RE-MADE (IN) HONG KONG: CO-(SHOP)HOUSING
People's alternative approach to redevelop Tin Shui Wai New Town

2014-2015 TU Delft
MSc Architecture
Design as Politics
New Utopia on the Ruins of Welfare State

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RE-MADE (IN) HONG KONG

CO-(SHOP)HOUSING

People’s alternative approach to redevelop Tin Shui Wai New Town

1. Control VS Opposition - Hong Kong Case
2. Ruins of Welfare State - Tin Shui Wai
3. Architectural Strategy
4. Urban Strategy
5. New Utopia of the Commons
Control VS Opposition
Ruins of the Welfare State
Architectural Strategy
Urban Strategy
New Utopia of the Commons
1842 Political Dependency on British Government

British Colony of Hong Kong Since 1842
1900s Housing as Work Place - Shophouse (Southeast Asia Vernacular Architecture)

Easy adaptation to any environment when first settled

Control VS Opposition

Ruins of the Welfare State

Urban Strategy

Architectural Strategy

New Utopia of the Commons
Control VS Opposition

Ruins of the Welfare State

Urban Strategy

Architectural Strategy

New Utopia of the Commons

1945-1950 Influx of immigrants from Mainland China during Civil War
Resettling within city center

1953
Housing as Social Welfare - Start of Social Housing for Resettling people

Control VS Opposition
Ruins of the Welfare State
Urban Strategy
Architectural Strategy
New Utopia of the Commons

Resettling within city center

For People Living Under Poverty Line only!

+1.6 million
2.2 million
1945-1950
Original:
0.6 million
53% per year
+2 million
5.1 million
1950-1980
3.2% per year
6.5 million
1980-1997
2.6% per year
7.2 million
1997-2014
4% per year

Express Rail Link to Shenzhen
Hong Kong Portion
Common Economic Zone of Hong Kong and Mainland China

"Hong Kong Land" in Nansa, China

+ 1.7 million
10 million
2014-2047
0.7% per year
- ? million

1945-1950
1950-1980
1980-1997
1997-2014
1970s  Start of New Towns and Continuing Social Housing for better minimum living quality

1990s: Highly concentrated New Town Residential Development

Private Housing : Public Housing = 6 : 4

Resettling to the New Territories
1953-1990s Housing Typology Transformation

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>1945-50</td>
<td>Slum Settlements Introduction</td>
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<tr>
<td>1949</td>
<td>Establishment of the People's Republic of China</td>
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<td>1950-80</td>
<td>Introduction of Public Housing Scheme</td>
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<td>1953-90</td>
<td>Housing Typology Transformation</td>
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<tr>
<td>1954</td>
<td>Introduction of Public Housing Scheme</td>
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<tr>
<td>1972</td>
<td>10-year Housing Programm to house 1.8 million people in 10 years</td>
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<tr>
<td>1973</td>
<td>Introduction of New Town Development</td>
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<td>1984</td>
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<td>1986</td>
<td>Estates Scheme</td>
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<td>Establishment of Land Development Co.</td>
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<td>1991</td>
<td>Termination of Touch Based Policy</td>
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<td>1995</td>
<td>Increase One-way Permit quota from Mainland from 75 to 150 per day</td>
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<tr>
<td>1997</td>
<td>Establishment of Hong Kong Special Administrative Region</td>
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<td>2011</td>
<td>Establishment of Urban Renewal Authority</td>
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<td>2013</td>
<td>Proposal for Hong Kong Land in Nansa, Guangdong</td>
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<td>2014</td>
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<td>2014-47</td>
<td>Common Economic Zone of Hong Kong and Mainland China</td>
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<tr>
<td>2015</td>
<td>20% of land for housing and industrial sector</td>
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Control VS Opposition
Ruins of the Welfare State
Urban Strategy
Architectural Strategy
New Utopia of the Commons

Better physical individual living quality but Less Common area for Social Interaction

Private Space
Common Space
1997 Political Shift from British to Chinese Government

China Hong Kong Special Administration Region since 1997

Control VS Opposition
Ruins of the Welfare State
Urban Strategy
Architectural Strategy
New Utopia of the Commons
2020s Proposal: Dispersed and smaller Private Residential Development

Building for better and faster connection with China
Resettling in “Hong Kong Land” in China + “Common Economic Zone” in Hong Kong
2014 Conflict: China’s Hong Kong VS Hong Kong people’s Hong Kong

Control VS Opposition

Ruins of the Welfare State
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2014 People’s action against Government Control

