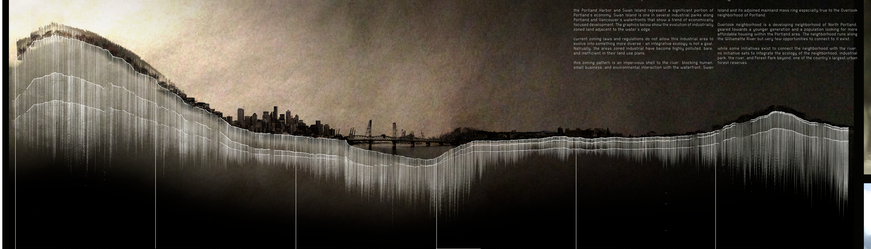
Center for Industrial Diversity
Reimagining Industry as an Ecological Artifact

Hiroshi Kaneko

Regenerative Design Thesis Studio
under the direction of Hajo Neis

University of Oregon
Fall / Winter / Spring 2013





ECOLOGY AND EQUALITY
Fishing for the Community
Market example: Food Hub

Portland has always been known as the home of pro-fishery, and in fact, Willamette Market, one public fishery for the community, is still operating.



ECOLOGY AND EQUALITY
Fishing Industrially Alongside
Market example: Biomass Energy

Portland, which is profiting on value-added growth enabled by its environmental quality, should not simply observe the degradation of the ecosystem of nearby rivers. Rather, it should leverage its economic power to help establish a balance between industrial fishing, which is a source of wealth and health and industry.



ECONOMY AND EQUALITY
Fishing Industrially Alongside
Market example: Port of Seattle/South

Portland, which is profiting on value-added growth enabled by its environmental quality, should not simply observe the degradation of the ecosystem of nearby rivers. Rather, it should leverage its economic power to help establish a balance between industrial fishing, which is a source of wealth and health and industry.



ECOLOGY AND ECONOMY
If Autumn Is the Tragedy of the Commons
Market example: The Alberta Rust

The main emerging thing to our environment and the ambiance for it is fishing industry is under immense pressure and environmentally, many species are in danger of extinction. Fishing is a common property resource, and it is subject to the tragedy of the commons. The tragedy of the commons is a problem in which all individuals have access to a resource and each will benefit from using it. Yet overuse can result in the resource's destruction.



ECONOMY AND ECOLOGY
Fishing Industrially Alongside
Market example: Industrial Symbiosis

Portland can take lead in industrial ecology and be the exclusive fish processing facility in the area and environmentally savvy companies will be attracted to the area. Portland can also be a model for industrial ecology and can be a leader in the field. Portland can also be a model for industrial ecology and can be a leader in the field.



ECONOMY AND ECOLOGY
Fishing Industrially Alongside
Market example: Industrial Symbiosis

Portland can take lead in industrial ecology and be the exclusive fish processing facility in the area and environmentally savvy companies will be attracted to the area. Portland can also be a model for industrial ecology and can be a leader in the field.



EQUALITY AND ECONOMY
Escape for Growth From the Suburbs
Market example: Residential areas of Portland surrounding Columbia

Columbia is close to the city of Portland, access to the Portland Exchange of Commerce and Industrials, can come have to grow to form a new industrial symbiosis.



ECOLOGY AND EQUALITY
Fishing for the Community
Market example: Food Hub

Portland can take lead in industrial ecology and be the exclusive fish processing facility in the area and environmentally savvy companies will be attracted to the area. Portland can also be a model for industrial ecology and can be a leader in the field.









introduction

Portland has been reviewed as one of America's greatest cities and a city that successfully integrates industry with nature. Its industry sits on the Willamette River, a tributary of the Columbia River that extends through all three of Oregon's largest cities. Is heavily polluted and is listed as a superfund site by the EPA.

It is a feature enjoyed by sight, by major trade, by sailboats, and by recreational boaters. Unfortunately, the development of industry on the river was not possible because of the amount of pollution that has accumulated in the soils and water, and because of the way Portland's urban structure has evolved along the river.

past : high economic activity / low social activity / low environmental concern

present time: Portland's diverse early 19eme hits of economic and industrial activity, a conglomeration of different sized buildings built and stacked atop each other

current : low economic activity/high social activity/ medium environmental concern

According to an environmental crisis, most of the industrial and economic activity along Portland's shores have since been stripped to make way first for highways, and now for a public esplanade. There is now environmental concern for healthy ecologies along the river have yet to establish themselves.

future : economic activity / social activity / environmental concern

an esplanade is sought. Alterations of high, medium and low are no longer used. Instead, it is a flexible though relatively equal balance, with attention focused on different ecosystems along the Willamette River and the relative density of the entire systems.

history : swan island

First listed as Willow Island. The Swan Island has played a significant role in the development of Portland's economy. Swan Island is the largest site in the Port of Portland. Multimodal improvements around the area, resulting in the form of dredging, has occurred since 1875. In 1922, it was purchased by the Port of Portland. Subsequently, the island and the channel were dredged to ensure adequate depth for navigation and to increase navigation.

