MARSH RHYTHMS

Alex Daley Alex Fry Alex Heald Ruth Shatkay

hop

to and skip



when rules subside

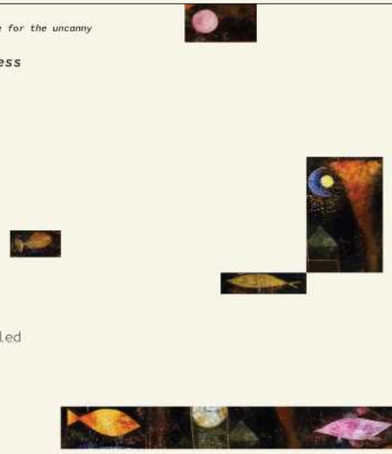
playfulness

to design for laughter

to make space for the uncanny

strangeness

the hole in the muck
where the clam resides



eyes peeled

Everywhere has wonder.

And still, we find ourselves hungry for the vivifying sensation it brings.

As landscape designers we aim to be sensitive to a place and all the ways that wonder exists there.

We wish to reveal and amplify the wonder present in a place, to build upon people's connections there, to strengthen a sense of belonging.

Wonder is a paradoxical mixture of the unexpected and the deeply familiar; it is omnipresent yet ever-shifting, bubbling yet submerged.

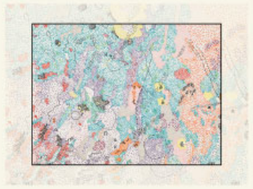
What is a world in which wonder is cared for?

Alex Daley
Alex Fry
Alex Heald
Ruth Shatkay

playfulness *strangeness* *the magical* *the micro* *the fleeting* *limitlessness*

a miniature world

a secret vastness



the micro

to design for invisible life

the fleeting

a thin snowfall

to center the brief, spectacular moments

to choreograph coincidences

the magical

a glimmer of sunlight in the
corner of your eye



to know a boulder covered and
uncovered by the tide

limitlessness

when the how-of-it-all
is irrelevant

an unfathomable whole

to nod to a beyond

MODULE 01: *SEEING CRISFIELD*

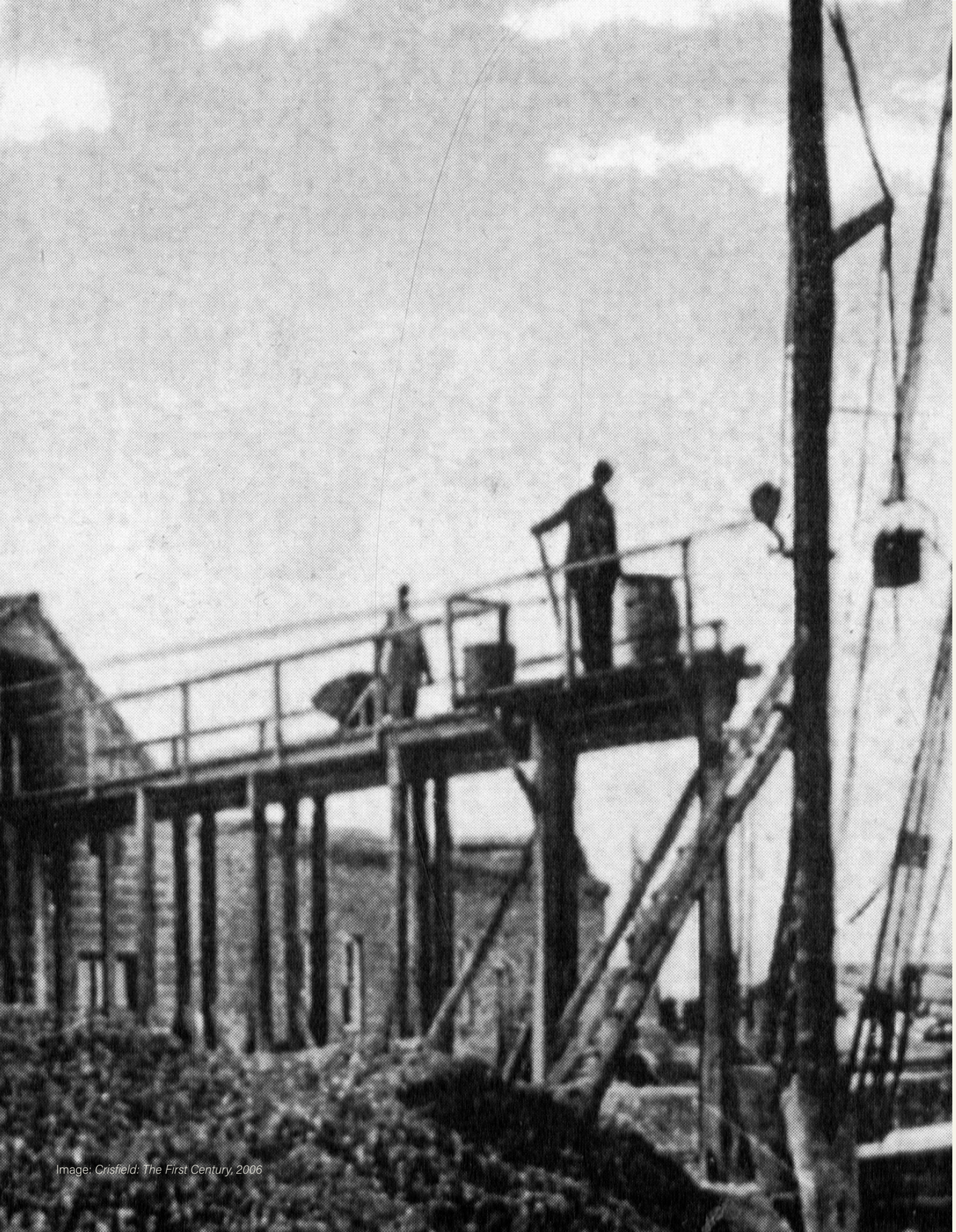


Image: *Crisfield: The First Century, 2006*

A Note.

Through this atlas, we aim to understand and express the people of Crisfield's historic and ongoing relationships with water. A city literally built on oyster shells, the town and its people are inextricably linked to the Bay. These connections reveal themselves in three primary ways:

(1) topographic manipulations

(2) the form and human experience of the city's fabric

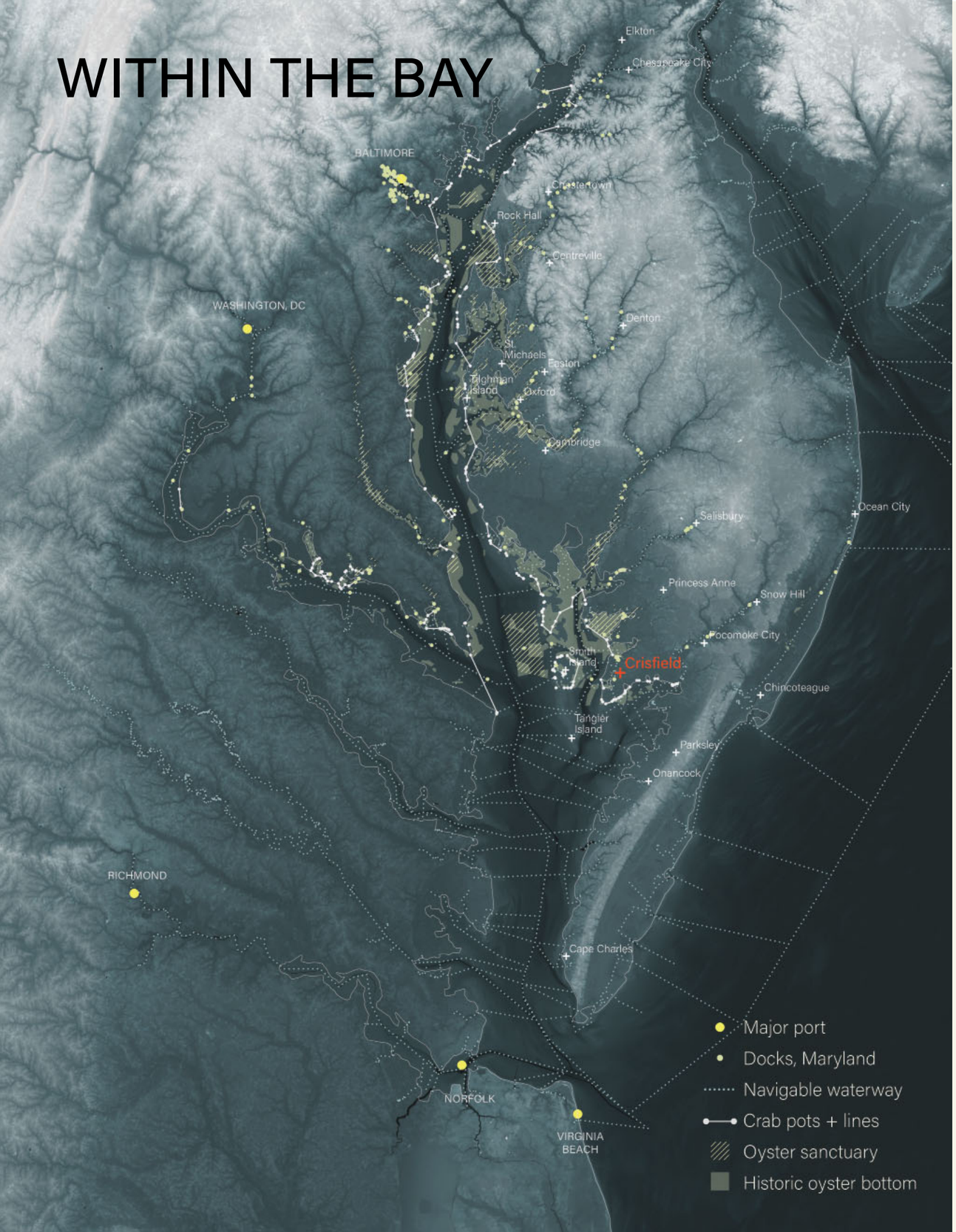
(3) flood adaptation plans

Here, we contextualize Crisfield, explore the city through these three lenses, and note the wonder that we see in Crisfield and its people through the years and anticipate into the future.

GLOBAL CONTEXT

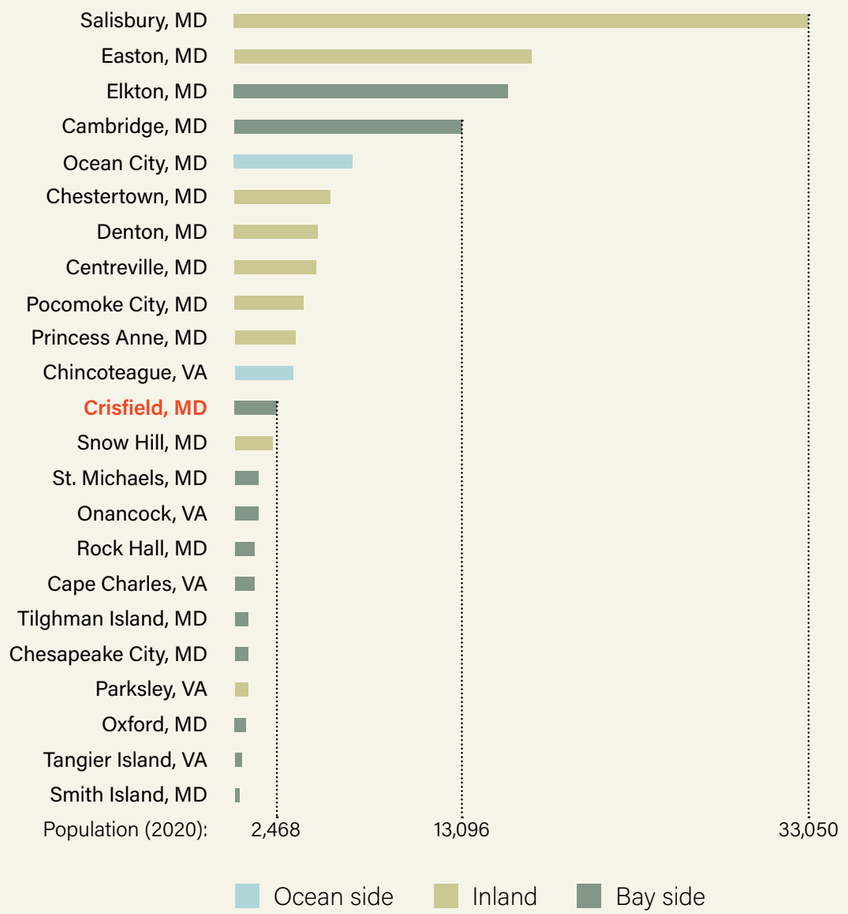


WITHIN THE BAY



Crisfield's plight in the face of climate change is widely seen as a bellwether for rural coastal communities in the Chesapeake Bay region and beyond.

Population of towns on the Eastern Shore



Jeremey Cox, "Crisfield gets funding for counterattack on sea-level rise, flooding," *Bay Journal*, August 8, 2024.

TIMELINE

c. 12,500 bce

Chesapeake Bay Formed

Retreating ice sheets and sea level rise form the Chesapeake Bay, transforming from tundra to grasslands and open coniferous forest

Paleo-Indian people begin to inhabit the region

1660s-1700s

Colonial settlers begin populating Somerset County

Feb 10, 1663: 'Emessex' tract containing Crisfield patented to Benjamin Summers who renamed it Annemessex ; the Somers family continue to be prominent land owners into the 20th century

Annemessex & Pocomoke Tribes of Algonquin nation inhabit the region with, 12 towns mentioned on lower Eastern Shore

early 1860s

Railroad arrives to Somers Cove

Michael Somers & Capt. Hance Lawson go to Annapolis to obtain the water rights for the future downtown Crisfield, bringing in business partner John W. Crisfield, lawyer, politician, and advisor to president to President Lincoln, who advocates for bringing the railroad to Somers Cove and fueling the formation of downtown Crisfield

early 1900s

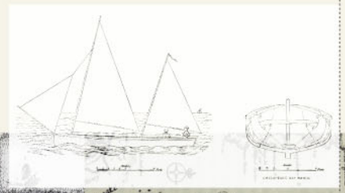
Crisfield was the home port for the most sailing vessels in the U.S. and it was reputed as the seafood capital of the world

Group of farmers construct 7 mile long, 6 foot tall tidal dike system with 24 tide gates to the southeast of Crisfield along Jenkins Creek

1970s-1980s

Shift towards tourism economy

Seafood industry declines as tourism industry begins to grow, with the appeal for visitors lying in the still active working waterfront. Cruises to Smith and Tangier islands become one of the biggest draws to the city.





FIRST STEAMBOAT....1867

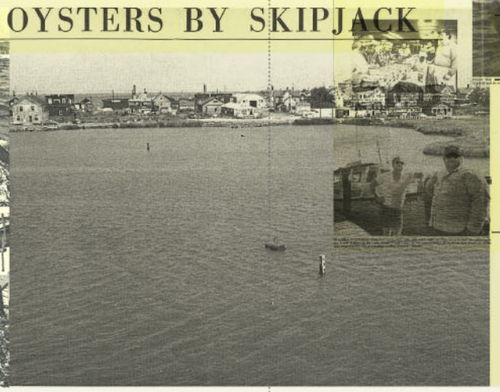
COMMERCIAL HOTEL.



COVE LANDING....1961



SOWING OYSTERS BY SKIPJACK



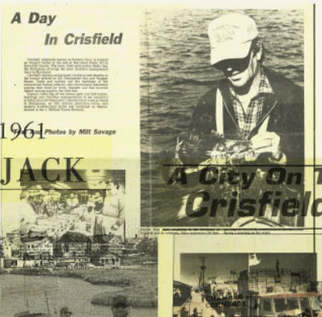




Figure 6.—Hand tongs have been used to harvest oysters along the east coast of North America from at least the early 1700's to the present.

1,000 ce

Native Americans begin living in village settlements and harvesting seafood

1800s

Lower Somerset County life is based on farming in the summer and oystering in the winter.

Most residents live in the community of Lawsonia, and what would become downtown Crisfield is still only water and marsh

1854

Michael Somers & Severn Riggins own a small staore at the head of the little Annemessex River, serving oyster men and locals

late 1850s

A large oyster bed found in Tangier Sound, drawing oyster brokers in from the North

1872

Town incorporated and renamed Crisfield to honor the president of Eastern Shore Railroad, John W. Crisfield. This brings paved streets, electricity, and the police and fire departments

1883

First of Crisfield's great fires

1922

Pine St passenger station opened for connection to the New York, Pennsylvania, and Norfolk line

1928

August- Crisfield breaks 2 fish shipping world records in 1 week, shipping 1.5 million soft crabs and approx. 1.5 million gallons of crab meat

Majority of uptown district destroyed in fire that began at the old Opera house causing $1 million in damages

1947

First Crab Derby

1954

Oct 15, 1954: Hurricane Hazel causes widespread damage to boats and buildings in the area

1956

Construction of the dual highway along the path of the railroad begins, connecting Maryland and Richardson Avenues and West Main Street

1961

Somers Cove Marina constructed, dredging out a depth of 10 feet

1987

Fire breaks out at Tawes Brothers Lumber Yard that burns down much of downtown area

2002

Condominium developers begin constructing waterfront property at the edge of downtown Crisfield at the former sites of oyster and crab packing houses

Grounding Crisfield.

This is a thin place. Its flatness means that even the smallest topographic changes matter a great deal. In Crisfield and the surrounding landscape, people have been working with and manipulating the ground for centuries. The range of strategies and ground manipulations indicate ways people have and will continue to live with and respond to this wet, ever-changing place.

delmarva bay

shell midden

elevated road

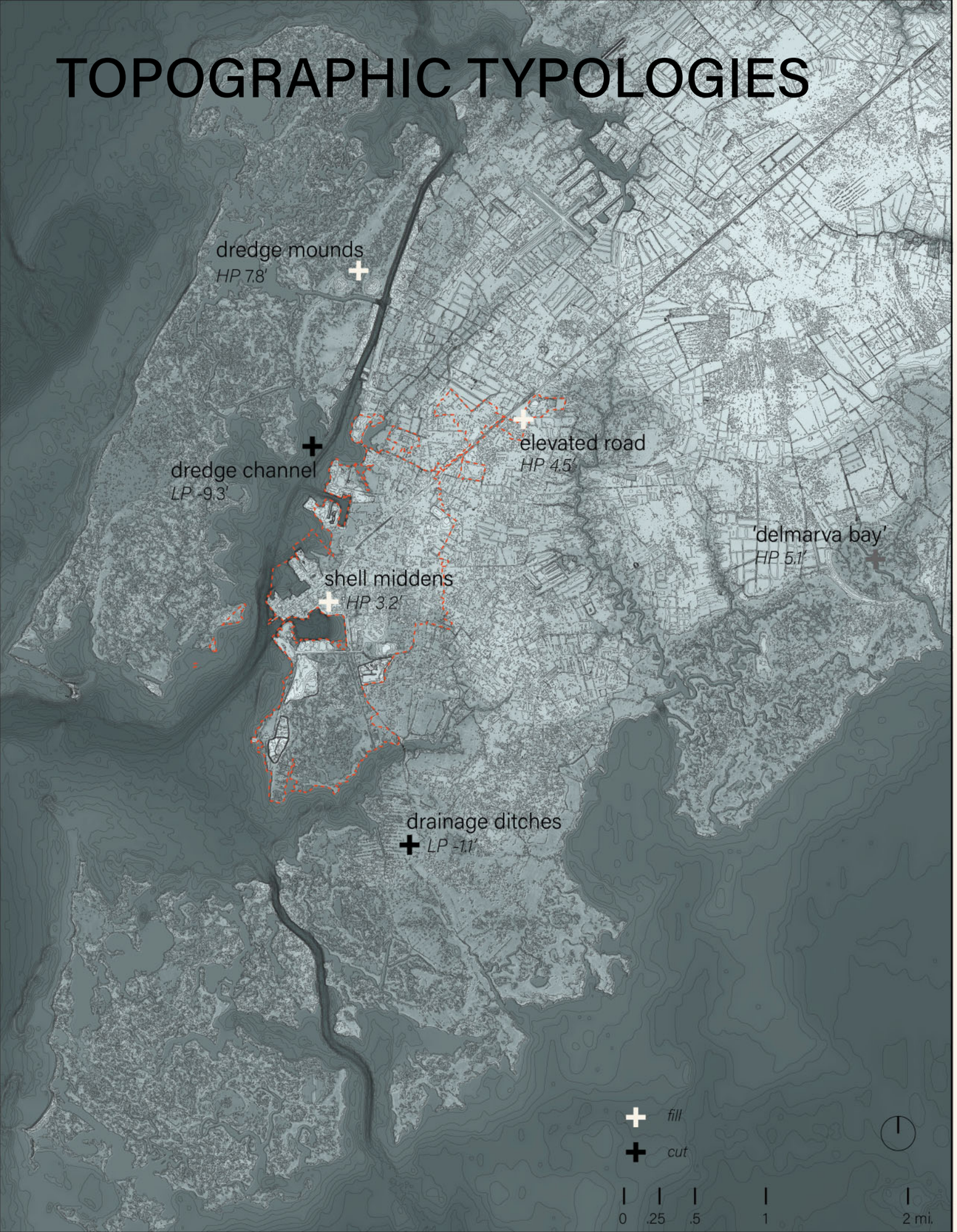
dredge mound

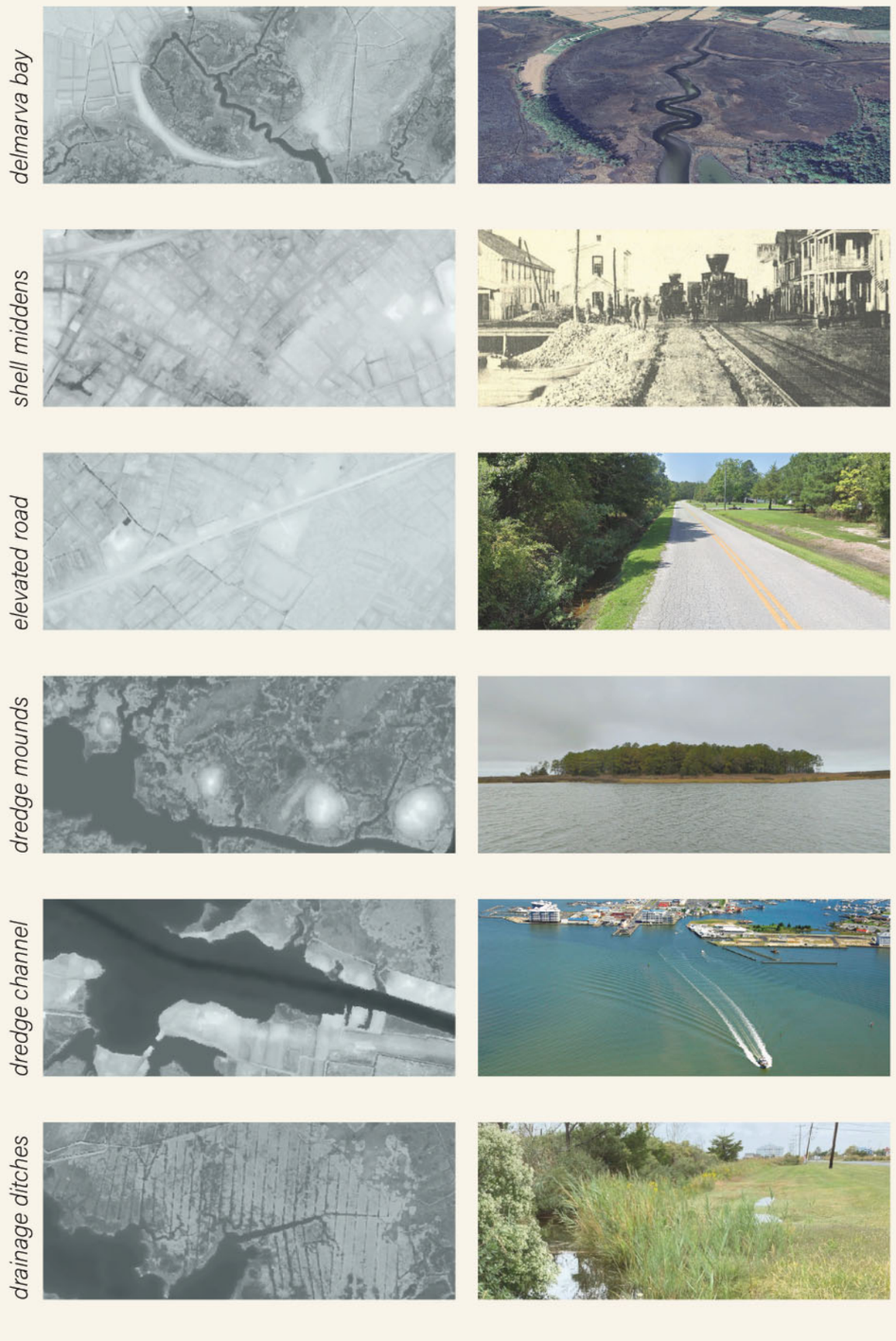
dredge channel

drainage ditches

Image: LAR7020, Spring 2024

TOPOGRAPHIC TYPOLOGIES





DELMARVA BAYS

Pockmarking the Eastern Shore are thousands of peculiar and distinctive elliptical depressions, usually about an acre in size with a crescent-shaped ridge.

