URBAN STITCH
TRANSPORTATION INFRASTRUCTURE
RENEWAL PROJECT AS OPPORTUNITY
OF URBAN REGENERATION
storyboard of introduction video

New transportation infrastructure system
Lead to prosperity
Becomes daily life
Technology improvement
Urban problem
Public strife
CURRENT:

INFRASTRUCTURE RENEWAL

IDEAL:

INTEGRATE

INFRASTRUCTURE RENEWAL

TRIGGER

URBAN REGENERATION

FLAWED IMPLEMENTATION PROCESS

URBAN REGENERATION
Taiwan railway (Project scope)
Main train station
Secondary train station
New train station
Taiwan railway (Other)
Urban region border

HOMETOWN
COMPLEX URBAN ENVIRONMENT
CORRIDOR AS OPPORTUNITY
How to elevate TRA Taoyuan Project into an opportunity to integrate and trigger desired urban regeneration actions of its located urban environment?
What are the existing and possible urban problems that are (potentially) related to the implementation of TRA Taoyuan Project?
What are the existing and possible urban problems that are (potentially) related to the implementation of TRA Taoyuan Project?
Hey yo, could you recommend me what are the fun places in Taoyuan?

Uhmumm dunno, we always go to Taipei~~

mmmm okay, then anything interesting about your city or its culture?

..................................

THEN WHAT IS TAOYUAN ABOUT :(

Eh, airport..... industrial zones...... lots of immigrant workers I guess.......?
SPATIAL DISTRIBUTION OF VARIOUS MUNICIPAL CHARACTERISTICS

SPATIAL AND DEMOGRAPHICS CHARACTERISTICS ALONG TRA TAOYUAN PROJECT
VIDEO ON DESCRIBING PRINCIPLE OF URBAN PROBLEM
TYPO-MORPHOLOGY STUDIES

EXISTING AND POTENTIAL INFRASTRUCTURAL PROJECTS

ACTOR ANALYSIS

SITE WORK & OBSERVATION
RAILWAY AS "DAM" - ZHONGLI DISTRICT CENTRE
Overdensified urban environment at front station | Neglected back station
RAILWAY AS "WALL" - RESIDENTIAL COMMUNITIES

Well established communities without accessibility to each other | TRA project as increasing accessibility or gentrification?
RAILWAY AS "HOURGLASS" - VIBRANT COMMUNITY vs. UNDERUSED INDUSTRIAL LANDSCAPE

Massive underused industrial open space becomes unsafe space | Commercial influence cannot permeate due to inaccessibility
RAILWAY AS "FACADE" - CYCU CAMPUS vs. INDUSTRIAL ZONE

Opening of new CYCU Station I Difficulty to be implemented due to "confidential" programs
conclusion I: structure of city

conclusion II: railway as barrier

thematization of segments
What are the existing and possible urban problems that are (potentially) related to the implementation of TRA Taoyuan Project?
RESEARCH OBJECT: IMPLEMENTATION VULNERABILITIES DUE TO SOCIAL/ECONOMIC/POLITICAL INTERFERENCE

CRITERIA ON SELECTION OF THEORIES

SCALE OF URBAN PROJECTS

TYPES OF PROJECT IMPLEMENTATION

OPERATION UNDER DEMOCRATIC SOCIETY
SCENARIO I
REDUCTION OF PROJECT SCOPE DUE TO FISCAL PRESSURE
SCENARIO II
PRIVATIZATION AND COMMERCIALIZATION OF PUBLIC SERVICES + POTENTIAL GENTRIFICATION
SCENARIO III
POTENTIAL SEGMENTS THAT COULD TRIGGER CONFLICT WITH LOCAL DWELLER
CURRENT: INFRASTRUCTURE RENEWAL

GOAL:

