ACTIVISTIC
THEORETICAL
TECHNOCRATIC
MATERIAL
FINANCIAL

SPATIAL agency

ARTISTIC
POLITICAL
GRAPHIC
ENVIRONMENTAL
CURATORIAL

selected works 2022-2023,
Columbia GSAPP

Ziqi (Tony) Feng

1 TERRESTRIS EMANCIPATUM

adv arch design studio
SUMMER 2022

7 GRAPHIC ARCHITECTURE PROJECT III

FALL 2022

11 THE VIADUCT(s)

adv studio V
FALL 2022

21 X INFORMATION MODELING

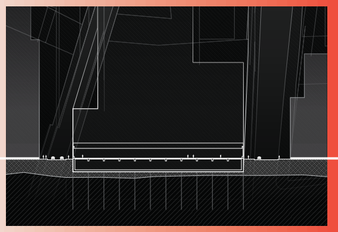
SPRING 2023

25 MITTE 15 DISABLED

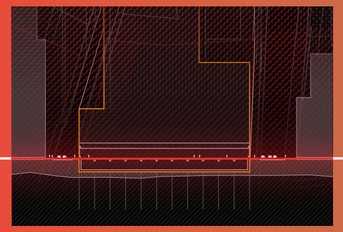
adv studio VI
SPRING 2023

33 GENERATIVE DESIGN

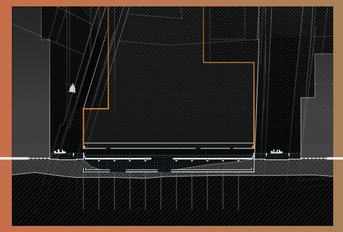
SPRING 2023



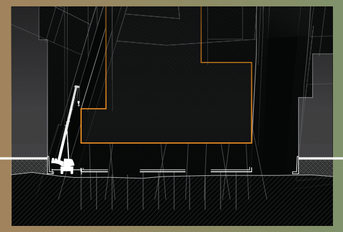
initial building completion



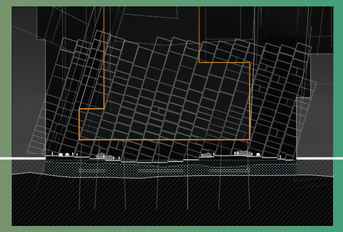
expansion formation of merged, homogeneous sensed field



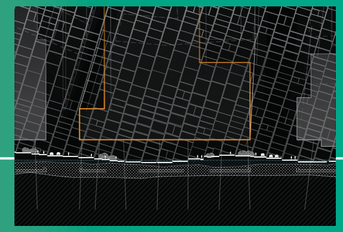
corrosion future stormwater infiltration renders lower part of the building unusable



demolition ground floor and basement demolished



renewal implementation of modular, porous common ground embracing stromwater flood and disrupts sensor effectiveness



renewal II common ground expands from building to urban scale, defining new figure-ground typology

This project starts with inspecting the expansion of both visible and invisible private thresholds in lower Manhattan, and aims for a more equitable urban landscape by reimagining the figure / ground typology.

The evolution of buried, invisible sensors could allow the omnipresent, three-dimensional evaluation of both individual and crowd movements. Together with physical boundaries and barriers, the sensed field opens up possibilities to define and control the population in addition to privacy violations. The physical connection of the buildings, the ground, and the heavily engineered geological layers as a homogeneous, volumetric entity serves as the very foundation of control, spatially in the form of property lines and sensorially as the sensed field.

Rather than providing a technocratic solution, this project targets the issue in the architectonic manner by proposing the physical detachment between the building, the ground plane and the engineered geology. Seeing the instability of the periodic stormwater flooding in downtown Manhattan as an opportunity, the project imagines the demolition of ground and underground floors of existing buildings, which eventually leads to a new building typology with minimal footprint on the ground. The project further proposes a modular, unstable ground plane, detached from the geologic layers composed of demolition debris. Various material and architectonic strategies embrace instability and deny the perpetual, stable control of the ground, effectively emancipating the ground plane so that everyone owns the ground, while no one owns the ground.

TERRESTRIS EMANCIPATUM

Signature Urbanisms

prof. Ersela Kripa and
Stephen Mueller

adv arch design studio
SUMMER 2022

plate 1: ground level

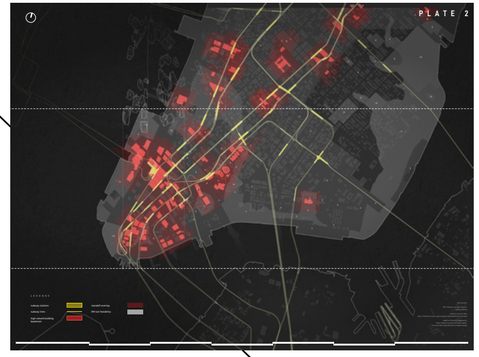


plate 2: one story underground

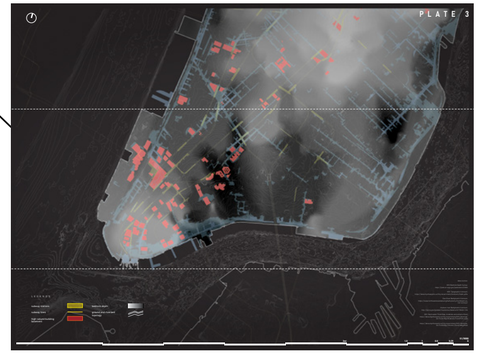


plate 3: deep underground

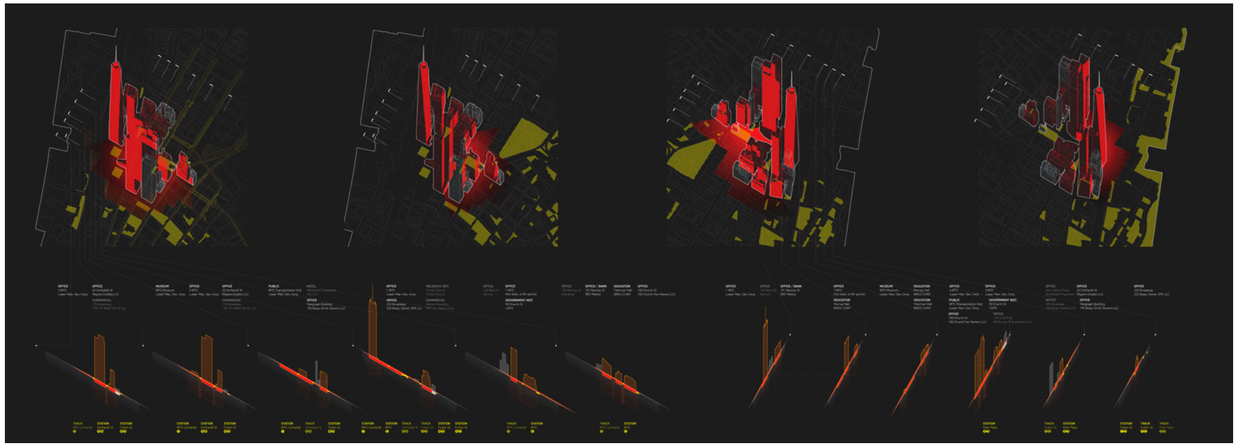
maps, downtown Manhattan

high-valued buildings and the speculated expansion of the sensed field

Map showing high-valued buildings (100M - 3.3B USD) with 82' (ideal) and 50' (minimum) stand-off distances per FEMA Site Design Guideline (FEMA 407. 2007.), as speculated expansion of sensor implantation. Note the overlapping of the security thresholds and the adjacency to public spaces and POPs.