These features, with their shallow basins that host seasonal freshwater wetlands, are called *Delmarva bays* (in the Carolinas, these features are known as Carolina bays and have a larger, more regular form).

While the cause of their formation is still somewhat of a mystery, it is now believed that they were formed by wind blowouts during the Pleistocene Era. Today, their ridges stand out as treed areas and agricultural land adjacent to ecologically-unique and diverse wetlands within the ponds.

Locally, these depressions were colloquially known as

"whale wallows" as it was speculated they were caused

by ancient whales beached by the great floods



Ashley Stimpson. "The mysterious Delmarva bays: exploring Maryland's most unusual wetlands." *Maryland DNR*. Oct. 1, 2018.

0 5 10 20 ft

SHELL MIDDENS

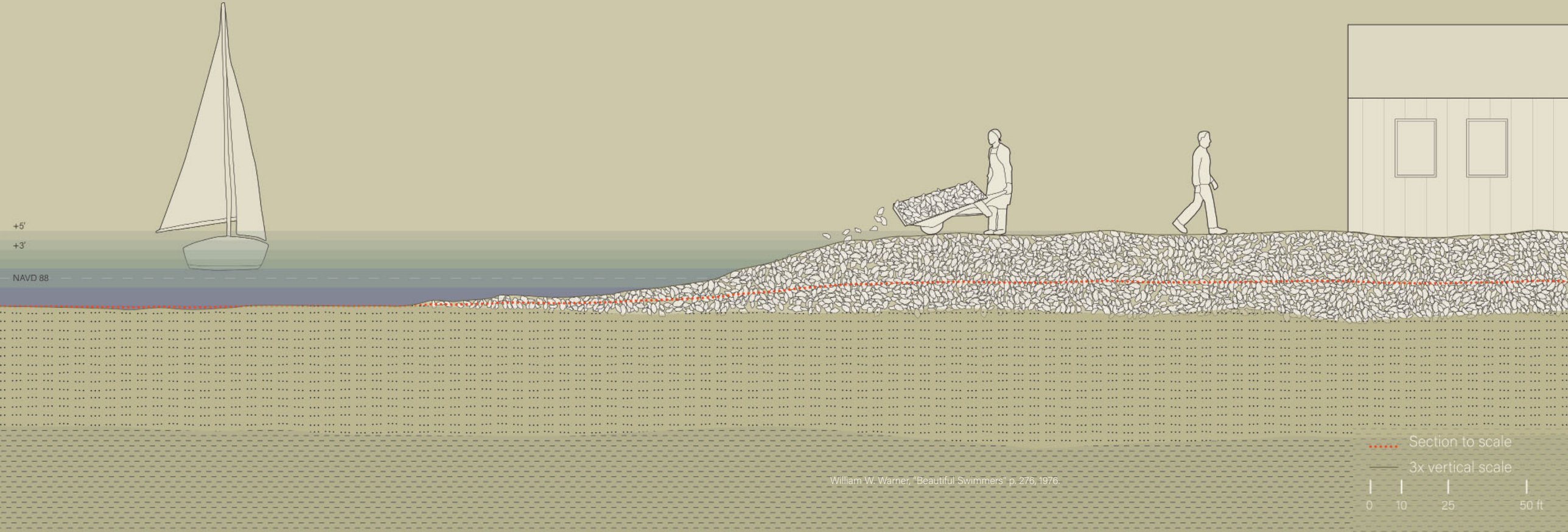
Shell middens - heaps of clam, oyster, and mussel shells - have formed along coasts for centuries, the result of shell dumping and the subsequent aggregation.

In Crisfield, this shell landform grounds the downtown: in the late 19th century, shucking houses along the shore dumped their oyster shells into the adjacent waters. Soon thereafter, with the accretion of billions of shells, a solid bed formed to become inhabitable ground.

So ubiquitous was this that businessmen in the late 19th and early 20th century bought underwater lots with the intent of building them above sea level using the town's discarded oyster shells.

The first shucking houses dumped oyster shells by the billions
all around their watery premises, So it is true.

If you live in downtown Crisfield, you live on oyster shell.
Several city blocks of it, in fact,

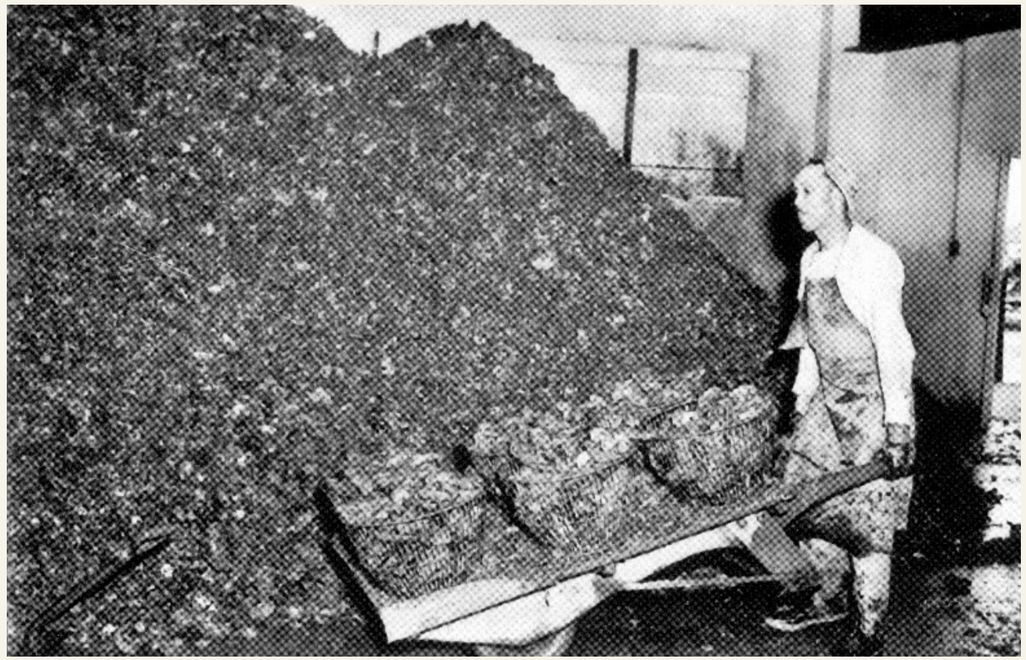


William W. Warner, "Beautiful Swimmers" p. 276, 1976.



Oyster houses, Crisfield, 1891

Image: Nabb Research Center Online Exhibits, https://libapps.salisbury.edu/nabb-online/items/show/463.



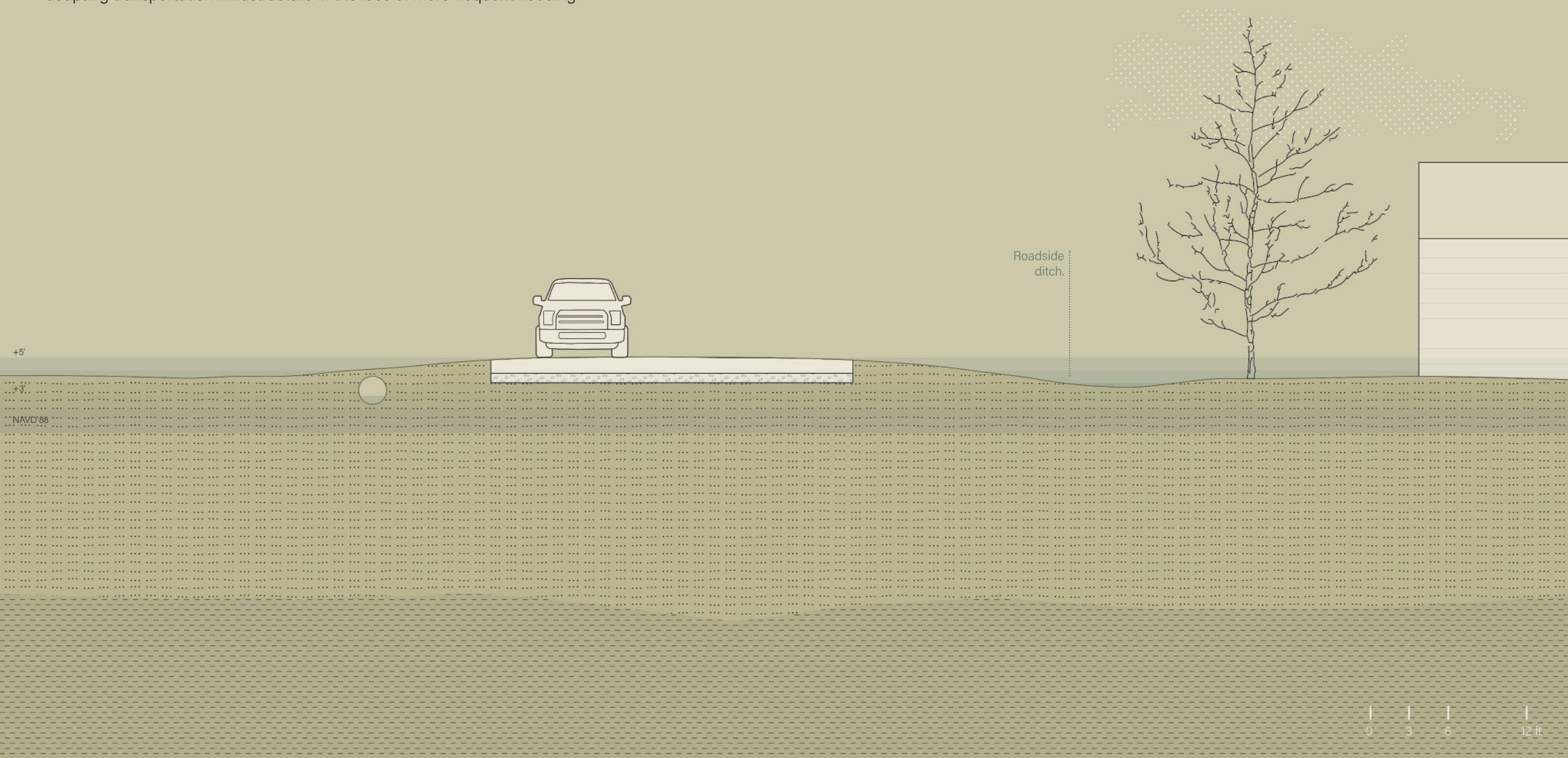
Discarded shells at Geo. A. Christy and Sons processing plant, Crisfield, 1955.

Image: *Crisfield: The First Century, 2006*

ELEVATED ROADS

In flat, coastal places, roads are often some of the highest features in the landscape. Typically, roads are elevated a few feet above there surroundings so that they may serve as evacuation routes for people living near the shore.

Strategies for raised road-swale systems are continuing to be considered and employed throughout the Delmarva as states and localities consider approaches to adapting transportation infrastructure in the face of more frequent flooding.



DREDGE MOUNDS

In this shifting place, sediment is endlessly moving and endlessly dredged. The dredged material is placed in a designated location and accumulates into a mound. These mounds become the highest spot in the landscape, a place where trees – species less tolerant of inundation and the Chesapeake's brackish water – may grow.

The mounds are a fairly stable area as the water level fluctuates, and the tall, dark loblolly groves cast a stark form upon this otherwise thin and open landscape.

lined with dark trees

It has a certain sinister look, but not very

sinister; it is too beautiful.



Hulbert Footner, "Rivers of the Eastern Shore," p. 76, 1944

DREDGED CHANNELS

The marina and channels around Crisfield have been created and maintained through dredging for more than a century, with large dredging projects along the channel that links Somer's Cove Marina and Daugherty Creek Canal recurring every 20 to 40 years.

The Daugherty Creek Canal, first dredged by hand in the early 20th century to provide passage for Crisfield's watermen, has been maintained as a navigation channel and is the spine of Janes Island State Park. Numerous water trails run through the canal, and campsites sit along its banks.

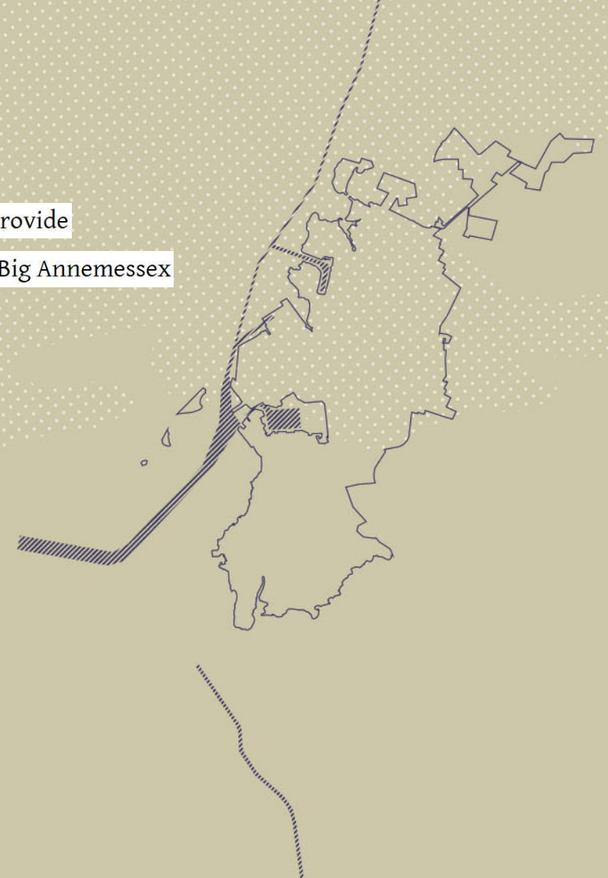
Daugherty Creek Channel — dredged decades ago to provide

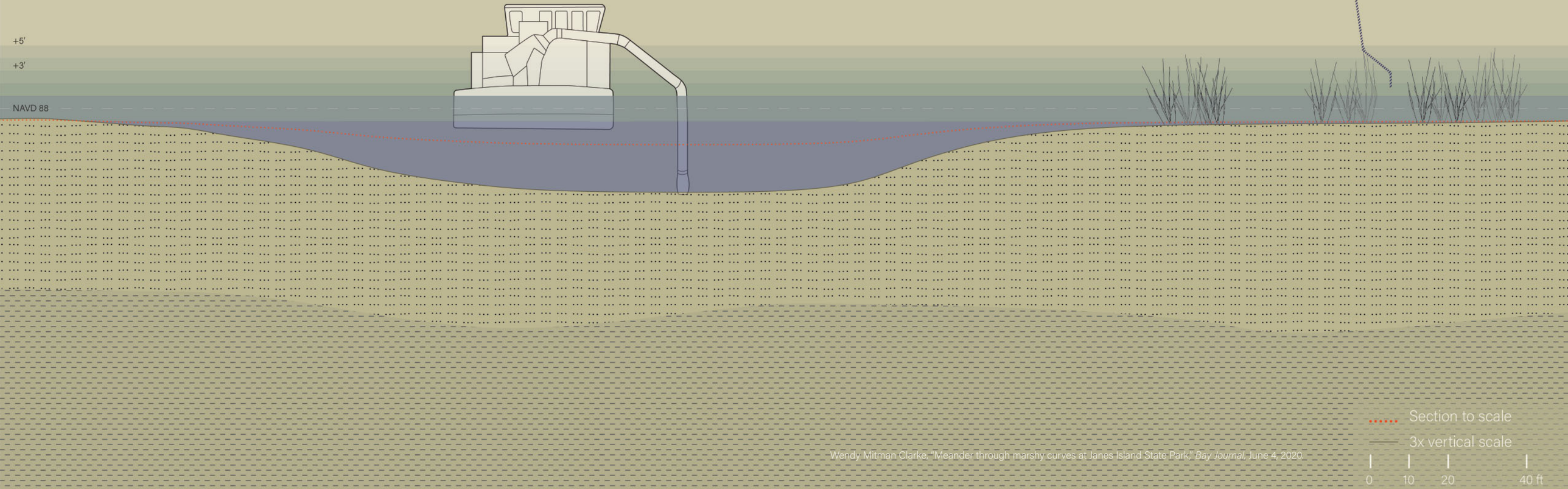
Crisfield's watermen a safer, quicker way to the Big Annemessex

— is the only straight line

amid the winding tangles of water that

make it a paddler's paradise.





Wendy Mitman Clarke, "Meander through marshy curves at Janes Island State Park," *Bay Journal*, June 4, 2020.

Section to scale

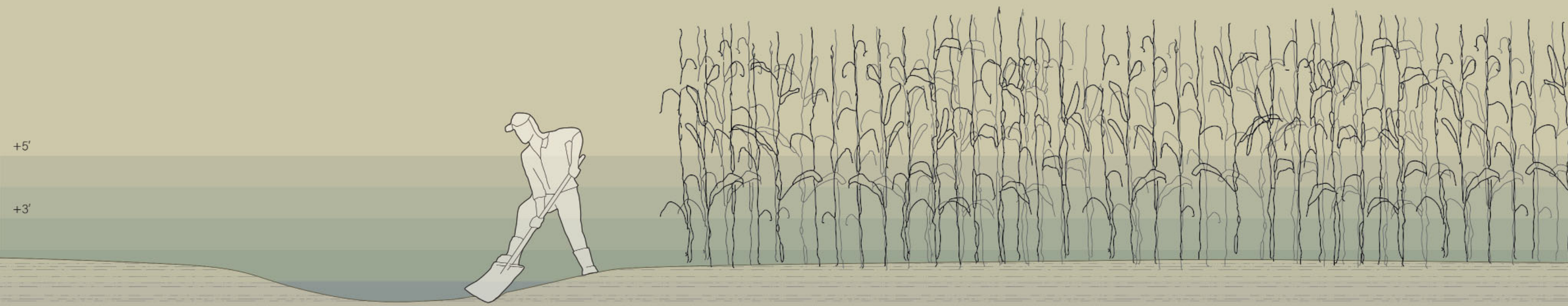
3x vertical scale

0 10 20 40 ft

DRAINAGE DITCHES

Ditches are ubiquitous throughout the Eastern Shore: mosquito ditches in marshlands, drainage ditches on agricultural land and adjacent to roads, these thin signatures line the landscape here.

Needed to drain this flat, low-lying land, ditches have been dug and maintained for centuries and continue to be a primary approach for stormwater management, adopted in urban areas and as part of Crisfield's current flood adaptation plan.



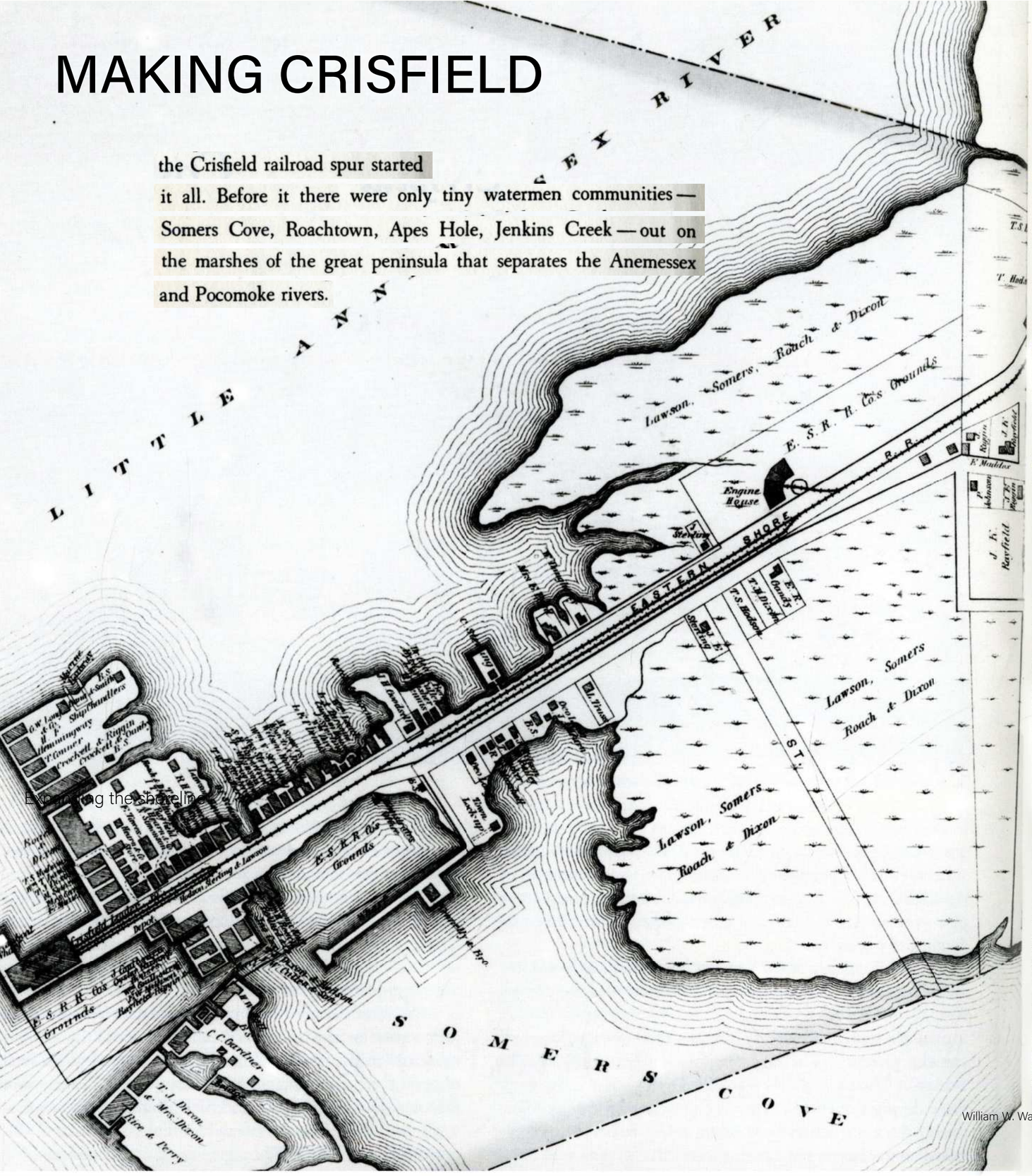
Crisfield's Changing Character.

