

P5 Presentation

Urban Waterbodies:

Stimulating an ecosystem resilient city by integrating climate sensitivity in human-oriented urban design in Houston

Nadine van den Berg
Januari 2021

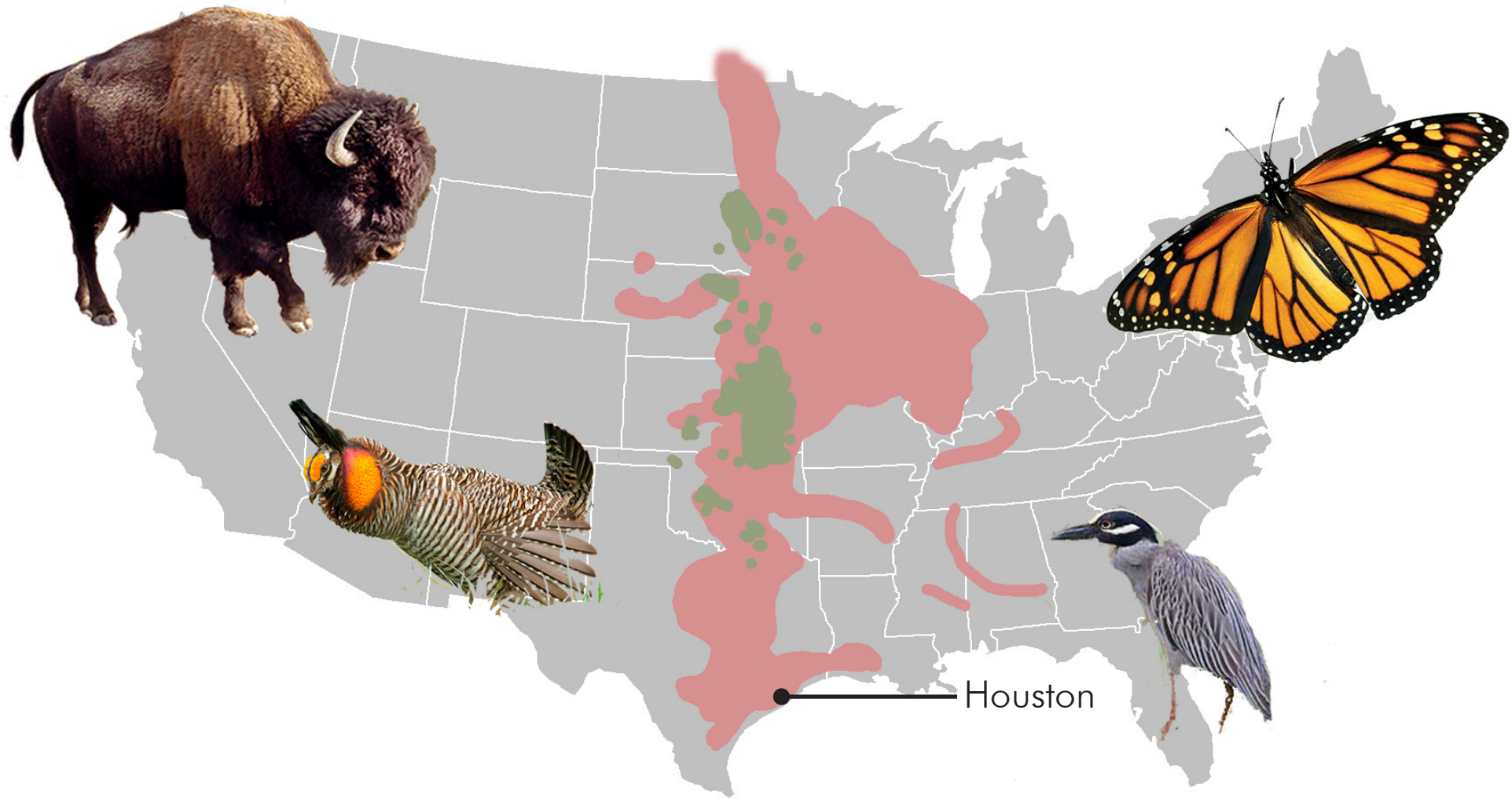
First Mentor: dr. Fransje Hooimeijer
Second Mentor: dr. Dominic Stead







