a 800m linear architecture
for
social betterment

P5 I 2011.06.29
Tin-yiu FUNG
historical analysis

thinking thesis

field work

film

analysis + current condition

design

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Case: Tower Hamlets

London East End, borough of **Tower Hamlets**, is traditionally a **deprived borough**.

In contrast to other boroughs, Tower Hamlet has a **rich social, political and economical history**. Despite the rich history, Tower Hamlets is one of the most deprived borough in Europe!

However, Tower Hamlets has undergone a big **transformation** in the last few decades.
- Docklands
- 2012 Olympic Games
Field trip and current condition

fragmentation  Accessibility  marginalization
Field trip and current condition

fragmentation

Accessibility

marginalization
Spine pedestrian walkway
Spine pedestrian walkway
Spine pedestrian walkway

Public space to connect social institutions

A cultural centre for Tower Hamlets

Economic future for a deprived area
Site condition - weak connectivity to Victory park
Site condition - spine
Site condition - mono-program along north-south running street
Group urban strategy

existing situation

residential density
Housing and mixed use

existing situation

proposed urban strategy

residential density

new residential density

proposed new programs
Overcrowding - mismatch of housing typology

high densities OR overcrowding?

In Tower Hamlets,
- the average household size among all Bangladeshi families is 6.6
- the average number of children is 5.2

Geoff Dench, Kate Gavron, Michael Young, The New East End; Kinship, race and conflict, Profile books Ltd, 2006, p.77 and p.245
What is the better mode of housing development for the area?
Traditional development

vertical development

weaken street connectivity
Traditional development

vertical development

weaken street connectivity

horizontal development

losing green open space
Proposed development

- Existing residential
- Residential extension
- Public programs
- Covered walkway
- Potential for local business, cafe / bar
- Potential for temporary market
Relationship of scales

linear

Master planning

Architecture

Technical issues

interrelated

Architecture

Master planning

Technical issues
From architecture section to urban scale
From architecture to urban scale
Buildings along the spine
extrusion of mono section
Fragmented according to programs
Façade along the spine
From architecture to urban scale
Architectural prototypes (dwelling extension)
Prototypes

2nd prototype

1st prototype
First prototype
existing typology
First prototype

1/F plan

new volume
existing

new volume
existing
Second prototype
existing typology

G/F plan
Second prototype

G/F plan

existing new volume

existing new volume
Public programs
Unfold a public building
Unfold a public building - street connectivity
Unfold a public building - mixed of programs & flexibility
Accessibility

reachable area within x minutes

Total: **12** circles
Area: b sqm

Total: **14** circles
Area: b sqm

Total: **22** circles
Area: b sqm
### Programs

<table>
<thead>
<tr>
<th>Category</th>
<th>Program</th>
<th>Street Level</th>
<th>Upper Floors</th>
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<tr>
<td></td>
<td>religious</td>
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<td>✓</td>
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<td></td>
<td>library</td>
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<td>FOOD</td>
<td>restaurant</td>
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<td>cafe / bar</td>
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<td>shops</td>
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<td>studio / small office</td>
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<td>DWELLING</td>
<td>dwelling extension</td>
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<td>SPORTS</td>
<td>multifunctional room</td>
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<td>✓</td>
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<tr>
<td>OPEN SPACE</td>
<td>playground / openspace</td>
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<td>X</td>
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</table>
library
Housing typology I
Housing typology I - lower units

existing plan

existing

1/F plan

G/F plan

area

75 m²

number of bedroom

3
Housing typology I - lower units

existing plan

proposed plan

existing

area: 75 m²

number of bedroom: 3

new (left)

area: 111 m²

number of bedroom: 4

new (right)

area: 111 m²

number of bedroom: 3

covered sidewalk

ew extension
Housing typology I - upper units

existing plan

proposed plan

2/F plan

3/F plan

existing

area

number of bedroom

75 m²
3

new (left)

107 m²
3

new (right)

