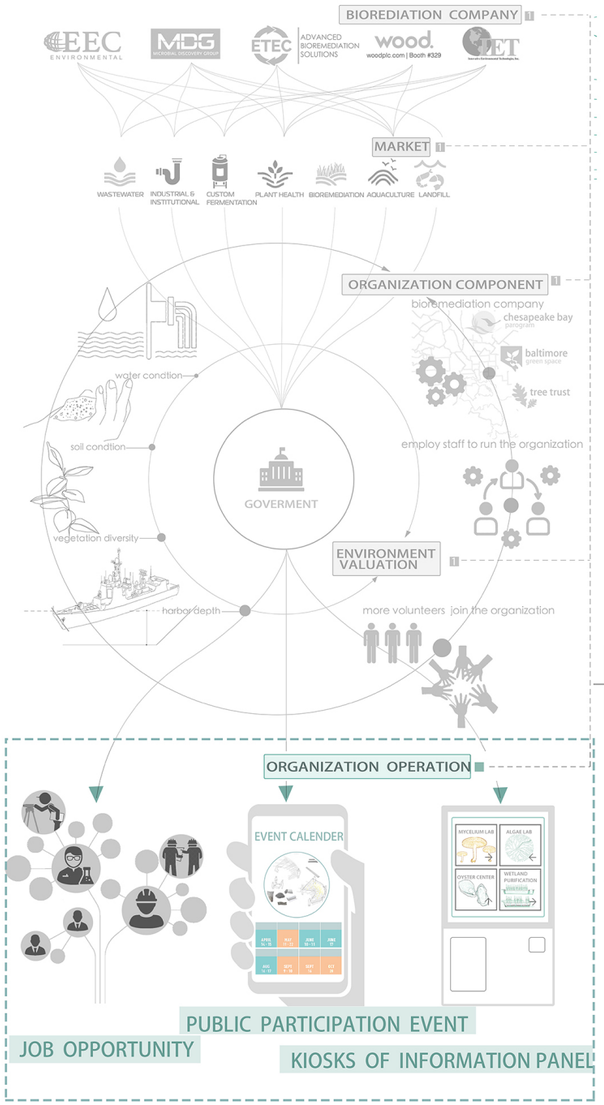
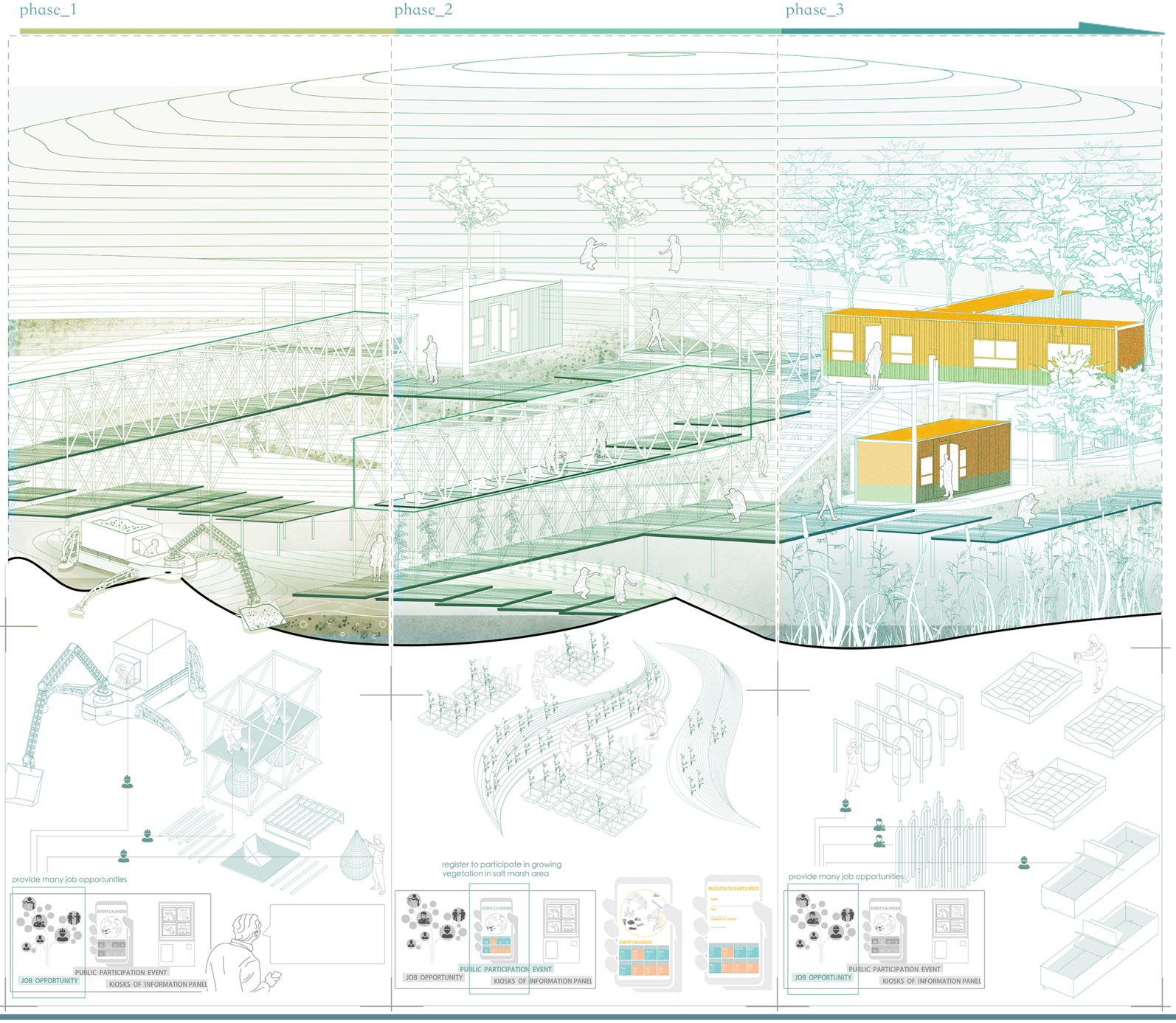
SITE DEVELOPMENT OVER TIME