Map showing projected footprints of high-valued buildings with basements, their adjacencies with subway stations and tunnels, as well as soil types. High moisture contents, low homogeneity and large particles shown in brighter greys reduceselectromagnetic signal transmission efficiency are less feasible for buried electromagnetic sensors.

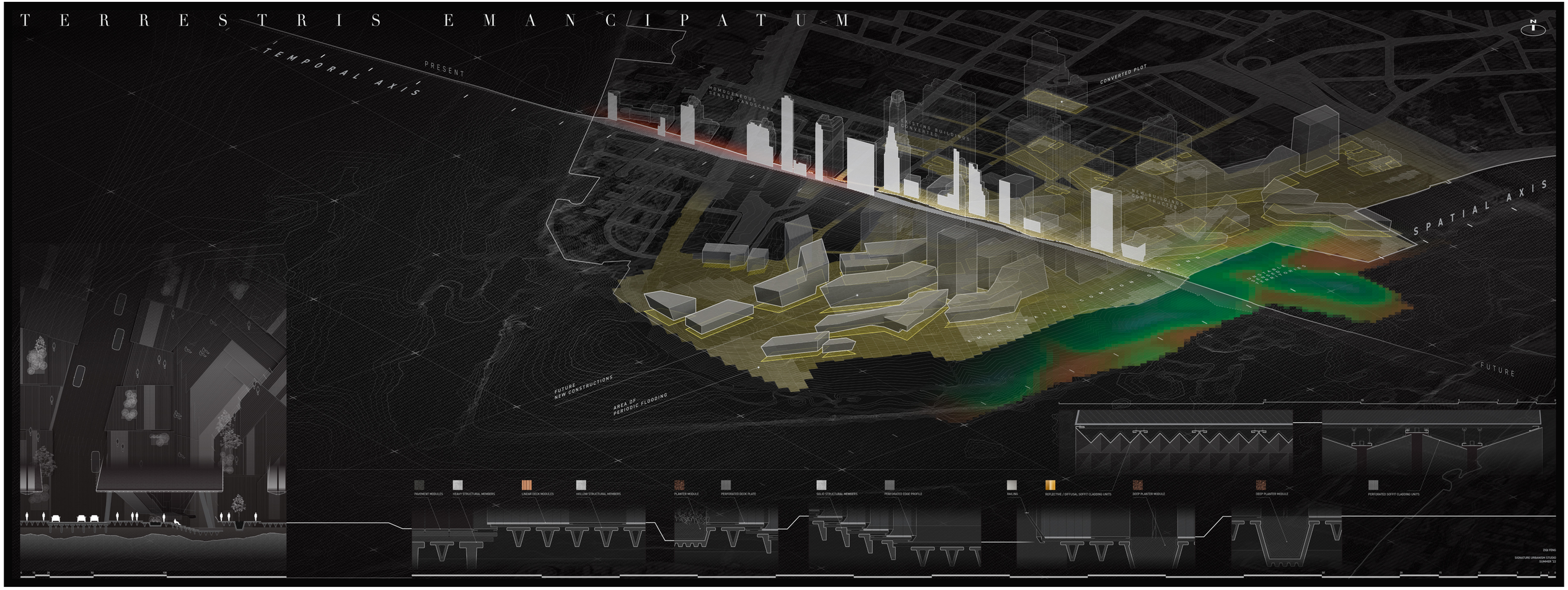
Map showing ground level topography, bathymetry, bedrock depth and areas with high risks of flooding, overlaid with building basement and subway footprints. Deeper bedrock allows deeper basements and hence the vertical expansion of the sensed field. Yet stormwater flooding may be seen as an opportunity for a new figure-ground relationship that denies the privatization of the ground.

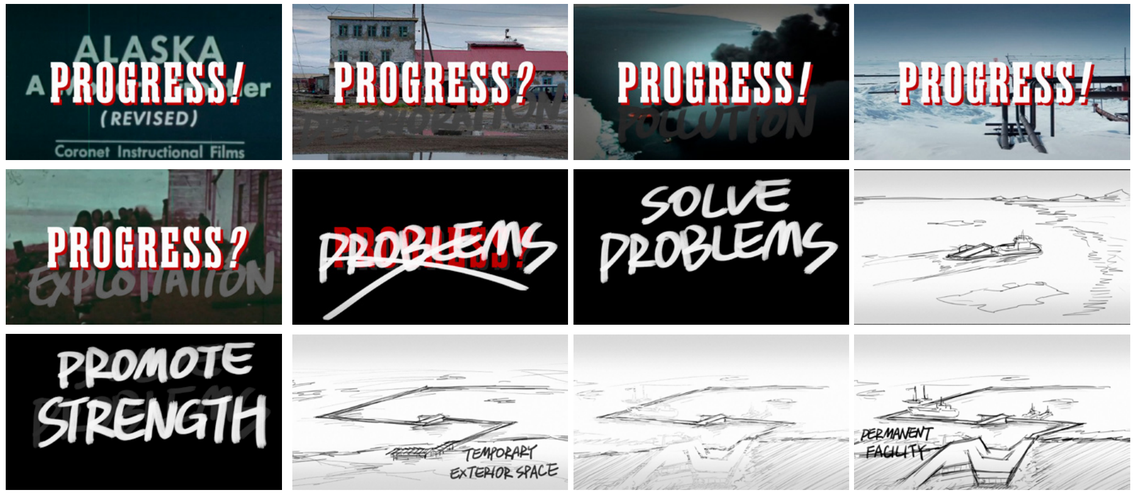


diagrams, WTC complex case study

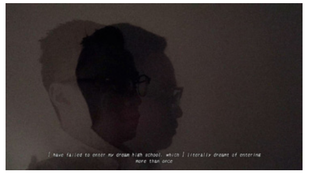
degree of security threshold overlapping along a pedestrian path

diagram, downtown Manhattan

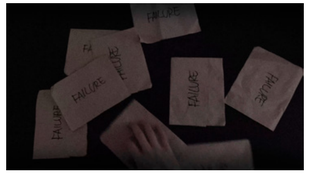

T E R R E S T R I S E M A N C I P A T U M
TEMPORAL AXIS
PRESENT
HOMOGENEOUS SENSED LANDSCAPE
EXISTING BUILDINGS CONVERTED
CONVERTED PLOT
NEW BUILDINGS CONSTRUCTED
SPATIAL AXIS
UNSTABLE SENSED TERRITORIES
FUTURE NEW CONSTRUCTIONS
AREA OF PERIODIC FLOODING
FUTURE
PAVEMENT MODULES
HEAVY STRUCTURAL MEMBERS
LINEAR DECK MODULES
HOLLOW STRUCTURAL MEMBERS
PLANTER MODULE
PERFORATED DECK PLATE
SOLID STRUCTURAL MEMBERS
PERFORATED EDGE PROFILE
RAILING
REFLECTIVE / DIFFUSAL SOFFIT CLADDING UNITS
DEEP PLANTER MODULE
DEEP PLANTER MODULE
PERFORATED SOFFIT CLADDING UNITS
ZIQI FENG
SIGNATURE URBANISM STUDIO
SUMMER '22