- ALLEVIATE
  - OVERDENSIFIED BUILT ENVIRONMENT WITH UNSATISFACTORY QUALITY

- RECONNECT
  - RETURN PEDESTRIAN CONNECTIONS

URBAN REGENERATION

SPATIAL
- RECONNECT WITH OTHER URBAN PROJECTS

ECONOMIC
- UNBALANCED RESOURCING

SOCIAL
- ACTOR CONFLICT
- CITY’S IDENTITY & BELONGINGNESS
SYNERGY

PREPARATION ACTIONS
suggesting urban regeneration actions during the construction phase

CORRIDOR DESIGN
design interventions for alleviating existing urban problems and reconnecting segregations

EVALUATION
on if the design and research-design process meet the anticipated performance

construction of top down transportation infrastructure project as trigger point of urban regeneration actions

initiate design from the smallest "segment" scale

utilizing bottom up urban regeneration actions to mitigate impacts from construction

engage all actors in every stage of decision making

adaptation of design-research process into innovative approach/regulation

top down transportation infrastructure project as opportunity to contain all actors
THEORIES FOR OPEN SPACE AS CONTAINER FOR ALL THE ACTORS

EVERYDAY PUBLIC SPACE
(Yucesoy)

CREATING SPATIAL CONDITION
(Carmona, 2010)

INCLUSIVENESS OF OPEN SPACE
(Holland, Clark, Katz, and Peace, 2007)

THIRD PLACE THEORY
(Oldenburg, 2001)

URBAN ACUPUNCTURE
(Kaye, 2011)(Harrison, 2013)
How to apply test design that meets the integrative approach of TRA Taoyuan Project?
TEST DESIGN SITE: ZHONGLI STATION AND ADJACENT NEIGHBORHOOD
TEST DESIGN SITE: ZHONGLI STATION AND ADJACENT NEIGHBORHOOD
DESIGN BRIEF: SPATIAL

Reconnect pedestrian connectivity between front/back station via open space.

Improve pedestrian accessibility of urban dwellers along the project.
DESIGN BRIEF: ECONOMIC

Improving back station's lack of resource by introducing new programs + connecting with other commercial districts
Alleviating stress of front station by redistributing existing facilities.
DESIGN BRIEF: SOCIAL

Include multiple users in the using and making of open space, especially immigrant workers.
Connect urban dwellers with their city by placemaking.
PREPARATION ACTIONS
suggesting urban regeneration actions during the construction phase

CORRIDOR DESIGN
design interventions for alleviating existing urban problem and reconnect segregations

EVALUATION
on if the design and research-design process meet the anticipated performance

corridors

top down

construction of top down transportation infrastructure project as trigger point of urban regeneration actions

bottom up

utilizing bottom up urban regeneration actions to mitigate impacts from construction
MRT Zhongli Station
Temporary Zhongli Station
Yuanhua Rd. tunnel closed down for construction
Demolishment of settlement
Alternative routing
EXPECTED URBAN PROJECTS
STOP MOTION VIDEO
PREPARATION ACTIONS
suggesting urban regeneration actions during the construction phase

CORRIDOR DESIGN
design interventions for alleviating existing urban problem and reconnect segregations

top down transportation infrastructure project as opportunity to contain all actors

bottom up

initiate design from the smallest "segment" scale

evaluation
on if the design and research-design process meet the anticipated performance
EVERYDAY PUBLIC SPACE
(Yucesoy)

Option 1: Conventional
Option 2: Vertical
Option 3: Connectivity

+ a section

BUS TERMINAL TYPOLLOGIES
CREATING SPATIAL CONDITION
(Carmona, 2010)

Direction
Guiding

Form of Open Space
Structure
Differentiate Pavings
Landform

Gathering
Space

Monument as Focal Point
Open Space as Focal Point
Height Difference as Viewpoint

CREATION SPACE FOR DESIRED ACTIONS
PROTOTYPE OF OPTION I: Mosiac Patterns
PROTOTYPE OF OPTION II: Micro-segments
PROTOTYPE OF OPTION III: Urban Topography
OTHER DESIGN INTERVENTIONS

