



Reshaping Wan Chai- Exploring the Path of Urban Renewal

Urban Renewal and Sustainable Development in Wan Chai



Student Name : _____

Group no. : _____

Course Date : _____



Objectives

Knowledge :

- Study the relationship between urban renewal and the urban environment
- Understand the various approaches to urban renewal
- Evaluate the environmental improvements brought about by urban renewal

Skills :

- To apply various data collection methods and using field equipment for measurement to local environmental data
- Assess the urban environment using different data collection methods
- Create charts to demonstrate whether urban renewal can achieve sustainable urban development

Values :

- Develop sensitivity to the development of the surrounding environment
- Show concern for issues arising from urban development
- Cultivate a sense of responsibility for protecting and improving the urban environment

Relevance to the DSE geography curriculum

- Compulsory Module 4 : Building a Sustainable City - Are Environmental Conservation and Urban Development Mutually Exclusive?

STAGE 1: PLANNING & PREPARATION

➤ Focus of Study

Research whether urban renewal can achieve urban sustainability

➤ Prior knowledge

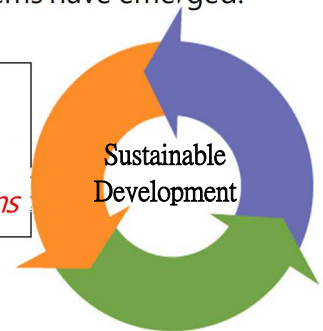
1. The Problem of Urban Decay in Wan Chai

Wan Chai has a long history of development. Since 1843, it has been a residential zone for Chinese people, while British and other foreigners mostly lived in Central. Wan Chai, located between Central's business district and the suburbs, was referred to as "Lower District" (下環) (commonly known as part of the "Four Rings and Nine Compacts" (四環九約): Sai Wan, Sheung Wan, Central, and Lower District, which were informal administrative divisions along the northern coastline of Hong Kong Island). This zone is also referred to as the "Inner City" in textbooks.

If observe carefully, you will notice that Wan Chai's streets, stretching from the south to the north, are a microcosm of Hong Kong's development history. The zone near Queen's Road East, closest to the mountains, was inhabited before Hong Kong's colonial establishment in the 19th century. This zone developed first and contains many historical landmarks, such as the Old Wan Chai Post Office, the Blue House (藍屋), Nam Koo Terrace (南固臺), and Tung Tak Pawn Shop. Moving northward toward the sea, the zone consists of commercial and hotel zones developed from land reclamation. Buildings here include the Hong Kong Convention and Exhibition Centre, Central Plaza, and the Hong Kong Academy for Performing Arts.

However, with Wan Chai's continuous development over the years, some urban problems have emerged. Please list any urban issues you know of that are related to these changes:

| | | |
|-------------------------|--------------------------------|-------------------------------|
| <i>Housing Problems</i> | <i>Transportation Problems</i> | <i>Environmental Problems</i> |
|-------------------------|--------------------------------|-------------------------------|



2. What is Sustainable Development?

Sustainable development refers to meeting our _____ needs without compromising _____'s ability to meet their own needs, ensuring they have sufficient resources and opportunities.

Sustainable development balances the needs of _____, _____, and _____. From a long-term perspective, solving urban problems with sustainable development is theoretically the better approach.

3. What is the "4R" sustainable development strategy?

To enhance urban renewal in Hong Kong, address urban aging issues, and improve the living environment of residents in old districts, the Urban Renewal Authority's development strategy is based on the four core "4R": _____, _____, _____, and _____. The goal is to create a high-quality living environment for citizens that supports sustainable development.



➤ Which sustainable development indicators reflect performance across the following three aspects?

| Economic | Environmental | Social |
|-----------------------------|----------------------------|---|
| <i>People's livelihood:</i> | <i>Living environment:</i> | <i>Social and community facilities:</i> |

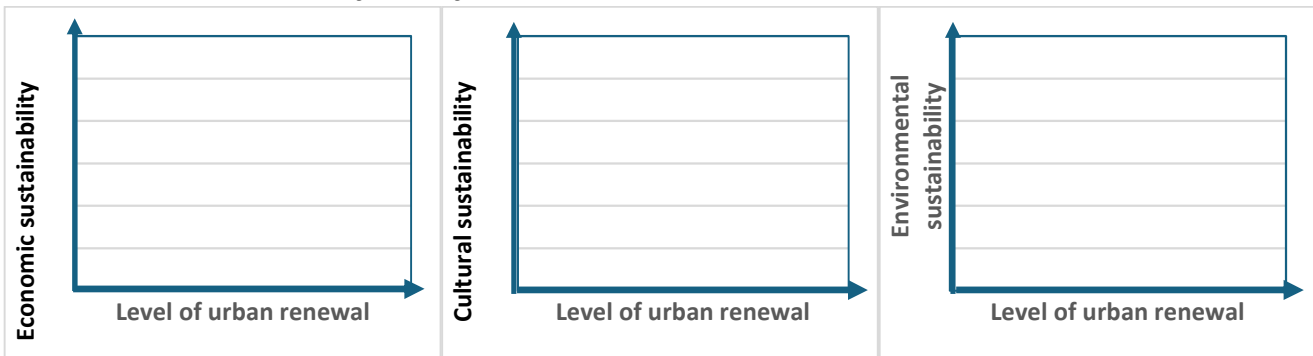
➤ **Enquiry question**

Focus of Study: Urban problems

- The higher the level of urban renewal, the higher the level of urban sustainability.

How would you observe the relationship between urban renewal and sustainability of a city?

Use charts to illustrate your hypothesis



➤ **When to collect data?**

| | |
|--|---|
| Date: _____ Season: _____ Time: _____ to _____ | What factors would you consider in choosing the fieldwork date? • • |
| 1. Any weather warnings & signals issued by the Hong Kong Observatory in the past three days ? <input type="checkbox"/> Tropical cyclone warning signals <input type="checkbox"/> Rainstorm warnings <input type="checkbox"/> Frost warning <input type="checkbox"/> Cold weather warning <input type="checkbox"/> Very hot weather warning <input type="checkbox"/> Other: _____ | |

2. When do you think is the best time to conduct the research of this topic? Why?



➤ **Where to collect data?**

List three zones in Hong Kong that have undergone large-scale urban renewal.

1. _____
2. _____
3. _____

Is Wan Chai an ideal location for conducting research on this topic?

Why?

(Consider the advantages of choosing Wan Chai for urban renewal research.)

Sampling method is used in setting the data collection points (*details on P.21*):

Referring to the map on P.28, the establishment of **survey Zone A to E** in Wan Chai for the investigation applies _____ sampling. *representing different development models/periods of Wan Chai*

Within each survey zone, the selection of appropriate sampling points* by students applies _____ sampling. **e.g. best represent the environment of the area*

What factors would you consider when selecting the field site?

