Virtual Urban Field Study
[Mr LIU Hok-him, Aaron, Geography Panel Head,
Christian Alliance SW Chan Memorial College]

Foreword
Due to coronavirus disease and related class suspension, many senior secondary geography fieldwork activities are also suspended but fieldwork is an important part of studying geography. We are a group of geography teachers who care about the learning needs of our students, so we'd prepared this "virtual urban field study". This virtual field study is simplified and transformed from an authentic urban field study with VR (virtual reality) technology. It is hoped that students can still conduct limited virtual geography field trips while maintaining social distancing at home. However, we understand that this virtual field study cannot replace 'real' fieldwork activities, and we hope that after the epidemic is over, we can once again lead our students to conduct geography field study in the field.

Background of the study
Inner city refers to the fringe of the Central Business District (CBD) where buildings are derelict and decaying due to lack of planning at the initial stage of development and poor maintenance. It usually appears in the transition zone between commercial land use and residential land use, where the facilities of the community are old and the socio-economic status of the residents is declining. Mixed land uses can be found.
The Central Business District of Hong Kong locates in Central and Sheung Wan area. This virtual field study comprised of two routes which lie in Central and Sheung Wan respectively. Six checkpoints are designed along each route (with a total of 12), where 360° panoramic photos are provided. According to the VR photos of the checkpoints, students are expected to identify the major land use(s), record the height of the buildings, describe the characteristics of the community, and eventually be able to assess the 'urban landscape score' for the study area and delineate the locations of the inner city areas in these two districts according to the rating (where their scores should be comparatively lower)

Study topic
Identify the urban transition zones in Central and Sheung Wan, and describe their relevant characteristics.

Route design / Area of study
The starting points of the two routes are marked from the first building located at the waterfront, where one of the routes is developed along the Central-Mid-Levels Escalator (Central route) and the other is along the Ladder Street (Sheung Wan route). Six checkpoints located at several similar streets are chosen along the two routes respectively. The end points are marked north of Conduit Road. Here are the online maps:
- Route map for the Sheung Wan field study: https://arcg.is/1yOzT1
- Route map for the Central field study: https://arcg.is/1Sjj9n

Fieldwork tasks
Students need to describe the buildings at the four major compass points of each checkpoint (i.e. observing the east, south, west and north directions from the central point of each panoramic photo), including:
1. land use(s)
2. building height (estimate the height of the tallest building)
3. building appearance
4. commercial value
5. degree of greening
6. simple text description

Then, score according to your description. According to the distance between the checkpoints and the coastline, present the scores of the checkpoints with a line graph. Finally, try to summarise the characteristics of the routes based on your findings in the virtual field study.

The part on Sheung Wan was done by teachers for students' reference. You only need to complete the part on Central. In order to develop students' map reading skills, the checkpoint numbers of the Central field study will not be provided, and the order of some checkpoints has been reversed. You must first match the checkpoints based on your observation on the characteristics of the streets from the VR photos and then complete the rest of the tasks accordingly.

Sheung Wan Field Route (demonstration by teachers)

1. Visit the website of ArcGIS Storymap (https://arcg.is/1zmj9i) and view the VR360° panoramic photos for the part of Sheung Wan to complete the virtual field study. Mark down your observation by selecting the most suitable descriptions.

| Checkpoints of Sheung Wan Field Study (A'-F ')	Observation
A'： Connaught Road Brief text description: <u>This checkpoint locates the closest to the coastline of Sheung Wan. Its transport network is the most convenient (e.g. MTR , tram). The commercial activities there are relatively high order.</u>	Identify the most dominant land use(s) (may choose more than one): ☑ commercial land use ☐ industrial land use ☐ institutional land use ☐ recreational land use ☑ transport land use ☐ mixed land use ☐ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☐ 16-40 ☑ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐ average ☑ modern Ordering of shops or apartments: ☑ High ☐ Moderate ☐ Low Degree of greening: ☐ Dense ☑ Sparse ☐ Absent
B'：Queen's Road Central Brief text description: <u>This is the starting point of the Ladder Street, commercial activities reduce in amount and order. Residential land use emerges.</u>	Identify the most dominant land use(s) (may choose more than one): ☑ commercial land use ☐ industrial land use ☐ institutional land use ☐ recreational land use ☐ transport land use ☑ mixed land use ☐ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☑ 16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐ average ☑ modern Ordering of shops or apartments: ☐ High ☑ Moderate ☐ Low Degree of greening: ☐ Dense ☑ Sparse ☐ Absent

