OERI CONTEMPORARY WORLD GEOGRAPHIES



Aline Gregorio, Jason Scogtt, Nazanin Naaghi, Waverly Ray
OERI

LibreTexts™

OERI

OERI Contemporary World Geographies

Aline Gregorio, Jason Scogtt, Nazanin Naaghi,
Waverly Ray

This text is disseminated via the Open Education Resource (OER) LibreTexts Project (https://LibreTexts.org) and like the thousands of other texts available within this powerful platform, it is freely available for reading, printing, and "consuming."

The LibreTexts mission is to bring together students, faculty, and scholars in a collaborative effort to provide an accessible, and comprehensive platform that empowers our community to develop, curate, adapt, and adopt openly licensed resources and technologies; through these efforts we can reduce the financial burden born from traditional educational resource costs, ensuring education is more accessible for students and communities worldwide.

Most, but not all, pages in the library have licenses that may allow individuals to make changes, save, and print this book. Carefully consult the applicable license(s) before pursuing such effects. Instructors can adopt existing LibreTexts texts or Remix them to quickly build course-specific resources to meet the needs of their students. Unlike traditional textbooks, LibreTexts' web based origins allow powerful integration of advanced features and new technologies to support learning.



LibreTexts is the adaptable, user-friendly non-profit open education resource platform that educators trust for creating, customizing, and sharing accessible, interactive textbooks, adaptive homework, and ancillary materials. We collaborate with individuals and organizations to champion open education initiatives, support institutional publishing programs, drive curriculum development projects, and more.

The LibreTexts libraries are Powered by NICE CXone Expert and was supported by the Department of Education Open Textbook Pilot Project, the California Education Learning Lab, the UC Davis Office of the Provost, the UC Davis Library, the California State University Affordable Learning Solutions Program, and Merlot. This material is based upon work supported by the National Science Foundation under Grant No. 1246120, 1525057, and 1413739.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation nor the US Department of Education.

Have questions or comments? For information about adoptions or adaptions contact info@LibreTexts.org or visit our main website at https://LibreTexts.org.

The LibreTexts name, logo, and book covers are trademarked by LibreTexts, Inc. (a 501(c)(3) not-for-profit organization) and protected against unauthorized use.

This text was compiled on 08/26/2026

TABLE OF CONTENTS

Licensing

Program Page

About this book

1: Geography Matters

1.1: Geography and Geo-Literacy

1.2: Where on Earth? The Geographic Grid

1.3: Maps- Place, Power, and Representation

1.4: Geographical Thought- Critical Reflections and Imagination

2: Our Connected World [Coming Soon]

2.1: Globalization

2.2: Climate Change

2.3: Global Development and Inequality

2.4: TBD

2.5: TBD

3: Africa South of the Sahara

3.1: Africa's Natural Environments

3.2: Indigenous Worlds- Pre-Colonial Civilizations and Reclaiming Independence

3.3: Cultural Diversity, Resilience, Tolerance and Tension

3.4: Young and Rapidly Urbanizing Populations

3.5: The Ongoing Scramble for Africa

4: Southwest Asia and North Africa

4.1: The Natural Environment

4.2: Indigenous Worlds

4.3: Cultural Hearths of Writing and Abrahamic Religions

4.4: Oil and Uneven Development

4.5: Contemporary Art and Culture in SWANA

5: Europe

5.1: Natural Environments

5.2: Connecting Europe's Past to the Present

5.3: Identity and Migration in Europe

5.4: Europe's Regions

6: North and Central Asia

6.1: The Natural Environment

6.2: Indigenous Worlds- Diversity, Resilience, and Russian Nation-Building

6.3: Economic Geography- Transitions and Interdependence

6.4: Energy Interdependence, Conflict, and Climate Justice in the Arctic

6.5: Complex Geographies of Armed Conflict- Armenia, the Caucasus, Afghanistan, and Ukraine

7: South Asia

7.1: Natural Environments and Climate Vulnerability

7.2: Indigenous Worlds: Cultural Hearths, Empires, and Colonial Legacies

7.3: Cultural Diversity- Languages and Religions of South Asia

7.4: Population, Malthusians, and Critics

8: East and Southeast Asia

8.1: Natural Environments

8.2: Indigenous Worlds- Migration and Ancient Civilizations

8.3: Cultural Hearths, Diversity and Resilience

8.4: Paradigm Shifts, Industries, Governance, Imperialism

8.5: Tourism, the Informal Sector, and "Dependency"

9: Middle and South America

9.1: Natural Environments

9.2: Indigenous Worlds- Amerindian Civilizations, Colonization, and Revival

9.3: The Cultural Mosaic- Diasporas, Race, and Ethnicity

9.4: Inequality and the City

9.5: Tropical Deforestation and the Rights of Nature and Indigenous Peoples

10: North America

10.1: Natural Environments and Nature-Society Interactions

10.2: Indigenous Worlds- Diversity, Survivance, and Decolonization

10.3: Culturally Diverse and Aging Populations

10.4: Urban Spatial Inequalities in the United States

Index

Glossary

Detailed Licensing

Detailed Licensing

This page titled World Geographies: A Critical Introduction (Aline Gregorio, Nazanin Naraghi, Jason Scott, Waverly Ray) is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio, Jason Scott, Nazanin Naraghi, & Waverly Ray.

Licensing

A detailed breakdown of this resource's licensing can be found in ***Back Matter/Detailed Licensing***.

This page titled Licensing is shared under a license and was authored, remixed, and/or curated by LibreTexts.

Program Page



An Open Educational Resource Supported by the Academic Senate for California Community Colleges Open Educational Resources Initiative

The Academic Senate for California Community Colleges Open Educational Resources Initiative (OERI) was funded by the California legislature in trailer bill language during the summer of 2018. The OERI's mission is to reduce the cost of educational resources for students by expanding the availability and adoption of high quality Open Educational Resources (OER). The OERI facilitates and coordinates the curation and development of OER texts, ancillaries, and support systems. In addition, the OERI supports local OER implementation efforts through the provision of professional development, technical support, and technical resources.

The information in this resource is intended solely for use by the user who accepts full responsibility for its use. Although the author(s) and ASCCC OERI have made every effort to ensure that the information in this resource is accurate, openly licensed, and accessible at press time, the author(s) and ASCCC OERI do not assume and hereby disclaim any liability to any party for any loss, damage, or disruption caused by errors or omissions, whether such errors or omissions result from negligence, accident, or any other cause.

Please bring all such errors and changes to the attention of Academic Senate of California Community Colleges OER Initiative via e-mail (oeri@asccc.org).

Academic Senate for California Community Colleges
One Capitol Mall, Suite 230
Sacramento, CA 95814

This page titled Program Page is shared under a license and was authored, remixed, and/or curated by LibreTexts.

About this book

About this book

World Geographies: A Critical Introduction was designed to serve as a foundational resource for students taking World Regional Geography courses. It is a peer-reviewed textbook that was curated and authored by diverse geography educators, as part of the efforts of the Open Educational Resources Initiative (OERI) of the Academic Senate of California Community Colleges (ASCCC). This book uses ASCCC's Diversity, Equity, Inclusion, and Antiracism framework and a critical geography lens and utilizes a thematic approach to world regional geography. This focus enables readers to understand processes driving global inequities and develop a better understanding of contemporary global issues. All efforts were made to ensure the material covered in this resource is consistent, relevant, accurate, and accessible.

Given the dynamic nature of our world, and the breadth of world geography courses, this textbook will require constant revision and improvement. We encourage educators using this textbook to submit recommendations to be considered by the writing team for its improvement. We hope that wide collaboration allows for the ongoing refinement of this open resource. Please note that we do not have an editing team or any staff to maintain ongoing revisions. All the work to improve and update this resource will be an effort of a community of educators that we hope only continues to expand.

About the writing team

The following geography educators authored and curated separate textbook pages included in this text, indicated at the bottom of each page in Libretext. The creation of these chapters was a collaborative effort, and our team is presented in alphabetic order:

- **Aline Gregorio (lead author)** is a tenured Professor & Co-Chair in the Department of Geography & the Environment, Fullerton College. She earned her master's degree in Geography from Cal State Fullerton and has taught geography courses at various colleges and universities since 2011. In her classes, she exposes students to core geographical principles and analysis to help students make connections to better understand spatial inequities. She is especially interested in exploring topics in environmental justice and sustainability. Born and raised in Brazil, Aline maximizes her experiences to broaden perspectives in her classrooms. In 2020, she was recognized for her teaching excellence by the Orange County Department of Education.
- **Nazanin Naraghi (co-author)**
- **Waverly Ray (co-author)** is a professor of geography at San Diego Mesa College. Waverly has doctorate and master's degrees from Texas State University-San Marcos, where she worked as the research assistant for the Center for Global Geography Education. As the faculty advisor to the student environmental sustainability and conservation club called TerraMesa, she oversees the campus vegetable garden and supports climate and food justice projects. In 2015, she received the Associated Student Government professor appreciation award for excellence in teaching. She currently serves as an advisory board member for the California Global Education Project.
- **Jason Scott (co-author)** is an adjunct instructor of geography at Fullerton College and various other institutions throughout the Los Angeles and Orange County area. He has interests in urban development trends and exposing students to diverse ways of livelihood and resilience throughout the world. Born and raised in Los Angeles primarily, his life experiences and exposure to various backgrounds and ways of life, aids his approach to creating a comprehensive learning environment for students.

About the cartographers

This textbook contains original maps included at the opening page of each regional chapter. These were created by:

- **Kristin Sellers** is a Portland-based cartographer and analyst, with a Bachelor of Science in Geography and GIS from Portland State University. During her time in academia, she focused on human geography, developing a keen interest in participatory mapping and community development. She co-organized a student-led conference that discussed how geospatial technologies, open data, and data visualization can empower communities and support social movements. Kristin was a contributing cartographer for *Upper Left: A Cultural Atlas of San Francisco, Portland and Seattle* and enjoys blending both the technical and creative aspects of cartography to communicate complex narratives through visually compelling maps.

- **Andrew Wallace** is a Cal State Fullerton alumnus, holding a master's degree in Geography as well as undergraduate degrees in Geography and Anthropology. As a GIS practitioner based in Orange County, California, he works to facilitate land stewardship and conservation efforts through the development of paper and digital cartographic tools. Andrew's biome maps were designed with the hope to encourage a love of maps in the next generation of geographers, and act as an informative supplement to World Regional Geography open educational resources.

Acknowledgments

Financial support, ASCCC

This textbook was financially supported by the Academic Senate for California Community Colleges Open Educational Resource Initiative (ASCCC OERI), via Award Number 428 (2022-2023).

Suzanne Wakim, Butte College (CCC) and the ASCCC OERI

This project would not have been possible without the extensive support from Suzanne Wakim and the Academic Senate of California Community College OERI throughout the entire process of authoring and curating this textbook. Without their assistance, this book will not have come to fruition.

Advisory Board & Peer Reviewers

This project also greatly benefited from the additional expert advice of geography scholars and educators through the ASCCC anonymous peer review process and our own Advisory Board, composed of geography educators who agreed to guide this work, as follows:

- **Dr. Robert Voeks,** Geography Professor Emeritus, Cal State Fullerton
- **Dr. Case Watkins,** Associate Professor of Justice Studies, James Madison University
- **Dr. Ryan Goode,** Geography Professor, Cerritos College
- **Dr. Phil Klein,** Professor of Geography, GIS, and Sustainability, University of Northern Colorado
- **Dr. Fernando Bosco,** Geography Professor, University of California, San Diego
- **Emanuel Delgado,** Geography Professor, Reid College
- **Vienne Vu,** Geography Professor, Cal State Fullerton

We also acknowledge the collaboration among the co-authors/curators of this book who served as additional internal reviewers. This was a labor of great devotion and generosity by a community of passionate educators and scholars.

Technical support: LibreTexts Libraries, UC Davis

This project could not have been possible without the voluminous support of Dr. Delmar Larsen and Henry Agnew. They helped us overcome many technical difficulties during the creation of this book.

The Creative Commons Community

This book is a product of a curation of the OER content from many sources. We would like to thank open resource advocates, including academic researchers and publishers that have licensed their work under Creative Commons licenses that allowed for the inclusion and reproduction their work in this foundational text.

Copyright & Intellectual Property

Unless otherwise noted within each chapter of the textbook, this body of work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. We encourage educators to adopt and adapt this book as permitted by this license.

Within each chapter page, the authors/curators have reviewed all materials used to assure integrity of intellectual property,

offering references and attributions in each page. We will promptly remove any material determined as a violation of copyright or terms of use. If you believe that any of the material included is in violation of copyright, please contact the lead author at agregorio@fullcoll.edu.

To file a formal notification, you must be either the copyright owner of the work or an individual authorized to act on behalf of the copyright owner. Your notification must include:

· Identification of the copyrighted work, or, in the case of multiple works at the same location, a representative list of such works at that site.

· Identification of the material that is claimed to be infringing or to be the subject of infringing activity. You must include sufficient information, such as a specific URL or other specific identification, for us to locate the material.

· Information for us to be able to contact the claimant (e.g., email address, phone number).

· A statement that the claimant believes that the use of the material has not been authorized by the copyright owner or an authorized agent.

· A statement that the information in the notification is accurate and that the claimant is, or is authorized to act on behalf of, the copyright owner.

(This notification process and language were adapted from Lumen Learning and the MIT OpenCourseWare Terms of Use, licensed CC BY NC SA).

Accessibility Note

This textbook makes use of complex images and maps that may not be accessible. Please work with your instructor and local campus resources to identify accommodations for images that are not accessible.

This page titled About this book is shared under a license and was authored, remixed, and/or curated by LibreTexts.

1: GEOGRAPHY MATTERS

Re-framing Geography

When most students hear the word "geography", there is a quick association with the memorization of countries, capitals, rivers, flags, and facts associated to places. Nervousness tends to follow, as many students lack familiarity with world maps and related geographical information. Apprehensions around learning geography are often based on misconceptions about what this field of study has to offer. Consider a recent study[1]: Researchers asked undergraduate students from various American universities to rank key-terms of study topics based on their study interests. The survey results showed that students ranked the term “geography” lowest in comparison to other geography-related key terms. Yet, students expressed interest in studying “society,” “global,” “environment,” “immigration,” “human rights,” “sustainability,” and “climate change” – all of which are topics of study in geography. The researchers also found that exposure to geography matters. Students who had taken geography before ranked courses with the word “geography” and associated key terms notably higher than those who had not, regardless of if they majored in geography or not. In reading these results, we interpret that there is a gap of understanding in student perceptions of geography courses. This gap could be bridged with a little exposure to geography education but also with the use of transparent and relatable terms in course titles and descriptions to capture the wonder and curiosity that college students already have for topics in geography.

We take these research findings with much enthusiasm knowing that the geography discipline offers a unique and holistic approach to better understand topics that our students care about. We hope that this book is a conveyor of knowledge about our world and its most pressing matters. Starting with this first chapter, we seek to lift the veil on what geography is, challenge some of its traditions, and accentuate its potential to engage students in thinking critically about world-making. This is a foundational chapter connecting readers to our approach to *World Geographies,* an exploration of the world as a pluralistic human experience. If this is your first geography course or not, we welcome you to reflect on the food for thought this chapter provides. We hope these initial lessons reaffirm the terrific decision that you made by choosing to take a world geography course. Let’s begin!

References:

[1] Stoler, J. et al. 2020. What’s In a Name? Undergraduate Student Perceptions of Geography, Environment, and Sustainability Key Words and Program Names. *Annals of the American Association of Geographers* 111 (2), pp 317-342.

- Chapter Sections and Summaries

1.1: Geography and Geo-Literacy

1.2: Where on Earth? The Geographic Grid

1.3: Maps- Place, Power, and Representation

1.4: Geographical Thought- Critical Reflections and Imagination

This page titled 1: Geography Matters is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio & Nazanin Naraghi.

1.1: Geography and Geo-Literacy

Learning Objectives

1. Describe what distinguishes a geographer's approach to examining the world.
2. List the sub-fields of geography and examples of their respective topics of study.
3. Define geo-literacy and explain the state of geo-literacy among Americans.
4. Define and identify world regions and explain some of the challenges of studying the world through regional geography.
5. Speculate how geographical knowledge may be powerful and relevant for 21st-century students.

What is geography?

The Latin roots of the word geography translate as "Earth (*geo*) writing (*graphia*)." As an academic discipline, geography can be defined as the holistic study of the Earth's surface and the interrelationships of its human and physical features. Geographers seek to understand the world as an interconnected web where human and physical systems interact at various intensities and scales. Geographical study essentializes **spatial variability,** or that events, connections, and processes vary within, between, and among places. As such, geographers adopt a **spatial perspective,** a disciplinary lens focused on explaining *what, where, how*, and *why* phenomena are distributed as a way of understanding the world. For example, why are some places more vulnerable to the effects of climate change? Why was the covid-19 pandemic especially deadly in some US counties? What factors explain increased rates of tropical deforestation? Why is there a disproportionately high concentration of pollutants and a lack of trees in many poor urban neighborhoods? These are questions about specific patterns of spatial difference that shape lived experiences in the world. It is from this perspective that geographers study landscapes, pandemics, climate change, population, migration, socioeconomic inequality, biodiversity, agriculture, biogeography, urbanization, and much more.

You might note that other fields might pursue similar research questions and topics. Geography is an interdisciplinary discipline with a lot of commonalities with other disciplines. It also bridges both the natural and social sciences as a way of producing a more holistic understanding. Geographers tend to focus on **places,** locations on Earth distinguished by cultural and physical characteristics. Geographers seek to understand processes that make places unique or similar to other places and the power of place in shaping experiences and opportunities. Places can also be aggregated into larger spatial units, or **regions,** an area of the Earth with one or more shared characteristics. Geographers divide the world into regions such Europe or East Asia, or more localized regions such as Southern California or the African Sahel, for example. Regions are based on selected cultural, historical, functional, and/or environmental similarities of places. The geographical units of regions can vary in **scale**, the portion of Earth being studied. Geographers study in a variety of scales, from local to global. Many of our contemporary issues are global in scale, such as climate change and biodiversity loss. However, global issues have complex localized contexts, and geographers often study the relationship of global and local phenomena. The discipline's holistic approach treats spatial units as connected pieces of a greater whole, focusing on **connections** among peoples and environments. While geographers often isolate geographical units of the world in their analyses, studies of the world's interconnectedness, how its human and physical features are intertwined, are what makes geography unique, relevant, and powerful. No other academic discipline takes such a comprehensive approach.

Sub-fields of Geography

Geographers tend to specialize in certain spheres of geographical inquiry, generalized into the following sub-fields:

- **Physical geography** explores natural processes and patterns of the physical Earth. Physical geographers study topics such as plate tectonics, climate, biogeography, hydrology, and geomorphology to better understand the dynamics of the Earth's natural environments.
- **Human geography** explores the human processes and patterns of the Earth. Human geographers study topics such as population, migration, language, religion, place, spatial inequality, economics, development, urbanization, and geopolitics to better understand the forces shaping diverse and inequitable human experiences in the world.
- **Environmental geography** explores human-environment interactions. Given the immense human impact on Earth's natural systems, environmental geographers often focus on understanding the causes and consequences of environmental problems. These include deforestation, climate change, biodiversity, water distribution, soil erosion, food systems and a variety of

sustainability issues such as green energy, walkable cities, environmental justice, etc.

The interconnectedness of geography often requires geographers to train across geographical subfields (to at least some degree). Some observers have perceived this as a weakness. Geographical studies run the risk of being "a mile wide and an inch deep" since geographers tend to study topics more broadly (and therefore less in depth) than other disciplines might. Nonetheless, geographers have argued that this breadth is a strength and a defining characteristic, creating an integrative disciplinary approach that distinguishes geography from other fields of study.

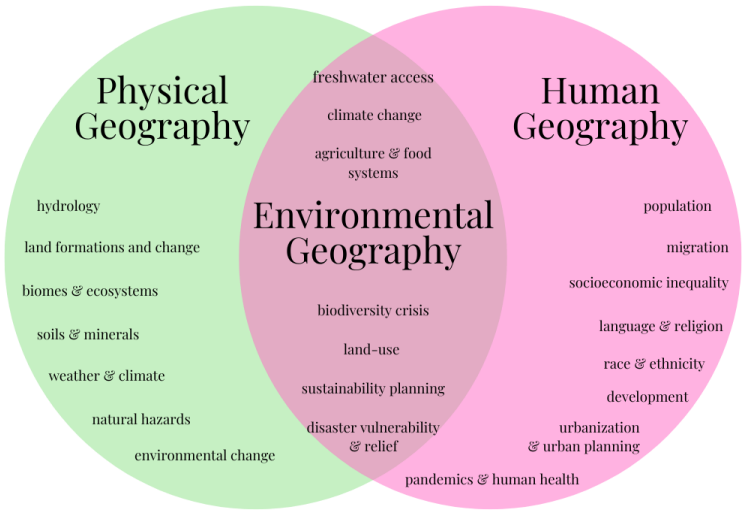


Figure 1.1.1: This Venn diagram shows some topics of study in physical and human geography and their overlap in environmental geography. When geographers study resources, climate change, agriculture and food systems, biodiversity crisis, land-use, sustainability planning, and disaster vulnerability (to name a few topics), they must bridge an understanding of both physical and human geography. Geographers sometimes study within discrete spheres, but it is common for geographers to focus on human-environment interactions (Creative Commons, CC BY-NC-SA; Aline Gregorio via Flickr).

World Regional Geography

In a world regional geography course, we explore topics across physical, environmental, and human geographies in the context of regions. **Regions** are land areas with characteristics that distinguish them from surrounding areas and thus group them together. These can be physical, geological, cultural, historical, economic, demographic, and so on. There are several types of regions that geographers use in their regional studies. **Formal regions** are clearly defined by political or natural boundaries. One example would be Los Angeles, defined as a basin *or* as a city since both have a well-defined geographical area. **Functional regions** are defined by the spatial connections of an area. Los Angeles, for example, functions well beyond its defined borders, with a system of freeways connecting commuters and trade to nearby urban centers. Economic, infrastructural, and cultural connections means that the LA area functions over a broader region that includes areas around LA, what we might refer to as a metropolitan area. The city is also part of Southern California, which is a **vernacular region,** based on socially constructed perceptions of an area, bound together in this case by sunshine, palm trees, beaches, and highways. We all use vernacular regions based on the collective or culturally based associations and understandings that we form about places, like the characteristics we highlight to differentiate North, Central, and Southern California.

While we use these examples to exemplify the types of formal, functional, and vernacular ways we might organize space, we could use regions to make sense of the Earth using varying scales. Regions can be as focused as a neighborhood or a small city or include multiple countries. **World regions** are among the broadest spatial units that geographers use. If we imagine the world as one interconnected "global village," then we can imagine that each world region is a neighborhood in that village, neighborhoods with names like South Asia or North America. Each of these neighborhoods share some degree of similarity across their histories, environments, cultures, and economies, leaving a unique spatial imprint on our planet. Studying world geography is a way to identify these various regions and understand their physical, cultural, and political characteristics. As such, in World Regional geography we read the world as a diverse collection of interconnected parts to identify qualities that set world regions apart, the processes that shape these qualities, and the relationships they share with other regions and places.

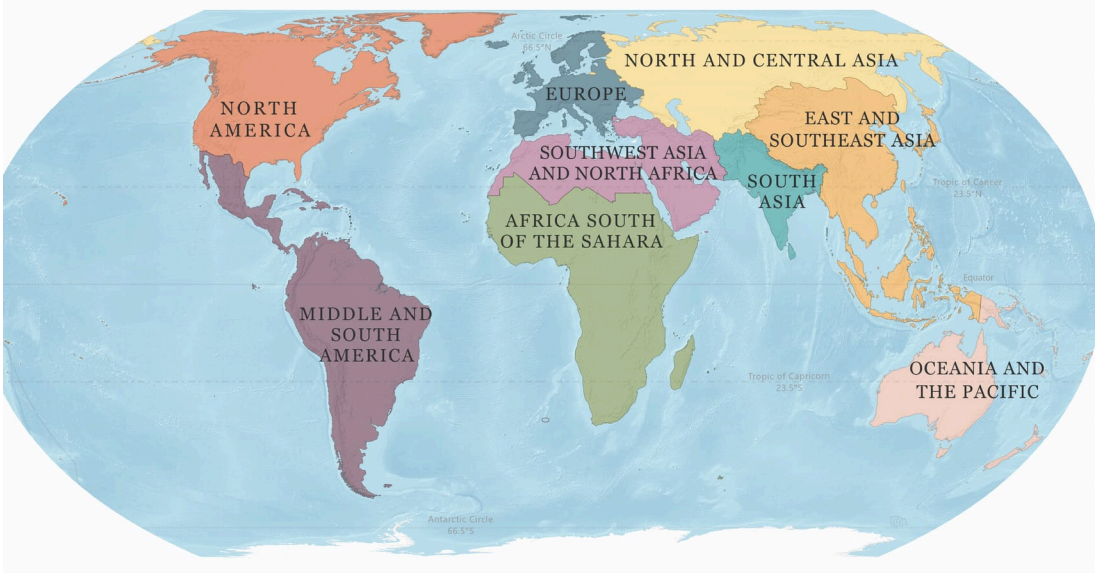


Figure 1.1.2: There is no universal definition of the world's regions. Nevertheless, except for a few areas, there is a degree of agreement among geographers and many world regional geography textbooks delineate world regions in a similar fashion. For this book, the authors followed some of the widely agreed upon regional classifications, illustrated in the map above (CC BY-NC-SA 4.0; Sellers via Flickr).

What Makes a World Region?

The dividing up of our planet into regions requires geographers to apply consistent criteria to justify their choices. Our planet is diverse. We have diverse **biomes,** or natural regions with distinguishable climate and weather patterns, vegetation, and animal life. We also have diverse cultures, histories, demographic patterns, and cultural, economic, and political systems. Yet, geographical similarities exist across places, which leads geographers to attempt to understand them as aggregates. For example, North American students might easily recognize the characteristics that set the US and Canada apart from the remainder of the Americas, pointing to the English language, temperate climates, and the global influence and affluence of US and Canada. At the same time, students might struggle with placing Mexico. Physiographically it is part of North America. It also shares a history of Spanish colonization with the American southwest, and it is economically tied with US and Canada. Many counties in the American southwest are also predominantly Hispanic and Spanish-speaking. Thus, depending on what characteristics are emphasized, Mexico could be studied in the context of North America, or it could be considered as part of Middle America based on strong cultural and historical ties with that region.

Regions are not always bound neatly by geographical proximity. For example, physical geographers often dissect the world into natural regions based on patterns of temperature and precipitation. As such, we can identify the tropical regions near the equator, with warm and wet climates and lush vegetation spanning across the Americas, Africa, and South and Southeast Asia. Similarly, expansive deserts can be found in the mid-latitudes across the continents. This spatial pattern is visible in satellite images, with green equatorial regions that transition into barren landscapes along the mid-latitudes. When thinking of human characteristics, too, geographers often use various transcontinental regions. Take for example the term "the Muslim world," a term used to identify places with large Muslim populations. This cultural region sweeps North Africa, Southwest Asia, South Asia, and Southeast Asia. Other terms like "high income countries" or the "Spanish speaking world" are examples of how we mentally aggregate places based on selected similarities. In other words, regions are creative imaginings of geographical contexts, constructed spatial aggregates. As such, we should think of them as dynamic entities, constantly changing over time, and always subject to perspective, historical context, and decision making.

World Regions as Generalizations

World regions are a form of **spatial heuristics** (heuristics is a Greek word for "I find, discover"), and, for our purposes, it means a cognitive shortcut to come to a short-term conclusion. World regions are intellectual tools for classifying and organizing places both physically and in our imagination. It is important to recognize, however, that dissecting the world into world regions results in broad generalizations. While they are useful for synthesizing spatial variability across the vast Earth, there is great diversity in physical, cultural, functional, and historical factors *within* regions that drives geographers to "zoom in," or examine phenomena at finer scales to better understand more localized contexts and places.

Each of the world regions can be and often are divided into smaller regions and sub-regions. For example, in this book we explore East and Southeast Asia as one world region. Each of these could instead be declared its own region, based on unique distinguishing characteristics. There is not a single world region that demonstrates physical or cultural **homogeneity**, they are instead immensely diverse, or **heterogeneous,** and geographers often use sub-regions to make sense of the diversity within regions. Africa South of the Sahara, for example, can be further regionalized into east Africa, south Africa, west Africa, and central Africa. Europe, too, could be studied in sub-regions like Scandinavia or the Mediterranean, places with distinctive cultural and environmental features that bind them together. We titled this book *World Geographies* because regions aggregate diverse spatial contexts, and there is no such a thing as a singular world geography nor a homogenous world region.

There might be times when generalizations about a specific unique place on the planet might be helpful, and there are other times when generalizations can be limiting and can even turn into stereotypes. Thus, regional studies have fallen in and out of favor among geographers as we debate how a region is to be represented and how these representations impact how that part of the world is understood. For example, designating the "rust belt" as an economic region in the the Mid-Western US carries negative connotations of abandoned or disinvested places and suggests areas such as Pennsylvania or Ohio are in decline. These generalizations are based on facts and historical processes but are subject to debate because they are one-dimensional social constructions. In other words, they tell a single story of economic decline without contextualizing other cultural and environmental characteristics that make the region more than just the "rust belt." This exercise in labelling also shows the power and importance of naming. What and how we choose to name places matters. Regional geography always runs the risk of flattening multi-dimensional geographical contexts for the sake of focus and simplification. Even as we make our best attempts at a multi-dimensional approach to world regions, keep this tension in mind as we move forward through the chapters in this textbook.

Boundaries and Transition Zones

Geographers study world regions as spatial units bound by some sort of natural or political delineation. When you look at Figure 1.1.2, what do you notice about the natural features that separate regions? Perhaps you noticed how water bodies serve as natural boundaries, or separations, that help spatially define each realm. For example, the Atlantic Ocean separates the Americas from Africa and Europe, and the Pacific Ocean separates them from Asia. These oceans remained a formidable barrier to the connections between Eurasia and the Americas for millennia. The separation of the continents was driven by the forces of plate tectonics that over millions of years broke up the supercontinent of Pangea into the landmasses we recognize today. However, world regions are not continents. Some continents contain several world regions, sometimes delineated by physical features, like deserts, mountains, or rivers. For example, rivers form about 23 percent of the world's international borders. Rio Grande partially forms the border between Mexico and the US, the Amu River between China and Russia, and the Ruvuma River separates Mozambique and Tanzania (See Figure 1.1.3).

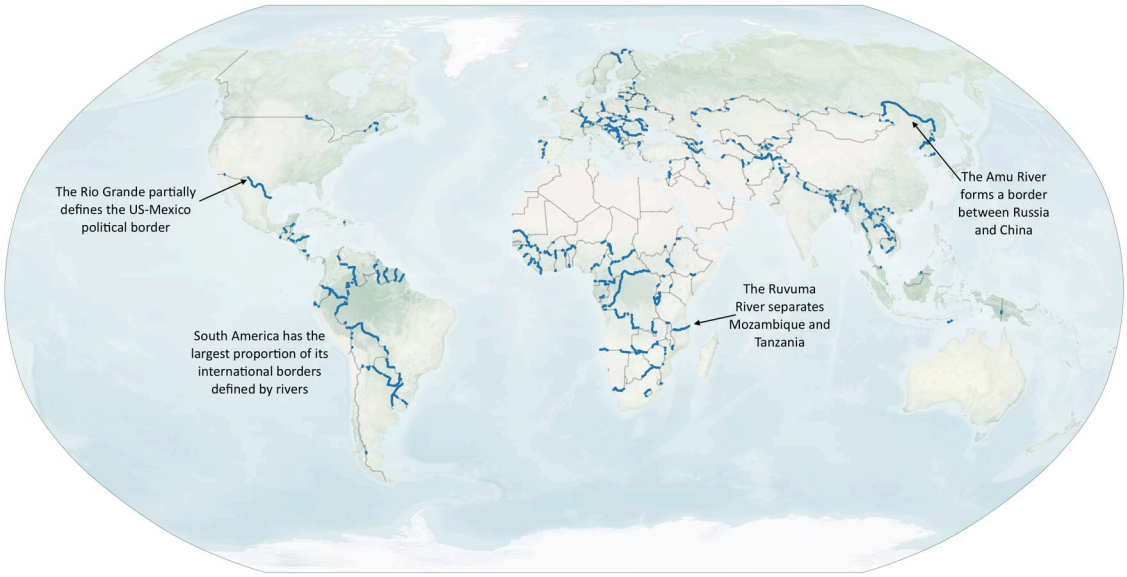


Figure 1.1.3: Rivers have long united people, so much so that a world without rivers would be unrecognizable. By providing fresh water, fertile land, and food—along with a convenient way to transport goods—rivers have long determined the locations of towns, cities, and ultimately entire civilizations. Fertile river valleys were cradles to four of the earliest civilizations: the Tigris and Euphrates in Mesopotamia, the Nile in Egypt, the Indus in South Asia, and the Yangtze and Yellow in China. Brown University geographer Laurence Smith became fascinated by the concept of waterways as political borders. Smith utilized Landsat images to map the world's border rivers and found that rivers make up 23 percent of international borders, illustrated above (NASA; within permitted use).

Boundaries, however clear they might seem, are not clear-cut lines of physical separation. World regions cannot be dissected from their connections to our larger interconnected planet, so we can think of the boundaries where two or more regions meet as zones of gradual transition. These **transition zones** are marked by gradual spatial change among cultural and environmental characteristics. For example, the Sahara Desert is a physical feature diving Africa into two distinctive regions north and south of the Sahara. The Sahel is a transitional belt in the southern limits of the Sahara, where the climate transitions from arid to semi-arid before it becomes humid further south. The Sahel is also home to a cultural transition zone where the predominant religion of the north, Islam, coexists with the predominant religion of the south, Christianity. Sahelian countries tend to have an evenly split Muslim and Christian population. These transitional spaces are at the crossroads of world regions and are thus difficult to categorize.

Political borders are often arbitrary lines that abruptly sever natural and cultural landscapes. The United States, for example, shares political borders with Canada and Mexico. The Canadian-US border is the longest international border in the world and was closed off after the September 11th attacks and as a response to the COVID-19 global pandemic. The US-Canada border severs six federally recognized tribal lands, including the Akwesasne Mohawk territories. The Akwesasne territories span New York state and the Canadian provinces of Ontario and Quebec on both banks of the St. Lawrence River. Thus, the political boundaries of the two countries do not correspond with established Indigenous geographies. This is also true along the Mexico-US border where it bisects the Tohono O'odham Nation of southern Arizona and northern Mexico (See Figure 1.1.4). For thousands of years, O'odham people crossed the Sonoran Desert freely, both before and after the US-Mexico border imposed upon their ancestral lands. Today, the Indigenous Nation controls about 75 miles of the highly contested border region, even as fences, walls, and border security have continued to expand over the last three decades. O'odham leaders have resisted the construction of physical barriers severing their lands, noting threats to migratory wildlife and damage to sacred sites, including sacred water springs and burial sites.

The connections between US and Mexico can also be noted in the contemporary relationships between the two countries. At the San Ysidro port of entry, many US and Mexican citizens cross daily, helping to make the US-Mexico border the most frequently crossed political boundary in the world. Many businesses in San Diego are dependent on manufacturing in Tijuana. Tijuana is also a popular destination for American tourists who visit the city for its nightlife and cultural attractions or to fly out to other parts of Mexico, a top destination for international travel for Americans. The Tijuana Cross-Border terminal represents a bi-country airport where travelers can board in terminals in San Diego but take-off from the runaway in Tijuana. These are a few examples of how San Diego-Tijuana represents a transitional space with so many lines of connections that permeate an increasingly fortified border zone.

