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Ninth Edition

HUMAN GEOGRAPHY

William Norton with Michael Mercier

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William Norton with Michael Mercier

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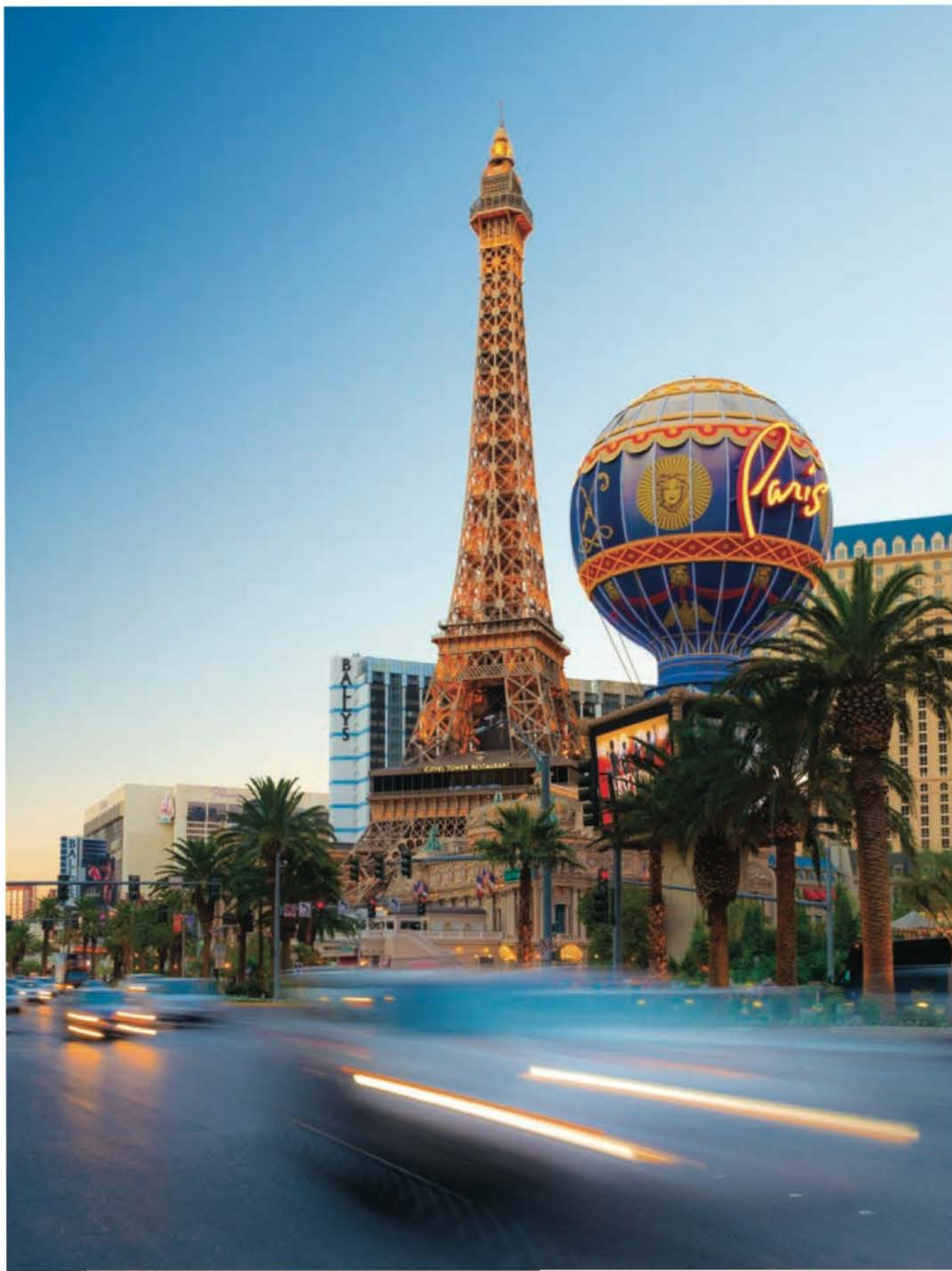

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Focus on Geographers

Examining the Issues

PREFACE

The need for an education in geography—knowing where things are, why they are there, and why this knowledge matters—has always been paramount in all societies. It is no different today. Both geographic knowledge and an appreciation of the value of a geographic perspective are essential to help individuals and groups make sense of the changing worlds in which we live.

This book attempts to capture both the spirit and the practical merit of our contemporary human geography. Like the discipline, it encompasses an extraordinarily broad range of subject matter and no single approach or methodology dominates. Loosely organized around three recurring themes—relations between humans and land, regional studies, and spatial analysis—this text emphasizes how human geography has developed in response to society's needs and continues to change accordingly. It also stresses the links between human geography and other disciplines, not only to clarify the various philosophies behind different types of human geographic work but also to encourage students to apply their human geographic knowledge and understanding in other academic contexts.

NINTH EDITION: SPECIAL FEATURES

Because the practice and subject matter of human geography are always changing, this edition has been revised in three ways: the text's flow, clarity, and readability have been improved; new content has been included; and, most significant, the coverage of urban geography has been streamlined into two chapters, providing a more focused overview of this subdiscipline. Michael Mercier undertook this restructuring and rewriting—his willingness to contribute to the revision has resulted in a marked improvement to both the urban content and the text more generally.

This edition's most important additions, deletions, and revisions include the following:

- **Introduction: The Roads Ahead** Now more focused, the goal of the introduction is to enable students to grasp the essence of what is to come without providing unnecessary detail.
- **Chapter 1: What Is Human Geography?** Some detailed content was deleted, making the chapter a more readable overview of human geography's long history.
- **Chapter 2: Studying Human Geography** Again, some detailed content was removed to make the key facts, ideas, and arguments more evident and accessible.

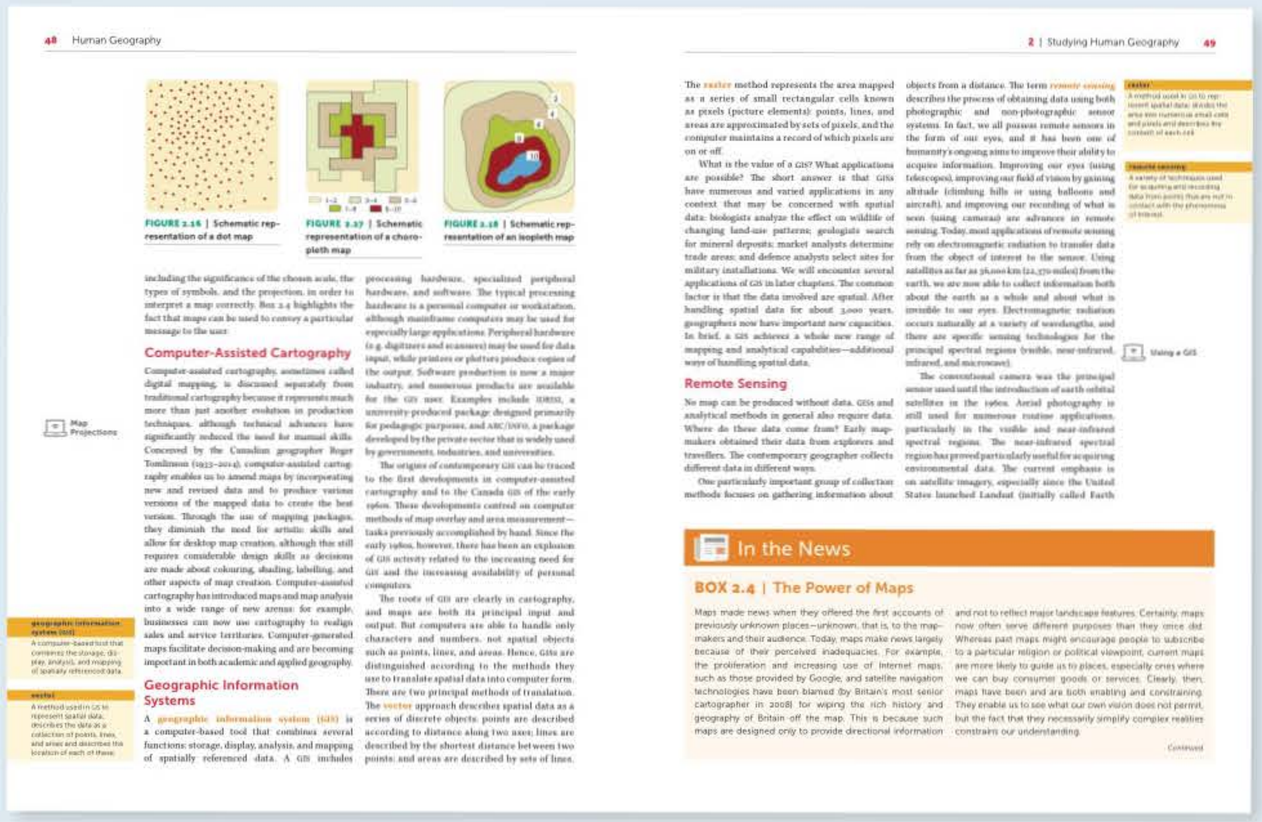
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FIGURE 2.16 | Schematic representation of a dot map

FIGURE 2.17 | Schematic representation of a choropleth map

FIGURE 2.18 | Schematic representation of an isopleth map

including the significance of the chosen scale, the types of symbols, and the projection, in order to interpret a map correctly. Box 2.4 highlights the fact that maps can be used to convey a particular message to the user.

Computer-Assisted Cartography

Map Projections

geographic information system (GIS)
A computer-based tool that combines the storage, display, analysis, and mapping of spatially referenced data.

vector
A method used in GIS to represent spatial data; describes the data as a collection of points, lines, and areas and describes the location of each of these.