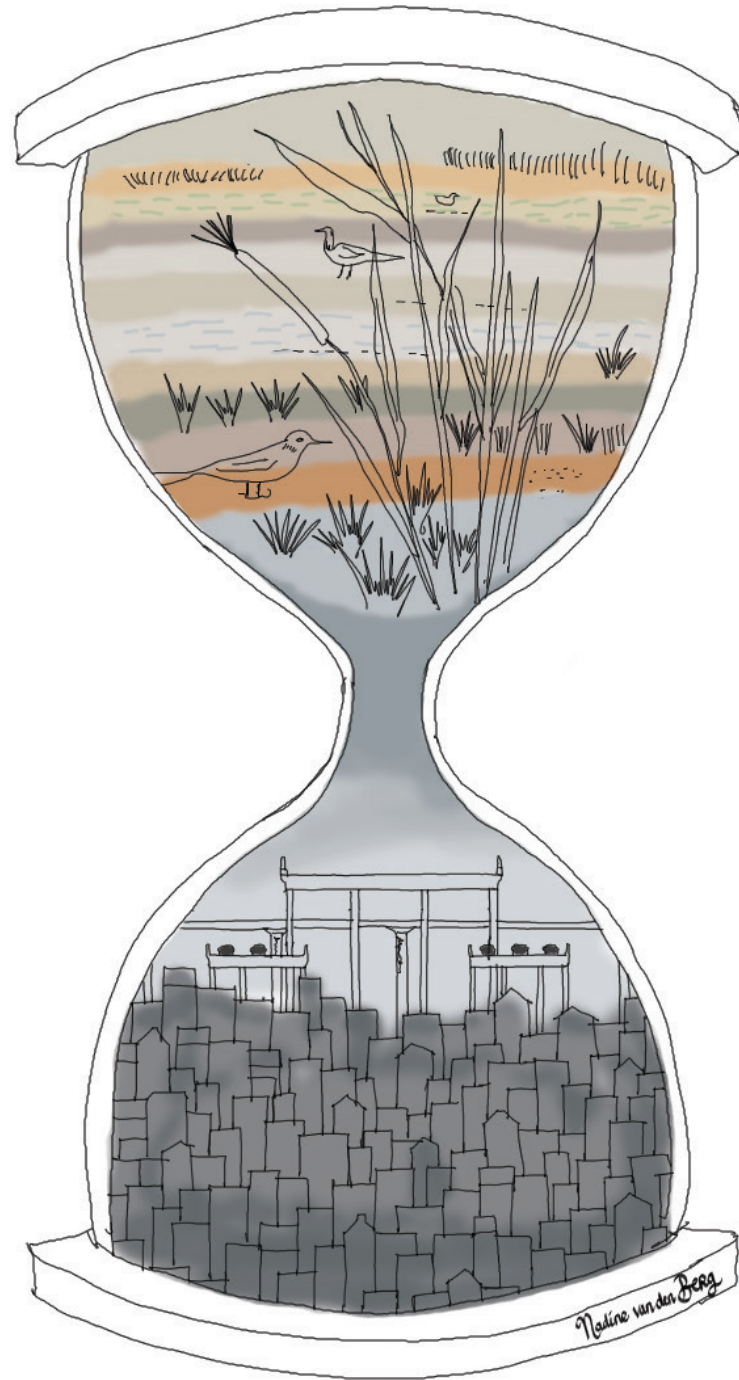
TALLGRASS PRAIRIE RANGE MAP



Remaining tallgrass prairies today

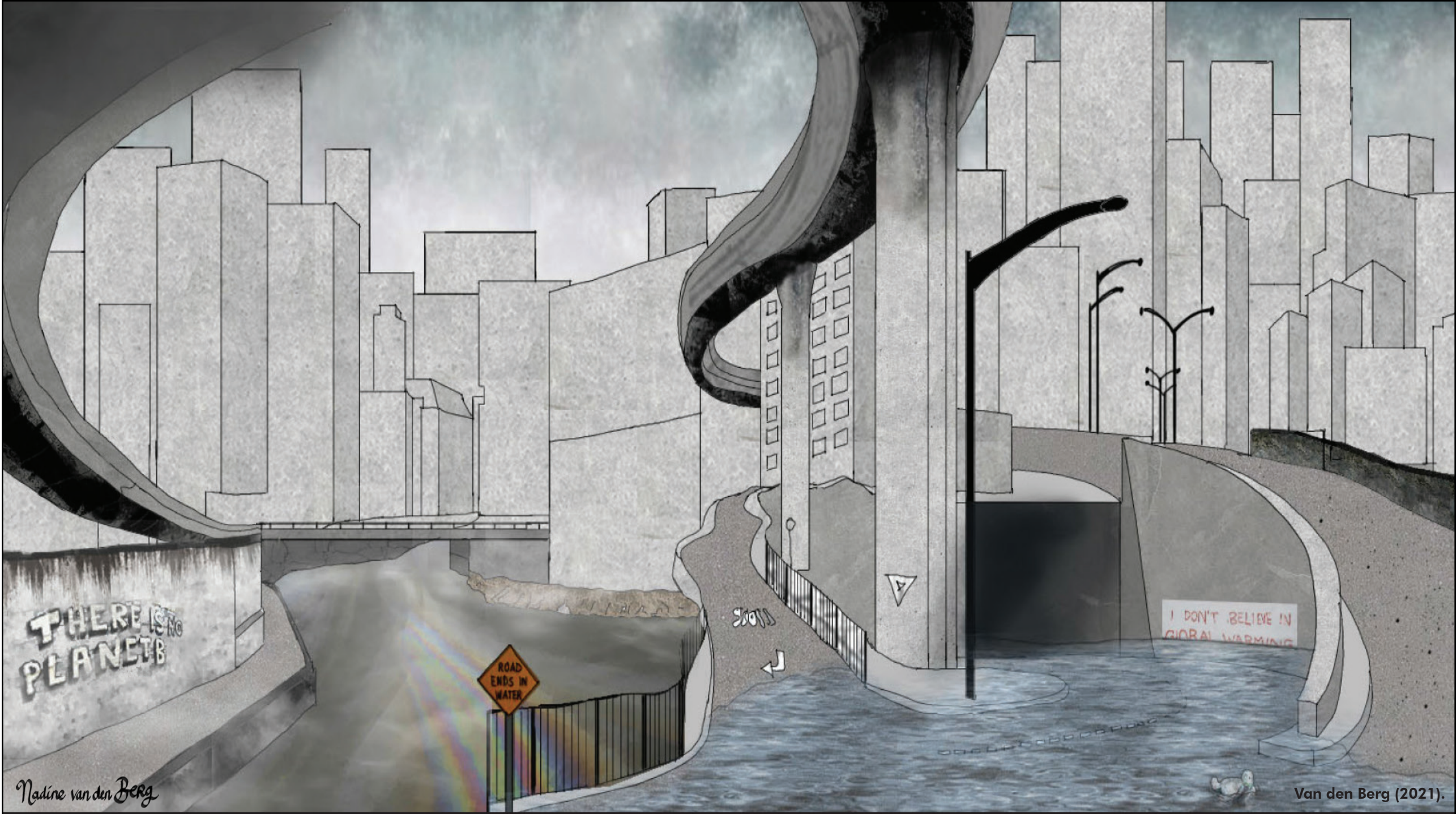


Historic tallgrass prairies range



Nadine van den Berg





THERE IS NO PLANET B

ROAD ENDS IN WATER

I DON'T BELIEVE IN GLOBAL WARMING



Nadine van den Berg

Van den Berg (2021).

