Using this issue

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These notes are intended for use with GEOGRAPHY REVIEW Vol. 30, No. 2. They suggest ways in which you might develop further some of the articles in the magazine with your A-level and IB Diploma students. Ideas for new GCE teaching from September 2016 are highlighted.

Ecclesfield: case study of a changing place (page 7)

This article provides a useful resource for delivery of the new core topic of changing places. This exploration of Ecclesfield — a village in medieval times that has since been ‘swallowed up’ by Sheffield and is now among its outer suburbs — provides a possible comparative case study for students who will be conducting a local study of their own home place.

Possible follow-up activities

1 The article describes how some online contributors chose to summarise their view of Ecclesfield by writing in a Yorkshire dialect, highlighting Ecclesfield’s traditional Yorkshire association. This is an example of how qualitative data can be analysed (and coded) to provide evidence of underlying geographical themes, concepts and meanings. Each instance of use of the Yorkshire dialect may provide evidence of a place conflict. It could indicate that people are trying to resist the rise of global culture in their locality by re-asserting an older, more localised cultural identity.

2 Use the photographs (below) to help develop important qualitative AO3 skills by answering the following practice questions.

   a Using both photographs, suggest how environmental quality has changed in Ecclesfield during recent decades.

   b Using evidence from both photographs, describe changes over time in the economic functions of Ecclesfield.

   c Explain possible reasons for the changes you described in (b). [Tip: Make use of the idea of endogenous and exogenous factors in your answer. Some place changes are in part driven by internal place changes, such as the exhaustion of raw materials or the rising wealth of the local population; external factors and processes such as globalisation also play an important role].

   d Evaluate the usefulness of these photographs and other types of qualitative data as a source of information about how places change over time. [Tip: Other possible qualitative data sources include: interviews with local people, blogs, newspaper articles, novels and films. A proper evaluation will explore both strengths and weaknesses in relation to the goal of studying place changes over time. A distinction could be made between their use in helping us know about objective changes (such as unemployment or income trends) and subjective changes (such as how the place or its community have been represented in different media).
**Development update Ageing populations (page 13)**

This piece provides an important update for A-level and IB students on global demographic changes. The UN predicts that by 2050 all major regions of the world, except Africa, will have at least 25% of their population aged 60 and over. What are the geographical causes and implications of this global trend?

**Possible follow-up activities**
1. Students can practise their AO3 (analysis) and AO2 (interpretation) skills by studying Table 1 (below) and attempting to answer the questions which follow.
Table 1 Percentage of the population aged 60 and over by region and national-income level, 2000, 2015, 2030 and 2050

<table>
<thead>
<tr>
<th>Region</th>
<th>2000</th>
<th>2015</th>
<th>2030</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>5.2</td>
<td>5.4</td>
<td>6.3</td>
<td>8.9</td>
</tr>
<tr>
<td>Asia</td>
<td>8.6</td>
<td>11.5</td>
<td>17.2</td>
<td>24.6</td>
</tr>
<tr>
<td>Europe</td>
<td>20.3</td>
<td>23.9</td>
<td>29.6</td>
<td>34.2</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>8.1</td>
<td>11.2</td>
<td>16.8</td>
<td>25.5</td>
</tr>
<tr>
<td>Oceania</td>
<td>13.4</td>
<td>16.5</td>
<td>20.2</td>
<td>23.3</td>
</tr>
<tr>
<td>North America</td>
<td>16.2</td>
<td>20.8</td>
<td>26.4</td>
<td>28.3</td>
</tr>
<tr>
<td><strong>Income group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-income countries</td>
<td>18.0</td>
<td>22.1</td>
<td>27.7</td>
<td>31.9</td>
</tr>
<tr>
<td>Upper-middle-income countries</td>
<td>9.2</td>
<td>13.4</td>
<td>21.2</td>
<td>30.5</td>
</tr>
<tr>
<td>Lower-middle-income countries</td>
<td>6.9</td>
<td>8.1</td>
<td>11.2</td>
<td>16.5</td>
</tr>
<tr>
<td>Low-income countries</td>
<td>5.0</td>
<td>5.2</td>
<td>5.8</td>
<td>8.3</td>
</tr>
<tr>
<td>World</td>
<td>9.9</td>
<td>12.3</td>
<td>16.5</td>
<td>21.5</td>
</tr>
</tbody>
</table>


a. Identify the TWO world regions which show the greatest proportional increase in the percentage of the population aged 60 and over.

b. Suggest why the projected increase in the proportion of people aged 60 and over is higher in upper-middle-income countries than in high-income countries. [Tip: The focus here should be the way in which emerging economies are playing ‘catch-up’ with developed countries. States like the UK have enjoyed the benefits of high-quality healthcare and improved diet for many decades, thus the gains made in life expectancy since 2000 are relatively slim compared with states like China and Mexico where these changes are more recent. The trends are also influenced by recent falls in the birth rate in upper-middle-income countries. Again, this change occurred well before 2000 in developed countries.]