Providing Various Open Space Experience
Plant Species to Form Nostalgia
Shading Structures
Water Feature

Event Space
Renovation of Abandoned House
Self-organized Open Market
OPTION I: Mosiac Patterns
OPEN SPACE PROGRAM OF OPTION I: Mosaic Patterns
ATMOSPHERE OF OPTION I: Mosaic Patterns
OPTION II: Micro-segments
OPEN SPACE PROGRAM OF OPTION II: Micro-segments
ATMOSPHERE OF OPTION II: Micro-segments
OPTION III: Urban Topography
OPEN SPACE PROGRAM OF OPTION II: Micro-segments
OPEN SPACE PROGRAM OF OPTION III: Urban Topography
ATMOSPHERE OF OPTION III: Urban Topography
EVALUATION & REFLECTION

What could be learned and reflected from the research objective?
SYNERGY

**PREPARATION ACTIONS**
suggesting urban regeneration actions during the construction phase

**CORRIDOR DESIGN**
design interventions for alleviating existing urban problems and reconnecting segregations

**EVALUATION**
on if the design and research-design process meet the anticipated performance

- **top down**
  - construction of top down transportation infrastructure project as trigger point of urban regeneration actions
  - adaptation of design-research process into innovative approach/regulation

- **bottom up**
  - utilizing bottom up urban regeneration actions to mitigate impacts from construction
  - engaging all actors in every stage of decision making

initiate design from the smallest "segment" scale
GOAL: SPATIAL
1. Reconnect pedestrian connectivity between front/back station via open space.
2. Improve pedestrian accessibility of urban dwellers along the project.

EVALUATION OF TEST DESIGNS: SPATIAL GOAL
GOAL: ECONOMIC
1. Improving back station's lack of resource by introducing new programs
2. Alleviating stress of front station by introducing different urban experiences + connecting with other commercial districts
GOAL: SOCIAL
1. Include multiple users in the using and making of open space, especially immigrant workers
2. Connect urban dwellers with their city by placemaking

GOAL: ENVIRONMENTAL
1. Relieve urban stress from densely built environment and further provide diverse urban landscape experiences
2. Connect with existing open space assets and further serve as guide to them

EVALUATION OF TEST DESIGNS: ECONOMIC GOAL
### EVALUATION OF TEST DESIGNS: EVALUATION MATRIX

<table>
<thead>
<tr>
<th>OPT I: Mosaic Patterns</th>
<th>OPT II: Micro-segments</th>
<th>OPT III: Urban Topography</th>
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</thead>
<tbody>
<tr>
<td><strong>SPATIAL</strong></td>
<td><strong>ECONOMIC</strong></td>
<td><strong>ENVIRONMENT</strong></td>
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**Notes:**
- **SPATIAL:**
- **ECONOMIC:**
- **SOCIAL + ENVIRONMENT:**

**Legend:**
- Orange areas represent specific urban elements for evaluation.
EXAMINING TRANSFERRABILITY OF METHODOLOGY

HOW PHASING STRATEGY, DESIGN PROCESS AND EVALUATION COULD BE DUPLICATED AND CONDUCT TO OTHER SEGMENTS
EXAMINING TRANSFERABILITY OF METHODOLOGY
HOW THEMATIZATION/SEGMENT APPROACH COULD TRANSFORM FROM METHOD OF UNDERSTANDING OF SITE TO A METHOD OF APPROACHING THE DESIGN IN BIG SCALE

EXAMINING TRANSFERRABILITY OF METHODOLOGY

MORPHOLOGY MAP
EXAMINING TRANSFERABILITY OF METHODOLOGY

NEW PROJECTS + EXISTING INFRASTRUCTURE
Referendum of design option

New landuse regulations

Establishment of multi-actor platform

Integrative workshops of multiple actors

"Referendum" of design option
THANKS FOR ATTENDING MY PRESENTATION