Computer-assisted cartography, sometimes called digital mapping, is discussed separately from traditional cartography because it represents much more than just another evolution in production techniques, although technical advances have significantly reduced the need for manual skills. Conceived by the Canadian geographer Roger Tomlinson (1933–2014), computer-assisted cartography enables us to amend maps by incorporating new and revised data and to produce various versions of the mapped data to create the best version. Through the use of mapping packages, they diminish the need for artistic skills and allow for desktop map creation, although this still requires considerable design skills as decisions are made about colouring, shading, labelling, and other aspects of map creation. Computer-assisted cartography has introduced maps and map analysis into a wide range of new arenas: for example, businesses can now use cartography to realign sales and service territories. Computer-generated maps facilitate decision-making and are becoming important in both academic and applied geography.

Geographic Information Systems

A **geographic information system (GIS)** is a computer-based tool that combines several functions: storage, display, analysis, and mapping of spatially referenced data. A GIS includes processing hardware, specialized peripheral hardware, and software. The typical processing hardware is a personal computer or workstation, although mainframe computers may be used for especially large applications. Peripheral hardware (e.g. digitizers and scanners) may be used for data input, while printers or plotters produce copies of the output. Software production is now a major industry, and numerous products are available for the GIS user. Examples include IDRISI, a university-produced package designed primarily for pedagogic purposes, and ARC/INFO, a package developed by the private sector that is widely used by governments, industries, and universities.

The origins of contemporary GIS can be traced to the first developments in computer-assisted cartography and to the Canada GIS of the early 1960s. These developments centred on computer methods of map overlay and area measurement—tasks previously accomplished by hand. Since the early 1980s, however, there has been an explosion of GIS activity related to the increasing need for GIS and the increasing availability of personal computers.

The roots of GIS are clearly in cartography, and maps are both its principal input and output. But computers are able to handle only characters and numbers, not spatial objects such as points, lines, and areas. Hence, GISs are distinguished according to the methods they use to translate spatial data into computer form. There are two principal methods of translation. The **vector** approach describes spatial data as a series of discrete objects: points are described according to distance along two axes; lines are described by the shortest distance between two points; and areas are described by sets of lines.

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The **raster** method represents the area mapped as a series of small rectangular cells known as pixels (picture elements): points, lines, and areas are approximated by sets of pixels, and the computer maintains a record of which pixels are on or off.

What is the value of a GIS? What applications are possible? The short answer is that GISs have numerous and varied applications in any context that may be concerned with spatial data: biologists analyze the effect on wildlife of changing land-use patterns; geologists search for mineral deposits; market analysts determine trade areas; and defence analysts select sites for military installations. We will encounter several applications of GIS in later chapters. The common factor is that the data involved are spatial. After handling spatial data for about 3,000 years, geographers now have important new capacities. In brief, a GIS achieves a whole new range of mapping and analytical capabilities—additional ways of handling spatial data.

Remote Sensing

No map can be produced without data. GISs and analytical methods in general also require data. Where do these data come from? Early mapmakers obtained their data from explorers and travellers. The contemporary geographer collects different data in different ways.

One particularly important group of collection methods focuses on gathering information about objects from a distance. The term **remote sensing** describes the process of obtaining data using both photographic and non-photographic sensor systems. In fact, we all possess remote sensors in the form of our eyes, and it has been one of humanity's ongoing aims to improve their ability to acquire information. Improving our eyes (using telescopes), improving our field of vision by gaining altitude (climbing hills or using balloons and aircraft), and improving our recording of what is seen (using cameras) are advances in remote sensing. Today, most applications of remote sensing rely on electromagnetic radiation to transfer data from the object of interest to the sensor. Using satellites as far as 36,000 km (22,370 miles) from the earth, we are now able to collect information both about the earth as a whole and about what is invisible to our eyes. Electromagnetic radiation occurs naturally at a variety of wavelengths, and there are specific sensing technologies for the principal spectral regions (visible, near-infrared, infrared, and microwave).

raster
A method used in GIS to represent spatial data; divides the area into numerical small cells and records the content of each cell.

remote sensing
A variety of techniques used for acquiring and recording data from points that are not in contact with the phenomena of interest.

Using a GIS

The conventional camera was the principal sensor used until the introduction of earth orbital satellites in the 1960s. Aerial photography is still used for numerous routine applications, particularly in the visible and near-infrared spectral regions. The near-infrared spectral region has proved particularly useful for acquiring environmental data. The current emphasis is on satellite imagery, especially since the United States launched Landsat (initially called Earth

In the News

BOX 2.4 | The Power of Maps

Maps made news when they offered the first accounts of previously unknown places—unknown, that is, to the map-makers and their audience. Today, maps make news largely because of their perceived inadequacies. For example, the proliferation and increasing use of Internet maps, such as those provided by Google, and satellite navigation technologies have been blamed (by Britain's most senior cartographer in 2008) for wiping the rich history and geography of Britain off the map. This is because such maps are designed only to provide directional information and not to reflect major landscape features. Certainly, maps now often serve different purposes than they once did. Whereas past maps might encourage people to subscribe to a particular religion or political viewpoint, current maps are more likely to guide us to places, especially ones where we can buy consumer goods or services. Clearly, then, maps have been and are both enabling and constraining. They enable us to see what our own vision does not permit, but the fact that they necessarily simplify complex realities constrains our understanding.

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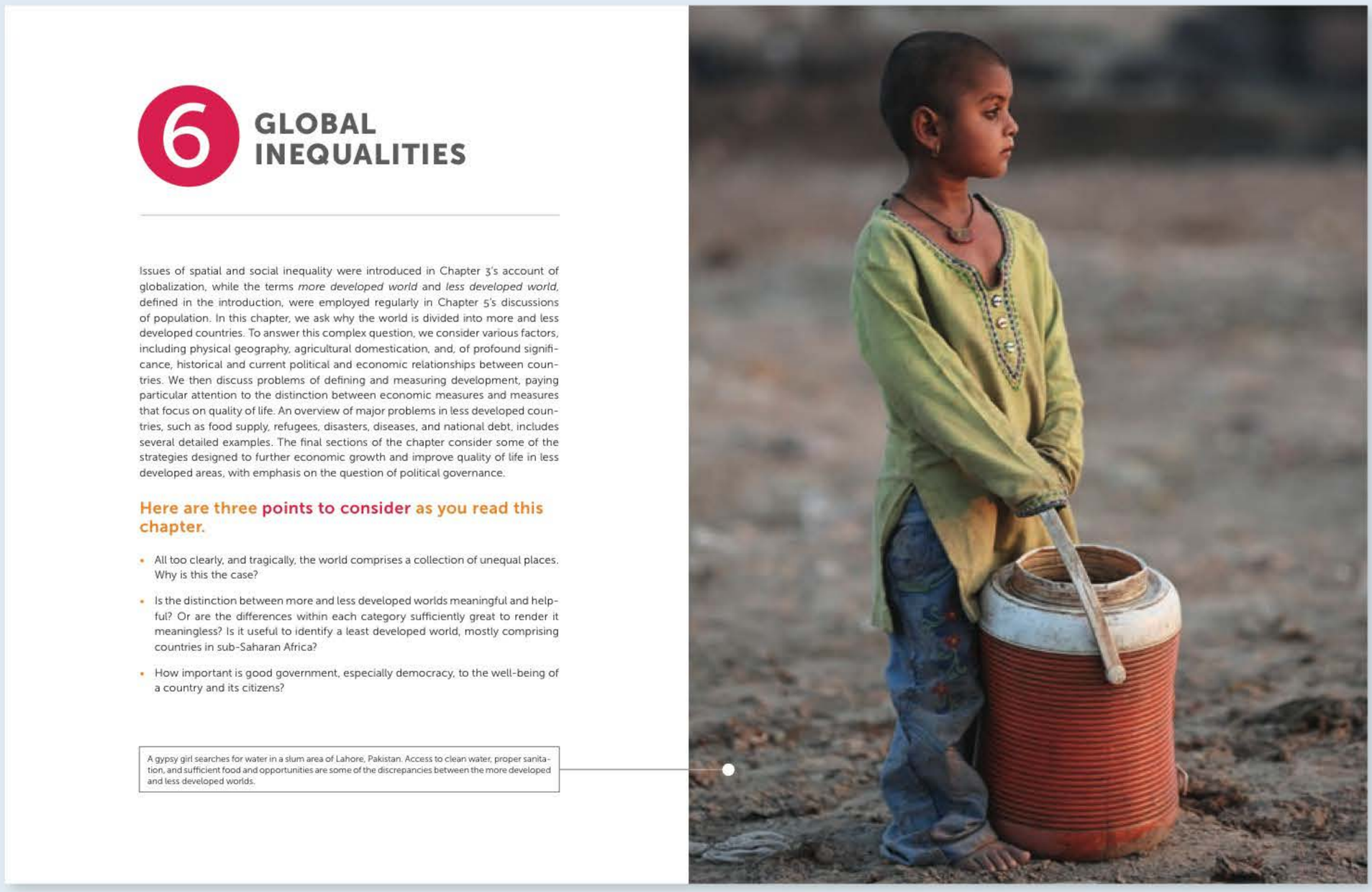