Many of the world's **borderlands,** land areas around political borders, are tense spaces. The borders of Morocco-Western Sahara,

for example, were drawn based on European interests and continue to be fervently contested. Similar tensions around colonial borders exist in many parts of the world, notably in Africa South of the Sahara and in South Asia. As we write today, Russia is fighting a war of conquest to expand its borders and claim Ukraine. The state of Israel continues to expand its claims to territory into the West Bank, beyond internationally recognized cartographic borders. In Europe, too, borders have not been fully settled. The country of Cyprus's capital Nicosia is the only divided capital in the world - North Nicosia is the capital of the Turkish Republic of Northern Cyprus, a state only recognized by Turkey with a mainly Turkish population, while southern Nicosia is the Republic of Cyprus home to Greek Cypriots. Geographic borders change, they are fluid and dynamic, and they can be the source of violent conflict. Dividing up land and deciding who the land "belongs" to is one way we witness the spatial materialization of power.



Figure 1.1.4: These figures illustrate the US-Mexico border, a contested transition zone with an expanding system of fences, barriers, and border crossing enforcement via digital sensors and Border Patrol personnel. [left] This picture captures a segment of the border fence near Nogales, Arizona, layered with Concertina, a razor-sharp wire used to deter border crossings (Public Domain; US Customs and Border Patrol via Wikimedia Commons). [right] This map illustrates the historically settled lands of the O'odham spanning Mexico and the United States, severed by the US-Mexico border created in 1854. O'odham leaders have opposed the construction of fences and walls along the 75-mile stretch of this international border within their territory, pointing to the disruption to wildlife and sacred sites. Map depicts: the Tohono O'odham Indian Reservation - the U.S. government federally recognizes the O'odham people however Mexico does not provide federal recognition to native peoples; Traditional Tohono O'odham Lands based upon the 1989 'Report to the Tohono O'odham Nation on Land Loss by George Barnett'; The Gila River, which served as a border between the U.S. and Mexico from 1848 until the Gadsden Purchase in 1854; and The U.S.-Mexico border created by the Gadsden Purchase in 1854. The land ended territorial disputes between the two countries and provided a backdrop for a transcontinental railroad. The O'odham were not consulted. (CC BY-SA 3.0; Purnell via Oxford Research Encyclopedia).

Geo-literacy & Geography Education

Studying world geographies is an opportunity to build **geo-literacy,** or a basic understanding of how the world works. The National Geographic Society describes geo-literacy to be encompassing of three general concepts, something they call "the three I's": 1) that the world is *interconnected*, or that we interact and connect with peoples and environments in other places, often economically and culturally; 2) that nature and society are *interacting systems;* and 3) that these connections and interactions between people and places often result in *implications,* including socioeconomic and environmental issues. Studying geography could entail researching how energy use in the US impacts various parts of the world; how countries disproportionately contribute to and are disproportionately burdened by climate change; the causes and consequences of a global crisis of refuge; or the historical and geographical processes that enable empires to rise and fall. These explorations are examples of how geographical studies explore the connections between places, the interactions of human/environmental systems, and their associated real-world implications. These elements of geo-literacy make it a fundamental skill to help us make sense of the world and envision solutions to its most pressing challenges.

Americans & Geo-literacy

Geography has been called the "unloved stepchild of American education"[1] - only six states in the US require geography stand-alone courses in fundamental education and out of the nine areas listed as core academic subjects, geography is the only one

that does not have a dedicated federal program and funding for research or innovation. As a result, many college students in introductory geography classes have no background in the discipline.

The institutionalized neglect of the discipline of geography in the US education system has a dire impact on geo-literacy among students. The 2018 National Assessment of Educational Progress (NAEP), known as "The Nation's Report Card," indicated that less than 25% of American students were *proficient* in geography, that is, able to perform at the level expected for their grade.[2] In 2019, NAEP announced geography would be eliminated from its assessments. Similarly, the Survey on Global Literacy by Foreign Relations and National Geographic Society (2016) assessed the understanding of college-aged adults on basic global literacy and issues of pertinence to the United States. Questions inquired about American military alliances, locations of countries where the US has long-standing military involvement/tensions (such as Iraq, Afghanistan, and Iran), and global issues such as climate change. The results showed "significant gaps between what young people understand about today's world and what they need to know to successfully navigate and compete in it. On the knowledge questions asked, the average score was only 55 percent correct. Just 29 percent of respondents earned a minimal pass..."[3]

We share these findings not to shame or discourage novice geography learners. Instead, we intended to explore some national indicators to shed light on the state of geo-literacy and provide some explanations for why geography is a weak spot for many American college students. At the same time, while levels of geo-literacy vary among individuals, everyone has geographical experience. May it be through the migration stories in our family trees, our local or distant travels, our participation in our communities, or the bits and pieces of information that we put together to make sense of the world. A geography education can be an opportunity to subject our knowledge and perceptions to scrutiny and to consider new information, ideas, and perspectives as a part of the journey for learning and growth. We invite you to come as you are. Let us engage in the vulnerable act of learning, in shared openness and humility. It is in this demeanor that we believe we can best nourish the ongoing act of learning and growth.

Beyond Geo-Literacy: Powerful Knowledge

"Whether it is through appreciating the beauty of Earth, the immense power of Earth-shaping forces or the often ingenious ways in which people create their living in different environments and circumstances, studying geography helps people to understand and appreciate how places and landscapes are formed, how people and environments interact, the consequences that arise from our everyday spatial decisions, and Earth's diverse and interconnected mosaic of cultures and societies. Geography is therefore a vital subject and resource for 21st century citizens living in a tightly interconnected world. It enables us to face questions of what it means to live sustainably in this world. Geographically educated individuals understand human relationships and their responsibilities to both the natural environment and to others..." – International Charter on Geographical Education, 2016.[4]

Like language literacy, the ability to read combinations of words does not necessarily result in comprehension of the complex ideas in a text. While literacy is essential in retrieving written information, it is a basic skill. Literate students continue to enhance their knowledge and abilities through practices and skills building that helps them think beyond their own experiences. Education sociologist Michael Young has argued that a meaningful education should instill powerful knowledge, or subject knowledge that provides more reliable explanations about the world and intellectually empowers those who attain such knowledge. Maude argues[5] that geographical knowledge empowers us by...

- **providing new ways of thinking about the world.** Everything exists and happens in a given place, each place is unique, and the characteristics of places can provide at least partial explanations for the outcomes of environmental and socioeconomic processes. A focus on spatial variability is practical and provides a unique way of seeing and explaining the world.
- **providing ways to analyze, explain, and understand the world**: 1) through comparative analysis, noting how places may be similar and/or different; 2) through explanatory concepts, explaining causal connections and mechanisms that shape places; and 3) through generalizations, or synthesizing a lot of information to discern, compare, and question geographical contexts and phenomena.
- **enabling us to find, evaluate, question, and use knowledge to challenge those in positions of power**. Thus, this knowledge is powerful because it is not restricted to the powerful, engaging learners with how knowledge is produced, vetted, and applied in decision making.
- **enabling engagement in debates on significant local, national, and global issues.** The ability to integrate scientific knowledge of topics of great relevance, in both the social and natural sciences, enables learners to attain a holistic understanding that equips them to participate in pressing societal issues.
- **providing knowledge of the world.** Geography teaches us to think beyond our individual experiences and helps us identify our connections to distant places and peoples. This knowledge stimulates curiosity and appreciation and improves our sense

of global citizenship.

Learning geography ought to be powerful. And it is powerful specifically because we are enveloped in real-world geographical experience and real-world challenges. Amidst the climate crisis, the inequities highlighted and exacerbated by the COVID-19 pandemic, global declines in human freedoms, unprecedented levels of economic inequality, persistent violations of human rights, and so many other indicators of a world in disarray, the need to connect with and beyond (y)our individual experience to thinking critically about the world, to expand (y)our circles of compassion, and to engage in solutions for a brighter future has never been more urgent. As Derek Alderman, a former president of the American Association of Geographers, highlighted: "Absent, at least prominently, within standard definitions of geographic literacy is the relationship between geographic education and the promotion of peace, social and environmental justice, and anti-discrimination—the very matters that seem to matter the most at this historical juncture..." [6] This kind of geographical knowledge is a core element of a meaningful education and an essential component of world-making.

A failure to maximize geography classrooms to advance this mission is extremely consequential. As Harm De Blij wrote in his book, *Geography Matters,* "the American public is the geographically most illiterate society of consequence on the planet, at a time when United States power can affect countries and peoples around the world." Economic and political decisions made in the US have far-reaching consequences. We share this planet and its precious resources with billions of others, and yet have a disproportionate hand in many of its contemporary issues as we consume more resources and exert most military power/influence on international matters. Improving geo-literacy through geographical knowledge means that individual Americans can leverage their centrality and influence with greater global citizenship, stewardship, and accountability. We look forward to maximizing the opportunity.



Figure 1.1.5: This picture is a collage of a massive mural showcasing a collection of colorful portrait paintings in Rio de Janeiro, Brazil. The renowned graffiti artist Eduardo Kobra titled the artwork *Todos Somos Um,* meaning "We Are One." Each portrait honors Indigenous peoples of five continents: the Huli of Papua New Guinea, Oceania; the Kayin, a Sino-Tibetan group in Asia; the Tabajos of Brazil, Americas; the Supi, Europe; and the Mursi in Ethiopia, Africa. Geographers often draw on public art and other physical displays in the cultural landscape to better understand the histories and aspirations of human societies. This mural in particular draws on a shared aspiration by the authors, to inspire a sense of connection with distant peoples and places around the world (CC BY-SA 2.0; Franco via Flickr).

References:

[1] Finn, Chester E. 2020. Geography: The Unloved Stepchild of the American Education.

[2] NAEP's 2018 Report Card: Geography.

[3] Council on Foreign Relations & National Geographic, 2016. What College-Aged Students Know About the World: A Survey on Global Literacy.

[4] Commission on Geographical Education of the International Geographical Union. International Charter on Geographical

Education. 2016.

[5] Alaric M. 2016. What Might Powerful Geographical Knowledge Look Like? *Geography* 101 (2).

[6] Derek A. 2018. Time for a Radical Geographic Literacy in Trump America. *American Association of Geographers Newsletter*.

Attributions:

"Kant's Three Ways of Ordering Knowledge" by Mark Conson, William Doe, Michael Thomas, and Greg Thomas, Penn State University (CC BY-NC-SA 4.0).

Sub-fields of geography is adapted from "History of the Geography Discipline" by Darstrup (CC BY 4.0).

This page titled 1.1: Geography and Geo-Literacy is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio & Nazanin Naraghi.

1.2: Where on Earth? The Geographic Grid

Learning Objectives

1. Define latitude and longitude, and explain how they work as a global coordinate system for absolute and relative location.
2. Explain the role of instruments and Indigenous knowledge and tradition in wayfinding.
3. Explain how longitude relates to time zones and how latitude relates to seasons and climate zones.
4. Identify and describe the general characteristics and latitudinal distribution of the world's major biomes.

The Geographic Coordinate System

Geography's focus on *where* requires a system to detect specific positioning in the world. Historically, global positioning was calculated through complicated celestial navigation which dependent upon observing and calculating one's position relative to the sun, planets, and stars at a given latitude. Today, technological innovations such as satellites and global positioning systems (GPS) enable accurate 'pinpointing' of where on Earth selected features are located within the geographic coordinate system, a locational matrix that measures location based on latitude and longitude.

Latitude is an angular measurement north or south of the Equator relative to the center of the Earth. The Equator represents the Earth's largest circumference and is the line of reference (0 degrees of latitude) for North and South orientation on Earth. A line of latitude, called a **parallel**, encompasses locations on Earth that are up to 90° degrees North or South of the Equator.

Longitude is the angular measurement east and west of the **Prime Meridian**, relative to the center of the Earth. The Prime Meridian was determined by international agreement to be in line with the location of the former astronomical observatory at Greenwich, England. Geographers placed this arbitrary line in Great Britain during a time when the British Empire was at the height of its power. This shows how knowledge and science are always shaped by political power. Since the Prime Meridian is the line of reference (0°) for longitude, locations on Earth became East and West relative to Europe. A line of longitude, called a **meridian**, measures up to 180° East or West of the Prime Meridian.

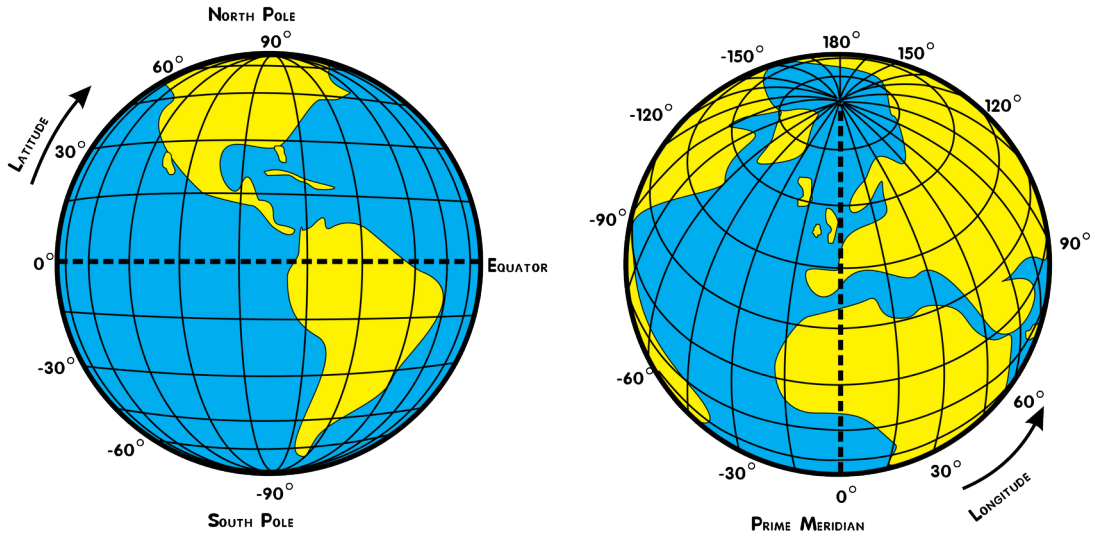


Figure 1.2.1: Illustration showing the geographic coordinate system. Horizontal lines parallel to the equator are latitude lines that measure locations North and South of the equator (left image). Vertical lines, or meridians, converge at the poles and measure East to West from the Prime Meridian (right image). (Public Domain; via Wikimedia Commons)

The geographical grid system works as a locational matrix. The intersections of lines of latitude (y) and longitude (x) enable us to determine **absolute locations**, or a numerical address on Earth (the coordinates are symbolized as first latitude then longitude. Example: 33°N, 118°W). The geographical grid also establishes a conceptualization of **relative location**, or the location of places

relative to other places, as it identifies continents and peoples East or West or North and South relative to the grid's imaginary center. Based on this system, all locations on Earth are relative to the central point (0°,0°) of the coordinate system, the point where the Prime Meridian and the Equator intersect. This point is named Null Island, a humorous reference to the fact that no island exists here. The location is marked by a weather buoy located in the international waters of the Atlantic Ocean, in the Gulf of Guinea in West Africa. Yes, everything on Earth is measured in absolute terms (latitude and longitude coordinates) and relative terms (east/west, north/south) in reference to an imaginary center marked by a buoy.

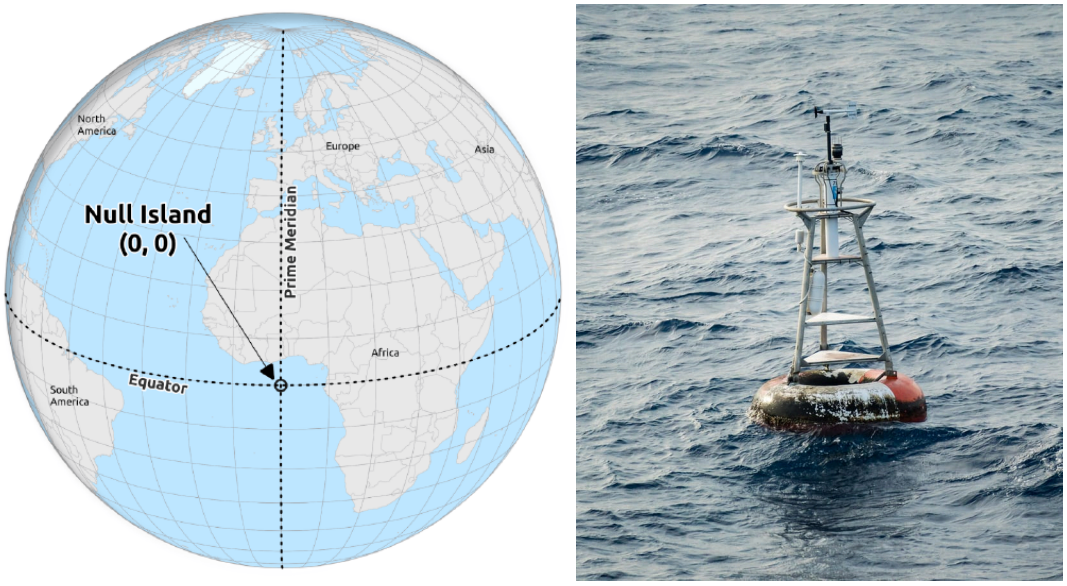


Figure 1.2.2: [left] This figure shows the location of Null Island, a fictional place, at the intersection of the Equator and Prime Meridian, with geographic coordinates of (0°, 0°). (CC BY-SA 4.0; Levente Juahaz via Wikimedia Commons). [right] This picture depicts the National Data Buoy Station 13010 (0°, 0°) maintained by the Prediction Research Moored Array in the Atlantic (PIRATE), anchored off the coast of Guinea. (CC BY-SA 4.0; Graham Curran via Wikimedia Commons).

Wayfinding: the stars, the chronometer, and GPS

Humans have a long history of wayfinding, figuring out ways to journey across oceans and deserts and to settle in new places. Polynesian navigators provide a telling example of this legacy, based on their vast expansion across the Pacific Ocean. Over thousands of years, Polynesians have navigated an oceanic expanse equivalent to twice the size of Canada - without instruments.[1] Their ventures were guided by their expert knowledge of oceanic currents, winds, and especially the stars. For thousands of years Polynesian navigators have collaborated to develop a mental compass based on a sophisticated understanding of the movement of stars and their constellations through the night sky. A rising star cuts the horizon at a low point but can only be used as a positioning reference for a certain time before it has risen too high, and the next star to rise is then used to keep the craft on course. By day or when the night was cloudy, Polynesians steered their canoes by reading ocean currents and winds. Throughout the Pacific, island navigators used a rich oral tradition to pass down their sea faring knowledge from one generation to the next[2]

The Polynesian mastery of the seas became an enigma for Europeans who encountered the Pacific Islands in the 16th Century. Europeans puzzled over Polynesian knowledge and wondered how they came to inhabit such vast expanse in the Pacific Ocean without any navigational instruments, not even a compass. At a time when Polynesians had already sailed more distance than any other known civilization, European sailors feared the open sea, keeping their journeys within proximity of coastlines. For thousands of years, navigators have struggled to learn a frame of reference to sufficiently guide long-distance travel into featureless terrain such as the open ocean. Over the centuries, increasingly sophisticated devices were used to measure the height of the sun and stars above the horizon to measure latitude.

Figuring out longitude remained a problem for navigators for centuries. Columbus reached the Americas without having an accurate and reliable method or device to calculate how far west he had sailed into the Atlantic Ocean. Great minds had tried for centuries to develop a method of determining longitude, to accurately position travelers as they journeyed east and west. Hipparchus, a Greek astronomer (190–120 BC), proposed that longitude be determined by finding the difference between an absolute time and local time. However, his method required an accurate clock, something yet to be invented. It was not until centuries later that this would be solved, motivated by an act of the British Parliament in 1714 that offered financial reward to anyone who would solve the longitude problem. Amateur clock maker, John Harrison, saw time as the key and realized that if you could determine local time (from the position of the sun) and the time at some reference point (like Greenwich), you could calculate the time difference between the two and work out how far apart the two places were in terms of longitude. In 1730, he produced his first design of a marine chronometer. Harrison's solution revolutionized navigation for hundreds of years until the development of Global Positioning Systems (GPS) improved our ability to locate points on the Earth through a constellation of satellites and ground stations. They are like artificial stars used as reference points to calculate a terrestrial position within an accuracy of a few meters.

Instruments have undoubtedly revolutionized navigation, but scholars for far too long have attributed navigational capabilities to technological development. During the centuries of the European colonial empire, the Polynesian mastery in navigation was largely dismissed because of the lack of technological instruments. Early academic theories denied the seafaring expertise of the Polynesians, hypothesizing that they had come to inhabit a wide expanse of the Pacific by accidentally drifting from island to island. Scholars now widely recognize that Polynesians settled these islands over thousands of years based on ancestral navigational techniques rooted in their rich knowledge of the natural world. Over time, much of this knowledge was lost due to colonization and the influx of navigational technology. Seeking to revive and reaffirm a seafaring tradition, the Polynesian Voyaging Society (PVS) was founded in 1973. They sought to recover the little knowledge that was left, from the very few Polynesian navigation masters that still lived, to counter the hypothesis of "accidental drift" by reenacting navigation based entirely on Indigenous knowledge of the sun, stars, ocean currents, and the winds. Their inaugural sail in 1976 was completed on a newly crafted *Hōkūle'a,* a Polynesian voyaging canoe, taking 33 days to sail from Hawaii to Tahiti with only traditional knowledge. Over the course of fifty years, the PVS has trained thousands new navigators, including women who had traditionally been excluded.[3] PVS expeditions symbolize a renaissance of traditional Polynesian wayfinding, a reclamation of culture and history. *Hōkūle'a* voyages brought much pride to the Pacific Islands, reasserting that Polynesian wayfinding belongs not merely in museums, but in the ancient star-lit tracks drawn in the mental maps of master navigators who are reviving and passing their ancestral knowledge to many generations to come.



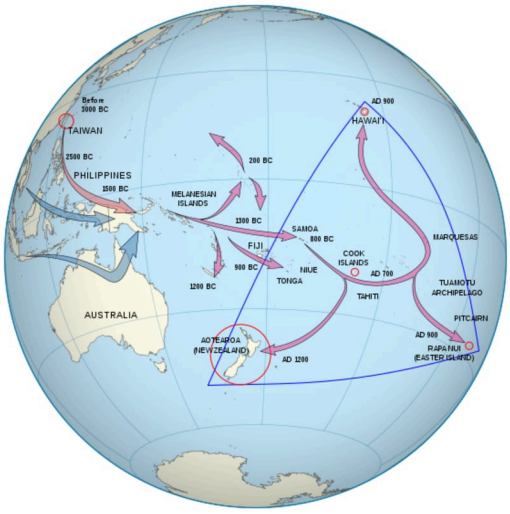


Figure 1.2.3: Polynesians perfected voyaging more than 3,000 years ago, oriented by their knowledge of the skies and the sea. [left] Depicted here is the *Hōkūle'a,* a modern canoe that replicates traditional Polynesian design, off to a journey from Honolulu, Hawaii (CC BY 2.0; HongKongHuey via Wikimedia Commons). Its first journey from Tahiti to Hawaii in 1976 reaffirmed Polynesian mastery of non-instrumental navigation. Since, the *Hōkūle'a* has undergone many journeys, including to Rapa Nui (in 1999), the most remote islands on Earth, located at the far southeastern corner of the Polynesian Triangle. From 2013-2017, a crew took Hōkūleʻa around the world. New voyaging initiatives are scheduled to raise awareness about climate change. [right] this map shows the migration of Polynesians who are taught to have left Taiwan and settled in the Polynesian Triangle over thousands of years (CC BY 4.0; Eccles via World History Encyclopedia).

Longitude and Time Zones

The quantification of time is essentially the counting of how many times the Earth rotates on its axis and revolves around the sun. It is a helpful social construct that relates the world to a central clock in Greenwich, London (where the Prime Meridian is referenced). The Earth rotates on its axis 15 degrees every hour. **Time zones** are established roughly every 15 degrees longitude so that local times correspond to similar hours of day and night. With this system, the sun is generally overhead at noon in every time zone that follows the 15-degree-wide system. Every fifteen degrees of longitude west of the Prime Meridian is one hour earlier, and every fifteen degrees east of the Prime Meridian is one hour later.

The Universal Time (UT), Coordinated Universal Time (UTC), **Greenwich Mean Time** (GMT), or Zulu Time (Z): all four terms can be defined as local time at 0 degrees longitude, which is the Prime Meridian. This is the same time under which many military operations, international radio broadcasts, and air traffic control systems operate worldwide. UTC is set in zero- to twenty-four-hour time periods, as opposed to two twelve-hour time periods (a.m. and p.m.). The designations of a.m. and p.m. are relative to the central meridian: a.m. refers to *ante meridiem*, or "before noon," and p.m. refers to *post meridiem*, or "after noon." UT, UTC, GMT, and Z all refer to the same twenty-four-hour time system that assists in unifying a common time in regard to global operations. For example, all air flights use the twenty-four-hour time system so the pilots can coordinate flights across time zones and around the world.

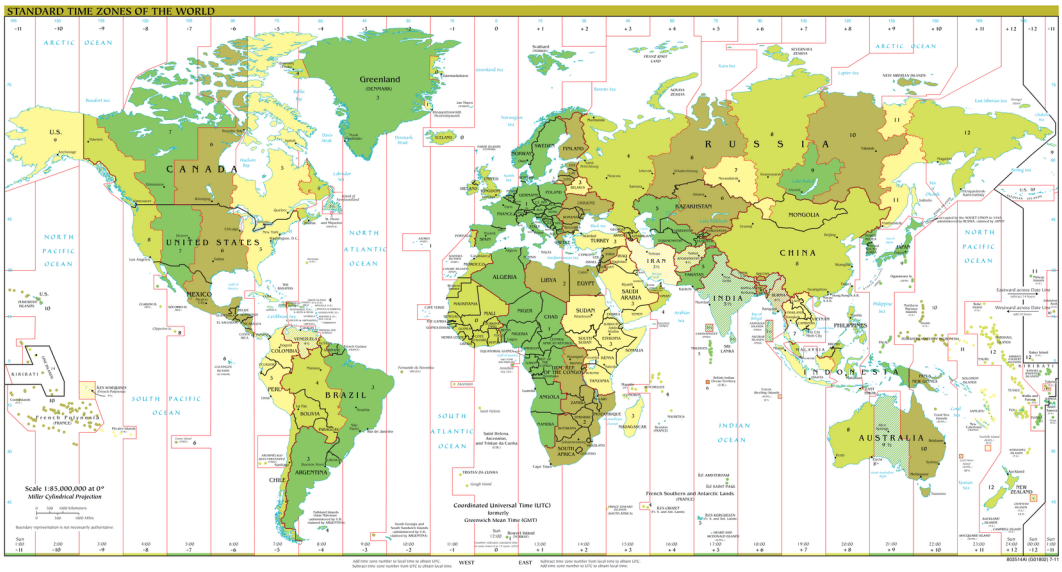


Figure 1.2.4: This map depicts the world's time zones according to the Coordinated Universal Time (UTC), formerly Greenwich Mean Time (GMT). Each time zone encompasses, more or less, fifteen degrees of longitude. These time zones are an attempt to synchronize global clocks to the Earth's rotation on its axis at 15 degrees per hour. Some countries have multiple time zones (US, Russia) while others reject the hour slots of the UTC (India) or prefer to have a single time zone across many degrees of longitude (China). Click on the image for a larger, more detailed map (CC BY-SA 3.0; via Wikimedia Commons).

The 15-degree time zones are not uniform and do not necessarily follow state, regional, or local boundaries. Time zones are seldom exactly 15 degrees wide and usually have varied boundary lines. In the United States, the boundaries between the different time zones are inconsistent with the lines of longitude; in some cases, time zones zigzag to follow state lines or to keep cities within a single time zone. Other countries address the problem differently. China, for example, is as large in land area as the United States yet operates on only one time zone for the entire country. Ultimately, time as we know it is imaginary and constructed. The progression of life, aging and decaying, certainly materialize the notion of a temporal element to physical existence on Earth. However, the quantification of time is a social construct – countries decide what time zone they wish to follow.

Latitude, Seasons, and Global Climates

Latitude, solar radiation, and seasons

Where we are north or south of the equator is particularly important because of the Earth's relationship to the sun. The earth is tilted on its axis 23.5 degrees. As it rotates around the sun, the tilt of the earth's axis exposes the northern and southern

hemispheres to direct solar radiation during their respective Summer Solstice. The northern hemispheric summer occurs when direct solar radiation reaches its northernmost latitude, the **Tropic of Cancer (23.5°N)**. Likewise, the southern hemispheric summer occurs when direct solar radiation reaches its southernmost latitude, the **Tropic of Capricorn (23.5°S).** Thus, the rotation of a tilted Earth around the sun results in an uneven and shifting distribution of direct solar radiation. Because direct solar radiation shifts between the Tropic of Cancer and Tropic of Capricorn throughout the year, there is a warm region in between these parallels known as the tropics. This area does not experience dramatic seasonal changes because the amount of direct sunlight received does not vary widely. The higher latitudes (north of the Tropic of Cancer and south of the Tropic of Capricorn) receive more diffused solar radiation, are colder, and experience significant seasonal variations in their climates.

High latitudes are also susceptible to greater variations in daylength. Because the tilt of the earth, hemispheres are tilted either towards or away from the sun during the Solstices, exposing extreme latitudes to greater hours in light or darkness (see Figure#). This is true in the **North Pole (90°N),** the northernmost latitude or the **South Pole (90°S),** the southernmost latitude. Both points are the places are associated with frigid climates and lengthy days and nights during the solstices. This susceptibility to great variations in daylength extends to lower polar latitudes. The **Arctic Circle (66.5°N)** is the northernmost parallel to experience daytime in the northern hemisphere's winter (December). The **Antarctic Circle (66.5°S)** is the southernmost parallel to experience daytime in the southern hemisphere's winter (July). In other words, the Artic and Antarctic Circles mark northern and southern latitudes and are susceptible to 24-hour days and 24-hour nights. North of the Arctic Circle, the sun is above the horizon (during the summer) for twenty-four continuous hours at least once per year. It is then below the horizon (during the winter) for twenty-four continuous hours at least once per year. Latitudes south of the Antarctic Circle experience the same patterns of polar days/nights respective to the hemispheric season. This wide variation in daylength is paused during the Equinoxes, when no hemisphere is tilted towards or away from the sun and all latitudes experience 12 hours of day and night.

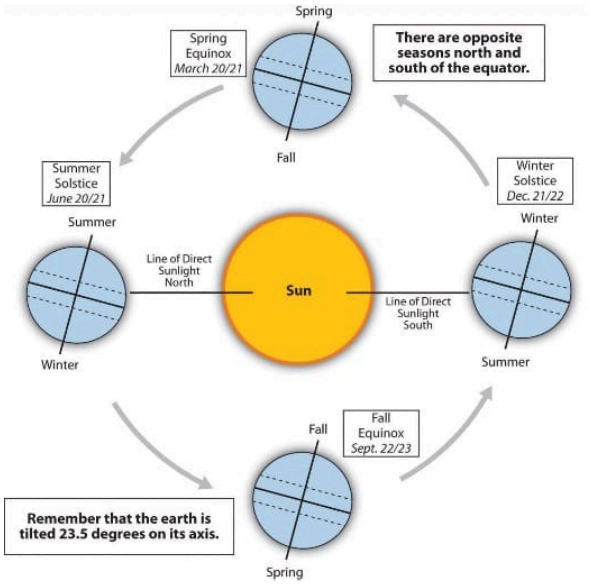


Figure 1.2.5: This diagram depicts the Earth's revolution around the sun showing how the Earth's tilt of 23.5 degrees on its axis shapes summer and winter solstices respective to the Northern Hemisphere. Remember that latitudes north and south of the equator are in opposite seasons. In the Northern Hemisphere, the Summer Solstice occurs on or about June 20 or 21, the Fall Equinox occurs on or about September 22 or 23, the Winter Solstice occurs on or about December 21 or 22, and the Spring Equinox occurs on or about March 20 or 21 (Creative Commons, CC BY-NC-SA; R. Berglee via LibreTexts)

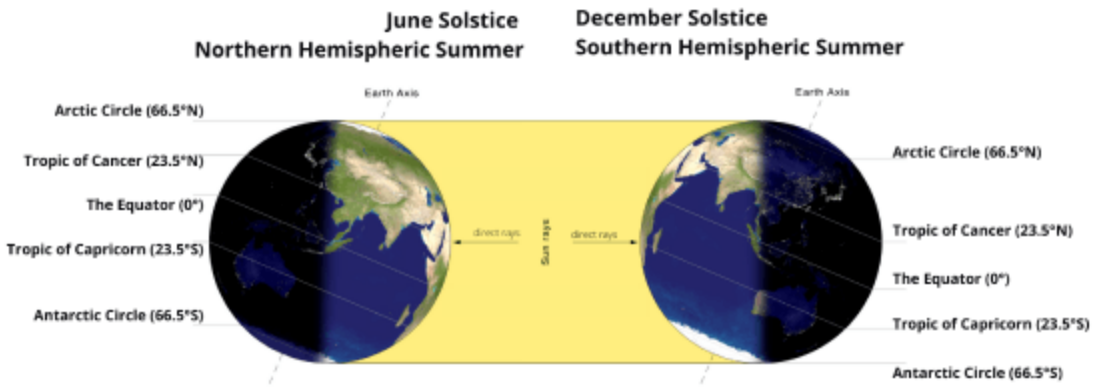


Figure 1.2.6: This diagram depicts the June and December solstices. [left] **June Solstice:** The northern hemisphere tilted towards the sun in June, receiving more solar radiation and experiencing summer. The Tropic of Cancer is the northernmost latitude to receive direct solar radiation during this time, and day lengths are increased in higher latitudes. The Arctic Circle experiences 24 hours of daytime. The Southern Hemisphere is tilted away from the sun in June, therefore experiencing the opposite: it is their winter and the Antarctic Circle is in darkness. [right] **December Solstice:** The southern hemisphere tilted towards the sun in December, receiving more direct solar radiation and experiencing summer. The Tropic of Capricorn is the southernmost latitude to receive direct solar radiation during this time, and daylengths are increased in higher latitudes. The Antarctic Circle experiences 24 hours of daytime. The Northern Hemisphere is tilted away from the sun in December, therefore experiencing the opposite: it is their winter and the Arctic Circle is in darkness (CC BY-NC 2.0; Aline Gregorio via Flickr).

Latitude, climates, and biomes

The variations in solar radiation relative to the Earth's tilt means that global climates are also shaped by latitude. Falling between the Tropic of Cancer (23.5°N) and the Tropic of Capricorn (23.5°S), the tropics receive the most direct solar radiation throughout the year, which creates cloud formations around this equatorial region. The intense sun over tropical landmasses and oceans results in a rising and moist airmass, making it the world's warmest and wettest climate region. The [Ww4] sub-tropics are a transitional zone within a few degrees of the tropics and the mid-latitudes (also called temperate zones), extending roughly 30-60° in the Northern and Southern hemispheres. The transition between temperate and polar zones are often referred to as subpolar regions, while the Antarctic (66.5°S) and Arctic Circles (66.5°N) delineate polar latitudes.

