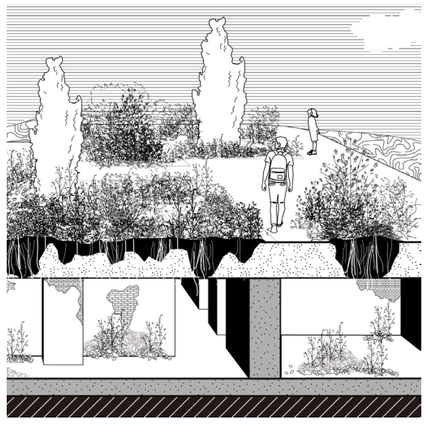
ATLANTIC WALL RUINS: THE REVERIE BEFORE OBLIVION.

Atlantic Wall ruins, history and memory in Den Helder



Landscape Architecture
Graduation Studio 2022 - 2023
Place & Memory

P5 Presentation

Tutors
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Aleksandar Stanicic

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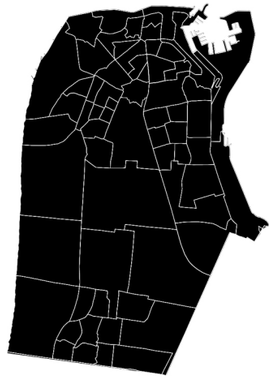
TU Delft Faculty of Architecture and the Built Environment

The Netherlands

North-Holland Province

Den Helder

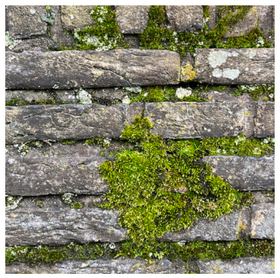


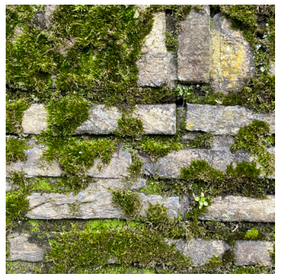
The neighbourhood

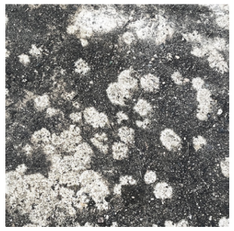
The coast

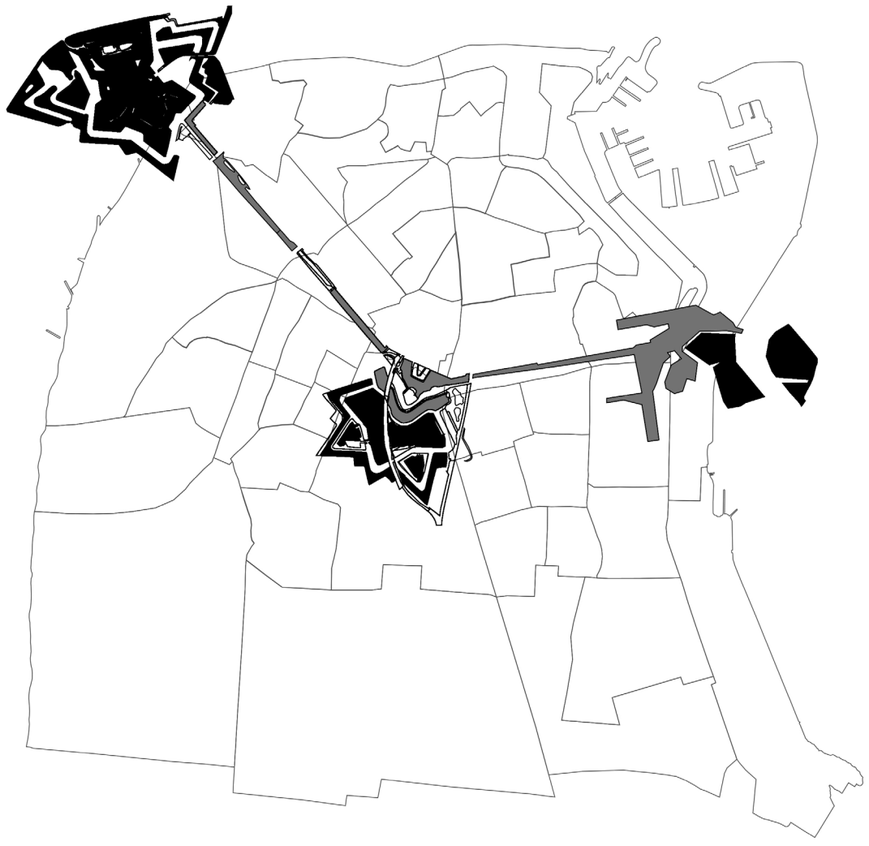
The fortresses & bunkers

The dune









RESEARCH

MANIFESTO&CONCEPT

DESIGN PROPOSAL

CONCLUSION & REFLECTION

Figure. 11 Den Helder in 1694. Map of Den Helder in 1649, with a National naval port. (image from Rijkswaterstaat collection, 1955)

1781

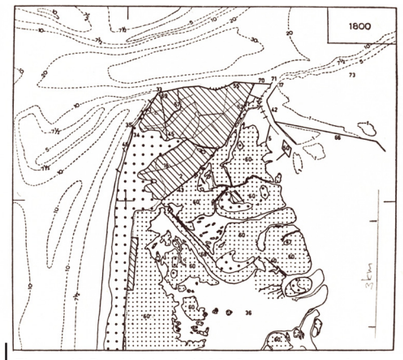


Figure. 12 Den Helder in 1800. Construction of military defence on the east side. (image from collectie Regionaal Archief Alkmaar, 1952)

1800

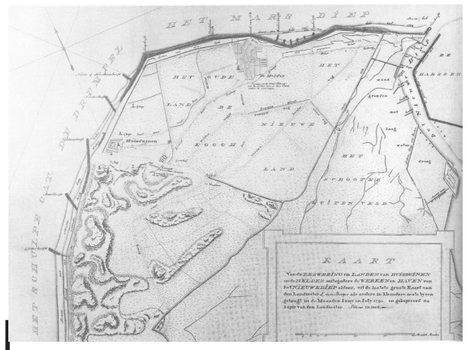


Figure. 13 Den Helder in 1811. City grid before the construction of defence line. (image from Pieter de Nijs, 1811)

1811
Napoleon visited Den Helder

Napoleon Bonaparte ordered the construction of the Defence Line Den Helder(stelling Den Helder), which turned the village into a heavily fortified fortress system.

Figure. 18 Den Helder in 1864. The Willemsoord complex was mostly formed, with some of the dockyards and workshops already completed. (image from Noord-Hollands Archief,1864).

1822 Willemsoord

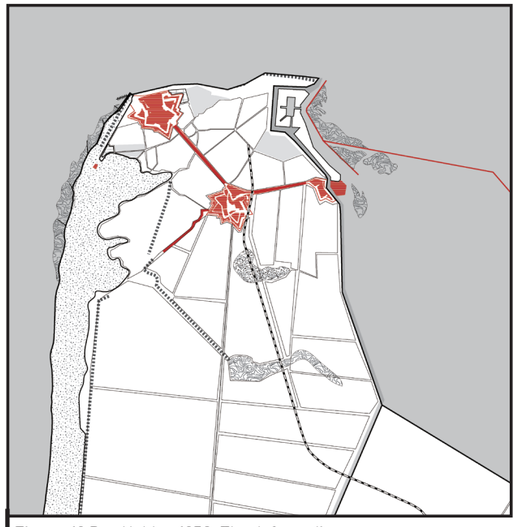


Figure. 19 Den Helder, 1850. The defence line was formed

1835-1900
Defence line reinforced constantly

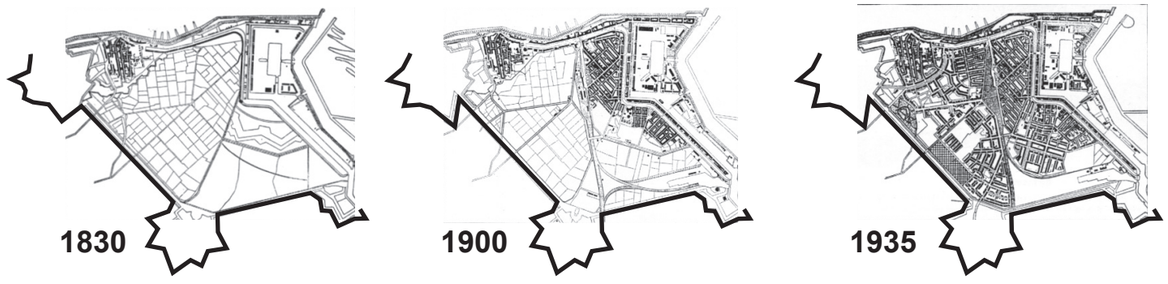


Figure. 20-22 Den Helder city expansion. The urban area of Den Helder expands towards the defence line(Collection from Regionaal Archief Alkmaar, 1950).

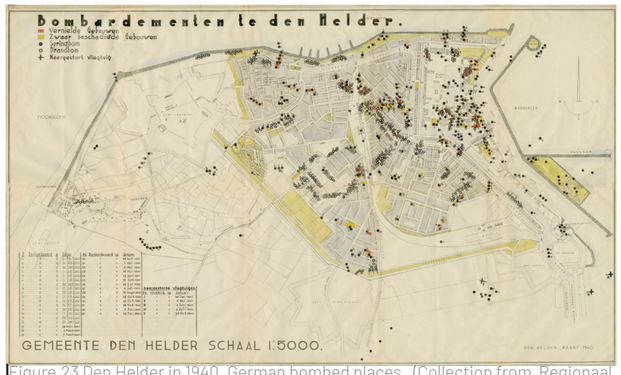


Figure.23 Den Helder in 1940. German bombed places. (Collection from Regionaal Archief Alkmaar, 1940).

1940 WWII: German invasion

May 10, 1940, German forces invaded the Netherlands and occupied Den Helder.

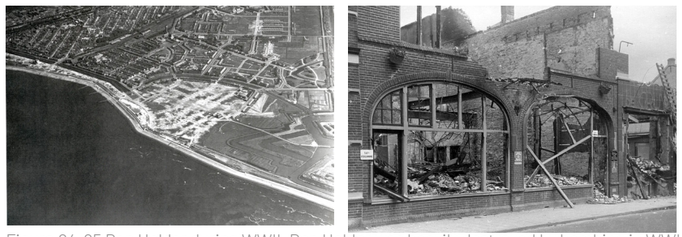


Figure.24-25 Den Helder during WWII. Den Helder was heavily destroyed by bombing in WWII. (Collection from Regionaal Archief Alkmaar, 1944)

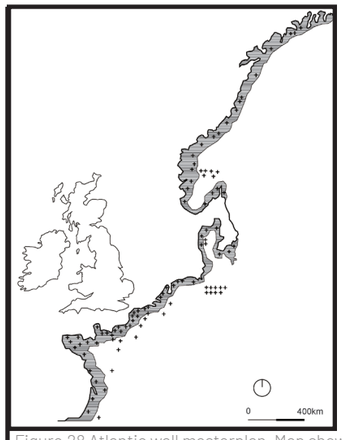


Figure.28 Atlantic wall masterplan. Map showing fortified areas of the Atlantic wall system. (information from Rose et al. (2002))

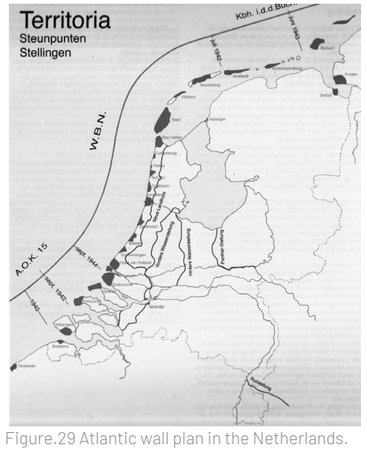


Figure.29 Atlantic wall plan in the Netherlands. Atlantic Wall construction sites in the Netherlands. (image from Rolf, Bunkers in the Netherlands,2005)

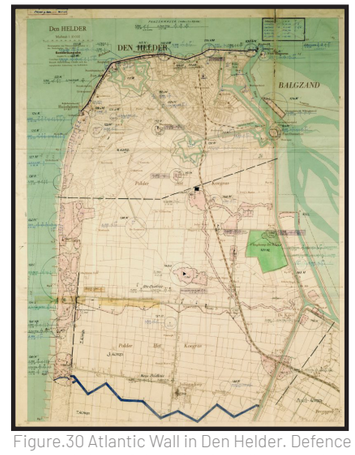


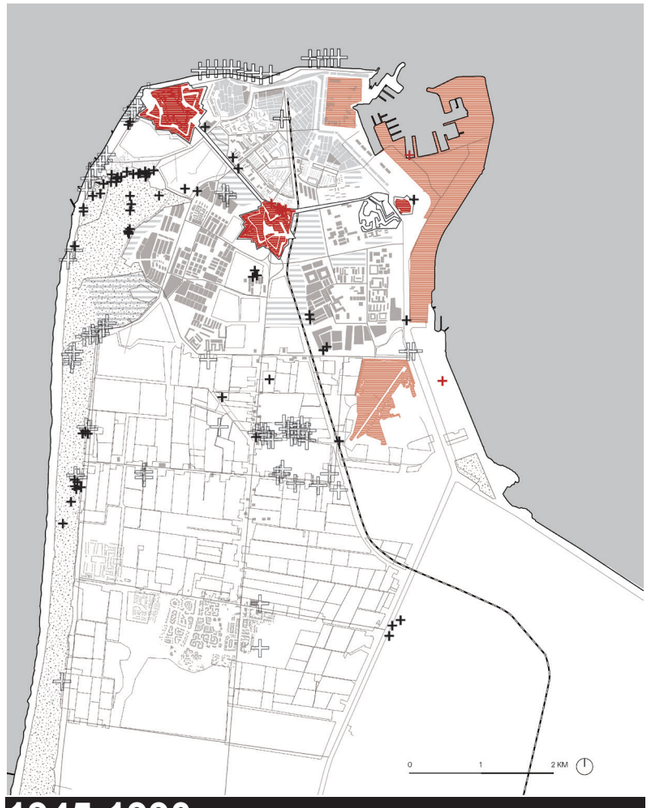
Figure.30 Atlantic Wall in Den Helder. Defence area and sites of the Atlantic wall covers almost the entire Den Helder in 1942. (image from Atlantikwall Centrum, 1942)

1942-1945
construction of Atlantic Wall

1942-1943
German forces construct a series of bunkers and coastal batteries in the area around Den Helder as part of the Atlantic Wall. These defences are designed to prevent an Allied invasion of the Netherlands. In 1942, the German defence line border was moved to the south, making Julianadorp part of the Atlantic Wall.

1943
German forces increase their fortifications in Den Helder, constructing more bunkers and defences. The city became an important naval base for the German navy.

Figure.32-43 Atlantic wall bunkers in Den helder during WWII. Most of them were situated in the dune and coastal line. (photo from Fritis Lamberts, 1943)



1945-1990
Demolition of Atlantic Wall

Figure. 44 Kroontjesbunker being repaired, 1960. (photo from Flak Gruko, 1960)

Figure. 45 Kroontjesbunker used as training field by navy, 1965 (photo fromFlak Gruko,1965)

Figure. 46 Kroontjesbunker used as training field for scouts, 1978 (photo from Flak Gruko, 1978)

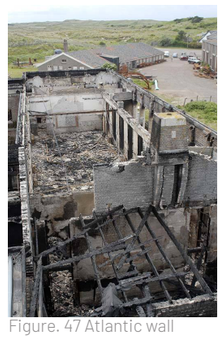
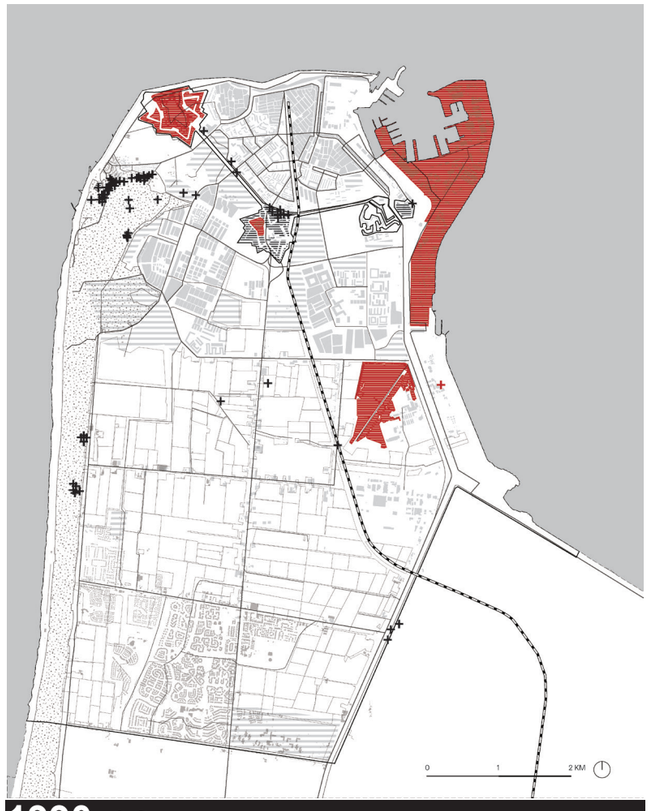


Figure. 47 Atlantic wall center in Den Helder on fire in 2009, (photo from stelling denhelder, 2009)



1990-now
Growth or decline?

museum, monument.....

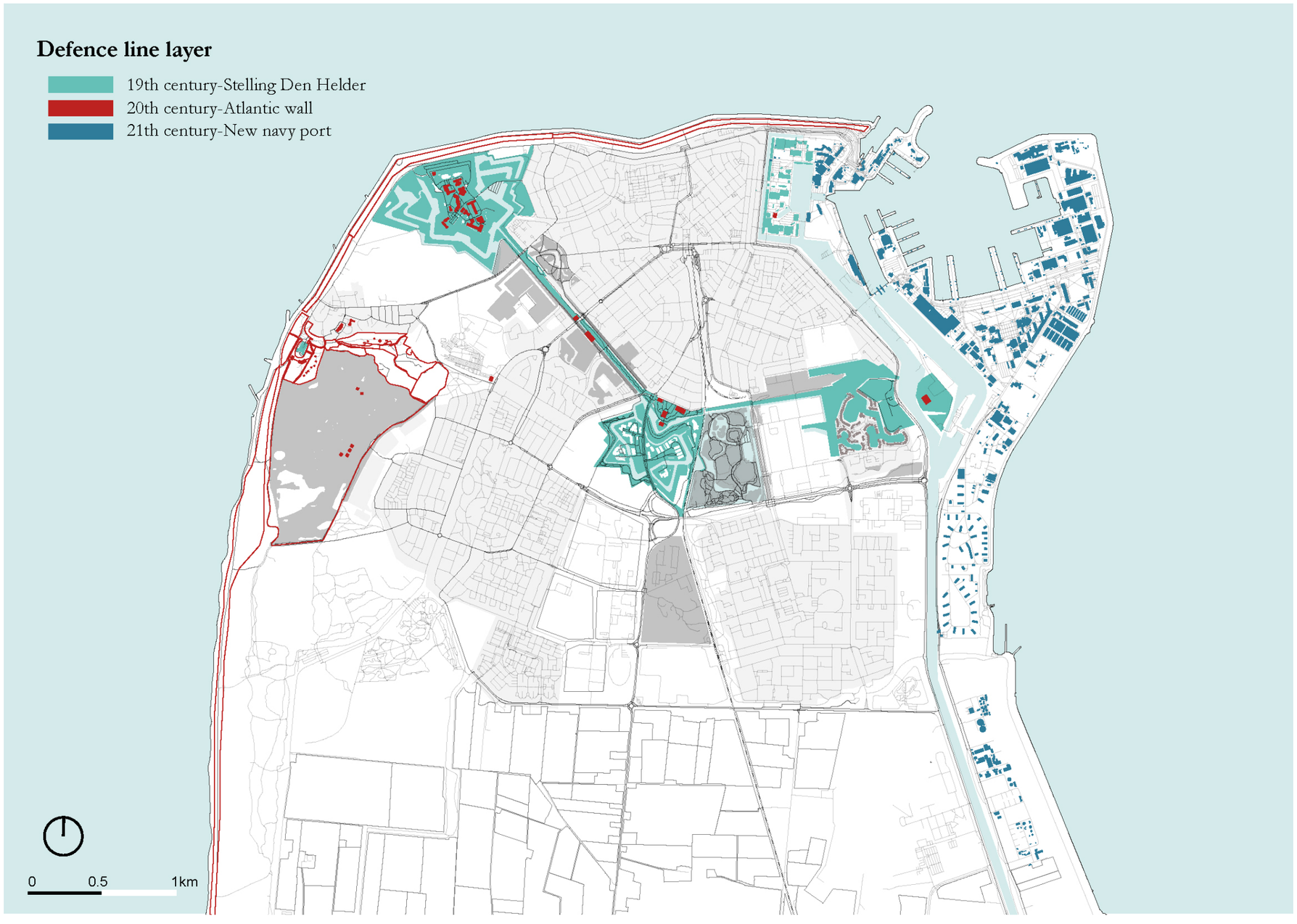
Figure. 53 People visit atlantic wall center. (Collection from Regionaal Archief Alkmaar, 2009)

Figure. 54-55 Fort museums in Den Helder. The fortress of the old defence line is now used as a museum and military training base.(photo from Borui Xiong,2022)

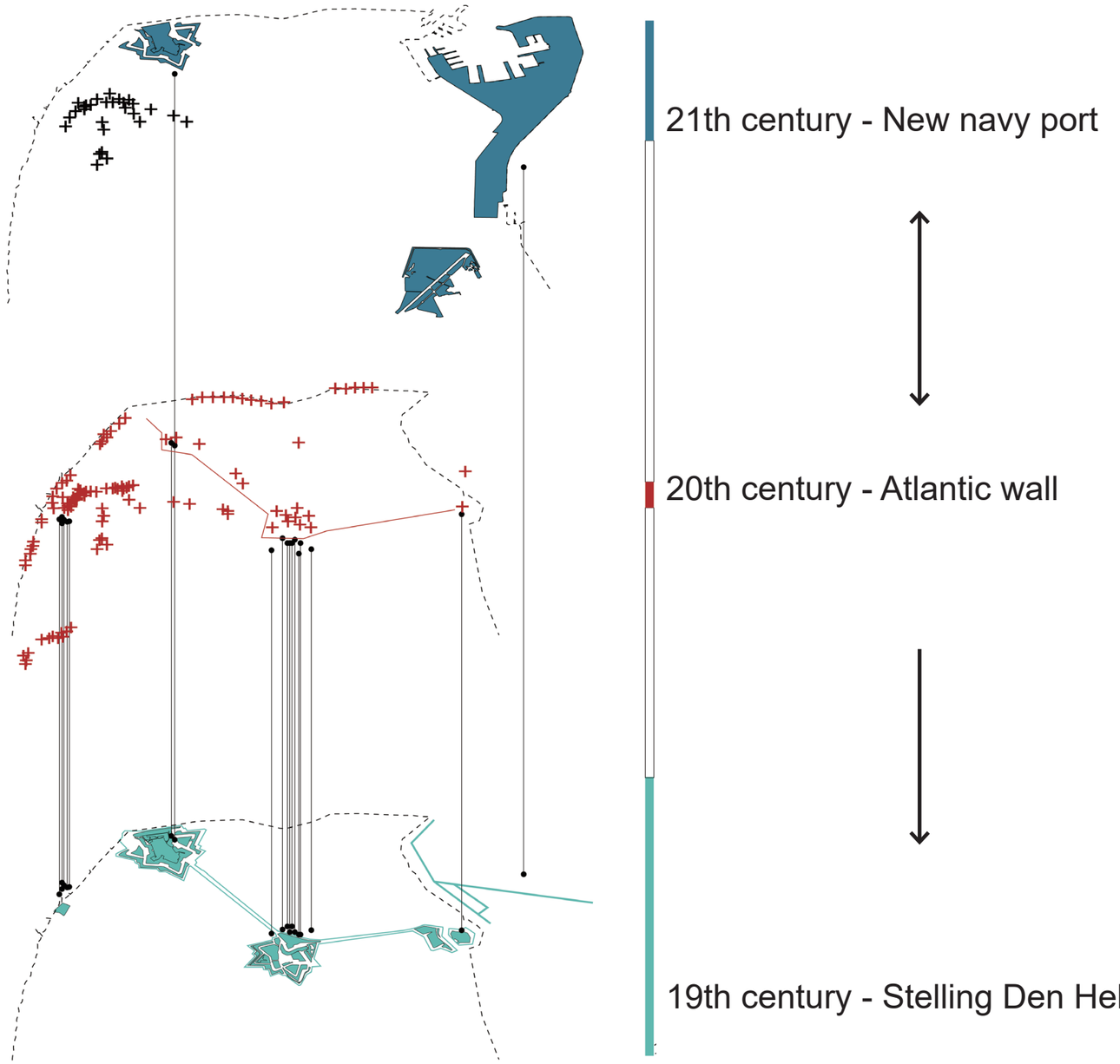
ruins

Figure. 56-58 Bunker ruins in the dune. The Atlantic Wall bunker in the dunes is gradually becoming ruined, invaded by vegetation and structurally damaged. (photo by Flak Gruko, 2016)

Defence line & Den Helder



Layered defence line history

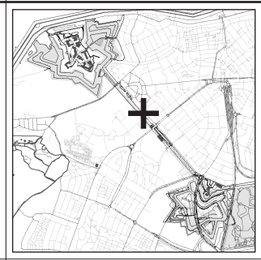
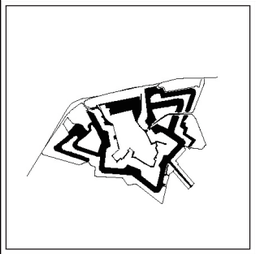
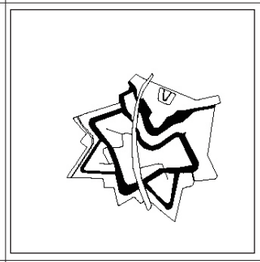
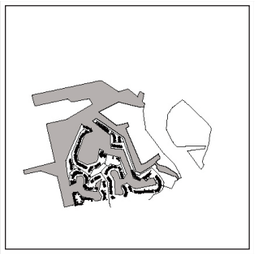
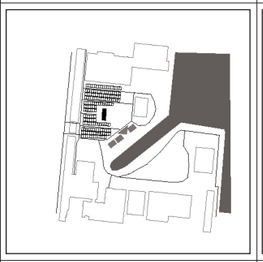
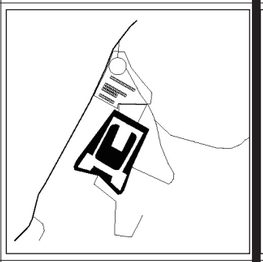
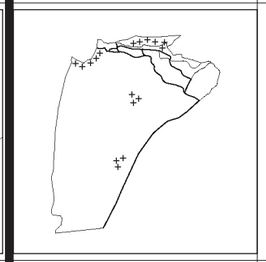
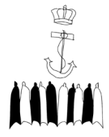
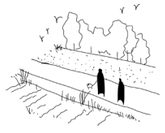
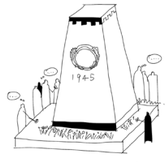
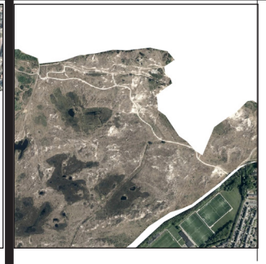


