

RESTORATIVE



# Flowscapes: Urban Forest Places

Master Thesis Landscape Architecture

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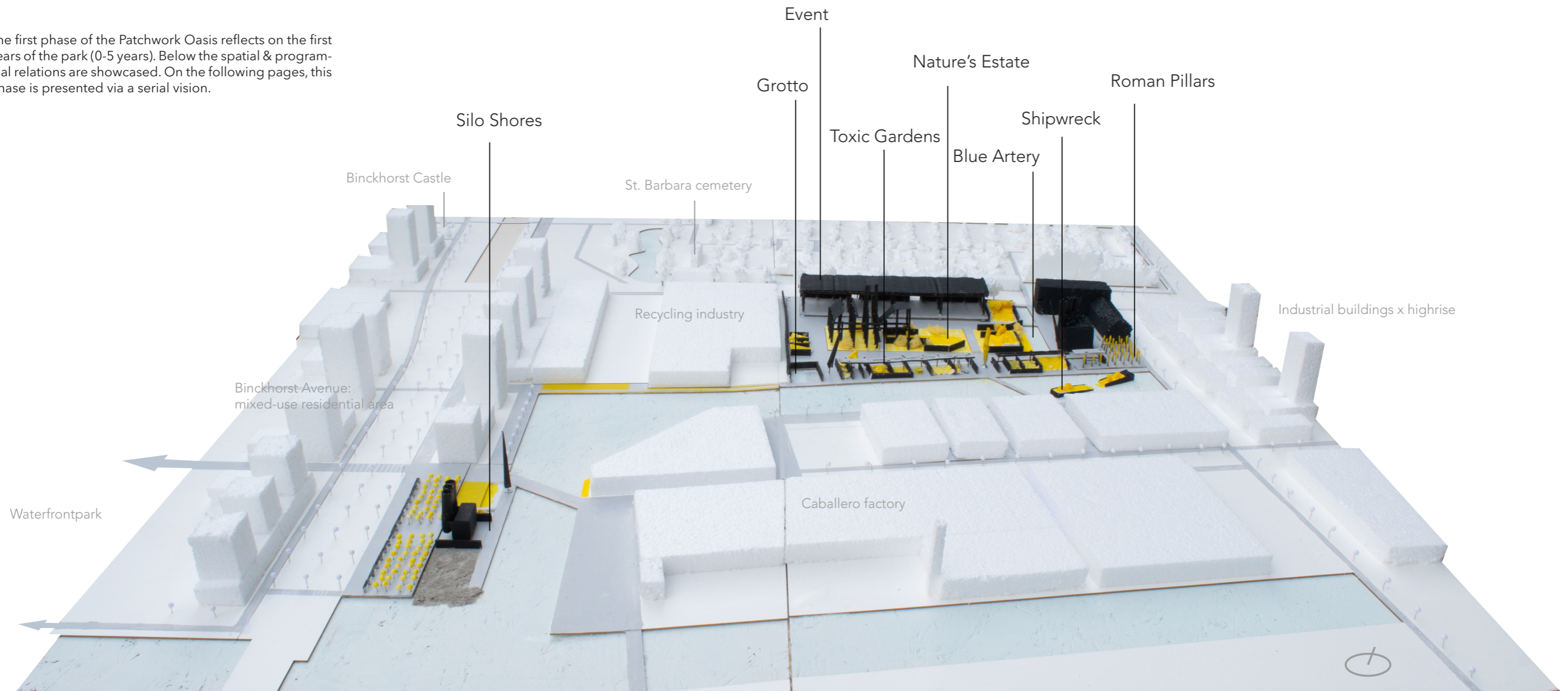
Patchwork Oasis

**TIME**

# FIRST YEARS

## Phase 1

The first phase of the Patchwork Oasis reflects on the first years of the park (0-5 years). Below the spatial & program-mal relations are showcased. On the following pages, this phase is presented via a serial vision.



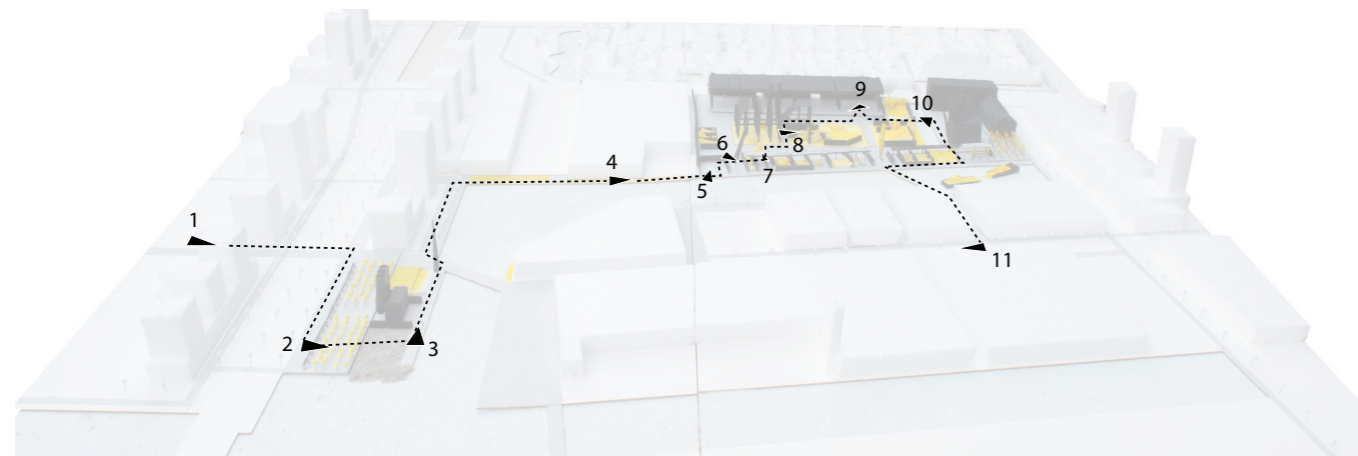
- Urban forest
- Brownfield
- Water
- pedestrian routes