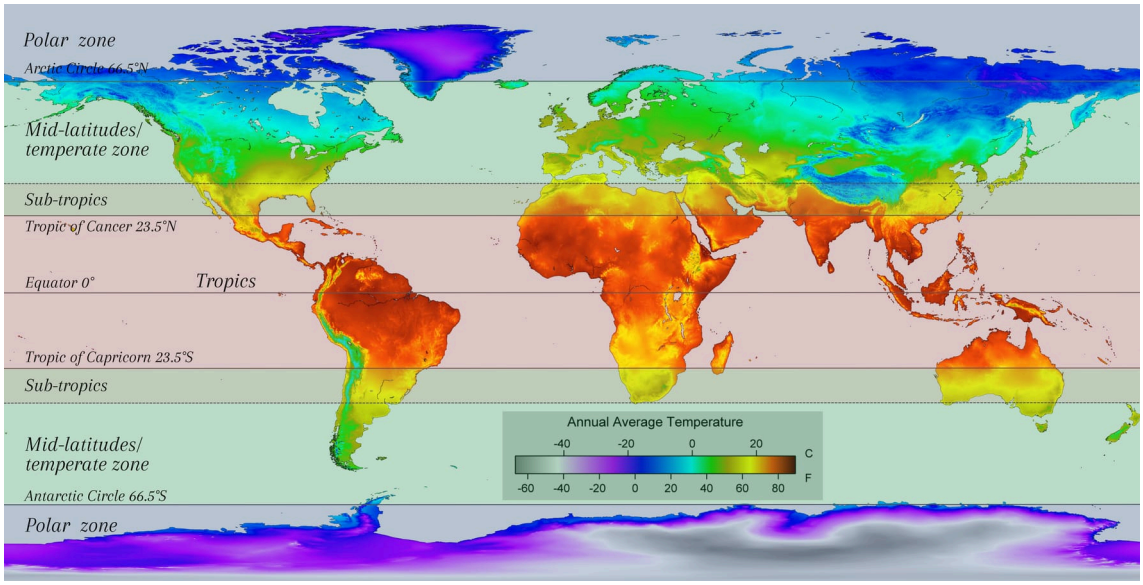


Figure 1.2.7: This map depicts the estimated average temperature over land from 1951 to 1980, based on the interpolation of ground-level weather station data by Berkeley Earth. Latitudinal lines illustrate how temperature patterns correspond with latitude zones. The Tropics are between the Tropic of Cancer (23.5°N) and Tropic of Capricorn (23.5°S), the latitudes that receive the most direct solar radiation throughout the year. Mid-latitude regions are found between the tropics and the polar regions, with 'temperate zones' often associated with the higher range of this mid-latitude belt, at around 40° north and south. A sub-polar region transitions the temperate mid-latitudes into the Polar Circles, the Arctic Circle (66.5°N) and the Antarctic Circle (66.5°S), the places receiving the most diffuse solar radiation (CC BY 4.0; Adapted from Rohde for Berkeley Earth via Wikimedia Commons).

Geographers use a diverse variety of data, collected over multiple decades and even millennia, to better understand **climate**, or the long-term patterns of weather, along these latitudinal regions. A **climate zone** results from an area's temperature, humidity, amount and type of precipitation, and seasonality. These factors are largely attributed to latitude but also vary according to ocean currents, air circulation patterns, and the location and size of landmasses. In general, climate zones remain roughly the same across similar latitudes and in similar positions on nearly all continents, both in the Northern and Southern Hemispheres. The one exception to this pattern is the continental climates, which are not found at higher latitudes in the Southern Hemisphere. This is because, as landmasses extend into the Southern Hemisphere, they become too narrow to generate a continental climate.

The most common system used to classify climatic zones is the **Köppen classification system**. This system is based on the temperature, amount of precipitation, and the time of the year when precipitation occurs. The Köppen classification system recognizes four major climate groups based on temperature values (identified by the capital letters A, C, D, and E), and the fifth based on moisture (identified by the capital letter B), to describe global climate patterns. The major climate groups can then be subdivided into more specific categories based on a combination of temperature and moisture patterns for any region in the world. The Köppen classification system in wide use today includes several modifications by geographers and other climatologists. The modified version maintains the five major climate categories, now broken down into fourteen subcategories. The modified version also has a new category for "highland," represented with the capital letter H, and focused on mountainous regions.

The Köppen classification system is widely used in geography, and it is particularly helpful in understanding the nuances of temperature and precipitation patterns that exist within moist, arid, temperate, coastal, and polar climate types. Throughout this book, however, we will approach the world's environments in a broader sense. Since climate determines the type of vegetation that grows in an area, vegetation is often used as an indicator of climate type. A climate type and its plants and animals make up a **biome,** or a natural life region. Biomes are typically distinguished by the characteristics of their vegetation (which makes up the largest portion of an area's biomass). The organisms of a biome share specific characteristics worldwide because their environment offers similar advantages and challenges, so they have adapted to that environment in similar ways over time. For example, distinct cactus species live on different continents, but they have adapted to the deserts and other arid environments in similar ways. Biomes can be a useful way of making sense of similarities across world regions. It is important to remember, however, that they represent broad categories. Each biome can be understood through various sub-types that occur in unique geographical contexts, some of which we will explore in each regional chapter.

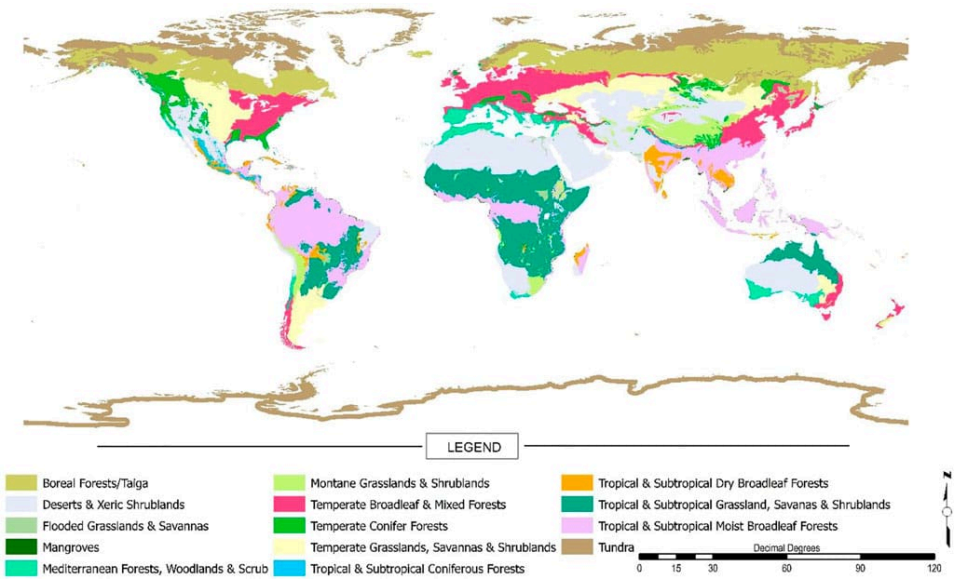


Figure 1.2.8: Map of the global distribution of the World Wildlife Fund designated biomes (2020) (CC BY 4.0; Southworth, J. et al. 2023 via *Frontiers in Remote Sensing*). See the table below for the appropriate descriptions and latitudinal distributions of each.

Table 1.2.1: World Wildlife Fund Biome Descriptions and Geographic Distributions

Biome Scientific Name (World Wildlife Fund)	Biome Simplified Names and Descriptions[4]	Geographic Distribution (see map)
Tropical and sub-tropical moist broadleaf forests	**Tropical rainforests** are biomes that experience warm temperatures year-round, with abundant rain, approximately 80 inches of rain per year. Relative climate stability is a key characteristic, and temperature is around 78°F all year. Where climate variability exists, seasons are marked by rainy and dry seasons. Tropical rainforests are dominated by evergreen and deciduous trees with large leaves that form multilayer forests. Shade-tolerant plants exist at lower layers and trees filled with life form the forest canopy. Trees cope with nutrient-poor and acidic soils, featuring shallow roots and large dark green leaves. Other plants like orchids, bromeliads, vines (lianas), mosses, palms, and ferns are common. This is the terrestrial biome with highest species diversity.	**Tropical and subtropical.** Tropical rainforests form discontinuous patches along a global equatorial belt between 15-25 degrees north and south of the equator. The largest tracts are found in Amazon in South America, Central Africa, and Southeast Asia. Other coastal rainforests exist in eastern Middle and South America, in South Asia, and in the East Arc in Africa and in Madagascar.
Tropical and subtropical dry broadleaf forests	**Tropical dry forests** are biomes that mirror the patterns of rainforests, receiving abundant precipitation, but with a pronounced dry season. The forest canopy is not dominated by evergreen trees but by deciduous trees.	**Tropical and subtropical.** Prominent examples of tropical dry forests are most prominent in India, Madagascar, Bolivia, Mexico, and Southeast Asia.
Tropical and subtropical coniferous forests	**Tropical coniferous forests** experience low precipitation and moderate temperature variability. They showcase diverse species of conifers and a thick closed canopy that allow very little sunlight to penetrate lower forest level, so there is little underbrush. Fungi and ferns thrive in the forest floor.	**Tropical and subtropical.** These coniferous forests are found in the Americas, from Nicaragua to the Greater Antilles. Mexico harbors the world's richest subtropical coniferous forest. Other tracts can also be found near the Himalayas in Asia.

Biome Scientific Name (World Wildlife Fund)	Biome Simplified Names and Descriptions[4]	Geographic Distribution (see map)
Tropical and subtropical grasslands, savannas and shrublands	**Tropical savannas** are tropical biomes that experience warm or hot climates receiving 20-50 inches of rain annually. This rain falls over six-eight months of the year, followed by a long period of drought. Grasses and sparse trees are the predominant vegetation. They are well adapted to the extended droughts as well as periodic fires. Herbivores and iconic large mammals are abundant. Reliant on abundant grasses, they follow the rains and migrate extensive areas. Predators are also abundant due to the many herbivores.	**Tropical and subtropical.** Africa has the world's most extensive savannas outlining north and south of the Congo Basin, but vast savannas also exist in South America and Australia.
Flooded grasslands and savannas	Also referred to as wetlands, **flooded savannas** are areas where water frequently saturates the soil and become flooded either all year long or seasonally. They support a large diversity of plants and animals and support migratory species of waterbirds and mammals.	**Tropical and subtropical.** Flooded savannas exist along rivers and river deltas. The most prominent examples include the Okavango Delta in Botswana, the Pantanal in Brazil, and the Everglades in the US, Florida.
Deserts and xeric shrublands	**Deserts** are found in arid regions that experience dry climate conditions, receiving less than 10 inches of rain annually. The evaporation rates exceed rainfall, so deserts experience a moisture deficit. Desert regions tend to have abundant sunshine, hot summers, cold winters, and irregular rains. Droughts are frequent, which can last several years or even decades. There are also great temperature variations by day and night and from summer to winter due to lack of plants and global distribution. Deserts are home to specialized vegetation and animals that are well adapted to dry conditions. Deserts can be categorized as semi-arid, coastal, hot and dry, and cold.	**Mid-latitude/temperate.** The world's largest desert is the Sahara Desert, in Africa. Other deserts span across the continents around the mid-latitudes, including the southwest of the United States, Mexico, the Arabian Peninsula, South Africa, and Australia. Deserts also occur in tropical regions due to ocean currents and the rainshadow effect (explained in future chapters).
Mediterranean forests, woodlands, and scrubs	**Mediterranean biomes** are regions that experience unique coastal climates. Because of their relative location near the subtropical high-pressure zones, these climates tend to have plenty of sunshine during the summer. Most of their annual precipitation occurs during the winter months with totals of 30 to 90 cm (14 to 35 inches) and hot and dry summer months. Plants like hardy shrubs and trees are adapted to hot and dry summer conditions and many plant species are fire-dependent	**Mid-latitude/coastal.** Mediterranean woodlands and shrubs exist in the mid-latitudes between 30-45 degrees north and south of the equator. Prominent examples can be found in Mediterranean Europe, South Africa, Central Chile and Australia.
Temperate grasslands, savannas and shrublands	**Temperate grasslands** differ from tropical savannas by having greater temperature variations from summer to winter, having hot summers (sometimes over 100F) and cold winters (sometimes below freezing). They also receive less precipitation (20-30 inches), usually in the late spring and early summer. This biome is dominated by grasses and large trees and shrubs are absent. The height of grasses varies by rain, with taller grasses being dominant in places of greater rainfall. Temperate grasslands have among the most fertile soils. Globally, they have been largely converted into farms or rangelands.	**Mid-latitude/temperate.**

Biome Scientific Name (World Wildlife Fund)	Biome Simplified Names and Descriptions[4]	Geographic Distribution (see map)
Temperate Broadleaf and Mixed Forests	**Temperate deciduous forests** experience a wide variability in temperature and precipitation. Hot summers (86°F) and cold winters (-22°F) are typical in this biome, with an average annual temperature of 50°F and 30 to 59 inches of rain per year. Temperate deciduous forests are most notable because they go through four seasons: Winter, Spring, Summer, and Fall. Leaves change color in autumn, fall off in the winter, and grow back in the spring. This adaptation allows plants to survive cold winters. These forests feature broadleaf trees like oaks, maples, cottonwoods, and beeches, and shrubs, perennial herbs, and mosses. The forest canopy is somewhat dense but allows light to penetrate and providing for a rich and diverse understory.	**Temperate**
Temperate Coniferous Forest	The **temperate coniferous forests** are evergreen forests that experience warm summers and cool winters. They are common in coastal areas with mild winters and heavy rainfalls. This is a contrasting characteristic from the colder taiga/boreal forests of the north and the greater temperature variability of the temperate deciduous forests. Many species of trees inhabit this biome including the pine, cedar, fir, and coastal redwood. The forests often have overstory and understory, sometimes supporting a layer of shrubs or grasses that fuel ecologically important wildfires.	**Temperate**
Boreal forests/Taiga	**The taiga/boreal forest** is the largest terrestrial biome, occurring in vast swaths of land in the northern latitudes. They are dominated by continental polar air over frigid continents that experience very low temperatures, well below freezing during the winter. Snowfall is light (about 20 inches per year), but cold temperatures keep snow on the ground for months. There is low biodiversity. Nutrient poor soils and permafrost favor cold-tolerant coniferous trees like pine, fir, and spruce.	**Polar/Montane**
Montane grasslands and shrublands	**Highland** biomes are found at the higher altitudes of the world's mountains, resembling climates and biomes of higher latitudes. Many mountains are high enough to experience polar conditions along its peaks. Mountain biomes experience differential conditions depending on the altitude, slope, aspect, and situation relative to local wind patterns. Highlands have complex climates and a variation of tropical, subtropical, and temperate life forms at different elevation zones. These are often described as montane grasses or shrubs. Highlands are also characterized by high levels of endemism, of life forms that only exist in within their geographical extent.	**Polar/Montane**
Tundra	The **tundra** is polar biome with average winter temperatures of about -30°F, and the average summer temperature 37-54°F. Temperatures in tundra climates are so cold that a layer of permanently frozen ground, called permafrost, can extend hundreds of feet below the surface. The average temperature of the warmest months is above freezing, so summer temperatures defrost the uppermost part of the permafrost, sometimes causing soggy conditions. Although the precipitation is low (less than 10 inches), evaporation rates are also low, so the landscape receives more usable water than a desert. This cold environment poses great challenges for sustaining life, and the tundra is marked by low biodiversity. Nonetheless, there are many unique organisms that inhabit the tundra like low shrubs, sedges, reindeer mosses, and grasses.	**Polar/Montane**

Biome Scientific Name (World Wildlife Fund)	Biome Simplified Names and Descriptions[4]	Geographic Distribution (see map)
Mangroves	**Mangroves** are biomes of tropical and subtropical coastlines that act as a buffer zone between land and sea. Mangrove forests are typically made up of trees and shrubs that have unique adaptations to cope with the harsh conditions of high salinity, warm air and water temperatures, extreme tides, muddy waters, and oxygen-depleted soils. Mangroves are among the most biologically important ecosystems on the planet, home to many unique flora and fauna. They are a powerful natural barrier that serves as a first line of defense against hurricanes by dissipating wave and wind energy and reducing erosion.	**Coastal areas**

References:

[1] Davis, W. (2009). *The wayfinders: Why ancient wisdom matters in the modern world*. House of Anansi. Pp 35-78.

[2] Davis, W. (2009). *The wayfinders: Why ancient wisdom matters in the modern world*. House of Anansi. Pp 35-78.

[3] Salama, J. (May 18, 2022). This woman navigated a 3,000-mile Pacific voyage without maps or technology. *National Geographic*.

[4] The world's biomes. Museum of Paleontology, UC Berkeley.

Attributions:

"Wayfinding: Polynesian Mastery in Navigation" is adapted from "Latitude and Longitude" by the Open Learn University, licensed under CC BY-NC-SA 4.0; and from Martins, K. (Aug 7, 2020). Polynesian Navigation and Settlement of the Pacific, *World History Encyclopedia,* CC BY-NC-SA 4.0.

"Biomes" is adapted from Darstrup, A. Koppen Climate Classification System. *Physical Geography & Natural Disasters;* CC BY-NC-SA 4.0; and Southworth, J., Ryan, S. J., Herrero, H. V., Khatami, R., Bunting, E. L., Hassan, M., ... & Waylen, P. Latitudes and Land Use: Global Biome Shifts in Vegetation Persistence Across Three Decades. *Frontiers in Remote Sensing*, *4*, 3. CC BY 4.0; and Biomes by NASA, permitted use.

This page contains adaptations from "The Spatial Perspective" by Caitlin Finlayson and "Geography Basics: Latitudes & Global Climates" by University of Minnesota, both CC BY-NC-SA 3.0.

This page titled 1.2: Where on Earth? The Geographic Grid is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

1.3: Maps- Place, Power, and Representation

Learning Objectives

1. Describe cartography, map types, and how geospatial technologies aid contemporary map-making.
2. Critique the appropriateness of map scales, projections, and orientations for various purposes.
3. Explain and exemplify maps as tools and representations of power.
4. Describe countermapping and participatory making and their various applications.
5. Imagine cartography from non-conventional and Indigenous perspectives.

Cartography

The use of maps to illustrate, explain, and analyze spatial phenomena is a distinguishing characteristic of the discipline of geography. Maps as we know them are a result of thousands of years of humans seeking to understand the Earth. Early geographical endeavors were often centered around **cartography**, the art and science of mapmaking. Many early geographers practiced a form of Earth writing through maps. A map attempts to represent human knowledge of the Earth's lands and peoples, and mapping continues to be a central element of the geography discipline.

Given the importance of spatial awareness in human history, it is difficult to attribute the beginning of geography or cartography to one founding figure or document. Geographical knowledge has been an essential part of the story of humans, a species that over thousands of years migrated out of Africa to occupy most corners of the world. Humans have always had the need and desire to explore and understand their surroundings, expand their influence over new lands (in ways ranging from life-affirming to destructive), and then to communicate and represent knowledge, whether in maps or stories (or both). Humanity's geographical knowledge is both ancient and diverse, and certainly not entirely understood or represented in academic geography today. With that in mind, the historical maps and documents that survive provide us with a sense of early geographical explorations that can help us appreciate the beginnings of geography as an academic discipline.

The earliest known world map was inscribed in clay tablets by the Babylonians more than two thousand years ago. It centers Babylon (in modern-day Iraq) bisected by the Euphrates River and includes descriptive text in cuneiform, the earliest known writing system. The Babylonians were also the first to divide a map into quadrants, indicating a coordinate system (East/West/North/South). Many academic geographers, especially in the West, attribute the beginnings of the discipline of geography to the Greeks. In their maps we find detailed geographical knowledge and important improvements in the accuracy of geographical depictions of the Earth. Crates created the first globe (200 BCE), still the most accurate way to represent the Earth. It was Eratosthenes (ca. 285-205 BC), however, who likely coined the term "geographia" to describe the field of study. Eratosthenes was the first to calculate the Earth's circumference (with remarkable accuracy) and his publication *Geographika* maps over four hundred places in the world, connecting them through a system of parallels and meridians and scaled distances[1] [2]. Other important achievements include that of Arab-Islamic geographers, notably Muhammad al-Idrisi (circa 1100–66) who was commissioned by King Roger II of Sicily to produce a highly regarded historical map, *Tabula Rogeriana*. *This map* stood as a valuable reference of geographical knowledge for hundreds of years. Its inclusion of detailed geographical knowledge was crowdsourced, meaning that al-Idrisi interviewed merchants and travelers to compile detailed information from the major population centers of the known world.[3]

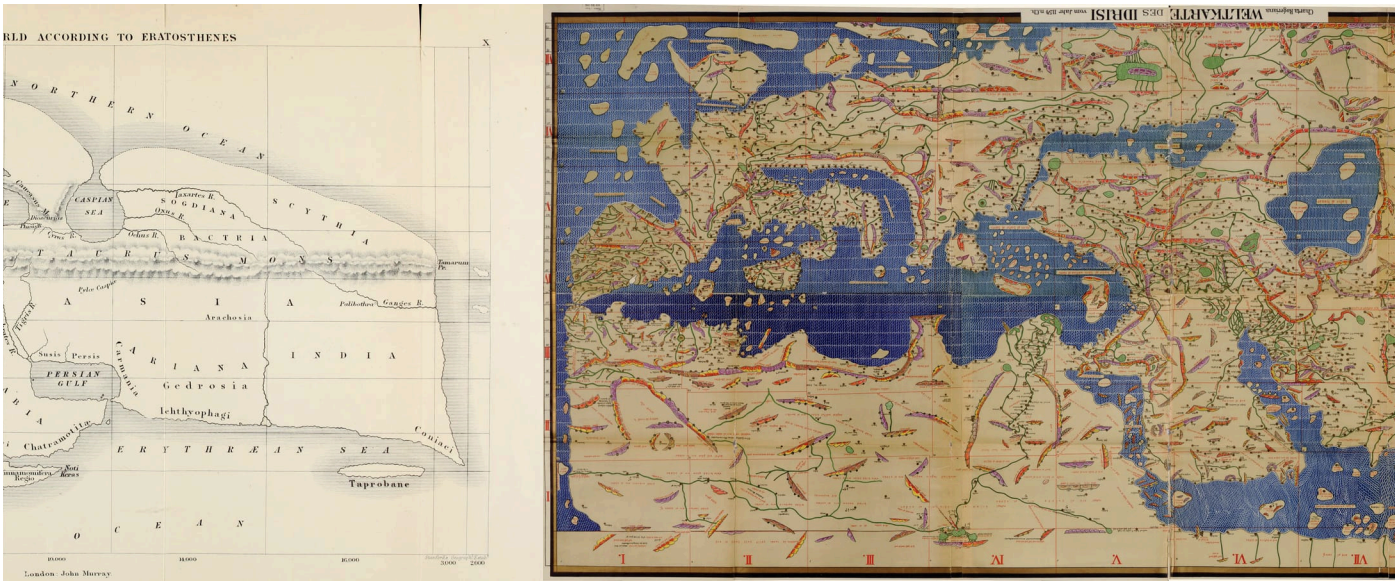


Figure 1.3.1: These are two commonly referenced pre-modern detailed maps of the world (or the known world of their time). Within their respective eras, both maps withstood as valuable intellectual achievements and records of geographical knowledge. [top map] A 19th century reconstruction of Eratosthenes' map of the world, c. 194 BC. Eratosthenes was a Greek scientist and geographer credited for the first (quite accurate) calculation of the Earth's circumference and the first application of a mathematical coordinate system onto a map (Public Domain; Bunbury, E.H. via Wikimedia). [bottom map] *Tabula Rogeriana,* a map of the world by Muhammad al-Idrisi (1154), is one of the most advanced medieval world maps - it took 15 years to complete. This map consolidates al-Idrisi's 70 double-page spreads into a grand map of the world as it was known. It is shown upside-down as the original had South at the top. Click on the image for a detailed resolution (Public Domain; Konrad Miller (1844-1933) via Wikimedia Commons).

Map Types

Reference maps: where we are

A **reference map** helps us learn *where we are*. Reference maps are used as navigational tools, as a reference for the absolute and relative locations of human and physical features. Developing an understanding of the Earth sufficient enough to create an accurate representation of it challenged cartographers for centuries. The early years of the discipline of geography were dedicated to understanding the shape, size, and distances of continents, a strenuous task before the development of geo-spatial tools such as GPS, remote sensing, and GIS. Today, technological innovations enable us to access zoomable and detailed reference maps on our smartphones that allow us to locate places and navigate the world. When you open your map app for navigation, you are accessing (and contributing data to) a reference map.

Thematic maps: who we are

A political map of the world emphasizes political borders that divide territories. They tell us very little about the world, except for the territorial delineations of countries, a reference map of where countries are in relation to other places. Political maps do not tell you where people live, the characteristics of places, or how people and places are connected. We need thematic maps for that. **Thematic maps** communicate information that help us learn *who we are*. These are maps that help us understand what places might be like. For example, a map of global transportation and communications shifts the emphasis from how we divide the world to how we use the world, showing us functional lines (like cables and rails) that dissolve political borders and connect us daily. A global map of biomes and topography gives us a greater sense of the natural world. A population density map conveys the number of people per area (often in square kilometers or square miles) and gives us a sense of patterns of human settlement. There is limitless information that thematic maps can communicate. Using maps as communication devices is a key element of contemporary geography, as thematic maps serve as visualizations and analytical tools for presenting and understanding geographical patterns.

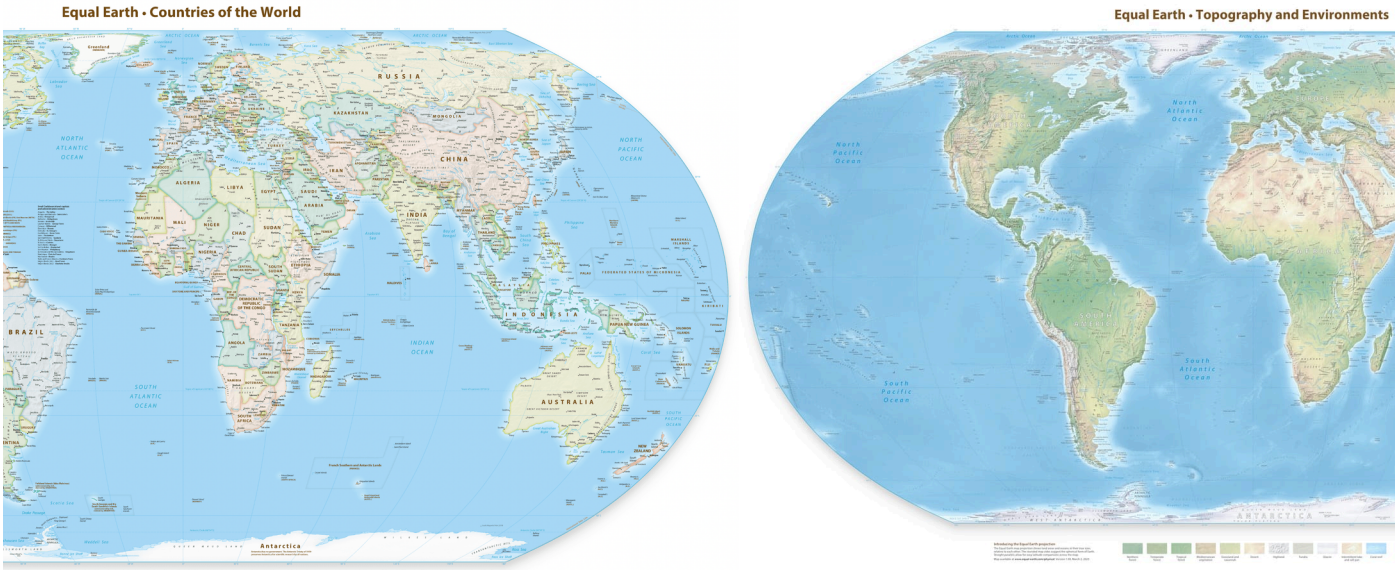


Figure 1.3.2: The maps above represent the world with two different purposes. [top map] A political map of the world is for reference of where the world's countries and major cities are (Public Domain; Equal Earth). [bottom map] A map physical map of the world showing the location of major water bodies and mountains could be used as a reference for location of these features. Nonetheless, through the coloring of natural environments and highlands, this map conveys natural qualities about places, this it is a thematic map (Public Domain; Equal Earth). Click on the map to download and explore these free/high resolution maps. The Equal Earth projection is for schools, organizations, or anyone who needs a map showing countries and continents at their true sizes relative to each other.

Geospatial Technologies

The ability to connect maps to data has revolutionized many facets of decision-making in our society. **Spatial data**, also called **geospatial data**, are data directly related to a specific location on Earth. Non-spatial data are data that cannot be traced to a specific location, like the number of people enrolled in an online course. Non-spatial data can easily become spatial data if they can be linked in some way to a location, like the address of each student enrolled in that course. Geospatial technology specialists have a method called **geocoding** they use to place non-spatial data at a particular geographic location (latitude and longitude). Once data become associated with a location, we can ask more complex questions. For example, at Fullerton College, geographers mapped the student population to better understand the geographical contexts of students amidst the covid-19 pandemic. The study showed that most students enrolled in online classes still lived within the vicinity of the college, and that despite distance education, students were choosing their colleges based on geographical proximity. More significantly, the study revealed that thousands of students lived in neighborhoods with poor access to green spaces and fresh foods, a specially challenging geographical context given the loss of access to campus resources due to the covid-19 state of emergency closures. This enhanced geographical understanding broadened the support for students' basic needs in various areas of institutional planning.

Imagine, for example, levels of air pollution being collected at multiple stations - these data can then be mapped, and therefore help decision-makers understand disproportionate concentrations of pollution. When combining various data in **layers** of information about places, cartographers can identify populations most vulnerable to high levels of toxicity and what factors they have in common. The California Environmental Protection Agency has created a tool called EnviroScreen which does just that: it compiles a multilayer map that helps decision-makers correlate pollution to other demographic information such as income and race and ethnicity. Most commonly, we find that in California (and elsewhere in the US) low income and ethnic/racial minorities are disproportionately exposed to high levels of pollution. California knows this only because of the geospatial data it collects at various points throughout the state.

The efforts by the California Environmental Protection Agency to identify these areas of disproportionate impact rely on important technological innovations in cartography. **Geographic Information Systems (GIS)** is a combination of computer hardware and software that captures, stores, queries, and displays geospatial data. GIS has revolutionized mapmaking for its ability to produce maps that layer various data sets, thus revealing important correlations (such as the correlation between pollution, race, and income). Nearly all cartography today is done using GIS and its uses are limitless: Firefighters use GIS to monitor wildfires and to establish and communicate evacuation zones, conservation biologists to establish high priority areas for conservation, public

health professionals to determine areas of high risk for infectious diseases, and insurance companies to identify proximities to geographical risks such as flooding and earthquakes. Given the heavy lifting potential of GIS to store, display, and analyze big spatial data for various purposes, the job prospects for GIS analysts continue to grow.

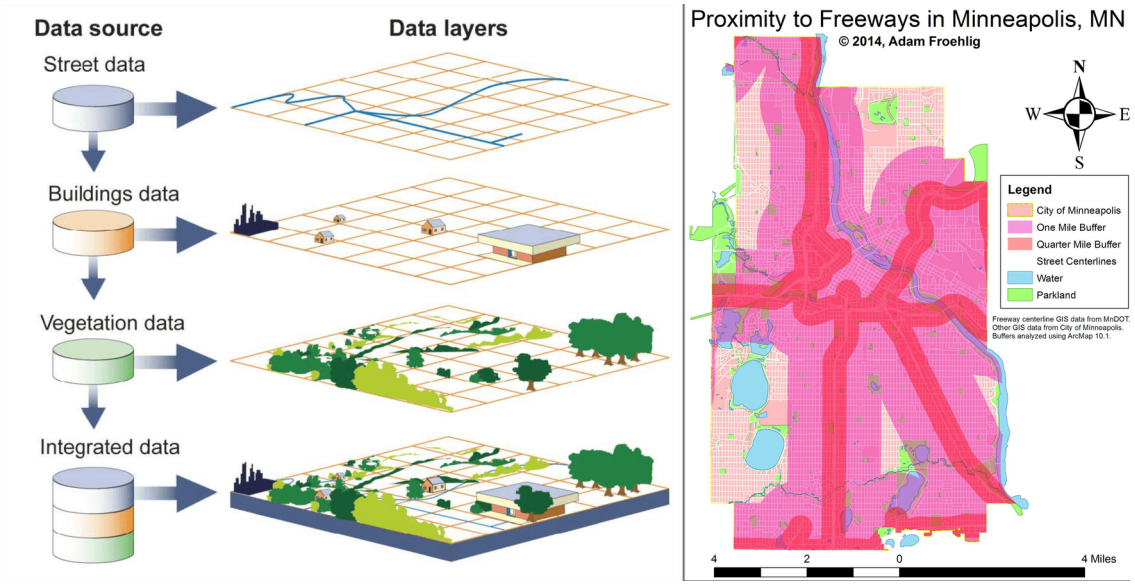


Figure 1.3.3: Geographic Information Systems is software that captures, stores, queries, and displays geospatial data. Its more advanced functions can aid in more complex analysis and modeling of spatial patterns. It is widely used in many industries from business to governmental agencies. [left] This image illustrates how data about places, such as where buildings and roads are located, population density, and vegetation, for example, can be layered onto the map to create a complex mosaic of land areas. The variables that geographers map depend on what is being studied (United States Government Works, within permitted use). For example, on the map on the right, the cartographer layered main roads, parks, and water bodies, to identify what areas are within a half-mile or one-mile buffer from the main roads. The cartographer may have chosen to map freeway buffers to identify which areas in Minneapolis are more subject to transportation pollution (CC BY NC ND; Adam via Flickr).

Geographers have developed a variety of ways to gather images and other data related to the Earth. One prominent technique is **remote sensing,** the collection of data about an object from a distance, usually done with the help of mechanical devices known as remote sensors which may be placed in planes or satellites. These sensors receive and record information about places/objects by measuring the transmission of electromagnetic energy from reflecting and radiating surfaces. These devices allow tropical ecologists to investigate the rainforest floor from half a world away, oceanographers to research the depths of the ocean, and students to count the trees in their backyards, all without leaving their desks. Remotely sensed images allow geographers to identify, understand, or explain a particular landscape, determine land use, and otherwise research places across the Earth. Remotely sensed images often serve as important components in the cartographic (map-making) process and can provide the means to examine and analyze changes on the earth's surface caused by natural or human forces. Google Earth is an excellent example of a freely available online tool that collects and organizes remotely sensed images of the Earth. It now covers images for over 97 percent of the world's surface, effectively compressing an interactive world map that fits in our phones.

Maps Are Not Mirrors

Maps are depictions of the Earth's surface or a portion of it. They are not a reflection of the world but representations of it. All maps are imperfect representations, and the map is not the territory. What makes a "good map" varies depending upon its ability to fulfill an intended purpose. As noted above, a map designed for navigation might not tell us anything about the characteristics of places. Similarly, a map designed to communicate the population density of East Asia may also be useless for finding specific locations in Asia. **Cartographers, or** mapmakers, first and foremost consider what the map will be used for prior to designing it, then make important decisions to produce maps to fulfill that purpose. After determining the purpose of a map, cartographers face important decisions to convey geospatial data as objectively, accurately, and clearly as possible. Let's explore some of these decisions.

Zoom In or Zoom Out?

Scale is the relationship of distance in the map versus the distance in the real world. A 1:1000 scale map, for example, would

mean that 1 meter on the map equals 1000 meters, or 1 kilometer, on Earth's surface. Scale can sometimes be a confusing concept, so it's important to remember that it refers to a ratio. "Large" scale and "small" scale refer to the ratio, not to the size of the landmass on the map. 1 divided by 5,000 is 0.0002, which is a larger number than 1 divided by 50,000,000 (which is 0.00000002). Thus, a 1:5,000 scale map is considered "large" scale while 1:50,000,000 is considered "small" scale. In other words, small scale maps depict larger areas (ex: a world map) and large-scale maps smaller areas (ex: a map of your neighborhood).

