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Country / City UNITED STATES / ITHACA

University / School CORNELL UNIVERSITY

Academic year 2017-2018

Title of the project SEDIMENT SKELETONS

Authors JACOB L. KUHN





# PERFORMATIVE NATURE

Barcelona International Landscape Architecture Biennial

September 2018 **Barcelona**

SCHOOL PRIZE

X International Landscape Architecture Biennial

Máster d'Arquitectura del Paisatge -DUOT - UPC

ETSAB- Escola Tècnica Superior

d'Arquitectura de Barcelona

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## TECHNICAL DOSSIER

Title of the project Sediment Skeletons  
Authors Jacob Kuhn  
Title of the course LA 4020: Sediment City  
Academic year 2017-2018  
Teaching Staff Brian Davis  
Department/Section/Program of belonging Department of Landscape Architecture, College of  
Agriculture and Life Science  
University/School Cornell University

Written statement, short description of the project in English, no more than 250 words

Sediment Skeletons hybridizes landscape architecture and infrastructure to produce a string of islands along the western coast of Galveston Bay. This artificial archipelago along the west side of the Houston Shipping Channel in Galveston Bay provides defense against storm surge before the waves even reach the shoreline, while also contributing to ecological habitat growth and increased recreational space out in the bay. While acting as breakwaters against sea level rise, the islands draw the people of Galveston out into the water to reconnect and enhance daily life.

The islands themselves are constructed with a durable, grid-like structure into which dredged material can be placed. These structures mimic the dredged material placement areas (DMPA) that are scattered throughout Galveston Bay. Unlike the existing DMPAs, the Sediment Skeletons allow for new recreational opportunities for civilians and enhanced infrastructural capabilities for the Army Corps of Engineers. This project aims to take full advantage of the millions of cubic tons of dredged material removed from the Houston Shipping Channel each year.

