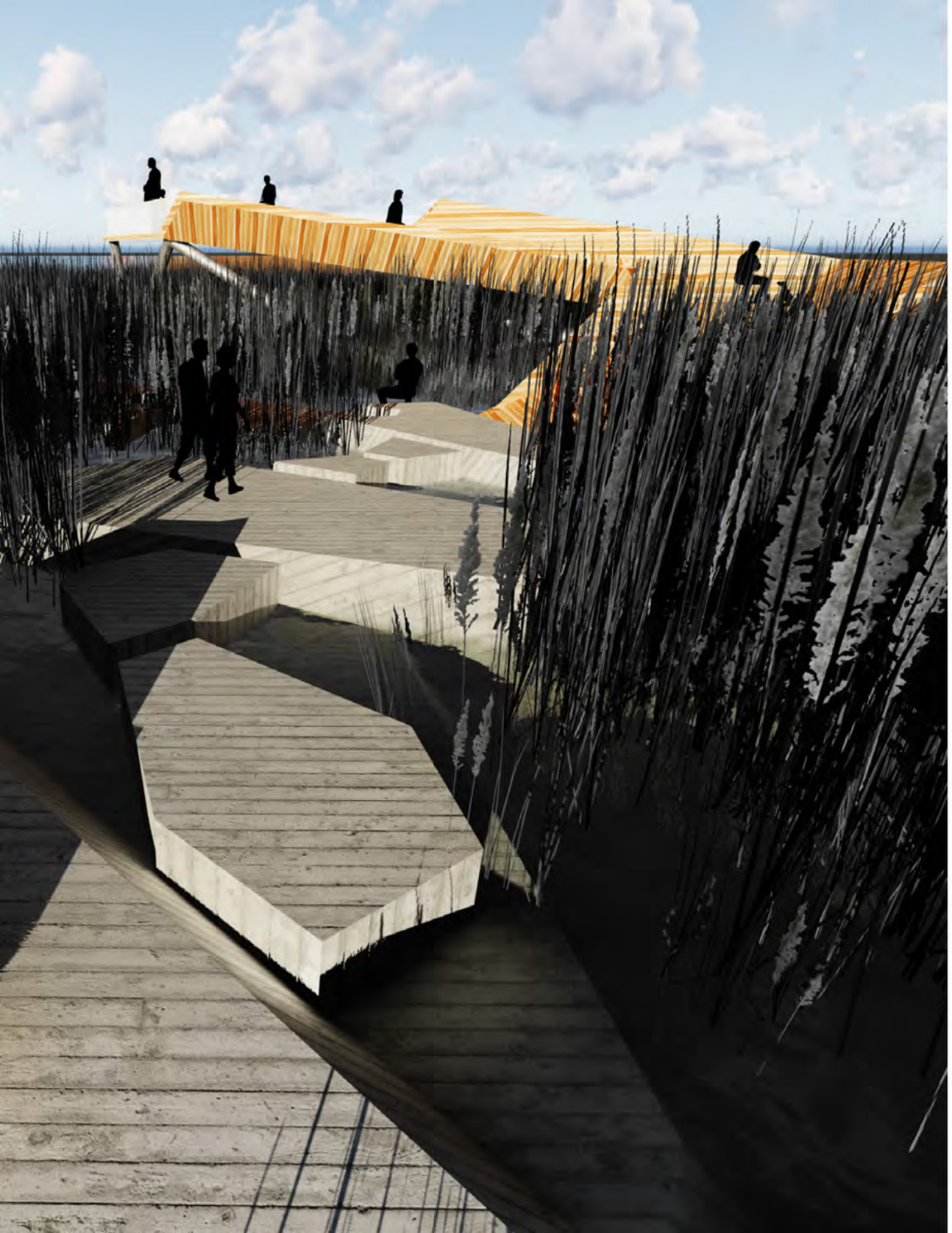


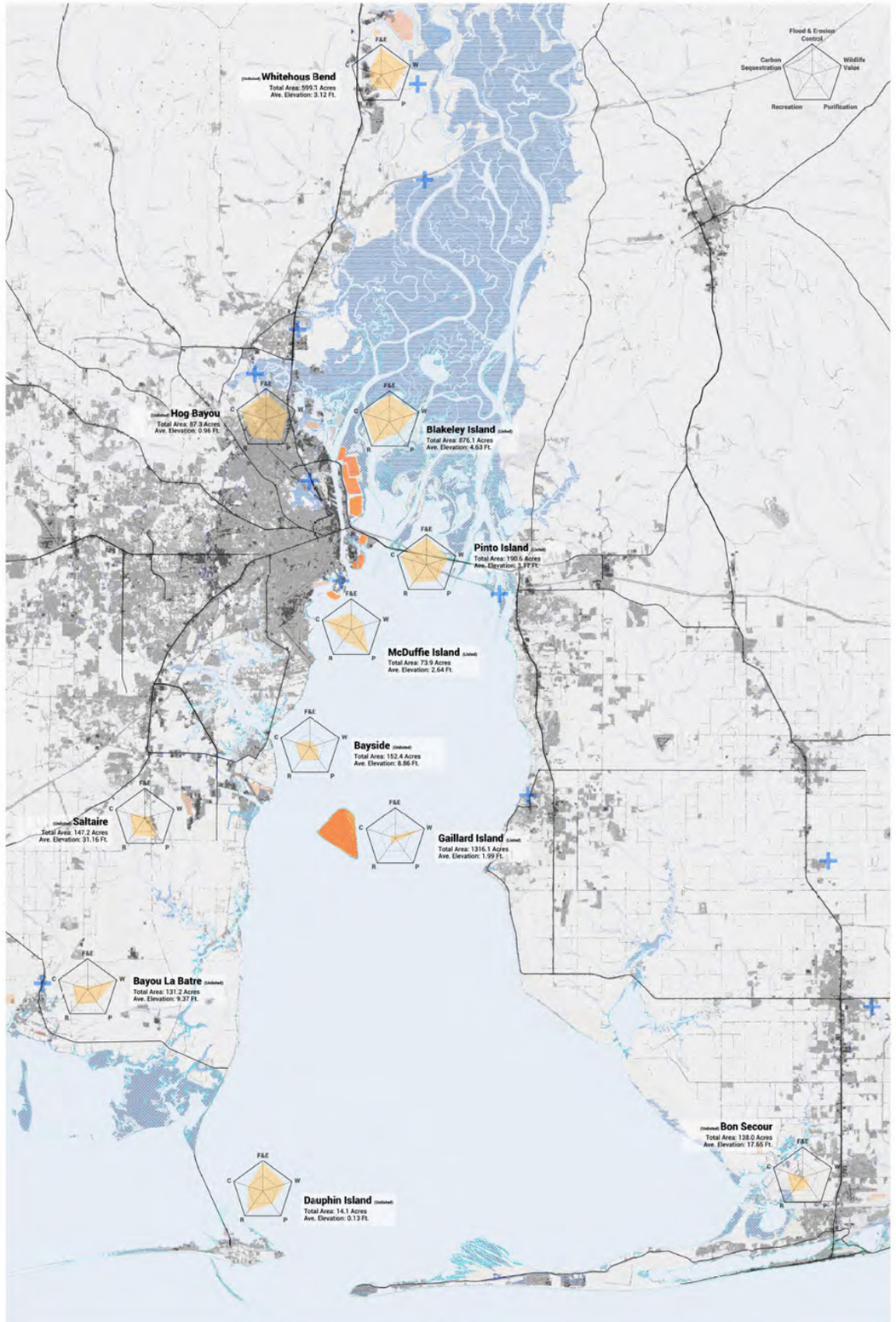
BLAKELEY ISLAND

Yuzhou Jin

As significant port, Mobile has a considerable amount of navigational dredging each year. As one of the products of the process of dredging, dredged material management areas (DMMAs) are taking more and more land. DMMAs are used to retain dredged material solids while permitting the carrier water to be released from the area. It is a tract of land is surrounded by dikes to form a confined surface area, and the dredged channel sediments are then pumped into this area hydraulically.

