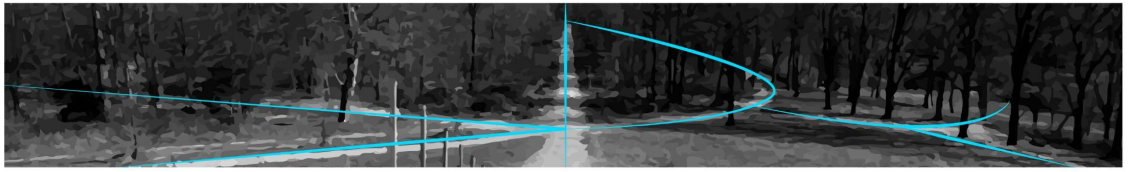
ESTATE SPACE

Exploring the spatial-visual relationships in the estate landscape of Gelders Arcadia



Ming Jiang

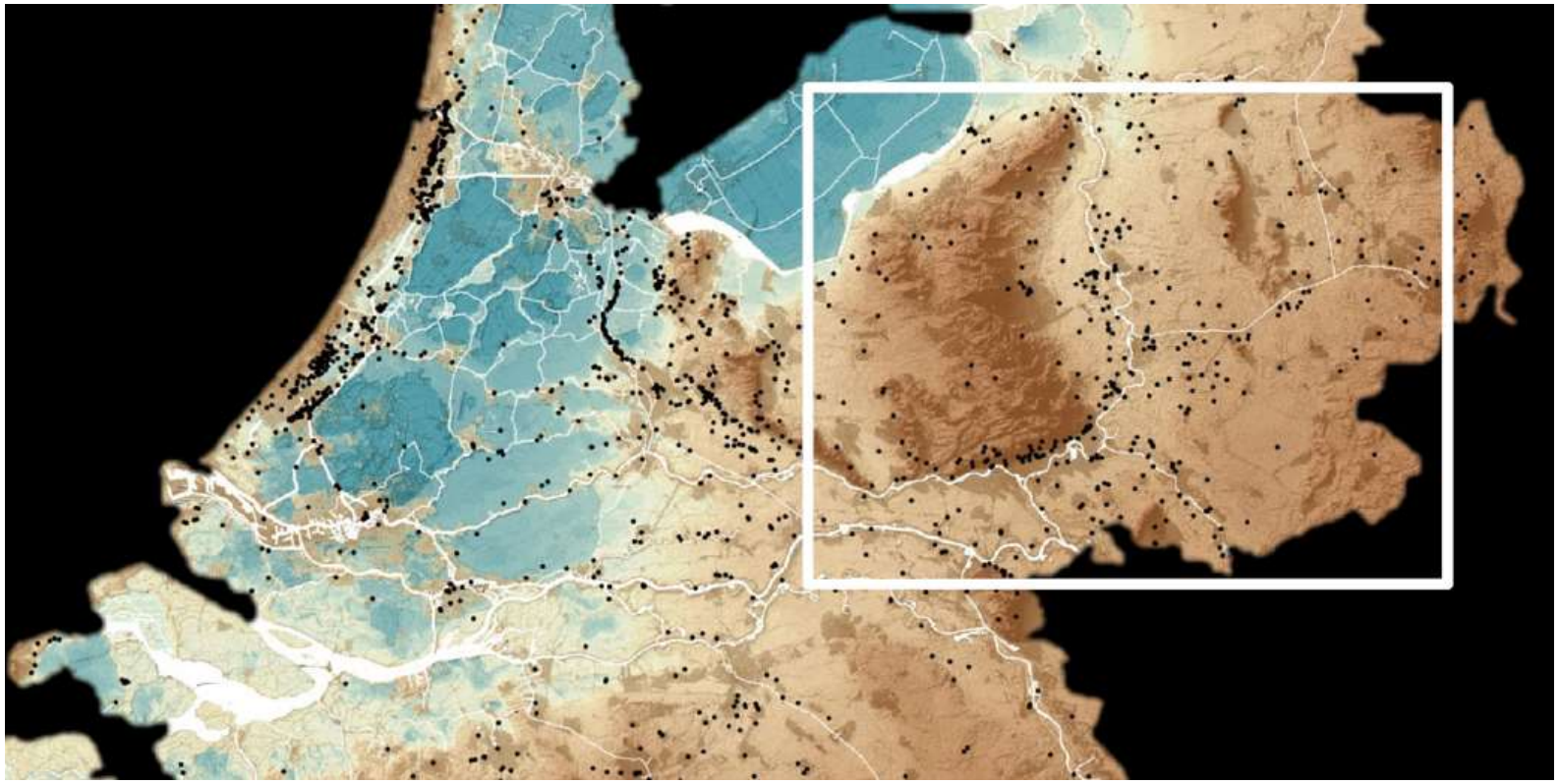
LAB Gelderland

Mentors: Steffen Nijhuis, Leo van den burg

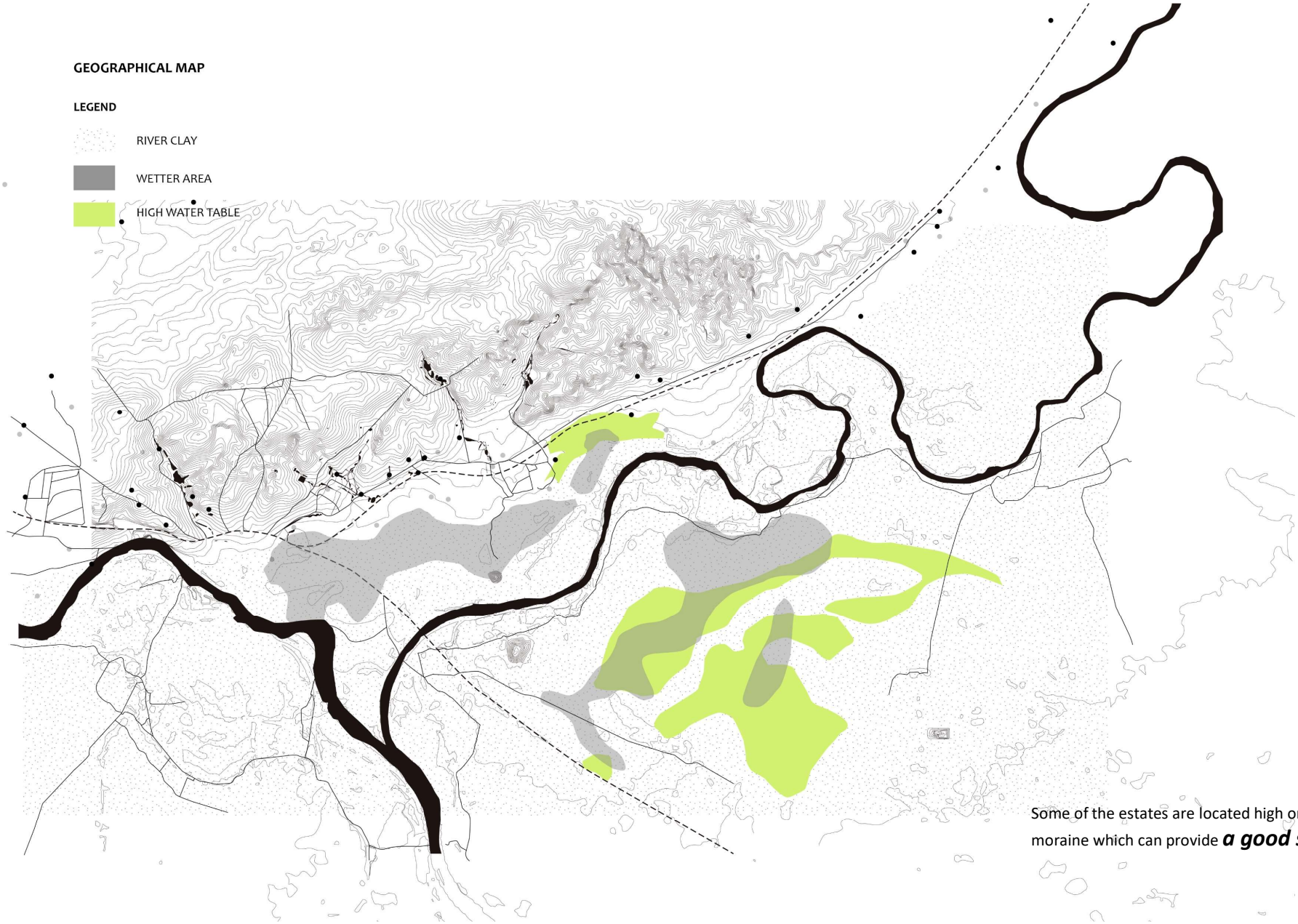
OBJECTIVE&QUESTION ANALYSIS

FASCINATION

Distribution of the estates in NL



Source: Steffen Nijhuis



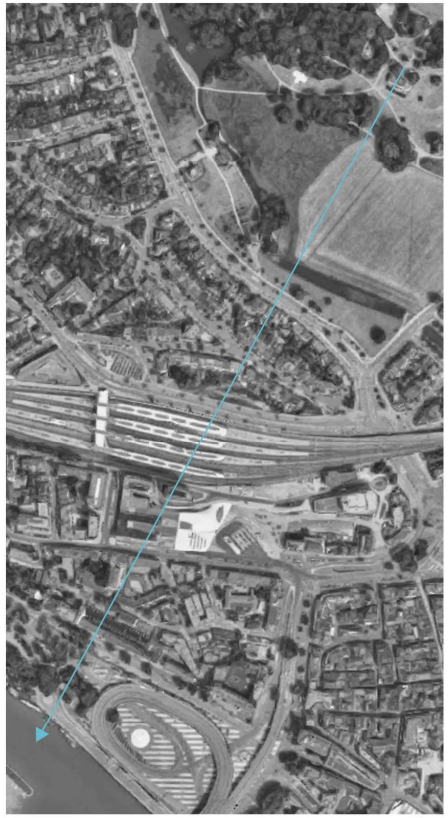
Some of the estates are located high on the moraine which can provide ***a good sight.***

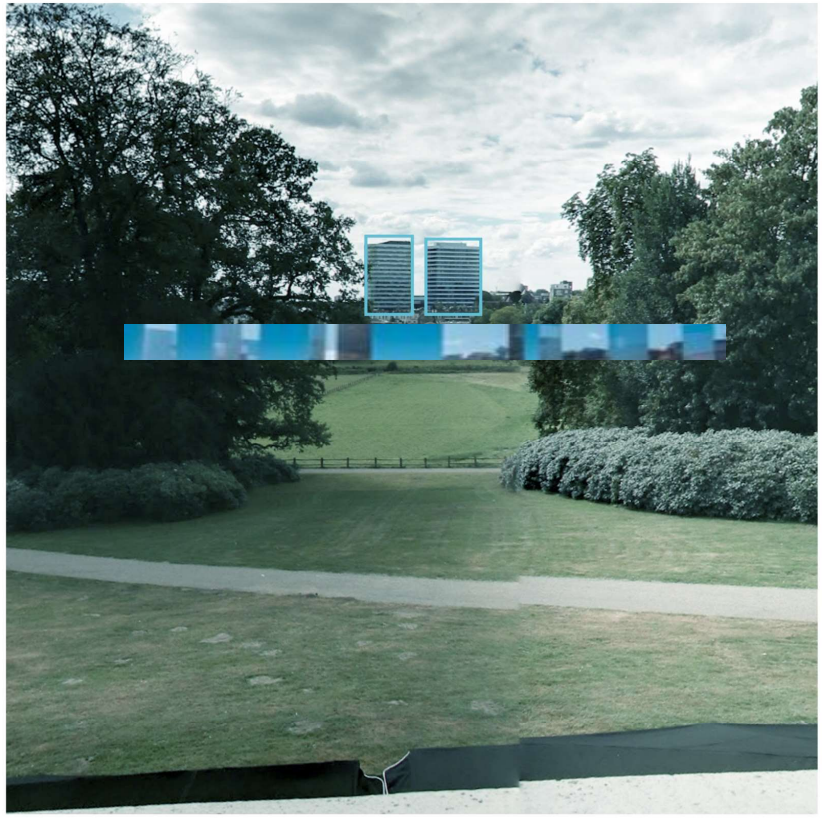
PARK KLARENBEEK-EUSEBIUS CHURCH
Estate-City

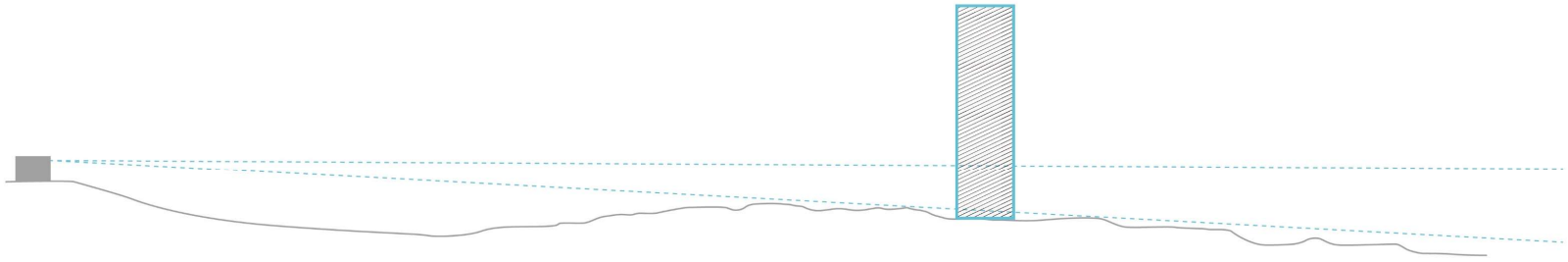
ROZENDAAL-KONINGSEWG
Estate-Infrastructure relics

Zypendaal-De Gulden Bodem
Estates-Estates

Problem-Visual Obstacles







Challenges connected

City Edge

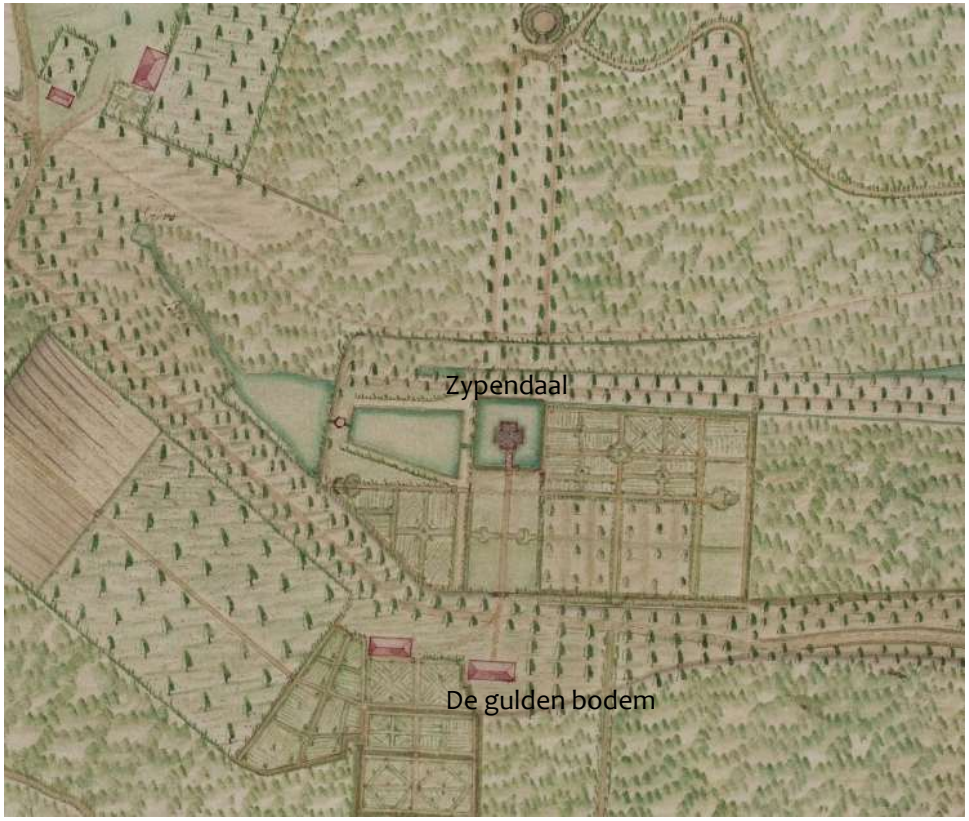
Middle area

Central Arnhem 1800s - Present

Rural area

-Not following the guideline of vision
-The city are cutting down the visual relation

Internal relation changed-Zypendaal



SUMMARY OF THE PROBLEM

Fast city development made the estates out of touch of this growing, so the obstacles and fragmentation arise, narrowing the visual channel and connection of the estates, also the estate itself

A considerable height difference

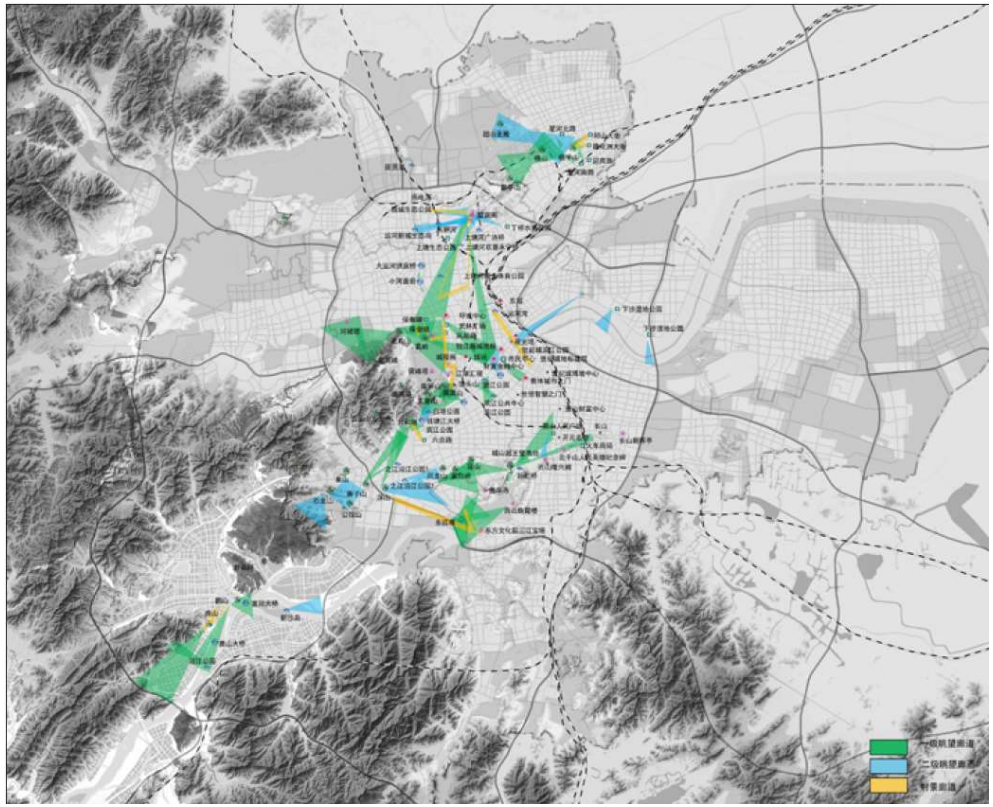
High density of beautiful estates

Various visual factors in different scales

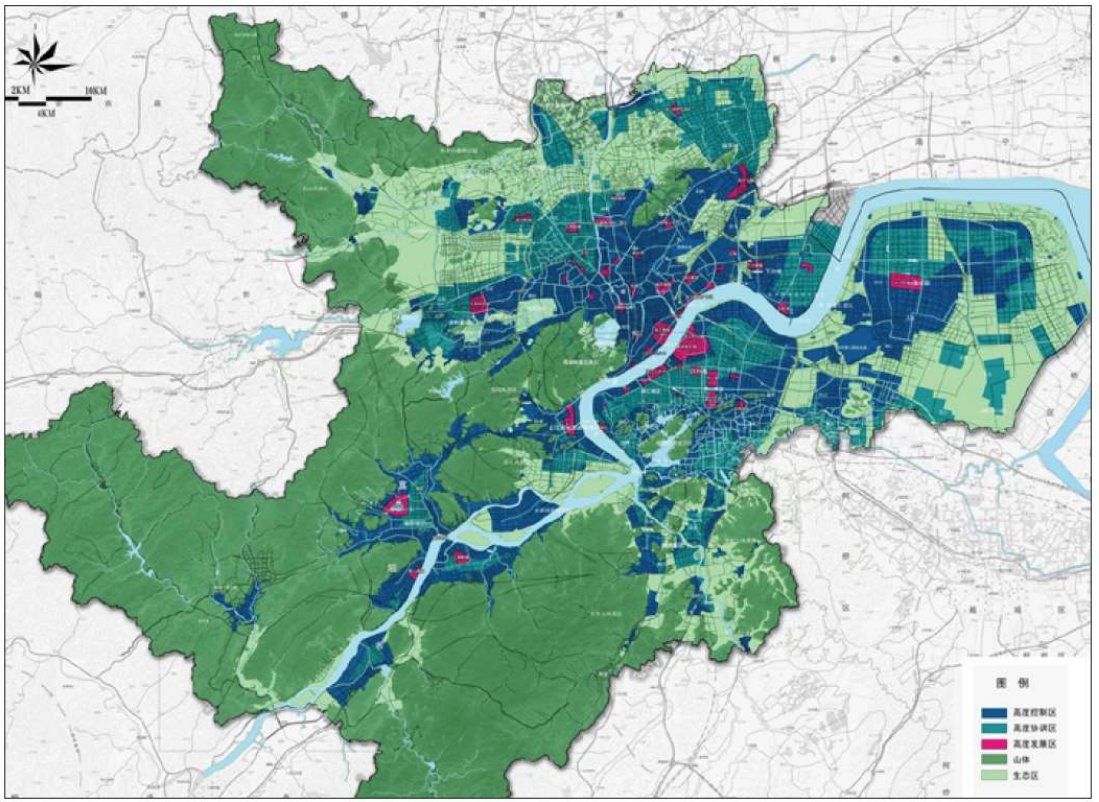
With all the advantages held,
Can visual network guide urbanization?
Can visual elements make people aware of spatial qualities?
Can the connection deal with fragmentation?

DESIGN+PLANNING TOOLS

Visual policy and implementation in Hangzhou, China



Landscape vision system (BI Shuhui, HUANG Wenliu, YANG Yidong,2018)



Height control system (BI Shuhui, HUANG Wenliu, YANG Yidong,2018)

OBJECTIVE&QUESTION

ANALYSIS

PRINCIPLES

ASCINATION

OBJECTIVE

To explore the potential of spatial visual framework for preservation and development of estates landscapes in urban context and to safeguard and develop the spatial visual qualities of the estate themselves

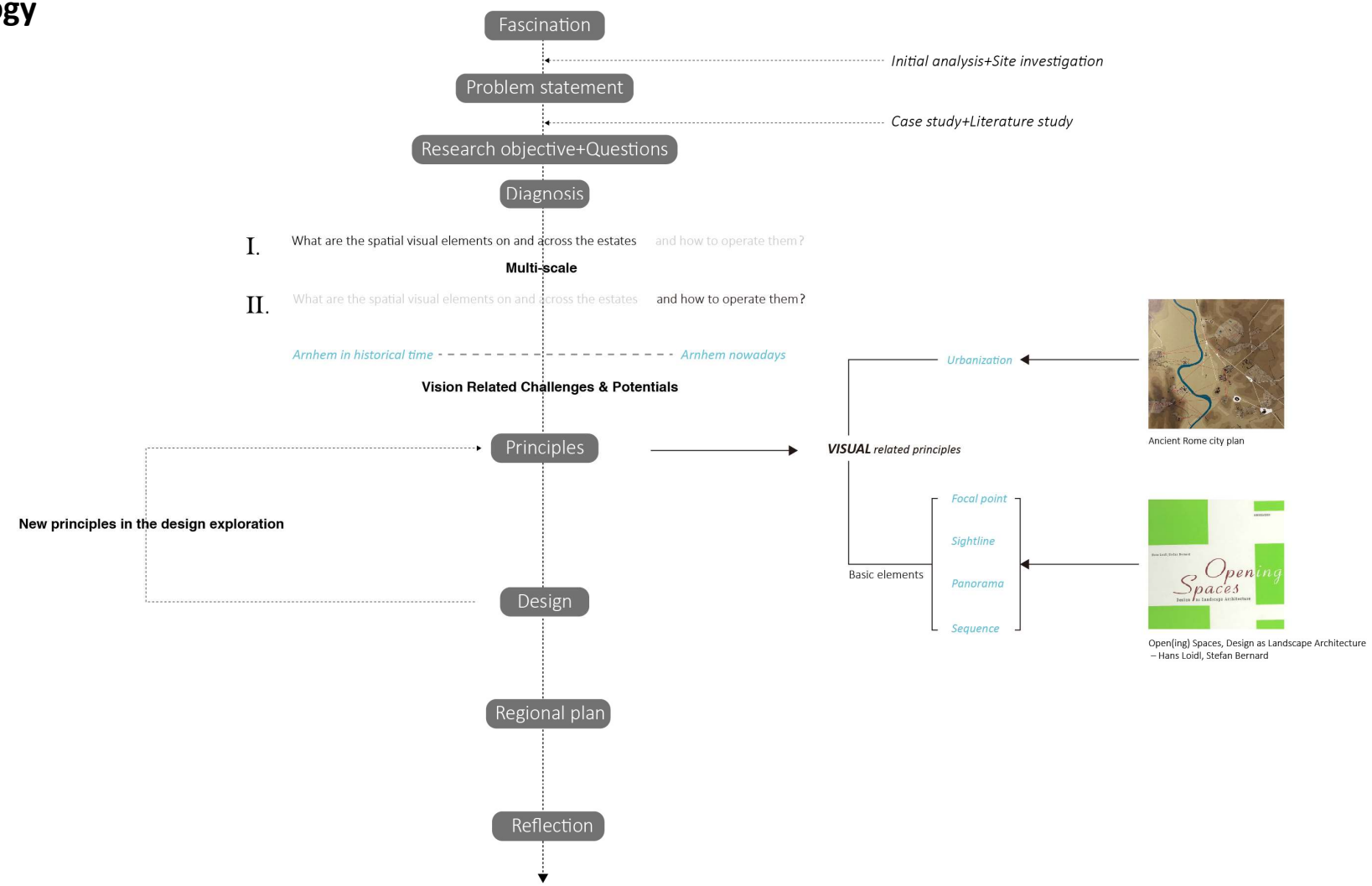
RESEARCH QUESTION

ANALYSIS —— What are the spatial visual elements on and across the estates, and how to operate them?