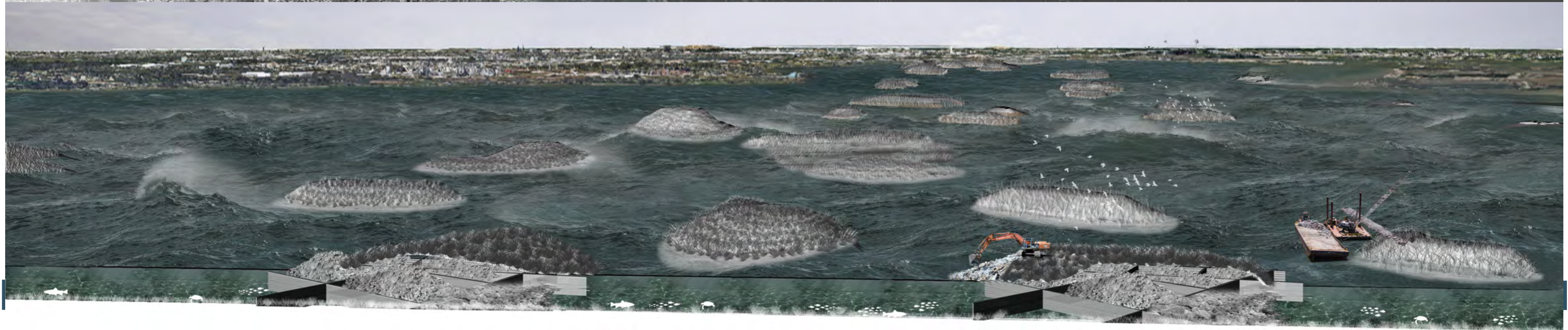
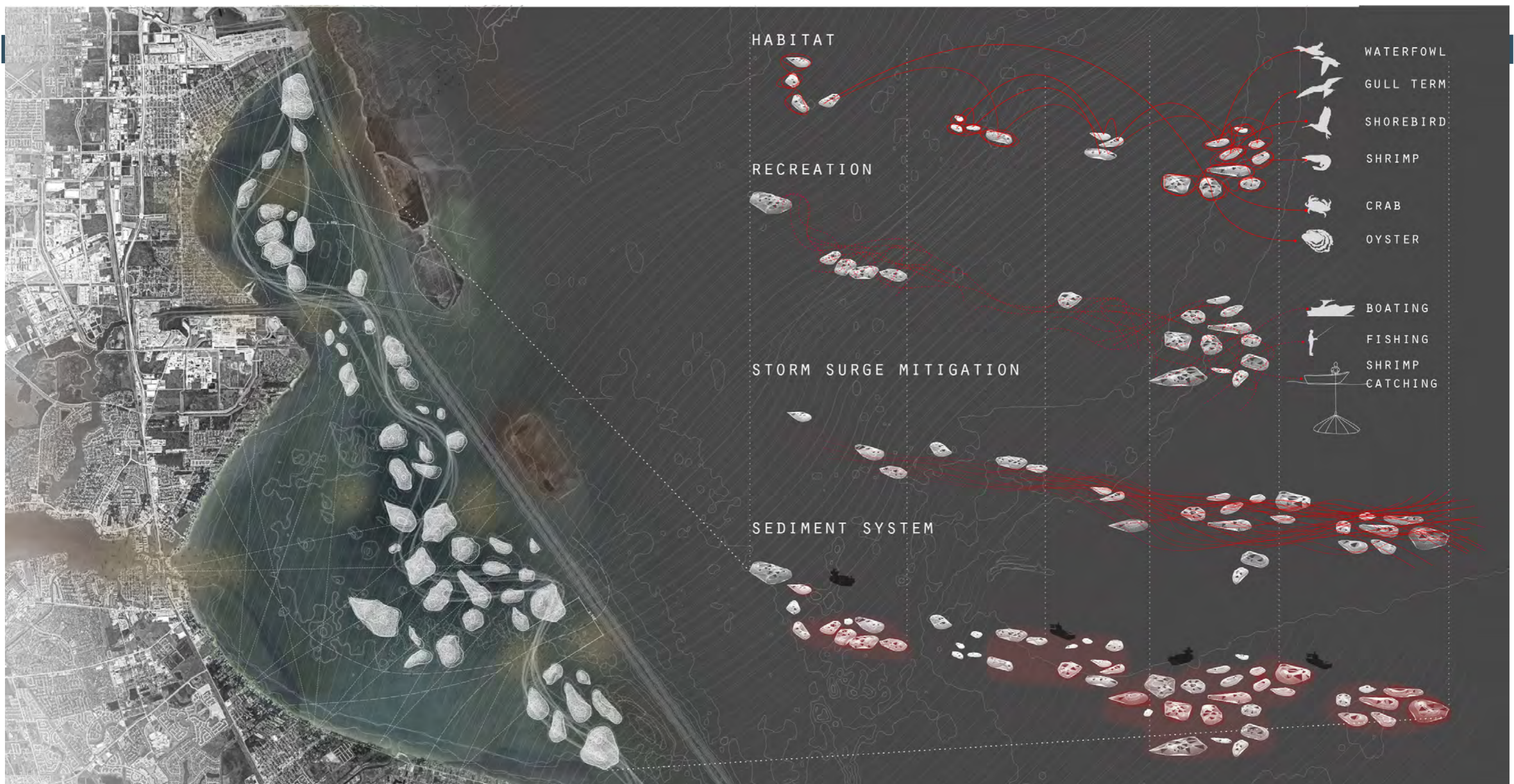
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Consult the web page <http://landscape.coac.net/>



REGIONAL SEDIMENT MANAGEMENT SYSTEM

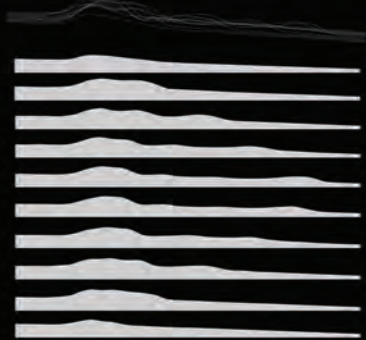
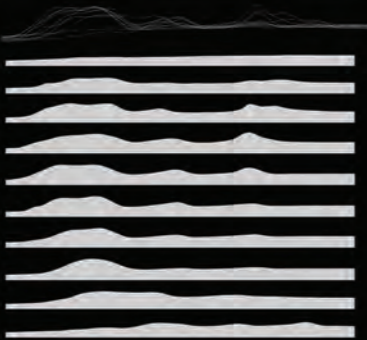
SKELETON ITERATION 1