-
-
-
-
-
-




➤ **What data to collect and how to collect the data? Research items and data collection methods :**

| Part 1 : Assessment of urban renewal level | | | | | |
|--|--|---|----------------------------------|---|-------------------------|
| Research items | | | Primary data collection methods* | Equipment [1-3] (see Table 2) (if needed) | Operational precautions |
| Assessment of urban renewal level | Residential types | Tenement House (唐樓)/ western-style apartments (洋樓) / New Luxury Apartments (e.g., residential height / air conditioning design / window styles / style of building entrances) | A/D/F | | |
| | Building quality | Illegal structures / Exterior wall conditions | A/F | | |
| | Style of shops | Simply furnished traditional shops / Trendy stores / Vacant / Chain stores | A/D | | |
| Part 2 : Assessment of Urban Sustainability Development Levels | | | | | |
| Research items | | | Primary data collection methods* | Equipment [1-7] (see Table 2) (if needed) | Operational precautions |
| Environmental | Air quality (PM2.5/10 concentration) | | B/F | | |
| | Noise level | | A/F | | |
| | Aspect ratio (ratio of building height to road width) | | B/F | | |
| | Dynamic potential | | B/F | | |
| | Level of vegetation cover | | A/F | | |
| | Street sanitation | | A/F | | |
| Social | Type and number of community facilities | | A/C/D/F | | |
| | Preservation of cultural property of archaeological, historical and architectural interest | | A/F | | |
| Economic | Types of shops and Community Affordability | | A/C/D/F | | |

Table 1 Primary data collection methods

| | | | | |
|----------------|--------------------|------------------|-----------------------|---------------------------|
| A) Observation | B) Measurement | C) Counting | D) Category | E) Distribution (mapping) |
| F) Scoring | G) Field sketching | H) Questionnaire | I) In-depth interview | |

Table 2 Equipment for fieldwork (*Make sure you know how to use them correctly before fieldwork.*)

| | | |
|---|---|---|
|  |  |  |
| 1. Air quality monitor | 2. Noise meter | 3. Color pencils (self-provided) |



STAGE 2: DATA COLLECTION

Part 1: Assessment of urban renewal level

Data Collection 1: Residential building aesthetic features

Based on the distribution of the four zones on the map, record the height of residential buildings in the zones, rate the aesthetic features of the buildings to infer the level of urban renewal in the zone.

Work Arrangement: Identify 5 residential buildings that are representative of each zone.

Only observe the buildings from the front facing the street.

| Residential Building Aesthetic Features Scoring Indicators | | | |
|---|---|---|---|
| Feature | Score | | |
| | 0-1 | 2-3 | 4-5 |
| Building Design | Tenement style (Tong Lau) | Plain / Simple | Modern / Novel |
| Building Height | Low: 10 stories or fewer | Medium: 10-20 stories | High: 20 stories or more |
| Facade Condition | Worn/peeling paint/visible stains | Generally tidy/recently renovated | Very tidy |
| Windows | Old-style frames / inconsistent styles | All small aluminum windows / similar units | All floor-to-ceiling windows / uniform units |
| Air Conditioning Location | No preset AC location/varies by unit | Protruding concrete structure supporting AC | AC location is discreet /embedded in the wall |
| Illegal Structures and Hazards | Large illegal structures (e.g., rooftop/platform) | Only small illegal structures (e.g., awnings) | None (5 points) |
| Building Entrance | Dim / narrow stairway | Basic lighting / simple | Bright, spacious, stylish |

Please classify the buildings into four grades according to the following curb appeal scores and show them on the map (P.24-27) in the colour of the legend.

| Total score | Level | Legend |
|--------------------|----------------------|---------------------------------|
| 0 - 9 points | Severe deterioration | Red <input type="checkbox"/> |
| 10 - 17 points | Poor | Yellow <input type="checkbox"/> |
| 18 - 26 points | Good | Green <input type="checkbox"/> |
| 27 - 35 points | Excellent | Blue <input type="checkbox"/> |



| Zones | Building | Residential Building Aesthetic Features (Score) | | | | | | | | Zone Average Score* |
|-------|----------|---|-----------------|------------------------|---------|---------------------------|--------------------------------|-------------------|-------------|---------------------|
| | | Design | Building Height | External Wall (Facade) | Windows | Air Conditioning Location | Illegal Structures and Hazards | Building Entrance | Total Score | |
| A | 1 | | | | | | | | | |
| | 2 | | | | | | | | | |
| | 3 | | | | | | | | | |
| | 4 | | | | | | | | | |
| | 5 | | | | | | | | | |
| B | 1 | | | | | | | | | |
| | 2 | | | | | | | | | |
| | 3 | | | | | | | | | |
| | 4 | | | | | | | | | |
| | 5 | | | | | | | | | |
| C | 1 | | | | | | | | | |
| | 2 | | | | | | | | | |
| | 3 | | | | | | | | | |
| | 4 | | | | | | | | | |
| | 5 | | | | | | | | | |
| D | 1 | | | | | | | | | |
| | 2 | | | | | | | | | |
| | 3 | | | | | | | | | |
| | 4 | | | | | | | | | |
| | 5 | | | | | | | | | |

* Zone Average Score = Total Score ÷ 5

Data Collection 2: Ground floor shop styles statistics

Work Arrangement: **Observe and count the types of shops** in each zone and calculate the percentage of various types of ground floor shops.

Note: Main types of goods/ Service types for Ground Floor Shops e.g. Higher end (Mainly target middle/high income group or tourists), Mid-Range, Lower end (Mainly target local or low income group)

Don't insist on finding all the shops, just a representative sample is sufficient

| | Zone A | | Zone B | | Zone C | | Zone D | |
|---|----------|---|----------|---|----------|---|----------|---|
| Total number of recorded ground floor shops | | | | | | | | |
| Ground floor shop styles statistics | Quantity | % | Quantity | % | Quantity | % | Quantity | % |
| Fashionable / Unique | | | | | | | | |
| Chain Stores | | | | | | | | |
| Simple / Traditional | | | | | | | | |
| Vacant | | | | | | | | |
| Main types of goods/ Service types for Ground Floor Shops (Higher end Mid-Range, Lower end) | | | | | | | | |

Part 2: Assessment of Urban Sustainability Development Levels

Data Collection 1: Social, Cultural and Infrastructural Sustainability Assessment






Work Arrangement: Observe each zone along the way and try to identify the presence of the following socio-cultural and infrastructural facilities in the zone