Protection of Homeland & Farmland

Umbrella Movement for Democracy

Residents’ staying Approach

Control VS Opposition

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New Utopia of the Commons
“Lefebvre’s theory of a revolutionary movement is the spontaneous coming together in a moment of “irruption”; “when disparate Heterotopic groups suddenly see, if only for a fleeting moment, the possibilities of collective action to create something radically different.” - David Harvey, Rebel City
Research Question

Problem Definition

1. Distortion/Corruption of Political System
2. Reduction of Social Welfare to insignificant
3. Policy Unsynchronize with People’s need
4. Government’s Top-down Decision Making
5. People’s rights and homeland are not protected

Problem Statement

Hong Kong people does not have the right to make political, economic, social, cultural and spatial decisions in favor for their living. Public Expenditure are spent on development for Political & Social Enginering. Distortion of political and social welfare system leads to Social Injustice.

Research Question

How can the underprivileged people be empowered to initiate and self-organize the (re)development of their neighborhood to enable their Right to the City?
City of Misery as the Ruins of Welfare State

TOWN OF SADNESS

Tin Shui Wai as Town of Sadness/City of Misery
1980s  Tin Shui Wai New Town planned

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TSW in Hong Kong
1992-2004 Tin Shui Wai New Town built and move-in
2004 Poverty Situation

Collective Poor

- 14.9% new immigrants (11.5% in HK)
- 7.3% Divorced (6.5% in HK)
- 18.3% taking CSSA (13.3% in HK)
- 27% Lower Secondary Education Level (19% in HK)
- 9.1% Unemployed (3.3% in HK)
- 20.5% Under 15 (13.7% in HK)

Large Poverty Population without local Economy
2015
Tin Shui Wai Urban Zoning & Way of living

Zoning with large proportion of residential area without local economy

Residential Area

Public Housing to Total Housing Ratio
= 85% (30% avg. in HK)

1. Public Housing Provision
   Blocks: 97
   Units: 54412

2. HOS Provision
   Blocks: 54
   Units: 21576

Standard:
1990s: Highly concentrated New Town Residential Development

Private Housing: Public Housing = 6 : 4
Control VS Opposition

Ruins of the Welfare State

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2015 Urban Spatial Problems

Poor Urban Planning separating living spaces and open spaces.

40-storey high public housing

Up to 99.7m wide car road

Empty Plaza of Mall Front

Central Park - the only Open Space
2017

Government aimed at getting rid of the negative fame as City of Misery
Turning Existing Public Housing into Private Housing Estates
Umbrella Movement extends to Tin Shui Wai in 2020

Over 100,000 protestors occupied Tin Shui Wai Demolition Site

5 Protests in a week against Tin Shui Wai Redevelopment

Tin Shui Wai Redevelopment Plan has burnt up Hong Kong citizens.
Chief Executive Chun-ying Leung, proposed the redevelopment of Tin Shui Wai as another “Common Economic Zone” of Hong Kong and China. Nearly 250,000 existing Tin Shui Wai residents need to resettle in "Hong Kong Land" in Nansa, Guangdong, China.

Protestors occupied Tin Shui Wai Demolition site. PHOTO BY KWONG CHUNG HENG (WIKIMEDIA COMMONS)

Over 100,000 protestors occupied Tin Shui Wai Demolition Site

Chief Exercutive Chun-ying Leung claimed that Tin Shui Wai Redevelopment can bring HK$200 million profits.
New Commons Actors & Finance

Control VS Opposition
Ruins of the Welfare State
Urban Strategy
Architectural Strategy
New Utopia of the Commons

Civic Version of Public-Private Partnership:
Residents-Social Enterprise Partnership

Donations

Cooperatives
Social Enterprises
NGOs

CivicBank

the socialfund

Democracy

Collective Farm

Democratic Handicrafts

Handicrafts

Creation Markets

Underprivileged

Alternative & Protestor

Urban Farming

Self-Help

Sharing

Recycling

Vendoring

Traditional Skills

Collective Work

Handicrafts

Recycled Handicrafts Creation Markets

Democractic Handicrafts

Cooperatives

Social Enterprises
NGOs
Occupyants of Tin Shui Wai New Town are redeveloping the neighborhood. They are raising funds to deconstructing the public housing blocks and reconstructing into new shophouses, creating their own neighborhood community.