BIODIVERSITY



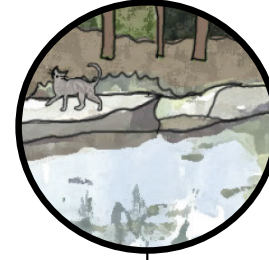
ADVENTURE



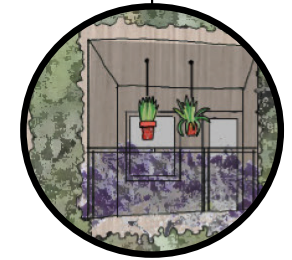
RAIN GARDEN



THE SOUND OF WATER



Nadine van den Berg



THE FEELING OF NATURE

OUTDOOR LEISURE

JOY

PARTICIPATION

UTOPIAN SCENARIO

DECONTAMINATION



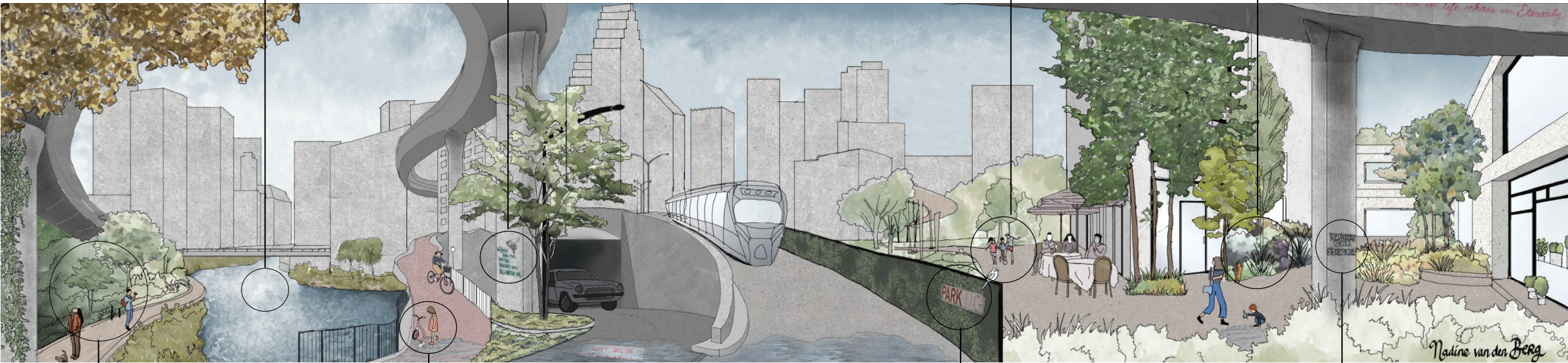
WHEN WE GO WE'RE TAKING YOU ALL WITH US



ENCOUNTERS



GROWTH



ENRICHMENT



DISAPPOINTMENT



PARKING

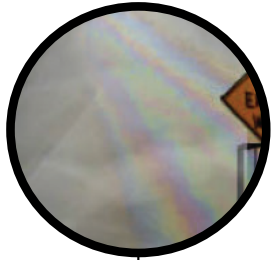


YOUR LUXURY IS OUR DISPLACEMENT

RESTORATIVE SCENARIO

Nadine van den Berg

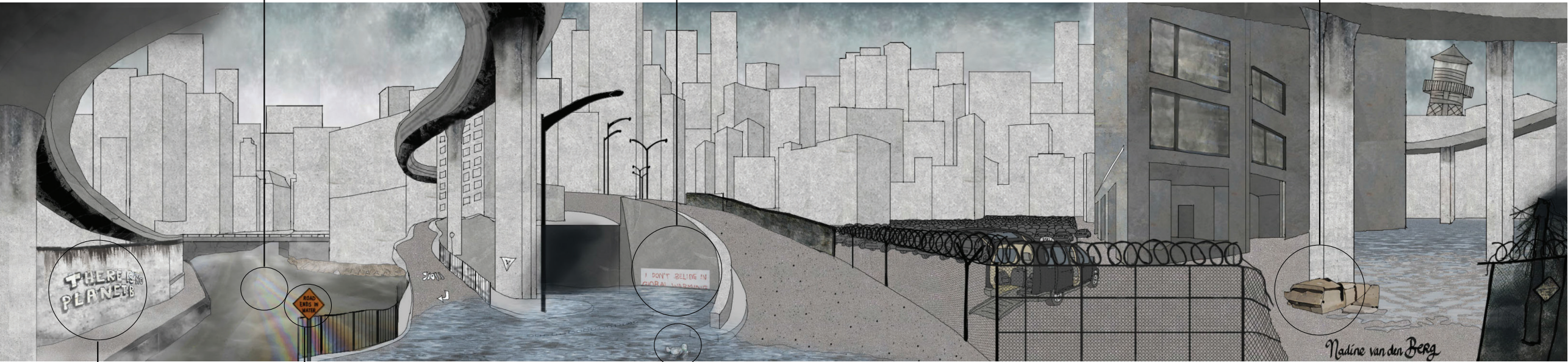
POLLUTION



I DON'T BELIEVE IN GLOBAL WARMING



VULNERABILITY



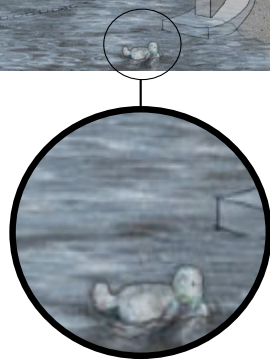
THERE IS NO PLANET B



ROAD ENDS IN WATER



I DON'T BELIEVE IN GLOBAL WARMING



Nadine van den Berg

THERE IS NO PLANET B

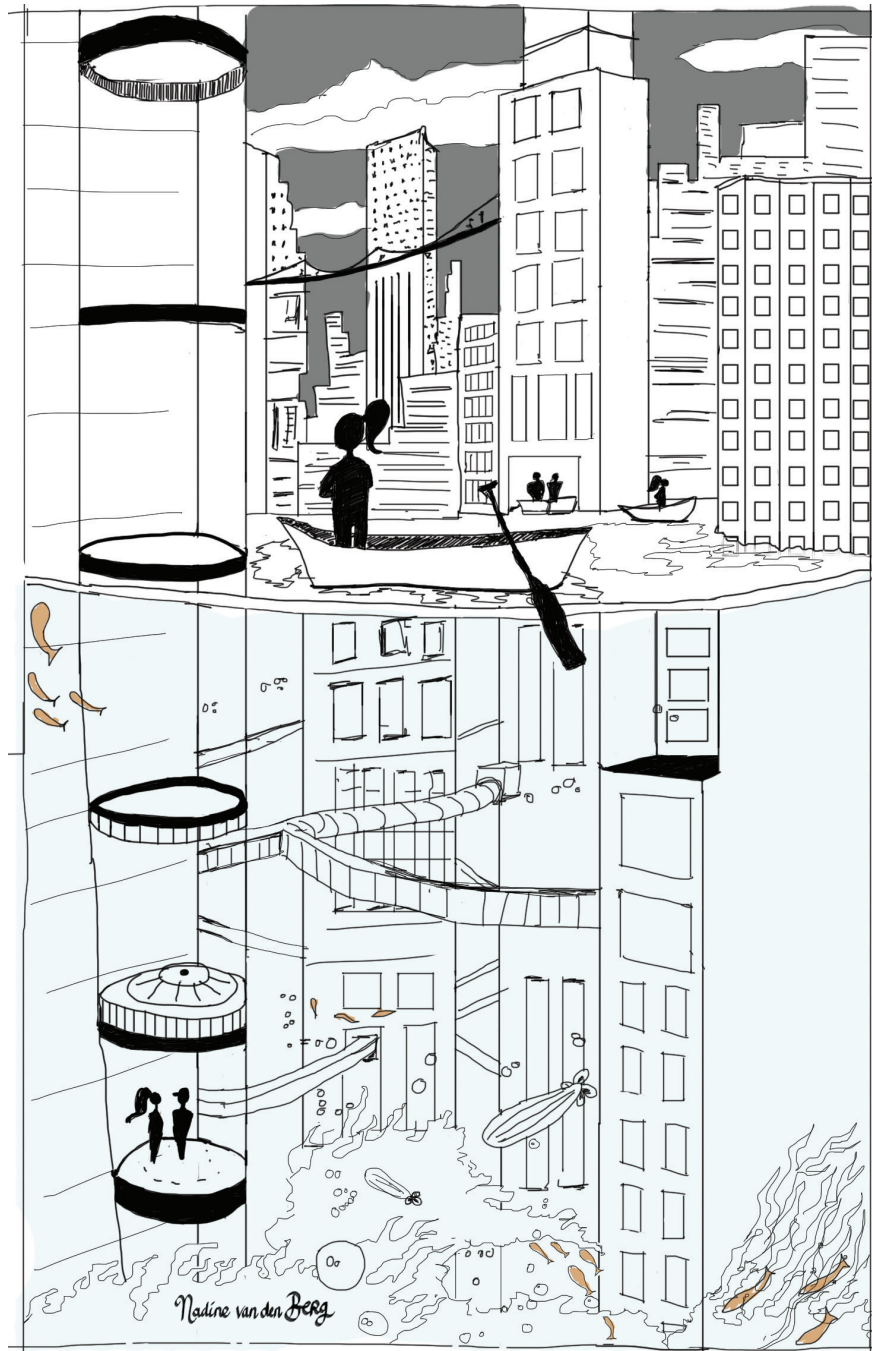
ROAD ENDS IN WATER

TRAUMA

DYSTOPIAN SCENARIO

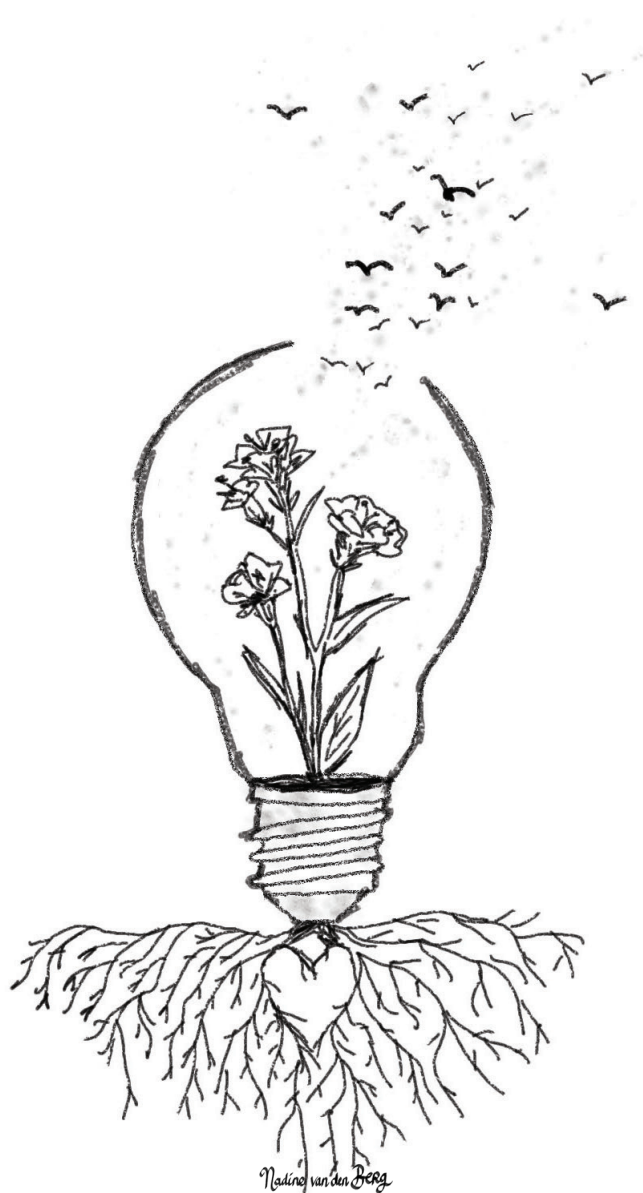


Paleolithic art in France
(Coulson, n.d.)