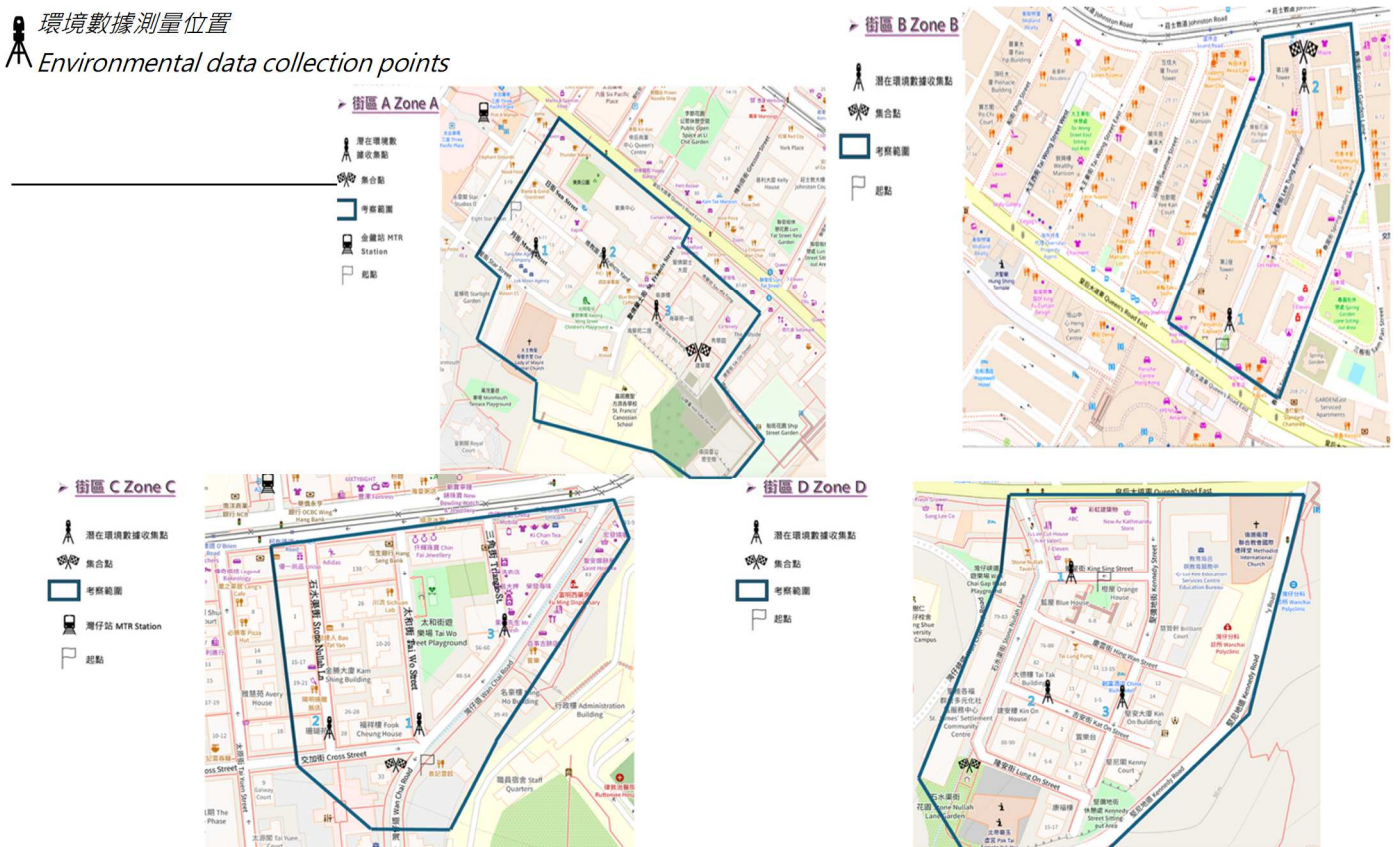
| Assessment items | | Zone | | | |
|--|-------------------------|------|---|---|---|
| | | A | B | C | D |
| Education Facilities | Quantity | | | | |
| | Description (e.g. name) | | | | |
| Medical and healthcare facilities (including veterinarians) | Quantity | | | | |
| | Description (e.g. name) | | | | |
| Art venues (exhibitions/galleries) | Quantity | | | | |
| | Description (e.g. name) | | | | |
| Public space and community facilities (community centres, public markets, libraries, parks, churches, temples, etc.) | Quantity | | | | |
| | Description (e.g. name) | | | | |
| Historic buildings | Quantity | | | | |
| | Description (e.g. name) | | | | |
| Number of social, cultural and infrastructural facilities in the area (The highest score is 10 marks) | | | | | |

Data Collection 2: Environmental Sustainability Assessment

Record the assessment data and calculate the **total score** for the assessment point based on the following scoring criteria. Additionally, evaluate **the urban environmental sustainability** of the assessment point. ◦

| Assessment items | Score and description | | | |
|---|---|--|------------------------------------|---|
| | Highest Sustainability (10 points) | High Sustainability (7 points) | Moderate Sustainability (4 points) | Low Sustainability (0 points) |
|  Air Quality (PM2.5/10) | 0-25 | 26-50 | 51-75 | 76 or above |
|  Noise Level (Average dB) | dB 41-60 | dB 61-70 | dB 71-80 | dB 81 or above |
|  Aspect ratio (Refer to P.22) | Less than 1.0 | 1.0-2.0 | 2.1-4.0 | Larger than 4.0 |
| Dynamic Potential (Refer to P.23) | High | Medium | Low | Very Low |
| Level of vegetation cover (Refer to P.23) | Abundant | Moderate | Limited | None |
| Street sanitation | Well-maintained and clean / Ideal back alleys | Generally no litter / Normal back alleys | Some litter / Dirtier back alleys | Lots of litter / Unmaintained back alleys |

 環境數據測量位置
Environmental data collection points





| Zone | Environmental data collection points | Air Quality | Noise level | Aspect Ratio |
|------|--------------------------------------|-------------------|-------------|--------------|
| A | 1 | µg/m ³ | dB | |
| | 2 | µg/m ³ | dB | |
| | 3 | µg/m ³ | dB | |
| | Average | µg/m ³ | dB | |
| B | 1 | µg/m ³ | dB | |
| | 2 | µg/m ³ | dB | |
| | Average | µg/m ³ | dB | |
| C | 1 | µg/m ³ | dB | |
| | 2 | µg/m ³ | dB | |
| | 3 | µg/m ³ | dB | |
| | Average | µg/m ³ | dB | |
| D | 1 | µg/m ³ | dB | |
| | 2 | µg/m ³ | dB | |
| | 3 | µg/m ³ | dB | |
| | Average | µg/m ³ | dB | |

Turn the average figures into scores

| Zone | Air Quality | Noise Level | Aspect Ratio | Dynamic Potential | Level of vegetation cover | Street sanitation | Environmental Sustainability | |
|------|-------------|-------------|--------------|-------------------|---------------------------|-------------------|------------------------------|----------------------|
| | Score | | | | | | Total score | * Zone Average Score |
| | A | | | | | | | /60 |
| B | | | | | | | /60 | /10 |
| C | | | | | | | /60 | /10 |
| D | | | | | | | /60 | /10 |

* Zone Average Score = Total Score ÷ 6

Data Collection 3: Economic Sustainability Assessment

Assess the local cost of living, including the prices of food and basic daily necessities. In the zones you investigate, **check the prices of three main consumer goods**, attempting to find the prices at three different stores for each item as a reference. If the item is not available in that zone, please indicate [not available].

(Select the **average price for that store category**; do not choose the most expensive or cheapest items as sample data.)

Please mark their locations on the map (P.24-27). (Be careful not to disturb the daily operations of the stores.)

| Zone | Consumer Goods | Community Affordability | | | | | |
|------|--------------------------|-------------------------|--------|--------|----------------|----------------------------|---|
| | | Shop 1 | Shop 2 | Shop 3 | Average prices | Average prices in the zone | Community Affordability Index (1/4/7/10 points) |
| A | Bread (a loaf) | \$ | \$ | \$ | \$ | | |
| | *Lunch set | \$ | \$ | \$ | \$ | | |
| | Haircut / style Services | \$ | \$ | \$ | \$ | | |
| B | Bread (a loaf) | \$ | \$ | \$ | \$ | | |
| | *Lunch set | \$ | \$ | \$ | \$ | | |
| | Haircut / style Services | \$ | \$ | \$ | \$ | | |
| C | Bread (a loaf) | \$ | \$ | \$ | \$ | | |
| | *Lunch set | \$ | \$ | \$ | \$ | | |
| | Haircut / style Services | \$ | \$ | \$ | \$ | | |
| D | Bread (a loaf) | \$ | \$ | \$ | \$ | | |
| | *Lunch set | \$ | \$ | \$ | \$ | | |
| | Haircut / style Services | \$ | \$ | \$ | \$ | | |

| Average prices in the zone | Community Affordability Index |
|----------------------------|-------------------------------|
| \$30 - \$49 | 10 |
| \$50 - \$89 | 7 |
| \$90 - \$149 | 4 |
| \$150 > | 1 |

#The lower the price the higher the score, the more affordable the life of the people.