screenshots, final video



biography 1



biography II 2

context 3

seam 4

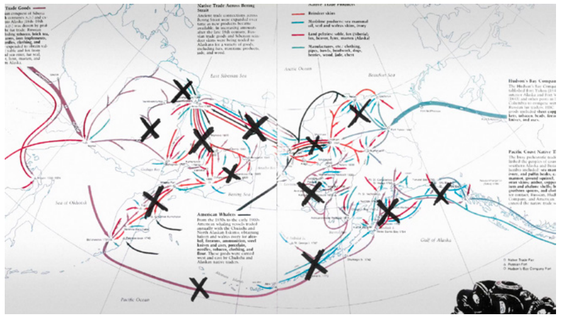
procession 5

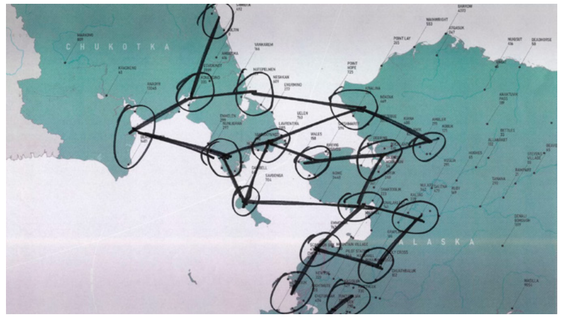
midterm review 6

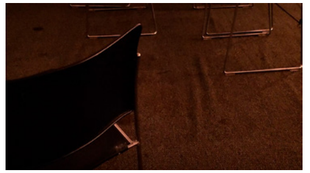
prof. Christopher Kupski

FALL 2022

video link: https://youtu.be/-967JcezfJs





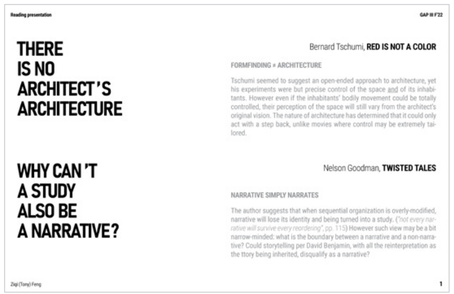


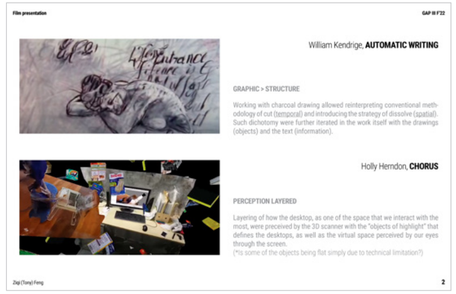
dialog 7

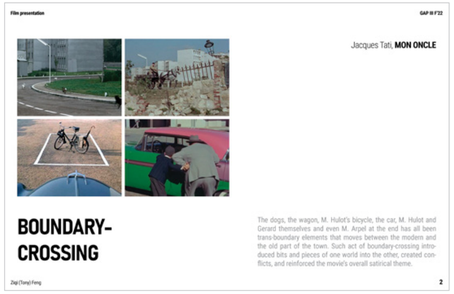
screenshots, weekly videos

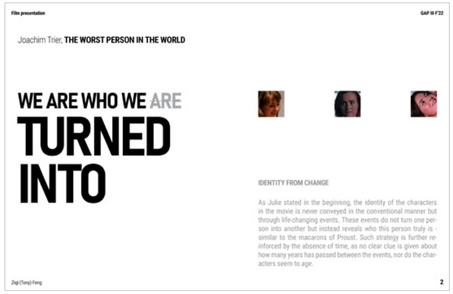
video link:
1. https://youtu.be/OmtbJ995ejQ
2. https://youtu.be/CScUr-D9laY
3. https://youtu.be/a-jTNUWM28U
4. https://youtu.be/xZEDnuG_OaQ
5. https://youtu.be/9vasOqNfhFI
6. https://youtu.be/LelXk7bp2Fw
7. https://youtu.be/uWCNlJ4ONgo

GRAPHIC ARCHITECTURE PROJECT III









weekly reading / film reflections

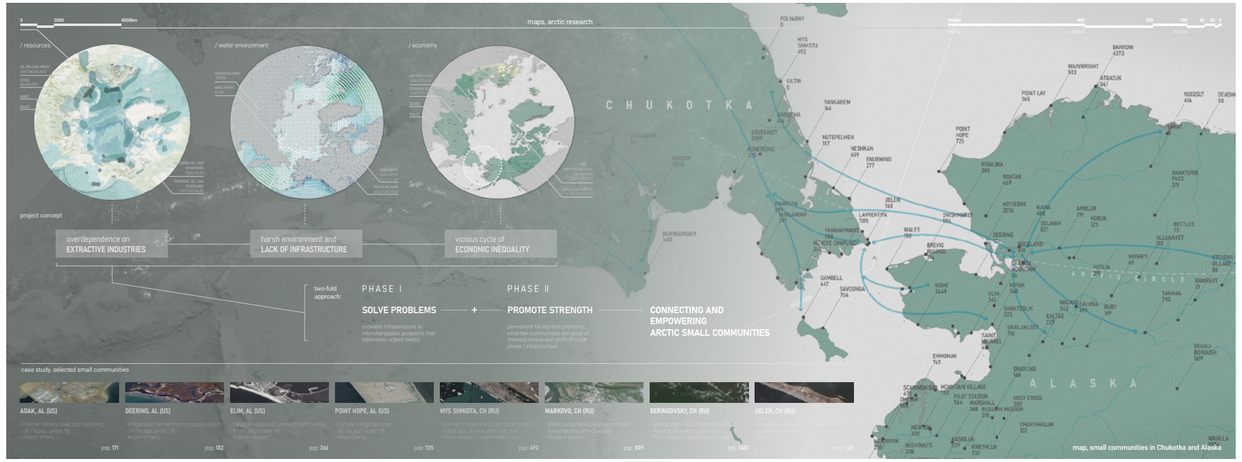
Are icebergs free?