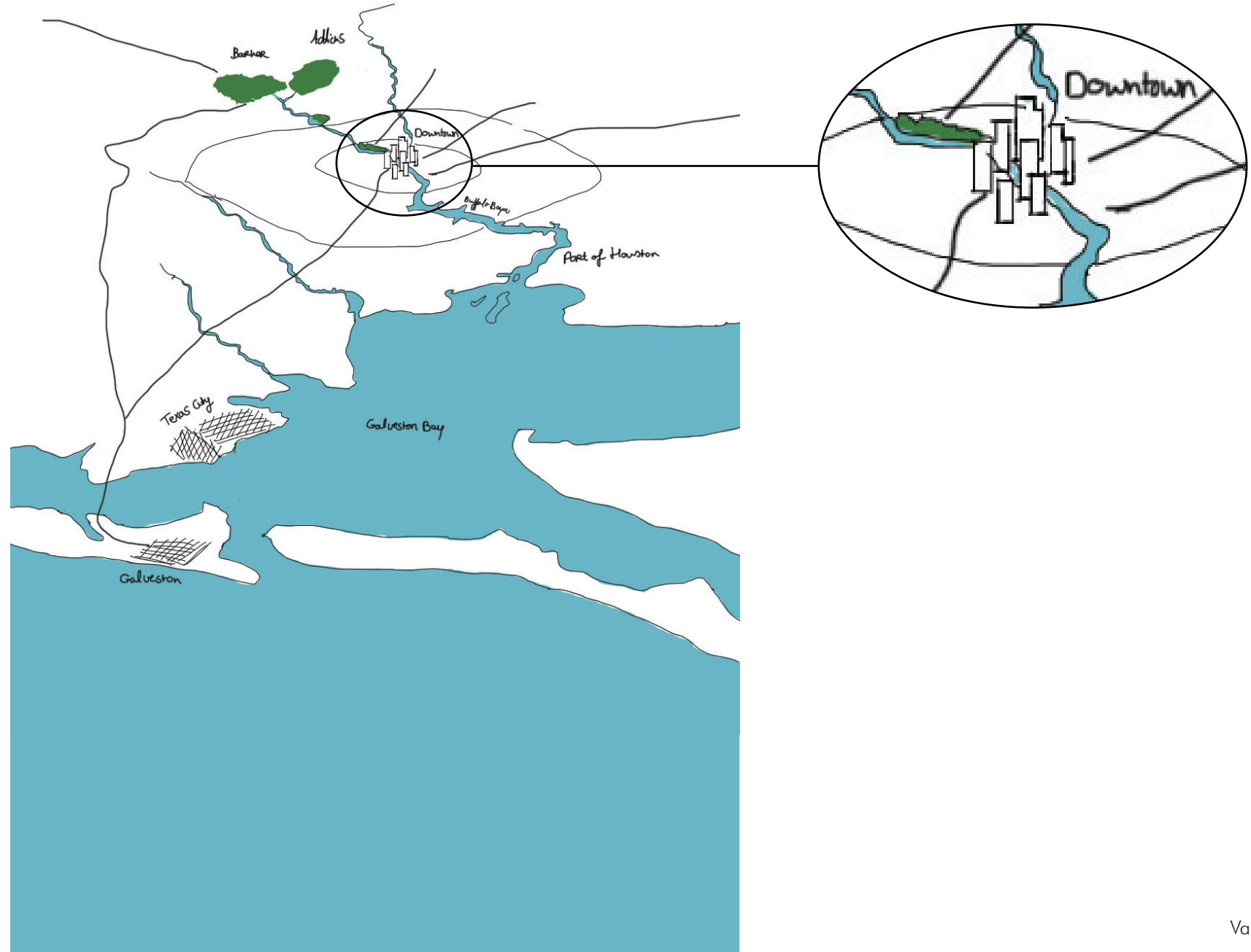
Nadine van den Berg

VISION

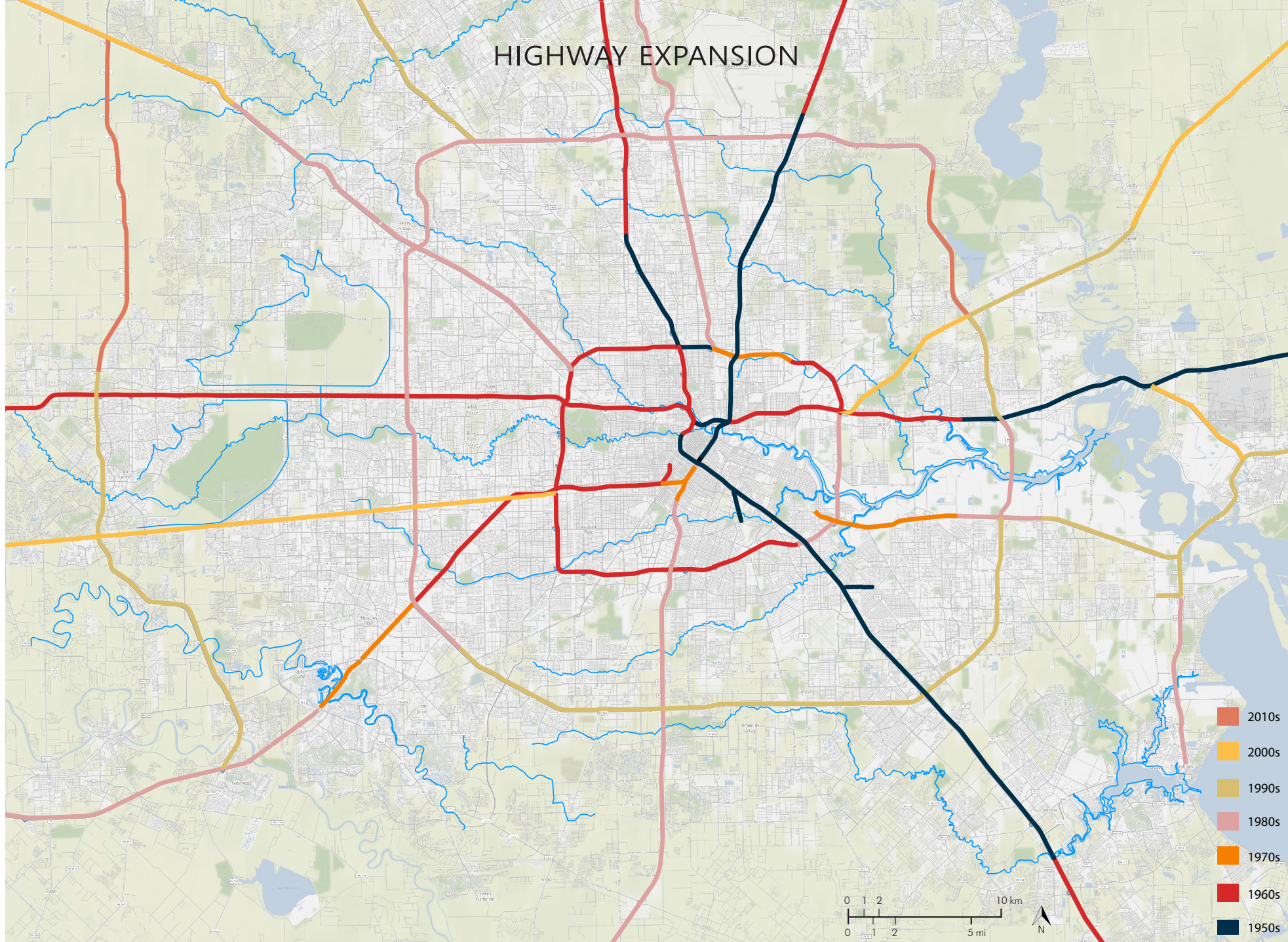


Nadine van den Berg

LOCATION



HIGHWAY EXPANSION



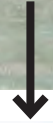
- 2010s
- 2000s
- 1990s
- 1980s
- 1970s
- 1960s
- 1950s

Highway Development through the years. Map by Van den Berg (2021), based on data from Wittenberg, Chang & Kinder Institute for Urban Research (2018).

HISTORIC
HOUSTON



Raphael Tuck & Sons (1908)



Library of Congress (1891)



PRESENT-DAY
HOUSTON



Clemens (2019)



Google Earth (2021)

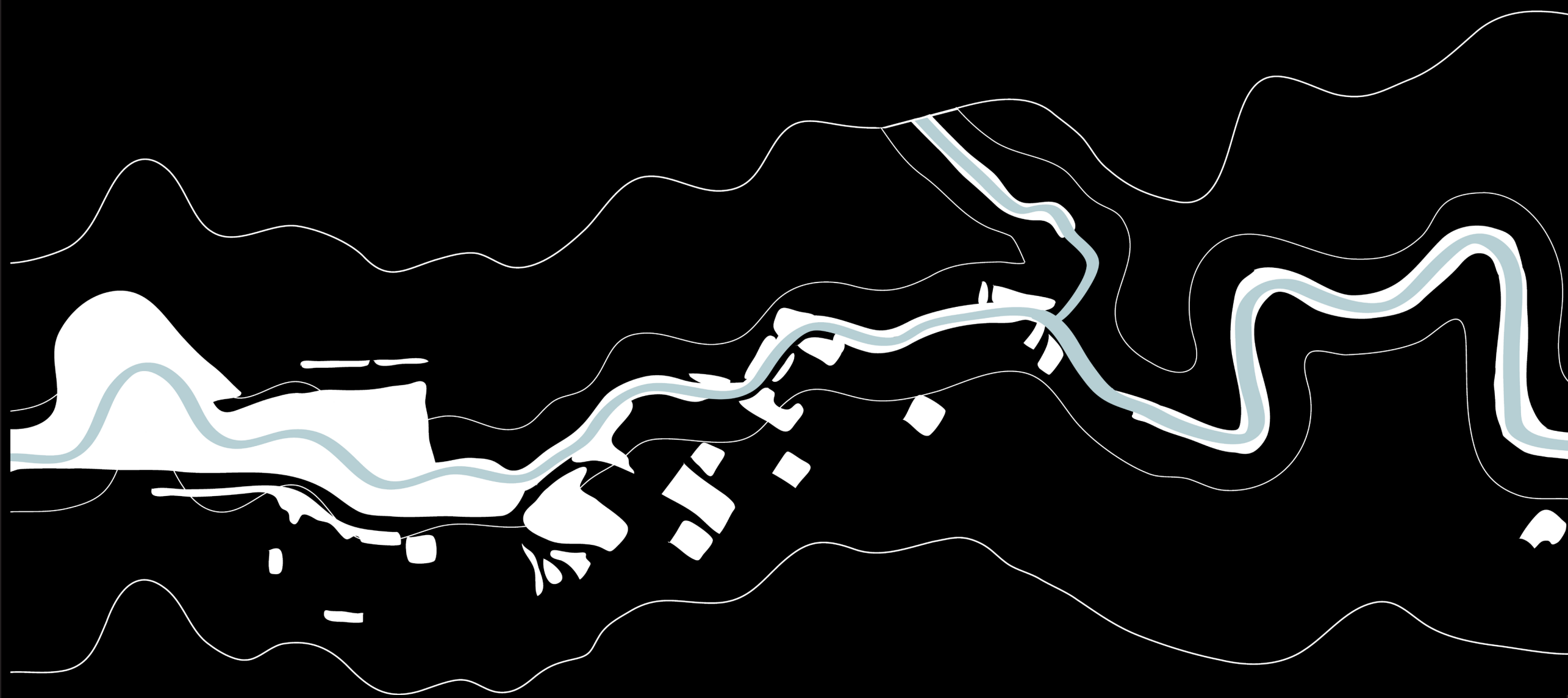
A CASE OF IDENTITY



BUFFALO BAYOU CORRIDOR



Google Earth (n.d.), edited by Van den Berg (2021).