The island was developed in 1937 as Portland's airport until 1946.

In 1942, the island was the location of one of the Kaiser shipyards, producing the Liberty and Victory ships that were carrying supplies/armies for World War II. Kaiser ceased operations in 1945 after the war, leaving behind a legacy of shipbuilding. Kaiser's Vanport housing development was important to many of the workers of the 1948 Vanport flood, a city north of Portland that was the nation's largest wartime housing development.

due to segregation and lack of opportunity for African American transport victims and an influx of returning soldiers. the island was used as a shelter area for almost a year.

following the Vanport flood. Swan Island was finally developed into one of Port of Portland's industrial parks. Its current use plan and one of several other publicly ports operated by the Port of Portland.

current : swan island + portland harbor + overlook neighborhood

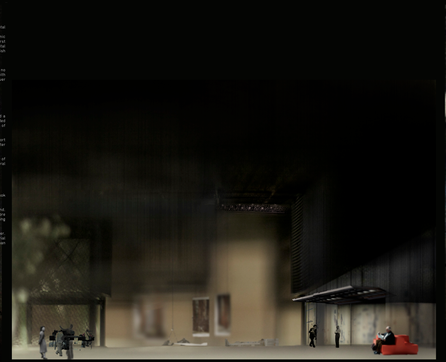
the Portland Harbor and Swan Island represent a significant portion of Portland's economy. Swan Island is one in several industrial parks along the Willamette River that are managed by the Port of Portland to promote its future development. The property's location within the context of historically zoned land adjacent to the water's edge

current existing laws and regulations do not allow this industrial area to evolve into something more diverse : an integrative ecology is not a goal. Noticeably, the stress-zoned industrial have become highly particular, bare, and lacking in diversity.

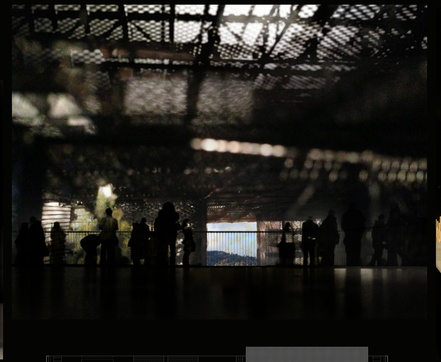
this zoning pattern is an impervious shell to the river blocking human, small business, and environmental interaction with the waterfront. Swan Island and its adjoined mainland mass ring especially true to the Overlook neighborhood of Portland.

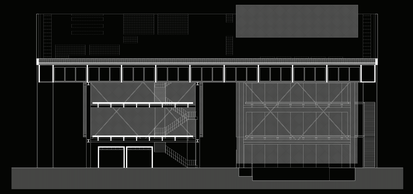
Overlook neighborhood is a developing neighborhood of North Portland, geared towards a younger generation and a population looking for more affordable housing. Due to the proximity to the neighborhood, it is attracting the creative/hipster culture into the area, especially the Mississippi Avenue.

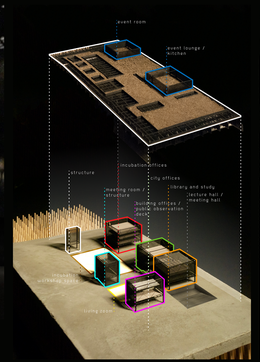
while some initiatives exist to connect the neighborhood with the river, no initiative exits to integrate the ecology at the neighborhood, industrial park, the river, and Forest Park beyond, one of the country's largest urban forest reserves.

