

This part is later added and is a transcript of what was said next to the slides.

LANDSCAPES OF RESISTANCE

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Design as Politics / Armina Pilav / Mike Emmerik / Gilbert Koskamp

Buildings can have the power to symbolize a specific story.

As an architect you have to choose which voices you help amplify and make part of the built history and larger narrative.

Who gets to be seen and represented and who is being erased?

Who has agency within the space you create?

Who gets to speak?

Who is valued?

This project is an attempt to use space as a political tool to resist, shift, and undermine the narrative as produced by those in power and offer a plurality of counter narratives in return, which together produce an alternative reading of history and push for change.

OVERVIEW

I MOTIVATION
CLIMATE AND MIGRATION

II RESEARCH
DOCUMENTING THE FRONLINE OF CLIMATE CHANGE

III TRANSLATION
PRESERVING THE FRONTLINE

IV DESIGN
BUILDING THE LINE

V REFLECTION
LANDSCAPES OF RESISTANCE

MIGRATION /
POWER GEOMETRIES

POWER

Moving

Not in charge of flow

receiving-end of flows

imprisoned by it

In Charge of Space-Time

initiate flows and movements

not moving

In charge of their position

MOVEMENT

The topic of the studio Design as Politics was Migration. To define migration I used a definition as posed by Doreen Massey, speaking of migration in the terms of power and movement.

“Now I want to make one simple point here, and that is about what one might call the power geometry of it all; the power geometry of time-space compression. For different social groups, and different individuals, are placed in very distinct ways in relation to these flows and interconnections. This point concerns not merely the issue of who moves and who doesn't, although that is an important element of it; it is also about power in relation to the flows and the movement. Different social groups have distinct relationships to this anyway differentiated mobility: some people are more in charge of it than others; some initiate flows and movement, others don't; some are more on the receiving-end of it than others; some are effectively imprisoned by it.”
Massey, D. (2013). *A Global Sense of Place*. In *Space, Place and Gender* (pp. 146–157). John Wiley & Sons

As shown in the quote migration can be defined along the notion of movement and power. Do you move or not and do you have agency over this movement?

When thinking about the idea of movement without power, this often means that something in the place of origin is happening that causes this forced relocation. In this sense forced movement is often a symptom of something bigger and not a problem in and of itself. My project therefore tries to deal with the place of origination and the source of this migration itself.

In an ideal world we all have power over our movement and this project aims to return some power to those who are forced to migrate.

OIL AND CLIMATE CHANGE

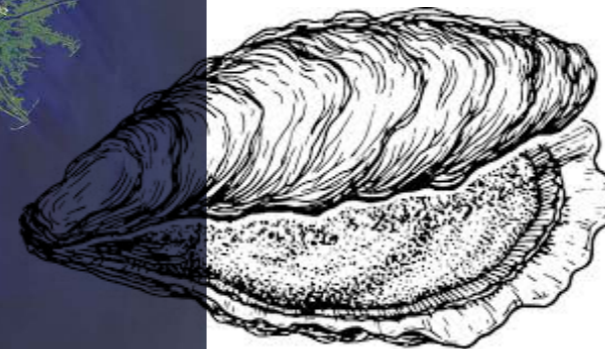


Climate change is expected to cause future migration of enormous proportions, due to amongst others sea level rise, drought, desertification and (civil) wars associated with this. Already in the US alone 13 million inhabitants will be exposed to flooding when no changes are made to how the governments and large companies interact with their natural resources.

Currently we live in what is described as the Anthropocene, denoting the current geological age, in which human activity is the dominant influence on the climate and the environment (Demos). Both Demos and Stengers argue that it is better described as the Capitalocene, with a strong belief in the free market and neoliberalism and companies largely in control. Focusing on economic growth alone, the care for the environment has to take a back seat and the oil and gas industry get precedence.

This map shows the areas where oil is produced and consumed and the areas that will be hotspots of severe climate change. These areas largely don't overlap, meaning that cause and effect are geographically dislocated. However, they do overlap in Louisiana, both a large site of oil production (the gulf of Mexico) and of climate change induced effects (hurricane prone area and expected land loss). Due to fact that cause and effect overlap in this area, this is the site of the project.

THE COASTAL LOUISIANA WETLANDS



The site of research are the coastal wetlands of Louisiana. The Louisiana coast is home to a rich ecosystem, including shrimp, fish, crab, shrimp, alligator, ducks etc.

The large river you see is the Mississippi, which passes through New Orleans. The city in the top corner is Baton Rouge, the one on the left, Houma.

image:
The Lens
<https://projects.propublica.org/louisiana/>

OILSCAPE LOUISIANA



But other than being a rich ecosystem, Louisiana is an oilscape as well.

The coast is largely used in service of the oil and gas industry. This physically manifest in traces all around the wetlands.

in this image for example, you can see the warning of a pipeline lying below the surface.

photo by author

OILSCAPE LOUISIANA

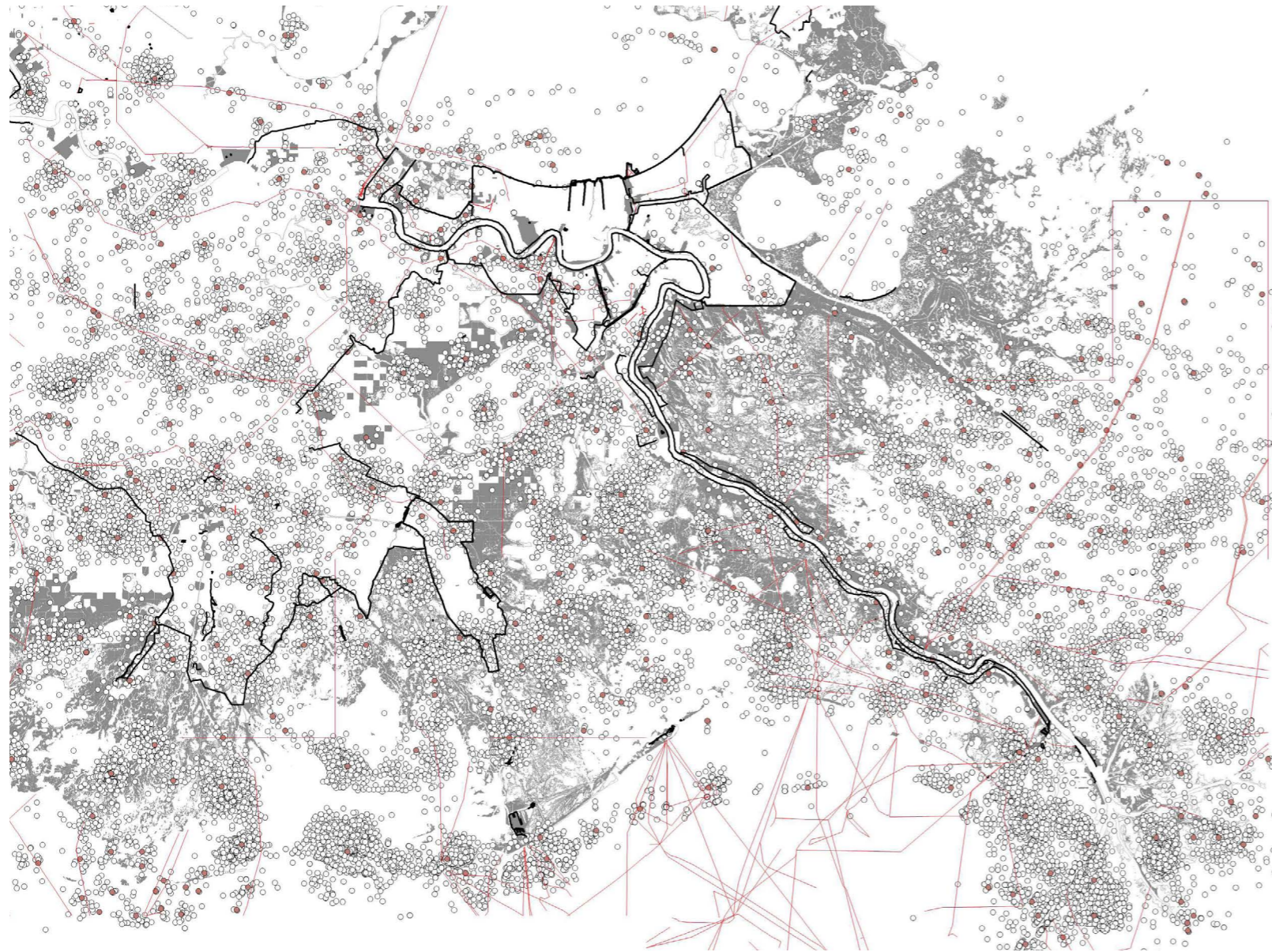


Larger structures are visible as well. For example this platform connected to a pipeline you can see going below surface on the left.

The Louisiana landscape is therefore sometimes described as an Economic Sacrifice Zone, entailing that the environment is sacrificed in pursuit of economic profit.

photo by author

THE LOUISIANA OILSCAPE



levee system

— levees

Oil infrastructure

— pipelines

○ oil gas wells
● oil gas fields

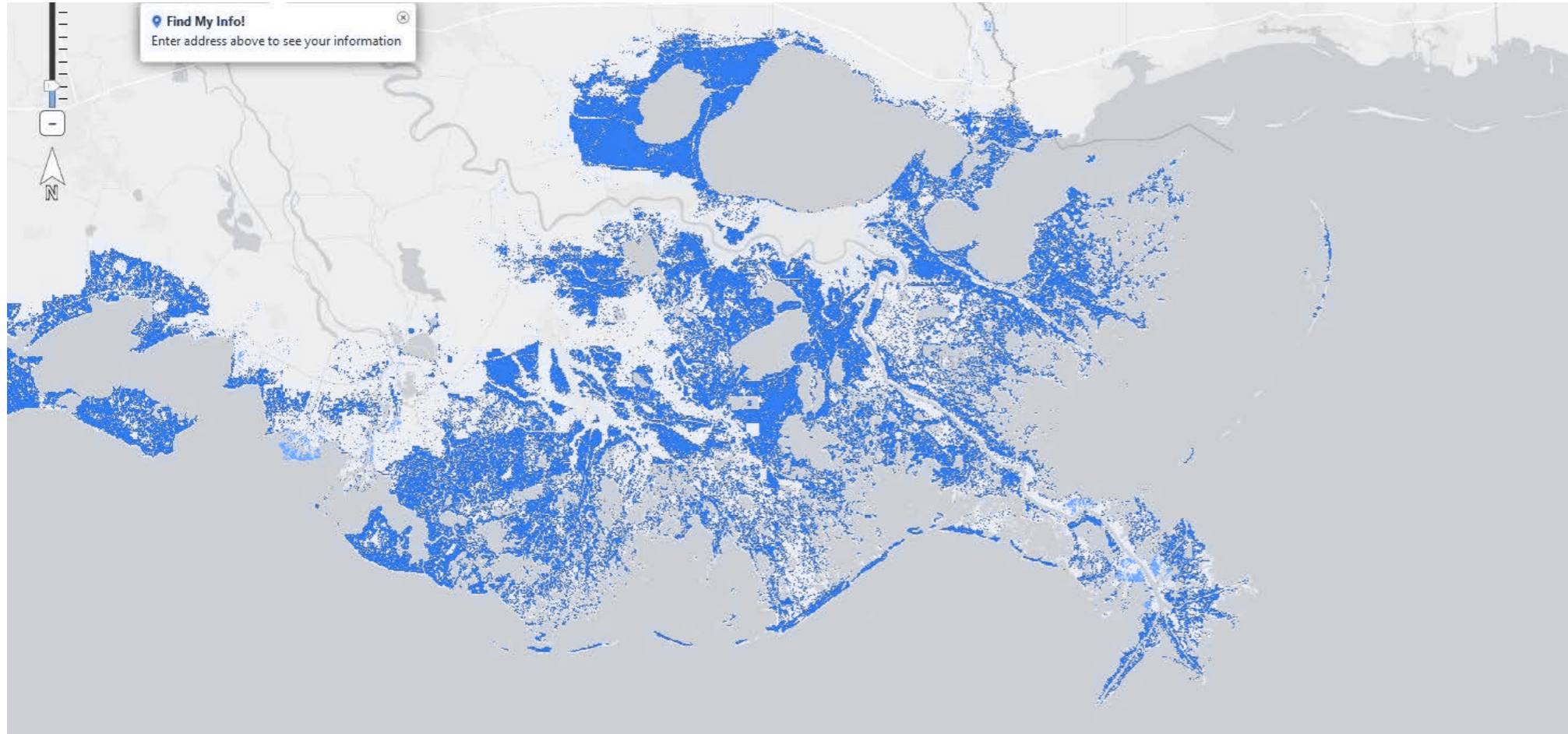
future flooding

■ over 16ft flooding

The scale of the Louisiana Oilscape is visible in this map. the dots represent all the oil and gas wells that are dug, as well as the different pipelines around the coast.

The oil and gas industry have transformed the Louisiana wetlands in a gigantic infrastructure, damaging and scarring the landscape.

LOUISIANA LAND SUBSIDENCE

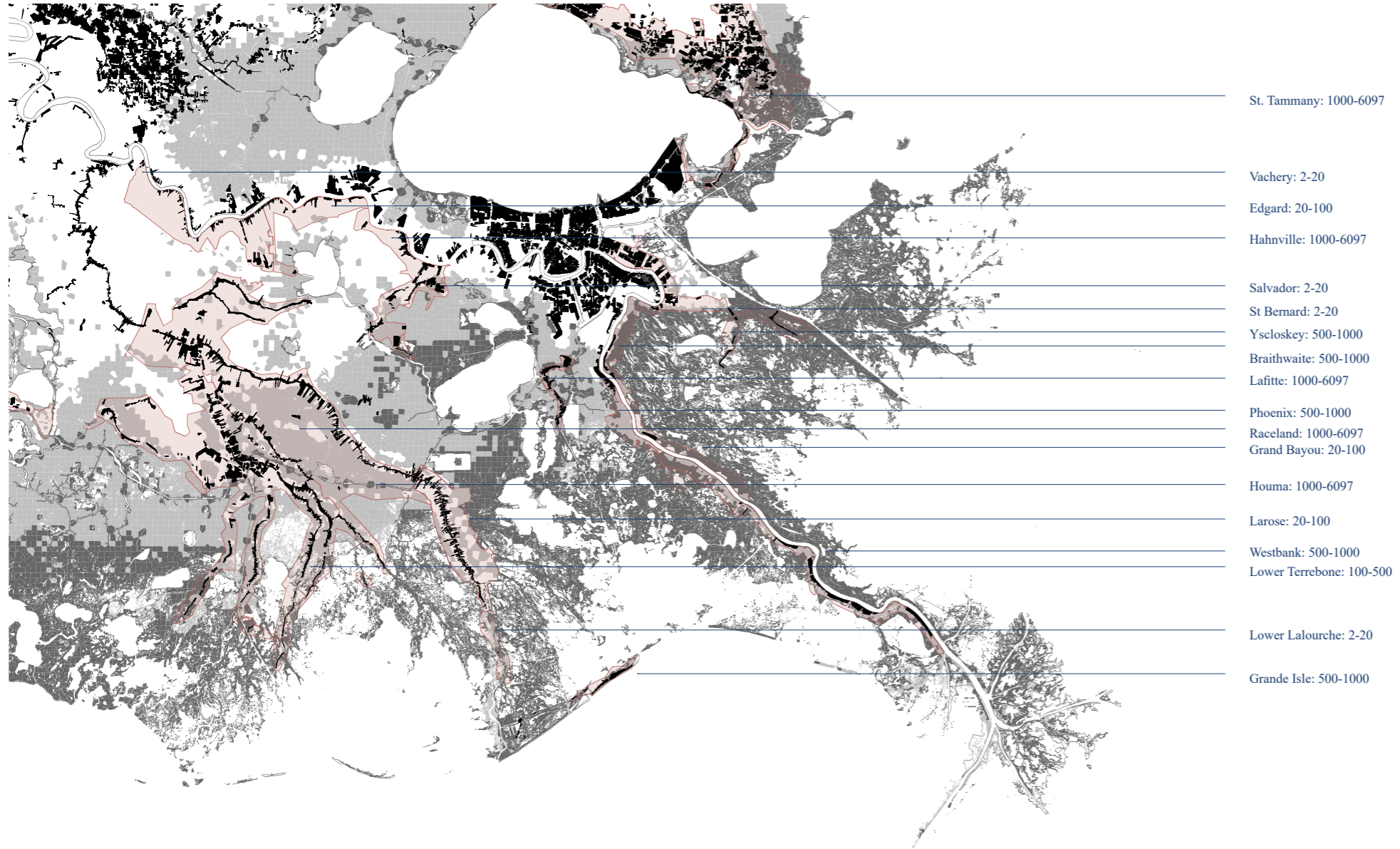


This oilscape is in large part responsible for the landloss that is continuously occurring along the coast of Louisiana.

This map shows the expected landloss in fifty years. You can see that almost the entire coast is expected to disappear along with its ecosystem and communities.

image:
Flood Risk & Resilience Viewer
<https://cims.coastal.louisiana.gov/masterplan/>

TIME & SPACE



With the disappearance of the coast many communities are expected to relocate, with expected numbers up to 300.000 people, if big cities like New Orleans stay intact.

This map shows the areas where communities are currently already expected to have to relocate.

ISLE DE JEAN CHARLES



1963



2008

One of the first communities expected to be relocated is Isle de Jean Charles. The image shows the land-loss that happened from 1963 until now. As you can see, almost 95% of their land has disappeared and the island is expected to soon be uninhabitable.

image:
Chagne in The South
<https://www.sailorsforthesea.org/blog/conservation/change-south>

ISLE DE JEAN CHARLES



environment ▶ climate change wildlife energy pollution

Climate change

Louisiana's vanishing island: the climate 'refugees' resettling for \$52m

Isle de Jean Charles has lost 98% of its land and most of its population to rising sea levels - but as remaining residents consider relocation, what happens next is a test case to address resettlement needs



Wenceslaus Billiot, father of deputy chief Boyo Billiot. The proud world war two veteran and tribal elder may be forced to leave the home he has known all his life. Photograph: Charlie Varley for the Guardian

Lauren Zanolli in Isle de Jean Charles, Louisiana

Tue 15 Mar '16 12:30 GMT



They recently made the news as the first “climate refugees” of the US and a large part of them will be relocated.

The image on the right shows the small sliver of land that still exists and where a community of around sixty people currently lives.

this community on the verge of relocation became my incentive to travel to Louisiana and try to understand what is currently happening in its coastal areas.

image:
The Guardian

I MOTIVATION
CLIMATE AND MIGRATION

II RESEARCH
DOCUMENTING THE FRONLINE OF CLIMATE CHANGE

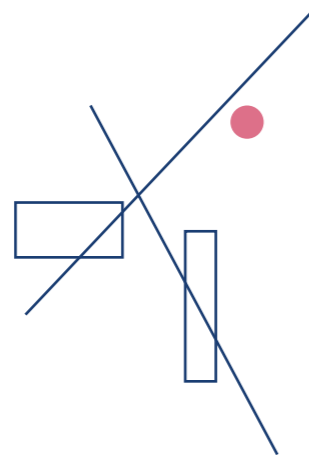
III TRANSLATION
PRESERVING THE FRONTLINE

IV DESIGN
BUILDING THE LINE

V REFLECTION
LANDSCAPES OF RESISTANCE

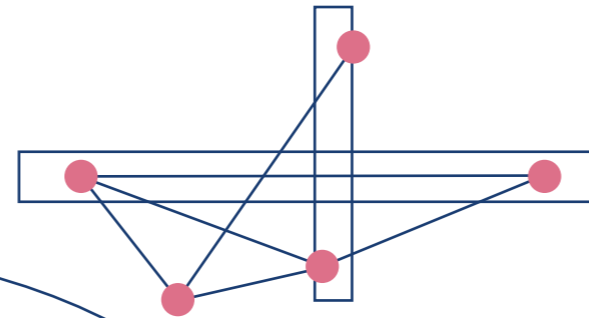
FORENSIC ARCHITECTURE

● INCIDENT



● EVIDENCE ASSEMBLAGE

Site visits
workshops
Interviews with acknowledged experts
Interviews with local experts
Online research (documents)



THE LARGER STORY

As a method the project was inspired by Forensic Architecture that uses the term Evidence Assemblage.

“By creating “evidence assemblages” which can consist of different evidence files such as surveys, physical or digital models, animations, videos and maps. From these specific incidents you can then work on pattern mapping, using a cross scalar approach to try and uncover the long-term history and the transformation of environment over time.”

- Weizman, E., Tavares, P., Schuppli, S., & Studio, S. (2010). Forensic architecture. Architectural Design, 80(5), 58-63.

The idea of incident is proposed by Keller Easterling:

Incident

Final straw of slowly unfolding form of violence that only really grabbed attention when the scene resembled that of warfare [Easterling]

The story of Isle de Jean Charles resettlement was chosen as the incident, which is then studied through the creation of an evidence assemblage, collecting pieces and snippets of the story through site visits interviews, workshops, Online research, mapping, etc.

