the evolution of the south fork turning basin

greater ecological context: the great lakes watershed

20% of our world's fresh water

protected by treaties

polluted

local ecological context: chicago river and canal
canal connects chicago river to mississippi river
river moves against natural current
all water flows to gulf of mexico

(the loop)

pre 1675

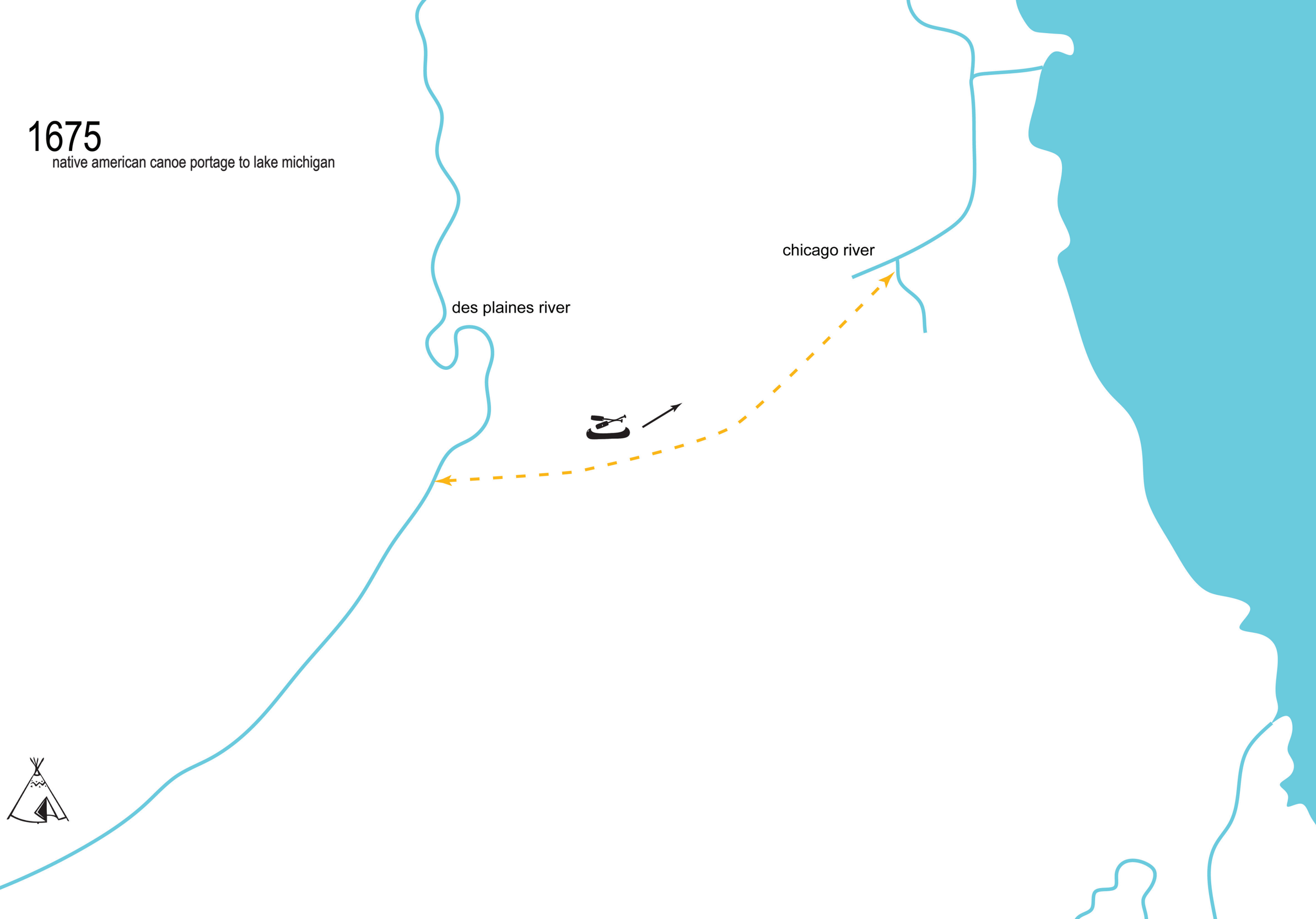
des plaines river flows to mississippi
chicago river flows to lake michigan
watershed is divided

(lake michigan)

(to gulf of mexico)