2. There are many excellent online sources of information about ageing populations and global demography. For an in-depth look at Japan, visit the BBC: http://www.bbc.co.uk/news/world-asia-31901943. For a relatively recent overview, read National Geographic: http://ngm.nationalgeographic.com/2011/01/seven-billion/kunzig-text

Who owns Antarctica? Case study of a global commons (page 22)

This article provides a starting point for students to begin exploring the concept of the ‘global commons’ which is a new core topic for all 2016 full A-level courses. Global commons are planetary resources so large in scale that that they lie outside of the political reach of any one state.

- International law identifies four global commons: the oceans; the atmosphere; Antarctica; outer space.
• It is in the best long-term interest of individual states to collaborate on making sure that sustainable use of the global commons is achieved over time.

• This is because the atmosphere and oceans deliver vital services to all human societies by, among other things, regulating climate and achieving transfers of heat and water from place to place.

Possible follow-up activities
1 Investigate further the way that Antarctica has made the transition from unexplored wilderness to a managed global commons in just over 100 years.

• 1917 marks the centenary of the end of Ernest Shackleton’s trans-Antarctic expedition. A full 82 minute documentary film exists, including footage of the whaling station in South Georgia which shows unflinchingly the industrial slaughter of whales prior to their protection in the later decades of the twentieth century. You can watch an extract here: https://distrify.com/videos/9umskL

• Overexploitation of Southern Ocean whales is an example of the tragedy of the commons. Seal and whale stocks were devastated in the nineteenth and twentieth centuries.

2 Find out more about the 1959 Antarctic Treaty. Forty-five nations are now signatories and Earth’s fifth largest continent has been designated as a natural reserve devoted to peace and science. The Antarctic Treaty made it clear that nobody owns Antarctica. The Antarctic Treaty is widely hailed as a success story for global governance. Antarctica is, however, an unusual wilderness region because it lacks any indigenous people. This has simplified the decision-making process considerably. You can view the actual treaty here: https://cil.nus.edu.sg/rp/il/pdf/1959 Antarctic Treaty-pdf.pdf

Sediments in landscape systems: stores, landforms and impacts (page 30)

This article supports teaching and learning about landscape systems (coasts, glacial and/or drylands) for the new A-level courses in several ways. The geographic ideas in this article — including reworked deposits, colluvial deposits and residence time — will provide stretch and challenge for students. The article also includes material relevant to study of the carbon cycle.

Possible follow-up activities
1 The article explains that the sediments resulting from hillslope processes are called colluvial deposits. The hillslope processes involved include weathering and transport by thin overland flow and by mass movements such as mudflows, mudslides and debris flows. Colluvium can be seen exposed on the sides of valleys and is often a mixture of deposits formed by many different processes which have operated during time periods on that hillslope. This makes these deposits complex and potentially heterogeneous in character. Students could consider how understanding of this complexity might help them write a high-scoring answer to a question such as: ‘Discuss the characteristics of different depositional features (in your chosen landscape environment).’

2 The article emphasises well the ongoing modification of glacial landscapes by fluvial processes. Moraines have been removed from valley bottom sites by the vigorous action of rivers in the last 10–15,000 years. They have since been replaced by floodplains. This idea of residence time could be a useful addition to an essay on glacial landscapes and/or depositional features. Similarly,
fluvial processes may have eroded colluvial deposits formed under periglacial conditions at the end of
the last glacial period. When deposits are eroded again we refer to them as reworked.

3 Photograph 2 (below) can be analysed for signs of past and present processes of erosion and
deposition. Particular features include: a steep valley side, colluvial deposits now covering the valley
side, a bank of moraine, evidence of fluvial erosion of the moraine. Students could attempt to produce
a timeline showing how this landscape has been affected by different processes over time.

4 The article establishes an important synoptic link with study of the carbon cycle:

A proportion of stored sediment is organic. This organic matter is largely derived from plant litter — it
contains carbon which has been fixed from the atmosphere by photosynthesis. When this material is
broken down by fungal and microbial action the carbon is oxidised and carbon dioxide is released back
to the atmosphere. In areas of sediment storage decomposition may be limited, either because high
water tables in footslopes inhibit microbial action or because organic matter is complexed with mineral
material and is resistant to oxidation. In these circumstances carbon is stored (sequestered) in the
sediments, potentially for long periods of time. Some recent research has suggested that, for this reason,
storage of eroded soils is a net sink of carbon (removing carbon from the atmosphere).