THE VIADUCT(s)

adv studio V
FALL 2022

prof. Leslie Gill and
Khoi Nguyen

diagrams, research and project concept

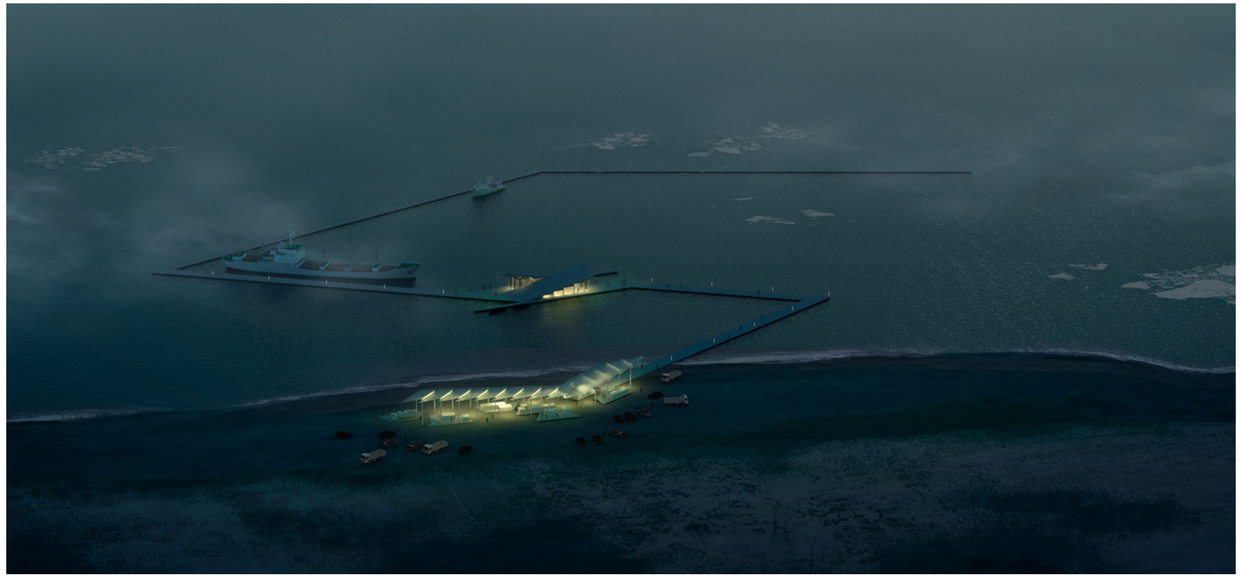


phase I
solving problems

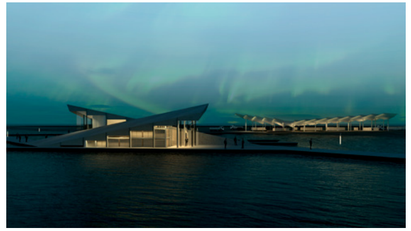
+

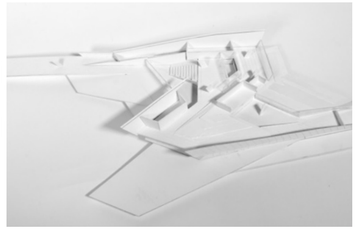
phase II
promoting strength

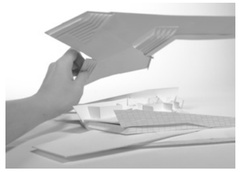
rendering, phase I

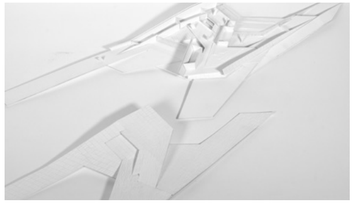


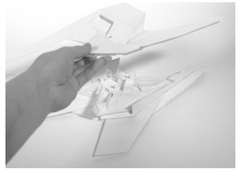
photo, physical models, phase I + II







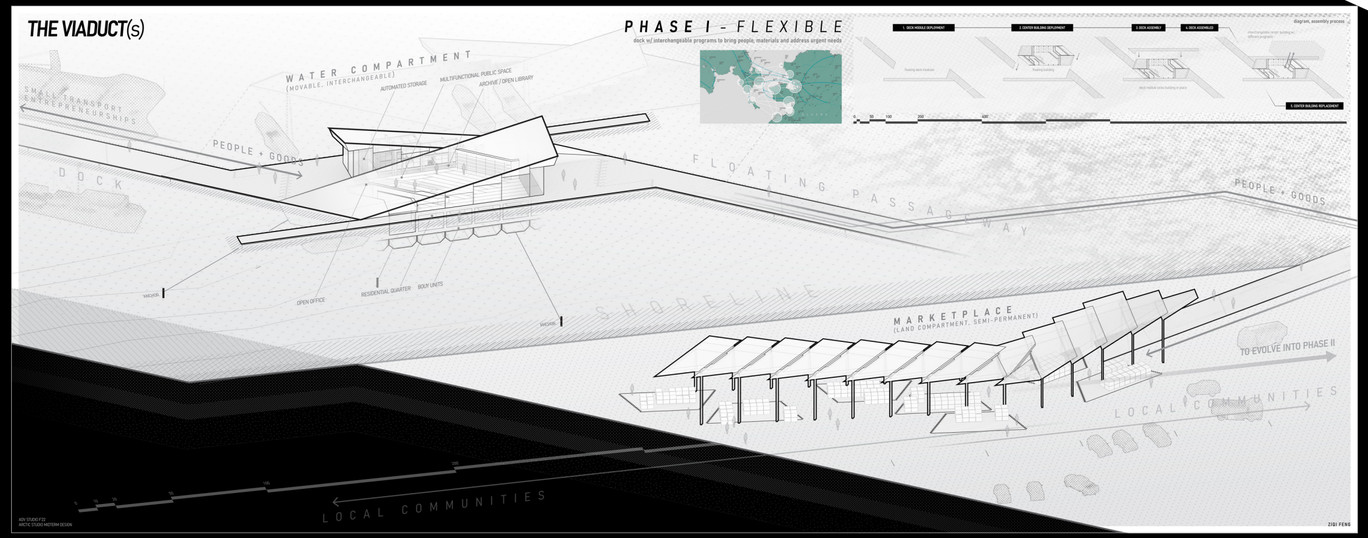




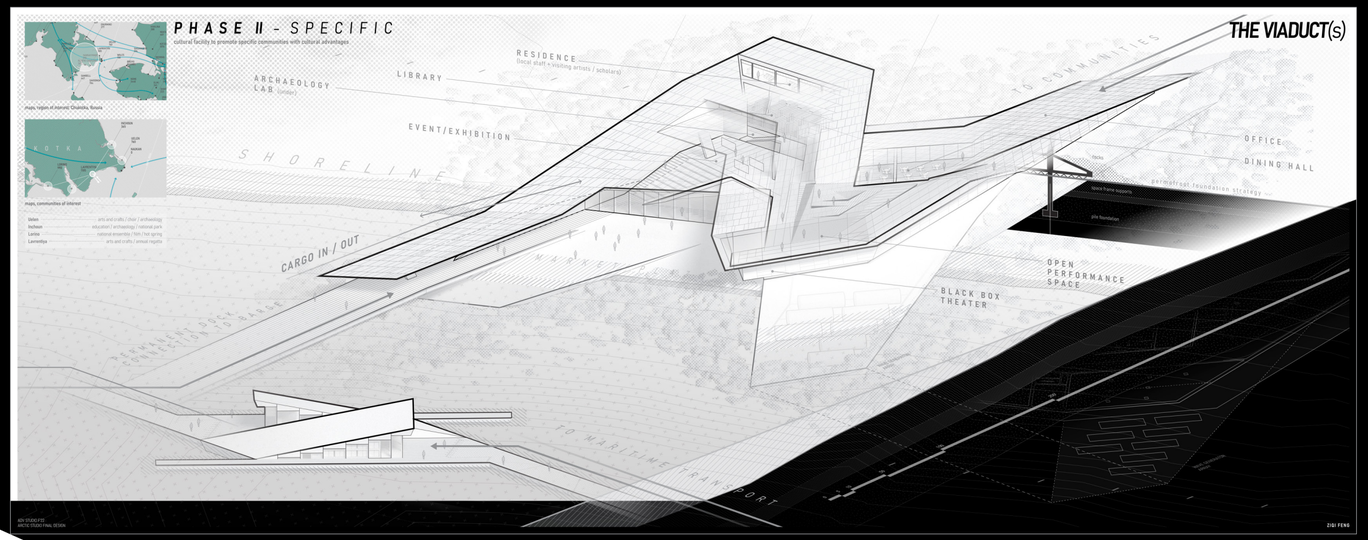