with time passing by, more job opportunities will be created on site. Organization work to run public participation events.





Country / City	United States of America, Charlottesville, VA
University / School	University of Virginia
Academic year	Spring 2020
Title of the project	Bioremediation Incubator
Authors	Yi Zhu

TECHNICAL DOSSIER

Title of the project	Bioremediation Incubator
Authors	Yi Zhu
Title of the course	Landscape Architecture Foundation Studio II
Academic year	2019-2020
Teaching Staff	Matthew Seibert
Department/Section/Program of belonging	Landscape Architecture
University/School	University of Virginia School of Architecture

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

To respond to the issues of the government's dredging plan in Baltimore, Maryland's harbor and the city's high unemployment rate, I propose to develop bio-remediation techniques on site which can work to mitigate polluted sludge and waste water, while also providing job opportunities. Bio-remediation is a very promising technique to deal with pollution. Even though there are still some uncertainties of this very new method, more and more attention from society is paid to its development, and it is becoming more widely used. The construction of the site starts with an amphibious machine which can both work in harbor and on land. It can dredge sludge and carry the sludge to the site to make landforms. New landforms continue changing, and makes the dynamic dredging process visible to the public. Ship containers serve as temporary labs, providing a flexible space for the development of bio-remediation techniques including mycelium remediation, algae remediation, and oyster remediation. Shipping containers can be transformed into greenhouses, water tank, and sludge containers, and there are many possibilities for spatial configuration of shipping containers. The size of the lab center onsite can easily increase or decrease based on needed spatial and operational affordances and constraints. Landform creates different living conditions for a wider variety of plants than is currently supported, so biodiversity will increase. The construction process and bio-remediation techniques will bring people here, and the visible re-mediation process will become an opportunity for public education.