FROM ISLANDS TO ARCHIPELAGO

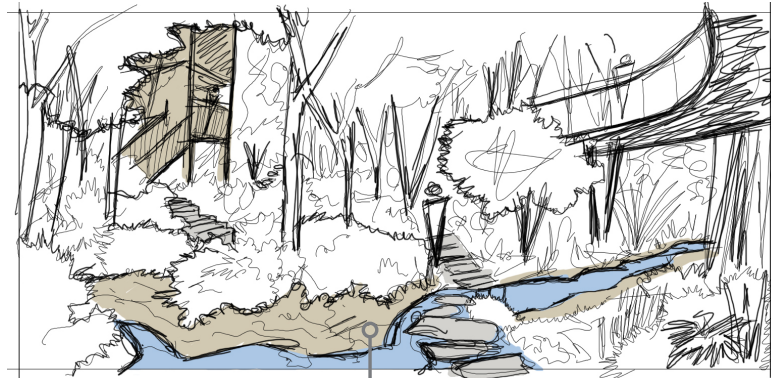


Nadine van den Berg

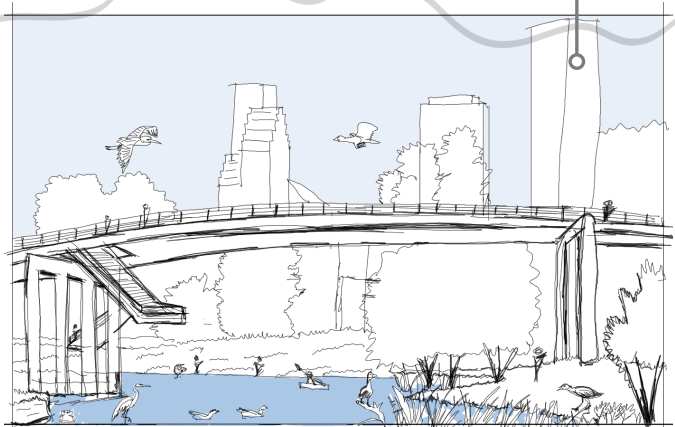
URBAN FABRIC

URBAN DESIGNER

GREEN CONNECTION



A: The realization of a public park that includes elements of the native ecoregion of the woodlands.



B: New pedestrian public space and return of native flora and fauna.



C: New highway public space, in combination with water and nature.

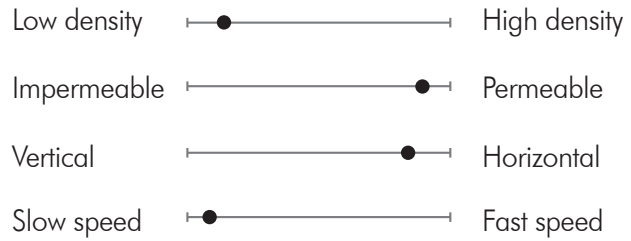


D: New living typology: midrise with collective courtyards.

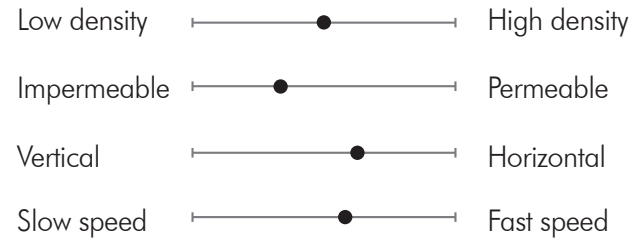
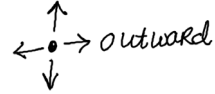
STRATEGY

CHARACTERS

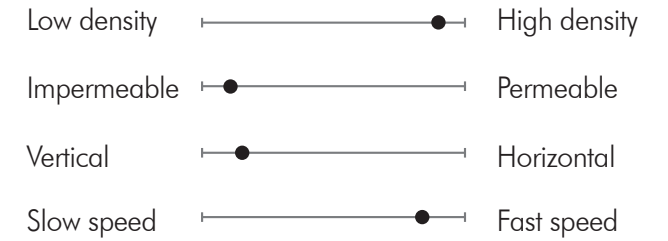
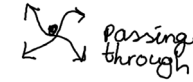
Natural



