An idea by Paul Virilio, created by Diller Scofidio + Renfro, Mark Hansen, Laura Kurgan and Ben Rubin, in collaboration with Robert Gerard Pietrusko and Stewart Smith

VCE Geography Resource for students
EXIT

Presented in partnership with CLIMARTE at The Ian Potter Museum of Art, The University of Melbourne.

How do we understand human migrations on our planet? EXIT is an innovative art installation that addresses human migrations by mixing beautiful imagery with confronting Geography.

Viewers are immersed in the data using 360° projection of animated and thematic maps covering:

- Population shifts: cities
- Remittances: sending money home
- Political refugees and forced migration
- Rising seas, sinking cities
- Natural disasters
- Speechless and deforestation.

First created in 2008, EXIT was completely updated in 2015 for the Paris-based United Nations Climate Change Conference (COP21).

Using a wide array of sources from international organisations, NGOs, and research centers (https://www.fondationcartier.com/#/en/art-contemporain/26/exhibitions/2416/exit/2418/presentation/)

EXIT provides a rare opportunity to visually understand the complex relationships between the various factors underpinning contemporary human migrations. EXIT was commissioned by the Fondation Cartier pour l’art contemporain for its 2008 exhibition, Native Land, Stop Eject, and is now part of the Fondation Cartier collection. Based on an idea by French philosopher and urbanist Paul Virilio, EXIT was created by Diller Scofidio + Renfro, with Laura Kurgan, Mark Hansen, Ben Rubin, in collaboration with Robert Gerard Pietrusko and Stewart Smith.

EXIT is part of CLIMARTE’s ART+CLIMATE = CHANGE 2017 – a festival of exhibitions and events harnessing the creative power of the Arts to inform, engage and inspire action on climate change.
VCE Geography Resource for students

Current political, economic and environmental forces have led to levels of human migration never before seen in history. EXIT is a visual representation of the world's population in motion. It presents a series of maps organised around six scenarios that each describes a component of these migrations.

VCE Geography students will gain a visual and audio appreciation of the patterns of movement of people around the world, and how the impacts of environmental change including climate change and natural disasters influence these movements. EXIT is relevant to VCE Geography units (presented below) and this resource assists students in drawing-out the key messages.

The activities in this resource can be answered during a viewing of the exhibition. However, if students wish to immerse themselves in the EXIT experience and answer the questions later, then a version of the presentation can also be viewed on YouTube by visiting https://www.youtube.com/watch?v=kyMbF2uuSlw.

Key geographical concepts

The EXIT exhibition applies several of the key geographical concepts in VCE Geography. These include change, distance, distribution, movement, place, region and sustainability.

Write one sentence for each concept describing how the concept is represented in this exhibition.

Change

Distance

Distribution
Distance

Movement

Place

Region

Sustainability
Natural disasters

The Natural Disasters visualisation in EXIT is very relevant to VCE Geography Unit 1 Area of Study 1. A number of the key knowledge and skills that are addressed in some way by the EXIT exhibition are outlined below.

VCE Geography Unit 1: Hazards and disasters
Area of Study 1: Characteristics of hazards

**Key knowledge**

- an overview of hazards including their global distribution, location, scale, frequency . . .
- the nature of at least two selected hazards, including:
  - location, scale, frequency, magnitude, sequence
  - the role of human activity in initiating and/or compounding the selected hazards and how this has changed over time
  - factors affecting the risk level for people, places and environments and impacts of the selected hazards and hazard events on people and environments and how these factors are interconnected
  - the potential and realised positive and negative impacts on people and environments in the short and long term

**Key skills**

- analyse maps, data and other geographic information to develop descriptions and explanations
- interpret and analyse maps and other geographical data and information

This visualisation shows the unequal effects of natural disasters on people in different places. In general, when affected by similar disasters, people in poorer developing countries suffer greater impact from floods than those in more industrialised and richer countries. Since 2008, how many people were displaced by natural disasters each year? And how many per second?
1. Classify the natural disasters shown in the visualisation as geological, hydro-meteorological, biological or technological.

2. Describe the global distribution of one of the natural disasters shown in EXIT – storms, droughts and earthquakes.

3. Use your own words to explain the Global North and South. Do you think this is an appropriate term to use to describe developed and developing countries? Justify your answer.