Out of this Evidence Assemblage a larger story emerges, that forms the foundation for the design. This is my personal reading.

DOCUMENTING THE FRONTLINE



the position of Isle de Jean Charles about 1.5 hour drive form New Orleans.

the next slides will give you a impression of the atmosphere of the Island.



The Island Isle de Jean Charles is a largely Native American community living on an island, connected in the fifties by a long and narrow road (this picture) to the main land.

It feels like (in their own words) the end of the world.

photo by author



The island is prone to flooding and has been damaged regularly by hurricanes. Therefore, most of the homes are lifted from the ground and in slightly damaged condition.

photo by author



It is home to quite a tight knit community. This photo is taken at the local marina, where hobby fishers and locals come together to enjoy a drink and the catch of the day and chat about the small things in life.

photo by author



The community partly lives a subsistence lifestyle, meaning a large part of what they eat is what is caught fishing, shrimping, crabbing and oystering.

photo by author



In and around the island traces of the oil industry are visible. For example this image shows an oil rig in the background of the island.

photo by author



The life on the edge of the land is quite hard and together with continuing land loss and hurricane damage it hasn't been possible for everyone to stay. Many abandoned structures can be found of those who already left or didn't return.

photo by author



Those who decide to stay live under hard conditions. As seen in this picture, not everyone has the economic means to rebuild after their homes are damaged by hurricanes and some live in trailers and damaged constructions.

photo by author



However, the fighting spirit is still very much present and many refuse to relocate. They are actively resisting and protesting their forced relocation.

photo by author



Those that refuse to resettle describe their island as paradise.

photo by author

DIFFERENT VOICES/ DIFFERENT TRUTHS

LOCAL RESIDENTS

SCIENTISTS

GOVERNMENT

ARTISTS AND
MUSICIANS

PLANNING AND
ARCHITECTURE
OFFICES

NON PROFITS

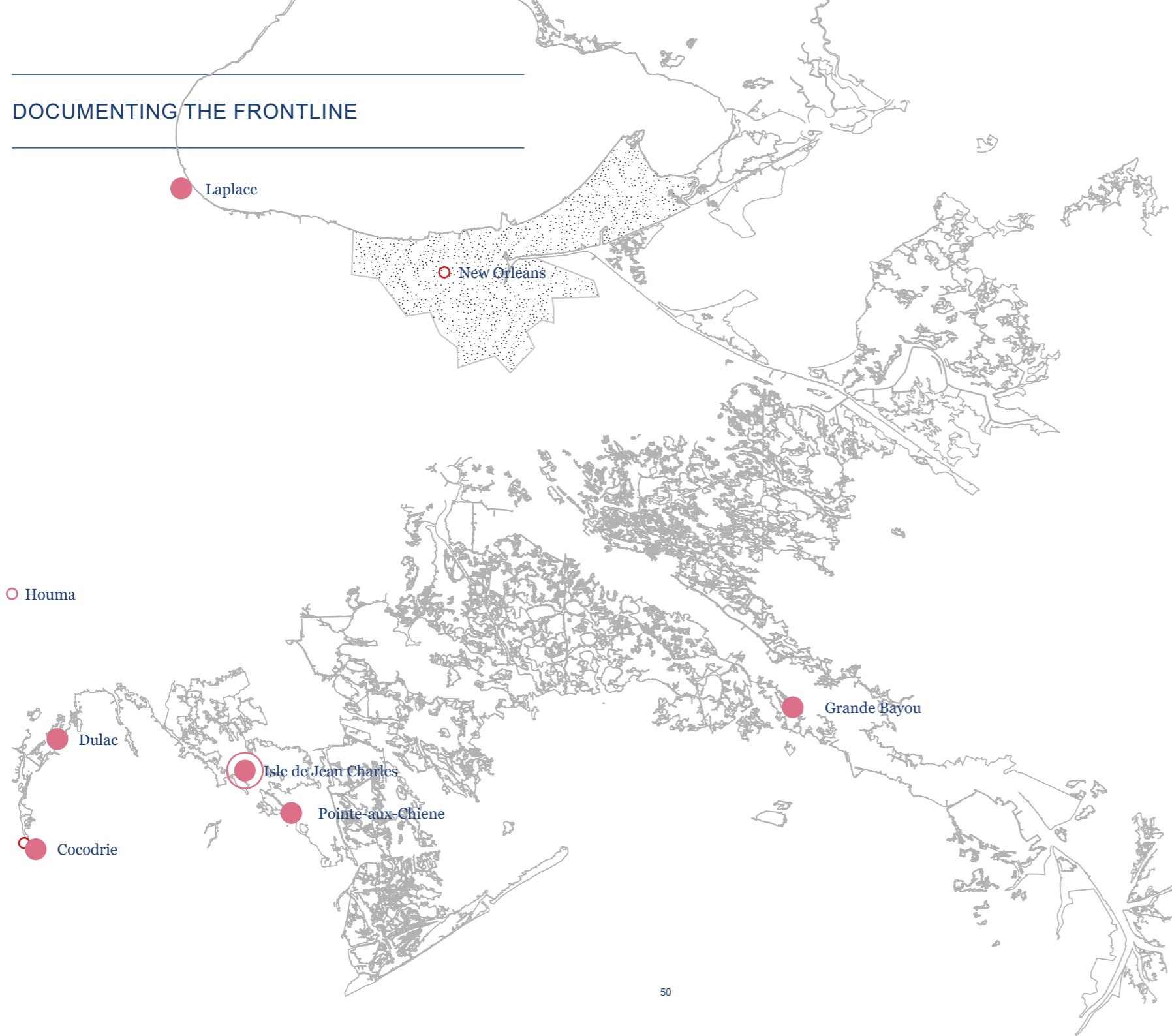
The story I have just shown you is told largely from the perspective of the residents that which to stay. However, to truly understand what is going on I tried to gather as many perspectives as possible.

Therefore, when I was in Louisiana I tried to speak to all parties involved, starting with different groups of local residents but also ranging from different levels of government (city, parish, state), to formal parties such as scientists, planning offices, and non profits, and lastly to activists, artists, musicians.

Every group had a completely different reading of what was happening and formed different alliances with other parties. Therefore I analyzed both their perspectives and their relationships to each other.

From all these different perspectives and agendas I tried to construct my own personal reading and interpretation of what I call the Climate Change Frontline and this reading is what I will share.

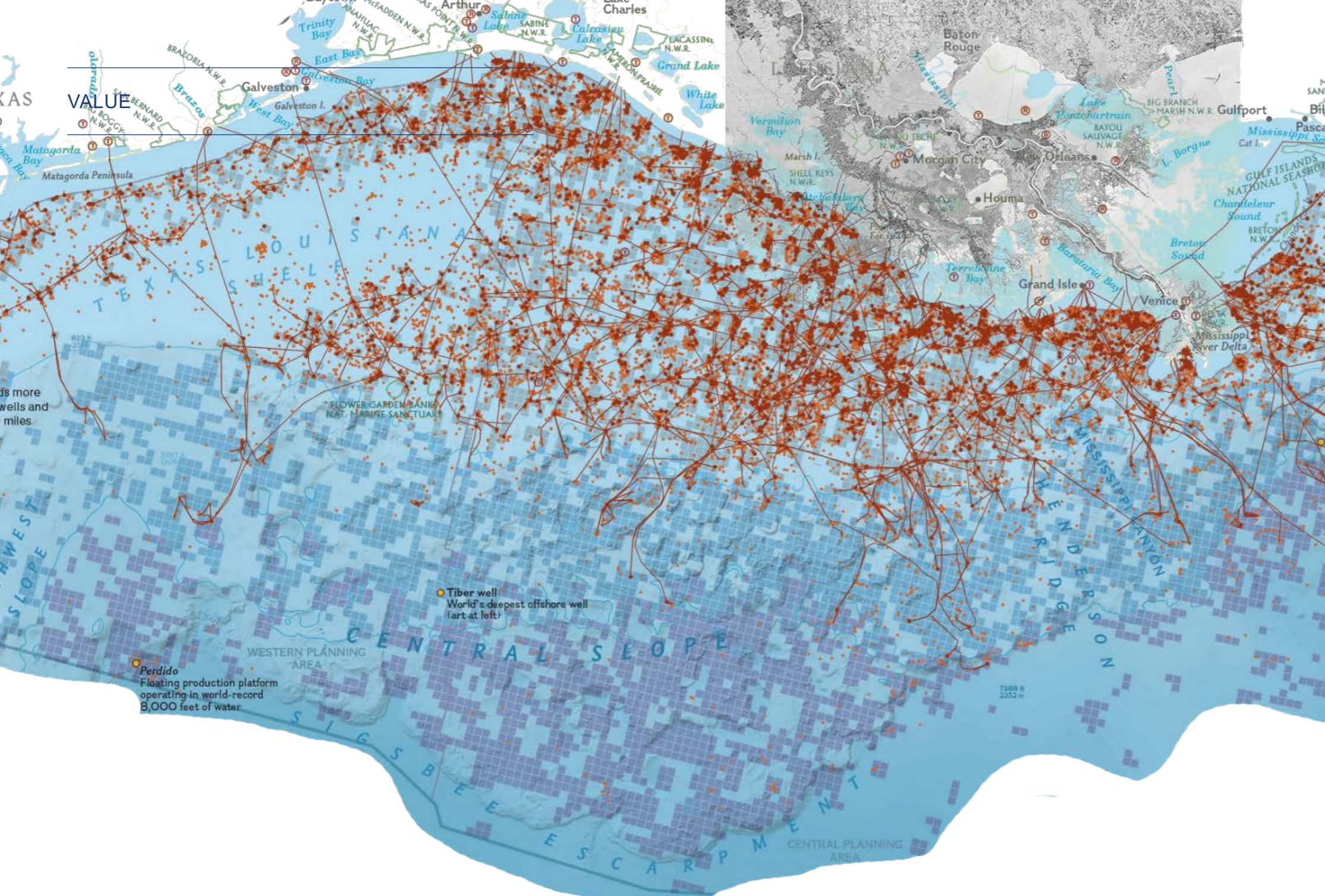
DOCUMENTING THE FRONTLINE



As mentioned before I used the idea of evidence assemblage to construct the larger story. In pursuit of this story I not only investigated the community of Isle de Jean Charles, but other communities dealing with land loss as well, many of them Native American. Collectively this allowed me to tell the story of the lived realities on the Frontline of Climate Change.

This collective research led to four notions to be discussed:

- I Value
- II Time & Space
- III Loss & Erasure
- IV Resistance



Notion I: Value

What has value and who gets to decide?

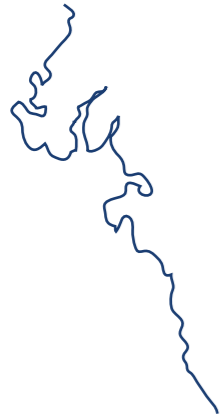
Louisiana is an oilscape, their economy largely dependent on the oil and gas industry. Therefore large value is put on these industries and the infrastructures creating for and by them are of enormousness scale.

this image shows the gulf of Mexico including all the oil and gas platforms and it is clearly visible what the scale of these infrastructures is.

Image:
 By Author using
 National Geographic
<https://www.nationalgeographic.org/hires/gulf-mexico-geography-offshore-oil/>

VALUE

NATURAL LINES



SCARS

In terms of value these industries are valued higher than the environment itself. As visible in this image the industry is responsible for scarring the landscape.

To reach the oil and gas and construct pipelines the wetlands are torn open in straight lines, permanently damaging the environment.

These scars make salt water infiltration possible and are therefore directly responsible for land loss. With increasing salination of the wetlands, its vegetation and connected ecosystems die and fade out.

The oil infrastructure is picked over the natural.

image:

S Jeffress Williams

https://www.researchgate.net/figure/Air-photograph-of-canals-dredged-in-Louisianas-wetlands-for-navigation-and-energy_fig6_298346976

VALUE



This fading out of land and ecosystem affects one of the other largest industries as well: the commercial fishery. With land declining so is the habitat of many species such as crabs, oyster, shrimp and fish.

photo by author

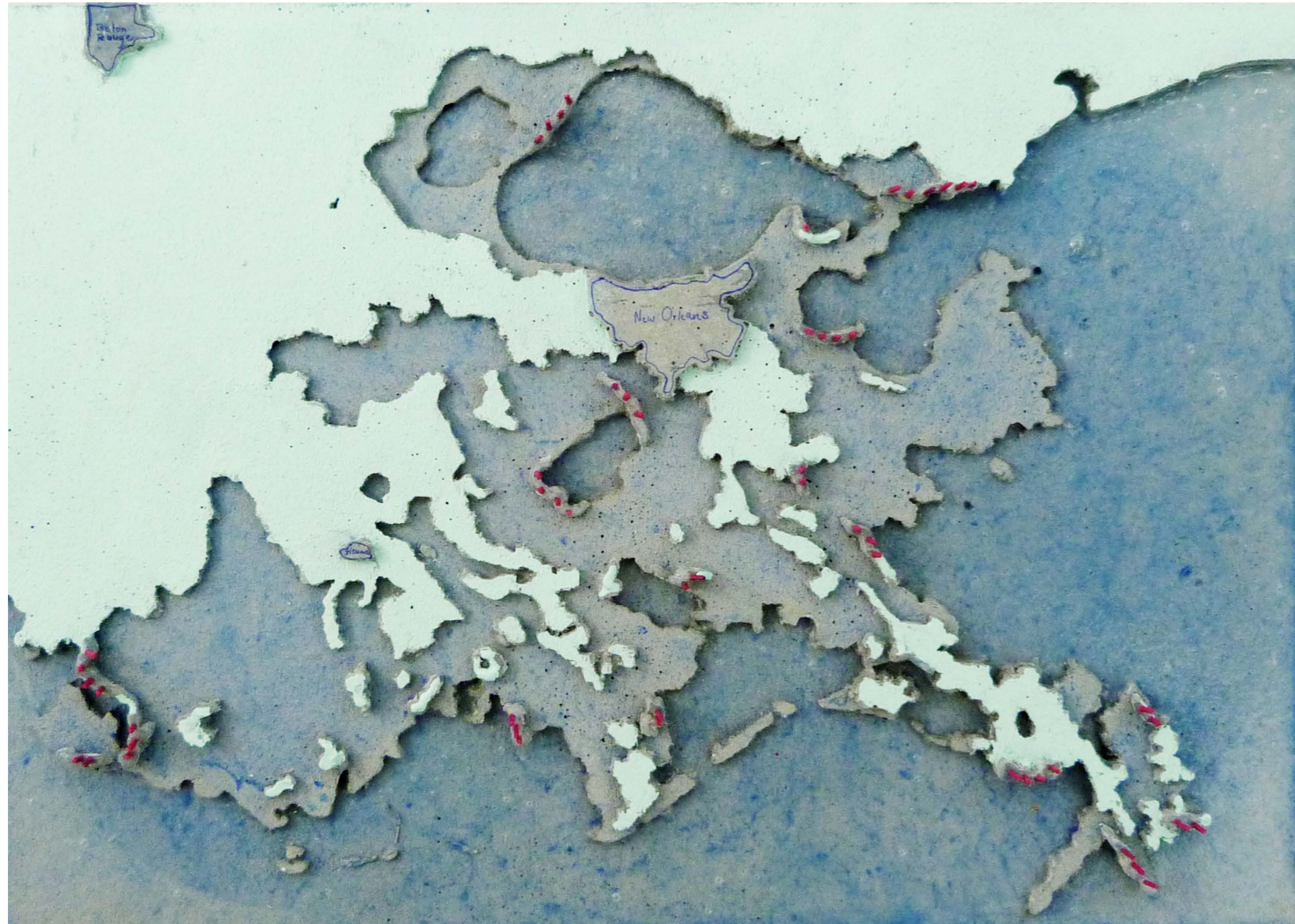
VALUE



Continuing land loss also leaves larger cities exposed to hurricanes. Currently the wetlands work as a buffer for storm surge, with its fading away, cities such as New Orleans will be completely open to the Gulf of Mexico

image:
USA Today
<https://eu.usatoday.com/story/news/politics/2015/07/28/louisiana-still-finding-katrina-damage/30459513/>

VALUE



this model shows the currently land as well as what will be left of it in fifty years time if no changes are made.

As is visible, the ecosystem will completely decline and leave large cities exposed.

Therefore this land loss is not only an issue to be faced by the coastal community, but part of a shifting line, that will affect everyone living in this region.

VALUE

Five communities (approximately 1,000 structures) residing outside the authorized Morganza to the Gulf alignment are described below (see figure 4-1):

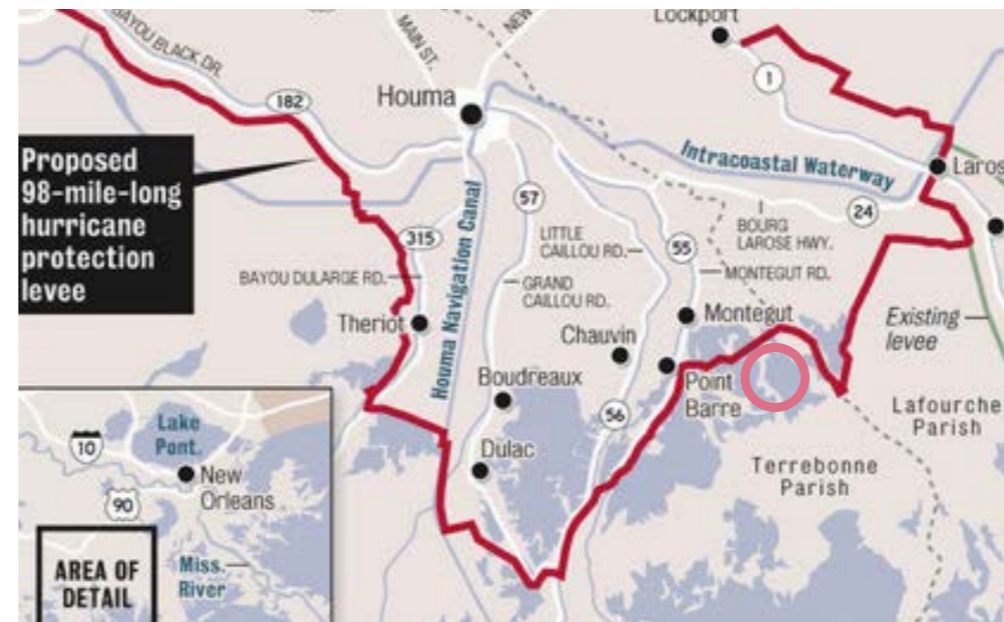
1. Isle de Jean Charles – An isolated community of State-recognized Biloxi-Chitimacha tribe members that has lost a significant percentage of its population in the past 10 years. There are currently about 25 families using the “Island” as their primary residence. The majority of the remaining structures are weekend camps. Most of the residential structures are already elevated. The 2002 feasibility report determined that a relocation plan was economically justified; however, it was not recommended because the proposed plan was not supported by the Isle de Jean Charles community. Instead, the TLCD constructed an earthen levee to approximately elevation 6 ft. In addition, the only road to the island was raised to provide a better evacuation route.
2. Lower Chauvin/Cocodrie – The most southern part of LA Hwy 56 (4.5 miles) is outside the Morganza to the Gulf alignment. This area include a University Marine Research

Communities such as Isle de Jean Charles are not valued.

An example is the Morganza to the Gulf levee which started to be planned around 1999. In the first outline Isle de Jean Charles was included, but later the levee was re-aligned (as shown in the image) to exclude the island. As a reason the following was stated: relocation is economically justified. In other words, inclusion is too expensive. It doesn't have enough value to be 'saved'.

The community however did not support the proposed relocation and as an intermediate solution a earthen levee of 6 ft (1.4 meter) was proposed and built.