The project is inspired by the fact that some DMMAs spontaneously became habitats for migratory birds. This process shows the great potential of DMMAs to be transformed from pure industrial focus to multifunctional space.

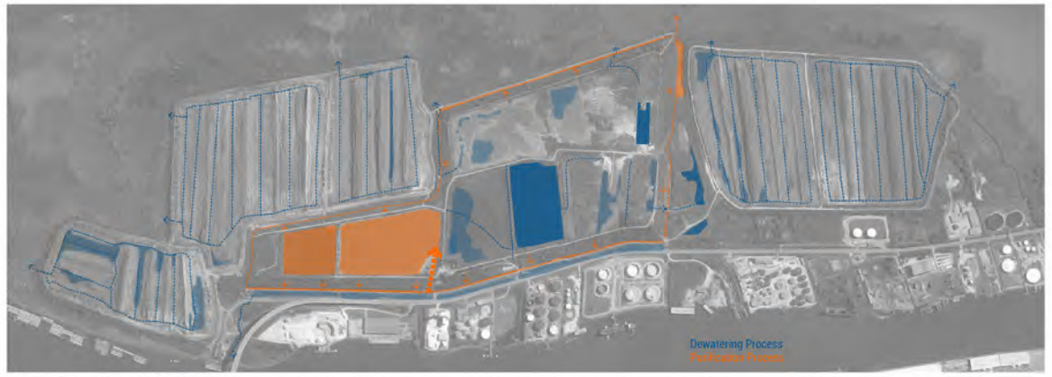
The selected site is on Blakeley Island, with about 942 acres in area. The main concept is to merge ecological, recreational, and industrial value altogether, and create a prototypical design that can be applied to other similar DMMAs.



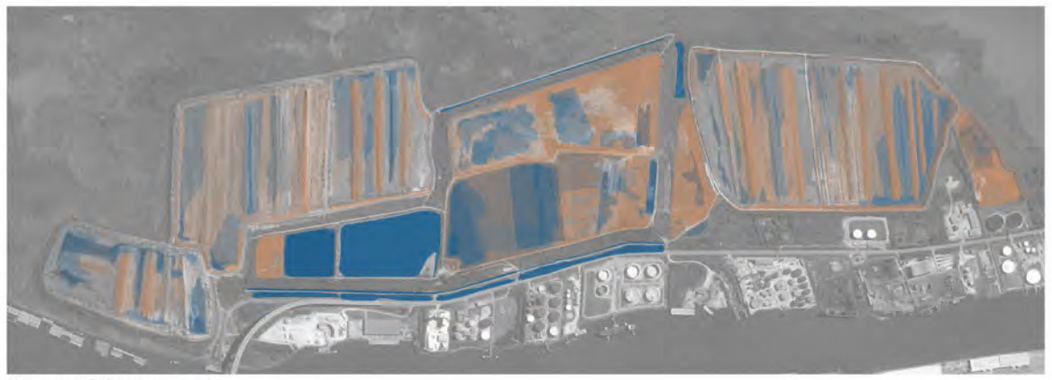
DMMA POTENTIAL ANALYSIS

This regional scale analysis shows various potentials including flood control, wildlife habitat, water purification, recreation, and carbon sequestration of different DMMAs in the bay.