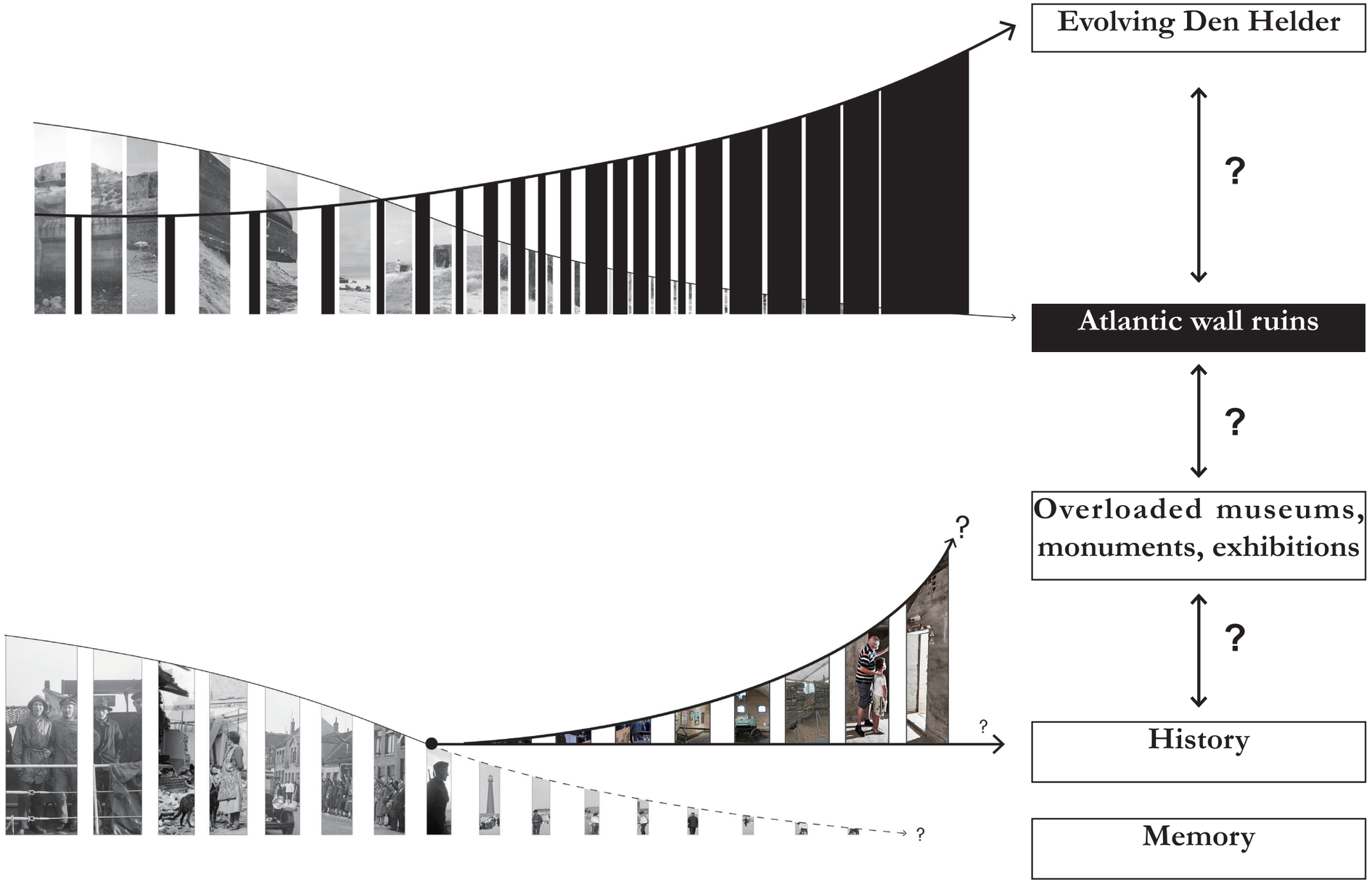
21th century - New navy port

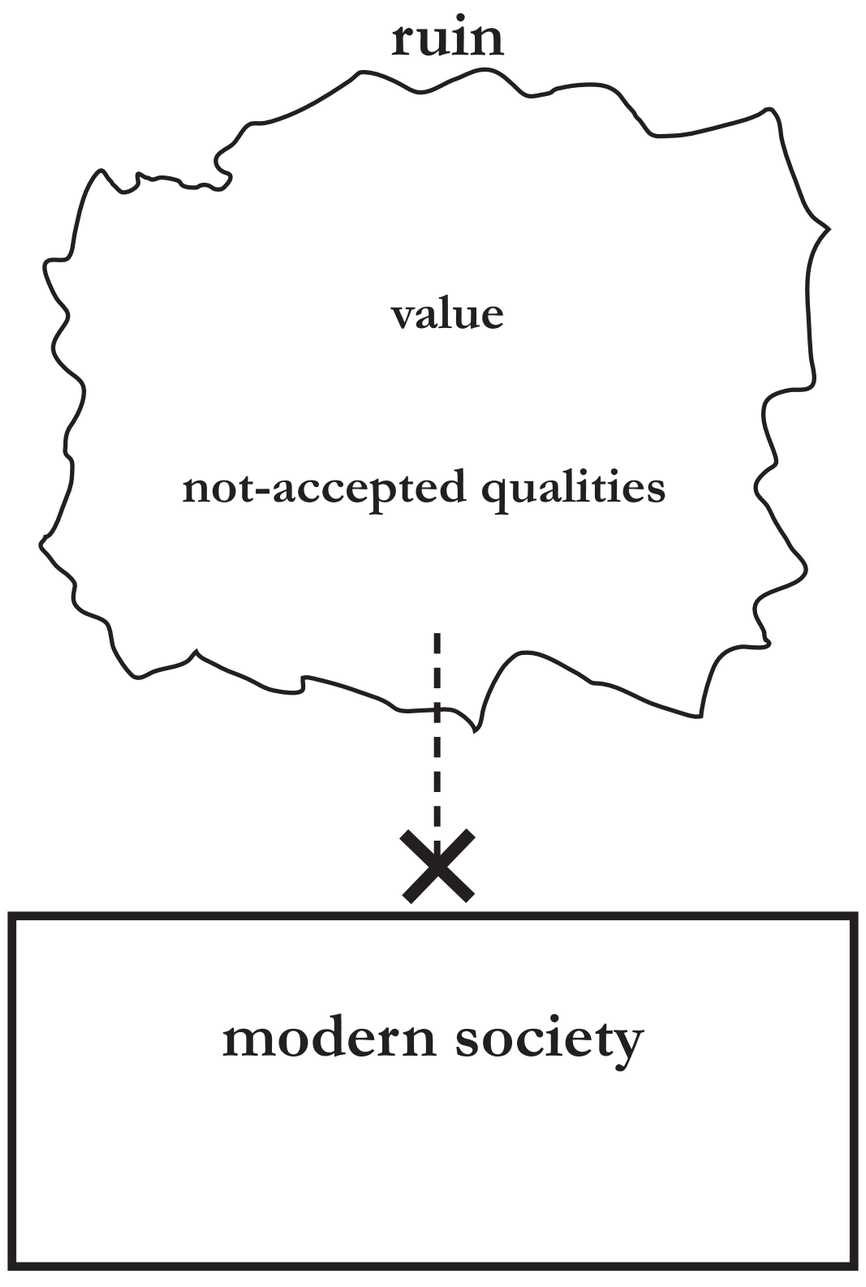
20th century - Atlantic wall

19th century - Stelling Den Helder

Different situations

Category								
location								
composition								
function/condition	 military training ground	monument	farm & Brewery	residential area	 waterfront park	 monument	museum	ruins
context								
								


Evolving Den Helder
?
Atlantic wall ruins
?
Overloaded museums, monuments, exhibitions
?
History
Memory
?
?
?

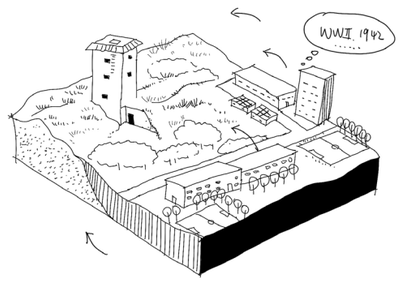

ruin
value
not-accepted qualities
modern society

How to reveal the value of post-war ruins in modern society while maintaining their ruinous qualities?

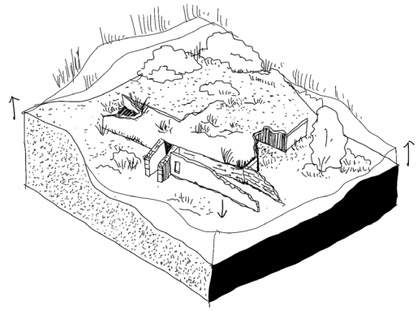
Post-war ruins as unintentional monuments

Post-war ruins as terrain vague

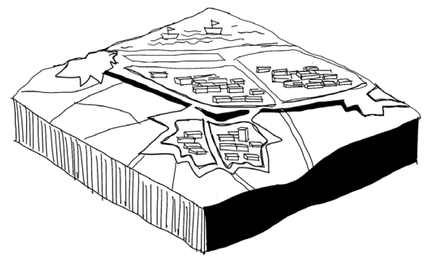
Historical value



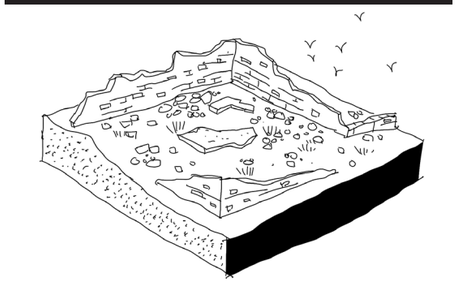
Age value



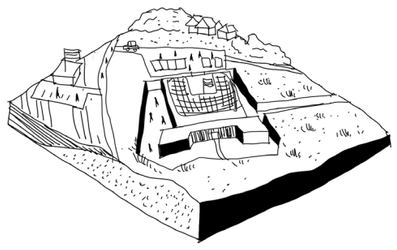
Cultural value



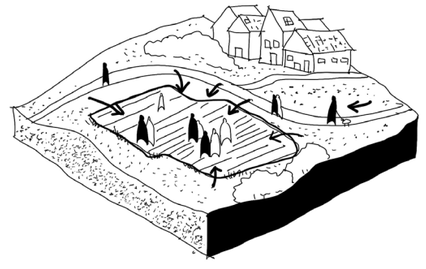
Art value

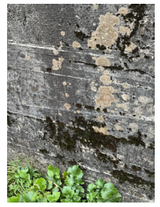
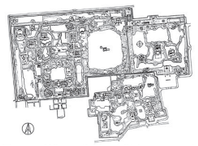
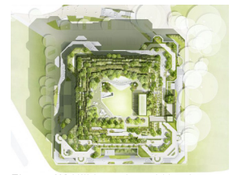


Use value



Societal value



	CONTEXT	CONDITON	COMPOSITION	MATERIALITY	NARRATIVE	SPATIAL ATMOSPHERE	FUNCTION
HISTORICAL VALUE			Figure. 105 plan of Kolumba museum. The combination of old and new construction is a way to show historical value(image from Archdaily)		Figure. 106-108 Kolumba museum. The combination of old and new construction is a way to show historical value(photo from Borui Xiong, 2022)		
AGE VALUE		Figure. 109 broken ruin of Kaiser Wilhelm Memorial Church. The broken bricks reveal the passage of time. (photo from Borui Xiong, 2022)					
ART VALUE		Figure. 110 broken ruin of Yuanmingyuan. (photo from Chinadaily)	 Figure. 112 traditional Chinese garden layout of Yuanmingyuan (photo from Chinadaily)			Figure. 117 Kolumba museum. ruins and new walls Ensemble. (photos from Borui Xiong, 2022)	
USE VALUE		Figure. 111 well-maintained bunker structure (photo from archdaily)					 Figure. 118 Hilldegarden. old bunkers used as new community complex. (photos from Hilldegarden.org)
CULTURAL VALUE				Figure. 113-116 different types of textures and materiality of ruins. (photos from Borui Xiong, archdaily, Hilldegarden.org,Ruud Morijn)			
SOsocietal VALUE		Figure. 104 The modern urban grid is gradually extended out from the old city ramparts and the axial relationships are still clearly visible. (image drawn by Borui Xiong)				Figure. 119-120 Guihu. old city ramparts serve as city park and public space. (photos from Lian Chen)	

Between ruin and non-ruin

RUIN

PRESERVATION

Figure.121-122 remained ruins of Yuanmingyuan and Berlin wall (photo from Chinadaily, ABC News)

RESTORATION

Figure.123 Yuanmingyuan. restored water body with remained ruins. (photo from Chinadaily)

RE-USE

Figure.126 Yuanmingyuan ruins.Ruins used as public tourist site. (photo from BBC News)

Figure.126 Kolumba Museum. The refurbished ruin is now used as museum.
(photo from Rasmus Hjortshoj)

TRANSFORMATION

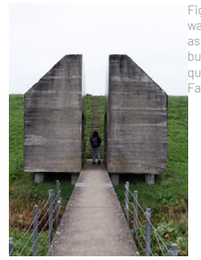


Figure.127 Dutch waterline. Bunker 599 as national monument, but keep ruinous quality. (photo from Fazhong Bai)

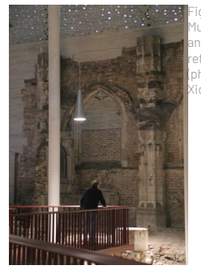


Figure.128 Kolumba Museum. A mix of ruins and new structures that reflect transformation. (photo from Borui Xiong, 2022)

DESIGN

Figure.130 Berlin wall open museum. A new structure has been built around the ruins of the Berlin Wall, enclosing it to form a public museum. (photo from Borui Xiong 2022)

NON RUIN

museum

Figure.124 Fortification in Xi'an, China. The Xi'an City Wall has been maintained to preserve its original appearance. It is now regarded as a monument. (photo from Chinadaily)

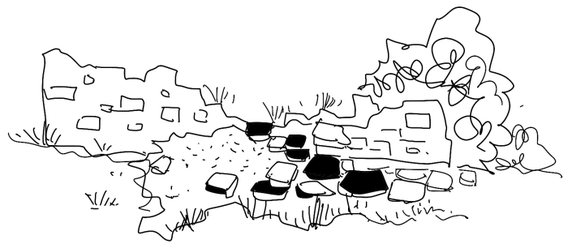
Figure.125 Kolumba Museum. The restored church is still functioning as part of the museum. (photo from archdaily)

monument

exhibition

Figure.129 Fort Werk aant Spoel. The bunker was gradually transformed into a popular public place that. (photo from Archdaily)

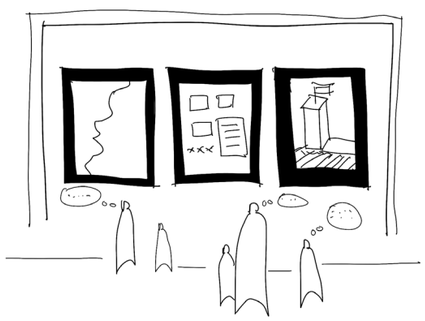
Figure. 81 Kaiser Wilhelm Memorial Church. A new building was built beside the ruin. (photo from Borui Xiong, 2022)



RUIN

or

NON RUIN



"Site of memory (lieu de mémoire) is any significant entity, whether material or non-material in nature, which by dint of human will or the work of time has become a symbolic element of the memorial heritage of any community " (Nora, 1996, p.4)

Nora, Pierre, and Lawrence Kritzman. "From Lieux de Memoire to Realms of Memory." Realms of Memory: Rethinking the French Past: V. 1: Conflicts and Divisions, Columbia University Press, New York, 1996, pp. 4–6.

EVENTS

TRUE MEMORY

subjective, absolute, spontaneous

HISTORY

objective, relative, collective

sand

wave comes

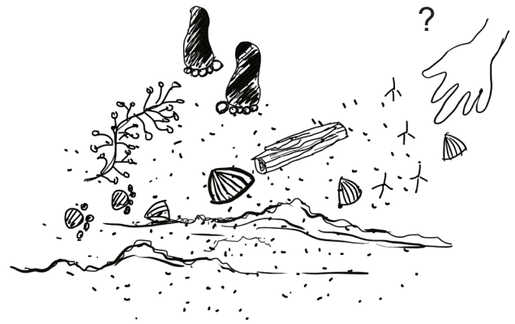
MODERN MEMORY

archival-memory

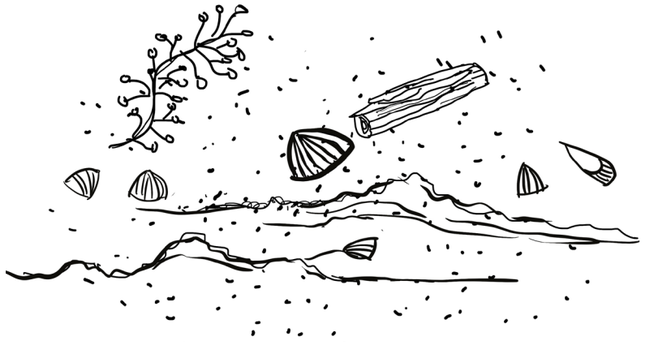
duty-memory

distance-memory

SITES OF MEMORY



somebody walking on the beach and pick up the shell, vaguely recall the wave.



sand patterns changed by wave, covered by shells, stones.....

How to reveal the value of post-war ruins in modern society while maintaining their ruinous qualities?

Intervention principles for post-war ruins

- Preserve and enhance the ruinous spatial qualities and sense of place.

- Resist the urge to tidy them up or integrate them too closely with modern urban systems.

- Maintain their isolated and heterogeneous character.

- Create opportunities for people to engage with the ruins in a free and spontaneous way.

- Provide information and context about the historical significance of the Atlantic Wall and its role in World War II to ensure that the public can reflect and learn from this important piece of history.

RESEARCH

MANIFESTO&CONCEPT

DESIGN PROPOSAL

CONCLUSION & REFLECTION

Manifesto

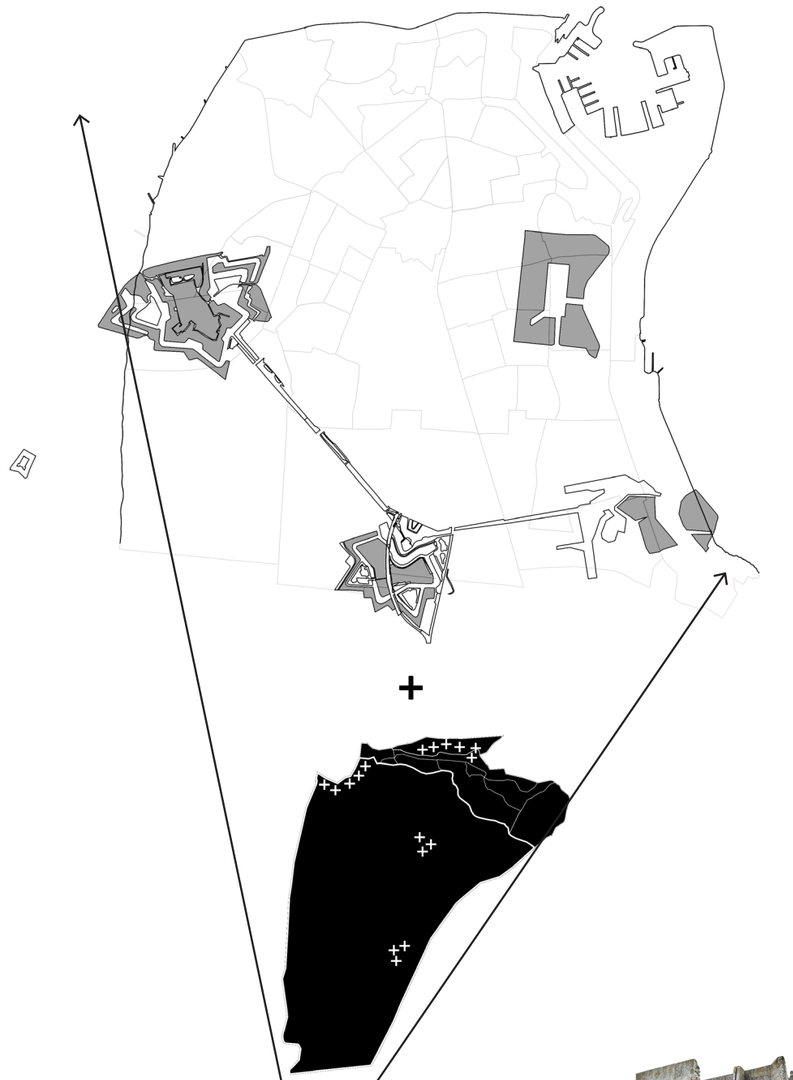
DEN HELDER

↑

DEFENCE LINE

↑

NON-RUIN



\+ comprehensive history

\+ fresh memory

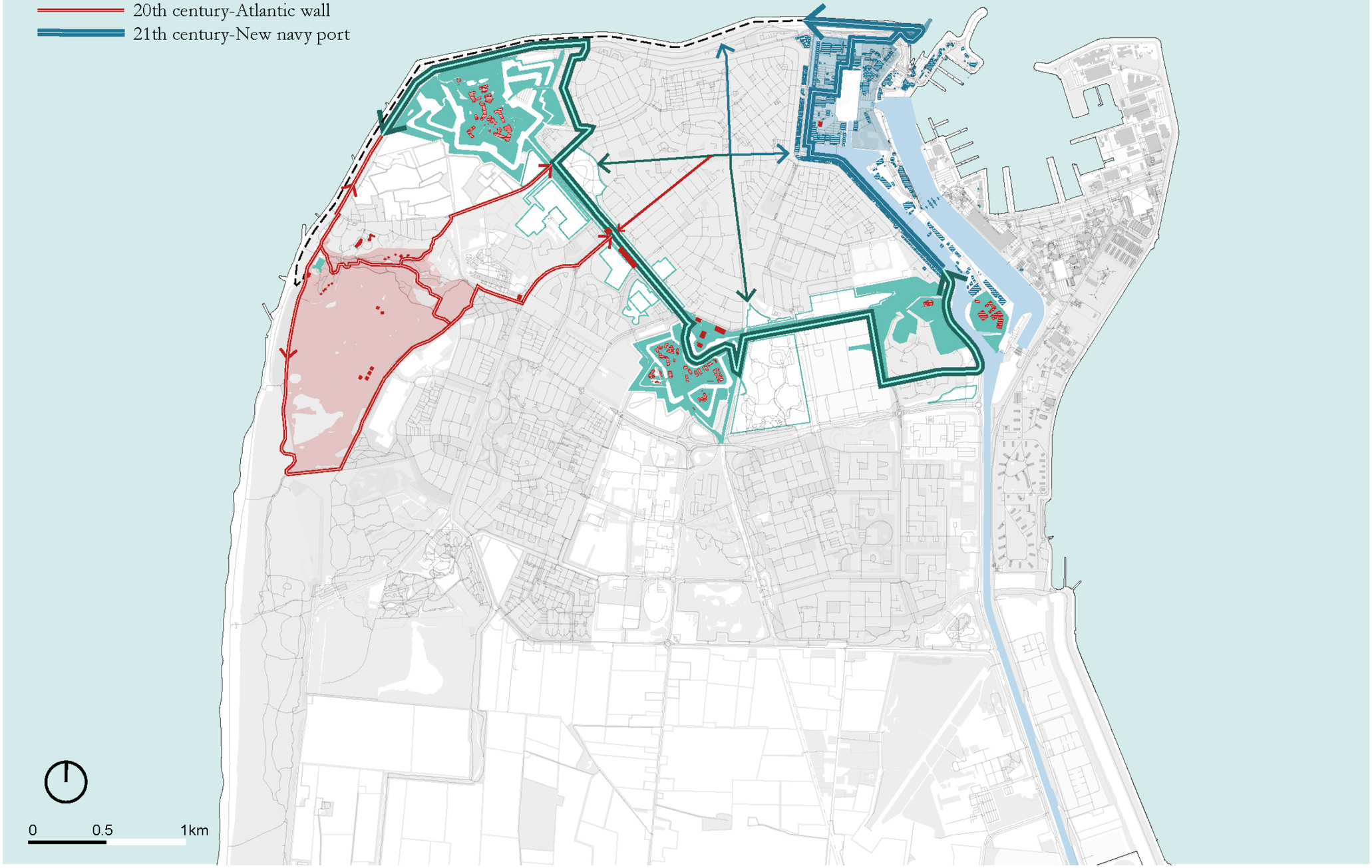
\+ open attitude

\+

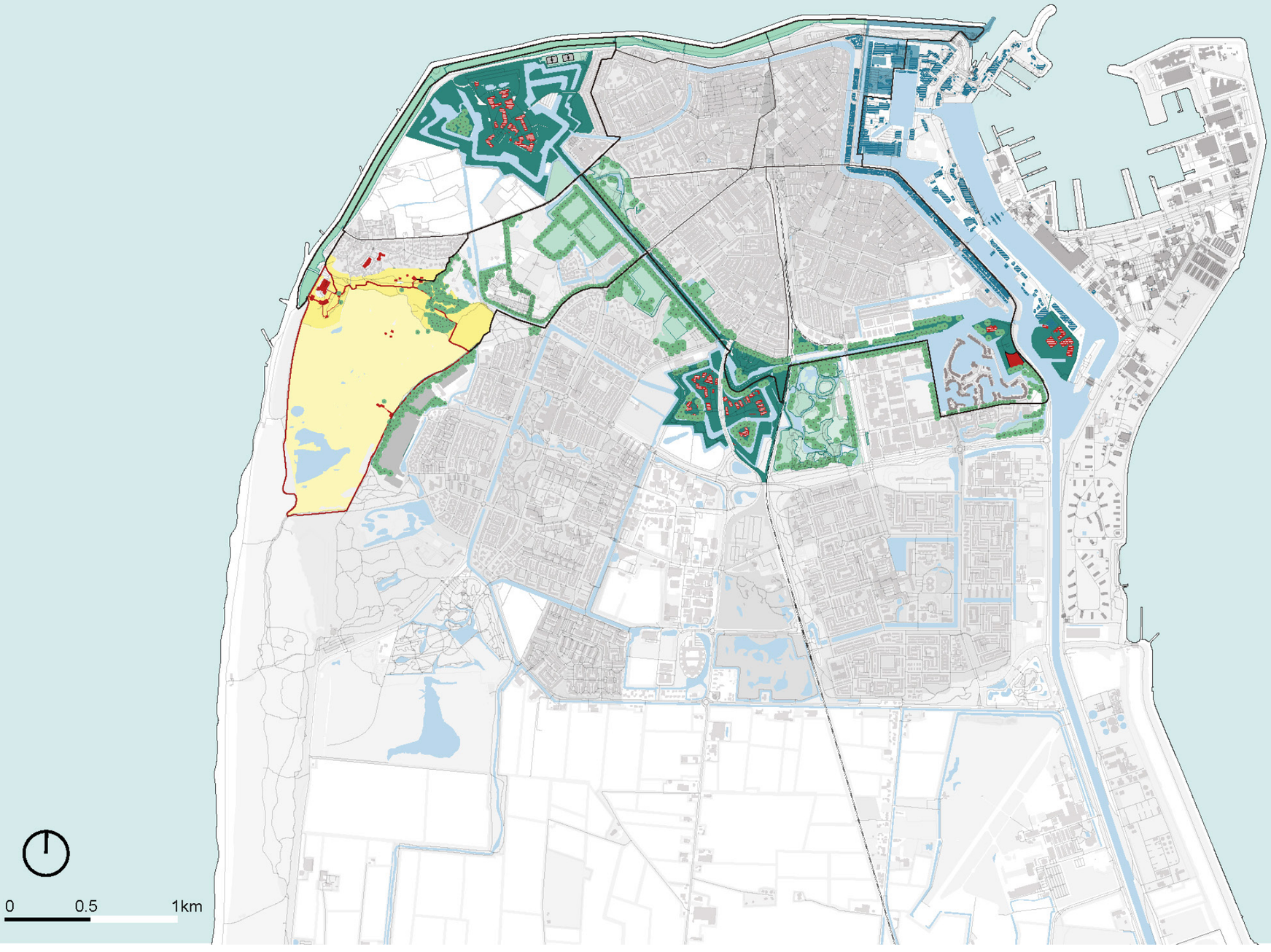
RUIN

Defence line route

19th century-Stelling Den Helder
20th century-Atlantic wall
21th century-New navy port