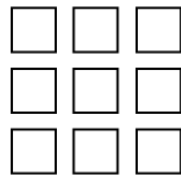
Semi-urban



Urban

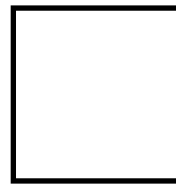


SCALES



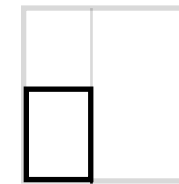
STAMP

Includes 9 blocks of 3x3 grid



BLOCK

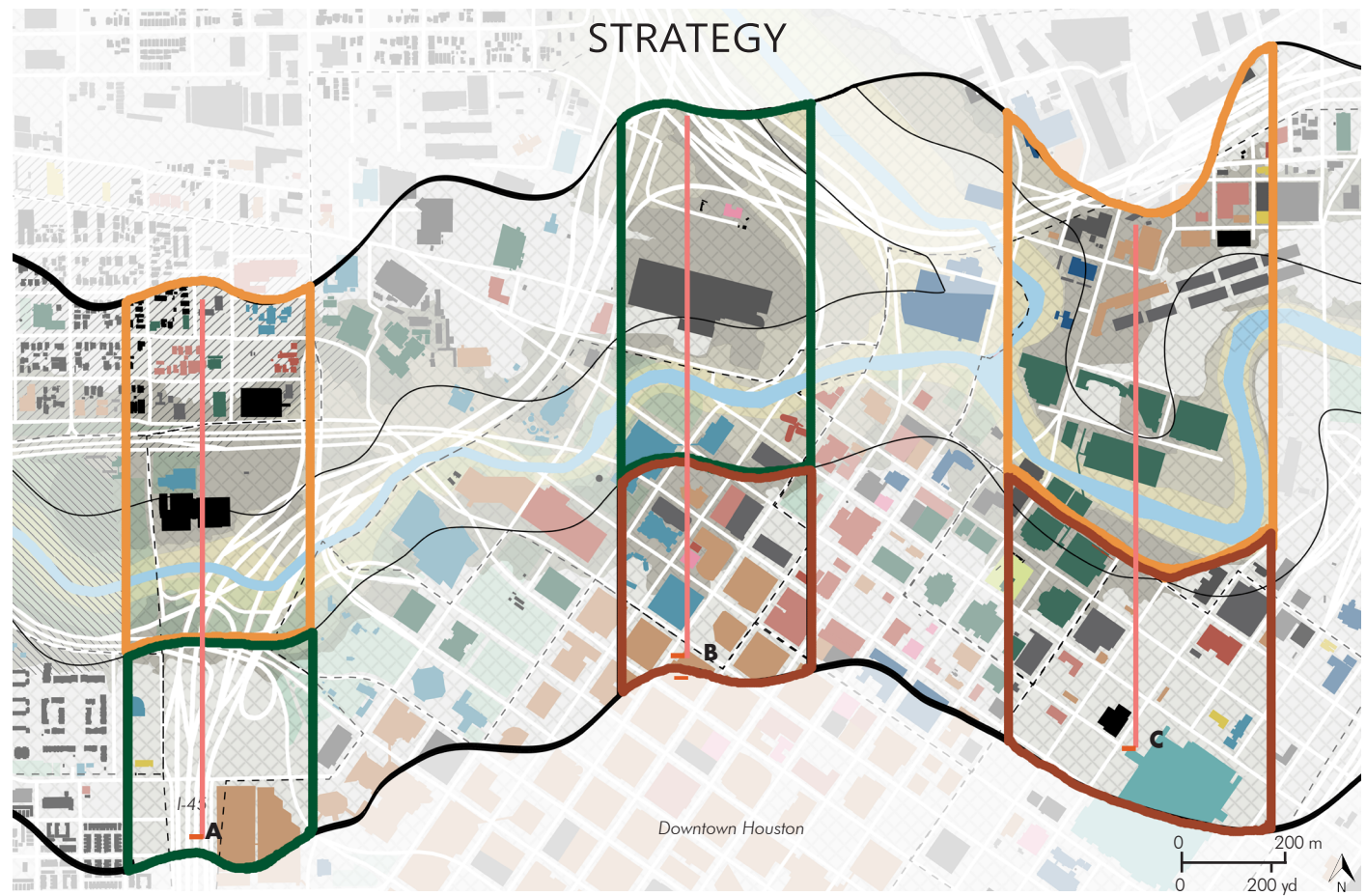
Includes 1 block of the stamp



PLOT

Includes 1 property of a block

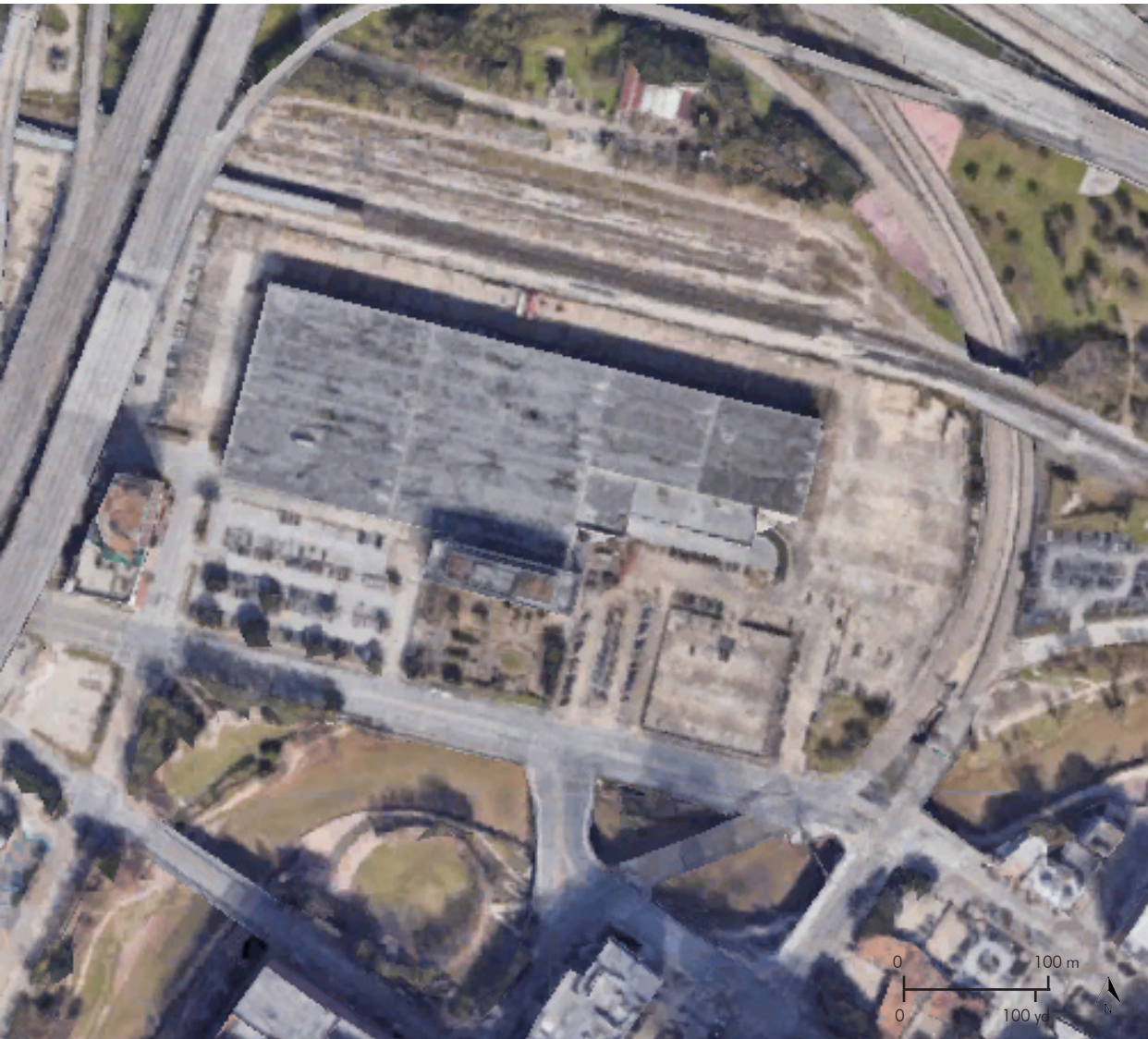
STRATEGY



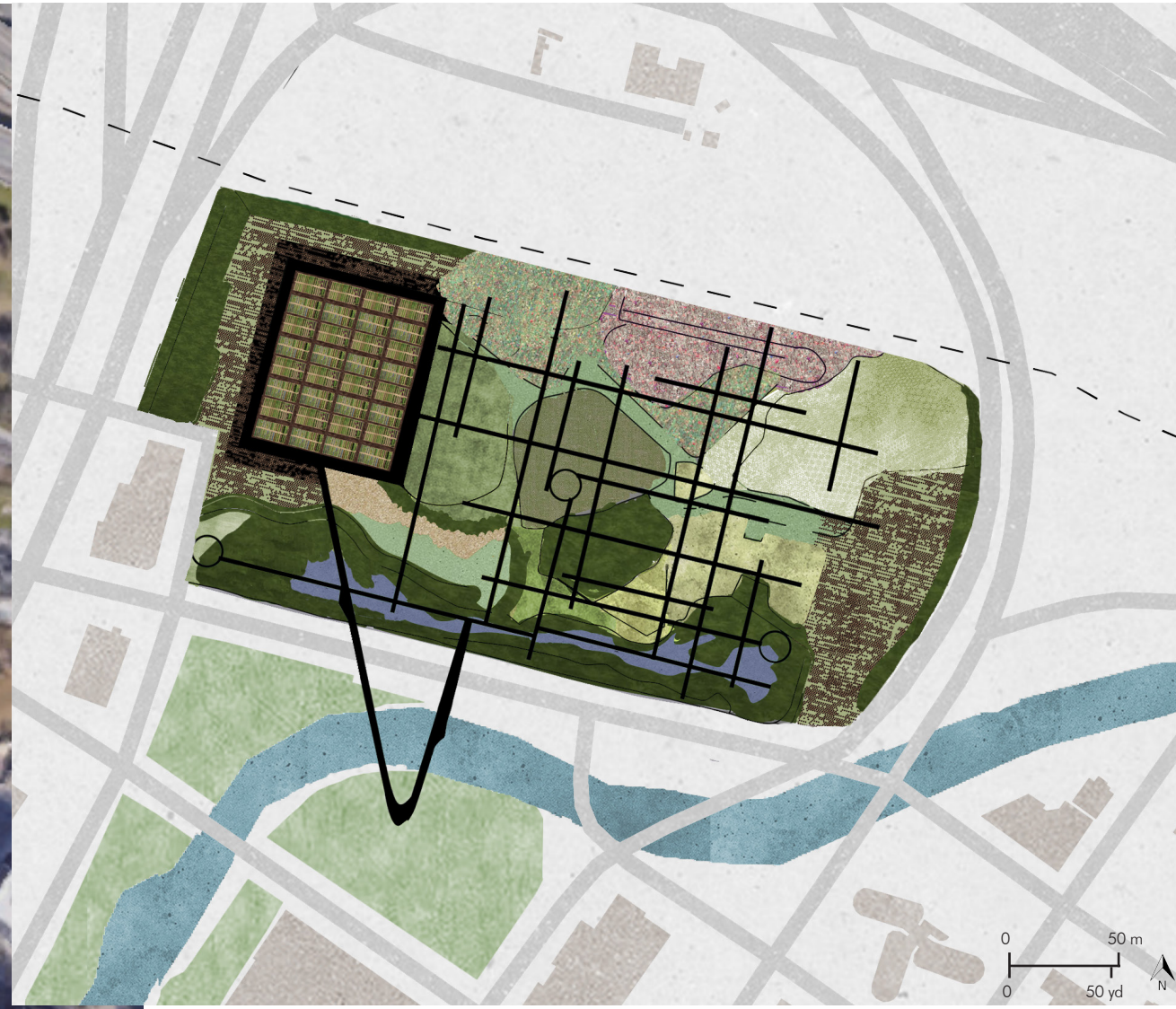
Zones	Floodplains	Soil	Functions
500m pedestrian zone	Floodway	TeuB	Residential
100m riparian zone	100yr	VauA	Stadium
Typological districts	500yr	URLX	Industrial/Warehouse
			Parks
			Government
			Civic
			Institutional
			Multi-Use Residential
			Hotel
			Parking Garage
			Commercial/Retail
			Food
			Office
			Cemetery

URBAN DESIGN

URBAN DESIGN



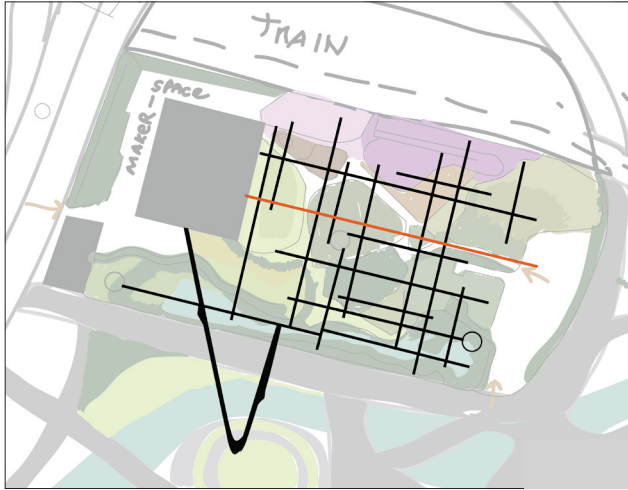
Urban design site: former post office on map (Google Maps, 2021).