# A STROLL FROM HOME

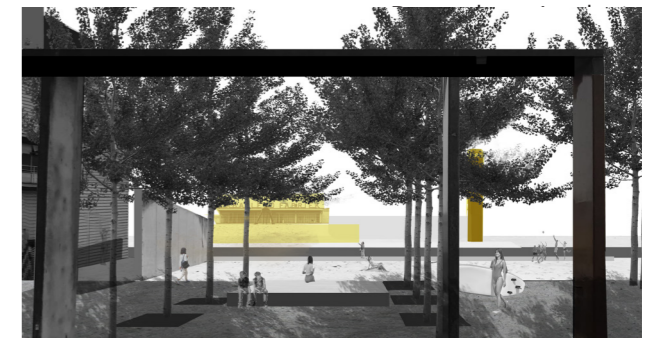
## Serial vision in the first years

A vital component of a restorative experience is the act walking: it battles depression and sparks creativity (Opezzo, n.d.). The stroll starts in the new residential area, which combines highrise & lush vegetation, but also hosts large groups of people moving in space, whether by car or bicycle, demanding our attention (1). The cranes and silo function as landmark, attracting people to visit the Patchwork Oasis (1). Crossing the Binckhorst Avenue, you move into the transitional space of the Silo Shore, where the forest is used to buffer the noise, frame a view to the Caballero factory, create a cool space and purify the soil simultaneously (2). Furthermore, the silo's, walls & trees create a more informal space which enables hosting a function as a city beach. Walking over the beach, you walk onto the jetty (3), where the crane guides you to walk along the boulevard. Eventually, you enter a different type of boulevard (4) where vegetation has been growing rud-erally for years and a small gravel path creates a connection to the former asphalt plant. Here, the movement of a crane 'throwing' purified water into the harbour guides you to enter the Grotto (5). You descend into a humid & highly enclosed space (sensorial amplification) where a rhythm of light & dark, verticality & horizontality, sound of water/people and silence alternate (6). Which ends under a unique treescape and waterfall, where a moment is to take it all in (7).

Via the old conveyer belt and stairs (7) you seamlessly walk into Nature's Estate (8). Here an early stage of wild forest growth is starting to occur inbetween the cuts in the concrete in which the steel structure provides a balancing framework to the spontaneous growth of the forest. Special spaces are created by not cutting open a part of the floor: which protects a 'formal' viewline yet enable the growth of some unique mosses/grasses (8). Walking out of the part, you move into the Event (9): a roofed hall, that combines interpretativeness/flexibility of program with a sense of community/identity, being away from the normal world through walls that create a clear border to the adjacent road. It can provide different types of social spaces in time (pluralistic, individual & communal) and provide a clear frame to the wild Nature's Estate in the background. Following the orthogonal route grid, you walk towards a bridge over the Blue Artery. You can see how the water from the Canal gets moved into the Source via the other crane. Simultaneously, your position towards the harbour becomes clear. The crane guides you to the water and you cross the new bridge which leads you to one of the main slow movement routes of the Binckhorst (11). Here the vista to the Silo guides you back towards home (see next page).



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(2)



(3)



(4)



(5)



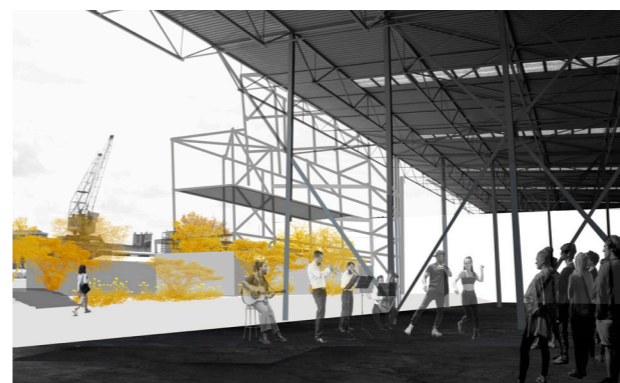
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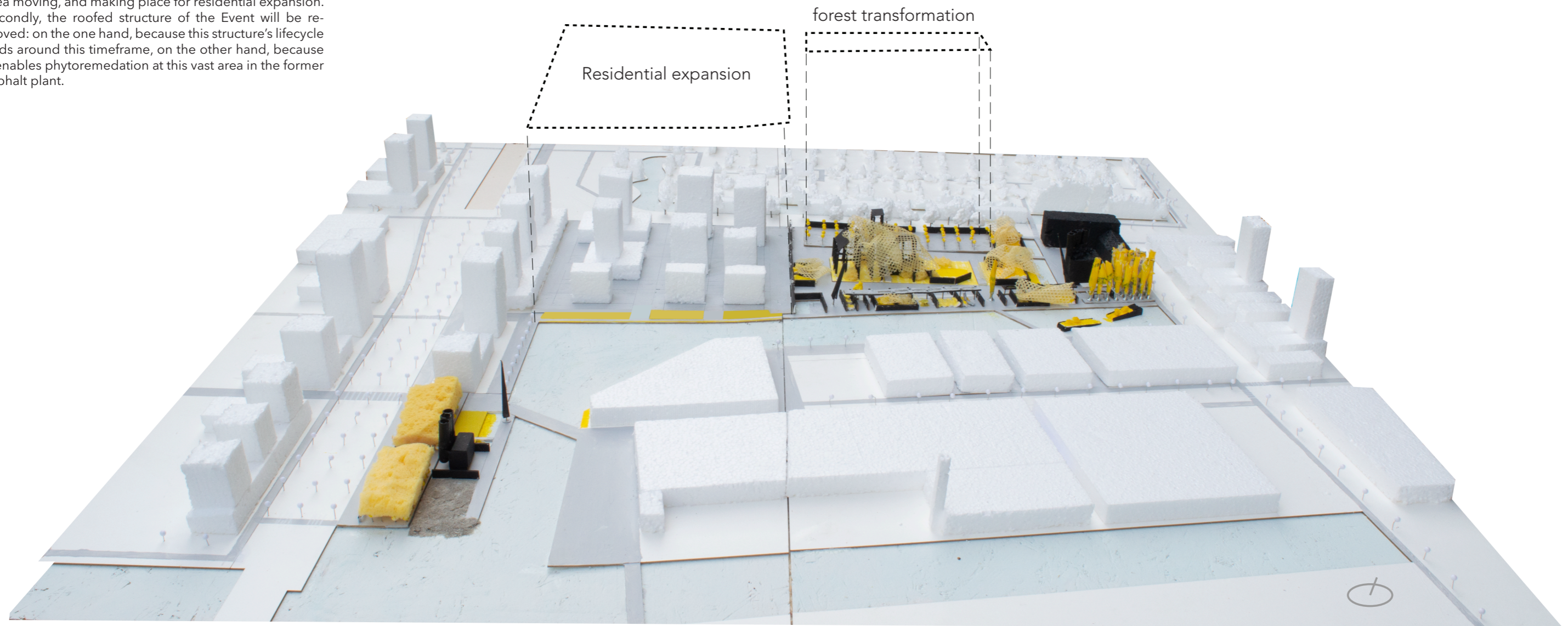
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# MATURITY

