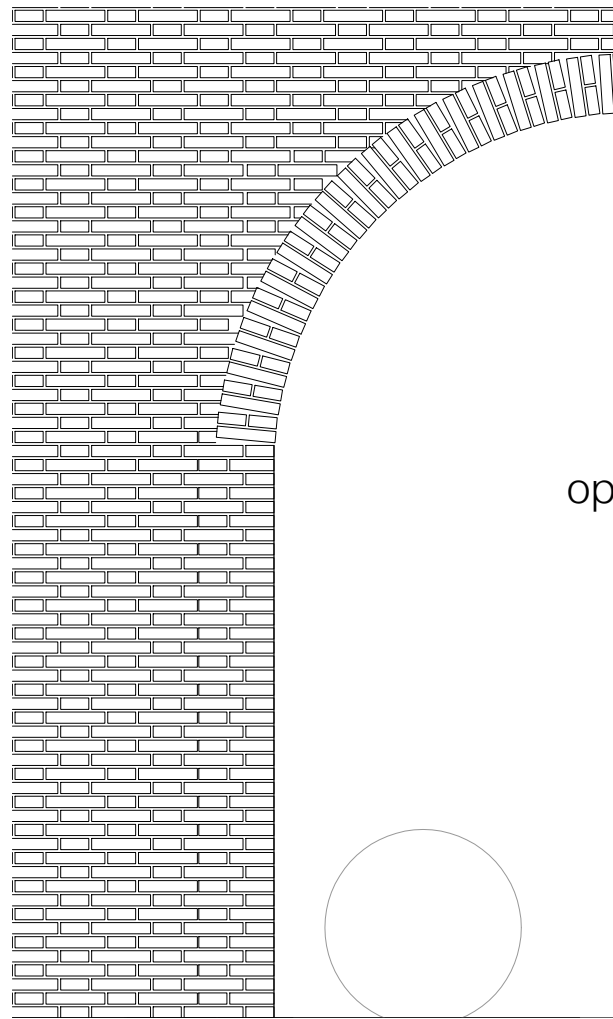
METSELWERK



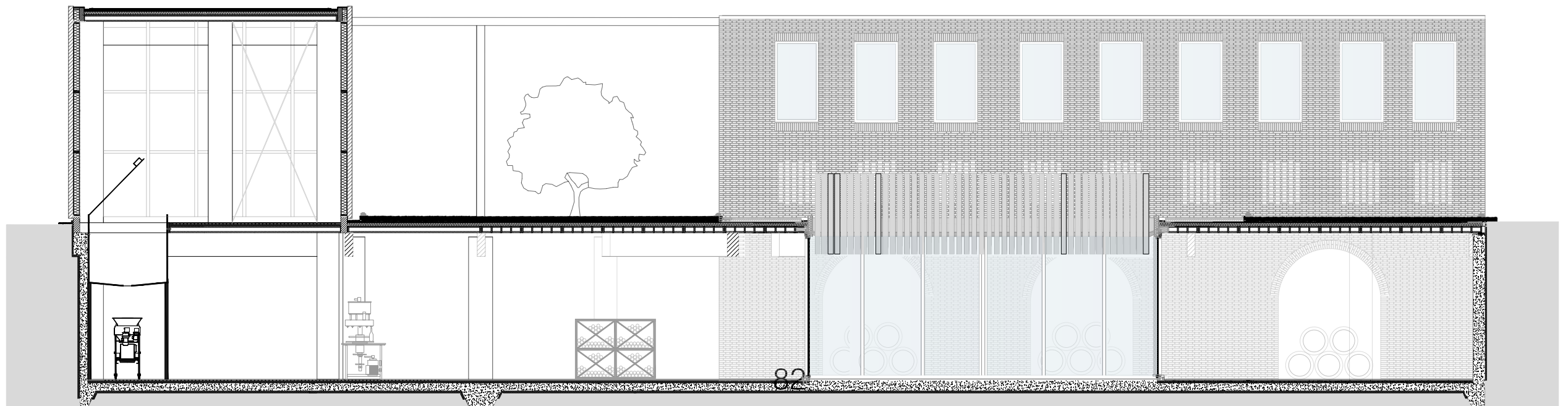
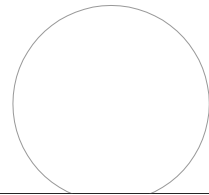
OPENINGEN OPVANGEN MET ROLLAAG  
(TOT 1.5 m)