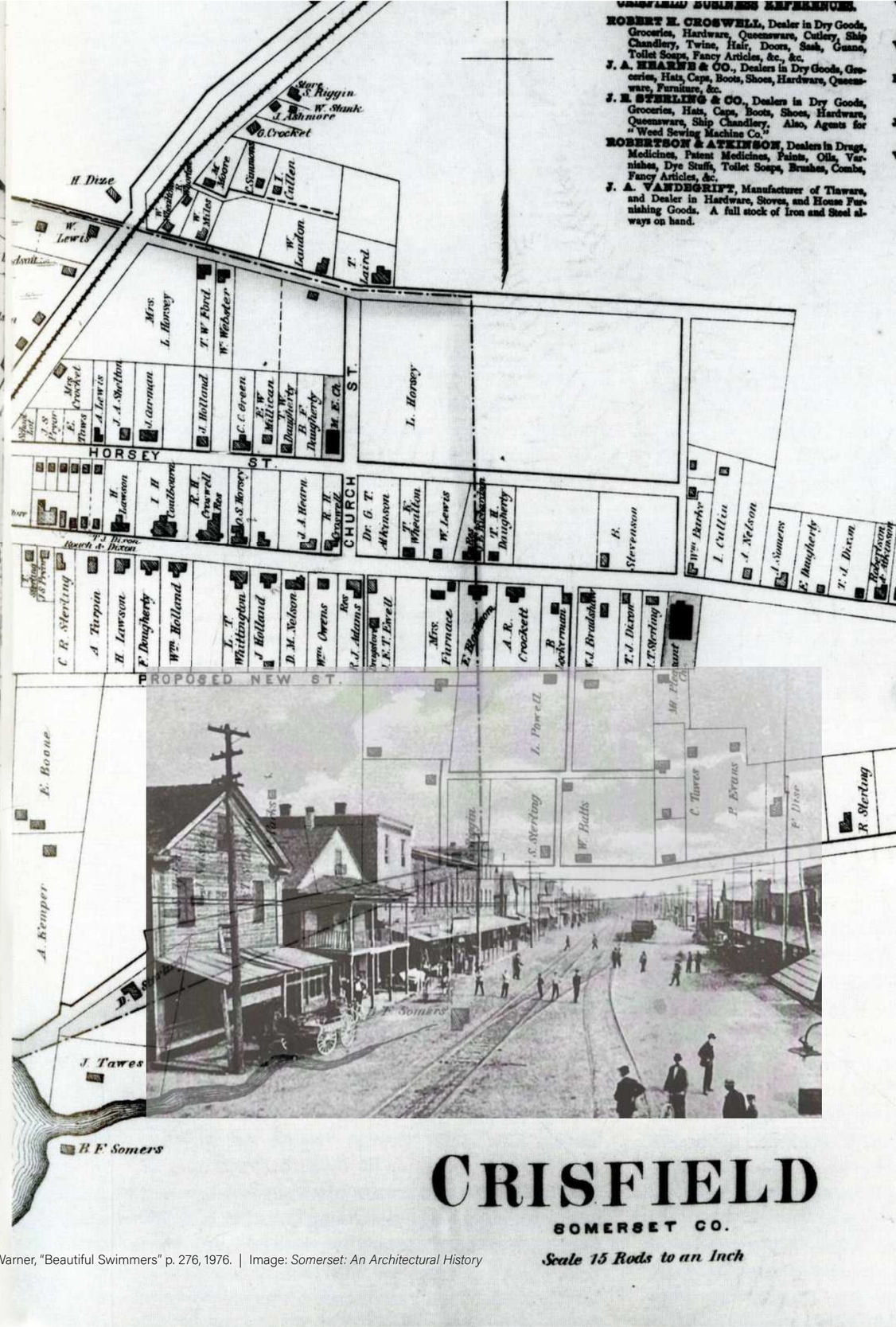
Crisfield's urban fabric and culture has long related to the water: its main road and former railroad lead one directly to the bay. This human-water relationship has many facets, and these qualities express themselves in the built fabric of the city, its economies, and the activities that people here partake in as they have developed and changed with time.

MAKING CRISFIELD

the Crisfield railroad spur started it all. Before it there were only tiny watermen communities — Somers Cove, Roachtown, Apes Hole, Jenkins Creek — out on the marshes of the great peninsula that separates the Anemessex and Pocomoke rivers.

Excerpting the shoreline





William W. Warner, "Beautiful Swimmers" p. 276, 1976. | Image: *Somerset: An Architectural History*



Crisfield port, early 20th century.

Image: Crisfield Heritage Foundation, https://crisfieldheritagefoundation.wordpress.com/history/



Crisfield downtown, 2024.

Image: Scho & Jo, "The Ultimate Guide to Crisfield, Maryland," https://schoandjo.com/crisfield-md/

BUILT FABRIC OVER TIME



Uptown. Gasoline and other goods could be purchased on Main Street when this early-1920s photograph was taken. The tall building to the far left is the Crisfield Opera House, also known as Odd Fellows Hall.



Packinghouse. The crew of the *Edna Mae* unloads the day's crab catch alongside Dize Seafood in this July 1945 image.



1923 Sanborn Map

"Crisfield Historic District," *NAtional Register of Historic Places Registration Form,* May 21, 1990.

Community Assets

(1) City Dock/"The Depot"
(2) MeTompkin Bay Oyster Company
(3) The Water's Edge Restaurant
(4) Captain's Quarters Condos
(5) Harbor Light Condos
(6) Crab Pot Depot
(7) Fisherman's Grille
(8) It Takes A Village to Help Our Children
(9) Tawes Historical Museum
(10) Gordon's Confectionary
(11) Somers Cove Marina
(12) Community Center
(13) Crisfield Housing Authority
(14) Crisfield Wastewater Treatment Plant
(15) Handy Seafood
(16) Crisfield Fire Department
(17) The Elks Club
(18) St. Paul African Episcopal Church
(19) Blancia Rose Faith and Healing Chapel
(20) Shiloh Memorial Episcopal Church
(21) City of Crisfield Municipal Offices
(22) Enon Baptist Church of Deliverance
(23) Immanuel United Methodist Church
(24) Mt. Pleasant United Methodist Church
(25) First Baptist Church

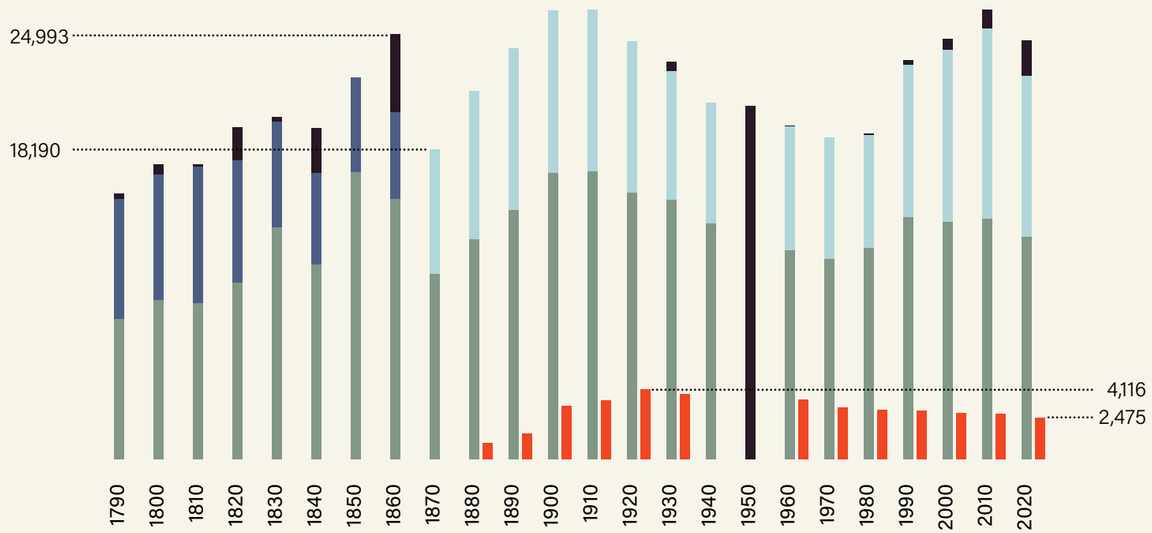


Present Day Crisfield

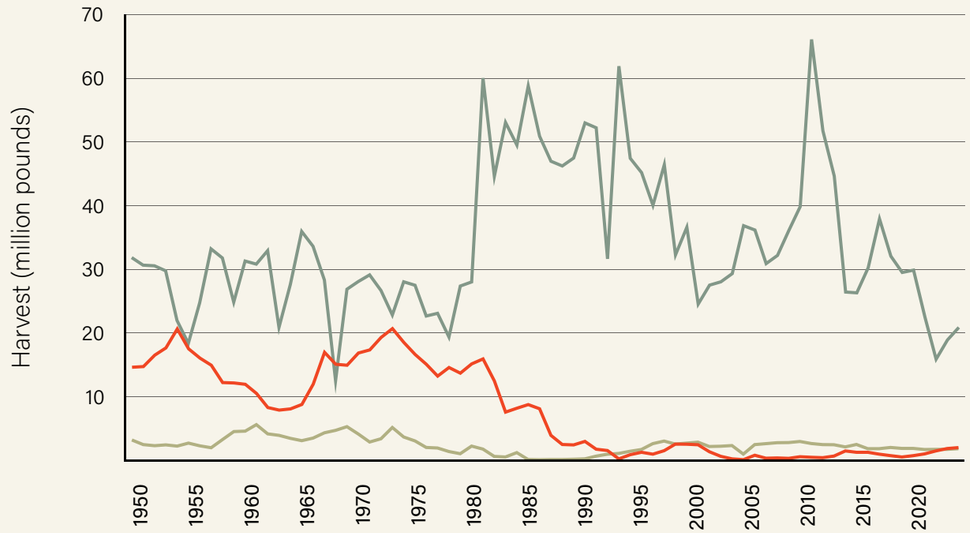
POPULATION DYNAMICS

from long experience with the Bay, some would say,
a fickle Bay that sometimes provides
and just as often withholds or subtracts.

Population of Crisfield and Somerset County, 1790-2020



Seafood Harvest, Maryland, 1950-2020



an antic disposition, one almost wants to say — that permits them to laugh
in the face of economic or natural disasters, of which Crisfield has had more than her share.
An outlook necessarily forged

William W. Warner, "Beautiful Swimmers," p. 282, 1976.



Crab pickers at Milbourne Oyster Company, Crisfield, 1940.

Image: Maryland State Archives, https://msa.maryland.gov/msa/stagser/s1259/153/html/0044/womenhist/wmenwork.html

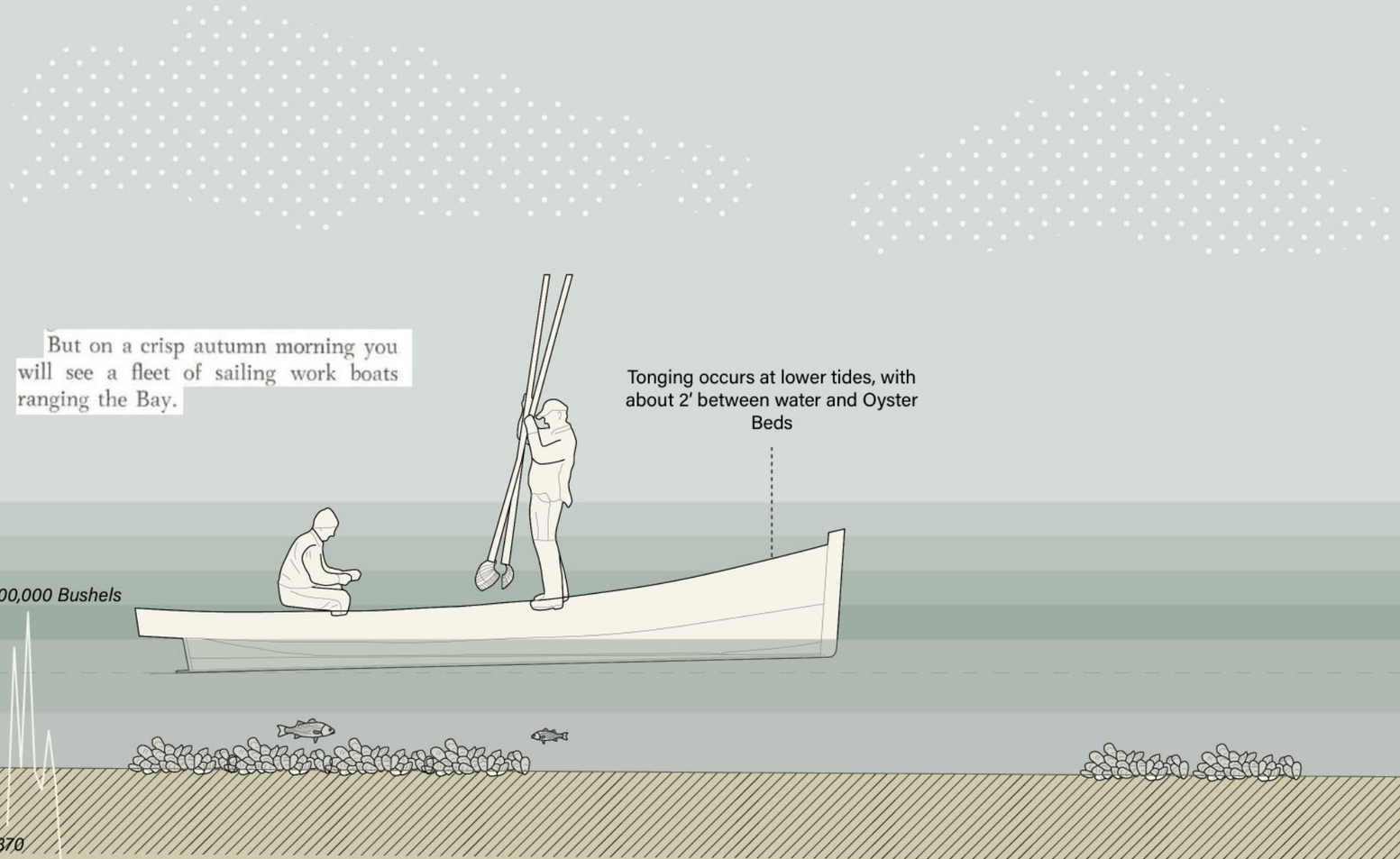


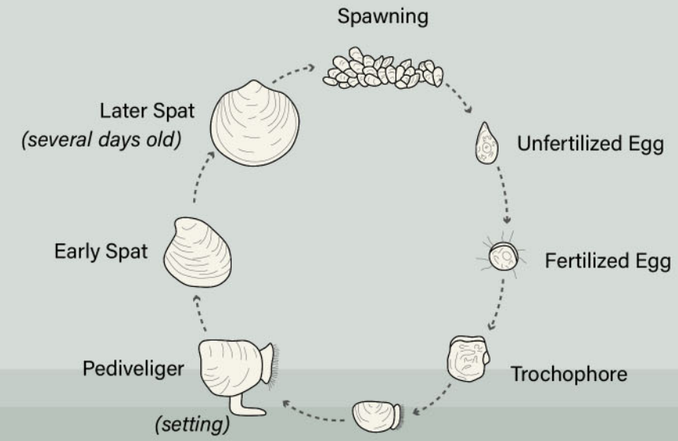
Watermen unloading their catch near the Jersey Island Drawbridge, Crisfield, 1960.

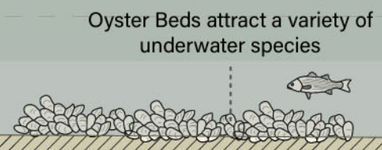
Image: *Crisfield: The First Century, 2006*

EASTERN OYSTERS

The Eastern Oyster, *Crassostrea virginica*, spurred the Chesapeake Bay's seafood industry. A boom in oyster harvesting led to a steep decline in the 20th century, but harvesting still persists. Commercial and recreational harvesters use a variety of techniques, including tongs and dredges. Oystering requires intimate knowledge of the bay, through tidal fluctuations and yearly change.



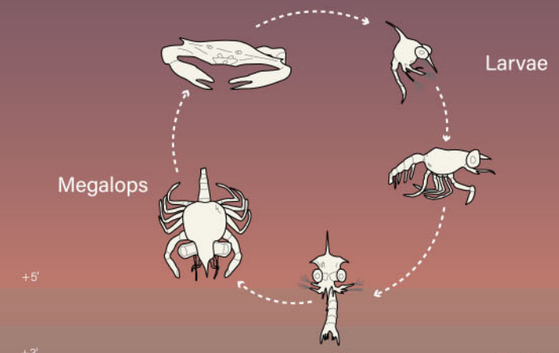






BLUE CRAB

Crisfield has cultivated a present identity around the Blue Crab, *Callinectes sapidus*, a lasting seafood product. The stuff of crabbing: pots, scrapes, trotlines, and dredges, can be found at sea and on land. One must be driven to grab successfully – early mornings well before sunrise are a must.

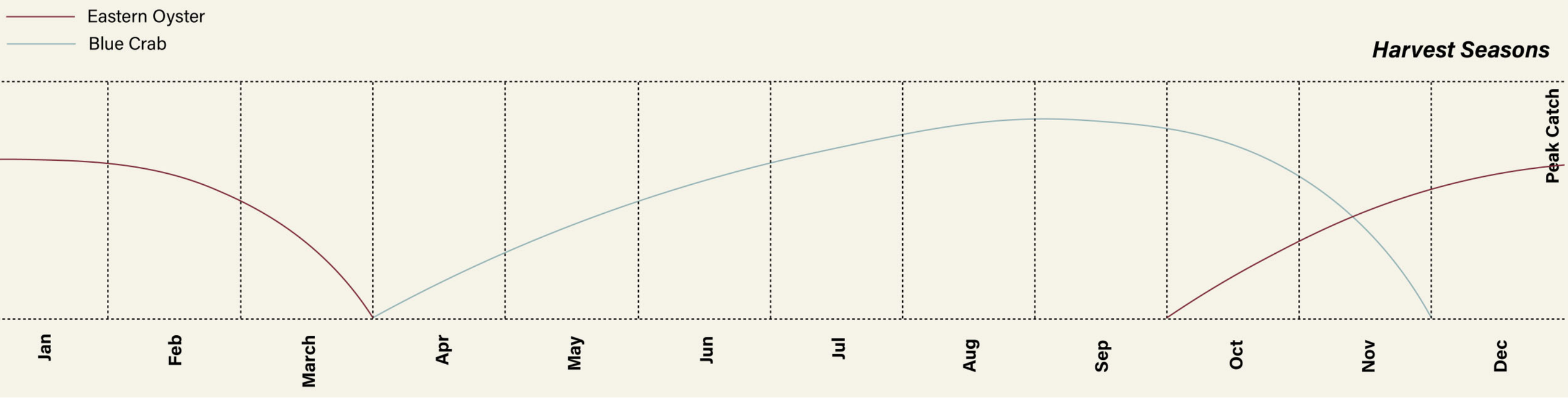




Oyster Skipjack, Chesapeake Bay, 1960. c. Orlando V. Wootten



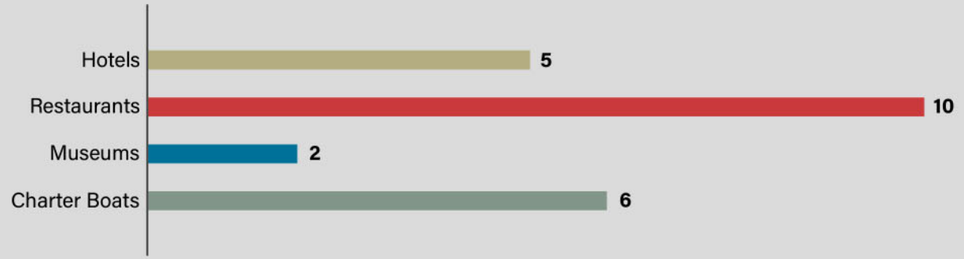
TNC Photo of Crab Pots, Crisfield, 2022. c. Jay Fleming



TOURISM

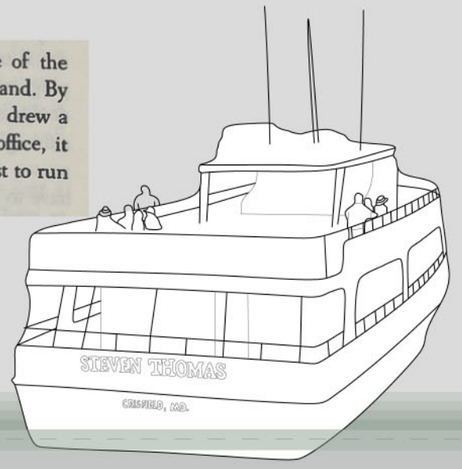
Tourism in Crisfield is becoming a bigger part of the economy, filling the void of drops in seafood harvests. Charter boats throughout the year, fishing excursions, and the National Hard Crab Derby draw a decent crowd to this small city. Crisfield's Crab Derby is an exciting highlight, where blue crabs race to the death.

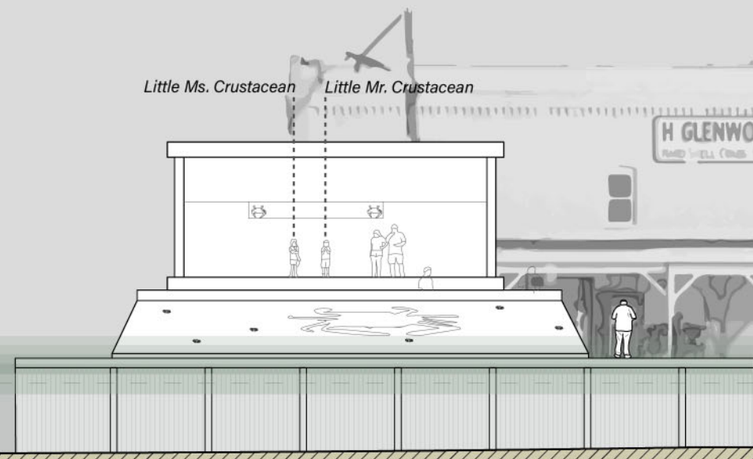
Tourism Shapes Crisfield | 2025



tion:

"It started back in 1947, near as I can recollect. Some of the boys were talking about how fast could a crab run on dry land. By and by they got to making bets on the subject, so someone drew a big circle on the street, right out in front of the old post office, it was, and let go a bushel of crabs in the middle of it. The first to run out of the circle was the winner, you see.





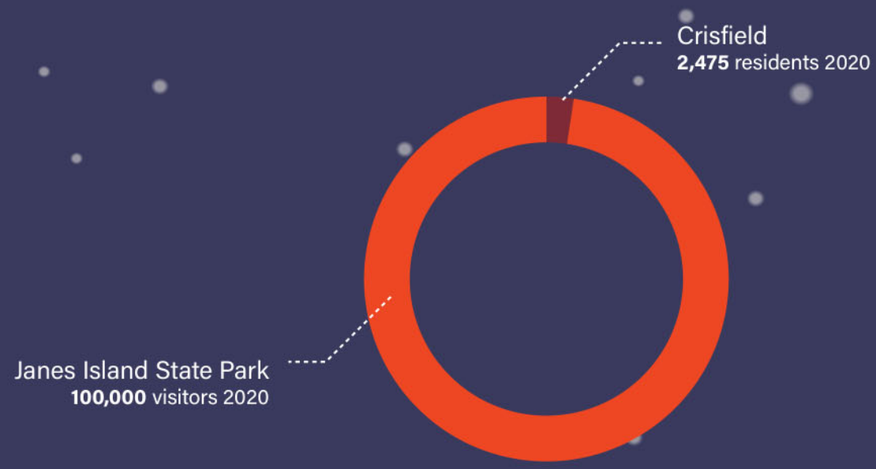
+5'
+3'
NAVD 88

0 8 16 32 ft

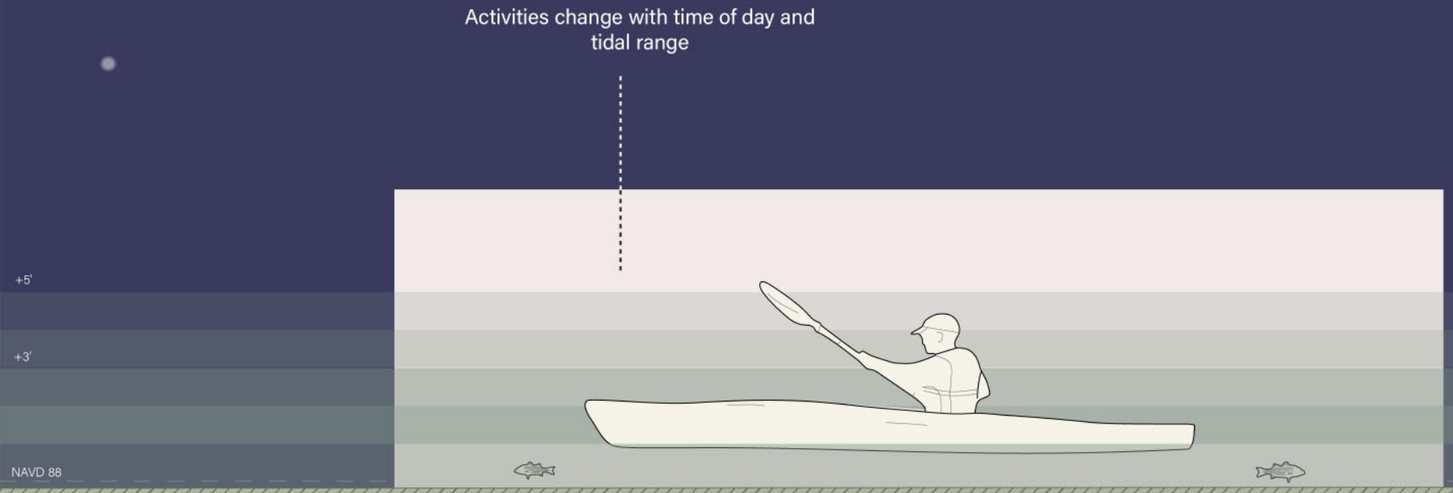
RECREATION

Janes Island State Park draws a fairly large amount of visitors to the Crisfield area, around 100,000 annually. Activities on and around the park allow people to engage with the flora and fauna of the marsh. One can be out on the marsh at any point throughout the day, partaking in “night crabbing” or floating away on a kayak.