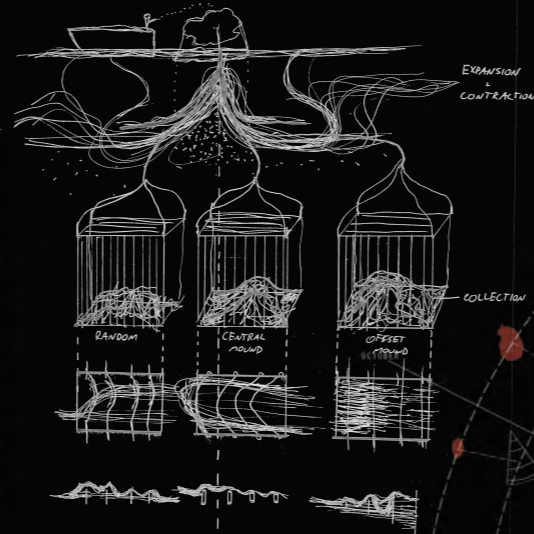
SKELETON ITERATION 2



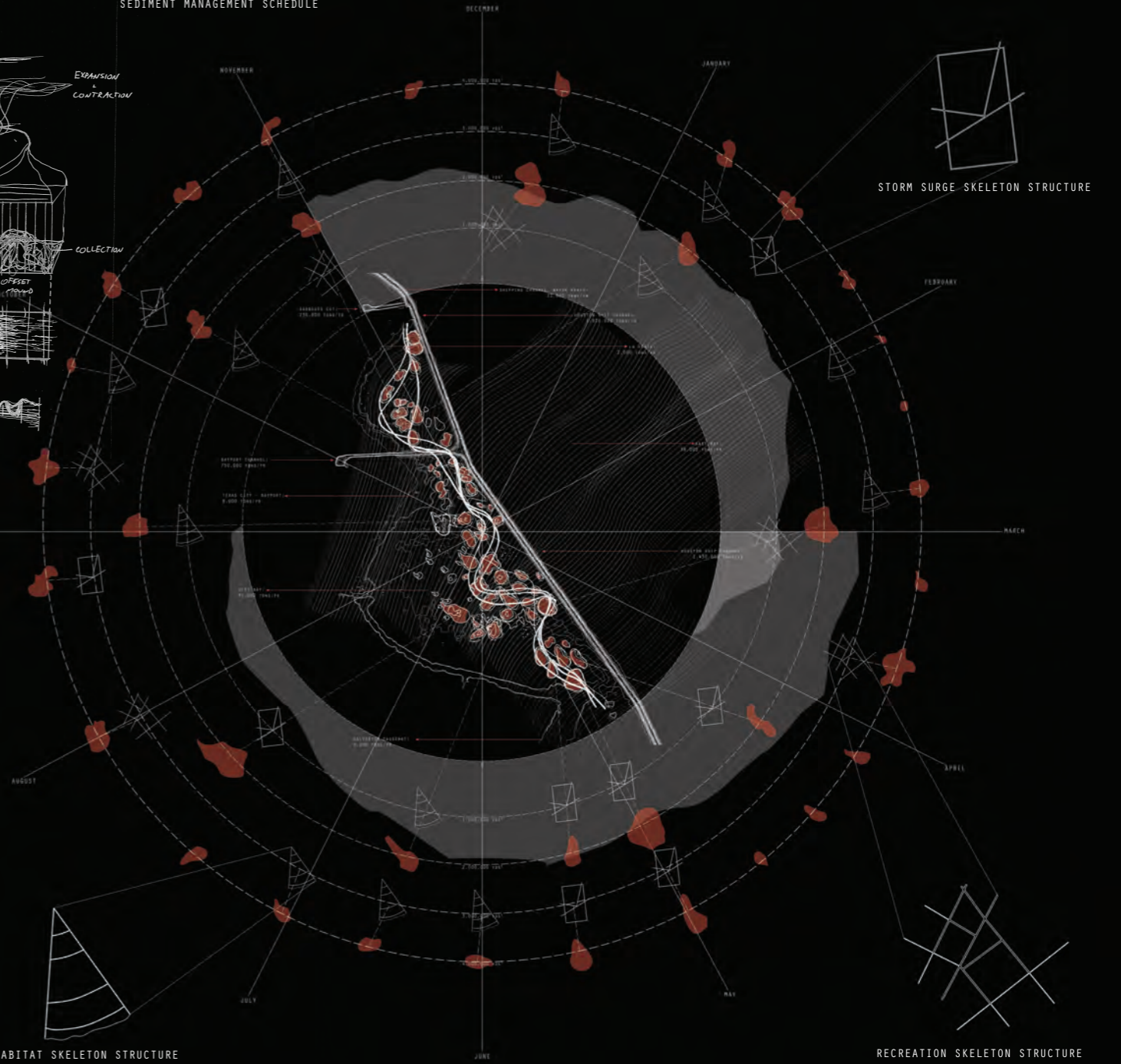
SKELETON ITERATION 3



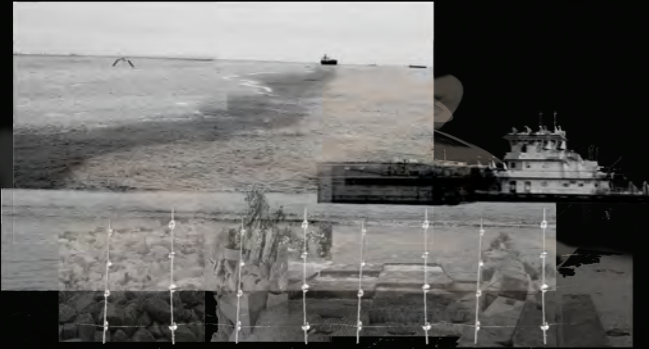
SEDIMENT SKELETON PLACEMENT CONCEPT



