

Central Business District

Before you start

Our town centres have experienced dramatic changes in the last 25 years – challenges from “Out of Town” retail, supermarkets, financial crises and internet shopping have had a notable impact on our high streets. Many of the familiar names of the past are no more and those which remain form part of an increasingly clone like landscape that would be familiar to shoppers across the whole country. Investigations of change can concentrate on

both spatial and temporal variations. Spatial changes are perhaps the easier to conduct as they are generally based on “what is here today” however these can be limited to snapshots of places at one point in time. Temporal change may give rise to more interesting questions which may include more contemporary issues. Where possible it is valuable to give some consideration to both spatial and temporal changes in the same investigation.

Fieldwork – Quantitative methods

Sampling

Questions focussing on spatial changes in land use might consider changes with distance from the centre of the CBD. This approach lends itself to a transect (i.e. a line along which data is collected).



Six radial transects from the CBD of a small town. Using GIS to highlight major roads on an aerial photograph by ArcGIS / Esri, DigitalGlobe & Microsoft.

Temporal changes might involve students looking at land use within a defined area, looking at individual buildings to record their current land use, and compare with historic land uses in order to identify and quantify change.

Measuring land use function

Along each of the transects use a systematic sampling strategy to select locations to record land use function. You may wish to restrict your sample as follows:

- recording land use every 10m
- recording ground floor land use only
- recording land use on a single side of the road

Land use is categorised for ease of analysis. A popular way of doing this is to use the RICEPOTS system.

Code	Type of land use	Further information - extra letters
R	Residential	f=flat, t=terraced, s=semi-detached, b=bungalow, d=detached house
I	Industrial	l=light manufacturing, h=heavy industry, c=chemical, e=extraction mining
C	Commercial	f=food, t=take-away, p=personal services, d=department stores, h=homewares and furniture, g=garage, m=market, s=specialist shop, o=office, v=vacant
E	Entertainment	h=hotel, s=sports center, g=gym, t=theatre or cinema, b=bar, r=restaurant or cafe
P	Public building	e=education, l=library, h=hospital, c=place of worship, p=police station, a=ambulance station, f=fire station, w=welfare
O	Open space	f=farmland, p=parkland, c=cemetery, u=unused land, d=derelict building, s=sports field
T	Transport	b=bus station, t=taxi rank, c=car park, r=railway station
S	Services	f=financial, b=business, m=medical, e=estate agents, d=dental

RICEPOTS system for recording urban land use.