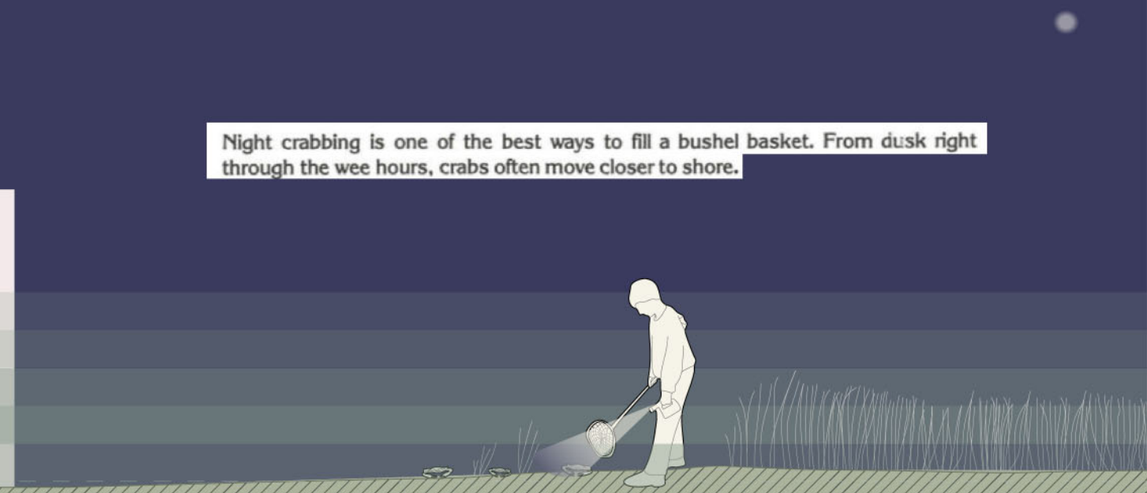
Recreation Pulls Visitors

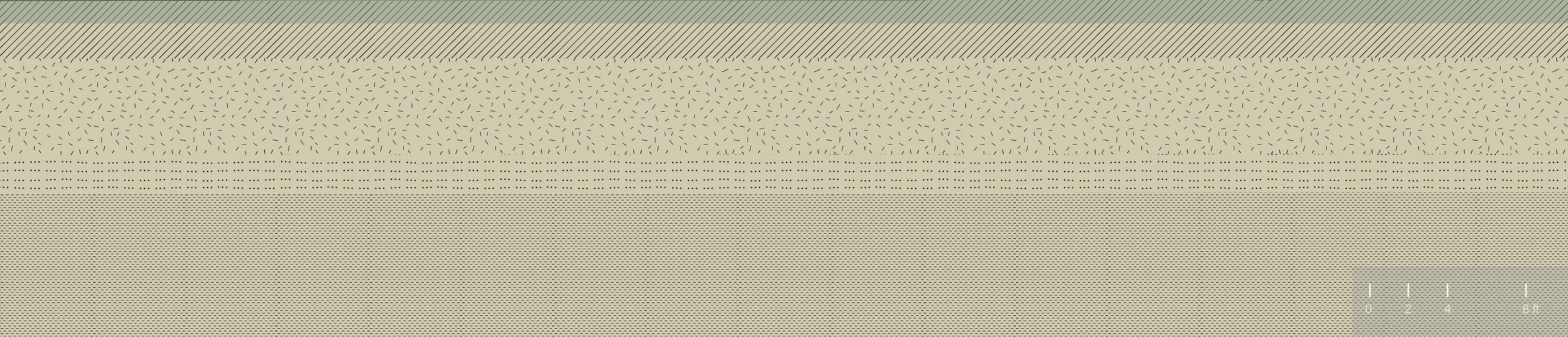


Activities change with time of day and tidal range



Night crabbing is one of the best ways to fill a bushel basket. From dusk right through the wee hours, crabs often move closer to shore.





Living with Flooding.

Crisfield has always been a wet place in need of flood infrastructure. With a tidal range of just over 2' and an average elevation of about 3', a network of ditches, berms, tidal gates, marshes, and hard edging has been employed since the town's founding to drain land. Still, water can never be kept entirely at bay. The majority of flooding that Crisfielders experience is tidal and is colloquially known as "sunny-day flooding" or **"nuisance flooding"** and occurs many times per year, leading to repeated damages and safety-related access impediments. Crisfield is in the process of designing an extensive overhaul to its flood infrastructure targeting 5' of sea level rise as its goal for protection.

Image: submission to mycoast.org, a grassroots nuisance-flood tracking website

SEA LEVEL RISE & TIDAL FLOODING



0′ *NAVD 88 datum*



+1.5

Experienced 88 times in 2021*



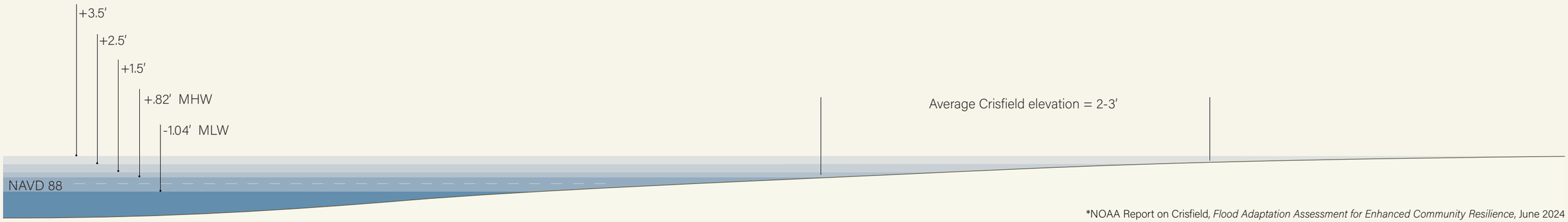
+2.5′

Experienced 6 times in 2021;
May become a daily occurrence by 2050*



+3.5′

0 500′ 1000′ 2000′



*NOAA Report on Crisfield, *Flood Adaptation Assessment for Enhanced Community Resilience*, June 2024

"Nine out of ten times, the flooding in Crisfield is tidal. …

You're at the mercy of the tides."



GREAT TIDE OF 1962.

Crisfield: The First Century, 2006



Downtown Crisfield, 2023

Image: Jay Fleming

NOAA Report, *Flood Adaptation Assessment for Enhanced Community Resilience*, June 2024

EXISTING FLOOD INFRASTRUCTURE

Hard edges along the marinas, and marshes on Jersey Island and the northern inlets of the city help keep water at bay. In addition, an extensive ditch network alongside roads helps drain water into pipes and away from the built fabric of Crisfield.

However, the city struggles to keep up with funding the maintenance of its flood infrastructure. Drainage ditches become clogged, tide gates stop functioning, and animals burrow into dikes. As a result, Crisfielders spend hundreds of dollars a year on flood-related damages and prevention while access to essential services such as the hospital are regularly comprimised.



Unmaintained, vegetated berm of historic dike system was once 6' tall



1950s Eastern Shore Public Service Worker

Mayor Darlene Taylor said

I think the issue is we've got to maintain the ditches

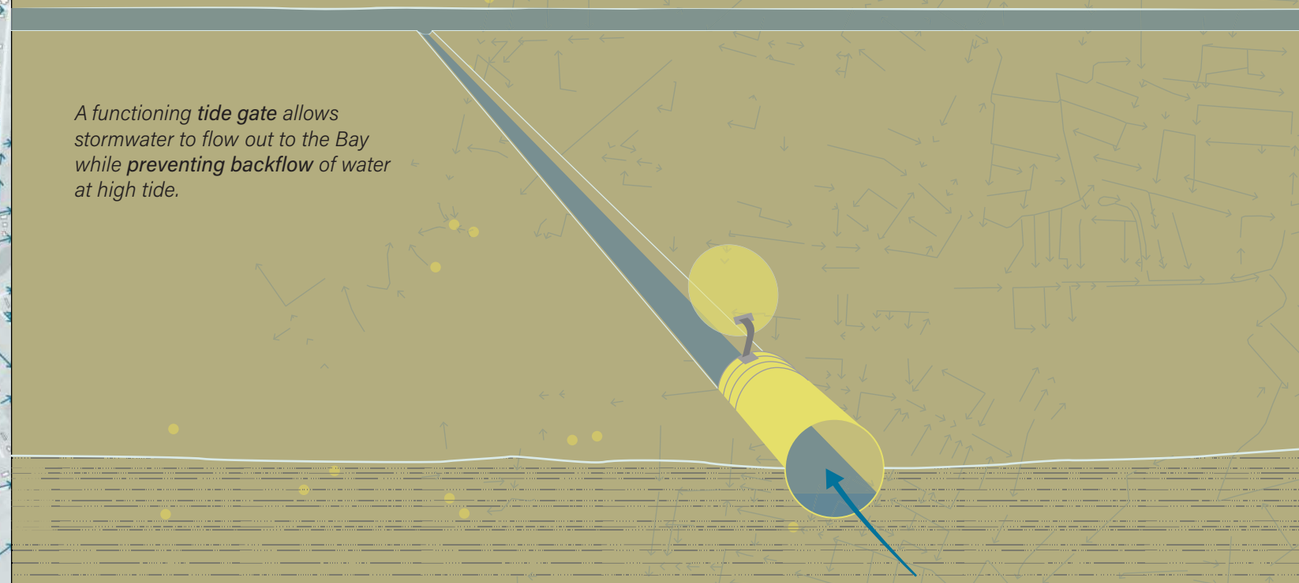
- Bulkhead
- Riprap
- Historic Dike
- Building
- Road
- Tide Gate
- Stormwater Ditch
- Stormwater Inlet
- Stormwater Pipe
- Stormwater Mgmt Facility

Crisfield: The First Century, 2006
Army Corps of Engineers, Southeast Crisfield Study Fact Sheet, 2015

PROPOSED FLOOD INFRASTRUCTURE

Flood mitigation plans in development propose an encompassing infrastructure of elevated roads, berms, recapped bulkheads, wetland restoration and new tide gates to achieve protection from 5′ of sea level rise. The approach proposes enclosing the city more tightly than at present and adding a series of modern tide gates at closer proximity to the town center, allowing for easier maintenance access. In 2024 the city secured funding for over $30 million from FEMA to help support the intensive rehabilitation of its flood infrastructure.

*A functioning **tide gate** allows stormwater to flow out to the Bay while **preventing backflow** of water at high tide.*



"We can't stop it from raining,

but we can help the rain drain away"*

*Councilman Eric Banks

New / Maintainted Tide Gate
Maintained Stormwater Ditch
Pump Station
New Bulkhead
Elevated Roads
Elevated Berms
Wetland Restoration

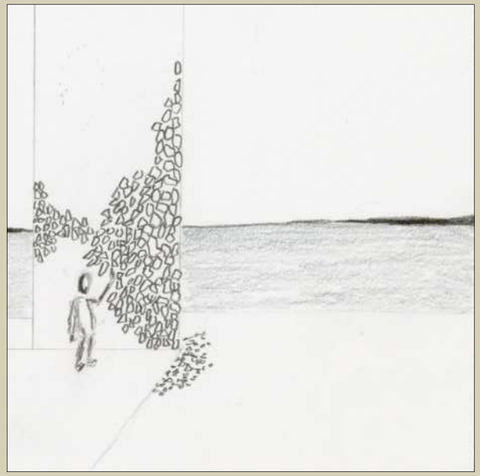
0 500′ 1000′ 2000′

NOAA Report Figure A.7, *Flood Adaptation Assessment for Enhanced Community Resilience*, June 2024

MODULE 02: *LIVE MODEL*

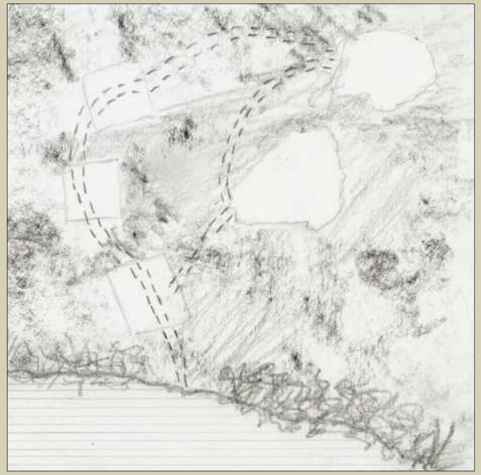
DIMENSIONS OF WONDER

Shifts in scale



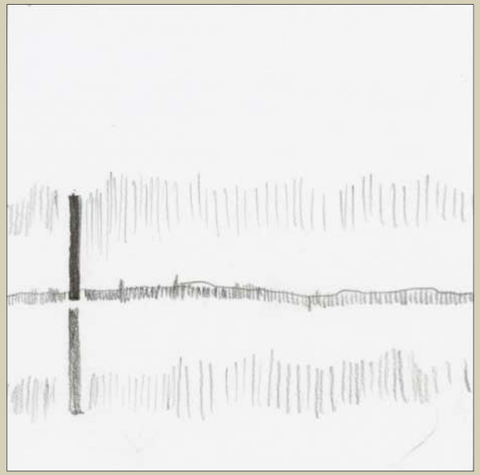
a connection to the vast and the miniature

An unusual invitation



moments of pause in atypical contexts

Registration of change



the clarity of time and change through more-constant forms

Formal definition



the juxtaposition of strong, simple forms against this hazy place

Abundance + repetition



an incomprehensible and unexpected quantity

APPROACH

“To draw is to select,
to select is to interpret,
to interpet is to propose.”

Manuel de Sola-Morales, *The Culture of Description*

+ DIMENSIONS OF WONDER

01 Shifts in scale or proportion: *a connection to the vast and the miniature*

02 An unusual invitation: *moments of pause in atypical contexts*

03 Registration of change: *the clarity of time and change through more-constant forms*

04 Formal definition: *the juxtaposition of strong and simple forms against this soft, hazy place*

05 Abundance + repetition: *an incomprehensible and unexpected quantity; new patterns within the landscape*

grounding site + phenomena

SELECT

photographing site

x5 **representative images**

8.5″

11″

INTERPRET

measured mylar drawing

lenses

Sky + Water
Tide Repetitions
Edges + Boundaries
Sediment
Vertical Elements
Topographic Conditions
Saturation
Patterns +Flows

form + pattern

geomorphology table

PROPOSE

spatializing wonder

01 juxtaposition of differences in scale

02 moments of contrast, moments of isolation

03 indexing longer time / nature's time

04 formal exaggeration, formal abstraction

05 repetition + scale

4″

4″

x40

developing design proposals

layering wonder

LIVE DRAWING – *interpret*

01 BASE ⇢ 02 ATMOSPHERE ⇢ 03 LAYERS



x5 representative images



base characteristics

+

Sky + Water

Tide Repetitions

Edges + Boundaries

Sediment

Vertical Elements

Topographic Conditions

Saturation

Patterns +Flows

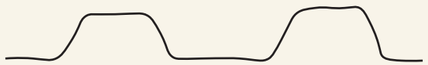
GEOMORPHOLOGY TABLE – *interpret*

01 FORMS → 02 FORCES → 03 DOCUMENTATION

ditches



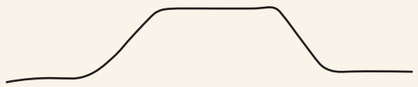
berms



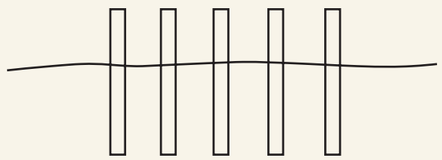
mounds



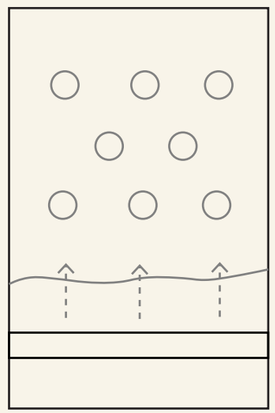
plateau



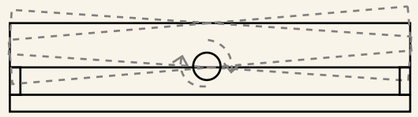
piles



waves



tides



perspective



plan

section



POCOMOKE SOUND CHARACTER – *select*














VERNACULAR FORMS – *select*



shell mound



piles



revetment



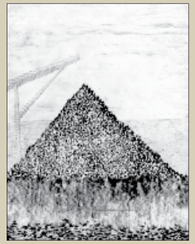
pallet



ditch

LIVE DRAWING – *interpret*





Atmosphere



A stark form in a hazy place



Water saturation



Mound deformation



Building + rebuilding



Material relations



Birds



Human access





Atmosphere



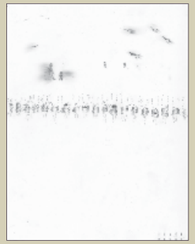
Tidal register



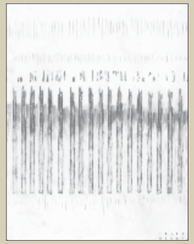
Sediment



Degradation + repair



Creatures



Water saturation





Atmosphere



Tidal change + access



Creatures

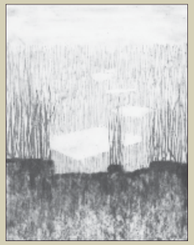


Prior shoreline

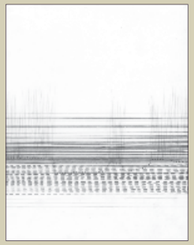


Shoreline construction

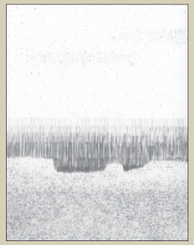




Atmosphere



Tidal range



Water saturation



Creatures

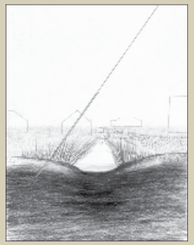


Floating forms

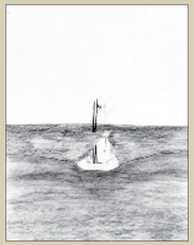


Human access





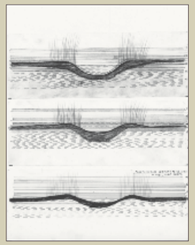
Atmosphere



Sky contained within ground



Registers of change



Ditch transformation

Shifts in scale
Unusual invitation
Registration of change
Formal definition
Abundance + repetition

GEOMORPHOLOGY TABLE – *interpret*

Berms - *shore parallel*



Berms - *enclosure*



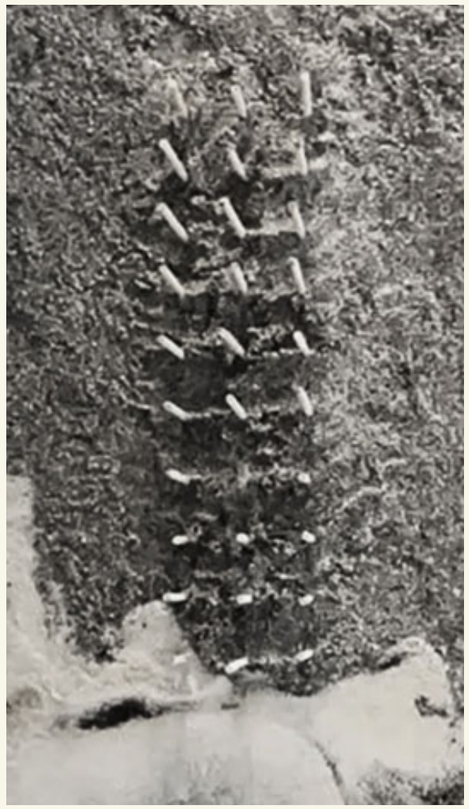
Ditches - *shore normal*



Mounds - *with riprap*



Piles



GEOMORPHOLOGY TABLE – *interpret*

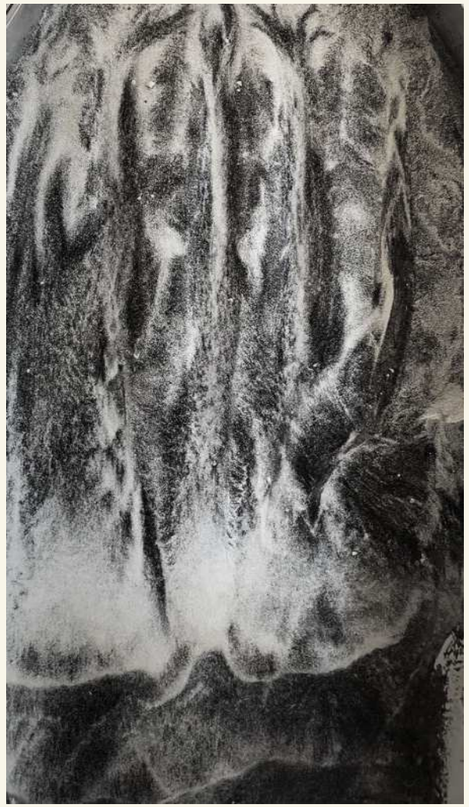
Berms - *shore parallel*



Berms - *enclosure*



Ditches - *shore normal*



Mounds - *with riprap*



Piles



GEOMORPHOLOGY TABLE – *interpret*

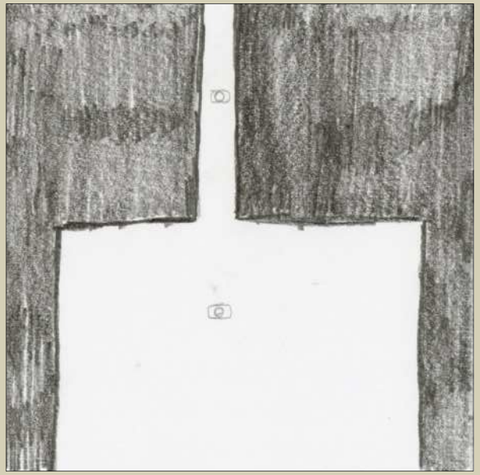








01. Shifts in scale or proportion:
a connection to the vast and the miniature



procession



intricacies of water against thin horizon



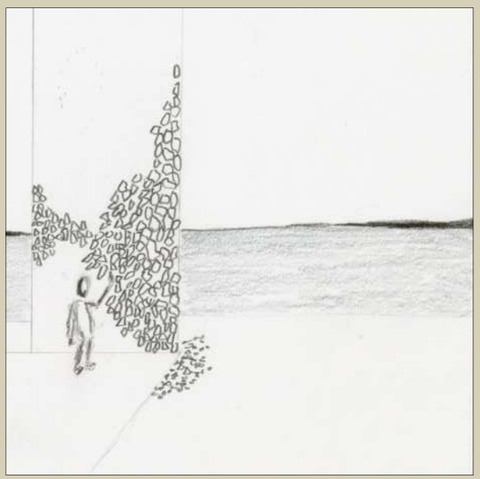
landmarks registered in the flatness



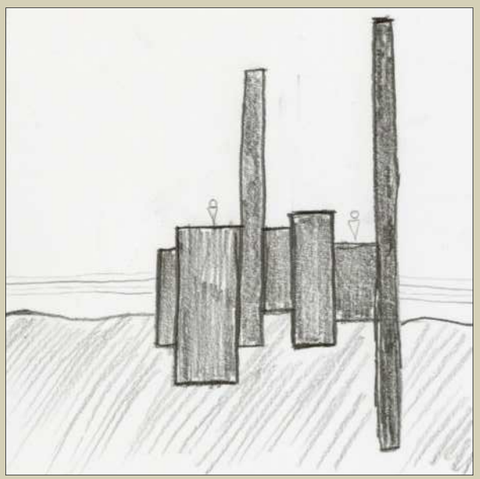
tiny, complex elements part of expansive system