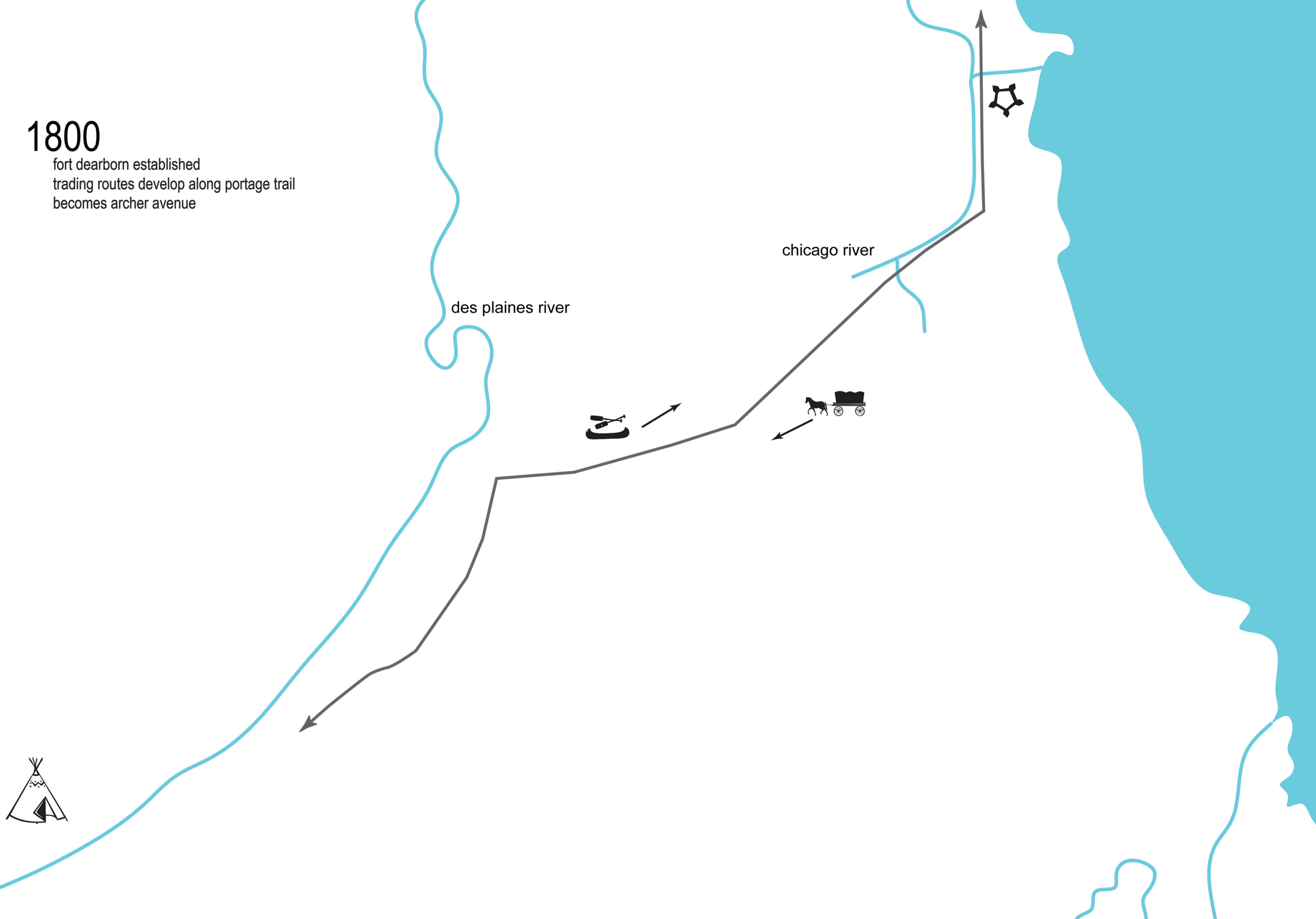
1675

native american canoe portage to lake michigan



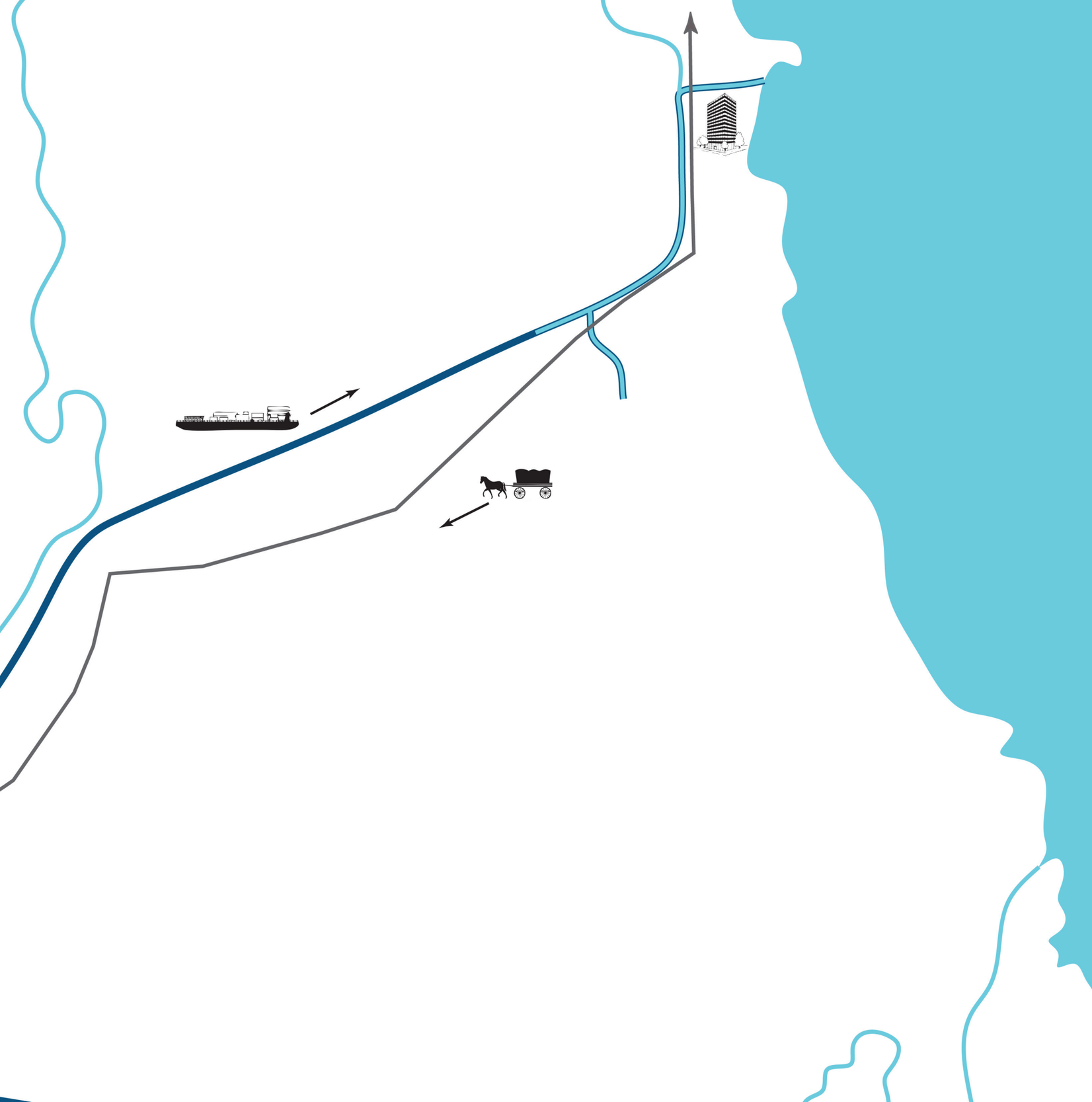
1800

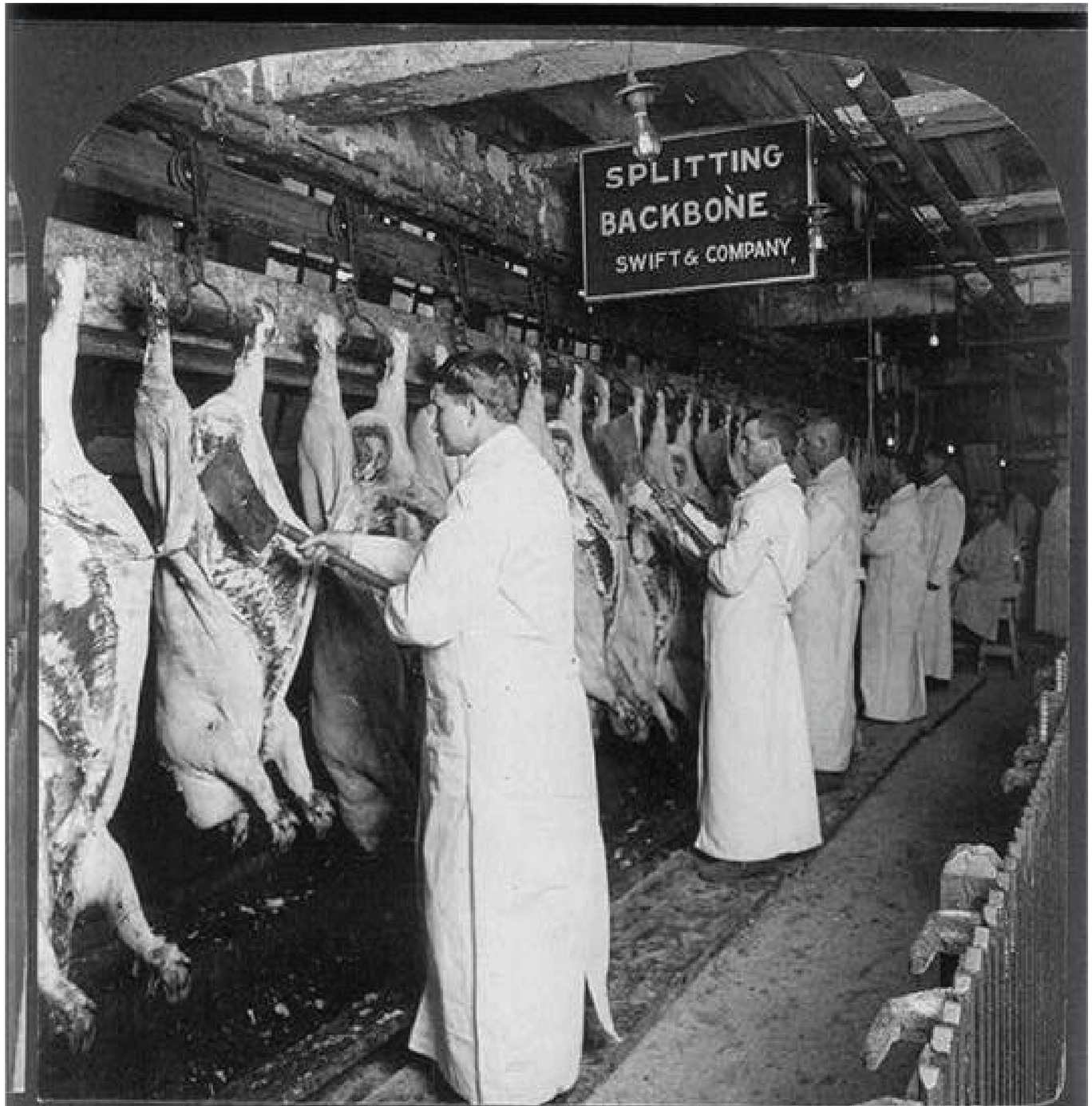
fort dearborn established
trading routes develop along portage trail
becomes archer avenue



1850

canal established/ city develops
trading trail becomes archer avenue
turning basin/intermodal transfer at site