## Phase 2

The second phase is defined by the growth rate of the vegetation in the park; after 20-30 years, the dominant fast-growing species will reach maturity, effecting the spatial experience of the park. Furthermore, two large changes will be made in and around the park. First of all, there is taken into account the scenario of the recycling area moving, and making place for residential expansion. Secondly, the roofed structure of the Event will be removed: on the one hand, because this structure's lifecycle ends around this timeframe, on the other hand, because it enables phytoremediation at this vast area in the former asphalt plant.



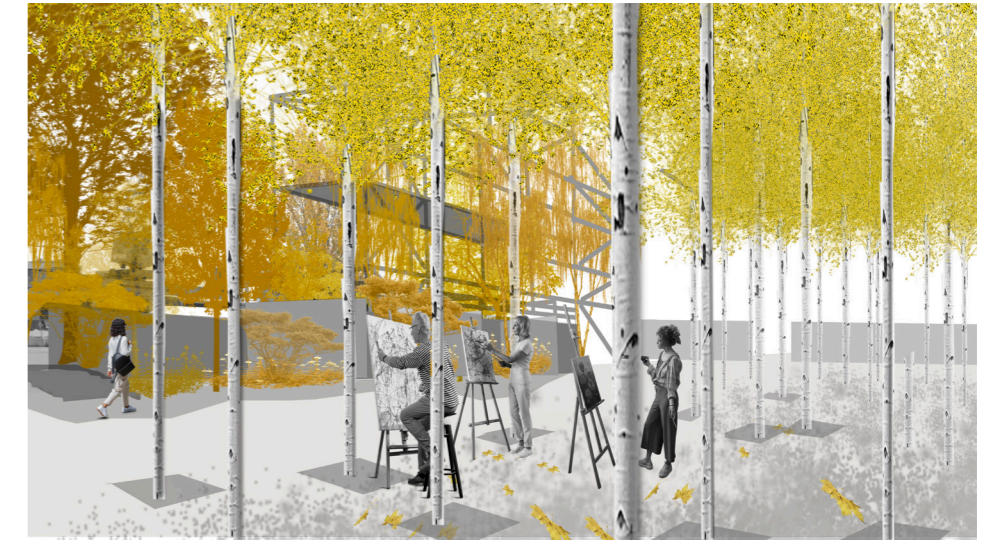
# CLOSE BUT AWAY

## Serial vision after 30 years

The serial vision starts at the edge of the newly built residential neighbourhood. In its clear orthogonal grid it connects directly to the route system of the park, yet the concrete walls form a clear threshold, creating a sense of moving into another world (1). Moving in, you go to the same spot at the Event, however which is being transformed to a forest of quaking aspen. Nature's Estate has become dark/dense, so this urban square complements this by providing a transparent roof, while providing a manmade frame through artificial looking trunks (2). Walking into Nature's Estate, the atmosphere has changed: nature has slowly taken over the estate: trees have grown mature, vegetation is growing on the walls/beams, creating a sense of wilderness in the middle of the city (3). Walking out of the estate, you have to move branches away and walk into a more humanized space again. Here an ensemble of the walls of the Toxic Gardens, the helofytefilter and surrounding structures create small spaces to retreat, directly besides a continues walkway (4). Guided by the crane of the Grotto, you encounter the diversity of the toxic gardens: firstly through the intimacy of the fern garden (5). Which leads to the existing staircase (visible on image 4) guiding you to the elevated path on the crane-railway. Here, you walk along the crowns of the ruderal vegetation of the closed of toxic gardens, and experience the panoramic space of the harbour while being somewhat hidden from the other spaces (Prospect-Refuge, image 6). Lastly, the informality of the park invites to play and take the slide to the boulevard (7).