observation points



a textured surface within a distant view

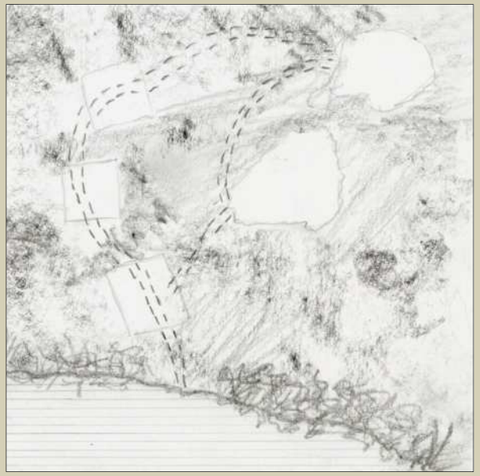


aggregations



the marsh overwhelms a small road entry

02. An unusual invitation:
moments of pause in atypical contexts



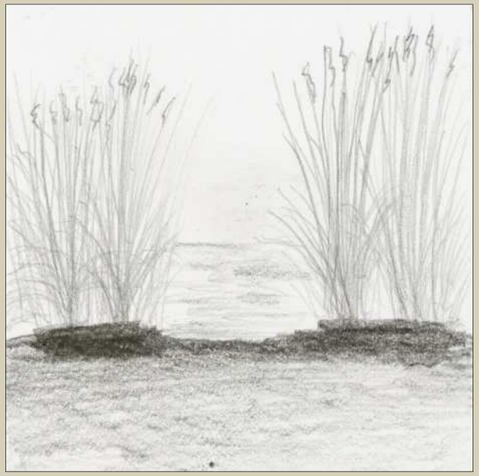
inhabitable rooms



the neighborhood marsh



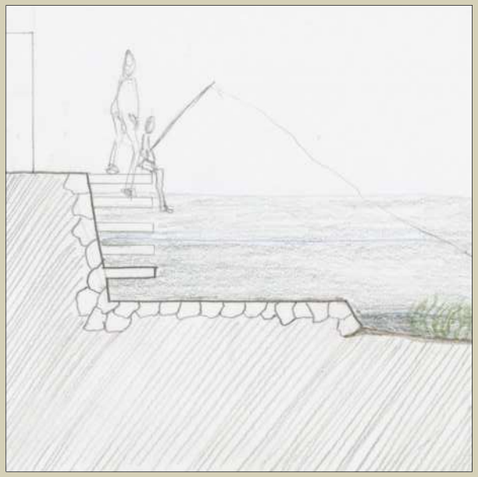
people + panne



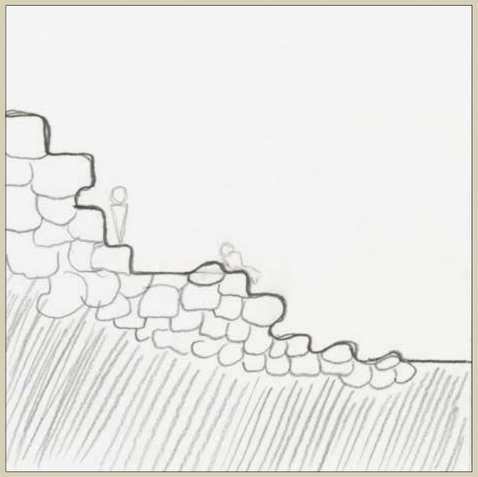
an opening in the grasses



into the marsh



city access to the water bottom

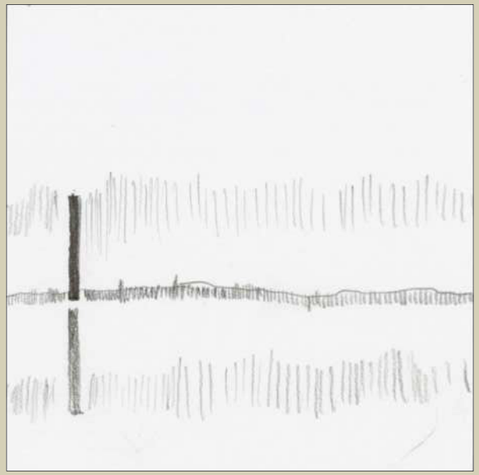


in a wall

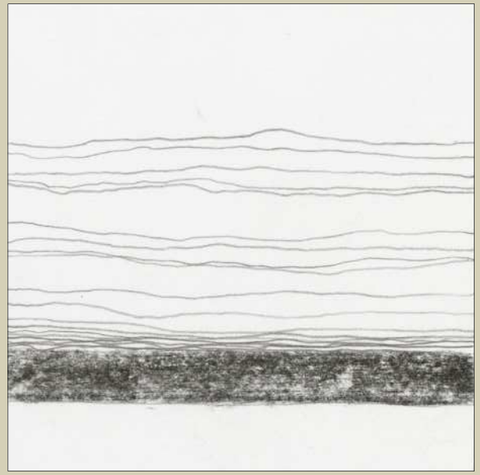


within the riprap

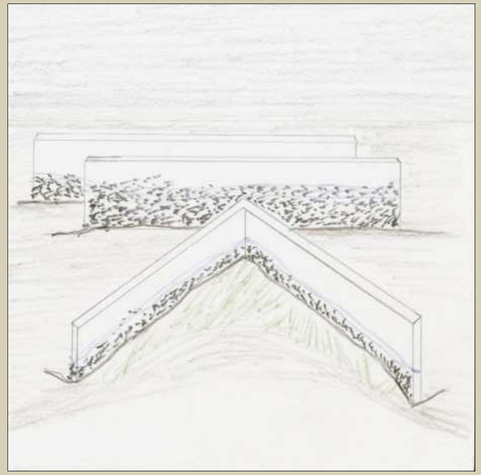
03. Registration of change:
the clarity of time + change through more-constant forms



a figure in the distance



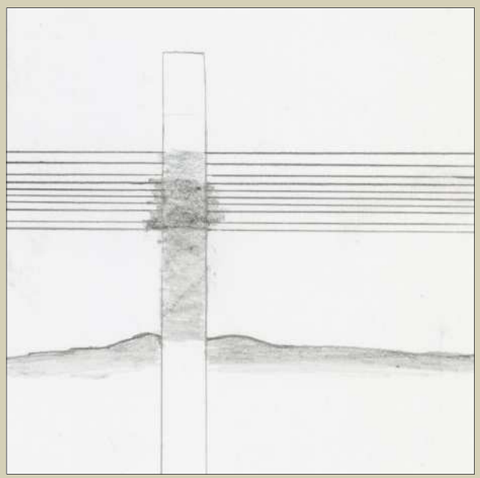
open expanses make visible
tidal ebbs + flows



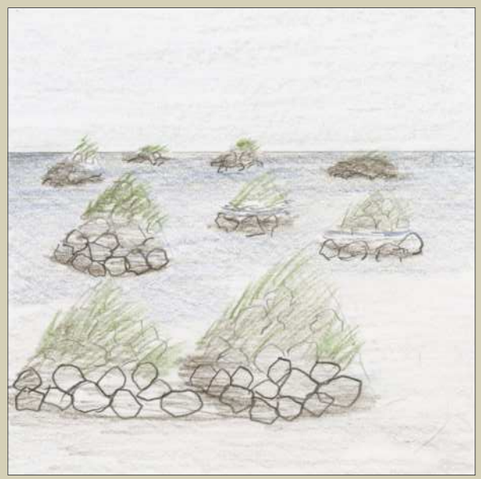
vertical surfaces register
tides + growth



water marks shoreline



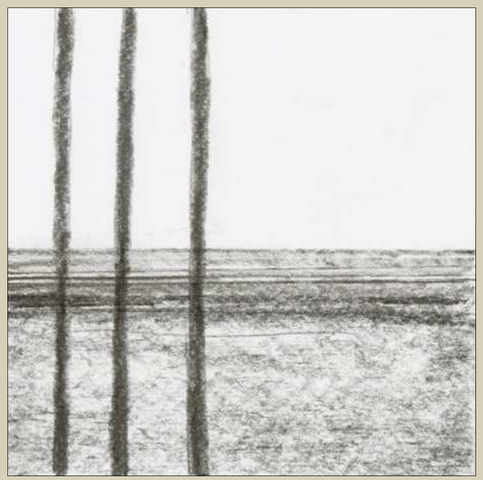
post in the water



rock + oyster mounds host
peculiar + persistent habitats



decay



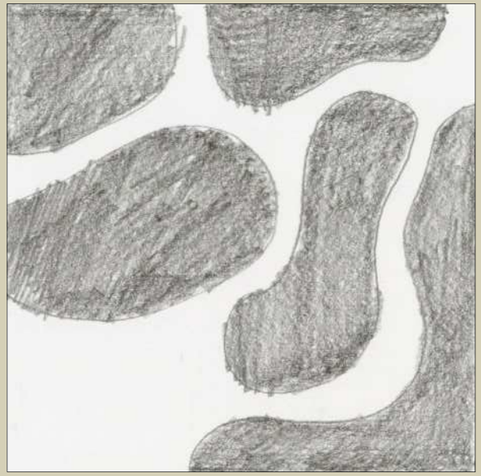
vertical elements passively
document water levels

04. Formal definition:

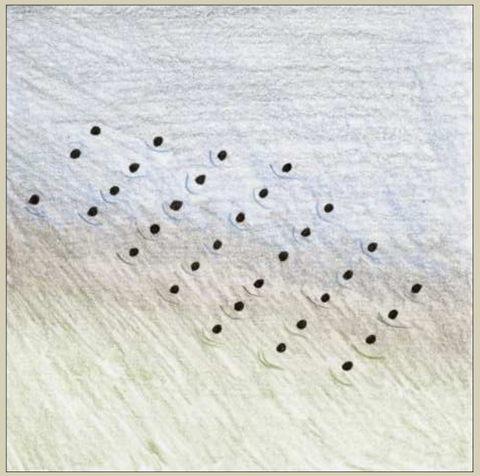
the juxtaposition of strong, simple forms against this hazy place



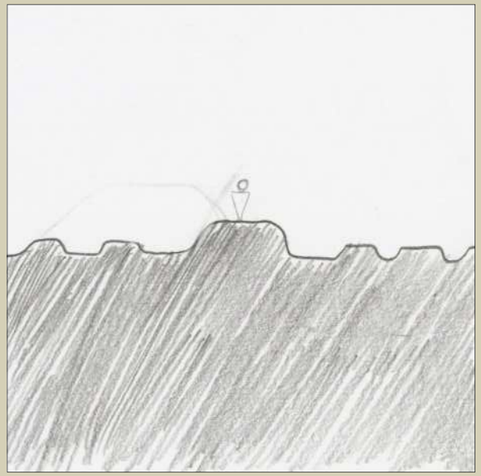
the opening between two marsh platforms is bridged



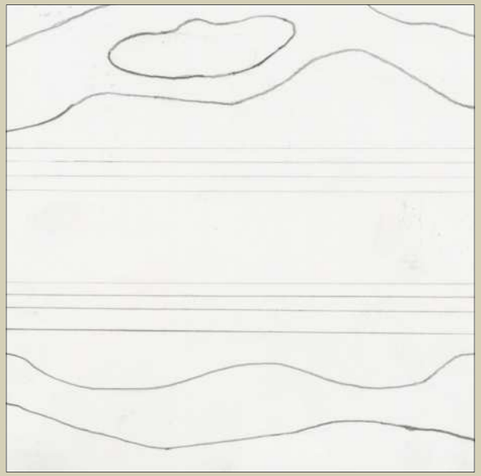
islands + channels



a field of pilings between dryland + wetland



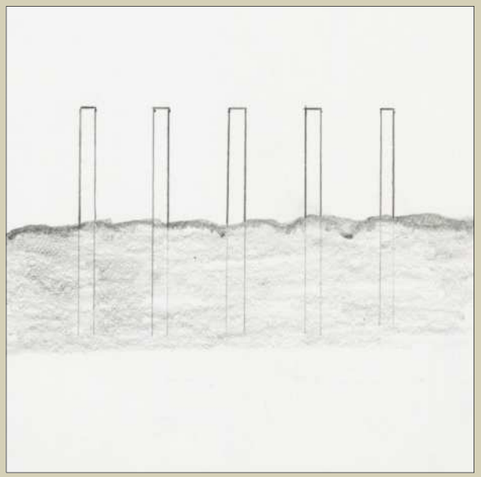
exaggeration within field



building up in the marsh



a needlerush circle

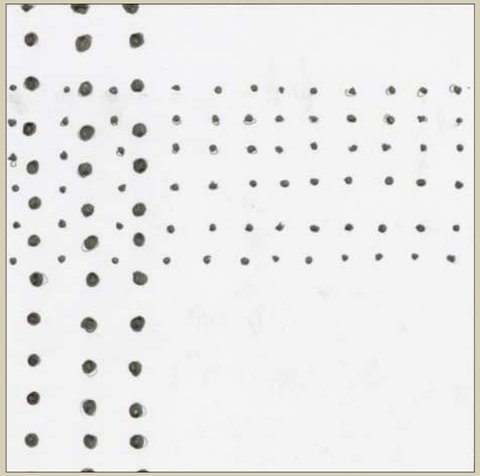


row of piles

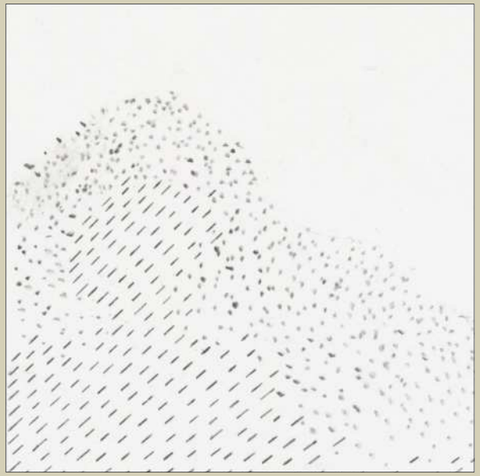


stark form in ambiguous marsh

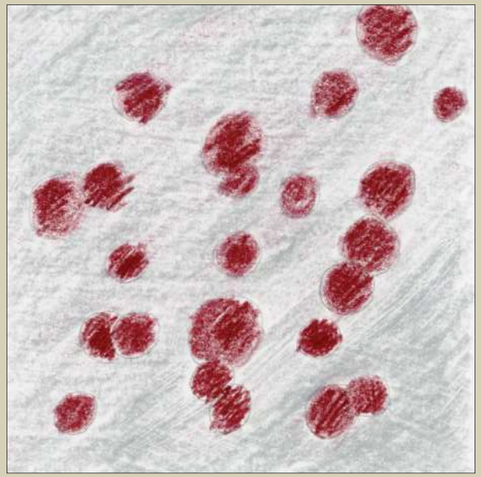
05. Abundance + repetition:
an incomprehensible + unexpected quantity; new patterns



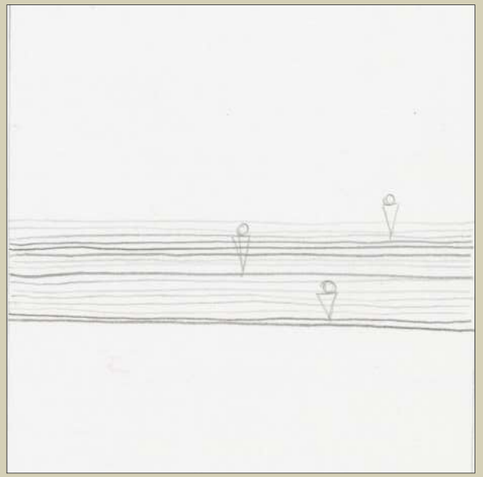
pile field



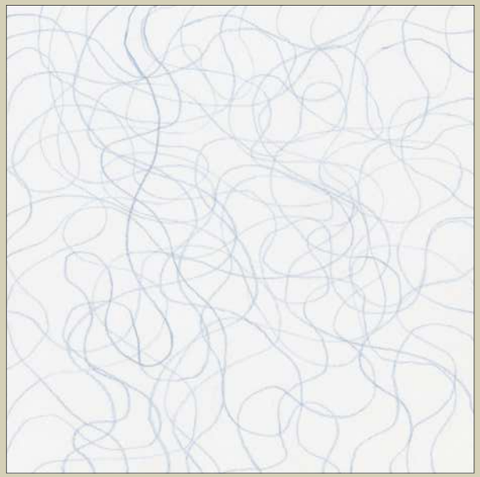
two species of marsh plants



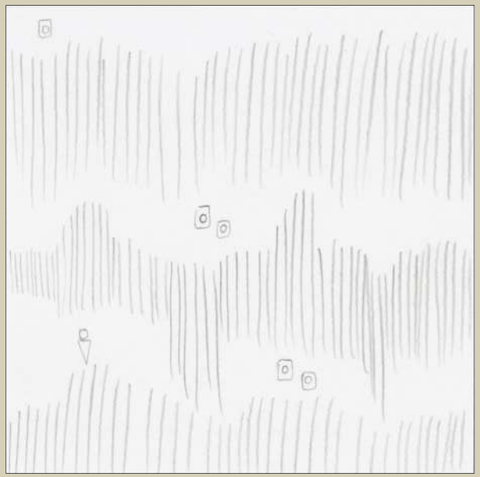
an expanse of black needlerush



horizontality + layers



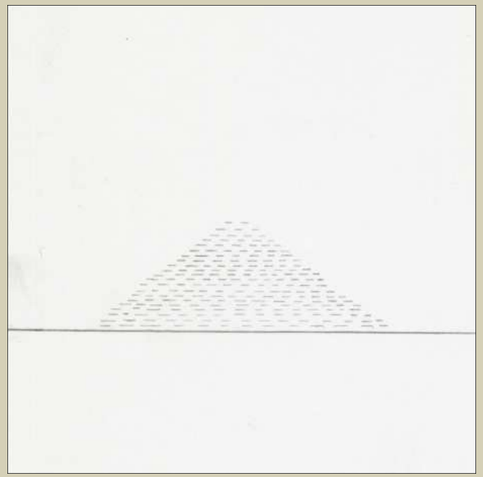
an abundance of water paths



verticality



marsh field



oyster mound

MODULE 03: *LANDSCAPE AS EXPERIMENT*







“It seems that my earliest recollections are of those wide stretches of marshgrass and reeds. Their mystery, vastness, and silence have ever caused me to wonder.”

-William Tawes, *God, Man, Salt Water, and the Eastern Shore (1967)*



“It is a state of mind, a way of being webbed wonderfully into one’s surroundings, not hurrying past them as we harried moderns are prone to do.”

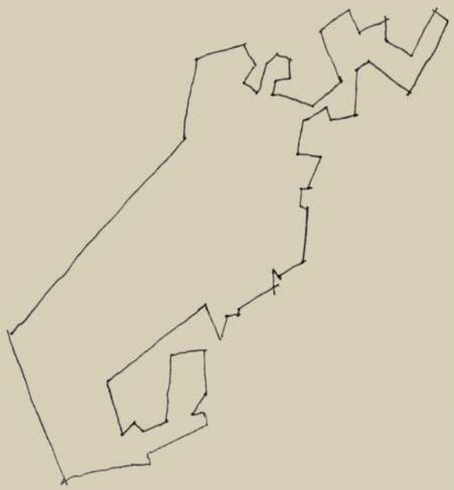
-Tom Horton, *In Praise of Mudlarking (2020)*

"The beauty that we see in the vernacular landscape is the image of our common humanity: hard work, stubborn hope, and mutual forbearance striving to be love."

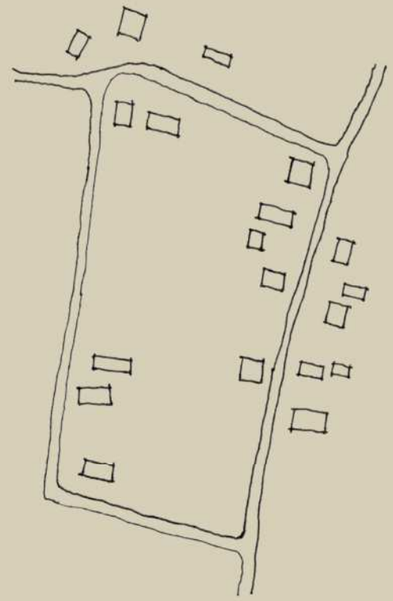
-JB Jackson, *Discovering the Vernacular Landscape (1984)*