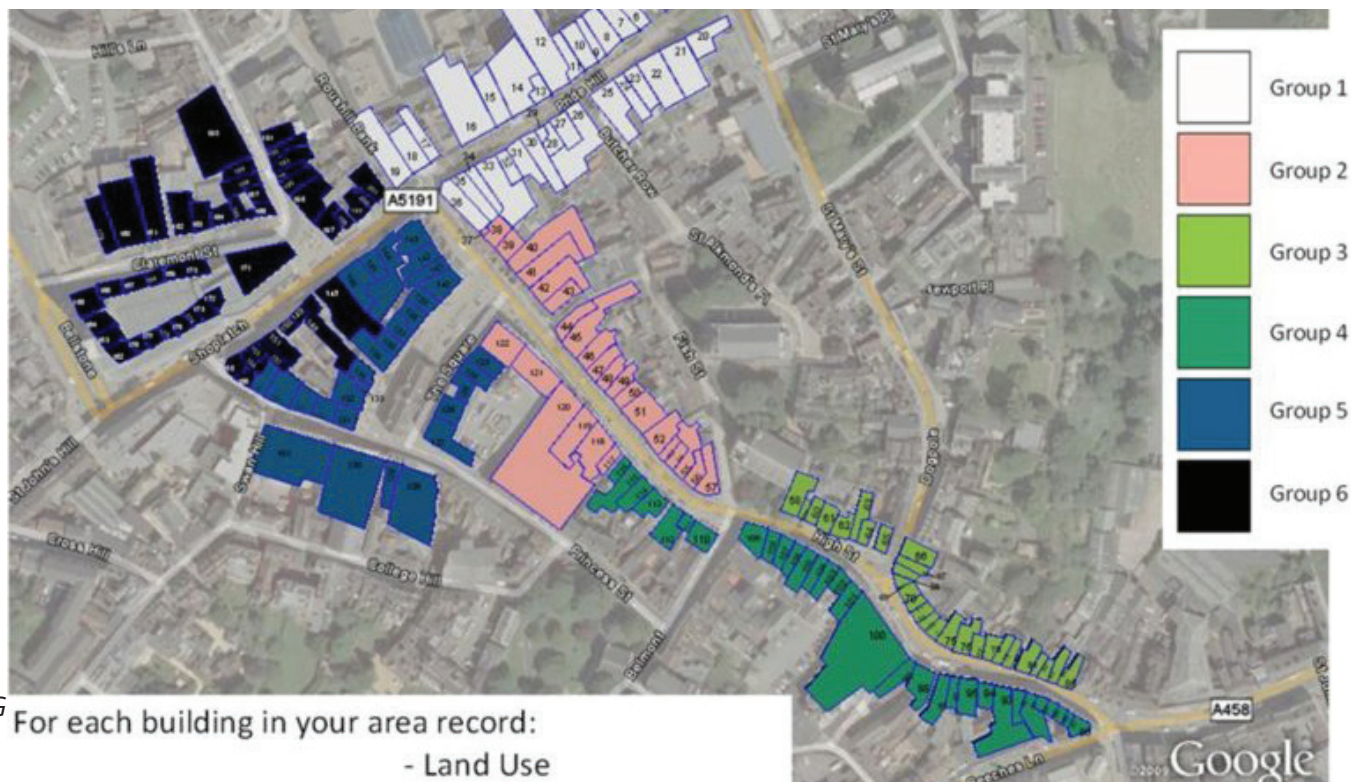
Further letters can be added as required, or add o=other

Please note that there are quite a lot of variations on this theme. Students could be challenged to identify a more appropriate index, or to develop their own.

Distance along transect (m)	Residential	Industrial	Commercial	Entertainment	Public building	Open space	Transport	Services
0-200								
200-400								
400-600								
600-800								
800-1000								
1000-1200								
1200-1400								
1400-1600								
1600-1800								
1800-2000								

Alternatively you could record the land use for individual buildings – in this example the main shopping streets were identified from the town shopping website and these were used as the basis for the sampling strategy, recording land use of each building.

Category No.	Category	Description of Categories
1	Chain store Retail - High street	Shop - part of national or regional chain selling high order / comparison goods - e.g. large electrical appliances, furniture, garden furniture
2	Chain store retail - Low order	Shop - part of national or regional chain selling low order goods e.g. food, clothes, books, music, supermarket toiletries, newsagents, convenience shop - spa etc
3	Independant retail - high order	Shop - not part of national or regional chain selling high order / comparisson goods e.g large electrical appliances, furniture, supermarket, garden furniture
4	Independant retail - Low order	Shop - not part of national or regional chain selling medium order goodse.g. food, clothes, supermarket, books, music, toiletries, news agents, convenience shop - spa etc
5	Consumer services - food	Service provided at a charge e.g. cafes, restaurants and pubs
6	Consumer services - non food	Service provided at a charge e.g. hairdressers, banks, cinema, dry cleaners
7	Public services	Service provided at no charge or subsidised charge e.g. doctors, library, school, church
8	Other	



G For each building in your area record:
- Land Use

GIS used to overlay retail outlets on an aerial photograph by ArcGIS / Esri, DigitalGlobe & Microsoft.