6 GLOBAL INEQUALITIES

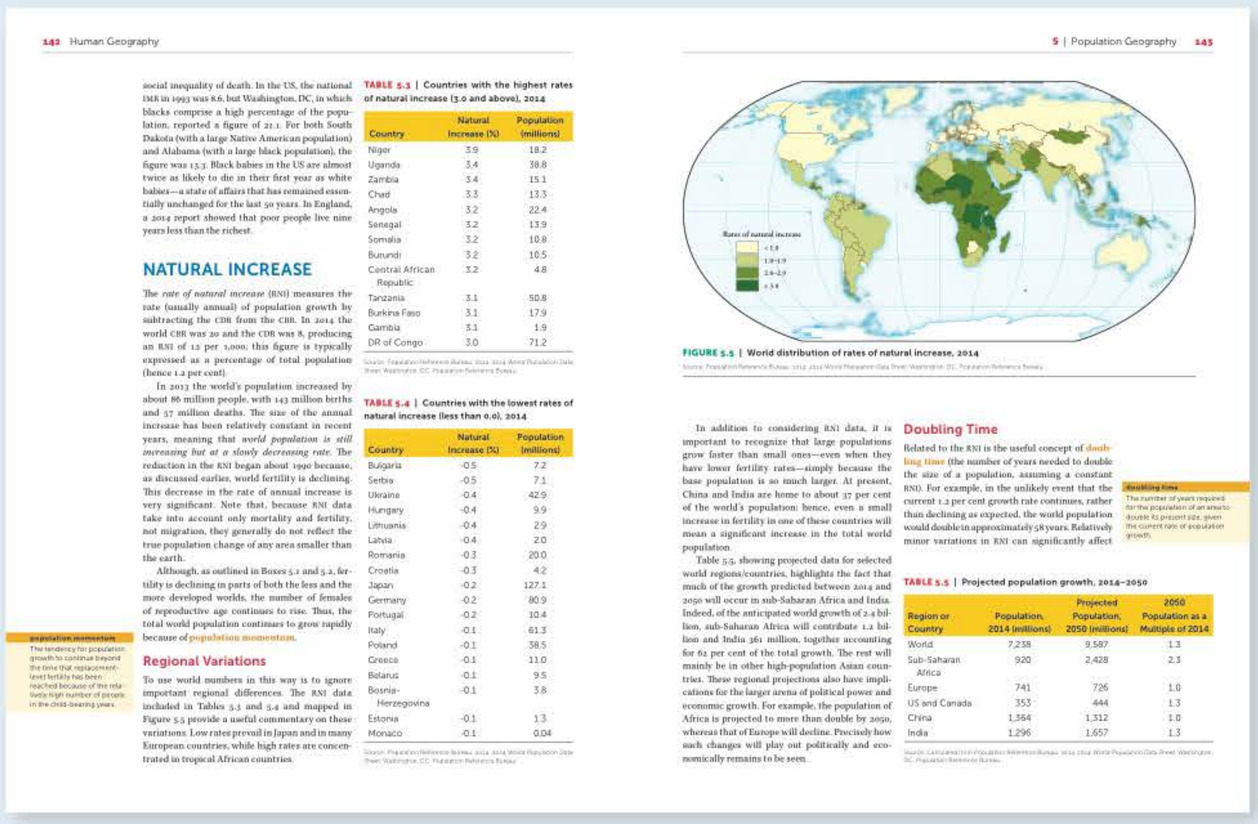
Issues of spatial and social inequality were introduced in Chapter 3's account of globalization, while the terms *more developed world* and *less developed world*, defined in the introduction, were employed regularly in Chapter 5's discussions of population. In this chapter, we ask why the world is divided into more and less developed countries. To answer this complex question, we consider various factors, including physical geography, agricultural domestication, and, of profound significance, historical and current political and economic relationships between countries. We then discuss problems of defining and measuring development, paying particular attention to the distinction between economic measures and measures that focus on quality of life. An overview of major problems in less developed countries, such as food supply, refugees, disasters, diseases, and national debt, includes several detailed examples. The final sections of the chapter consider some of the strategies designed to further economic growth and improve quality of life in less developed areas, with emphasis on the question of political governance.

Here are three points to consider as you read this chapter.

- All too clearly, and tragically, the world comprises a collection of unequal places. Why is this the case?
- Is the distinction between more and less developed worlds meaningful and helpful? Or are the differences within each category sufficiently great to render it meaningless? Is it useful to identify a least developed world, mostly comprising countries in sub-Saharan Africa?
- How important is good government, especially democracy, to the well-being of a country and its citizens?

A gypsy girl searches for water in a slum area of Lahore, Pakistan. Access to clean water, proper sanitation, and sufficient food and opportunities are some of the discrepancies between the more developed and less developed worlds.

- **Chapter 3: Geographies of Globalization** A second attempt at objective measurement, one focusing on economic variables, enhances the understanding of globalization. Some chapter content has been streamlined; two new figures have been added.
- **Chapter 4: Humans and Environment** The discussion of the Anthropocene has been enhanced. Much of the chapter content reflects new facts and ideas, especially concerning anthropogenic global warming, with the 2014 IPCC report highlighted.
- **Chapter 5: Population Geography** As with all previous editions, this discussion features numerous detailed updates. The account of AIDS and other major diseases is now in Chapter 6. A new box discusses the thought-provoking question of how many people have ever lived on earth.
- **Chapter 6: Global Inequalities** To heighten emphasis on key points, the opening contextual account of global inequality has been shortened and some content has been moved online. The chapter includes a restructured discussion of global food shortages and a new box on the prospects for growth in Africa.



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social inequality of death. In the US, the national IMR in 1993 was 8.6, but Washington, DC, in which blacks comprise a high percentage of the population, reported a figure of 21.1. For both South Dakota (with a large Native American population) and Alabama (with a large black population), the figure was 13.3. Black babies in the US are almost twice as likely to die in their first year as white babies—a state of affairs that has remained essentially unchanged for the last 50 years. In England, a 2014 report showed that poor people live nine years less than the richest.

NATURAL INCREASE

The *rate of natural increase* (RNI) measures the rate (usually annual) of population growth by subtracting the CDR from the CBR. In 2014 the world CBR was 20 and the CDR was 8, producing an RNI of 12 per 1,000; this figure is typically expressed as a percentage of total population (hence 1.2 per cent).

In 2013 the world's population increased by about 86 million people, with 143 million births and 57 million deaths. The size of the annual increase has been relatively constant in recent years, meaning that *world population is still increasing but at a slowly decreasing rate*. The reduction in the RNI began about 1990 because, as discussed earlier, world fertility is declining. This decrease in the rate of annual increase is very significant. Note that, because RNI data take into account only mortality and fertility, not migration, they generally do not reflect the true population change of any area smaller than the earth.

Although, as outlined in Boxes 5.1 and 5.2, fertility is declining in parts of both the less and the more developed worlds, the number of females of reproductive age continues to rise. Thus, the total world population continues to grow rapidly because of **population momentum**.

population momentum
The tendency for population growth to continue beyond the time that replacement-level fertility has been reached because of the relatively high number of people in the child-bearing years.

Regional Variations

To use world numbers in this way is to ignore important regional differences. The RNI data included in Tables 5.3 and 5.4 and mapped in Figure 5.5 provide a useful commentary on these variations. Low rates prevail in Japan and in many European countries, while high rates are concentrated in tropical African countries.

TABLE 5.3 | Countries with the highest rates of natural increase (3.0 and above), 2014

Country	Natural Increase (%)	Population (millions)
Niger	3.9	18.2
Uganda	3.4	38.8
Zambia	3.4	15.1
Chad	3.3	13.3
Angola	3.2	22.4
Senegal	3.2	13.9
Somalia	3.2	10.8
Burundi	3.2	10.5
Central African Republic	3.2	4.8
Tanzania	3.1	50.8
Burkina Faso	3.1	17.9
Gambia	3.1	1.9
DR of Congo	3.0	71.2

Source: Population Reference Bureau, 2014, 2014 World Population Data Sheet, Washington, DC: Population Reference Bureau.

TABLE 5.4 | Countries with the lowest rates of natural increase (less than 0.0), 2014

Country	Natural Increase (%)	Population (millions)
Bulgaria	-0.5	7.2
Serbia	-0.5	7.1
Ukraine	-0.4	42.9
Hungary	-0.4	9.9
Lithuania	-0.4	2.9
Latvia	-0.4	2.0
Romania	-0.3	20.0
Croatia	-0.3	4.2
Japan	-0.2	127.1
Germany	-0.2	80.9
Portugal	-0.2	10.4
Italy	-0.1	61.3
Poland	-0.1	38.5
Greece	-0.1	11.0
Belarus	-0.1	9.5
Bosnia-Herzegovina	-0.1	3.8
Estonia	-0.1	1.3
Monaco	-0.1	0.04

Source: Population Reference Bureau, 2014, 2014 World Population Data Sheet, Washington, DC: Population Reference Bureau.

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FIGURE 5.5 | World distribution of rates of natural increase, 2014

Source: Population Reference Bureau, 2014, 2014 World Population Data Sheet, Washington, DC: Population Reference Bureau.

In addition to considering RNI data, it is important to recognize that large populations grow faster than small ones—even when they have lower fertility rates—simply because the base population is so much larger. At present, China and India are home to about 37 per cent of the world's population; hence, even a small increase in fertility in one of these countries will mean a significant increase in the total world population.

Table 5.5, showing projected data for selected world regions/countries, highlights the fact that much of the growth predicted between 2014 and 2050 will occur in sub-Saharan Africa and India. Indeed, of the anticipated world growth of 2.4 billion, sub-Saharan Africa will contribute 1.2 billion and India 361 million, together accounting for 62 per cent of the total growth. The rest will mainly be in other high-population Asian countries. These regional projections also have implications for the larger arena of political power and economic growth. For example, the population of Africa is projected to more than double by 2050, whereas that of Europe will decline. Precisely how such changes will play out politically and economically remains to be seen.

Doubling Time

Related to the RNI is the useful concept of **doubling time** (the number of years needed to double the size of a population, assuming a constant RNI). For example, in the unlikely event that the current 1.2 per cent growth rate continues, rather than declining as expected, the world population would double in approximately 58 years. Relatively minor variations in RNI can significantly affect

doubling time
The number of years required for the population of an area to double its present size, given the current rate of population growth.

TABLE 5.5 | Projected population growth, 2014–2050

Region or Country	Population, 2014 (millions)	Projected Population, 2050 (millions)	2050 Population as a Multiple of 2014
World	7,238	9,587	1.3
Sub-Saharan Africa	920	2,428	2.3
Europe	741	726	1.0
US and Canada	353	444	1.3
China	1,364	1,312	1.0
India	1,296	1,657	1.3

Source: Calculated from Population Reference Bureau, 2014, 2014 World Population Data Sheet, Washington, DC: Population Reference Bureau.