For further information
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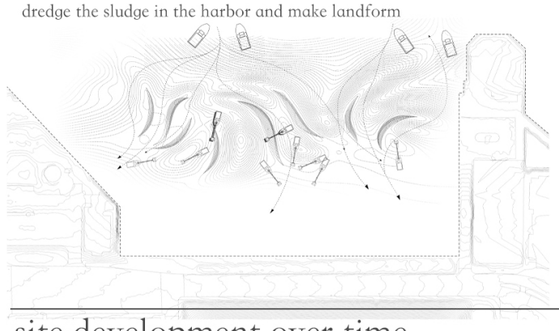
CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

Barcelona September 2020

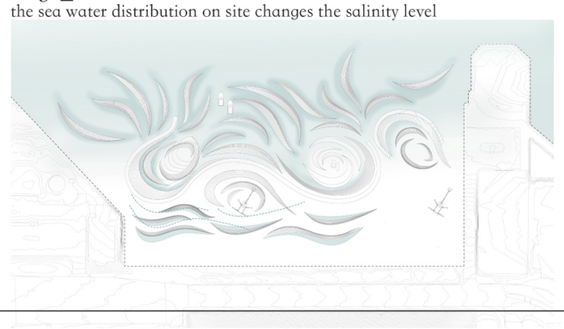
SCHOOL PRIZE

stage_1
dredge the sludge in the harbor and make landform

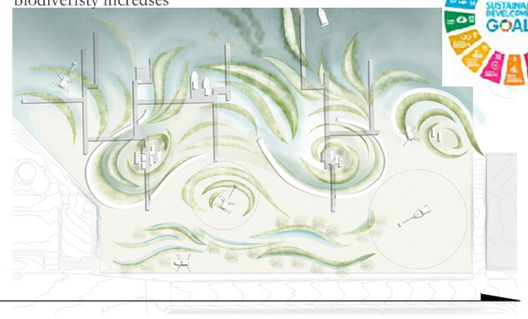


stage_2
new landform changes the circluation system on site

stage_3
the sea water distribution on site changes the salinity level



stage_4
biodiveristy increases



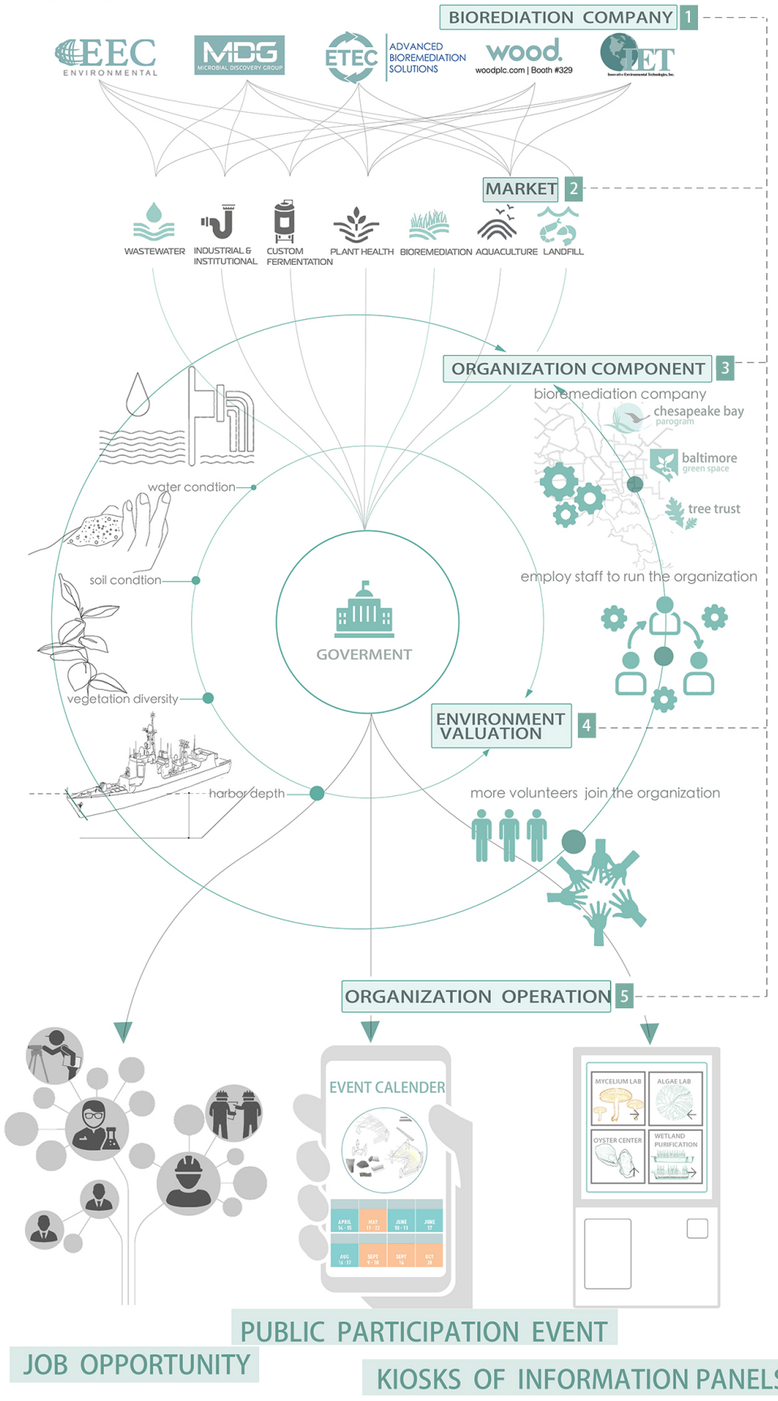
site development over time