Decisions pertaining to scale are important because geographic patterns vary depending on the scale of the map. Typically, as scale decreases (or as you zoom out), so too does the number of different features and the detail with which they are represented. Not only printed maps, but also digital geographic data sets that cover extensive areas, tend to be more **generalized** than datasets that cover limited areas. The scale of a map can be used to omit or reveal detail, depending on the message it intends to convey. Scale choices can significantly alter what the maps communicate.

A Distorted View

Maps turn a three-dimensional spherical Earth into a flat representation of it. This makes it inevitable that all maps are inaccurate in one way or another as 'flattening the Earth' always involves some form(s) of distortion. A map **projection**, how the spherical Earth is laid out on a flat plane, always distorts at least one these four properties: area, shape, distance, and direction. Some projections preserve as many as three of these properties while significantly distorting another. Other projections might distort all properties but to a smaller degree. In other words, cartographers make difficult compromises in mapmaking, giving up accuracy of some properties over others. See the video below:

YouTube Video

This interactive element is not available in this format. Visit the link or scan the QR code to access it online.

View this YouTube Video online

Some familiar maps are distorted in ways that help perpetuate erroneous conceptions about the world. As the video discussed above, the wide adoption of the Mercator projection, which is used in Google maps and most other websites and online mapping platforms, materialized a common mental map that exaggerates the size of Europe in relation to Africa and other tropical and sub-tropical territories. Since humans often associate larger landmasses with prominence, such distortions may contribute to a mental map of the world that diminishes many of the territories formerly colonized by Europeans. Given the extensive ways in which European colonialism carved up and remade the world, it is essential to deconstruct maps and expose their biased geographic conceptions if we are to seek a greater understanding of the world.

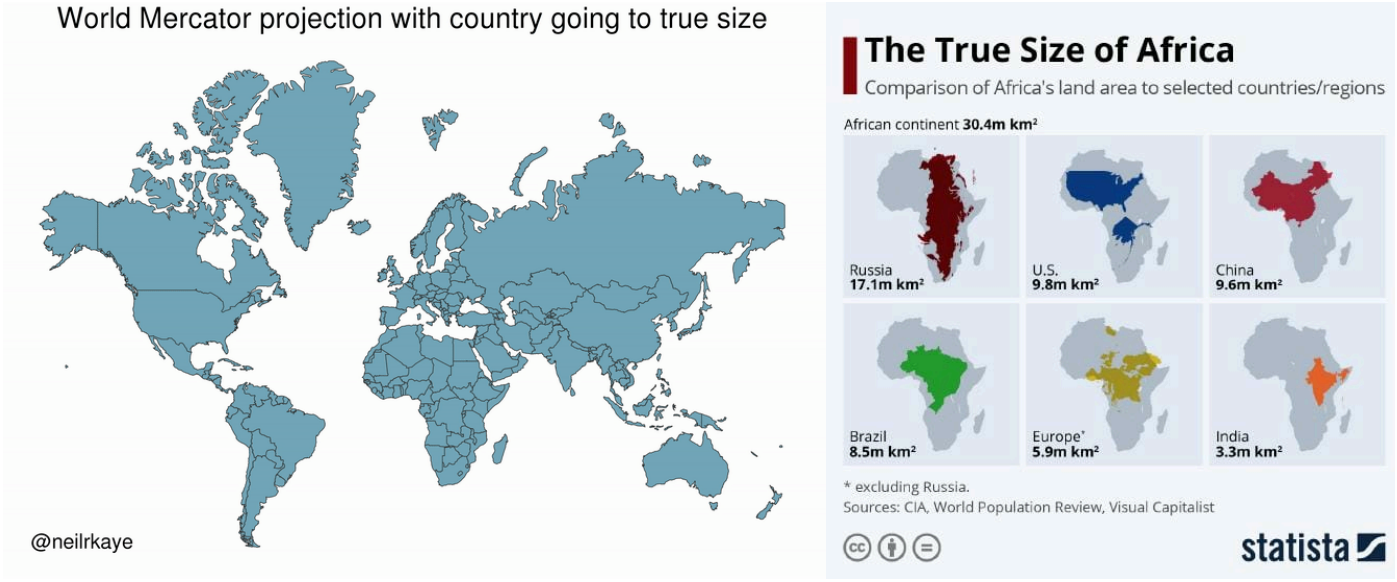


Figure 1.3.4: [left] This map animation shrinks nations distorted by the Mercator projection to show their actual size, via Visual Capitalist. [right] The true size of Africa's land area in comparison to selected countries/regions. The African continent has a land area of 30.4 million sq km (11.7 million sq mi), an area large enough to fit U.S., China, India, Japan, Mexico, and many European nations, combined (Creative Commons, CC BY-ND 3.0; Statista).

Flipping the Map

Throughout history, cartographers have made maps with varying **orientation**, meaning the map's directionality or relationship to the four directions of the compass. Historically, the North of the map was rarely oriented to the top of the page. Recall the *Tabula Rogeriana* by Muslim cartographer Muhammad Al-Idrisi (Figure 1.3.1). The orientation of the total map places Mecca, the center of the Musim world in modern Saudi Arabia, at the center of the map, and with the South at the top of the page. Why did Al-Idrisi orient a map that remained the world's most accurate map for three hundred years with South facing up? Well, why not? Most Westerners are conditioned by the last 500 years of cartography when most of the maps, produced mainly in North America and Europe, have been oriented with the North at the top. The perspective of North American and European cartographers emphasized the geography of the Northern Hemisphere while placing other continents "at the bottom" of the page, an arbitrary political decision that has casually become the norm.

The orientation of a map does not affect its accuracy (Arabic, Farsi, Hebrew, and Urdu are read from right to left). There is no scientific reason for a magnetic north to be perceived as the top of the world. Keep in mind that the Earth is an oblate spheroid spinning through space; there is no accurate "up" or "down." Where the magnetic north should be represented depends on the cartographer's relative position—from where they draw the map and to where they imagine distant places. What is North to the Inuit people of the Arctic looking out to the world, when everywhere is South in relation to their communities? What is a map of the world's continents for Polynesian cultures rooted in Pacific Islands? By diversifying map orientations to center the Southern Hemisphere, the Polar worlds, or the Pacific Ocean, for example, cartographers challenge (often Eurocentric) conventions and help better represent the kaleidoscopic geographical perspectives of the world – flipping the script by flipping the map. Take for example *América Invertida* (1929) by Uruguayan cartographer Joaquín Torres, illustrated below. The map is a cartographic manifesto: "Our North is the South." Like all maps, this depiction carries and conveys political and social messages.

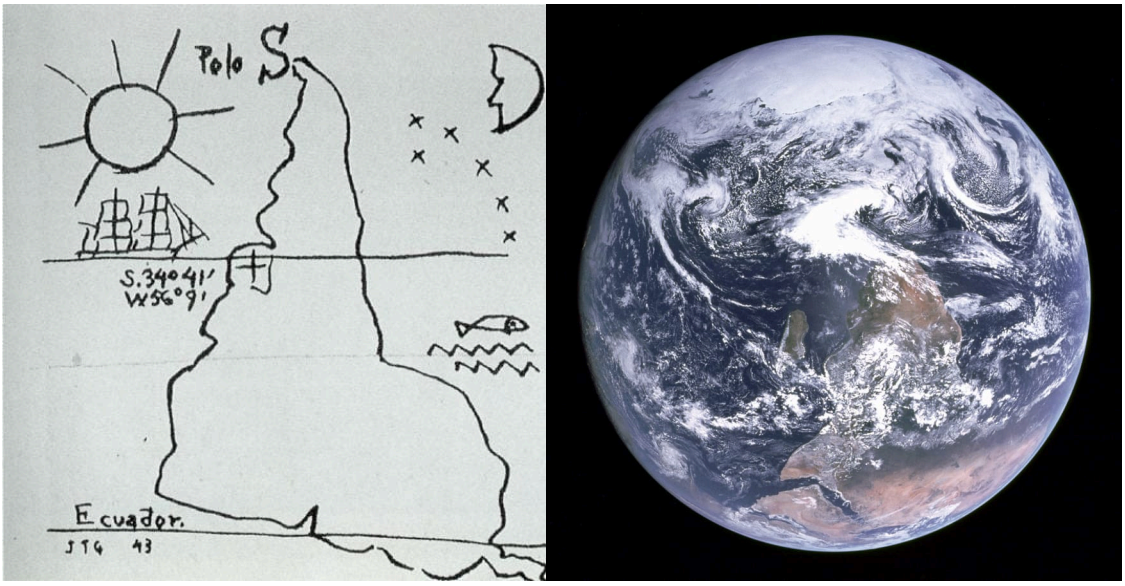


Figure 1.3.5: [left] *América Invertida* (1929), a map by Uruguayan artist Joaquín Torres (1878-1949), illustrates a written manifesto: "Our North is the South" as a way of challenging geographic perspectives, cartographic aesthetics, and declaring the North as an opposite and not of focus in the continent's orientation (Public Domain; Museo Nacional de Artes Visuales via Wikimedia Commons). [right] *The Blue Marble* (1972), the first full photo of the planet Earth had the Southern Hemisphere at the top because the camera was held by a man in space without earthly orientation. The published reproductions are often inverted to conform with cartographic norms (Public Domain; NASA via Wikimedia Commons).

Maps and Power

> "Cartography has a troubled history as a technology of power. The production and distribution of maps, often understood to be ideological representations that support the interests of their developers, have served as tools of colonization, imperialism, and global development, advancing Western notions of space and place at the expense of Indigenous peoples and other marginalized communities." – Bjørn Sletoo[4]

> "As a political technology, mapping has long played a key role in the world-making practices of colonialism through the appropriation, demarcation, naming, and partitioning of territory as part of the process of colonization and assertion of imperial rule over peoples and places." - Rose-Rosewood et al[5]

Maps and colonization

How do you think about maps? Even though many of us think of maps as impartial documents that reflect the **objective** reality of the world, maps are instead **subjective** political projects that actively reimagine and remake the world. As introduced in the section above, political maps of the world hanging in most geography classrooms (in North America and elsewhere) are filled with an array of arbitrary decisions based on Western biases: they display an orientation that centers Europe, a projection (Mercator) that distorts the relative size of dispossessed territories, and political borders and place names superimposed by colonizers. These not-so-subtle cues make a familiar world map *Eurocentric*.

Our most familiar maps have evolved as tools and representations of power.[6] Throughout the rise and fall of so many empires, elites have cultivated the art and science of cartography – like the religious rulers of dynastic Egypt and Christian medieval Europe, the Greek and Roman philosophers, the Sultans of the Ottoman Empire, and India's Mogul emperors. From the 16th Century on, cartography as we know it had become closely intertwined with European imperialism, insomuch that the processes of colonialism and mapmaking each reinforced the other.[7] Take for example Gerardus Mercator (1512–94) whose widely influential projection we discussed earlier. Mercator also produced earlier remarkable works in cartography, including one of the first European maps of the Americas and the first to name it as such. His early map depicts the earth in two heart-shaped spheres as seen from the North and South poles. This spherical representation was an attempt to mediate distortions and provide a picture-like representation of the Earth. However, this type of map was impractical for navigational purposes and eventually led Mercator to create a different projection. The 1569 Mercator map of the world provided a squared grid that could be used for navigation, maintaining accuracy

in distance and direction around the equator, regions Europeans were actively colonizing. Mercator thus adapted his cartography to facilitate European (con)quests. Despite its distortions of the size of landmasses moving away from the Equator, his 1569 map, actually a navigational chart, remains one of the most influential.

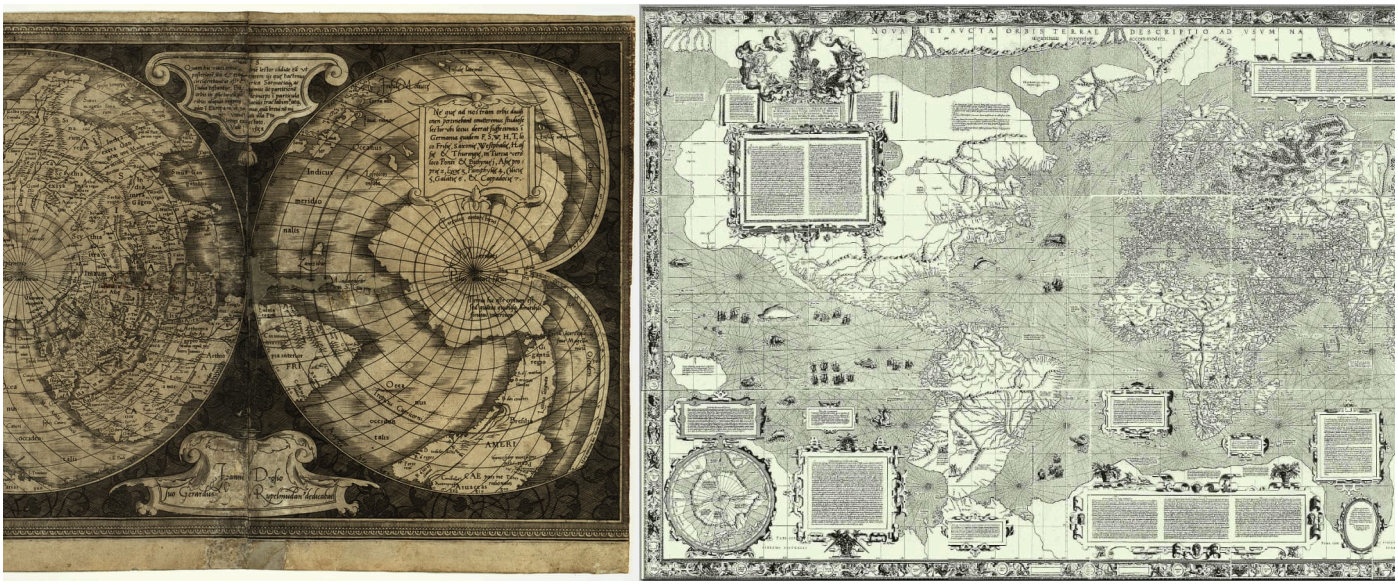


Figure 1.3.6: (left) *Obis Imargo* 1538 by Gerardus Mercator depicts the world's hemispheres from the poles (Public Domain; American Geographical Society Library via Wikimedia Commons). (right) *Carta do Mundo de Mercador* 1569 by Gerardus Mercator was a more complete version of the known world, adapted for navigation using the Mercator projection to maintain accuracy in distance and direction (Public Domain; Alvesgaspar via Wikimedia Commons).

But maps were not only mere navigational tools for exploration. Like arms, germs, and ships, maps were a weapon of colonization as they allowed invaders to expropriate territories and displace Indigenous communities with arbitrary lines drawn on paper.[8] Take for example the **1494 Tordesillas Treaty,** an agreement between the monarchs of Spain and Portugal that aimed to settle their squabbles over claims to foreign lands. By placing a line on a map through what was thought to be the middle of the Atlantic Ocean, but what was actually eastern South America, the treaty declared territories to its West for the Spanish and territories to its East for the Portuguese (see Figure 1.3.6). Imposed by distant monarchs, this line fundamentally shaped European colonialism in the Americas and remade the world. Even though European navigators had no means to accurately calculate longitude and thus locate the treaty's line. Still, maps based on the Line of Tordesillas documented European claims to lands across the Earth and set in motion processes of expropriation and colonization that unfolded over the next several centuries. The accidental placement of the Line of Tordesillas led the Portuguese to colonize the lands that became Brazil, Goa in India, and Macau in East Asia. Meanwhile, the Spanish received authority to colonize the Americas and the Caribbean west of Portuguese America. As such, these maps became weapons of power and plunder that divided and reproduced the world into territories of European expansion.[9]

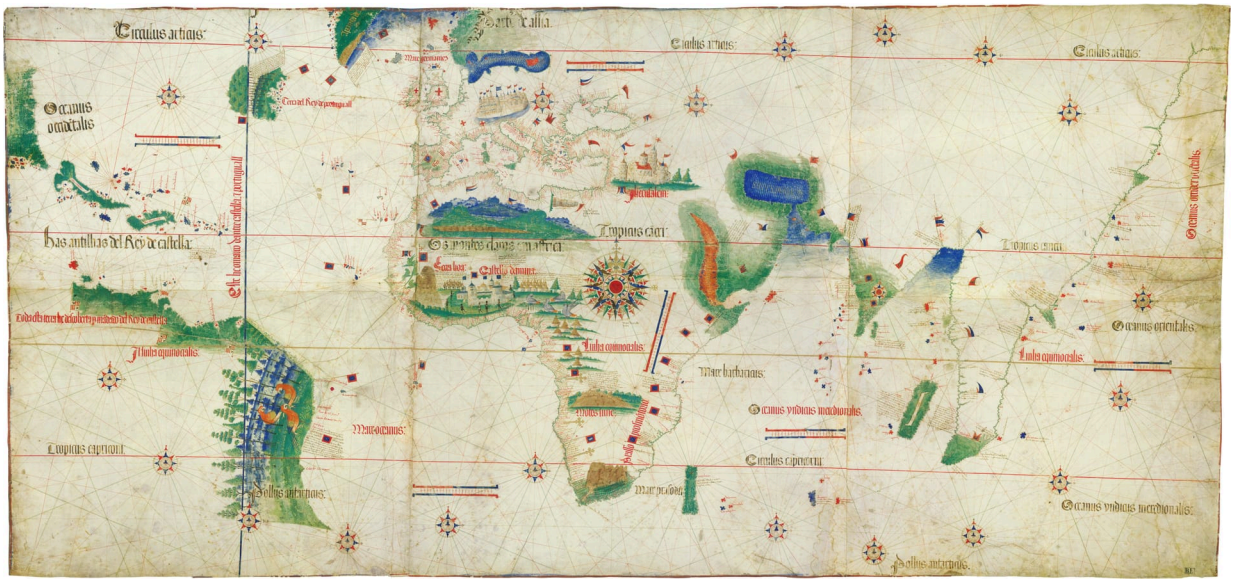


Figure 1.3.7: This map, titled *Cantino Plenisphere,* was completed by an unknown Portuguese cartographer in 1502. It depicts the world as it became known to the Europeans at the end of the fifteenth and beginning of the sixteenth century to the Americas, Africa and India. It also indicates the line decided by the 1494 Treaty of Tordesillas which determined two spheres of influence for Spain and Portugal (Public Domain; Biblioteca Estense Universitaria via Wikimedia Commons).

From the 16th to 20th centuries, the materialization of colonial political borders from paper to reality continued to carve the world into European spheres of influence. Created by colonizers in support of their own interests, these colonial borders continue to shape contemporary geographies. The so-called "Scramble for Africa" is probably the most well-known example of how cartographic strokes have fragmented Indigenous homelands and their political organizations and environments. This legacy of colonial cartography and its arbitrary lines continues to sever African peoples and lands in problematic ways (discussed in Chapter 3). The 1947 British partitioning of India serves as another example of colonial impositions, leading to one of the greatest forced migrations and displacements in history and determining life and death for millions of people in the Indian subcontinent (discussed in Chapter 7). To this day, the border between India and Pakistan is marked by violence and military tension, creating one of the most dangerous political borders in the world. Similarly, the colonial legacy of the partition is the root cause for tensions and violence along the eastern Indian border with neighboring Bangladesh.

The United States is no exception as we can point to many historical (and ongoing) examples of the many ways that maps wield power, helping to perpetuate systemic racism and the disenfranchisement of Black, Indigenous, and other communities of color. For example, "redlining" maps funded by the US government prevented African Americans and immigrants from getting mortgages to buy homes and helped to solidify the racially segregated and inequitable cities that continue to plague the country (explained in Chapter 10). Similarly, electoral maps and voting district boundaries have been drawn and redrawn with the intent to diminish electoral power and representation of Black and Latinx voters – a type of cartographic manipulation known as gerrymandering. Even in the creation of US national parks, famously referred to as "America's Best Idea," territorial delineation for conservation dispossessed and displaced Indigenous peoples from their ancestral lands, imposing exclusionary ecological museums and institutionalizing Western conceptions of **wilderness**, an inaccurate way of seeing the natural world as disconnected from Indigenous communities and histories. All over the world, the making and remaking of territories begins on, and takes shape through, maps and cartography.

Guerilla Cartography

Powerful organizations and companies are far from the only groups that wield power with maps and cartography. Maps are also used as tools to convey and carve our world from the ground up, by people from all backgrounds and social classes. They can be venues for performance, expression, memory, and art. They can be imaginary and visionary. And, most importantly, mapping need not to be exclusionary. As mentioned in the opening of this chapter, every single one of us is enveloped in geographic experience. Representing, imagining, and envisioning our worlds in cartographic forms is something we all do; it could never be restricted to academics or elites. Maps today are more accessible than ever before. Even without formal training, producing and publishing paper or digital maps is easier today than ever before. Individuals and communities can engage in mapmaking for a cause, for art, for fun, for recollection, for navigation, for representation, and so much more.

Cartography is one way to critique, disrupt, and reclaim power. We can use maps as important visual communicators to confront injustice, demarcate and protect Indigenous territories, share placed-based community experience, and rename places, to name just a few examples. Many contemporary cartographers, artists, and activists use maps to challenge power and promote "bottom-up" approaches to mapmaking, in their own terms. This is because maps can be powerful tools for marginalized peoples to reimagine and reconstruct their worlds in avoidance of, or resistance to, the structures of authority. This is called **countermapping**, or a political practice of mapping back. It is mapping against tradition or prevailing power or knowledge systems, guerilla style. Much of countermapping is done via **participatory mapmaking**, a practice of co-creating maps with or by the communities most closely associated with the places or territories being mapped. In other words, participatory map-making is a method for collective cartography that allows community members to become mappers rather than passive subjects of maps.

Countermapping is rooted in self-determination and resistance. It can be traced back to the struggles of First Nations political organizations in Canada and Alaska in the 1970s and has played a crucial part in the First Nations campaigns for autonomy in North America. The maps created from these foundational struggles eventually led to the establishment of Nunavut, a self-governed Inuit territory of two million square kilometers in northern Canada. This success initiated the spread of Indigenous countermapping all over the world. Countermapping has also been an important part of the African American struggle for freedom. Civil rights leader W.E.B Du Bois, for example, prepared a variety of maps to deconstruct racist stereotypes and highlight Black cultural and economic achievements. Civil rights activists also utilized maps to record, tabulate, and map lynchings throughout the United States as a form of gathering and displaying scientific information to promote anti-lynching legislation. Activists of the women's suffrage movement of the 20th Century, too, used suffrage maps in flyers and pamphlets as a persuasive tool on the struggle for the right to vote.

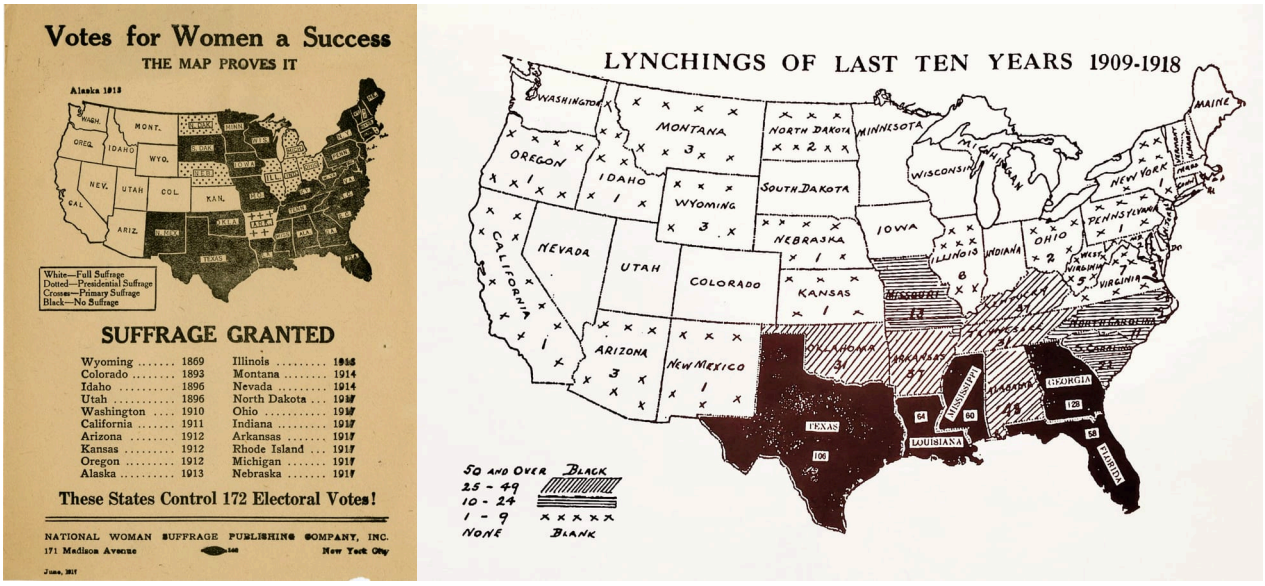


Figure 1.3.8: [left] An example of a persuasive map charting progress for National Woman Suffrage in 1919 (Public Domain; from the Adele Goodman Clark Papers, M 9, Special Collections and Archives via Flickr). [right] Lynching deaths by state in the United States compiled and published by the NAACP as part of its program of persuasive mapping against white mob violence (New York: National Association for the Advancement of Colored People, National Office, 1919. Via Alderman et al., CC-BY-4.0).

These few examples illustrate how cartography can be a practice for equality, liberation, and world-making. Today people everywhere participate in countermapping. This Is Not an Atlas compiles many powerful examples of counter-cartographies from all over the world illustrating the deep connections between maps and political struggle. In a related venture, mapmakers with Guerilla Cartography promote "decentralized mapping" that combine diverse methodologies, perspectives, and expressive forms to create innovative thematic maps on topics such as water, shelter, food, and migration. Decolonial Atlas publishes maps that challenge our conceptions of mapmaking and our relationships to lands, people, and the state. Each of these cartographic repositories help us expand our perspectives through the power of maps.

Towards A Safer City: Participatory Mapping of Sexual Harassment in Cairo, Egypt

Sexual harassment is misunderstood and underreported all over the world. Stigma and shame prevent many women from talking about it or reporting it, and data on the problem is scarce. New web and mobile technologies have, however, opened new possibilities to overcome some of the barriers to documentation and data collection. HarassMap.com offers an innovative tool for reporting and generating data on sexual harassment, and has enhanced debates and discussions around the issue in Egypt and worldwide.

HarassMap uses web and mobile technologies to crowdsource and map incidents of sexual harassment from all over Egypt. Anyone who experiences or witnesses sexual harassment can anonymously submit a report through the web interface (or through Facebook and Twitter). Reports that include basic geographical information (location and date/time of the incident) are automatically mapped using Google Maps and made publicly available on the HarassMap website. Each report appears as a red dot on the map that, when clicked, displays the full information of the report in its original language (Arabic or English). Besides the location and the date/time, each report also includes a narrative description of the incident, the type(s) of sexual harassment (for example comments, stalking, or following). Each report receives a response with information on how to access free legal services and psychological counseling.

HarassMap has gathered information that can be used to tailor advocacy campaigns and educational programs and serves as an important tool for motivating the public to report and stand up against sexual harassment. Immediately after launching the map in 2010, HarassMap received a large number of reports of sexual harassment, and over the years the crowdsourced data has helped to reformulate the discussion on sexual harassment in Egypt. It has also helped to challenge stereotypes and misinformation about the issue.

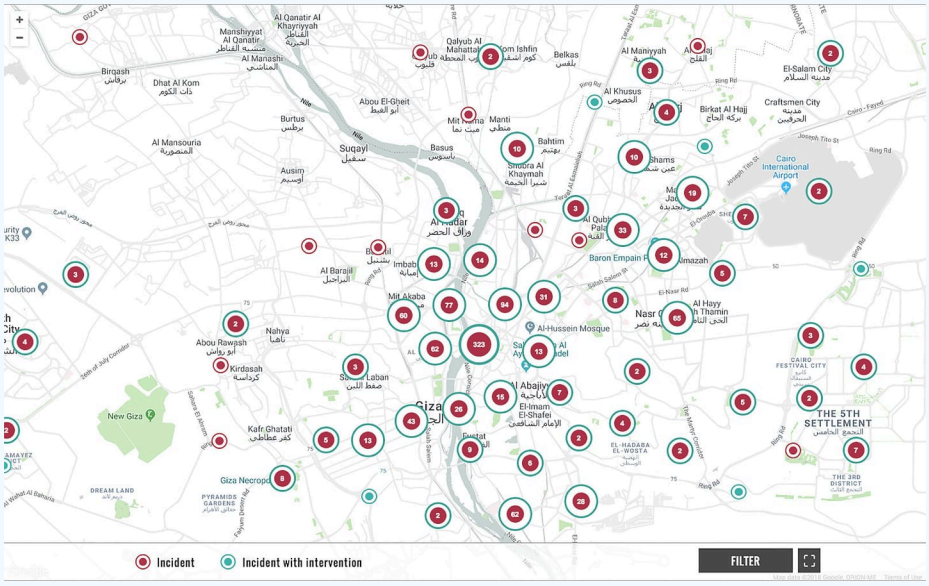


Figure 1.3.9: This is a screenshot of the interactive HarassMap, a participatory web map where users report and record cases of sexual harassment in Cairo, Egypt. When users click on the recorded cases, they can learn what types of harassment people have experienced in various parts of the city. Crowd-sourced information like this can help alert communities and the police about harassment patterns in the city (CC-BY-4.0; Harassmap via *This Is Not An Atlas*).

"Writing versus Righting"

> "In essence, maps are images designed to represent spatial relationships, connecting land to other beings in one way or another... Maps are storytelling devices" – Annita Lucchesi

Cartography is an ancestral practice, well-rooted in Indigenous traditions all over the world. Consider the rich Mayan libraries containing many complex astronomical charts and maps, many of which were burned down by Spanish intruders. Or consider the Polynesian wayfinders who navigated one quarter of the Earth's surface without instruments or Western-style maps, well before Europeans managed to cross the Atlantic. Over several centuries in Kaallit Nunaat (an Indigenous name for Greenland), Inuit peoples carved portable maps into driftwood to aid in navigating the rugged Arctic coastlines. These and countless other cases

of Indigenous cartographic wisdom challenge the Western canon of geographical knowledge and its relatively narrow perceptions of maps.[11] They help us understand cartography as ancestral, dynamic, communal, and multi-dimensional.

These examples also help us reflect on the notion of a map as more than writing, or even the physical inscription of symbols. Most of the world's languages are unwritten. Yet, everywhere in the world humans convey and build on geographic knowledge. History, traditions, and wisdom have been transmitted orally for thousands of years. Similarly, the practices of and possibilities for "writing the Earth" extend far beyond the illustrated map. Communities represent their relationships to land and navigation in an astounding variety of ways, each of them valid and valuable in their own ways. Indigenous languages, both with and without writing systems, often convey land and its uses orally, describing territory as a living fabric that weaves communities to their environments, free of definite borders. Indigenous scholar and organizer Maquiades Cruz describes Zapotec traditions of sharing of spatial knowledge in oral maps in Mexico's Ricon de la Sierra Norte region:

> "The story that the elders tell is a history they know from memory. It is not an object that can be tucked away in a museum like any old artifact. It is an oral map that circulates by word of mouth, contrasting with textual maps that circulate from hand to hand, eye to eye... Language allows us to relate people and things, weaving a fabric from their relations... The semiotic relationship between textile, fabric, and text (textile, tejido y texto) helps us reflect on the webs of knowledge and exchange that we try to make when we weave things together through contact, collaboration, knowledge, experience, sources, production, and circulation, creating the fabric of community."[12]

These community-land weavings embody Indigenous traditions and ancestral wisdom through **toponyms,** or place names. Toponyms vary depending on perspective. An **endonym** is the name ascribed to a place by the people who live there. Endonyms reflect the language and cultural traditions of places. In contrast, **exonyms are** place names superimposed by outsiders. For example, "America" is an exonym placed on a landmass by a German cartographer, Martin Waldseemüller, who had never been there, and who named it for another European cartographer, Amerigo Vespucci. There are, however, many endonyms for "America," including Turtle Island (See Figure 1.3.11).

Many efforts have been made to restore and reclaim Indigenous place names as a way of combating the invisibility of Indigenous communities and their knowledge, an endeavor some researchers refer to as "decolonizing the map." As part of this effort, Native-Land.ca, an Indigenous-led non-profit organization, offers an interactive participatory map displaying various Indigenous claims to North American lands, as defined by the Indigenous groups themselves. The depth of oral traditions, however, means that the mere attribution of Indigenous place names remains insufficient because it lacks the interpretive storytelling content and practices necessary to convey the meaning and the history attached to places. To address this shortcoming of two-dimensional maps, some groups are creating multimedia "Indigital story maps" to accompany the conventional graphic map with narratives and other forms of storytelling, allowing Indigenous communities to incorporate their own voices, languages, toponyms, and stories.[13]



Figure 1.3.10: In Kaaallit Nunaat (Greenland), the Inuit carved portable maps out carved in driftwood to aid in navigating rugged coastlines for centuries. The carving representations are small, buoyant, and tactile, so they can be read at night. The negative spaces in the carving represent the land, so the linear map shows what the coastal contours look like. [left] This image depicts a sample of the Inuit tactile maps and matches them to paper maps, showing how the carvings correspond to the terrain depicted in contemporary cartography (Decolonial Media License 0.1; Topografisk Atlas Grønland via Decolonial Atlas). Kalaallisut is the Indigenous name for Greenland, a regional homeland of the Inuit along with the Arctic regions of Canada. [right] This map depicts Inuit homelands - in Kallallisuit, settled regions along the habitable coastal areas are all predominantly Indigenous (CC BY 4.0; Noahedits via Wikimedia Commons).



Figure 1.3.11: An *endonym* is the name ascribed to a place from the people who live there, in their own language. It is contrasted with an *exonym*, which is a place name superimposed by outsiders. For example, “America” is an exonym given to continent by a German cartographer, Martin Waldseemüller, who had never been there, and who named it for another European cartographer, Amerigo Vespucci. There are, however, many endonyms for “America.” The continent is known as Kéyah dah si’ánígíí in Diné bizaad (Navajo), Ixachitlān in Nāhuatlahtōlli (Nahuatl), Posno choba ihaanosi in Albaamo innaaƚiilka (Alabama), and Awya Yala in Runa Simi (Quechua), among others. For the purposes of this map, the name that appears is from the language that is most widely used in that area. In some cases, like “Australia,” there are no widely used Indigenous endonyms (Decolonial Media License 0.1; Engel via Decolonial Atlas).

Open maps: A note from the authors

Perhaps in a geography course you could expect a long-winded lesson about maps. In this book, we accept maps to be neither impartial nor standard. They are valuable visuals that can be construed from diverse perspectives and for diverse purposes. We encourage you to apply critical scrutiny when examining maps, evaluating not only their technical features and functions but also their perspectives and contributions that might deepen our understanding of the world. Throughout the book, we have curated maps from the creative commons and public domain, meaning those we are permitted to publish in an open textbook. For example, you might notice that many of our images come from Wikimedia Commons or from Flickr.

These are common publication venues not only for cartographers wishing to share their work freely but also national and international governmental agencies that share professional cartography with the public. We made an effort to source reliable and effective maps, examining their sources, perspectives, and their ability to communicate valid and valuable geographic information. In curating images, we embraced the *power* of maps as visual supplements to the topics discussed throughout the book. Still, all maps are limited and exclusive, some more than others, and even in ways that the authors may have missed. Read the maps in this book, and everywhere else, with care and critical appraisal.

References:

[1] ROLLER, D. W. (2010). *Eratosthenes' "Geography."* Princeton University Press.

[2] White, J. (2017). Geography and Empire.

[3] Pastuch, L. 2022. Al-Idrisi's Masterpiece of Medieval Geography. Library of Congress.

[4] Sletto, B., Bryan, J., Wagner, A., and Hale, C., (eds). 2020. *Radical Cartographies: Participatory Mapmaking from Latin America*. Austin: University of Texas Press.