- **Chapter 7: Geographies of Culture and Landscape** The opening conceptual comments are shorter, with some content moved online. The sections on psychogeography, religions as civilizations, and religion and identity are now online.
- **Chapter 8: Geographies of Identity and Difference** Simplified discussions of key concepts including race and racism help tighten the chapter's focus. Examples of social inequality have been updated as appropriate.

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The various vibrant ethnic enclaves contained within Vancouver, such as the Punjabi Market area and Chinatown, are evidence of acculturation.

The political logic for the introduction of multiculturalism was succinctly stated by then prime minister Pierre Elliott Trudeau: "Although there are two official languages, there is no official culture, nor does any ethnic group take precedence over any other" (quoted in Kobayashi, 1993: 205). Box 8.5 discusses immigration and ethnic diversity in Canada. Versions of multiculturalism are in place in many other countries, but the idea and policy are contentious.

Some see multiculturalism as a vision of national identity based on pluralism; others see it as divisive, a form of "have a nice day" racism. This is an extremely challenging circumstance in many European countries, where it is frequently argued that multiculturalism facilitates extremism, specifically Islamic extremism, because it tacitly encourages newcomers or those whose

Around the Globe

BOX 8.5 | Immigration and Ethnic Diversity in Canada

The population of Canada has changed dramatically since the beginning of the twentieth century, both in total numbers and in ethnic composition. In 1901 the country had 5.3 million people, most of British or French origin; in 2014 Canadians numbered 35.5 million and were one of the most ethnically diverse populations in the world. Four relatively distinct waves of migration can be identified during the twentieth century. The years 1901 to 1914 brought dramatic growth—many immigrants came from the new source areas of Eastern and Southeastern Europe and headed for the prairies. For some years during this period, the annual population growth rate was almost 3 per cent, but these rates slowed with the onset of World War I and remained low, at about 1.4 per cent, until the end of World War II.

The next major increase in immigration, between 1951 and 1961, joined with high fertility to produce an average annual growth rate of 2.7 per cent. In this period, during which the Canadian government was anxious to fill labour shortages in both the agricultural and industrial sectors, immigration policy continued to show a strong preference for British and other European settlers. As noted earlier in this chapter, potential immigrants from Asia were subject to quotas.

Since 1961 both immigration and fertility in Canada have declined, resulting in annual growth rates of about 1.3 per cent. In 1962 Canada's immigration rules dropped all references to supposed race and nationality, and in 1967 a points system was introduced that reflected economic needs and gave particular weight to education, employment qualifications, English- or French-language competence, and family reunification. Thus, policies in this most recent phase have been relatively liberal, permitting significant diversification in the ethnic mix of immigrants. Immigrants from Europe and the United States accounted for about 95 per cent of the total in 1960 but presently make up only about 20 per cent. Application of the points system has resulted in an increase in the number of qualified professionals, many from Asia and the Caribbean. More generally, there have been huge increases in immigrant numbers from less developed countries. A new Immigration Act in 1978 had three principal objectives: to facilitate family reunification, to encourage regional economic growth, and to fulfill moral obligations to refugees and persecuted people. Although subsequent legislation has modified policy details concerning refugee claimants and illegal immigration, the overall thrust remained the same until the Conservative election victory in 2006. Today, there is increased emphasis on admitting immigrants who already have offers of employment.

Canada's liberal immigration policies over the last four decades have benefited the country in many ways. Yet increasing ethnic diversity has made the establishment of a coherent cultural identity an elusive goal. Moreover, some Canadians' reactions against that diversity make it clear that we still have a long way to go if we are to free ourselves of racist attitudes.

© CP Photo/Jason Scott

New Canadians swear an oath of citizenship during a citizenship ceremony in Edmonton, Alberta.

ethnicity is "different" not to assimilate. Policymakers in several European countries currently are seeking to identify and implement some alternative policy that promotes pluralism without creating divisiveness. One strategy favoured by conservative thinkers involves the promotion of a stronger national identity.

GENDER

As discussed in the Chapter 2 account of feminism, our identities are gendered, a fact that introduces another category of difference. Gender is traditionally understood to involve power relations between dominant males and subordinate females. Indeed, so widespread is this pattern of relations that the few exceptions are well known. For example, the Indian state of Meghalaya has a matrilineal system with all wealth passing from mother to daughter and with routine discrimination against men. The system is so deeply embedded in local culture that many nouns assume a feminine form only if the thing referred to becomes useful; tree is masculine, but wood is feminine.

Human geographic recognition of gendered identities and related differences owes much to the work of mostly female geographers inspired by various bodies of feminist theory. Feminist research has also been inspired by Marxist ideas about inequality and need for social justice and by postmodern ideas about excluded groups.

Feminist Geography

Building on Pratt (2004: 128), the history of feminist geography can be summarized as follows. In the 1970s a critique of the sexism and patriarchy that prevailed, both institutionally and intellectually, in the discipline of geography was initiated. At that time, geography was exceptionally male-dominated, at least partly because of the long-standing links with fieldwork and because any form of outdoor activity typically was presumed to be within the male domain. The new interests in Marxism and humanism did little to correct the traditional gender blindness of the discipline. The feminist geographic critique employed the concept of contextualism to focus on the varied ways that geography ignored the everyday lives of women, including identification of research topics and analytical strategies.

A significant body of feminist geographic research soon emerged with the aim of making space for women, in the everyday world of the university and society more generally and also in the knowledge produced by geographers. This involved acknowledging that people were active agents, living their lives in households and other places.

As this research tradition evolved, it became evident that it was not necessarily appropriate to treat women as a universal category and by the 1990s feminist geographers were considering additional bases for difference besides gender,

- **Chapter 9: Political Geography** Several sections are now online, including those concerned with predecessors of the nation-state, effects of colonialism, conceptual accounts of state creation, African ethnicity and conflict, and substate governments. There is a new box on Canadian regional identities and substantial updating of current political geographic issues.
- **Chapter 10: Agricultural Geography** Sections moved online include discussions of pastoral nomadism in the Sahara and Mongolia, agricultural change in Bhutan, and peasant–herder conflict in Côte d'Ivoire. The account of the agricultural location problem has been shortened without detracting from the key argument.
- **Chapter 11: An Urban World** This condensed chapter focuses on cities; therefore, content on rural settlement patterns and economic base theory has been removed. The chapter includes new material on urban areas in China and Canada; urban hearths; and pre-industrial cities in Greece and the eastern Mediterranean, the Roman Empire, China and eastern Asia, the Islamic World, and Europe.
- **Chapter 12: The City and the Urban Form** This chapter combines chapters 12 and 13 of the previous edition. Content on city models, urban government, and suburbanization was condensed or removed. New or expanded content includes material on urban structure, modelling the North American city, social segregation, cities as production and consumption centres, and informal settlements.

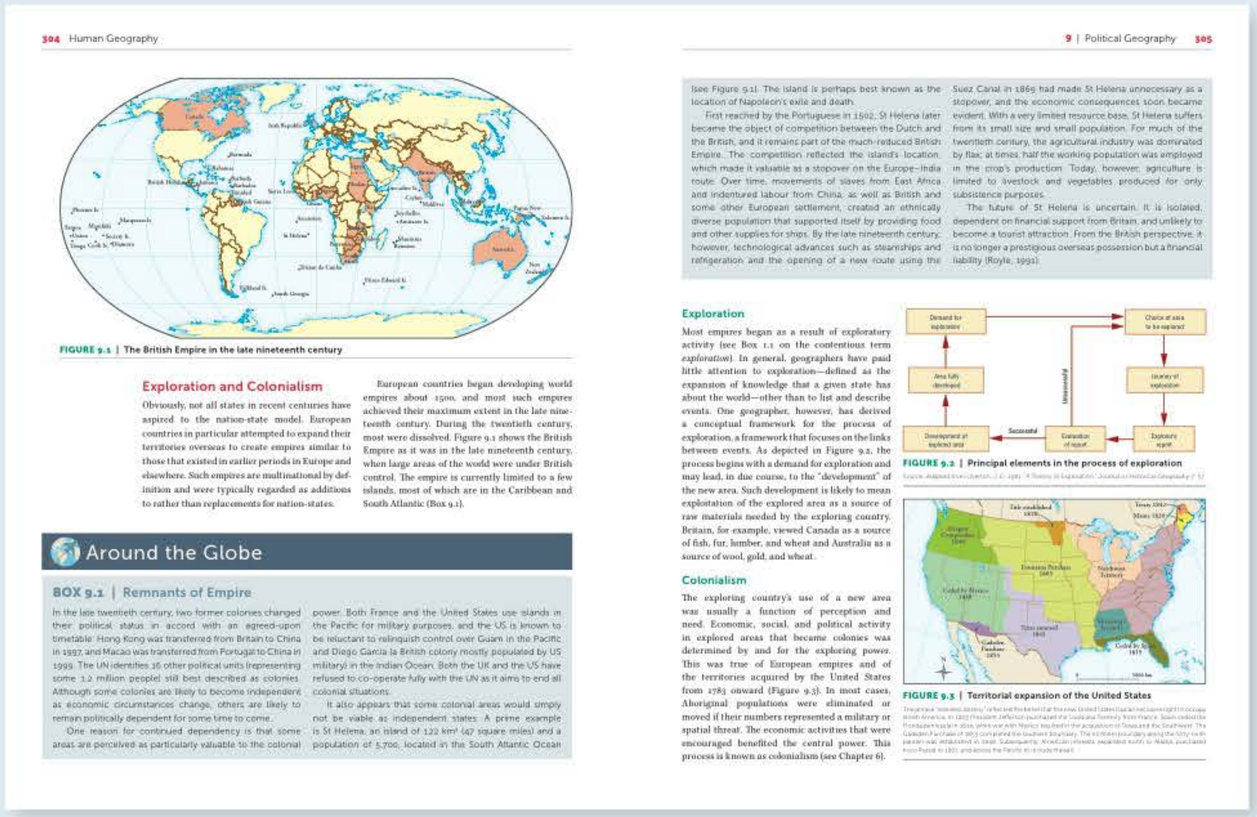

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FIGURE 9.1 | The British Empire in the late nineteenth century

Exploration and Colonialism

Obviously, not all states in recent centuries have aspired to the nation-state model. European countries in particular attempted to expand their territories overseas to create empires similar to those that existed in earlier periods in Europe and elsewhere. Such empires are multinational by definition and were typically regarded as additions to rather than replacements for nation-states.