Master plan of one possible senario

50’ 100’ 200’

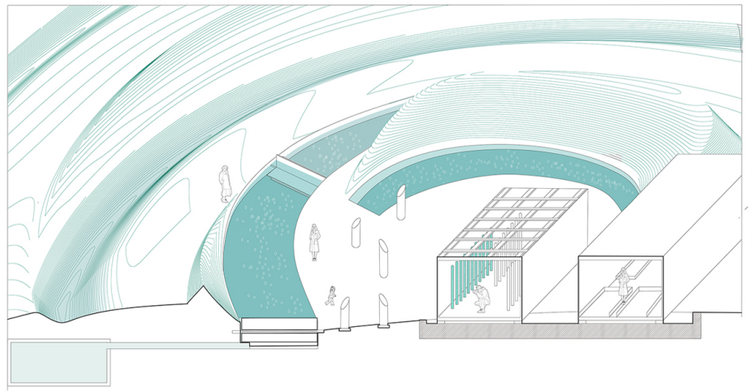
“GREEN DEAL” ORGANIZATION

A public organization can work to deal with bioremediation companies and Baltimore government. It will interface with public by offering some participation events.

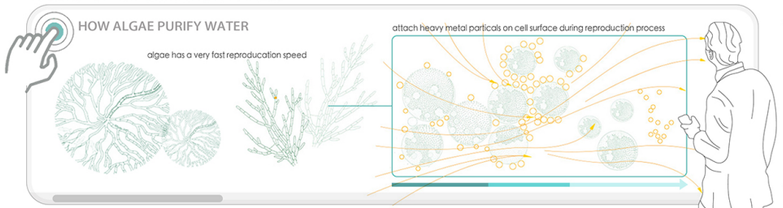


The shape of the landform will serve as a container to hold water. And the bioremediation techniques can be used in several different spots. Public will have a close interaction with the bioremediation process. The kiosks of information panels will illustrate basic information of bioremediat