SCALES

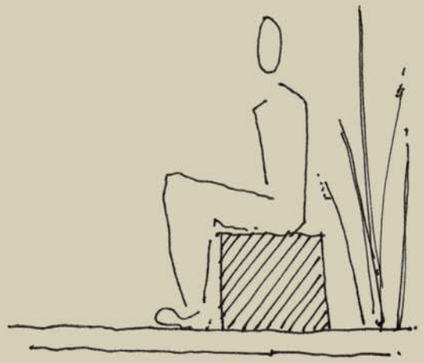
Town



Neighborhood



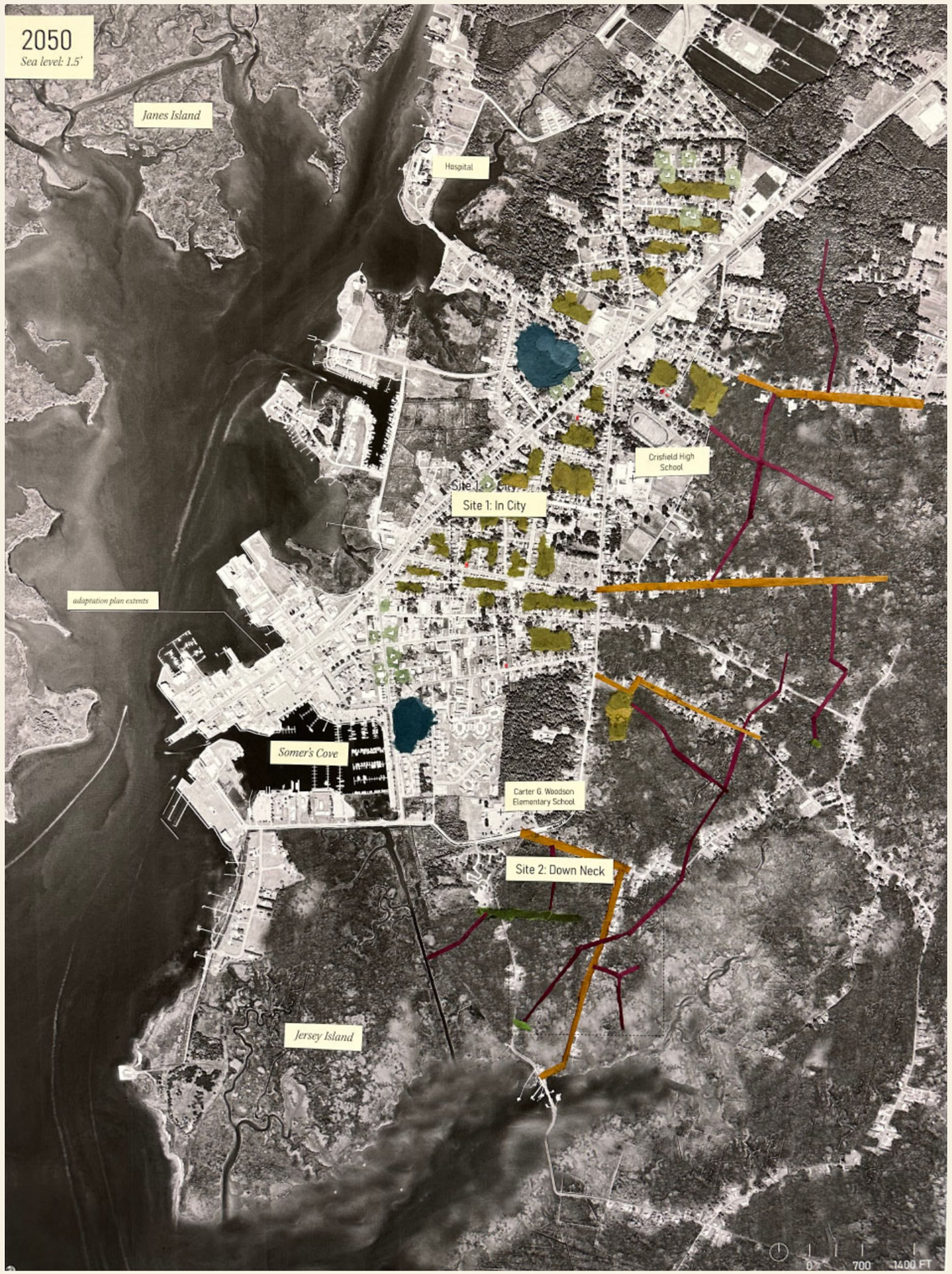
Detail

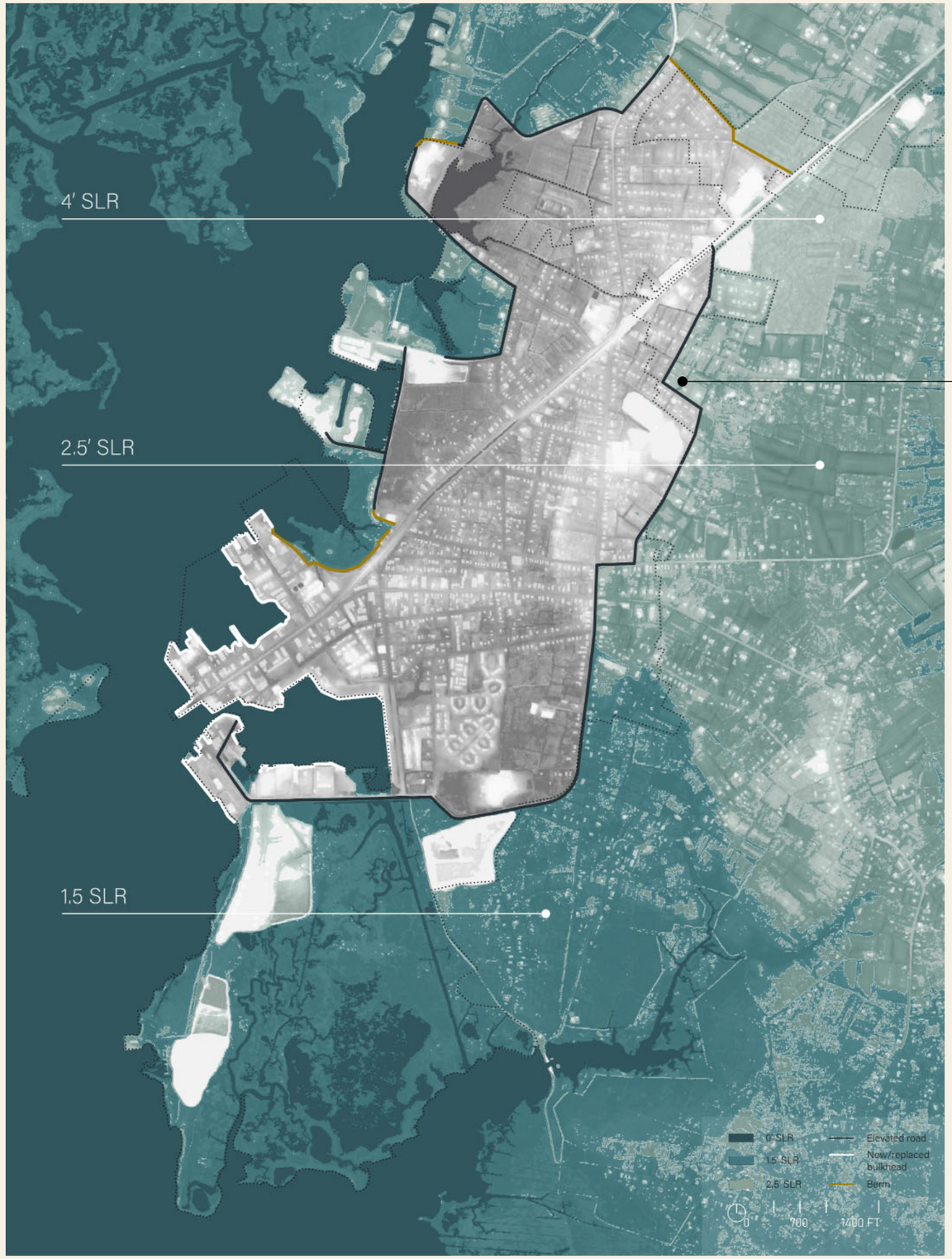








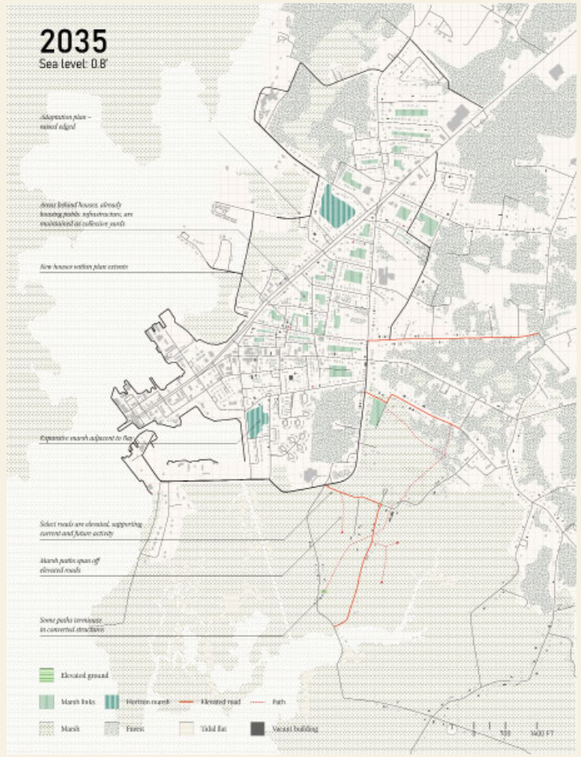

2050
Sea level: 1.5'
Janes Island
Hospital
Crisfield High School
Site 1: In City
adaptation plan extents
Somer's Cove
Carter G. Woodson Elementary School
Site 2: Down Neck
Jersey Island
0
700
1400 FT

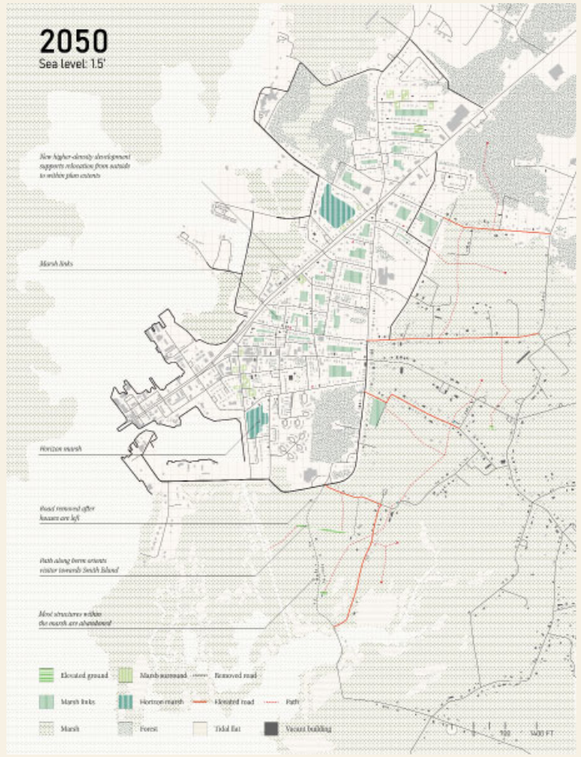


anticipated adaptation plan

PLAN OVER TIME

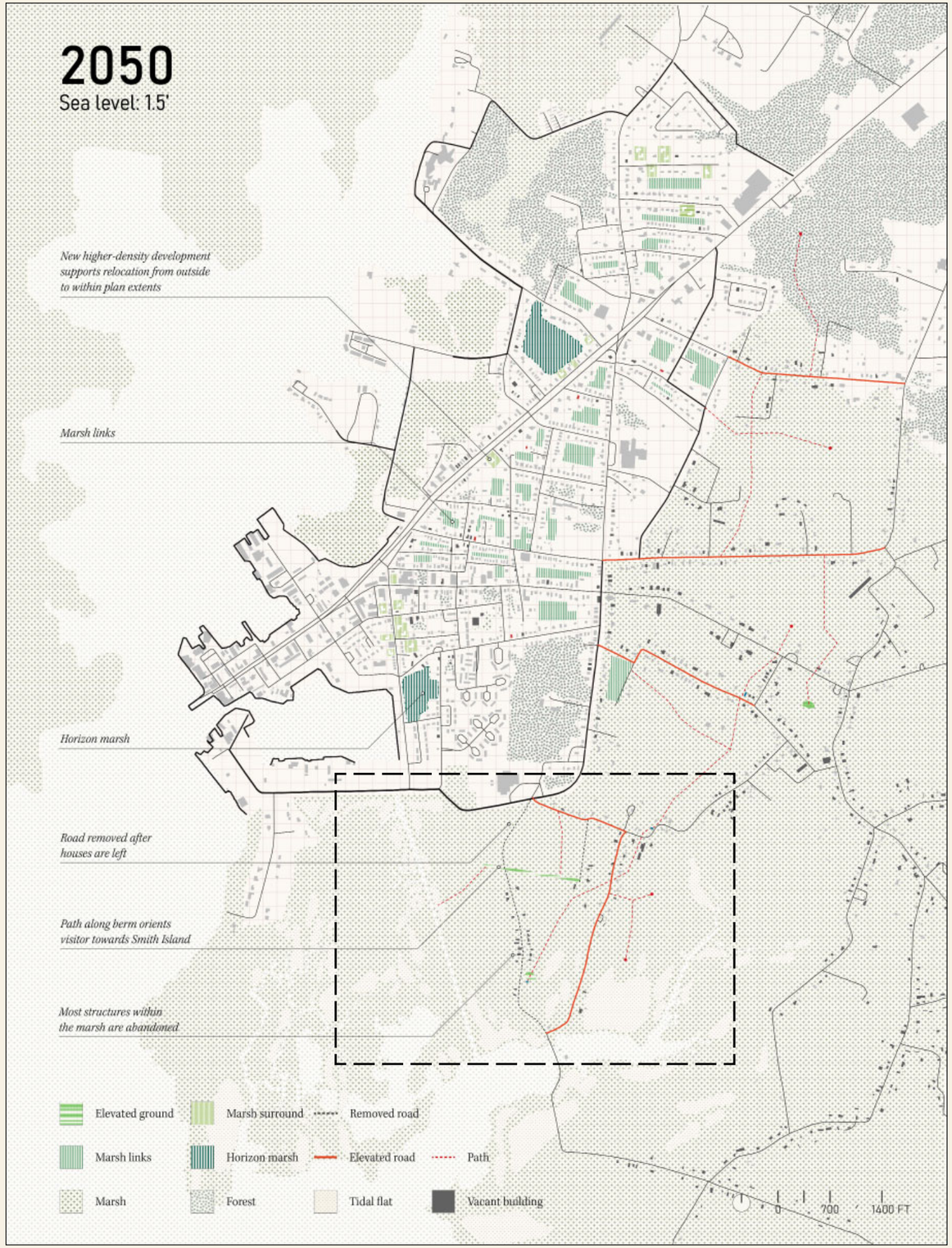


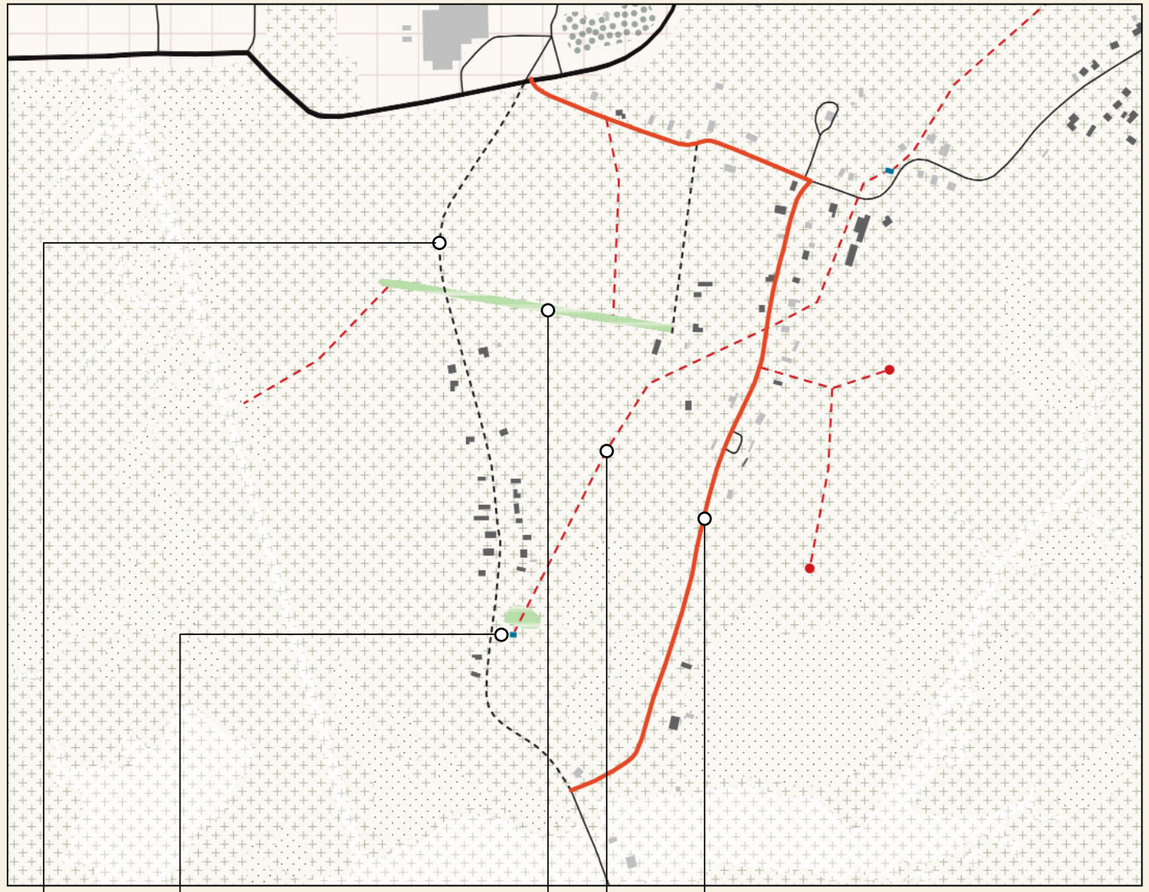






OUTSIDE PLAN





*existing road **elevated***

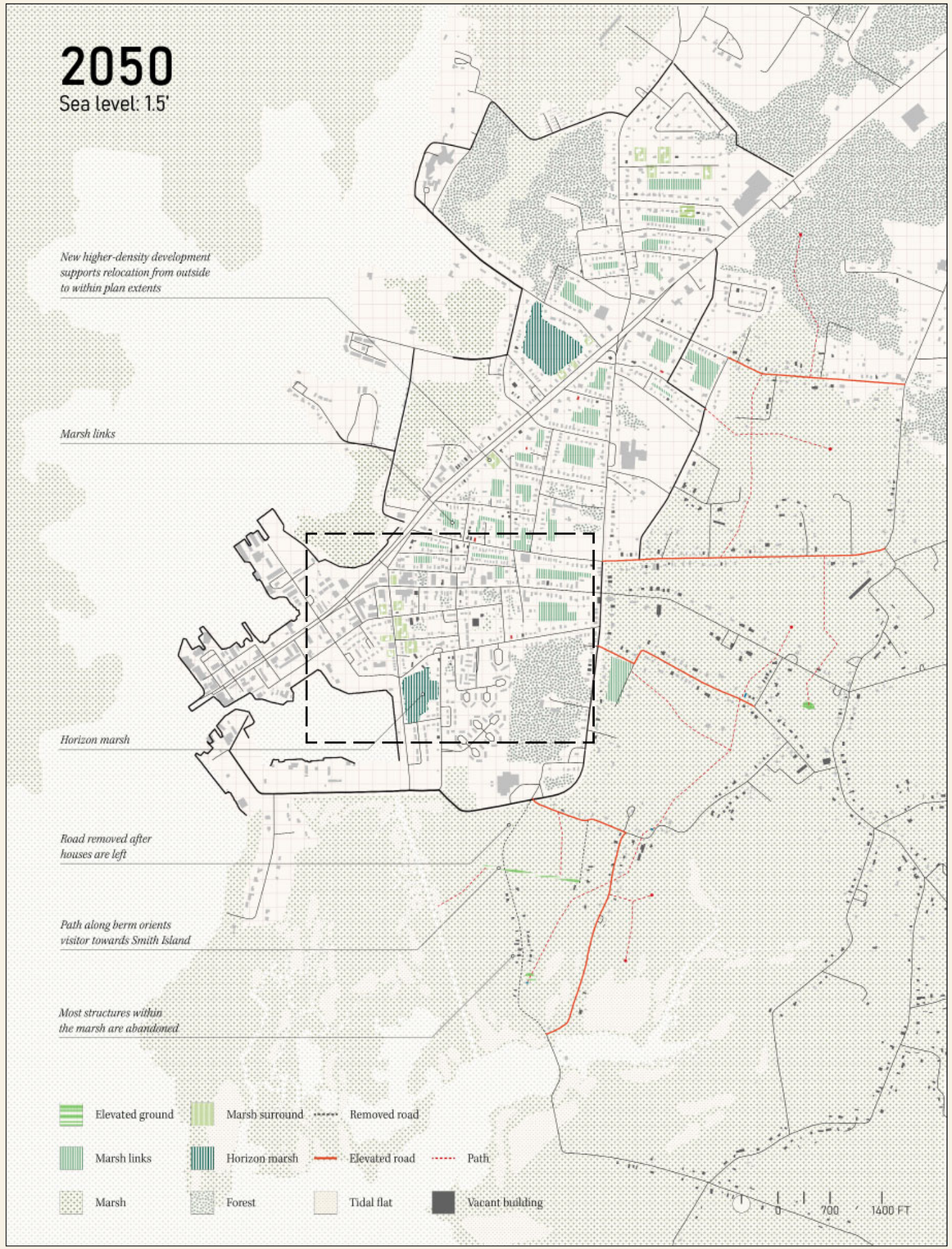
*path terminates at **converted structure***

***path tendril** oriented towards Tangier Island*

*road **removed***

***berm** oriented towards Smith Island*

WITHIN PLAN





marsh links:
marsh gardens link between blocks - shared yards for gathering both people and water

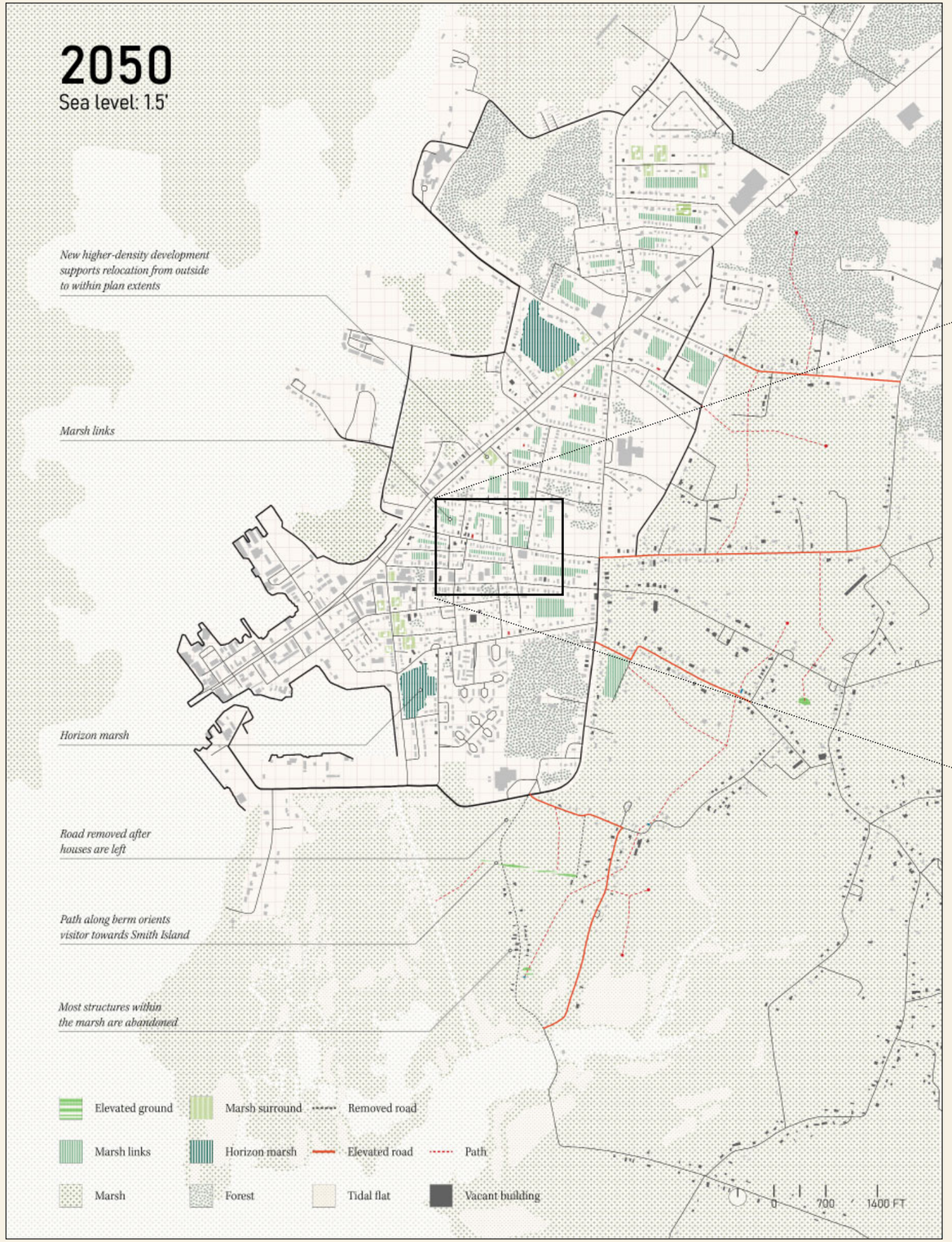
horizon marsh:
marsh expanses face the Bay

structures abandoned prior to plan implementation

marsh surround:
*new **development** enveloped in dense marsh grasses*

*single-family homes **constructed** after plan implementation*

SITE 01: IN CITY

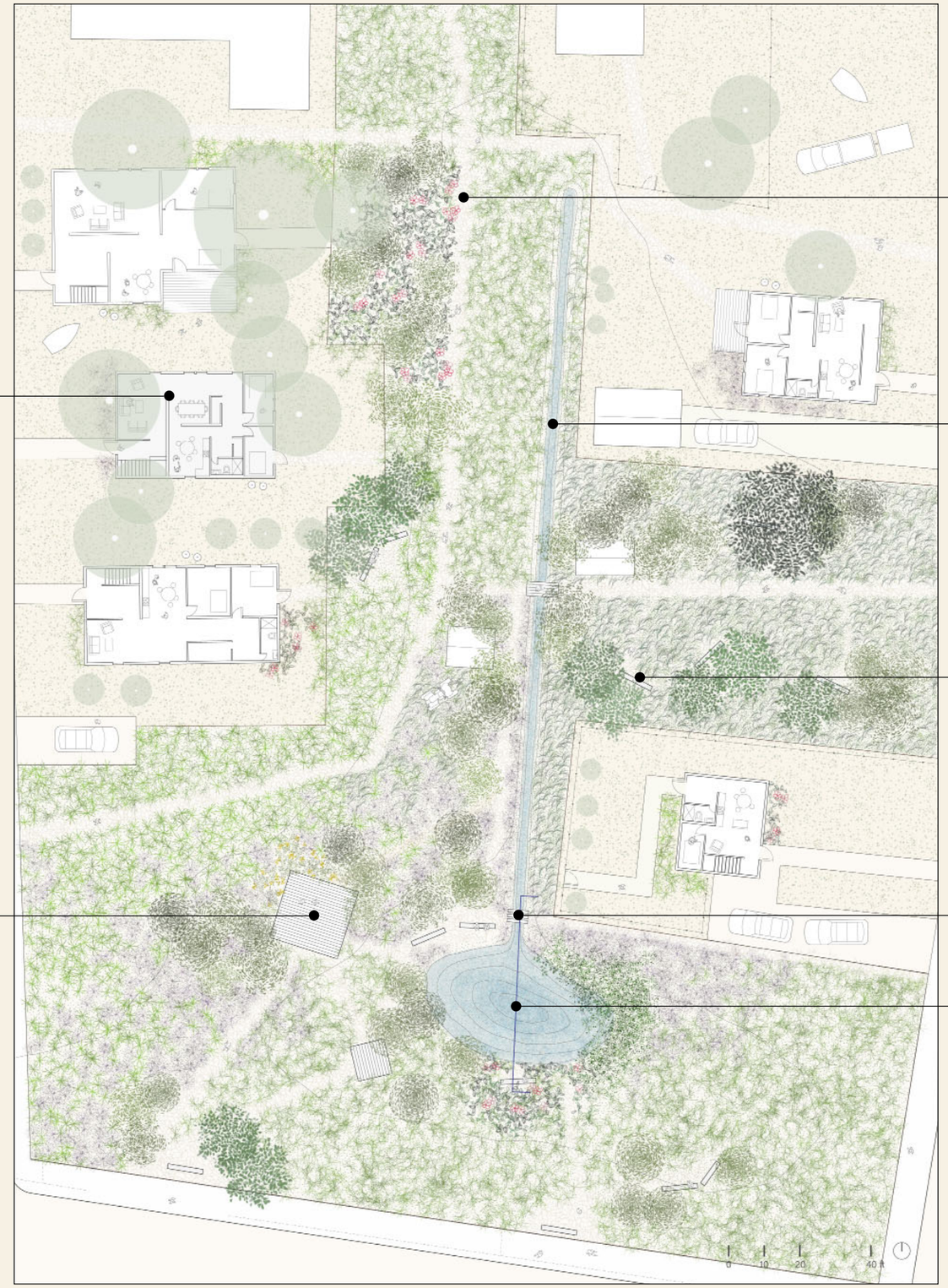


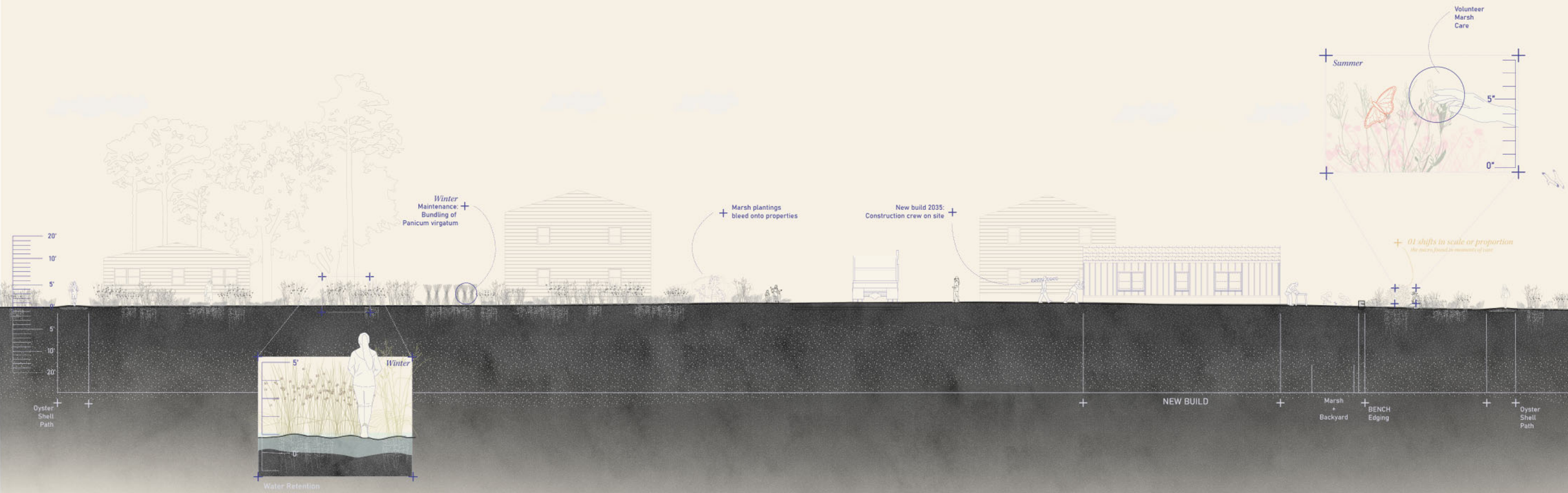



vacant lots
existing ditch network
Chesapeake Ave.
routinely floods



1. Pond
2. Existing ditch
3. Path
4. Existing tree
5. Ditch crossing
6. Bench
7. Platform
8. Wood edging


oyster shell path
new residential construction
existing ditch
bench nooks
marsh platform
ditch crossing
pond with killifish
0
10
20
40 ft