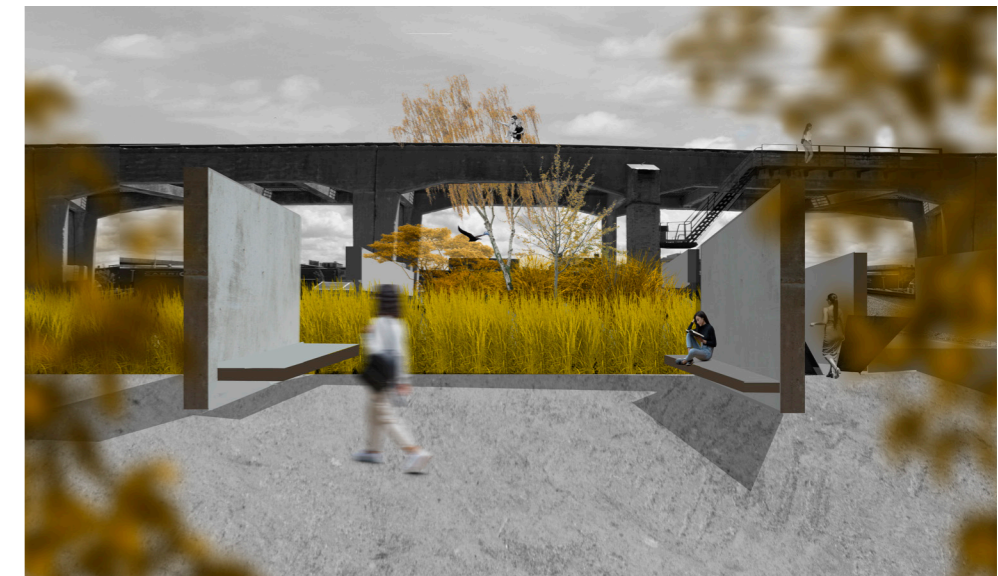
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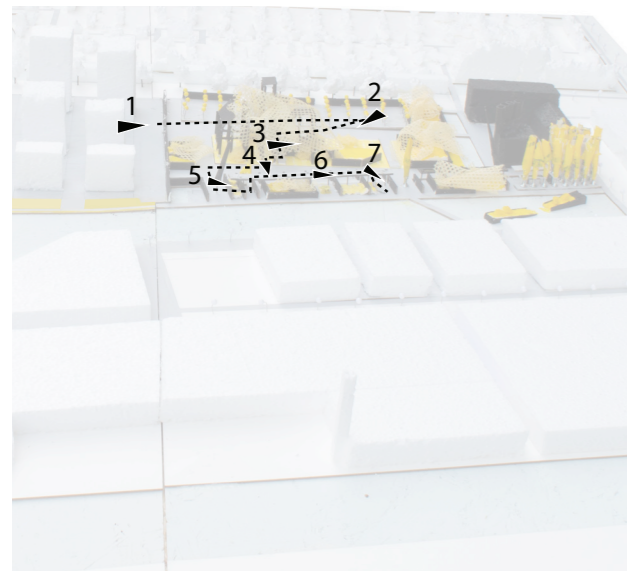
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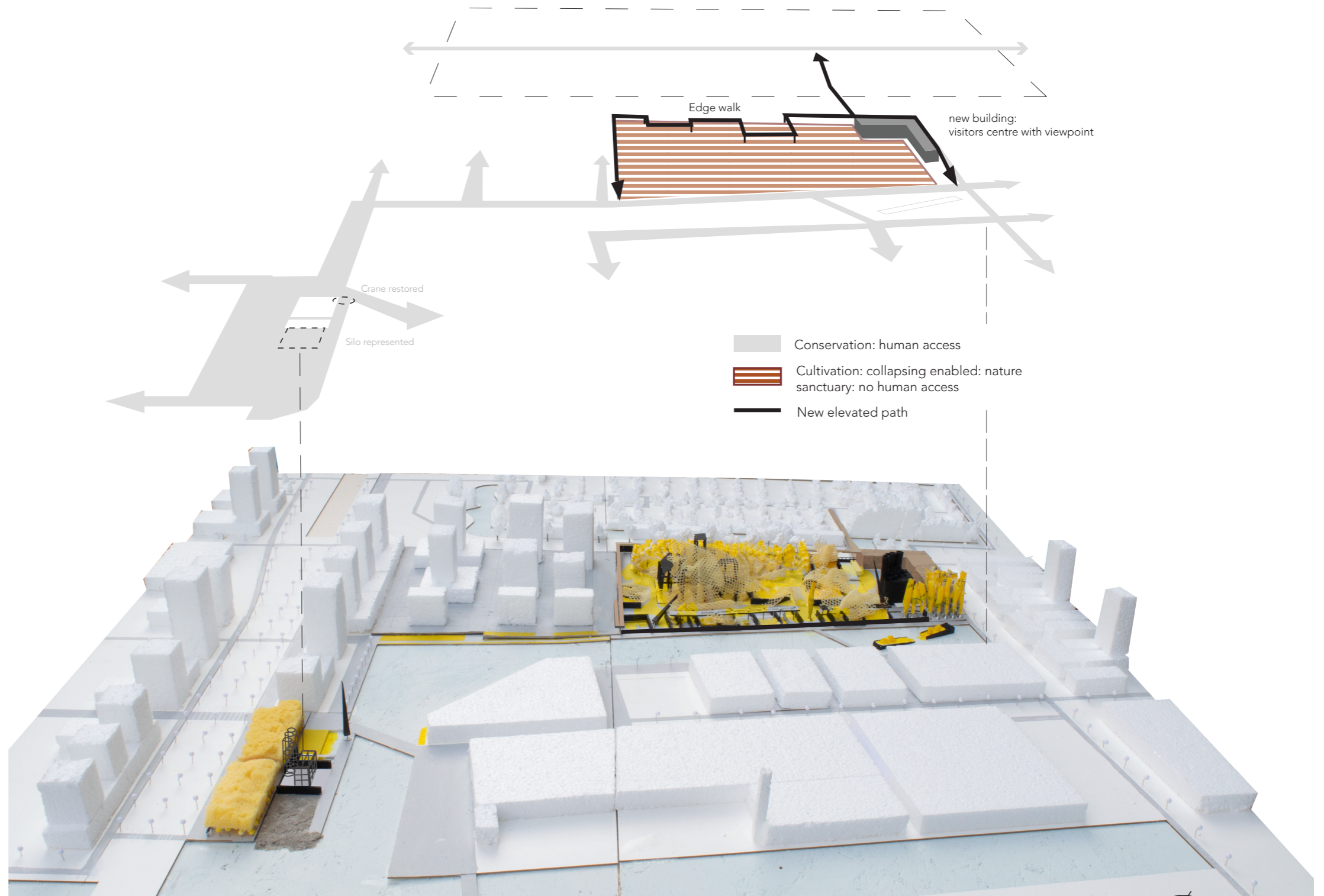




# 3. COLLAPSE AS QUALITY

## Phase 3

There will come a time the brownfield structures will collapse without intensive restoration (Geluk, 2022). At parts of the park, restoration might be unwanted because these structures have slowly merged with vegetation, creating unique habitats for (special) fauna. In the design of the patchwork oasis, this characteristic is seen as a quality. The asphalt-plant will be closed of for human access, enabling an undisturbed nature sanctuary, centrally in The Hague in which structures are given space to collapse and vegetation can take over the whole plant. However two exceptions are made (beige): the Edge walk and new visitor centre. The Edge walk facilitates an elevated experience over the transitionzone of the site: the walls/buildings, which connects the cemetery-park with the harbour landscape, which remains open for human access (including the Silo Shores, where the silo & crane will be restored or represented). The asphalt-plants office building is demolished because its is situated directly to a busy road (collapse danger not allowed), therefore a contrasting new building is proposed that could function as multifunctional visitors centre and is integrated with the new path and viewpoint. In this phase, the differences in identity between the former concrete plant and asphalt plant will strenghten (more human focused, public & formal urban park vs. nature sanctuary where people are the visitor. Simultaneously, the character of the cemetery-park and former asphalt plant will merge more, to an area of reflection where you are an outsider in someone elses territory.