C'：Hollywood Road （Man Mo Temple） Brief text description： <u>The buildings are much older and in poorer conditions. The average height of the buildings is much lower. Local shops are found on the ground floors and coffin shops which are not welcomed by residents are spotted.</u>	Identify the most dominant land use(s) (may choose more than one) : ☐ commercial land use ☐ industrial land use ☑ institutional land use ☐ recreational land use ☐ transport land use ☑ mixed land use ☐ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☑ 16-40 ☐ 40 or above The building appearance (maintenance and design): ☑ Obsolete ☐ average ☐ modern Ordering of shops or apartments: ☐ High ☐ Moderate ☑ Low Degree of greening: ☐ Dense ☑ Sparse ☐ Absent
D': Wing Lee Street Brief text description: <u>This site was originally planned for redevelopment, yet after the success of the movie 'Echoes of the Rainbow', the Urban Renewal Authority (URA) was prompted to preserve and revitalise few of the tenement buildings. However, the neighbouring building blocks have been redeveloped.</u>	Identify the most dominant land use(s) (may choose more than one): ☐ commercial land use ☐ industrial land use ☐ institutional land use ☐ recreational land use ☐ transport land use ☑ mixed land use ☑ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☑ 16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☑ average ☐ modern Ordering of shops or apartments: ☐ High ☑ Moderate ☐ Low Degree of greening: ☐ Dense ☑ Sparse ☐ Absent

E'：Castle Road Brief text description: <u>There is more open space and the living environment is more pleasant. It is a relatively high-class residential area.</u>	Identify the most dominant land use(s) (may choose more than one): ☐ commercial land use ☐ industrial land use ☑ institutional land use ☐ recreational land use ☐ transport land use ☐ mixed land use ☑ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☑ 16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐ average ☑ modern Ordering of shops or apartments: ☑ High ☐ Moderate ☐ Low Degree of greening: ☑ Dense ☐ Sparse ☐ Absent
F'：Conduit Road Brief text description: <u>This is the end-point of the study route. The order of the residential buildings is the highest (i.e. high class residential areas) among all checkpoints in the route and there is no other type of land use.</u>	Identify the most dominant land use(s) (may choose more than one): ☐ commercial land use ☐ industrial land use ☐ institutional land use ☐ recreational land use ☐ transport land use ☐ mixed land use ☑ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☑ 16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐ average ☑ modern Ordering of shops or apartments: ☑ High ☐ Moderate ☐ Low Degree of greening: ☑ Dense ☐ Sparse ☐ Absent

2. Refer to the online map for the route in Sheung Wan: https://arcg.is/1yOzT1

3. Based on the data collected and your descriptions, rate the 'Urban landscape score' for each checkpoint (0 is the lowest score, 2 being the highest score)：

	A'	B'	C'	D'	E'	F'
Distance from the coastline to the checkpoint (m)	100	400	480	560	790	870
Choose ONE land use to **represent** this zone	Commercial	Commercial	Mixed	Mixed	Residential	Residential
Building height (scores increase with height)	2	1	1	1	1	1
Building appearance	2	2	0	1	2	2
Commercial value	2	1	0	1	2	2
Degree of greening	1	1	1	1	2	2
Total score	7	5	2	4	7	7

4. Draw a line graph which plots the "total urban landscape score" of each checkpoint against its "distance from the coastline".*

Total Urban Landscape Score against its Distance from the Coastline of Sheung Wan
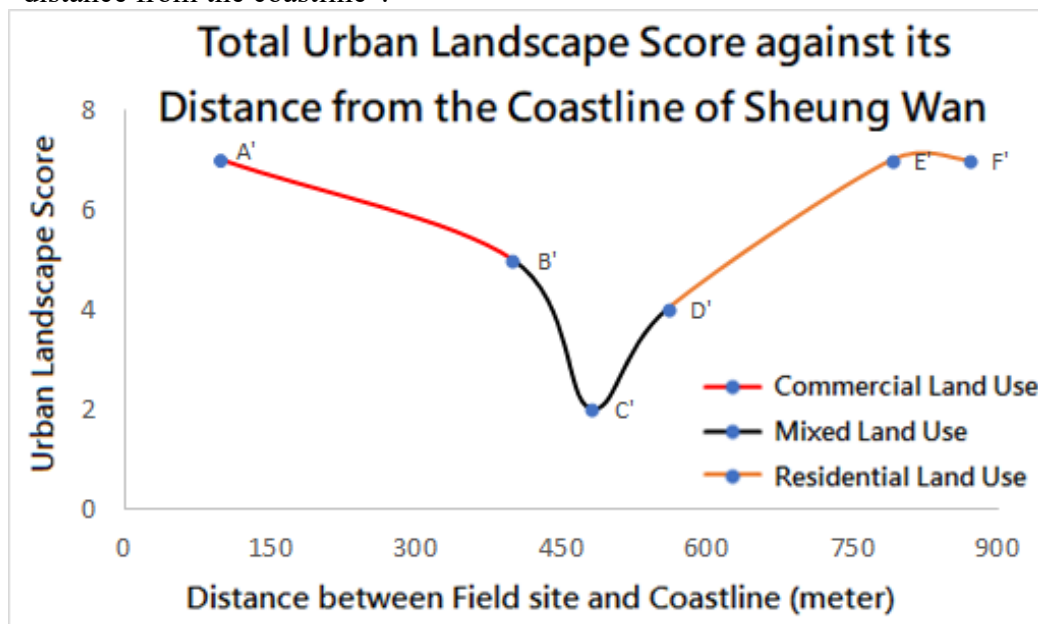
* The line graph is divided into sections of different colours to indicate the changes in the distribution of land uses along the route