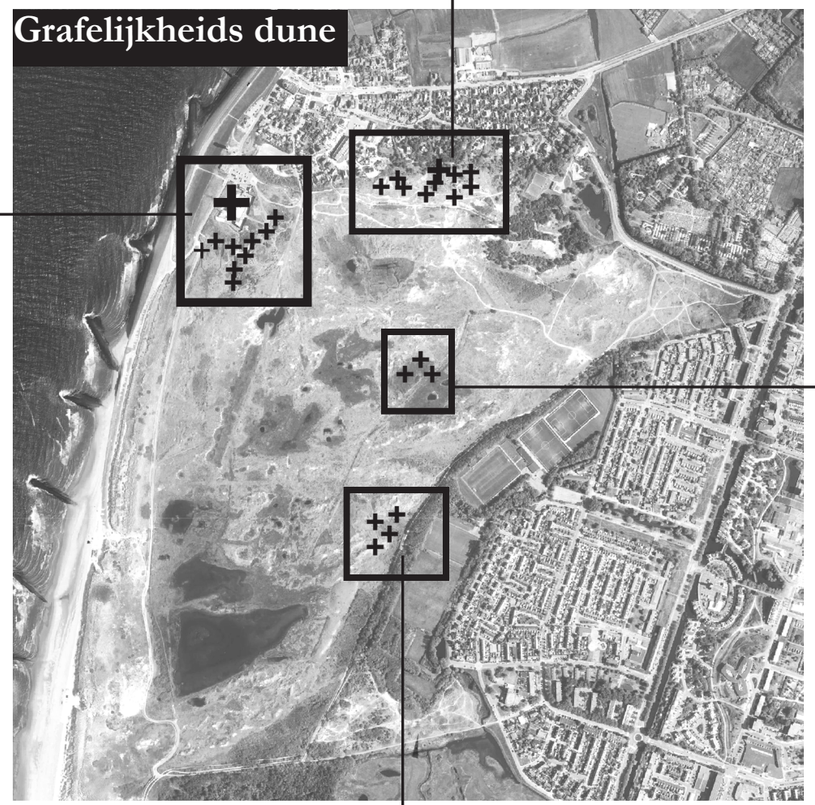


Integrated network of Den Helder Defence line



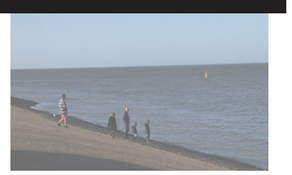
Dune of ruins

2. Crownbunker complex



4. Searchlight bunkers

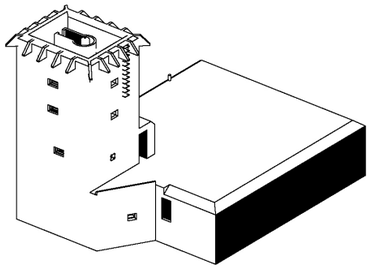
1. Fort Kijkduin & trench cluster



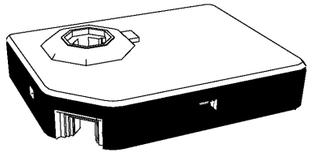
3. Backup-support bunkers

Atlantic wall bunker typology

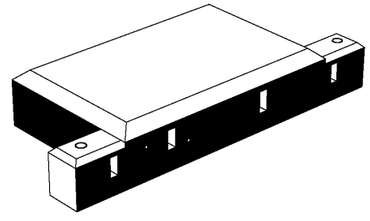
Level 1 - Permanently bunker: most important and strong



watch tower

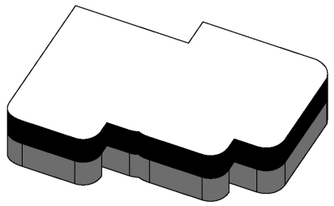


signal station

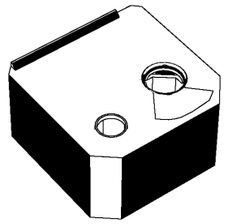


casemate

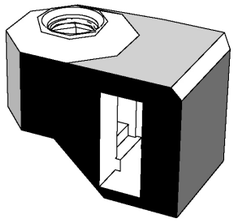
Level 2 - Reinforced bunker: lightly armed and defensible



shelter for machines

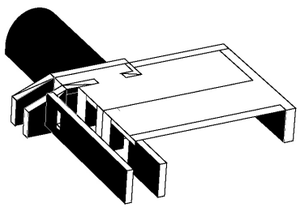


shelter for gun

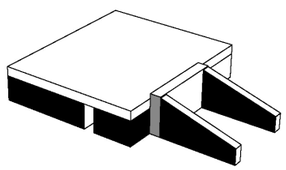


casemate

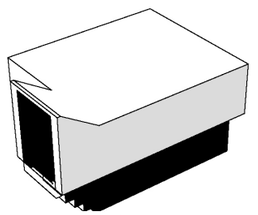
Level 3 - backup support bunker: supporting service, fragile



wash house



parking lot

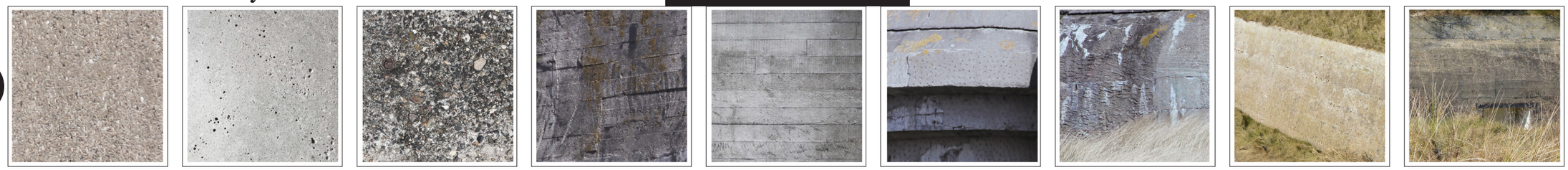


water tank

Level 1 - Permanently bunker

STATIC

Almost intact



Level 2 - Reinforced bunker

DYNAMIC

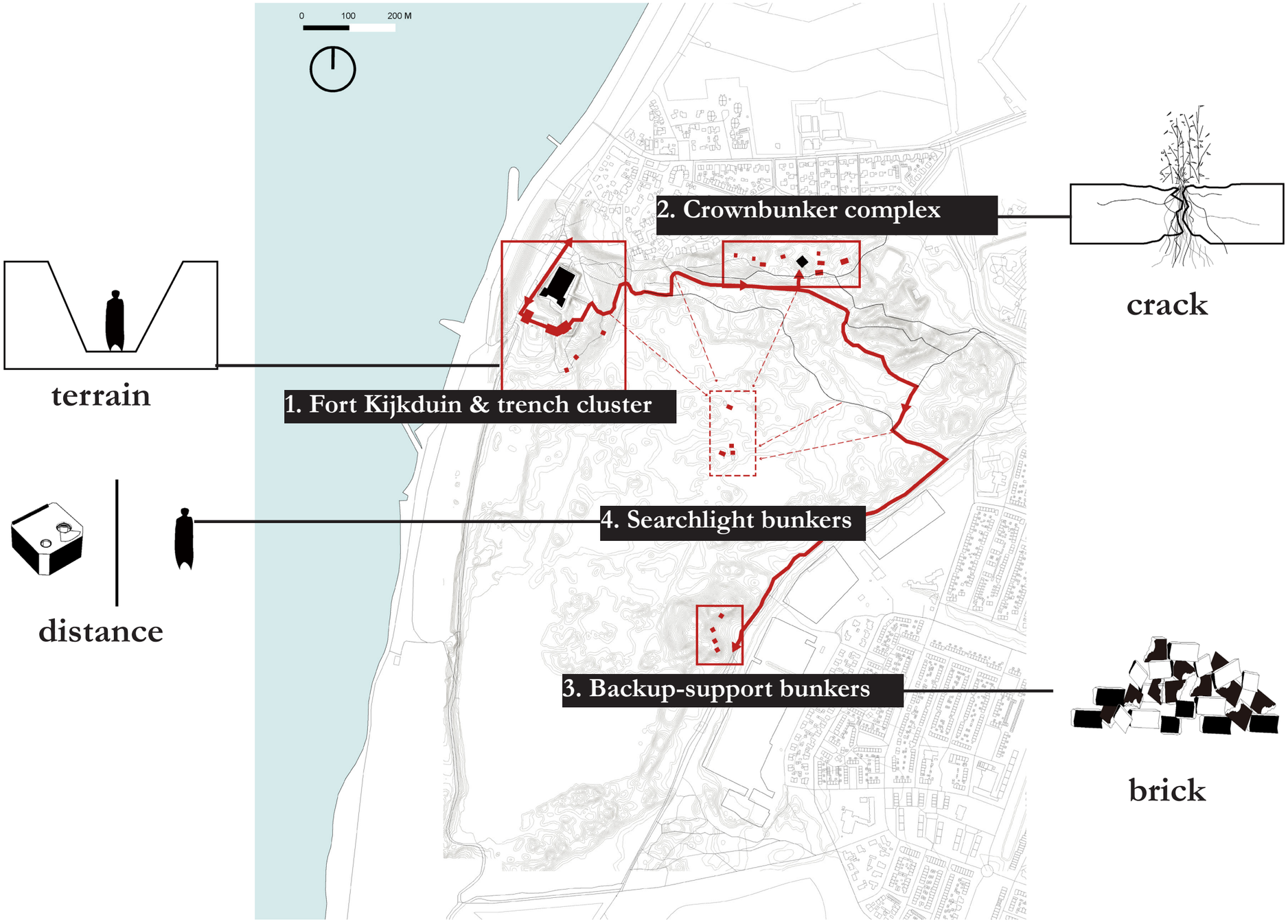
Eroded surface with diverse textures, main structure survived

Level 3 - backup-support bunker

BROKEN

Main structure deterioration with falling bricks, sand and plants

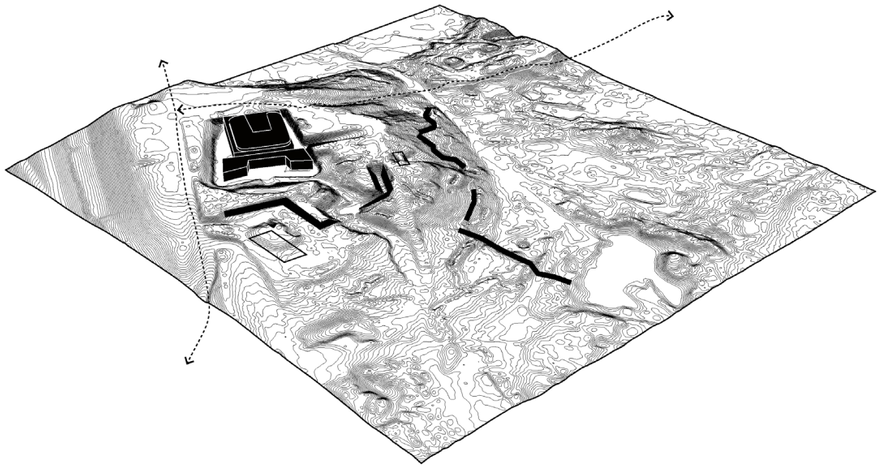
Language of ruins



1. Fort Kijkduin & trench cluster

Atlantic wall ruins with

Terrain

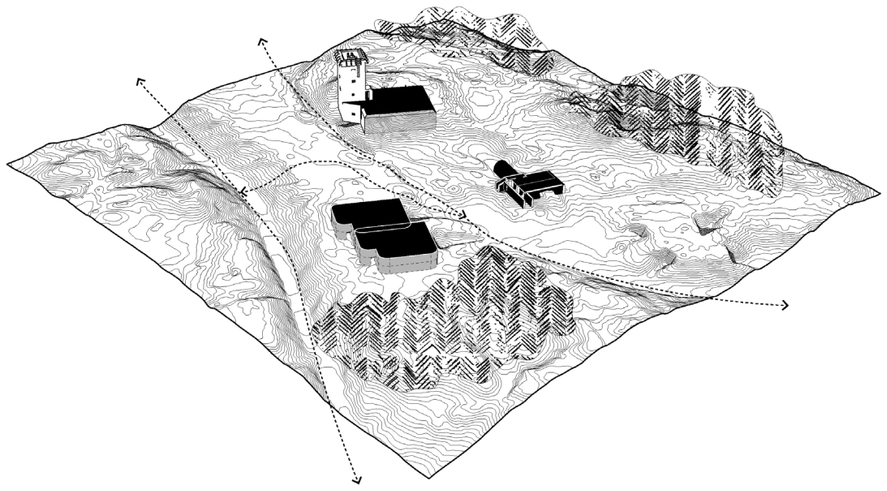


The sleeping ruin

2. Kroontjesbunker complex

Atlantic wall ruins with

Crack

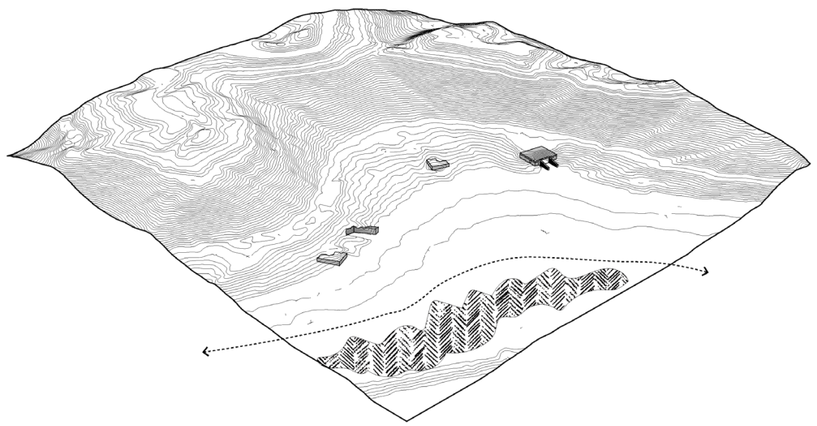


The growing ruin

3. Backup-support bunkers

Atlantic wall ruins with

Brick

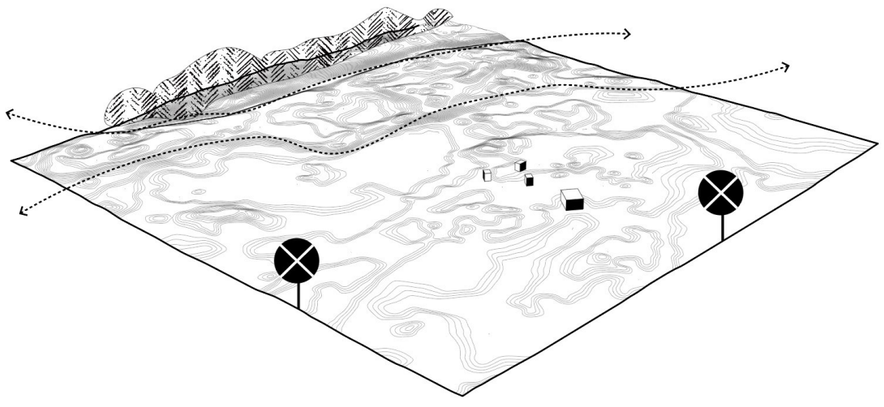


The drifting ruin

4. Searchlight bunkers

Atlantic wall ruins with

Distance



The inaccessible ruin

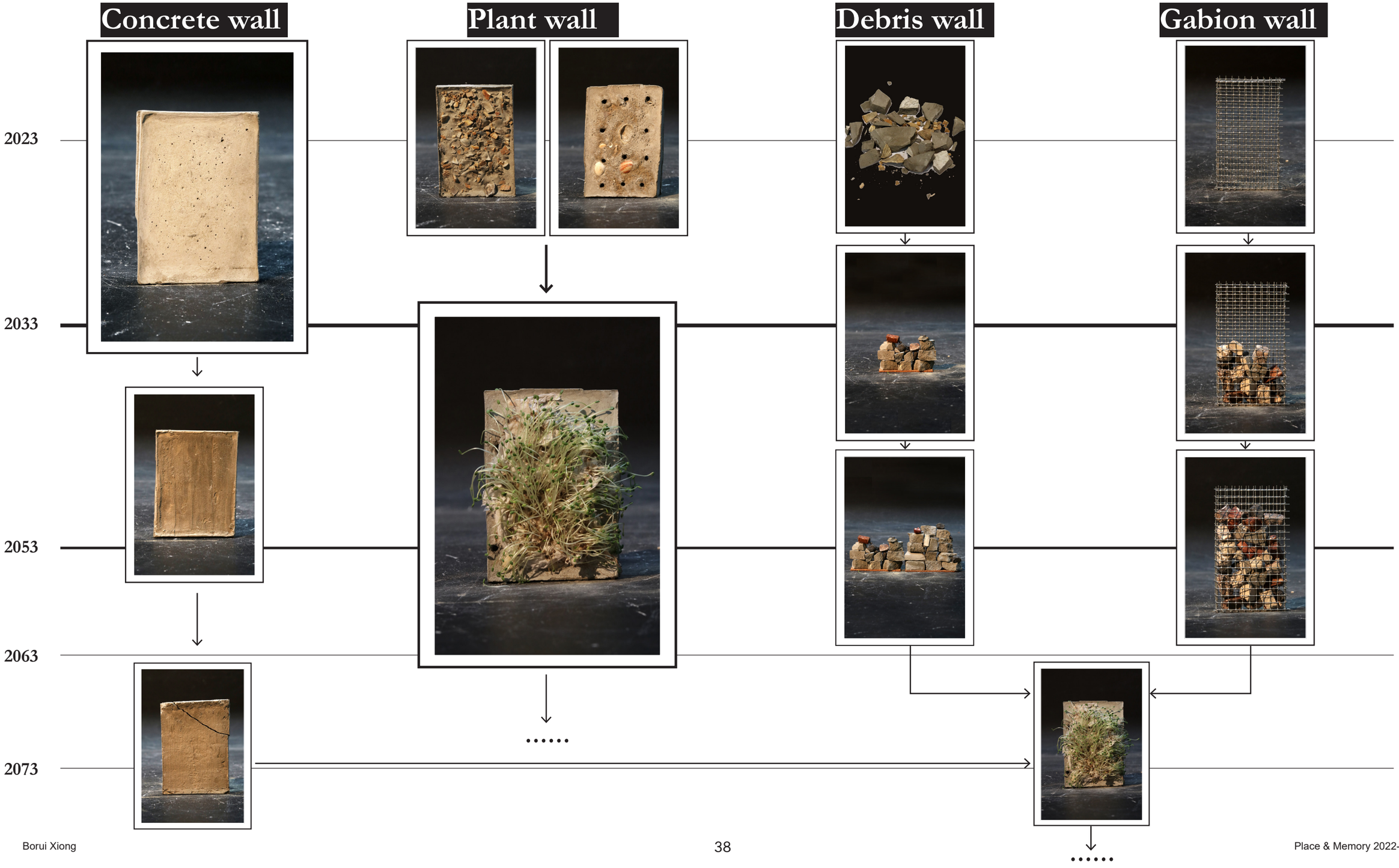
Conceptual prototype

Concrete

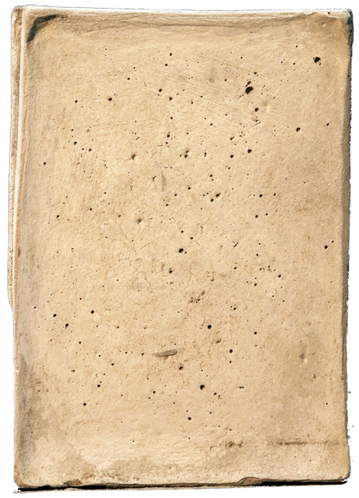
Local materials

Reclaimed bunker bricks and concrete

Transformation

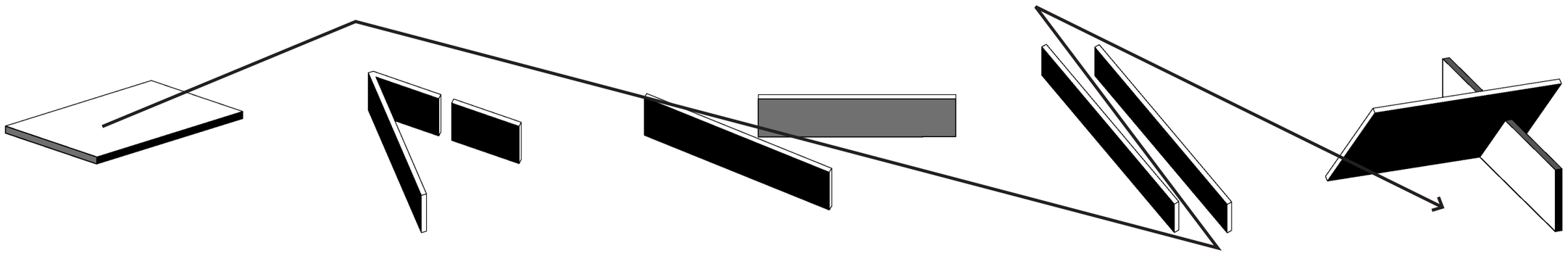


Concrete wall - Spatial combination



concrete wall is made of smooth and solid concrete

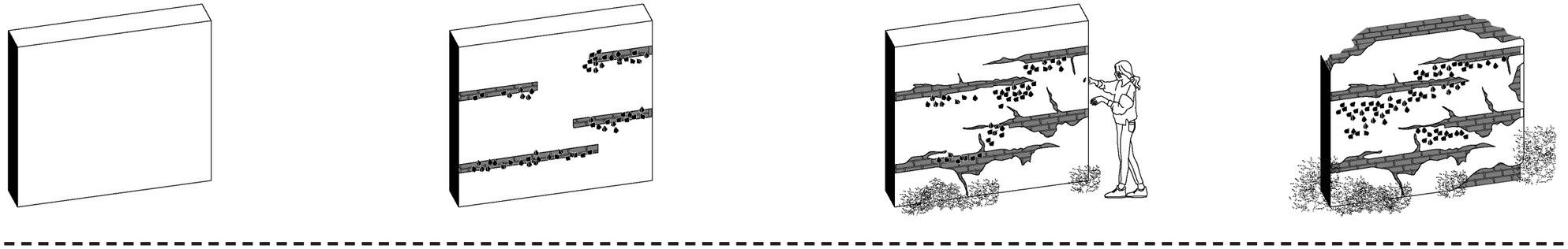
It can be used to shape various spatial relationship between people and ruins.



Plant wall - Time process

Plants will slowly intrude into the wall

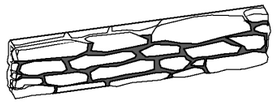
Plant growth and cracks in the wall reflect the time process

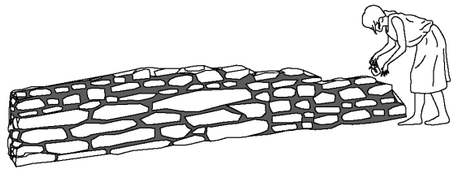


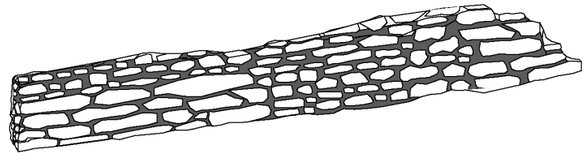
Debris wall - Time process

Reclaimed bricks and concrete blocks from the crumbling bunkers are gradually being constructed as walls.

Residents from the surrounding community will also take part in the wall-building programme.



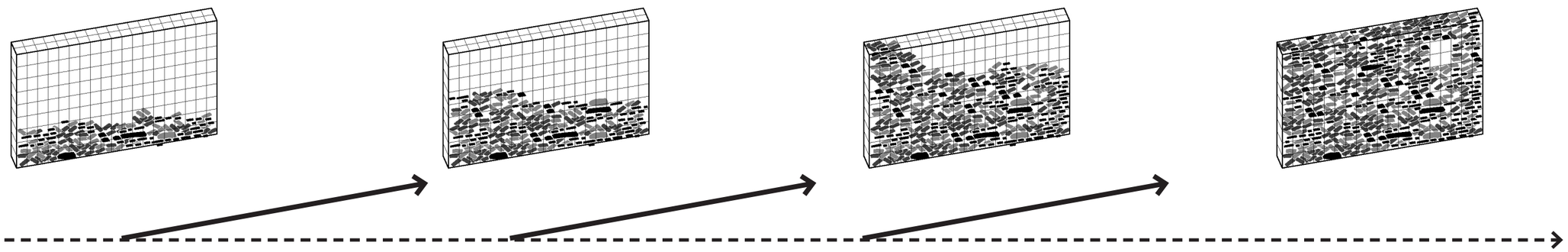




Gabion wall - Symphony of Time & Space

Reclaimed bricks from the crumbling bunkers are gradually filled into the gabion.

The growing gabion wall and the collapsing bunker



RESEARCH

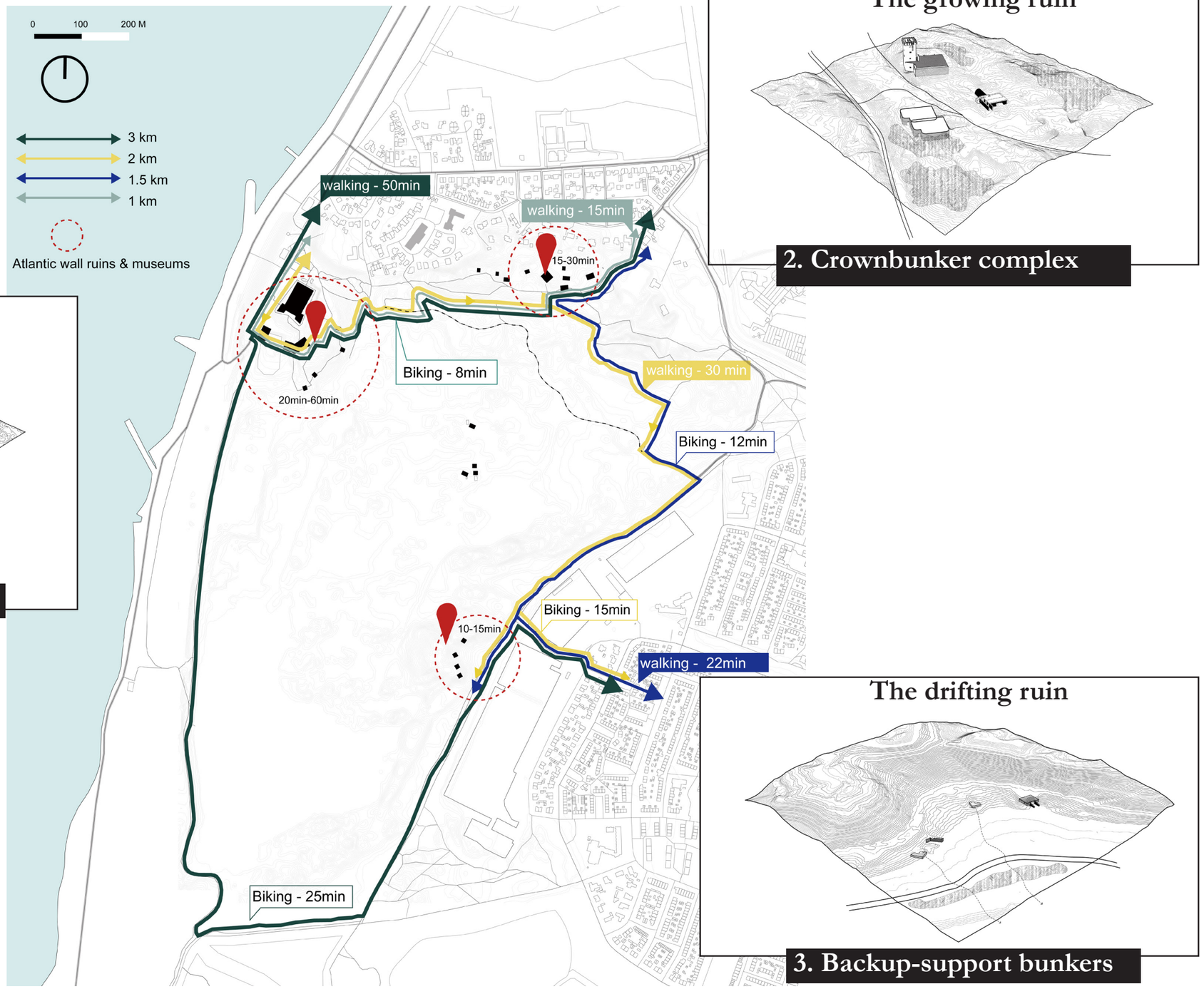
MANIFESTO&CONCEPT

DESIGN PROPOSAL

CONCLUSION & REFLECTION

0
100
200 M
2. Crownbunker complex
1. Fort Kijkduin & trench cluster
4. Searchlight bunkers
3. Backup-support bunkers