# A VISIT TO THE GRAVE

## Serial vision after 50+ years

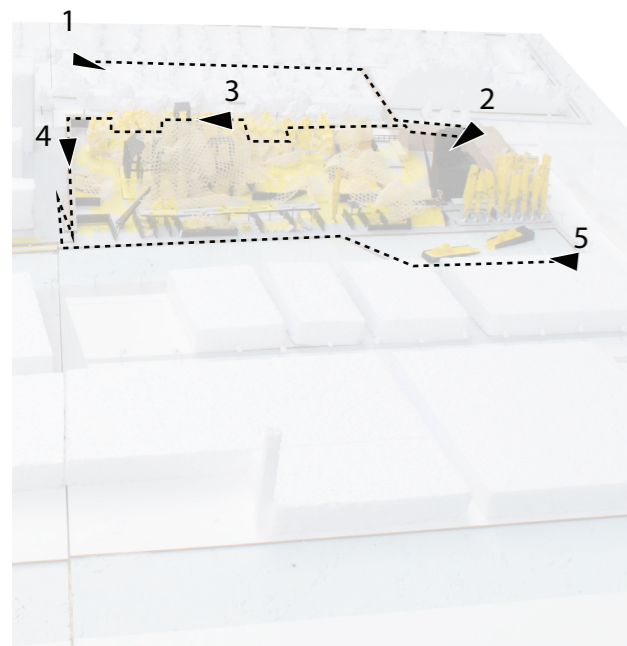
After 50+ years, the cemetery park will still be open and the still standing structures will guide you to the Patchwork Oasis (1). A new elevated bridge will connect you to the roof of the new visitors centre, from which you get a panoramic view into the former asphalt plant (2). You can descend directly to the harbour, but you could also take a longer route over the edges of the site. This route runs inbetween the treetops of quaking aspen of the Event enabling an experience of this space in a new way (3). Which leads to the straight walk over the wall, in which you can enjoy the contrast between the new neighbourhood and overgrown factory (4). Which leads to the harbour boulevard, where you can take a rest at the cafeteria at the other side of the harbour, while enjoying the unique for-estscape of the Shipwreck (5).