I

I + II

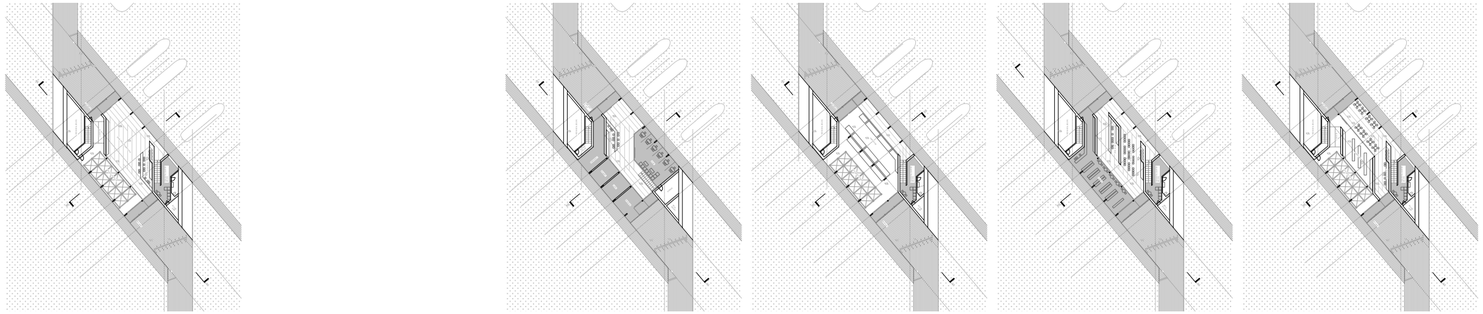
phase I
solving problems



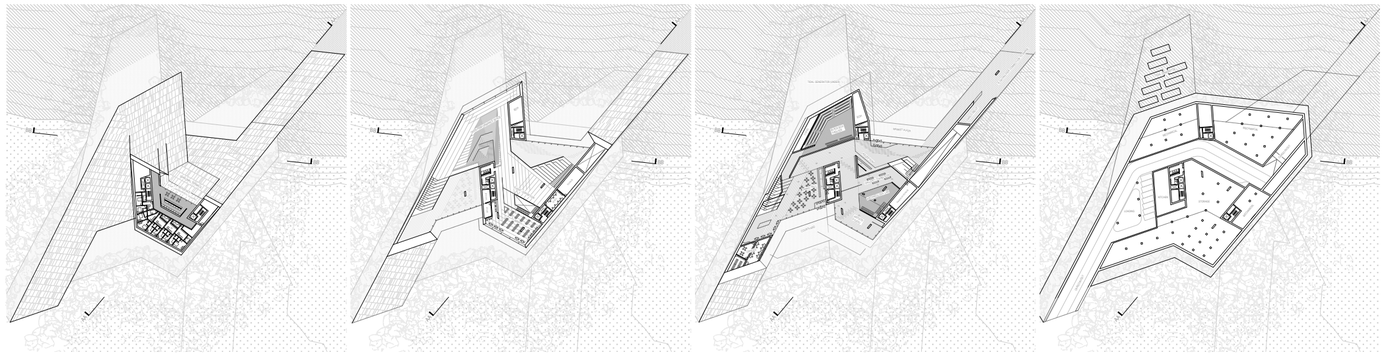
phase II
promoting strength

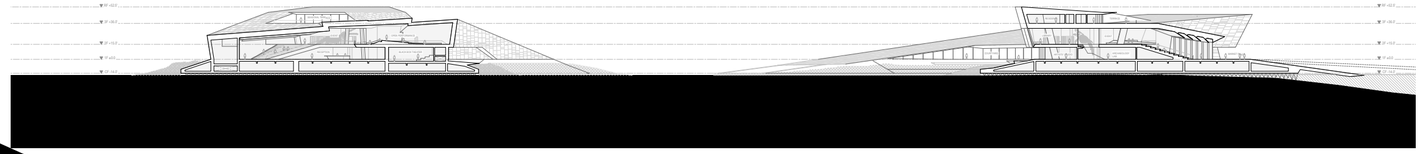


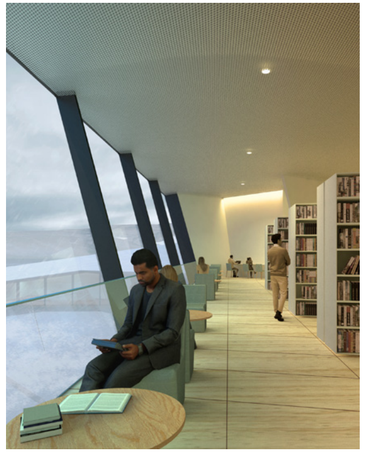
phase I
solving problems



phase II
promoting strength







rendering, phase II interior

X INFORMATION MODELING

group members:
Agnes Anggada, Ziqi Feng

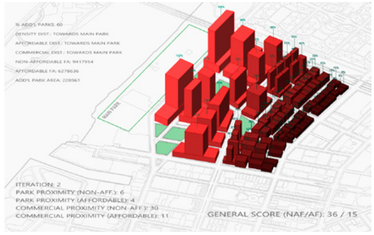
SPRING 2023

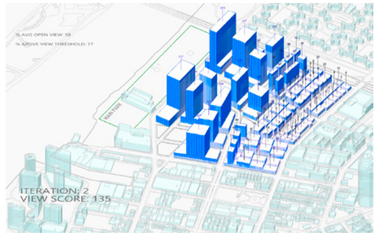
prof. Snoweria Zhang

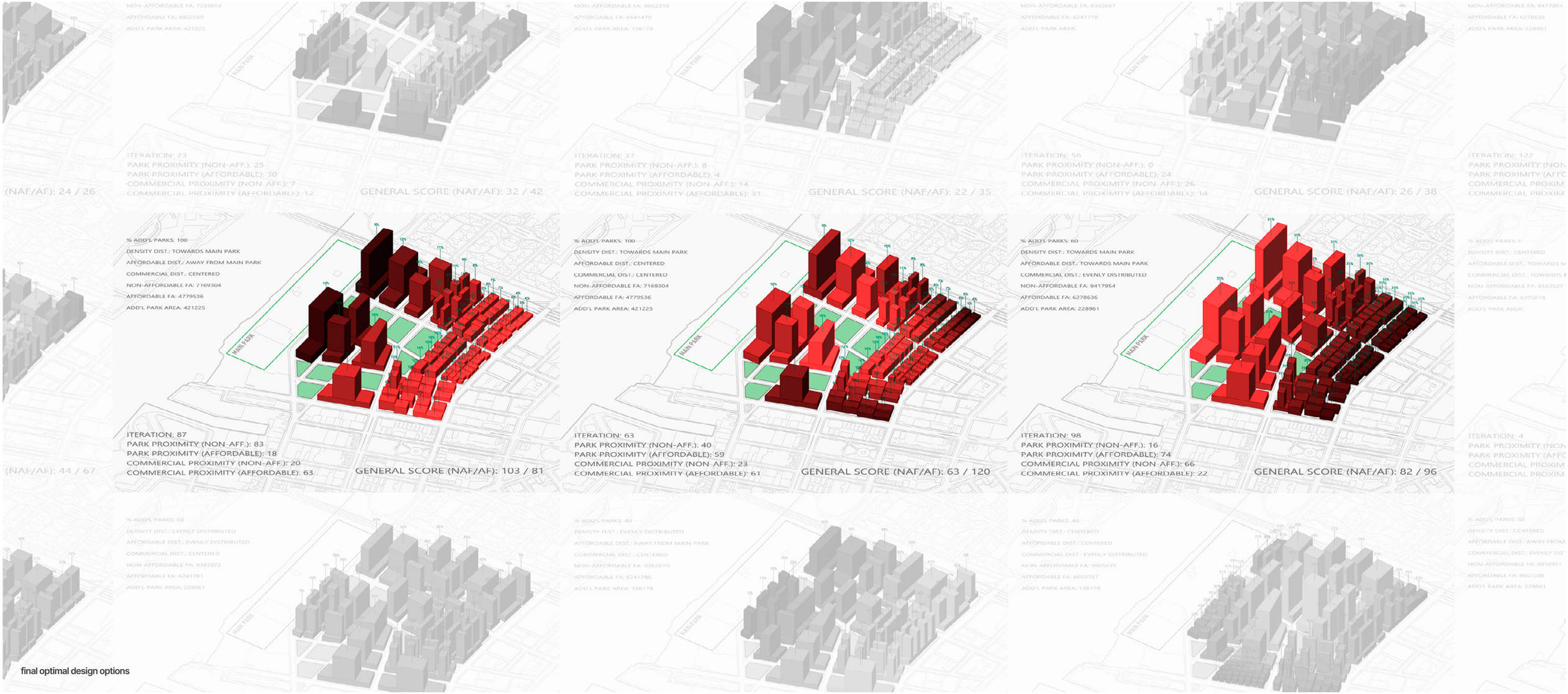
