History
1772, Jean Baptiste Pointe DuSable became the first non-native settler in the Potawatomi tribe area and established the first agricultural trading post on the mouth of the Chicago River.
From the early 1800’s to around 1850, land was deposited east of Michigan Ave, by the current caused by a new lighthouse jetty in Lake Michigan. With the shore’s natural growth came a series of artificial LANDFILL OPERATIONS made possible by the aftermath debris of such events as the Great Chicago Fire in 1871. On the northern border of DuSable point is the Ogden strip, a canal dug in the late 1800’s for connecting cargo boats with railroads.
Since the 19th century, a series of landfill operations built up what is now DuSable point. Such extreme artificial additions to the once natural environment like the complete reversal of the flow of the Chicago River (an attempt to avoid intoxicating Lake Michigan) contribute to the current condition of DuSable point.

Current Site Environment
One specific deposit onto Dusable Point, from the once nearby Lindsay light Company superfund site, has shown to contain radioactive thorium. Due to the site's proximity to Lake Michigan, the site requires immediate remediation. It is currently closed off from the public and the almost decade-long process of transforming it into a public park has been halted by the recent findings of thorium deposits. The most recent proposal for the site is a parking lot remediation through a 6" concrete cap.

The current condition of Lake Michigan is reported to be extremely contaminated in the Chicago region. Great Lakes fish contain dangerously high levels of mercury, heavy metals, and other elements found in the decomposition of industrial materials once dumped into the water around the Chicago area.
Pier DuSable

a proposal for DuSable Point

Inspired by Pierre DuSable and the farming life of the Midwest, the program is based on reconnecting Chicago with the agricultural history. With the constraints of the urban fabric, individuals are unable to understand why a clean and organic environment is necessary for life. To help cope with the lack of agriculture within the city, Pier DuSable will introduce new ways of gardening. For the fast-paced city life, one may not be able to maintain a garden. Through studies of ‘URBAN AGRICULTURE’, the gardening process can be reformulated by means of technology and research. The Pier is to hold institutional ground for laboratories (greenhouses), classrooms, lecture halls and a library dedicated to the birth of Urban Agriculture.

Urban Agriculture Sample
The moderated plant life: pressure sensors within the cell membranes of the house plant detect changes due to moisture content allowing the gardener to calculate and program their garden for automation. Surveillance of the plant life allows for remote control of garden needs such as moisture, water, or airflow via the internet.
Opposing Chicago’s tendency to fill the shoreline for development by removing the intoxicated land that occupies DuSable Point and the piece of land directly east will allow for the proper treatment of the soil - the REMEDIATION STARTS HERE. The Ogden Strip will be the holding grounds for the site’s most important resource. Even though it seems to be in abundance, clean water is not available in mass quantities directly from the lake. The strip will be filled in stages with 3 stratum of artificial marsh. The marsh will allocate storm water from drainage pipes (prior to their combination with sewage) and treat it through series organic processes. Pier Dusable will irrigate its soil with clean water and distribute the clean runoff into the river.

Duckweed, located in the first buffer zone of the artificial marsh, will cover the water’s surface. The duckweed intentionally blocks out sunlight to prevent photosynthesis and most oxygen production therefore eliminating the growth of algae. Algae creates high concentrations of solids around itself, prolonging the filtration process.

Removing the existing land of DuSable Point will allow for the construction of a pier. Each load full of contaminated soil will be shipped down river on large industrial barges- a celebration of remediation for the entire city to see. Once the pier construction is completed, the soil barges will be converted into ground for mobile greenhouses that can dock within the pier.
The current site is represented on street level by a dead-end road and a no trespassing sign. As this area of Chicago becomes more and more populated with residential buildings, the landscape must follow along and transform. With thousands of runners, bikers, rollerblades, and other active people flooding the waterfront parks for their daily exercise, Pier DuSable will accommodate their experience to the fullest. The street grid is extended up and out over the pier, stretching towards the lake and connecting their route around Navy Pier. The abstracted street form becomes a topography providing a change in surface, elevation, and grade. Moving across the WALKSCAPE allows for the user to look through perforations and cuts in the surface—a view into the greenhouses beneath.

landscape. Planted with modular sheets of sod, the walkscape can be reconfigured to accommodate specific programs of the season. Like the organic growth of the marsh, the walkscape can be artificially manipulated to express change. Spaces left unplanted will can be replaced with glass panels that expose the greenhouses beneath.
Extending the boardwalk
the Ogden strip

The northern side of the existing Ogden Strip is a seasonal promenade of shops and restaurants. The southern side has become condominiums therefore lost its public appeal and boardwalk. DuSable Pier will bridge across the Strip at divisions of the artificial marsh. The deck of the pier leads the public along the edge of the marsh and below the topographical substrate. At the Eastern End of the pier, the deck shifts upwards, turning into a long, thin, building. Entering the building beneath the large auditorium, the public breaks through a series of permeable layers of facade that masks the solid mass of the building. Walking up and through the building, either on the inside or on the exterior walkways, the building rises up and shifts towards the great expanse of Lake Michigan.

reflection. The large skirting wall of the building has greater intentions then merely disguising its contents at the edge of the pier. In order to blend into the water and the city, the skirting wall wraps the building with the intention of reflecting the surrounding environment. The thin aluminum walls that hold a series of balconies and walkways produces a bright and shimmering reflectance of the walkscape and Lake Michigan.
The Floating Greenhouses

The permanent representation of proper site remediation will be continually displayed throughout the city by the conversion of the industrial barge to the floating greenhouse. Holding the laboratory space for the study of urban agriculture, the barges are able to act as remote icons for the program. With the capability of leaving site and floating downriver, Pier DuSable can express itself through THE REMOTE barges carrying planted arrangements of gardens or even a fresh market selling recently grown fruits and vegetables.

Whether positioned on the exterior of the pier or underneath the artificial lighting of the walkscape, the floating greenhouse symbolically represents the definition of Urban Agriculture. The ability to change and control a microclimate or location for the benefit of its surroundings or itself is the essence of this program.

Acting like a organism disbanding from the pier, the barges disburse across the bay or down the river. Their mechanistic qualities allow for the thermal barrier of the conservatory glass to contract into the body of the barge, opening itself to the raw exterior environment. Piece car be erected to act as sunshades for the crop or removed so the barges appear as floating landscapes of flowers and greenery.
As Chicago’s shoreline is continually developed into a greener environment, one must question the reality of its condition. Is the ideal ‘green’ stricken by faulty remediation? Pier DuSable will exemplify the extreme historical reversal needed to remedy the waterfront.

Pier DuSable’s remote barges will continuously symbolize the beauty of remediation—*an ICONOGRAPHY* texturizing the Chicago River or Lake Michigan with ever changing agricultural creations.