TOOLBOX —— What are the spatial visual principles to organize the spatial development of estates landscape?

DESIGN —— How to apply this to develop the landscape, to restore historical artifacts, reduce fragmentation and help the development of accessibility?

Methodology



ANALYSIS

DESIGN EXPLORATION

PRINCIPLES

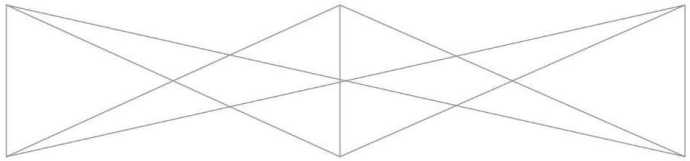
VE&QUESTIO

ANALYSIS FRAMEWORK

I. What are the spatial visual elements on and across the estates and how to operate them?

Multi-scale

Estate Garden *Estate Landscape* *Cityscape*



Visual elements

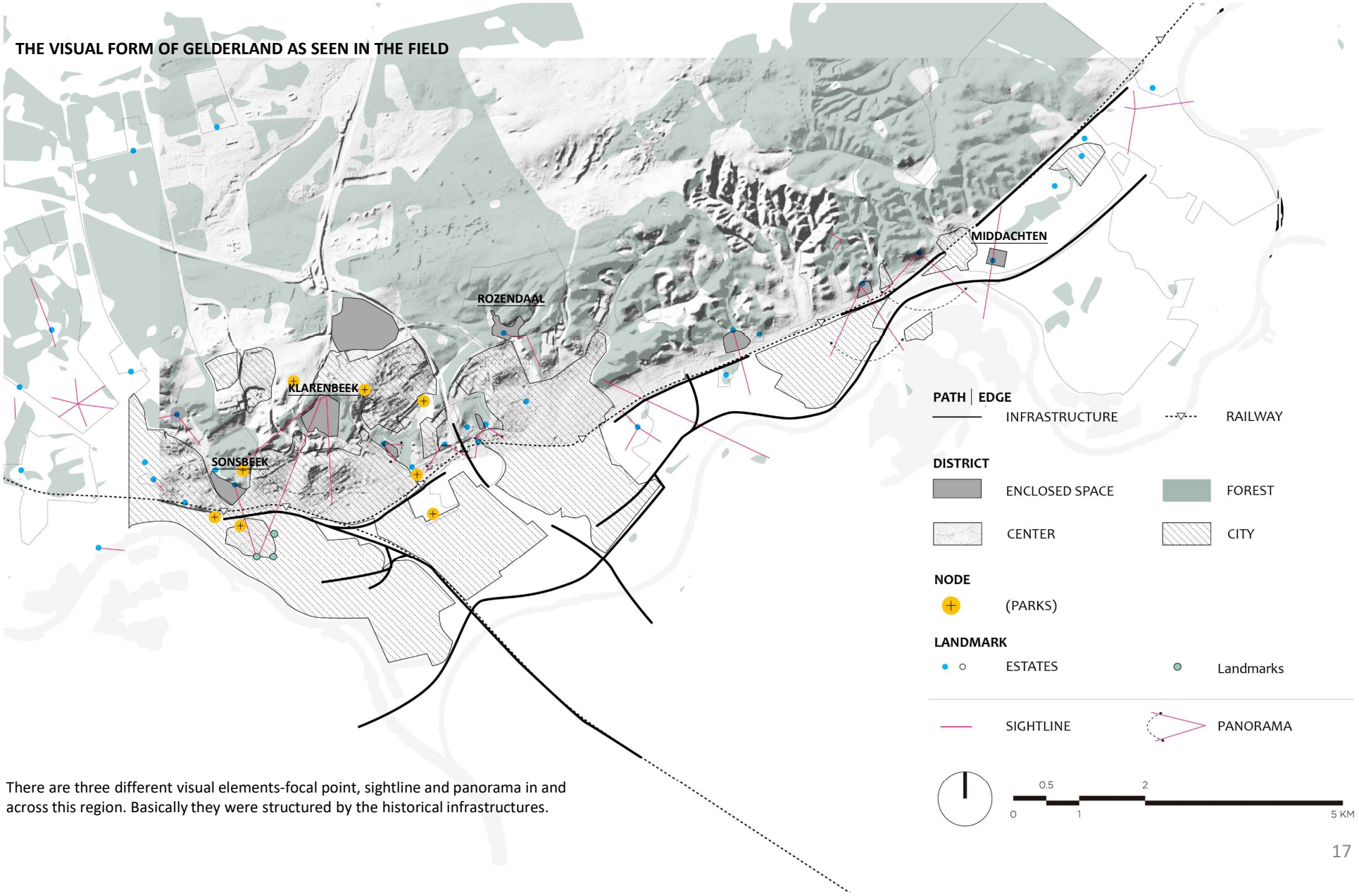
Focal point *Sightline* *Panorama*

II. What are the spatial visual elements on and across the estates and how to operate them?

Arnhem in historical time ---------- *Arnhem nowadays*

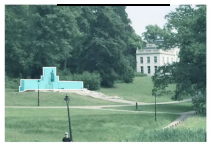
Vision Related Challenges & Potentials

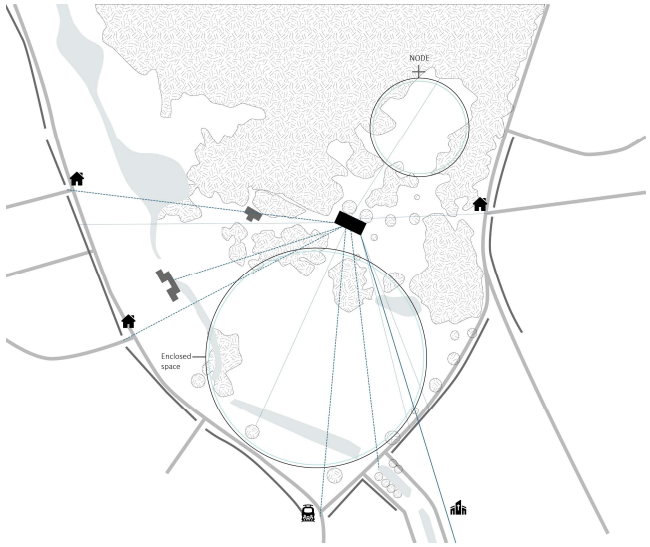
THE VISUAL FORM OF GELDERLAND AS SEEN IN THE FIELD



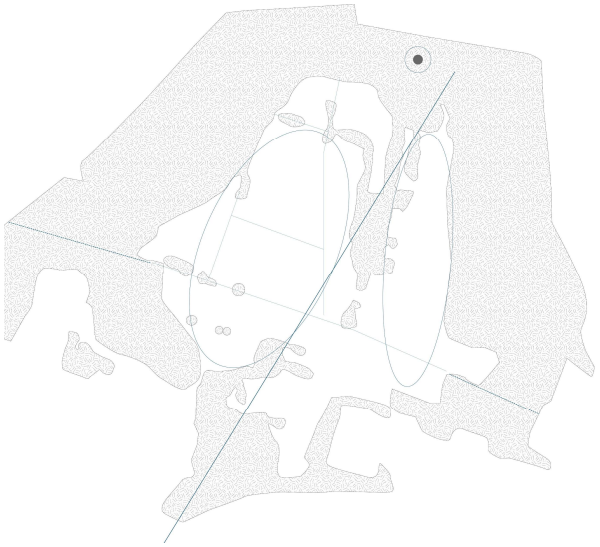
There are three different visual elements-focal point, sightline and panorama in and across this region. Basically they were structured by the historical infrastructures.

SONSBEEK

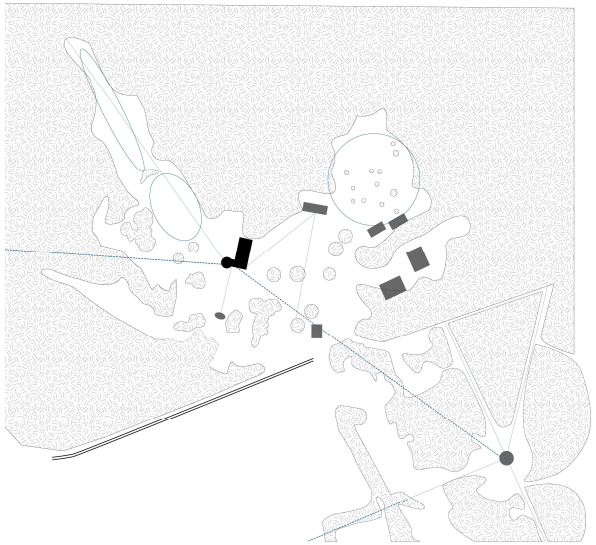




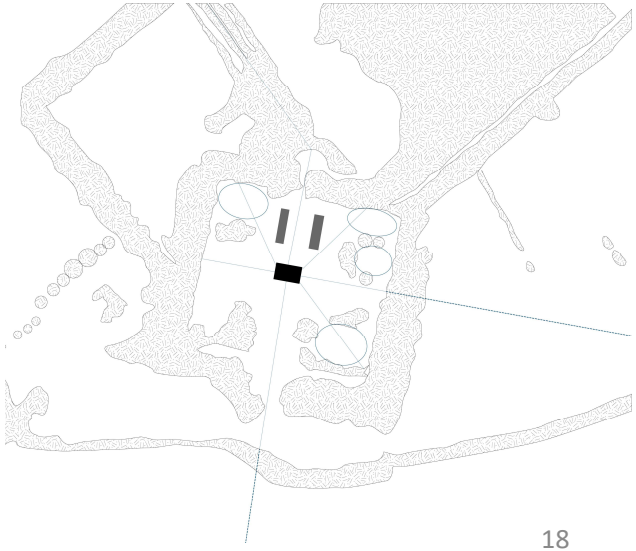
KLARENBEEK



ROZENDAAL



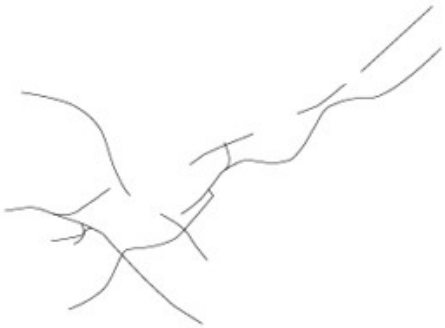
MIDDACHTEN



SUMMARY OF THE MUTI-SCALE ANALYSIS

The basic visual elements of focal point, sightline, and panorama are existing in every scale of the estates which contain loads of information and the value of the estates themselves.

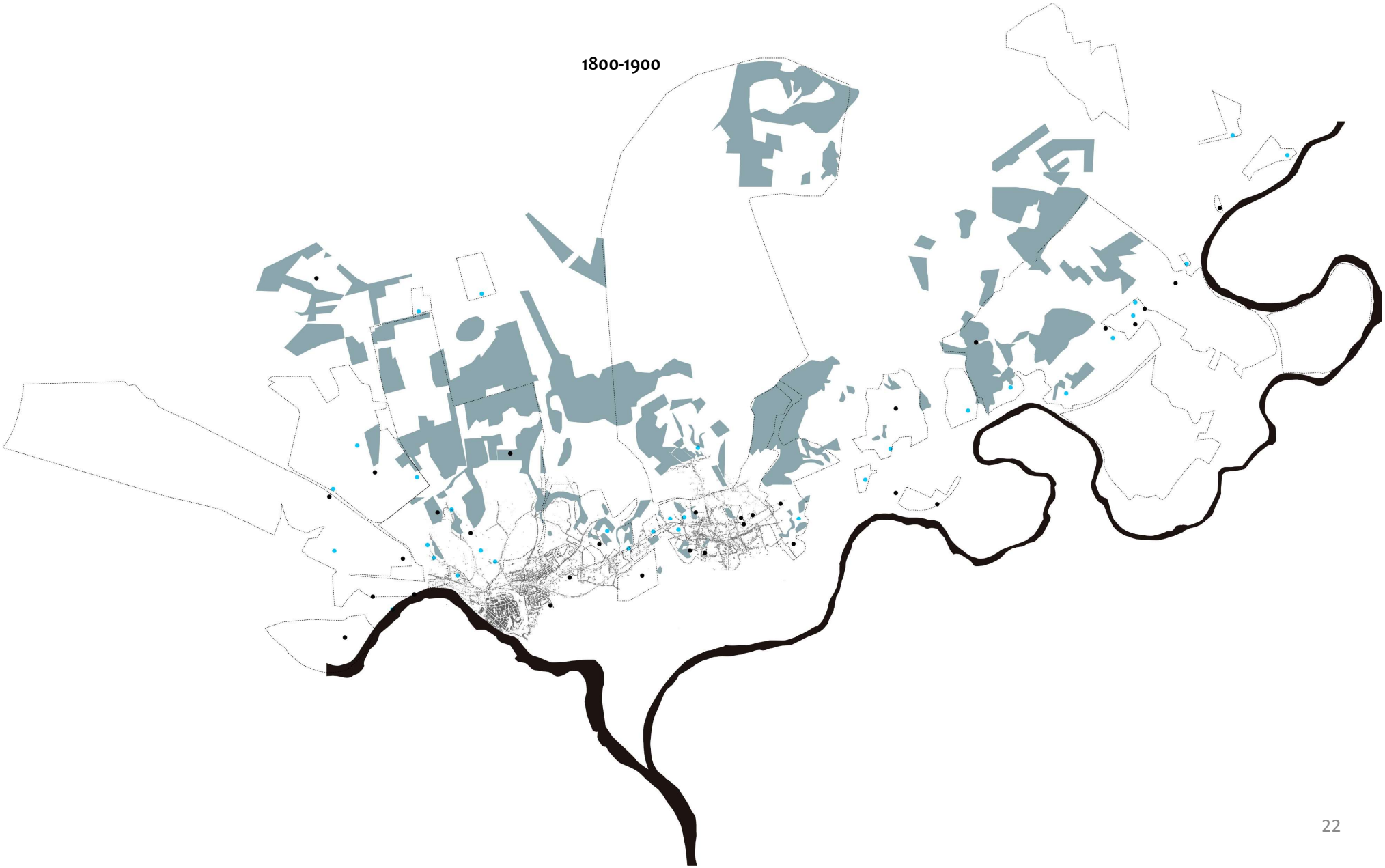
City



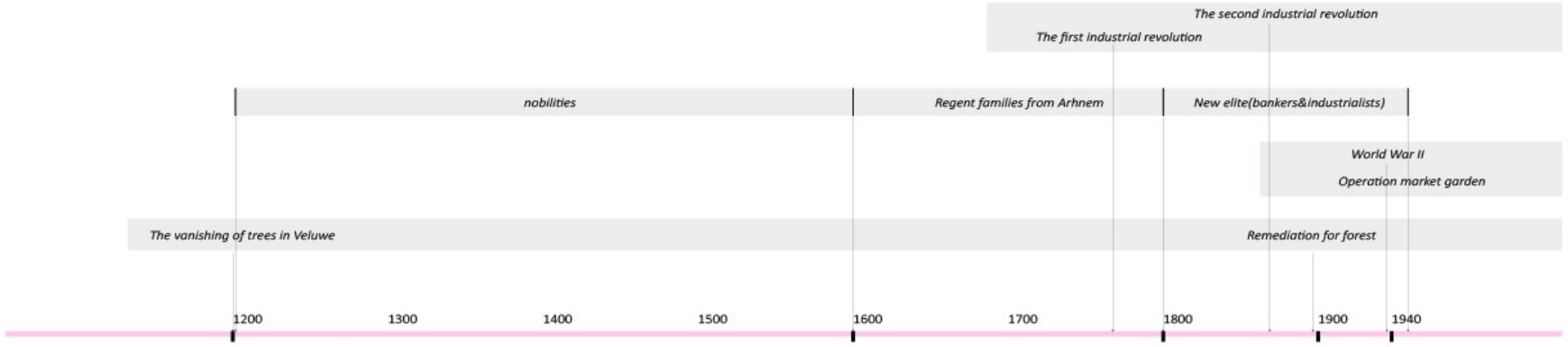
Road

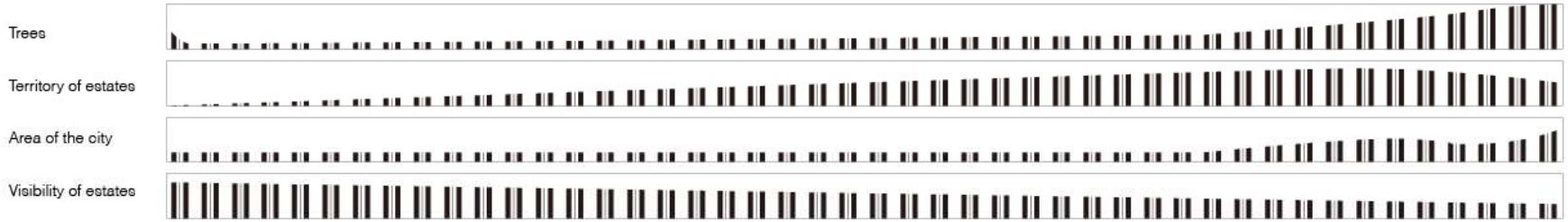
Mass

Before 1800


1800-1900


1900-


The second industrial revolution
The first industrial revolution
nobilities
Regent families from Arhnem
New elite(bankers&industrialists)
World War II
Operation market garden
The vanishing of trees in Veluwe
Remediation for forest
1200
1300
1400
1500
1600
1700
1800
1900
1940


Trees
Territory of estates
Area of the city
Visibility of estates

SUMMARY OF THE CHALLENGE

The challenges now are to reconnect the visual relation among estates, make people more aware of the value of the estates to reduce fragmentation and obstacles.
The lost visual relations are the potential for this.

So, how to organize the spatial development of estates landscape?

DESIGN PRINCIPLES

PRINCIPLES

Principles are some general tool boxes that being used to adapt into different situation in design.

What I want?

***VISUAL** related principles*

Urbanization

Ancient Rome city plan

Basic elements

Focal point

Sightline

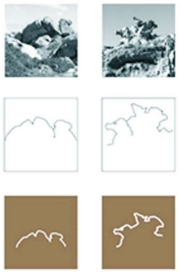
Panorama

Sequence

Open(ing) Spaces, Design as Landscape Architecture – Hans Loidl, Stefan Bernard

FOCAL POINT

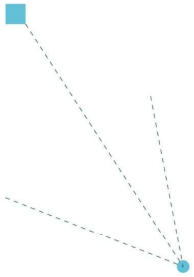
Attracting people



SIGHTLINE

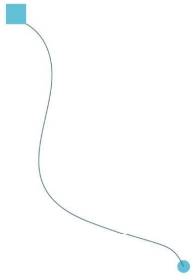
Connecting people

PANORAMA



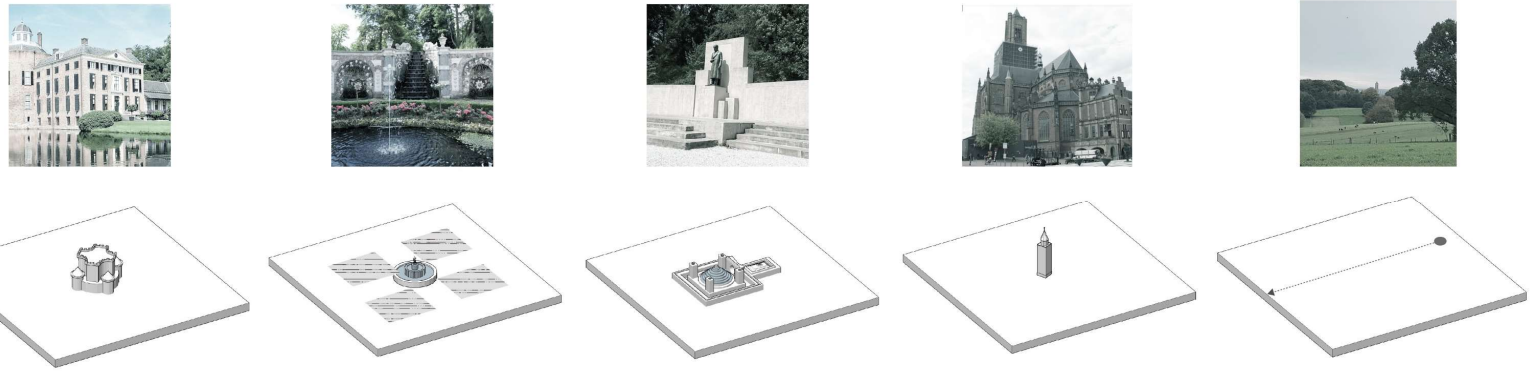
Directing people

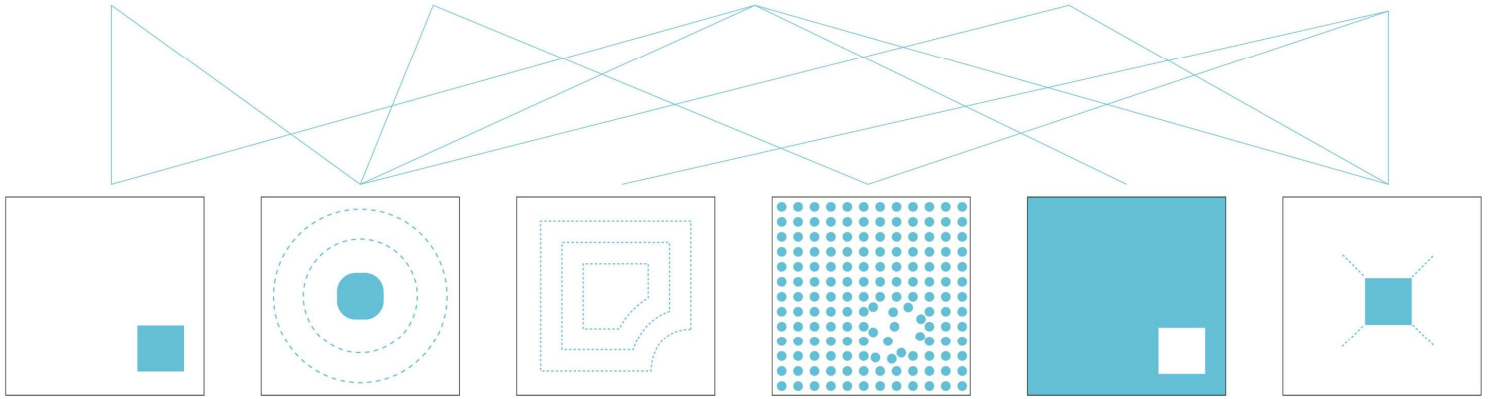
SEQUENCE



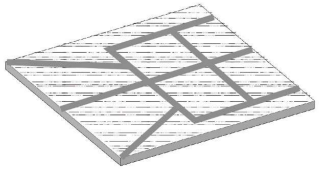
Moving people

FOCAL POINT

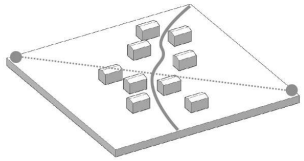

Estate
Garden
Memorial
City marker
Observation point


Density in emptiness
Elevation difference
Rounded with angular shape
Disorder in order
Empty in density
Visual marker