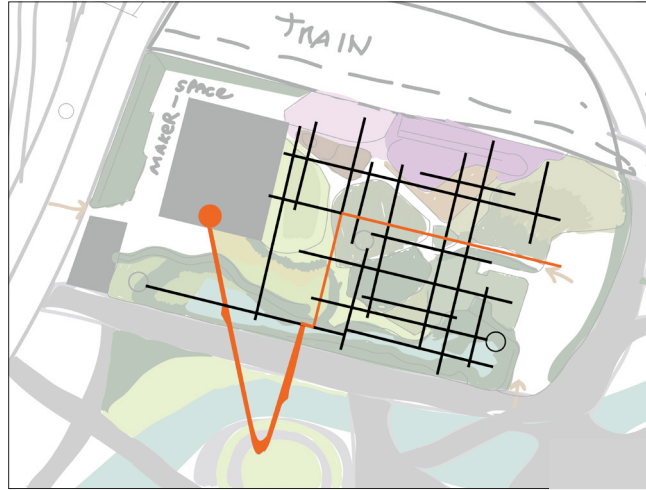
Urban design proposal (Van den Berg, 2021).



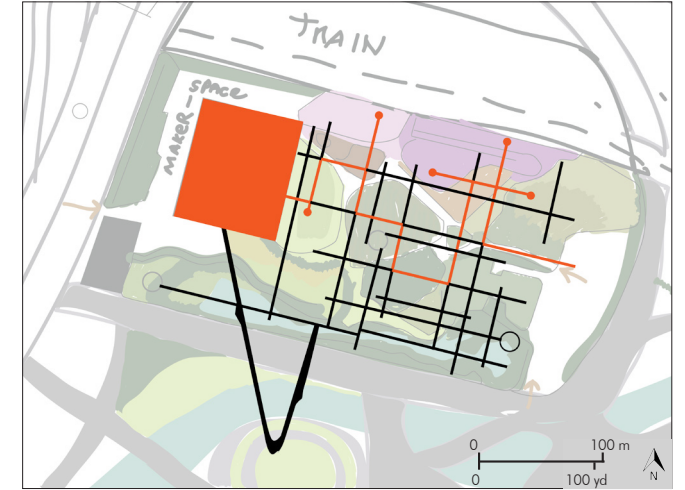
ROUTE



1. Straight towards the education Nature Center.

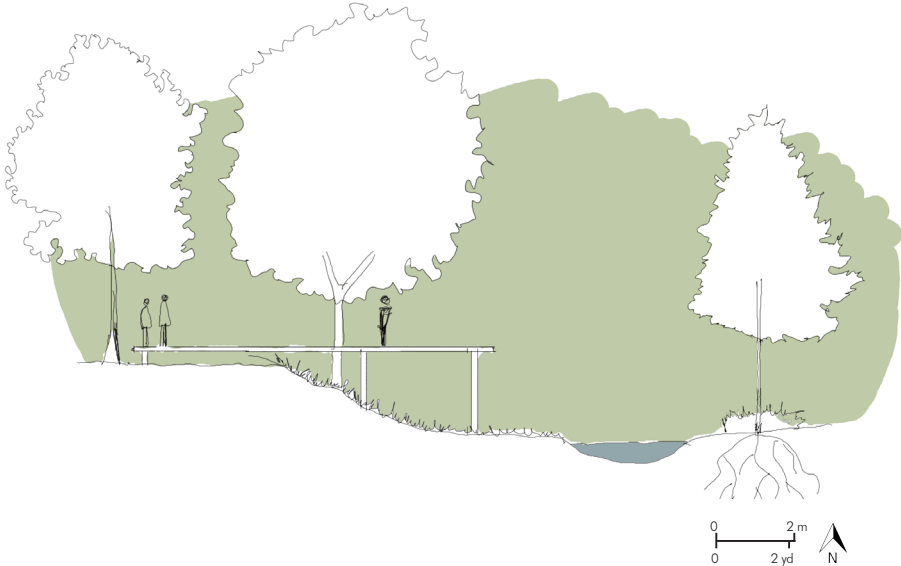


2. Using the pedestrian bridge to explore the other side of the bayou, and afterwards reach the roofgardens.



3. Exploring the prairies and woodlands, before entering the education center.

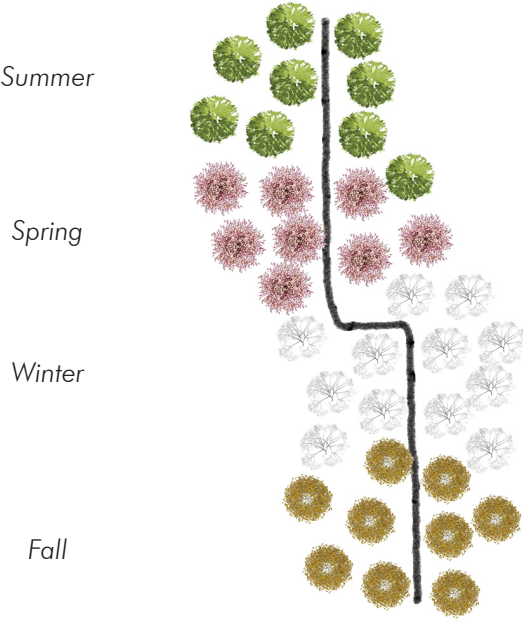
PEDESTRIAN INFRASTRUCTURE



SEASONAL DESIGN

EACH SEASON HIGHLIGHTS ANOTHER PART OF THE ROUTE
flowers

EACH SEASON CREATES ANOTHER VISUAL ROUTE
trees

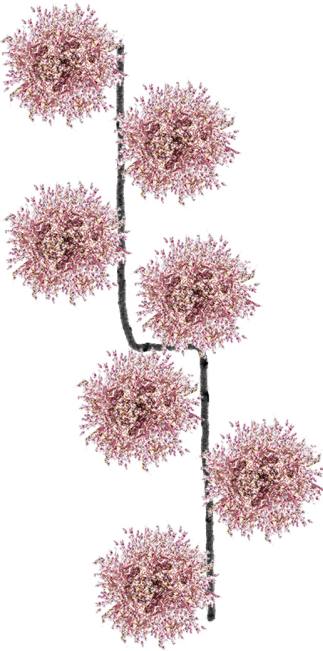


Summer

Spring

Winter

Fall



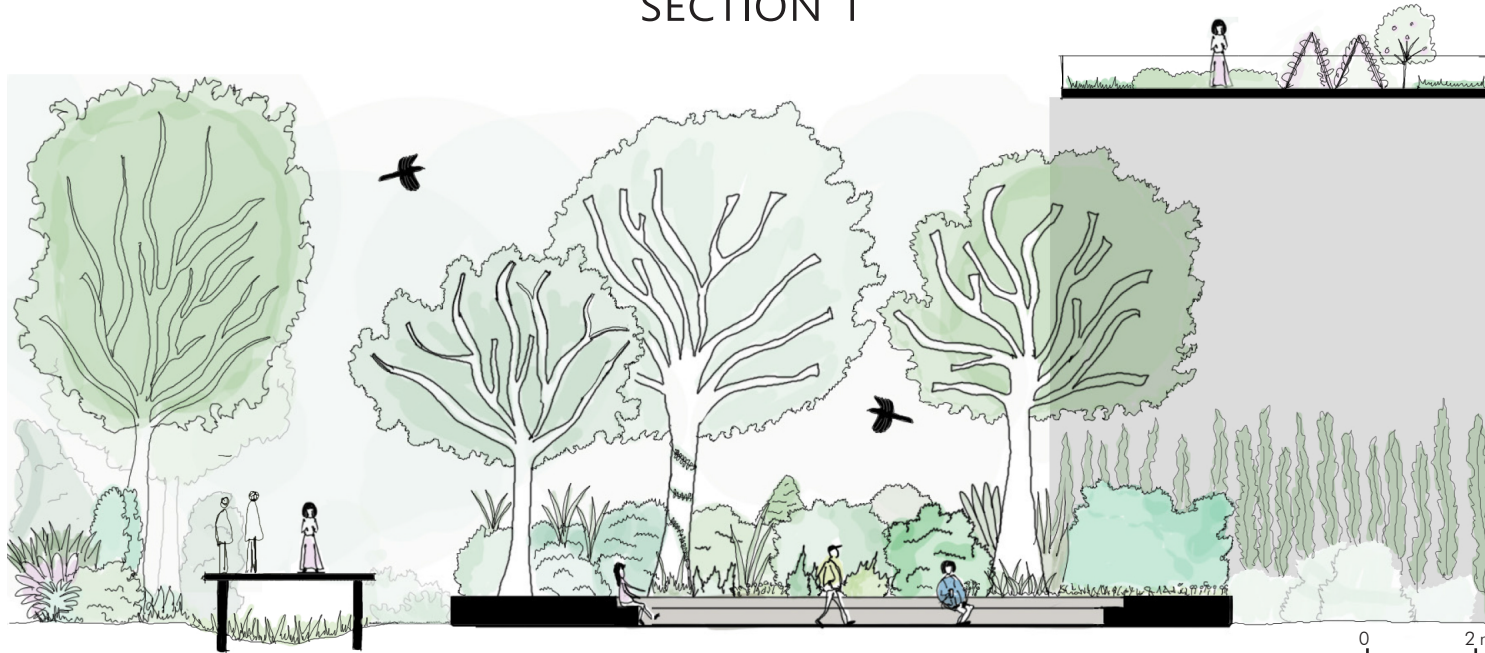
Spring

Summer