Recording the quality of the environment

An environmental quality survey uses an observer's judgements to assess environmental quality against a range of indicators. Often they work on a sliding scale of quality (like 1 to 5) to represent less good to good. Alternatively you can use a Bi-polar scale (like -5 to +5) to indicate a negative assessment through to a positive assessment, with 0 representing neither good or bad.

As it is based on personal judgements the data collected using environmental quality surveys is subjective. Benchmarking the scoring between different observers will help reduce this subjectivity.

Urban Studies- An Environmental Quality Index																																																																																																																																																																																								
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Total Environmental Quality Score = _____

Urban environmental quality index Example of an urban environmental quality index.

Environmental Quality - Area _____

General description of the area:

	0	1	2	3	4	5	
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Buildings

High density (many properties within a small space)							Low density (few properties, lots of space)
Badly designed / ugly							Well designed / pleasing to the eye
No maintenance / no evidence of improvements							Evidence of maintenance / improvements
Extensive vandalism / graffiti							No vandalism / graffiti evident
Total Score - Buildings							

Traffic

Parking is difficult - Many vehicles parked on road							Parking in garages or driveways.
Air smells heavily of traffic fumes							No smell of car fumes
High noise volume from traffic							No traffic noise
Dangerous for people							Safe for people
Total Score - Traffic							

Open Space and Gardens

No garden / open space – door opens to street							Large gardens or open space outside house
Garden / open space in poor condition							Garden / open space in good condition
No greenery visible							Trees / shrubs / greenery visible
No public parks							Public parks easily accessible
Total Open Space Score							

General Quality

Much litter							No litter
Paths poorly maintained / broken paving etc.							Paths well maintained
Area is undesirable							Area is desirable
Unwelcoming feel							welcoming feel
Total Score - General Quality							

Total Environmental Quality Score							
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Example of an environmental quality index using a bipolar scale.

Sampling for environmental quality surveys within a study like this could occur in several different ways:

- Transect – along the transects used for recording spatial changes in land use you could also complete an environmental quality survey every 200m, either a summary of the last 200m, or based on the immediate area.
- An overall judgement of an area – the shopping area is divided into zones: walk around the whole of a zone and then complete the survey as a summary of the whole of that zone.
- Locations chosen before fieldwork – before leaving for the fieldwork a number of survey points are chosen (selected using a random, systematic or stratified sample).
- Locations chosen during fieldwork – select representative locations to carry out the survey – these could be the worst place in that area, the best place in that area and an average place in that area.

Recording site location

The easiest way to accurately record the locations of your sampling sites is to use a GPS – there are many different Smartphone apps that will allow you to do this. If you want to use GIS to locate your sites on a map or to display your data, you need to record your location as latitude and longitude.

Fieldwork – Qualitative methods

In addition to Environmental Quality surveys as described above which quantify the quality of the urban environment we can use a range of methods to collect information about environmental quality in a qualitative way.

Questionnaires

Questionnaires or informal chats with the public might ask the following

- “How long have you been shopping in the centre of <name of town>?”
- “How has the centre of <name of town> changed over that time?”
- “Which features of the shopping environment in <name of town> do you like/not like?”
- “Do you think the appearance of the town centre has changed over the time you have been shopping here?”

Annotated photographs and field sketches

Use annotated photos or field sketches to make a judgement about the quality of the environment. You could photograph at whole street scenes, or focus on small details such as a pile of rubbish. Alternatively construct a checklist of things to look out for, such as buildings, road and paving, litter, dere-

Re-photography

Re-photography means that you look for old photographs and try to take a photograph of how exactly the same place looks today. Compare and contrast the two scenes. You could use the same technique to compare how a place changes over different days of the week or at different times of day.

Epitome words

A simple way of gauging perceptions of a place is to use epitome words. Think of a single word that sums up that area. These can then be put into a word cloud generator (e.g. Mentimeter) and used to compare different areas.

Whether you're preparing for AS/A level/Advanced Highers/Highers/IB or GCSE, Geography or Biology, we've got you covered.

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