5. Summary: Identify and describe the urban transition zone of the Sheung Wan route in the above virtual field study.

The transition zone of the Sheung Wan field route should be found around Checkpoint C', on Hollywood Road, close to Man Mo Temple, since the urban landscape score of Checkpoint C' is the lowest and mixed land use emerges. In general, commercial land use should be the dominant type of land use in the central business district and the average building height there should be the tallest among other land uses. Most of the buildings in the Mid-levels had undergone redevelopment, thus the height and the commercial value of the buildings have subsequently increased. Yet, commercial activities are absent in Checkpoint C'and it is

not the central business district. Taller buildings after redevelopment are also absent and the order of shops is generally low (e.g. coffin shops), thus the transition zone of Sheung Wan should be found around Checkpoint C'.

Central Field Route

1. Visit the website of ArcGIS Storymap (https://arcg.is/1zmj9i) and view the VR360° panoramic photos for the part of Central to complete the virtual field study. Mark down your observation by selecting the most suitable descriptions. (Note: The checkpoints are not in correct order.)

Checkpoints of Central	Observation
Queen's Road Central Brief text description: _____ _____ _____ _____	Idenitify the most dominant land use(s) (may choose more than one): ☐ commercial land use ☐ industrial land use ☐ institutional land use ☐ recreational land use ☐ transport land use ☐ mixed land use ☐ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☐16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐average ☐ modern Ordering of shops or apartments: ☐ High ☐ Moderate ☐ Low Degree of greening: ☐ Dense ☐ Sparse ☐ Absent
Man Cheung Street Brief text description: _____ _____ _____ _____	Identify the most dominant land use(s) (may choose more than one): ☐ commercial land use ☐ industrial land use ☐ institutional land use ☐ recreational land use ☑ transport land use ☐ mixed land use ☐ residential land use * One of them has been provided by the teacher The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☐16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐average ☐ modern Ordering of shops or apartments: ☐ High ☐ Moderate ☐ Low Degree of greening: ☐ Dense ☐ Sparse ☐ Absent

Rednaxela Terrace Brief text description: _____ _____ _____ _____	Identify the most dominant land use(s) (may choose more than one): ☐ commercial land use ☐ industrial land use ☑ institutional land use ☐ recreational land use ☐ transport land use ☐ mixed land use ☐ residential land use * One of them has been provided by the teacher The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☐16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐average ☐ modern Ordering of shops or apartments: ☐ High ☐ Moderate ☐ Low Degree of greening: ☐ Dense ☐ Sparse ☐ Absent
Hollywood Road Brief text description: _____ _____ _____ _____	Identify the most dominant land use(s) (may choose more than one): ☐ commercial land use ☐ industrial land use ☐ institutional land use ☐ recreational land use ☐ transport land use ☐ mixed land use ☐ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☐16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐average ☐ modern Ordering of shops or apartments: ☐ High ☐ Moderate ☐ Low Degree of greening: ☐ Dense ☐ Sparse ☐ Absent

|	
Elgin Street Brief text description: ——————————— ——————————— ——————————— ———————————	Identify the most dominant land use(s) (may choose more than one): ☐ commercial land use ☐ industrial land use ☐ institutional land use ☐ recreational land use ☐ transport land use ☐ mixed land use ☐ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☐16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐average ☐ modern Ordering of shops or apartments: ☐ High ☐ Moderate ☐ Low Degree of greening: ☐ Dense ☐ Sparse ☐ Absent
Conduit Road Brief text description: ——————————— ——————————— ——————————— ———————————	Identify the most dominant land use(s) (may choose more than one): ☐ commercial land use ☐ industrial land use ☐ institutional land use ☐ recreational land use ☐ transport land use ☐ mixed land use ☐ residential land use The height of the tallest building in the photo (number of storeys): ☐ 15 or less ☐16-40 ☐ 40 or above The building appearance (maintenance and design): ☐ Obsolete ☐average ☐ modern Ordering of shops or apartments: ☐ High ☐ Moderate ☐ Low Degree of greening: ☐ Dense ☐ Sparse ☐ Absent

