Close to the edge?

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Geography teaching resource

College

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Introduction

According to an often-quoted ‘fact’, more than 50% of the population is now ‘urban’ for the first time in the planet’s history. Investigating the evidence for this would be a useful critical opening to this activity, which explores the way that urban areas are represented on Ordnance Survey maps, and the changing relationship that exists at the points where these areas ‘end’ or ‘begin’. There has been a blurring of the rural-urban boundary in recent times, with the appearance of new terms such as ‘rurban’ to describe the areas at the edge of cities. Most ‘A’ level specifications involve the study of urban change, and a critical look at some of the land-use models which have developed over the years. The notion of ‘rebranding’ is also something which has been introduced in recent years: urban redevelopments have often been connected with a broader aim of changing the way that people view an area, rather than simply updating old housing stock or retail developments.

Whatever the actual global urban percentage, we know that 82% of the UK is ‘urban’ thanks to the Census of 2011. Analyses carried out by marketing and demographics companies suggest that the urban population is growing again, after a period when there was a movement into rural areas, which were perhaps seen as being a better place to bring up families.

The Office for National Statistics (ONS) introduced a new rural/urban classification in 2005 to differentiate between six different types of areas:

- **Major Urban**: districts with either 100,000 people or 50 per cent of their population in urban areas with a population of more than 750,000
- **Large Urban**: districts with either 50,000 people or 50 per cent of their population in one of 17 urban areas with a population between 250,000 and 750,000
- **Other Urban**: districts with fewer than 37,000 people or less than 26 per cent of their population in rural settlements and larger market towns
- **Significant Rural**: districts with more than 37,000 people or more than 26 per cent of their population in rural settlements and larger market towns
- **Rural-50**: districts with at least 50 per cent but less than 80 per cent of their population in rural settlements and larger market towns
- **Rural-80**: districts with at least 80 per cent of their population in rural settlements and larger market towns

This activity makes use of Ordnance Survey maps to explore the land-use that we find along the rural-urban fringes, and also compare these areas with other parts of the city, such as the CBD, inner city areas or the suburbs. There are also connections to be made with areas just outside the urban area, and the protected status of green belt land around major urban areas.

Ordnance Survey employ a team of surveyors whose role is to identify the changes that are taking place and send these in so that the ‘master map’ can be kept as up to date as possible.

Context

This activity encourages the use of Ordnance Survey maps from Digimap for Colleges to explore the changes that have taken place on the edges of major urban areas, and compare them with other parts of urban areas. There are several traditional ‘urban models’ such as those of Burgess, Hoyt and Harris and Ullman, which will be familiar to many geography students from their GCSE studies. These
will be explored using a transect, which will be taken outwards from the centre of a town or city, and passing through different areas. Are the models correct, or are they simplifications? What will students observe as they move outwards?

How would you describe this area on the edge of Manchester, for example. Is there any sign of the ‘rural’ here, or does one urban area blend into another.

Teachers could (re)introduce these models either before or after the suggested activity. In each case, students should compare their observations with the models, and be able to make some suggestions for the extent to which it fits their chosen location. Images of the models should be provided – these can be obtained using relevant web searches. Some have been added to the Digimap for Colleges Pinterest board: http://www.pinterest.com/geoblogs/digimap-for-colleges/

The example of Edinburgh is used in this document, but any urban area covered by the Ordnance Survey could be chosen. This activity could be connected with a fieldwork visit to the chosen area, where the transect could be carried out in person rather than using the map. The advantage of the map is that a greater distance can be covered in a shorter period of time.

Enquiry question(s)

**What clues does urban change leave on the maps of urban areas?**

**How does land-use change with distance from the centre?**

Take a look at a map of any large town or city. Identify what you would think of as being the ‘town centre’. Which particular map symbols would you have used for this purpose?

Here are some possible symbols to look out for:

a) Railway or bus / coach station  
b) Town Hall or City Hall  
c) Museums  
d) Music venues and theatres  
e) Other transportation hubs  
f) Car Parking identified by a tourist symbol

Discuss other ‘signs’ of the town centre with students.
Activity

Students are going to be following a **transect** (a straight line) outwards from the town or city centre, and record the land use they observe on the map at intervals.

Choose a direction to move out from the town or city centre. Groups could be allocated a specific **compass direction** or **bearing** to use so that different sectors of the city are explored in this way. It’s worth reminding students of the need to orient maps correctly when using them. A number of short videos made by Simon King is available here: [http://www.ordnancesurvey.co.uk/resources/map-reading/index.html](http://www.ordnancesurvey.co.uk/resources/map-reading/index.html) to help with this if required.

Identify or allocate a starting point for the transect. In the case of Edinburgh, we could start somewhere like Waverley Railway station: a point where many people arrive in the city each day.

Move out in regular intervals from the centre: this could be 0.5, 1 or even 2 kilometre intervals. You can use the **measuring tool** to ensure that this is done accurately. This should also be reflected in the Grid References that are recorded on the document, so the **Grid Reference tool** could also be used to ensure the correct distance and direction have been followed.

**Discussions on the appropriate interval, and the problems of using this sampling method could occur.** ‘A’ level Geographers should be aware of various sampling methods for data collection and their advantages and disadvantages.

As students take each ‘step’ out from the centre, they should note the changing land use that is taking place. A **recording sheet** has been created to download for this activity, and an example of it being used for Edinburgh is shown below.

