RANKED WORLD’S FREEST ECONOMY

HSBC 75,000 offices in 80 countries
PORT 243 million tonnes cargo/year
EXPORTS $390 billion
IMPORTS $435 billion
PASSenger TRAFFIC
SEA 25.9 million
LAND 181.9 million
AIR 33.3 million
Area 41,000 km²
Population 63 million [metro]
120 million [total]
Density 6,480 people/km²
Production 5% of the world’s goods
Export value $289 billion
700,000 Hong Kong companies
ESTABLISHED 29.08.1842
AREA 1.104 km²
POPULATION 7.0 million
DENSITY 6.480 people/km²
GDP $326 billion [total]
LANGUAGES Cantonese, English
“It’s like a screen coming up. The streets became like canyons. The new buildings don’t even have shops at the bottom, just the entrances to car parks, and if there are shops being built, they’re usually quite expensive. The old neighbourhood feel has disappeared.”

-Katty Law [Sheung Wan resident]
“Density in isolation is the ideal.”

-Rem Koolhaas

[“The Generic City.” S.M.L.XL. Koolhaas and Mau. 1995]

photo: Minghong. Parkview Hong Kong. From Wikipedia - Hong Kong Parkview. [http://en.wikipedia.org/wiki/Hong_Kong_Parkview]
• mass immigration from Mainland China has been one of the main catalysts to the evolution of the Hong Kong housing typology
The growing disparity between rich and poor in Hong Kong is taken to extremes through highlighting the paradoxical relationship between the luxury apartments and the example of ‘cage homes.’ In fact, comparing cost per square meter, rent prices for the tiny 1.4 square meter cage homes often surpass those of Hong Kong luxury apartments.

right: Luxury apartment. From Centre Stage: Luxury Landmark Residence in Central. [http://www.hld.com/property/localsales/island/CentreStage/show_flat.html] [accessed 7 January, 2012]
RESEARCH + THEORY

ANOMALIES

1-2 stories
varied dwelling typologies
post WWII - present
1,554 dwellings city-wide
3,962 rooftop dwellers

ROOFTOP DWELLINGS

RESEARCH + THEORY
VIDLER + TYPOLOGY

NATURAL BASIS
[LAUGIER - PRIMITIVE HUT - 1755]

PRODUCTION PROCESS
[CORBUSIER - VILLE CONTEMPORAINE - 1922]

DERIVED FROM THE CITY
[ROSSI - ANALOGOUS CITY - 1966]

• creation of a new [fourth] typology -- should be positioned in a way that deals with the **temporal, environmental and global aspects** of the city.

• existing housing typologies in Hong Kong do not address the complexities of the urban condition in the city and sever ties with the city's vibrant street life

• increasing development of old building stock into luxury high-rises will displace existing residents and make the neighbourhood unaffordable for its current residents

• there is a large number of elderly, young and disabled residents - combined with aforementioned issues, this points to an acute need for affordable housing within the city centre

• the study area is undergoing redevelopment and gentrification - what is the balance?

• site itself is located between two areas of activity: SOHO + the mid-levels escalator [medium-large scale] and Tai Ping Shan street [small scale] - how can it better bridge these areas?

• lack of community amenities for all ages/groups [green space, community centres]

• given Hong Kong's climate and environmental concerns, sustainability should play a large role in the project [air/water/climate/etc]
RESEARCH + THEORY

SITE

FORMER POLICE MARRIED QUARTERS
35 ABERDEEN STREET

1842 Shing Wong Temple built
1852 50 Chinese houses built on site by F. Rangel
1877 existing buildings removed
1889 Central School opens
1948 Central School demolished
1951 Police Residence Quarters opens
2000 Police Residence Quarters vacated
1948 Treaty of Nanking
1939-45 WWII
2009 art exhibition
PROPOSED REDEVELOPMENT

LARGE/MEDIUM SCALE MIXED USE

- programmatically links surrounding areas
- permeable block with connections to surrounding fabric
- acts as a node to strengthen neighbourhood coherence
PROPOSAL
PROGRAM AND USER GROUPS

AFFORDABLE HOUSING

WORKSHOP/STUDIO SPACE

SMALL-SCALE COMMERCIAL START-UPS

COMMUNITY OPEN SPACE

EXHIBITION SPACE FOR VISUAL/DIGITAL ARTS
PROPOSAL
URBAN CONCEPT
AFFORDABLE HOUSING

4 CONFIGURATIONS:

ACCESSIBLE
FLEXIBLE
COMPACT
LIVE/WORK

Units for elderly occupants should be the most accessible, one storey and have ample light.

Units for families should be flexible to accommodate changes in household size.

Units for young people should be compact but spacious.