**For lunch, please refer to the prices of a lunch set menu / prices for one main course and a drink.*



Part 3: Photographic Evidence Collection

(Always prioritize safety while taking photographs and avoid disrupting daily activities in the zone)

The following are some suggestions for photographing expedition evidence related to the study topic during the expedition for the purpose of analysing the data. Here are some suggestions for what to capture:

| Reflecting the zone's | Photographic Evidence | | Consideration |
|--------------------------------|---|--|--|
| Economic Indicators | 1. Architectural style of the zone | Select a street that can reflect the architectural style and the degree of regeneration of the zone. | <ul style="list-style-type: none"> How does the building's exterior reflect urban renewal? What types and styles of buildings dominate the zone? Are most structures newly rebuilt luxury residences or ordinary houses/tenement buildings? |
| | 2. Types and quality of the local shops | Select a shop that represents the type of retail in the zone (high-end vs. modest) | <ul style="list-style-type: none"> What demographic do the shops typically serve? Do these shops exhibit high-end decor or a more modest style? Is there evidence of gentrification? |
| Social and Cultural Indicators | 3. Community facilities | Capture images of community facilities in the zone (e.g., community centers, public libraries, parks, churches, temples, markets). | <ul style="list-style-type: none"> A balanced community should have adequate facilities to meet residents' needs. Which zones have more appropriate community facilities to serve local residents? |
| | 4. Buildings with special historical significance | Capture images buildings with historical significance in the zone. (e.g. old government buildings, pre-war tenement buildings, etc.) | <ul style="list-style-type: none"> A well-balanced community should respect the local history and culture, and preserve buildings that are historical and cultural assets of the community |
| Environmental Indicators | 5. Street sanitary condition and environment | Select a representative street to reflect the zone's environment and cleanliness | <ul style="list-style-type: none"> A well-balanced community should have a good street environment for residents to live in. |



STAGE 3 DATA PROCESSING & PRESENTATION



➤ Data summary

Summarize the data collected (P.7-12), fill in the table below.

1. Assessment of urban renewal level

Based on the data on (P.7), regarding the aesthetic designs of residential buildings, calculate the total average score for the buildings in each surveyed zone.

| Residential Building Aesthetic Features | Zone A | Zone B | Zone C | Zone D |
|---|--------|--------|--------|--------|
| Zone Average Score | | | | |

2. Assessment of Urban Sustainability Development Levels

Based on the data on (P.9-12), assess the urban sustainability development level of each surveyed zone.

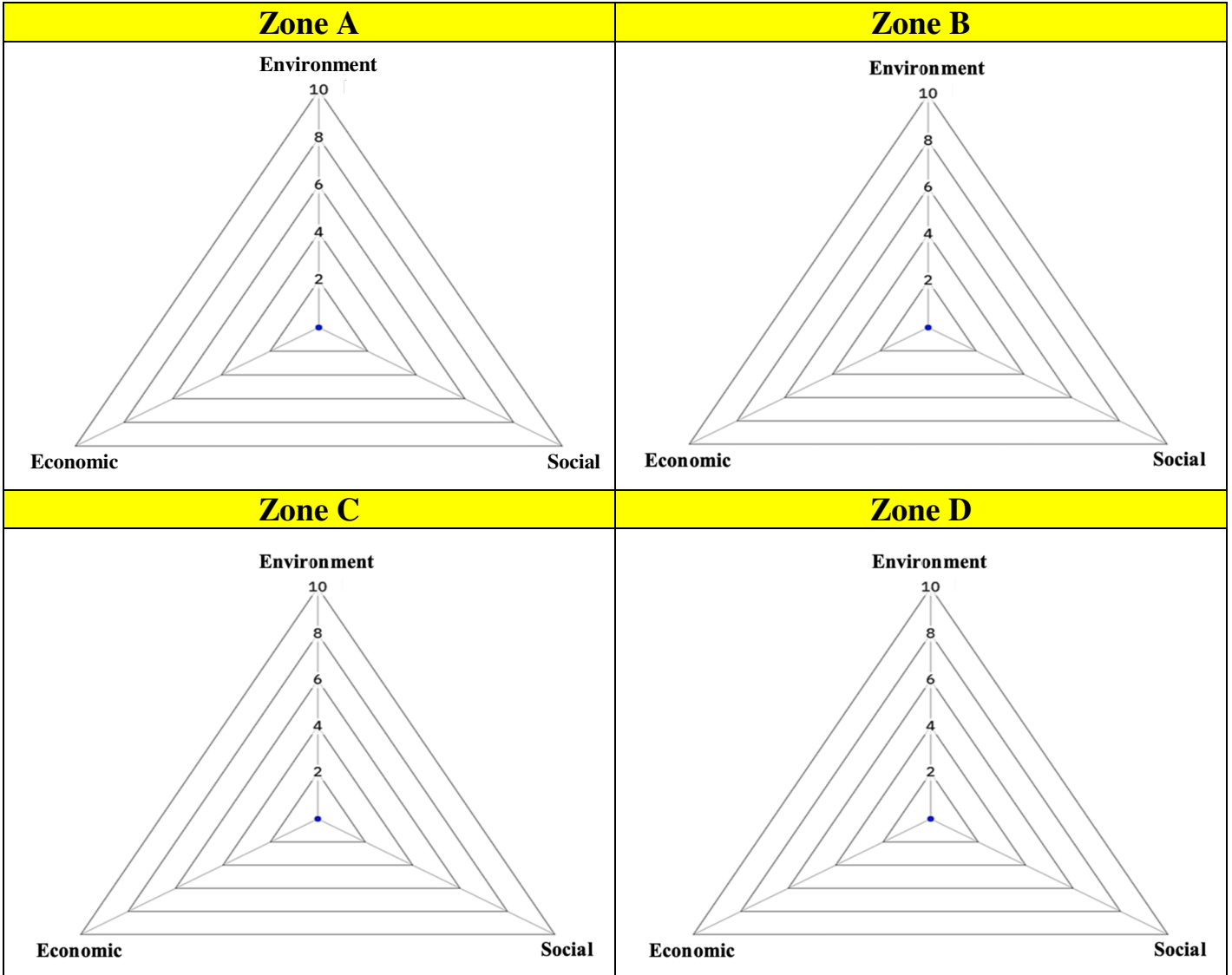
| | Zone A | Zone B | Zone C | Zone D |
|--|--------|--------|--------|--------|
| Social, Cultural and Infrastructural Sustainability scores (P.9) | | | | |
| Environmental Sustainability scores (P.11) | | | | |
| Economic Sustainability scores (P.12) | | | | |
| Urban Sustainability Development Levels | | | | |