[6] White, J. (2017). Geography and Empire.

[7] Harley, B. 1988. Maps, Knowledge, and Power. In: D. Cosgrove and S. Daniels (Eds), *The Iconography of Landscape*. Cambridge: Cambridge University Press, 1988, pp. 277–312

[8] Harley, B. 1988. Maps, Knowledge, and Power. In: D. Cosgrove and S. Daniels (Eds), *The Iconography of Landscape*. Cambridge: Cambridge University Press, 1988, pp. 277–312

[9] Based on ideas of Pickles about maps preceding and forming territories, not just being representations of territory. As discussed on the literature review presented by Kitchin, R. and Dodge, R. 2007. Rethinking Maps. *Progress in Human Geography* 31(3), pp. 331-344.

[10] Alderman, D., Inwood, J. and Bottone, E. 2021. The mapping behind the movement: On recovering the critical cartographies of the African American Freedom Struggle. *Geoforum,* volume 120, pp. 67-78.

[11] Lucchesi, A. 2018. "Indians Don't Make Maps": Indigenous Cartographic Traditions and Innovations. *American Indian Culture and Research Journal*. 2018. Also recommended: Simpson, L. 2014. Land As Pedagogy: Nishnaabeg intelligence and rebellious transformation. *Decolonization: Indigeneity, Education & Society* 3 (3), pp 1-25.

[12] Maquiades (Kiado), C. 2020. Oral Narratives in the Ricon Zapoteco (pp. 22 & 26). In: Sletto, B., Bryan, J., Wagner, A., and Hale, C., (eds). 2020. *Radical Cartographies: Participatory Mapmaking from Latin America*. Austin: University of Texas Press.

Attributions:

"The Spatial Perspective" by Caitlin Finlayson, CC BY-NC-SA 4.0.

"Map and Scale Accuracy" by David DiBiase & John A Dutton, CC BY-NC-SA 4.0.

"Sub-fields of geography" and "Geospatial Technologies" is adapted from "Introduction to Geographic Science" by Darstrup via, Open Geography Education, CC-BY-4.0.

This is Not An Atlas, editorial by Severin Halder and Boris Michael and "Mapping Sexual Harassment in Egypt" by HarassMap, CC-BY-4.0.

This page titled 1.3: Maps- Place, Power, and Representation is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

1.4: Geographical Thought- Critical Reflections and Imagination

Learning Objectives

- Describe the uneven geographies of knowledge production and identify some of its implications.
- Identify ways in which the co-development of geography as a discipline and colonialism.
- Define race and the ways scientists, including geographers, contributed to the construction of racial hierarchies.
- Explain the concept of the cultural landscape and the turn it represents in the geography discipline.

Racism and Geography: Past and Present

Whose Geography?

As we approach an introduction to world geographies, it is important that we take a moment to reflect on the stories that we tell, who tells the story, and how our stories perpetuate exclusions and hierarchies.[1] This textbook is a collaboration among authors studied and live in North America, and while we have diverse backgrounds, our geographic situation follows established patterns of knowledge production. For instance, a map of the top 400 universities in the world illustrates that most universities are located within the wealthy countries of North America and Western Europe (See Figure 1.4.1), where most of the world's academic knowledge is produced. This map provides us a window into the deeply uneven global geography of storytelling and of knowledge production, imbricated in power relationships. Some people have far more control over knowledge than others, and some places are central in information ecosystems whilst others are peripheral.

With the rise of the internet, it has been expected that this will change, that this new platform will disrupt the geographic concentration of access to information and knowledge production. The internet allows billions of users all over the world to access and contribute human knowledge. However, globalized internet access is still an aspiration more so than a reality. There are real geographic inequalities in the digital world. The web is not worldwide as nearly half of the world's population still does not have access to the internet (although that is changing rapidly), and most internet users cannot freely access or share information due to governmental censorship. People's uneven contributions on the web can also be see through Wikipedia, the world's largest and most used user-generated encyclopedia. In theory, Wikipedia allows anyone in the world to submit information to it. In practice, though, we also see massive inequalities in the amount of content submitted to Wikipedia from different parts of the world (See Figure #). Most Wikipedia entries is written by people in rich countries, and only a tiny amount of content comes from elsewhere. This matters because the numerous editors can shape the narrative and the perspectives of entries when writing about contested topics. The uneven access and participation in the digital world reiterate a familiar global power matrix where people in just a few parts of the world seem to have much more voice than everyone else.[2]

Atop these established exclusions, the geography discipline faces the additional problem of being *unworldly,* a great paradox for a discipline that is concerned with understanding and explaining the world. In line with the patterns of academia at large, geographical knowledge production has been greatly concentrated in North America and Europe, an Anglo-tradition that has been (and still is) largely exclusive of women, LGBTQA+, non-white, and non-Western peoples. Geography departments across colleges and universities in the United States reflect this pattern by being vastly white male dominated.[3] [4] This lack of representation in academic geography deeply shapes the stories that are told, the stories that are not told, and from what point of view – at the detriment of geographers' work and of geography students seeking to make sense of their worlds.[5] Considering this reality, vigorous scholarly discussions within geography have taken place reflecting on the discipline's (mis)representations and inequities.[6] [7] Part of this scholarly reckoning has helped geographers first and foremost acknowledge the discipline's haunting entanglements with colonialism, Eurocentrism, and racism.

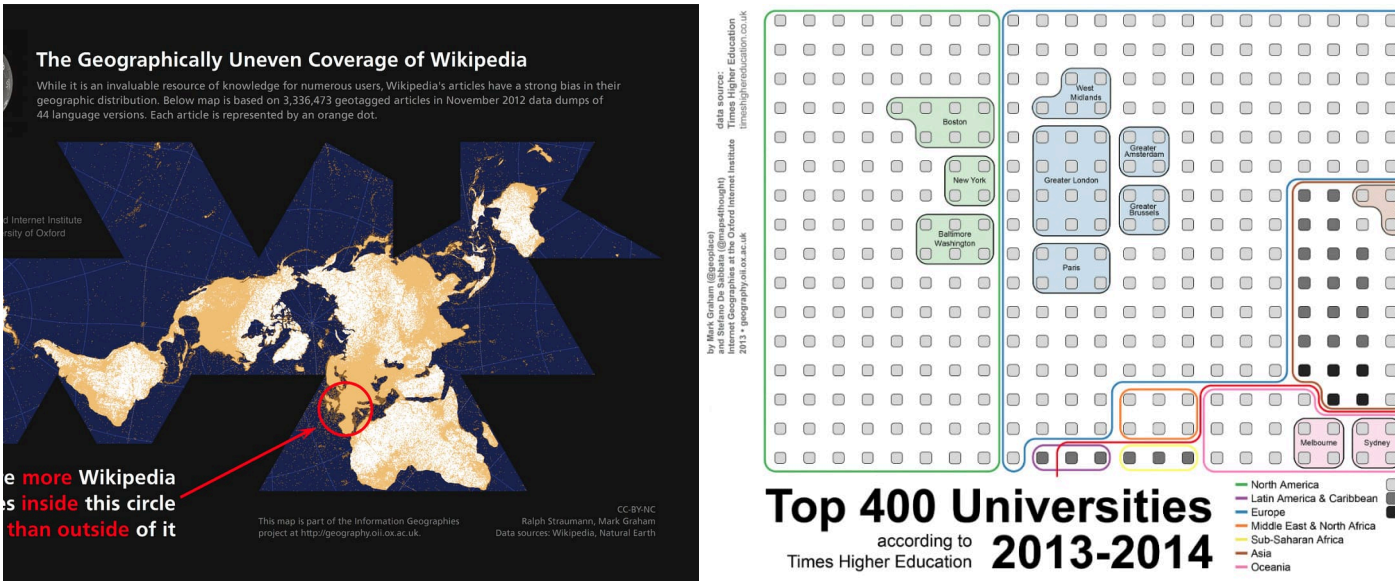


Figure 1.4.1: [left] The map The Geographical Uneven Coverage of Wikipedia points out the highly uneven spatial distribution of Wikipedia articles. Most entries come from people in rich countries, like the US and countries in Western Europe. More than half of the total articles are about places, events, and people inside the red circle on the map, in Europe. Wikipedia plays an important role in shaping how we understand the world. "While it is an invaluable resource of knowledge for numerous users, Wikipedia's articles have a strong bias in their geographic distribution." The map is "based on 3,336,473 geotagged articles in November 2012 data dumps of 44 language versions. Each article is represented by an orange dot". The circle on the map, located in western Europe, has more articles inside of it than outside of it (CC BY 4.0; Mark Graham et al. via *This Is Not An Atlas*). [right] This map shows the locations of the world's top 400 universities as ranked by the Times Higher Education. It also illustrates the relative wealth of the country that hosts each university. There are no universities from low-income countries present on the list, and India is the only lower-middle income country represented. Most of the world's elite universities are in the United States, Western Europe, and East Asia (what the cartographers of this map refer to as the Global North). Most of the world's published academic knowledge is produced in the Global North, and even acceptance rates for most journals tend to be higher for authors from the Global North. Amazingly, the Greater London cluster alone contains the same number of top-400 universities as all of Sub-Saharan Africa, the Middle East and Latin America combined! We have a state of affairs where the Global North has tended to be a producer of knowledge and the Global South has tended to be a consumer of it (CC BY 4.0; Mark Graham et al. via *This Is Not An Atlas*).

Spatial Hierarchies: Imperialism, Colonialism, Eurocentrism

> "Geography is a power laden venture...saturated with colonial and imperial themes"- D. Clayton[10]

Geography has deep roots in colonialism and imperialism. **Colonialism** is a term derived from the Latin word *colonia* (estate, distant settlement), and it refers to the acquisition and control of other territories. It is a modality of power between a majority (the colonized) and a minority (the colonizer) and takes the form of taking over the life systems of one group of people by another. **Settler colonialism** is defined as when a group of people claim inhabited land as their own and is often associated with the genocide of Indigenous peoples and the reorganization of the land for the purposes and interests of the settlers. The contemporary world carries a deep legacy of colonization as most of it has been colonized by Europeans over centuries of dispossession in the Americas then later in Africa and Asia – it's a recent past for many countries in the Caribbean, Africa and South/Southeast Asia that have a short history as independent states.

Colonialism is often used interchangeably with imperialism. **Imperialism,** a term derived from the Latin word *imperium* (sovereign authority), means the geographic expansion of power, authority, and dominance either via diplomacy or military. Imperialism is discerned from colonialism as a form of control from a distance, without necessarily entailing the political appropriation and physical occupation of the land. Colonialism was the principal way in which Britain became a powerful empire. "The sun never sets on Britain" is a phrase that encapsulates the extensive global reach of the British Empire, the largest in history. In its peak, it covered nearly a quarter of the world's land area. Former colonies include Australia, the United States, Canada, New Zealand, Iraq, Malaysia, Kenya, the Bahamas, Jamaica, and India (and the list goes on). Britain's ambitions of conquest spared only a few places, and only 22 countries in the world today have never been invaded by Britain.[8] Its extensive sphere of influence has deeply transformed peoples and places.



Figure 1.4.2: Imperial Federation, a map of the world showing the extent of the British Empire in 1886 created by Walter Crane (1845-1915) with colonies of the time depicted in light pink. The map glorifies the British Empire with Britannia at the center seating on top of the world ruling the Empire's subjects. Paradoxically, the map uses the phrase "Freedom, Fraternity, Federation" to describe its relationship with colonies while depicting its peoples peripherally, at the foot of Britannia and on the sidelines of the frame of the map (CC0 1.0; Colomb, J. C. R. via Wikimedia Commons). At its peak, the British Empire controlled the largest territorial expanse of any empire in history. To date, only 22 countries have never been invaded by the British.

Imperialism did not necessarily end as countries fought and won their independence. For example, as Haiti expelled French colonists, and declared its independence as a Black republic before any country in the Americas or in the colonial world, the French exerted its economic influence to extort millions of dollars from the newly independent Haiti in exchange for its recognition of Haitian sovereignty. Thus, the French Empire exerted power and influence on its former colony, to extract capital from Haiti for nearly seventy years. Today, Haiti is one of the poorest nations in the world.

These long-lasting legacies are also far from solely monetary. In the 1970s there was a rise in Indian and British scholarship around how colonialism had impacted colonized peoples and places. Antonio Gramsci coined the term **subaltern,** a designation for groups of people who have been systematically excluded from cultural, social, political, and economic decision-making practices. For example, colonized peoples were forced to adopt religious belief systems that were not of their own making, agricultural practices not of their own design, and modes of dress that were imposed upon them from an outside entity. Gramsci understood this as **cultural hegemony**, where the ruling elite strategically coerces through exploitative tactics to superimpose their cultural ways. This long-lasting legacy is also illustrated by legacies of colonial **toponyms,** place names. For example, there are 23 Manchesters, 18 Plymouths, and 16 Oxfords throughout the United States, all of which are important places in England.[9] Many of the place names we use in geography today are **exonyms**, or names given by outside entities, often colonial powers. Exonyms contrast with **endonyms**, which are how people name their homelands, in their own language and writing.

Geography and the Racist Colonial Project

Colonialism and the building of European empires both enabled and was enabled by geographical knowledge. Cartography, one of geography's most distinguishing characteristics, was an indispensable tool for identifying, representing, and documenting to-be colonized territories. As discussed in Sect 1.3, maps ware part of the arsenal of weapons of conquest, used to promote colonial interests, to carve up a world that was up for taking. Maps incrementally recorded geographical knowledge about lands largely unknown to Europeans. They were such an invaluable competitive edge that many Spanish and Portuguese maps were empire secrets, like classified documents accessible only to a privileged few.[11]

Geography's entanglement with empire building is not only in cartography, but also in the discipline's participation in humanity's "most dangerous myth"[12]: the construction of race and racism. **Race** is the categorization of human difference based on perceived physiological traits such as skin color, hair type, head shape, among other features. It is a concept that was once claimed to be scientifically identifiable. The infamous 19th century cranium capacity studies by American scientist Samuel Morton falsely contended that the shape and size of human cranium samples indicated distinctive human races that were directly related

to capacity for intelligence. Morton's work and other reiterations of this scientific myth sought to legitimize a hierarchy of humans highlighting the superiority of what was identified as the Caucasian race. Today, we know race to be a social construct. Scientists, now able to look at humans at the DNA level, have widely discredited the concept of race as scientifically and genetically unfounded. Physically expressed traits are minimal components of a person's overall genetic makeup and are simply insufficient to create discrete human categories, let alone hierarchies. And, it turns out, genetic traits (like the size of the human head) tend to vary just as much within constructed racial groups as between them. Morton is known as the father of **scientific racism,** or the ways in which biased "scientific" explanations constructed hierarchies of racial difference.

Morton was not a geographer, but many 19th and 20th century geographers were hard at work to elucidate exotic otherness and racial hierarchies as conventional wisdom. Geographers utilized illustrative work to map "racial types". Perceived as matter-of-fact documents, maps added a form of scientific legitimacy to racial difference. The fundamental conviction behind many of these maps was that race was not only biological but also an intellectual moral hierarchy that placed Europeans and their descendants at the pinnacle of intelligence and civilization.[13] Racial mappings deserve our attention because they represent the connections geographers were making to race, spatial distributions, and the natural environment – making these connections became a central theme of geography in the United States and Europe for decades to come.

Geography's main contribution to the racial myth was its attempts to craft a racial science explaining the geographic origins of racial hierarchies, drawing causal relationships between the Earth's environments and the human genius**. Environmental determinism** contends that the natural environment predisposes the characteristics of people in each society. The foundational assumption is that nature (the atmosphere, the land, animals, plants, minerals, rocks, and so on) and culture (human beings) are two separate entities, and that the environment largely shapes human beings. Environmental determinism promoted a false claim that the environment or geography of a given place made the humans in that place "more developed" or "less developed." As such, the logic followed that temperate environments were optimal for the development of ingenious humans, a factor that enabled Europeans to reach great intellectual achievements. Conversely, the tropics, being inhospitably hot and humid, resulted in a hereditary intellectual inertia, dishonesty, and immorality. For decades, such rationale would *naturalize* race and racial hierarchies, and geographers continued to draw (faux) causal connections between race, climate, environments, intellect, and morality[14]

Environmental determinism is in reciprocity with **Eurocentrism**, or the belief, attitude, and ideological apparatus that Europe is at the center of human progress made evident by its economic, political, social systems, and the high quality of life of its citizens. Egyptian-French economist and political scientist Samir Amin coined the term to name an ideological system that perpetuates the so-called superiority of Europe. From a Eurocentric viewpoint, Europe is the center of science, capitalism, democracy, and freedom partially because of its deep ties to Greek and Roman histories. In textbooks, you might see phrases like "the rise of Europe," and that rise explained in the context of Europe's rationality, forward thinking, and the benefits of its climate and geography. This Eurocentric approach is also reflected in the vocabulary used to describe colonization as "The Landing of Columbus" (as in he fell from heaven?) or "The Discovery" or "Conquest" of the Americas as "The New World" (as it did not already exist? or as if it was up for conquering?). Eurocentrism is also perpetuated in dichotomies like barbaric vs. civilized, backwards vs. advanced, which only serve as vocabulary claims of racial superiority. Other terminology like Global North vs. Global South, modern vs. traditional, or First World vs. Third World differentiate nations along a continuum of development. While these terms do not essentialize race, they have the same outcome of creating spatial hierarchies with implicit racial associations.

The cartographic and theoretical contributions shortly described here provide examples of the geography discipline as a participant in the proliferation of **racism,** or the notion of superiority of a constructed race over another. Racism was part of the larger colonial project to establish a racial global hierarchy that recognized human worth in a categorized continuum.[15] Eurocentric explanations of the world dominated (and still dominate) academia and helped justify the subjugation of peoples in colonized territories in a way that did not exist before Columbus. Within less than 200 years of Columbus stumbling upon the Americas, Indigenous populations had been decimated through war and disease and African peoples violently displaced from their homelands and enslaved. The Americas were the first continent to be plundered, depopulated, and repopulated. While religious leaders in both Spain and Portugal were opposed to the eradication of whole groups of people for gold and other resources, they advanced converting of Indigenous people to Christianity. These "civilizing missions" were not opposed to colonization nor racism but rather justified material and cultural theft with religion. Thus, this process of dehumanization and dispossession had been "morally justified" and would continue to proliferate to other parts of the world, deeply traumatizing people and places.[16]

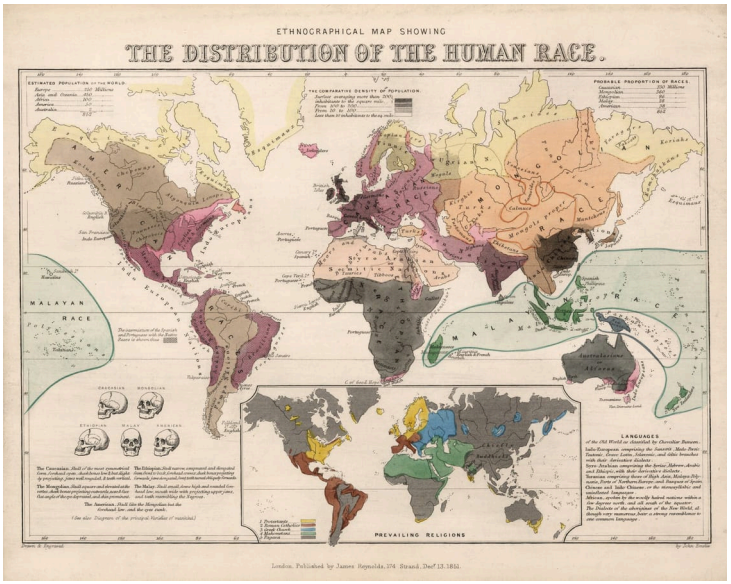


Figure 1.4.3: This is a hand-colored engraved map shows the population density around the world along with the ethnographic racial groups recognized at the time. The left side of the map shows the skulls and descriptions of skull shapes of the constructed races. The world's continents are colored based on these distinctions. Seen as matter-of-fact documents, maps officialized notions of race and racial hierarchies. Geographers' continued to naturalize racial difference and hiearchies through the development of environmental determinism (CC BY-NC-SA 3.0; Cartographer: James Reynolds, 1851. From the David Rumsey Map Collection via Internet Archive).

Beyond Environmental Determinism: Human Agency and the Cultural Landscape

Carl O. Sauer (1889-1975), an American geographer, is often credited with countering the claims of environmental determinism in geography with a school of thought centering analysis of human landscapes fashioned by cultural systems**.** One of the most cited articles in geography is Sauer's seminal article "The Morphology of Landscape" (1925), an influential work in establishing the concept of the cultural landscape. The **cultural landscape** as defined by Sauer is "fashioned from a natural landscape by a cultural group. Culture is the agent, nature is the medium, the cultural landscape is the result".[17] As such, the varied and complex landscapes that make up our world are a result of human culture working as a geographical agent.

Sauer taught at the University of California at Berkeley and was an influential figure in developing the distinctive geography program at Berkeley known as the Berkeley School. Sauer was educated at the University of Chicago and studied with Ellen Churchill Semple (the first woman to serve as president of the Association of American Geographers), an early proponent of environmental determinism. In a direct challenge to environmental determinism, Sauer argued that humans transform physical landscapes to reflect culture and are also influenced by those physical landscapes. Instead of human societies passively being determined by the natural world, Sauer argued that culture, as a collective acquired habit, is a shaping agent of the world around us independent of race. By the time Sauer became president of the AAG in the 1945, WEB Du Bois had already extensively written about race and notions of racial *equality* and the concept of race as an *artifice* were already developed in academia.[18]

Sauer's approach to geography was to first bring the geographer down from the "ivory tower" and into lived spaces to closely study the space in question. Sauer called for a more qualitative, subjective, or creative approach to geographical study. This approach was likely influenced by Alexander von Humboldt (1769-1859), a polymath that contributed significantly to the discipline of geography. Humboldt was active in the 18th and 19th centuries well before Sauer. Humboldt straddled the invisible border between physical and human geography and insisted that art and creativity were central to scientific development. In fact, it has been argued that Humboldt advocated for both "scientific mastery of biological and geophysical processes" in combination with "poetics, aesthetics, emotion, and reason."[19]

The divide between nature (the physical world and non-humans) and culture (human beings) is questionable, and the relationships of nature and culture is complex. Denis Cosgrove, an influential cultural geographer, says that all landscapes are simultaneously cultural and natural. Indigenous philosophies describe territory as a loving weaving between people and their land.

References:

[1] Kinkaid, E., & Fritzsche, L. (2022). The Stories We Tell: Challenging Exclusionary Histories of Geography in US Graduate Curriculum. *Annals of the American Association of Geographers*, *112*(8), 2469-2485.

[2] Graham, M., Straumann, R. K., & Hogan, B. (2015). Digital divisions of labor and informational magnetism: Mapping participation in Wikipedia. *Annals of the Association of American Geographers*, *105*(6), 1158-1178.

[3] Pulido, L. (2002). Reflections on a white discipline. *The Professional Geographer*, *54*(1), 42-49.

[4] Faria, C., Falola, B., Henderson, J., & Maria Torres, R. (2019). A long way to go: Collective paths to racial justice in geography. *The Professional Geographer*, *71*(2), 364-376.

[5] Faria, C., Falola, B., Henderson, J., & Maria Torres, R. (2019). A long way to go: Collective paths to racial justice in geography. *The Professional Geographer*, *71*(2), 364-376.

[6] Domush, M. 2015. Why is our geography curriculum so white? *Association of American Geographers Newsletter*.

[7] Kinkaid, E., & Fritzsche, L. (2022). The Stories We Tell: Challenging Exclusionary Histories of Geography in US Graduate Curriculum. *Annals of the American Association of Geographers*, *112*(8), 2469-2485.

[8] Statista (Oct 15, 2021). Only 22 countries have never been invaded by Britain.

[9] Erickson, A. (Jul 4, 2016). Mapping the places in America named after England. *The Washington Post*.

[10] Clayton, D. W. (2020). The passing of “geography’s empire” and question of geography in decolonization, 1945–1980. *Annals of the American Association of Geographers*, *110*(5), 1540-1558.

[11] Harley, J. B. (2009). Maps, knowledge, and power. *Geographic thought: a praxis perspective*, 129-148.

[12] Montegu’s *Man’s Most Dangerous Myth,* as described in Kobayashi, A. (2014). The dialectic of race and the discipline of geography. *Annals of the Association of American Geographers*, *104*(6), 1101-1115.

[13] Winlow, H. (2006). Mapping moral geographies: WZ Ripley's races of Europe and the United States. *Annals of the Association of American Geographers*, *96*(1), 119-141.

[14] Kobayashi, A. (2014). The dialectic of race and the discipline of geography. *Annals of the Association of American Geographers*, *104*(6), 1101-1115.

[15] Esson, J., & Last, A. (2019). Learning and teaching about race and racism in geography. In *Handbook for teaching and learning in geography* (pp. 227-240). Edward Elgar Publishing.

[16] Mignolo, W. D. (2008). Racism as we sense it today. *PMLA*, *123*(5), 1737-1742.

[17] *The Cultural Landscape*.

[18] Kobayashi, A. (2014). The dialectic of race and the discipline of geography. *Annals of the Association of American Geographers*, *104*(6), 1101-1115

[19] Hawkins, H. (2019). Geography’s creative (re) turn: Toward a critical framework. *Progress in Human Geography*, *43*(6), 963-984.

Attributions:

"Whose Geography" is adapted from Attribution: Graham, M., De Sabbata, S., Straumann, R., & Ojanpera, S. M. O. (2018). Uneven digital geographies... and why they matter. In *This is not an atlas*. CC BY 4.0.

This page titled 1.4: Geographical Thought- Critical Reflections and Imagination is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio & Nazanin Naraghi.

2: OUR CONNECTED WORLD [COMING SOON]

2.1: Globalization
2.2: Climate Change
2.3: Global Development and Inequality
2.4: TBD
2.5: TBD

This page titled 2: Our Connected World [Coming Soon] is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

2.1: Globalization

Defining global connections

Culturally, ecologically, transitioning to political/economic

A Brief History of Globalization

	Description	Leading countries	Enabling innovations	Prevailing Economic trend (GDP)	Leading exports, Exports as % of the GDP
 Colonial Era (16th-19th Century)	This was the first wave of globalization, characterized by the growth of European trade and colonization. European powers sought to increase their wealth by acquiring colonies and dominating trade routes.		Advancements in navigational instruments and cartography	 Europe	Raw materials 5%
 Industrial Era (19th to 1914)	This phase of globalization was driven by the rise of industrialization and the expansion of trade, investment, and communication networks. The growth of railroads, steamships, and telegraphs facilitated increased economic and cultural exchange between countries.		Steam ships & trains	 Britain	Textiles/ Industrial goods 6-14%
 Post-War Era (1945-early 2000s)	This phase of globalization was marked by the growth of international trade, the increasing role of multinational corporations, and the rise of emerging markets such as China and India. The development of new technologies, including the internet and the rise of containerization, further facilitated globalization.		Expansion of fiber optic cables, satellites, shipping containers, cellular phones, and the internet	 United States & Europe World	Manufacturing 5-20%
 Contemporary Globalization (early 2000s-today)	This phase of globalization is characterized by increased interconnectedness and interdependence, facilitated by advances in technology, transportation, and communication. The rise of e-commerce and the globalization of financial markets made it easier for individuals and businesses to participate in the global economy.		Digital commerce/services, smartphones, big data, artificial intelligence	 China & US	Digital Goods/ Services 25%

Sources: Vanham, P. A Brief History of Globalization. *World Economic Forum;* Ritzer, G., & Dean, P. (2015). *Globalization: A basic text.* John Wiley & Sons; and Our World in Data, Global Annual GDP (1800-2018)

Figure 2.1.1: Copy and Paste Caption here. (Copyright; author via source)

Geographies of Access

Case Study: Lithium-ion battery

Agents of Globalization

Globalization Debates

Slowbalization?

Case Study: Globalization and the Covid-19 Pandemic

This page titled 2.1: Globalization is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

2.2: Climate Change

This page titled 2.2: Climate Change is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

2.3: Global Development and Inequality

This page titled 2.3: Global Development and Inequality is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

2.4: TBD

This page titled 2.4: TBD is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

2.5: TBD

This page titled 2.5: TBD is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

3: AFRICA SOUTH OF THE SAHARA

Re-framing Africa South of the Sahara

Africa is often viewed as a monolith, in broad continental strokes depicting the “Black continent.” Yet, Africa is home to more than one billion people, and there is no such thing as a singular African identity, nor an African race. By every measure, Africa is the cradle of human diversity and the most diverse region on Earth. Racial constructions based on skin color and other physical human characteristics have served as ideological justifications for the plundering of Africa, including the enslavement and trade of millions of Africans across the Atlantic. Furthermore, persisting depictions of backwardness perpetuate a geographic imagination that is often de-contextualized from the looting of Africa via exploitative economic relationships with the outside world.

Geographers tend to split the African continent in two separate regions, North and South of the Sahara. The African Transition Zone, along the Sahel, represents a buffer region where regional characteristics begin to shift and become more dissimilar from the patterns of the predominantly Islamic and arid North Africa. Dividing Africa north and south of the Sahara is sometimes accompanied by racist rhetoric as 19th-century constructions separate the predominantly Arab north and Black Africa of the south based on their degree of European cultural influence. The northern part of the continent is sometimes perceived as “European Africa,” highlighting Egypt as the center of cultural achievements while denying the role of the whole continent in the march of history. Cultural achievements of the south have commonly been dismissed as imports from the north. Like the architectural ruins of Great Zimbabwe that scholars, until recently, could not accept as monumental ruins of indigenous Africa. Or the indigenous Ife sculptures that were once perceived as too advanced to be independent artistic expressions rooted in Black Africa. Important food crops, too, are not commonly associated with African contributions to world cuisines. Even the term commonly used to describe the region, "Sub-Saharan Africa", implies a position below, rather than a latitudinal orientation south of the Sahara. We hereby attempt to correct this misalignment in vocabulary by rejecting the more common name for the region.

Lastly, Africa and its peoples are far too often portrayed as spectators of the past and recipients of the future. This misrepresentation refuses the centrality of African labor, resources, and culture in the making of world history *and* in the making of today's world powers. First, through the profits accumulated from centuries of forced African labor. Then through the extraction of a wealth of minerals that continue to be key inputs in globally significant technological developments – may it be the uranium used in the atom bomb that brutally defeated Japan and empowered the US and allies to carve the post-WWII world, or the cobalt in lithium-ion batteries fueling a green energy revolution amidst a global climate crisis. Africa today also has people power. It is already home to the world's youngest and fastest-growing population, an epicenter of humanity that will continue to play a key role in the global future.

In this chapter, we seek to avoid the dangers of a single story, as described by Chimanda Ngozi Adichie in the video below. In each of the sections of this chapter, we hope that you will find a multi-faceted exploration that will help you conceptualize Africa South of the Sahara as a world region and build an understanding of multiple geographical stories of struggle and resistance.

TED Talk: "The Danger of a Single Story" by Chimanda Ngozi Adichie

Our lives, our cultures, are composed of many overlapping stories. Novelist Chimamanda Adichie tells the story of how she found her authentic cultural voice -- and warns that if we hear only a single story about another person or country, we risk a critical misunderstanding. The video transcript is available in 49 languages.

This interactive element is not available in this format. Visit the link or scan the QR code to access it online.

View this Interactive Content online

The World Geographies Atlas: Navigate each world region through maps

For each of the world regions, our original atlas provides detailed maps to help you navigate the places discussed in this book. These maps are meant to be explored before and during the reading of this chapter. They were designed at a high resolution and best enjoyed enlarged. Click on each map for an enlarged view, and zoom in to see the prominent biomes, physical features, and population centers of Africa South of the Sahara. We recommend that you download these for reference as you read this chapter's content and hope that you enjoy this original compilation.

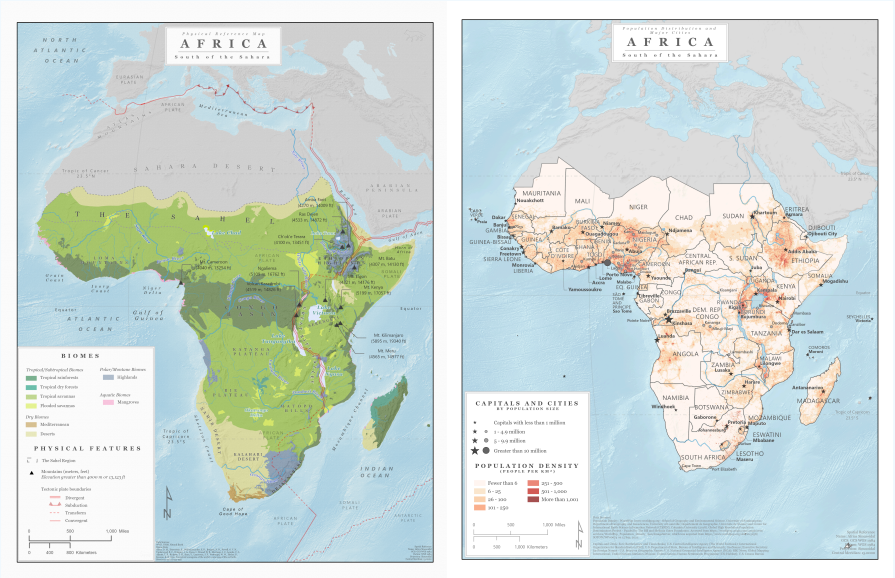


Figure 3.1: [left] This physical map shows the geographic distribution of biomes in Africa South of the Sahara and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries. Note how the Sahel is the distinguishing transition between Africa North and South of the Sahara - the regions in the North and the extensive Sahara Desert are considered part of Southwest Asia and North Africa (SWANA), discussed in Chapter 4. Also, note that the continent has about half of its landmass north and south of the equator, contrary to popular conceptions (CC BY-NC-SA; Wallace via Flickr). [right] This map depicts internationally recognized countries, capitals, major cities, and population distributions of Africa South of the Sahara. Note the greater population concentrations in west Africa, Ethiopian highlands, the Great Rift Valley around Lake Victoria, and coastal areas. As will be discussed in this chapter, the region has some of the fastest growing cities in the world (CC BY-NC-SA; Sellers via Flickr).

- Chapter Sections and Summaries

3.1: Africa's Natural Environments
3.2: Indigenous Worlds- Pre-Colonial Civilizations and Reclaiming Independence
3.3: Cultural Diversity, Resilience, Tolerance and Tension
3.4: Young and Rapidly Urbanizing Populations
3.5: The Ongoing Scramble for Africa

This page titled 3: Africa South of the Sahara is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio & Jason Scott.

3.1: Africa's Natural Environments

Learning Objectives

1. Describe Africa's latitudinal situation and how it shapes its major biome regions.
2. Explain the mechanisms of the Intertropical Convergence Zone and how it shapes climate and seasonability in tropical regions.
3. Identify the major river basins of Africa South of the Sahara and their significance.
4. Explain the tectonic dynamics of the Great Rift Valley and some of its geographical features.

Correcting Mental Misplacements

Even though most people know that the African continent is a large landmass, its size is sometimes underestimated. As we discussed in Chapter 1, geography students may have shaped their mental maps of the world based on the Mercator projection that was widely used in many geography classrooms in the United States. This projection exaggerates the size of northern regions, contributing to misconceptions by distorting the relative size of Africa. Africa is the second largest continent after Asia - as large as the US, China, India, Japan, Mexico, and many European countries combined. It is a massive landmass that is positioned further north than what most people think, with most of its land area located north of the equator. The northernmost latitudes are as far north as San Francisco and the southernmost about as far south as Buenos Aires. It is the only continent that is crossed by both the Tropic of Cancer (23.5°N) and the Tropic of Capricorn (23.5°S) making it the most tropical continent in the world. This latitudinal range shapes important climate mechanisms and life regions in Africa South of the Sahara.