Everyone can help and participate. Everyone can be a part of it.
Co-(Shop)housing Spatial Strategy

Without local Economy
New Shophouse
Economic Independency

Weak Social Cohesion
New Common House
Community Formation

Far away Open Space
Courtyard Space
Open Space a step from Home

Spatial Isolation
Public & Common Corridors
Direct Common & Public Connection

Car-oriented Roads
New Main Street
People-oriented Streets

Demolition Waste
Reconstruction
New life to Reused materials
**Shophouse Typology as Architectural Strategy**

**Spatial Strategy to combine public-private-common spaces**
Original Site
Existing situation
2020-2025 Phase I

Reconstruction Phase 1

- Reused Pathway
- Reused School & Community Buildings into Public Buildings
- Reused Main Street
- Reused Tramway
2025-2030 Phase II

Reconstruction Phase 2

New Agriculture Area
New Fishponds
New Main Street
New Tramway

Control VS Opposition
Ruins of the Welfare State
Urban Strategy
Architectural Strategy
New Utopia of the Commons
Reconstruction Phase 3

New Neighborhood
New Side Street
Co-(Shop)housing Spatial Strategy: Neighborhood Formation

Without local Economy
New Shophouse
Economic Independency

Weak Social Cohesion
New Common House
Community Formation

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2015 Live and Work together - New Neighbourhood

Original landscape
2020-2025 Phase I

New Streets, Plaza & Public Building

New Public Building
New Plaza
New Main Street
New Side Street
New Neighborhood
Density Comparison
1. Original landscape
3. New Landscape and Playground
4. New Shophouse and Common House
Co-(Shop)housing Spatial Strategy: Reuse materials for Redevelopment

Without local Economy
New Shophouse
Economic Independence

Weak Social Cohesion
New Common House
Community Formation

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Courtyard Space
Open Space a step from Home

Spatial Isolation
Public & Common Corridors
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Car-oriented Roads
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Demolition Waste
Reconstruction
New life to Reused materials
Typical Harmony Block typology creating high efficiency but isolation with neighbours
3-4 person Living Unit
Interior & Exterior

Common Corridor on each floor shared by 16 units (56 people)

& Ground Greening shared by 640 units (>2000 people)
From Deconstruction to Reconstruction

Protestors & original residents start deconstructing the buildings
1. Original Unit
2. Take away doors & removable items
3. Cut away partition walls
4. Cut away Prefab. Facade & Install temp. support for structural wall
5. Cut away Structural Walls
6. Install temp. support for floor slab & Cut away floor slab

Deconstruction Method & Procedure
### From Deconstruction to Reconstruction

#### Circulation Core

<table>
<thead>
<tr>
<th>Floor Slab</th>
<th>Structural Wall</th>
<th>Partition Wall</th>
<th>Doors</th>
<th>Prefab. Elements</th>
</tr>
</thead>
</table>

#### Living Units

|------------|-----------------------------|------------------|------------------------|---------------------------|

#### ToolBox Element List

<table>
<thead>
<tr>
<th>Quantity per floor</th>
<th>Sizes</th>
<th>Weight</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1.4mx15.75mx0.16m</td>
<td>7.52tons</td>
<td>3.76m3</td>
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<td>8</td>
<td>1.3mx2.54mx0.1m</td>
<td>0.33m3</td>
<td>0.41m3</td>
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<td></td>
<td>0.7mx2mx0.05m</td>
<td>0.18tons</td>
<td>2.90tons</td>
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<td>16</td>
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<td>17.44m2</td>
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<tr>
<td>16</td>
<td>0.7mx2mx0.05m</td>
<td>22</td>
<td>5.48m3</td>
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</tbody>
</table>
How to use? Example
Individual Live-work Unit - New Shophouse

Reuse ~75% material elements at the wing

FS01  x  2
FS01A  x  2
SW01  x  2
SW01A  x  2
SW05  x  1
SW05A  x  1

~95% Building elements from re-used materials

Reuse materials from Harmony Block (How?)
From Reused materials
New Shophouse chx: Live and work all-in-one
New Shophouse chx: Live and work all-in-one
New Shophouse chx: Two-sided Open Facade

Common Corridor

Public Corridor
2020-2025 Phase I

Variation - Co-living & Co-working for 2-3 people or Small family

Home Office/ Internal workspace (8m²)
Open Workspace/ Waiting area (20m²)
2-person Bedroom (10.2m²)
Living/Dining area + Open Kitchen (24m²)

Shared Working Space (20m²)
Home Office/ Internal workspace (8m²)
Pantry/ Storage (3m²)
Toilet + Bathroom (3.4m²)
1-person Bedroom (6.2m²)

Common Corridor
Public Corridor

Shared Living Space (24m²)
2020-2025 Phase I

Variation - Co-living & Co-working
Residents’ Choice for Built Degree
Minimum Resident Built - Before
Minimum Resident Built - After
Medium Resident Built - Before
Medium Resident Built - After
Maximum Resident Built - Before
2025-2030 Phase II

Maximum Resident Built - After
Possible Transformation between neighbors

- Single Parent with kid
- Teenage kid move out
- Retired
Possible Extensions
**Step 1:** On top of New Foundation, Install Reused Structural Wall with addition of New Columns & Beams