➤ Data presentation

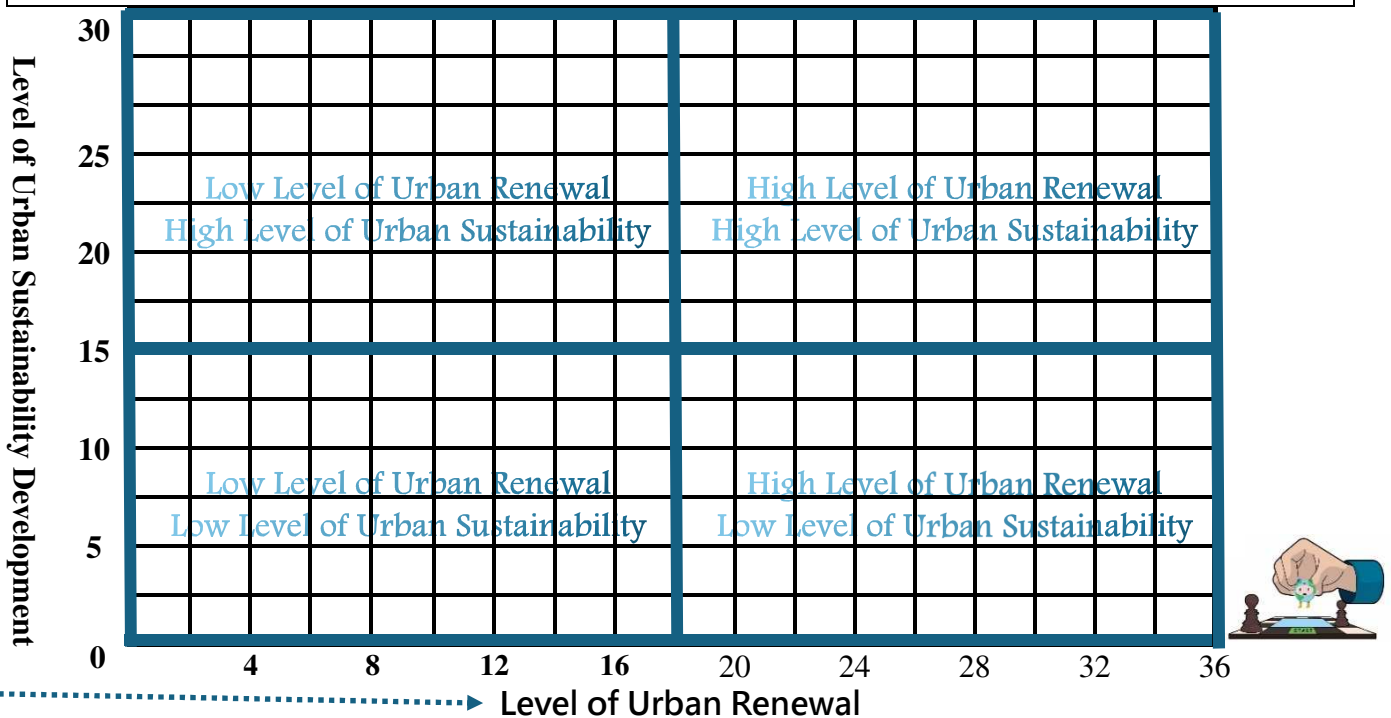
Based on the primary data obtained during the inspection, what would be the most appropriate chart to present if we were to try to understand the following items?

| Choose suitable diagram to present the following data: | Diagram |
|---|---------|
| a) Compare residential building aesthetic features | |
| b) Spatial analysis of urban renewal level in different zones | |
| c) Comparing the 3 indicators of urban sustainability levels (Social/environment/economic) in different zones | |
| d) Showing the relationship between urban renewal and urban sustainability | |
| e) Calculate the percentage of various types of ground floor shops | |

Urban Sustainability Development Levels



Relationship Between Urban Renewal and Urban Sustainability Assessment



STAGE 4 INTERPRETATION & CONCLUSION

1. Refer to the data collected, discuss whether your hypothesis (p.3) is valid. Discuss the relationship between the level of urban renewal and urban sustainability.

| | | |
|-------------------------------|----------------------------------|--|
| My hypothesis: | | Note : I expect that "the higher the degree of renewal, the higher/lower the level of urban sustainability." The results are consistent/partially consistent/inconsistent with my hypothesis. What evidence supports this? What evidence contradicts it? |
| Supporting Evidence / Reasons | Contradicting Evidence / Reasons | |

2. How far do the data collected fit the above hypothesis? Why?

| Justifications that fit | Justifications that do not fit |
|--|---|
| What is the rationale behind the hypothesis? | Why do you think those reasons contradict your initial hypothesis? Note : Was there an incorrect prediction? Were there issues with the data collection methods? |

3. If some data does not show a positive relationship between urban renewal and sustainability, what factors might affect a zone's level of sustainability?

| |
|--|
| <p>Environmental impact :</p> <p>Social impact :</p> <p>People's livelihood :</p> <p>Note : Government policies / Local residents' voices / General societal concerns about specific community issues ?</p> |
|--|

4. Based on the evidence and its summary, do you think the government is doing enough in terms of cultural and historical preservation in Wan Chai?

Note : Besides preserving the facades of buildings, does the “Retain House and Tenant” 「留屋留人」 model of the Blue House in Wan Chai adequately preserve the original culture, community networks, and way of life?

STAGE 5 EVALUATION

1. What sampling methods are used in setting the field sites? Account for the **merits** and **demerits** of these sampling methods.
2. Reflect on the planning of fieldwork. Discuss the factors that might cause data bias and propose methods to improve the **validity** and **reliability** of the data.

| Factors affecting the data reliability and validity | | Suggestion for improvement |
|--|--|----------------------------|
| Fieldwork date/ time <ul style="list-style-type: none"> ◆ Fieldwork date and time representative? ◆ Any impact by today’s weather condition? | | |
| Field site/ study zone <ul style="list-style-type: none"> ◆ Field sites match with research topic? ◆ Field study zone adequate? | | |
| Location of data collection (Sampling) <ul style="list-style-type: none"> ◆ Sampling method in choosing field site appropriate? ◆ Location of measurement representative? ◆ Sample size sufficient? | | |
| Data collection items/ methods <ul style="list-style-type: none"> ◆ Data collection items adequate to respond the enquiry questions? ◆ Are the data obtained from the data collection method(s) objective and without bias? ◆ Any inadequacy about the equipment/ instruments? ◆ Measurer using the equipment/ instruments correctly? | | |



Homework

After fieldwork, organize this fieldwork experience in field trip diary (P.18-19) as a reference for the revision of field-based question.



**Reshaping Wan Chai-
Exploring the Path of
Urban Renewal**

My Field Trip Diary

➤ Related modules: Compulsory Module 4 : Building a Sustainable City - Are Environmental Conservation and Urban Development Mutually Exclusive?