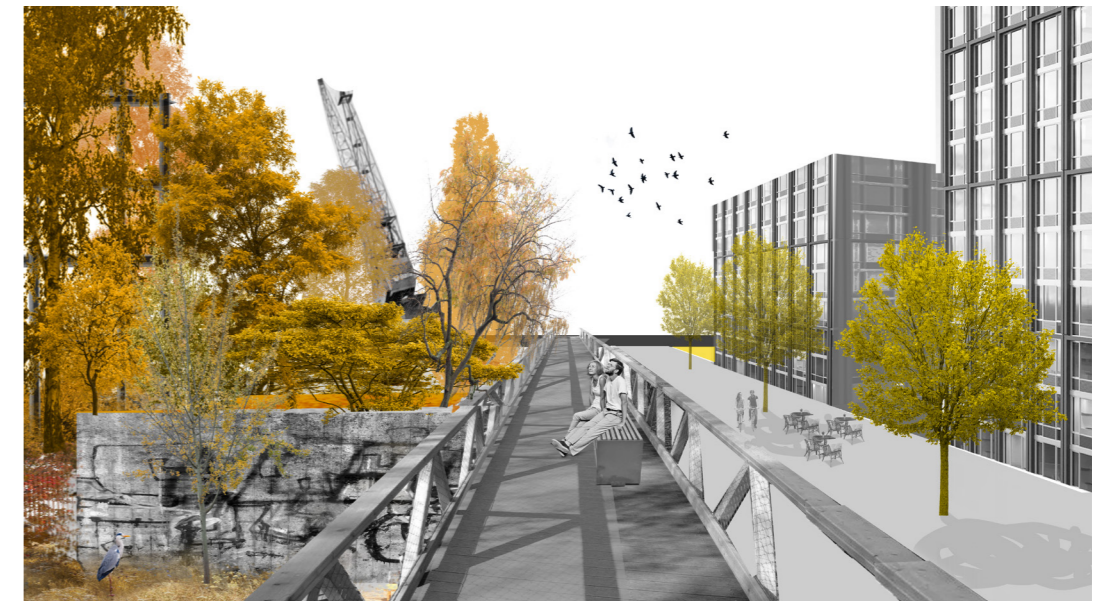
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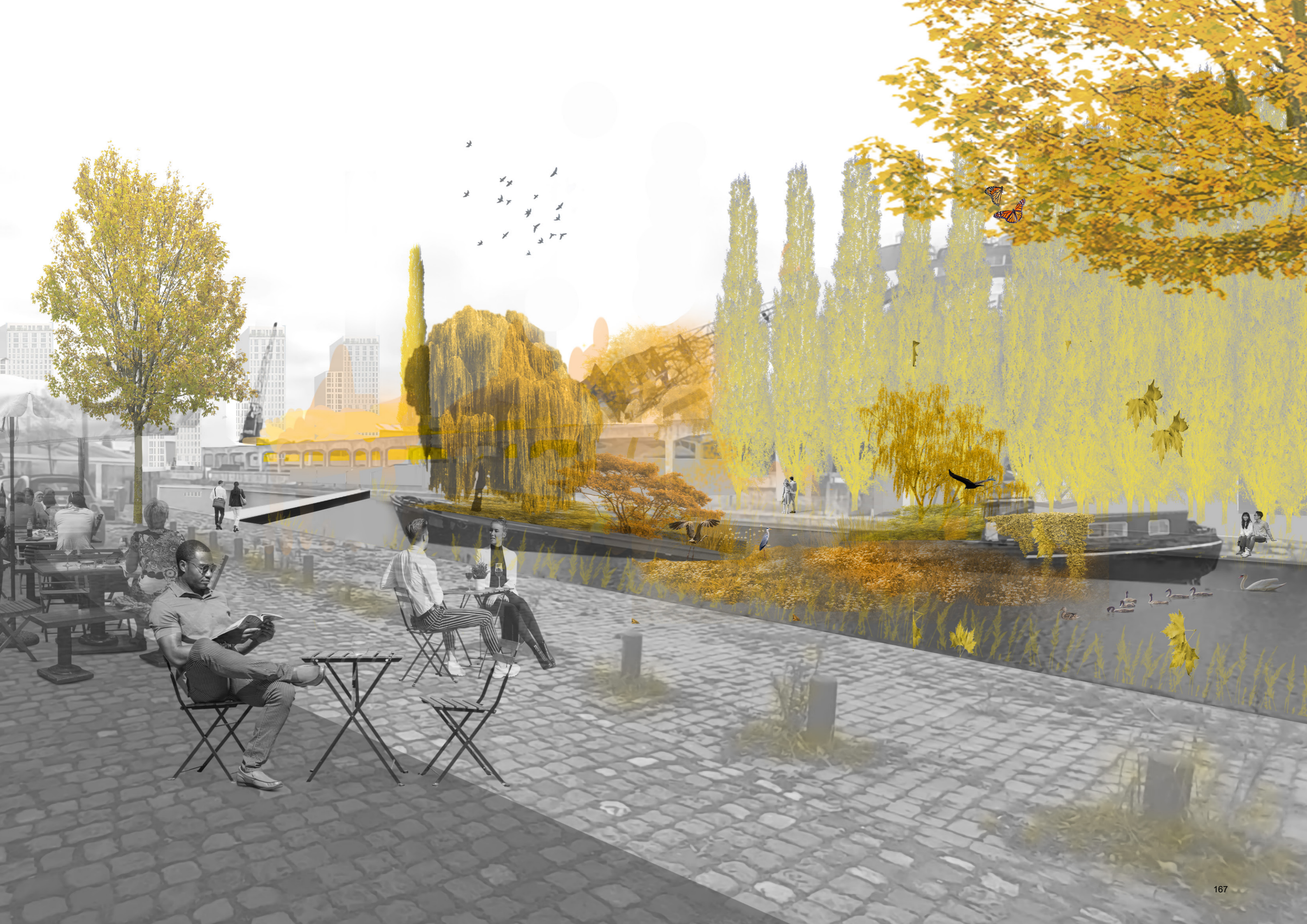
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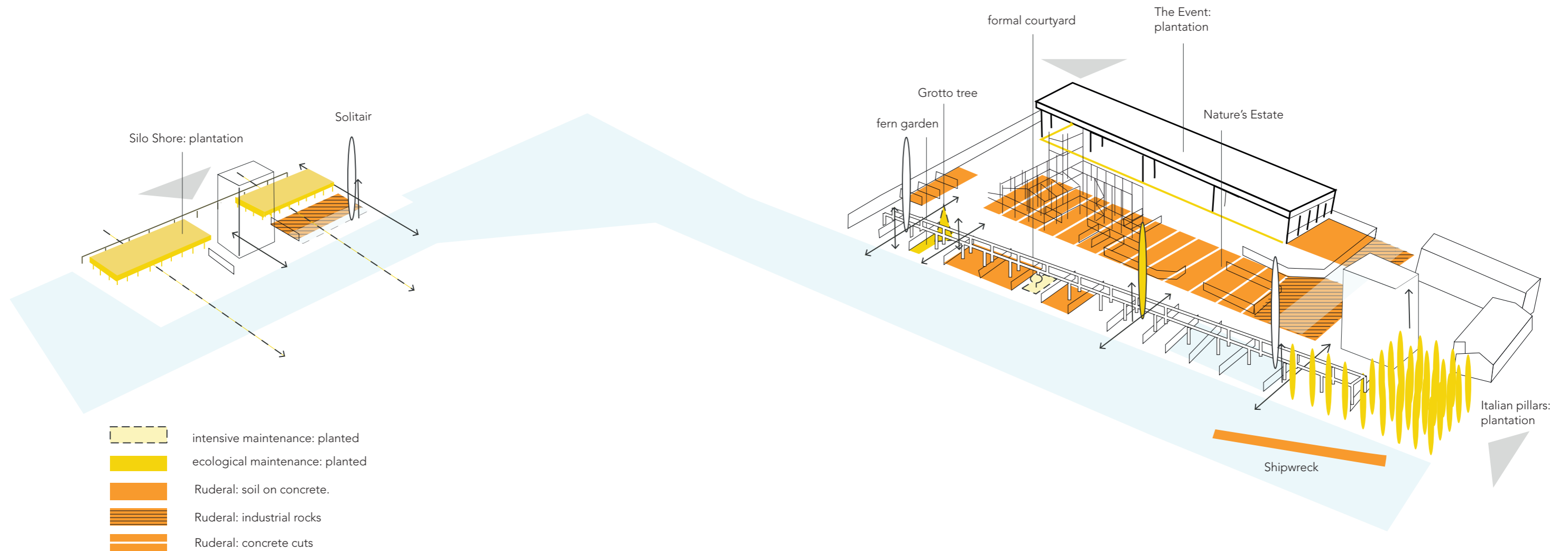
# Patchwork Oasis

## **VEGETATION**

# ARRANGEMENTS

Simplified, two types of urban forestry are defined: the planted and the ruderal. In general, the planted trees (yellow) provide a connecting framework. The solitair trees functioning as routing guide and the plantations functioning as introduction (urban square) to the rich area in different ways. For example the plantation of the Silo Shore enabling opening up the brownfield structures to create Prospect-Refuge (Silo Shore). The ruderal vegetation is positioned in the spatially defined areas by the brownfield structures. However, the richness of variables: light/dark, water/dry, soil(height) on concrete/cuts in concrete/gabbions on bentonite, soiltype & technotope context create a rich variety of vegetation.