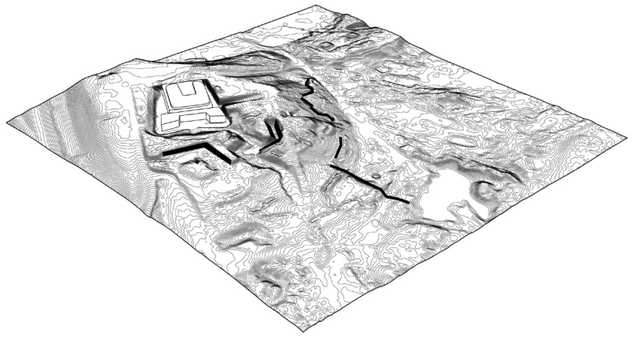
Routing system



The growing ruin

2. Crownbunker complex

The sleeping ruin

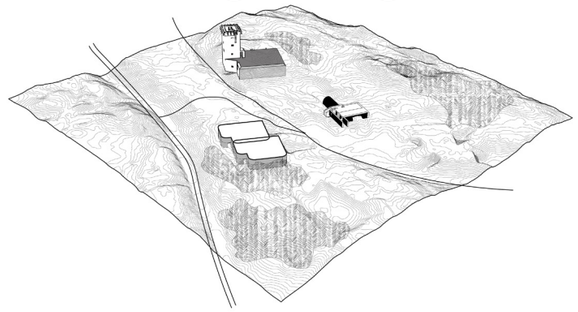


1. Fort Kijkduin & trench cluster

The drifting ruin

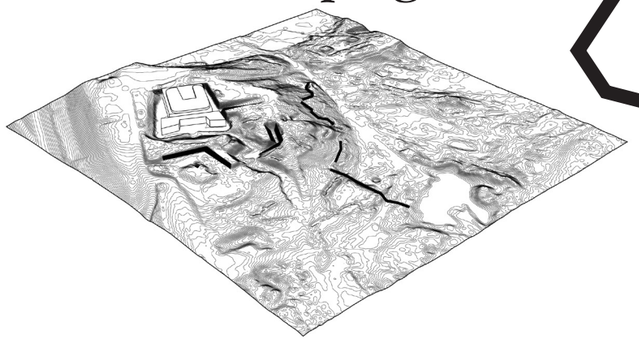
3. Backup-support bunkers

The growing ruin



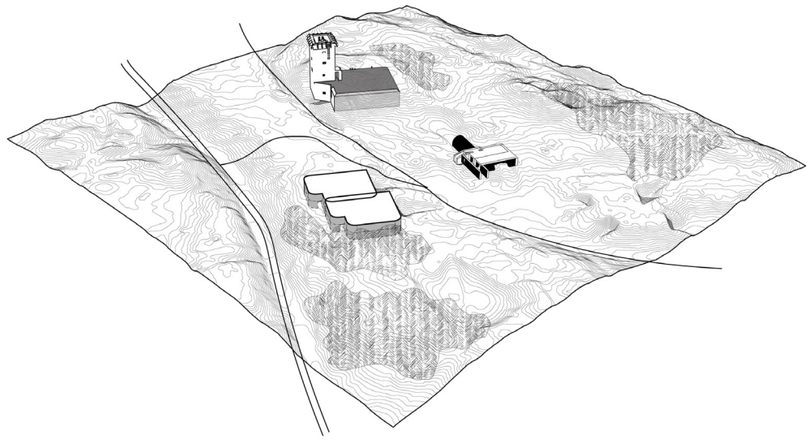
2. Crownbunker complex

The sleeping ruin

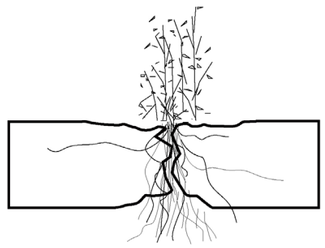


1. Fort Kijkduin & trench cluster

THE GROWING RUIN

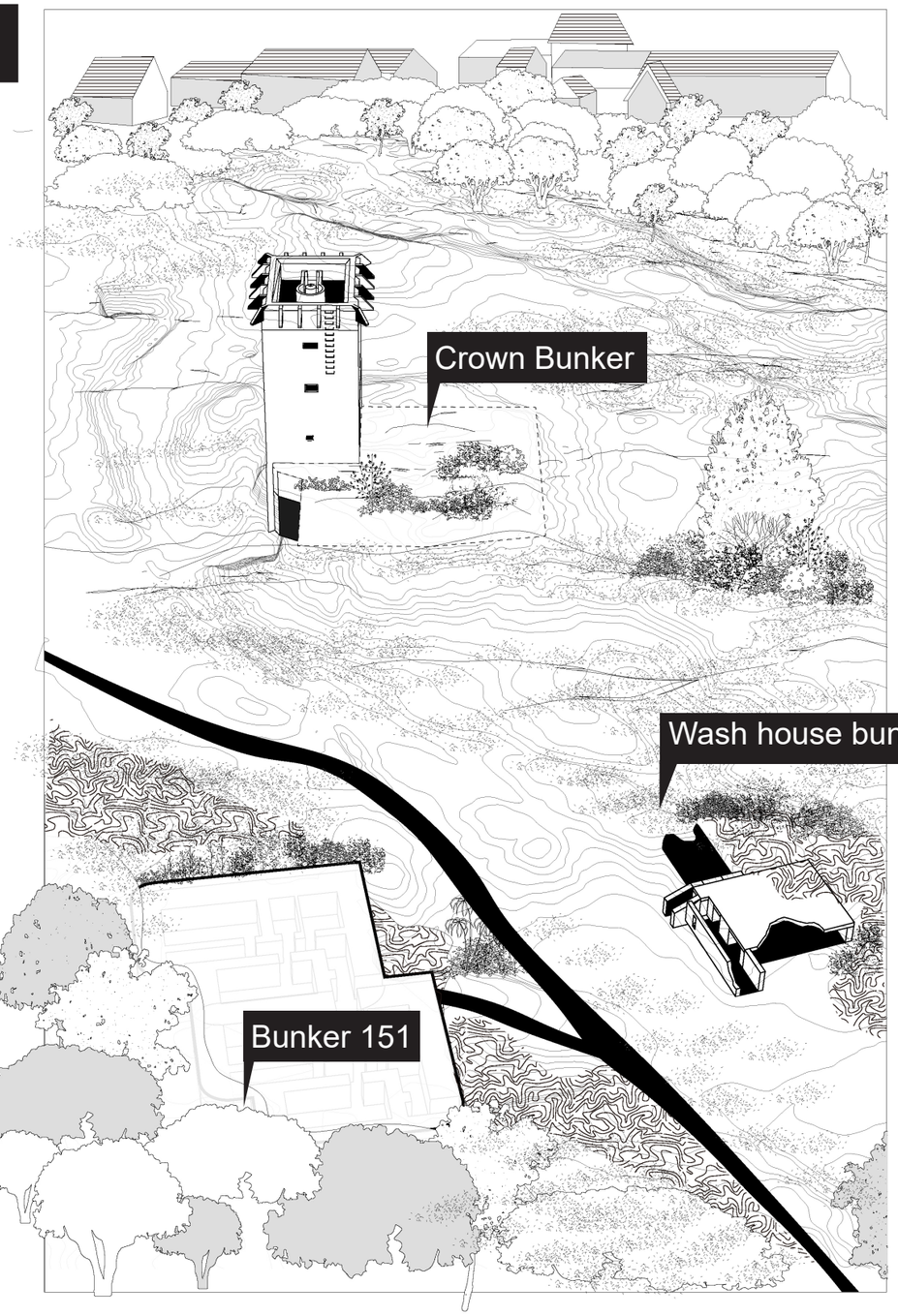


Crack



Get involved with the decaying process

2023

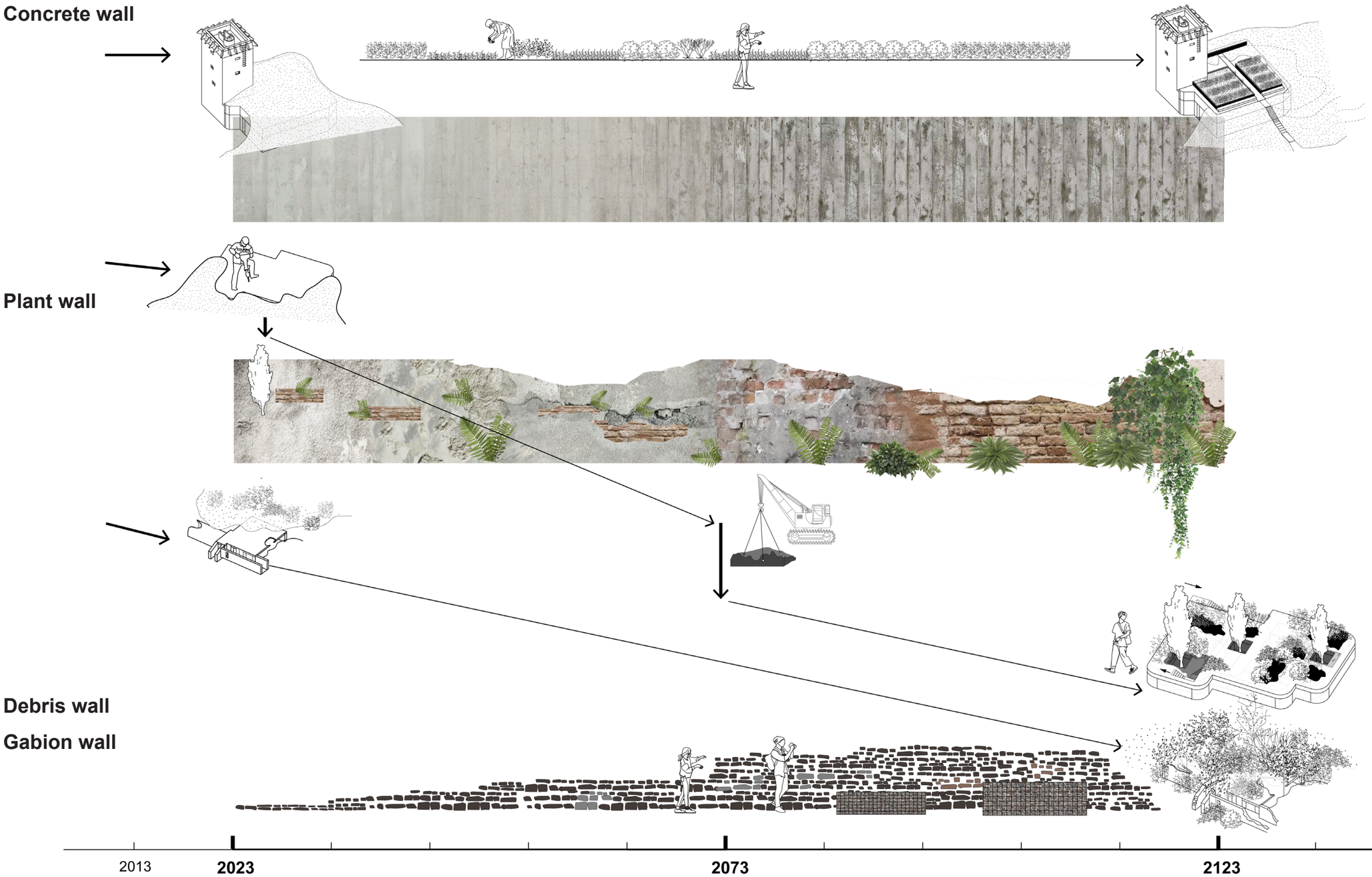


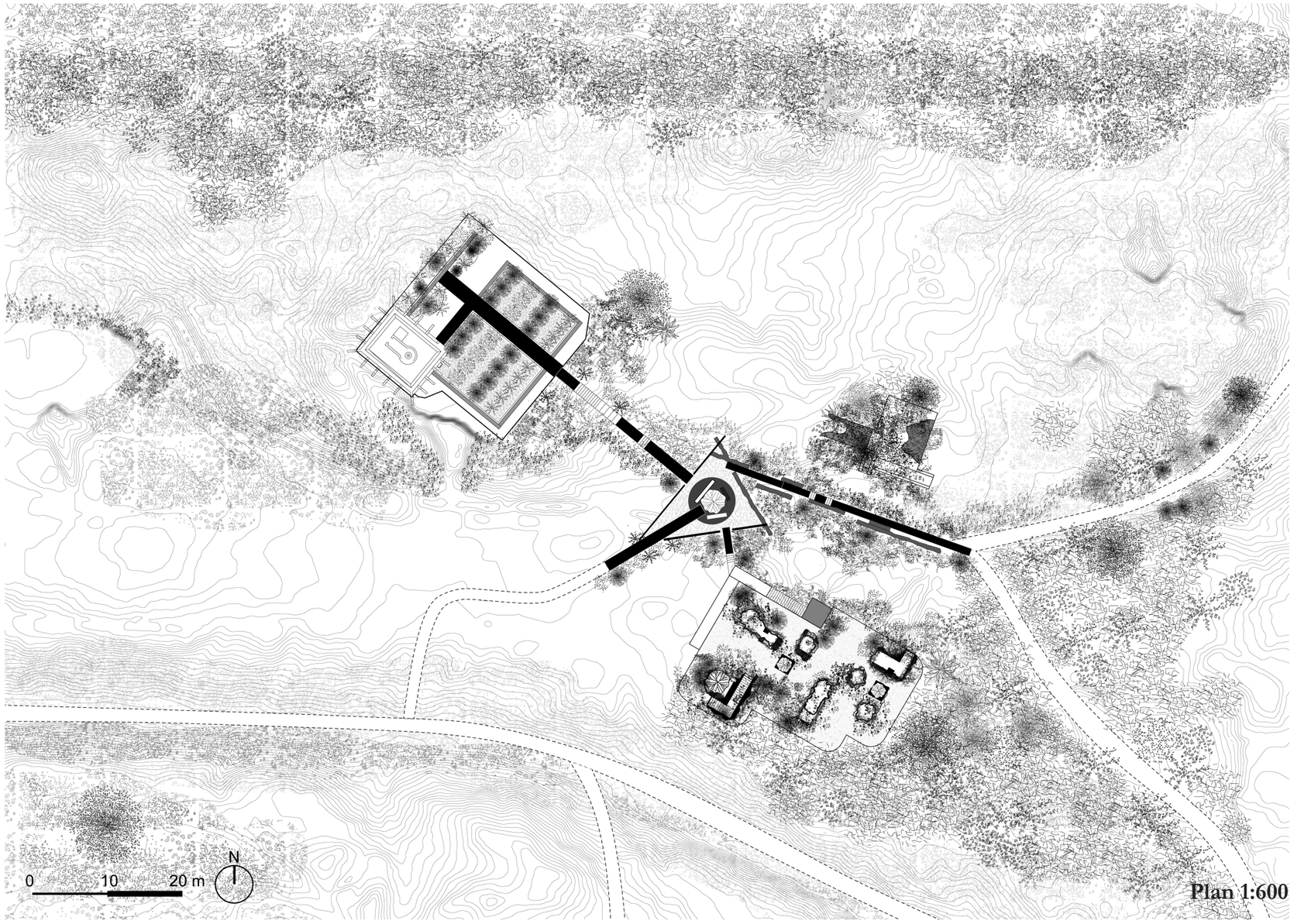
level 1 - FI250
(used to be a radar station, now function as museum, known as the crown bunker)

level 2 - M151
(used to be a shelter)

level 3 - Wash house
(used to be a shelter and wash house)

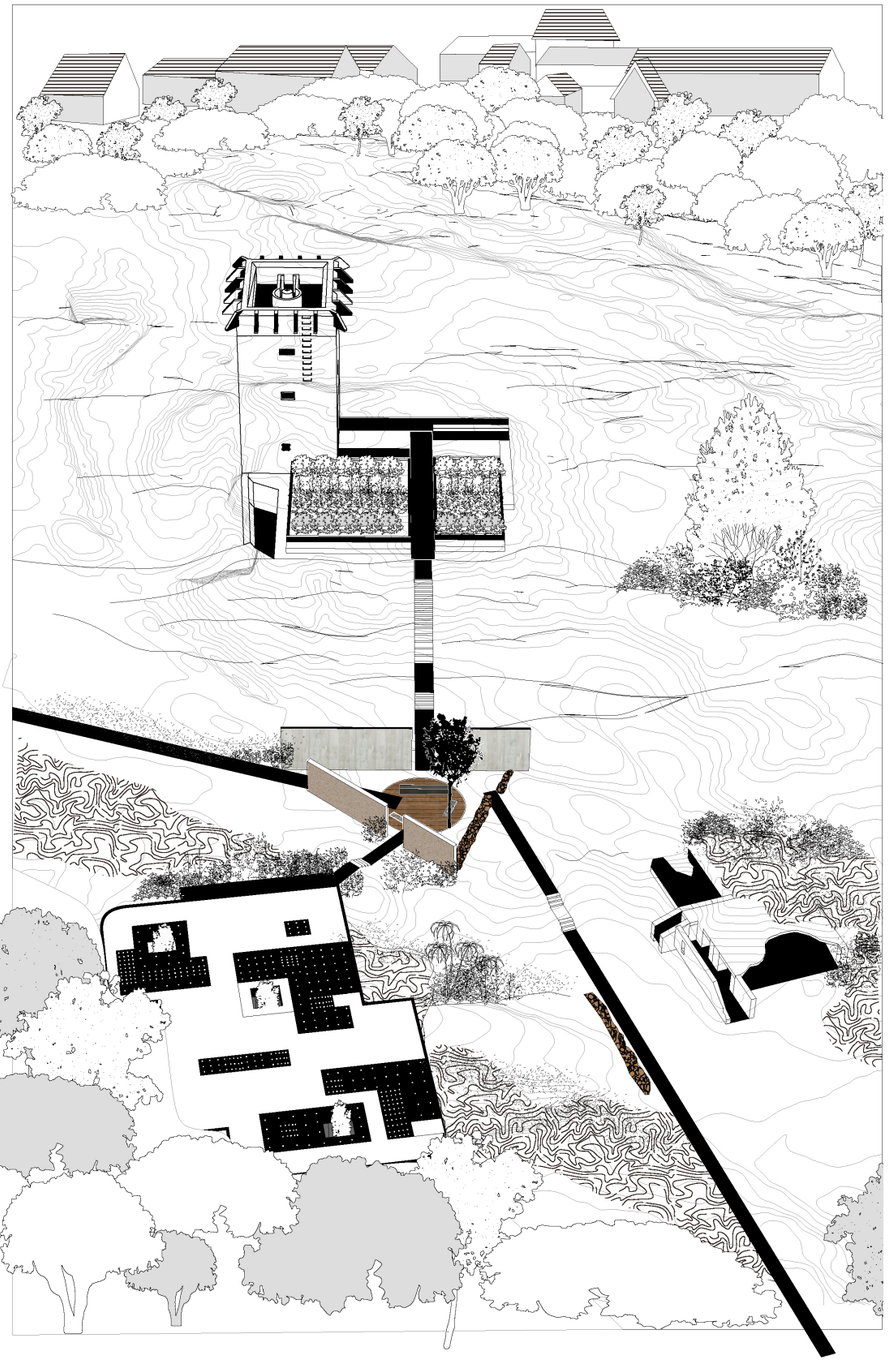
Intervention strategy



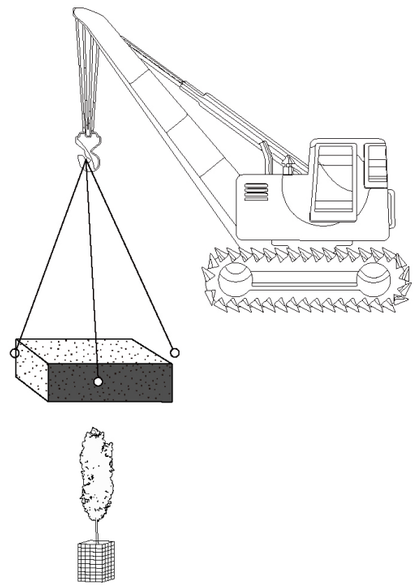


Plan 1:600

2023

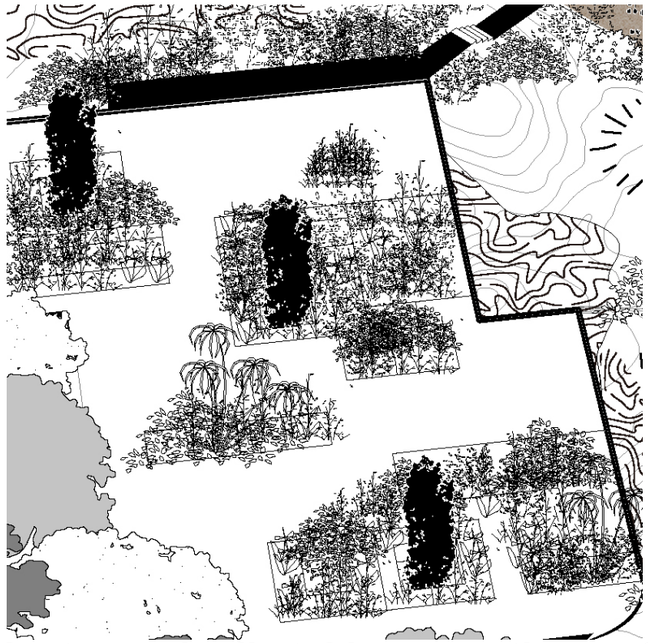


Drilling

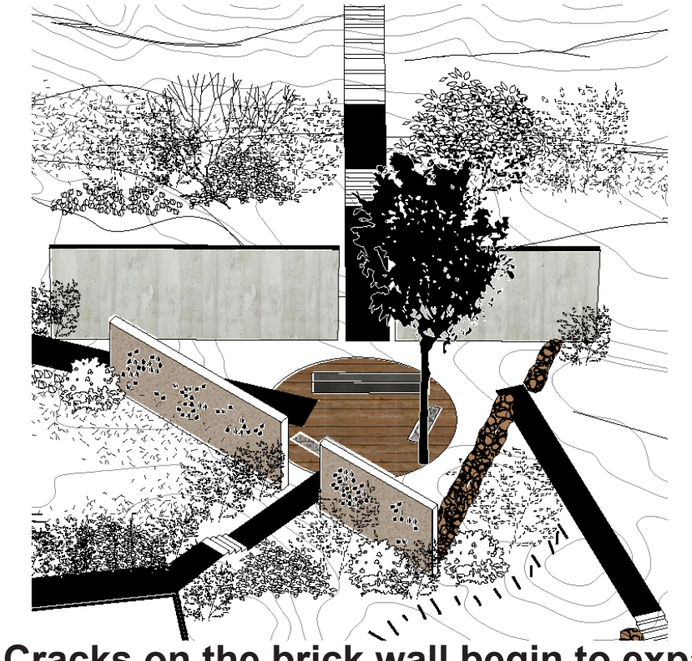


Populus tremula

2053

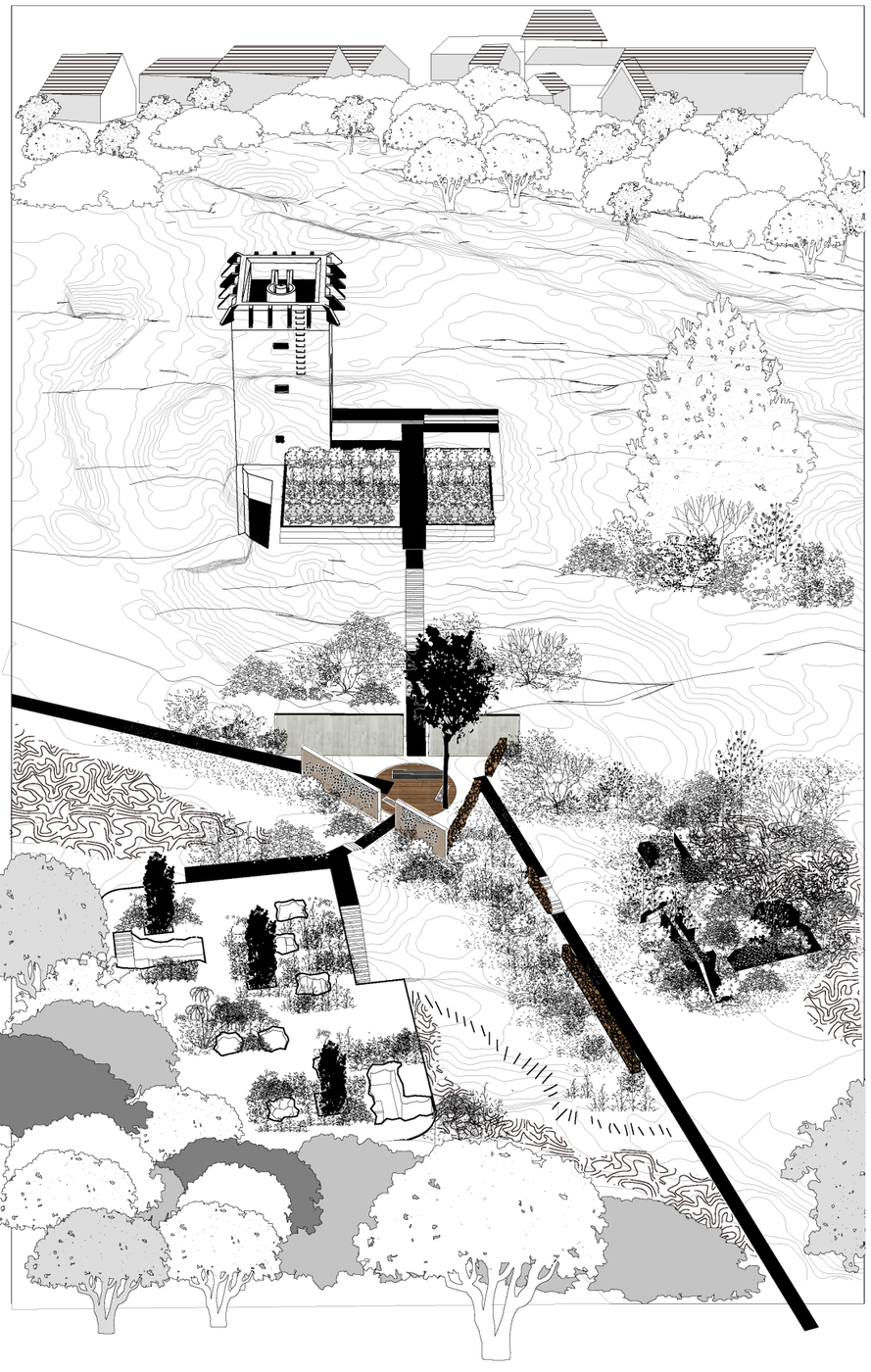


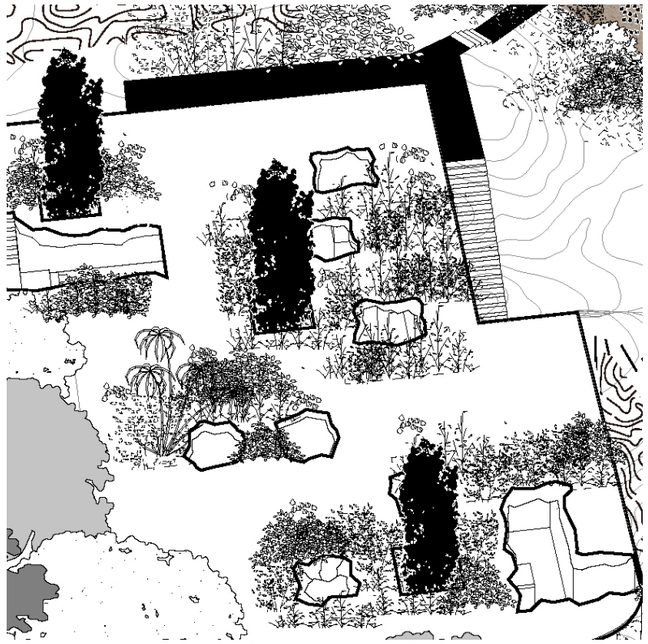
Plants gradually taking over the roof



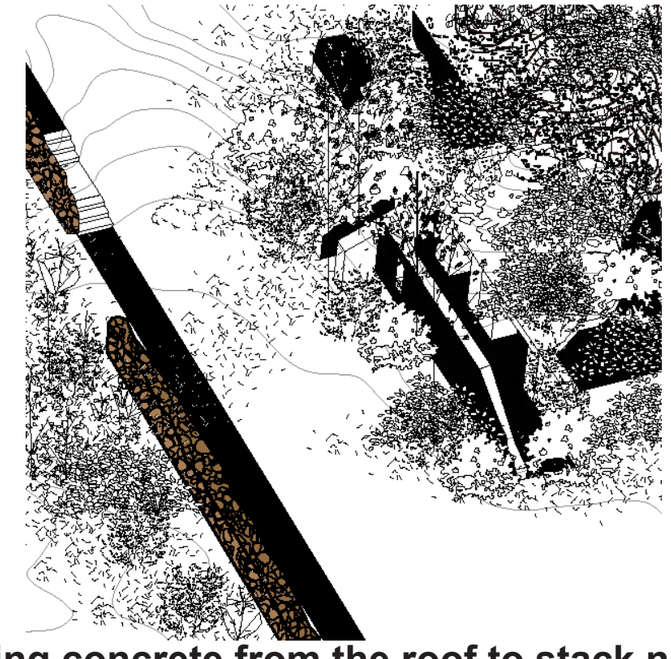
Cracks on the brick wall begin to expand

2073



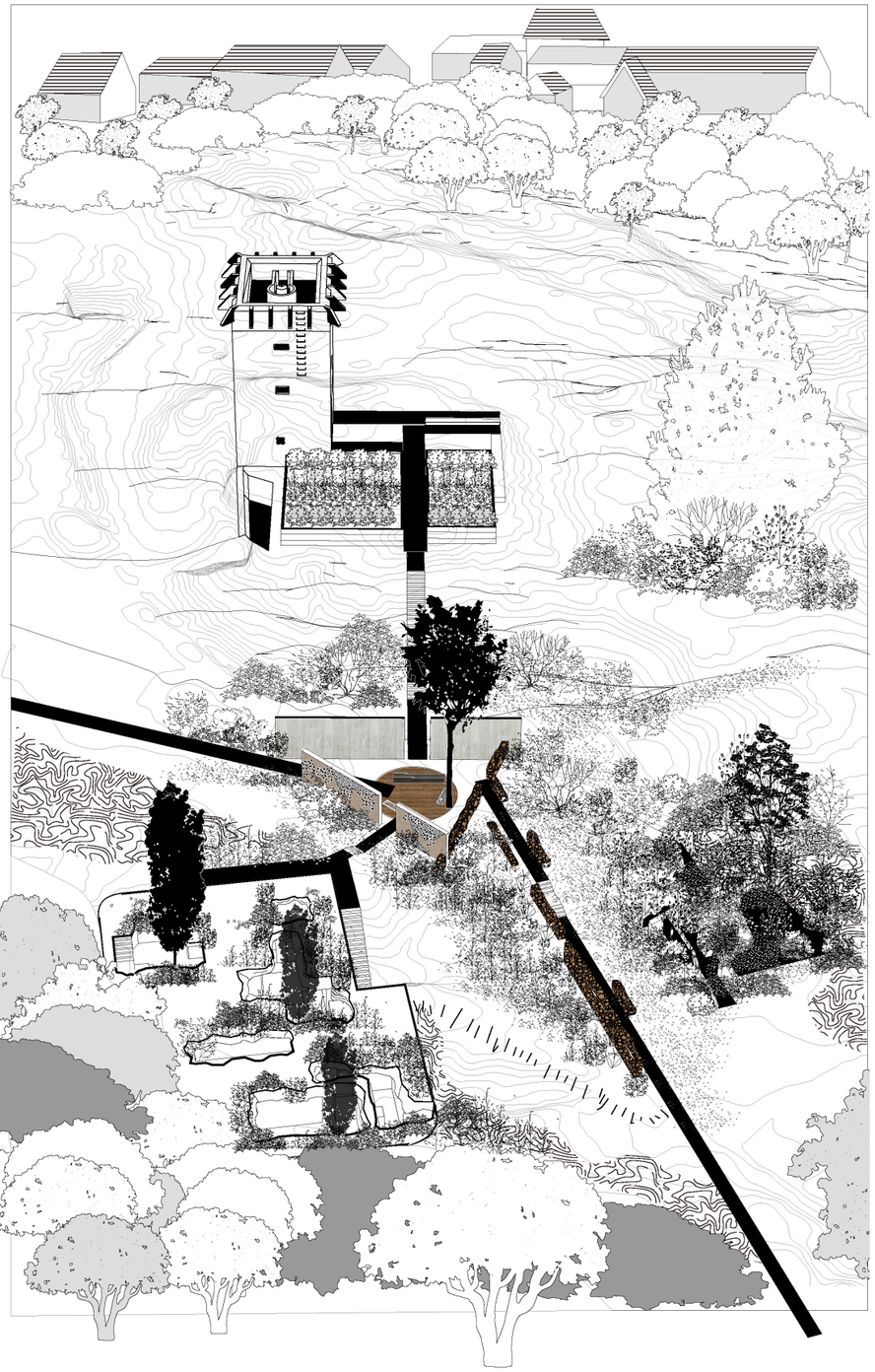


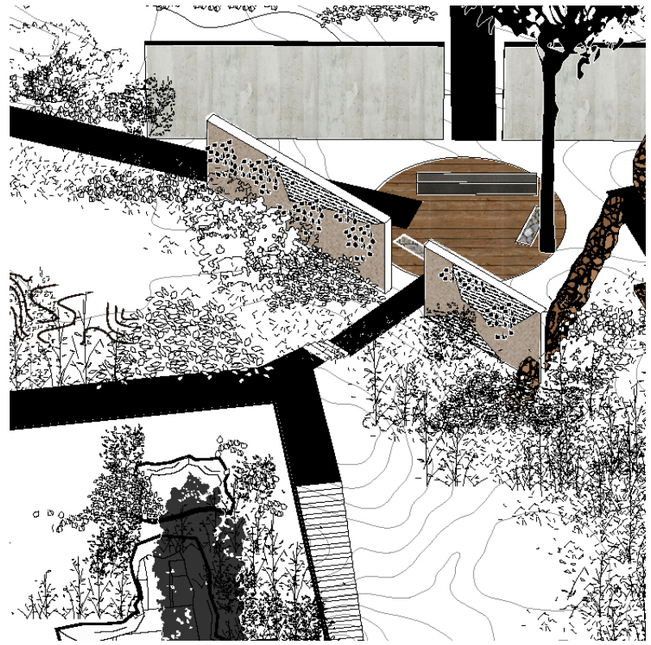
roof removal



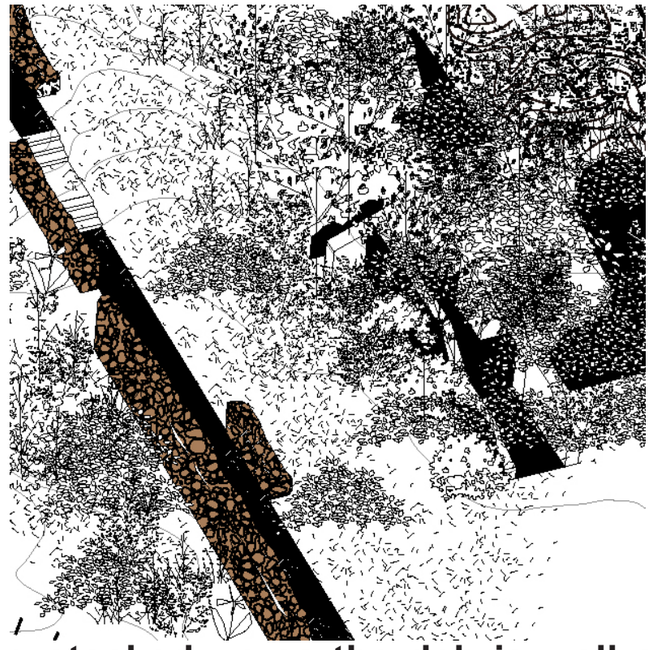
Reusing concrete from the roof to stack new walls

2123





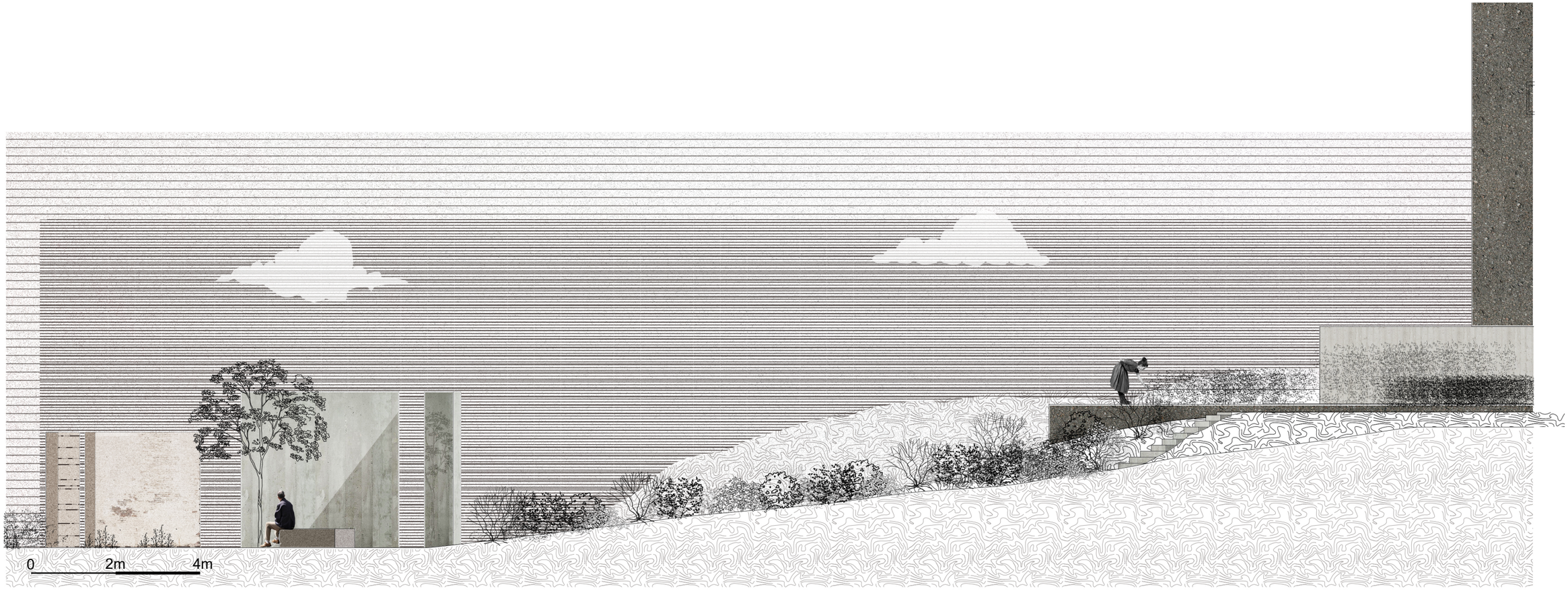
Scattered bricks and debris allow plants to grow



Bricks being stacked up as the debris wall or put into the gabion as bench.