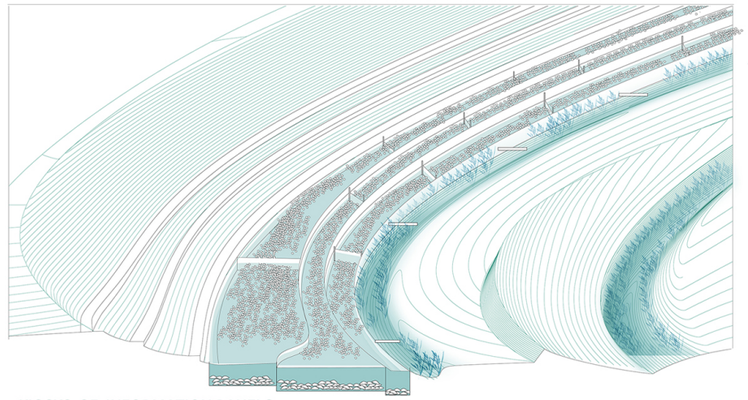
ALGEA REMEDIATION



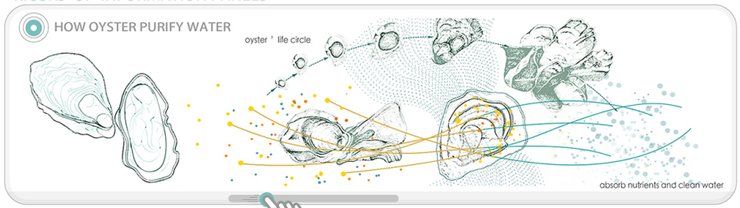
KIOSKS OF INFORMATION PANELS



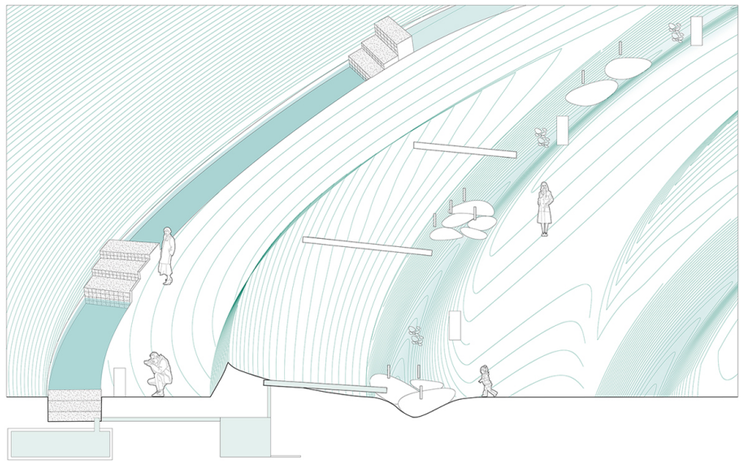
OYSTER REMEIDATION



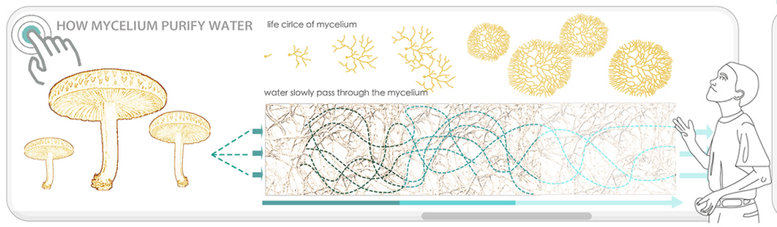
KIOSKS OF INFORMATION PANELS



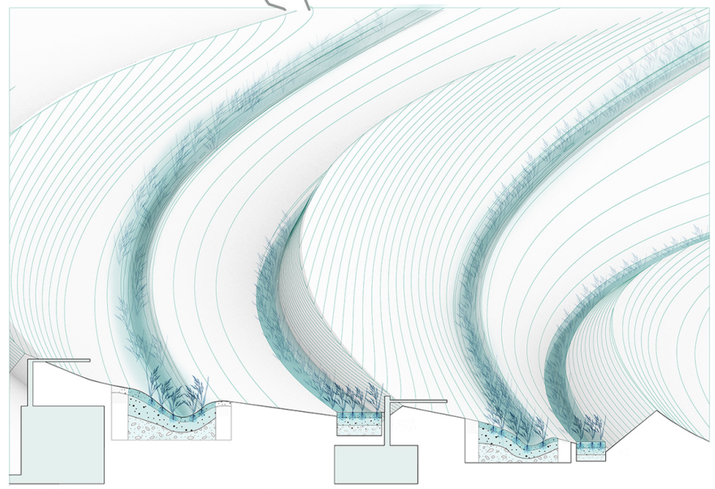