*document:
MORGANZA TO THE GULF OF MEXICO, LOUISIANA
Final Post Authorization Change Report
May 2013*



VALUE

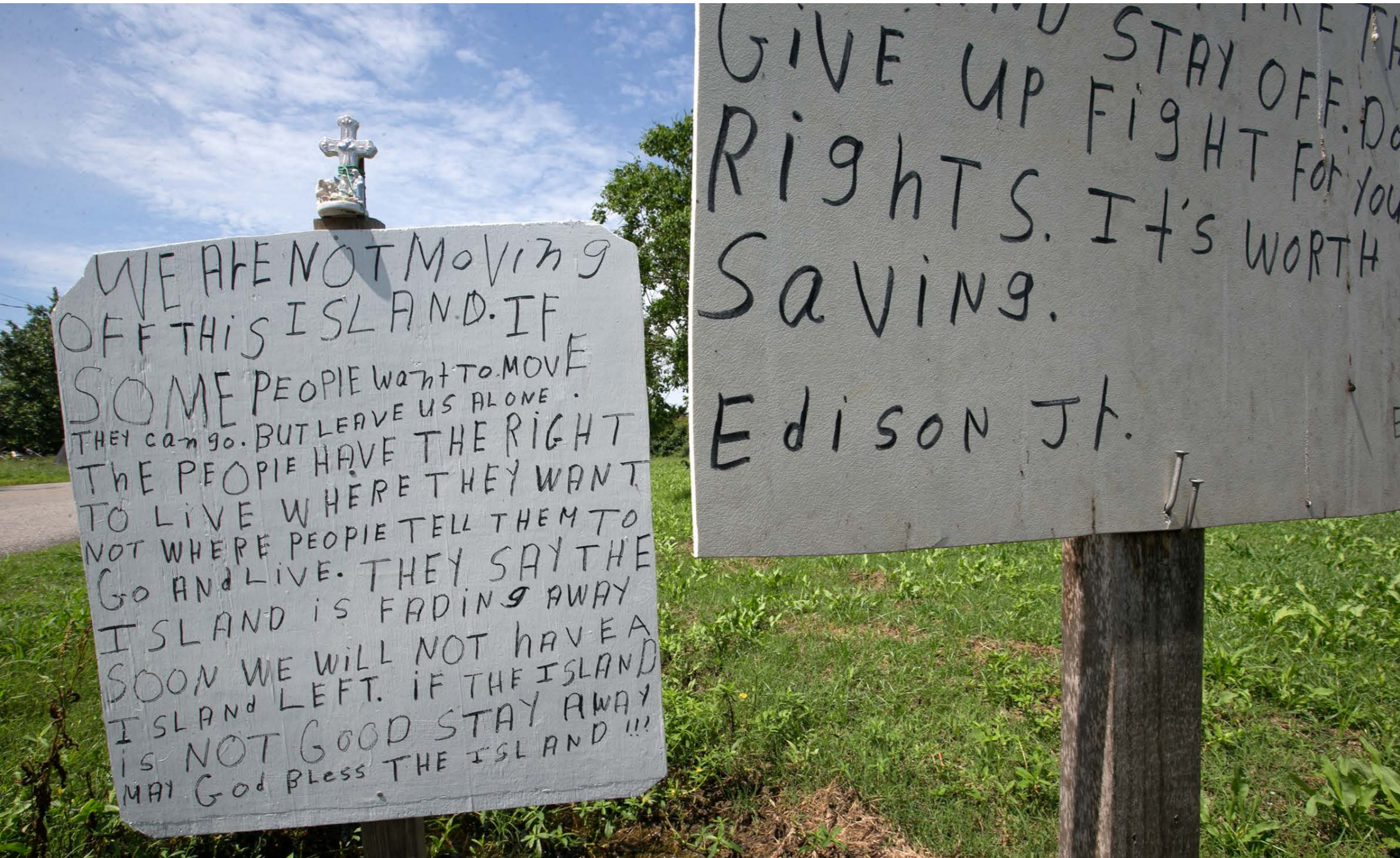


This image shows the earthen levee of 1.4 meter that was built instead of inclusions. Flood levels in this area can be up to 5 meter.

It can be concluded that to the government these small communities have little to no value.

photo by author

VALUE



To the inhabitants themselves the island has great value. As shown on this protest signs, the island is very much valued.

They are a native American community that has been living here for almost two hundred years, after being pushed to the outskirts of the land through the trail of tears.

Therefore a discrepancy exists between what is valued by whom.

The coastal community are very much fighting the notion that their land is not valuable and trying to save the ecosystem.

considering the decline of land affects everyone in Louisiana why is this fight not getting more attention?

image:
NOLA Media Group
<https://www.nolamediagroup.com/nola-media-groups-best-2017/island-in-crisis-isle-de-jean-charles/>

TIME AND SPACE



Notion II: Time & Space

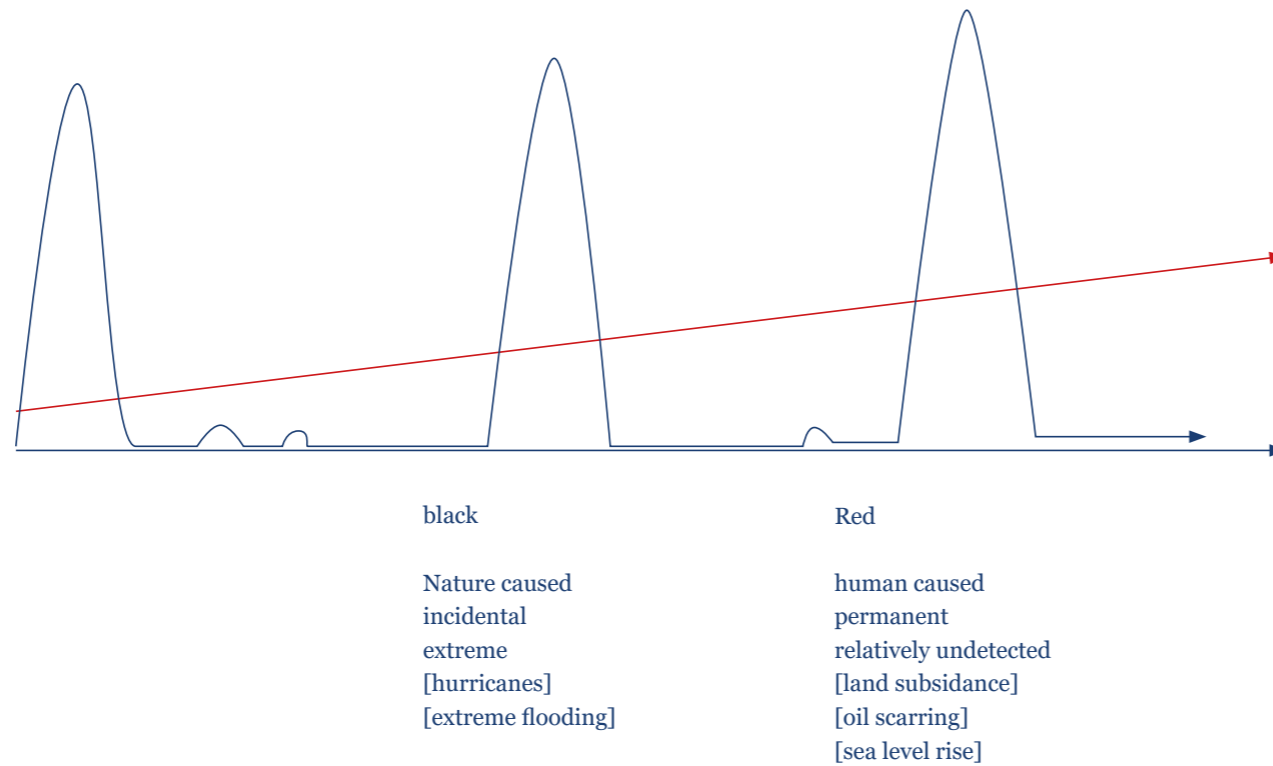
Considering that land loss doesn't affect the frontline communities themselves, but the whole coastal area as a whole, why isn't resistance more present?

The answer can be found in the notion of time and space.

To start with space. On the image you can see a line of dead trees, which used to be a forest. Currently land loss largely affects uninhabited areas or very sparsely inhabited ones. Therefore it is largely invisible to the larger population and it plays outside of the public mind.

photo by author

TIME AND SPACE



Time is important, since Louisiana deals with a duality of violence.

Most present is the incidental, extreme violence of disasters, such as many hurricanes or the BP oil spill. This type of violence comes in waves in extreme bursts and is therefore very visible and present in both the news and the public mind.

In the background operates the second type of violence, the continuing land loss. This violence goes relatively undetected and without extreme peaks to make it visible. It is a slow process of erasure, taking with it biodiversity extinction, community displacement, and increased vulnerability to storm surge.

Since this second type of violence happens continuously over a very long period of time (started in the fifties) it is difficult to capture and keep capturing the attention over and over again. The coastline keeps being redrawn as if nothing happened.

LOSS AND ERASURE



Notion III: Loss & Erasure

The notion of land loss is strongly connected to the idea of erasure.

This image shows this silent process, the electricity poles being evidence of a road that once was there.

There are these small remnants that serve as evidence, but outside of them the idea that there once was land is invisible.

photo by author

LOSS AND ERASURE

Land Loss

land subsistence and sea level rise



Environmental Loss

harm to the environment; endangerment of species, landscapes, habitats



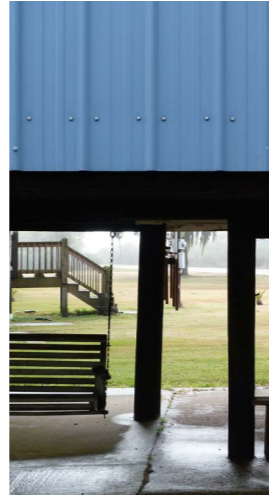
Material Loss

Flooding and hurricanes destroy the material practises of the residents, including homes, memorabilia, objects



Cultural Loss

The ways of life, including their stories and materiality are fading out.



Community Loss

Decline in community population and in sense of communal belonging



Economic Loss

Decline in economic possibilities (mostly fishery related)



Resource Loss

Deinvestment from the state in resources such as electricity, road maintenance, levee system



Speaking with communities on the frontline it was made evident, that not just the physical land of their communities was being erased, but a whole set of connected ideas as well.

Land loss: the loss of the physical ground

Environmental loss: loss of ecosystem, shrinking of shrimp, crab, oyster, fish, duck population and pollution and salination of the water

material loss: loss of material possessions, both personal such as photographs etc and entire homes (connected strongly to hurricane damage)

Cultural loss: loss of cultural identity, fading out of traditions connected to the natural resources (wood working, trapping, fishing, basket weaving, etc)

Community loss: shrinking of community due to hurricane damage and lack of economic opportunities

Economic loss: diminishing job opportunities, with decline in commercial fishery (speices are fading out and water salinity is rising)

Resource loss: government continuously backtracks resources, such as telephone lines, the school bus, road maintenance, levee maintenance, and natural resource loss, such as dying out of pine forests and other plants used as building material

LOSS AND ERASURE

“We are the first sacrifice. We refuse to move. We are custodians of the environment and if we relocate, who will be the watchdog? The erasure will just continue and it will be as if nothing was ever there to begin with.”

Especially considering most communities are native American, there is a special responsibility felt in relation to the ground they live on.

It is perceived as their duty to protect the environment and speak on behalf of that which cant.

Therefore relocation is not considered an option, since that will allow for this violence to continue undetected without proof.

As long as these communities are able to stay, they can operate as watchdogs or custodians, demanding visibility of the damage done.

LOSS AND ERASURE

ERASURE

Land Loss
land subsidence and sea level rise

Environmental Loss
harm to the environment; endangerment of species, landscapes, habitats

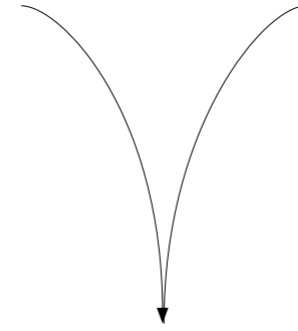
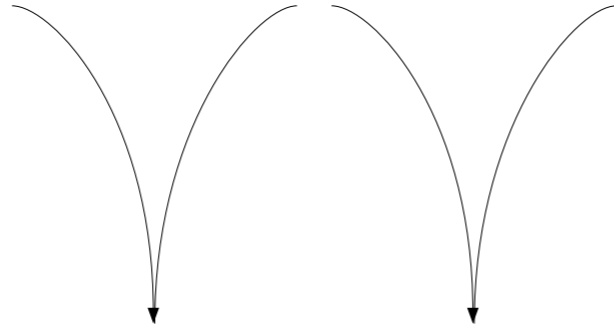
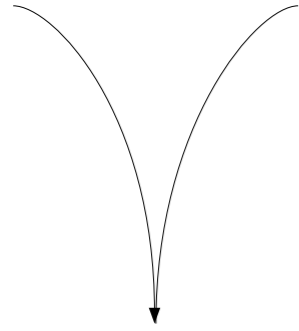
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STEWARDSHIP

IDENTITY & KNOWLEDGE PRESERVATION

SURVIVAL & SUBSISTENCE

(PRESERVING THE ENVIRONMENT)

(PRESERVING THE COMMUNITY)

(PRESERVING THE PHYSICAL PLACE)

OPERATION

In understanding the different types of loss and erasure experienced whilst living on the frontline, started counter operations to this faced erasure.

Operation I: Stewardship
Fighting both land loss and environmental loss, stewardship focuses on preserving the environmental and its ecosystem as a whole. This operation understands land loss as part of an overarching favoring economic profit over planet, that needs to be addressed.

Operation II: Identity & Knowledge Preservation
Connected to land loss community identity and specific cultural knowledge is being loss and communities are fractured and dispersed to different places. The second operation focusses on preservation, sharing, and strengthening of community, its history, stories, knowledges, network.

Operation III: Survival & Subsistence
Focused on the actual physical geographical place where existence needs to be maintained, this focuses on saving the place itself. This is largely related to creation of new economic opportunities, combating resource decline and discovering alternative modes of subsistence.

RESISTANCE

ERASURE

Land Loss
land subsidence and sea level rise

Environmental Loss
harm to the environment; endangerment of species, landscapes, habitats

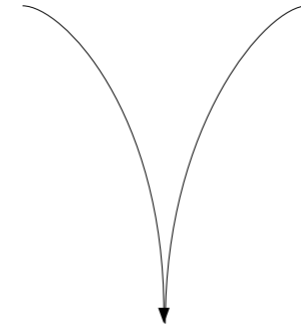
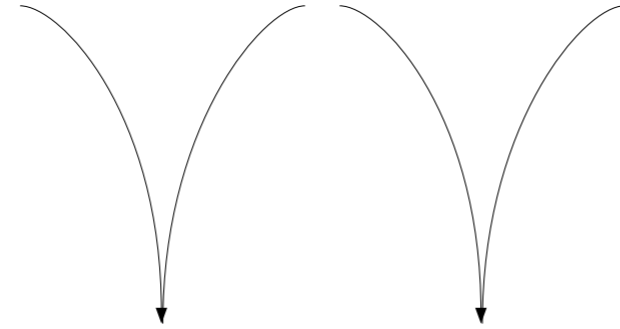
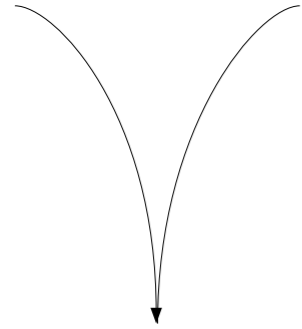
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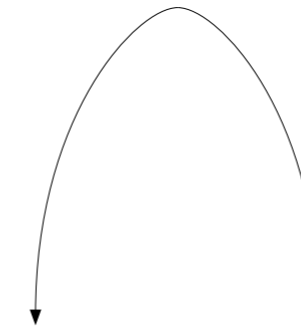
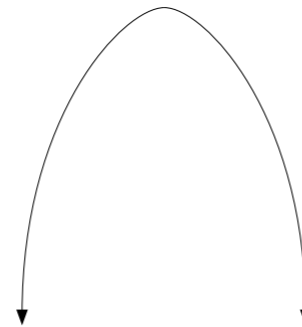
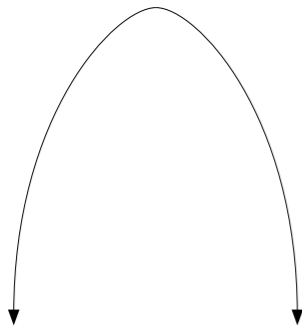


STEWARDSHIP

IDENTITY & KNOWLEDGE PRESERVATION

SURVIVAL & SUBSISTENCE

OPERATION



#1 Evidence
Evidential proof (scientific) to build case against oil and gas industries (environmental focus)

#2 Visibility
Give gravitas to story and make oneself visible, searching publicity

#3 Network
Cooperate to create network with both each other and NGO's to preserve community and operate together

#4 Identity
Preserve both narratives and materials connected to local practises and histories (cultural focus)

#5 Protection
Physically protecting their homes and demanding help from government in land protection

#6 Aid / Alternatives
Connect to outside organizations to get help in finding new modes of living

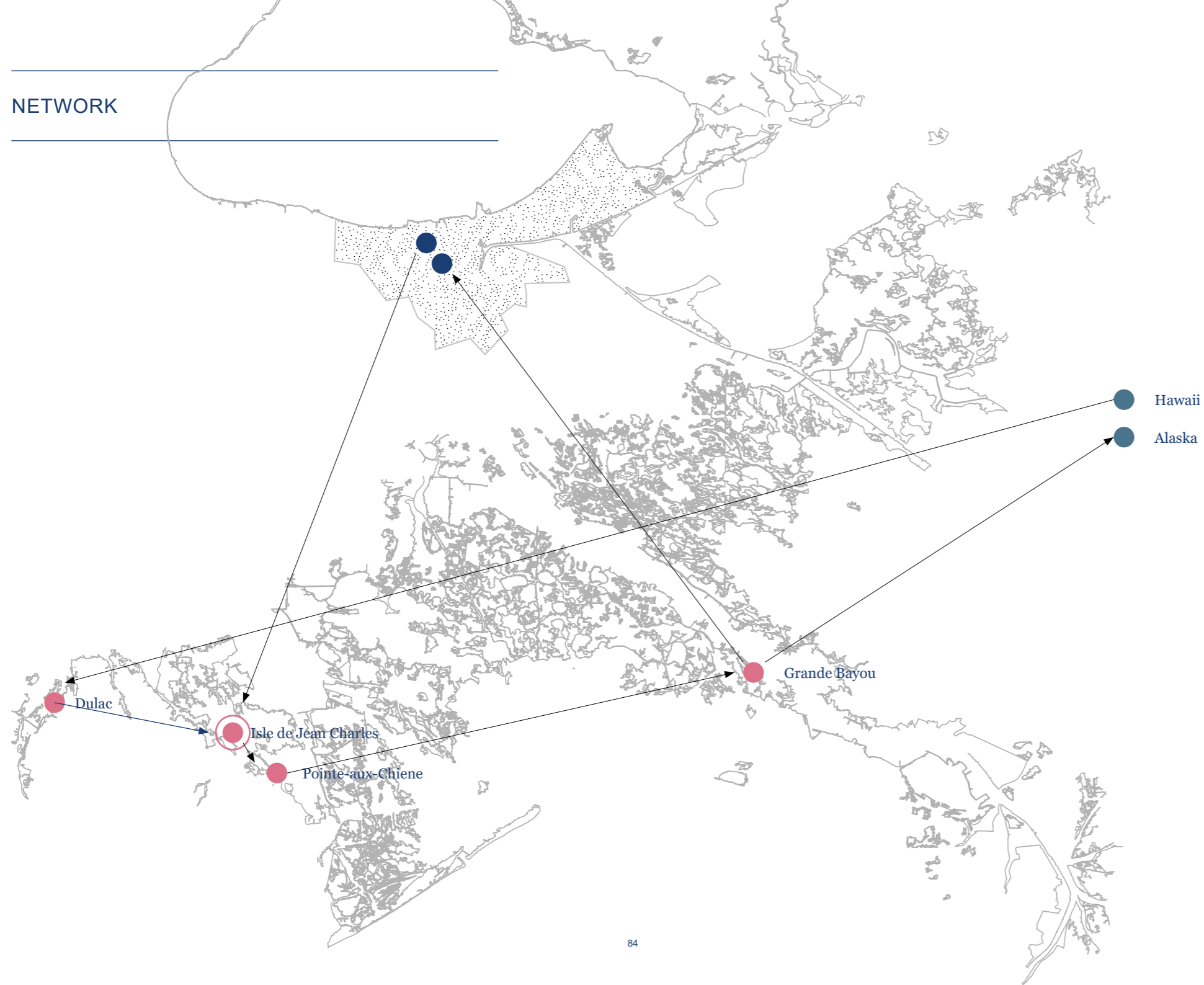
METHOD OF RESISTANCE

Notion IV: Resistance

Connected to these operations of preservation, methods of resistance can already be found within the communities. Most of them have been dealing with land loss, hurricane damage, and disengagement from the government for decades and developed a range of methods of resistance related to these different operations.

- Example of operations of resistance:
- #1 Evidence: together with scientists moderating changing water conditions
 - #2 Visibility: connect to reporters and placing protest signs
 - #3 Network: creating the First Peoples Council, connecting the different tribes, moving back of younger generation to home communities, organizing overarching events
 - #4 Identity: Preservation of medicinal plants, traditional techniques, oral histories, relearning forgotten languages
 - #5 Protection: demanding protection from the government and finding own techniques in land and material preservation
 - #6 Aid/ Alternatives: reaching out to experts etc to find new modes of living, including new economic opportunities in for example selling local craft items. Experiments with raised beds for gardens to protect from flooding.

NETWORK



Example
Method of resistance #3: Network

Different local native American communities (Isle de Jean Charles Band of Biloxi Chitimacha Choctaw, Grand Bayou, Dulac, and Pointe-aux-Chiène) created the First Peoples Council together with tribes in Alaska and Hawaii to strengthen their native identity, increase visibility, and gain overall political clout.

They also form ties with NGO's and scientists, governmental agencies, to get aid.

SUMMARY

VALUE

In the history of Louisiana the government has continuously chosen the oil industry over saving its ecosystem and communities. There is a discrepancy in what is considered valuable.