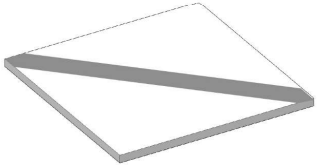
SIGHTLINE



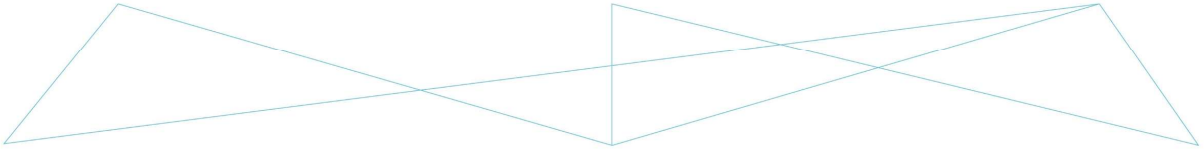
Baroque garden

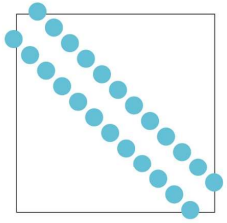


Historical connection

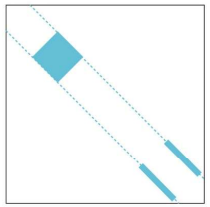


Historical road

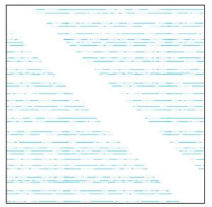




Visual corridor

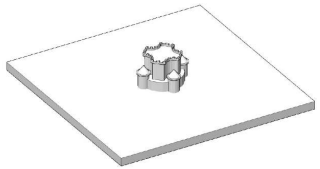


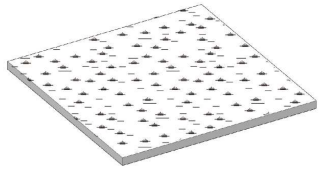
Visual marker

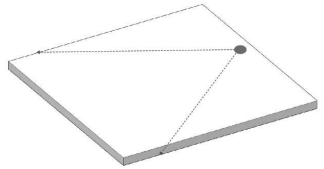


Texture in structure

PANORAMA



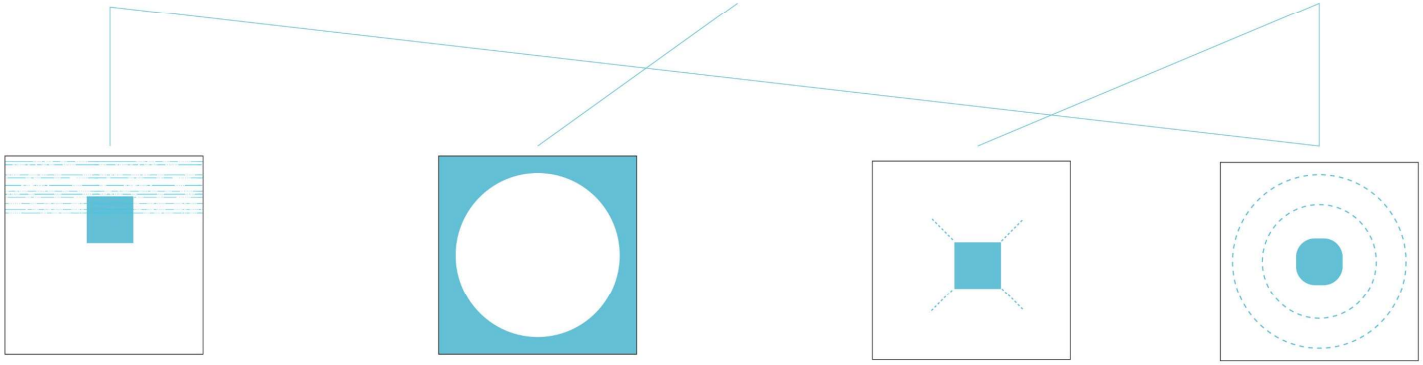




Estate

Estate Landscape

Observation point



Distinctive texture

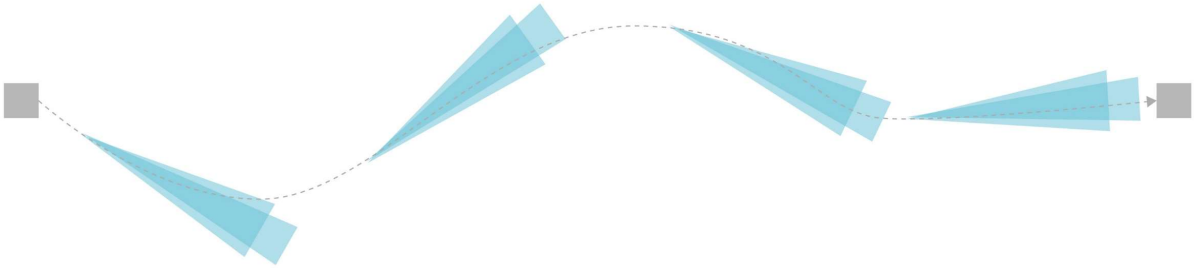
Enclosed space

Visual marker

Elevated higher

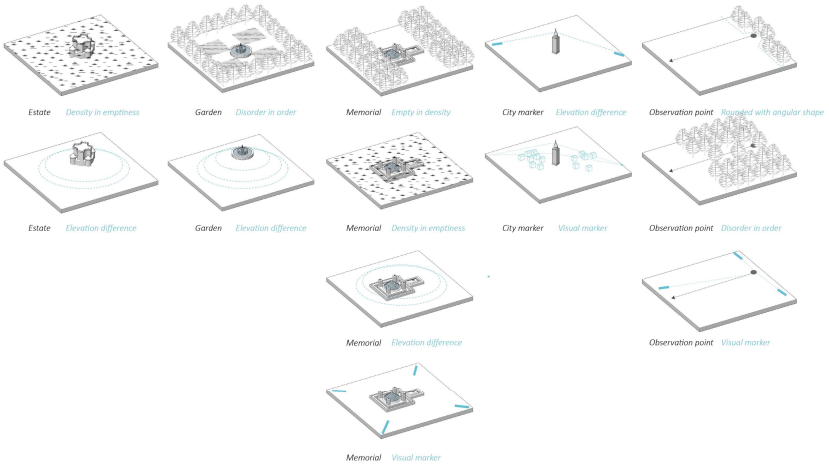
SEQUENCE-SCENE

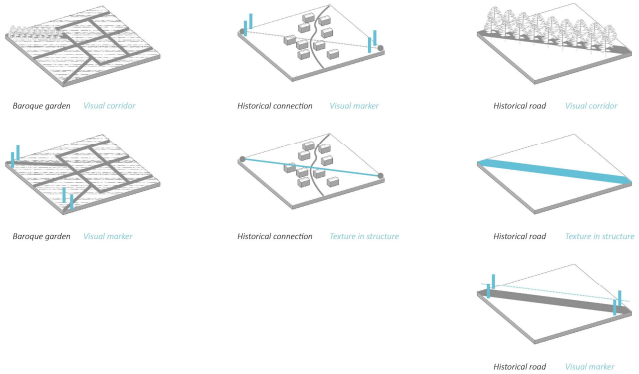
Goal oriented path

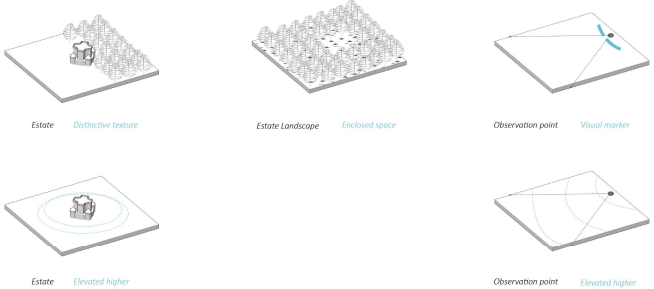


Less goal oriented path

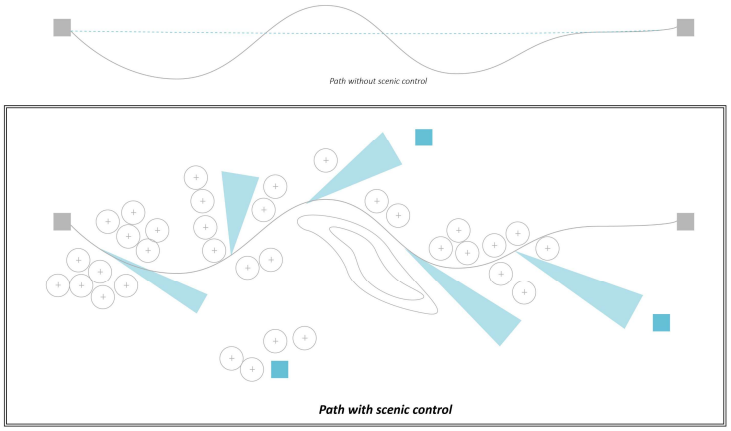
Conclusion for principle







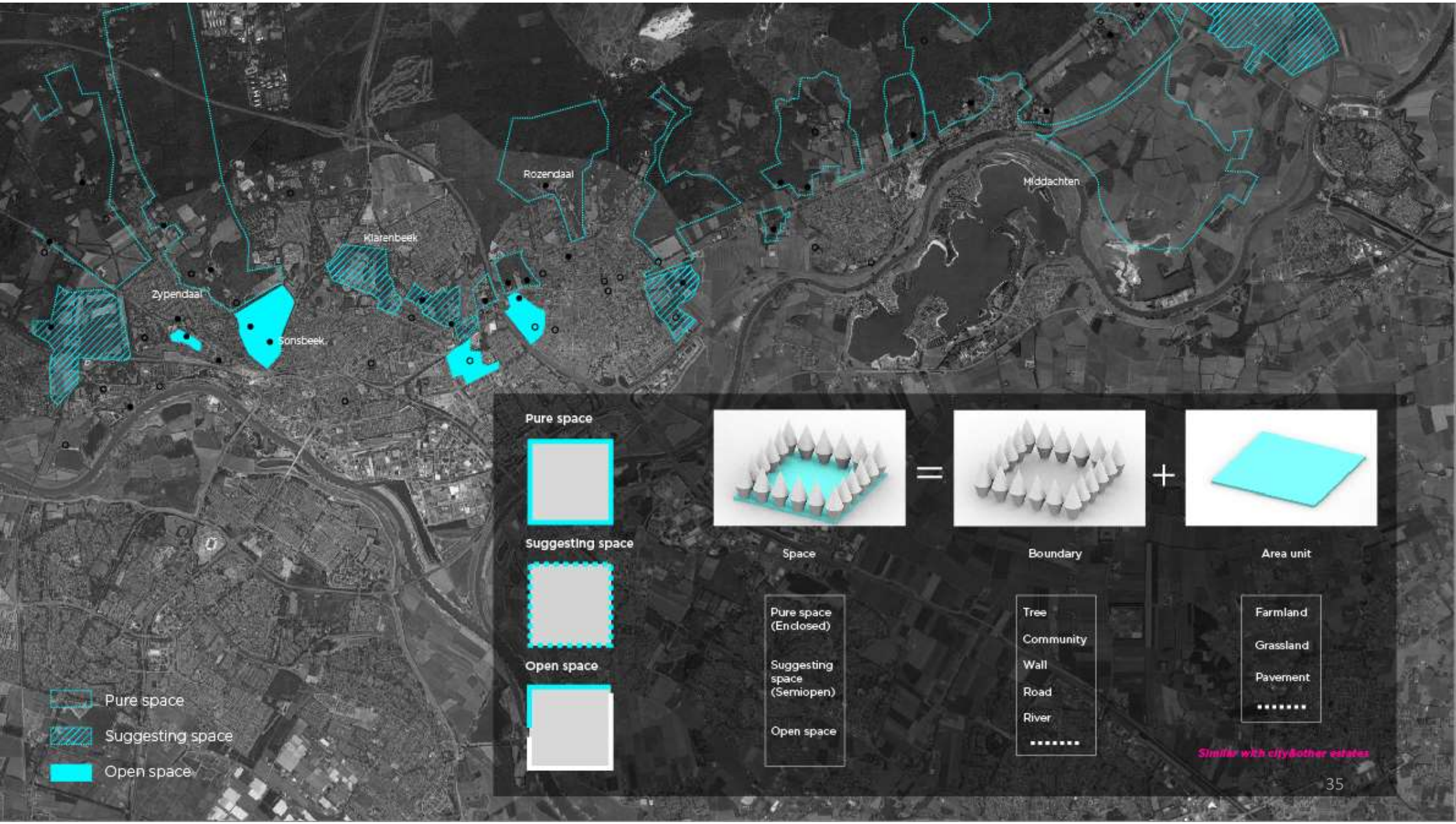
SEQUENCE-SCENIC CONTROL



DESIGN EXPLORATION

RINCIPLE

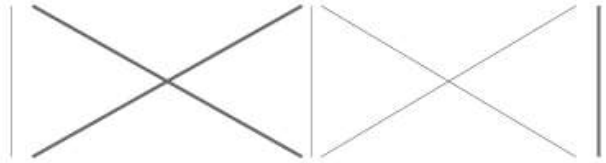
REFLECTION
CONCLUSON&COMPARISON


Rozendaal
Middachten
Klarenbeek
Zypendaal
Sonsbeek
Pure space
Suggesting space
Open space
Pure space
Suggesting space
Open space
Space
Boundary
Area unit
Pure space (Enclosed)
Suggesting space (Semiopen)
Open space
Tree
Community
Wall
Road
River
Farmland
Grassland
Pavement
Similar with city&other estates

TYPOLOGY OF ESTATES IN SPATIAL VISUAL QUALITIES

URBAN

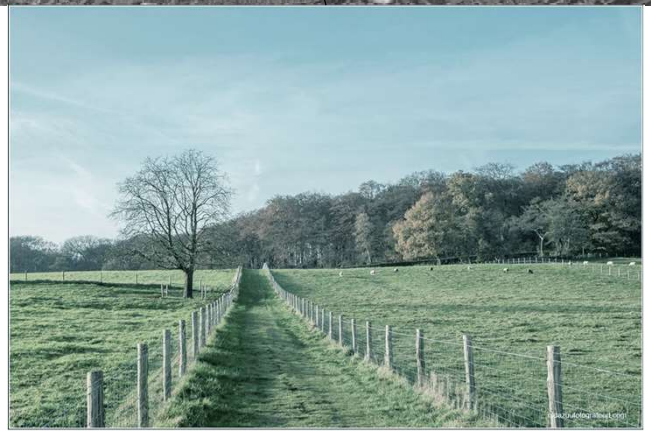
Regional Panorama | *Estate landscape scale's Panorama* | *Enclosed*



SONSBEEK | KLARENBEEK | ROZENDAAL

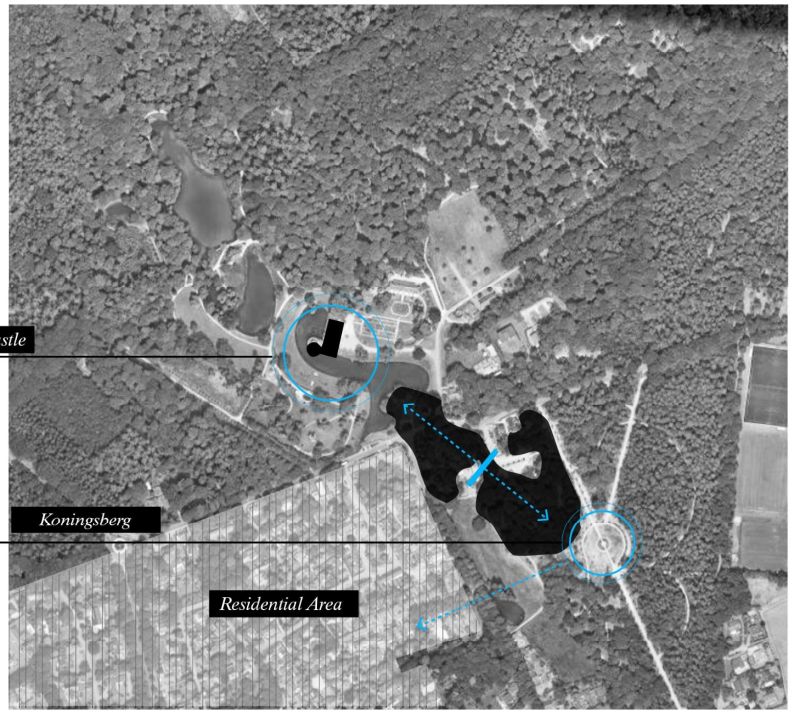
Guidelines for development


Rozendaal(Pure space)
Klarenbeek(Suggesting space)
Sonsbeek(Open space)
Arnhem centraal



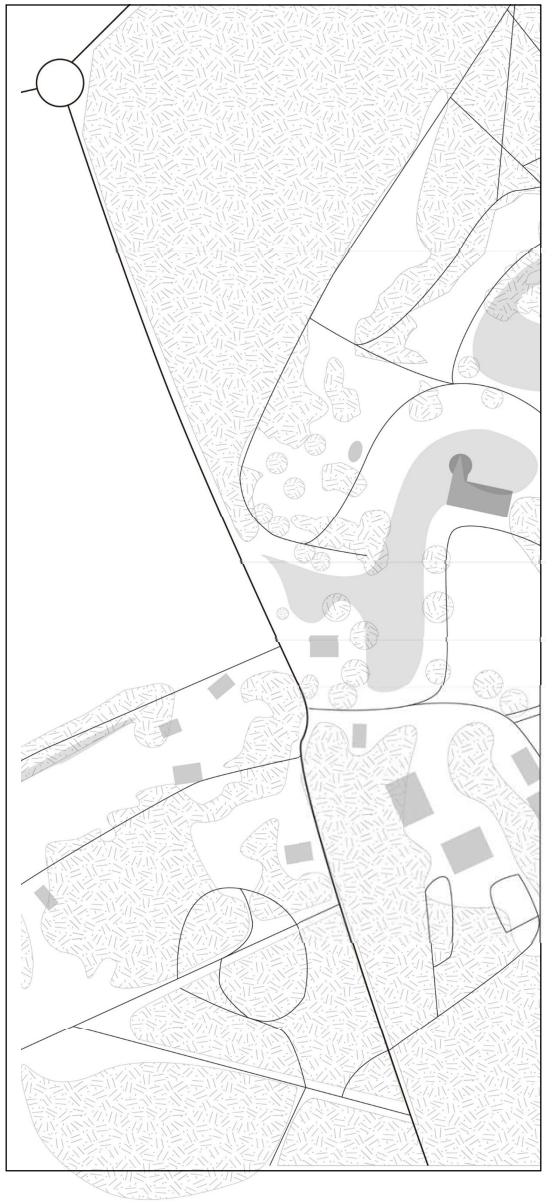
Design Experiment One——Pure Space
Koningsberg of Rozendaal

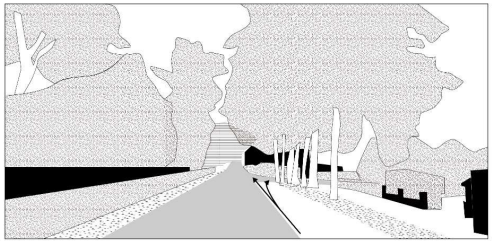
Konings-huisje op de Koningsberg te Rozendaal ca. 1700

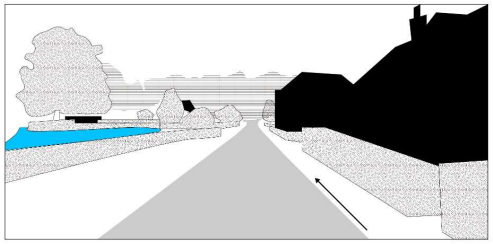


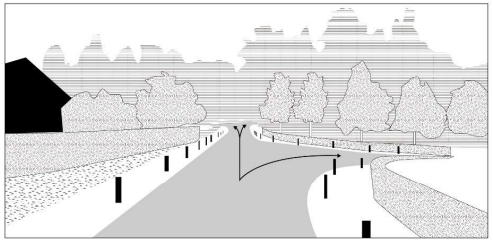
1.The change of spatial visual experience to the estate landscape
2.The future relationship with the neighbor of this region
3.The future recreation composition for visitors

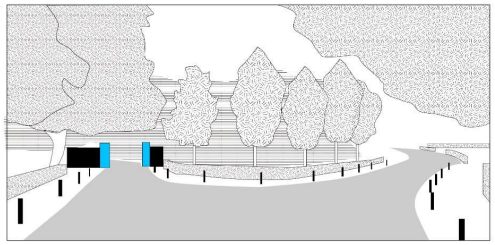
SEQUENCE ANALYSIS







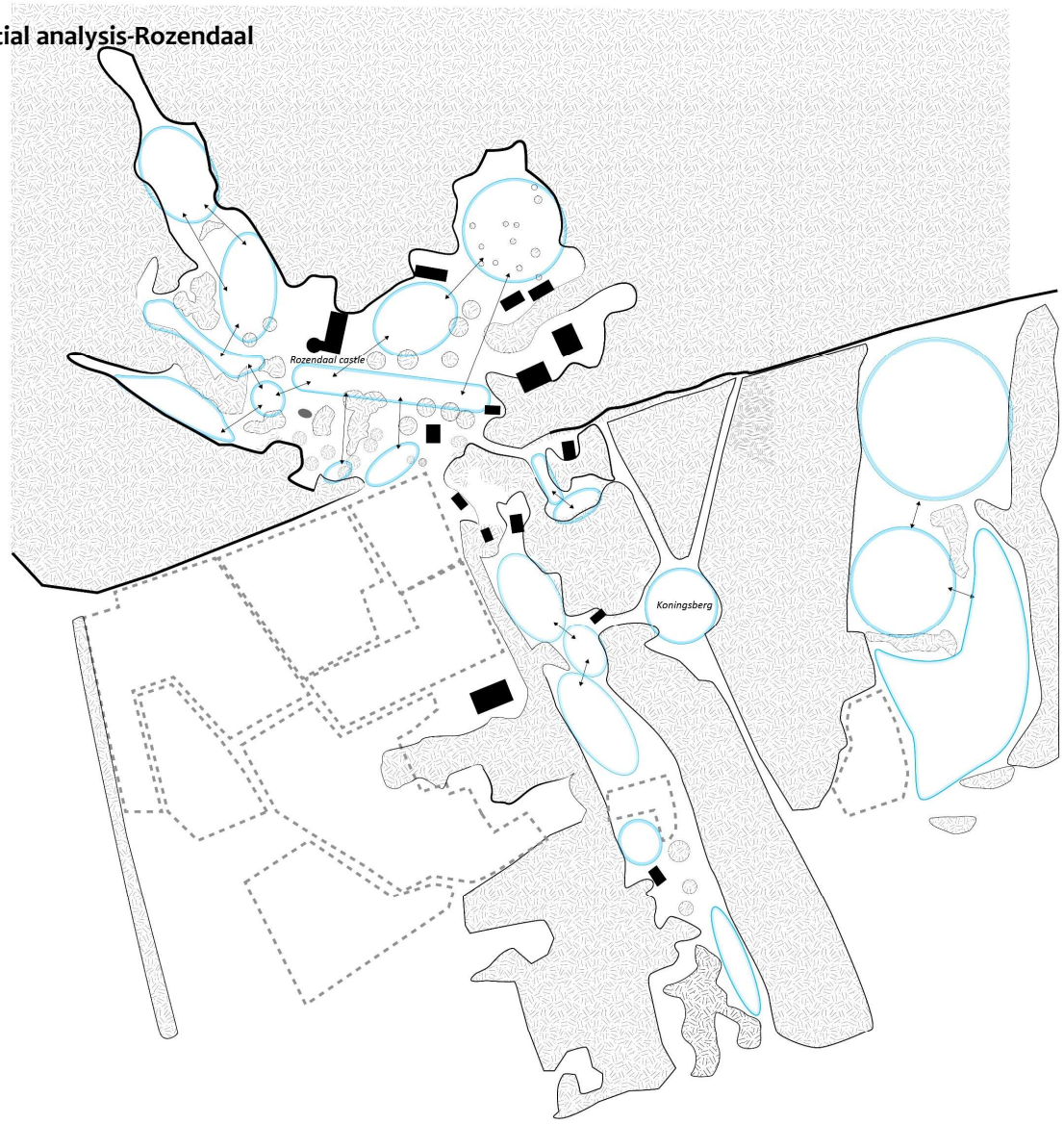




To Razendaal castle

Maybe...
To another park?