➤ Key point of fieldwork/topic: _____

| | |
|--|---|
| <ul style="list-style-type: none"> ▪ Date: _____ (Weekday/ Public holiday) ▪ Time: _____ | <ul style="list-style-type: none"> ▪ Weather condition: _____ ▪ Field site: _____ |
| <p>Is the above planning appropriate for the fieldwork?</p> | |

➤ Primary data:

| Strategies of data collection | Data collected | Equipment/ Material (if any) | Merits☺/ Demerits☹ of the data collection strategy (give examples) | Suggestion for improvement (give explanations) |
|-------------------------------|----------------|------------------------------|--|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



➤ Secondary data:

| Data collected | Use | Obtained from |
|--|-----|---------------|
| | | |
| Apart from the above, what other supplementary information would be necessary to respond to the fieldwork topic? | | |

➤ Sampling method (if any):

| Sampling method | Applied during data collection of | Merits 😊 / Demerits ☹️ |
|-----------------|-----------------------------------|------------------------|
| | | |

➤ Data processing and presentation:

| Type of graph/ chart | Content and function of graph/chart | Merits 😊 / Demerits ☹️ |
|----------------------|-------------------------------------|------------------------|
| | | |

➤ For deeper learning or further study, I suggest modify the following aspects.

| | | Suggestion (give examples) |
|--------------------------|--|----------------------------|
| <input type="checkbox"/> | Key point of fieldwork/ topic | |
| <input type="checkbox"/> | Data to be collected and method of data collection | |
| <input type="checkbox"/> | Date and time of fieldwork | |
| <input type="checkbox"/> | Field site | |

延伸閱讀 / Additional Resources

Smart City and Sustainable Development in Shenzhen:



Primary data collection methods

| Data collection methods | Explanations | | Examples |
|----------------------------------|---|---|--|
| A) Observation | <ul style="list-style-type: none"> Using sensory observation to explore the details of research subject (people, things or environment) in a purposive and planned way. Data are recorded using text, photos, sketch, map, etc. (Refer to other data collection methods listed below) | | <ul style="list-style-type: none"> Identification of the surrounding environment of a field site |
| B) Measurement | <ul style="list-style-type: none"> To estimate or measure the physical quantity of the research subject. It usually requires the use of equipment or tools. Data are usually shown in certain standard, weights or measures. | | <ul style="list-style-type: none"> Measurement of the width of street and the building height |
| C) Counting | <ul style="list-style-type: none"> To record the number of occurrence of a single item. | | <ul style="list-style-type: none"> Statistics of pedestrian flow at the pier |
| D) Category | <ul style="list-style-type: none"> To classify based on the nature, characteristics and uses: <ul style="list-style-type: none"> to group the same or similar things; to separate different things. | | <ul style="list-style-type: none"> Types of goods sold in supermarket Customers (serving local residents and tourists) of different shops |
| E) Distribution (mapping) | <ul style="list-style-type: none"> To group similar things according to the research topic (similar to “D. Category”); Only suitable for spatial representation (different from category); Useful in showing the mode of occurrence of research subject in a complex environment. | | <ul style="list-style-type: none"> Distribution of shops selling big fish balls in Cheung Chau |
| F) Scoring | <ul style="list-style-type: none"> To quantify abstract or subjective concepts; To merge various data for easy comparison; Scoring items should include different aspects. | | <ul style="list-style-type: none"> Risk index of natural hazards of Cheung Chau Air Quality Health Index (AQHI) |
| G) Field sketching | <ul style="list-style-type: none"> To make simplified drawing of the field site to show what the data collectors observed. Annotations related to the research subject are added to provide key feature or additional information. | | <ul style="list-style-type: none"> Draw the characteristics and formation of weathering landforms |
| H) Questionnaire | <ul style="list-style-type: none"> Forms: face-to-face, telephone, written, etc.; Using questionnaire to understand the opinion of research subject; Larger sample size than “I. in-depth interview”; Mainly closed questions (with options available). | <ul style="list-style-type: none"> To collect information by questioning; To obtain information which is difficult to be obtained through observations; To understand the rationales and opinions of interviewees. | <ul style="list-style-type: none"> The main reasons for tourists to visit Cheung Chau The level of satisfaction among residents regarding a revitalization project |
| I) In-depth Interview | <ul style="list-style-type: none"> To obtain information through face-to-face/ telephone interview; Smaller sample size than “H.Questionnaire”; Mainly open questions and forthcoming questions will change upon the answer of respondents. | | <ul style="list-style-type: none"> Opinions of District Council members on the future development of that district |

Sampling Methods

| | |
|---|---|
| <p>Probabilistic sampling methods</p> <ul style="list-style-type: none"> ➤ <i>Need to know the size of population;</i> ➤ <i>Few differences among individuals;</i> ➤ <i>Individual has equal chance of being selected;</i> ➤ <i>Representativeness of data depends on sampling percentage.</i> | <p>Non-probabilistic sampling methods</p> <ul style="list-style-type: none"> ➤ <i>Size of population might not be relevant to the research objective;</i> ➤ <i>Chance of individual being selected is unknown;</i> ➤ <i>Representativeness of the results depends on the judgment of researcher in sample selection (Such as the correlation between samples and research targets).</i> |
|---|---|

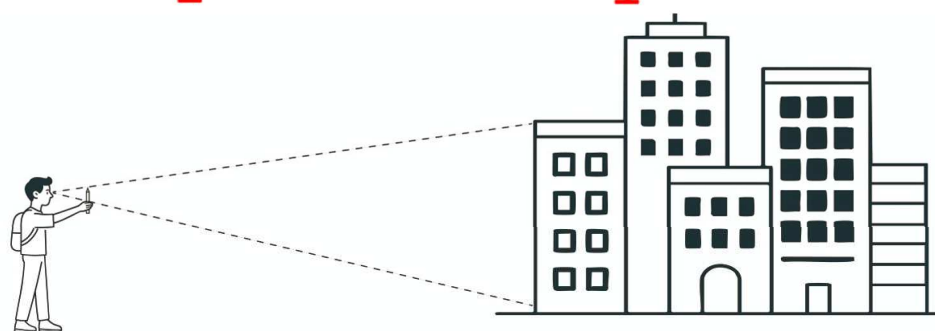
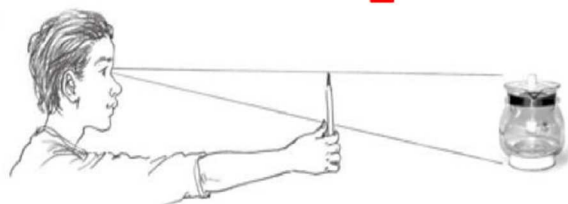
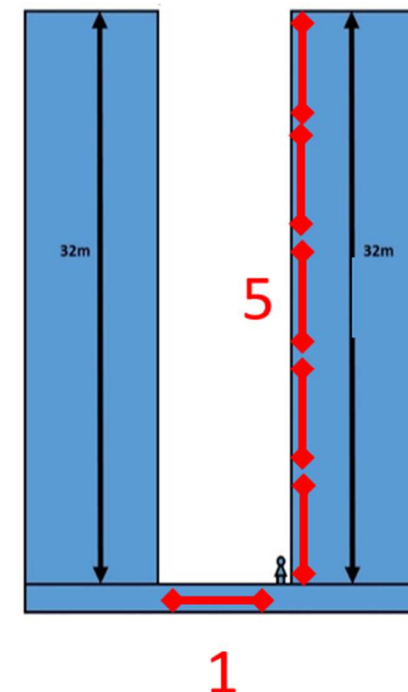
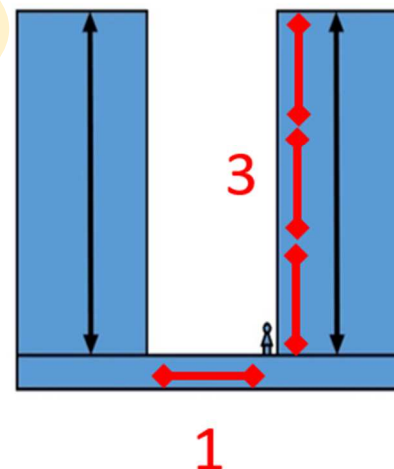
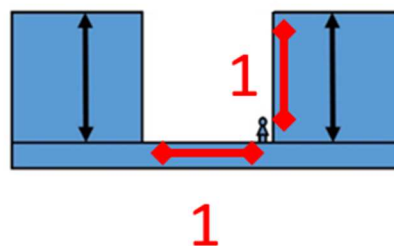
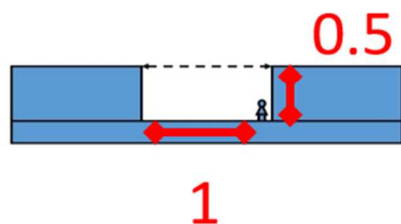
| Sampling methods | Simple random sampling (簡單隨機抽樣) | Systematic sampling (系統抽樣) | Stratified sampling (分層抽樣) | Quota sampling (配額抽樣/ 定額抽樣) | Convenience sampling (便利抽樣/ 方便抽樣) | Purposive sampling (立意抽樣) |
|---------------------|---|--|--|---|---|--|
| Explanations | To select sample from the whole population randomly . (using computer program, bamboo slip or random number table) | Each member of the whole population is sequentially numbered, then selected according to a fixed, periodic interval . | The whole population are classified according to the variable and divided into separate stratum. Then samples are selected randomly by proportion from each stratum. | The whole population are classified according to the variable and divided into separate stratum. Then desired number (quota) of samples are selected from each stratum. | Research subjects are selected due to convenience of recruitment. | Samples are selected according to research objectives and special requirements. |
| Examples | To choose a certain number of students to conduct questionnaires/ surveys according to the class number. | To measure the noise level of a street in a regular interval. | To group buildings according to their ages (e.g. above or below 50), and select a certain number of buildings in each group randomly. | To select a certain number of male and female customers, then record the amount spent in a shop. | To interview a certain number of relatives who work in mainland China To interview a certain number of passersby on the street | To conduct an in-depth interview with a district councilor about the social problems of that district. |
| Remarks | Suitable for small population and few variations among samples (for relevant research objectives). | Suitable for large population (hidden cyclic ordering which may affect the representativeness of data). | Effectively show the relationship / effect between variables. | Effectively show the relationship / effect of variables, but the characteristics and size of samples are judged subjectively. | Should not generalize the data to larger population | Suitable for qualitative research (data is easily influenced by the subjective judgment of researcher) |