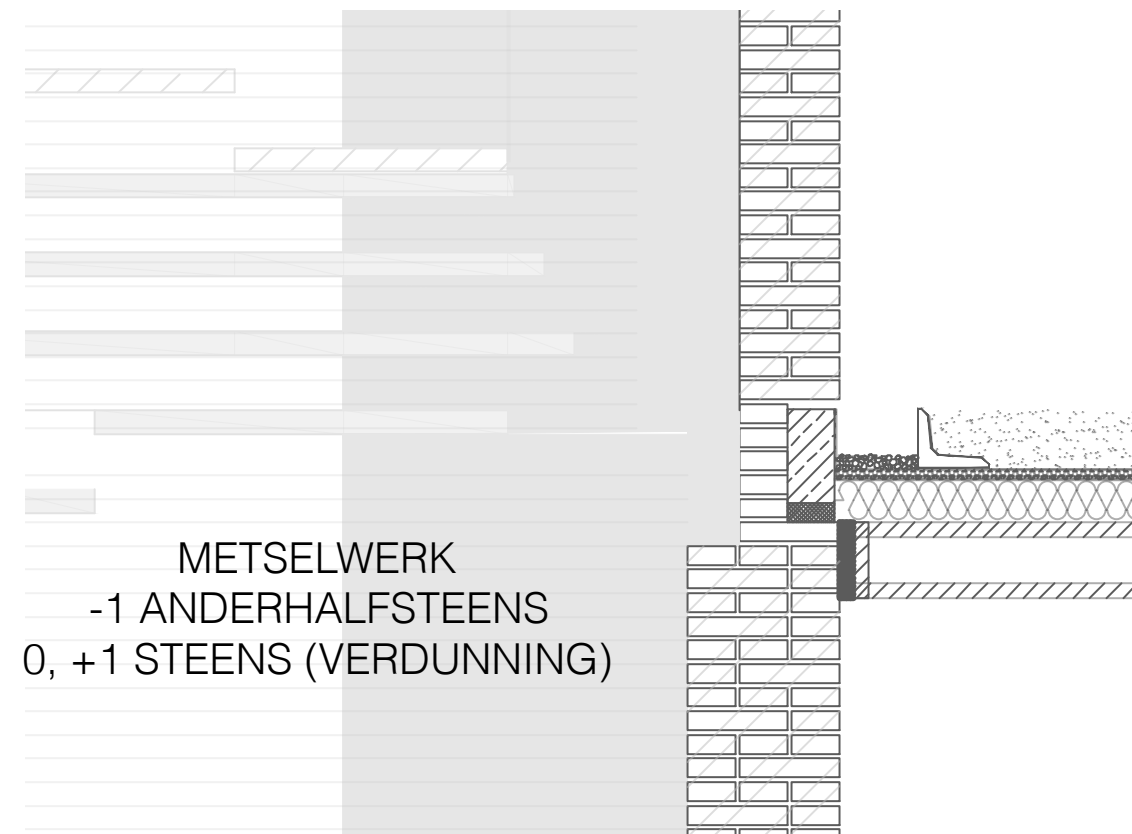
# DRAAGCONSTRUCTIE



openingen groter dan 1.5 m  
BOOG



# DRAAGCONSTRUCTIE



METSELWERK  
-1 ANDERHALFSTEENS  
0, +1 STEENS (VERDUNNING)



EINDE