Spatial analysis-Rozendaal



Defined space

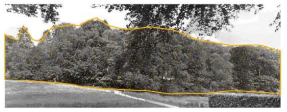
Single house

Neighbour

Rozendaal castle

Perceived presence of boundary High Low

Mass



POTENTIALS

Estate zone

Merge the northern and southern space

Create direct vision from the castle and koningsberg

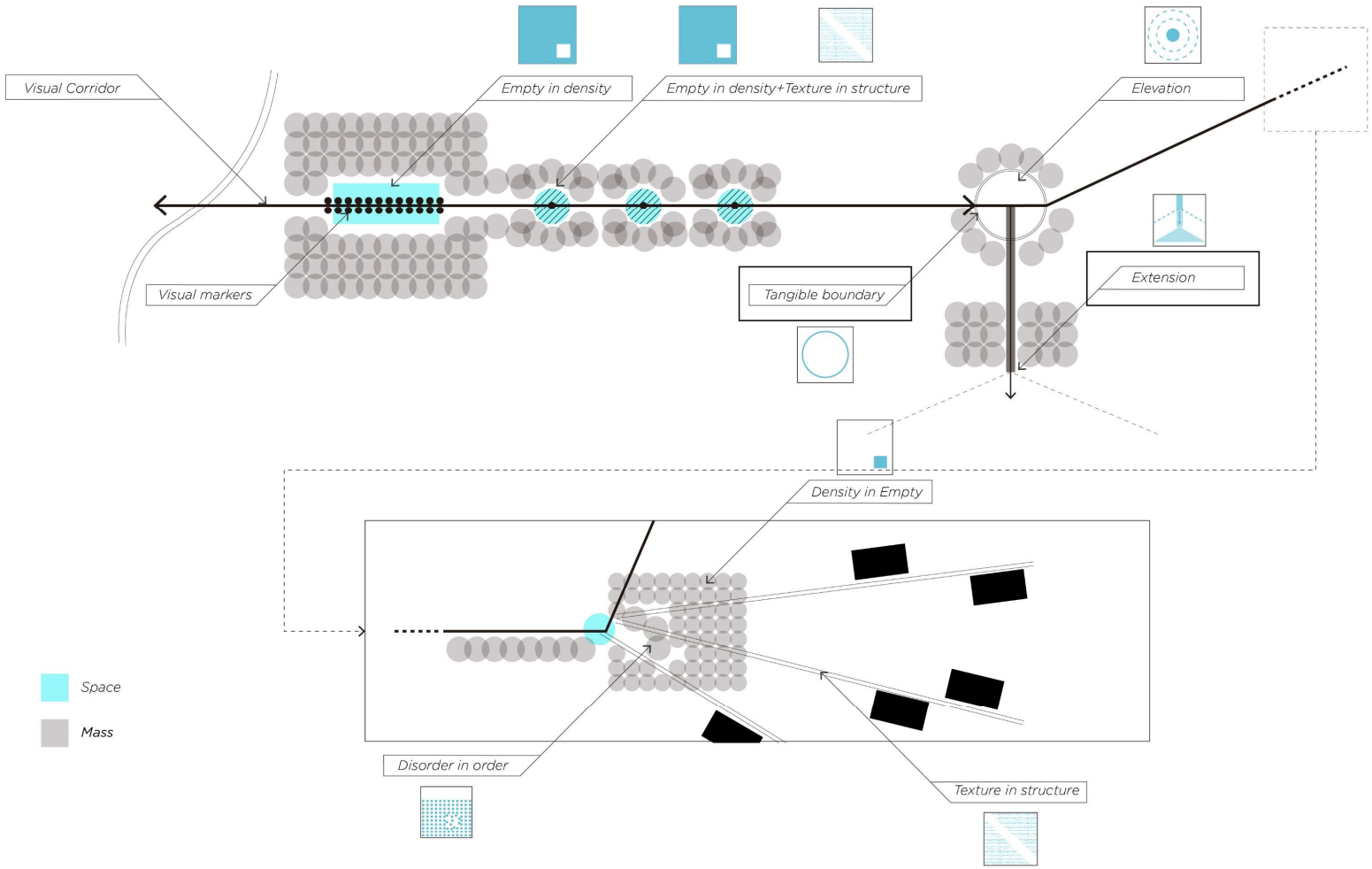
Transition zone

Recreate the estate landscape's panorama

Urbanization zone

Using the visual connection to plan the future urbanization

PRINCIPLE COMPOSITION-ROZENDAAL

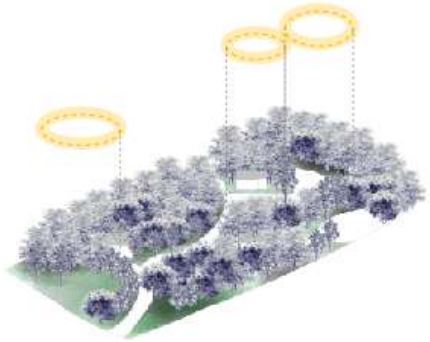



Rozendaal Castle
Koningsberg
New Development
Community
0 25 50 100 M

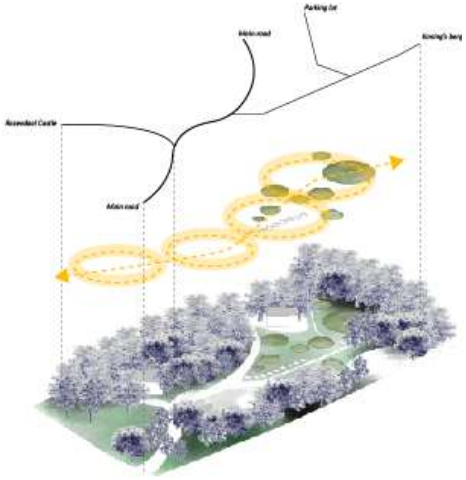
REGIONAL SPACE CHANGE-BEFORE

REGIONAL SPACE CHANGE-AFTER


Rozendaal Castle
1
2
Koningsberg
3
New Development
Community



Before



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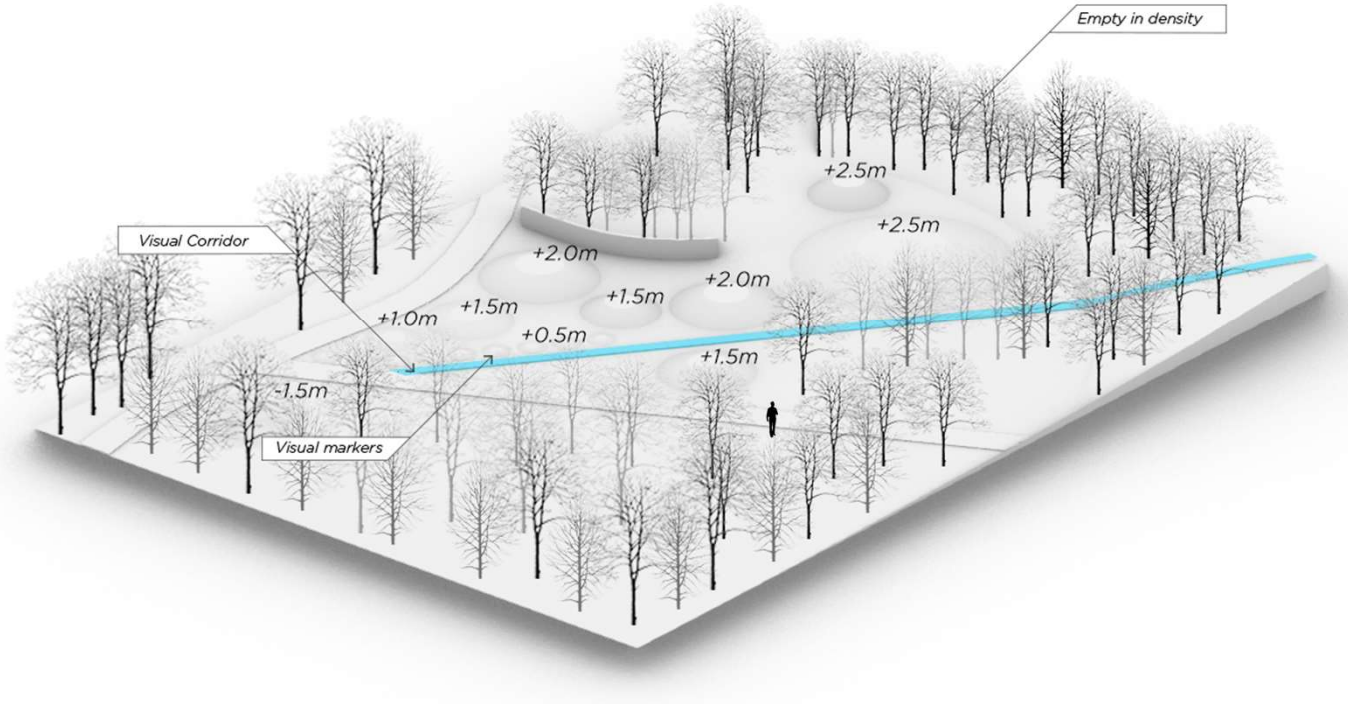

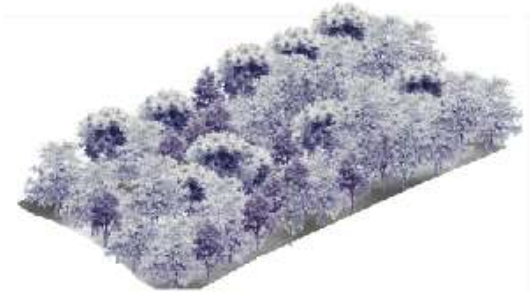

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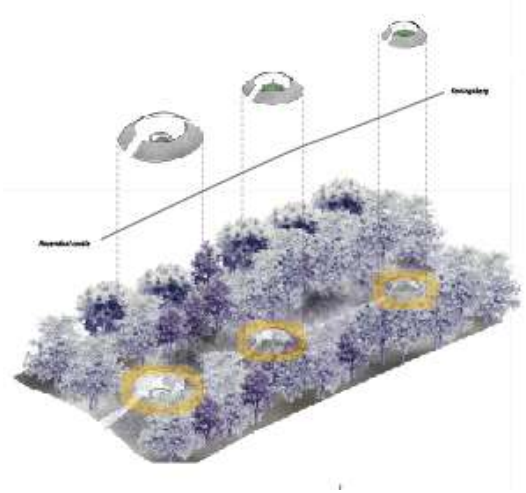

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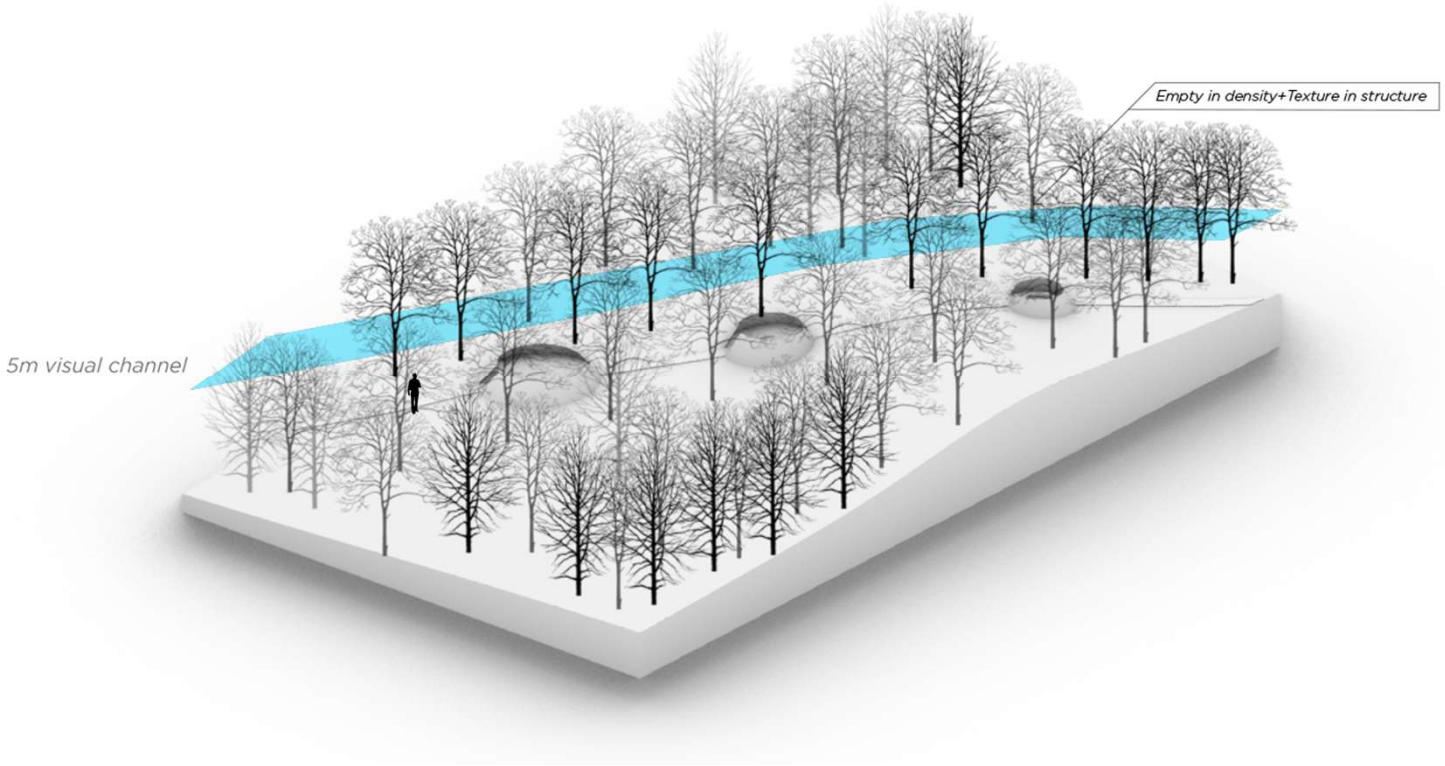
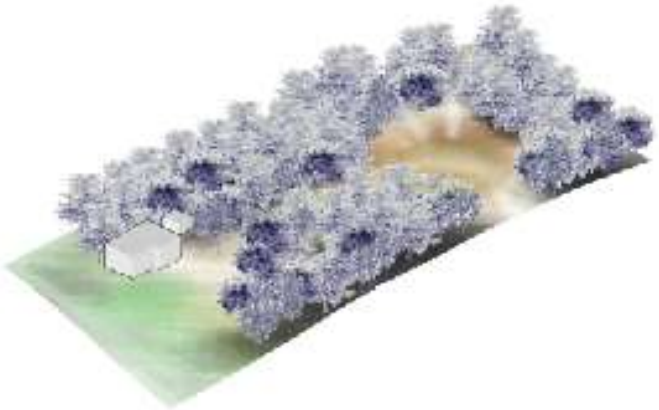
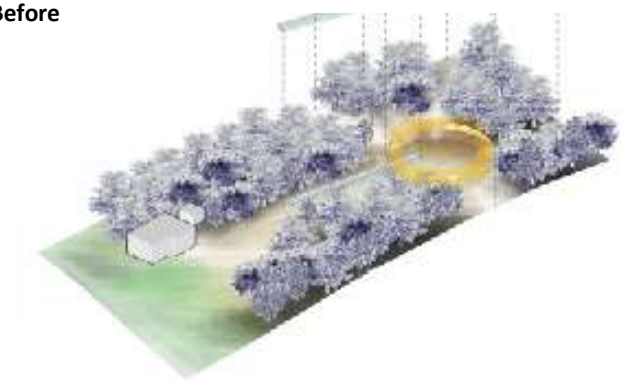




Before



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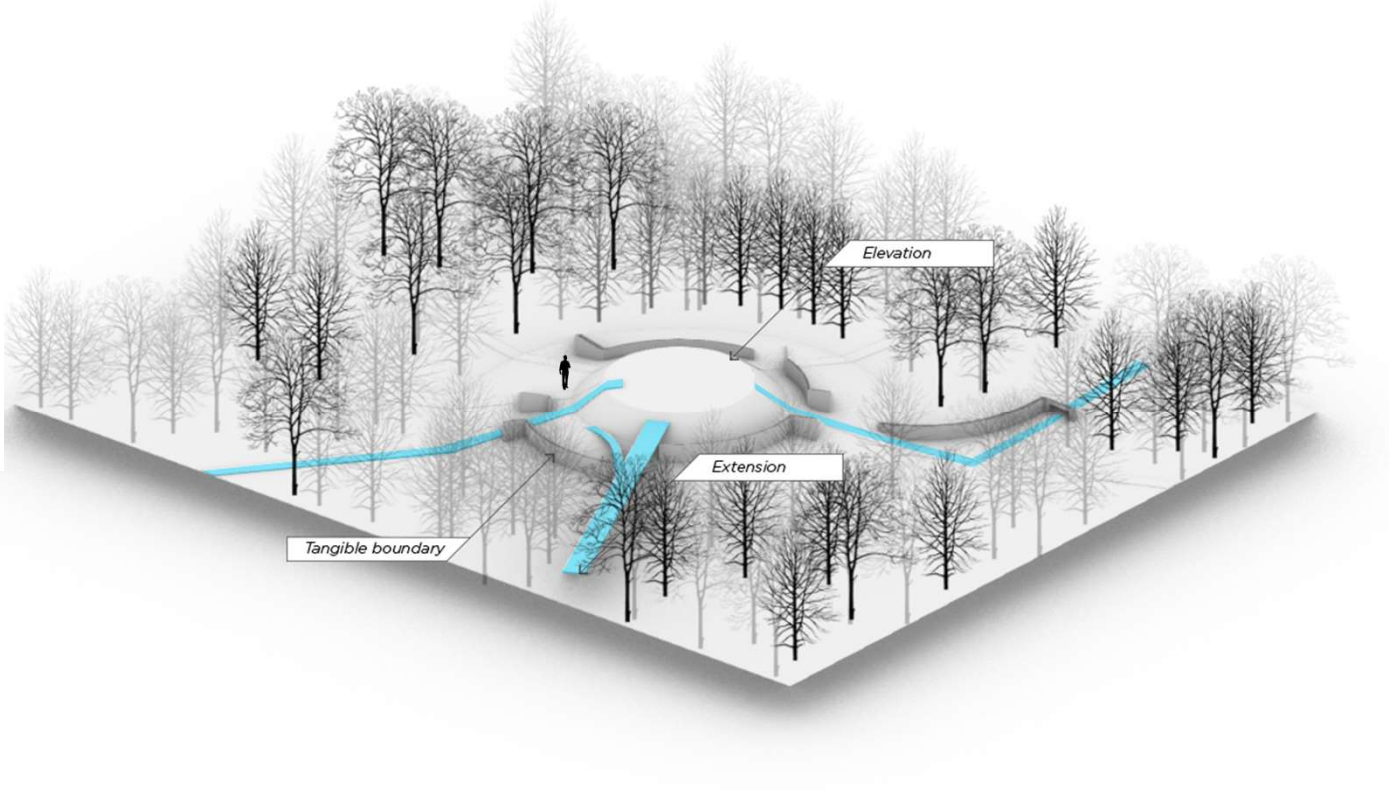
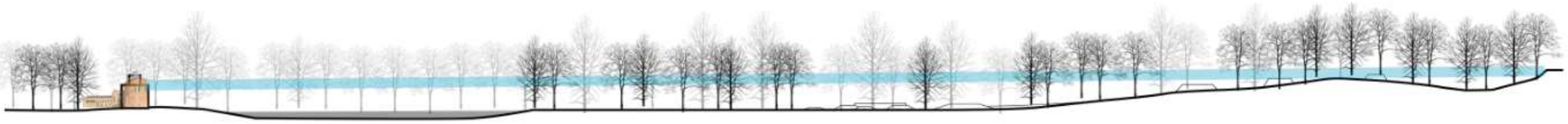




The northern area of Rozendaal is fenced, it has a indirect relation with the surronunding with only few entrances. However the southern part on the other hand has a lot of links to the surroundings but different kind of roads. As for the possible area for the future development, the connect will be based on the exsiting road system to connect with the city,.

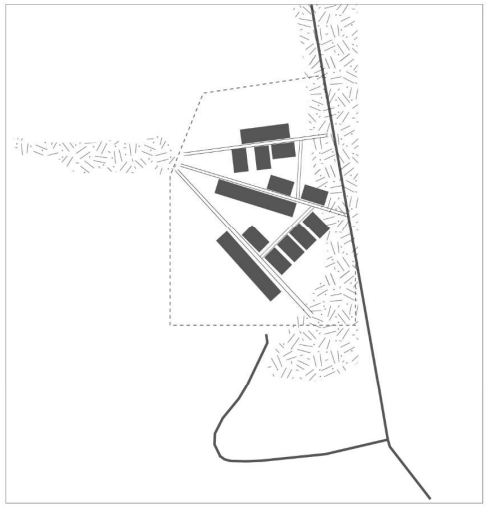
Link to the surroundings

100m

100m

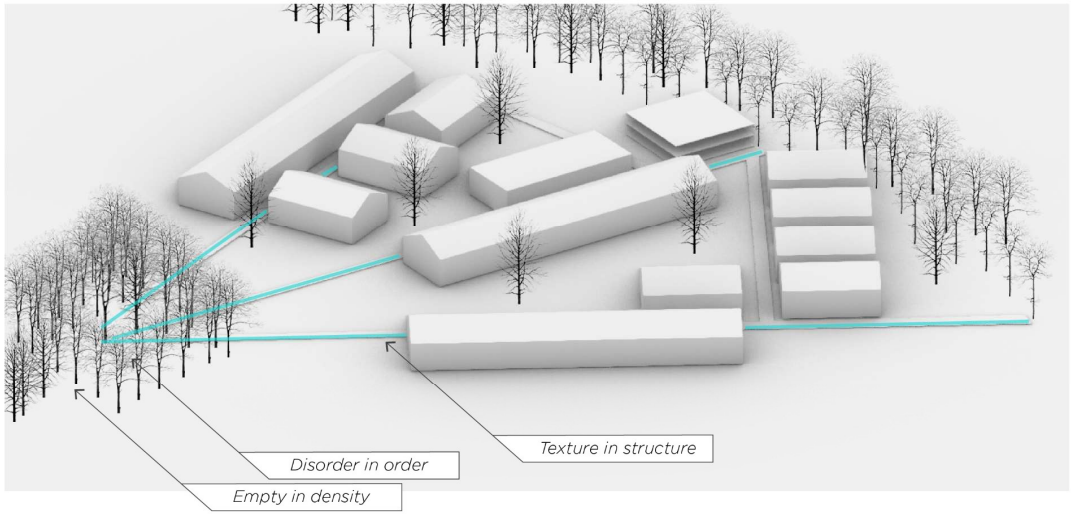
Density of the nearby community
Aprox: 25%

Maximum Buildable height-8m

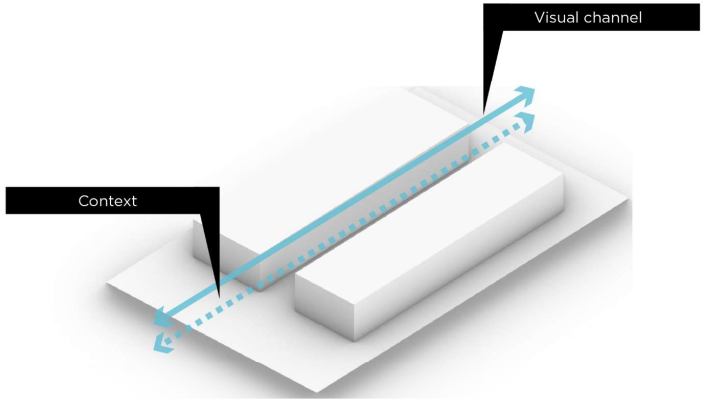


Building Typology

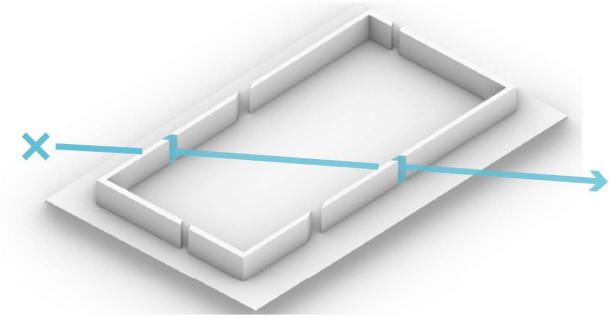
Possible result for the future community