top: select design options
(144 in total)

Our tool generates design options for residential developments with affordable housing that is adjacent to public green spaces. Each option is associated with various scores regarding the quality of life for non-affordable and affordable housing residents alike. The tool aims to provide a wide range of design options in which developers / local authorities may use to balance profit with fairness for low-income residents.

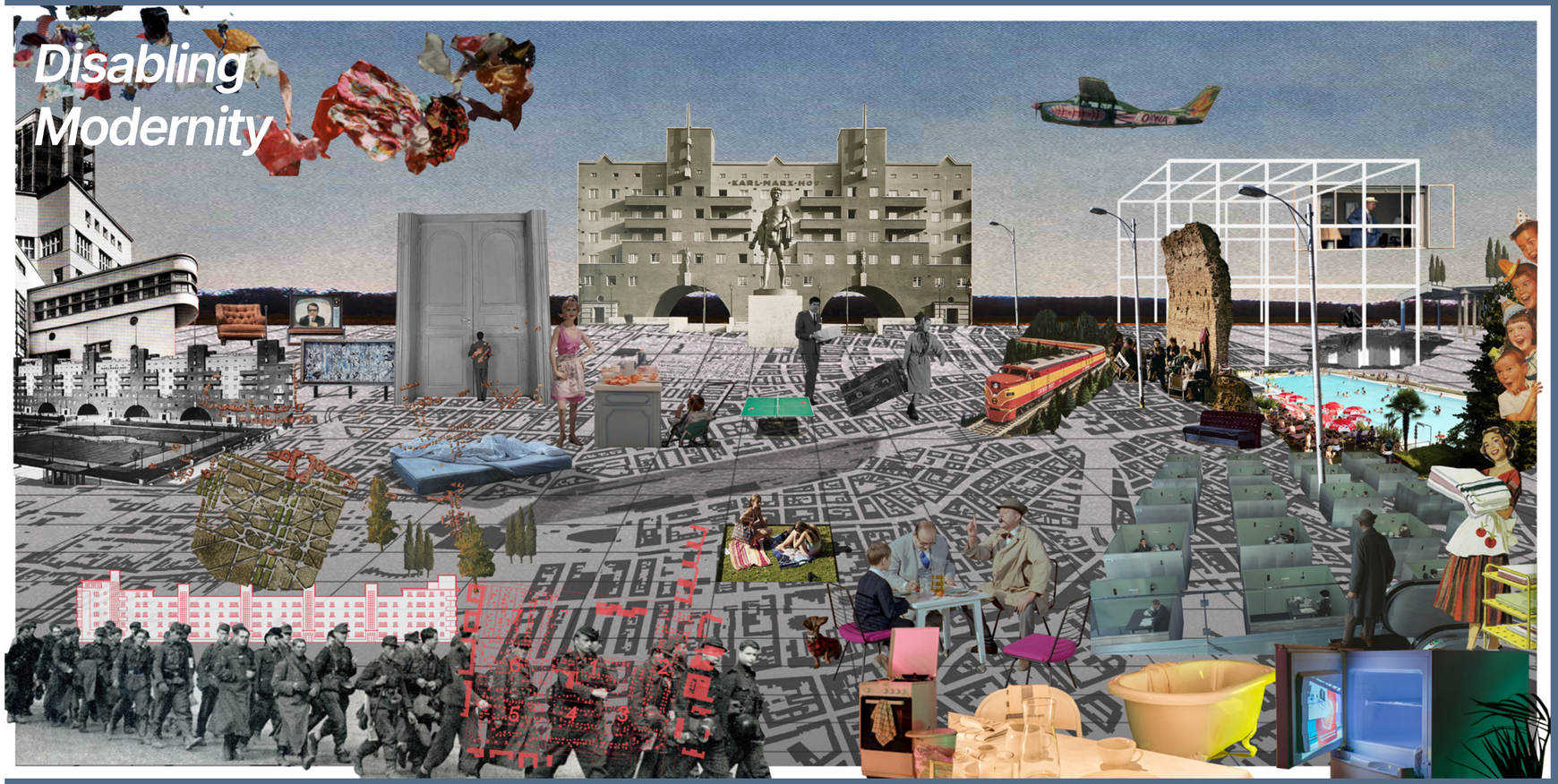
sample design options (main / daylight / views)