European countries began developing world empires about 1500, and most such empires achieved their maximum extent in the late nineteenth century. During the twentieth century, most were dissolved. Figure 9.1 shows the British Empire as it was in the late nineteenth century, when large areas of the world were under British control. The empire is currently limited to a few islands, most of which are in the Caribbean and South Atlantic (Box 9.1).

Around the Globe

BOX 9.1 | Remnants of Empire

In the late twentieth century, two former colonies changed their political status in accord with an agreed-upon timetable: Hong Kong was transferred from Britain to China in 1997, and Macao was transferred from Portugal to China in 1999. The UN identifies 16 other political units (representing some 1.2 million people) still best described as colonies. Although some colonies are likely to become independent as economic circumstances change, others are likely to remain politically dependent for some time to come.

One reason for continued dependency is that some areas are perceived as particularly valuable to the colonial power. Both France and the United States use islands in the Pacific for military purposes, and the US is known to be reluctant to relinquish control over Guam in the Pacific and Diego Garcia (a British colony mostly populated by US military) in the Indian Ocean. Both the UK and the US have refused to co-operate fully with the UN as it aims to end all colonial situations.

It also appears that some colonial areas would simply not be viable as independent states. A prime example is St Helena, an island of 122 km² (47 square miles) and a population of 5,700, located in the South Atlantic Ocean (see Figure 9.1). The island is perhaps best known as the location of Napoleon's exile and death.

First reached by the Portuguese in 1502, St Helena later became the object of competition between the Dutch and the British, and it remains part of the much-reduced British Empire. The competition reflected the island's location, which made it valuable as a stopover on the Europe–India route. Over time, movements of slaves from East Africa and indentured labour from China, as well as British and some other European settlement, created an ethnically diverse population that supported itself by providing food and other supplies for ships. By the late nineteenth century, however, technological advances such as steamships and refrigeration, and the opening of a new route using the Suez Canal in 1869 had made St Helena unnecessary as a stopover, and the economic consequences soon became evident. With a very limited resource base, St Helena suffers from its small size and small population. For much of the twentieth century, the agricultural industry was dominated by flax; at times, half the working population was employed in the crop's production. Today, however, agriculture is limited to livestock and vegetables produced for only subsistence purposes.

The future of St Helena is uncertain. It is isolated, dependent on financial support from Britain, and unlikely to become a tourist attraction. From the British perspective, it is no longer a prestigious overseas possession but a financial liability (Royle, 1991).

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Exploration

Most empires began as a result of exploratory activity (see Box 1.1 on the contentious term *exploration*). In general, geographers have paid little attention to exploration—defined as the expansion of knowledge that a given state has about the world—other than to list and describe events. One geographer, however, has derived a conceptual framework for the process of exploration, a framework that focuses on the links between events. As depicted in Figure 9.2, the process begins with a demand for exploration and may lead, in due course, to the "development" of the new area. Such development is likely to mean exploitation of the explored area as a source of raw materials needed by the exploring country. Britain, for example, viewed Canada as a source of fish, fur, lumber, and wheat and Australia as a source of wool, gold, and wheat.

FIGURE 9.2 | Principal elements in the process of exploration

Colonialism

The exploring country's use of a new area was usually a function of perception and need. Economic, social, and political activity in explored areas that became colonies was determined by and for the exploring power. This was true of European empires and of the territories acquired by the United States from 1783 onward (Figure 9.3). In most cases, Aboriginal populations were eliminated or moved if their numbers represented a military or spatial threat. The economic activities that were encouraged benefited the central power. This process is known as colonialism (see Chapter 6).

FIGURE 9.3 | Territorial expansion of the United States

- **Chapter 13: Geographies of Energy and Industry** The discussion of fossil fuel energy sources—reserves, production, movement, and consumption—is significantly enhanced, with much new information on natural gas and coal as well as an updated account of oil. There are new boxes concerned with the North Antelope Rochelle Mine in the Powder River basin of Wyoming and with deindustrialization in the UK.
- **Appendix 2: Global Physical Geography** This content is now online.
- **Appendix 3: The Evolution of Life** This content is now online.

Around the Globe

BOX 13.4 | Oil Reserves and Oil Production

The importance of oil for individual countries and within the global economy can hardly be overestimated. Oil drives the global economy and is central to the economies of many countries, including Canada. It is hugely important for countries such as Kazakhstan, which ranks eighteenth in the world in production (1.8 million barrels per day) and twelfth in known reserves (30.0 billion barrels having been discovered). These reserves (and those in Azerbaijan) are more accessible since the 2005 completion of a pipeline linking Baku on the Caspian Sea with the Turkish Mediterranean port of Ceyhan. For Europe, this pipeline is a strategically significant source of oil outside the Middle East and Russia.

In other countries, oil is a potential lifeline for survival and a cause of bitter conflict. Nigeria is the largest African producer, at 2.3 million barrels a day, and has the eleventh largest proven reserves, at 37.1 billion barrels, in the world; yet the World Bank estimates that 80 per cent of oil wealth is held by just 1 per cent of the population. This gross inequality, as well as the environmental damage caused by production, has contributed to ethnic tensions and violence. The Ogoni people of the Niger Delta, agriculturalists and fishers whose lands and livelihoods have largely been destroyed by the oil exploration and extraction—led by Shell Oil and the national government—organized in the early 1990s to protest their losses. In 1995 Ken Saro-Wiwa (the leading Ogoni activist, environmentalist, and noted author) and eight other leaders of the resistance movement were executed by the state. Sudan/South Sudan is not a major oil producer, ranking thirty-first in the world, but oil is of great importance for these impoverished countries. Physical geography, ethnicity, and religion have been at play in these two areas in Africa. Much of their oil reserves are located in the predominantly Christian southern parts of the countries, while Muslim majorities, with more political power, are located to the north. Thus, the human geography of oil is a complex story.

Table 13.2 lists the top 12 countries in oil production and oil reserves. Of special note is the extent to which reserves and production do not mesh. Venezuela, for example, has the largest proven reserves (298.3 billion barrels) and is eleventh in production, at least partly because much of these reserves are in oil sands, where production is more costly and environmentally damaging. Three of the top oil producers—Russia, the US, and China—are major economic powers but rank considerably lower in proven reserves, and Mexico (which, like Canada, works to feed the American appetite for oil) ranks tenth in oil production but stands at eighteenth in known reserves. On the other hand, Libya has the ninth highest total proven reserves but ranks twentieth in production; Libyan production has declined notably since the Arab Spring and the continuing political turmoil.

TABLE 13.2 | Top 12 countries in oil production and oil reserves, 2013

Country	Production (Million Barrels/Day)	Country	Proven Reserves (Billion Barrels)
Saudi Arabia	11.5	Venezuela	298.3
Russian Federation	10.8	Saudi Arabia	265.9
United States	10.0	Canada	174.3
China	4.2	Iran	157.0
Canada	3.9	Iraq	150.0
United Arab Emirates	3.7	Kuwait	101.5
Iran	3.6	United Arab Emirates	97.8
Kuwait	3.1	Russian Federation	93.0
Iraq	3.1	Libya	48.5
Mexico	2.9	United States	44.2
Venezuela	2.6	Nigeria	37.1
Nigeria	2.3	Kazakhstan	30.0

Note: China has 18.1 billion barrels of proven reserves, and Mexico has 11.1 billion. Libya produces 1.0 million barrels, and Kazakhstan produces 1.8 million barrels.
Source: Adapted from *BP Statistical Review of World Energy 2014*.

per cent of the global total. As detailed in Box 13.4, a few countries tend to dominate world production.

As shown in Table 13.1, the United States is the world's leading consumer of oil, with about 21.9 per cent of global consumption, followed by China and Japan. In general, most of the principal consuming countries are likely to become increasingly dependent on imports. In short, there is a growing gap between the places where oil is produced and where it is consumed. For this fundamental geographic reason, there is much movement of oil from producing to consuming countries. Figure 13.6 shows the major patterns of trade in oil.

TABLE 13.1 | Principal oil-consuming countries, 2013

Country	Share of Total (%)
United States	19.9
China (including Hong Kong)	12.1
Japan	5.0
India	4.2
Russian Federation	3.7
Saudi Arabia	3.2
Brazil	3.2
Germany	2.7
South Korea	2.6
Canada	2.5
Iran	2.2
Mexico	2.1
France	1.9
Indonesia	1.8
United Kingdom	1.7

Source: *BP Statistical Review of World Energy 2014*.