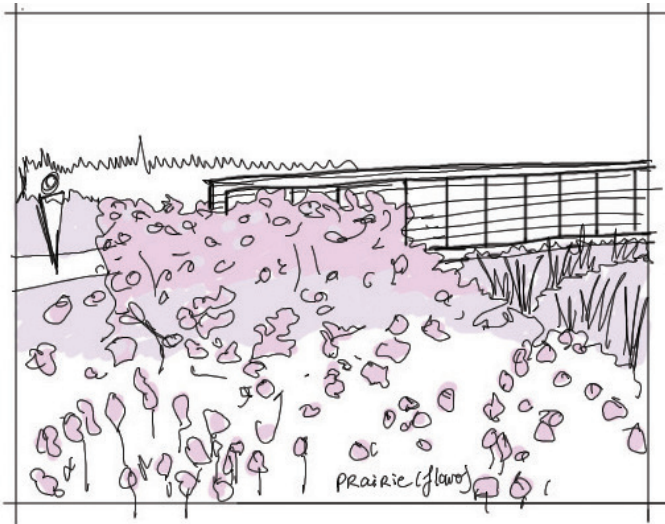
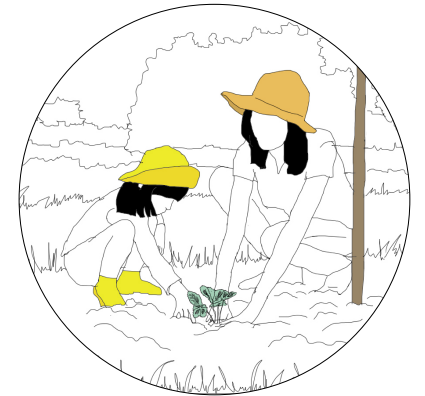
Fall

Winter

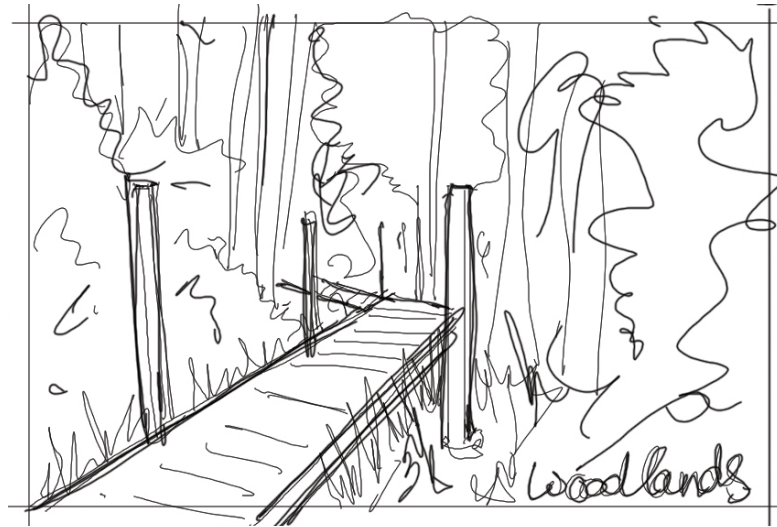
SECTION 1



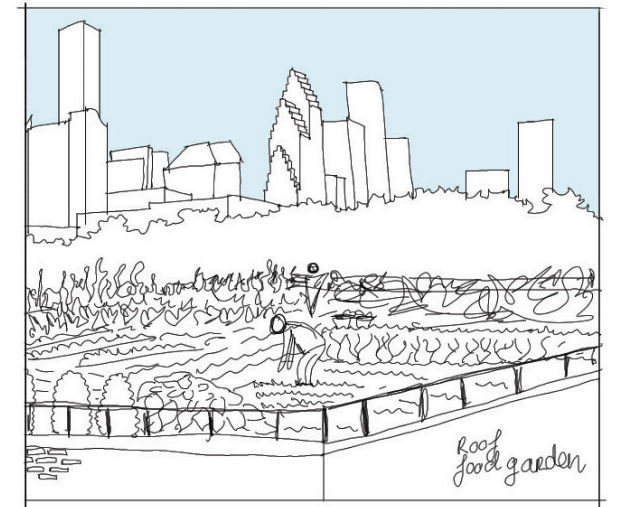
0 2 m
0 2 yd



prairie flower

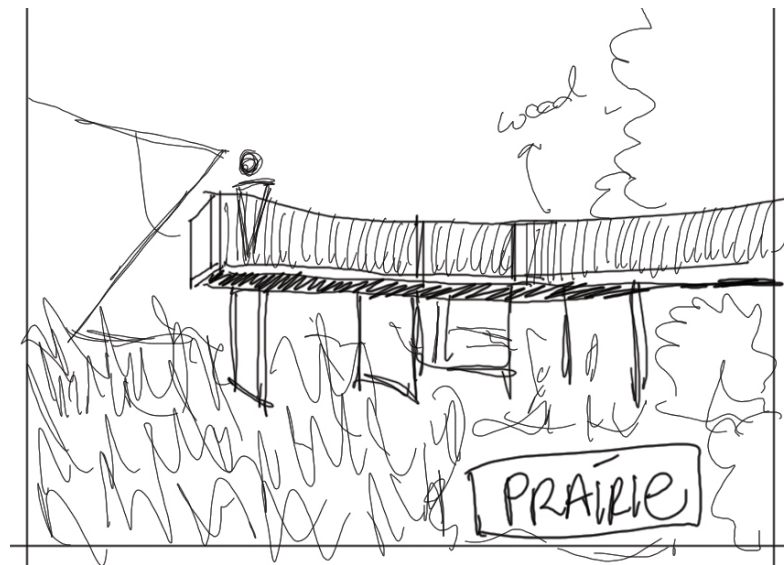
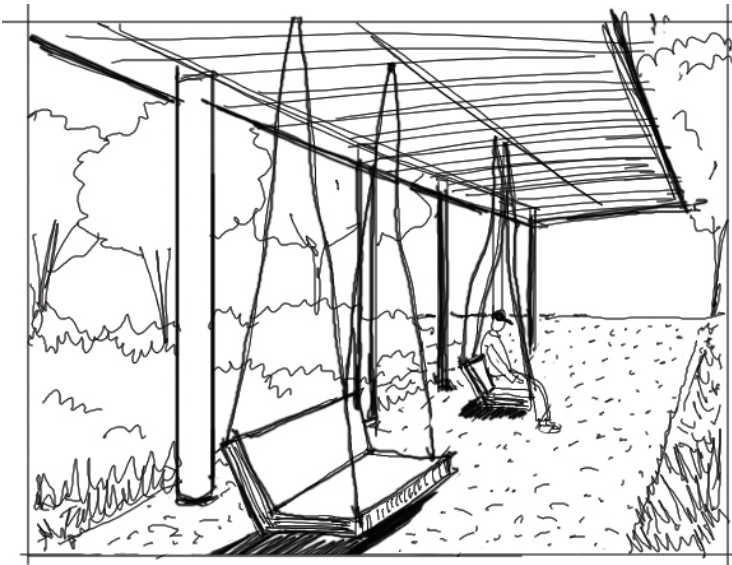


woodlands



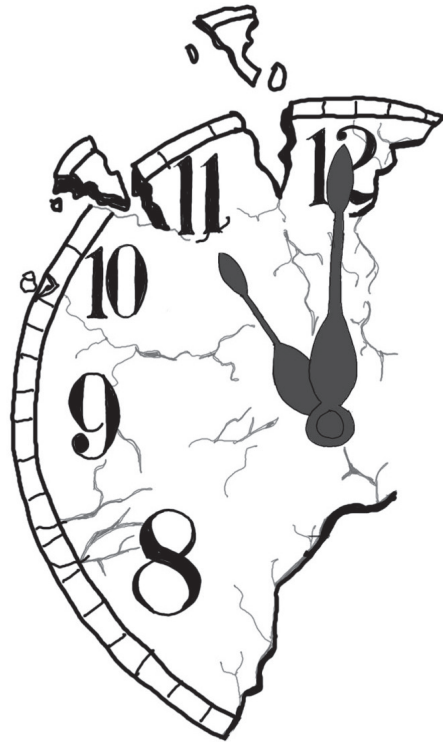
roof food garden

SECTION 2



CONCLUSION

Time...



a luxury we do not have

OUR CHOICES TODAY



JOY



DISAPPOINTMENT



TRAUMA

Thank you!

Urban Waterbodies:

Stimulating an ecosystem resilient city by
integrating climate sensitivity in human-
oriented urban design in Houston

Nadine van den Berg
Januari 2021

First Mentor: dr. Fransje Hooimeijer
Second Mentor: dr. Dominic Stead