高寬比- 建築物的高度與道路寬度的比例

Aspect ratio - The ratio of building height to road width.

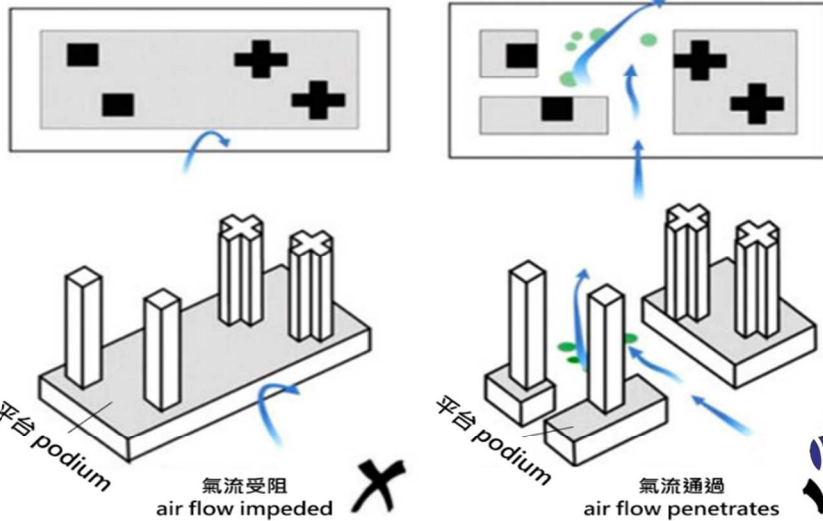
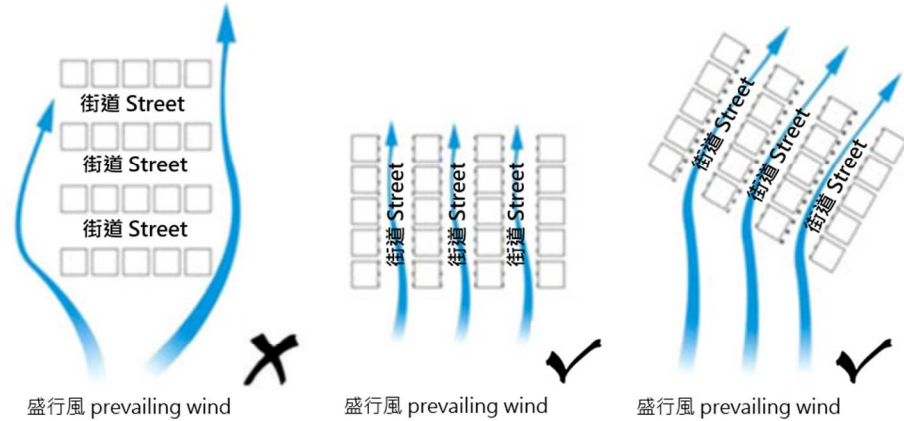
| | | | | |
|--------------|-------------|-----------|------------|------------|
| | <1.0 | 1.0-2.0 | 2.1-4.0 | >4.0 |
| Aspect ratio | (10 points) | (7points) | (4 points) | (0 points) |

$$= \frac{\text{建築物的高度 building height}}{\text{道路寬度 road width}}$$



| Dynamic Potential | High | Medium | Low | Very Low |
|-------------------|-------------|-----------|------------|------------|
| | (10 points) | (7points) | (4 points) | (0 points) |

| Level of vegetation cover | Abundant | Moderate | Limited | None |
|---------------------------|-------------|-----------|------------|------------|
| | (10 points) | (7points) | (4 points) | (0 points) |



平台覆蓋範 Podium coverage

評估附近環境 **Assessment** of surrounding environment

評分 scoring

植被覆蓋水平 Level of vegetation cover





| | |
|------------|---------------------|
| | |
| 0pt (None) | 4 points |
| | |
| 7points | 10points (Abundant) |

街區 A Zone A

-  Potential Environmental Data Collection Points
-  Finishing Point
-  Study Zone
-  金鐘站 MTR Station
-  Starting Point