TIME & SPACE

Land loss is a type of violence largely playing in the background at remote areas with small population at a slow, almost undetectable pace. The damage done by hurricanes is much more visible and intense and therefore more in the foreground.

ERASURE

At a slow pace communities and their ways of life are slowly being erased. Not just their physical land is fading away, but their community identity, and the natural ecosystem as well.

RESISTANCE

Currently the different communities employ many tactics of resistance, including speaking at events, protest signs, forming networks. etc.

MY POSITION

VALUE

I believe the narrative of what has value has to be shifted away from oil and gas as economic motor towards the value of the communities and ecosystem. No more economic sacrifice zone.

TIME & SPACE

To achieve this, a project is needed that can overcome the dimensions of time and space, attracting attention to the periphery over a longer period of time.

ERASURE

In trying to save the coast, it is important to not only try and save the specific physical space, but the stories and identities of communities, and the ecosystem at large as well.

RESISTANCE

There is already a lot of resistance happening within these communities. Therefore, they themselves should be the agents and leaders in this process and architecture can be offered as a tool they can use according to their needs.

NETWORK

This shifting of the narrative and the proposing of an alternative way of looking at value cannot be done alone. A collaborative effort is needed to reach the audience at large and power should be bundled.

I MOTIVATION
CLIMATE AND MIGRATION

II RESEARCH
DOCUMENTING THE FRONLINE OF CLIMATE CHANGE

III TRANSLATION
PRESERVING THE FRONTLINE

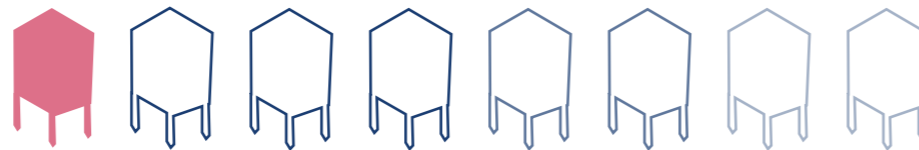
IV DESIGN
BUILDING THE LINE

V REFLECTION
LANDSCAPES OF RESISTANCE

THE START

MULTIPLIER

Generic modular system which can be adapted to each specific site.



Creating a counter narrative that shifts the notion of value as a collaborative effort or network is the assignemnet of this project. Designing not so much a space but a process, not a solution but a way of getting there.

We envision our practice instead as an attempt to produce a space from which it is possible to operate in the here and now but with radical long-term transformative visions. Architectural proposals are a form of fiction. Their effects could be the opening of the imagination. We want to find a place for architecture to act in the world and not in the service of a pre-existing agenda.

- Petti, A., Hilal, S., & Weizman, E. (2013). Architecture after revolution. p.27. Sternberg Press.

in order to achieve this the project borrows from the theory as proposed by Keller Easterling on Active form and Object form. This would mean that as an architect you do not only design the physical space (object form), but the active form (action, interplay) as well.

“Resisting global undeclared forces (in this case the oil and gas industry) is not about being right. It is not about knowing what, it is about knowing how. Not just object form (hardware), but active form (software). Not the singular unique, but that which can multiply, evolve, affect.”

- Easterling, K. (2014). Extrastatecraft: The power of infrastructure space. Verso Books.

The idea of the multiplier became the base of the project. Designing something which can be copied and applied to multiple locations so it can keep repeating, the network can keep growing, and the counter narratives amplified.

A COLLABORATIVE EFFORT

-  Protector
-  Future Protector
-  Collaborator
-  Future collaborator

Therefore the project proposes a collaborative effort as a process of continuation, growth, and exploration of these counter narratives.

It proposes a modular system/design which can be adapted to the specific site and wishes of the community, who are agents of the whole endeavor.

This system could then be multiplied onto new location and the network of collaborators (such as artist, scientists, ngo's, students, teachers) would grow alongside it. Together with the growth of the system, accumulative collection of stories and practises would take place, be shared and experienced.

It's goals to push this collaborative counter narrative of value, the preservation of the identities of the different communities, and the safeguarding of the physical land and modes of life.

OPERATION

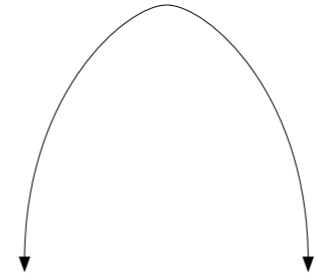
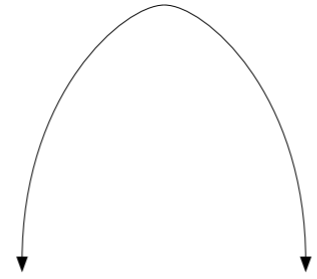
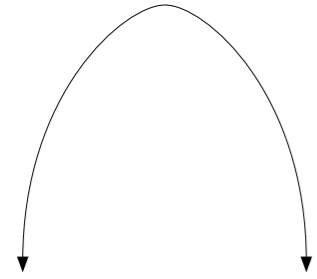
METHOD OF RESISTANCE

DESIGN TOOL

STEWARDSHIP

IDENTITY & KNOWLEDGE PRESERVATION

SURVIVAL & SUBSISTENCE



#1 Evidence
Evidential proof (scientific) to build case against oil and gas industries (environ-

#2 Visibility
Give gravitas to story and make oneself visible

#3 Network
Cooperate to create economic opportunities and share knowledge

#4 Identity
Preserve both narratives and materials connected to local practises (cultural focus)

#5 Protection
Connect to outside organizations to get help in finding new modes of living

#6 Aid / Alternatives
Connect to outside organizations to get help in finding new modes of living



visualization of landloss, make erasure impossible by spatial proof of its happening

Symbolic and recognizable formal language, that makes the project in its different shapes on different sites recognizable

Strengthening the network by offering space to invite, teach, and share

Communal space to share and collect

Protecting the land and resources

Testing alternative ways of living

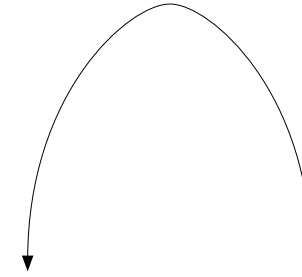
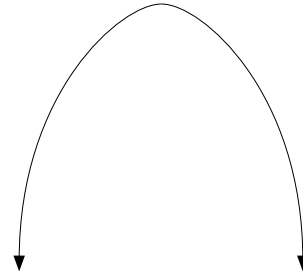
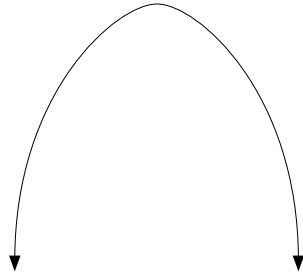
To find an architectural language to go with the system or network proposed, the methods of resistance already discovered were taken as the starting point. These are then translated into design tools.

OPERATION

STEWARDSHIP

IDENTITY & KNOWLEDGE PRESERVATION

SURVIVAL & SUBSISTENCE



METHOD OF RESISTANCE

#1 Evidence

Evidential proof (scientific) to build case against oil and gas industries (environmental focus)

#2 Visibility

Give gravitas to story and make oneself visible

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DESIGN TOOL

visualization of landloss

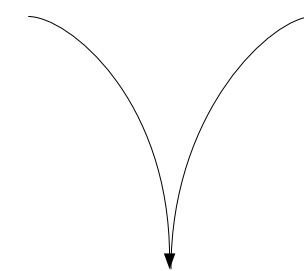
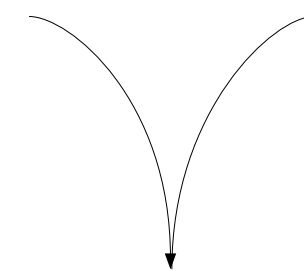
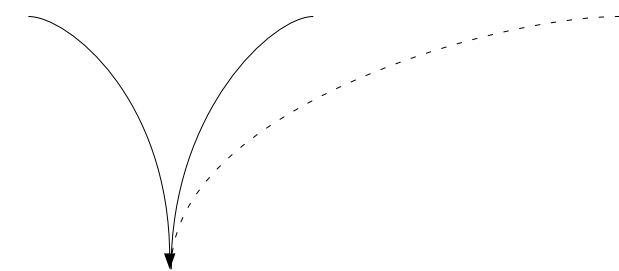
Symbolic and recognizable shape

Space to invite, teach, and share

Communal space to share and collect

Protecting the land and resources

Testing alternative ways of living



OBJECT FORM AS

COUNTER NARRATIVE

HOST

LANDSCAPE PROTECTOR

OPERATION

STEWARDSHIP

IDENTITY & KNOWLEDGE PRESERVATION

SURVIVAL & SUBSISTENCE

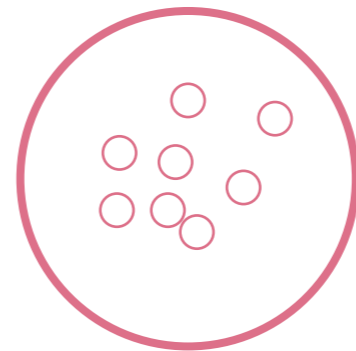
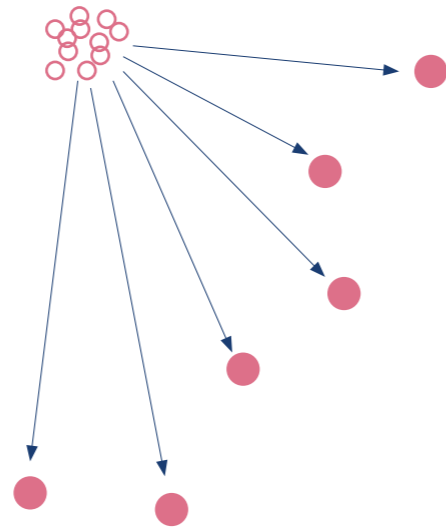
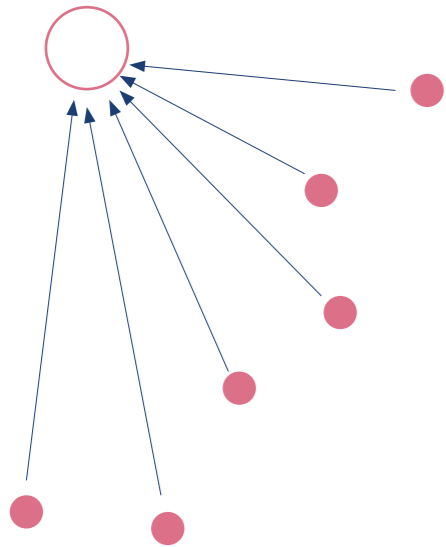


THE BUILDING AS

COUNTER NARRATIVE

HOST

LANDSCAPE



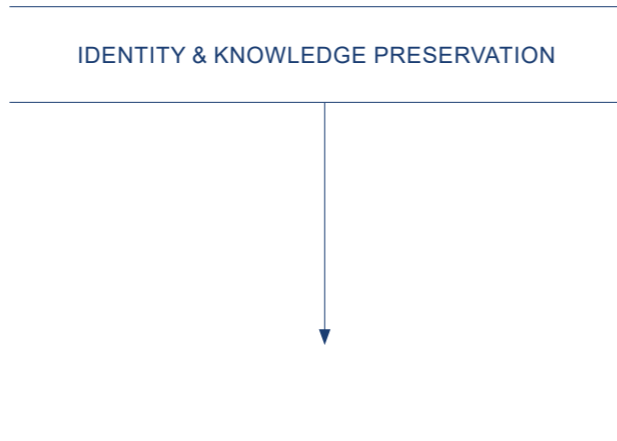
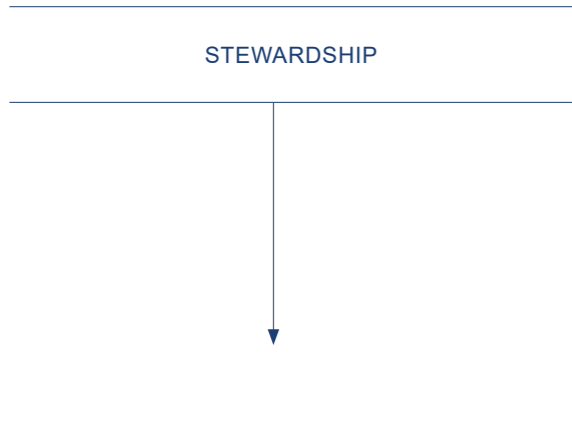
The three operations detected on site as methods of preservation were conclusively translated into three building operations.

To aid in stewardship, the design will operate as a counter narrative, aiming to bring the story from the frontline to the centers of power in a collective effort. Acknowledging that the fight for protecting the environment as a whole is a collective one, this operation aims to activate a larger audience.

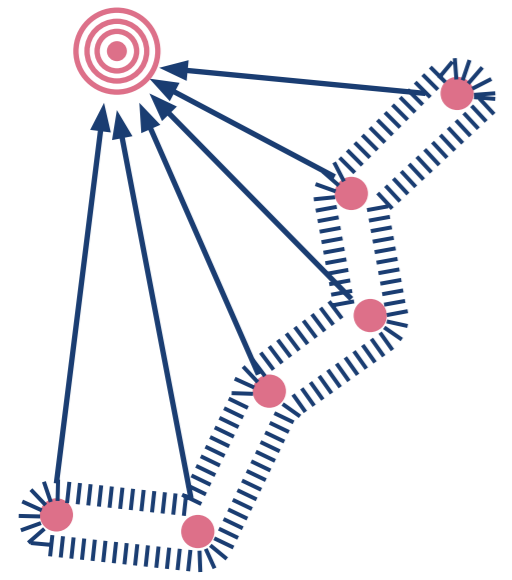
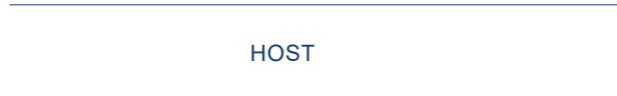
To aid in identity & knowledge preservation, the design operates as a host, inverting the counter narrative and making the frontline communities themselves centers of knowledge sharing, exchange, and communication. It invites people of different backgrounds (experts, artists, schools, musicians, scientists) to engage and thereby creating a collective memory. Especially via residencies experts could assist in preserving or translating local knowledges and identities.

Lastly the design operates as a landscape in relation to survival & subsistence. In operating as a landscape it can protect the land, assist in preserving the ecosystem, and even test alternative ways of human interacting with its ecosystem.

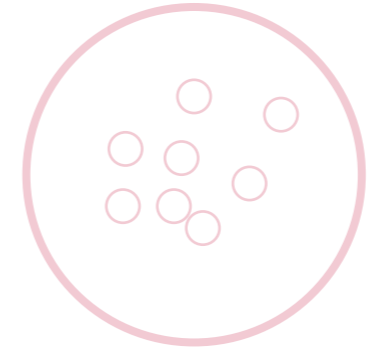
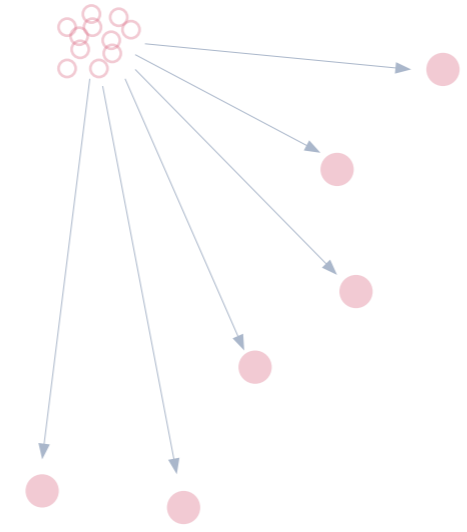
OPERATION



THE BUILDING AS

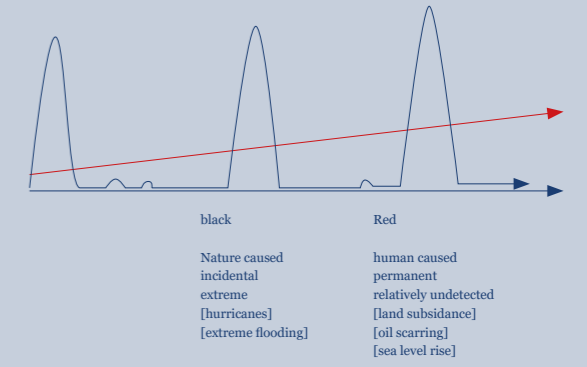


INCIDENTAL ACTIVATION



To not only overcome the barrier of space, but time as well (the almost undetectable pace of land loss and the limited time span of interest), the counter narrative can be incidentally activated, bringing the story to the front of the collective memory of people in incidental waves.

This idea was derived from the attention hurricane violence captured as opposed to land loss violence.



LOSS

“This all used to be land... As far as you could see.”

For the design to operate as both a counter narrative, host, and landscape a spatial language had to be found that could especially convey the story of the continuing land loss and erasure.

But how to find this language?

One of the quotes heard most often referred to how everything used to be land, but was no longer there.

This quote became crucial, because it was continuously apparent that vocally something was transferred that was no longer visible. I had to believe that this was the truth because there was no evidence left (especially since it was practically impossible to find old maps and Google maps started in 1998).



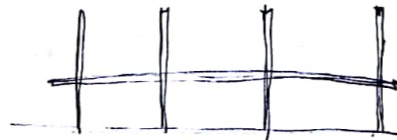
THE VERTICAL LINES OF MEMORY



Tree line



Street poles



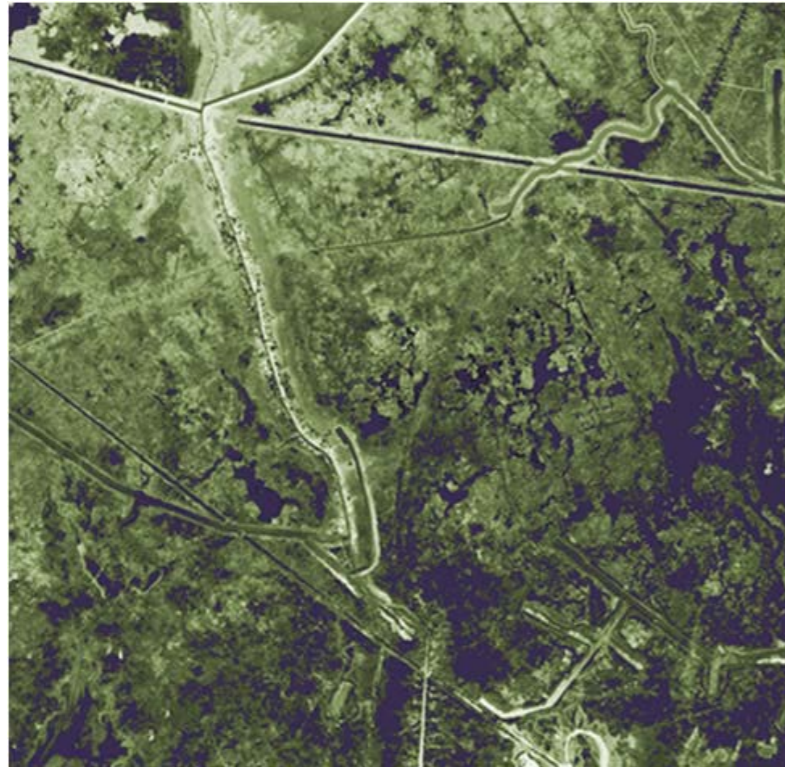
Structure

Sometimes traces were still there. In the project they are called the vertical lines of memory.

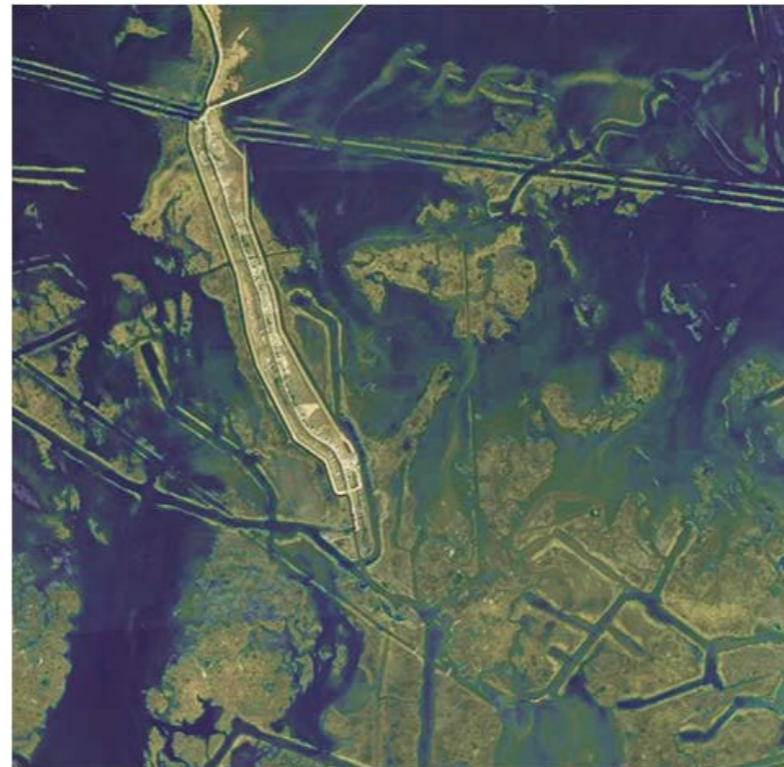
It became apparent that the only 'evidence' left that something (land) was once there were these vertical traces:
the lines of dead trees
the electricity poles of former streets
the structures of former homes

These lines remained for some time, but after time fade away as well.