2. Visit the online map：https://arcg.is/1Sjj9n
Match sites A -F on the map with those checkpoints on P.8-10. (One of them has been completed by your teacher as an example)

Site on the map	Location of the checkpoint	Site on the map	Location of the checkpoint
A		B	
C		D	
E	Rednaxela Terrace	F	

3. Based on the data collected and your descriptions, rate the 'Urban landscape score' for each checkpoint (0 is the lowest score, 2 being the highest score)：

	A	B	C	D	E	F
Distance from the coastline to the checkpoint (m)	210	510	740	870	990	1200
Choose ONE land use to **represent** this zone						
Building height (scores increase with height)						
Building appearance						
Commercial value						
Degree of greening						
Total score						

4. Draw a line graph which plots the "total urban landscape score" of each checkpoint against its "distance from the coastline".*
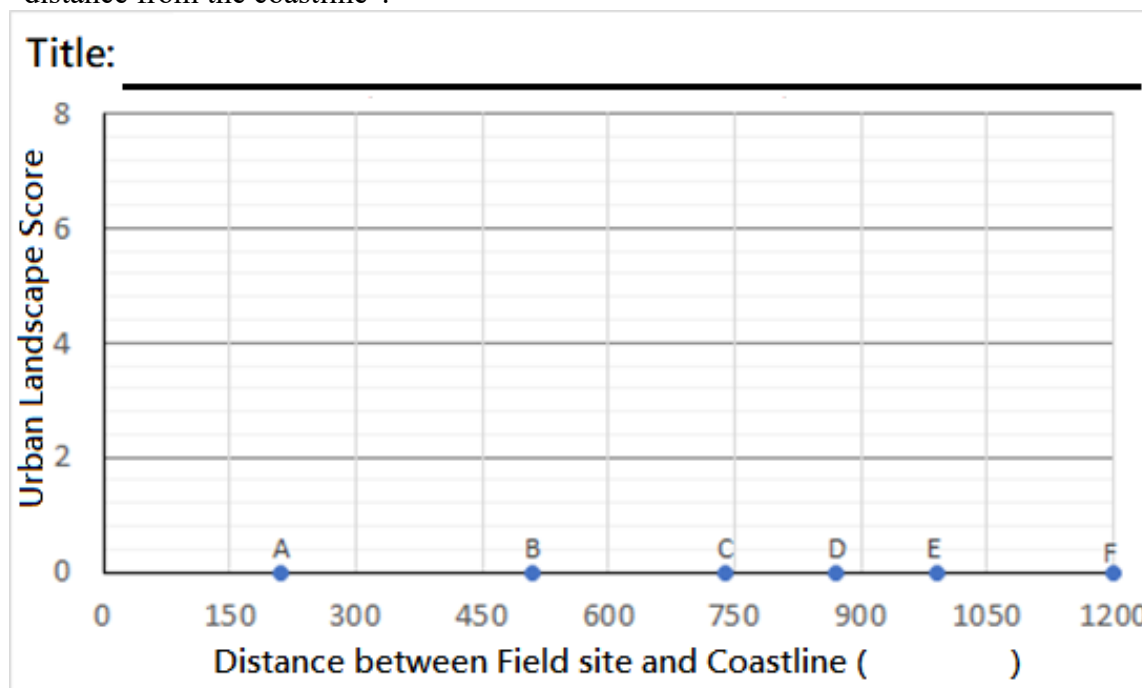
* The distance from the coastline to the site/ checkpoint has been marked on the graph by your teacher

5. Summary: Identify and describe the urban transition zone in Central in the above virtual field study.

_____

_____

_____

_____

_____

[Hints] The summary above should include:

1. Location   2. Major land use(s)   3. Building heights, outlook and the related order   4. Surrounding environment

Conclusion:

Explain the characteristics of the transition zones in Sheung Wan and Central in the above virtual field study with reference to their locations, land uses, building heights, building appearance, order of shops and so on.

_____

_____

_____

_____

_____

_____

Reference and Acknowledgements