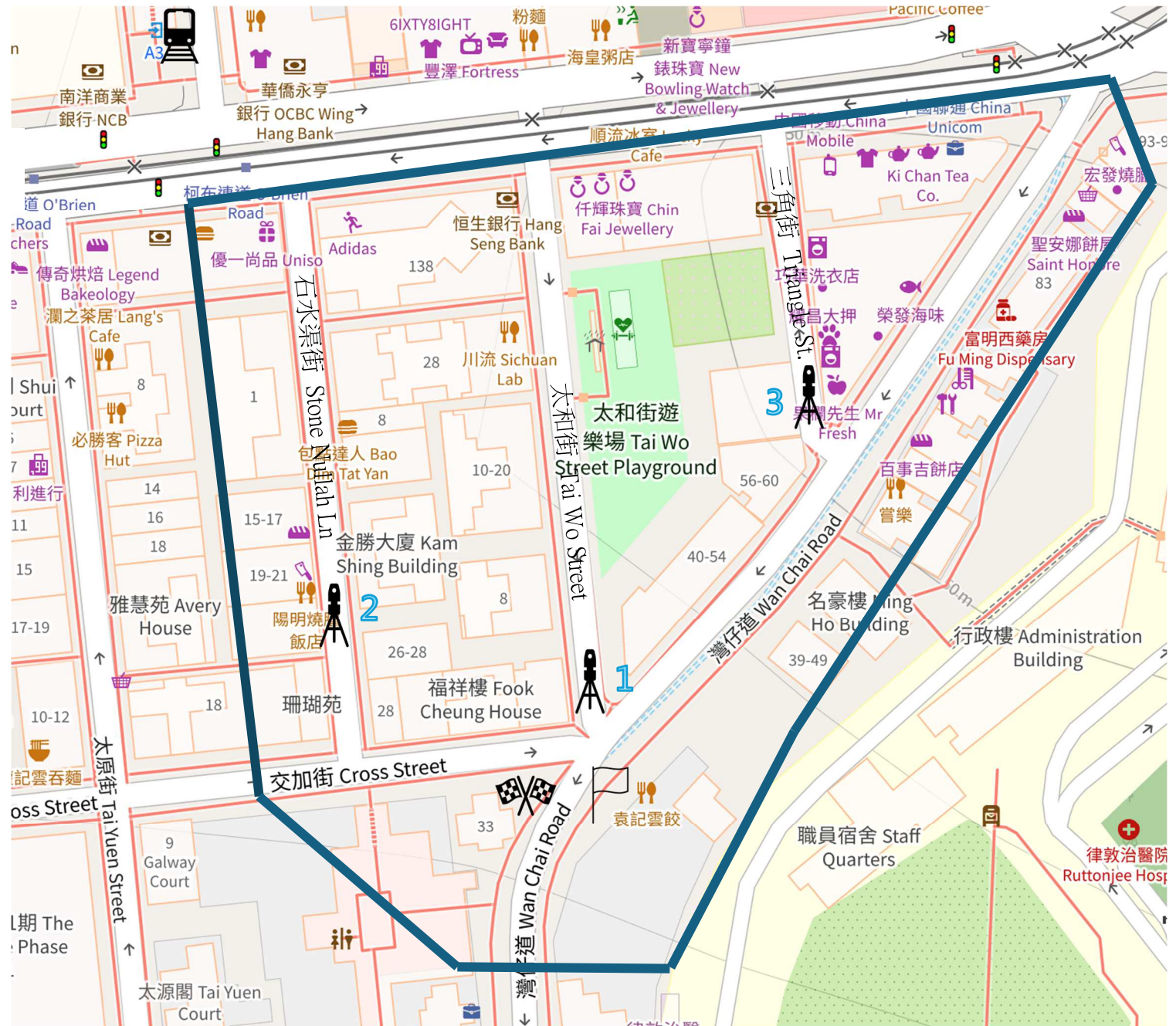
街區 B Zone B

-  Potential Environmental Data
-  Finishing Point
-  Study Zone
-  Starting Point



街區 C Zone C

-  Potential Environmental Data Collection Points
-  Finishing Point
-  Study Zone
-  灣仔站 MTR Station
-  Starting Point



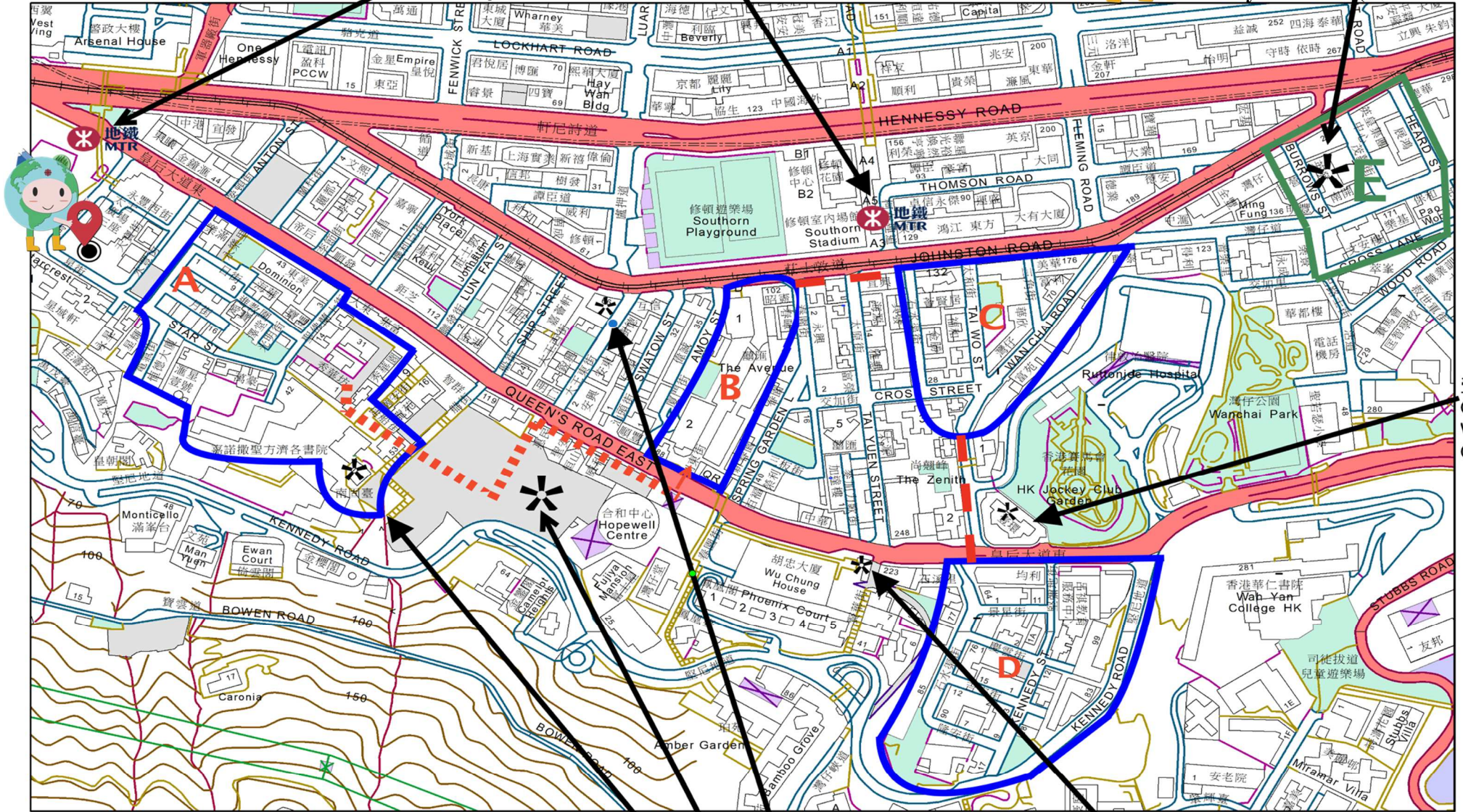


考察地圖 Field map

金鐘港鐵站 F出口
Admiralty MTR Station Exit F

灣仔港鐵站 A3出口
Wan Chai MTR Station Exit A3

茂蘿街7號 M7 (前稱動漫基地)
7 Mallory Street M7 (Ex Comix Base)



壹環
One Wan Chai

- Briefing point 簡報點
- 地鐵 MTR MTR exit
- Point of interest 沿途值得留意景點

和昌大押 Woo Cheong Pawn Shop 舊灣仔郵政局 Old Wan Chai Post Office
船街花園及合和中心二期 Ship Street Garden and Hopewell Centre II
南固臺 Nam Koo Terrace