Volunteer
Marsh
Care
Summer
5"
0"
Winter
Maintenance:
Bundling of
Panicum virgatum
Marsh plantings
bleed onto properties
New build 2035:
Construction crew on site
01 shifts in scale or proportion
the users found in moments of rest
20'
10'
5'
0
5'
10'
20'
5'
Winter
0
Water Retention
Oyster
Shell
Path
NEW BUILD
Marsh
+
Backyard
BENCH
Edging
Oyster
Shell
Path

Volunteer
Marsh
Care

Summer

5”

0”

New build 2035:
Construction crew on site

01 shifts in scale or proportion
the micro found in moments of care

NEW BUILD

Marsh
+
Backyard

BENCH
Edging

Oyster
Shell
Path

cake slice from Smith Island Bakery, across Chesapeake Ave.

Cattail
Typha spp.

Arrow Arum
Peltandra virginca

Swamp Rose Mallow
Hibiscus moscheutos

Soft Rush
Juncus effusus

Groundsel Bush
Baccharis halimifolia

Marsh Elder
Iva frutescens

Switchgrass
Panicum virgatum

Sedge
Carex spp.

30"

50"

existing ditch

timber crossings: ends sealed and staked into ditch banks

8"

introduced killifish eat mosquito larvae

excavated pond provides fish habitat

-0.3'

3.0'

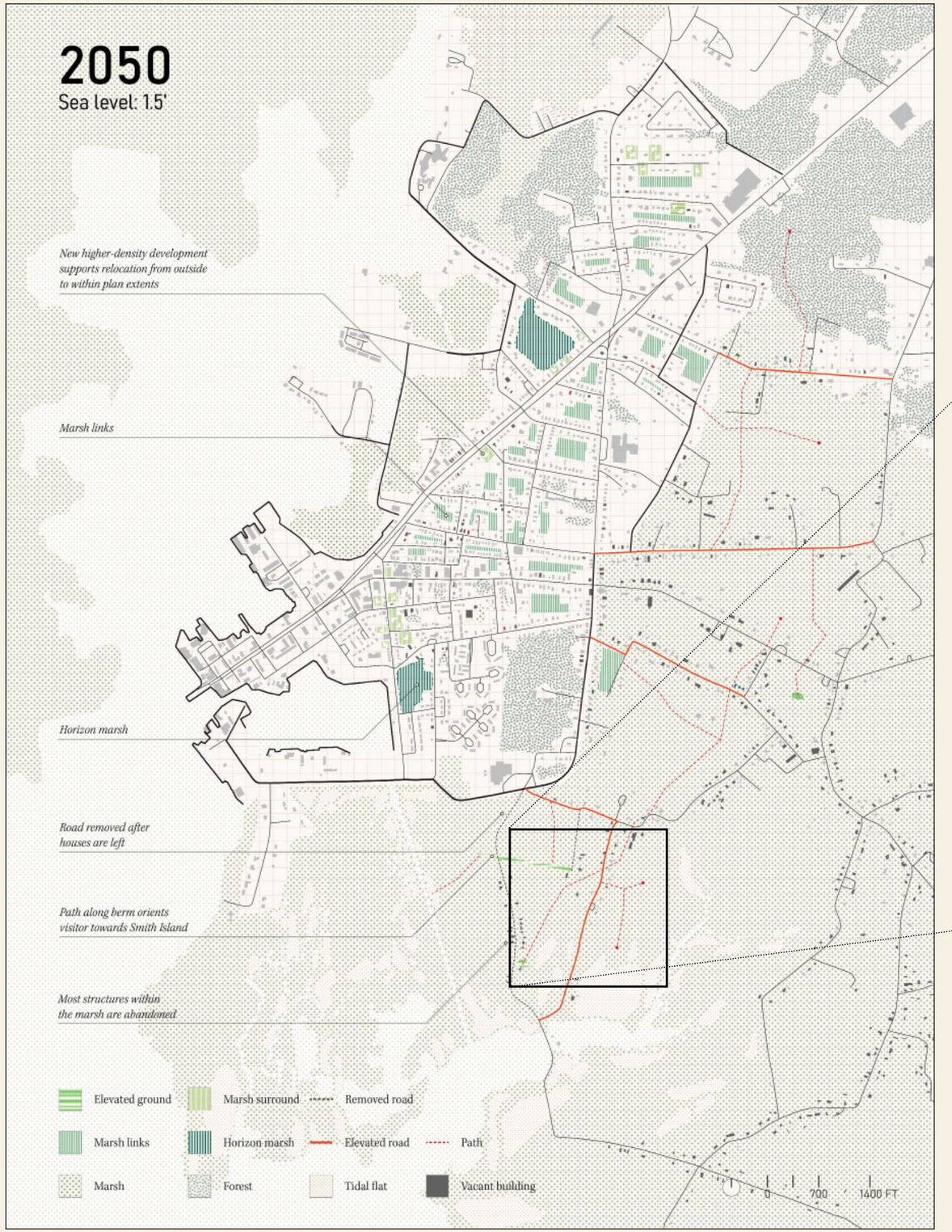
2" 3%

3x4s set in crushed shells

16"

0 1 2 4 8'

SITE 02: DOWN NECK






MARSH
+ POND.

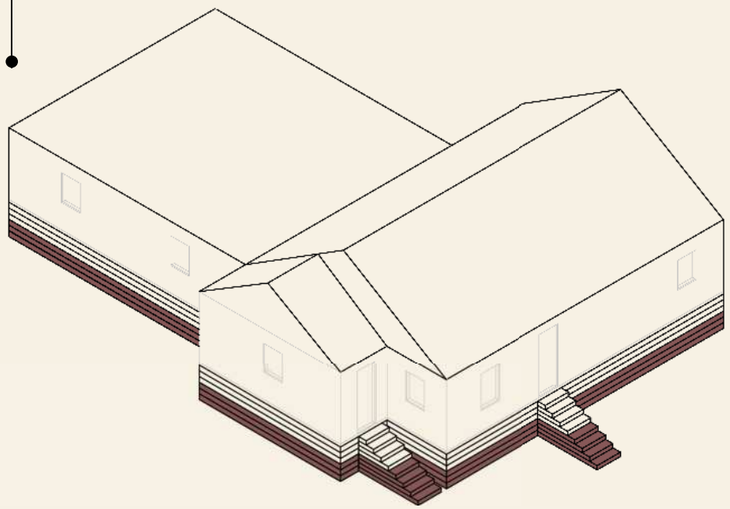

ABANDONED.


DOWN NECK

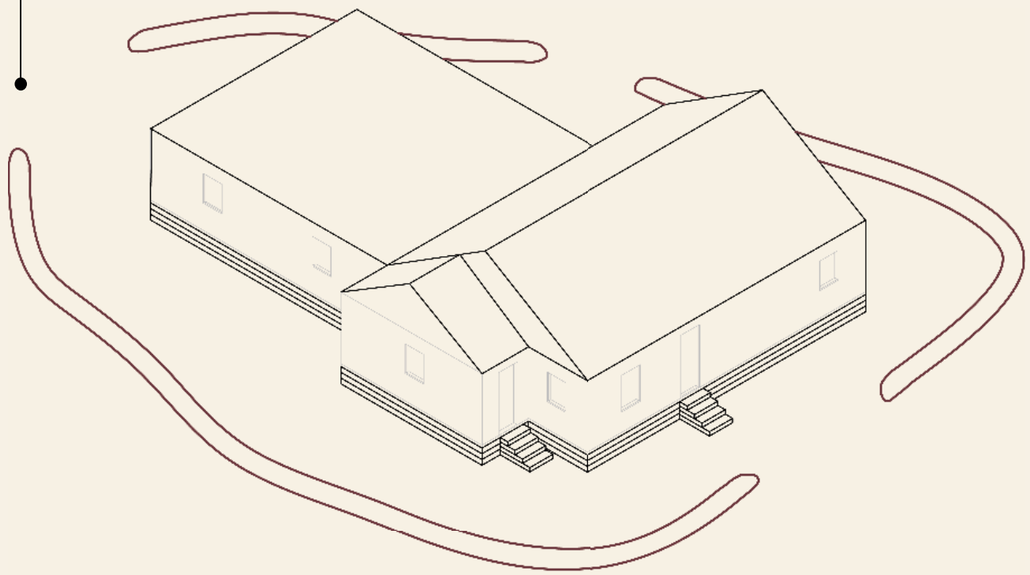

WALLED
GARDEN

BUILDING STRATEGIES

lifting



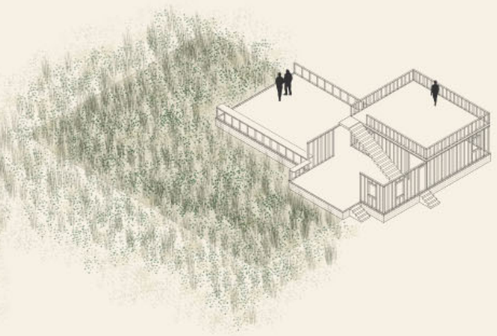
protection



BUILDING CONVERSION



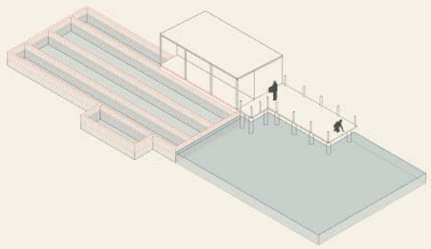
01. Screened P orch



02. Marsh Outlook

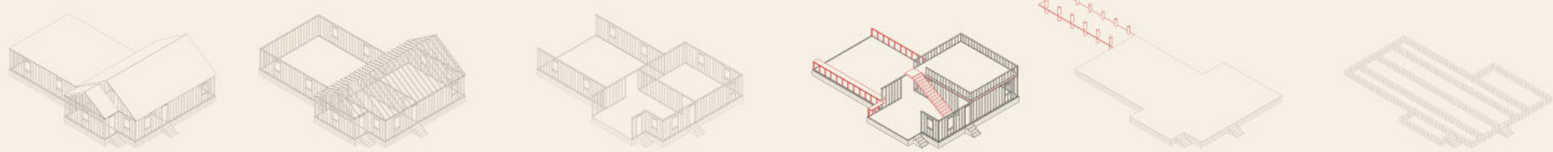


03. Enclosed Garden

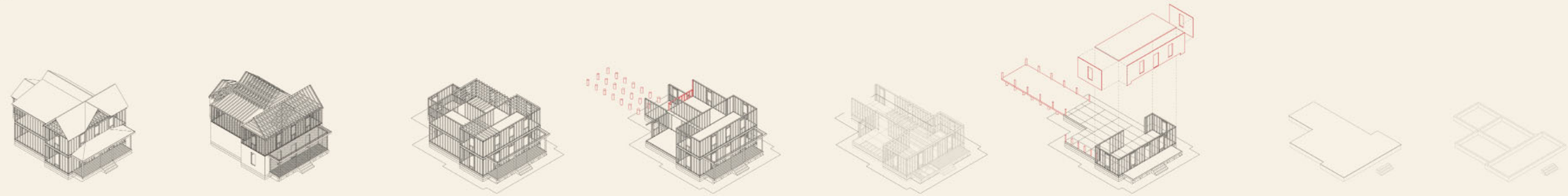


04. Fishing Shanty

[GRADIENT OF DISASSEMBLY AND CONVERSION]



1-Story Disassembly Sequence



2-Story Disassembly Sequence

exposed studs
+
roof cover
+
selective sheathing removal

screen covering

Year 01

selective stud removal

Year 05

added guardrails and viewing platforms
+
pile insertion

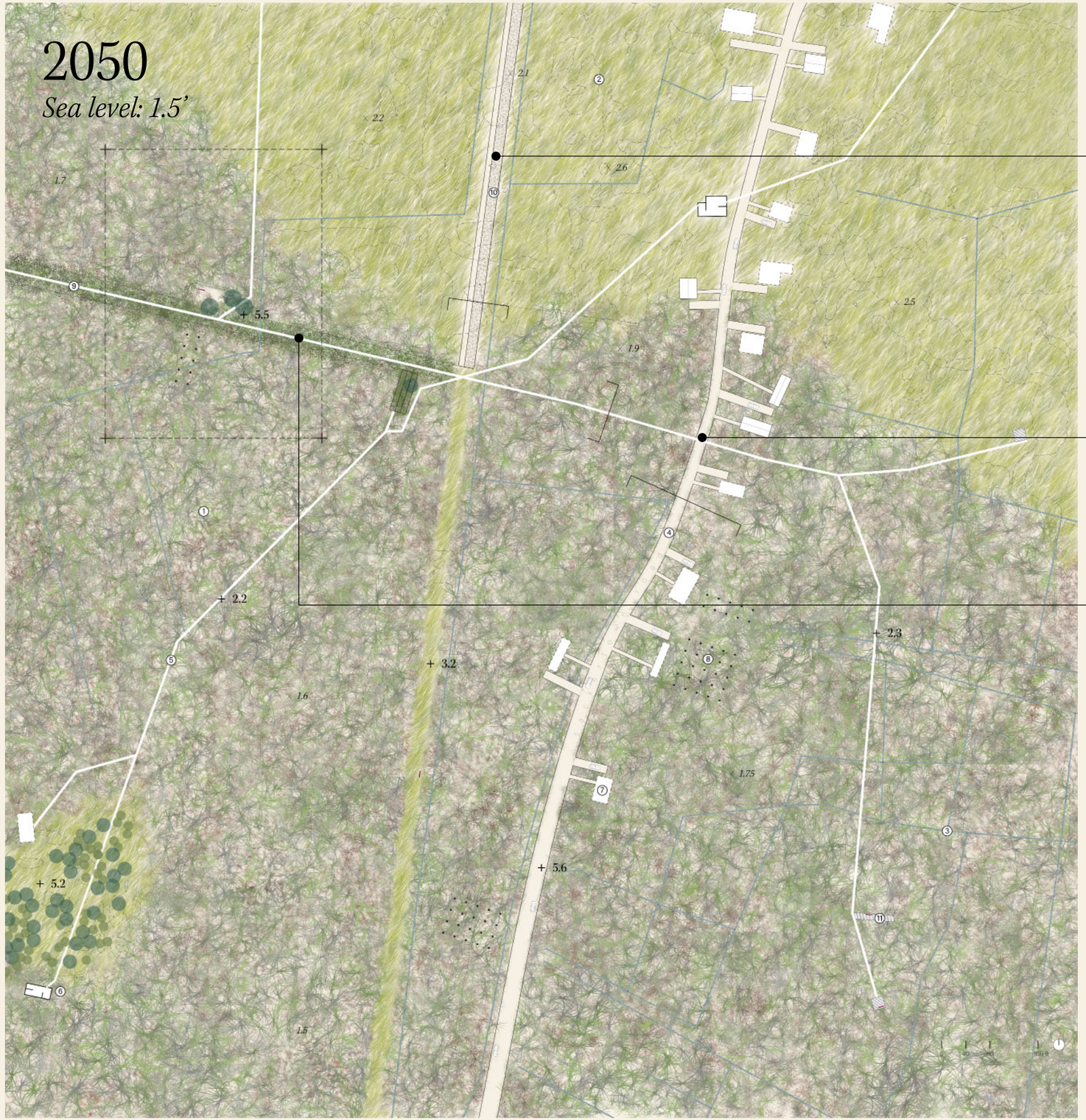
Years 10-20

remaining foundation walls
+
dock construction
+
new enclosure construction

Years 25-30



Sackertown Road

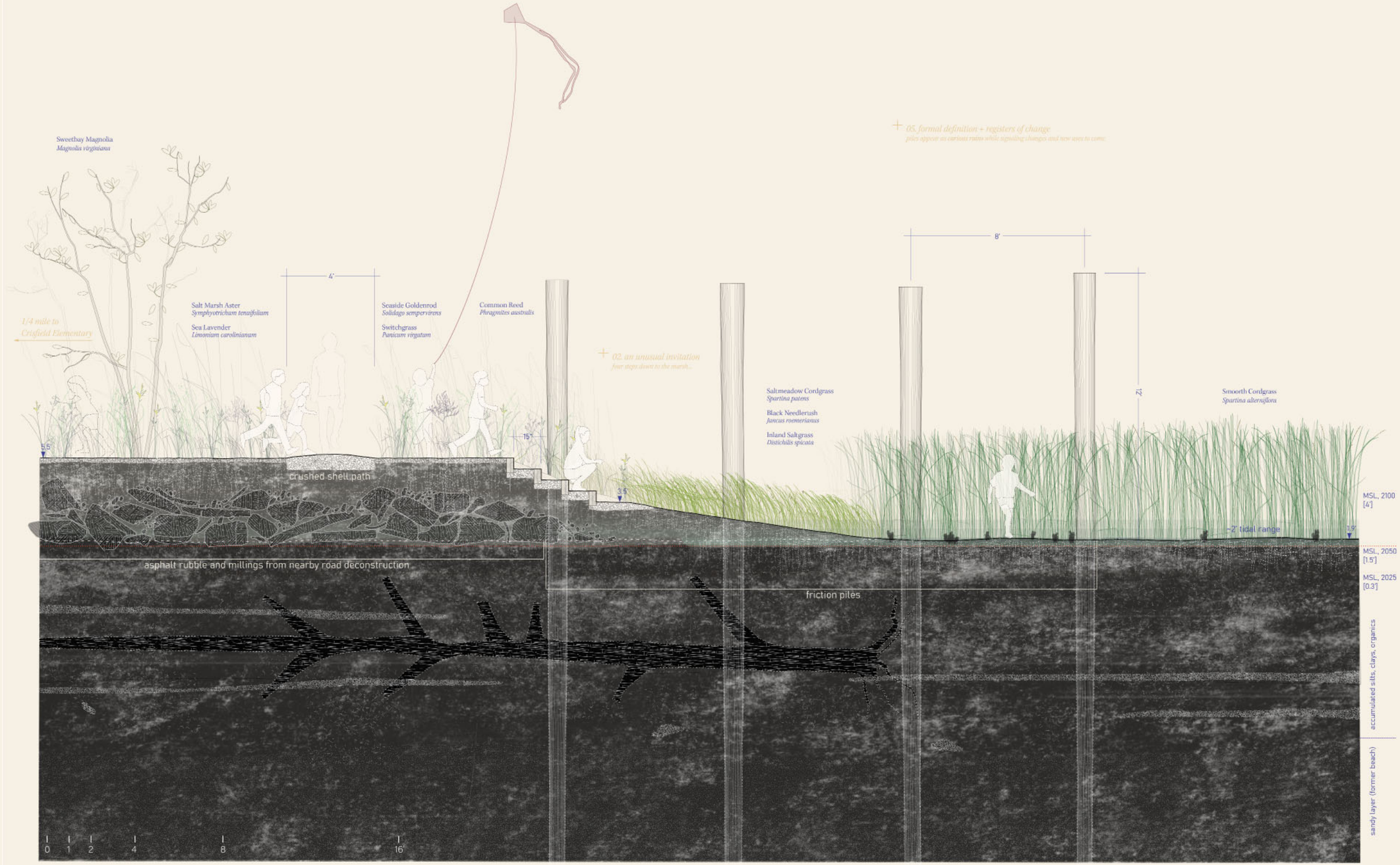


① Low marsh
② High marsh
③ Existing ditches
④ Elevated road
⑤ Path tendril
⑥ Converted structure
⑦ Building foundation
⑧ Piles
⑨ Elevated spit
⑩ Deconstructed road
⑪ Platform

2050


high marsh
low marsh
crushed shell path
spit planted with salt marsh
aster, sea lavender, goldenrod,
and switchgrass
phragmites may emerge as well.
near the elementary
school, a place to visit
and imagine
+ 5.5
spit raised with debris from
nearby road deconstruction,
sediment, and oyster shells
steps into the marsh
piers appear as various ruins while
signaling changes and new uses to come
0
10
20
40 ft

2050


05. formal definition + registers of change
piles appear as curious ruins while signaling changes and new uses to come.
02. an unusual invitation
four steps down to the marsh...
Sweetbay Magnolia
Magnolia virginiana
1/4 mile to
Crisfield Elementary
4'
Salt Marsh Aster
Symphyotrichum tenuifolium
Sea Lavender
Limonium carolinianum
Seaside Goldenrod
Solidago sempervirens
Switchgrass
Panicum virgatum
Common Reed
Phragmites australis
8'
Saltmeadow Cordgrass
Spartina patens
Black Needlerush
Juncus roemerianus
Inland Saltgrass
Distichlis spicata
12'
Smoorth Cordgrass
Spartina alterniflora
5.5'
15'
3.5'
crushed shell path
asphalt rubble and millings from nearby road deconstruction
friction piles
~2' tidal range
1.9'
MSL, 2100
[4']
MSL, 2050
[1.5']
MSL, 2025
[0.3']
accumulated silts, clays, organics
sandy layer (former beach)
0
1
2
4
8
16