Two exceptions can be found. First of all, the maintained/planted fern garden under the Taxodium distichum, as part of the Toxic Gardens. Why? To expand the gradient of habitat and experiences in the park. Moreover, there is planned a small formal garden in the Toxic Gardens, which connects to courtyard/formal vegetational identity of The Hague and strenghtens the dvriging experience of the ruderal zones by providing direct contrast.



# Design | Synthesis | Vegetation

		Phase 1: early years (0-5 years)	Phase 2: Adult (20-30 years)	Phase 3: Collapse as quality (50+ years)
Italian Pillars (plantation)	Name: Populus nigra 'italica' (height 30-40 m, width 3-5 m) Phytoremediation: yes Social space: pluralistic Spatial concept: slightly deviating pluralistic space (urban square) anchored to concrete pillars of crane railway. Time: close planting distance creates growing level of intimacy over time and eventually becomes a soft border in the third phase of the park: trees together closing up as wall.			
Silo Shore (plantation)	Name: Populus alba & Salix alba 'Belders' (height 15-20 m, width 10-20 m) Phytoremediation: yes (complementary species) Social space: pluralistic Spatial concept: understandable introduction, planted in 5 meter grid (<1/2 crown-width) to create a (perforated) roof which frames the view to the Caballero factory. Connected aesthetic in canopy color (silver/white), canopy transparency & tree shape. Time: silo restored/replaced by cortensteel framework (3rd phase).			
The Event (plantation)	Name: Populus tremuloides (height 6-15 m, width 3-9 m) Phytoremediation: yes Social space: pluralistic/communal (phase 1 & 2) -> individualistic (phase 3) Spatial concept: continuation of roofed typology by planting species close to each other, yet varied in distance (1-4 meters) to enable a varied range of program below. Specimen with transparent canopy to complement densified Nature's Estate (2nd phase). Furthermore artificial looking trees (very straight, white bark) that provide sensorial richness through their seasonal colors and distinct sound. Time: planted in 2nd phase.			
Grotto (solitair)	Name: Taxodium distichum (height 15-20, width 6-14 m) Phytoremediation: no Social space: individualistic Spatial concept: strengthen deviating space of the Grotto, yet provide a routal guide (in the first phase) for a more hidden path over the funnel waterfall. Time: forms air roots that enable the Blue Artery to be overflowed year round in the third phase in which the asphalt plant is put out of use, including the cranes.			
Green Crane (solitair)	Name: Populus nigra 'italica' Phytoremediation: yes Spatial concept: form a routal landmark, indicating an important exchange in vertical and horizontal routing and the 2 landscapes. Time: older tree is planted to have spatial significance from the start.			
Shipwreck	Phytoremediation: no Social space: communal (around it) Spatial concept: landmark centered in collective spaces, which simultaneously forms a lush and undisturbed island for nature that focusses on the transition between water and land.			
Rock marshland	Phytoremediation: no Spatial concept: maintain a disconnection between the (purified) water and the contaminated soil and simultaneously attracting different, lower, vegetation on the rock surface of the gabbions to enable viewlines without human interventions.			
Nature Estate	Phytoremediation: yes Social spaces: individualistic Spatial concept: make use of the rich/connected brownfield structures/situation to create an understandable yet divers and ruderal zone in which people are guest that directs to an introverted/individual experience. Time: collapse in 3rd phase.			
Toxic Gardens	Phytoremediation: yes Social spaces: individualistic focused, communal (playground, outdoor gym) Spatial concept: series of gardens that vary in spatial form by soil type, soil height, human access, vegetational maintenance. Range from intensively maintained formal courtyard (light yellow) to wild/closed of garden (orange). Time: Variety in maintenance until 3rd phase.			