The Future of Oil

One fundamental question is: What will happen when the oil runs out? Note that the data in Box 13.4 cannot answer this question. Proven oil reserves in the Middle East and North Africa increased by more than 80 per cent since 1973, and other reserves continue to be discovered. Such new discoveries and, eventually, exploitation could see a significant upward bump in the coming years as the Arctic Ocean becomes more accessible, a consequence of climate change and ice melt. Nevertheless, our current dependence on oil cannot be sustained. Notwithstanding the recent fall in price, the ever-increasing demand both in the more developed world and in industrializing countries (especially China) will likely

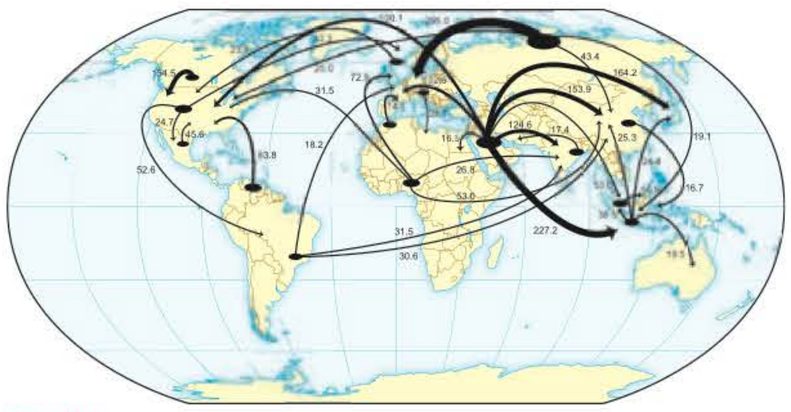

FIGURE 13.6 | Major oil trade movements (million tonnes), 2014

Source: Updated from *BP Statistical Review of World Energy 2011*. www.bp.com/content/dam/bp-country/de_de/PDFs/brochures/statistical_review_of_world_energy_full_report_2011.pdf

FEATURES

LEARNING TOOLS

Along with thorough chapter introductions and summaries, the text offers the following learning tools:

- Links to other chapters underline connections between topics that may not be apparent at first glance.
- Questions for critical thought and a running glossary reinforce understanding and encourage discussion of core concepts.

Links to Other Chapters

- **Globalization:** Chapter 2 (concepts); Chapter 4 (global environmental issues); Chapter 5 (population growth, fertility decline); Chapter 6 (refugees, disease, more and less developed worlds); Chapter 8 (popular culture); Chapter 9 (political futures); Chapter 10 (agricultural restructuring); Chapter 11 (global cities); Chapter 13 (industrial restructuring)
- **Distance and space:** Chapter 2 (concepts); Chapters 7 and 8 (cognitive and social distance in relation to cultural regions and landscapes); Chapters 10, 11, 13 (time and economic distance in relation to land-use theories)
- **Technologies of transportation:** Chapter 13 (industrial location)
- **Regional integration and globalization:** Chapter 9 (groupings of states); Chapters 10, 11, 12, 13 (economic restructuring)
- **Transnationals:** Chapter 4 (environmental impacts); Chapter 13 (industry)
- **Social media:** Chapter 8 (contesting identities and places)
- **Economic globalization:** Chapter 10 (agriculture); Chapter 11 (world cities); Chapter 13 (outsourcing and offshoring)
- **Cultural globalization:** Chapters 7 and 8 (identities and conflict)
- **Political globalization:** Chapter 9 (political futures)

Questions for Critical Thought

1. As globalization continues to transform the human world, can we expect fundamental geographic concepts such as space and distance to become less significant as determinants of human spatial behaviour? Why or why not?
2. Why is diffusion such an important concept in geography? How has globalization influenced diffusion processes?
3. What factors will shape globalization and international relations in the next century?
4. What are the advantages and disadvantages of economic globalization? Are you, personally, better or worse off as a result of economic globalization? Do we all live in one global village?

Suggested Readings

Visit the companion website for a list of suggested readings.

In the News

BOX 6.7 | Defeating AIDS?

Talking about the "end of AIDS" seems reasonable. Although many factors can influence the course of the battle against the disease, positive signs are emerging, and the UN AIDS agency is now talking about the epidemic being under control by 2030. Crucially, the number of new infections has fallen from 3.4 million in 2001 to 2.1 million in 2013; also, the number of deaths from AIDS and related illnesses has fallen from 2.4 million in 2005 to 1.5 million in 2013.

The reason for these positive changes appears to be a combination of education, changing sexual behaviour, and increased availability of antiretroviral drugs. Countries such as Thailand, the Philippines, and Brazil have been fighting the disease with much success since the 1990s through prevention programs designed to educate people about such matters as condom use. In sub-Saharan Africa, the principal reasons for these positive changes appear to be that condom use is more widespread, people are engaging in sexual behaviour at a later age, and the more developed world has intensified efforts to combat the disease, including helping to make drugs more readily available.

In Uganda the adult infection rate has dropped from 30 per cent in 1992 to less than 6 per cent. Perhaps surprisingly, this reduction is attributed not only to increased use of condoms but also to a government campaign stressing abstinence and fidelity. In many other countries, including South Africa, people are increasingly well educated concerning the causes of AIDS, and there are clear signs that attitudes towards sexual behaviour are changing. In Botswana, some mining companies that employ large numbers of adult males provide hospital facilities for those already infected and are working to prevent AIDS not only through education but also by making free condoms readily available.

Of course, condom use does meet with opposition. A controversy erupted in 2009 following remarks by Pope Benedict XVI prior to a visit to Africa. Stating that condoms did not help solve the problem but rather exacerbated the effect of HIV/AIDS, he advocated the traditional church teachings of abstinence and fidelity. In a response that was unprecedented in its forcefulness and condemnation, the prestigious medical journal *Lancet* wrote that the pope was publicly distorting well-established scientific facts in order to promote Catholic doctrine.

Another important factor in the worldwide fight against AIDS is the response of the more developed world. Here, too, the signs are positive. A 2001 UN summit agreed to set up a global fund to fight AIDS, along with tuberculosis and malaria. Despite initial funding problems, there is reason to believe that the errors of the 1990s, when the more developed world quite literally looked away, are being corrected. In 2003 the United States committed up to $15 billion over five years to combat AIDS in Africa and the Caribbean, although much of this funding is targeted to programs advocating abstinence.

Changing attitudes in both less and more developed countries and increased use of antiretroviral drugs appear to be both limiting the spread of AIDS and reducing the number of deaths.

© AP Photo/Ajit Solanki

Women make a ribbon formation with candles to mark World AIDS Day in Amadabad. The World Health Organization established the day in 1988 to further global awareness and put a focus on prevention.

EXTENSIVE BOX PROGRAM

- Contributed "Focus on Geographers" boxes highlight the research of various human geographers, giving students insight into what it is like to work in the field of human geography.
- "In the News" boxes draw students' attention to current events relating to human geography.
- "Around the Globe" boxes introduce students to issues regarding a particular location.
- "Examining the Issues" boxes help students examine theoretical matters that apply to the broader world.

RICHLY ILLUSTRATED CONTENT

The ninth edition continues to emphasize visual learning throughout the text. New and updated figures, tables, maps, and photos enhance students' understanding of the material.

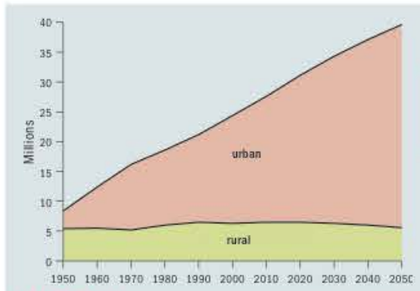

FIGURE 11.4 | Rural and urban populations, Canada, 1950–2050

Source: Adapted from United Nations Department of Economic and Social Affairs, Population Division. 2015. *World Urbanization Prospects: The 2014 Revision*. New York: United Nations. http://esa.un.org/unpd/wup/

FIGURE 11.5 | Canada: Census metropolitan areas, 2011

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megacity
Metropolitan areas with populations of more than 10 million.

Megacities and Megaregions

The urban population is increasing rapidly, both in absolute numbers and in relation to the rural population. This growth is both concentrated in a handful of very large cities and spread across many smaller ones. While the populations of **megacities** are increasing and new ones appear regularly, most additional urban population growth is actually occurring in smaller cities, some with fewer than 500,000 people. Despite the shock value of considering the consequences of cities with 10 million people or more, the more typical urban experience is living in smaller cities, as approximately half of all urban dwellers currently live in cities with less than 500,000 people.

The growing number of megacities, and their increasing size, is highlighted by the following facts:

- In 1950 there were just two megacities: New York with 12.3 million people and Tokyo with 11.3.
- By 1975 there were four megacities: Tokyo with 26.6 million people, New York with 15.9, Shanghai with 11.4, and Mexico City with 10.7.
- By 2014 there were 28 megacities; that number is expected to rise to 40 by 2030, with most of the new megacities located in the less developed world.

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People walk across the Viaduto Santa Ifigenia in São Paulo, Brazil, one of the world's megacities.

Table 11.5 provides data on the number and size of megacities in 2014 and projections for 2030, and Figure 11.6 maps the two patterns (but recall the cautionary comments about city size made in Box 11.1). The vast majority of megacities are located in less developed countries. In 2014 only 6 of the 28—Tokyo, New York, London,

Around the Globe

BOX 6.1 | Less Developed World Case Studies: Ethiopia, Sri Lanka, and Haiti

© AP Photo/Elias Asmare

A recent photograph of the Merkato marketplace in Addis Ababa, Ethiopia's capital. Located at the approximate geographical centre of the country, Addis Ababa is home to over 2.7 million of the nation's inhabitants.

Ethiopia is one of several countries in the Horn of Africa suffering from a tragic combination of human and environmental factors. It is categorized as a least developed country.

Ethiopia was settled by Hamitic peoples of North African origin. Following an in-movement of Semitic peoples from southern Arabia in the first millennium BCE, a Semitic empire was founded at Axsum (it became Christian in the fourth century CE). The rise of Islam displaced that empire southwards and established Islam as the dominant religion of the larger area; the empire was overthrown in the twelfth century CE. Ethiopia escaped European colonial rule, but its borders were determined by Europeans occupying the surrounding areas, and the Eritrea region was colonized by Italy from the late nineteenth century until 1945. Attempts by the central government in Addis Ababa to gain control over both the Eritreans and the Somali group in the southeast generated much conflict. In 1974–5 a revolution displaced the long-serving ruler, Haile Selassie, and established a socialist state.

Ethiopia is slightly larger than Ontario—1.2 million km² (463,400 square miles). Much of the country is tropical highlands, typically densely populated because such areas have good soils and are free of many diseases. In 2014 the population was estimated at 95.9 million; the CBR was 28, the CDR 8, and the RNI 2.3. Although it is a leading coffee producer, Ethiopia is one of the poorest states in Africa, with many people reliant on overseas food aid. Population growth is highly uneven, and urban growth has actually declined since 1975 because of socialist land reform policies and the low quality of life in urban areas.