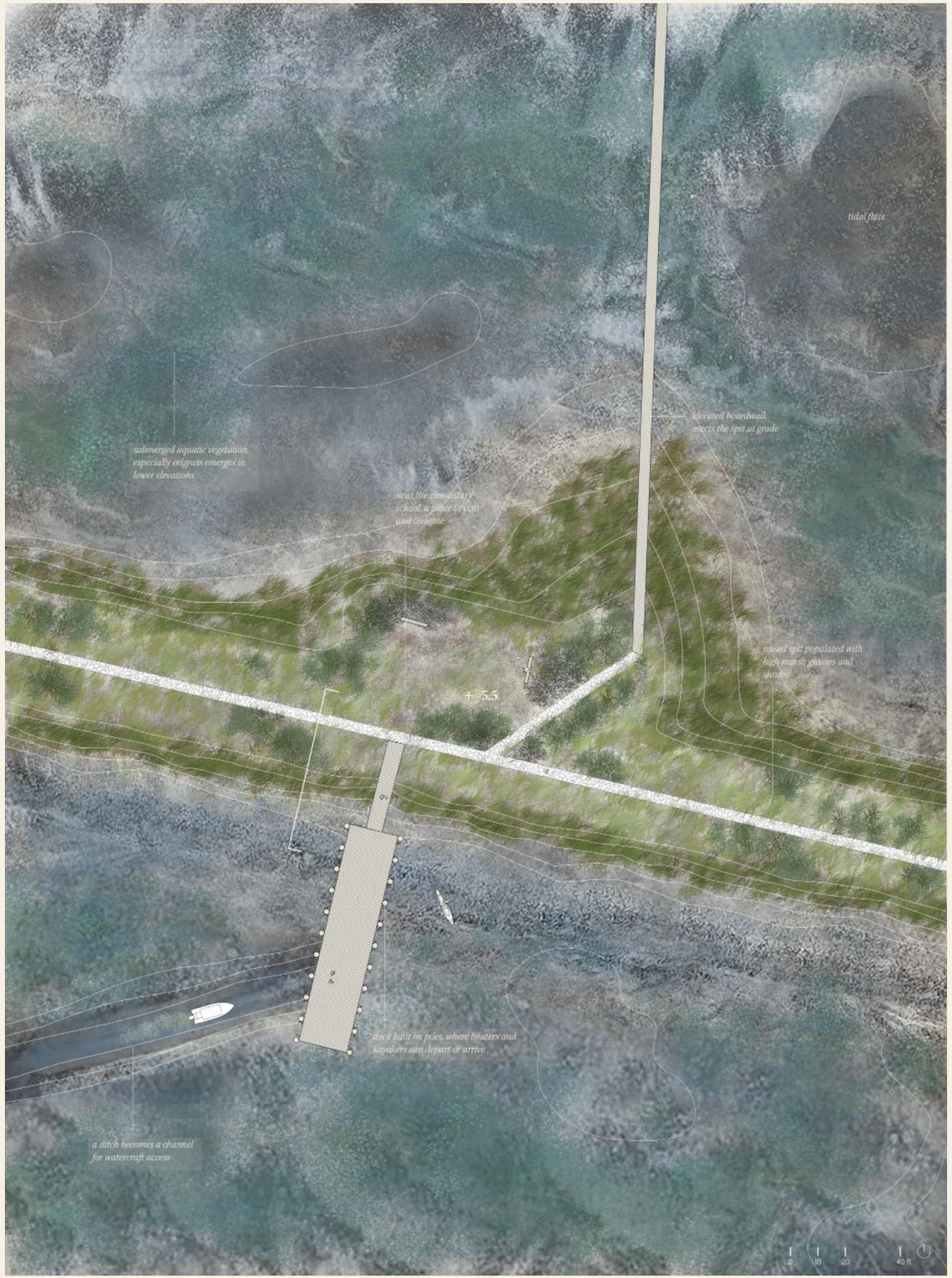
path tendril | boardwalk

former path | shell reef

converted structure | fishing shanty

1. Tidal Flats
2. Former Ditch
3. Oyster Reef
4. Elevated road
5. Converted structure
6. Bench
7. Dock
8. Elevated spit
9. Deconstructed road
10. Platform

2100


tidal flats
elevated boardwalk meets the spit at grade
submerged aquatic vegetation, especially eelgrass emerges in lower elevations
near the elementary school, a place to visit and imagine
raised spit populated with high marsh grasses and shrubs
+ 5.5
dock built on piles, where boaters and kayakers can depart or arrive
a ditch becomes a channel for watercraft access
0
10
20
40 ft

2100

05. registers of change
berm slope is reconfigured by wave action;
a ridge forms and fine sediment is redistributed bayward.

1/4 mile to
Crisfield Elementary
by boardwalk

Common Reed
Phragmites australis

lightly maintained
shell path

Saltmeadow Cordgrass
Spartina patens

Black Needlerush
Juncus roemerianus

Inland Saltgrass
Distichilis spicata

Smoorth Cordgrass
Spartina alterniflora

piles replaced as desired
on a 30+ year cycle

8'

7.3'

6.5'

4.0'

Atlantic ribbed mussel
Geukensia demissa

~2' tidal range

Eelgrass
Zostera marina

2.1'

MSL, 2100
[4']

MSL, 2050
[1.5']

MSL, 2025
[0.3']

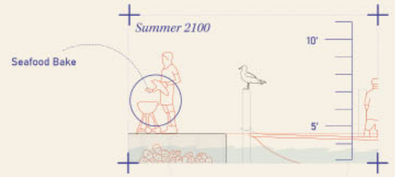
asphalt rubble and millings from nearby road deconstruction

friction piles

accumulated silts, clays, organics

sandy layer (former beach)

0 1 2 4 8 16'



2050: Jackhammering asphalt

2100: Kayaking in Tidal Flats

Some homes are deconstructed

2035: Road construction with asphalt and gravel

Foundation kept from key homes

02 an unusual invitation
fragments peeking through the marsh

03 registration of change
a path becomes a new home

05 abundance and repetition
multiples of minerals

2100 6' above MSL
2050 1.5' above MSL

20'
10'
5'
0'
5'
10'
20'

Thinned Road Path

10'

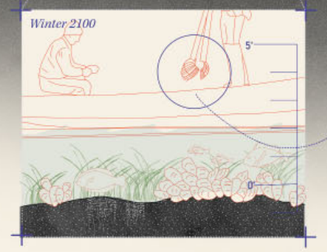
Deconstructed Road

PATH
Converted to Boardwalk in 2075

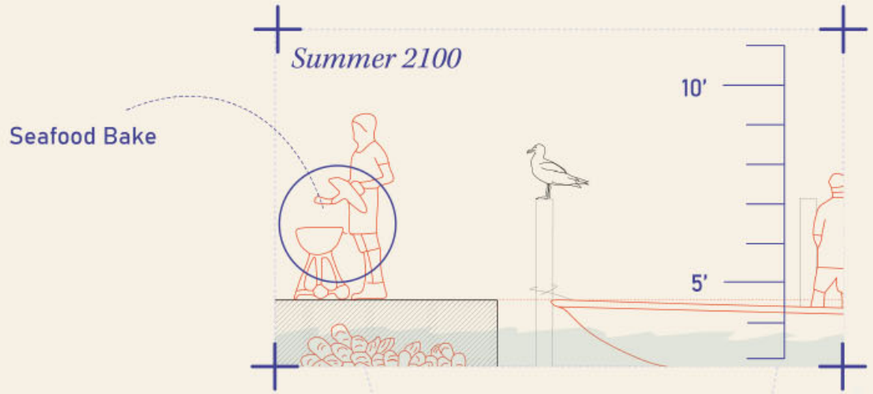
RAISED ROAD
5.5' above Mean Sea Level

Foundation for Sea Shanty

PILES
Future Boardwalk



Oystering in Tidal Flats



Seafood Bake

2035: Road construction with asphalt and gravel

Foundation kept from key homes

05 abundance and repetition

2100 4' above MSL

2050 1.5' above MSL

RAISED ROAD

5.5' above Mean Sea Level

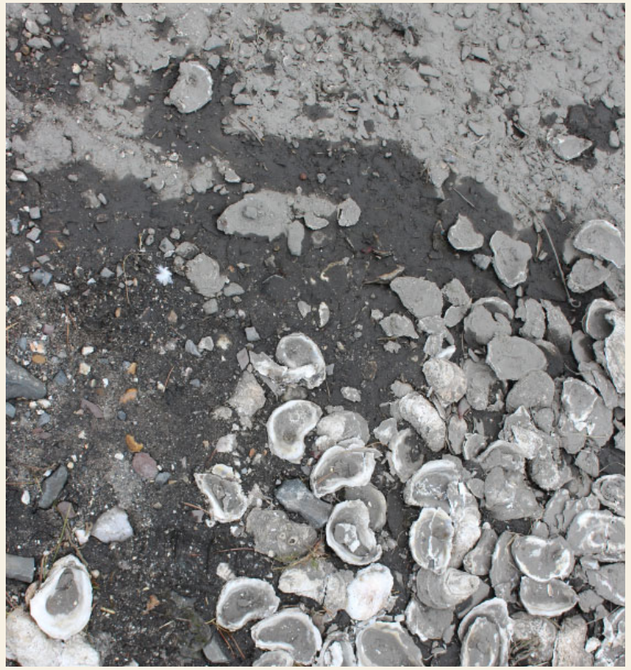
Foundation for Sea Shanty

PILES

Future Boardwalk



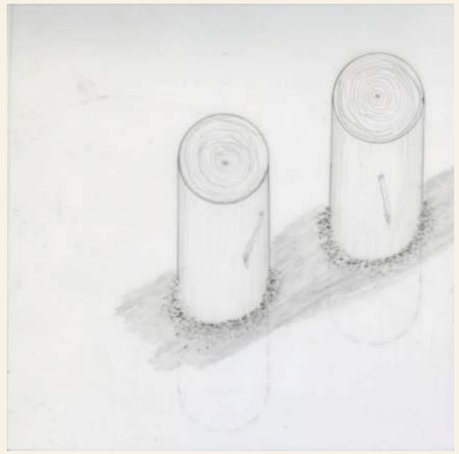




oyster shell mounds

PATH ASSEMBLY STUDIES

Pilings/ghost trees - cross-cut





1’+ dia.

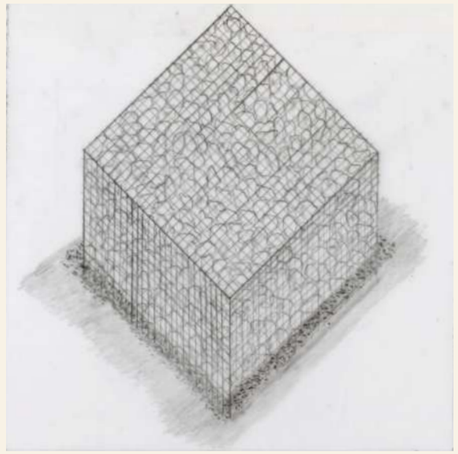
Reed mat on crushed shell





2’ W

Crab pot w/ oyster shells





2’-3’ W

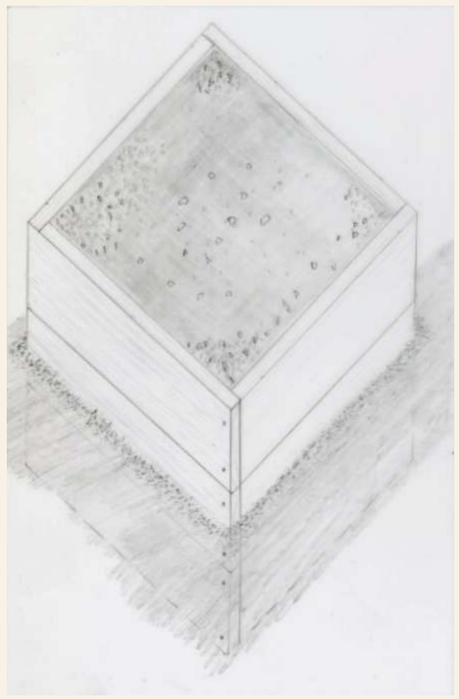
Crushed shells





2’-4’ W

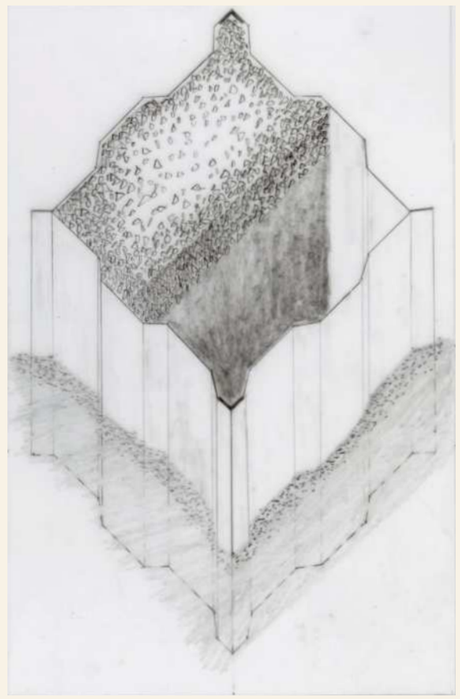
Lumber foot w/ crushed shells





2’-4’ W

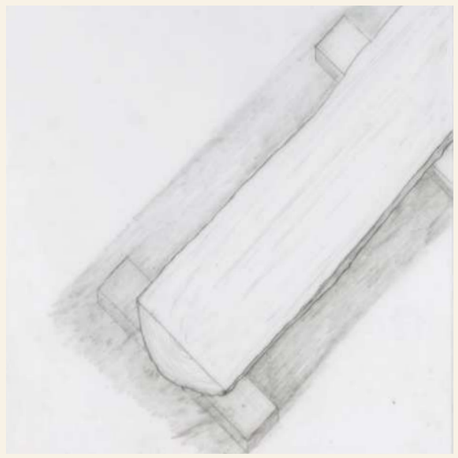
Sheet pile foot w/ crushed shells

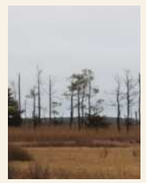




2’-4’ W

Pilings/ghost trees - resawn





1’+ W

“Mudpots” were places with a jellylike consistency

“Mud banks” “you could slide down just like an otter.”

“quiver” mud is where you’d risk getting trapped to your chest.

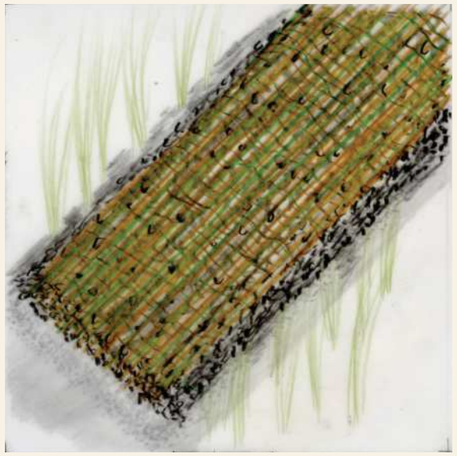
PATH ASSEMBLY STUDIES / *temporal transformations*

Pilings/ghost trees - cross-cut



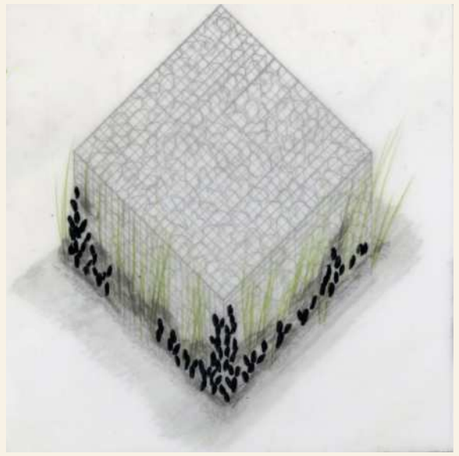
Clams grow, rivulets form

Reed mat



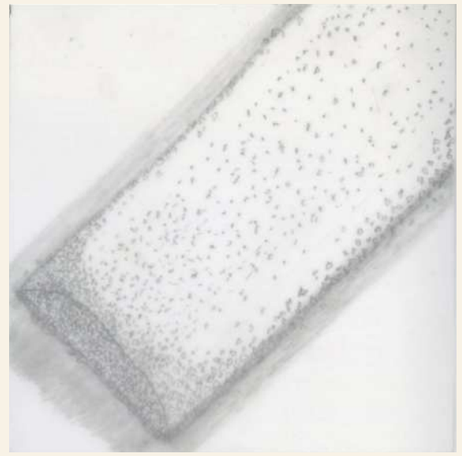
Successive placements accrue

Crab pot



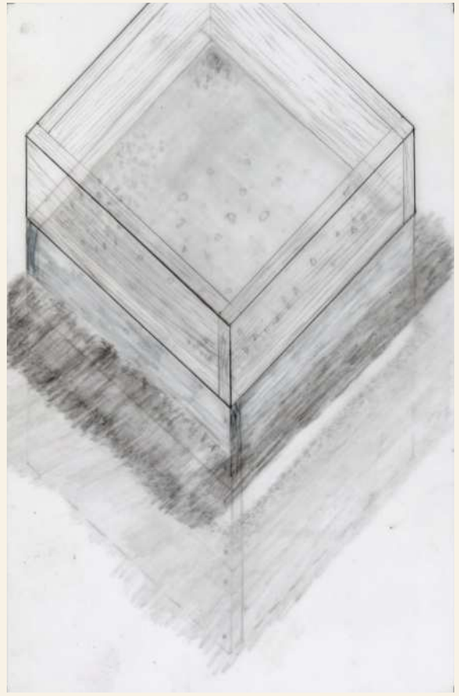
Clams grow, sediments deposit

Oyster shells



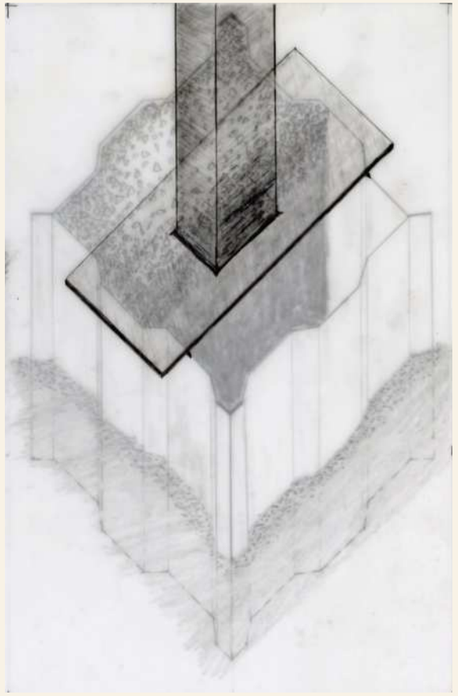
Successive placements accrue

Lumber foot



Another level added

Sheet pile foot



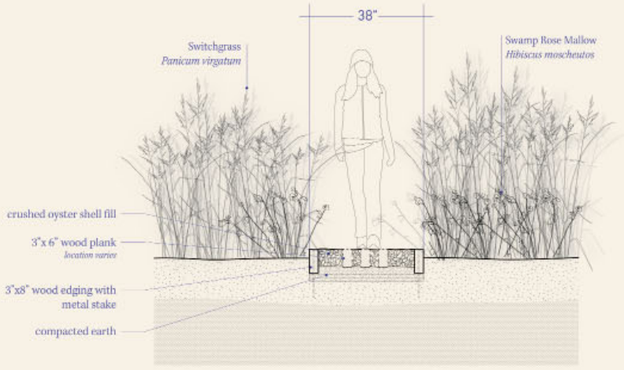
Footing for a future structure

Pilings/ghost trees - resawn

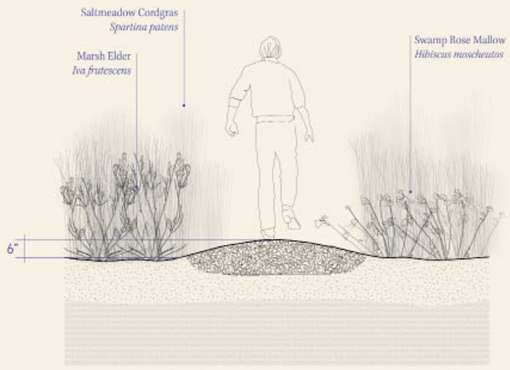


Buried in muck, grasses grow over

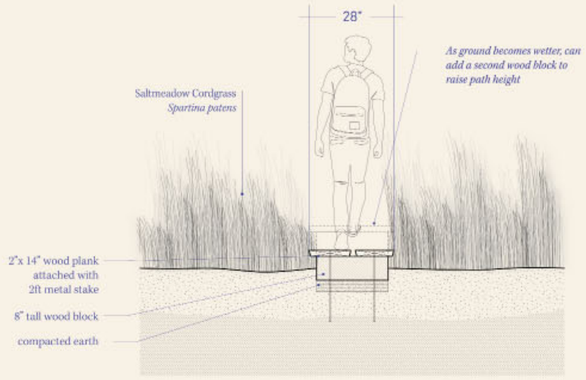
PATH ASSEMBLIES



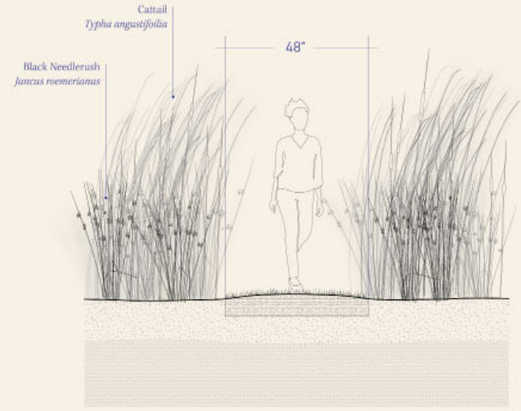
01. wood + crushed shell path
[City and Down Neck Marshes]



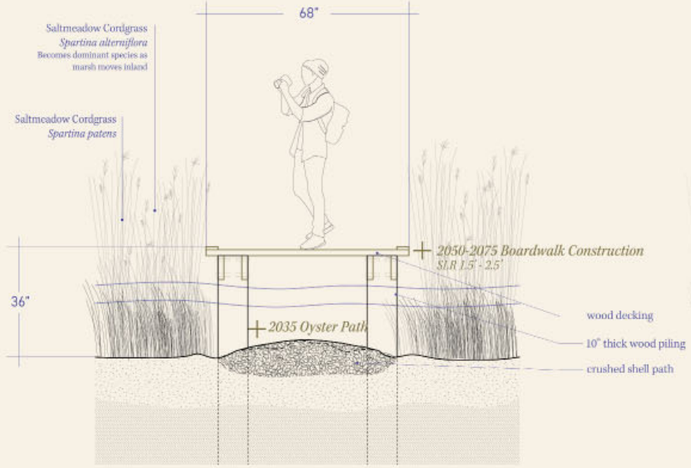
02. crushed shell path
[Down Neck Marsh]



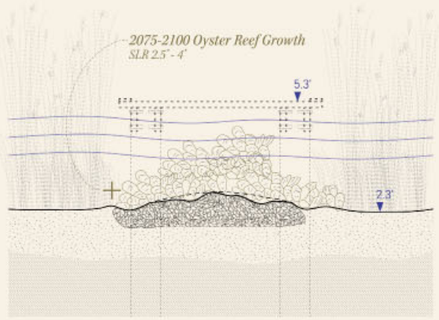
03. wood plank on block
[City and Down Neck Marshes]



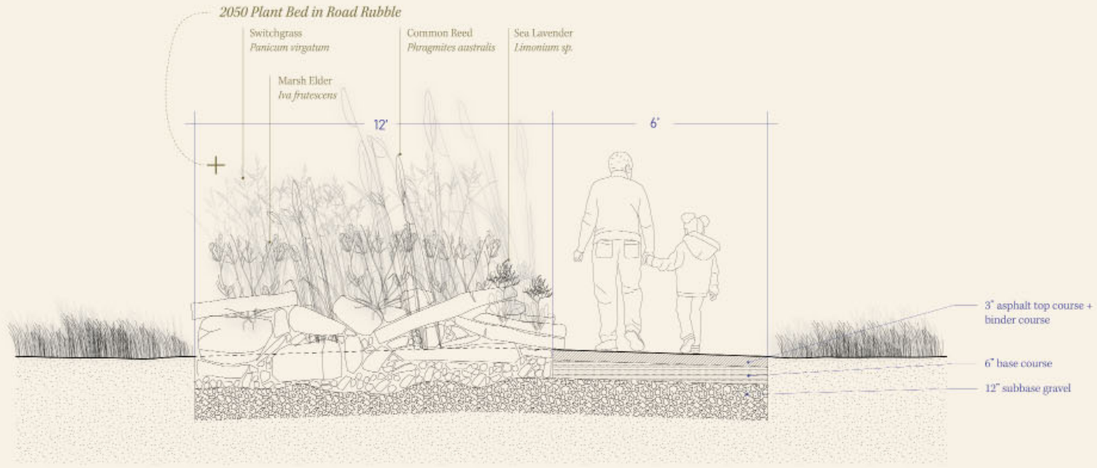
04. mown grass path
[City Marsh]



05. boardwalk over former shell path
[Down Neck Marsh]



... becomes an oyster reef underneath



06. road deconstruction + remaining asphalt path
[Down Neck Marsh]

Scale:
1" = 2'
0 1 2 4 8

A PROGGER'S DREAM



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