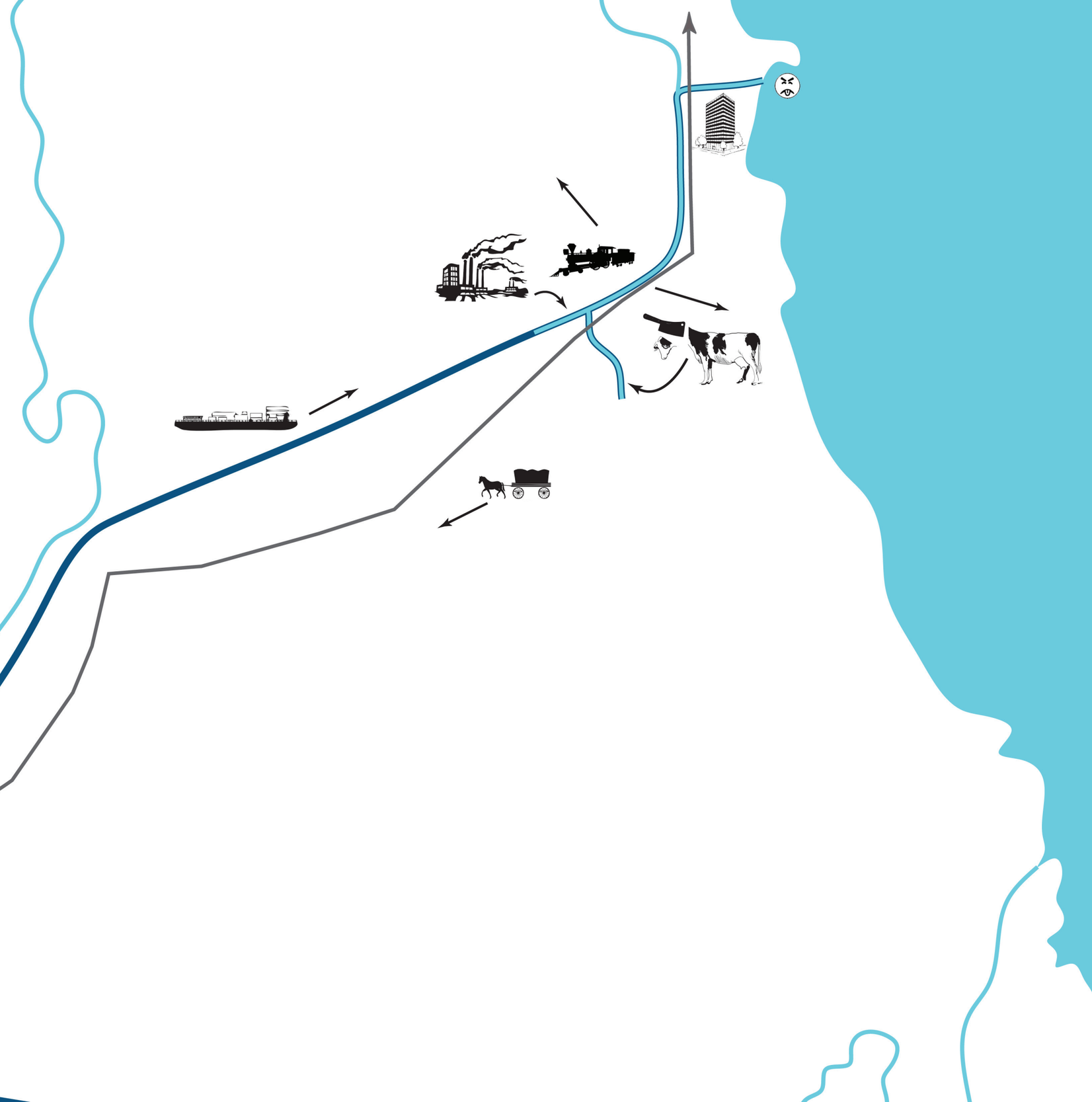




265 Splitting backbones and final inspection — hogs ready for cooler, Swift & Co., Chicago, U.S.A.

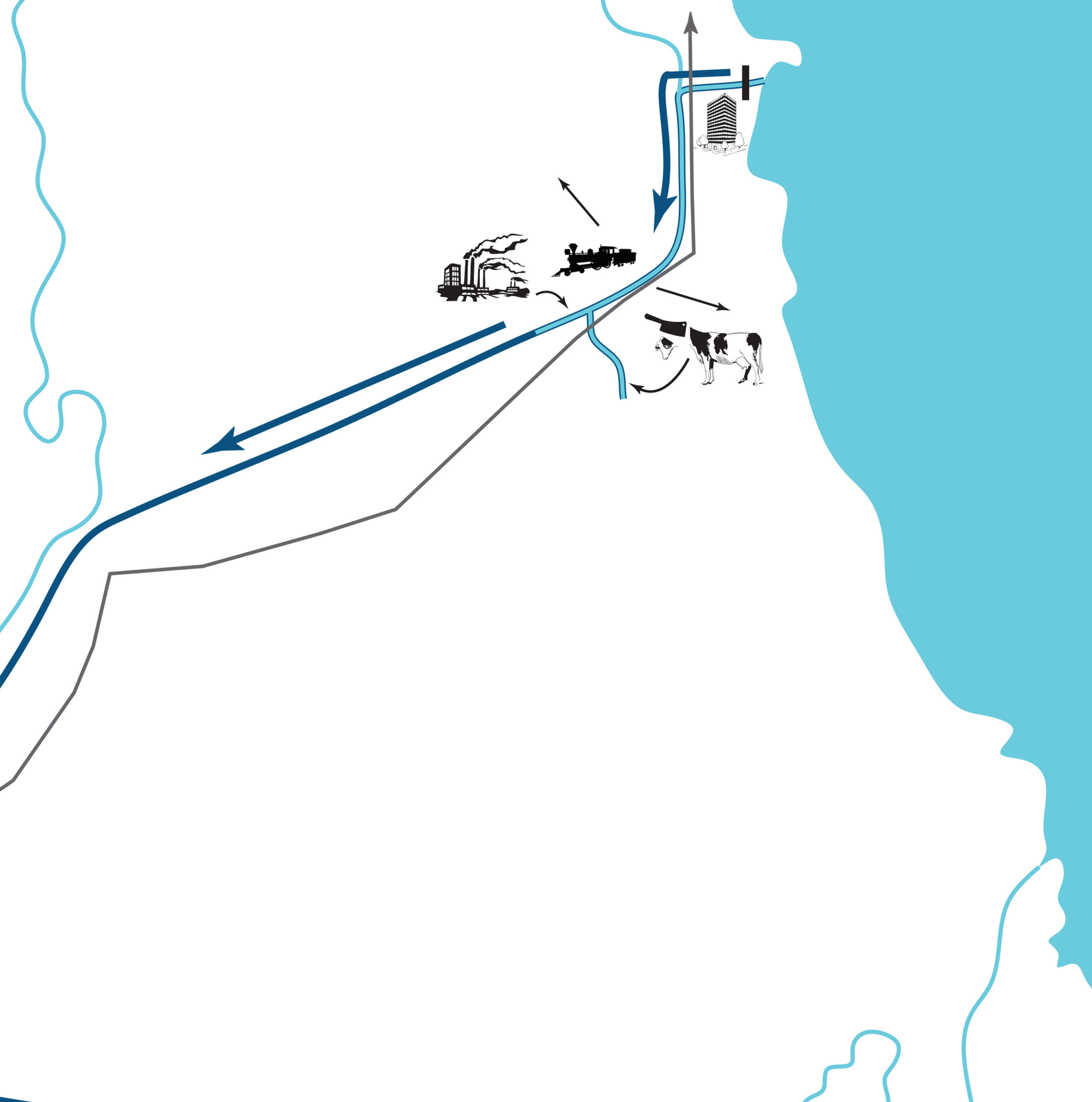
1850

stockyards dump offal into ‘bubbly creek’
dirty industries develop at turning basin
contamination into lake michigan causes
typhoid and other disease `outbreaks



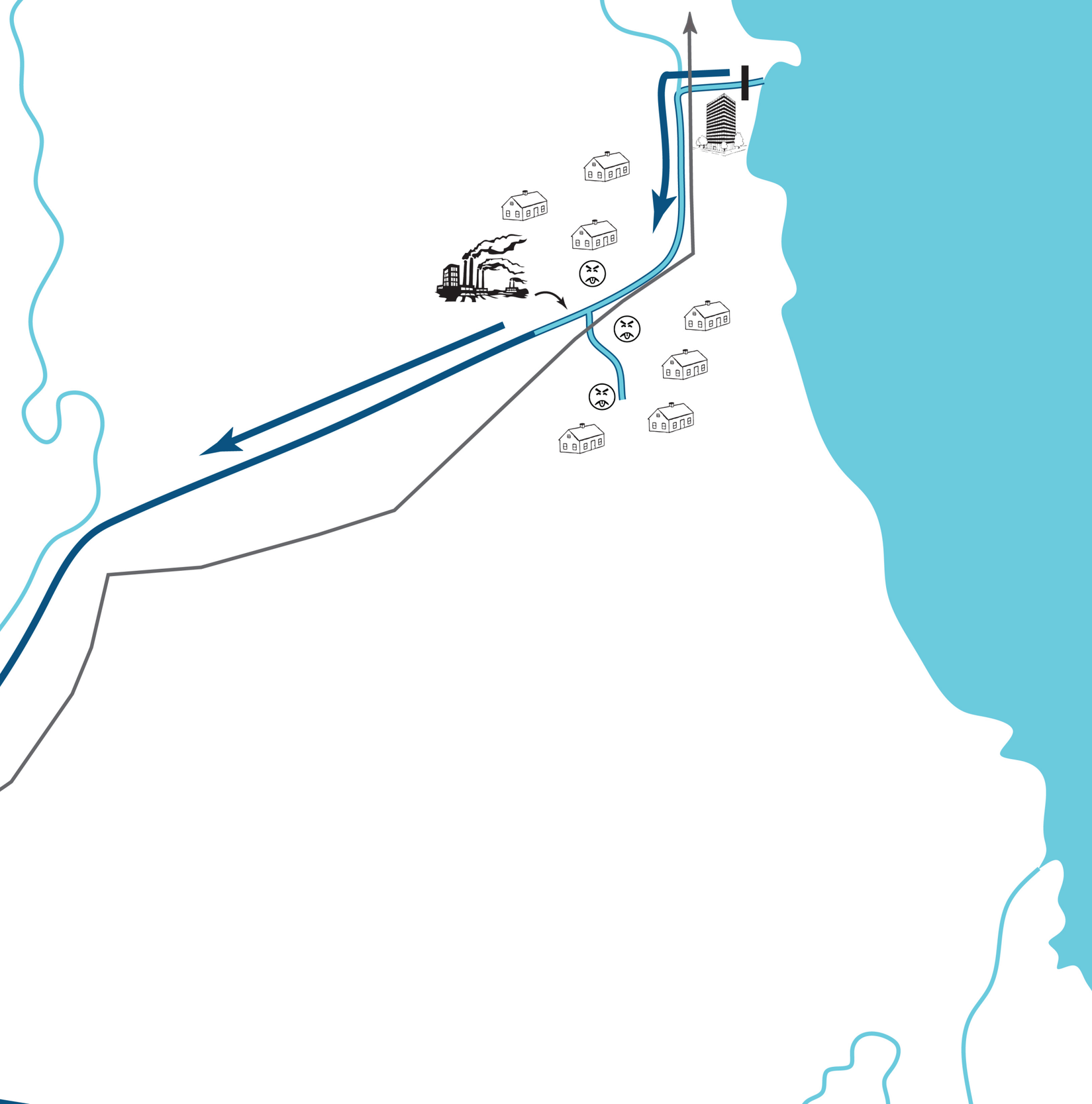
1900

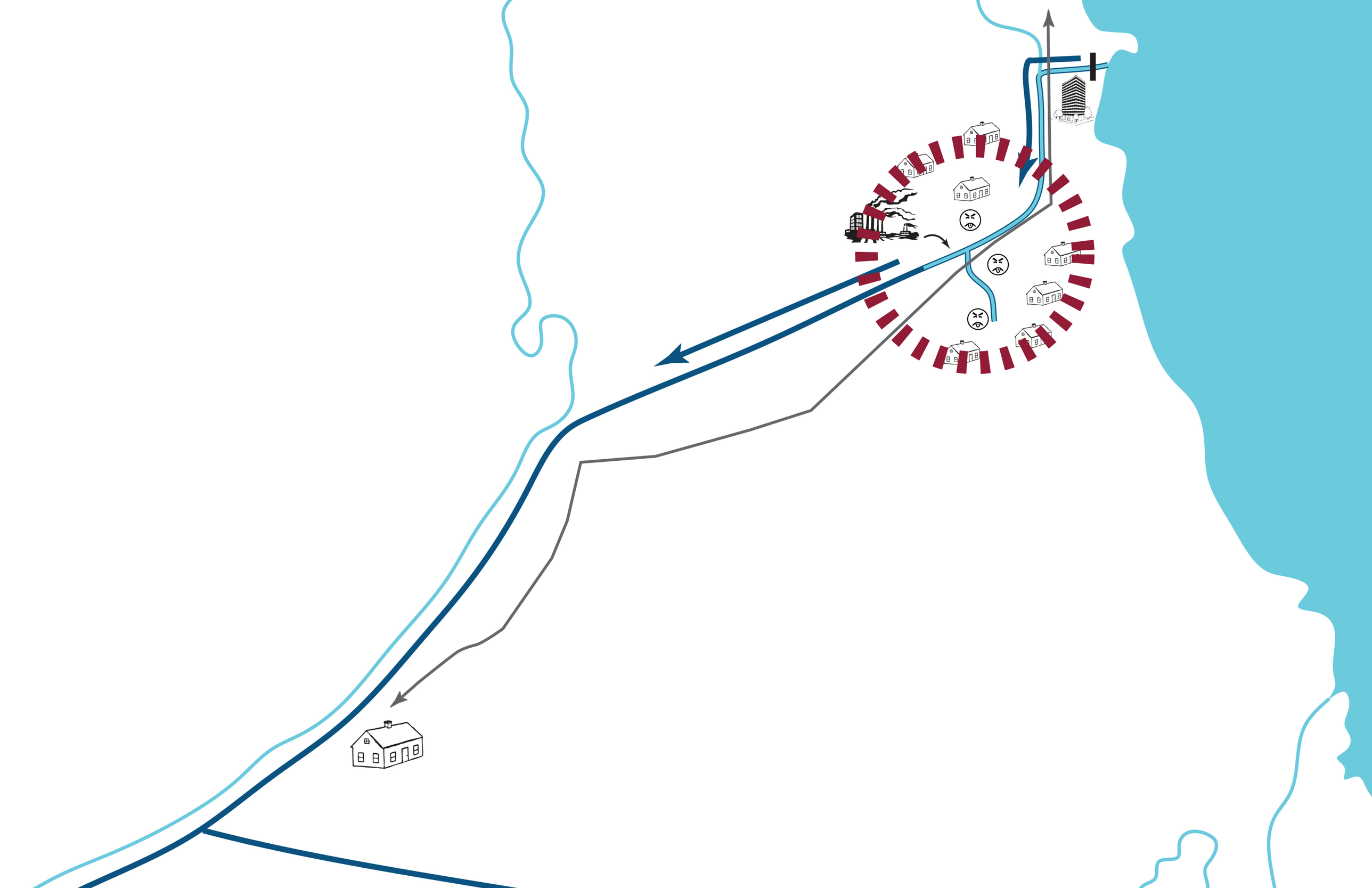
army core reverses chicago river flow
passage into lake controlled by locks
all water used by chicago now flows to
gulf of mexico