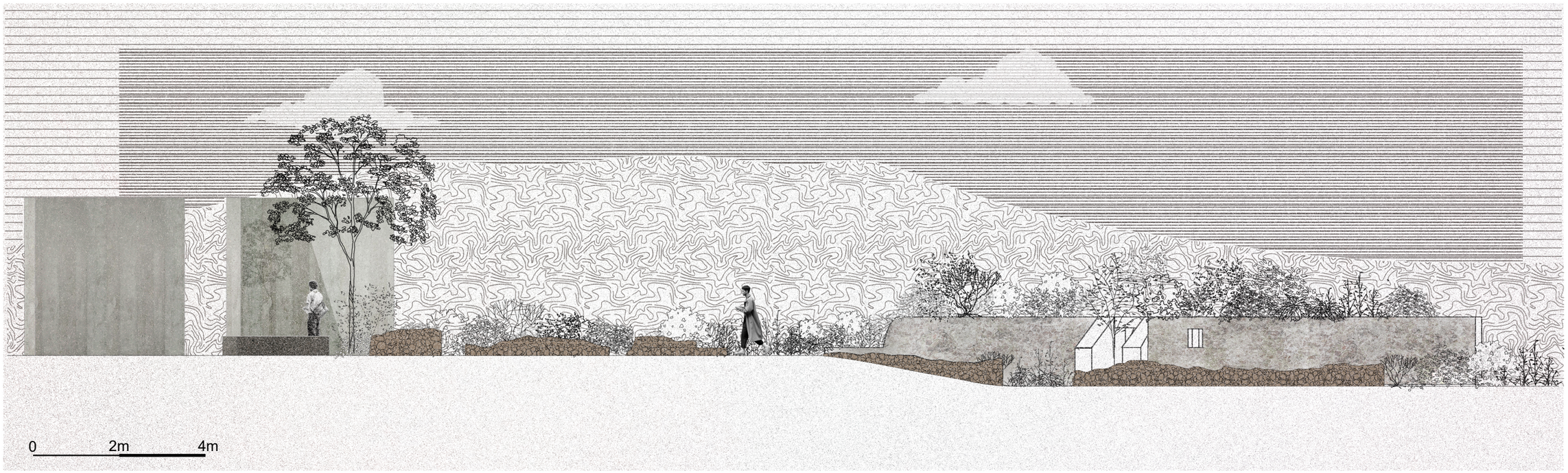
Triangle of time

2023 The smooth concrete walls reflect the cracked walls and time flows between them.



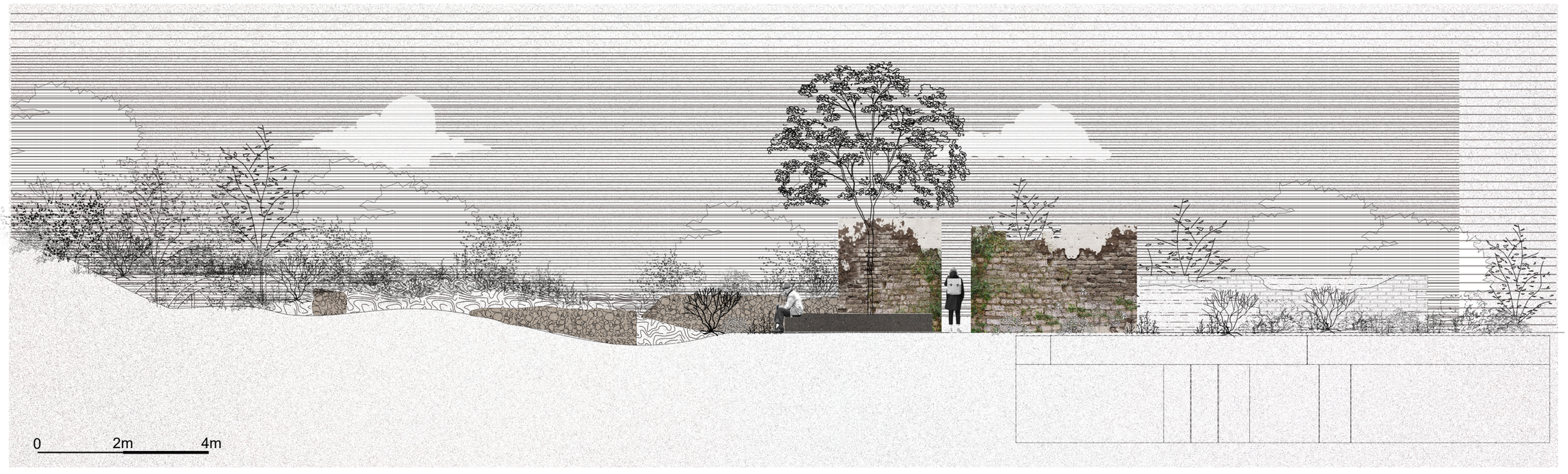
2073

The plants slowly invade the bunkers and the removal of the underground bunker roofs begins, the fallen bricks will be used to stack up into new walls.



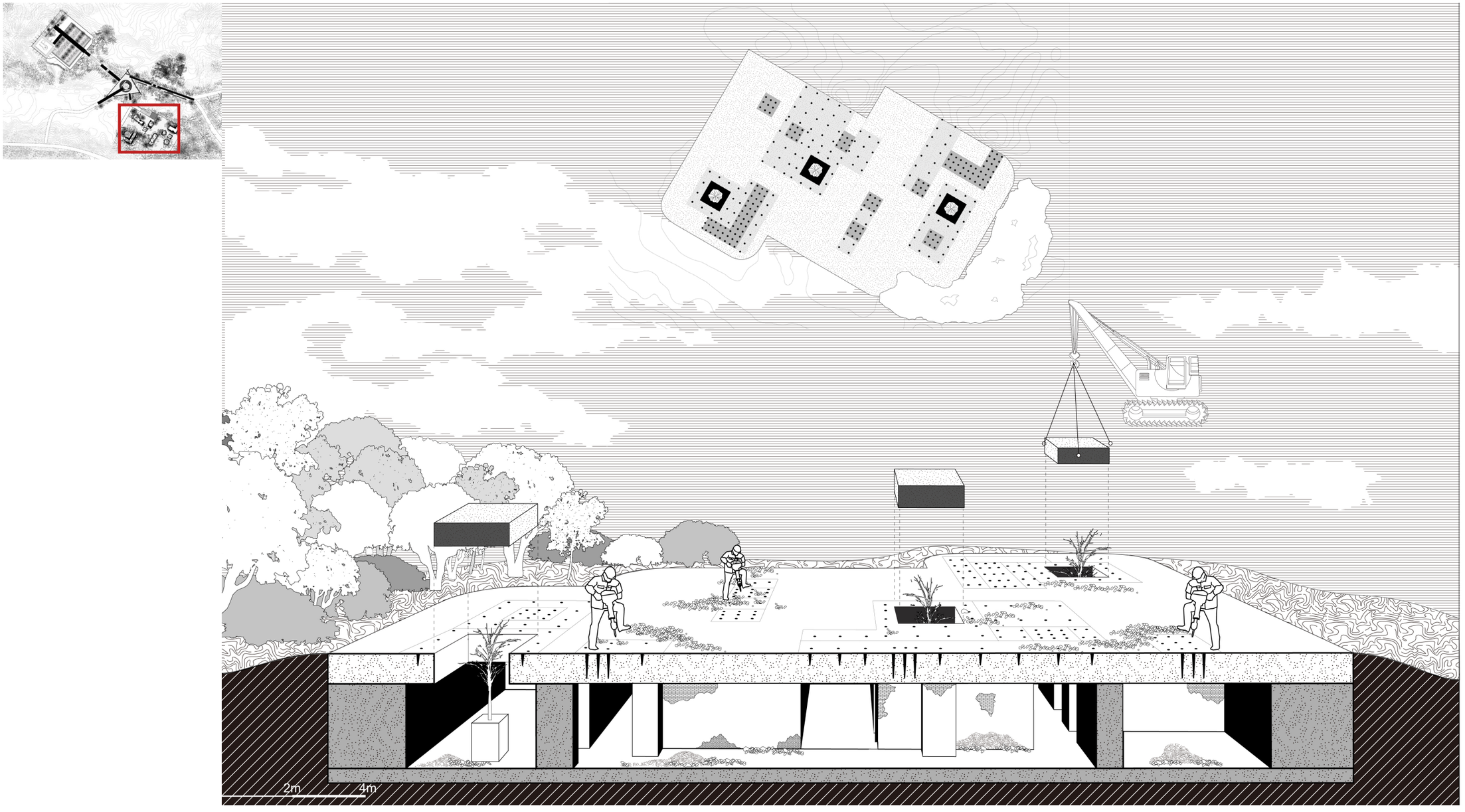
2123

The plants are gradually gaining ground on the brick wall, which displays more traces of decay, with the wall peeling off and the internal brickwork showing through.



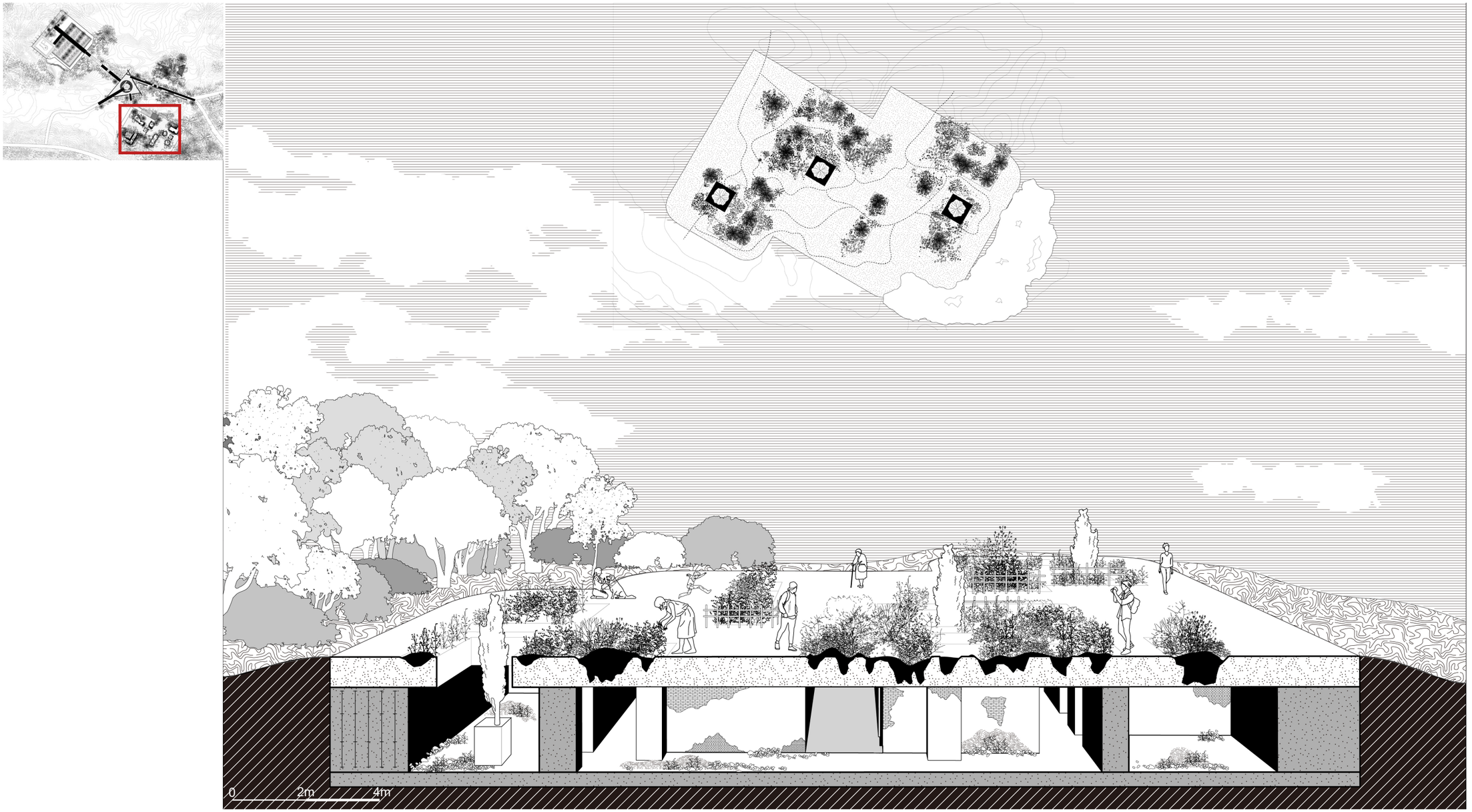
Bunker 151

2023 - Drilling



Bunker 151

2053 - Plants growing

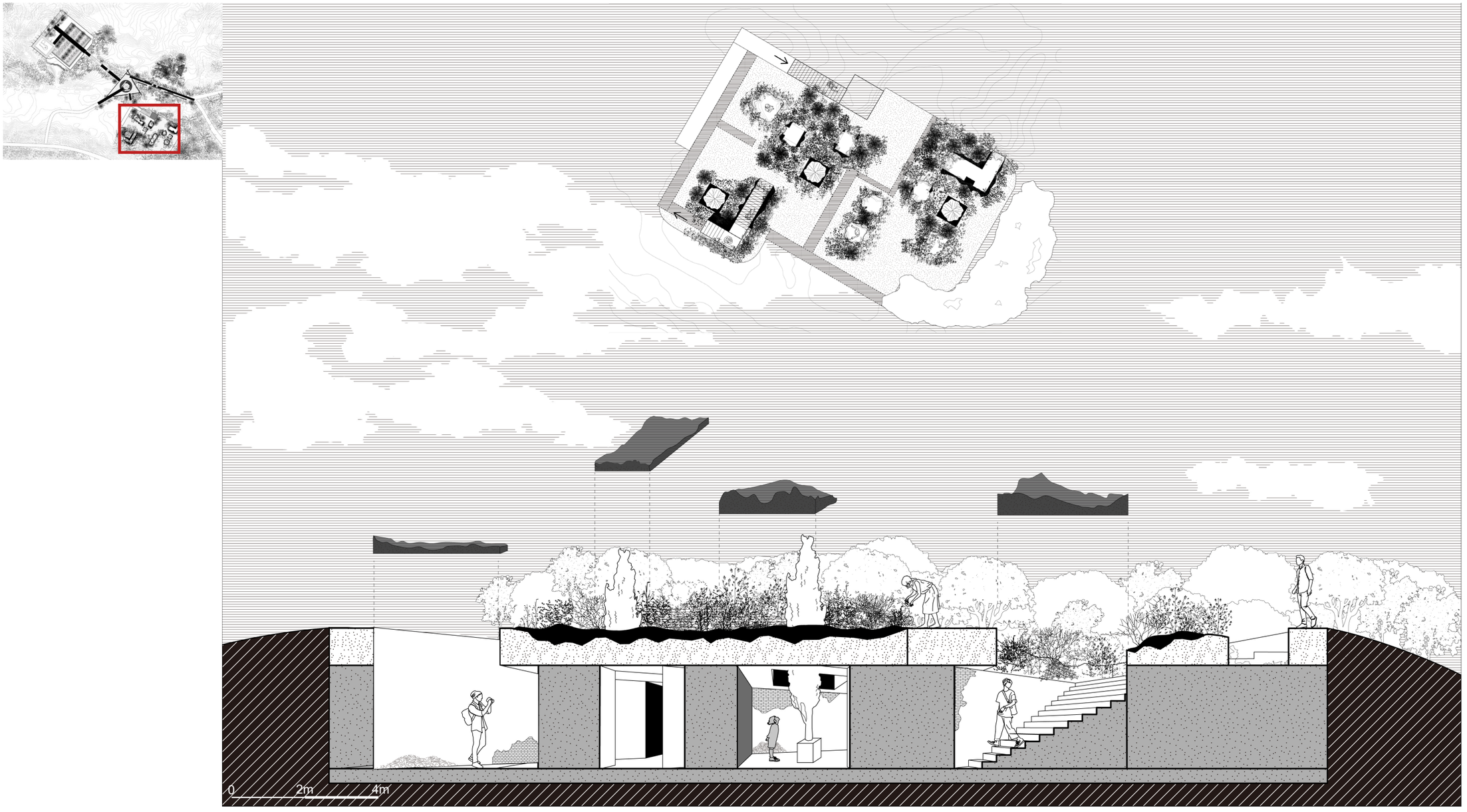


Bunker 151

2073 - Limited accessible area

Bunker 151

2073 - Remove the weak roof



Bunker 151

2123 - Accessible underground area

Bunker 151
Underground

Bunker 151
Underground

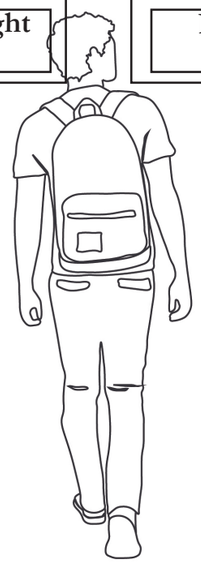
Borui Xiong

initial cracks

Mosses and lichens

More extensive moss and very light grass

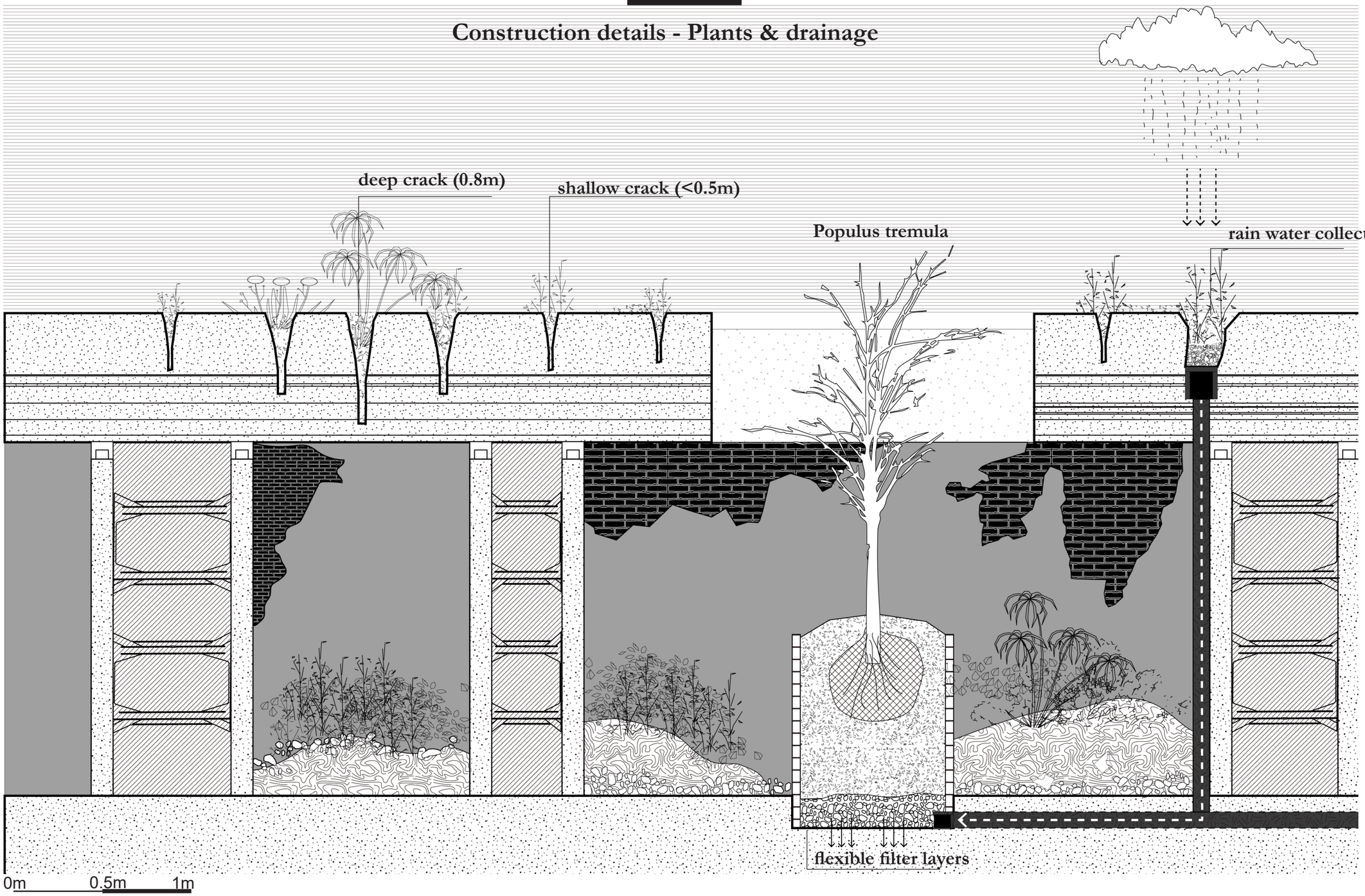
Plants gradually covering the surface



Bunker 151

2023

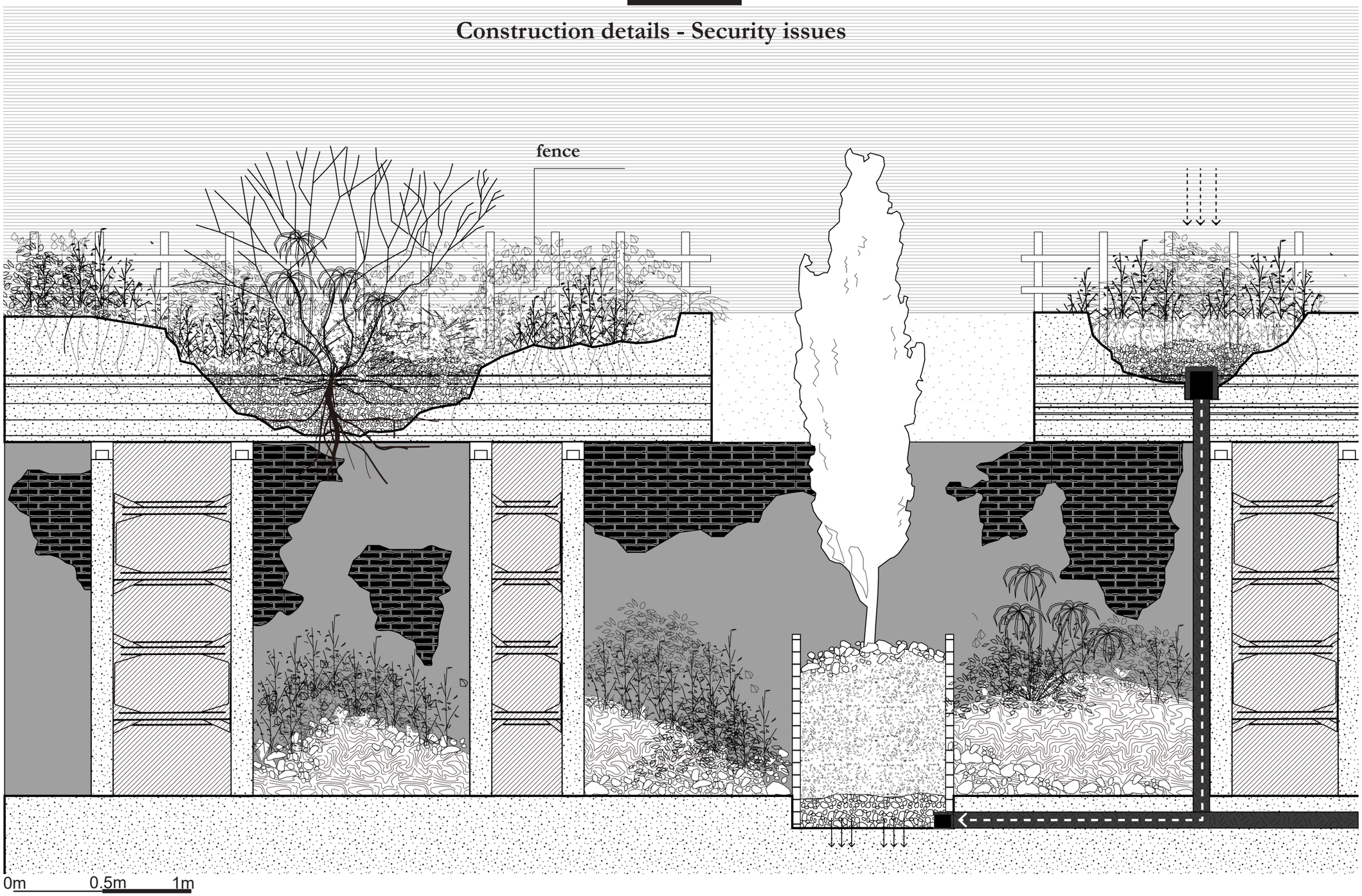
Construction details - Plants & drainage