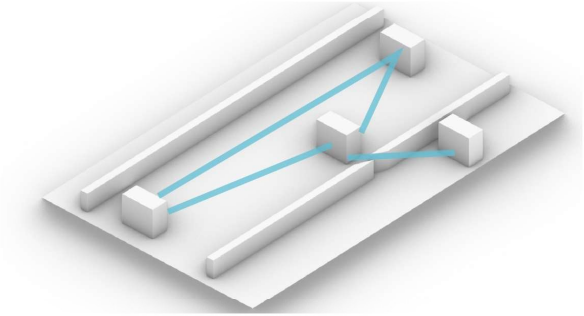
Lessons learned



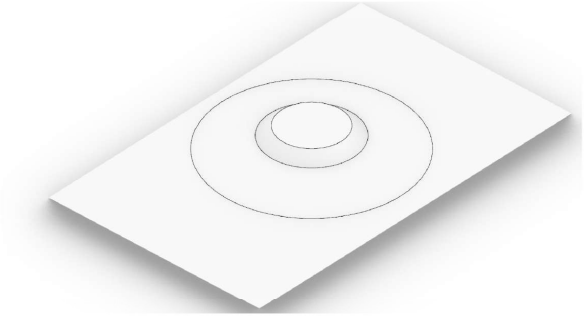
1. Strong background story



2. Remain the pure space

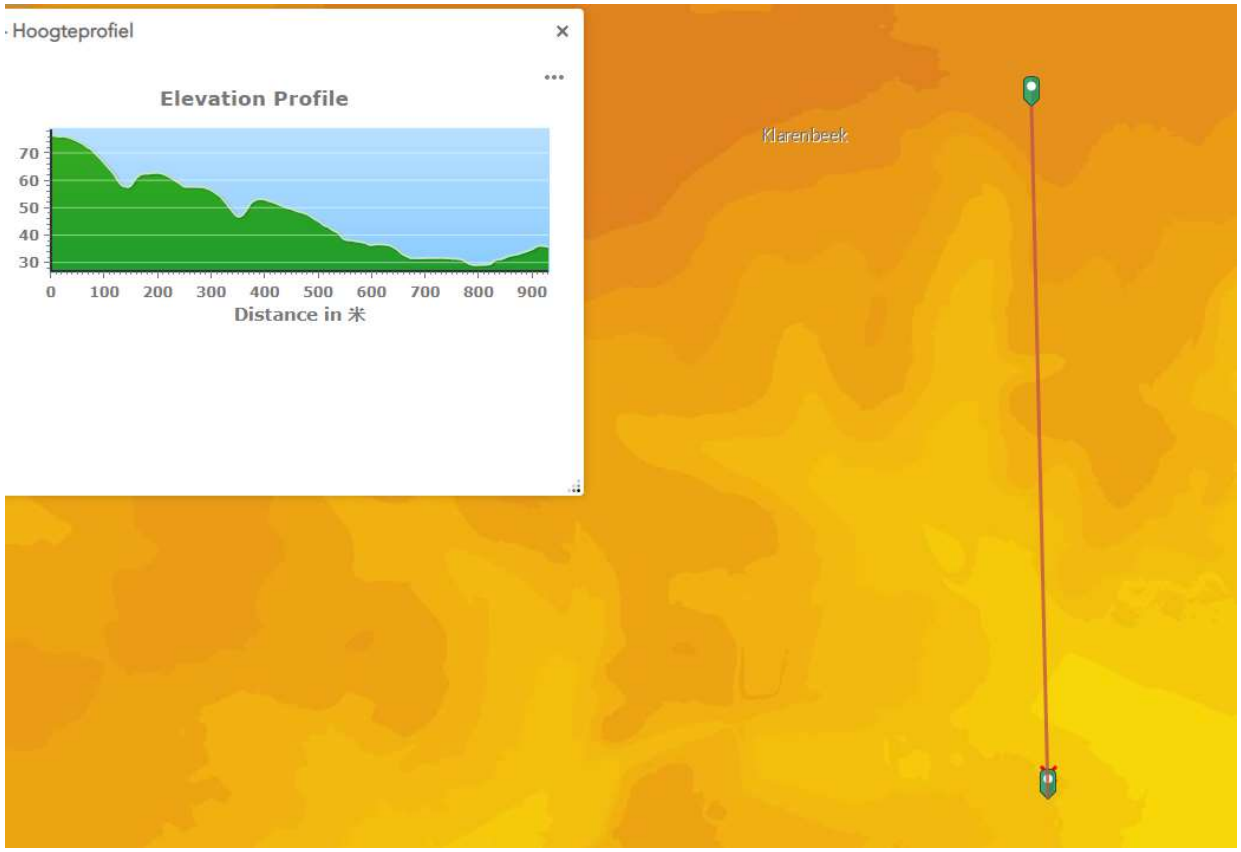


3. Balanced internal and external relations

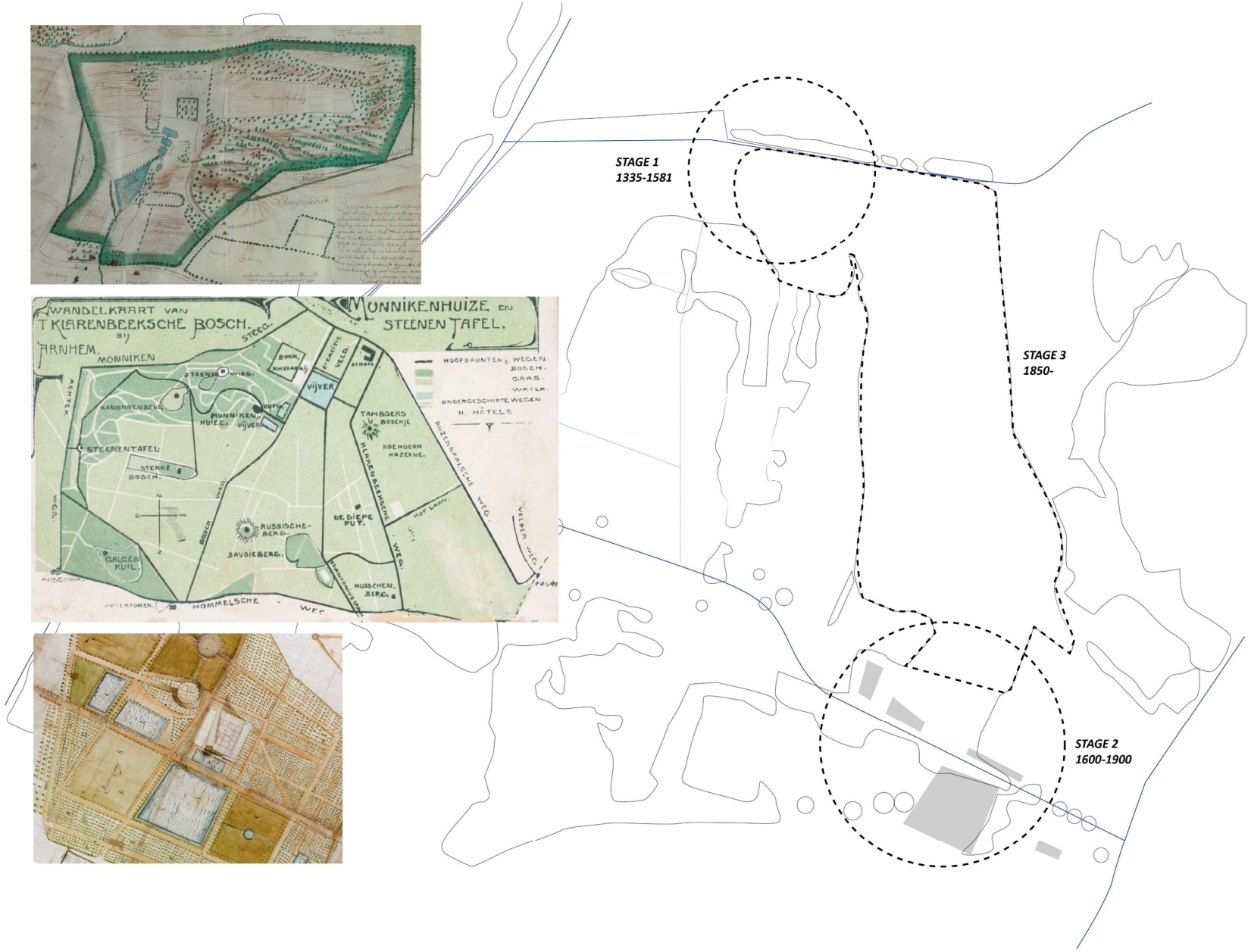


4.Respect the topography

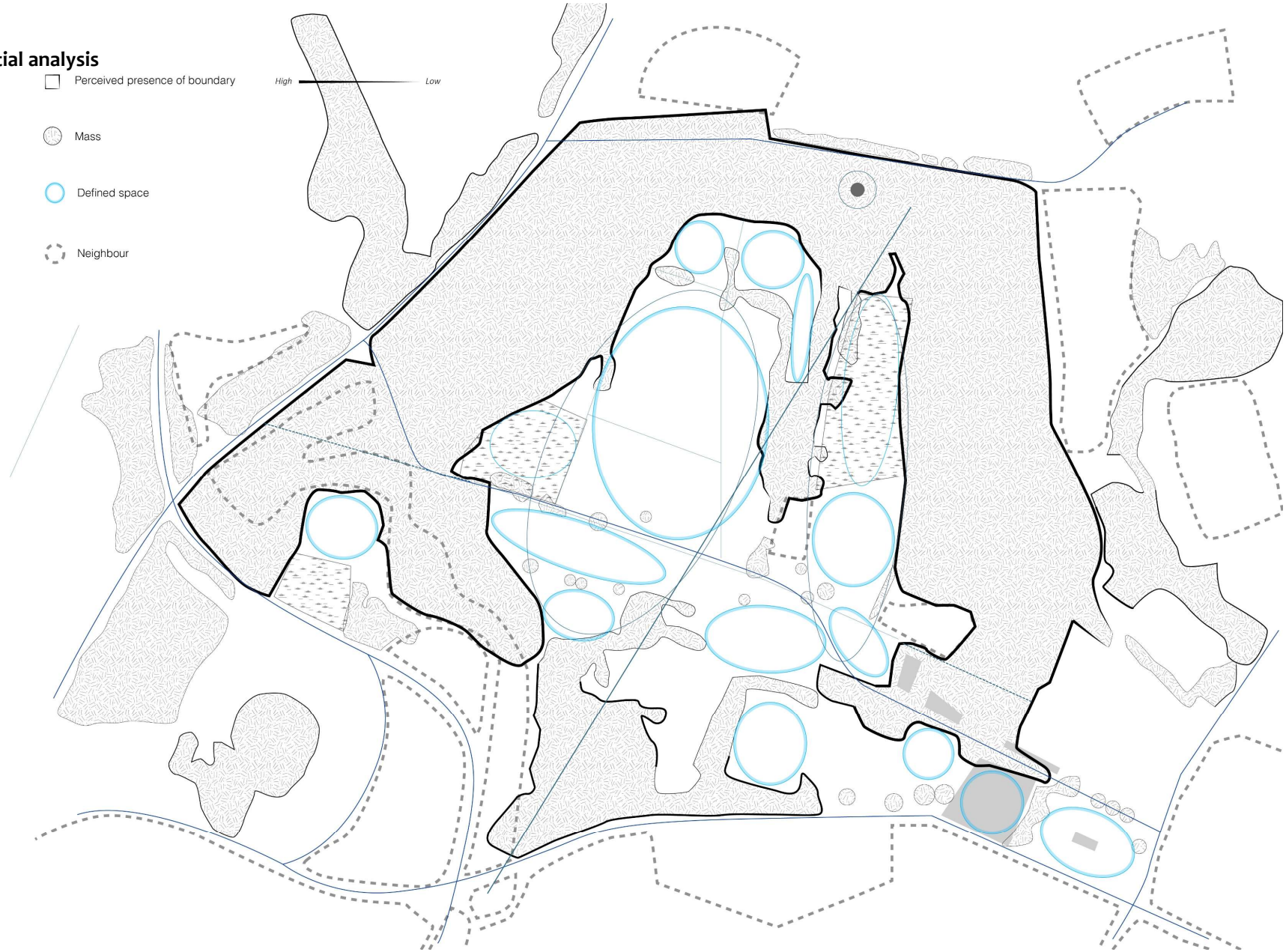
Design Experiment Two——Suggesting Space
Klarenbeek


Hoogteprofiel
Elevation Profile
70
60
50
40
30
0
100
200
300
400
500
600
700
800
900
Distance in 米
Klarenbeek

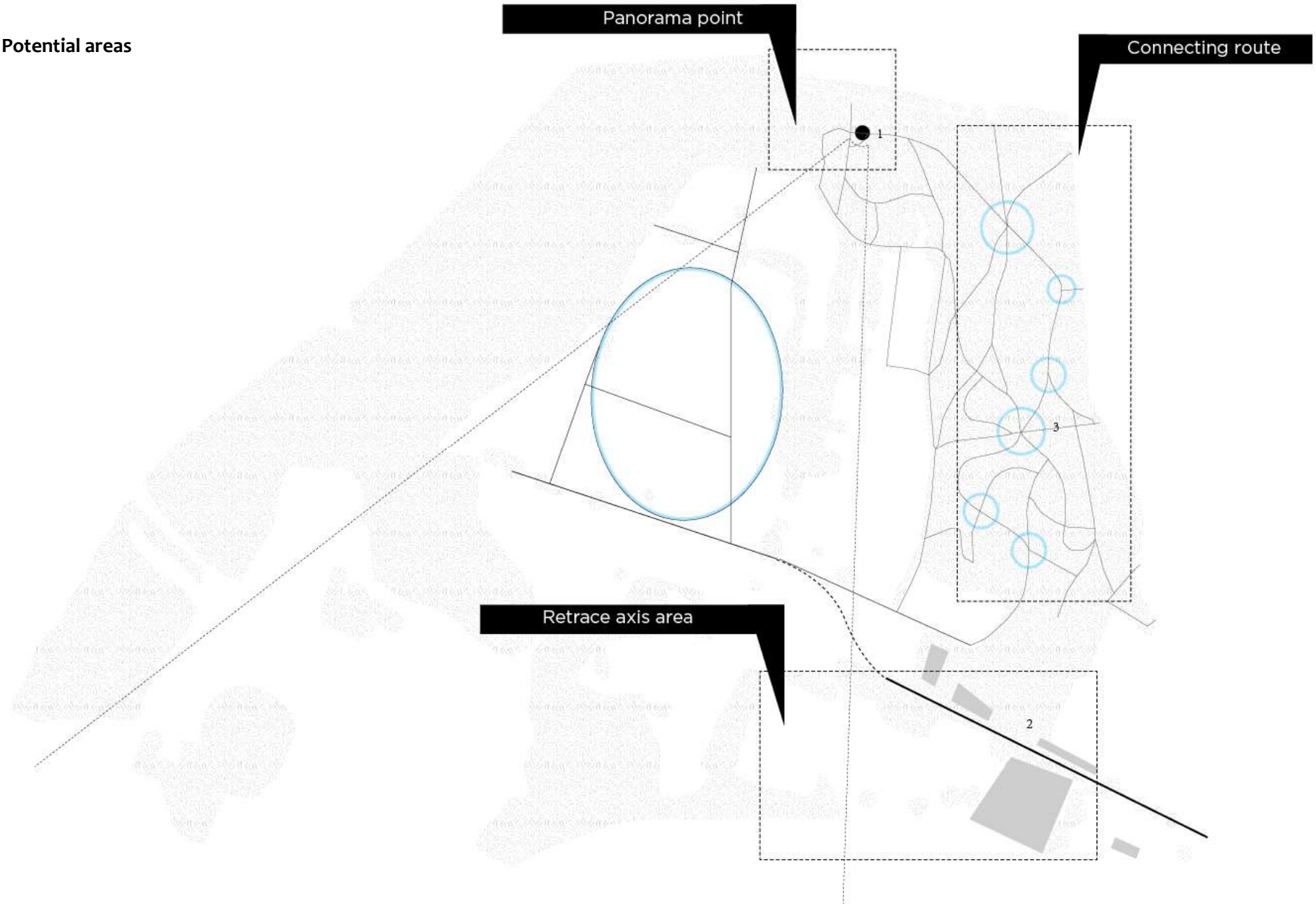
WANDELKAART VAN
T KLAREMBEEKSCHE BOSCH.
BIJ
ARNHEM.
MONNIKEN
MONNIKENHUIZE EN
STEENEN TAFEL.
HOOFDPUNTEN, WEGEN. BOSCH. GRAS. WATER.
ONDERGESCHIKTE WEGEN
H. HÔTELS
STEENEN TAFEL
KANONNENBERG
MONNIKEN HUIZE
VIJVER
TAMBOERS BOSCHJE
KOEHOORN KAZERNE.
KLAREMBEEKSCHE
RUSSISCHE BERG
BEDIEPE PUT
SAVOIEBERG.
GALGEN KUIL
MUSSCHEN BERG
HOMMELSCHE WEG
WATERTOREN.

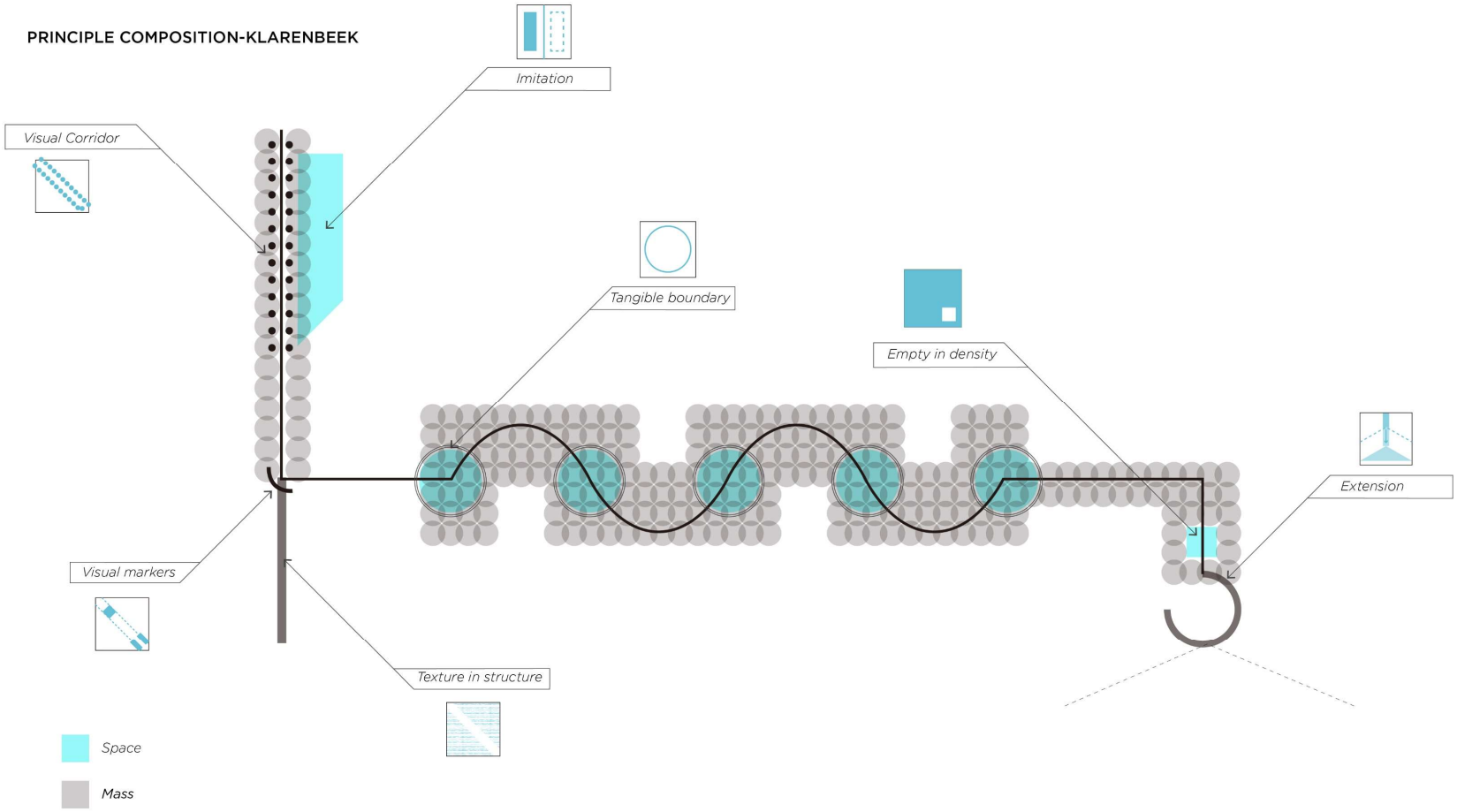

STAGE 1
1335-1581
STAGE 3
1850-
STAGE 2
1600-1900

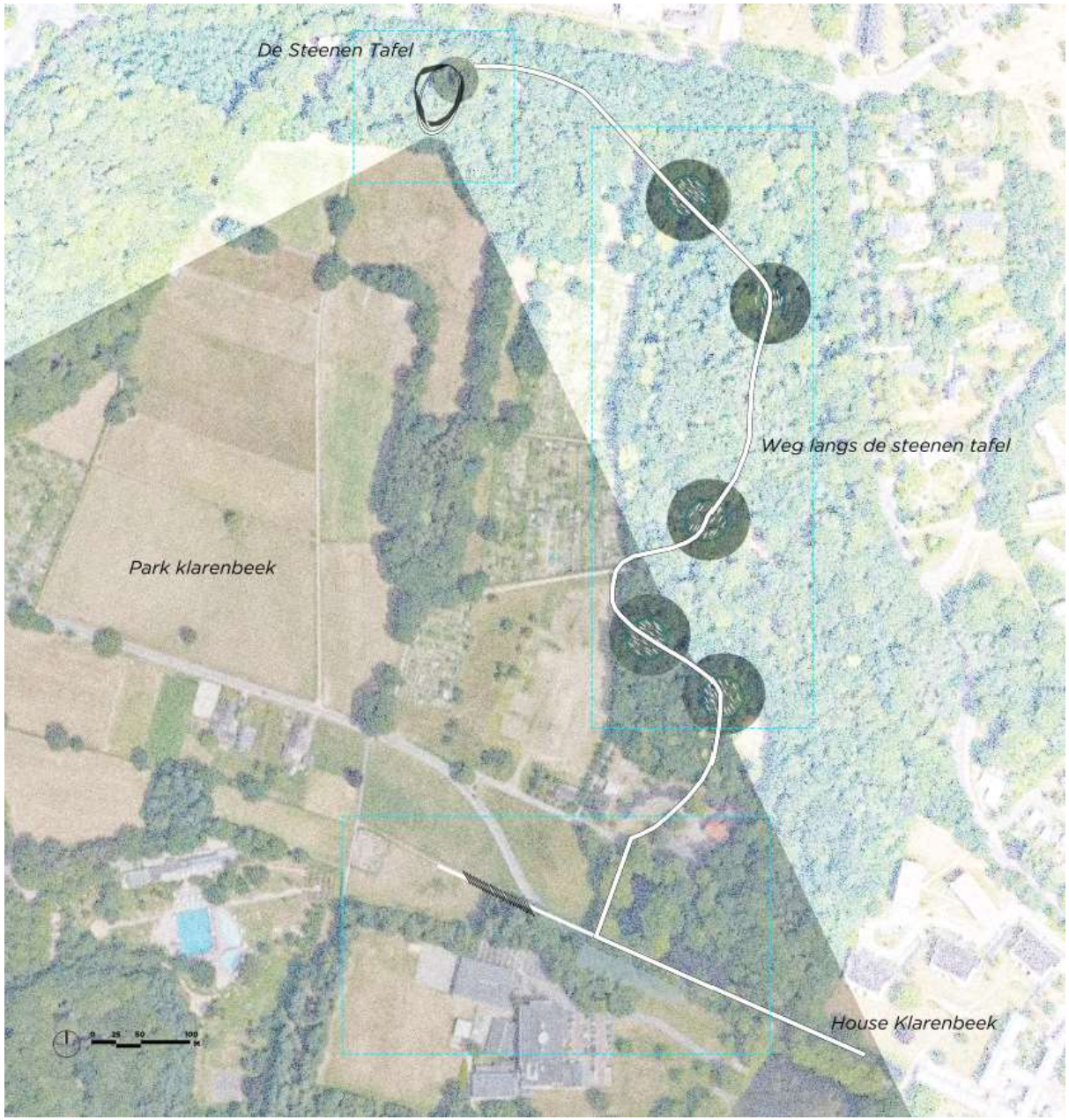
Spatial analysis



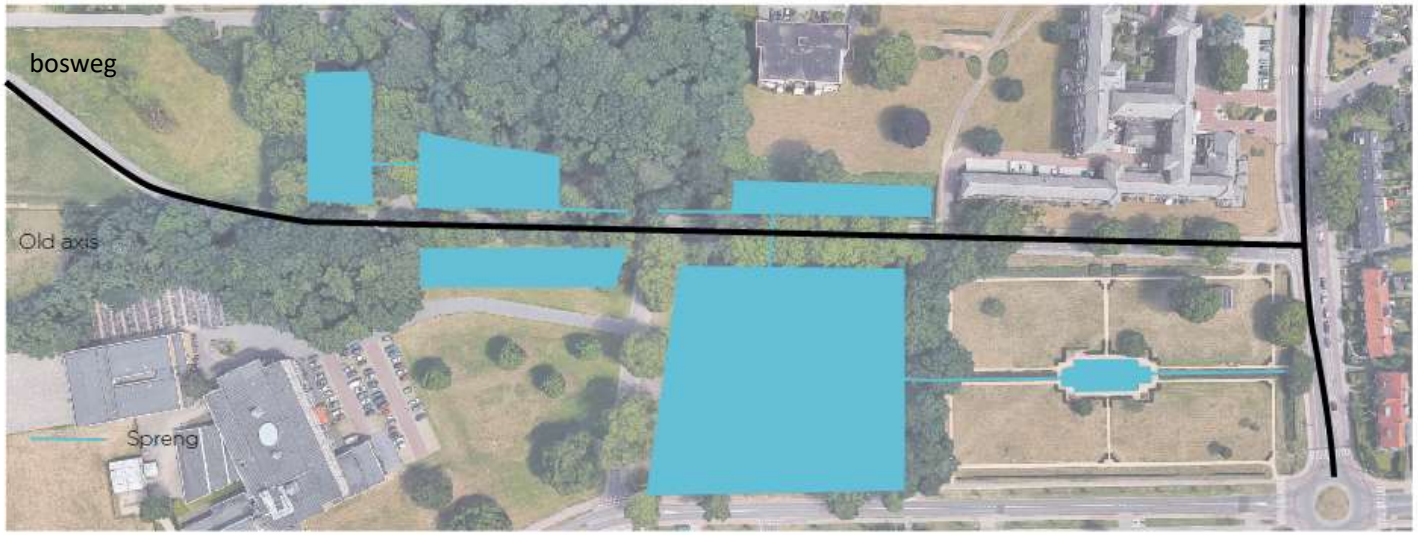
Potential areas

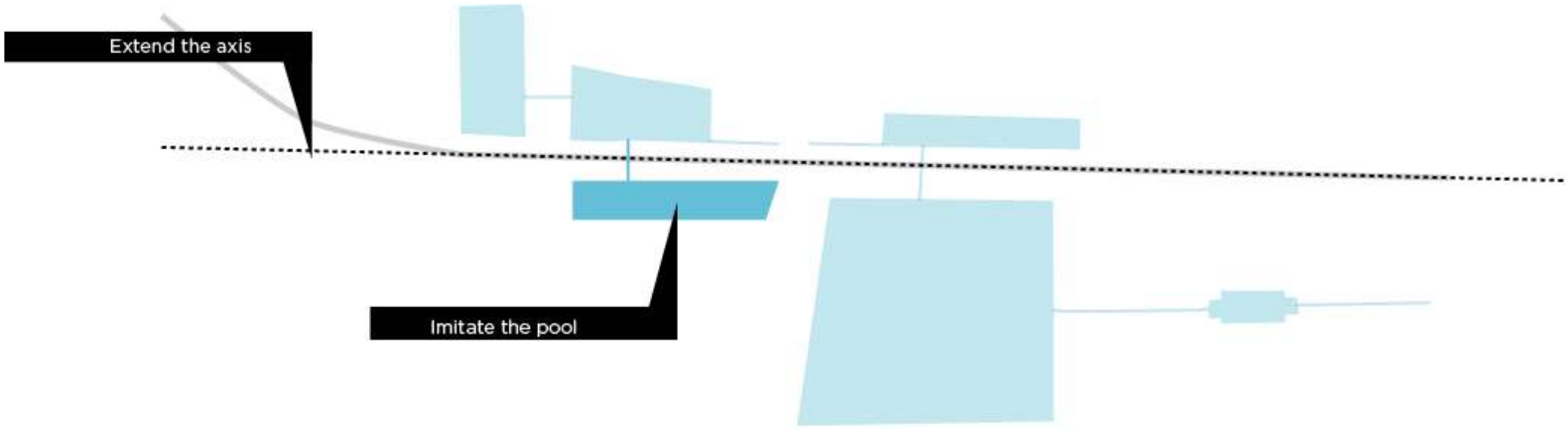



PRINCIPLE COMPOSITION-KLARENBEEK
Imitation
Visual Corridor
Tangible boundary
Empty in density
Extension
Visual markers
Texture in structure
Space
Mass