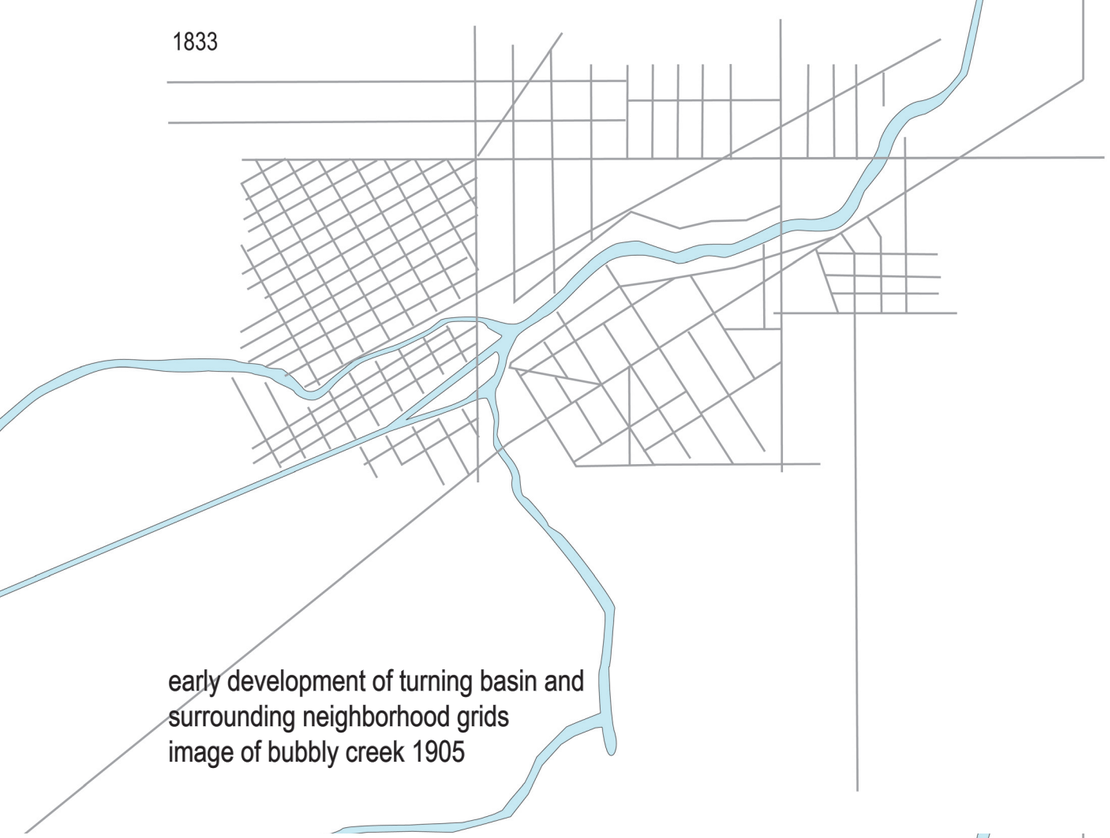
now

stockyards have closed; contamination remains
dirty coal power plant remains of industry
much of land contaminated/vacant
surrounded by residential





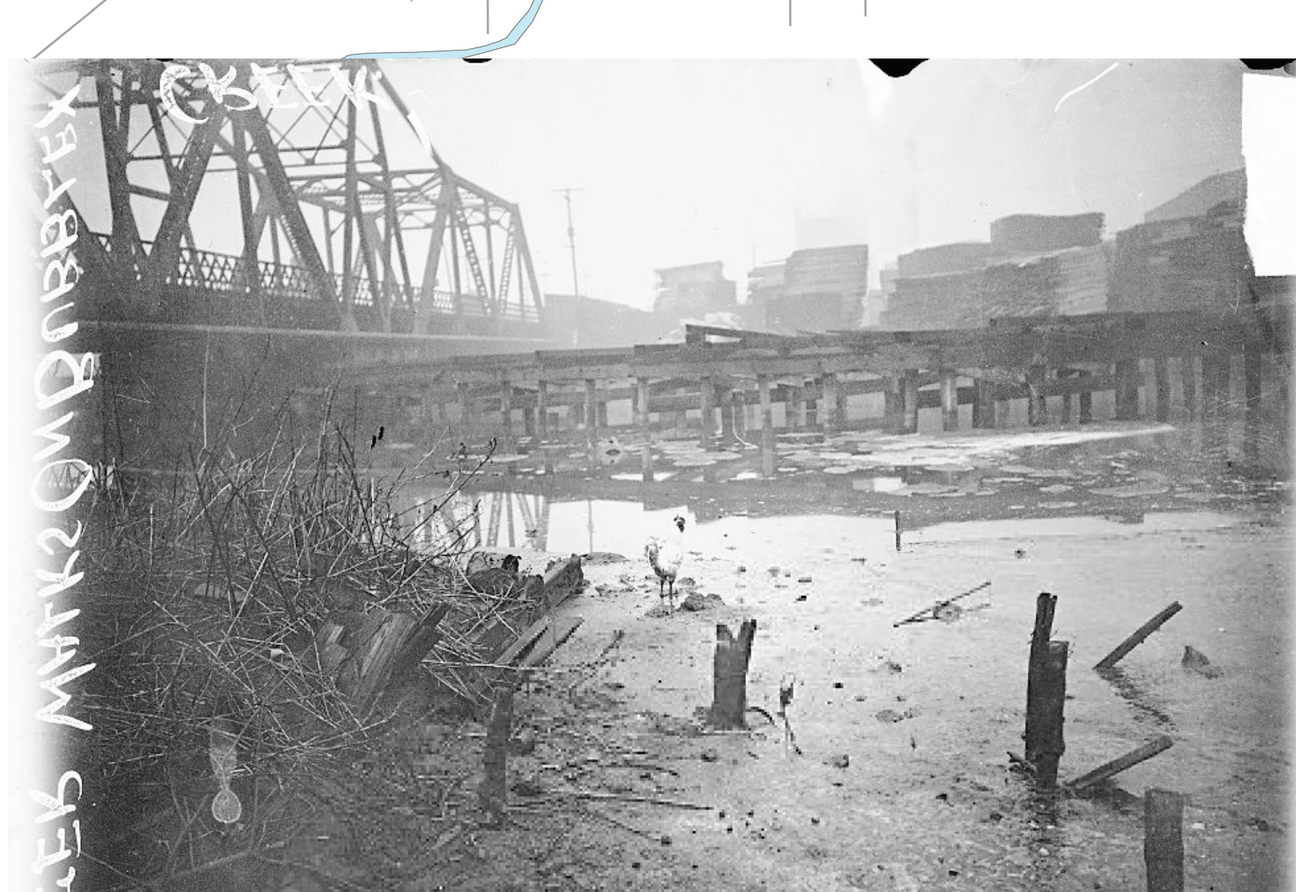
1833



early development of turning basin and
surrounding neighborhood grids
image of bubbly creek 1905

1858

1883



1929

1986

2011

figure ground analysis through time:

1929 illustrates turning basin at peak activity

1986 show diminishing train and industry, influence of I-55 highway

2011 shows increased abandonment of industrial edge sites

also shows some suburban style, exlusionary residential projects

2011

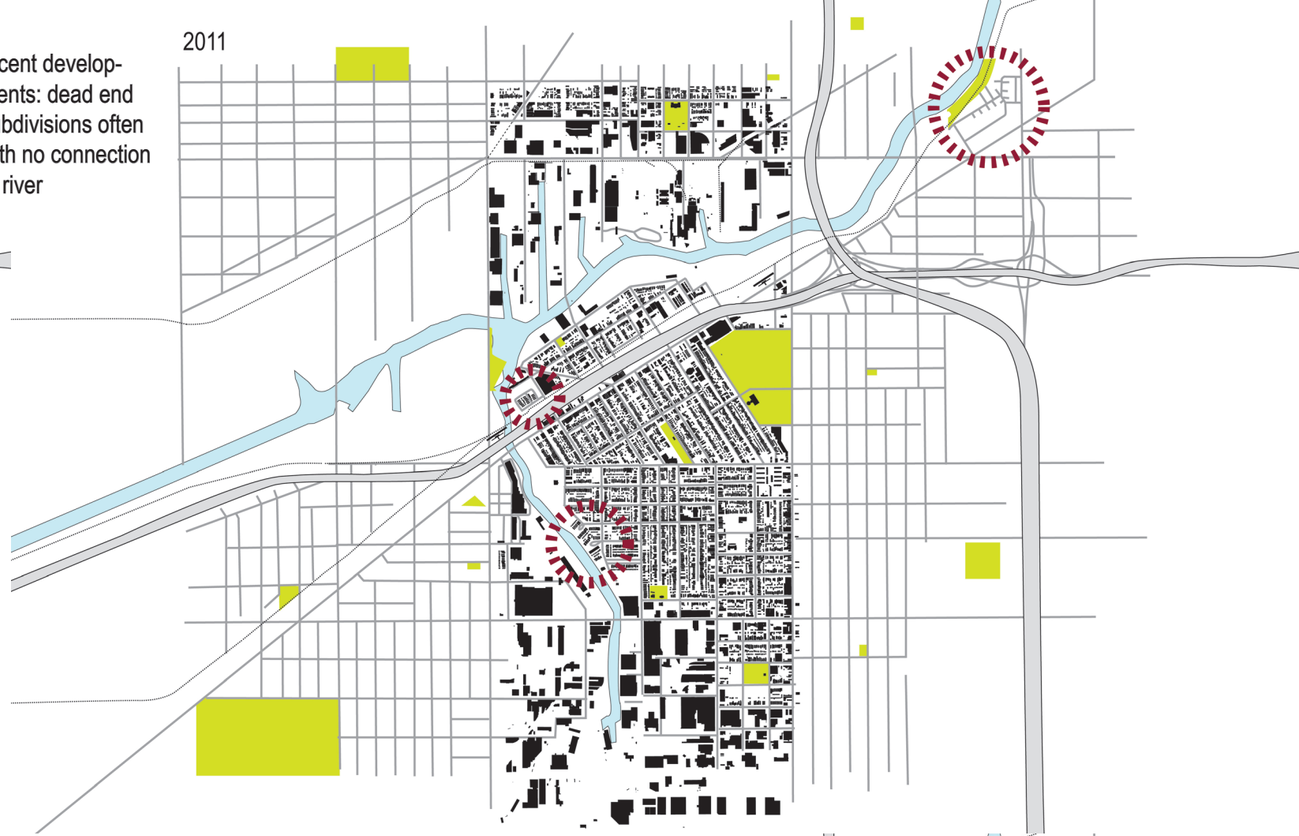
three sites: 2 vacant and the existing coal power plant