Bunker 151

2053

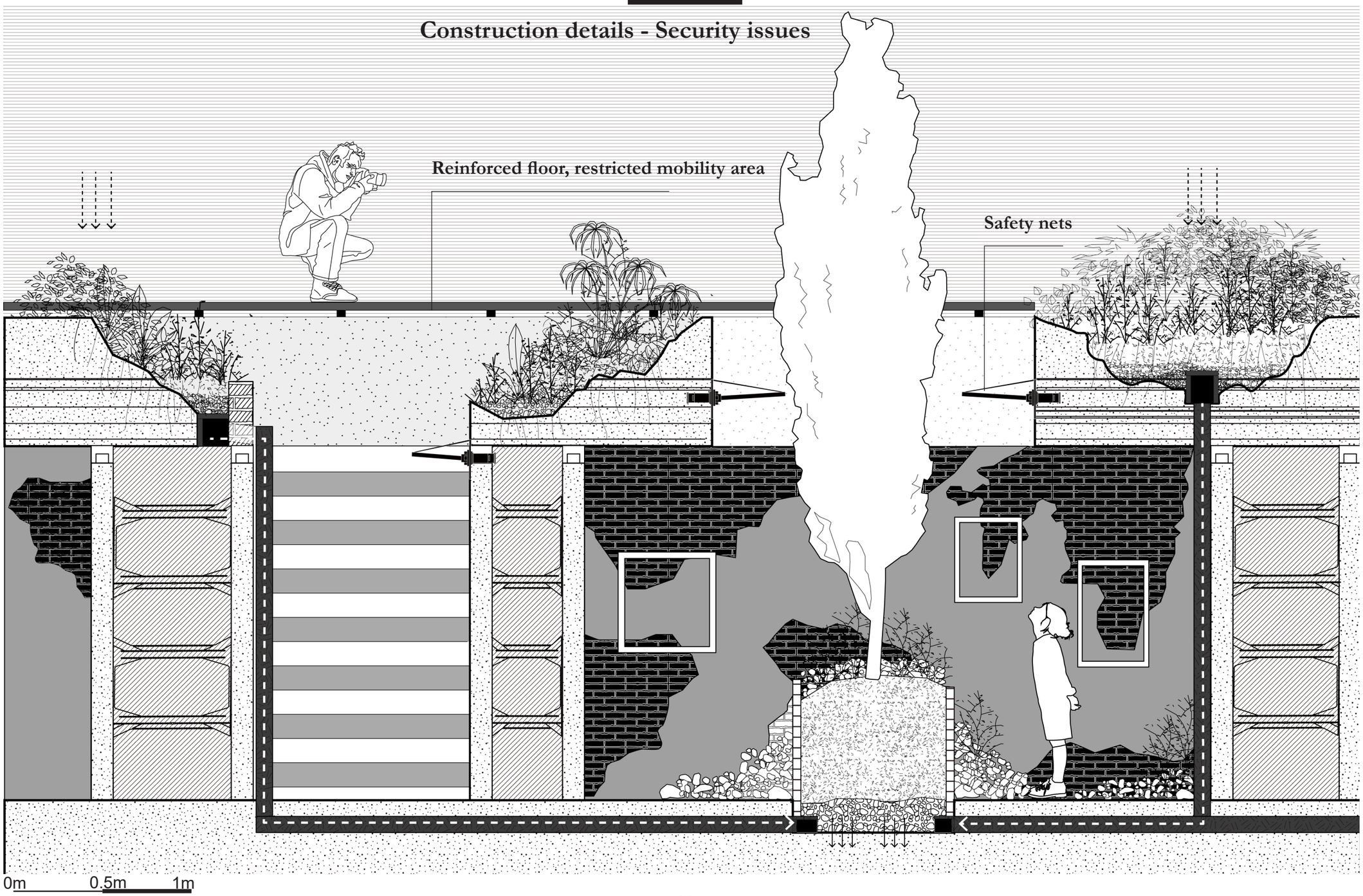
Construction details - Security issues



Bunker 151

2073

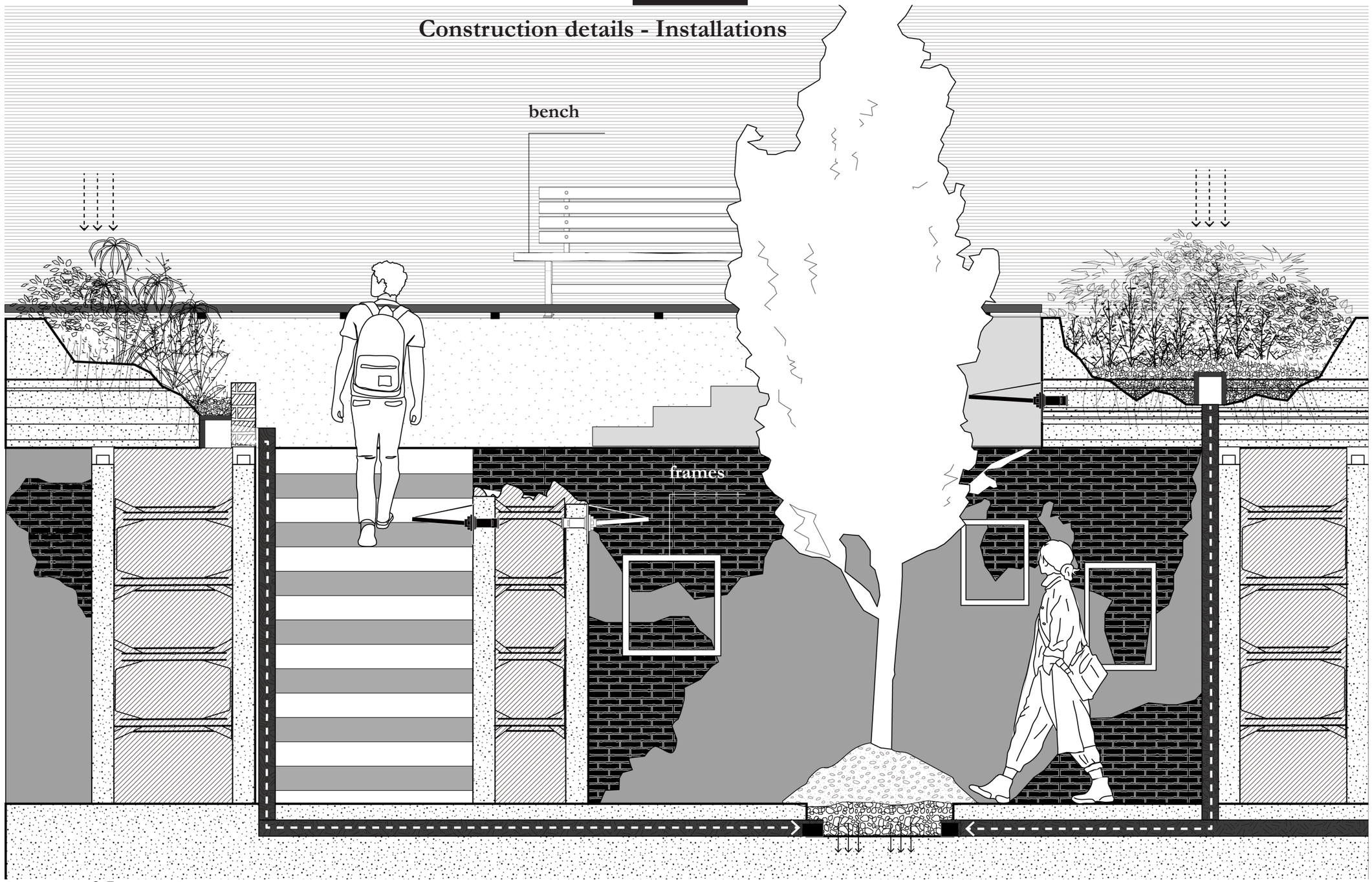
Construction details - Security issues

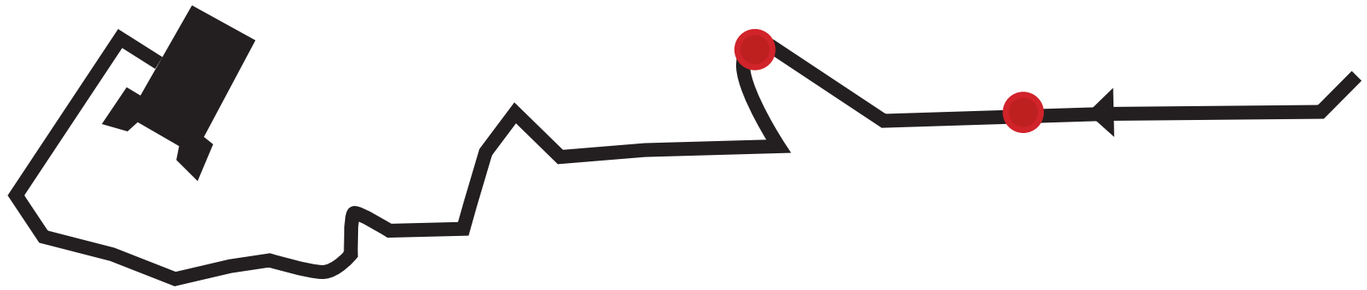


Bunker 151

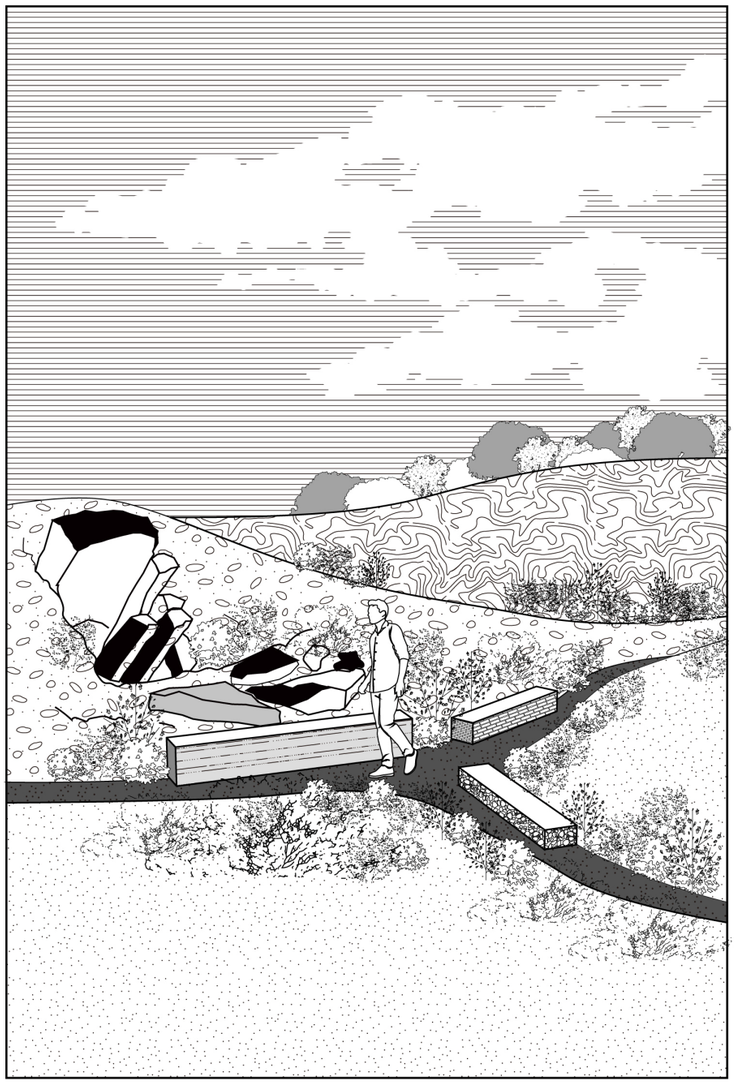
2123

Construction details - Installations

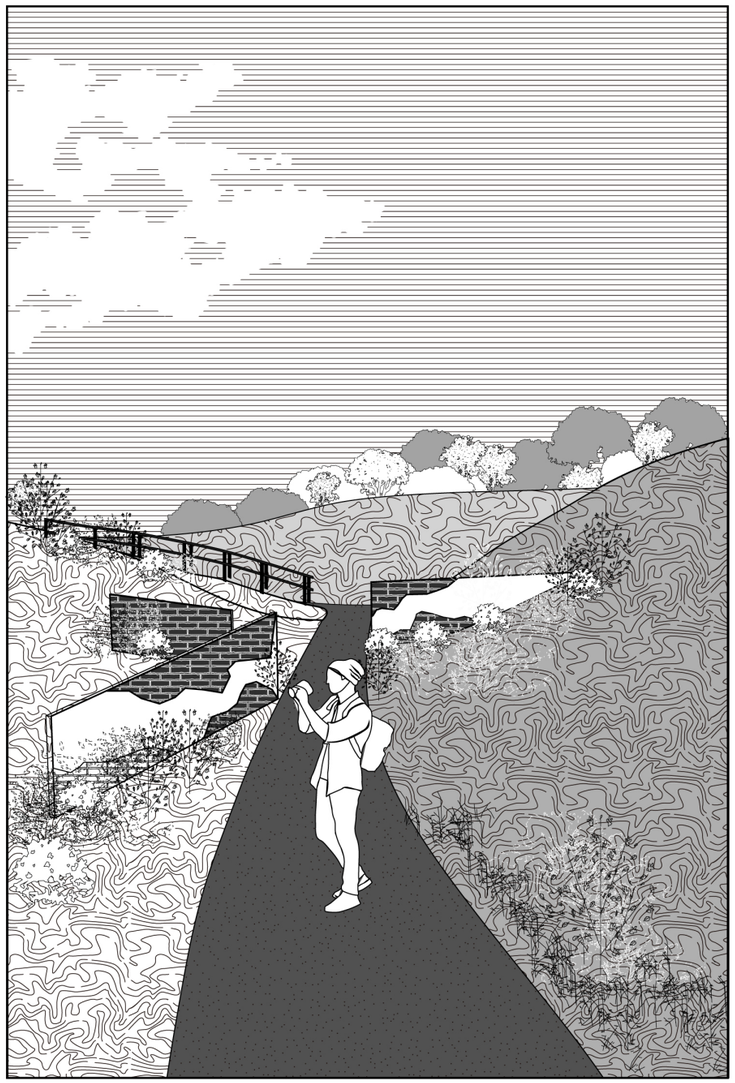




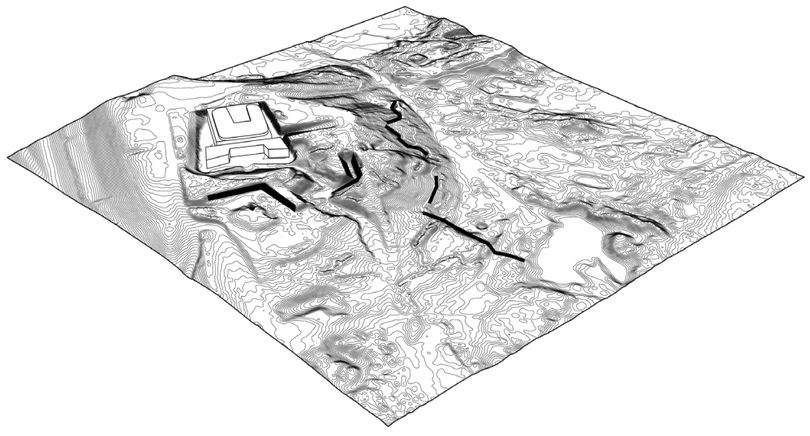
Bench



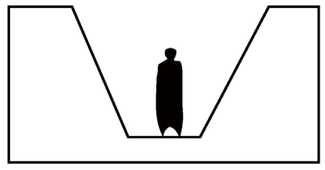
Guiding sign



THE SLEEPING RUIN

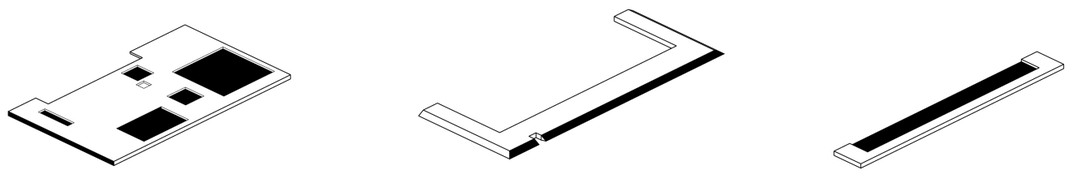


Terrain

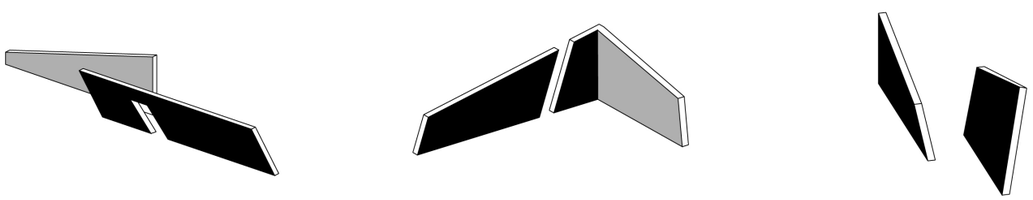


Walk through the history

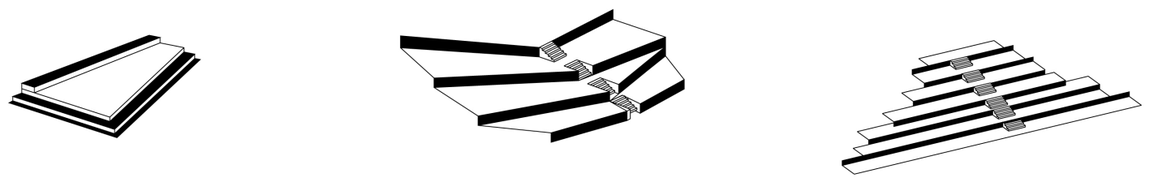
Platform



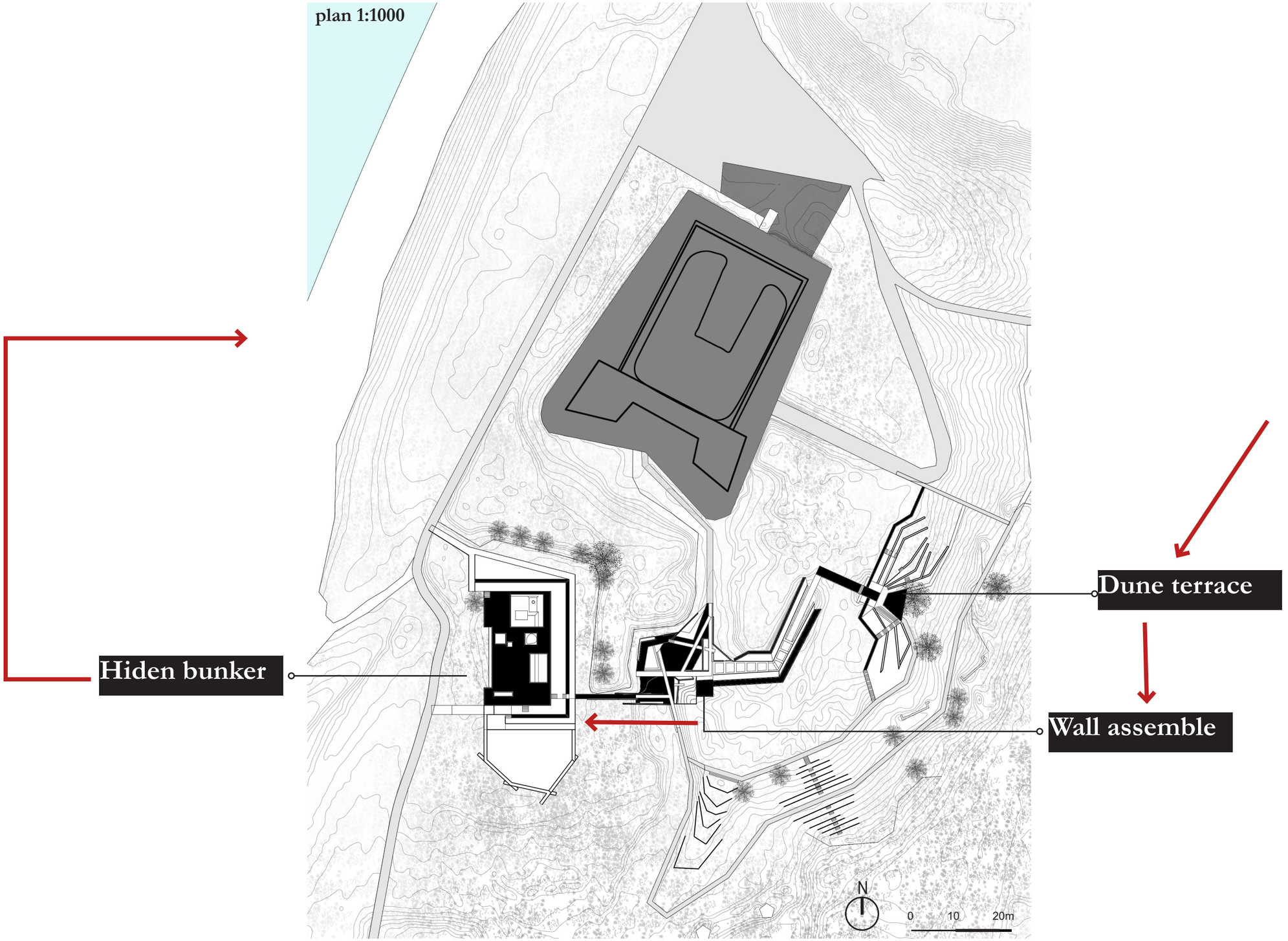
Wall



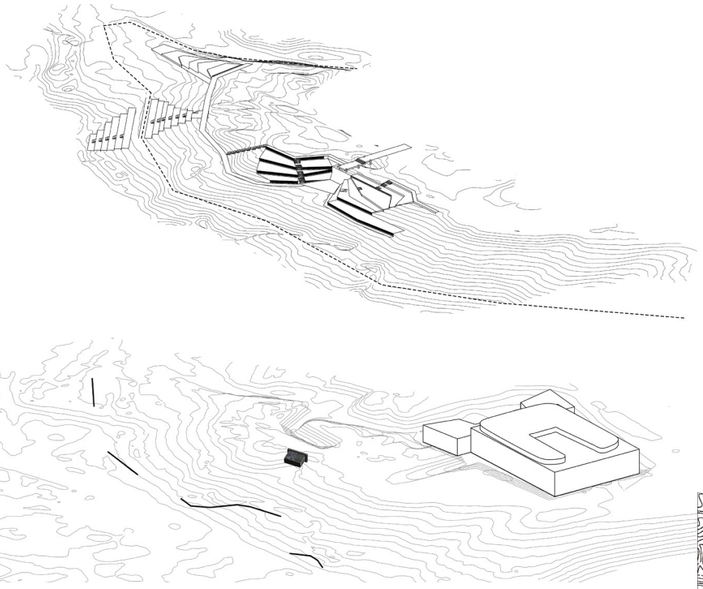
Terrace

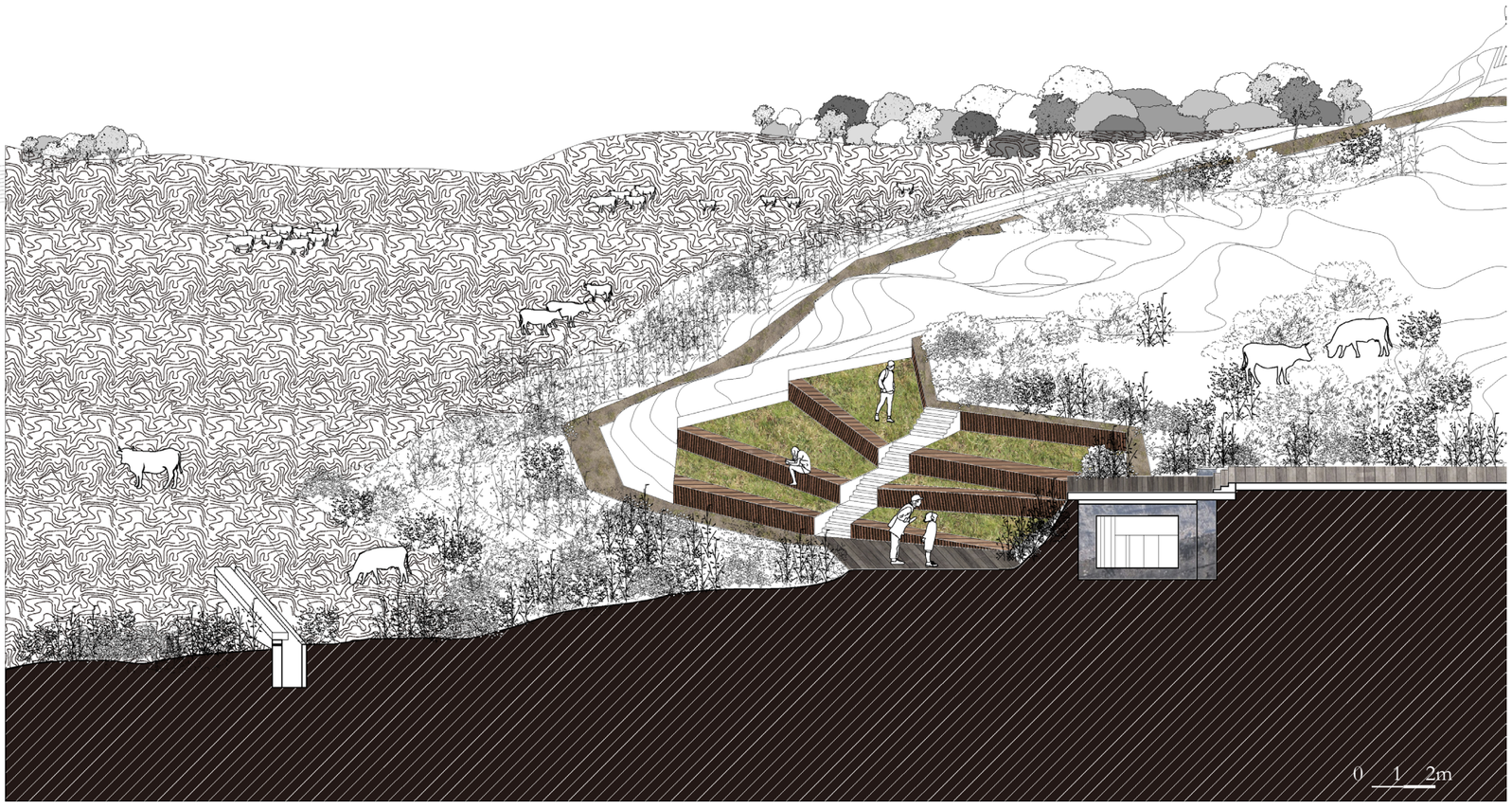


plan 1:1000

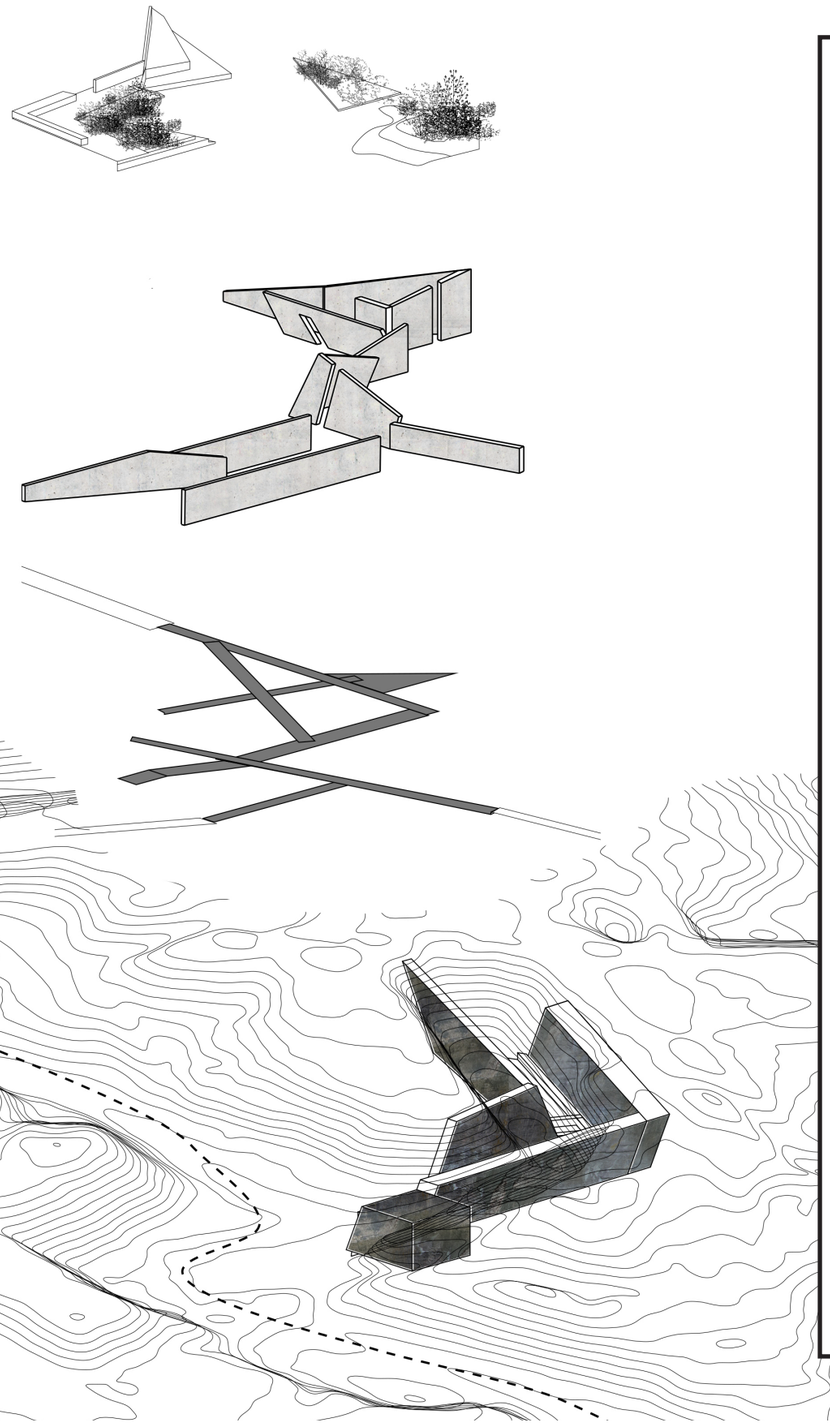


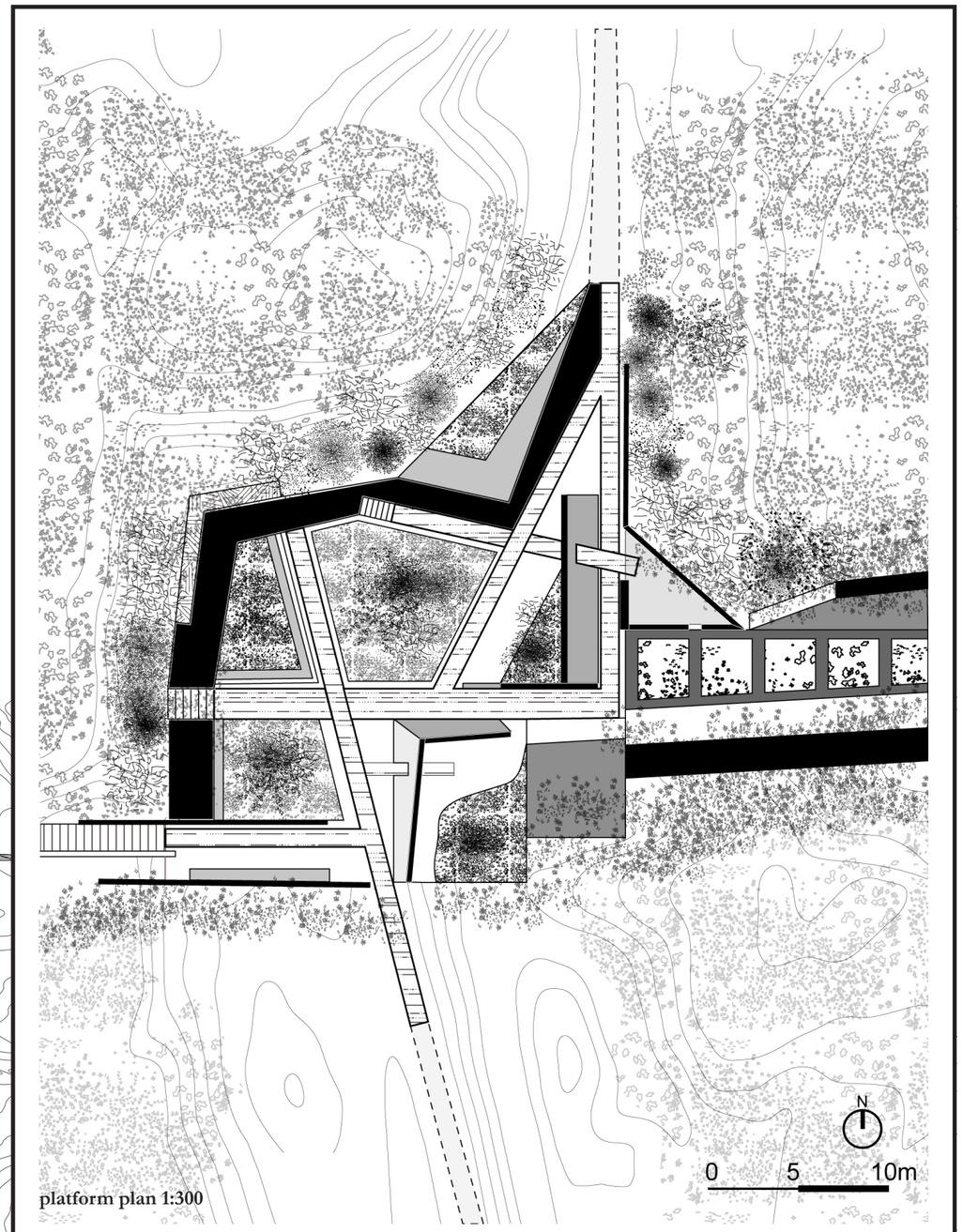
Dune terrace



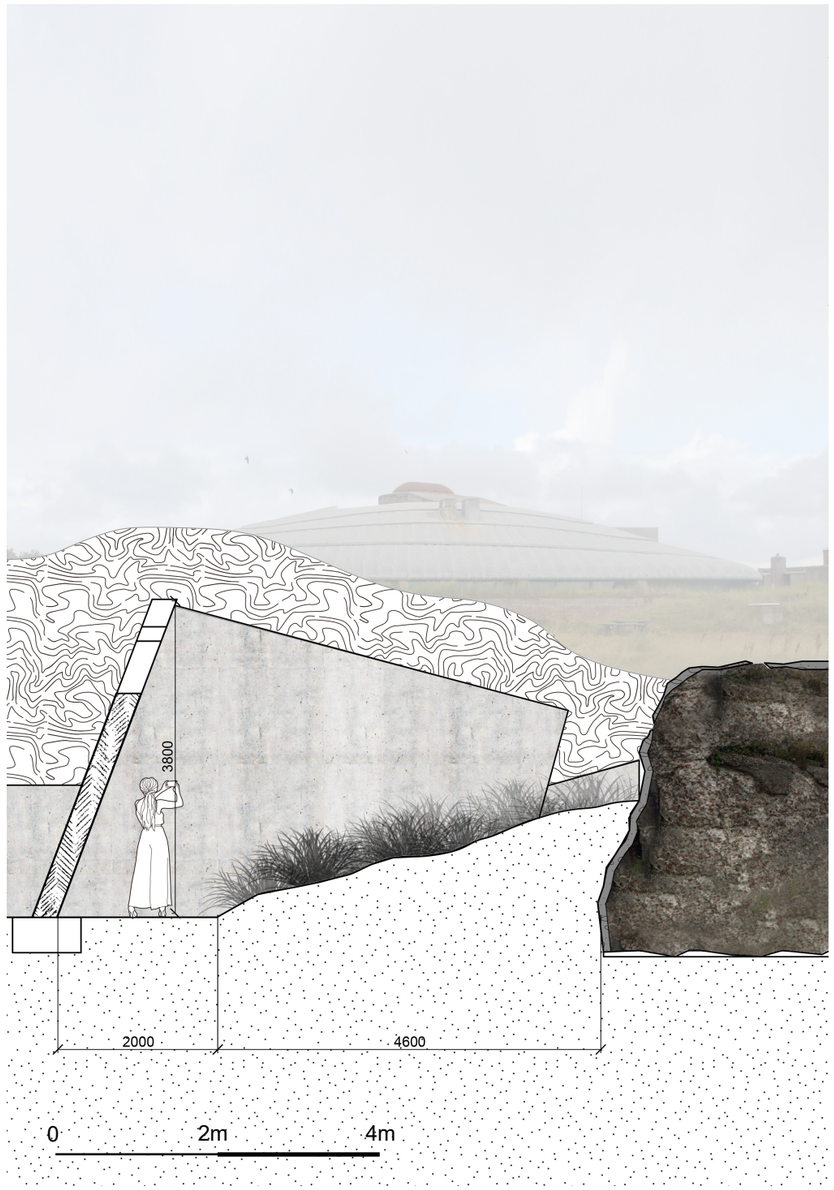


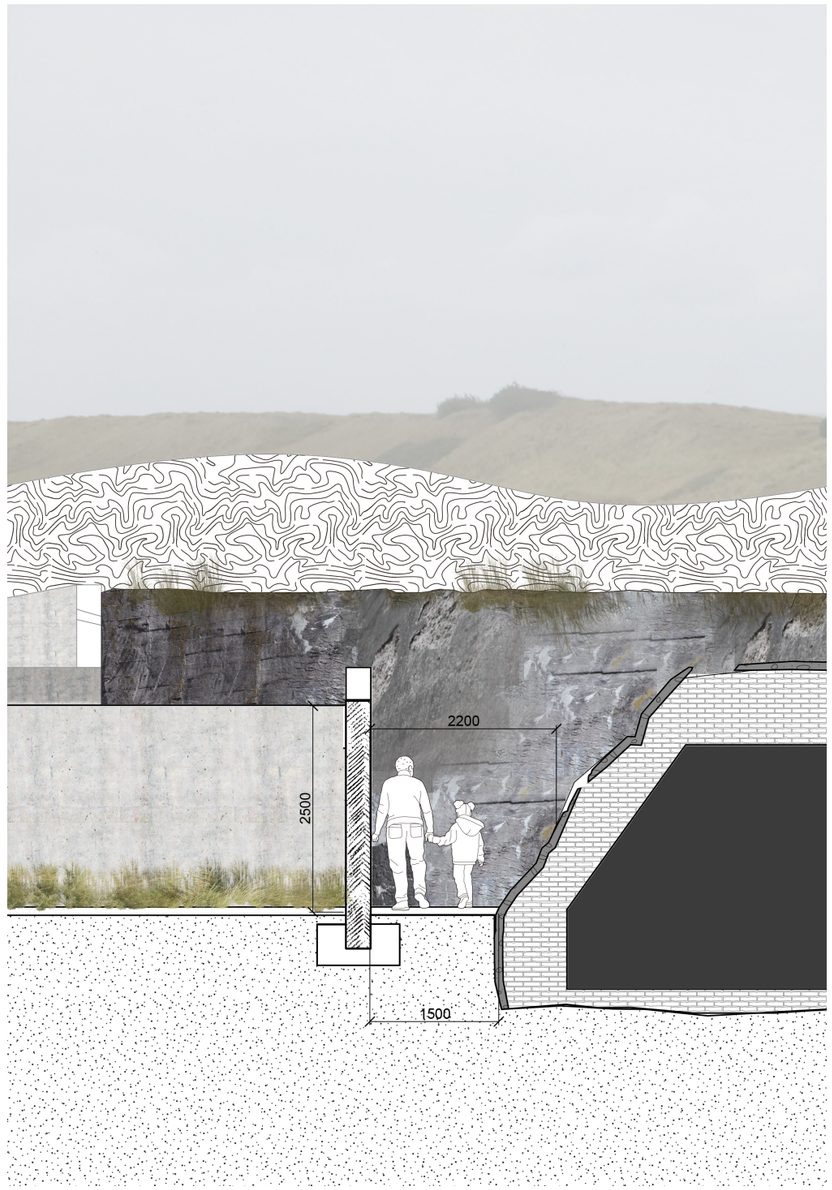
Wall assembly

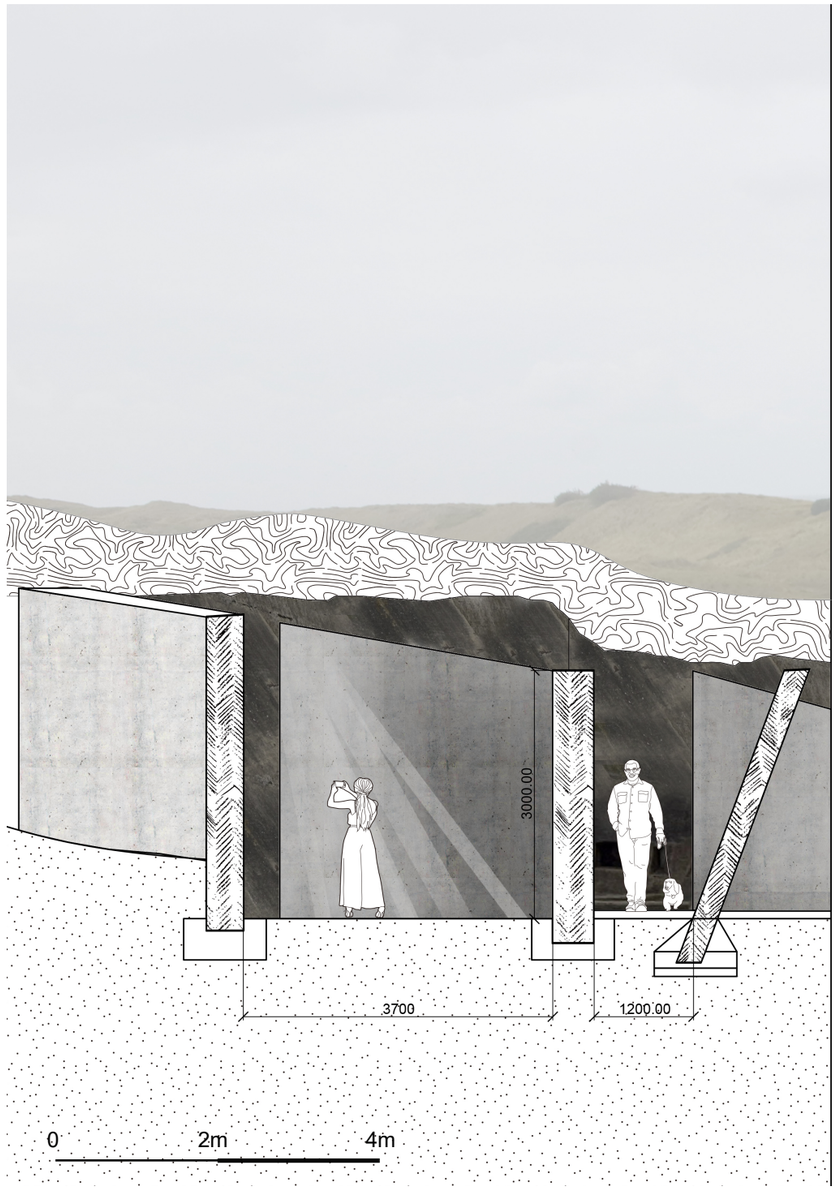


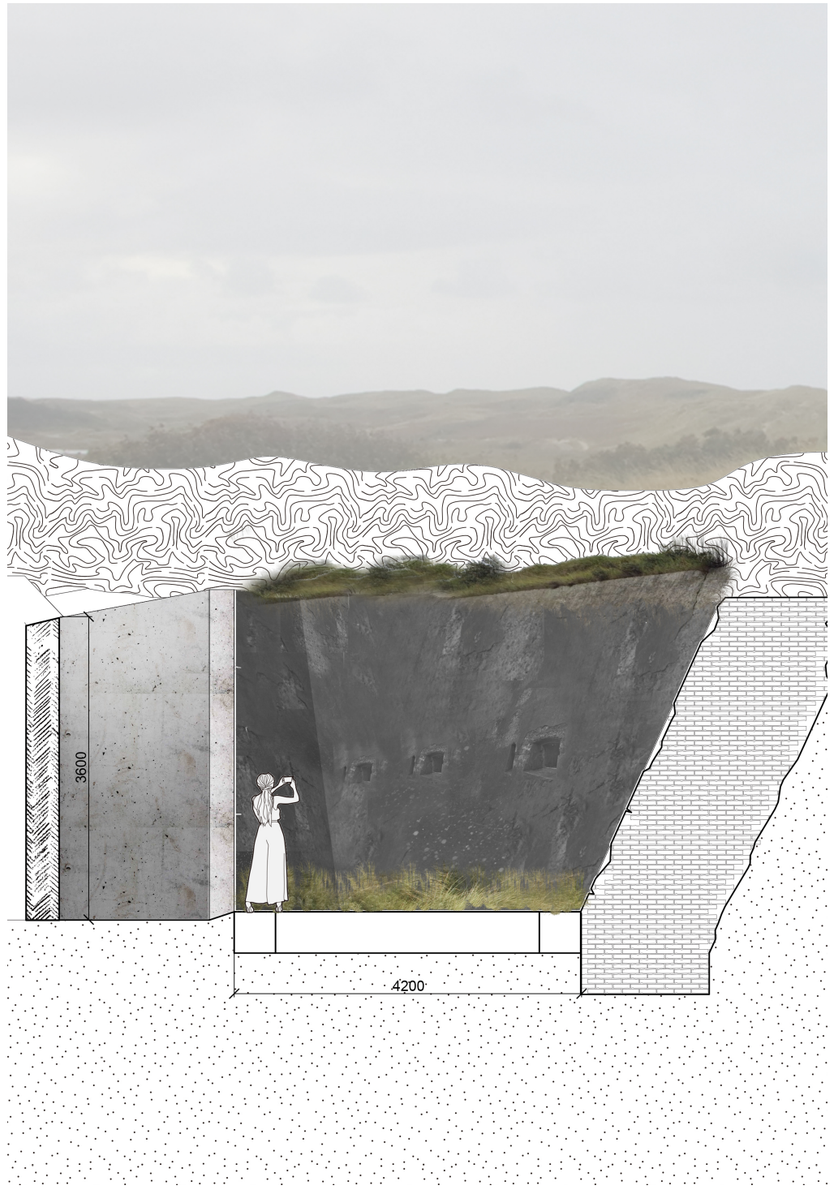