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# DESIGN-GUIDE

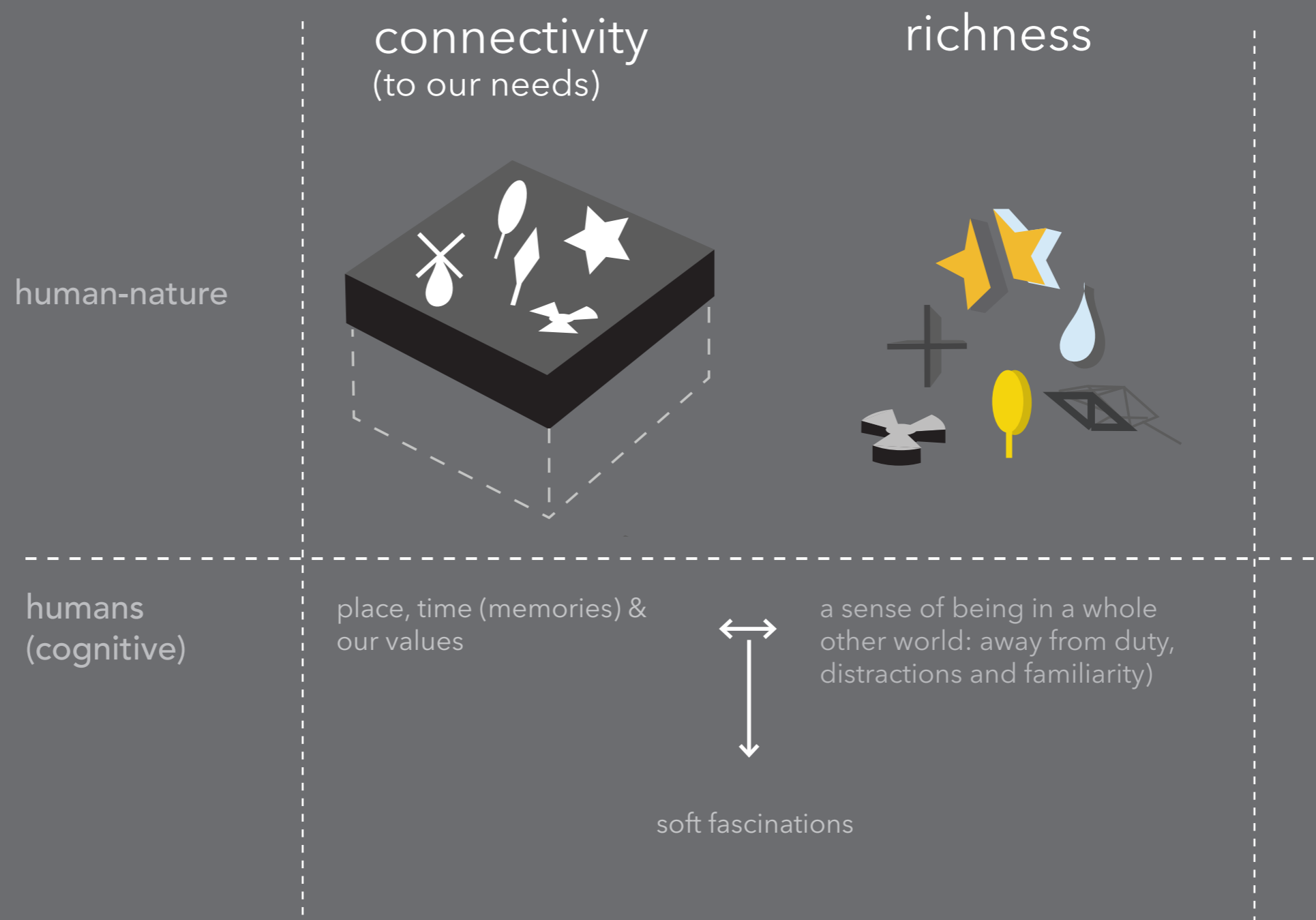
Update: Introduction

## Introduction

Comparing the findings on the restorative needs of human nature in the context of brownfield-urban forests shows we value similar characteristics of the landscape. It reconnects human nature, which often are seen as different from each other

The core characteristics of restorative landscape architectural components for human nature in the context of brownfield-urban forests are: they should provide a balance between richness and coherence/connectedness of environment. Specified for humans; richness; a sense of being in a whole other world: away from duty, familiarity and distractions, and connectivity: with place, time or our needs/values. In which the components should provide soft fascinations.

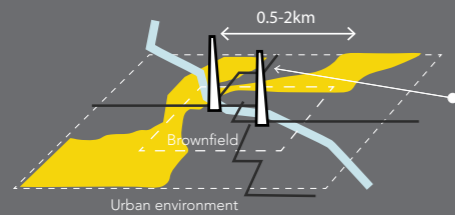
Reflecting on the image of the playbox on the right, the thesis concludes that the brownfield technotope could be seen as the box, framing many different shapes/qualities in unique ways. More specifically, the brownfield-urban-forest expands the restorative bandwidth of the urban forest: increased connectivity, providing/enabling increased richness: a mosaic of spaces. Further elaborated on the next page.



# DESIGN-GUIDE

## Update: Brownfield-urban forest

### Connecting Frames



HN Central, vast plots that can impact the urban forest connectivity on the large scale & branch out through connecting infrastructures (physical)



Clarity of brownfield grid used for circulation. Strengthened by characteristic, vertical landmarks



Complement derelict program form's logical spatial framework with urban forestry for ideological connections: rooms/gardens, plaza's etc.



Connection with time.

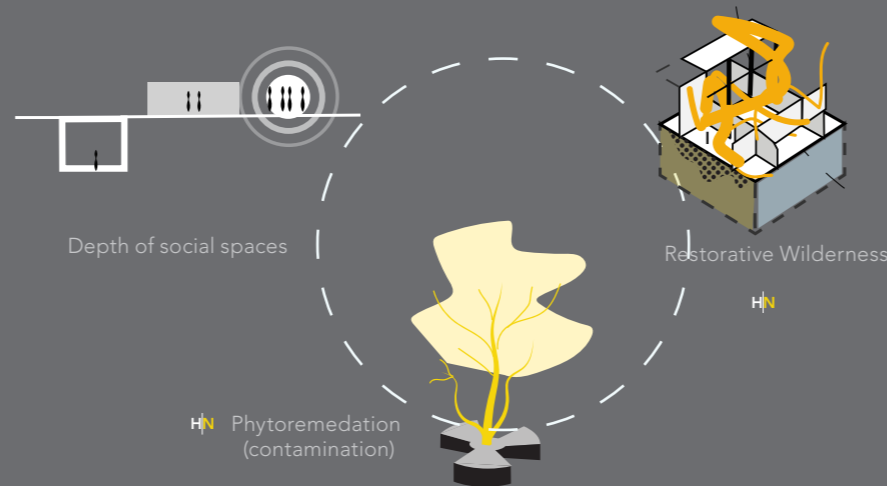


Complement the vertical network of brownfield infrastructures with urban forestry to enable a rich set of routes for walking, as well as stepping stones for different fauna.

### Forest Ruinscapes



Strengthen the deviating historic/spatial character of brownfield (in the larger context) via 3 special (urban forest) qualities:



Depth of social spaces

Restorative Wilderness

HN Phytoremediation (contamination)



HN Design Prospect-Refuge (e.g. for people watching)



Ruins: scarcity, decay, incompleteness stimulate hauntology (image form)



HN Cherish rough/ruinous character: appropriation for human nature

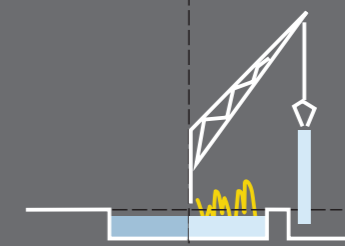


HN Unique biotopes: (ruderal) brownfield conditions in which human access can vary (over time).

### Water Optimization



HN Improving the waterhealth of the city



HN Water factory: complement brownfield-infrastructure and urban forestry to increase waterquality/buffercapacity



HN Rich palette of wet biotopes (sensorial amplification)