2011

three new parks indicate city's intention to redevelop recreation sites from old industrial

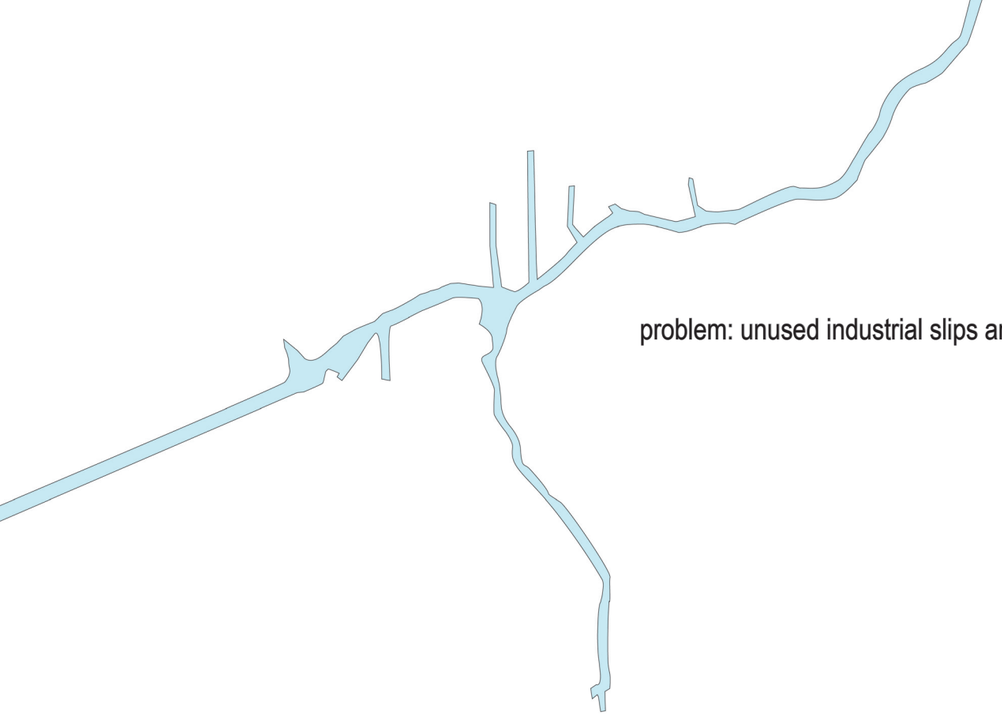
2011

recent developments: dead end subdivisions often with no connection to river

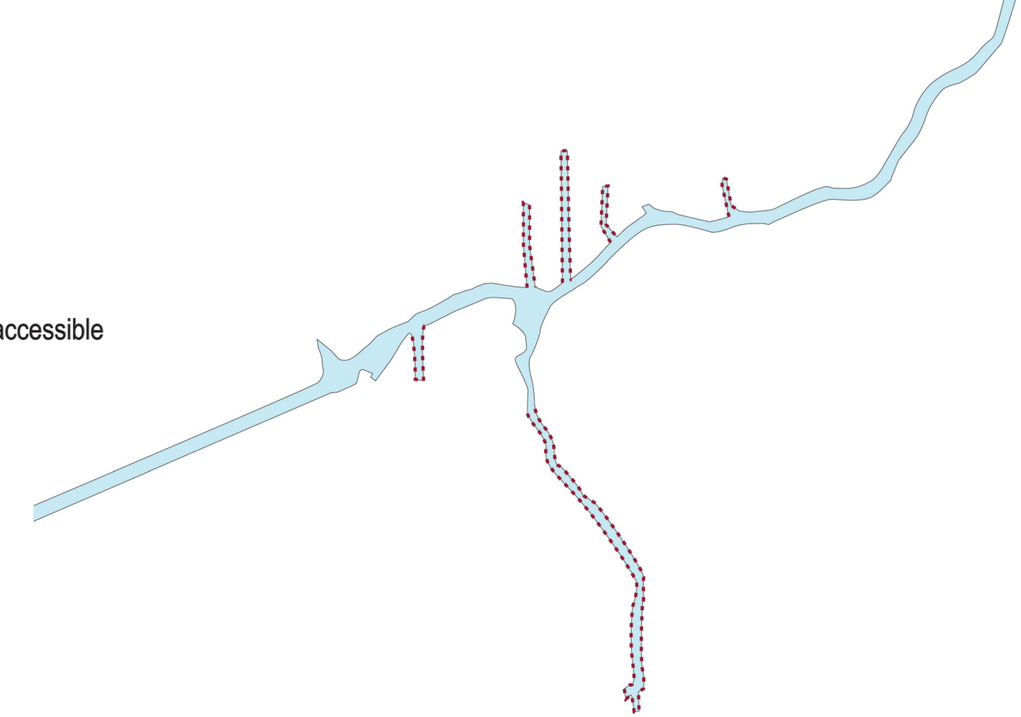


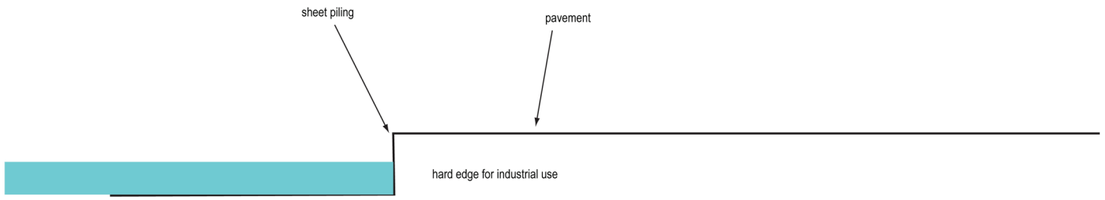
2011

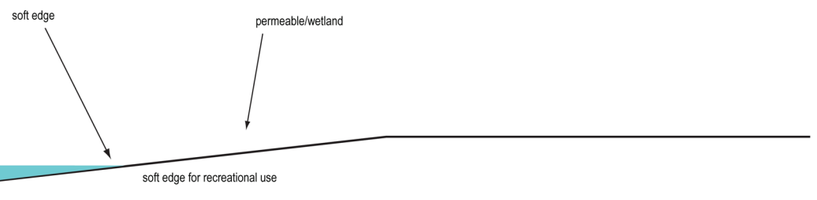
exisiting boat launch at western avenue, proposed boat launch at turning basin again shows interest in recreation



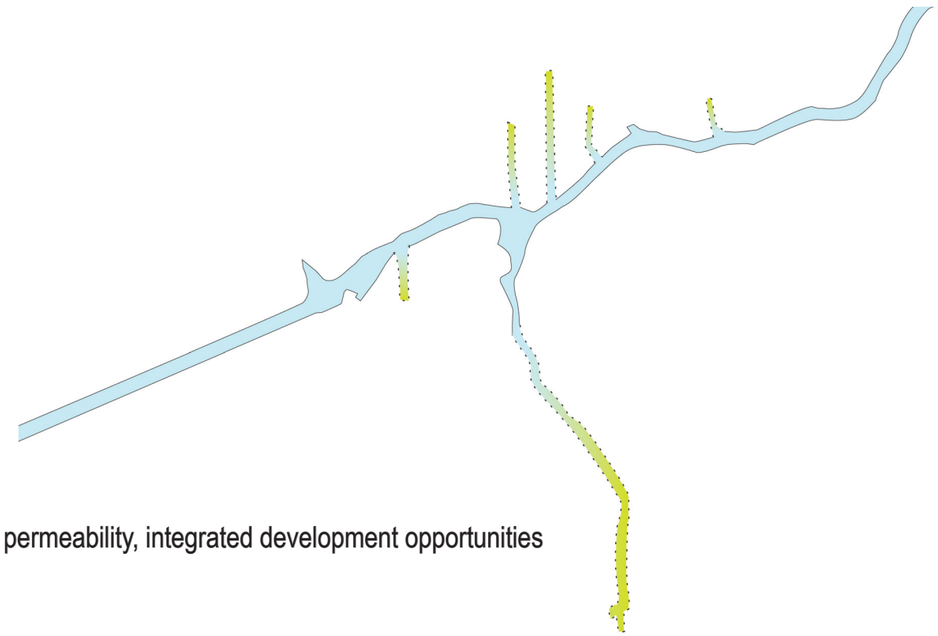
problem: unused industrial slips are scars in the landscape. barren, polluted, inaccessible

