P5 | Leevan HUANG
FAB-LAB SLOTERDIJK

towards a porous Amsterdam in developing the Ringzone
why  border condition of the Ringroad A10
what  opportunities of Ringzone
how  make your city! Fab-lab Sloterdijk
Sloterdijk - annexation of Amsterdam with train and metro access
Built upon Western Garden AUP 1935
Amsterdam - lively street life

Sloterdijk – a hinterland of Amsterdam?
A deadly urban periphery space
Two urbanities on two sides of the huge infrastructure
Sloterdijk - Ringroad infrastructure - city Amsterdam?
Suspicion - Sloterdijk is secluded by the infrastructure of Ringroad A10
RING ROADS

border condition of urban highways in cities
“Roads not just lead to places, they are places,”

-- American historian, JB Jackson

highway infrastructure out of an urge for mobility
ring roads in economic centers since 1960s
less time, higher mobility
more than a driving circle
what are the influences the Ringroad A10 exerts on **spatial development**?

how (if inevitably) does it reconstructs **social and economic patterns**?
THE RING – A10
the modern city wall
a historical perspective | Amsterdam with many rings
Amsterdam footprint before construction of A10
stage construction of A10 - starting in West in 1960s
stage construction of A10 - orbit completion in 1990s
THE RING AS MODERN CITY WALL

A10 mapping - typologies of highway profile
Buildings constructed before the Ring

Buildings constructed after the Ring

Further urban expansion along its southern fringe
mapping of land price
mapping of non-western immigrants
mapping of education level
mapping of unemployment rate
RESEARCH QUESTION

How to address the border issue of Amsterdam in the context of a social-economically less advanced neighbourhood secluded by the Ring?
POROUS BORDER
in making an “Open City”
image of A10 - an infrastructure through diverse urbanity of Amsterdam
continuous population and job growth
towards a polycentric Amsterdam
more economy development along Ringzone
replacing A10 with A11
A10 becoming a less strong border presence
existing border to be reconstructed to connect with urban fabric
Economic Opportunity - an affordable place for start-up economy
some rising types of sharing economy
current fab-lab and coworking space in amsterdam
in making a polycentric Amsterdam
Fab-lab Sloterdijk needed as center of innovation and production
RINGZONE VISION

TOWARDS 2050
Current situation - factory making mass production and people in city making prototype
Near future - production follows design more promptly
Ambition - fabrication in the city center with local recycled resource
Ambition - fabrication with digital technology
“fabrication” that empowers people with tools

“laboratory” that breeds innovation

Fab-lab Sloterdijk
Local production
Integration with technology to produce with local collected resource, so to achieve circular economy.

Innovation driven
Idea platform to exhibit and exchange

Flexible space
Open structure to accommodate shifting spatial requirements

guidelines of Fab-lab Sloterdijk
people, make your city
DESIGN STRATEGY

a center for making at a porous border
program typology study
ambition - making Amsterdam a porous city by designing the context around A10
ambition - porous building no more soundwalls
program proposal
program proposal of total GFA 21000m²
site location - the Ringzone
future of A10 - downgrading with more direct connections to city
future of A10 - downgrading with reduced speed and bypass
future of A10 - downgrading with reduced speed and bypass
Sloterdijk Station - the gateway connecting Sloterdijk to the metropolitan region of Randstad

Bretten Zone - the green belt extending from Amsterdam Central to Haarlem

Sloterdijk Center - the region center for culture and leisure

Ringzone - area between A10 and metro line forming a high mobility neighborhood

Sloterplas - the water reservoir with diverse water activities
current situation
masterplan | demolishing and relocating
masterplan - building program in context
masterplan - creating public park in Ringzone
masterplan - changing bypass to cycling highway
masterplan - building program in context
masterplan - building program in context
masterplan - building program in context
DESIGN REALIZATION
concept study - massing model
articulation of border interface
space organization - porous arrangement of program blocks
space approach | typical configuration of solid and void space
space approach | shift stacked program creates interesting solid and void spatial quality
space organization - continuous flow of semi-public space
space approach | unfolded section of continuous circulation flow
space approach | unfolded section of continuous circulation flow
site approach | ground floor pedestrian access from east side facing A10
site approach | a vibrant frontage of bicycle highway along A10
space organization - fabrication platform on top
space organization - structure grid and core
self-construction process
construction illustration - assembly of fabrication platform
construction illustration - installing of platform lattice beam
platform lattice beam beam
platform facade of light materials
construction illustration - jacking up platform
construction illustration - platform constructing structure below
construction illustration - delivering columns and beams
construction illustration - installing structure members
construction illustration - installing prefabricated facade panel
an digital fabrication platform to manufacture facade of building
facade surface articulation
facade opportunity of diverse pattern showcasing identity
delivery of 3D print material recycled from waste within Sloterdijk neighborhood
Automatic loading and storage bay
Fabrication of building components can be used in renovating Sloterdijk neighborhood
completion - locally fabricated facade that is customized for identity