Most Ethiopians have little or no formal education, especially among the (predominant) rural population. The key social and economic unit is the family, in which women are subordinate, first to their fathers, then to their husbands and, if widowed, to their adult sons. Health care varies substantially between urban and rural areas.

The country also has a particular regional problem. People in the Lower Omo River Valley live in difficult circumstances. The Omo tribes are agricultural peoples who depend on the annual cycle of river flooding. Each year, communities on the riverbanks move to higher ground prior to the flood, then return to plant their crops (mostly sorghum) in the replenished soil when the waters recede. But this resource and their cattle are often insufficient. Furthermore, disputes between groups about water rights are common, with there being evidence that many of the males carry an automatic weapon.

The situation may deteriorate further. The Ethiopian government is constructing a huge dam (Gibe III) upstream that, the Omo people claim, will mean the end of the annual flooding that forms the basis of their livelihood. The government argues otherwise, maintaining that it will be possible to regulate flooding as needed and that the Omo people will not be disadvantaged. Many scientists consider the Omo position legitimate, and European and British politicians have expressed concern. It is notable that the Omo were not involved in any consultations about construction.

Sri Lanka

Sri Lanka (Ceylon until 1972) is an island located in the Indian Ocean, south of India. Mostly low-lying, it has a tropical climate and a limited resource base. Minerals are in short supply, as are sources of power. The dominant economic activity is agriculture; about 36 per cent of the country is under cultivation.

Continued

NATIONAL AND GLOBAL PERSPECTIVES

Current Canadian and international examples are used throughout the text. Students will gain a global perspective and a greater understanding of issues such as climate change, world population density, and food shortages.

STUDENT AND INSTRUCTOR SUPPLEMENTS TO THE TEXT

The ninth edition of *Human Geography* is accompanied by a wide range of supplementary online items for students and instructors alike, all designed to enhance and complete the learning and teaching experiences. These resources are available at **www.oupcanada.com/Human9e.**

For Students

Online Resources
Available at www.oupcanada.com/Human9e

A comprehensive student study guide of review material—including research questions, links to human geography websites, interactive practice quizzes and study flash cards, YouTube videos, and Google Earth exercises—is designed to reinforce understanding of the material and provide directions for further research. Two appendices and a substantial portion of material from the previous edition, on topics ranging from trade theories to religious identity, have been placed online; an icon has been added to the text to indicate where these sections relate to chapter content. The website also features a Google Maps guide to key areas discussed in the book, a Google Earth tutorial session, and a streaming video. A mobile study unit provides a screen-ready, condensed version of the chapter pedagogy and elements of the study guide.

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COMPANION WEBSITE

William Norton and Michael Mercier

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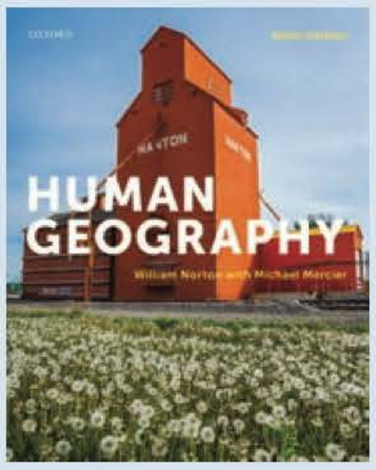

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About the Book

A bestseller for over twenty years and now in its ninth edition, *Human Geography* continues to offer an authoritative and comprehensive examination of human behaviour's effects on the earth's surface. Focusing on three themes-relations between humans and land, regional studies, and spatial analysis-this introduction engages with such areas as philosophy, culture, identity, politics, and economics. It includes the most current statistics and data, as well as revamped and streamlined chapters on urban issues, providing students with a thorough discussion of the discipline's fundamental concepts.

Instructor Resources

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Student Resources

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I am pleased to welcome Michael Mercier as a co-author and acknowledge two colleagues for their significant contributions to this new edition: Doug Fast has drawn all the new figures and revised many others; Barry Kaye has continued to draw my attention to numerous new books and relevant news items. I am most grateful for their ongoing interest and involvement in this work. In addition, many other geographers and many of my students have commented on earlier editions, and most of their suggestions are incorporated in this edition. Finally, many thanks to my wife, Pauline, for her unceasing support of my academic activities.

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INTRODUCTION

THE ROADS AHEAD

You know that this book is an introduction to human geography—but what does that term mean? Answer this question in a few key words. It should be interesting to compare your initial perception with your understanding after you have read this introductory chapter.

Consider the word *geography*. Its roots are Greek: *geo* means "the world"; *graphei* means "to write." Literally, then, geographers write about the world. The sheer breadth of this task has demanded that it be divided into two relatively distinct disciplines. Physical geography is concerned with the physical world (e.g. climates and landforms), and human geography is concerned with the human world (e.g. agricultural activities and settlement patterns).

So human geographers write about the human world. But what questions do they ask? How do they approach their work? What methods do they employ? Not surprisingly, human geographers ask various questions and have diverse approaches and methods from which to choose. Nevertheless, three themes are central to any study of the human world: relations between humans and land, regionalization, and spatial analysis. Keeping these themes in mind from the start will help you to follow and understand connections among the many aspects of human geography.

THREE RECURRING THEMES

Humans and Land

The human world is not in any sense preordained. It is not the result of any single cause, such as climate, physiography, religion, or culture. It is the ever-changing product of the activities of human beings, as individuals and as group members, working within human and institutional frameworks to modify pre-existing physical conditions. Thus, human geographers often focus on the evolution of the human world with reference to people, their cultures, and their physical environments.

Tourists in Alberta's Banff National Park follow the Johnston Canyon trail. The interactions between humans and landscapes, and their effects, are a central theme in human geography.

landscape
A major concern of geographic study; the characteristics of a particular area especially as created through human activity.

location
A specific part of the earth's surface; an area where something is situated.

We usually describe the human world as a **landscape**. There are two closely related aspects to the term in this sense:

1. Landscape is what exists as a result of human modifications to physical geography. This aspect of landscape includes crops, buildings, lines of communication, and other visible, material features.
2. Landscape has significant symbolic content, or meaning. It is hard to view a church, statue, or skyscraper without appreciating that it is something more than a visible, material human addition to the physical geography of a place: such features are expressions of the cultures that produced them.

As human geographers, we are interested in landscape both for what it is and for what it means to live in it: we interpret landscape as the outcome of particular relationships between humans and land. For some geographers, both physical and human, the study of humans and land together is geography. This view, which relates human and physical variables and identifies links, is sometimes called ecological analysis.

globalization
A complex combination of economic, political, and cultural changes that have long been evident but that have accelerated markedly since about 1980, bringing about a seemingly ever-increasing connectedness of both people and places.

Regional Studies

region
A part of the earth's surface that displays internal homogeneity and is relatively distinct from surrounding areas according to some criterion or criteria; regions are intellectual creations.

To facilitate their task of writing about the world, human geographers often divide large areas into smaller ones that have one or more features in common. These smaller areas are **regions**. To regionalize is to classify on the basis of one or more variables. Our ability to regionalize tells us that human landscapes make sense; they are not random assemblages of features. Groups of people occupying particular areas over a period of time create regions, human landscapes that reflect their occupancy and that differ from other landscapes. Much contemporary regional study focuses on this social organization of space, on the impact of creating regions on social and economic life, on interactions between regions, and on regional boundaries as barriers.

Building on a long tradition, contemporary human geography considers regions at a wide range of scales—from the local (a suburban neighbourhood, for example) all the way through to the global (the world as a single region). In acknowledging the relevance of different spatial scales of analysis, human geography reveals the importance of place in all aspects of our lives.

Spatial Analysis

Understanding the human world requires that we explain **location**, or why things are where they are. Typically, a geographer using a spatial analysis approach tackles this question through theory construction, models, and hypothesis testing (using quantitative methods). For example, we may find that towns in an area are spaced at relatively equal distances apart or that industrial plants are located close to one another. The primary goal of spatial analysis is to explain such locational regularities. Thus, we have already identified two types of spatial organization: the creation of regions and the identification of distinct patterns of locations. A secondary goal is often identifying alternative locational patterns that might be more efficient or more equitable.

Central to this spatial analysis is the realization that all things are related. For geographers, to say that things are related is usually to say that they interact. Perhaps the best examples of interaction in the contemporary world involve what is often described as **globalization**—a complex set of processes with economic, political, and cultural dimensions.

A Common Thread

Our recurring themes reflect three separate but overlapping traditions (to be outlined in Chapter 1). One common thread among them, however, is the fact that the human world is always changing. Thus, human geography, regardless of the specific focus, typically incorporates a time dimension. Change can be a response to either internal or external factors. Some changes are rapid, some gradual. Landscapes change in content and meaning; regions gain or lose their distinctive features; and locations adjust to changing circumstances.

One compelling example of changing geographies can be found in the terrorist attacks of 11 September 2001. The consequences of those attacks, some immediate, some longer-term and still uncertain, have served to reshape both local and global geographies. Locally, the skyline of New York City will never be the same. Nor will the pattern of global politics, since the United States responded to the attacks by invading first Afghanistan, where the ruling Taliban had supported terrorist groups, and then Iraq. Many commentators suggested that global politics would henceforth be characterized by a "clash of

civilizations," and there was widespread acknowledgement that fighting terrorism would require in-depth understanding of local geographies, both physical and human.

In identifying our three principal themes, we explicitly acknowledge the legitimacy of multiple approaches to our subject matter: the human world. It is also important to note how the application of these approaches changes over time. Such change is equally legitimate—and necessary—in any dynamic discipline.

WHY "HUMAN" GEOGRAPHY?