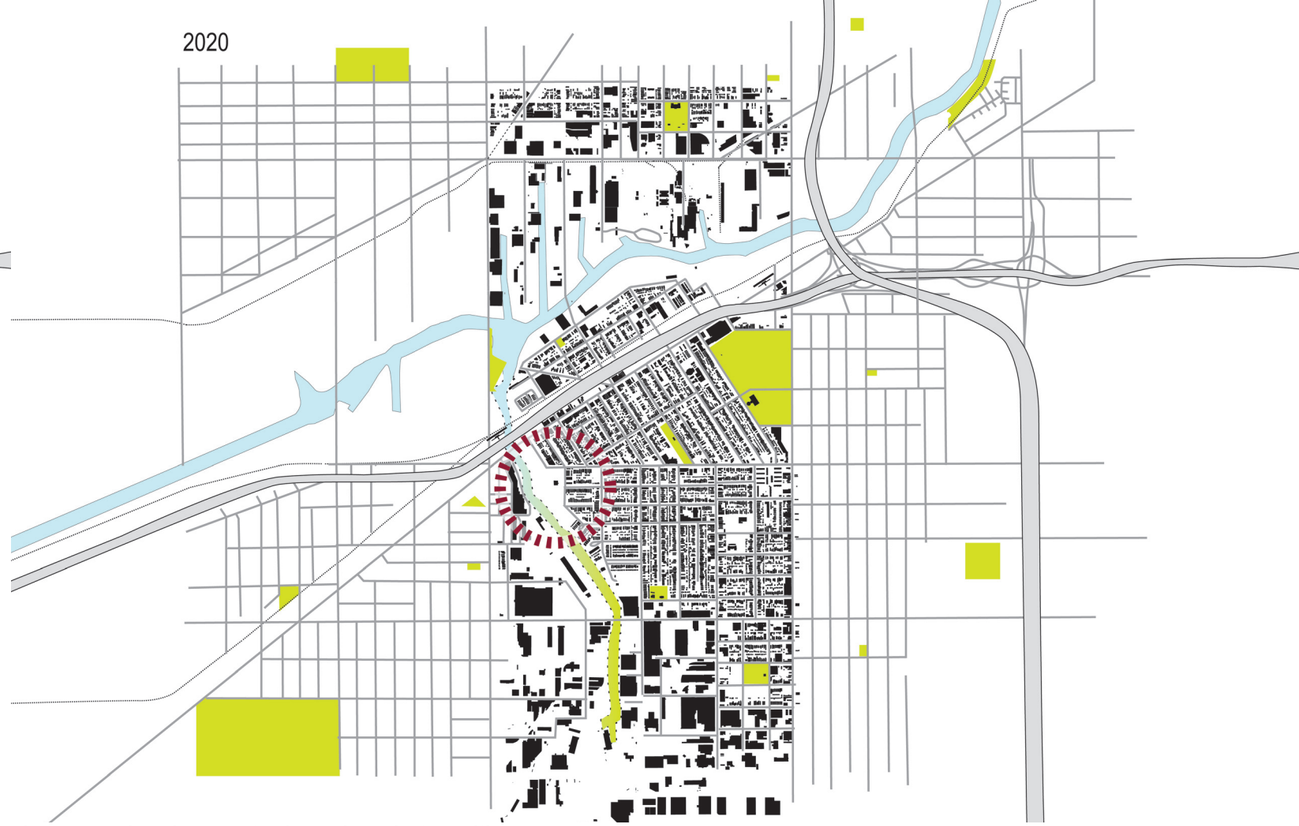




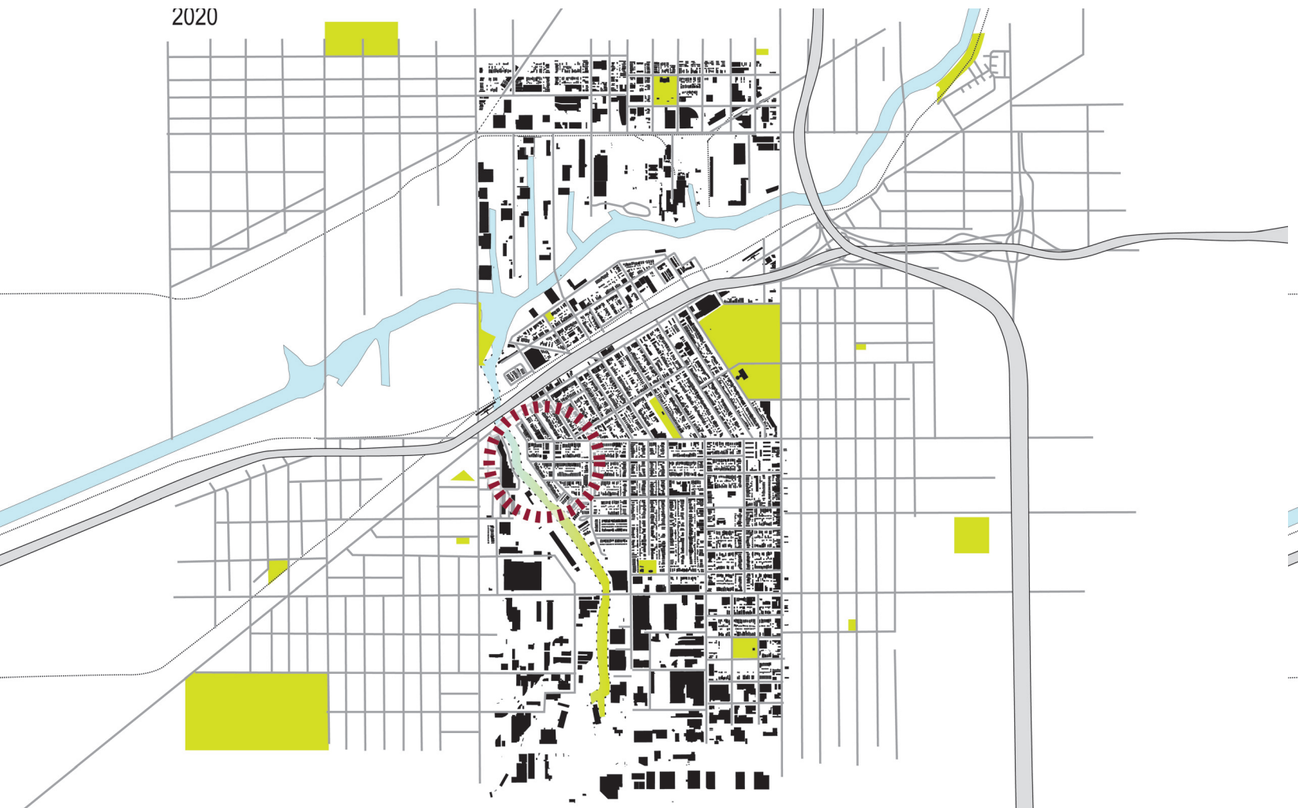


solution: softened edge provide habitat and ecological permeability, integrated development opportunities





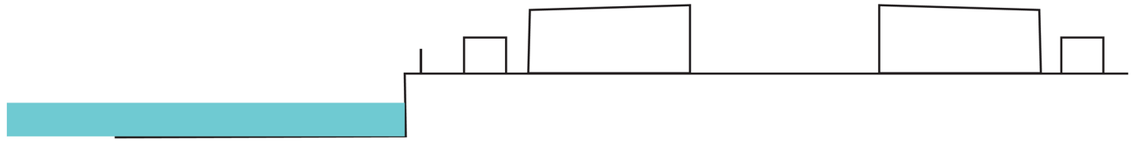
future implementation strategy starting at bubbly creek - bridgeport grids are pushed out to river edge, new development takes place in transition zone



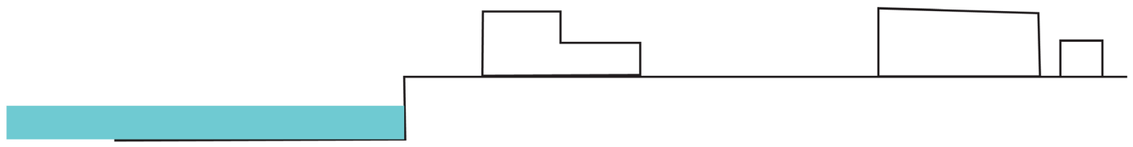
implementation strategy showing edge layout, boardwalk, wetlands, and connection to commercial and transit

basic lot layout defined by entension of
nearby street grids

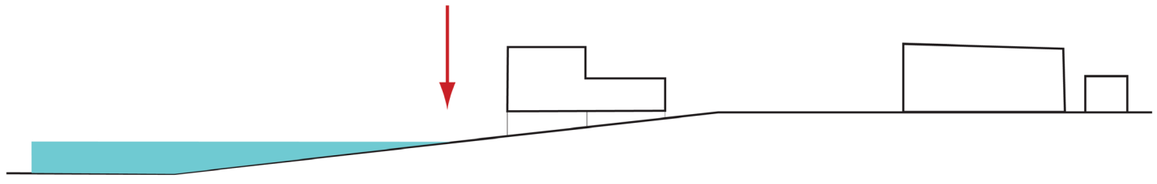
transitional sloped wetland area provides
unique development opportunity



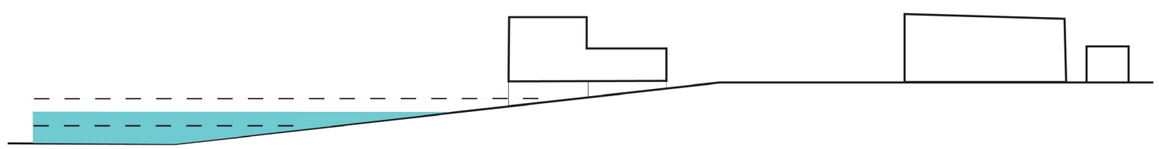
typical new riverside development - cuts off water connection



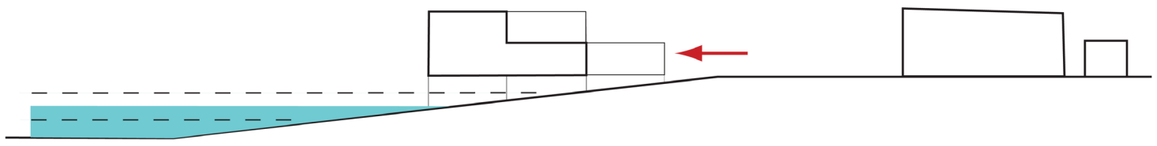
new development provides variably massed typology



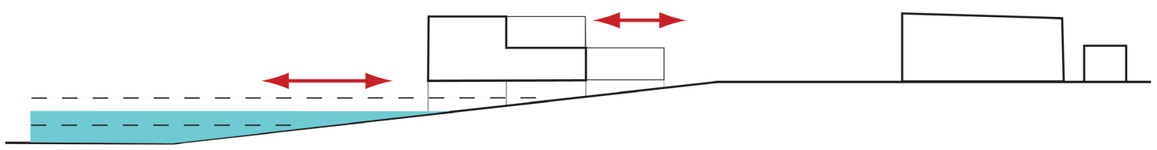
elevated structural system keep building on plane as slope descends



as water levels change, so do edge conditions



pushing units back allows permeability under buildings



increased permeability - constant interactive presence of river

boardwalk differentiates wetlands into distinct zones that can be simply engineered to provide different wetland ecologies and habitats

sedge
hackberry
wild rye
mana grass
blue aster
gray dogwood
black eyed susan
coreopsis

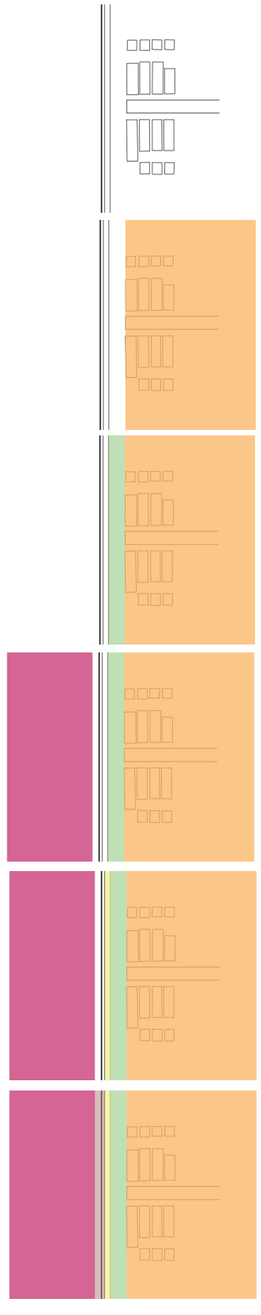
inner zone supports ornamentals, flowers, and drought resistant plants

sedge
hackberry
wild rye
mana grass
blue aster
gray dogwood
black eyed susan
coreopsis

buttonbush
spike rush
blue vervain
red osier
dogwood
cord grass
cattail

outer zone supports hardy, nutrient tolerant fully submerged plants

comparing typical development areas to proposed typology



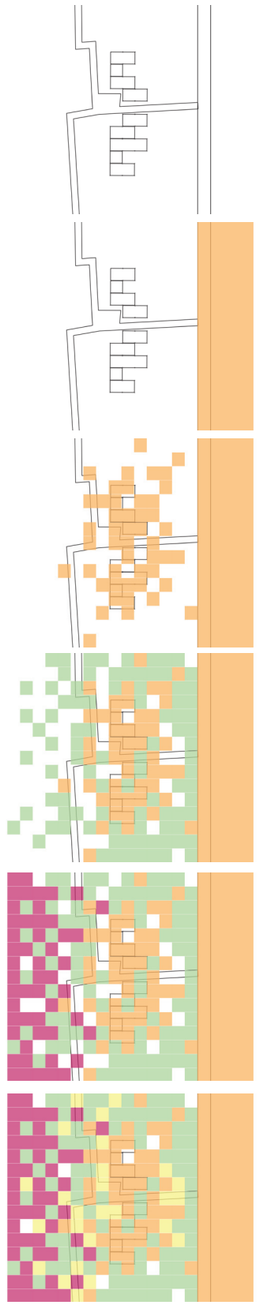
street & building

yard

river

path

dead space



street

building

yard

river

path

2020

figure ground showing development
highlights transit stop and commercial area
now accessible by boardwalk

perhaps this...


can become this.