111 m²
4
Housing typology II
Housing typology II - lower units

existing plan

existing

area 82 m²

count of bedroom 3
Housing typology II - lower units

existing plan

proposed plan

existing

area: 82 m²
number of bedroom: 3

new

area: 105 m²
number of bedroom: 4
Housing typology II - upper units

existing plan

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<th>Floor</th>
<th>Area</th>
<th>Number of Bedrooms</th>
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3/F plan

2/F plan
Housing typology II - upper units

**existing plan**

- **3/F plan**

**proposed plan**

- **new extension**

**2/F plan**

<table>
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<th>existing</th>
<th>area</th>
<th>number of bedroom</th>
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<td>82 m²</td>
<td>3</td>
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</table>

<table>
<thead>
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<th>new</th>
<th>area</th>
<th>number of bedroom</th>
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<tr>
<td></td>
<td>105 m²</td>
<td>4</td>
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typology II
Housing typology IIB - lower units
existing plan

<table>
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<th>area</th>
<th>number of bedroom</th>
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<tbody>
<tr>
<td>existing</td>
<td>82 m²</td>
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Housing typology II - lower units

existing plan

proposed plan

existing

area: 82 m²
number of bedroom: 3

new

area: 105 m²
number of bedroom: 4
Housing typology IIB - upper units

existing plan

3/F plan

2/F plan

existing

area 82 m²

number of bedroom 3
Housing typology IIB - upper units

existing plan

proposed plan

existing

area: 82 m²
number of bedroom: 3

new

area: 110 m²
number of bedroom: 4
Site for library
Ground floor programs

G/F plan

Section
Spatial organization - independent and interdependent of programs
Technical issue
Typical floor section

library

housing extension

ROLLE BUNDS
LIGHTING
INWARD OPEN WINDOW WITH DOUBLE GLAZING
LAMINATED GLASS

SPRINKLER HEAD
SOUND ABSORPTION MATERIAL
AIR RETURN

METAL CLADDING
OUTWARD OPEN WINDOWS WITH DOUBLE GLAZING
Existing housing - new extension connection details (roof)

- Prefabricated structural parts
- ROOF (OUTDOOR)
- EXISTING HOUSE (INDOOR)
- THERMAL INSULATION
- EXISTING FLOOR FINISHES
- EXISTING STRUCTURE
- H-COLUMN BEHIND
- EXISTING FACADE
Existing housing - new extension connection details (roof)

new extension

existing

ROOF (OUTDOOR)

EXISTING HOUSE (INDOOR)

THERMAL INSULATION

EXISTING FLOOR FINISHES

EXISTING STRUCTURE

H-COLUMN BEHIND

EXISTING FACADE
Existing housing - new extension connection details (roof)

- **ROOF (OUTDOOR)**
- **EXISTING HOUSE (INDOOR)**
- **THERMAL INSULATION**
- **EXISTING FLOOR FINISHES**
- **EXISTING STRUCTURE**
- **H-COLUMN BEHIND**
- **EXISTING FACADE**
Existing housing - new extension connection details (roof)

- New Extension
- Existing

Diagram details:
- Roof (Outdoor)
- Existing House (Indoor)
- Thermal Insulation
- Existing Floor Finishes
- Existing Structure
- H-Column Behind
- Existing Facade
Financial plan
ALMO
(Arms Length Management Organisations)

- company set up by local authority to manage and improve all or part of its housing stock
- takes responsibility for the housing day-to-day management
RSL
(Registered Social Landlord)

Old Ford Housing Association

- uses private finance to buy and renovate local authority homes
- independent non profit organisation

Home improvement programme
Old Ford delivers improvements to your homes through its planned programmes. All of our homes will fall into a planned programme.
Strategy to reduce the amount of a single investment

- different time phase development is possible
Strategy to reduce the amount of a single investment

- different time phase development is possible

- smaller scale of building
Strategy to reduce the amount of a single investment

- different time phase development is possible
- smaller scale of building
- standardized building width and generic plan for easy prefabrication
Strategy to reduce the amount of a single investment

- different time phase development is possible
- smaller scale of building
- standardized building width and generic plan for easy prefabrication
- interchangeable of programs allows different programs to share the same space
co-exist of different daily activities