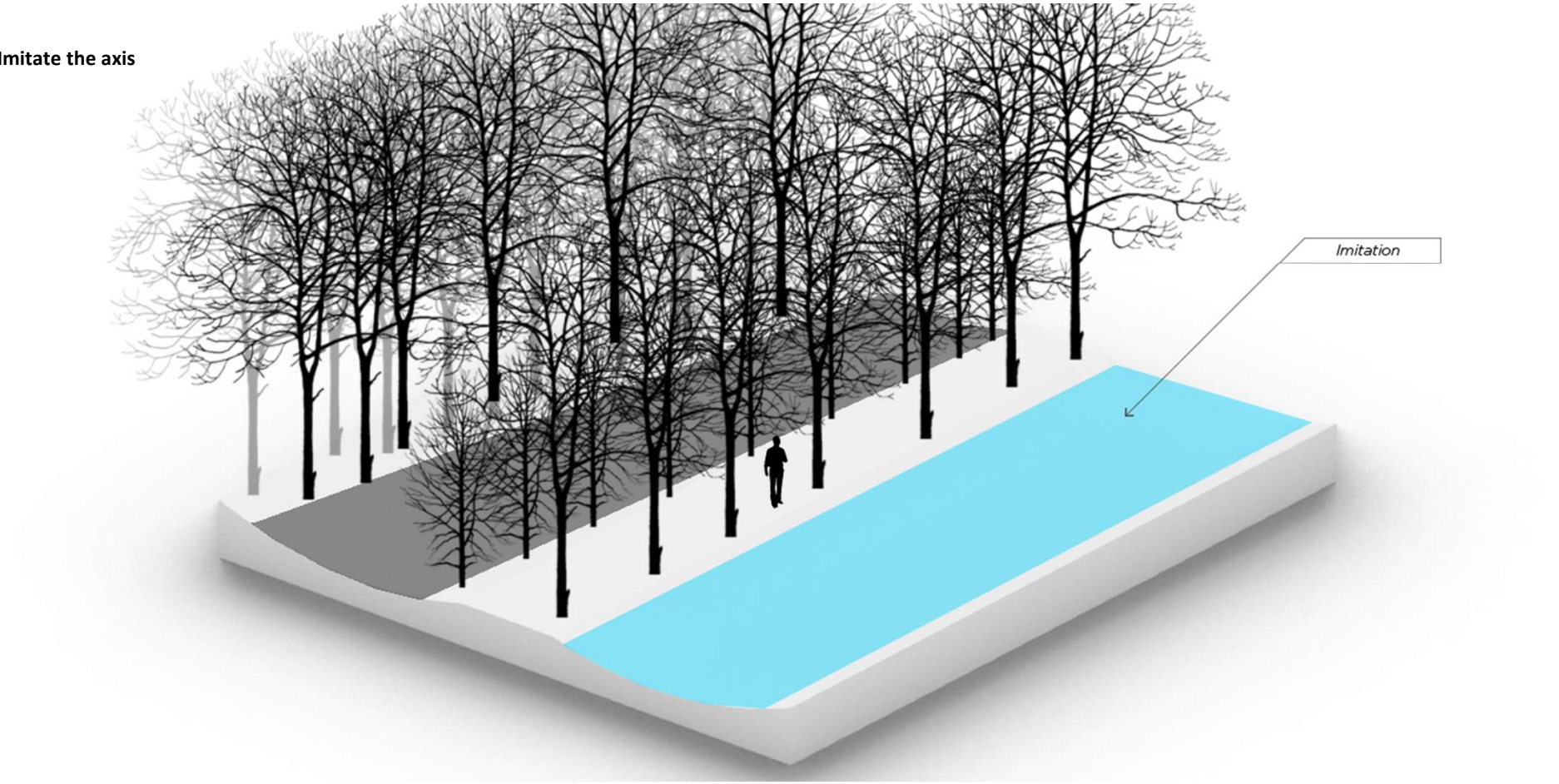

De Steenen Tafel
Weg langs de steenen tafel
Park klarenbeek
House Klarenbeek

Condition diagram

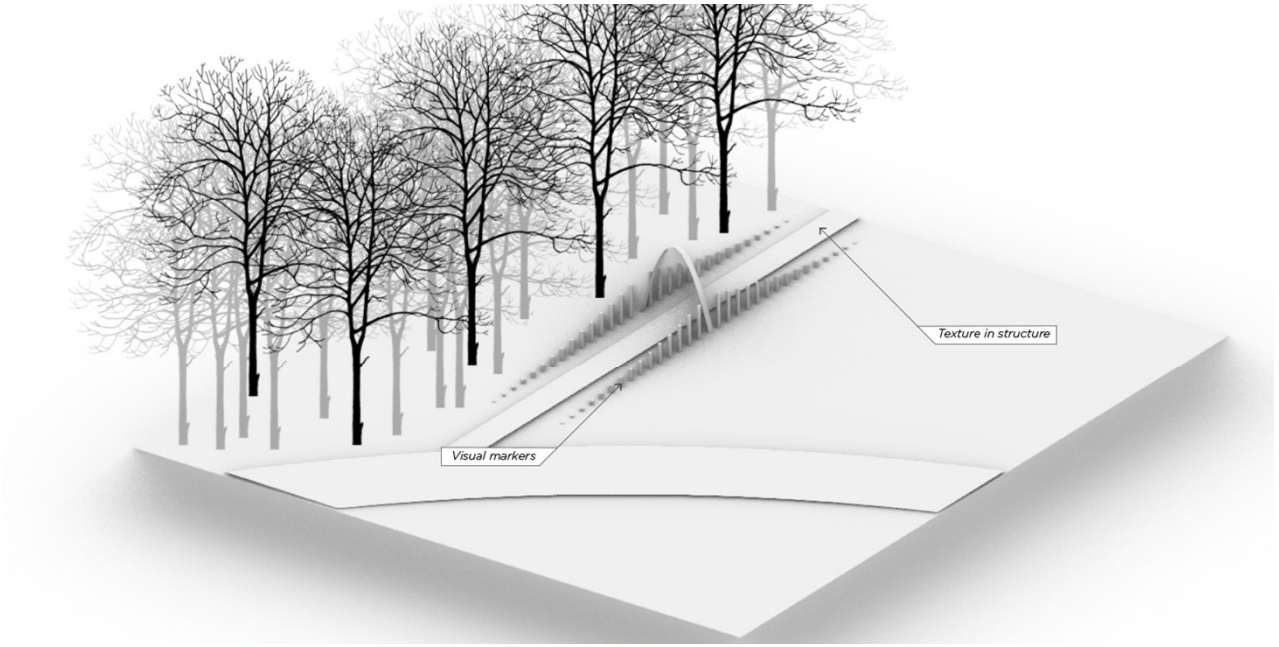


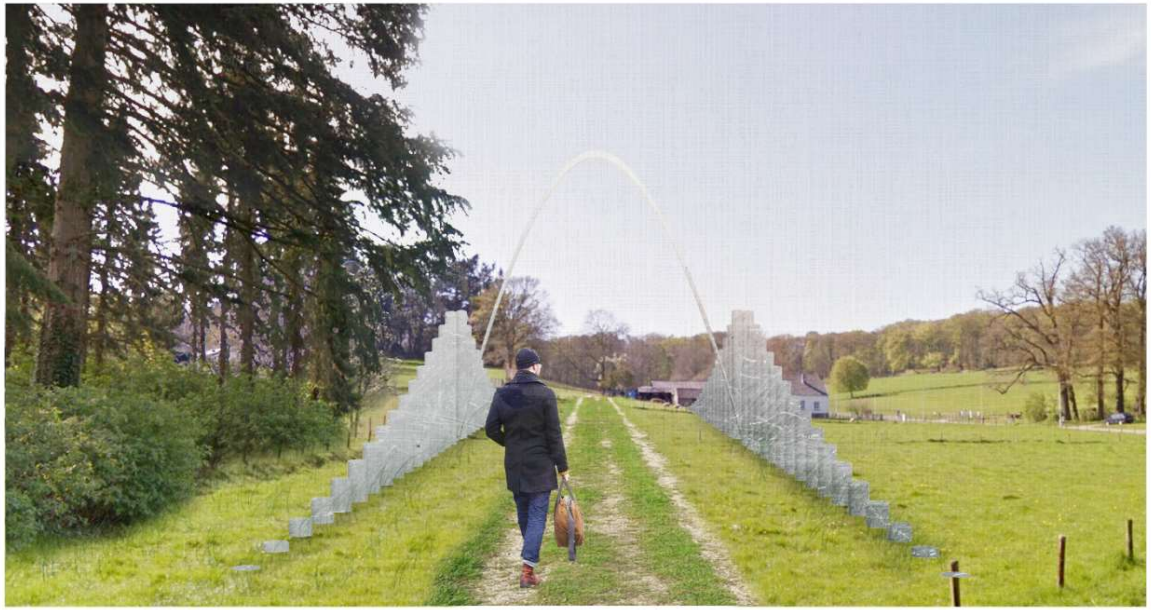


Imitate the axis

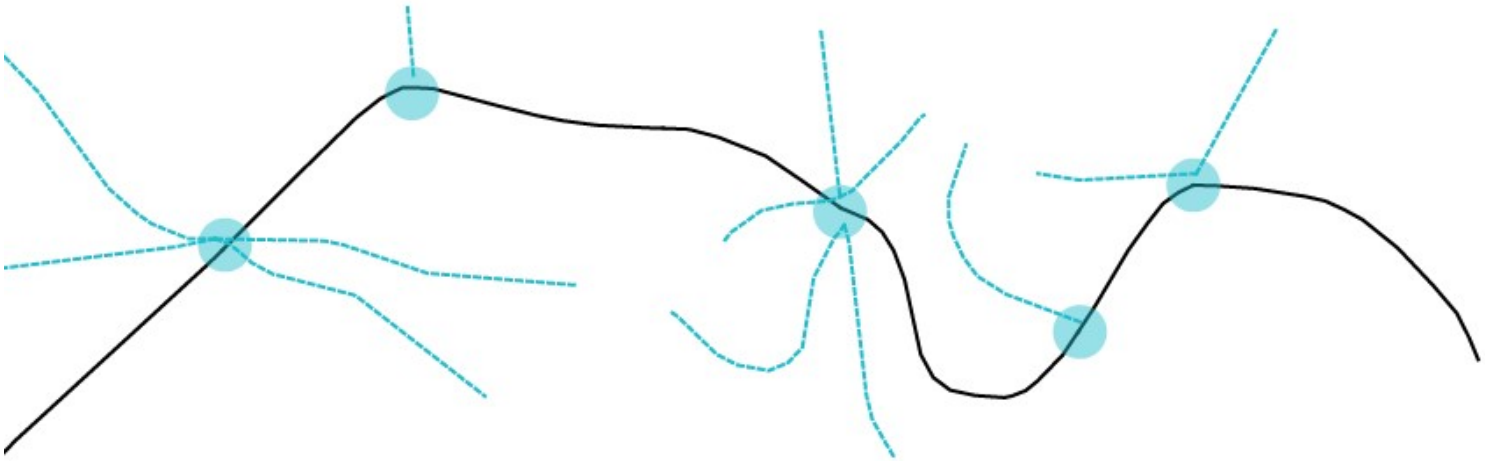


Extend the axis

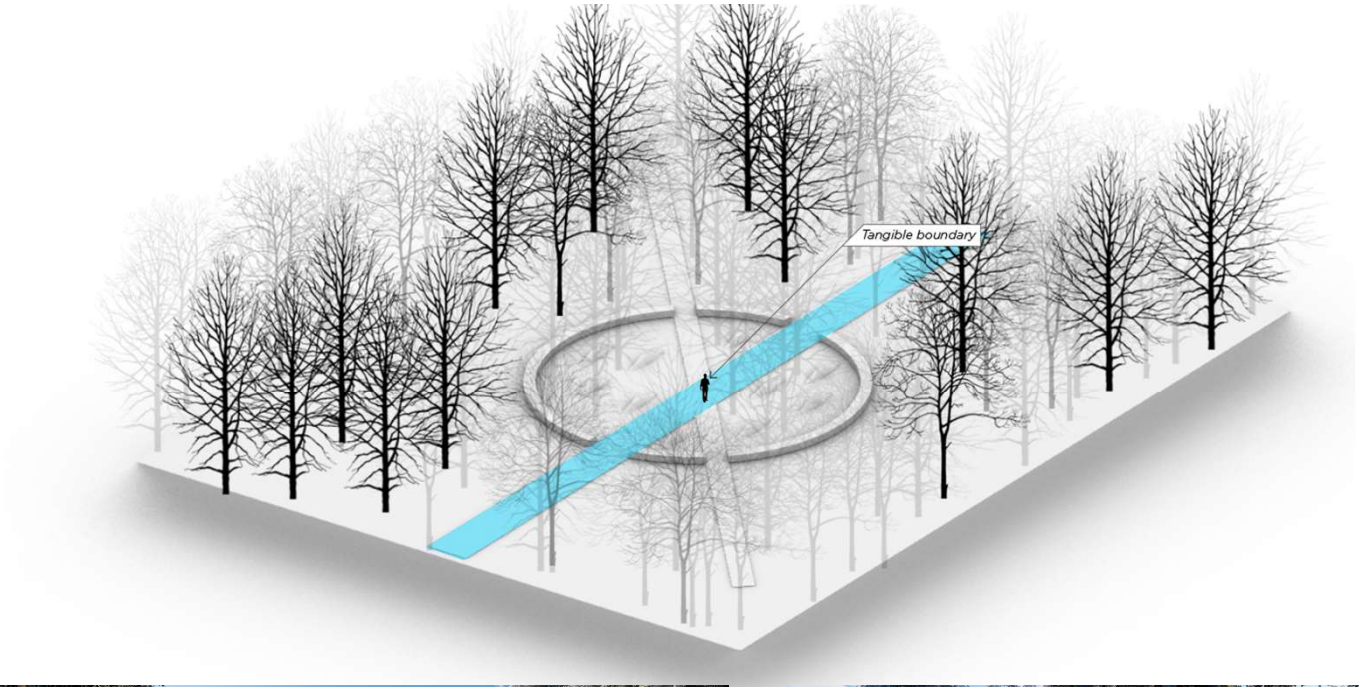


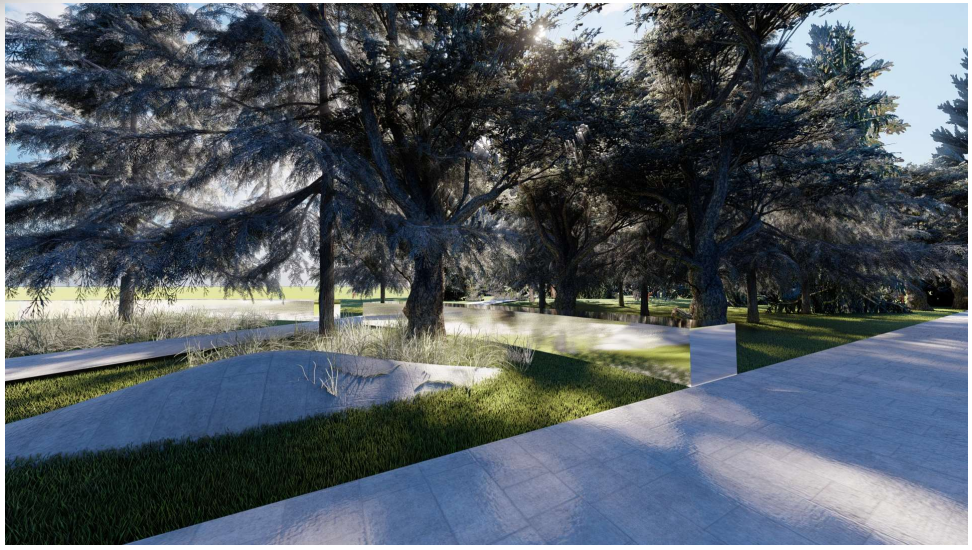


Routine analysis



Space in the forest

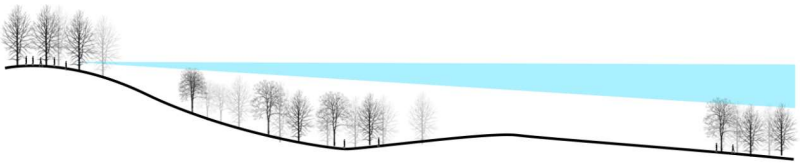


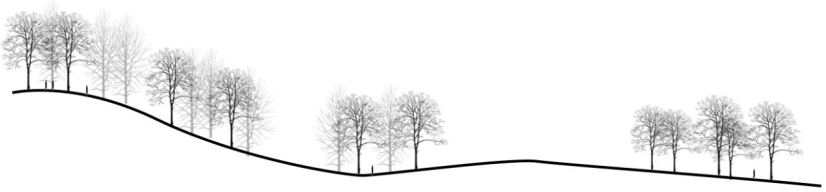


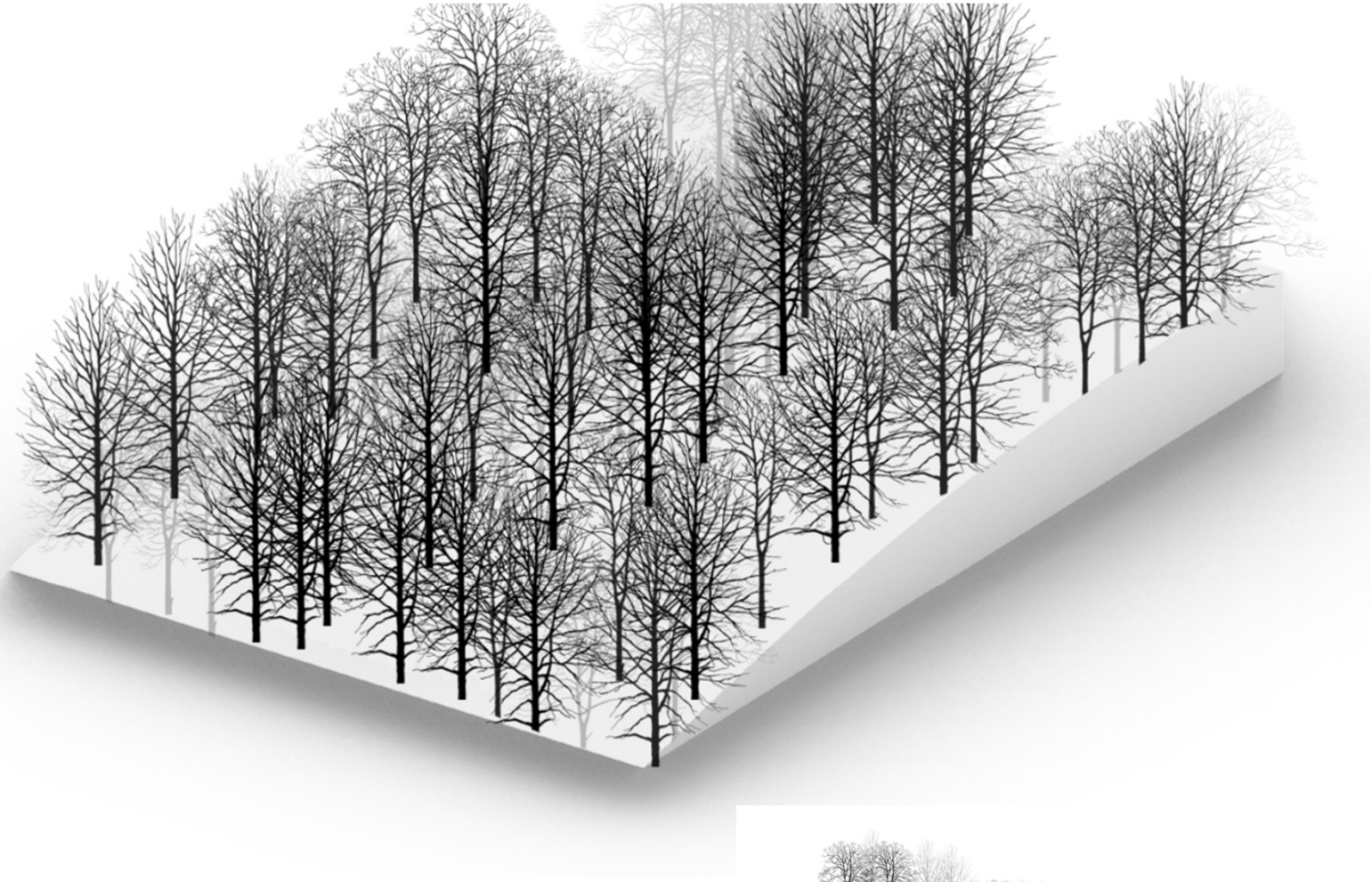
Comparison of De steenen tafel

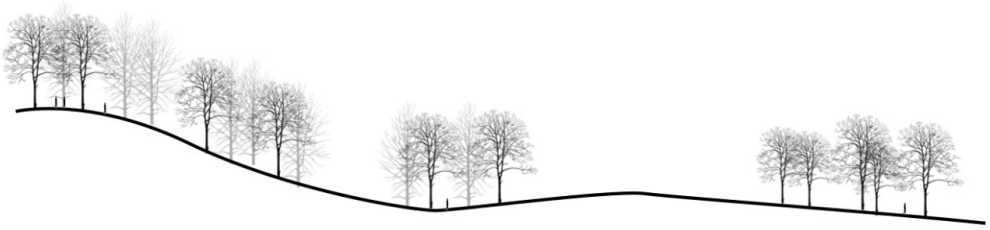
De steenen tafel 1890

De steenen tafel now

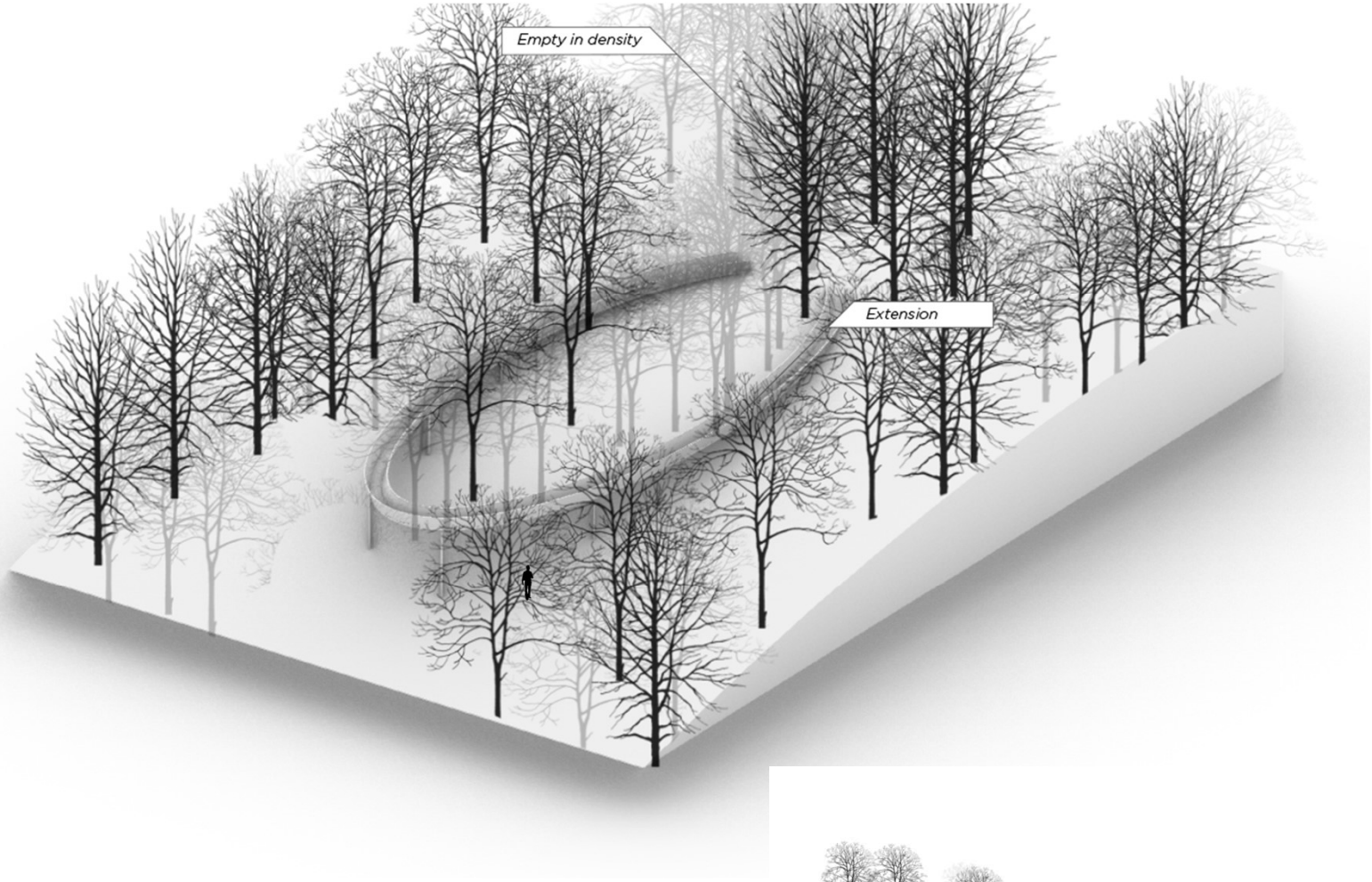