final optimal design options



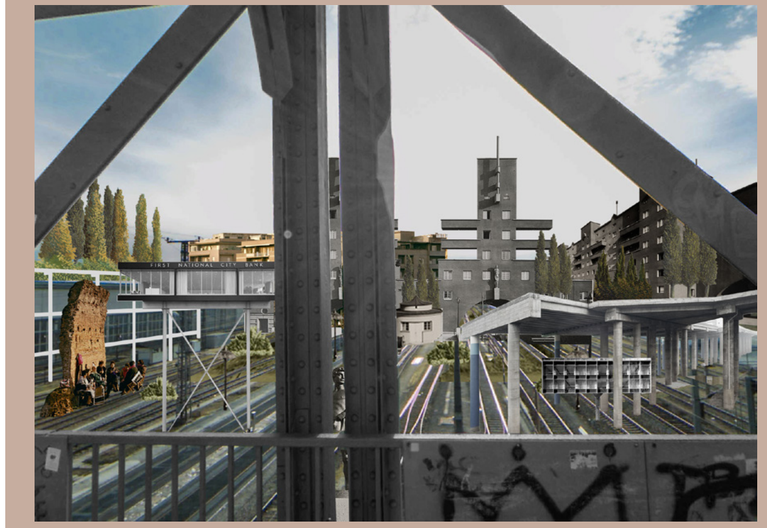
MITTE 15
DISABLED

group members (pre-midterm works):
Zhuofei tang, Zhikang Liu, Ziqi Feng

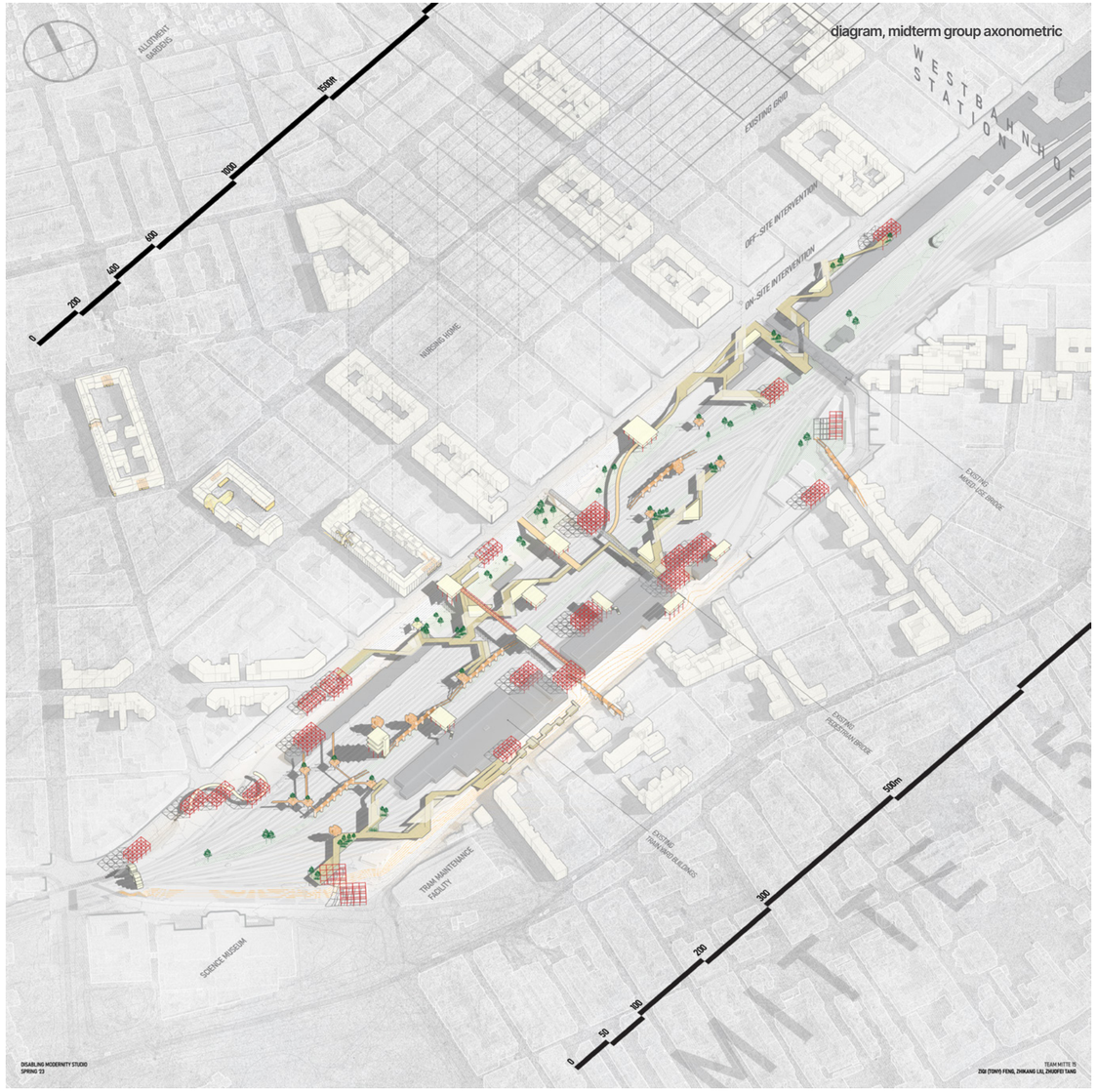
prof. David Gissen

collage, group project concept
credit: Zhuofei Tang

adv studio VI
SPRING 2023



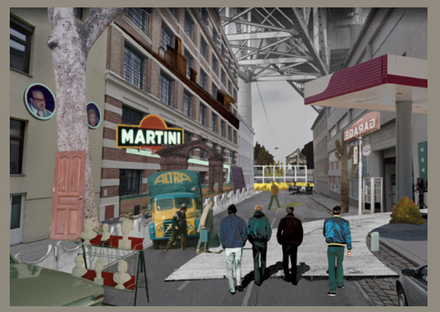
collage, masterplan concept
credit: Zhuofei Tang