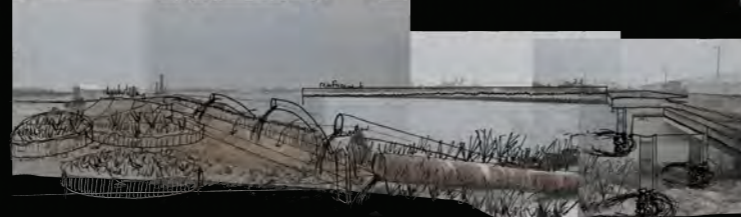
SEDIMENT MANAGEMENT SCHEDULE



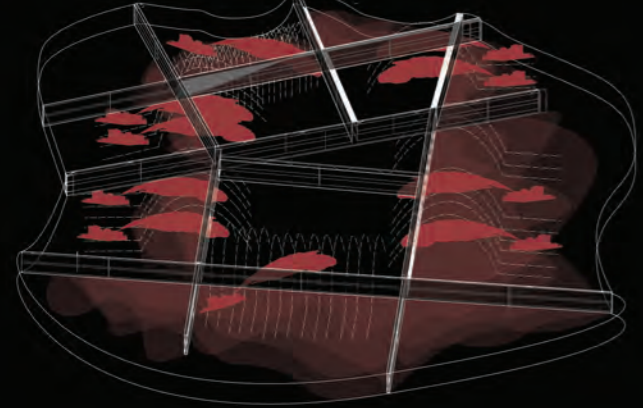
SEDIMENT SYSTEM COLLAGE



SEDIMENT SYSTEM COLLAGE



DREDGED MATERIAL PLACEMENT SYSTEM



RESULTANT ISLAND