MYCELIUM REMEDIATION



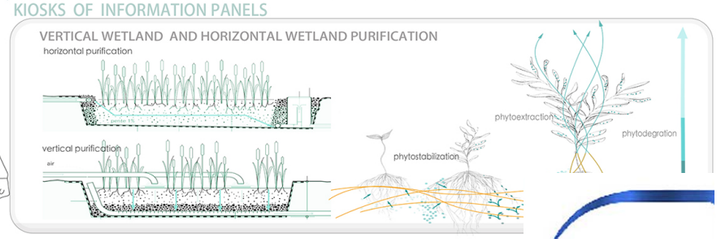
KIOSKS OF INFORMATION PANELS



HPYTOREMEDIATION

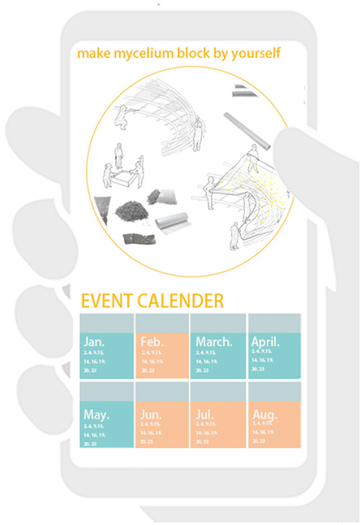


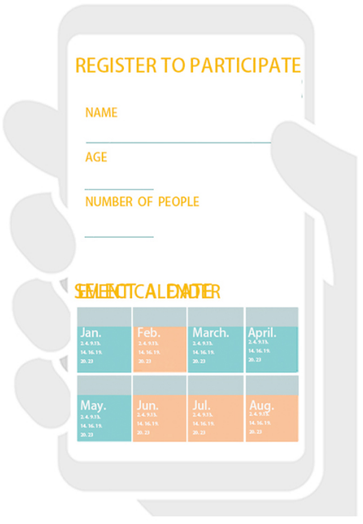
KIOSKS OF INFORMATION PANELS



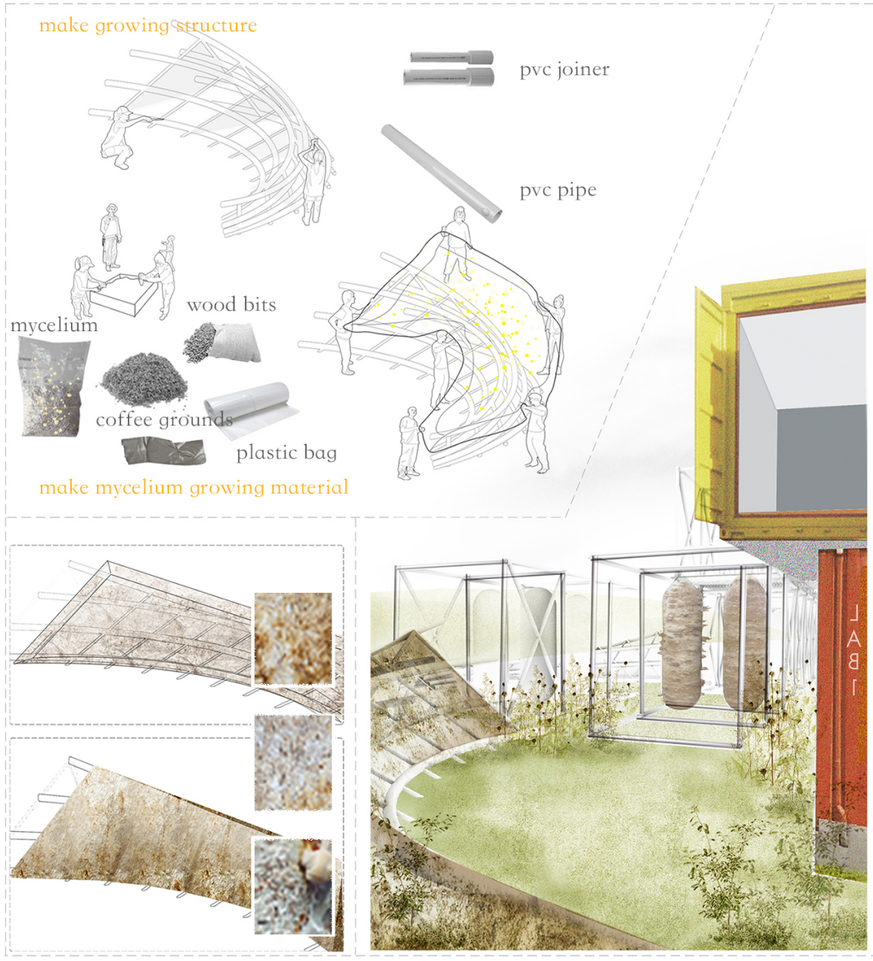
PUBLIC PARTICIPATION