4. How many people were displaced by floods in 2006–2014?
5. One graphic compares the number of people displaced in different countries by a flood of the same magnitude. Work in small groups to complete the following table (you may wish to watch this again on the YouTube clip):

<table>
<thead>
<tr>
<th>Country</th>
<th>Flood magnitude</th>
<th>Number of people displaced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td></td>
<td>2600</td>
</tr>
<tr>
<td>Nepal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td>700,000</td>
</tr>
<tr>
<td>Australia</td>
<td>6.6</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td></td>
<td>1,166,000</td>
</tr>
<tr>
<td>Germany</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>6.8</td>
<td>11,100,000</td>
</tr>
<tr>
<td>Thailand</td>
<td>6.8</td>
<td>902,799</td>
</tr>
</tbody>
</table>

6. What does the table tell us about the impact of floods on people in different locations?

7. There are many factors that increase the risk of flooding.
   a. Make a list of the factors.
   
   b. Is it sufficient to compare only the flood magnitude and the number of people displaced? What other information might you need to have to better understand the consequences and impacts of these flood events?
8. List some of the benefits of floods for people and the environment.

9. Do you think that it is accurate to call floods “natural disasters”? Provide an argument either for or against this view.

10. In your opinion, how effective is the North-South representation of flood data? Consider the sound and the visuals. How effective is it in achieving its aim?
Rising seas, sinking cities
Speechless and deforestation

Rising seas, sinking cities and Speechless and deforestation in the EXIT exhibition relate to VCE Geography Unit 3 Area of Study 2. A number of the key knowledge and skills that are addressed in some way by the EXIT exhibition are outlined below.

VCE Geography Unit 3 Changing the land
Area of Study 2: Land cover change

Key knowledge
♦ the distribution of each of the three processes on a global scale
♦ the role and interconnection of natural processes and human activity in causing deforestation, desertification and melting glaciers and ice sheets
♦ for each of the selected three locations:
  ♦ its location within the global distribution of the relevant process
  ♦ impacts of these changes on the environment, economic activity and social conditions

Key skills
♦ analyse maps, data and other geographic information to develop descriptions and explanations
♦ interpret and analyse maps and other geographical data and information identify and describe the spatial distribution of the world’s land cover
♦ describe the changes to land cover that have occurred as a result of deforestation, desertification and melting glaciers and ice sheets, and the impacts of the changes to land cover
♦ explain the significance of the changes to land cover.
Rising seas, sinking cities

Sea level rise – some facts

- Countries most affected by climate change are often those that are least responsible for greenhouse gas emissions.
- If current rates of greenhouse gas emissions continue, they will cause global average warming of 3.5 degrees Celsius above preindustrial levels, by 2100.
- Sea level rise is induced by melting of ice caps and glaciers, as well as thermal expansion of oceans.
- 9000 cities are located within 100 km of the ocean.
- Cities with an elevation of less than 1 m above sea level will be inundated if they are not protected.
- By the end of this century, the average level of the sea may have risen by up to 1 metre.
- A 1 cm rise in sea level could displace 1 million people.

1. Describe how global warming is contributing to rising sea levels.

2. Carefully watch the names of the cities which are predicted to be affected by sea level rise. List the Australian cities that will be vulnerable.

3. Describe the impact on people if the predicted inundation of cities occurs.
4. How will rising sea level alter land cover?

5. Using examples, describe your understanding of the terms “climate-displaced person” and “climate refugee”.

6. Discuss this proposition: “Considering economic, political social differences, all cities are equally vulnerable to sea level rise?”

7. Comment on the way that EXIT presents data – using colour, sound and movement. How effective has it been?
Speechless and deforestation

Tropical rainforests – some facts

- Tropical forests are home to many indigenous people and contain 90 per cent of the world’s terrestrial biodiversity
- Tropical deforestation alone is the source of one-fifth of global greenhouse gas emissions
- Tropical forests are vital for the protection of indigenous peoples, biodiversity and the climate
- The ongoing destruction of these complex and fragile ecosystems threatens many indigenous peoples and traditional knowledge
- About 10 million ha of tropical forest is lost each year – about the size of South Korea

1. Describe the location of tropical rainforests shown on the map.

2. What are the human activities that are causing tropical forest destruction in Central Africa and Indonesia?

3. Describe some links between poverty and deforestation.

4. Outline some of the sustainable practices which might help reduce deforestation rates in regions in the world.
5. How is the visual loss of forest cover depicted in this part of the presentation? How effective is this depiction, and why?

6. Complete the following table for the three deforestation case studies presented in EXIT:

<table>
<thead>
<tr>
<th>Location</th>
<th>Cause of deforestation</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jambi Forest, Sumatra, Indonesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South-east Cameroon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xingu Park, Brazil</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Summarise how the loss of forests has an impact on culture and language.