platform plan 1:300


3800
2000
4600
0
2m
4m

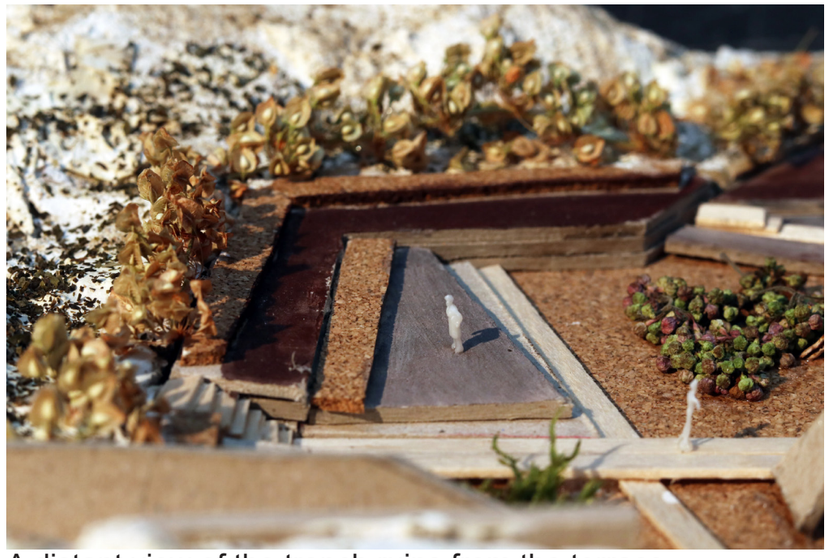

2200
2500
1500


3000.00
3700
1200.00
0
2m
4m


3600
4200

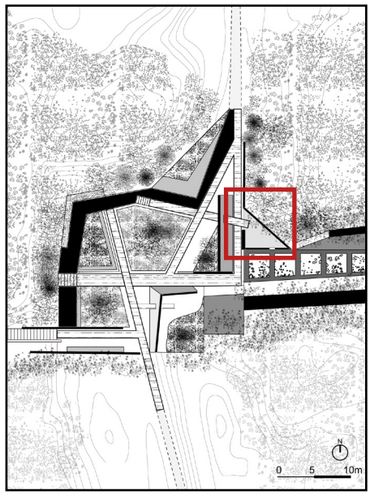
Gathering point

Feel the rough surface of the ruins closely.



A distant view of the trench ruins from the terrace

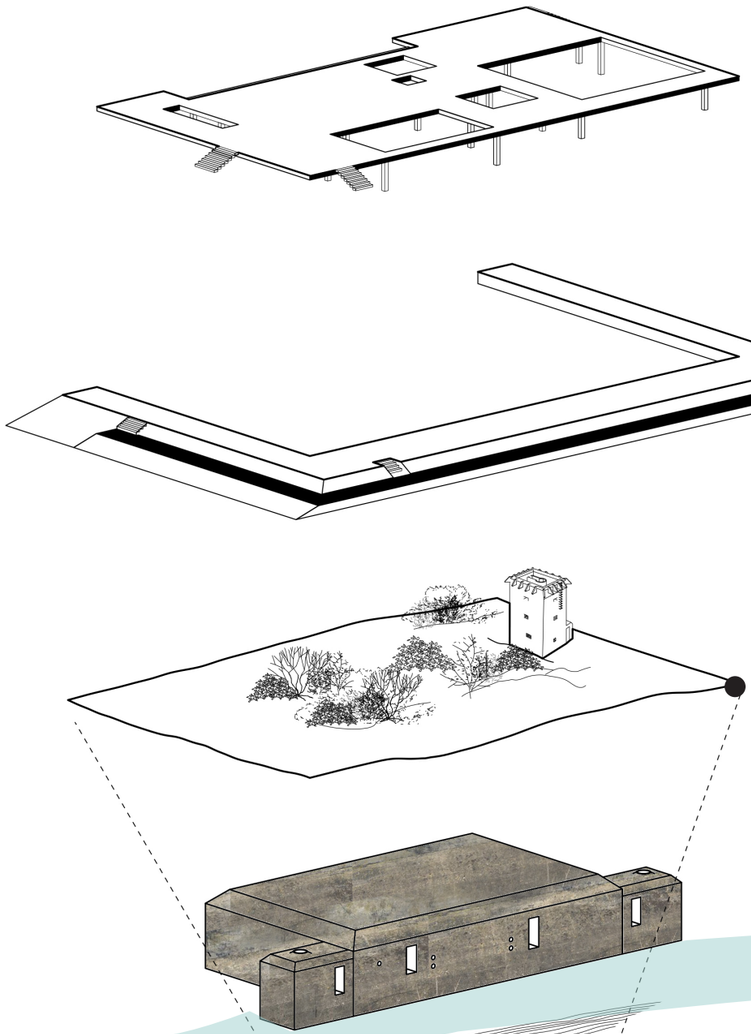
Tilted walls create spatial tension.

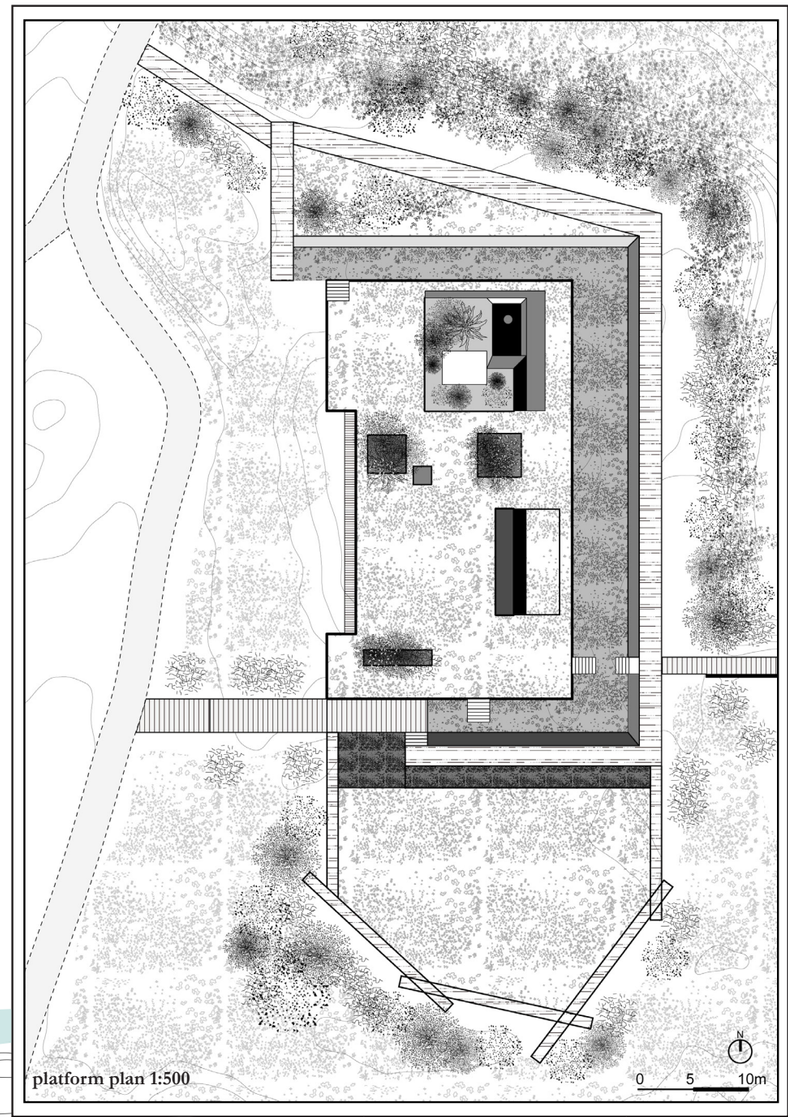


The wall assembly

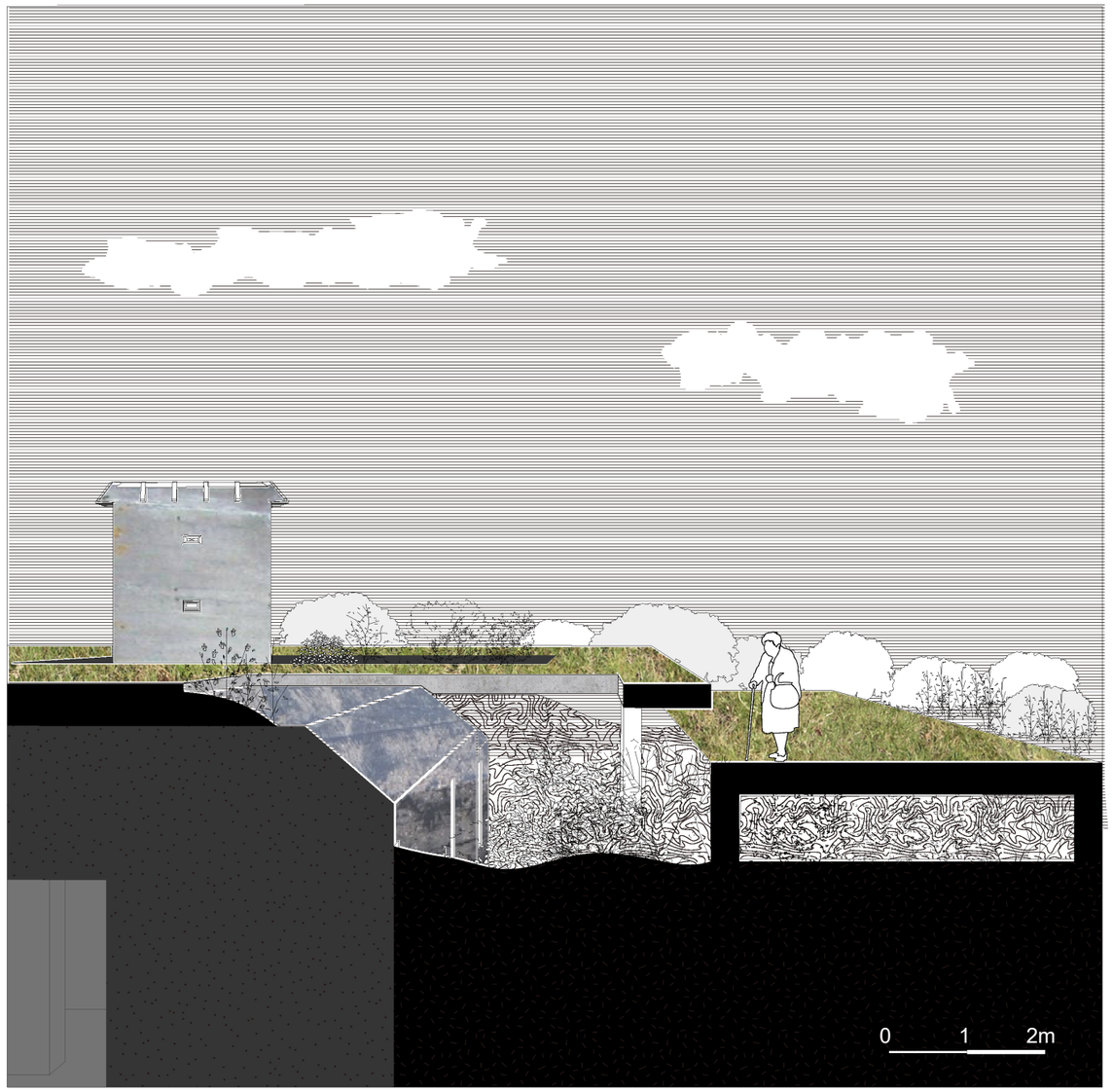
The smooth texture of the concrete walls contrasts with the texture of the ruins. The enclosed space and frames formed by the three concrete walls enhances this contrast and the tension of the space

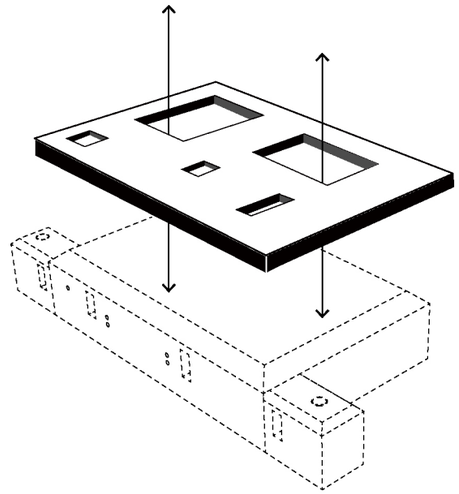
Hiden bunker



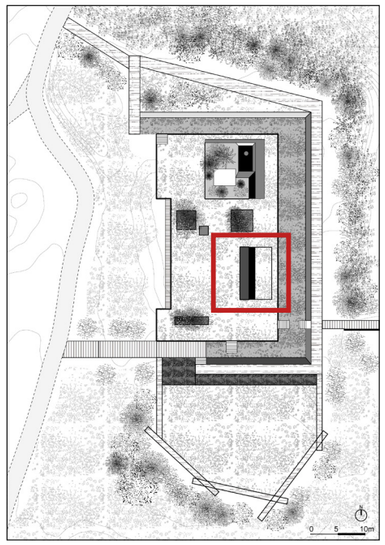


Hiden bunker





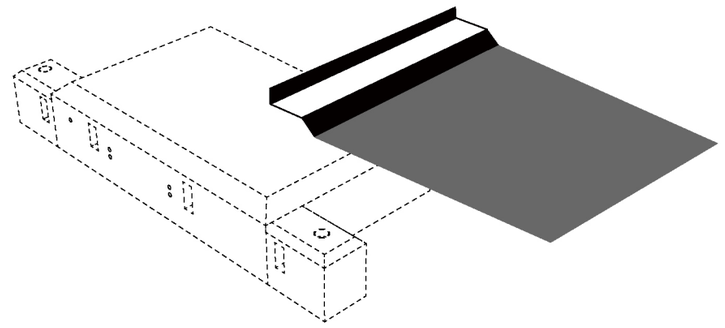
Hiden bunker



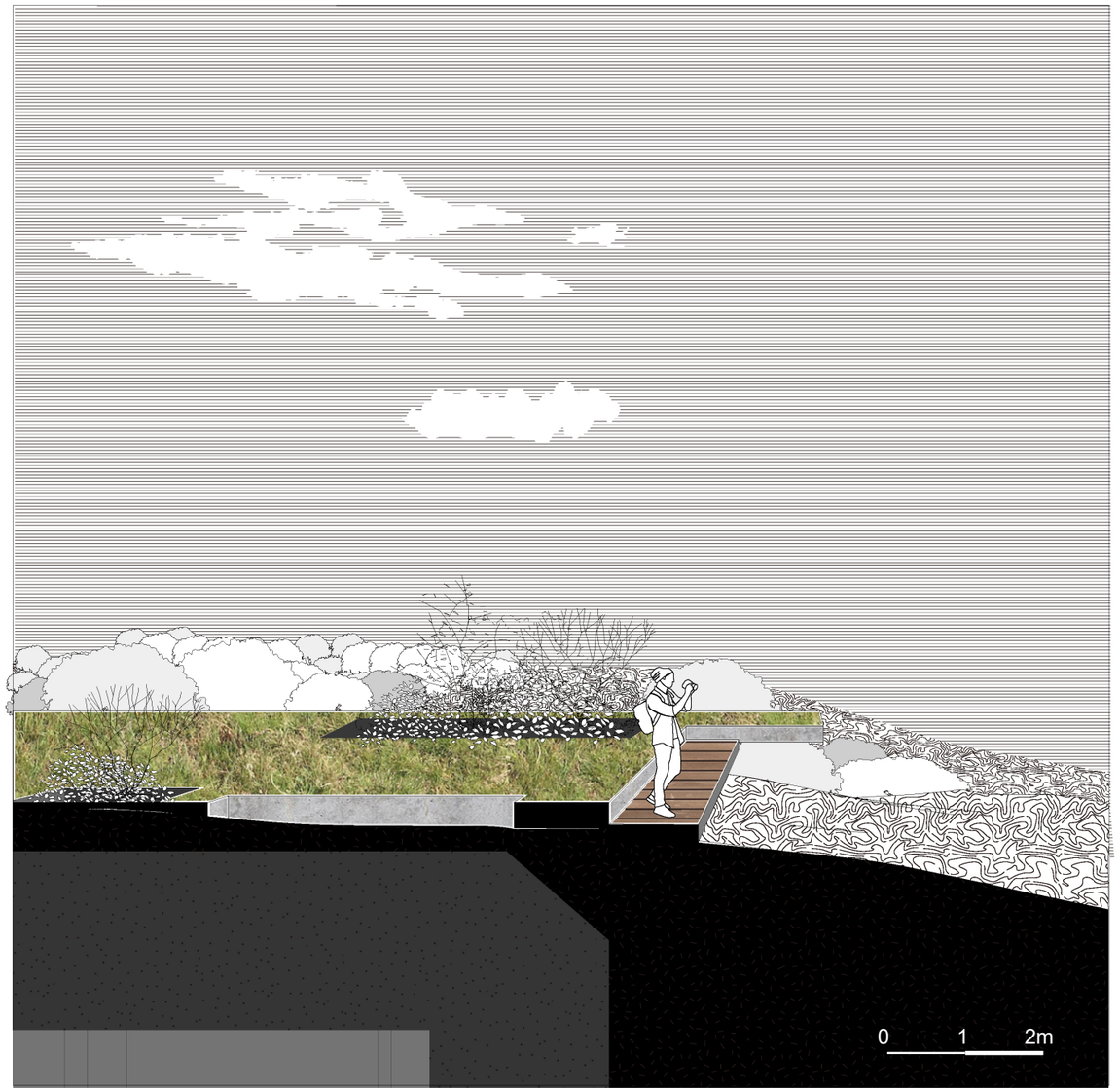
The platform and the hiden bunker

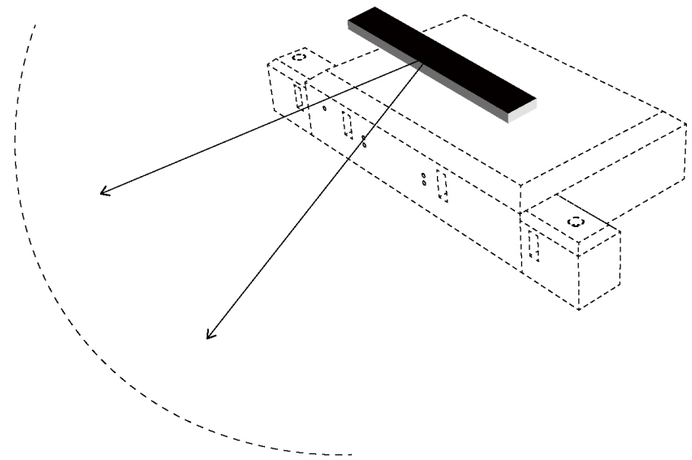
The grassy platform frames the underground bunker. Directing people's attention to the once neglected ruins, which is an opening for people to reflect and empathise.