**Step 2:** Adding Reused Partition Walls & New Partition Walls with reused doors and windows

*Individual Live-work Unit - New Shophouse*
Step 3: Adding Adjustable Ventilation Grille for Cross Ventilation with insulation on the inside.
Step 5: Sunshading corridor cover with Sunshading Louver, Green Roof & Insulation to avoid heat absorption.
Co-(Shop)housing Spatial Strategy: New Common House

Without local Economy
New Shophouse
Economic Independency

Weak Social Cohesion
New Common House
Community Formation

Far away Open Space
Courtyard Space
Open Space a step from Home

Spatial Isolation
Public & Common Corridors
Direct Common & Public Connection

Car-oriented Roads
New Main Street
People-oriented Streets

Demolition Waste
Reconstruction
New life to Reused materials
Community Intentional meeting place - New Common House

Reference - Common House Typology (Why?)

Control VS Opposition
Ruins of the Welfare State
Urban Strategy
Architectural Strategy
New Utopia of the Commons

Bondebjerget, Denmark
Trudeslund, Denmark
Community Intentional meeting place - New Common House

Reuse ~40% material elements at the circ. core + ~15% at other parts of the floor

Reuse materials from Harmony Block (How?)
Community Intentional meeting place - New Common House

Function as Main Vertical Circulation
Programme Hierarchy (Social programmes on ground floor)
Programme Hierarchy (Supporting programmes on first floor)
Programme Hierarchy (Work programmes on second floor)
Community Intentional meeting place - New Common House

Programme Hierarchy (Extra programmes on top floor)
Common House Comparison

New Common House

Bondebjerget, Denmark

Trudeslund, Denmark

Control VS 
Opposition
Ruins of the 
Welfare State
Urban 
Strategy
Architectural 
Strategy
New Utopia of 
the Commons

Library 16.06m²
Meeting room 16.06m²
Toilet 5.04m²
Co-working Space 47.22m²
Pantry 5.04m²
Storage 7.14m²
Utility Room 7.14m²
Bathroom 5.04m²
Music room 7.14m²
Photo Darkroom 5.04m²
Gardening Storage 5.04m²
Roof Garden 47.22m²
Outdoor area 8.52m²
Guest room 8.52m²

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Common Space
Co-(Shop)housing Spatial Strategy: Common & Public Space

Without local Economy
New Shophouse
Economic Independency

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Control VS Opposition
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Architectural Strategy
Urban Strategy
New Utopia of the Commons
Transition space between courtyard and street allowing expansion of activities
Transition space between courtyard and street allowing expansion of activities
Live and Work together - New Neighbourhood

New Common House - Courtyard Front
Live and Work together - New Neighbourhood

New Common House - Courtyard Front
Live and Work together - New Neighbourhood

New Shophouses - Courtyard Front
Live and Work together - New Neighbourhood

New Shophouses - Courtyard Front
Live and Work together - New Neighbourhood

New Main Streets (12m wide with middle zone for social/cultural/political/economic activities)
Live and Work together - New Neighbourhood

New Main Streets (12m wide with middle zone for social/cultural/political/economic activities)
Control VS Opposition
Ruins of the Welfare State
Architectural Strategy
Urban Strategy
New Utopia of the Commons
Live and Work together - New Neighbourhood

New Shophouses - Street Front

Control VS Opposition
Ruins of the Welfare State
Urban Strategy
Architectural Strategy
New Utopia of the Commons
Live and Work together - New Neighbourhood

New Shophouses - Street Front
Control VS Opposition
Ruins of the Welfare State
Urban Strategy
Architectural Strategy
New Utopia of the Commons
Housing Typology Comparison

Existing Shophouse

Harmony Block

New Shophouse

Control VS Opposition

Ruins of the Welfare State

Urban Strategy

Architectural Strategy

New Utopia of the Commons

102/115
Start your day sitting at dining table
Look out and see what’s happening in the courtyard
Life in a day in the City of Happiness

Neighbor sitting at Common Corridor
Go to the working area to meet with clients
Work alone in your Home Office
Life in a day in the City of Happiness

Go to buy a sandwich for lunch
Life in a day in the City of Happiness

Buy snacks from street vendors
Life in a day in the City of Happiness

Working in Co-working area with neighbors
Life in a day in the City of Happiness

Have dinner at the Dining Hall and chat with neighbors
Life in a day in the City of Happiness

Sit at the edge of the courtyard and Relax
Life in a day in the City of Happiness

Say Goodbye to neighbor
Life in a day in the City of Happiness

Finish your day in your living area
Thank you!