HORIZONTAL LINES



1963



2008

The horizontal / bird view continuously updating and shifting frontline dividing land from water is the one you cannot detect or see.

The changes are incremental to notice with your bare eye and only over a large quantity of time change can be detected.

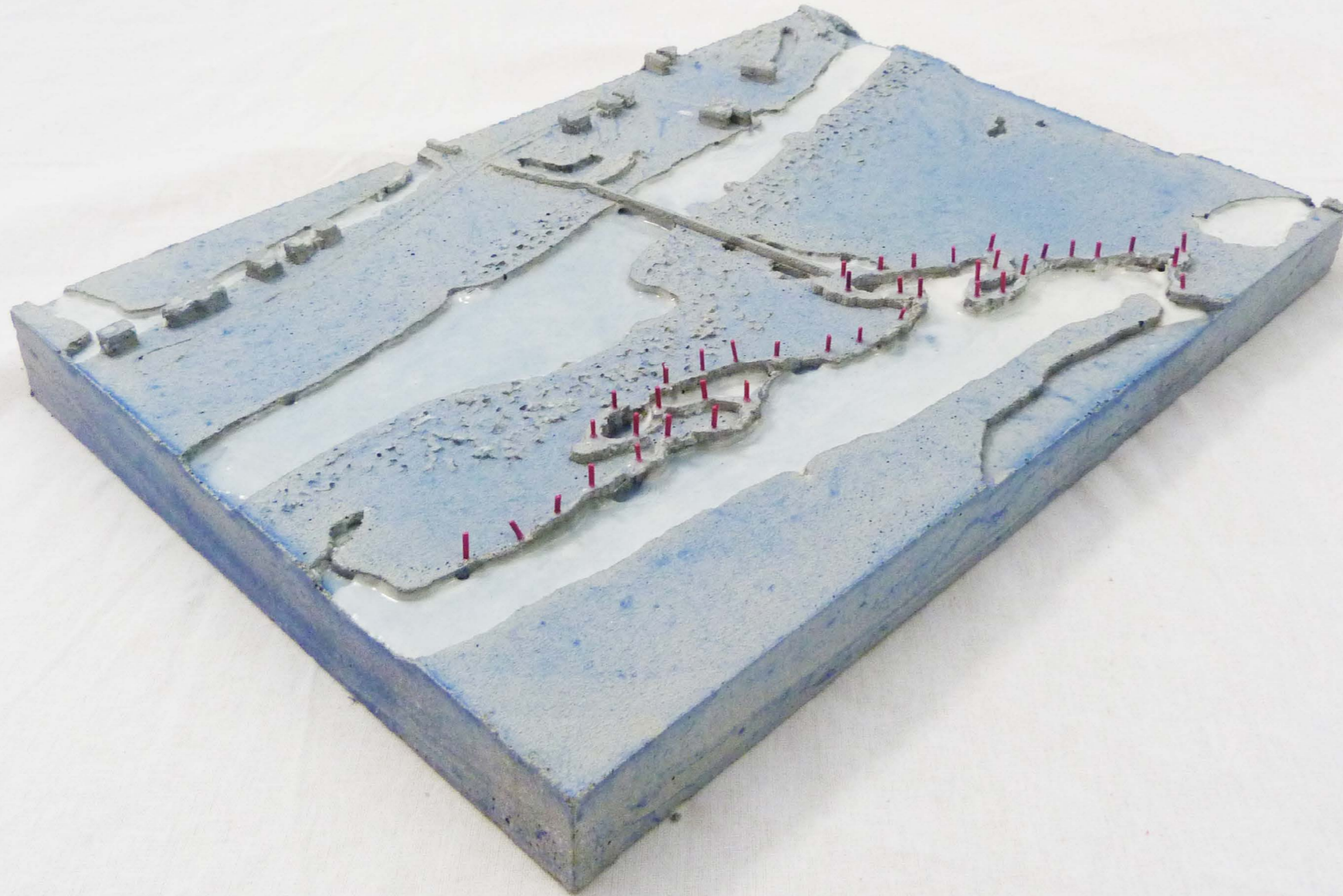
This shifting line is what the project aims to make visible, detectable. To create evidence, so that the landscape changes aren't just verbally conveyed but discoverable to the eye.

image:

Change in The South

<https://www.sailorsforthesea.org/blog/conservation/change-south>

THE COLLECTIVE FRONTLINE



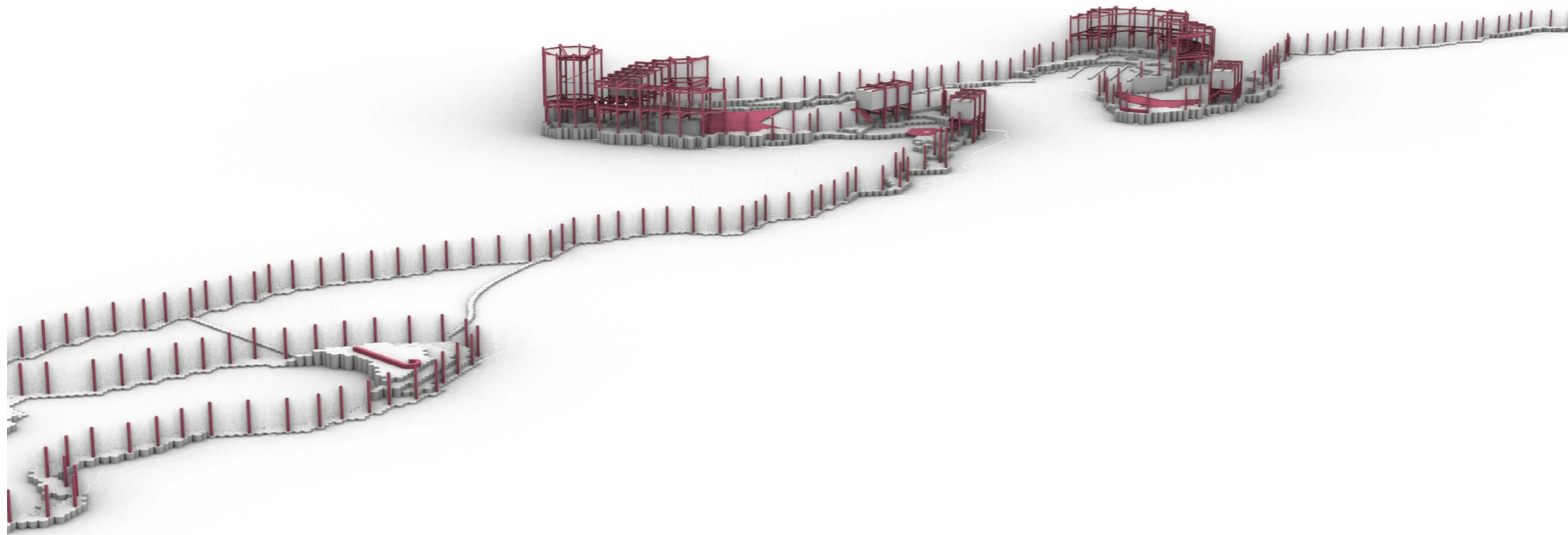
Therefore the project proposes to build the line. A line that continue throughout all different frontline communities, metaphorically linking them together and making visible/evident the incremental land loss using these same vertical lines of memory.

THE COLLECTIVE FRONTLINE

COUNTER NARRATIVE

HOST

LANDSCAPE



As a counter narrative the line operates as a memory trace, that documents, makes visible, and can be used as evidence of the changing conditions in the landscape.

The line is visible both as a horizontal line in Google maps and as a vertical line by the vertical rhythm of the poles.

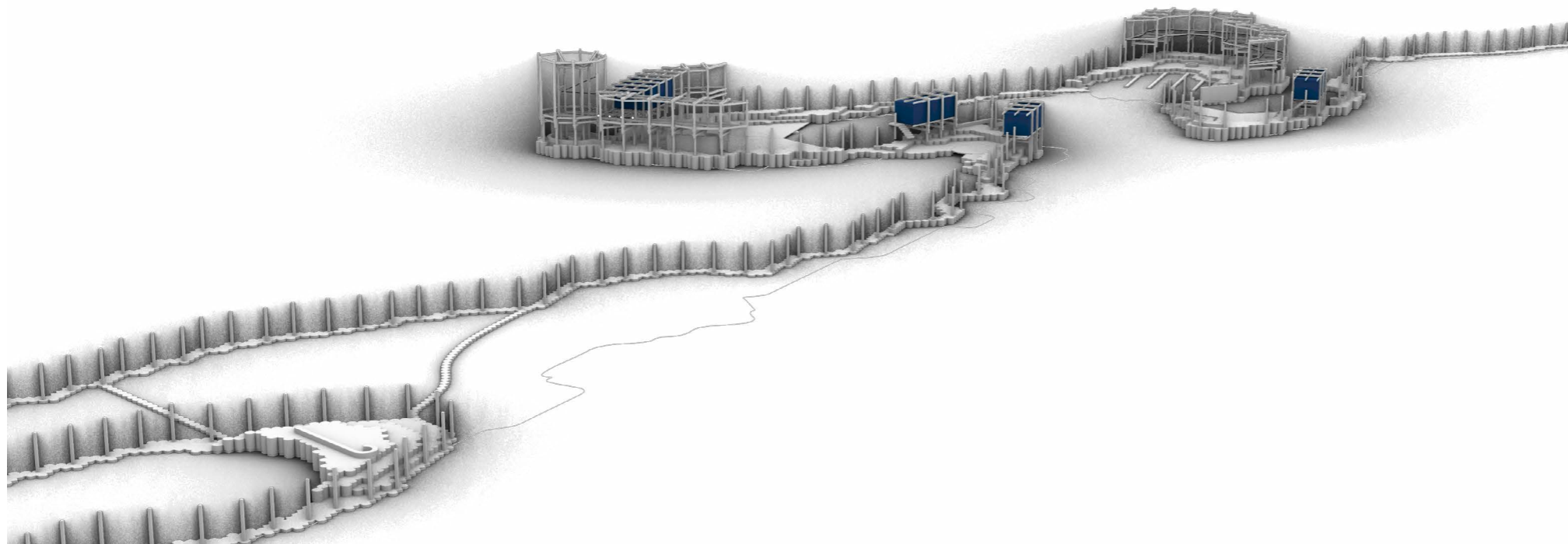
The poles furthermore frame the landscape, operating as frames through which the changing conditions can be documented and observed.

THE COLLECTIVE FRONTLINE

COUNTER NARRATIVE

HOST

LANDSCAPE



As a host the line operates as a river, creating communal spaces in its crescents through widening there.

Where the curve thickens, the line doubles, creating a structure which can be filled in with different elements.

Amongst these elements are communal functions such as fire pits, seating areas, water collection, camp sites, and cleaning areas for the catch of the day.

The infill are reserved for hosting functions, such as educational center, residencies, exhibition space etc. The structure can be filled in according to the needs of the communities.

In this way, the line can attract different groups of people from the outside to collaborate with.

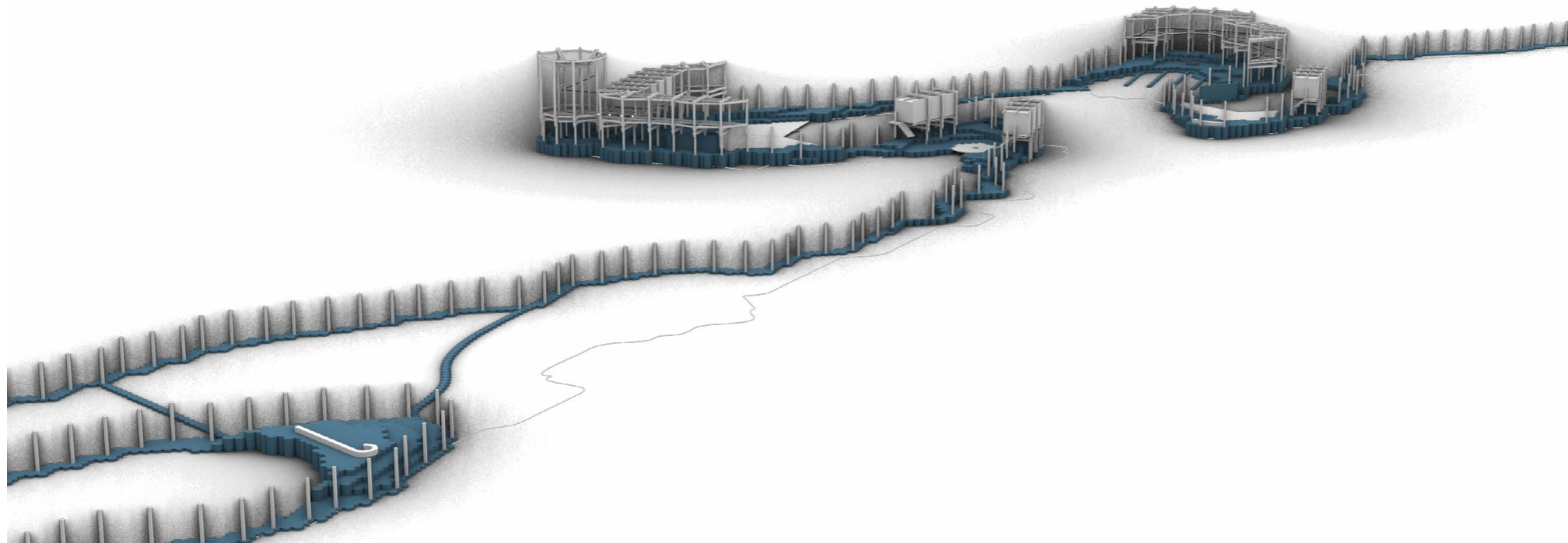
Experts can help with documenting the stories, artist can occupy residencies to create community based work, schools can visit, etc.

THE COLLECTIVE FRONTLINE

COUNTER NARRATIVE

HOST

LANDSCAPE



Lastly the line operates as a landscape.

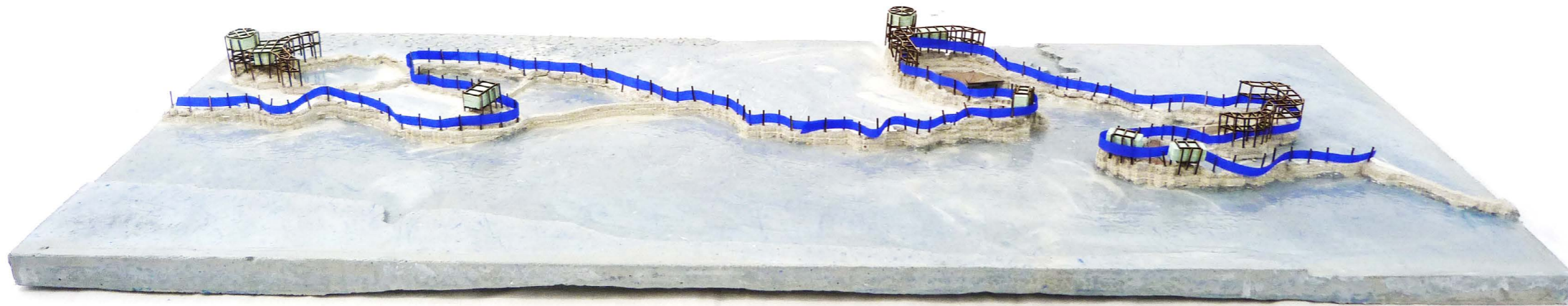
It protects the land behind it from the incoming gulf.

It supports the ecosystem, through providing habitat for oysters, shrimp, and other shore life.

Lastly it becomes an interchange scape between what is considered nature and human made as well, letting people experience the landscape and its beauty.

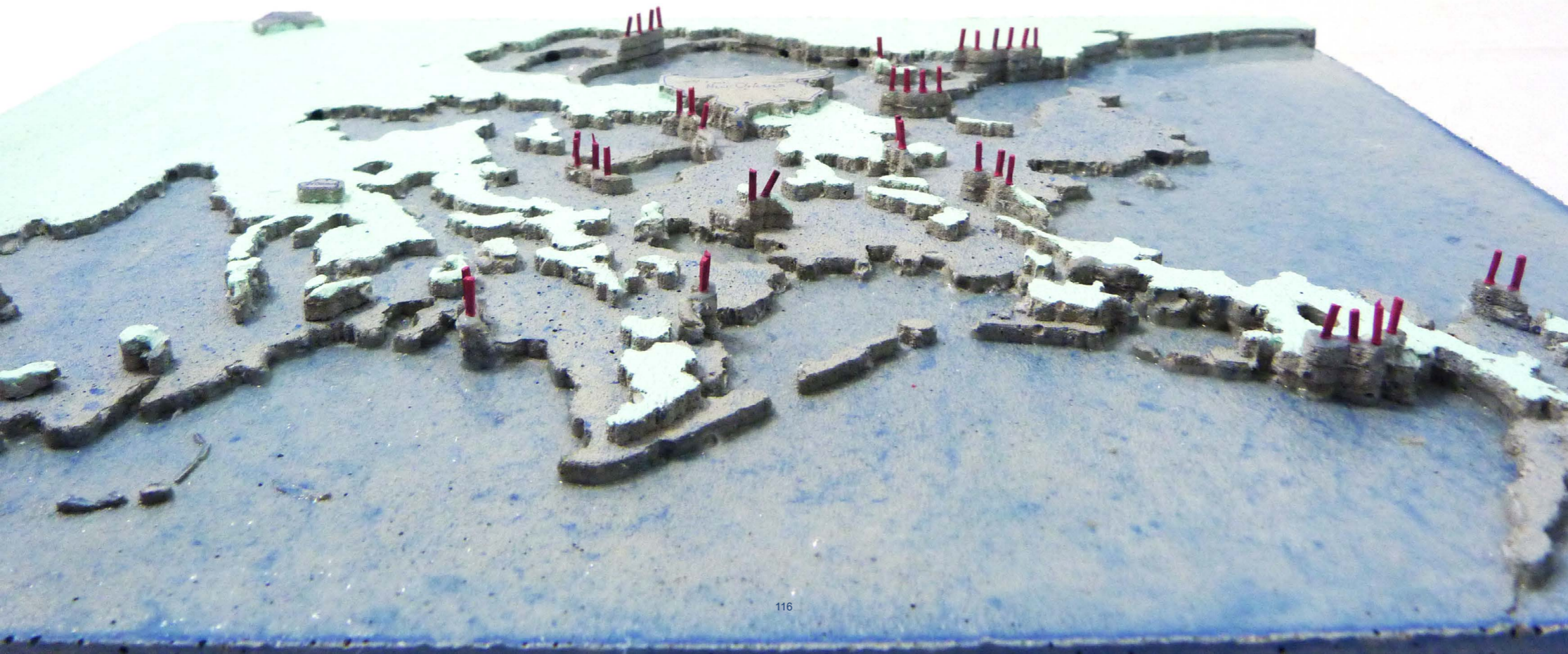
DESIGN

This has led to the final design, which can be activated to create a collective statement and in which all elements come together.



THE COLLECTIVE FRONT LINE

Once implemented in different communities these lines connect together to create the climate change frontline and tell a counter narrative which shifts the notion of value.



I MOTIVATION
CLIMATE AND MIGRATION

II RESEARCH
DOCUMENTING THE FRONLINE OF CLIMATE CHANGE

III TRANSLATION
PRESERVING THE FRONTLINE

IV DESIGN
BUILDING THE LINE

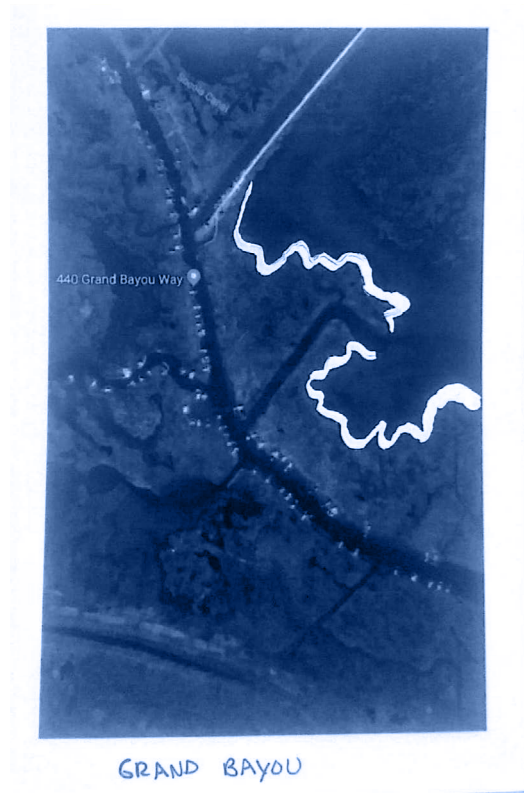
V REFLECTION
LANDSCAPES OF RESISTANCE

MODULAR SYSTEM / DIFFERENT LINES

Each community has unique conditions which ask for the line to follow a specific curve and implement function congruent to the communities needs and opportunities.