Hiden bunker

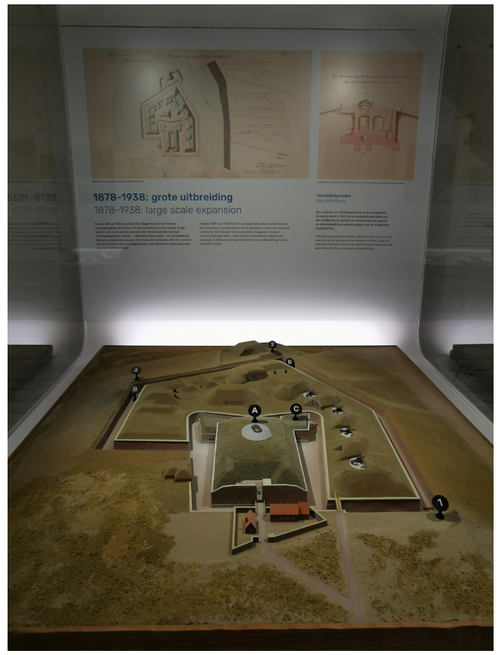


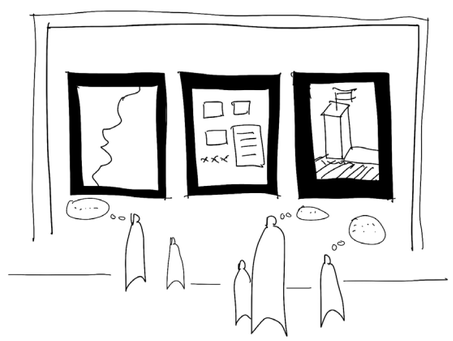
Hiden bunker



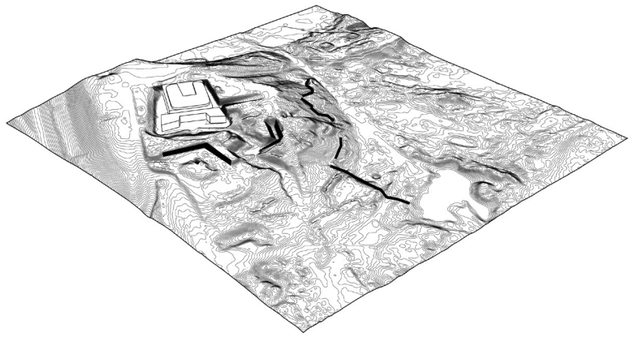


Fort Kijkduin Museum



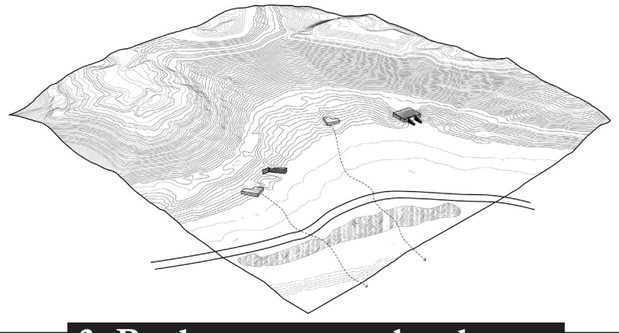


The sleeping ruin



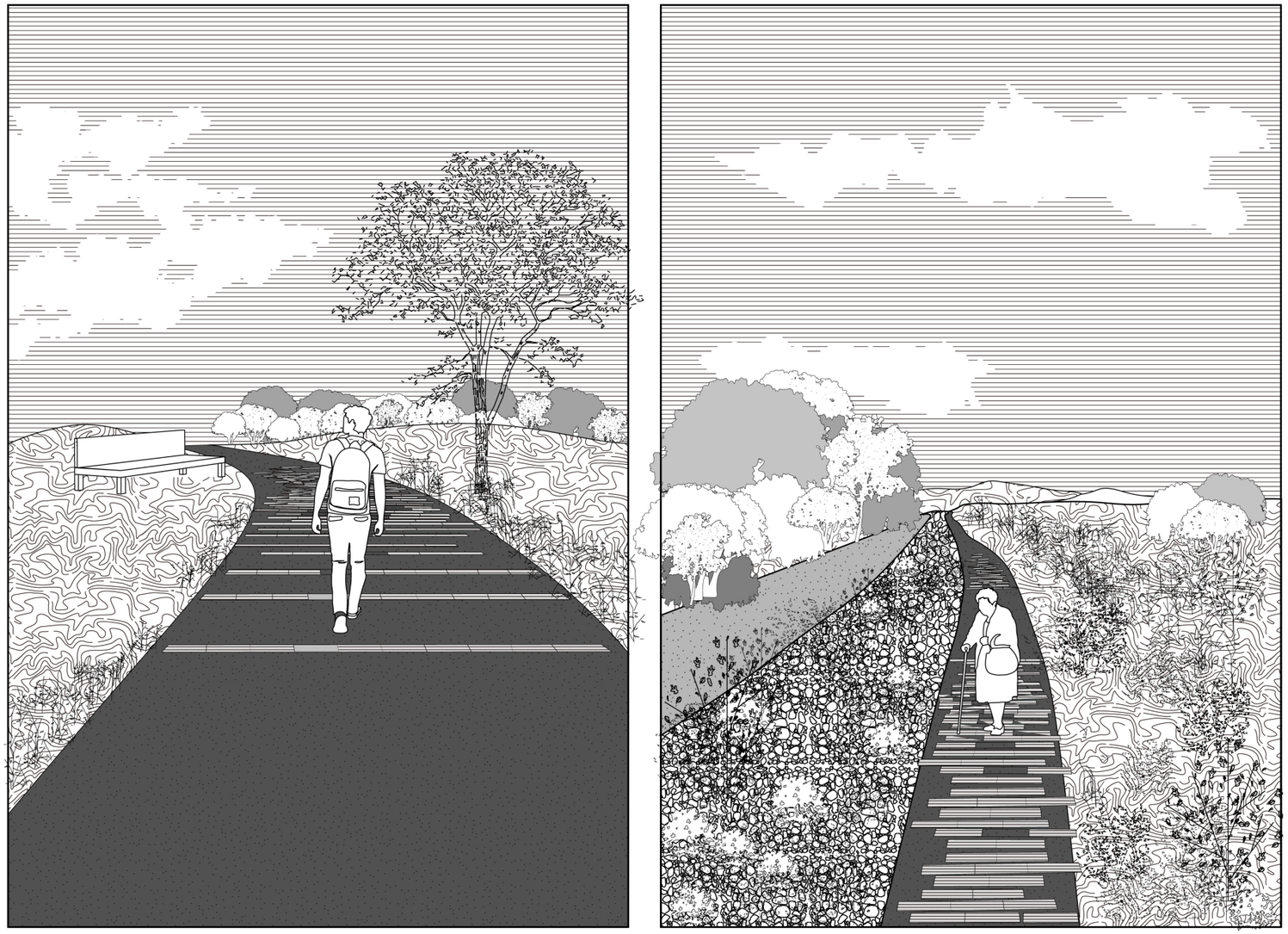
1. Fort Kijkduin & trench cluster

The drifting ruin

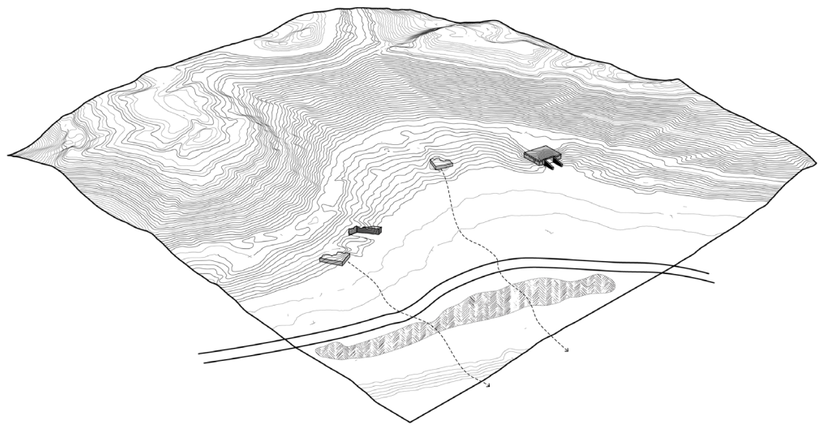


3. Backup-support bunkers

Brick pavement



THE DRIFTING RUIN



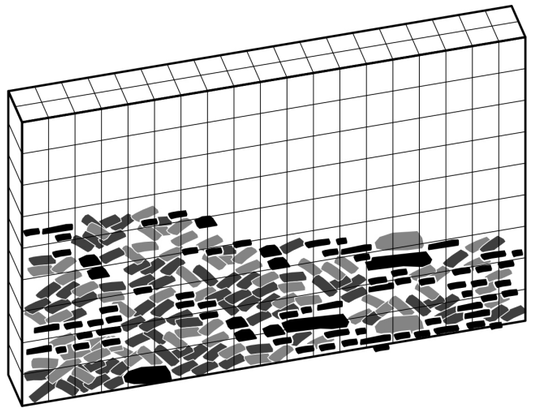
Brick

Let go of ruins

Brick reclaimation

Excavation work with volunteers

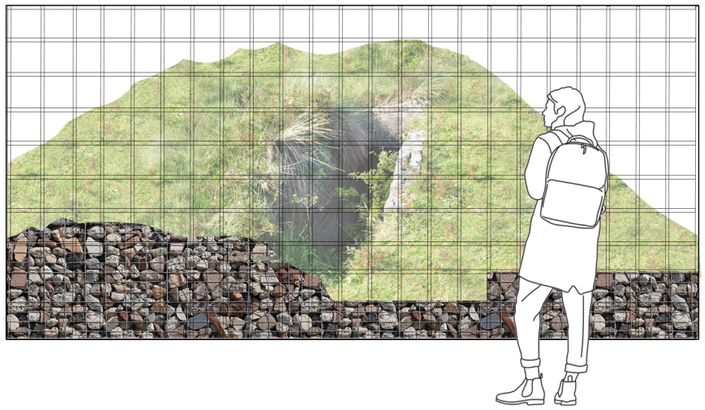
Collecting and sorting bricks

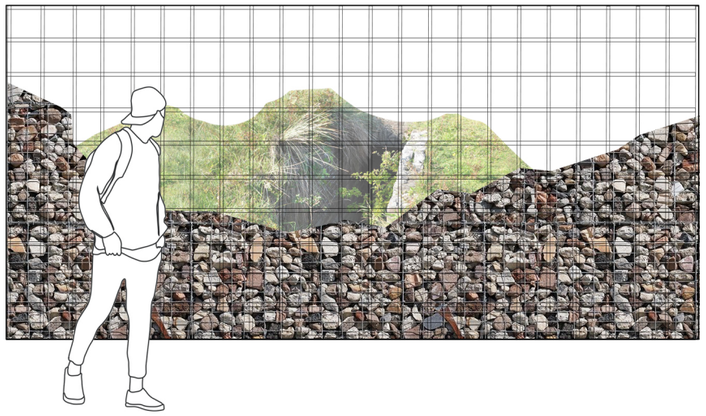


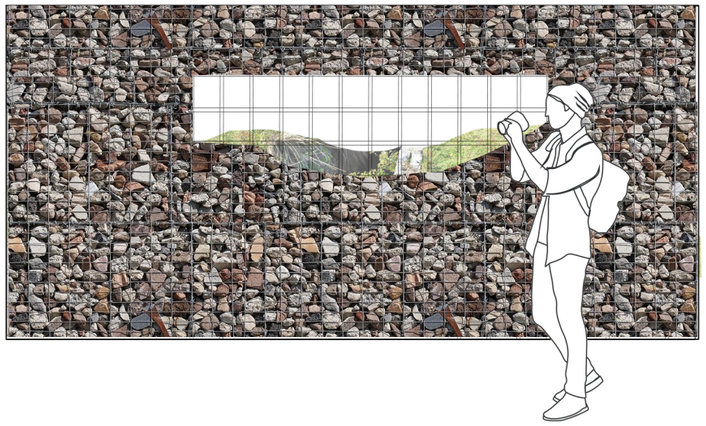
Fill the gabion

Brick reclaimation

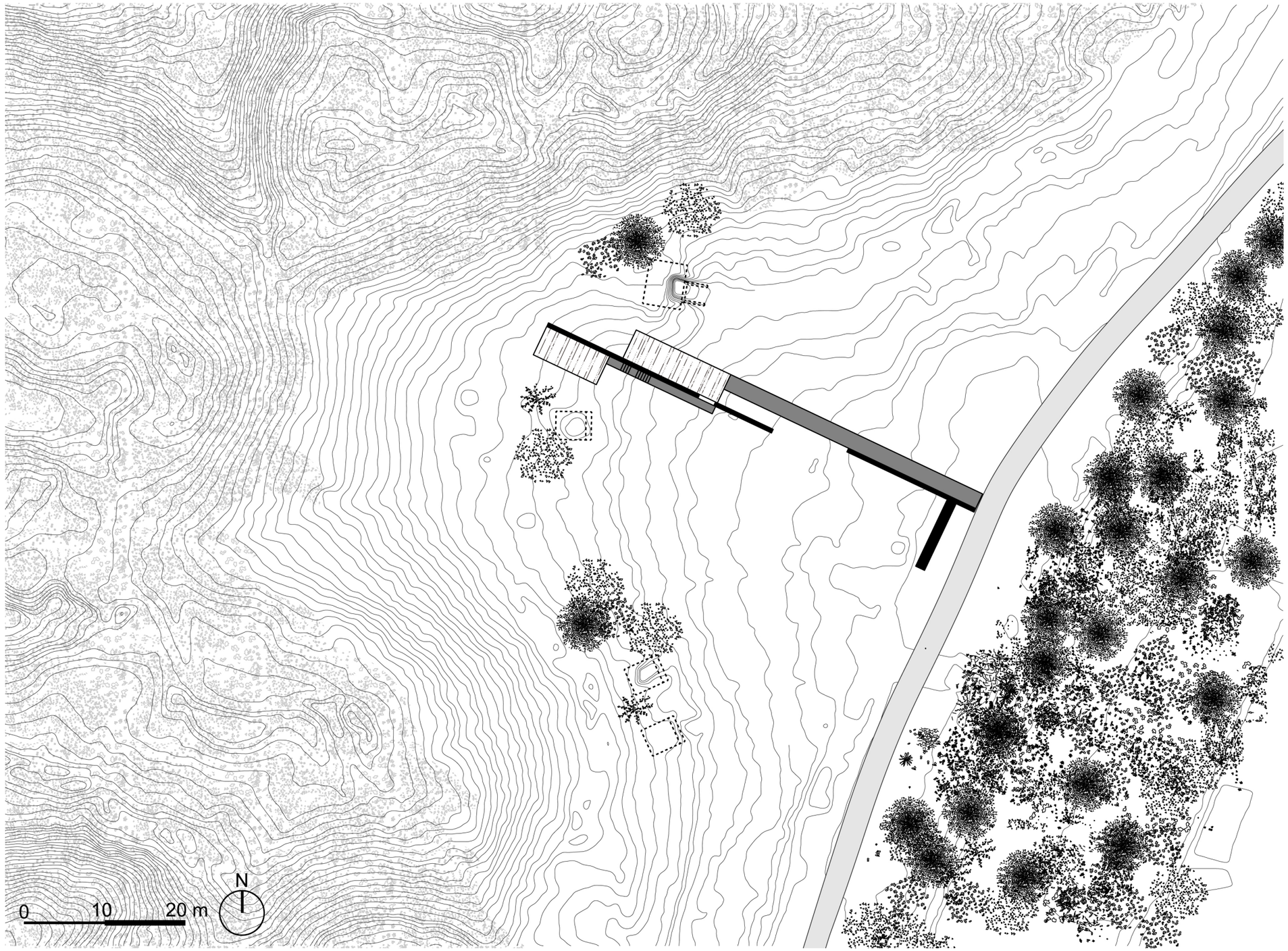
The undertow of time and space







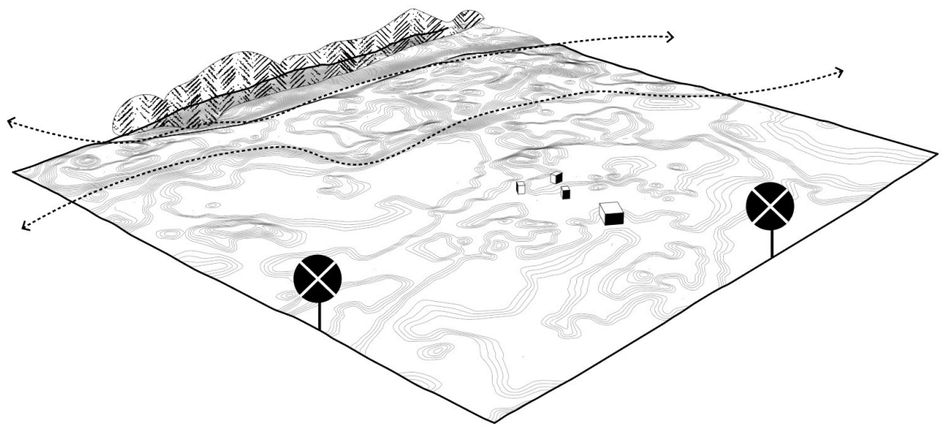
Plan 1:500

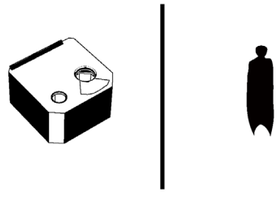


0
4m
8m

THE INACCESSIBLE RUIN

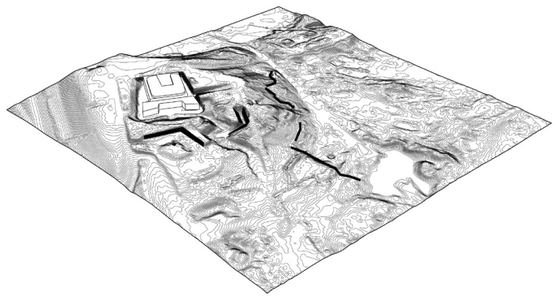
Distance



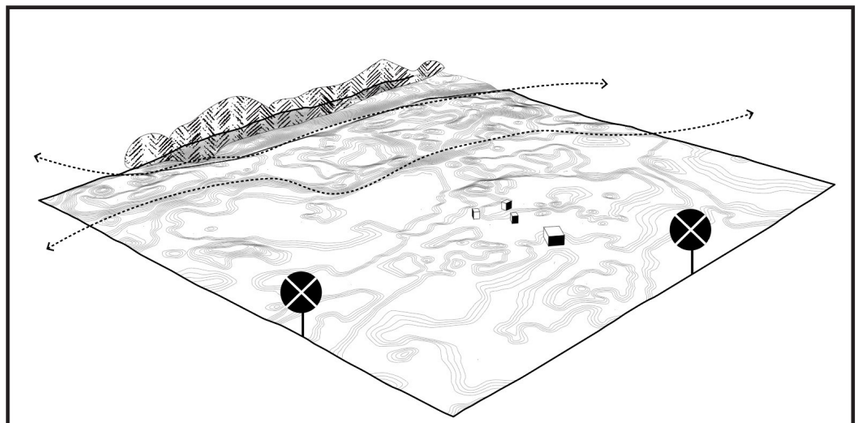


the next chapter

The sleeping ruin

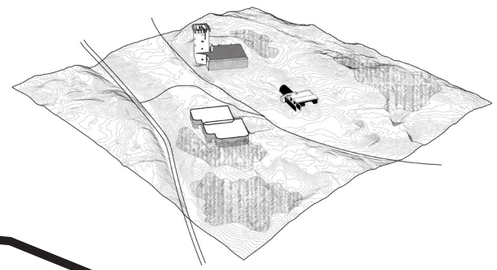


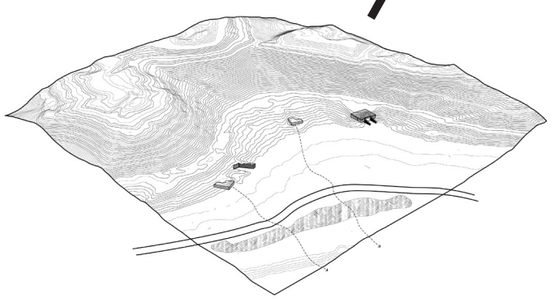
The inaccessible ruin



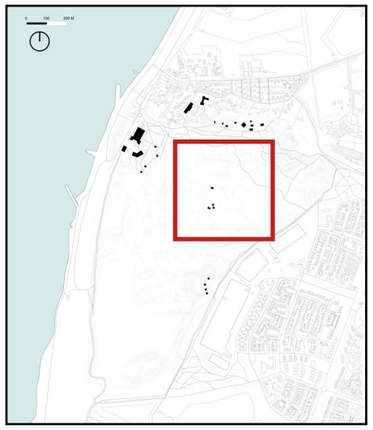
The inaccessible ruin

The growing ruin





The drifting ruin



Distant ruins, both spatially and temporally

The ruins of the Atlantic Wall will eventually disappear, either buried by dunes or decomposed due to erosion and taken over by nature. This would be the end of the ruin story but also the begining of another new chapter.

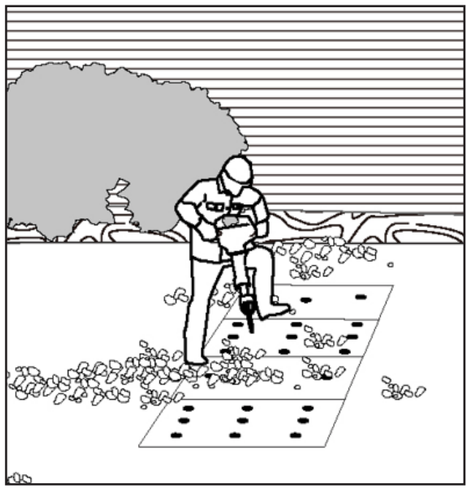
RESEARCH

MANIFESTO&CONCEPT

DESIGN PROPOSAL

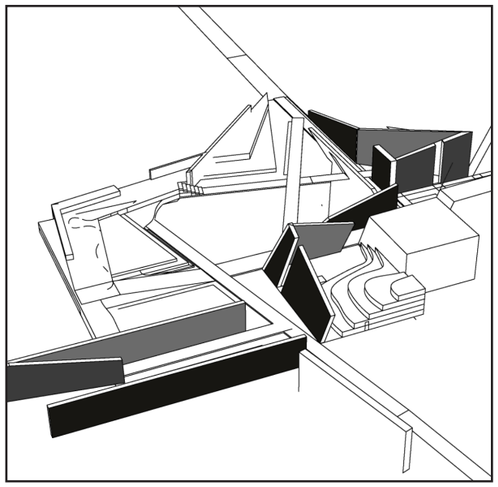
CONCLUSION & REFLECTION

How to reveal the value of post-war ruins in modern society while maintaining their ruinous qualities?



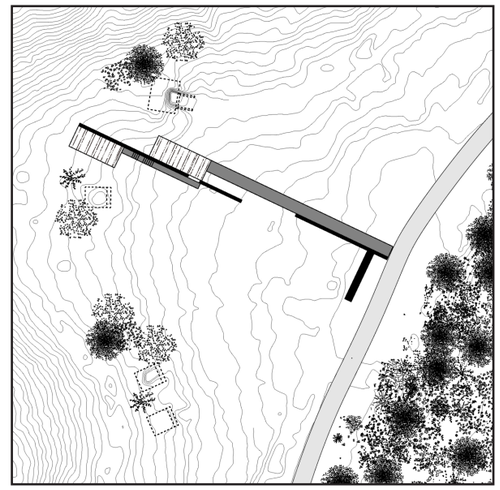
Ruin as process

Interval interventions to ensures a sense of isolation of the ruins but also brings them into public participation.



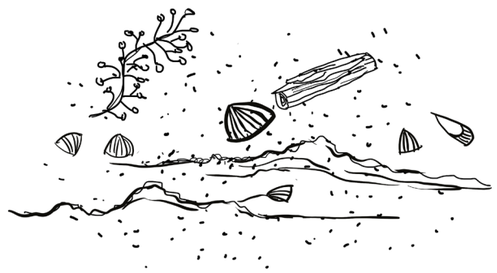
New structures

the qualities and characteristics of ruins are enhanced by new structures to offset the effects of human intervention.



Acceptable narrative

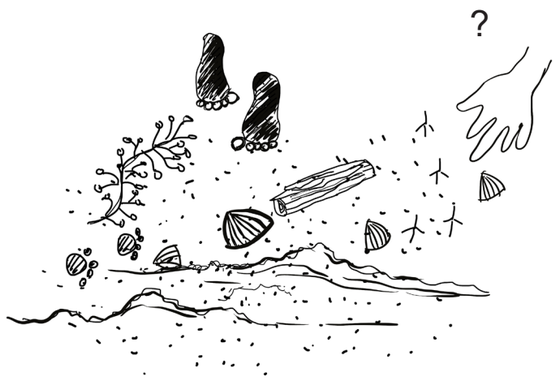
An acceptable narrative is proposed that allows these controversial ruins a suitable position, enabling people to embrace decay.



SITES OF MEMORY

NOUN-RUIN

RUIN



MODERN MEMORY

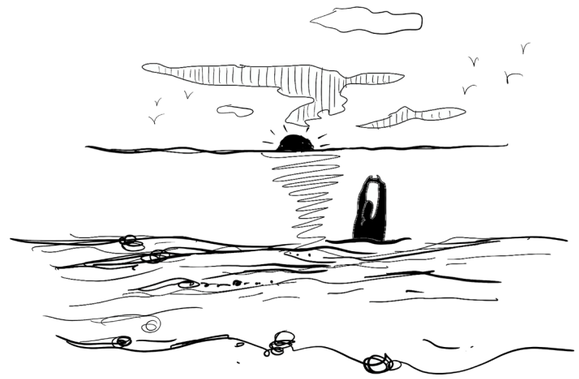
archival-memory

duty-memory

distance-memory

EXPERIENTIAL MEMORY

fresh, spontaneous



somebody walking on the beach and pick up the shell, vaguely recall the wave.

Dive into the wave, feel it, although it is not the same as the previous one.