A selection of units will provide integrated studio space for live/work accommodations.
PROPOSAL
PROGRAM AND USER GROUPS

CREATIVE INDUSTRIES
PROGRAM FOR RESIDENTS, VISITORS AND HK NATIVES

WORKSHOPS
woodwork
metalwork

STUDIOS
photography
arts
fashion
design + architecture

LIVE/WORK STUDIOS
artist in residence
long term rental

EXHIBITION SPACE
large and small scale
flexible community function

COMMERCIAL
SMALL SCALE COMMERCIAL START UPS

RESTAURANTS

BOUTIQUES

BOOKSTORE
CONCEPT
STARTING POINTS

SIHEYUAN

TU LOU
CONCEPT
STUDY AREA - SPATIAL+ARCHITECTURAL CHARACTERISTICS

INFORMALITY

EXPOSED INFRASTRUCTURE

VARIED FACADES

SMALL PASSAGES
CONCEPT
COURTYARD HOUSE - A BASIS FOR TYPOLOGICAL EVOLUTION
CONCEPT DEVELOPMENT
CONCEPT
MASSING
DESIGN DEVELOPMENT
PROGRAMMATIC DISTRIBUTION

RESIDENTIAL
9725 m²

COMMERCIAL
782 m²

GALLERY/COMMUNITY SPACE
1101 m²

WORKSHOP
396 m²
DESIGN DEVELOPMENT
PUBLIC/Private Distribution

PRIVATE
residential
family oriented
private courtyards

SEMI-PUBLIC
live-work
terraced courtyards
workshop

PUBLIC
community spaces
commercial
public open space
DESIGN
SECTION B [ABERDEEN ST - SHING WONG ST]
DESIGN PROCESS

- Rooftops
  - Communal gardens
  - Sitting terraces
  - Private outdoor space

+ Rain water collection for grey water use

- Sewage treatment
- Filtration storage
- Sliding windows
- Shading screens

Diagram of buildings with rooftop gardens and rainwater collection storage.
DESIGN
FACADE ELEMENTS

COLOURED FACADE

COLOURED CONCRETE

METAL ACCORDION FENCE

SHADING SCREEN
DESIGN
FACADE/INTERIOR RELATION
DESIGN
MATERIALIZATION - IN DETAIL

D1
1 METAL FLASHING
2 DRAINAGE GRAVEL
3 WATERPROOFING MEMBRANE
4 PRE-CAST CONCRETE DRAINAGE CHANNEL
5 METAL TRELLIS
6 REINFORCED CONCRETE
7 ADHESIVE GASKET
8 SOUND INSULATION
9 GYPSUM WALL BOARD
10 STEEL U-CHANNEL + SCREEN TRACK
11 PERFORATED ALUMINUM SCREEN
12 ALUMINUM FRAMED SLIDING DOOR

D3
1 PERFORATED ALUMINUM SCREEN
2 METAL + GLASS RAILING
3 ALUMINUM FRAMED SLIDING DOOR
4 PRE-CAST CONCRETE TILE
5 STEEL U-CHANNEL + SCREEN TRACK
6 FLOORING
7 SOUND INSULATION
8 REINFORCED CONCRETE
9 CONCRETE WAFFLE SLAB
DESIGN ELEVATION

SOUTH WEST ELEVATION [STAUNTON STREET] 1:200

ABERDEEN ST
DESIGN
CONSTRUCTION

STRUCTURAL CONCEPT

1 BASIC STRUCTURAL SYSTEM: IN-SITU CONCRETE WITH RIGID HINGES
2 FORCE DIAGRAM
3 SERVICES OVERVIEW
DESIGN
TECHNOLOGY

CLIMATE

RESIDUAL SPACES FOR OPTIONAL AIR CONDITIONING INSTALLATION

CROSS VENTILATION

SHADED WALKWAYS AID PASSIVE COOLING
RAINWATER COLLECTED ON ROOFTOP

DRAINAGE CHANNELS
DOUBLE AS IRRIGATION
FOR HANGING GARDENS

EXCESS WATER DIRECTED TO VERTICAL CIRCULATION
SERVICE HUBS
SECONDARY SERVICES FOLLOW CIRCULATION
• units can be combined to suit different user conditions [i.e. family with elderly dependants]
DESIGN
FAMILY DUPLEX UNIT - SPATIAL QUALITIES
GROUND FLOOR PLAN

1. WORKSHOP
2. GALLERY/COMMUNITY SPACE
3. COMMERCIAL UNITS
4. MECHANICAL/STORAGE
DESIGN

SEMI-PRIVATE TERRACE
DESIGN
GREEN + GREY ROOFS FOR WATER COLLECTION
DESIGN PLANS

FIFTH FLOOR PLAN

D HANGING GARDEN
E COMMUNAL SPACE FOR RESIDENTS
F GATHERING SPACE
C PLAY AREA
B TAI CHI/SITTING AREA
A MARKET
DESIGN
STAUNTON ST ENTRANCE SEEN FROM ABERDEEN STREET
DESIGN
CENTRAL COURTYARD
DESIGN
MARKET ENTRANCE TERRACE
DESIGN
REST SPACE [BLOCK B]
DESIGN
PLAY SPACE [BLOCK C]
DESIGN
COMMUNAL SPACE FOR RESIDENTS [BLOCK E]
THANK YOU