In order to make this possible a modular system is proposed, which can adapt to these different conditions.

*image:
by Author using Google Maps*



SIMPLE CONSTRUCTION



Since it is a community led initiative in which the members have to feel a sense of agency, the design had to relate to the already known ways of constructing and the simplicity and site adaptation of the already existing structures and modes of building.

Therefore, the ways of construction were studied and taken as a starting point for the design.

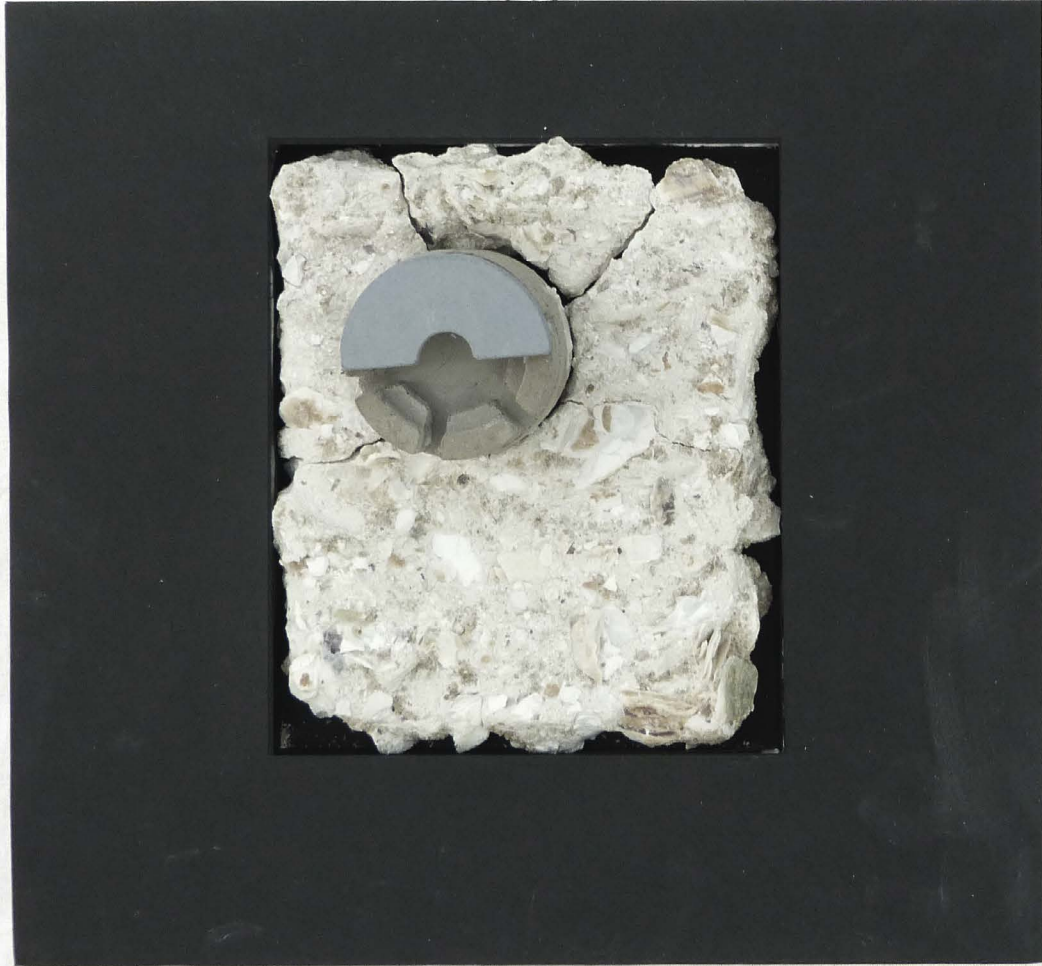
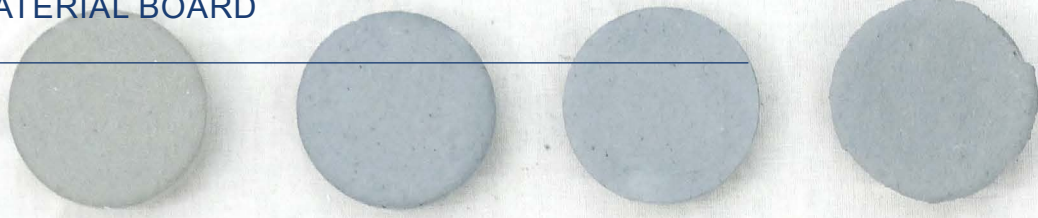
MATERIAL



Together with land loss, resource loss creates a shortage of materials (for example trees stop growing, animals relocate). Therefore, there were very little resources available to use for construction.

The two main ones incorporated in the design are oyster shells and wood from abandoned structures.

MATERIAL BOARD



MODULAR SYSTEM

The modular system consists of stackable elements that cooperate with the surrounding environment. Together they create a surface, that is anchored to the ground via foundation poles.

The elements are designed to be occupied as habitat by different species.

They are placed between deep marsh and open water.

open water

aquatic bench

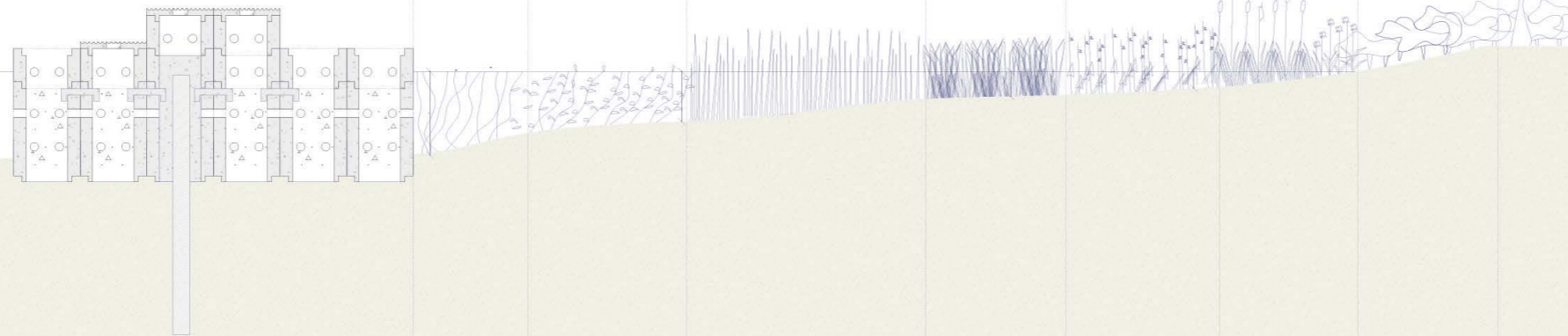
deep marsh

shallow marsh

wet meadow

shrub wetland

forested wetland



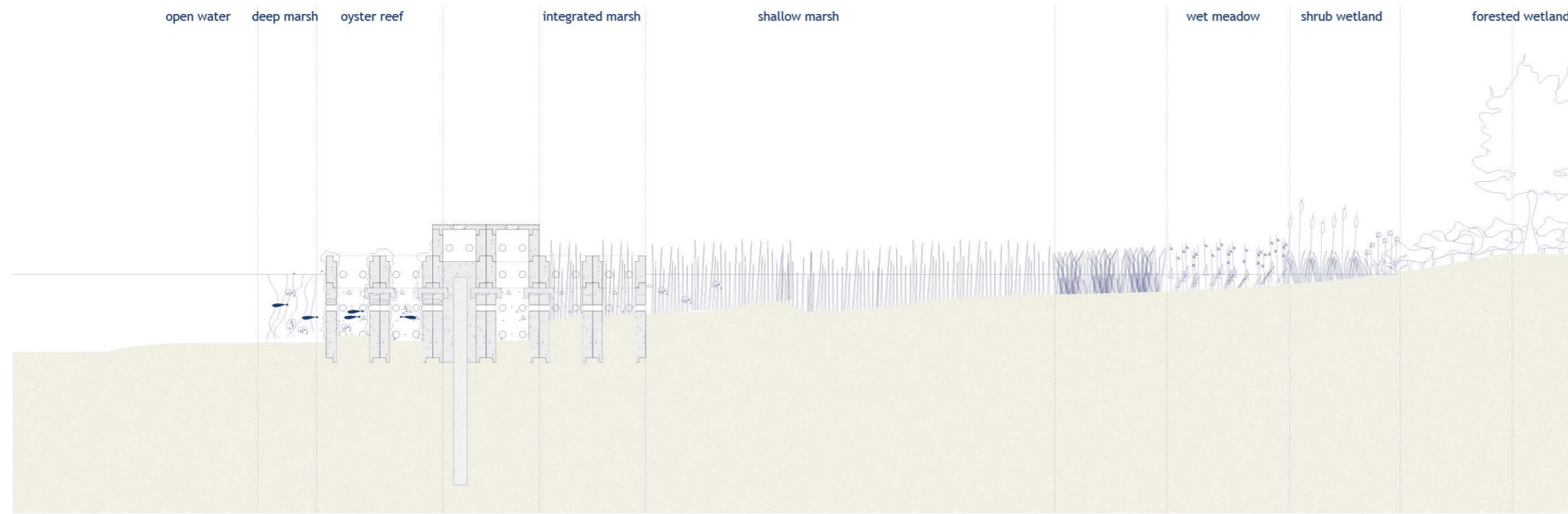
MODULAR SYSTEM

Over time the structure fully integrates with the existing ecosystem. The elements are hollow, with openings and a rough structure, mixed with oyster shells that increase the amount of calcium of the concrete.

This makes them suitable to be inhabited and overtaken by oyster shells. Simultaneously sedimentation on the shore side will take place, creating and strengthening the existing marsh.

It provides shelter for small fish and shrimp as well.

open water deep marsh oyster reef integrated marsh shallow marsh wet meadow shrub wetland forested wetland



LAND REGENERATION



By not just following the existing line of the land, but adding extra tracks as well, experiments with land regeneration can take place.

MODULAR SYSTEM

The following is a step by step of the construction of the elements.

The first step are the foundation elements, that are placed in a hive structure and every few elements are anchored with foundation poles.



MODULAR SYSTEM

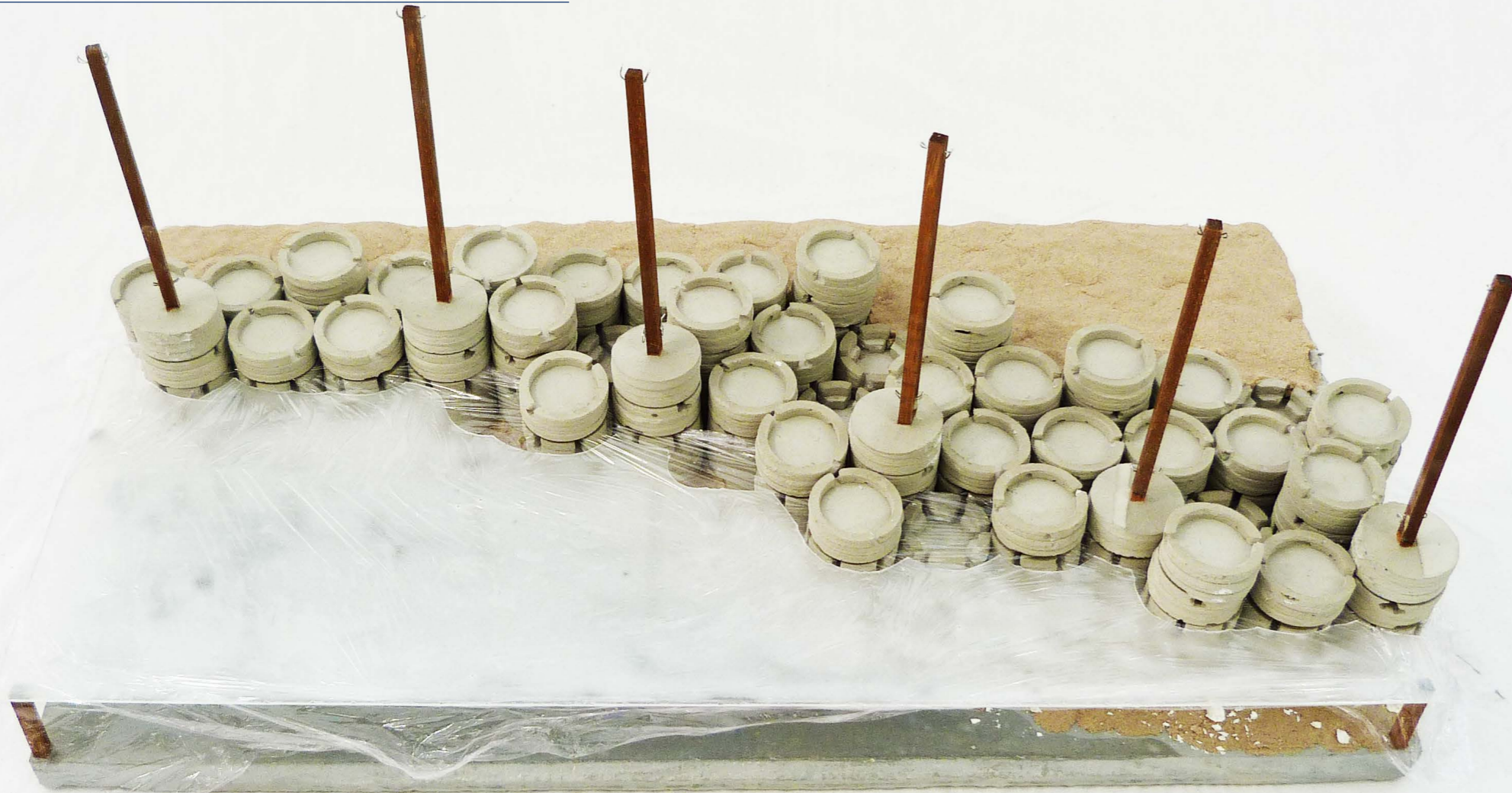
Elements of 40cm height can be added to create a dynamic landscape.



MODULAR SYSTEM



MODULAR SYSTEM



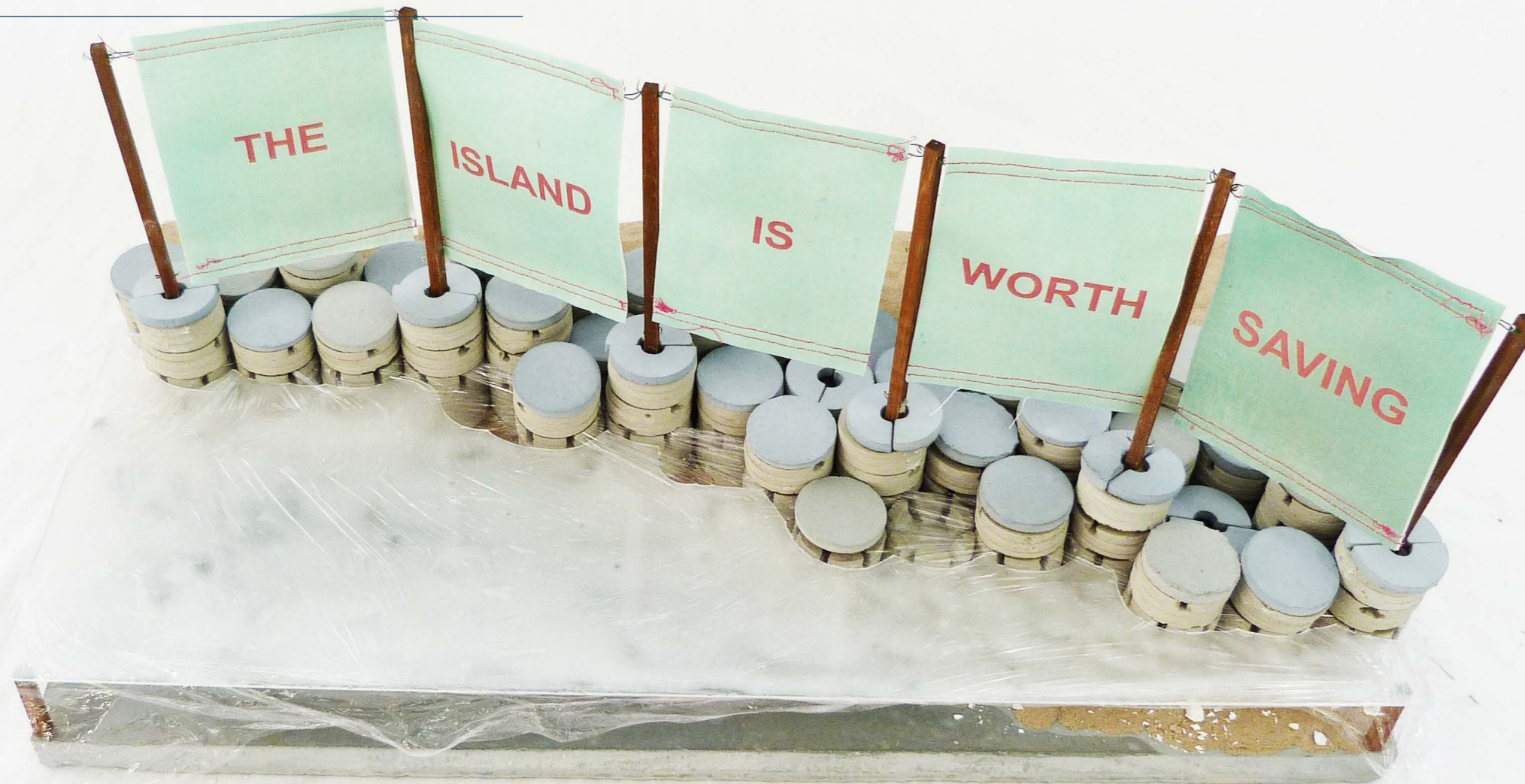
The poles are placed in the elements and filled with concrete. They serve as both memory trace, foundation poles, and base of the structures that can be added in the curves of the line.

MODULAR SYSTEM

Tops are added to make the surface walkable.



MODULAR SYSTEM

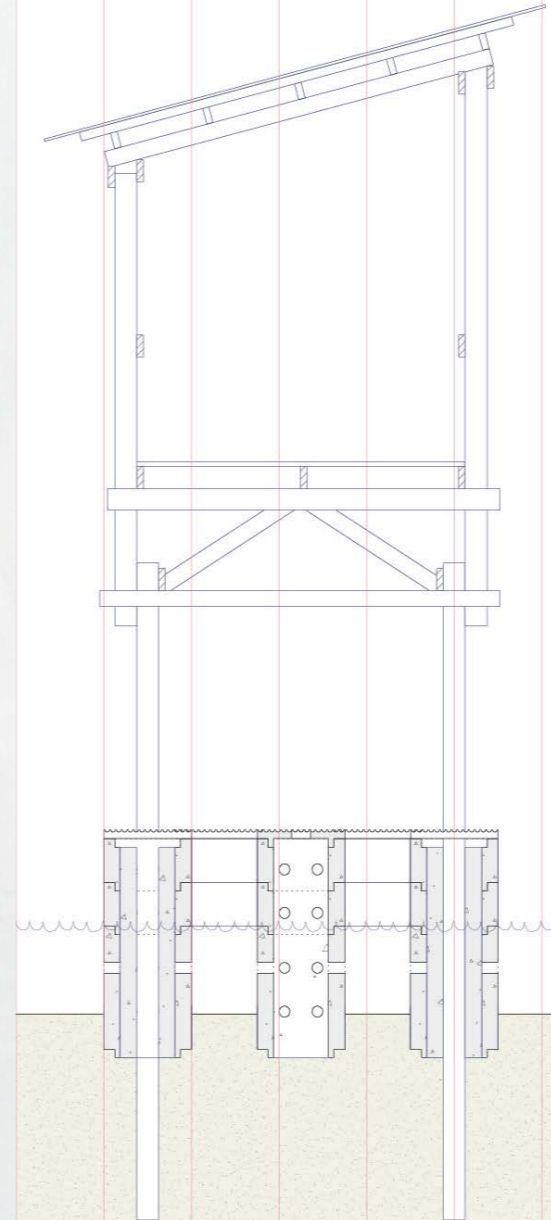


At specific occasions the line can be activated and serve as a visible marker of the line and even protest.

MODULAR SYSTEM



MODULAR SYSTEM



The poles function as base for the poles later to be added. In this way structures are easily added and can later be filled in.