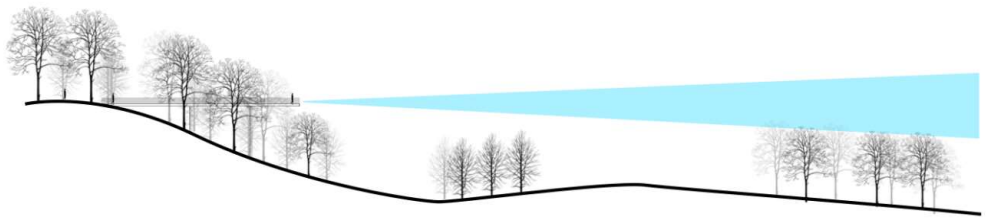




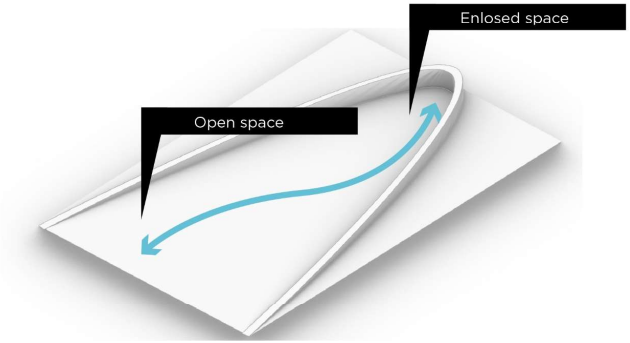


After



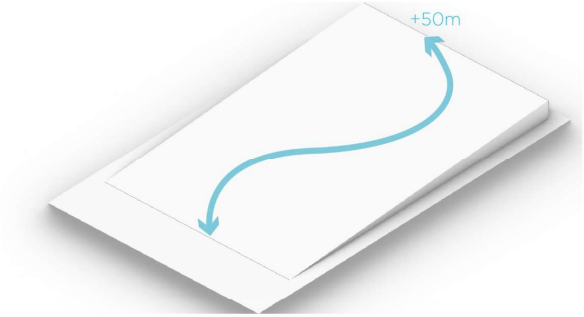


Lessons learned



1. Comprehensive story for various of space

2. Use the best of the current connections



3. Repect the topography

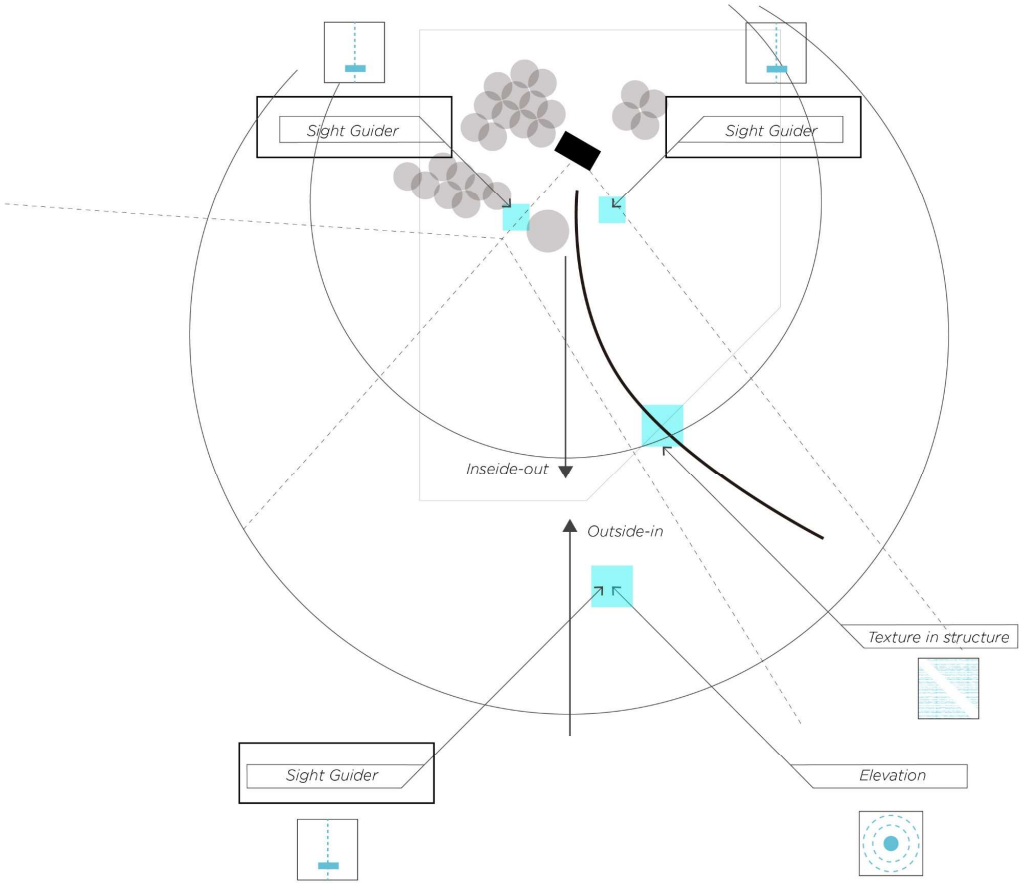
Design Experiment Three——Open Space

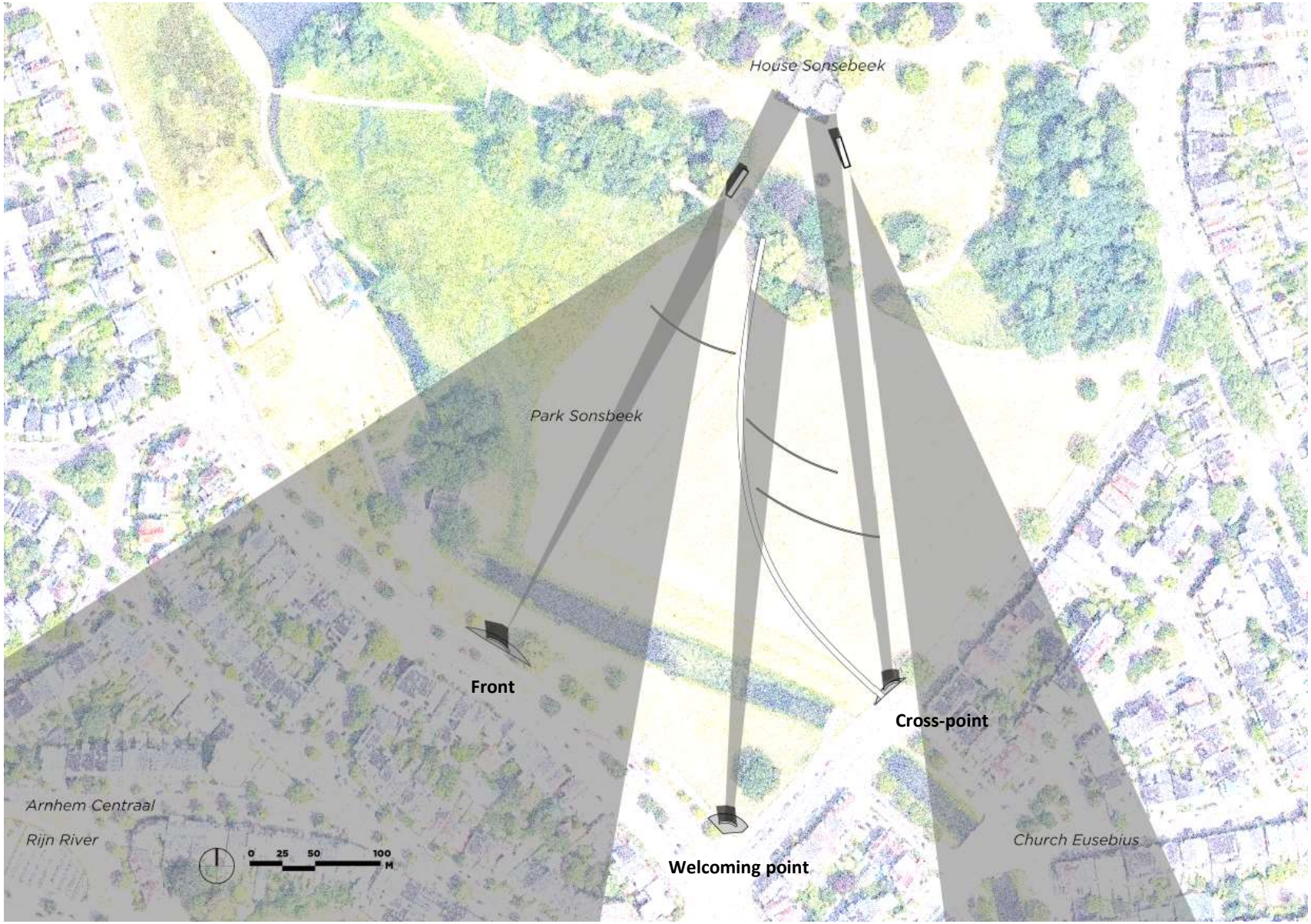
Sonsbeek


Zijpscheweg

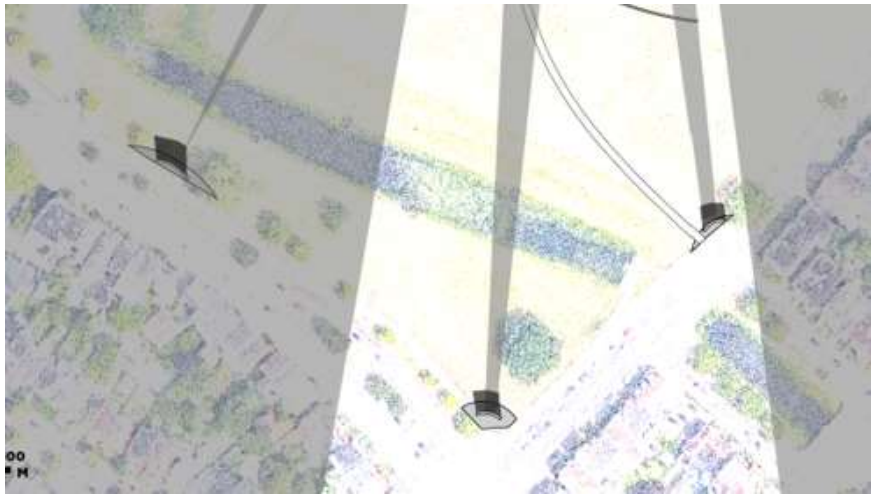
Spatial anaylsis

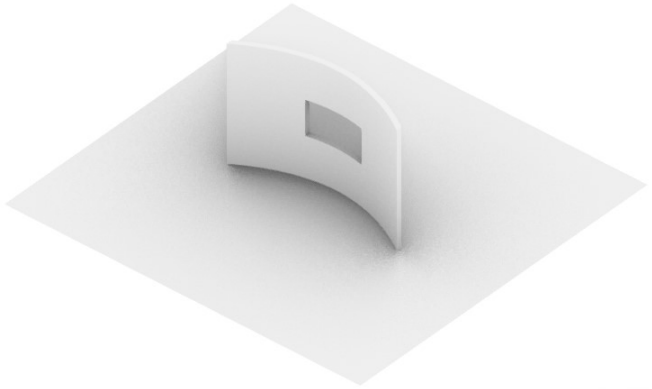
PRINCIPLE COMPOSITION-SONSBEEK



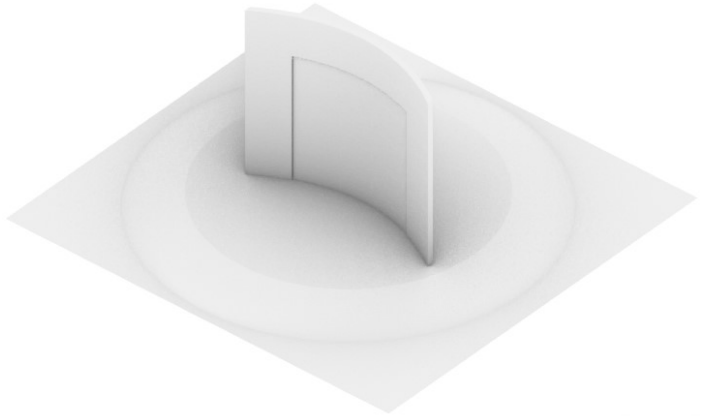

House Sonsebeek
Park Sonsbeek
Front
Cross-point
Welcoming point
Arnhem Centraal
Rijn River
Church Eusebius
0 25 50 100 M