8. There are an estimated 6700 languages in the world. What percentage of the world’s languages is spoken by three per cent of the world’s people? Why is it important to preserve these languages?

9. Comment on the soundscape of different languages used in this presentation.
Population shifts: cities

Remittances – sending money home

Political refugees and forced migration

Population shifts: cities, Remittances – sending money home and Political refugees and forced migration in the EXIT exhibition relate to VCE Geography Unit 4 Area of Study 1. A number of the key knowledge and skills that are addressed in some way by the EXIT exhibition are outlined below.

**VCE Geography Unit 4 Human population**

Area of Study 1: population dynamics

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**Key knowledge**

- present-day world population distribution
- the overview of world population growth since the 1700s and projected changes in the 21st century
- the types and causes of population movements and their contribution to population change
- the similarities and differences in population dynamics and population structures within and between countries with different economic and political conditions and social structures.

**Key skills**

- analyse maps, data and other geographic information to develop descriptions and explanations
- interpret and analyse maps and other geographical data and information
- identify and describe patterns in world population distribution and characteristics, and trends in world
- population growth
- explain the causes of population change and sustainability
Population shifts: cities

Each pixel on the population shifts map represents 100 people. Cities emit approximately 70 per cent of the world’s greenhouse gas emissions.

1. Describe the global population distribution shown on the population map.

2. What is the ratio of people living in urban and rural areas?

3. Some countries have populations in decline, others are growing.
   a. Name three that are shown as declining in population.
   b. Name three that are shown as growing in population.

4. The visualisation shows the top 50 with the fastest growing populations that have over one million inhabitants. Name five cities shown.

5. Which continent is most represented with these fastest growing cities?
Remittances – sending money home

One of the reasons people move to another country is economic. They often send money back to their family in the form of remittances.

The information in this section moves very quickly. Please go to the You Tube clip (https://www.youtube.com/watch?v=kyMbF2uuStw) to stop and start the video and look at the data presented in more detail.

1. Most remittances are sent by migrants living in USA, Saudis Arabia, UAE, U.K. and Germany. Work in groups of five. Each group member is to complete the following for each of five countries (complete during the exhibition).

   a. List the main countries to which remittances flow.

   b. Create a table which includes the number of migrant people working in the country and the amount in Euros that is sent back to their country of origin.

   c. What is the total number of immigrants and the total amount of remittances for the selected country?

   d. Compare your findings with the other members of your group.
2. What was the total amount of remittances sent to people in developing countries in 2014?

3. In developing countries, remittances exceed foreign aid 3 to 1. Write a statement about the importance of remittances to these countries especially at a time when foreign aid globally is declining.

4. Sixty developing countries receive 50 per cent of remittances from migrants living in just 12 host nations. Make a list of these countries. (complete during exhibition)

Political refugees and forced migration

Worldwide there are about 19.5 million political refugees and more than 38 million forced migrants – the highest number since World War II. This map shows the constant movement of refugees across different regions of the world, and within countries as internally displaced people.

1. What is a political refugee? How does a political refugee differ from a climate refugee?

2. What is the 1951 UN definition of a refugee and an Internally Displaced Person (IDP)?
3. What are some of the main causes for people becoming refugees?

4. The visualisation shows refugee movements from 2000 – 2015 in selected countries. Green pixels represent refugees and red pixels represent IDPs.
   a. List four refugee hotspots (source countries of refugees) shown in this visualisation.

   b. Can you identify regions with the greatest number of refugees and IDPs? What factors are causing this high number of refugees?

   c. List five of the most common destination countries for refugees.

   d. What is the general relationship between refugees numbers in a host country and distance travelled? Provide one example from the map.
5. Work in groups of three. Each group member should carefully watch the refugee and IDP movements in the visualisation for one of the following countries: Columbia, Sudan and Syrian Arab Republic.

a. To which countries are most refugees moving?

b. What is the general pattern of refugee movement over time?

c. Provide examples of the changes in numbers of both IDPs and refugees for your selected country.

6. What about environmental refugees? How would you define them? Who should be responsible for helping them?
Summary

“No data set is neutral.”

The end of the exhibition provides an explanation about the data selected and used.

1. Make note of the types of organisations whose data was used.

2. Write a short paragraph about data selection and the story or narrative that this production is trying to get across to viewers. What other alternative narratives could be delivered using the same data but different premises?
Acknowledgement

The Geography Teachers’ Association of Victoria would like to acknowledge the School of Geography, University of Melbourne for providing the opportunity for these resources to be written to coincide with the EXIT exhibition at The Ian Potter Museum of Art, The University of Melbourne.