THE START

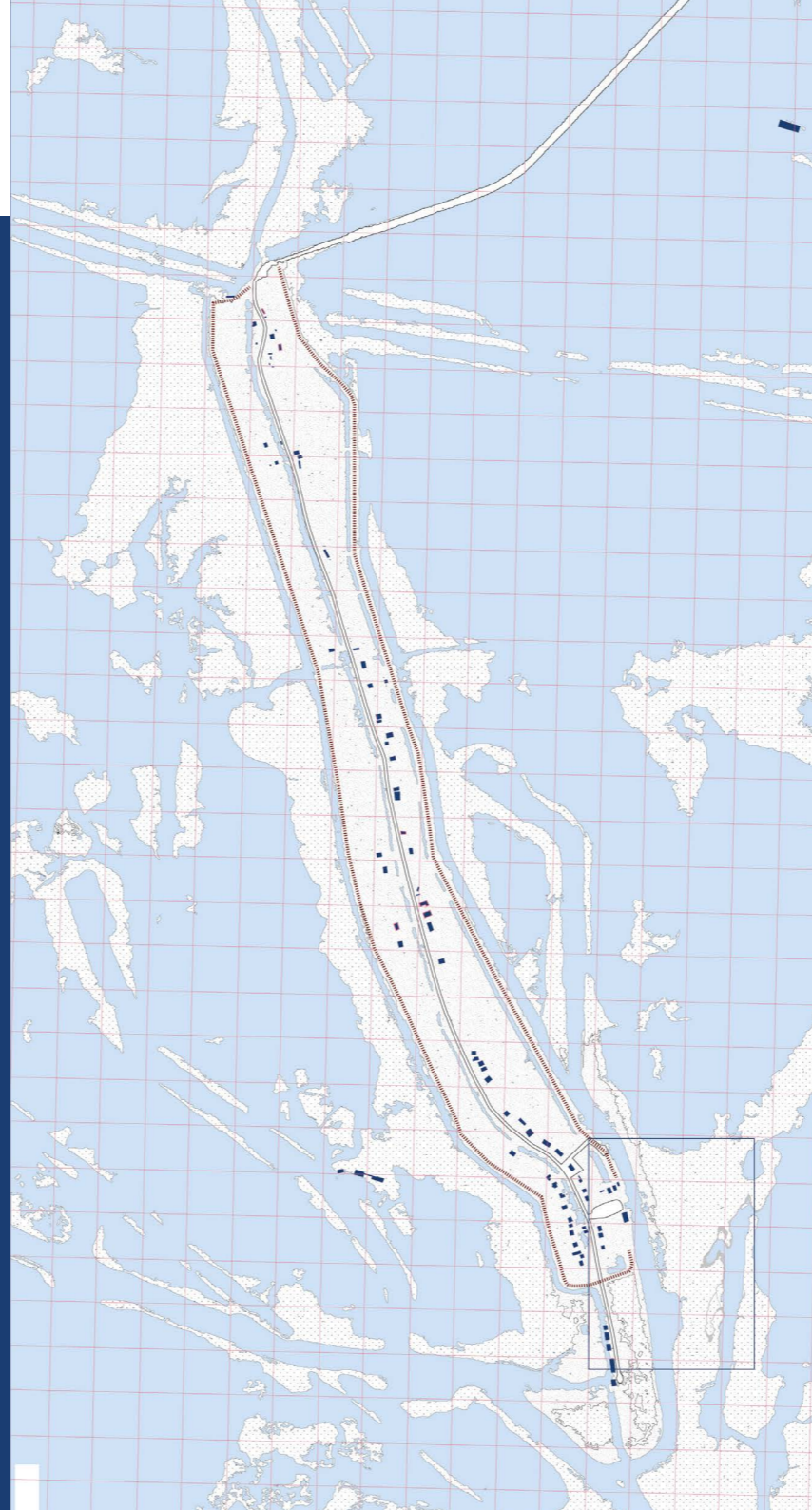
STEP ONE: COMMUNITY COME TOGETHER AND DECIDE THE LINE

The actual start would be when for example the Isle de Jean Charles community would come together and collaboratively with possibly an architect or other partners decide where a line could be located and which functions would be added.

(photo shows the local marina)



THE START



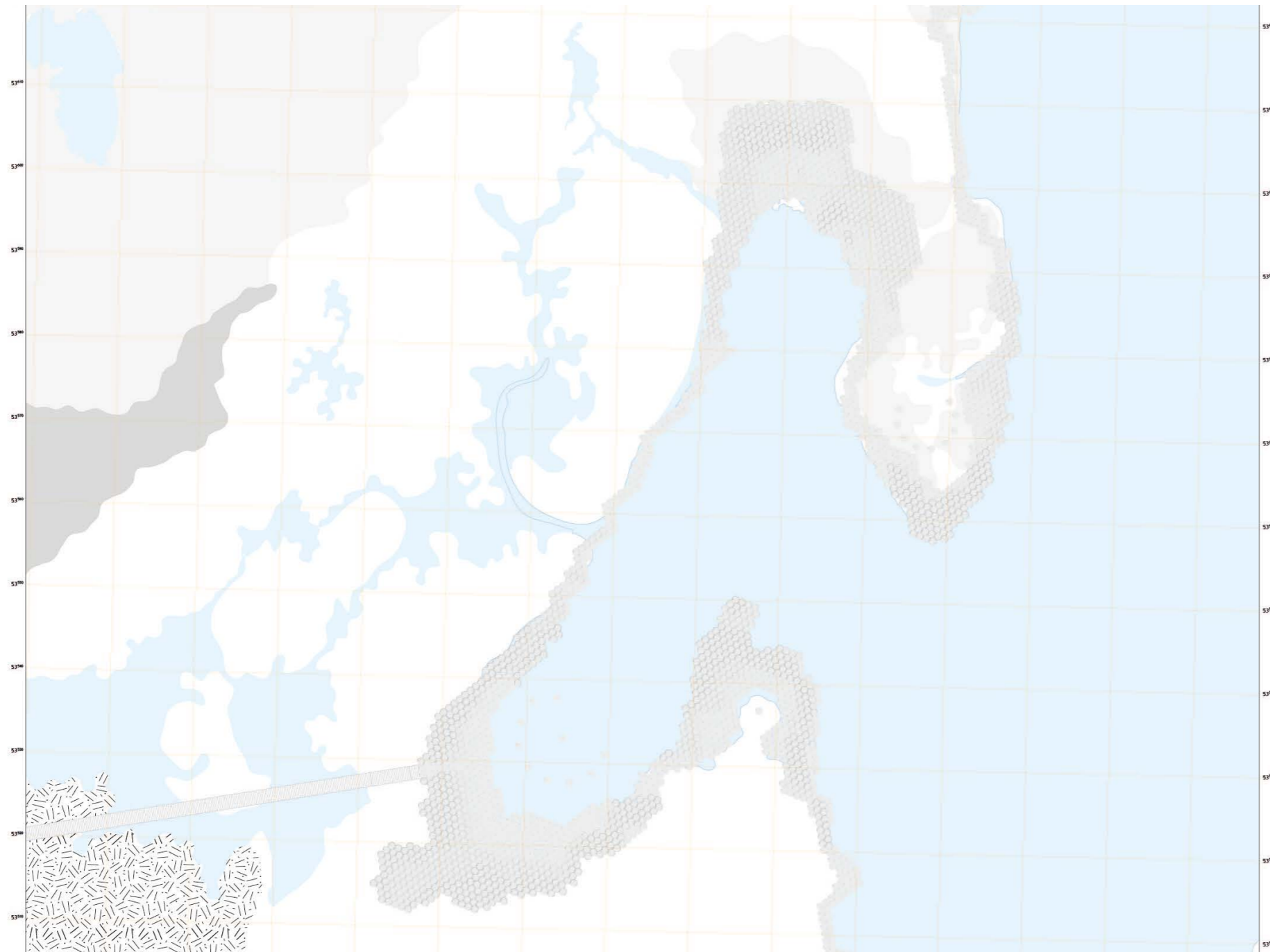
Within this project the line is located on the bottom right.

The choice of this site is based on two conditions:

1. the location of the Marina, which is situated directly next to the marina and is the heart of the current communal life.
2. The expected land loss. On the left the expected land loss is visible. The location of the line both makes land protection possible as well as documentation of the expected loss on the Gulf side.

Proposed location





The proposed surface with four different heights:
200mm
600mm
10000mm
14000mm above water level

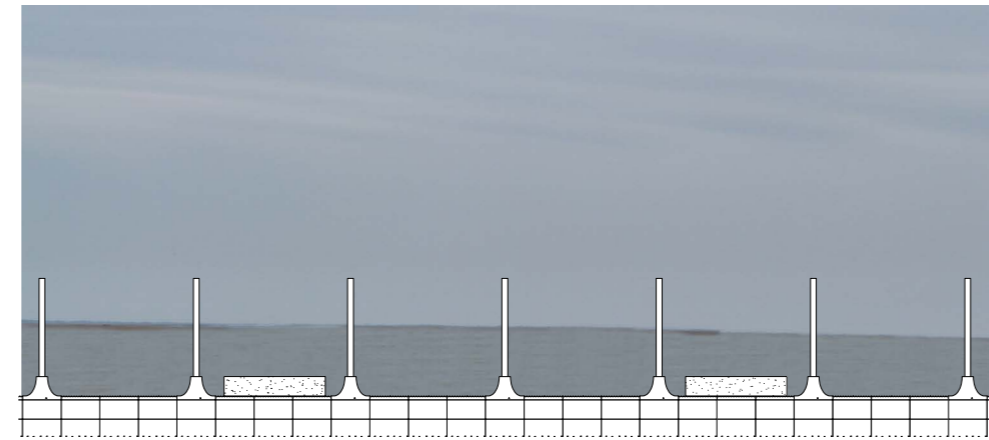
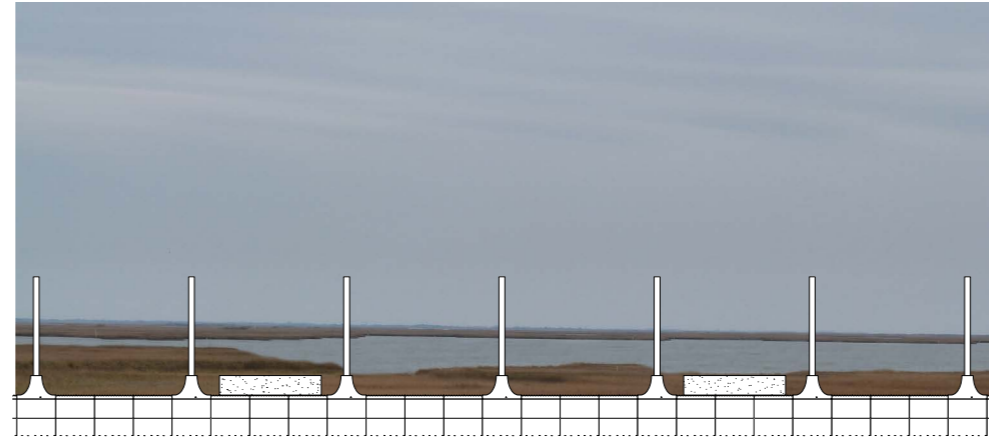
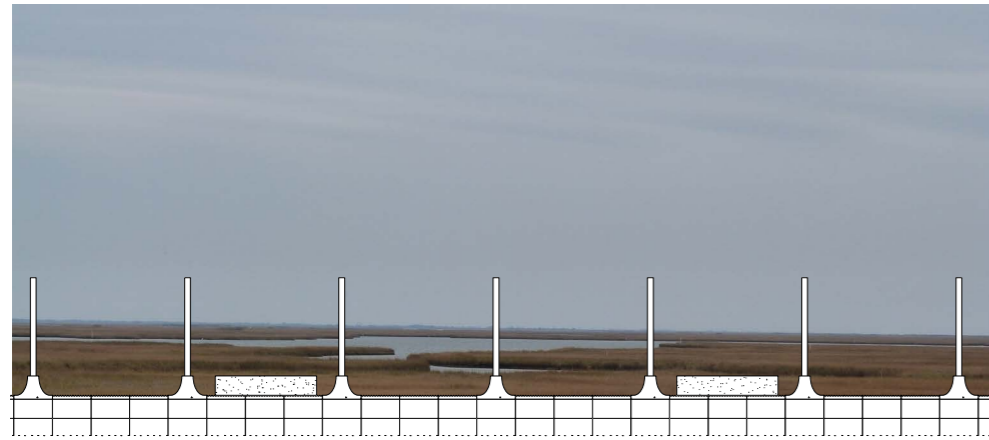
The height differences are added to create a true landscape in which the curves are higher. In case of sea level rise or flooding, parts of the surface will remain visible.



On the surface the structure (memory line) is placed including some fixed functions.

In the curves the vertical lines duplicate to create space for functions.

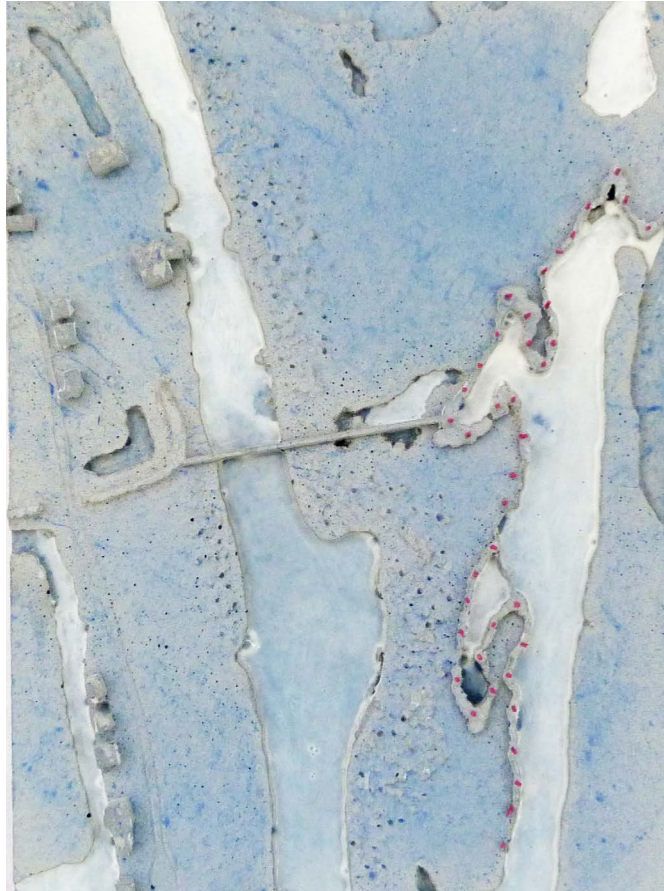
THE FRAME



The lines or memory traces operate to frame the landscape and document its changes by creating fixed boundaries.

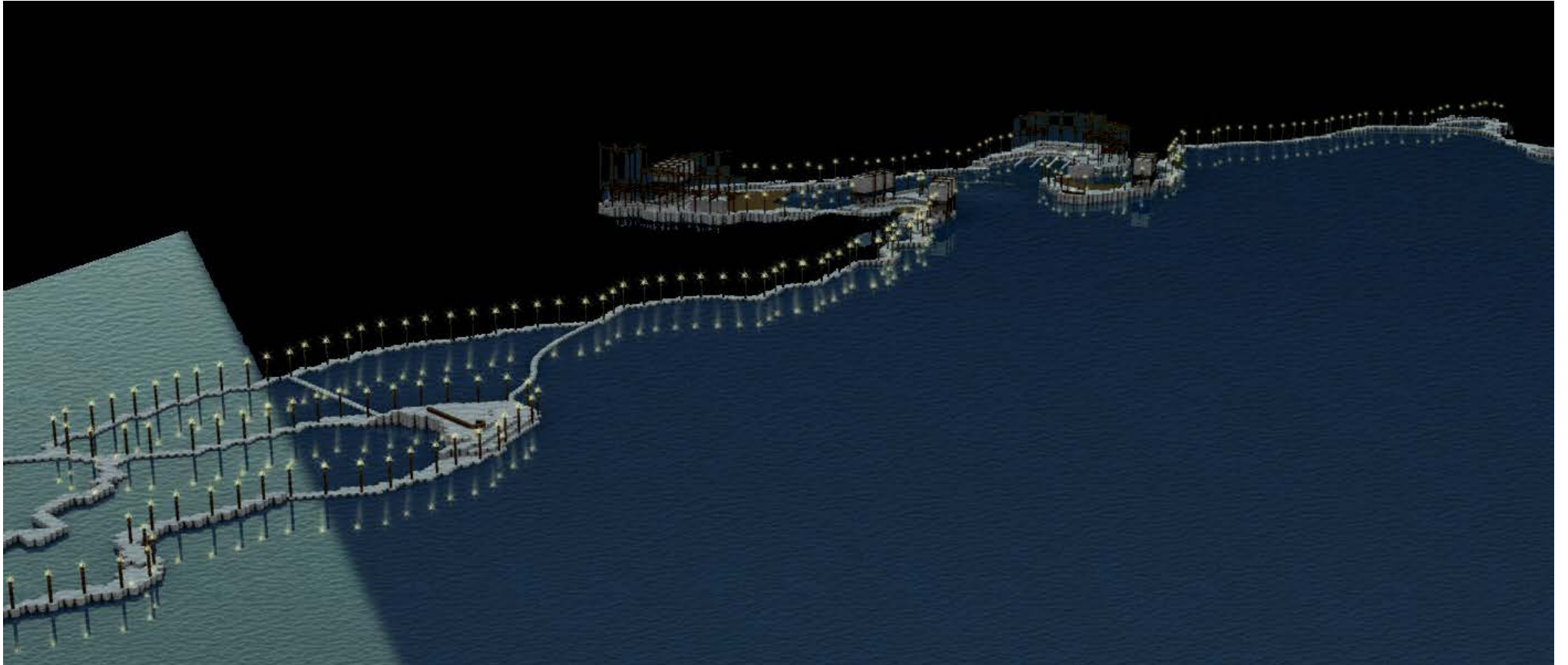
"I think people miss things when they're unframed, when no context is given. The frame says that something is so important that a gaudy frame has been put around it. There are all kinds of frames—writing is a frame, financing is a frame, endorsement is a frame."
- Theaster Gates in interview with Lilly Wei

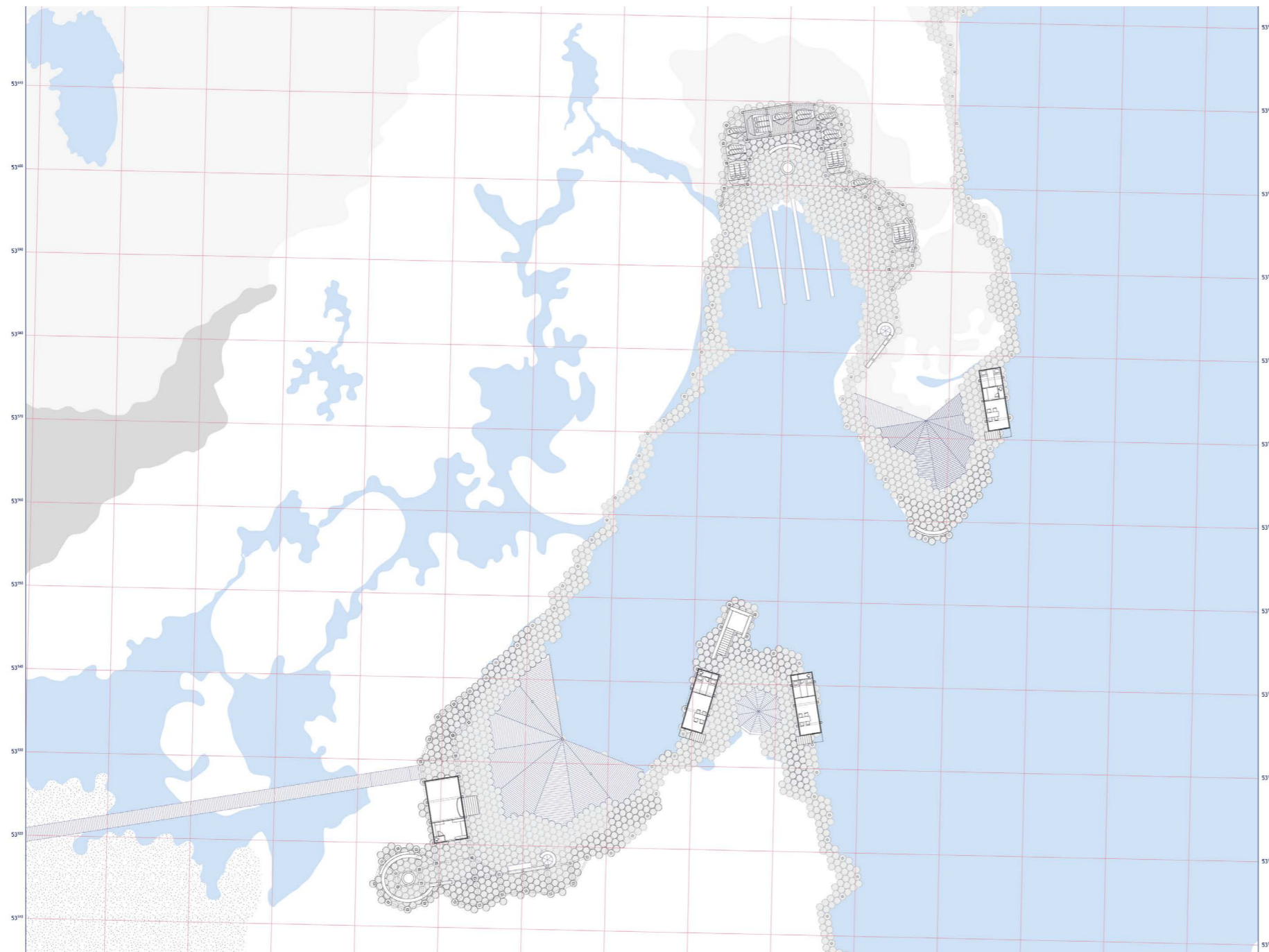
LANDSCAPE CHANGES



As time moves forward the land will slowly fade away. The line documents and frames these changes and in the end stays behind as a memory trace