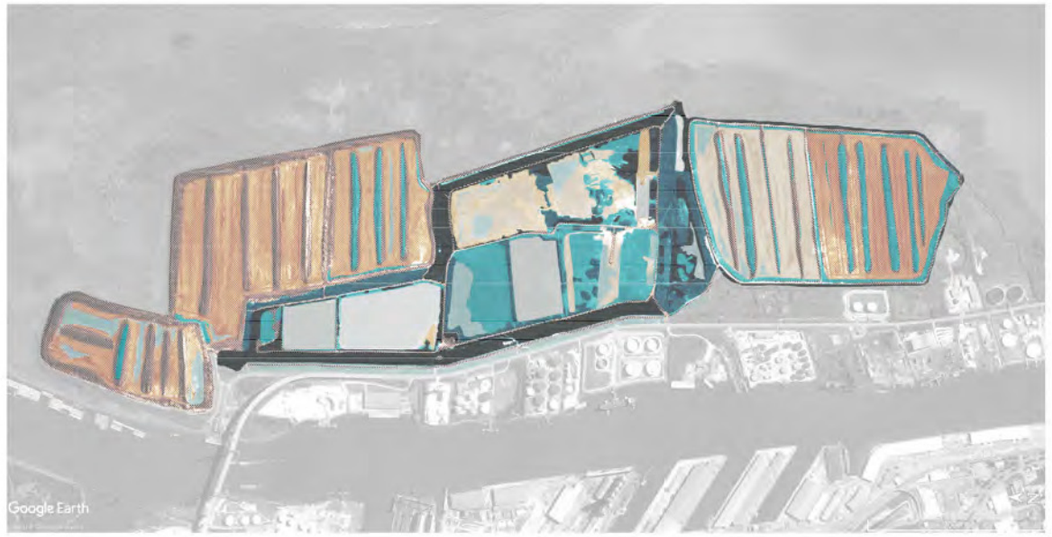
This study provides the basis for the subsequent site selection.



Water cycle analysis



Changeability analysis



Current land pattern type

SITE ANALYSIS

Water cycle analysis shows the circulation of dewatering process for dredged material, as well as the purification process for industrial waste treatment.

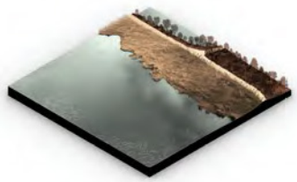
Changeability analysis overlaps the historical sediment and water pattern.

Current land pattern type illustrates all kinds of landscape patterns that currently existing on Blakeley Island.

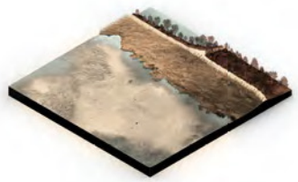
With 40 years of accumulation, the site gradually transformed from the beginning of simple DMMAs to multifunctional landscape medium. In addition to stockpiling dredged material, the site now has a certain ecological value and the potential for recreational activities.

PROTOTYPE I

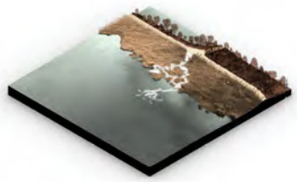
This design attempts to combine bird watching, bird migration, and dewatering processes.