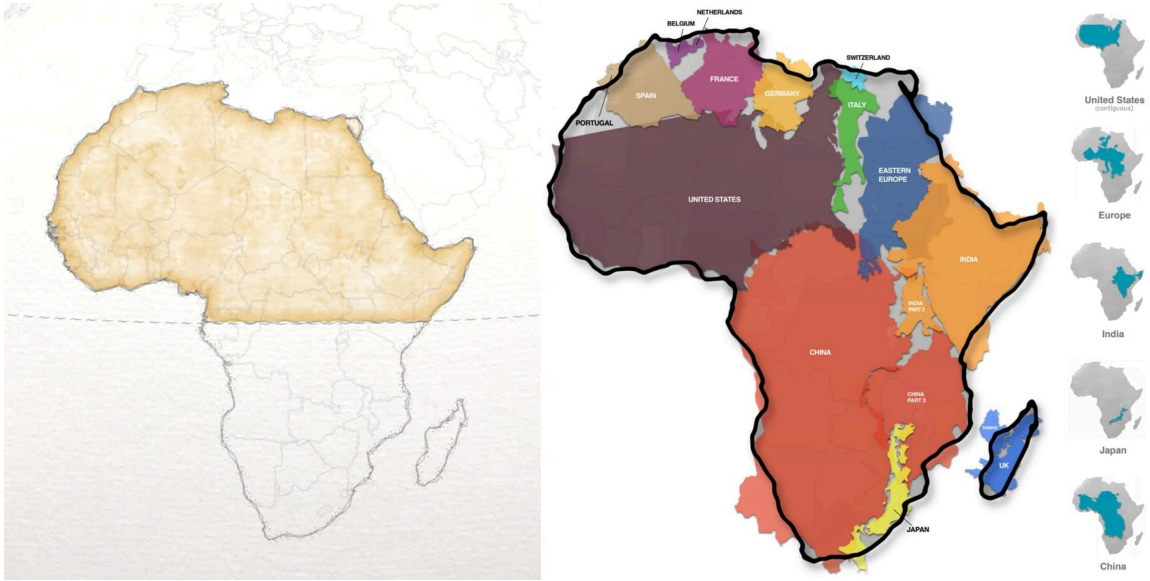


Figure 3.1.1: These maps help us correct some geographical misconceptions about the African continent: it is larger and further north than most people imagine it. [*left]* This map is part of "Misconceptions," a storymap by John Nelson debunking some common mental geographical misplacements. Nelson highlights the northern portion of Africa on the map to illustrate that two thirds of it is located north of the equator (Copyrighted; used with permission of cartographer John Nelson). [right] This map shows the actual relative size of Africa in comparison to the land areas of other countries, illustrating that the US, China, India, the UK, Japan, and many European countries could "fit" in the African continent (Public Domain; Kai Krause).

The Dynamic Intertropical Convergence Zone (ITCZ)

Given that the African continent lies within tropical and subtropical latitudes, most of the continent experiences more direct solar radiation throughout the year than regions outside of the tropics. Recall (from Chapter 1) that as the Earth rotates around the sun, the northern and the southern hemisphere are either tilted towards or away from the sun in their respective solstices. Thus, in

July, the northern hemisphere is tilted towards the sun, exposing the Tropic of Cancer to direct rays of the sun. July is when the Northern Hemisphere experiences its summer. Conversely, the Southern Hemisphere is tilted towards the sun in December and experiences summer at that time.

The relationship between the Earth and the sun shapes global pressure systems and air circulation patterns. Direct solar radiation warms up the lands and oceans and their adjacent air masses – the tropical Atlantic Ocean, for example, is a major source of moisture as warm Atlantic waters eventually evaporate into the adjacent warm air mass. This moist warm air rises, as it rises it cools, and as it cools it is less able to hold moisture. Thus, the tropics are marked by the presence of an enveloping cloud, a warm rising air mass that generates abundant rainfall in tropical regions. This tropical low-pressure system (characterized by rising air and rain) is called the **Intertropical Convergence Zone (ITCZ).** The ITCZ shifts north and south of the equator with the seasons, following the direct rays of the sun. Therefore, in July it shifts north and in December it shifts south. The presence and seasonality of the ITCZ shapes Africa's tropical biomes.

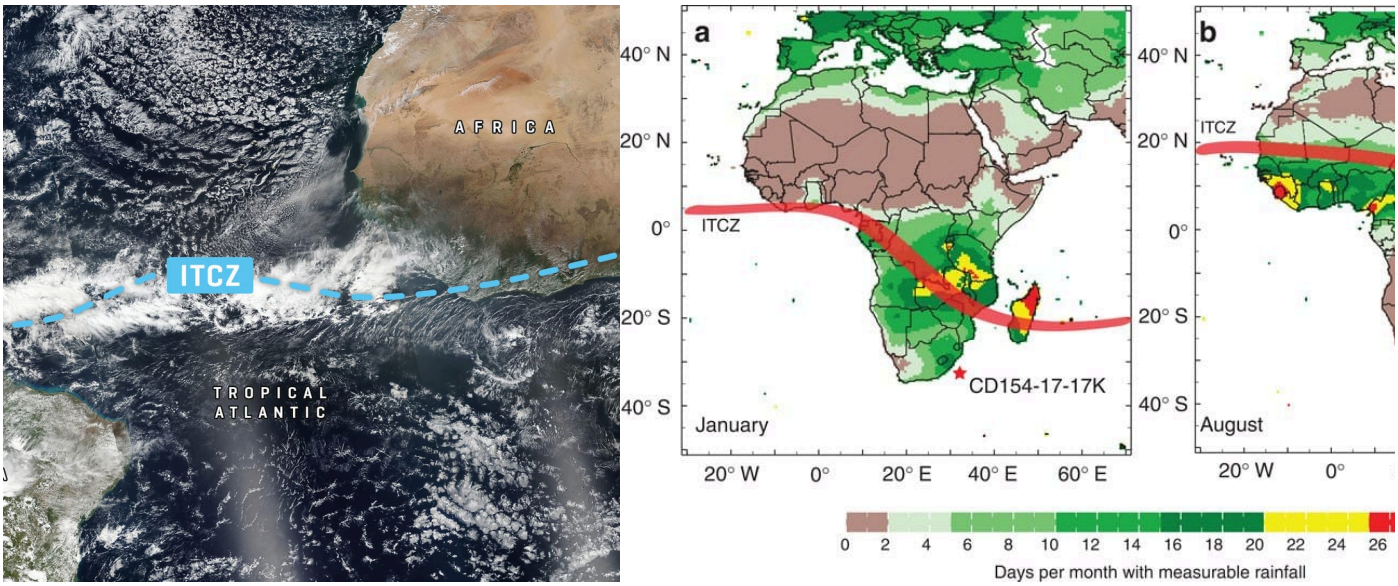


Figure 3.1.2: [*top*] Satellite image showing the cloud formations of the ITCZ over the Atlantic Ocean, Northern South America, and West Africa (CC BY 4.0; Christoph Kersen via GEOMAR). [*bottom*] Two maps display the seasonal shifts of the ITCZ (red band) with the colors quantifying the seasonal rainfall: a) the ITCZ positioned in south of the equator in January, bringing high precipitation to regions near the Tropic of Capricorn and b) the ITCZ positioned north of the equator in August, bringing high precipitation to regions near the Tropic of Cancer (CC BY 3.0; Ziegler et al. via Nature Communications).

Major Biomes South of the Sahara

African Tropical Rainforests

Tropical rainforests typically exist near the equator (5-10° north and south of the equator) due to the prominence of the ITCZ. They are characterized by their tropical climates, or climates that are warm (average annual temperatures range from 68°-81°F) and wet (exceeding 80 inches per year). Tropical rainforests have dense tree cover and a high diversity of plant and animal species, many of which exist exclusively within the region. African rainforests are concentrated in the Congo Basin - most notably in the Democratic Republic of Congo but also in the Republic of the Congo, Gabon, Equatorial Guinea, Cameroon, and the The forests in the Congo Basin are the heart of African tropical biodiversity. Only second to the Amazon in their geographical size, the Congo Basin is home to 70 percent of forest cover in Africa. It displays diverse environments in differential topography, from swampy rainforests along riverine floodplains to higher elevation forests. Topographical differences in the Congo Basin provides for differential environments that are home to diverse flora and fauna, including the endangered forest elephant, lowland gorillas, bonobos, and chimpanzees.[1] Rainforests can also be found in parts of Liberia, Sierra Leone, Nigeria and in eastern Madagascar, for example. Tropical rainforests have a long history of human settlement. The African rainforests has been intertwined with local peoples for more than 50,000 years. Today, it provides resources and sustenance for more than 75 million people of diverse ethnic identities.[2]

Tropical Savannas

Savannas are grassy plains with sparse trees that represent transitional zones between the wetter tropical rainforests and the drier grasslands. This biome represents a noticeable climatic shift north and south from central Africa. Unlike tropical rainforests, which experience abundant rain year-round, tropical savannas experience warmer temperatures, less rain, and more seasonality. Most of the rain comes in a pronounced wet season (summer) followed by a pronounced dry (winter) season – a biproduct of the shifts of the ITCZ. This is the most prominent biome of Africa South of the Sahara, covering more than half of the African continent. Given its abundance of grasses, African savannas are known for its large populations of herbivores and the predators that hunt them - the wildebeest, zebras, elephants, and African buffalos and the hyenas, lions, and cheetahs. The most familiar example of the African savanna is the famous Serengeti Plains in Tanzania (and, to a less extent, Kenya). Other examples are found in Zimbabwe, Botswana, South Africa, and Namibia, where large swaths of savanna have been designated for wildlife protection or as hunting reserves.

From the Maa word meaning "endless plains", the **Serengeti** is an ecoregion with most of its extent in northern Tanzania. It is host to an extraordinary diversity of animals and is known to have the highest concentration of large mammals in the world. These are migratory species that march by the millions following seasonal rains and escaping dry conditions. Every fall and spring, as many as two million wildebeests, antelopes, and other grazing animals and the predators that hunt them migrate from the northern hills to the southern plains in search of grass and food. The Serengeti National Park and the Ngorongoro Conservation Area are both listed as UNESCO World Heritage Sites based on their natural importance. Both governments of Tanzania and Kenya maintain national parks, national game reserves, and wildlife sanctuaries protecting 80 percent of the Serengeti. Several ethnic groups live in and depend on the Serengeti ecosystem, namely the Maasai, the largest cattle herding group living in Eastern Africa whose villages are concentrated on the eastern edges of the Serengeti National Park.

The Serengeti

The Serengeti, from the Maa word meaning "endless plains", is a transboundary ecoregion extending from northern Tanzania to southern Kenya. It is host to an extraordinary diversity of fauna and known to have the highest concentration of large mammals in the world. It is here that the largest migration of land animals in the world occurs as local fauna follow the seasonal rains and escape dry conditions. Every fall and spring, as many as two million wildebeests, antelope, and other grazing animals and the predators that hunt them migrate from the northern hills to the southern plains in search of grass and food. The Serengeti National Park and the Ngorongoro Conservation Area are both listed as UNESCO World Heritage Sites based on their natural importance. Both governments of Tanzania and Kenya maintain national parks, national game reserves, and wildlife sanctuaries protecting nearly 80 percent of the Serengeti. Several ethnic groups live in and depend on the Serengeti ecosystem, namely the Maasai, the largest cattle herding group living in Eastern Africa whose villages are largely concentrated on the eastern edges of the Serengeti National Park.



Figure 3.1.3: [*top*] The Serengeti is a tropical savanna in Tanzania (mostly) and Kenya. This picture of the Serengeti shows the replete populations of zebras and wildebeest and a towering giraffe among the grasses and acacia trees in the background (CC BY-SA 4.0; Fuhrmann via Wikimedia Commons). [*bottom*] A picture of the Maasai, the pastoralists of the Serengeti, taken in Tanzania (CC BY 2.0; Smith via Flickr).

Arid Environments

Deserts are usually found in areas 15-30° north and south of the equator. They outline latitudes north and south of the savanna, and major deserts exist in the northernmost and southernmost regions of the African continent. Deserts are marked by low precipitation (less than 10 inches of rain a year) and wide daily and annual temperature ranges, with summer temperatures often exceeding 100°F in hot deserts. The Sahara Desert, the world's largest hot desert, is an extensive and pronounced physical feature dividing the continent's regions. **The Sahel** sits at the southern edge of the Sahara Desert, and it is a pronounced natural region that transverses Africa. This semi-arid belt crosses the continent from Senegal to Djibouti and supports many subsistence farmers and semi-nomadic herders. South of the Sahel, environments become more verdant until the next dry region takes place in the southern part of the African continent.

The **Namib Desert**, a costal desert in southwestern Africa extends through Angola, Namibia, and South Africa. It is one of the world's driest deserts receiving less than 1 inch of moisture per year. This is influenced by three factors: First, the desert is located within a dry latitudinal range, where dry air masses are compressing and sinking (a high-pressure system). Secondly, it is a **cold-water desert** because of the adjacent **Benguela current**, a cold oceanic current carrying Antarctic waters north to southwest Africa. The cold water chills the air above resulting in fog and precipitation over water, thus the incoming cold air masses hold little moisture. Third, the desert is found in the **rain shadow** of the Great Escarpment and Central Plateau, a topographic feature that blocks moisture carrying air masses from reaching the Namib Desert.[3]

The **Kalahari Desert** in Botswana is an extensive desert region. When there is adequate rainfall, the grasslands provide excellent grazing for wildlife. Precipitation varies from three to ten inches per year. Large areas of dry salt pans stretch over ancient lake beds fill with water after heavy rainfall but are dry the remainder of the year. It is replete with unique resilient life forms like meerkats, pangolins, and cheetahs, all of which are adapted to its harsh hot and dry conditions that are only relieved by brief flash seasonal rains.

Water Towers and the Great Rift Valley

Elevation is another principal factor shaping Africa's biomes since higher altitudes experience cooler temperatures and even snow peaks. The highest mountain in Africa, **Mt. Kilimanjaro** (19,340 ft), is in Tanzania near the border with Kenya. The second highest peak, **Mt. Kenya** (17,058 feet), is located just north of the country's capital of Nairobi, near the equator. Both mountains are inactive volcanoes and are high enough to have permanent snow at their peaks. Another high range is the **Rwenzori Mountains** (upwards of 16,000 ft) on the Congo–Uganda border. It is referred to as "Africa's botanical big game" due to its distinctive

snow-capped peaks, glaciers, valleys, biodiversity, waterfalls, fast flowing rivers, and overall natural beauty.[4] Lastly, the **Ethiopian Highlands** average more than 5,000 feet in altitude. Although its territory represents only 4 percent of the African land surface, Ethiopia contains 80 percent of the continent's high terrain (over 10,000 feet).[5] Its highest peak, Ras Dashan, reaches up to 14,928 feet. The Ethiopian Highlands are home to Lake Tana, the source of the Blue Nile, the main tributary of the Nile River. Highlands and mountain peaks create distinctive ecosystems that vary depending on their elevation and situation to incoming air masses.

The highlands and volcanic mountains of East Africa surround the **Great Rift Valley**, a geological region of tectonic diversion where the African Plate has been splitting for at least the past 30 million years. It is dividing into two smaller tectonic plates: the Somalian Plate and the Nubian Plate. It is not one continuous fracture but a complex system, a series of rifts of the same geological origin. It extends from southern Mozambique to Lebanon. The region is dotted with lakes, notably Lake Victoria, Lake Tanganyika, Lake Albert, and Lake Malawi which are among the world's largest lakes. **Lake Victoria** is the primary reservoir and the inland starting point for the White Nile River (white in color due to carried clay), a river that flows northward to the Blue Nile connection. The Western side of the Rift, also called Albertine Rift, is among the most biodiverse regions in Africa featuring dramatic peaks and valleys, lakes, highland forests, savannas, and wetlands. The Rift Valley's fertile volcanic soils have a long history of human settlement and sustain the highest population densities in rural Africa today.[6]

High Africa contributes disproportionately to the total stream flow of Africa's major rivers. These areas receive more rainfall than their lower surroundings and tend to lose less water to evapotranspiration because temperatures are cooler. Downstream areas often benefit from the abundant runoff. These important, high-elevation watersheds are the **water towers** of Africa, for their role in storing water in glaciers, permafrost, snow-packs, soil, and groundwater and for supplying millions of people with water. These water towers are important sources for many of Africa's **transboundary rivers,** river systems that permeate political borders. This means that upstream communities can influence the management of water resources downstream, a reality that shapes tensions and cooperation in Africa and everywhere where transboundary rivers exist.

The main rivers of Africa include the **Nile, Niger, Congo,** and **Zambezi**. The Nile River competes with the Amazon River for its ranking as the world's longest river. The White Nile branch begins in Lake Victoria in East Africa, and the Blue Nile branch starts in Lake Tana in Ethiopia. The water collected from tropical rains in the Ethiopian highlands eventually flows north through arid landscapes. For half of its course, the Nile runs without added water until it discharges into the Mediterranean Sea. In West Africa, the **Niger River** flows drains West Africa. Its delta is in Nigeria where the Niger's waters flow out into the Atlantic Ocean through Benin. The **Congo River** is Africa's most voluminous river, crossing the equator with a large tropical drainage basin that creates a flow of water second only to the Amazon in volume. The **Zambezi River** in the south is famous for the extensive **Victoria Falls** on the Zambia and Zimbabwe border. Victoria Falls is considered to be one of the largest waterfalls in the world, an astonishing natural wonder. All these rivers have long histories of human settlement. Their basins were sites of great ancient African civilizations and their tributaries important waterways for trade. To this day, they remain important sources of livelihood and mobility supporting high population densities.

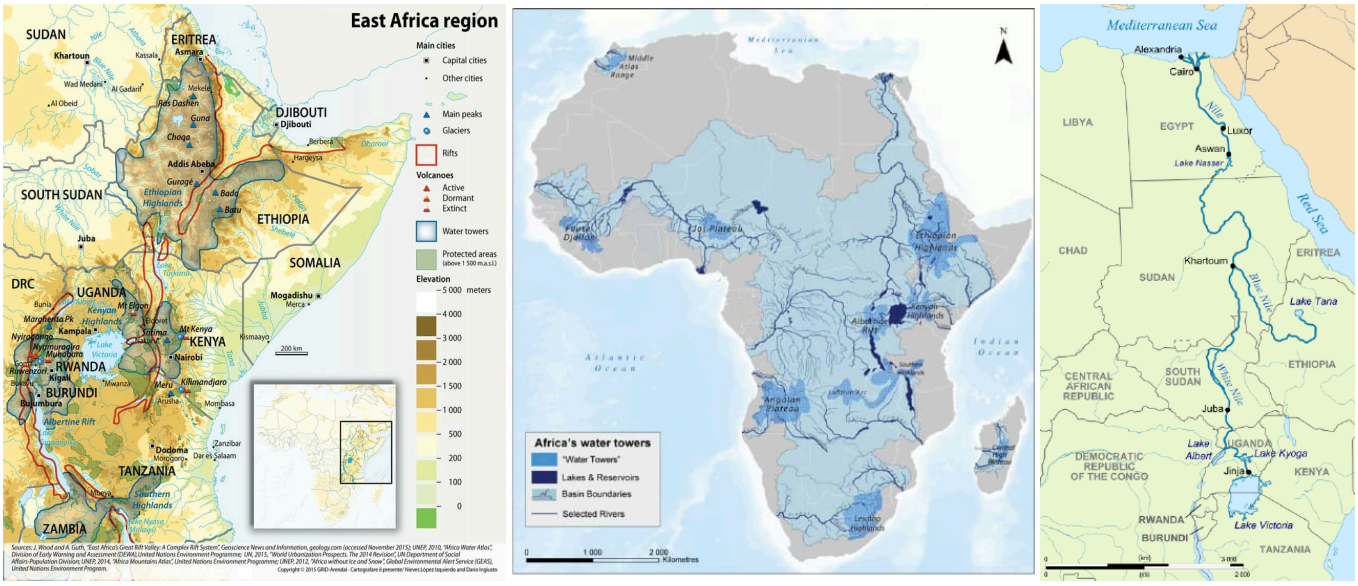


Figure 3.1.4: [top] The majority of countries in East Africa have land that is over 1,500 m above sea level, and therefore classified as a highland. East Africa is home to some of Africa's most prominent mountains, including Mount Kilimanjaro, Rwenzori, Virunga, Kenya and Elgon, as well as highland regions such as the Ethiopian Highlands and the East Africa Arc. The East Africa Rift Valley is also a major geological feature of East Africa (CC BY-NC-SA 2.0; Isquierdo via Flickr). [top right] Africa's major river basins, lakes and reservoirs, and water towers (UNEP, Water Atlas - permitted educational use). [bottom right] A map of the Nile River system, including its primary source as the Blue Nile flowing out of Lake Tana and the White Nile out of Lake Victoria (CC BY SA 3.0; Hel Hama via Wikimedia Commons).

References:

[1] UNESCO World Heritage Sites Datasheet. Salonga National Park.

[2] World Wildlife Fund. From Rainforests to Reefs.

[3] UNESCO World Heritage Site Datasheet. Namib Sand Sea.

[4] UNESCO World Heritage Sites. Rwenzori Mountains National Park.

[5] Reader, J. 1999. *Africa: A Biography of the Continent.* pp 210.

[6] McNulty, W. et al. 2022. Africa's Great Lakes. *National Geographic Society*

Attributions:

"Peaks, Valleys and Lakes" and "The Serengeti" is adapted from East Africa, World Regional Geography by the University of Minnesota, CC BY-NC-SA.

"Water Towers" is adapted from *Water Atlas* by the United Nations Environmental Programme, within terms of use for non-commercial educational purposes.

"African Rivers" is adapted from World Regional Geography by University of Minnesota, CC BY-NC-SA.

This page titled 3.1: Africa's Natural Environments is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio & Jason Scott.

3.2: Indigenous Worlds- Pre-Colonial Civilizations and Reclaiming Independence

Learning Objectives

1. Describe early human migration.
2. Identify and describe early empires of Africa South of the Sahara and the monuments/cities associated with them.
3. Explain some of the challenges in reconstructing African history.
4. Describe and differentiate protocolonialism and colonialism in Africa South of the Sahara.

Africa, the Motherland

Over the last few decades genetic research has been able to piece together the history of our species, the Homo sapiens. Through DNA, fossil records, and artifacts, this research has revealed that humans as a species are very closely related, more so than our closest non-human relatives, the chimpanzees (even though there are a lot more humans in the world). Our human family traces back its ancestry to East Africa, the cradle of our species, where our closest human ancestors are thought to have originated. While the exact place and time is unclear, the earliest fossils of recognizable modern-day humans date to around 250,000 years ago. Humans remained in Africa for thousands of years and developed tools and complex belief systems - suggested by the earliest evidence of ritual human burials found in East Africa, Kenya.[1] Then, in an expansion of smaller regional migrations, humans began migrating out of Africa some 60,000 years ago. This was the beginning of a treacherous journey of more than 20,000 miles over thousands of years, likely driven by environmental factors like climate and food availability.[2]



Figure 3.2.1: Titled "The Greatest Walk," this map illustrates the history of human migration out of Africa. "The greatest human migration began 70,000 years ago in Africa. With a mere eye-blink in evolutionary time, our ancestors had reached the last continental corner of the Earth—Tierra del Fuego, at the freezing tip of South America. It was a journey of about 22,000 miles". It continues: "Theories about our species' routing out of Africa abound. Many scientists favor a route following the newly exposed seabeds near the Bab el-Mandeb Strait between Africa and Arabia. From there, our ancestors spread into the Levant, Europe and Asia before finally reaching land's end in the Americas. The reasons for this explosive diaspora of humans are complex - and the topic of much debate. Many scientists point to a drop in sea levels, creating land bridges for early wanderers to trudge across. This map uses sea floor elevation data to depict this drop in sea level." (Copyright, all rights reserved; from the Out of Eden Walk project by Jeff Blossom of the Center for Geographic Analysis, Harvard University; used with permission).

Transformations: Agriculture, Metal, and Expansion

Agriculture is a great marker of the rise of civilizations. The earliest centers of agricultural innovation, or **cultural hearths,** rose independently in various parts of the world, first in the Fertile Crescent around 10,000 years ago and later along the Nile River valley. Agriculture also started independently in East Africa with the domestication of coffee Arabica, finger millet, sorghum, cattle, and sheep and in West Africa with the domestication of yam, African rice, and the dwarf goat, and pearl millet. West Africa is gradually being identified as a major cradle of ancient civilization, on par with more widely recognized cultural hearths such as Mesopotamia and Mesoamerica. The story of African agriculture is often de-Africanized, as it tends to focus on Egypt, commonly associated as "apart from" the remainder of Africa. Yet, agriculture north and south of the Sahara are innovations rooted in Africa, not something merely imported from elsewhere. Scholars now know that early settlers of the upper and lower Nile River were Africans that had come from Eastern Sahara, pushed by climatic changes.[3]

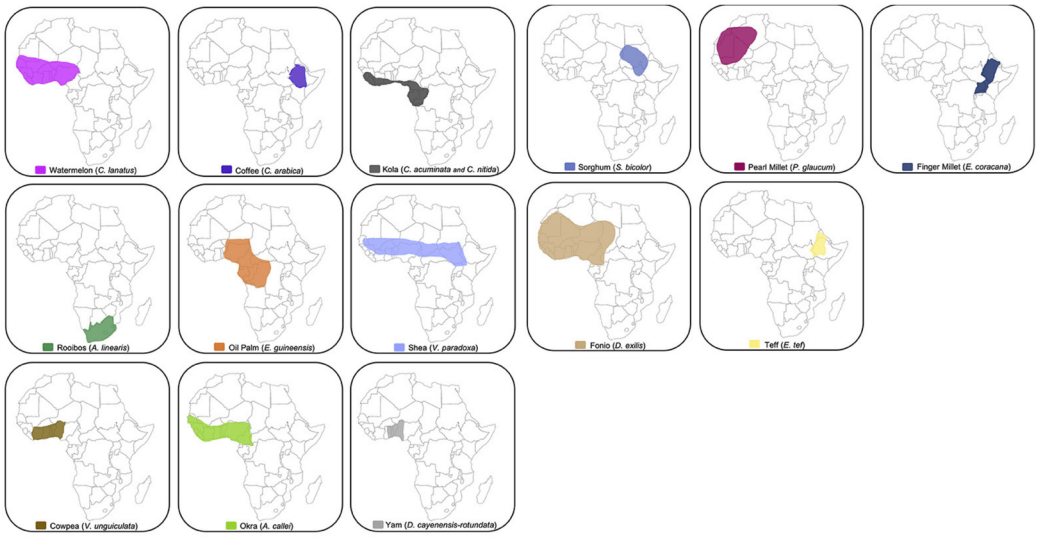


Figure 3.2.2: South of the Sahara, West Africa is recognized as one of the world's centers of early agriculture, but early domestications are also evident in east Africa. This map series shows the centers of origins of various notable crops domesticated in Africa South of the Sahara - many of which have become characteristic of cuisines of Trans-Atlantic cultures. These crops include watermelon (*Citrullus lanatus*), coffee (*Coffea arabica* and *C. canephora*), kola (*Cola acuminate and C. nitida*), rooibos (*Aspalathus linearis*), oil palm (*Elaeis guineensis*), shea (*Vitellaria paradoxa*), cowpea/black eyed pea (*Vigna unguiculata*), okra (*Abelmoschus callei*), yams (*Dioscorea* sp.), various cereals, and leafy greens (CC BY 4.0; Sousa and Raizada (2020) via Frontiers in Sustainable Food Systems).

Forging iron into tools for agriculture and war marks another important African development. Ironworking was most likely a skill introduced south of the Sahara via trade with North Africa.[4] The earliest evidence of iron smelting comes from the Jos Plateau in central Nigeria, a place rich with surrounding iron ores where excavated furnaces date as far back as 2,600 years ago and where the **Nok Culture** flourished. The Nok were perhaps the first to perfect iron-smelting technology south of the Sahara. The wide distribution of ancient furnaces indicate that Iron Age agriculture inspired a profound change in Africa transforming agriculture, landscapes, and hastening one of the most important transformations in Africa: the expansion of the Bantu.

The Bantu were agriculturalists who spoke various dialects of the Bantu language. Their heartland was the savannah and rain forest regions around the Niger River (modern Nigeria, Cameroon, and Gabon). The Bantu began expanding and dispersing from West Africa sweeping through the central, eastern, and southern parts of the continent – a remarkable event known as the **Bantu Migration** (2,000 BCE – 1500 CE). The Bantu brought innovative technologies and skills such as cultivating high-yield crops and ironworking everywhere they went. Eventually, the Bantu dominated most of Africa south of the Sahara. Bantu speaking peoples spread settled agriculture, improving food supply, transforming the landscape, and transmitting their knowledge and innovations in Bantu languages. In all, some 500 languages spoken today in Africa south of the Sahara are derived from a Proto-Bantu language.[5]

African Kingdoms and Empires

Prior to European arrival or Islamic influences, thousands of states and kingdoms of varied sizes and structures existed in Africa.

Access and control of regional trading routes enabled the rise of great empires, some of which are discussed below.

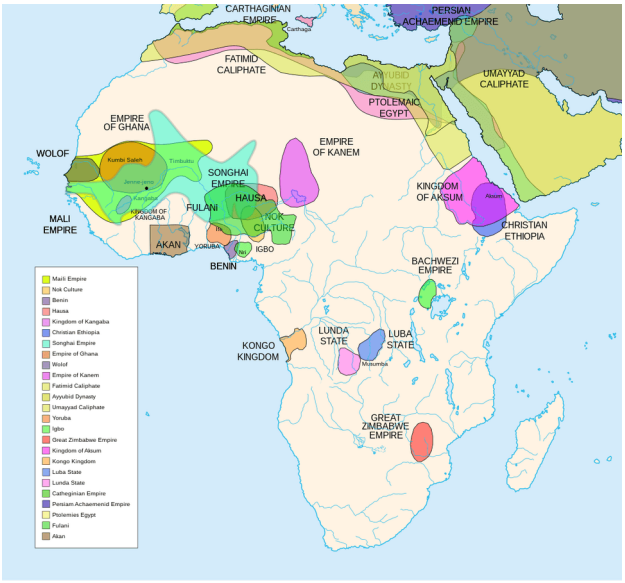


Figure 3.2.3: A map illustrating approximate distributions of major pre-colonial African civilizations (500 BCE - 1500). It's a useful map for the general reference of locations, but the dates are missing here. In West Africa, we discuss the Ghana (6th to 12th century), Mali (1240 - 1645), and Songhai Empires (1460- c.1591) in succession from one another. In the northeast, the succession of the wealthy Kingdoms of Kush (c. 1069 BCE – 350 CE) and Aksum (300-400 CE). In the southern region, note Great Zimbabwe (c. 1200- c. 1450) (CC BY 3.0; Jeff Israel via Wikimedia Commons).

West African Empires

The Ghana Empire (6th to 13th century) was the first major political power in West Africa to create an empire based on military might and wealth gained from regional trade. It eventually collapsed, likely due to civil wars, rebellions of subjugated chiefdoms, and poor harvests. The **Mali Empire** (1240-1645) conquered what was left, and, like its political predecessors, prospered thanks to trade and its prime location. The Mali Empire became rich from its control of gold-bearing regions. Salt from the Sahara Desert, used for its preservative properties prior to refrigeration, was one of the major desirable goods in ancient West Africa. Transported via camel caravans and by boat along such rivers as the Niger and Senegal, salt found its way to trading centers like Timbuktu. From there, it was either passed further south or exchanged for other goods such as ivory, hides, copper, iron, and grains Internal conflicts and territorial expansion by the **Songhai Empire** (1460- c.1591) eventually led to the fall of the Mali Empire. Like its predecessors, Songhai grew from its control of the Trans-Saharan trade through centers as Timbuktu and Djenné. It prospered until, ripped apart by civil wars, it was attacked and absorbed into the Moroccan Empire. It was the largest and the last of the great empires that had dominated West Africa for centuries.

The West African empires flourished because of their use and control of established trade routes and the vast amount of goods that were bought and sold. Situated between the rain forests of southern West Africa and the shores of the Sahara Desert, these empires stood at the crossroads of camel caravans bringing valuable commodities to be traded along the Niger River and its tributaries. The Sahara Desert, although a magnificent geographic barrier, has always been permeable. The **Trans-Saharan trade** created an economic network between Southern parts of Europe, North Africa, and Africa South of the Sahara, interconnecting worlds across the Saharan desert for millennia (its peak at around 1400-1600). These empires gained wealth from their taxation of trade goods, reselling goods at higher prices, and profiting from access to their own natural resources and royal farms.[6]

Timbuktu (Mali): A Center of Commerce, Culture, and Knowledge

> "Salt comes from the north, gold from the south, and silver from the country of the white men, but the word of God and the treasures of wisdom are only to be found in Timbuktu." - African Proverb

Timbuktu is a city at the edge of the Sahara Desert connecting the trans-Saharan caravan routes and the Niger River. Both the Mali Empire and the Songhai Empire attained great wealth from their control of Timbuktu, a strategically located center of commerce that flourished in the 15th and 16th centuries. The wealth generated by trade, especially of gold and salt, fueled Timbuktu's rise as a center of culture and knowledge. Mosques of pounded earth and a university brought fame to the city as a center of Islamic learning. Islam diffused to the region from the extensive trading networks with Arab merchants. Both Mali and Songhai Empires established Timbuktu as a cultural and religious center. Islamic learning in Timbuktu included not only theology but traditions, law, grammar, rhetoric, logic, history, geography, astronomy, astrology, and medicine. At its height, it is estimated that Timbuktu's libraries held hundreds of thousands of manuscripts attracting scholars from as far as Cairo and Cordoba, in present-day Egypt and Spain, respectively. Having survived many conflicts prior to and after colonization, there are continued efforts to recover and maintain its ancient and treasured manuscripts.[7] Today, Timbuktu is a UNESCO World Heritage Site, valued for its earthen architecture and its mosques, libraries, and holy public spaces.

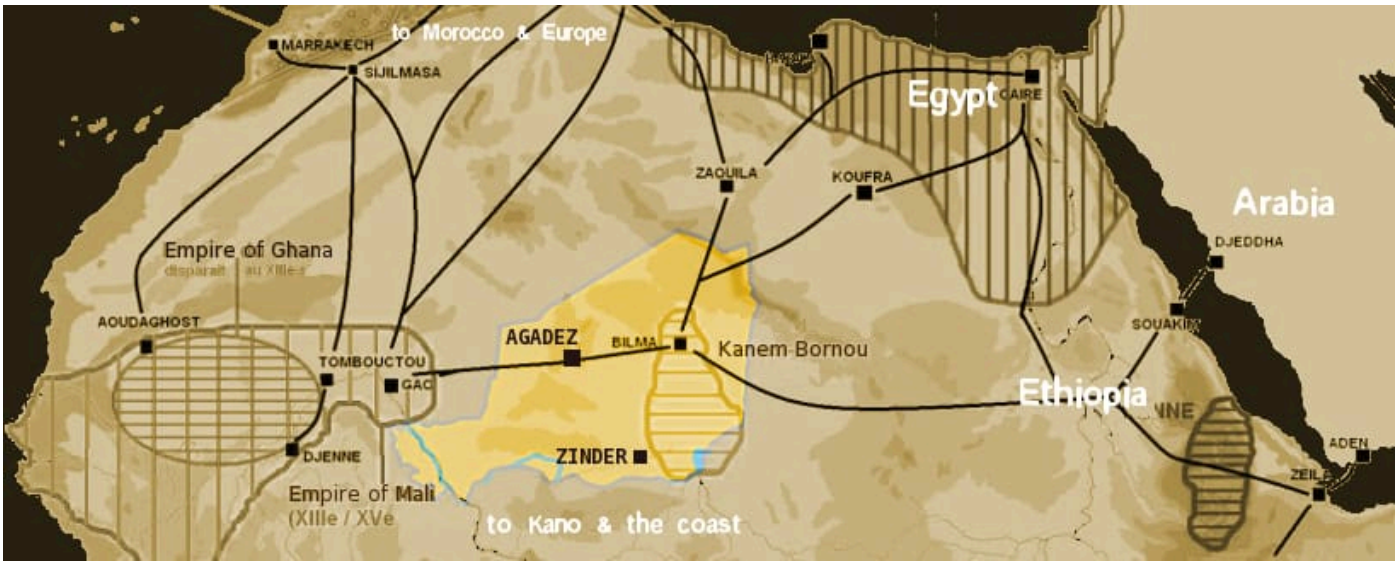


Figure 3.2.4: The Sahara Desert, although a magnificent geographic barrier, has always been permeable.The Trans-Saharan trade created an economic network between Southern parts of Europe, North Africa, and Africa South of the Sahara, interconnecting worlds across the Saharan desert for millennia (its peak at around 1400-1600). This map shows the main trans-Saharan caravan routes circa 1400. Note the connected location of the Ghana and Mali Empires on the map in relation to trade routes, like the western route running from Djenné via Timbuktu to Sijilmassa. Present-day Niger in shown in yellow (Public Domain; TL Miles via Wikimedia Commons).