<table>
<thead>
<tr>
<th>Location</th>
<th>Characteristics of the area &amp; ID</th>
<th>Urban / Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edinburgh</td>
<td>Railway station and lines, castle gardens, shopping streets, tourist services - CBD</td>
<td>100% Urban</td>
</tr>
<tr>
<td>Princes St</td>
<td>Shopping, Historic properties and museums, castle gardens - CBD</td>
<td>100% Urban</td>
</tr>
</tbody>
</table>

Describe the buildings that can be seen on the map, and also decide whether the area is best classed as:

- **CBD**
A Close to the Edge presentation (PPT), with a guide on identifying the main characteristics of each of these areas has been provided for download as part of the activity. Students could also add to this with their own observations, or produce their own versions for alternative locations.

Finally, for each location, come to a decision on how ‘urban’ the location is: from 100% downwards, where 0% would mean the area was completely rural. This relates to what geographer Paul Cloke referred to as the ‘index of rurality’ or the ‘rural-urban continuum’. It can sometimes be difficult to identify locations as being one or the other. The balance between rural and urban changes as you move towards the edge of the city, but even in city centres, it is possible to take a picture which looks like it might have been taken in the countryside. Edinburgh Castle gardens offers such potential.

Tip 1

It may be worth identifying and displaying a few images of locations, some of which are right on the rural-urban fringe, to ‘calibrate’ students’ decisions as to what constitutes ‘rural’ and ‘urban’ before you begin the activity. This will ensure that the scores they provide are more consistent. Calibration of this kind is always useful when using a qualitative scale of any kind during fieldwork. ‘A’ level Geographers should always be critical of techniques that are used, and be prepared to discuss their limitations.

Allow students an appropriate amount of time to complete the recording sheet. They may also wish to work on a separate map to show some of the places they visited, perhaps adding images to the map.

Tip 2

Digimap for Colleges will time out after 45 minutes of inactivity. Students could be prompted to Save their map if required. A title is required as well as a student name and class code.

What land use is often found on the rural-urban fringes?
Here are some suggestions, but can you find others to fill in the gaps?

<table>
<thead>
<tr>
<th>Sewage works</th>
<th>Golf courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park and ride car-parks</td>
<td>Driving ranges</td>
</tr>
<tr>
<td>Retail parks</td>
<td></td>
</tr>
</tbody>
</table>

Plenary

Students should be asked to feedback on their ‘journey’ across the map, and describe what they observed. Was the shape of the city ‘regular’ or had it grown out more in particular directions – could they see whether the shape of the land, or transport routes or some other feature was responsible for this?

How far did they get from the centre of the city before evidence of the rural became prominent.

Results could be plotted on a large copy of Slide 8 from the ‘Close to the Edge’ presentation.

Extension Task 1: Green Belt land

*The green belt is a Labour achievement, and we mean to build on it.* John Prescott

Some cities are protected from further expansion by areas called ‘green belt’. This was put in place during the 1940s and 1950s to protect land close to cities, and prevent urban sprawl. There has been pressure over the intervening years to relax the rules, as this is prime development land, being close to the cities.

Recently, a plan was put forward to build new housing on Green Belt land on the edge of Edinburgh – the latest in a number of cities which have had to fight to save their green belt land. This is land near the airport, and a map showing the proposed area of Cammo Fields has been provided as part of the supporting materials.

Students could be asked to map other places where campaigns have been started to prevent building in these areas. All of these campaigns, whether it is for buildings, roads, or even HS2, use Ordnance Survey mapping to draw attention to the areas at risk.

Extension task 2: Postcode lottery

Digimap for Colleges allows areas to be identified using a postcode. These were introduced around 40 years ago, and have been used for urban analysis as they delimit a small area.

A BBC News item from August 2014 listed the most recent survey of the most desirable postcodes in England, Scotland and Wales. Students could use Digimap for Colleges to ‘visit’ these locations, and try to identify what they might be able to see on the map as ‘evidence’ for somewhere that is
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particularly nice to live. The actual survey used a range of information, which could be adapted to add to this task – which of these could be added to the Digimap base map?

- Employment opportunities
- Health
- Education and training opportunities
- Levels of crime
- Homelessness
- Household overcrowding
- Ease of access to local services
- Quality of the physical environment
- Housing affordability
References

Census 2011 report on urban / rural population

Office for National Statistics (ONS) leaflet:

Traditional land-use models are described here:
http://www.bbc.co.uk/schools/gcsebitesize/geography/urban_environments/urban_models_medcs_rev1.shtml

Many images of urban areas can be sourced from Geograph: http://www.geograph.org.uk

Daily Telegraph article on Green Belts, which includes a useful interactive map to identify their locations – where is your nearest bit of green belt? (England only):
http://www.telegraph.co.uk/earth/greenpolitics/planning/9708387/Interactive-map-Englands-green-belt.html

BBC news item on the most desirable postcodes in the UK: http://www.bbc.co.uk/news/business-28918709

Pinterest board: relevant images for use when teaching this unit:
http://www.pinterest.com/geoblogs/digimap-for-colleges/

A particularly useful book was published by the Geographical Association, written by Richard Yarwood: http://www.geography.org.uk/shop/shop_detail.asp?ID=133&section=4

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