2025

2030

2030

implementation of similiar strategy in rest of turning basin results in inoperability of only slip currently in use, adjacent to fisk generating station.
this intervention would require the closure of the coal burning power plant

2011 DESIGN CHALLENGE PACKET

The Air We Breathe

THE CHICAGO CLEAN AIR DESIGN CHALLENGE

overhead view of residential areas around the fisk plant, frequent localized protests, and competitions suggesting the decommissioning and redevelopment of the plant indicate strong support for closure in the near future

lawsuits from city, state, and national organizations requiring massive renovations or closure of the plant - grandfathered past the clean air act - are currently pending

2030

figure ground highlighting (from right to left):
cermak ‘creative industries district’ - redeveloped artist lofts
pilsen arts district galleries
fisk generating station site
nearby factory redeveloped as indoor sports complex

instead of a health hazard, public nuisance and a symbol of the area’s contamination...

fisk could be redeveloped into a gallery and exhibition space with adjacent artist lofts
infrastructure can be reused as recreation and urban agriculture sites
ethanol production and solar canopies would become backdrops for weekend markets
and unused train infrastructure could be adapted to light rail for district circulation

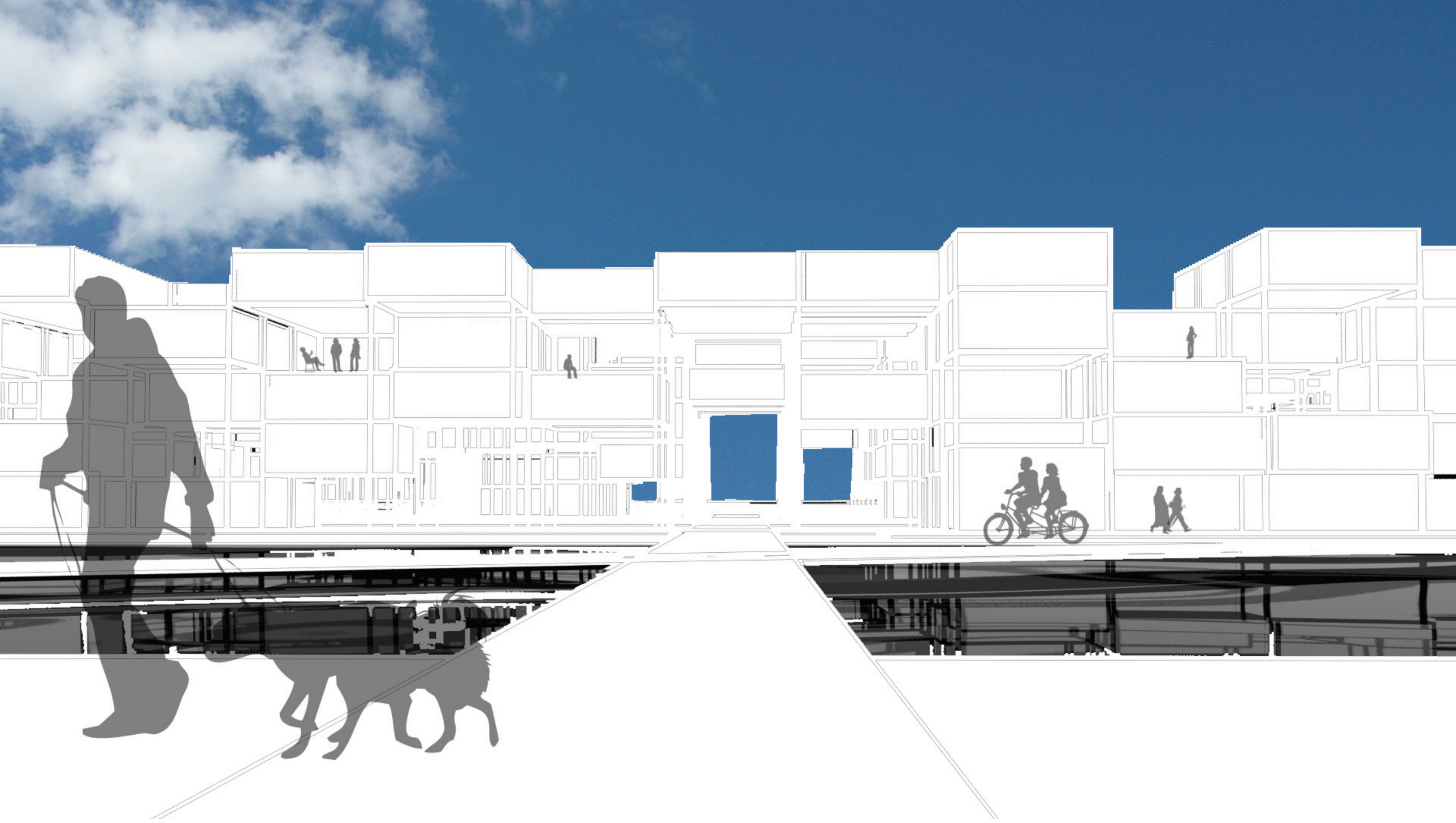
2040

2040

adjacent riverbank can be redeveloped in similar way, creating permeability, access, and density at the newly redeveloped turning basin

2040

2040



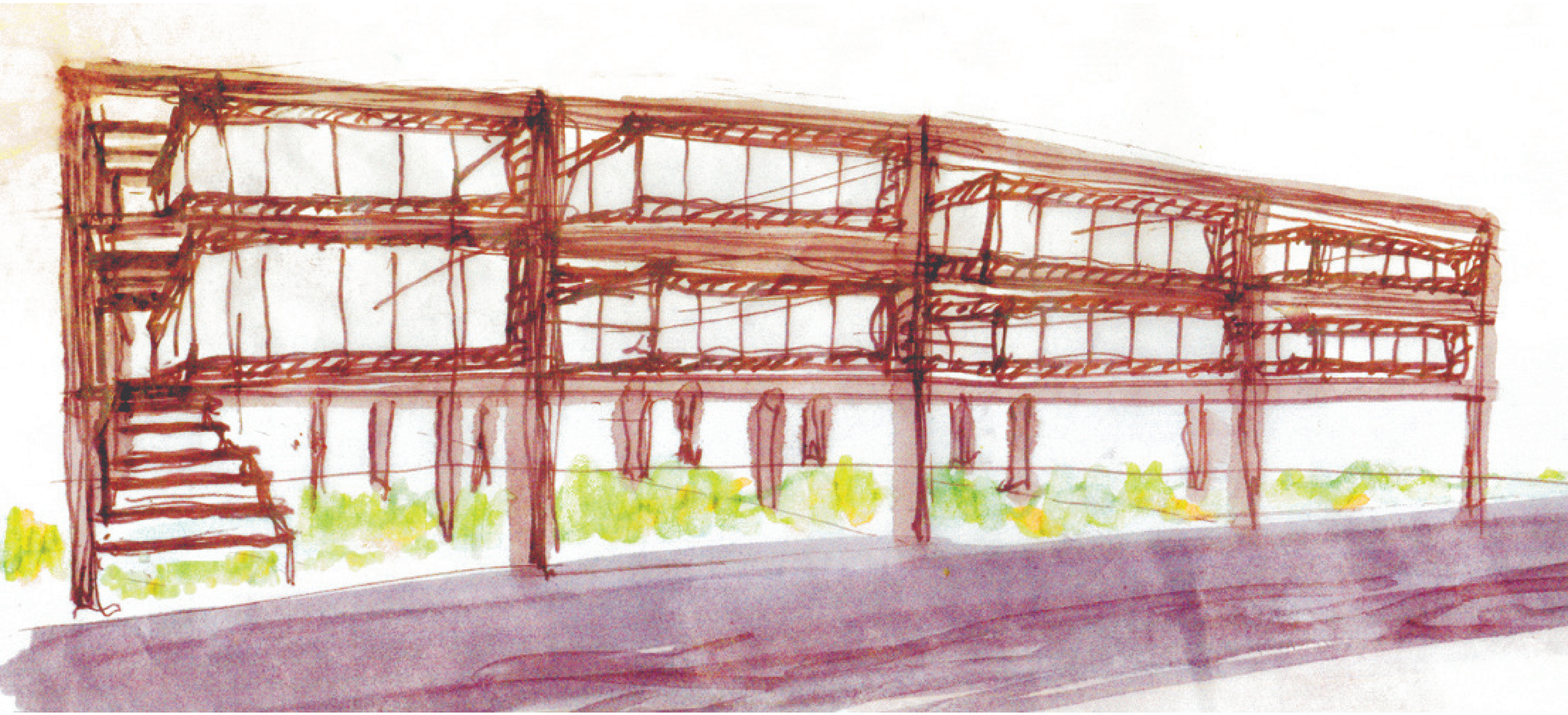
schematic rendering exploring new edge conditions