Northeast: Upper Nile and Ethiopian Highlands

Under the influence of ancient Egypt, the upper Nile River experienced the rise and fall of several kingdoms in the vicinities of the Ethiopian Highlands – present day Sudan, Eritrea, and Ethiopia. Out of these kingdoms, the **Kush Kingdom (c. 1069 BCE – 350 CE)** was the oldest and most enduring. During the Kushite reign, the kingdom was wealthy from its iron works, gold, ebony, and ivory trades. This wealth drew the attention of the Egyptians and resulted in conflict over Kushite resources. The Kushites eventually became more powerful than Egypt itself, invading Egypt and ruling as pharaohs for more than sixty years before being forced to Meroe, a wealthy metropolis and lasting capital of the Kush. Meroe's architectural remains in Sudan are a testament of its grandeur. The Kush flourished for almost a thousand years before dissolving and dispersing into other nearby regions after Meroe was sacked by a nearby rival, the wealthy Kingdom of Aksum (or Axum). The **Kingdom of Aksum (300-400CE)** prospered thanks to agriculture, cattle herding, and control over trade routes of gold and ivory. This kingdom built massive and long-lasting monuments in the ancient city of Axum, Ethiopia. Situated in an ecologically isolated high terrain but close enough to surrounding civilizations to intake advantageous innovations, the Aksum Kingdom achieved several firsts. They were the first civilization south of the Sahara to adopt a coin currency (made of gold and silver) and the first to officially adopt Christianity. The Aksumites also developed the only indigenous African writing system, Ge'ez, from which written forms of contemporary Ethiopian languages have evolved. This literate and wealthy civilization thrived for centuries but went into decline due to increased competition from Muslim Arab traders. Aksum endured Islamic invasions and remains to this day a symbol of African Christianity.[8]

Central/Southern Africa: Great Zimbabwe

The idea that innovations flowed upstream from the Nile River Delta to the rest of Africa is rooted in a false and Eurocentric notion that is contrary to evidence. Take for example Great Zimbabwe, an important archeological site twice the size of New York's Central Park where the ruins of stone buildings constructed by the Bantu-speaking Shona people memorializes the heights of the capital of the **Kingdom of Zimbabwe (c. 1200 - c. 1450)**. A sophisticated 32-foot stone wall known as the Great Enclosure is a massive structure encircling the capital city. It is by far the largest ancient monument in Africa south of the Sahara. Agriculture, gold, and a trading network that reached the East African coast enabled its rise, but Great Zimbabwe was abandoned by 1450 for unknow reasons, perhaps due to exhausted gold sources. In 1871, a German explorer named Karl Mauch encountered the ruins of Great Zimbabwe and concluded the ruins to be too impressive. That its architecture must have been the works of other civilizations, like the Phoenicians or Israelites, not local Africans.[9] For all that is known about Great Zimbabwe today, the evidence points to one significant consensus: it is definitively African, a creation from Bantu-speaking peoples south of the Sahara.[10]



Figure 3.2.5: [top left, A] Home of the prestigious Koranic Sankore University, **Timbuktu**, Mali, was an intellectual and spiritual capital and a center for the propagation of Islam throughout Africa in the 15th and 16th centuries. Its three great mosques, Djingareyber, Sankore and Sidi Yahia, recall Timbuktu's golden age (CC BY SA 3.0; UNESCO via Wikimedia Commons). [top right, B] The ruins of the ancient city of **Aksum** are found close to Ethiopia's northern border. They mark the location of the heart of ancient Ethiopia, when the Kingdom of Aksum was the most powerful state between the Eastern Roman Empire and Persia. The massive ruins, dating from between the 1st and the 13th century A.D., include monolithic obelisks, giant stelae, royal tombs, and the ruins of ancient castles (CC BY-NC-SA; Iolanda via Flickr). [bottom left, C] The Archaeological Sites of **Meroe**, a semi-desert landscape between the Nile and Atbara rivers, was the heartland of the Kingdom of Kush, a major power from the 8th century B.C. to the 4th century A.D. It was the seat of the rulers who occupied Egypt for close to a century and features, among other vestiges, pyramids, temples and domestic buildings as well as major installations connected to water management (CC BY-SA 2.0; joepyrek via Flickr). [bottom right, D] The ruins of **Great Zimbabwe** are testimony to the Bantu civilization of the Shona between the 12th and 15th centuries (CC BY 4.0; Simonchihanga via Wikimedia Commons).

Herstory: Womxn Leaders in Dahomey and Beyond

In 2018, Black American film director Ryan Coogler released the highly anticipated Marvel film "Black Panther". One of the highlights of this film was the fierce guard of signature bald women warriors that served as the protectors and counsel of the King. It was not common knowledge at the time of the movie's release, but most of the characters in the film were a representation of ancient African civilizations. The "Dora Milaje," a fictional name for the women warriors in the film, was a depiction of the Agojie warriors, historical figures that are also the subject of the movie "The Woman King". The Dahomey Kingdom existed in an interior-coastal expanse of modern-day Benin from 1600-1900s, as an expansionist kingdom that solidified its economic and military power through the slave trade. The name Dahomey was given by the French while fighting the kingdom in the early 1700s in modern-day Benin. Colonists called the all-female military the "Dahomey Amazons" in reference to women warriors in Greek Mythology. The Agojie were known for their ruthlessness and fearlessness in battle.[11]

By 1894 after France seized southern Benin, they disbanded the territory's women warriors, opened schools, and made no mention of the Agojie's existence.[12] Along with written and oral history and Hollywood films, a 100-foot-high golden monument was erected in Benin in 2022 immortalizing Queen Tassi Hangbe, a fearless Dahomey leader.



Figure 3.2.6: This picture is a group portrait of the Dahomey warriors visiting Europe, 1891 (CC BY SA 3.0; Collectie Stichting Nationaal Museum van Wereldculturen via Wikimedia Commons).

The centrality of women in royal, religious, and military functions was not restricted to Dahomey. Feminine value and strengths were very much entrenched in many West African pre-colonial societies where women have been food providers, educators, economic contributors, inheritors of lineages of wealth, and religious, political, and military leaders.[13] There are various African women who left their mark in history as symbols of resistance to colonization. One infamous example is the Queen of Ndongo and Matamba (present-day Angola), **Nzinga Mbandi** (1581–1663). Following the death of her father, she carried his legacy to resist Portuguese colonization through whatever means necessary – diplomacy, alliances, or war. Having had failed attempts at diplomacy, including her own conversion to Christianity, Nzinga Mbandi made alliances and welcomed fugitives of the slave trade to join her in battle against the Portuguese. A queen who called herself king, Nzinga Mbandi fought for the autonomy of her people for decades until her death. **Queen Yaa Asantewa** (c. 1840 - 1921) was a Queen of Edweso, a state within the larger Asante Empire (in today's Ghana). Queen Yaa Asantewa was famed for rallying 20,000 soldiers and leading them in combat to protect the 'Golden Stool', a sacred throne made of solid gold that was stolen by a British officer. She fought alongside of her people until the very end, until she was captured and exiled.[14] **Queen Ndaté Mbodj** was born in the 1810s and became leader of the Waalo Kingdom in Senegal. The queen is regarded as a Senegambian hero for leading a war of resistance against the French colonization that continued into the 20th century.[15]

Reconstructing African Precolonial History

There are several noteworthy considerations as we recount history south of the Sahara. First, African history remains perilously peripheral in historical scholarship. For example, only 3 percent of publications in four prestigious history journals from 1997-2020 were about Africa, and out of these, only 10 percent were authored by scholars in Africa.[16] The African underrepresentation is a partial explanation as to why outsiders telling stories about Africa often get it wrong. Other explanations include the prejudice and racism that has plagued these scarce explanations, well exemplified by the denied indigenous roots of Great Zimbabwe, as described in this section. Another good example is in the world of art, from the **sculptures of Ife**, a sacred Yoruba city in Nigeria. One thousand years ago, Ife artisans carved the heads of royalty in terracotta and copper in astonishingly symmetrical and detailed sculptures. Despite great admiration and regard for the sculpture art, German ethnologist Leo Frobenius could not accept that they were made by Africans and theorized that the

works must had been the works of a “far superior” Greek Civilization. These ideas were pervasive in European “science” of the 20th Century. As Nigerian archeologist Ekpo Eyo explains, this thinking “...denied the art of Africa a proper place in the history of universal human creative endeavor.”[17]

Piecing together history depends upon recovering artifacts, tools, and deciphering paintings and carvings as they serve as windows into civilizations from a distant past. Much of the African artifacts, art, and treasures have been destroyed or stolen from Africa under colonial rule. It is estimated that more than half a million objects, as much as 90 percent of all artifacts known to originate in Africa, are held captive in Europe. Leo Frobenius’s personal collection of Ife royalty sculptures, for example, are on display at the ethnological museum in Berlin, Germany. Another notable case is the **Benin Bronzes** that were stolen in 1892 by British forces. Thousands of these stolen pieces are in European museums. As part of a reckoning brought by the work of activists, the case to repatriate African art became known in 2020. The Smithsonian and many museums have committed to returning stolen items to African governments, but most of it has yet to be returned.[18] To help the process, Kenyan artisans are creating replicas of Luo traditional head dresses via 3D printing to incentivize the replacement the original stolen pieces currently in European museums. “If Americans and Europeans want to see the originals, they can come to Africa.”[19]



Figure 3.2.7: [right] An Ife sculpture immortalizes what is possibly a king (12th-14th century). About one dozen terra-cota and copper Ife sculptures were excavated in Nigeria in 1938. Ife sculptures helped reaffirm the role of indigenous Africa in producing globally recognized fine art. Various artifacts in museums in Europe showcase the personal collection of Leo Frobenius (Public Domain; Kibell Art Museum Collection via Wikimedia Commons). [left] Some of the Benin Bronzes displayed at the British Museum. These artifacts have become the center of the movement for repatriation of African artifacts (CC BY SA; joyofmuseums via Wikimedia Commons).

Protocolonization, The Scramble for Africa, and Reclaiming Independence

European Lust: Gold and Slaves

Africa had Europe’s attention for quite some. African gold had been flowing north through Trans-Saharan caravans and fueling Mediterranean economies and financing European growth for centuries. The lavish expenditures of Mali’s most famous ruler, Mansa Musa I (1312-1337CE), spread news about an exotic ruler being the richest man in the world.[20] Indeed, West Africa was one of the world’s greatest producers of gold. This abundance certainly created a pressing desire to forge connections and access African wealth.

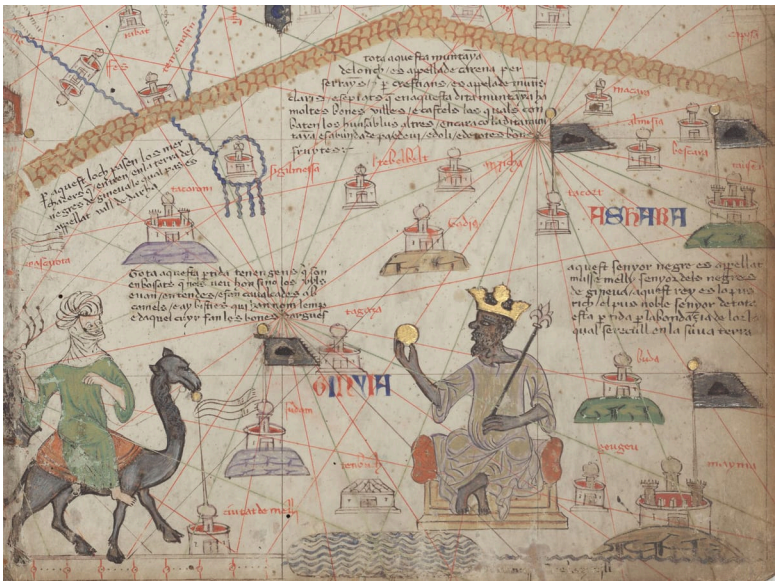


Figure 3.2.8: This is the lower portion of one of the sheets of the Catalan Atlas (1373) showing the Western Sahara. The Atlas Mountains are at the top and the River Niger at the bottom. Mansa Musa, Mali's most famous ruler thought to be the richest man in the world of the time, is shown sitting on a throne and holding a gold coin. The blocks of text are written in Catalan, describing places on the map. The right block describes Mansa Musa, a ruler of great wealth from the gold of his lands (Public Domain; Abraham Cresques via Wikimedia Commons).

The Portuguese were restless around African coasts. They started a “voyage of discovery” in 1413 and established some early settlements in west Africa thereafter to bypass the Trans-Saharan caravans’ traders and gain direct access to West African goods: not only gold but also slaves. Portugal was the first of the Europeans to begin buying enslaved Africans. Originally interested in trading for gold and spices, they set up several sugar plantations on the islands of São Tomé, off the western coast of Equatorial Africa. Portugal then brought in slaves to help cultivate the sugar, effectively trialing a plantation economy that would enrich them. The Spanish then began buying slaves to send to the New World in the early 16th century, bringing them first to the islands of Cuba and Hispaniola. Initially, Europeans raided coastal African villages to secure slaves, but over time, began purchasing slaves from African rulers and traders.

From antiquity and in every corner of the world, slavery had existed. In Africa and other parts of the world, people became enslaved due to war and conquest. Slaves were bought and sold in the continent well before the first purchases of the Portuguese and trade routes existed beyond the Atlantic. However, it is unquestionable that the immense labor demands of the new European colonies in the Americas to produce crops like sugar, tobacco, and cotton initiated an unprecedented trade of enslaved humans. The Trans-Atlantic trade transformed slavery into an immensely profitable business based on human beings as a primary extractive resource – in this extractive economy, slaves were not a bi-product of conflict but a conflict resource. As W.E.B Du Bois described, “instead of man-hunting being an incident of tribal wars, war became the incident of man-hunting.”[21] The trans-Atlantic trade also reached an unprecedented scale. For the first time in history, an estimated 12 million enslaved Africans were taken across the Atlantic as forced laborers in the Americas.

Surely, European merchants accumulated immense profits from slavery, doubling down on both the large profit margins from selling enslaved Africans at double-triple what they paid and from their sales of manufactured goods to Africans. As for Africa, the transformed nature and scale of the slave trade brought wealth to the West African elites. The Dahomey Kingdom, for example, became an infamous enslaving state and forged its political and economic power by capitalizing on the insatiable European demand and raiding the hinterlands on their behalf.

In explaining African participation in the slave trade, Henry Louis Gates Jr. mentioned the difficulty of having "to confront the curious ease with which black Africans could sell Africans to the white man."[22] This notion of betrayal demands exploration. First, Africans enslaved their enemies – strangers, people they considered “others,” from outside of their cultural groups and relationships – not their siblings. Secondly, the monolithic notion of Africanness or an “African race” is a Eurocentric construction that bounds African identity to hue, to Blackness. Africans did not share a monolithic identity and surely not one based on skin color. As Hartman explains: "In order to betray your race, you had first to imagine yourself as one."[23] Thus, to contextualize otherness from an African perspective, one must consider that Africans identified along language, religious, and political affiliations not by the color of their skin.[24]

King Alonso of the Kongo Kingdom, an amicable Christian partner of Portugal, expressed discontent with how Europeans perceived even African Christians. In a letter to the king, he complained about the indiscriminate way the Portuguese and their "voracious appetite" for slaves was resulting in the enslavement of Kongo's own people, their own nobility, and their relatives. He condemned it and called for an end to the "corruption and licentiousness" of enslaving from within Kongo. Seemingly unconcerned, the Portuguese king replied along the lines that "Kongo had nothing else to sell." [25] The correspondence suggests the Portuguese crown viewed even Kongo's nobility, their Christian allies, with a level of African sameness – and as mere merchandise. This notion of an African race rooted in Blackness is a European construction developed in the context of the slave trade. It became an ideological and moral basis for the dehumanization of Africans in Kongo and beyond. Its conception forged **racial slavery,** a new form of slavery based on new constructions or race based on skin color.

The Trans-Atlantic slave trade brought the devastation of war, conflict, and drained African communities of able-bodied men, creating a gender imbalance and an economic deficit. Enslaved peoples were sold for a mere fraction of their economic worth as lifetime laborers, artisans, and leaders in Africa.[26] Even more profoundly, the slave trade represented a lasting and disadvantageous economic system in Africa that is based on diverting indigenous resources from indigenous applications and development in an exchange for European goods. The exchange presented a net deficit to the continent. In other words, the slave trade unleashed a form **protocolonialism,** an earlier expression of an exploitative and violent economic relationship with Europe that would soon consume the continent.

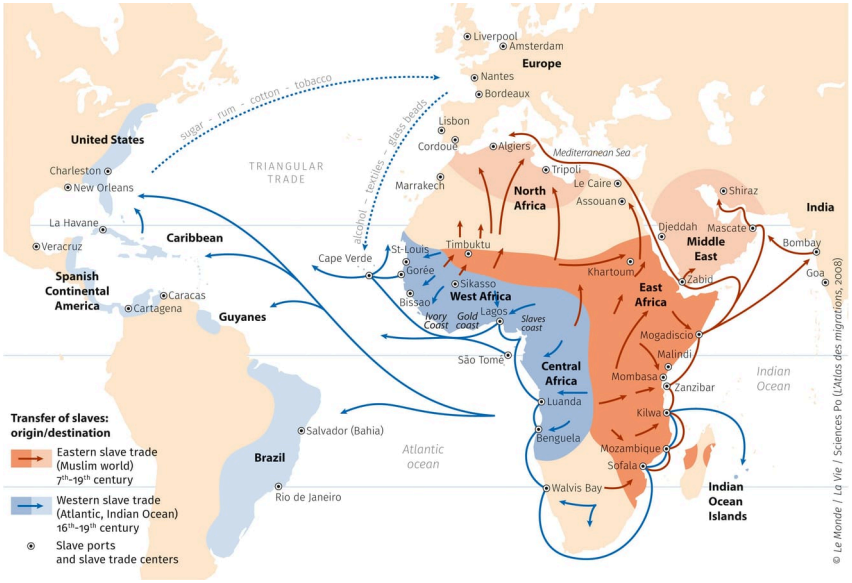


Figure 3.2.9: The map is based on many sources and summarizes the forcible displacement of Africans who were reduced to slavery over a long period. It shows both the Atlantic trade toward the Americas (which was intense for three centuries, and better studied and understood) and the Eastern trade (toward the Maghreb and the Middle East, of much longer duration but less well known). It depicts the way the network of ports was organized, the main capture zones, and the areas of destination. What is omitted in the figure is the volume of enslaved persons traded in these mapped routes. The Trans-Atlantic trade is estimated to have transported 12 million enslaved Africans to the Americas, as many as twenty percent died en route. It is estimated that the lesser-known Eastern routes traded between 8-15 million enslaved Africans (Espace Modial l'Atlas; within permitted use).

The Scramble for Africa

By the 19th Century, the moral and capital imperatives of slavery had been challenged and the slave trade was banned. With the end of the slave trade, European powers turned to possess Africa itself. As the Industrial Revolution was spreading across Europe, colonial empires were seeking to expand their colonial holdings to gain mineral resources and expand agricultural production. As Europeans began exploring the interior of Africa and recognized its resource potential, competition among European empires grew fierce. France, Italy, Britain, Portugal, and Belgium were in an arms race to expand their territories. When Germany entered the race, the colonial empires decided that it was in Europe's best interest to avoid conflict over the landgrab and clearly demarcate and "partition" the African continent into European colonies.

Without a single African present, and without any input from African leaders, representatives of European nations and the United States attended the **Berlin Conference** (1884-1885). At this conference, the colonial powers established the procedure for a Western country to formally control African territory and re-shape the map of Africa. Arbitrary political boundaries were

superimposed in a continent previously divided into territories held by tribal groups and some larger kingdoms. The cartographic lines, drawn based on the interests of colonial powers, often did not correspond with the cultural, political, and physical geographies of Africa. They severed hundreds of ethnic groups and disrupted political structures and access to resources. These superimposed territorial divisions remain problematic to this day (discussed in Section 3.3).

By the early 20th century, around 90 percent of Africa was directly controlled by Europeans, effectively turning the continent into a European colony. **Colonialism** broadly refers to the control of a territory by another group and colonial policies varied across Africa. In the far-reaching French colonies, from present-day Madagascar to Morocco, the colonizers emphasized an assimilationist policy, spreading the French culture through language, laws, and education. In the British colonies, like present-day Uganda, Ghana, and Nigeria, settlers partnered with local rulers who were made representatives of the British crown. This was known as indirect rule. The Portuguese, however, continued to be primarily interested in resources rather than local politics or culture. Their policy of exploitation in places like Angola and Mozambique ignored local development and the empire kept rigid control over local economies.

The Democratic Republic of Congo has a particularly violent colonial legacy. In a personal undertaking, Leopold II of Belgium declared himself the absolute ruler of the Congo Free State (now the viewed as subjects. He envisioned rooting “civilization” in Central Africa while plundering its wealth, especially from arduous forced rubber extraction. Leopold II is known for a reign of terror marked by a genocide and the mutilation of millions of Congolese people. His rule violently decimated the Congo population from 20 million to 8.5 million, a demographic collapse only second in magnitude to the slave trade.[27]

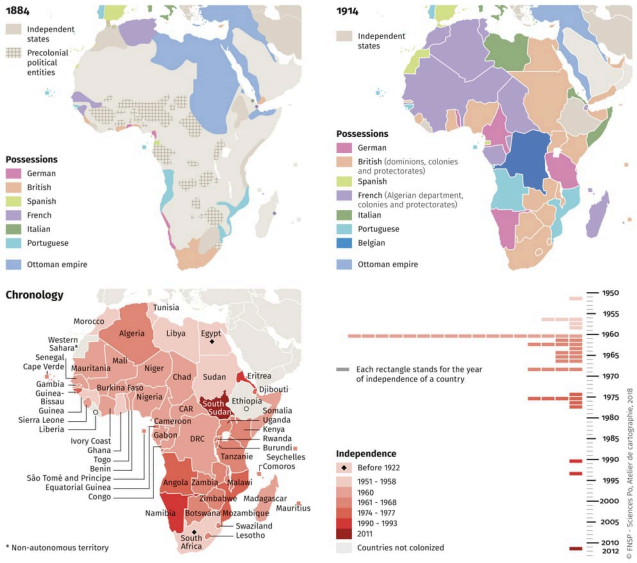


Figure 3.2.10: This series of maps shows how Africa was carved up from the late 19th century to the present day. [top left] This map represents the territorial possessions and early colonial rivalries just before the Berlin Conference (1885). [top right] This second map shows how European powers partitioned nearly all of the continent into colonies after the Berlin Conference and on the eve of World War II (1914). [bottom left] the third illustrates the end of the process with the more or less violent decolonization that has taken place since the late 1950s, drawing the map of present-day African states (Espace Mondial l'Atlas; within permitted use).

Reclaiming Independence

Before 1950’s, only Ethiopia, South Africa, and Liberia (and Egypt in North Africa) were independent. Ethiopia was never colonized, having declared itself a long-established and independent Christian nation that successfully defeated the Italians' attempt to colonize it through a well-armed defense. Liberia, which declared independence in 1947, was a state formed by the American Colonization Society as an attempt to return enslaved Africans to Africa. South Africa was granted independence by the British in 1910, but it excluded Black South Africans (discussed in Section 3.4).

Nearly all African nations gained their independence after the United Nations had declared in the Universal Declaration of Human Rights that all human beings are universally free and equal. The endorsement of the document by European nations pointed to the moral paradox of colonies. From the 1950s and onwards, the push to reclaim independence would sweep Africa with varying degrees of struggle – most colonies achieved independence peacefully while others violently. Overall, the fight for decolonization was influenced by noteworthy forces. First, the system of colonization was based on an imposed European supremacy and human

and land theft. Africans simply rejected it, many times facing violent repression for their dissent. Secondly, the world changed after the devastation of two world wars in Europe. African soldiers had fought side by side with European troops in the trenches of wrecked nations, an experience that helped dispel the myth of their self-professed superiority. As those former soldiers returned home, they encountered an intellectual and political landscape of educated Africans who were empowered by **Pan-Africanism,** or the idea that peoples of African descent should be unified in their common interests. Having experienced European colonization and its brutalities across diverse African identities created a shared determination for independence. Julius Nyerere, a Tanzanian independence leader, promoted **Africanness,** an experienced difference between Africans and Europeans that bind Africans in a common ground. Patrice Lumumba, another historical figure of the African independence movement, called Africa's self-determination a basic human right. With India's reclaim of independence in 1945, and the rise of African nationalism, war-torn European empires could no longer contain the sweeping independence momentum in Africa.[28]

"Let [the West] today give proof of the principle of equality and friendship between races that its sons have always taught us as we sat at our desks in school, a principle written in capital letters in the Universal Declaration of Human Rights," "Africans must be just as free as other citizens of the human family to enjoy the fundamental liberties set forth in this declaration and the rights proclaimed in the United Nations Charter" - Mr. Lumumba in 1959 at the University of Ibadan, Nigeria.[29]

References:

[1] Sample, I. 2021. Archaeologists uncover oldest human burial in Africa. *The Guardian. May 5th, 2021.*

[2] Kolbert, E. 2018. There is no scientific basis for race - it's a made-up label. National Geographic. March 12, 2018.

[3] Reader, J. 1999. *Africa: A Biography of the Continent.* pp 151-152. & Ofori-Amoah, B. 2020. *African Geographies: Dynamics of Place, Culture, and Economies.* New Jersey: Wiley. pp 21-22.

[4] Reader, J. 1999. *Africa: A Biography of the Continent.* pp 151-152. & Ofori-Amoah, B. 2020. *African Geographies: Dynamics of Place, Culture, and Economies.* New Jersey: Wiley. pp 151-152.

[5] Reader, J. 1999. *Africa: A Biography of the Continent.* pp 151-152. & Ofori-Amoah, B. 2020. *African Geographies: Dynamics of Place, Culture, and Economies.* New Jersey: Wiley. pp 181-184.

[6] Ofori-Amoah, B. 2020. *African Geographies: Dynamics of Place, Culture, and Economies.* New Jersey: Wiley. pp 36-38.

[7] Horst, F. 2021. Why Timbuktu's true treasure is its libraries. *National Geographic.* September 30, 2021.

[8] Reader, J. 1999. *Africa: A Biography of the Continent.* pp 151-152. & Ofori-Amoah, B. 2020. *African Geographies: Dynamics of Place, Culture, and Economies.* New Jersey: Wiley. pp 205-221.

[9] The Economist. 2021. Unearthing the truth: a Zimbabwean archeologist reimagines the story of a momentous African civilization. December 18, 2021. Accessed August 26, 2022.

[10] Reader, J. 1999. *Africa: A Biography of the Continent.* pp 151-152. & Ofori-Amoah, B. 2020. *African Geographies: Dynamics of Place, Culture, and Economies.* New Jersey: Wiley. pp 317-322.

[11] Paquette, D. (2021, September 7). They were the world's only all-female army. their descendants are fighting to recapture their humanity. *The Washington Post*. Retrieved July 3, 2022.

[12] Arnett, E. J. "A Hausa Chronicle." *Journal of the Royal African Society*, vol. 9, no. 34, 1910, pp. 161–67. Accessed July 3, 2022.

[13] Green, T. 2019. A *Fistful of Shells: West Africa from the Ruse of the Slave Trade to the Age of Revolution.* University of Chicago Press. pp 341-347.

[14] McCaskie, T. C. "The Life and Afterlife of Yaa Asantewaa." *Africa: Journal of the International African Institute*, vol. 77, no. 2, 2007, pp. 151–79. & Pitchon, A. (2022, Sep 20). Female Warriors Who Led African Empires and Armies. *History.*

[15] Johnson, E. (2019, Apr 5). Ndaté Yalla Mbodj, the last queen of Senegal who fought off the French, Arabs, and Moors. *Face 2 Face Africa*

[16] See 9.

[17] Garcia, E. (Sep 9, 2021). Nigeria's ancient royal portraits challenged European biases toward African art. *National Geographic History Magazine*.

[18] Lucas, J. 2022. The forgotten movement to reclaim Africa's stolen art. *The New Yorker*. April 14, 2022.

[19] https://www.nationalgeographic.com/history/article/kenya-wants-its-stolen-treasures-back-replicas-could-spur-their-return?loggedin=true

[20] Mansa Musa is thought to be the richest man in the history of the world, based on his comparative wealth and the wealth of other rulers in his time. See Mohamud, N. 2019. "Is Mansa Musa the richest man who ever lived?", BBC.

[21] W.E.B Du Bois in Sorentino, S. (2020). So-Called Indigenous Slavery: West African Historiography and the Limits of Interpretation. *Postmodern Culture* 30(3), doi:10.1353/pmc.2020.0018.

[22] Gates, J. quoted in Sorentino, M. 2020. "The So Called Indigenous Slavery": West African histography and the limits of interpretation. *Postmodern Culture* 30(3).

[23] Saidiya Hartman in Sorentino, M. 2020. "The So Called Indigenous Slavery": West African histography and the limits of interpretation. *Postmodern Culture* 30(3).

[24] Sylviane Diouf in Sorentino, M. 2020. "The So Called Indigenous Slavery": West African histography and the limits of interpretation. *Postmodern Culture* 30(3).

[25] Reader, John. 1999. *Africa: A Biography of the Continent*. pp374-375.

[26] Ofori-Amoah, B. 2020. *African Geographies: Dynamics of Place, Culture, and Economies*. New Jersey: Wiley. pp 41.

[27] Reader, J. 1999. *Africa: A Biography of the Continent*. pp 151-152. & Ofori-Amoah, B. 2020. *African Geographies: Dynamics of Place, Culture, and Economies*. New Jersey: Wiley. Pp 547-549.

[28] Ofori-Amoah, B. 2020. *Africa's Geography: Dynamics of Place, Cultures, and Economies,* pp 50-56.

[29] Malotana, Y. (Dec 10, 2021). Fewer authoritarian regimes on the continent but the fight is not over.

Attributions:

"African Civilizations" is remixed and adapted from The Ancient Trade of Salt in West Africa, The Mali Empire, The Songhai Empire, Timbuktu, Aksum Kingdom, and Great Zimbabwe by Mark Cartwright and Kingdom of Kush, Meroe, by Joshua Mark n World History Encyclopedia, all licensed as CC BY-NC-SA 4.0.

"European Lust: Gold & Slaves" is remixed and adapted from The Gold Trade of Ancient and Medieval West Africa by Mark Cartwright, in World History Encyclopedia, CC BY-NC-SA 4.0, and Pre-Colonial Sub-Saharan Africa by Caitlyn Finlayson, CC BY-BC-SA.

"The Scramble for Africa" is adapted from Finalyson, Caitlyn Pre-Colonial Sub-Saharan Africa, CC BY-BC-SA.

This page titled 3.2: Indigenous Worlds- Pre-Colonial Civilizations and Reclaiming Independence is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio & Jason Scott.

3.3: Cultural Diversity, Resilience, Tolerance and Tension

Learning Objectives

1. Critique notions of the "African monolith."
2. Identify the geographies of prominent language families and most spoken languages in Africa South of the Sahara.
3. Describe the diffusion of Islam and Christianity and their geographic distributions in Africa.
4. Explain how the creation of artificial states contribute to ethnic conflict within African countries.

Africa as a Cradle of Human Diversity

Research affirms that there is no such thing as an “African race” - there is more genetic diversity among African populations than between Africans and other peoples.[1] Studies in human genetics are often accompanied by studying linguistics, as patterns of genetic diversity often match that of linguistic diversity, and both are related to human migration. Africa is the most linguistically diverse continent in the world, containing more than 2,000 distinct languages (about one third of the world’s languages). Given the importance of language in distinguishing cultures, researchers often identify cultural groups as **ethnolinguistic groups,** or groups characterized by shared language and ethnic identity. Other researchers gauge ethnic diversity by measuring **ethnic fractionalization,** or the likelihood that two individuals in the same country will report different ethnic identities. In almost every way that scholars attempt to gauge human diversity, Africa is the most diverse continent on Earth.

The Linguistic Landscape

About 85 percent of the population, over 600 million people, speak a language rooted in the **Niger-Congo Family,** the largest language family in Africa and the world. The Niger-Congo family is believed to have originated in the central/Sahel region of Africa. Today it contains more than 1,400 distinct languages spread through West, Central, and Southern Africa. The **Bantu languages,** the largest subgroup of the Niger-Congo language family, diffused from West Africa through the Bantu Migration (2,000BCE – 1,500CE) pushing and replacing other tongues over a wide geographic range in Africa South of the Sahara. There are twelve Bantu languages spoken by more than 5 million speakers, including Rundi, Rwanda, Shona, Xhosa, Zulu, and Swahili.[2]

Prominent in the East, Swahili is the African language with the largest number of speakers in Africa and is among one of the most spoken languages in the world. While it has only about 10 million native speakers, African societies and individuals are commonly multilingual, and Swahili is often adopted as a second language. Swahili is used as a **lingua franca** in east Africa, a common language to facilitate communication and business (it is only second to English in the function of a lingua franca in Africa). Swahili has had a significant impact on the African diaspora. The language is commonly referenced and spoken in diasporan Black thought, expression, and urban subculture. UNESCO designated July 7th as Swahili Language Day in aiding the hopes of unifying 14 countries of Swahili speakers together against conflict and being of aid in cases of needed refuge.[3]

The **Khoisan Language Family** is the smallest of African language families, thought to have become peripheralized by the Bantu expansion, colonization, and a rural exodus. These languages have distinguishing clicking consonants and are commonly spoken by hunter-gatherers and pastoralists in the southern region of Africa. Their oral traditions contain immense ecological knowledge accumulated over the oldest known human lineages, all at significant risk of being forever lost. Most of the speakers of these unique and endangered languages live inland in Namibia, Botswana, and southern Angola.[4]

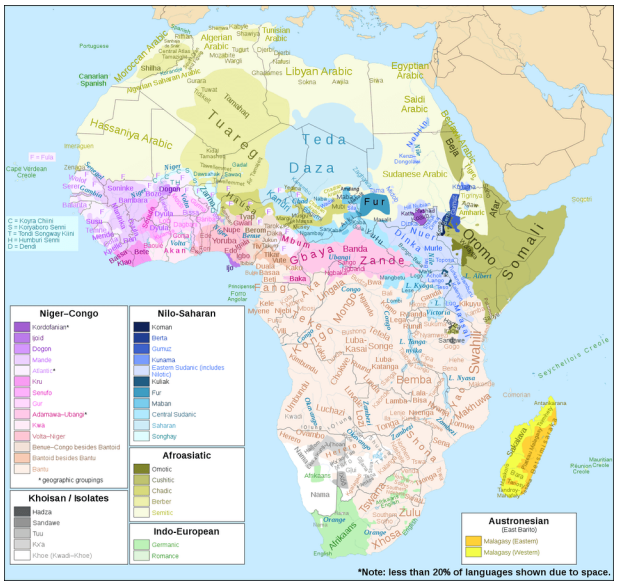


Figure 3.3.1: This map shows the distribution of the African language families, subfamilies and major languages. Out of the more than 2,000 distinctive languages spoken in Africa, 40 are spoken by more than a million people. The Niger-Congo languages are predominant in most of the region. Other language families include the Afroasiatic Family, which groups languages spoken in North Africa, the Horn of Africa and portions of East Africa. South of the Sahara, Cushitic languages are spoken in parts of Ethiopia, Djibouti, and Kenya, most notably Hausa, Oromo, and Somali. The Nilo-Sahara Family groups languages spoken along the Sahel in West Africa and in East Africa where Nile tributaries meet, examples include Luo, Kanuri, and Songhai. The only language spoken in Africa from the Astronesian Language Family is Malagasy, spoken in Madagascar (CC BY-SA 4.0; via Wikimedia Commons).