NIGHT/ LIGHT



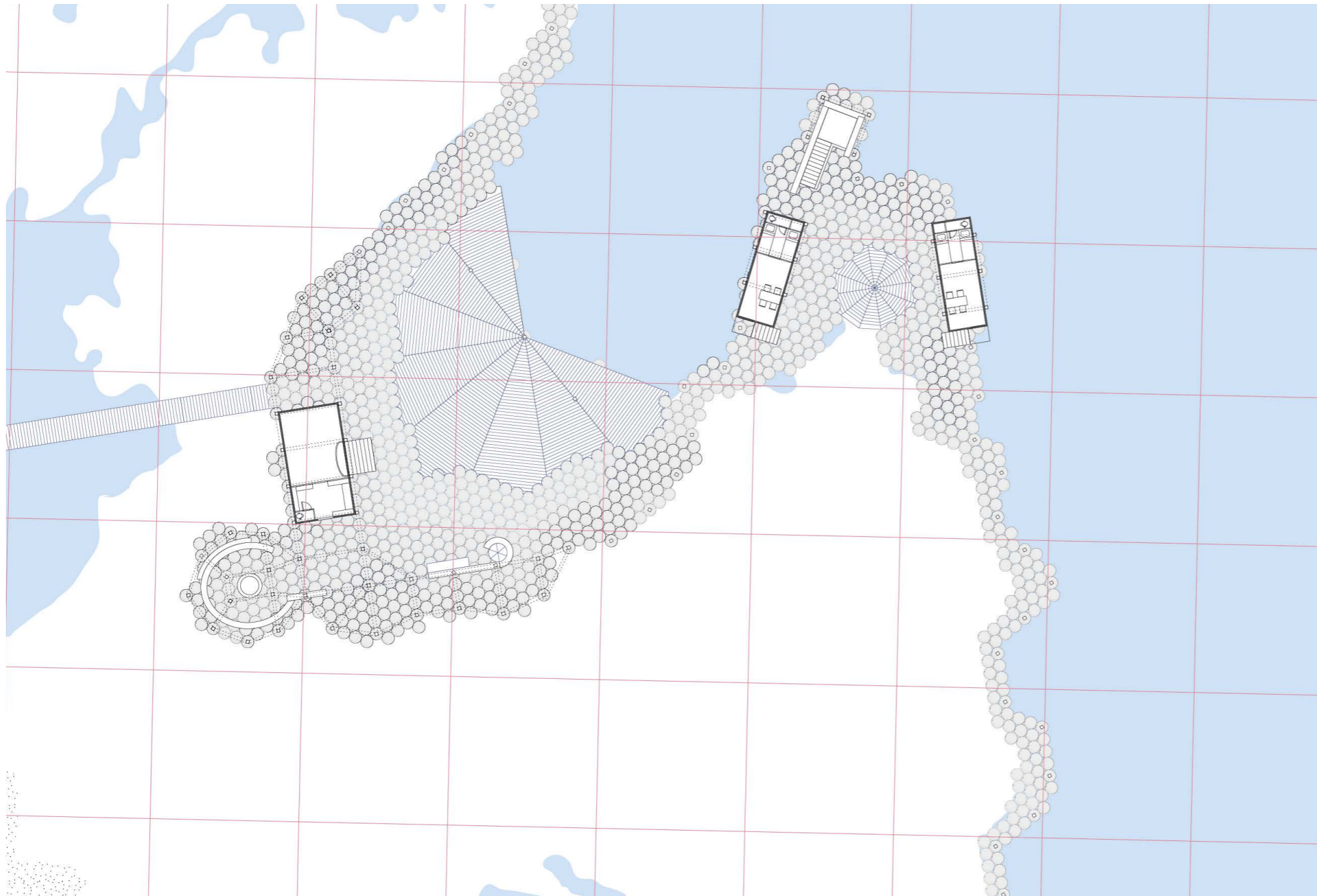


The structure is filled in with different functions and activities.

The bottom left shows the visitors center / exhibition space.

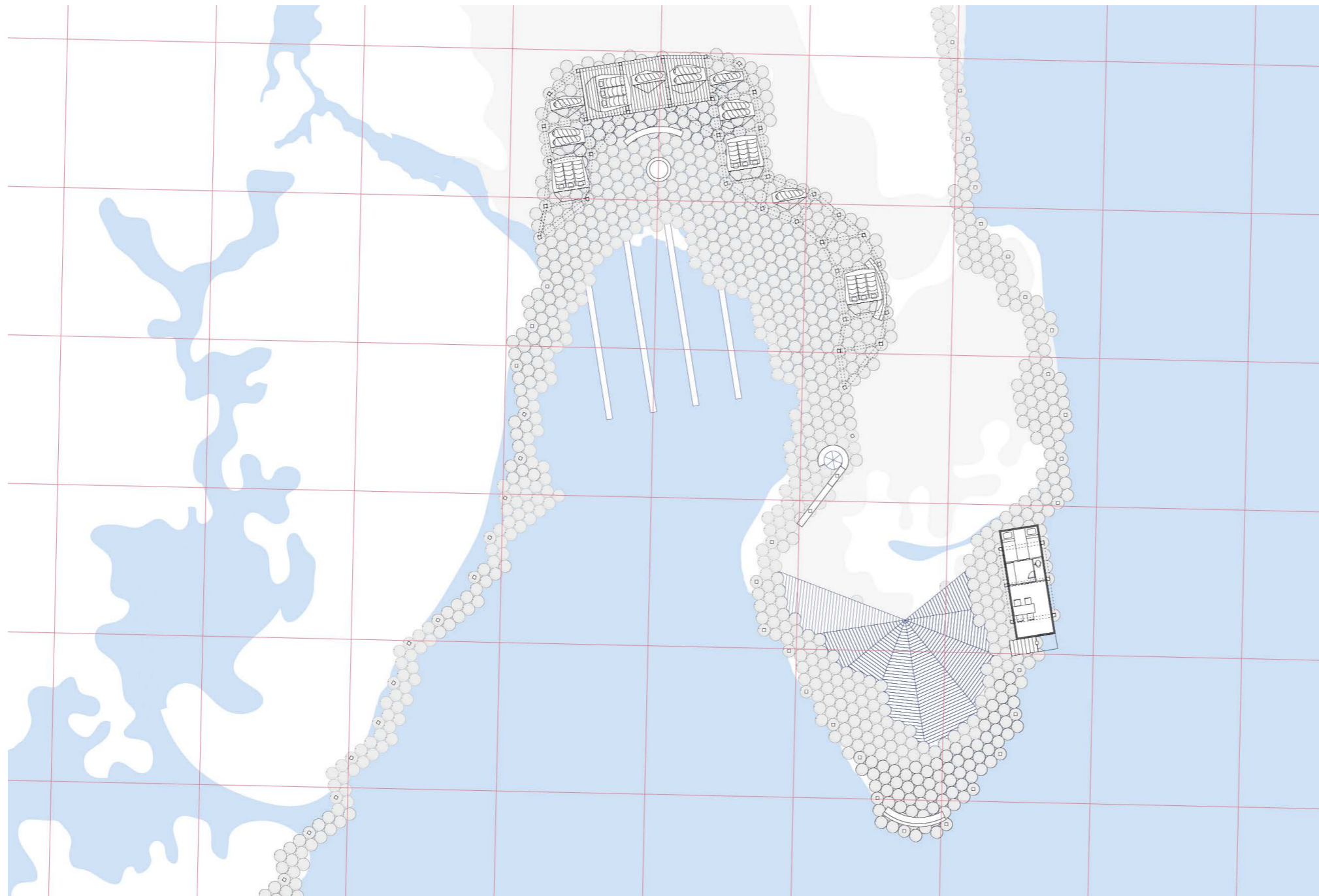
Different residencies are added, so experts and interested outside of the community can inhabit them and become part of the community.

Temporary platforms can be added to host larger activities such as festivals, powwows, or protests.



- Zone I:
This area hosts a variety of functions:
- Visitors center/ exhibition area
 - Two residencies
 - Collective fireplace
 - Water collection
 - Fish cleaning area
 - Two temporary platforms
 - Look-out tower





Zone II

This area hosts a variety of functions:

- camp space (occupiable for protests or as camp site)
- harbor for boats, canoes, kayaks
- Temporary surface
- Collective fireplace
- Water collection
- Fish cleaning area
- Research residency





Zone III

This area hosts a variety of functions:

- Land regeneration areas
- Research center
- Later to be defined infills

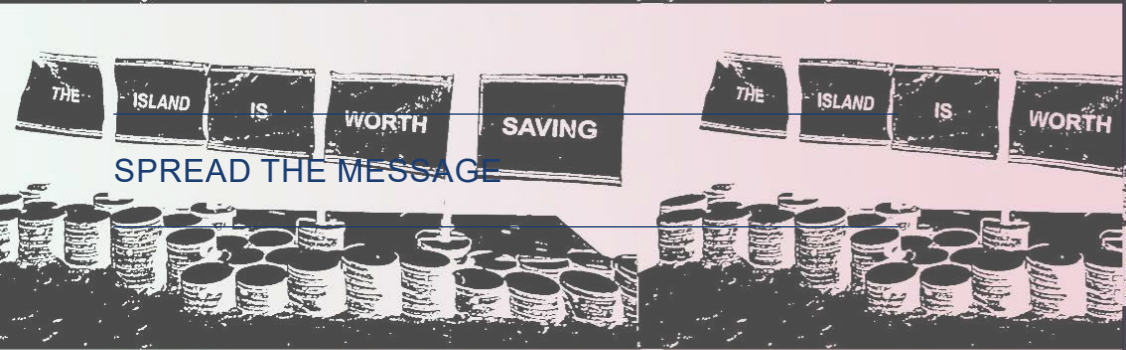
ACTIVATING THE LINE



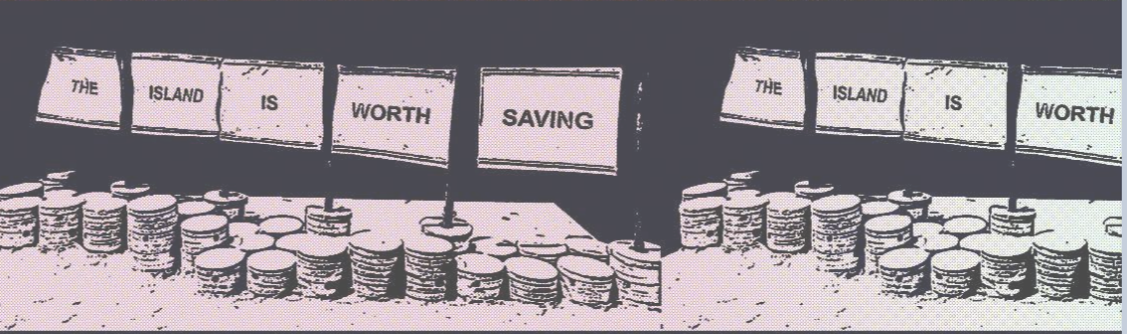
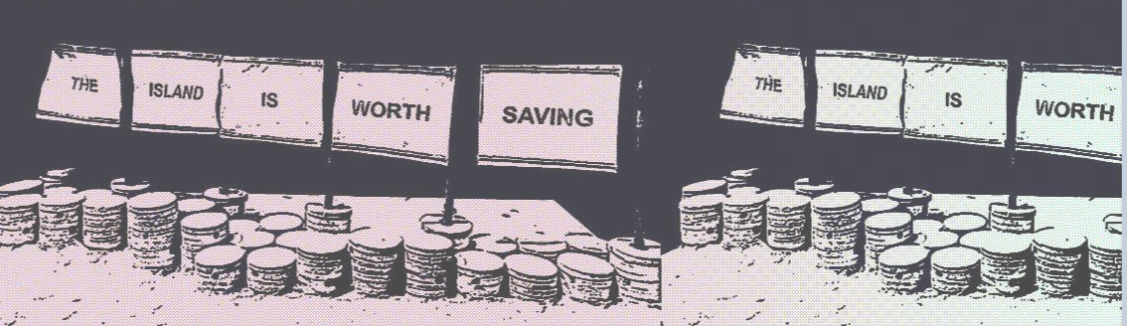
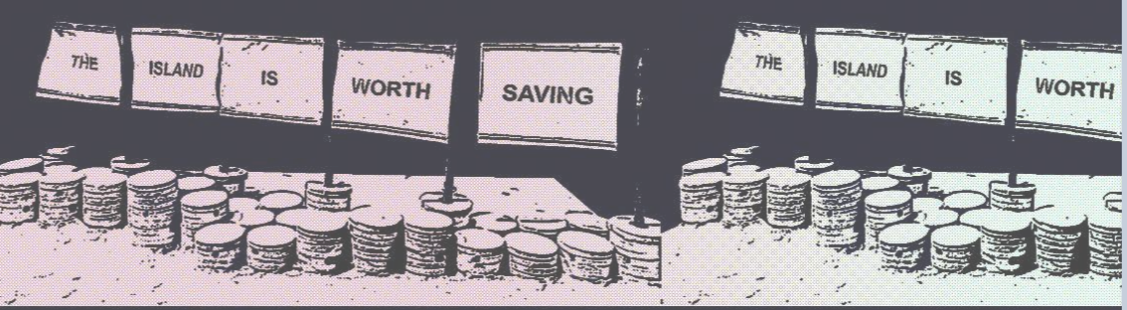
If immediate action is needed or other incidents deem it urgent to demand attention, the line can be activated.

This can happen both as a single activation or as a collective line.

Through this activation the line is fully visible and experienced and a message or story is produced creating visibility.



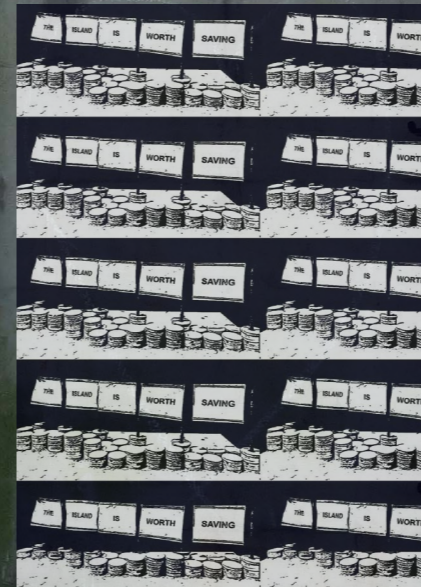
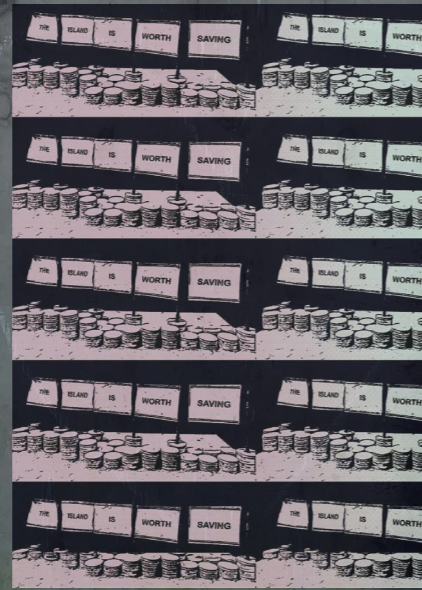
SPREAD THE MESSAGE



This activation of the line can be paired together with a campaign or the spreading of a counter story.

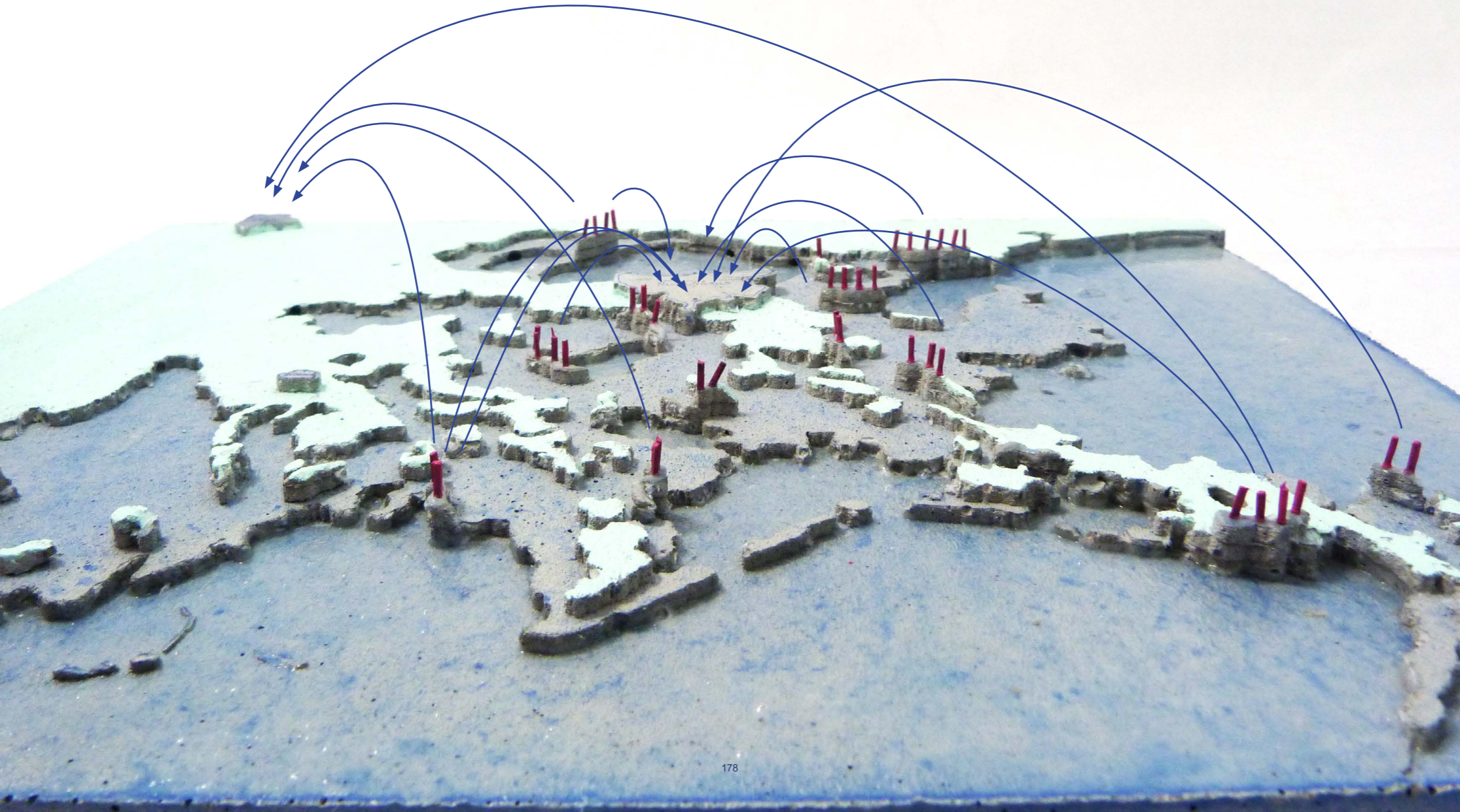
The visible identity of the line is created in such a way, that it is easily transferred to spreadable material, such as posters, stickers, or other modes of operation that can be spread throughout the cities and other places that need to be engaged with.

SPREAD THE MESSAGE



In this way, the message can be spread on different surfaces through different media and start to strengthen the counter narratives.

NO MORE SACRIFICE IN THE NAME OF OIL



By making visible and activating the front-line, a new relation to environment, oil and gas, and climate change can be developed and reevaluation of what is valuable and what is not.

Fringe communities become the center and their stories are preserved and heard.

The collective narrative is shifted.

I MOTIVATION
CLIMATE AND MIGRATION

II RESEARCH
DOCUMENTING THE FRONLINE OF CLIMATE CHANGE

III TRANSLATION
PRESERVING THE FRONTLINE

IV DESIGN
BUILDING THE LINE

V REFLECTION
LANDSCAPES OF RESISTANCE

REFLECTION

Buildings can have the power to symbolize a specific story.

As an architect you have to choose which voices you help amplify and make part of the built history and larger narrative.

I hope I have shown what a possible use of space as a tool of political resistance could be in offering a counter narrative that has the power to resonate.

THANK YOU