Organization will work to interface with the public. People can regesiter to participate the events like making mycelium block and grow plants in salt marsh area.

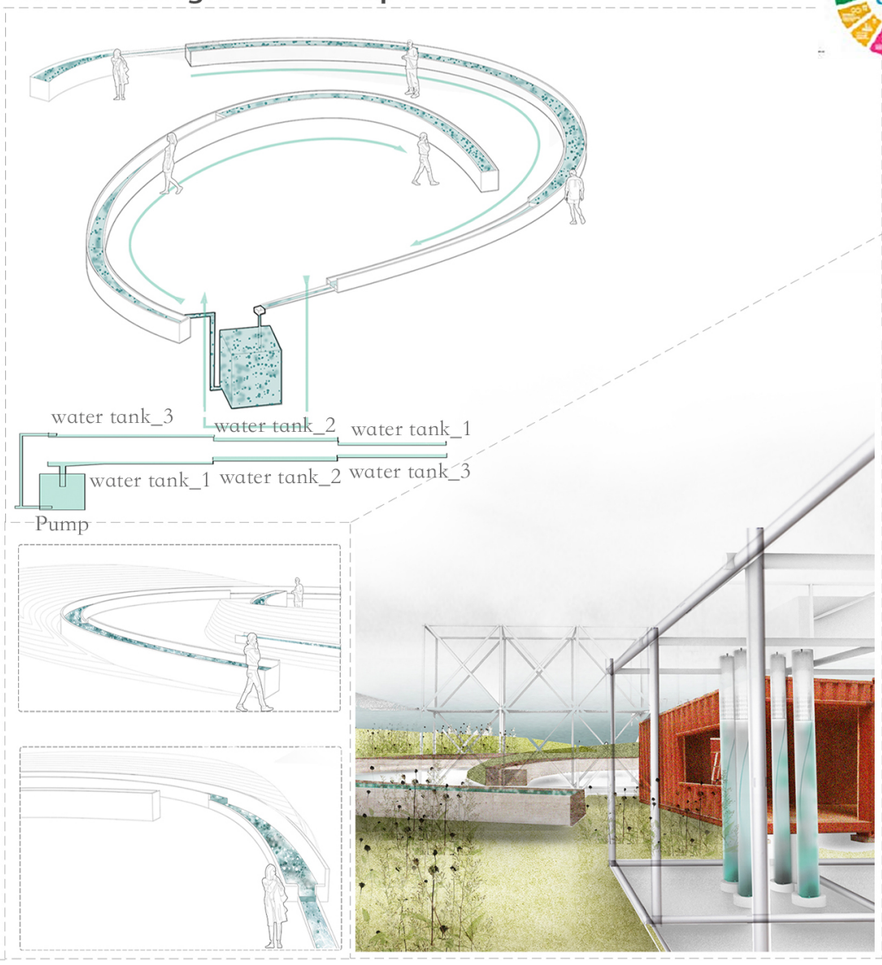




make mycelium block



Luminous algae waterscape



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