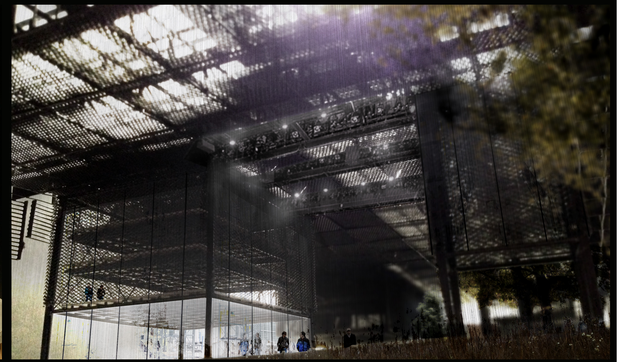










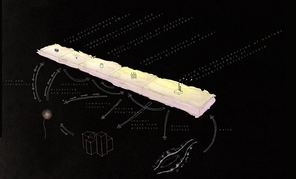


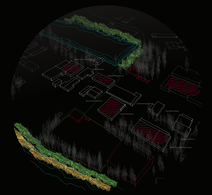


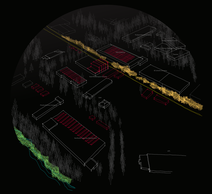


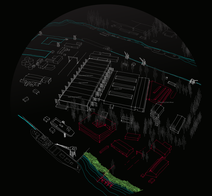

portland, oregon

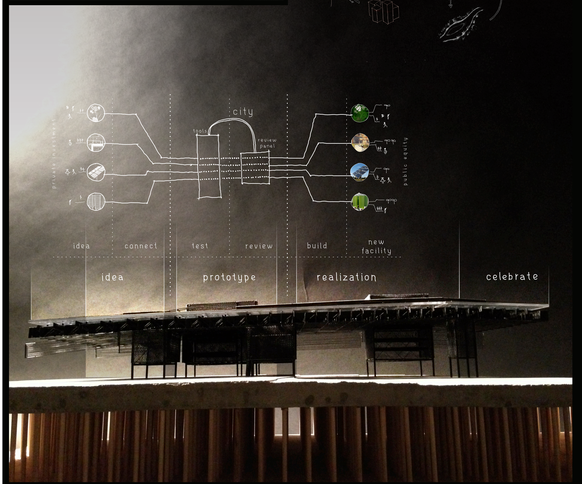




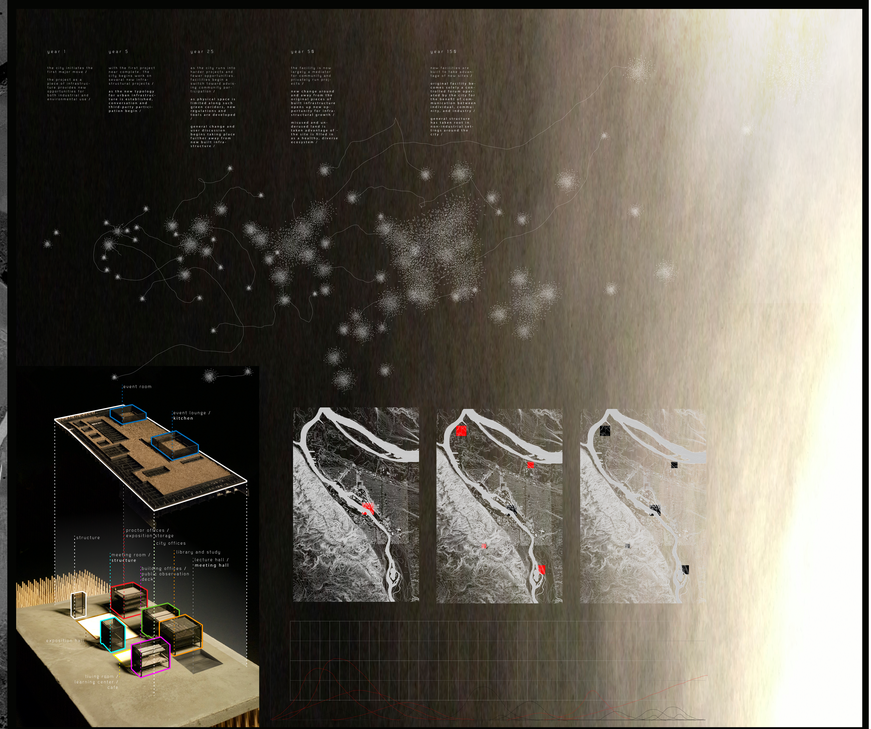







city
idea
connect
test
review
build
new facility
idea
prototype
realization
celebrate




year 1
year 5
year 25
year 50
year 150

event room
event lounge / kitchen
exhibition
meeting room / structure
project offices / exposition/storage
city offices
library and study
lecture hall / meeting hall
meeting offices / observation
event room
learning center/ cafe