Although many geographers have striven to make their field a truly integrated one, combining physical and human components (as in the humans-and-land theme), human geography and physical geography are typically acknowledged to be relatively distinct disciplines. Contemporary human geographers do not deny the relevance of physical geography to their work, but they do not insist that their studies always include a physical component. Because human geography studies human beings, it has close ties with social sciences such as history, economics, anthropology, sociology, psychology, and political studies. One of the particular strengths of human geography is that it considers the human world in multivariate terms, incorporating physical and human factors as necessary. Where appropriate, then, this book introduces aspects of physical geography. For example, to understand world population distributions, we obviously need to know about global climates. However, we also need to know about human perceptions of those climates. Thus, human geography is related to but separate from physical geography in much the same way as it is related to but separate from the other disciplines that study human beings.

The central subject matter of human geography is human behaviour as it affects the earth's surface. Expressed in this way, the subject matter of human geography is very similar to that of the various other social sciences, all of which focus on human behaviour in some specific context.

Defining Human Geography

Providing a meaningful one-sentence definition of any academic discipline is a real challenge. In the case of human geography, however, the American geographer Charles Gritzner has suggested a useful definition in the form of three closely related questions:

> What is where, why there, and why care? (Gritzner, 2002)

Every exercise in human geography, regardless of which theme it highlights, begins with the spatial question: "Where?" Once the basic environmental, regional, and spatial facts are known, the geographer focuses on understanding, or explaining, "Why there?" Finally, the third part of the question—"Why care?"—draws attention to the pragmatic nature of human geography: geographic facts matter because they reflect and affect human life. This is true of any geographic fact, whether it is something as seemingly mundane as the distance between your home and the nearest convenience store or something as far-reaching or serious as a drought or a civil war that causes peasant farmers in Ethiopia to lose all their crops.

THE GOAL OF HUMAN GEOGRAPHY

Writing about the human world to increase our understanding of it has been the goal of human geography at least since the time of the ancient Greeks and the rise of Chinese civilization. Two statements of this continuing goal help to explain why it remains so important:

> The function of geography is to train future citizens to imagine accurately the conditions of the great world stage and so help them to think sanely about political and social problems in the world around. (Fairgrieve, 1926: 18)

> Geography is the only subject that asks you to look at the world and try to make sense of it. The field never stops being exciting, because that's what geography [is] all about—trying to make sense of the world. (Lewis, 2002: 4)

Although written some 80 years apart, these two statements express essentially the same view. Human geography is a practical and socially relevant discipline that has a great deal to teach us about the world we live in and how we live in

society
The interrelationships that connect individuals as members of a culture.

the world. The goal of this book is to provide a basis for comprehending the human world as it is today and as it has evolved. If it succeeds, it will have made a contribution to the more general goal of advancing a just global **society**. Students of human geography are in an enviable position to accomplish this more general goal. A holistic discipline, human geography is not restricted to any narrowly defined subject or single theme that could limit our ability to appreciate what we might call the interrelatedness of things. Traditional links with physical geography clearly play a key role, but human geographers do not hesitate to draw on material and ideas from many other disciplines. This book overtly recognizes and reflects the controlled diversity of human geography.

ABOUT THIS BOOK

less developed world
All countries not classified as more developed (see more developed world); countries characterized by a low standard of living.

more developed world
(According to a United Nations classification) Europe, North America, Australia, Japan, and New Zealand; countries characterized by a high standard of living.

This diversity means that we have much subject matter and many methods to introduce. Chapters 1 and 2 address two basic issues. Chapter 1 investigates the nature of human geography and its history as an endeavour of research and exploration. Our discipline has a long and fascinating history, involving many different groups of people and many noteworthy individuals working in different places at different times. The close ties between human and physical geography are evident. By the time you reach the end of this chapter, the origins of our three recurring themes should be clear. In Chapter 2, we look at the many ways in which human geography is now studied. This subject naturally includes many technical matters. Before turning to them, however, we will look at the philosophies behind each of our three recurring themes. Some of these ideas may seem somewhat abstract on your first reading, but as you read further you will find that they are central to the issues discussed in later chapters.

The increasing necessity for human geographers to discuss many topics at a global (as opposed to a local, regional, or national) scale is a feature of the contemporary world. To point out this trend is one way of saying that our world is becoming more and more integrated and interconnected. It is not only where things are located that matters but also the connections between locations. Chapter 3, "Geographies of Globalization," details these globalization processes and thus provides an essential context for understanding contemporary human geography.

Chapter 4 offers an overview of humans' global impact on and adjustment to the physical environment. Surveying humans' occupation of the earth through time, we consider the use and abuse of resources and related environmental issues, which are of crucial importance to contemporary life. The theme of the relationship between humans and land is particularly evident in this chapter.

The next two chapters deal with population topics, both globally and in major world regions. Chapter 5 describes and suggests explanations for the exponential growth in global population, especially since about 1650, and identifies some consequences of that growth. The use of population data as indicators of regional inequalities is examined in Chapter 6, including a discussion of the idea that the world's countries can be divided into two general groups, **less developed** and **more developed**. All three of our recurring themes come into play in these chapters.

Much human geography is best studied on a group scale, employing the concepts of culture and society as they relate to human landscapes. Chapter 7 focuses on the evolution and regionalization of landscapes and includes discussions of language and religion as these involve the formation of groups and the creation of landscapes. Chapter 8 continues the discussions of group identities and related landscapes with reference to the myth of race, ethnicity, gender, and sexuality. Like Chapter 6, this chapter encourages us to think about various examples of inequality in the human experience from place to place. Two of our three recurring themes, humans and land and regional studies, are central to these discussions.

Political groupings of people in space are the subject of Chapter 9, which looks at the reasons behind the current partitioning of the world into territories. Because division into political units is the most fundamental way in which humans divide the world, this chapter includes discussions of the significance of these divisions for our way of life. Here again, the themes of humans and land and regional studies are crucial.

The next four chapters include a good deal of spatial analysis—our third recurring theme—while also reflecting our other two themes. Chapter 10, on agriculture, asks why specific

agricultural activities are located where they are; describes how the various major agricultural regions around the world have evolved; discusses contemporary agricultural landscapes in both the less and the more developed worlds, using a political economy perspective and explicit reference to restructuring processes; and considers issues related to food consumption.

Chapter 11, the first of two chapters on the urban world, discusses the origins and growth of urban centres; world urbanization; and pre-industrial and world cities. Chapter 12 looks at how cities are structured and governed; at how people move around cities; at the spread of cities into previously rural areas; at cities as homes, with an emphasis on neighbourhoods and segregation; at reasons for poverty and deprivation inside cities; at cities as centres of production and consumption; and at city life in the less developed world.

Chapter 13, on industrial activity, looks at the reasons behind industrial location decisions, the period known as the Industrial Revolution, sources of energy, contemporary industrial circumstances in a global context, and the complex processes of industrial restructuring that are possibly related to a new post-industrial phase. Finally, the conclusion highlights some of the changing ways that human geographers study our changing world. For a summary of the structure of this book, indicating the chapters of most relevance for the various subdisciplines of human geography, see Table I.1.

You are probably beginning to realize that human geographers seek to understand both the world and people's lives within it. As previously noted, this book works to achieve these aims by incorporating not only a wide variety of facts about humans and their world but also a number of different approaches to those facts.

TABLE I.1 | Subdisciplines of human geography and text coverage

Subdiscipline	Chapters
Transportation geography	3
Geography of trade	3
Geography of natural resources	4
Environmental geography	4
Geography of energy	4 and 14
Population geography	5 and 6
Geography of migration	5
Geography of the less developed world	6
Regional development and planning	6 and 13
Cultural geography	7 and 8
Social geography	8 and 12
Geography of tourism	8
Feminist geography	8
Political geography	9
Economic geography	3, 10, 11, 12, and 13
Agricultural and food geography	10
Settlement geography	11 and 12
Rural geography	10 and 11
Urban geography	11 and 12
Industrial geography	13

THE HUMAN GEOGRAPHER AT WORK

What do human geographers actually do? What problems do they strive to solve? The following two vignettes offer some preliminary insights into the concerns and activities of human geographers that will be further explored in later chapters. The first looks at some of the ways our world is divided; the second looks at some of the ongoing transformations of global life.

A World Divided

Political Units

The map inside this book's front cover shows how the earth's land surface is divided into countries—one example of the diversity of human life. Are the divisions changing today or even between the time when we are writing and the time when you read these words? Is the total number of countries increasing or decreasing? What do these political divisions reflect: population distribution, cultures, economies? Is it possible to aggregate countries? Are there meaningful groupings? Do basic aggregations such as North versus South or East versus West have any value? These are some of the questions that human geographers ask.

We will answer the first of these questions now. The political world changes substantially. Consider that the map shows more than 190 countries; as recently as the 1930s, there were only about 70. Several major changes have increased the number of countries, including the decolonization of Africa and Asia, the political consequences of World War II, and the post-1989

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After a long conflict with the north, South Sudan declared its independence on 9 July 2011. Independence day celebrations attracted tens of thousands of people, many displaying the country's flag.

political transformation of Europe and the former USSR. As of 2015, the most recent addition to the world map is South Sudan. More changes seem likely because the contemporary political world is characterized by two tendencies in particular: a tendency for regions to begin a process of integration, as in the case of the European Union, and a tendency for portions of some countries to seek a separate political identity, as in the case of Quebec within Canada.

Quality of Life

The world is divided into political units and, as previously mentioned, into larger areas often referred to as more developed or less developed. Our human world is full of diversity: languages, religions, ethnic identities, and standards of living all vary from place to place. There are differences among individuals and also more general differences between groups of individuals. Similarly, landscapes vary. Each particular location is unique, but it is often more useful to note the more general differences that exist between regions. The photographs to the right suggest a basic distinction in our contemporary world. In the first, we see middle-class people in a prosperous area of a modern Western urban centre; we can probably assume that most of them are employed, own or

Jeff Whyte/Shutterstock

Stephen Avenue, a popular pedestrian mall, in Calgary, Alberta.

© Dennis Cox/Alamy

A farm labourer with his family in front of their house in rural Rivas Department, west of Lake Nicaragua.