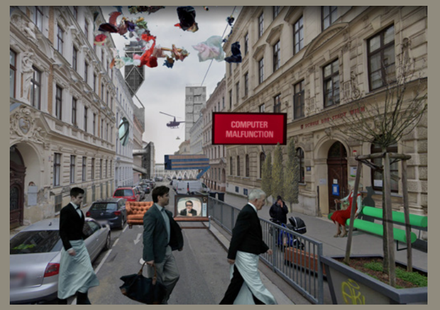


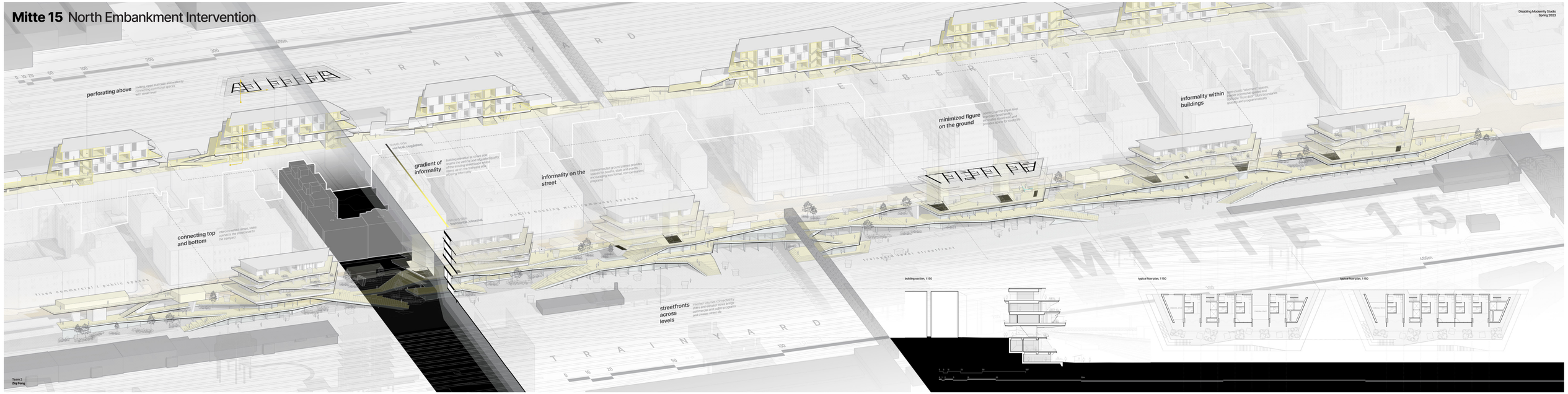
diagram, midterm group axonometric

collage, network concept

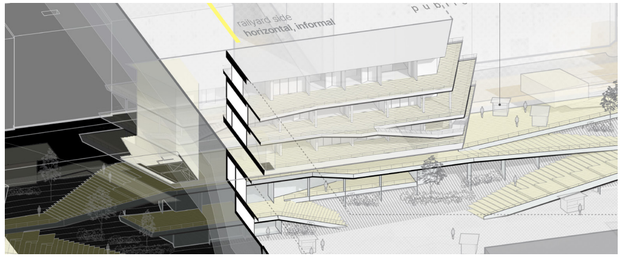
collage, masterplan concept
credit: Zhuofei Tang

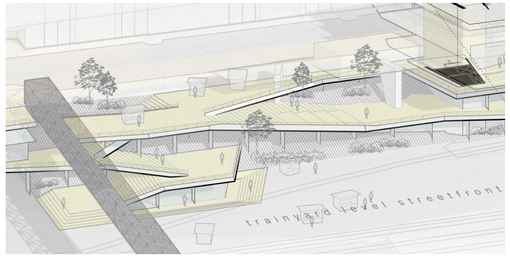


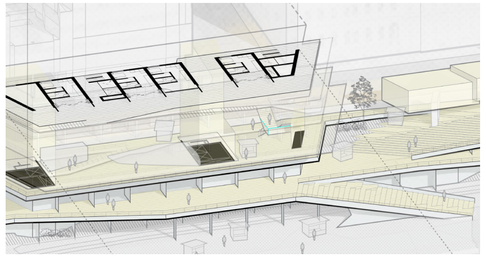


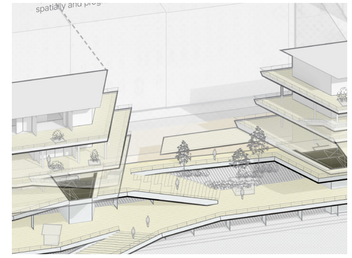


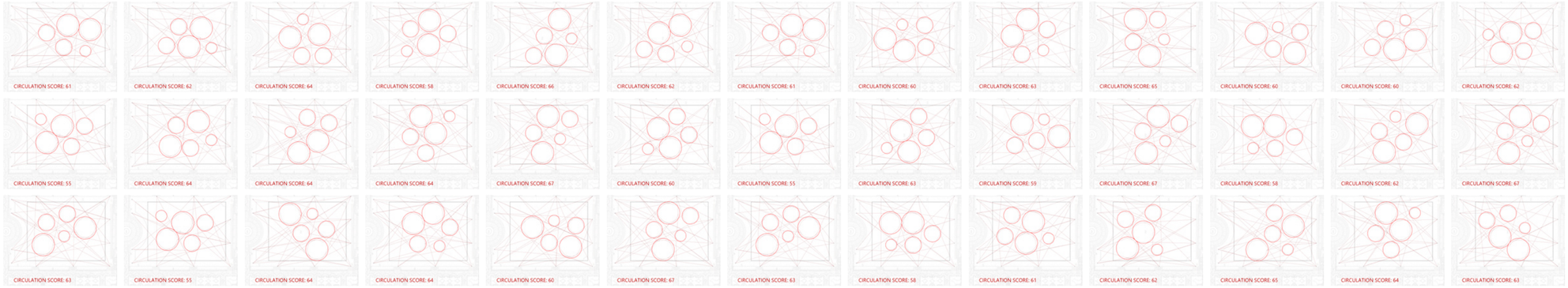
final axonometric and drawings











GENERATIVE DESIGN

step 1:
circle packing and stortest path optimization, programs

1

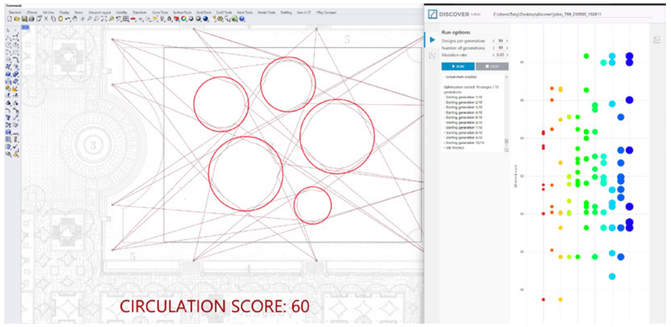
Through circle packing, shortest path algorithm, and orientation optimization, our tool aims to derive the optimal stall layout for various of occasions at the central lawn of Bryant Park. We have broken down the design process into three parts -- program layouts, stall layouts and stall orientations, and used generative process in each step for the optimized design. We hope that the tool would provide useful references for the park administration on prganizing events and festivities.

prof. Danil Nagy

group members:
Steven Fei, Ziqi Feng, Jie Lai, Yufei huang, Weiyu Xu

SPRING 2023

screenshot, optimazation process



2

step 2:
circle packing and stortest path optimization, stalls

step 3:
stall exposure and orientation optimization

3

rendering, final optimized stall layout
credit: Weiyu Xu