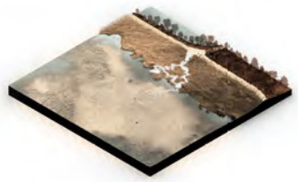
During dewatering



After dewatering



Access during dewatering



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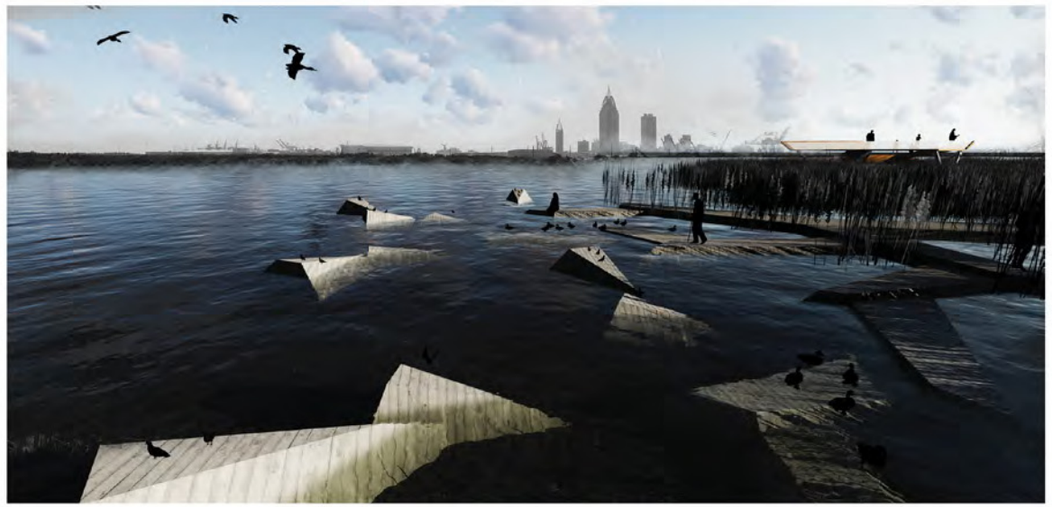
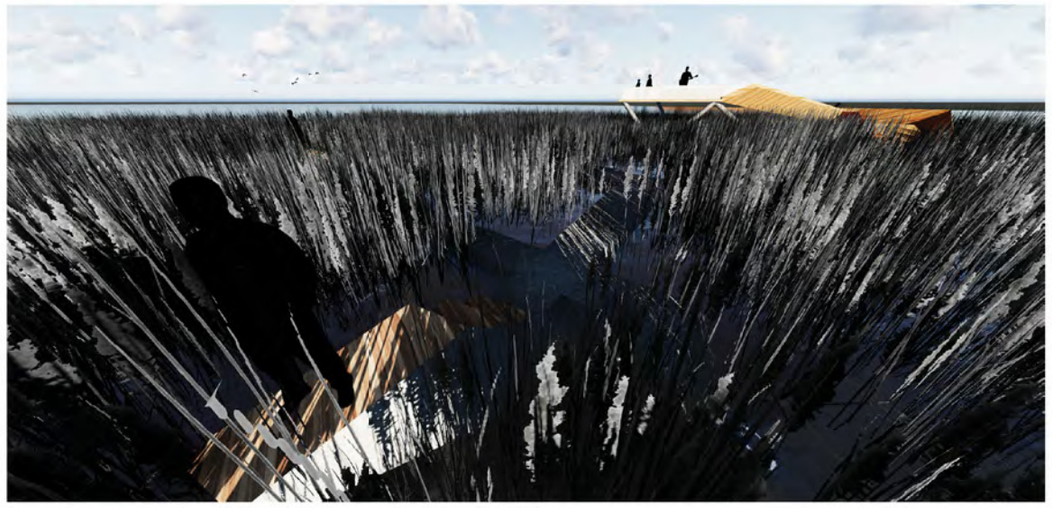
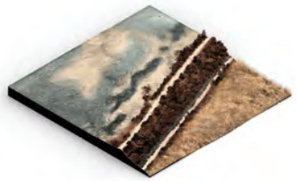




PROTOTYPE II

This design attempts to amplify the feeling of vastness of the DMMA and the surrounding wetlands.



After dewatering

During dewatering

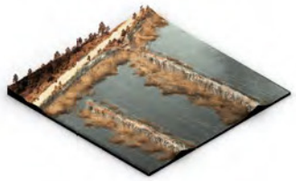
Access after dewatering

Access during dewatering

PROTOTYPE III

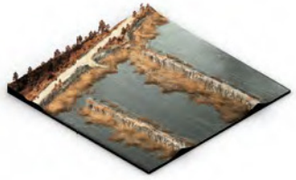
This design attempts to use a movable bridge structure to help the visitor access to the DMMA's unique space at any time.

After dewatering



During dewatering

Access after dewatering



Access during dewatering