sketch exploring permeability / access

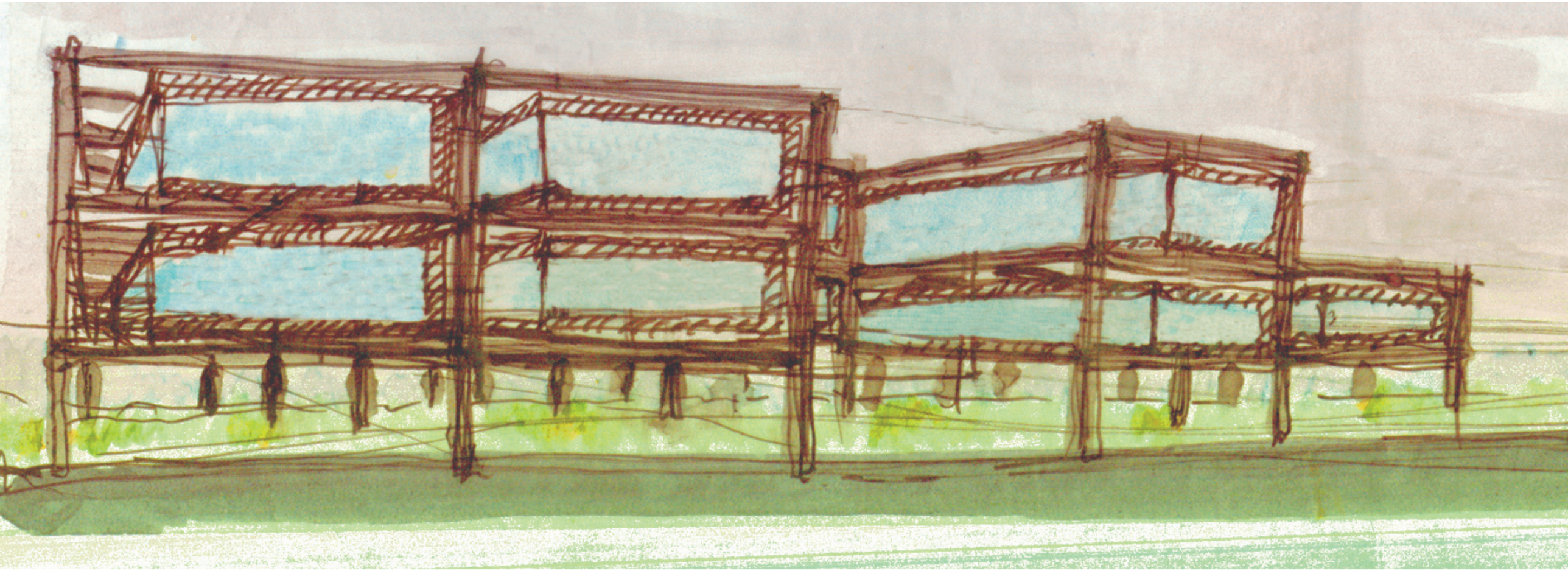
sketch comparing housing typologies

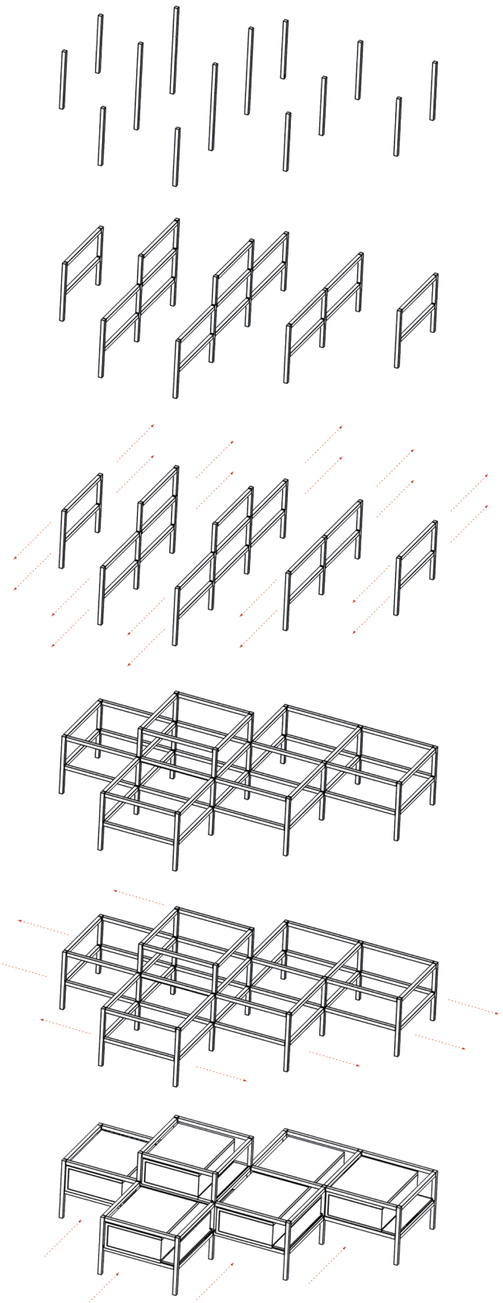
material / massing study

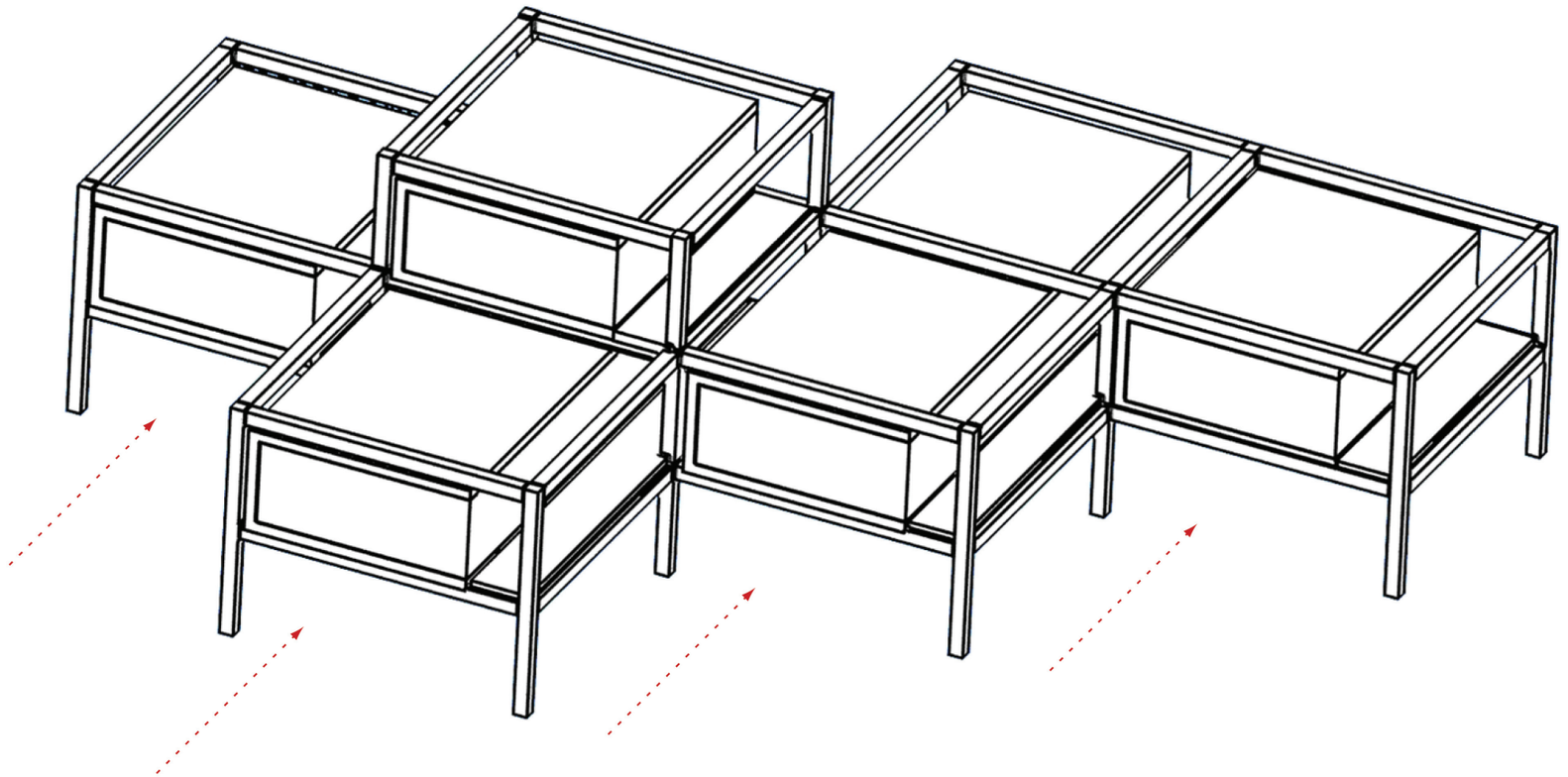
render of activity at water's edge



modules / structural system sketch







modular typology is adaptable to many scales
post tensioned structural system can be quickly assembled
customized housing clusters adjust to site conditions readily and are constructed quickly

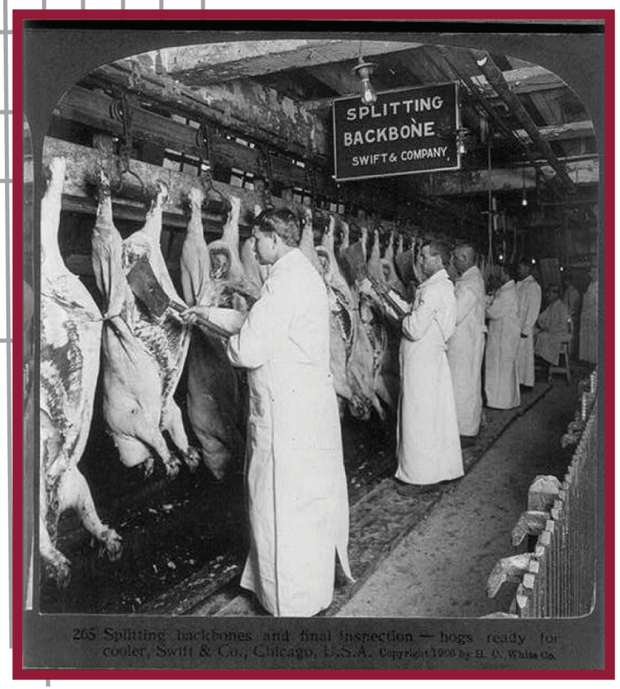
2040

by 2040 the south fork turning basin could be transformed

this site that is currently disconnected and abandoned even in the summer...

could become a site filled with life and activity, even in winter.

1929



265 Splitting backbones and final inspection — hogs ready for cooler, Swift & Co., Chicago, U.S.A. Copyright 1906 by H. C. White Co.

2011

2040