Three visual guider from city to Sonsbeek

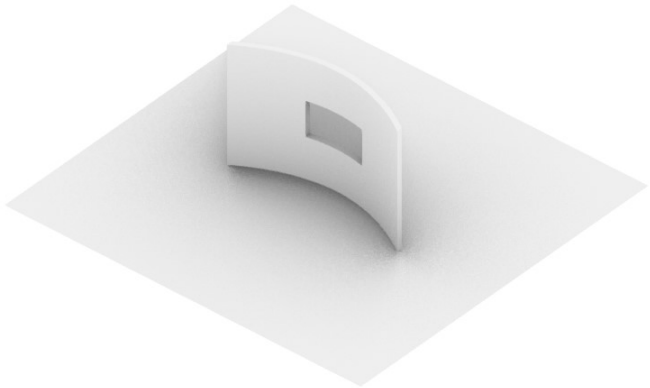




Front

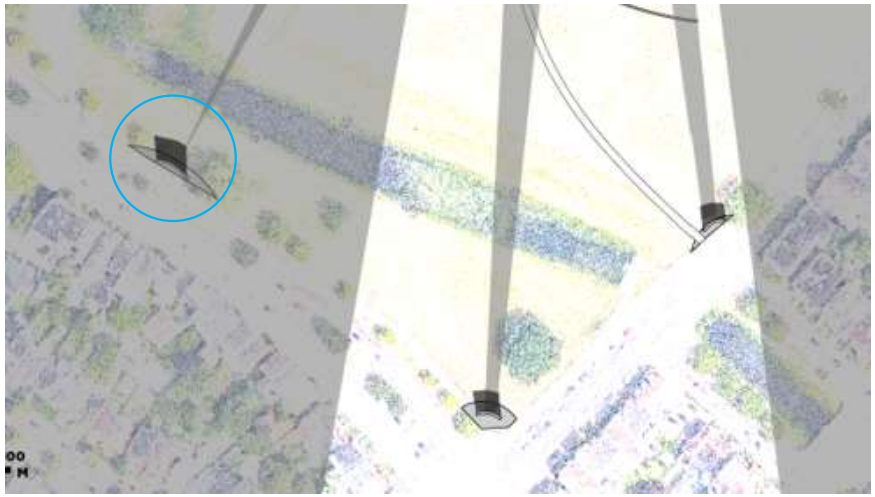


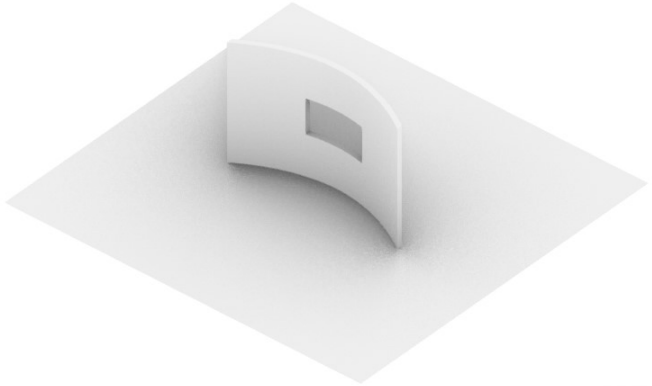
Welcoming point



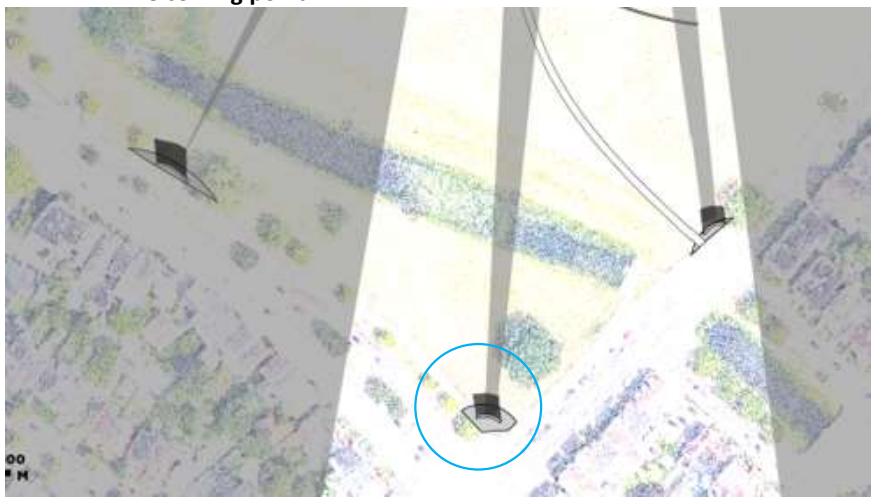
Cross-point

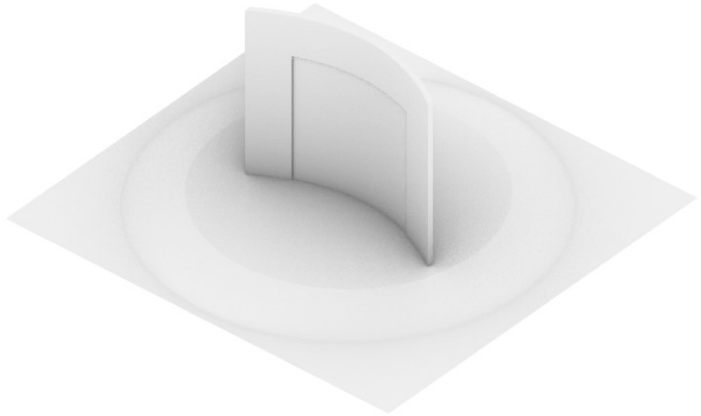
Front



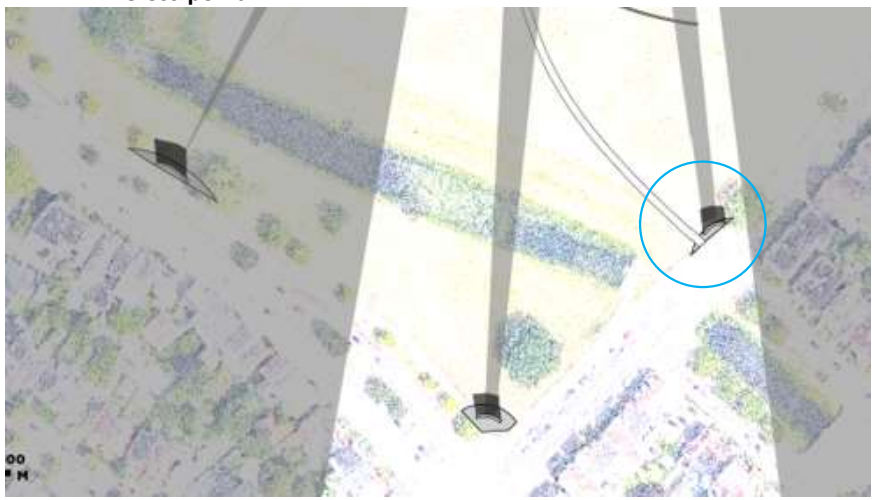


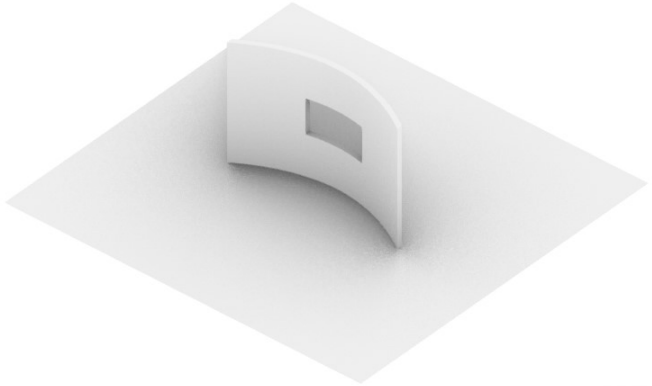
Welcoming point

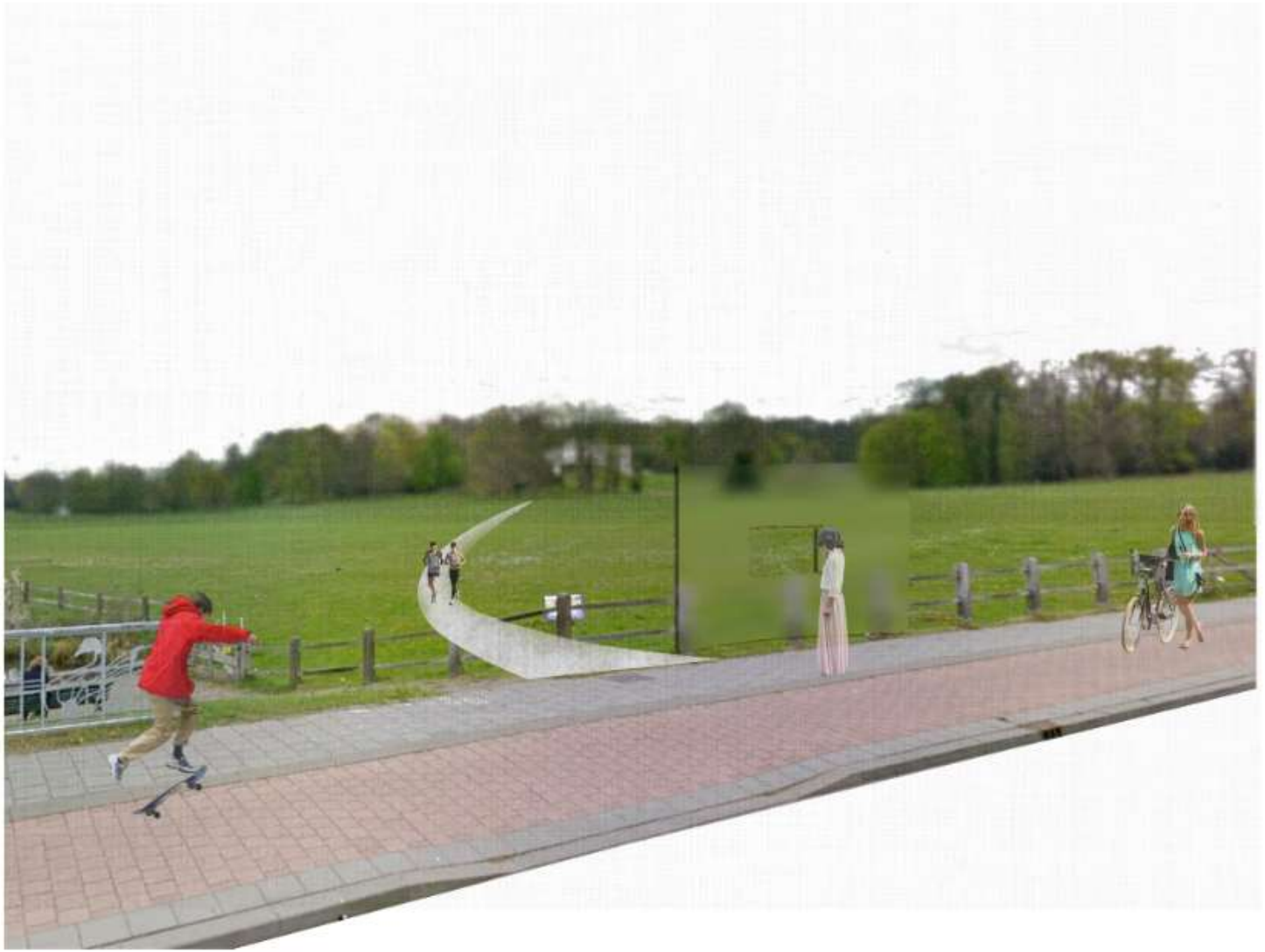




Cross-point



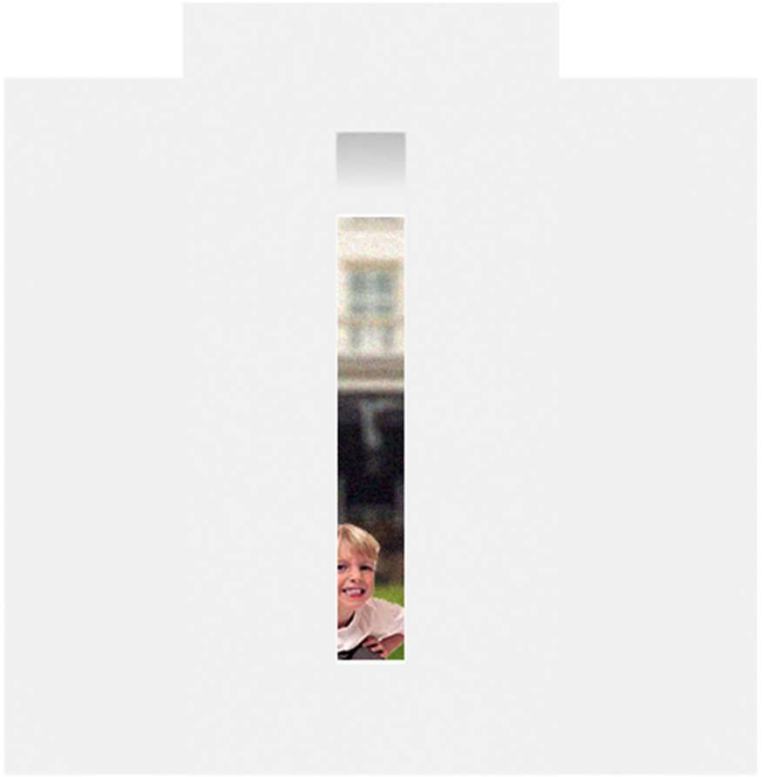




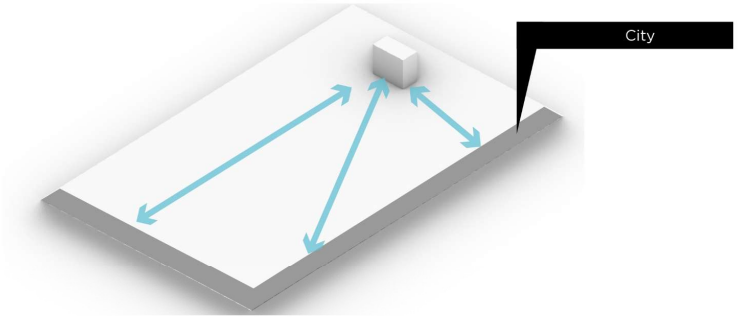
Installation from inside out

Church Eusebius

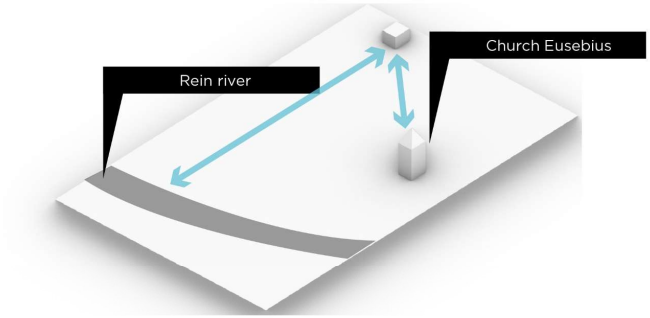
The Rijn



Lessons learned



1. Think in another way around



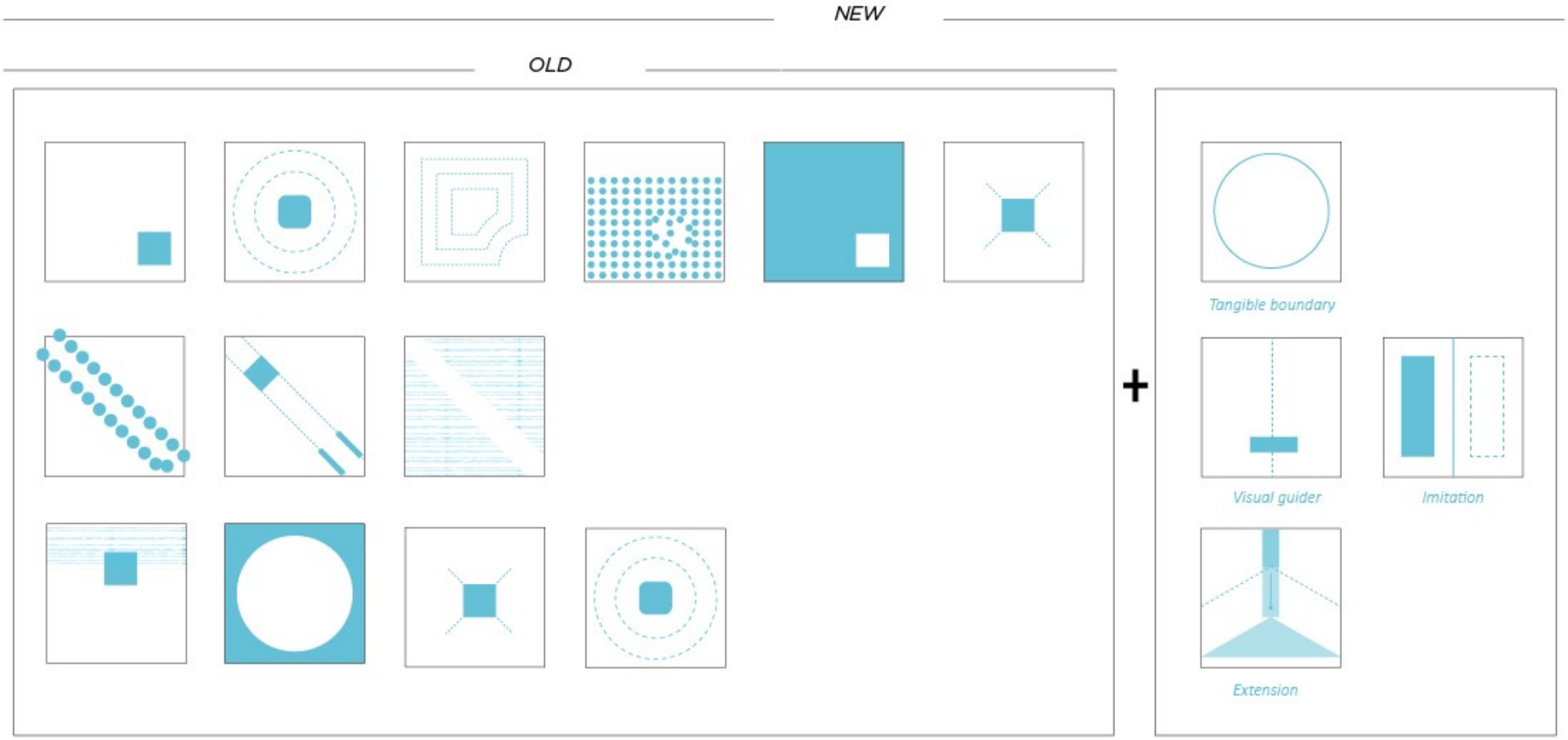
2. Connection with the city

CONCLUSION&COMPARISON

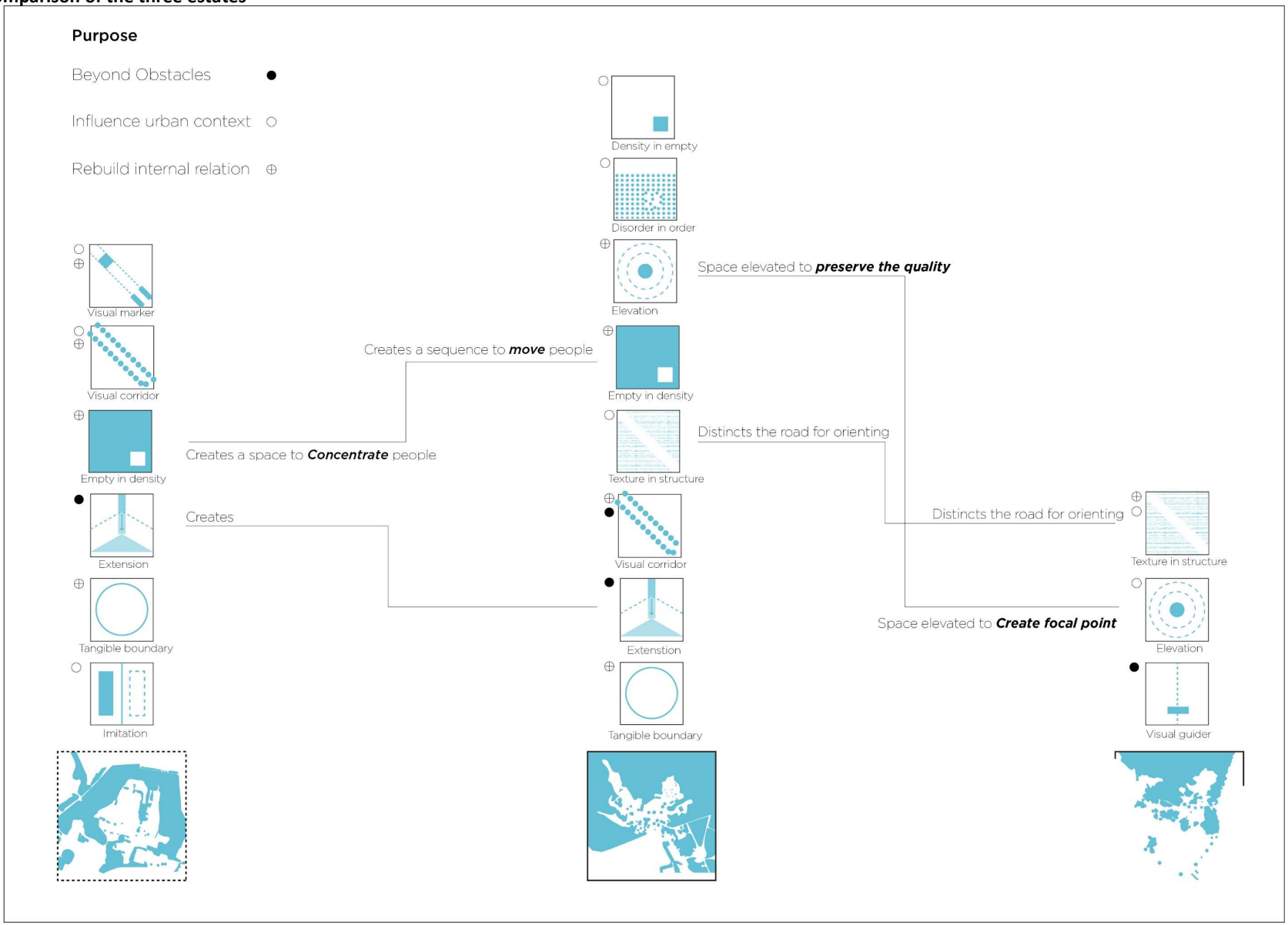
REFLECTION

XPLORATION

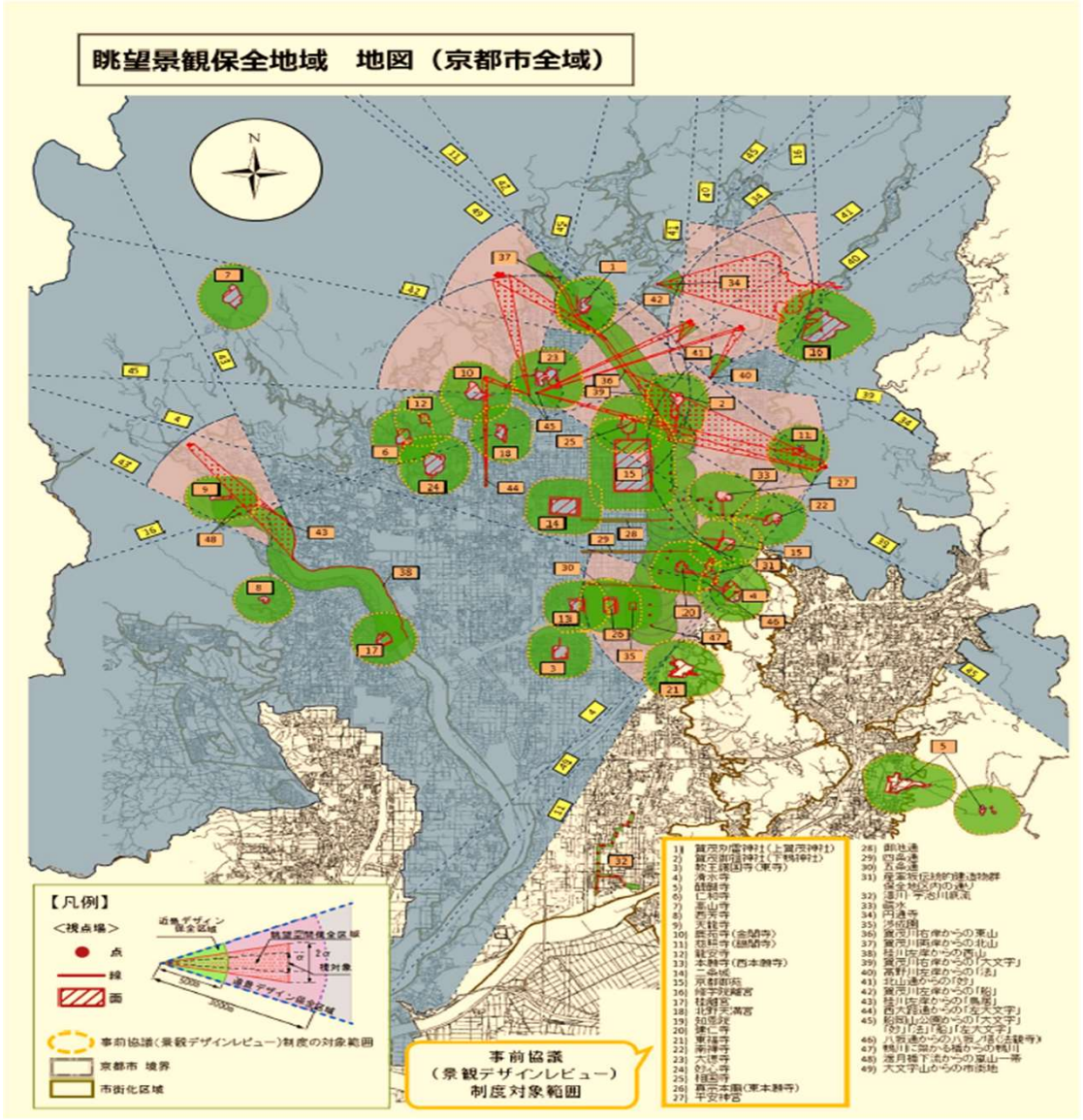
Feedback to the toolbox

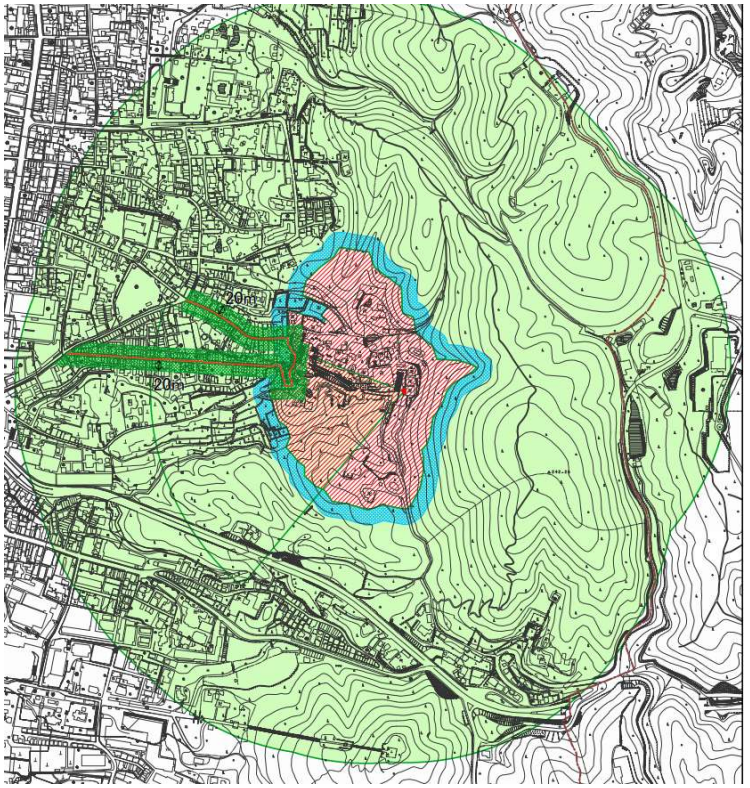


Comparison of the three estates



Spatial visual approach is a **contextual sensitive approach** that provide flexibility in design





	視点場に近接する区域	視点場（境内）の範囲の境界線からの水平距離が30m以内の範囲

30m-every new building plan should be evaluated

	近景デザイン保全区域（境内）	視点場（境内）の範囲の境界線からの水平距離が500m以内の範囲	建築物の大規模な新築、増築（床面積 2,000 ㎡以上）

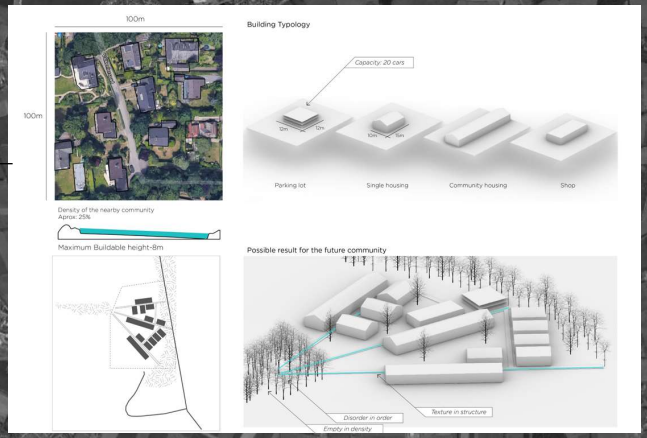
500m-building plan which has the floor bigger than 2000m2 should be evaluated


Estate’s area

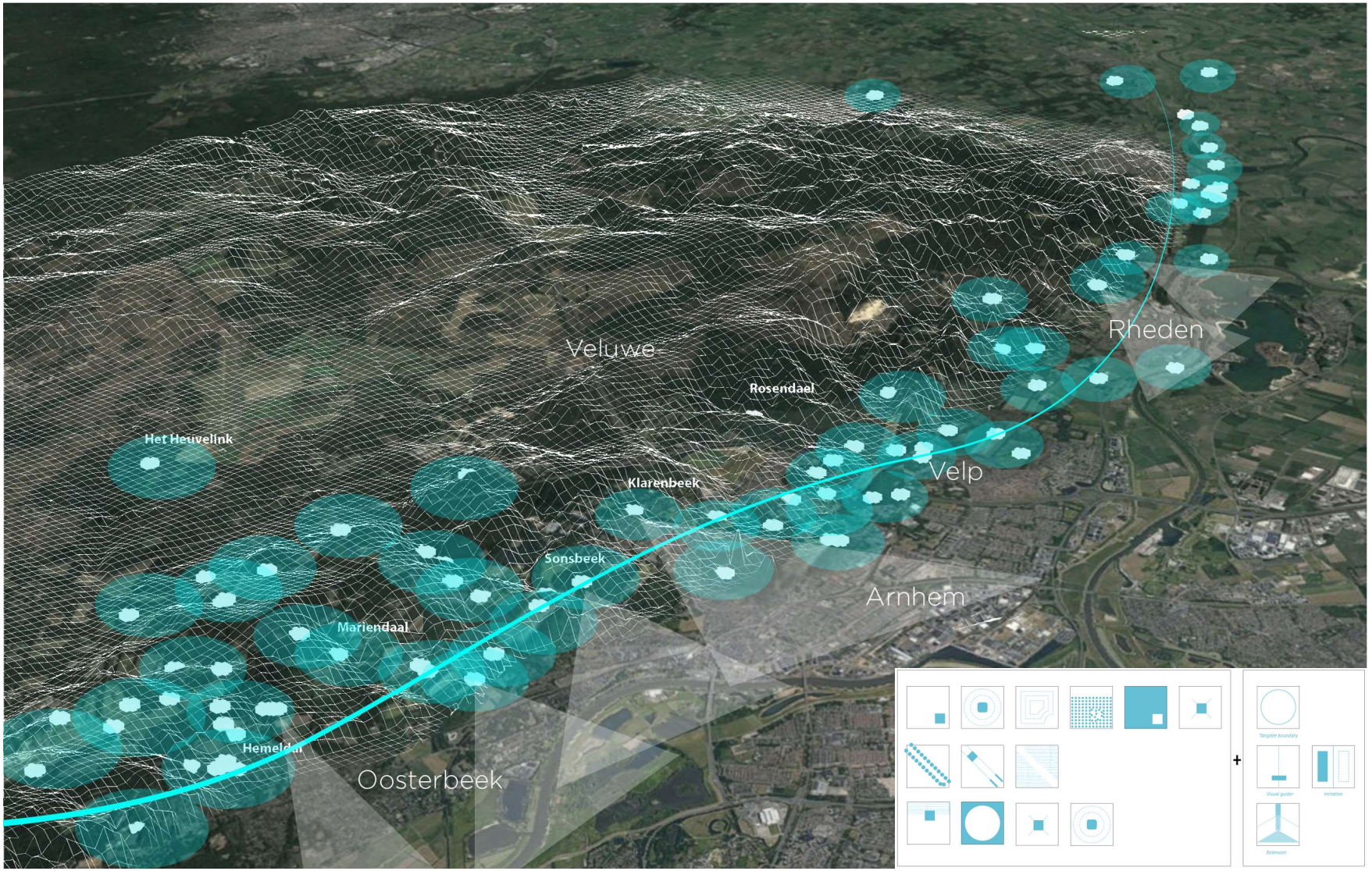

30m offset


500m offset

500m offset

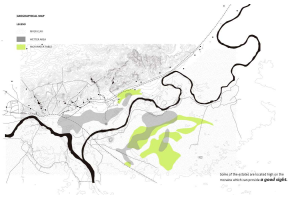

100m
100m
Density of the nearby community
Aprox: 25%
Maximum Buildable height-8m
Building Typology
Capacity: 20 cars
Parking lot
Single housing
Community housing
Shop
Possible result for the future community
Disorder in order
Texture in structure
Empty in density

Regional Scenario

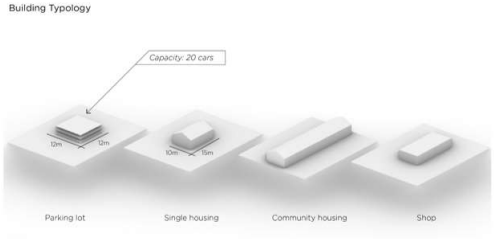


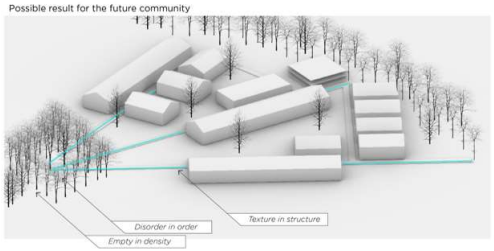
REFLECTION

MPARISON



Spatial visual approach is a strong design approach that considers the local conditions like geomorphology and historical patterns that make up the visual landscape





Principles

Rozendaal | **Klarenbeek** | **Sonsbeek** | .....

1.Historical analysis	1..Historical analysis	1..Historical analysis
2. Spatial sequence	2. Spatial sequence	2. Spatial sequence
3. Spatial visual analysis	3. Spatial visual analysis	3. Spatial visual analysis
4. Potentials	4. Potentials	4. Potentials
5.Principles	5.Principles	5.Principles
6.Master plan	6.Master plan	6.Master plan
7. Detail intro of the design	7. Detail intro of the design	7. Detail intro of the design
8.Urban plan	8. Lessons learned	8. Lessons learned
9. Lessons learned		

Similar process

Ideal situation

Models to promote

Policy?

Difficult to practice, economic value.....

Thank you!!