Religions and Belief Systems

Ethnic Religions

For many Africans, the practice of spirituality is naturally plural, complex, and tied to ethnic identity, therefore referred to as **ethnic religions**. Spirituality informs every aspect of life in traditional African societies, like economics, marriage, diet, attire, and art. A common characteristic of these belief systems is **animism,** the belief that everything on Earth is animated by spirits, including non-human creatures, rivers, mountains, trees, and even human-made shrines. Some of these Indigenous belief systems have a clear sense of a supreme being, like the Yoruba who believe *Olodumare* is the creator god assisted by other deities, the *orisas,* to tend to Earth. Ethnic religions are extremely diverse and practiced all throughout the region. Examples include the southwestern southern African Zulu, southeastern Nigerian Igbo, and the Nigerian Yoruba. Due to colonization and the diffusion of Christianity and Islam, Indigenous African religions are practiced by a fraction of the population compared to a century ago. Today, less than 10 percent of Africans adhere to an ethnic religion.[5]

Dongon Spirituality and Resilience

Along the Bandiagara escarpment in the Malian Sahel lies hundreds of villages established by the Dogon communities around the 15th Century. The Dogon settled in a secluded geography along cliffs and plateaus seeking refuge and protection from slave raiders and outsiders seeking to convert them to Islam. A large share of the Dogon population practices animism, with an emphasis on the balance between the spiritual and living worlds of plants, people, and animals. The Dogon culture is shaped by oral traditions passed on through stories, songs, dance, and artwork, including their well-known and magnificent wooden carvings. One of the most popularized elements of the Dogon customs is the *dama* funeral ceremony, a ritual dedicated to helping the deceased transition into the spiritual world. The public aspects of Dogon celebrations enthrall tourists from all over the world looking to witness the embodiment of hand-carved masks, local costumes, and music in lively dance routines that mimic people, animals, and spirits. The *dama,* however, is more than performance. It is a deeply important cultural event, as the Dogon believe that wondering spirits are a danger to the living.

Outside forces threaten Dogon culture. The diffusion of Islam and Christianity has resulted in less frequent *dama* ceremonies. Secondly, an increase in tourism has shifted economic activities – some of which have been beneficial in supporting Dogon livelihoods, while others, such as the high demand for Dogon art, have resulted in a black market for invaluable cultural artefacts. Lastly, severe civil unrest and terrorist attacks threaten preservation of Mali's most ancient sites. Despite these outside forces, the Dogon carry on centuries-old cultural traditions as a symbol of the cultural resilience of indigenous Africa.[6]



Figure 3.3.2: [left] Dogon dance and masks, which are made specifically for each annual ritual and discarded or sold to tourists afterwards. Costumes are designed with local materials to enhance movement and include colors that symbolize elements of the earth: like fire, water, sky, and earth (CC BY 4.0; by Hisahi Yuya, 2009 via Wikimedia Commons). [right] Mud architecture of Dogon cliffside villages, part of the natural and cultural sanctuary of the Bandiagara escarpment called Dogon country and considered one of UNESCO's World Heritage Sites due to its cultural and architectural significance (CC BY 3.0; by Andres Barragan, 2008 via Wikimedia Commons).

Islam and Christianity

Africans are among the most religiously devout people in the world, with very few reporting to be religiously unaffiliated. In the early 1900s, both Muslims and Christians were small minorities in the region and most of the population practiced indigenous African religions. Since then, the religious landscape south of the Sahara has changed dramatically, and the vast majority of Africans practice either Islam or Christianity. This change should not be interpreted as a total replacement for traditional beliefs since many Africans who practice Islam or Christianity also believe in witchcraft, evil spirits, sacrifices to ancestors, traditional religious healers, reincarnation, and other elements of traditional African religions. Many Africans practice **religious syncretism,**or forms of Islam and Christianity that blend, merge, or assimilate multiple faiths and traditions into a religious practice. Syncretic practices developed out of migrations away from smaller tribal communities, integration with other ethnic groups, and as a direct result of colonialism dating back to the 15th century.

Christianity in Africa arrived as early as the first century via the trading connections of the Ethiopian elite to North Africa and Jerusalem. The Aksum Empire in northern Ethiopia was one of the earliest civilizations outside of the Roman Empire to practice Coptic Orthodox, a form of Christianity connected to Egypt. Christianity has remained a strong cultural trait in Ethiopia. Aside from Ethiopia, most of Africa was introduced to Christianity through colonization and missionary work. The elites of the Kongo Kingdom, for example, were receptive to Portuguese missionaries and converted to Christianity seeing it as advantageous to their alliance and as a complementary belief system to local customs. In Kongo, Christianity was indigenized, infused with local belief and images with local characteristics such as crucifixes of Christ with African features. Christianity in Africa is diversified and with local character, often forming independent churches and practices. As of 2020, about 62 percent of the population South of the Sahara practices a form of Christianity.

Islam was introduced as early as the 7th century to the elites of Sahelian regions via the Trans-Saharan trade and contact with merchants, scholars, and missionaries. It became the adopted religion of the Mali and Songhai Empires, both of which supported the rise of Timbuktu as a vital Islamic learning center. Islam was a religion of the elites, although very often indigenous beliefs

and rituals continued to be practiced or were even blended with the new religion. In the Swahili Coast, the religion spread more successfully through traders from Arabia and Egypt who permanently settled in the region. The local Bantu peoples and Arabs mixed, as did their languages, and there was a blending of cultural practices which led to the evolution of a unique Swahili culture. Today, about 29 percent of Africans south of the Sahara are Muslims. Many live in nations along the Sahel (like Mali, Niger, Chad, Nigeria, Sierra Leone, Senegal) and the horn of Africa (like Somalia, parts of Ethiopia, Djibouti, Kenya, and Malawi).

Tension and Tolerance: Islam and Christianity South of the Sahara (Pew Research Center)

Although Africa South of the Sahara has twice as many Christians as Muslims, on the African continent the two faiths are balanced with about 500 million followers each, with Northern Africa mostly Muslim and Africa South of the Sahara mostly Christian. In between these two religious realms is a region often seen as a volatile religious fault line along the Sahel -- the site, for example, of al-Qaeda's first major terrorist strike, the bombing of the U.S. embassies in Kenya and Tanzania in 1998, and more recently of ethnic and sectarian bloodshed in Nigeria, where hundreds of Muslims and Christians have been killed. To many, however, religion is not so much a source of conflict as a source of hope in Africa south of the Sahara, where religious leaders and movements are a major force in civil society and a key provider of relief for the needy. This is particularly valuable given the widespread reality of collapsing government services.

But how do Africans *themselves* view the role of religion in their lives and societies? To address this question, the Pew Research Center's Forum on Religion and Public Life conducted a major public opinion survey involving more than 25,000 face-to-face interviews in more than 60 languages in 19 countries. The survey results suggest that Africans rank unemployment, crime, and corruption as bigger problems than religious conflict (but Nigerians and Rwandans say religious conflict is a big problem in their countries). The degree of concern about religious conflict varies various from country to country, but tracks closely with concerns over ethnic conflicts, suggesting that religious and ethnic tensions are often related.

Christians and Muslims describe members of the other faith as tolerant and honest. In most countries, few see evidence of widespread anti-Muslim or anti-Christian hostility. They give their governments high marks for treating both religious groups fairly. Respondents also acknowledged that they know little about others' faith. Muslims are significantly more positive in their assessment of Christians than Christians are in their assessment of Muslims. Regardless of their faith, most do not support religious violence, favor democracy, and think it is a good thing that people from other religions can practice their faith freely.

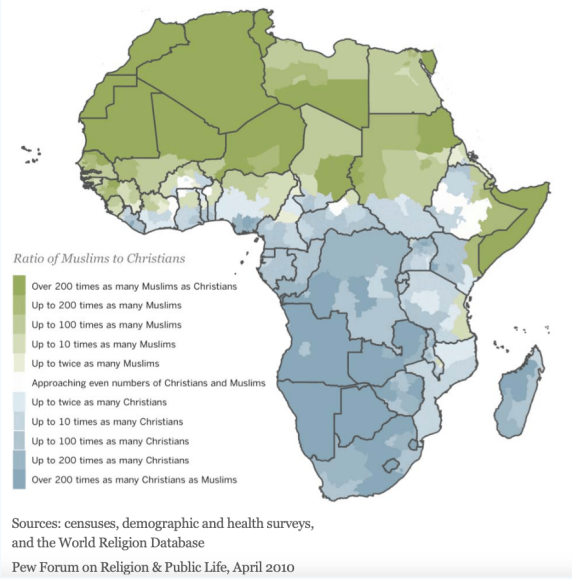


Figure 3.3.3: This map illustrates the ratio of Muslims to Christians in the African continent. The pattern is quite clear, with Muslim majorities in North and Northeast Africa (symbolized in green) and Christian majorities in most of Africa South of the Sahara (symbolized in blue). Along the Sahel, it is noticeable that some countries are divided north and south. Take for example Sudan, who after this map was published became North and South Sudan. Nigeria, discussed in the next paragraphs, is also divided with Northern Nigeria being predominantly Muslim and southern Nigeria predominantly Christian. It can also be noted here that various places have faint majorities of either religion or even numbers, symbolized by the lighter hues and white (for even populations) (Pew Research Center; within permitted use).

Extremism and Conflict

Colonization left a legacy of fragmentation in the African continent. Colonial borders grouped the African people into **artificial states**, or states "in which political borders do not coincide with a division of nationalities desired by the people on the ground."[7] The partitioning of African territories into European colonies occurred without much knowledge or respect for the wants of the African people. Thus, cultural groups were severed into new countries by lines on a paper map that did not correspond to the cultural or environmental reality. While the European hold of African colonies did not last, the legacy of colonial political borders is deeply enduring. After independence, African leaders opted to keep the colonial borders to avoid conflicts over reterritorialization. Today, one third of African ethnicities have their ancestral homelands straddle an international border.[8] This forced fragmentation is a key factor in many disputes that have turned violent and even unraveled into dire humanitarian crises and civil wars.

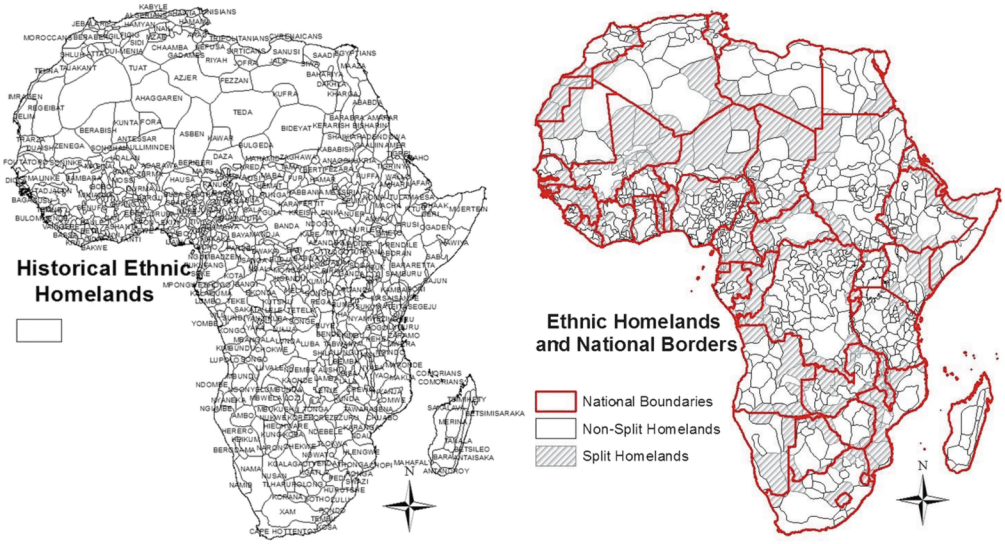


Figure 3.3.4: These maps illustrate how the political borders drawn by European colonists severed cultural groups into different countries - note the distribution of historical ethnic homelands in relation to the established national borders. The dashed regions show how many homelands have been split by the superimposed international borders. This is a deeply enduring legacy that continues to contribute to instability and conflict in Africa to this day (Copyright, all rights reserved; By Stelios Michalopoulos and Elias Papaioannou; used with permission).

While each episode of ethnic conflict is an expression of complex interconnected factors, religious extremism and ethnocentrism have played a role in past and present atrocities in Africa South of the Sahara. **Religious extremism** is a distortion of the normative practice of a religion based on extreme interpretations and ideologies used to cause harm. **Ethnocentrism** is the perception of superiority of one's own ethnic group over others, an ideology that leads to discriminatory practices. Most recently, both Ethiopia and Nigeria have experienced bloodshed associated with a myriad of factors, including religious extremism and ethnocentrism.

War and Humanitarian Crisis in Tigray, Ethiopia

Ethiopia is a deeply religious nation. According to the Pew Research Center, an estimated 98 percent of Ethiopians say that religion is "very important" to them and 78 percent attend church at least weekly. About 43 percent of Ethiopians are Orthodox Christians, 35 percent are Muslim, and 19 percent are Protestant.[9] For over 1,600 years, Orthodox Christianity has been a binding factor in Ethiopian identity. Over this expansive history, empires and leaders have had varying degrees of religious tolerance/intolerance. The 1995 Ethiopian Constitution officially declared Ethiopia a secular state. While previously marginalized Muslims and Protestants celebrated secularization, many Orthodox Christians felt disowned.

Ethiopia's current Prime Minister, Abiy Ahmed, is reinvigorating the role of religion in government by promoting **Christian nationalism**, reviving Ethiopia's Christianity as core to its national identity while depicting all else un-Ethiopian. Abiy Ahmed seeks to "expand the kingdom of god," despite the secular Ethiopian constitution. He has appointed to his council many Christian religious leaders including voices of Orthodox extremists who are known for their hateful speeches against the people of Tigray. Abiy's speeches have dehumanized Tigrayans, depicting them as a "cancer," "enemies," and a "weed" to be exterminated. His

words have empowered the destruction of mosques and the slaughtering of Muslims.[10] Since 2020, a large-scale conflict has ensued amounting to a war laced with religious extremism and ethnocentrism. The root cause of the conflict between the Ethiopian military and the Tigray People's Liberation Front, however, is not directly about religion. It is rooted in a political history marked by three decades of a brutal authoritarian regime. It is the extension of a continued struggle over power and the control of the Tigray region. Ironically, in 2019 Prime Minister Abiy had won a Nobel Peace prize for his commitment to democracy, peace, and unification in Ethiopia. Months later the Ethiopian military killed thousands of civilians.[11]

As a result of this war, more than 60,000 people have fled as refugees into Sudan. In 2021, Ethiopia had more internally displaced peoples than any country in the world. Amnesty International and Human Rights Watch, the two most prominent international human rights watch organizations, called the widespread violence crimes against humanity and **ethnic cleansing,** the mass expulsion or killing of an ethnic group.[12] The death toll is estimated to be about half million people, including those who died from the war or from subsequent hunger as Tigray's supplies were destroyed and the region was cut off from humanitarian aid.[13]

Boko Haram Militancy in Nigeria

Nigeria is a country characterized by immense diversity in ethnicity, language, and culture. It has over 250 distinct ethnic groups speaking over 500 distinctive languages. While some practice ethnic religions, most are adherents of either Islam (prominent in the north) or Christianity (prominent in the south), and the number of adherents of each of the two religions are almost the same. Religious dominance is geographically discernable in a north-south division of Islam and Christianity and smaller subdivisions along ethnic lines. The largest ethnic group is the Hausa-Fulani, a predominantly Muslim group in northern Nigeria. The mostly Christian south includes the southwestern Yoruba and the southeastern Igbo. Nigerian ethnic and religious identities override national identity. Relationships between and among ethno-religious groups is fraught with tensions that escalated into a series of crises in Nigeria.

Nigeria is one of the most unequal countries in the world and socioeconomic divisions exacerbate existing ethnoreligious ones. The northern region stands out for its prevalence of poverty, lack of basic healthcare, and low female literacy in contrast to southern states.[14] The northern region also experiences most incidents of **terrorism**, or violence used to achieve a political/ideological goal. While there is no identifiable linear causality for terrorism, researchers associate terrorism in Africa's multiethnic countries with **structural violence,** or the negative impact of deep disparities and deprivation in basic human needs. In 2019, Nigeria was only behind Afghanistan and Iraq in its death toll due to terrorism. Extreme lethal violence from terrorist groups has been prevalent in the country for over a decade. **Boko Haram** is one of the world's most deadly terrorist organizations. It continues to unleash violence in northern Nigeria, including reoccurring incidents of mass rape and kidnapping of women and girls, destruction of schools, and assassinations of teachers. Boko Haram, which means "no western education," seeks to eradicate all practices associated with the west and replace Nigeria's new democracy with an extremist Islamic state. It sees itself as a virtuous Islamic sect fighting against immorality. Most of Boko Haram's victims have been Muslims, and they use brutality as the expression of their arbitrations for who counts as a Muslim and who does not. Its ability to prevail as an organized Islamic terrorist organization in Nigeria is attributable to the inequalities among ethnic groups and the structural violence that North Nigerians have long suffered with growing impoverishment.[15] [16] Terrorism in Nigeria and bordering states has been a destabilizing force in the Sahel, which is considered one of the world's most volatile regions.



Figure 3.3.5: This map shows the largest ethnic groups in Nigeria. The Hausa Fulani of the north is predominantly Muslim and is the largest ethnic group in Nigeria. The Yoruba (21%) in the southwest and the Igbo (18%) in the southeast are predominantly Christian. The northeast region of the Kanuri is where most of the violence perpetuated by Boko Haram has ocurred. Overall, northern Nigeria experiences greater incidents and fatalities related to terrorism, but incidents also occur in the southern regions (CC BY-NC-ND 4.0; Council for Foreign Affairs).

Trialing Restorative Justice: Overcoming the Rwandan Genocide

Africa south of the Sahara has deep scars from a history of **genocide**, the most extreme form of ethnic cleansing focused on the systematic elimination of a group of people. One of the bloodiest of these events was the Rwandan genocide in 1994, which resulted from the culmination of decades of ethnic tensions rooted in colonialism.

Rwanda and Burundi were formerly joined as German colony (Ruanda-Urundi) that was conceded to Belgium after World War I. Ruanda-Urundi had two main ethnic groups: The Hutus, an agriculturalist majority who made up about 85 percent of the population, and the Tutsis, a minority of herders. The two groups are similar in culture, speak the same language, and share similar customs. The Belgians perceived the Tutsi as closer to Caucasian and established a colonial hierarchy by privileging the Tutsi minority to suppress the Hutu majority. They introduced an identity card that by law identified ethnicity and was used guarantee positions of power to the Tutsi. In the *Hutu Manifesto* (1957), the Hutu elite outlined their grievances with the solidified political monopoly of the Tutsi, citing injustice and dispossession of the Hutu majority.[17] After Rwanda gained its independence in 1962, the Hutu came to power and sought to gain political and economic prominence. The colonial legacy of ethnic tension culminated into episodes of violence.

By 1990s, Hutu nationalists began coordinating a genocide, channeling their grievances by declaring all Tutsis the enemy. In 1994, they unleashed a violent rampage to eradicate the Tutsi population. It is estimated that within three and a half months, between April and July 1994, more than 800,000 Tutsis were killed in Rwanda. The rampage exterminated more than half of the entire Tutsi population in Rwanda, along with thousands more from other minority groups and those, including Hutus, who stood to defend them. Millions fled to neighboring countries to escape the lethal violence. The genocide had a transboundary ripple effect causing an additional death toll of hundreds of thousands in Burundi and the Democratic Republic of Congo.

Coming out of the ashes of a violent becoming of an independent country, the Rwandan government, communities, and individuals have taken strides to overcome the genocide in a concerted effort to bring justice and heal wounds. One of the most remarkable aspects of this effort is the focus in delivering justice as an essential element of bringing peace. Since courts overwhelmed by endless genocide cases to be investigated, the justice system looked to employ conflict-resolution traditions as an African solution to African problems. This included the integration of local community courts and the involvement of local community in bringing justice and healing to Rwanda. *Gacacas,* meaning "grass" or a commonplace where communities gather to solve disputes, are community-based courts that have tried over 400,000 people between 2002 to 2012.[18] These courts provided a space for a cross-ethnic dialogue about the causes and impacts of the genocide, and trials included sentences decided by the community court. Accused perpetrators faced their neighbors, family members, community leaders, and those impacted by their actions in a deeply involved process. The approach led to the successful

reintegration of perpetrators who served their sentences back into their communities. Some Rwandans welcomed the court's swift work and the involvement of the local communities. Others thought the trials were deeply flawed and ill-conceived.[19] Despite mixed perspectives on the effectiveness of the Rwandan trials with restorative justice, the community-based trials left an enduring legacy of a deeply involved justice process that engaged nearly every adult in Rwanda in crafting a multi-ethnic future.[20]



Figure 3.3.6: Spaces of remembrance help communities learn from the past as a way to move onto a brighter future. This picture illustrates the Kigali Genocide Memorial in Rwanda. The memorial was established to educate about the causes and consequences of genocide. It also serves as documentation and support center for its victims (CC BY 2.0; Stafford via Flickr).

References:

[1] Kobert, E. (2018, March 12). There is no scientific basis for race – It's a made-up label. *National Geographic*.

[2] Bendor-Samuel, John T. "Bantu languages". Encyclopedia Britannica, 25 Jan. 2017, https://www.britannica.com/art/Bantu-languages. Accessed 2 July 2022.

[3] Lisanza, V. (2021). *Swahili gaining popularity globally | Africa Renewal*. United Nations. Retrieved July 2, 2022.

[4] Kohler, O., and Trail, A. Khoisan Languages. Britannica. Retrieved September 9, 2022.

[5] Chiorazzi, A. (2019, March 22). *The spirituality of Africa*. Harvard Gazette. Retrieved July 2, 2022.

[6] Wickle, T. (2016). Living and Spiritual Worlds of Mali's Dogon People. *Focus on Geography*.

[7] Alberto, A., Easterly, W., and Matuszeski, J. (2011). Artificial States. *Journal of the European Economic Association* 9 (2), pp 246–277.

[8] Michalopoulos, S., Papaioannou, E. (2016). The Scramble for Africa and Its Legacy. In: *The New Palgrave Dictionary of Economics*.Palgrave Macmillan, London.

[9] Diamant, J. (Nov 28, 2017). Ethiopia is an outlier in the Orthodox Christian World. *Pew Research Center*.

[10] DeCort, A. (June 18, 2022). Christian nationalism is tearing Ethiopia apart. *Foreign Policy*.

[11] The Economist. (Aug 25, 2022). Two Ethnic revolts rack Ethiopia at the same time. *The Economist*.

[12] Amnesty International & Human Rights Watch. (Apr 2022). We will erase you from this land: crimes against humanity and

ethnic cleansing in Ethiopia's Western Tigray Zone. *Amnesty International & Human Rights Watch Report.*

[13] See 9.

[14] BBC. (Jan 2012). Nigeria: A nation divided.

[15] Thurston, A. (Jan 2016). "The disease is unbelief": Boko Haram's religious and political worldview. The Brookings Project on US relations with the Islamic world. Center for Middle East Policy at Brookings.

[16] Degila, E. (Nov 2020). Hybridisation of security challenges in contemporary Africa. In Institute for Economics & Peace. (Nov 2020). *Global Terrorism Index 2020: Measuring the Impact of Terrorism*, pp 80-82, pp12, and pp40.

[17] Reader, J. (1999). *Africa: A Biography of the Continent.* Pp 618-621 & 633-636.

[18] Human Rights Watch Report. (May 2011). *Justice compromised: the legacy*

[19] Human Rights Watch Report. (May 2011). *Justice compromised: the legacy*

[20] Clark, P. (Jan 2018). Rwanda's Recovery: When remembrance is official policy. *Foreign Affairs*

Attributions:

"Tension and Tolerance" is excerpted from "Tension and Tolerance: Christianity and Islam in Sub-Saharan Africa Report" Pew Research Center, Washington, D.C. (April 2020), within permitted use.

The spread of Islam in Ancient Africa by Mark Carthwright (2019), CC BY NC SA 4.0.

"Overcoming the Rwandan Genocide" is modified from The Modern Sub-Saharan Africa Landscape by Caitlyn Finlayson, CC BY NC SA 4.0.

This page titled 3.3: Cultural Diversity, Resilience, Tolerance and Tension is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio & Jason Scott.

3.4: Young and Rapidly Urbanizing Populations

Learning Objectives

1. Describe African demographic patterns and identify the challenges and opportunities of a rapidly growing and young population.
2. Explain how the education of girls has changed overtime and how it relates to demographic change in Africa South of the Sahara.
3. Compare urbanization patterns in African countries to the rest of the world.
4. Explain the apartheid system and its long-standing legacy in geographies of access in South Africa.
5. Describe slum upgrading and participatory mapping.

Young and Growing Populations

Today, Africa South of the Sahara is home to over 1.1 billion people. Two countries have a population of more than 100 million: Nigeria (196 million) and Ethiopia (107.5 million). Population density varies, but high densities are found in coastal cities and surrounding fertile soils and great lakes of the Rift Valley. As a continent, Africa is the second most populous in the world (only behind Asia), and it is growing more rapidly than any other region. It is projected that the African population will grow to 2.5 billion by 2050.[1] This rapid population growth is attributable to markers of demographic transition, such as a decline in the death rate, a high natural increase, and longer life expectancies brought by greater access to more effective medical practices.

The UN estimates that the **total fertility rate (TFR)**, the number of children born throughout a woman's reproductive years, is about 4.7 in this region. This is more than double the fertility rate of any other region in the world. Cultural preference for larger families in rural Africa is a matter of practical decision making. Larger families can provide greater support for labor needs in and out of the household. African societies value children as an asset of social security as children will take care of their parents when they are older. Women are, however, having less children than in the past. The fertility rate is declining like it has in other world regions but at a slower pace. High fertility rates often strongly correspond to lower women empowerment, like access to education, healthcare, use of contraceptives, participation in the workforce, and strengthened rights. The increasing well-being and status of children and technological and economic changes are other key factors.

Africa South of the Sahara is home to the world's youngest population. More than 70 percent of the African population is under 30 years of age and the median age is 18 years old (compared to 42 in Europe, 35 in North America, and 31 in Asia and Latin America).[2] African countries have the highest **child dependency ratio,** a large child population in relation to the working-age population. The **population pyramid** is a diagram that shows the demographic profile of countries and regions in terms of gender and age structure (see below). A high dependency ratio is a challenging demographic because the smaller working age population is burdened to provide the economic resources to support the needs of the youth like childcare, healthcare, and education.

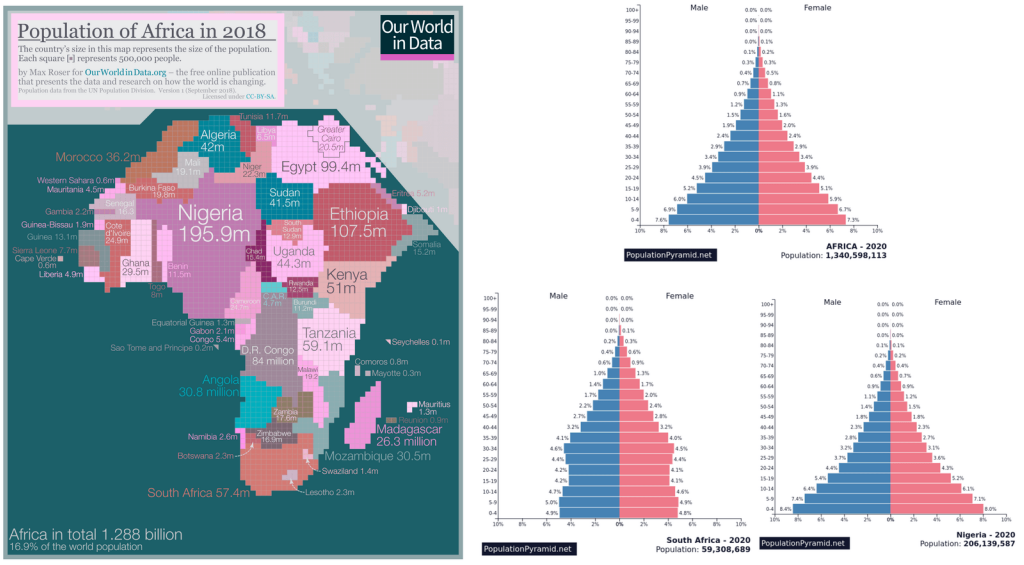


Figure 3.4.1: [left] Africa's population is represented in a cartogram, a map made up of squares to display nations relative to their population size. Each square represents half a million people of a country's population. Note the most populous nations in the West, East, and Southern regions (CC BY SA 4.0; Our World in Data). [right] Population pyramids depict the population structure, based on the percentage of the population by age group and gender. As a whole, Africa has a high percentage of youth (top pyramid), indicated by the wide base of the population pyramids of nations like Nigeria (bottom right pyramid). In contrast, South Africa's youth population is becoming more proportional to other age groups as the nation's natural increase slows down (bottom left pyramid) (CC BY 3.0; PopulationPyramid.net).

Rapid population growth poses great challenges because it can outstrip resource availability and contribute to human suffering. However, in a continent with a history of depopulation due to the slave trade, colonization, and deadly pandemics, the patterns of rapid population growth and high shares of youth can be seen as an opportunity rather than a burden. This is true especially if government leaders can support the hopes of the youth. The African population of college-aged students and the working-age population is expected to double within the next decades. Young people need prospects to study and work. Yet, many African governments are struggling to provide, having high youth unemployment rates and strained universities in need for greater funding. In Nigeria, the population is growing rapidly, and the country is projected to become the third most populous in the world by 2050. Nigeria faces a tremendous challenge with a stagnated economy and a high unemployment rate. This reality will certainly impact the prospects of the Nigerian youth in attaining an education and entering the workforce and challenge political stability in the upcoming years.[3]

Expanding Girl's Education in Africa South of the Sahara

More education of African girls is one reason demographers suspect that the African population will peak sooner than expected. In the 1970s, about half of African children were enrolled in primary school. Today, that number is almost 100 percent.[4] The attendance rate is lower but also improving in most African countries. This is a remarkable achievement with potential impacts on population predictions since there are few things more influential on the fertility rate than female education. African women without a primary education have upwards of five children, those with a secondary education about four, and those who finish secondary school about two. Africa south of the Sahara still has more girls out of school than in any world region, and school enrollment leans male. But experts predict that for as long as female education continues to improve and expand, the African population growth will slow down.[5]

The empowerment of education has a ripple effect in other aspects of society. Educated youngsters are more likely to opt for democratic governance and to reject one-party rule and religious extremism. It is true that many students seeking higher education are going abroad. This means that many African countries face a **brain drain,** or the loss of skilled people. However, expats send money to support their families. In doing so, they increase the prospects of relatives of furthering their education and even attending college. In Ghana, children with a relative abroad were 54 percent more likely to attend secondary school.[6] The African diaspora also promotes transfer of knowledge, ideas, and technology. Many who return from college abroad become local leaders, assets known as **brain gain.** Lastly, demographers suggest that if African nations can better support the youth and their aspirations, they may well soon benefit from a **demographic dividend.** This means that

youngsters will soon form a large workforce that can (if able to find work) drive economic growth and contribute to state revenues to further improve physical and social infrastructure. Considering these factors, the aspiring youth may be Africa's demographic asset rather than its burden.

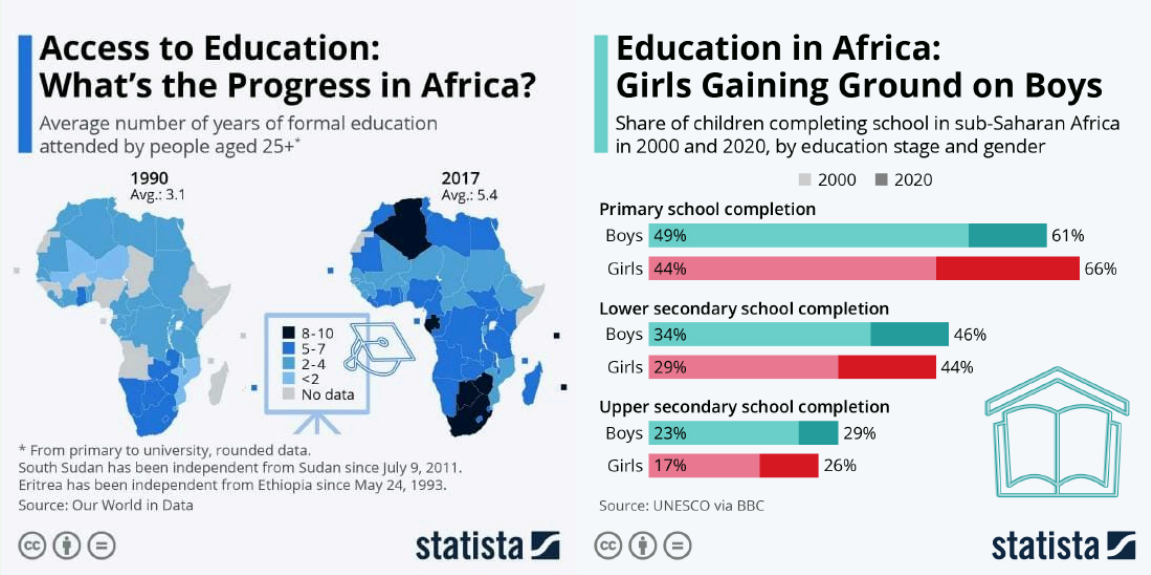


Figure 3.4.2: Enrollment and completion of primary and secondary remains lower than other world regions, regardless of gender and especially for the poorest children, but the issue was specifically acute for girls. Even as recently as 2000, only 44% of girls were completing their primary education. Twenty-two years later, that figure had risen to 66% and overtaken the rate for boys (who also made gains). While disparity persists in most African nations, especially in secondary school, gender parity improvements have been constant in the region, signaling hope for girls and boys. [left]: Access to Education: What's the progress in Africa? Average number of years of formal education attended by people aged 25+. *From primary to university, rounded data. South Sudan has been independent from Sudan since July 9, 2011. Eritrea has been independent from Ethiopia since May 24, 1993. [right]: Education in Africa: Girls gaining ground on boys. Share of children completing school in sub-Saharan Africa in 2000 and 2020, by education stage and gender (CC BY ND; Statista).

Fast Growing Cities

In contrast to other world regions, the population south of the Sahara is mostly rural. About 41 percent of Africans live in cities, most of which are small urban agglomerations. Lagos (Nigeria) has a population of 16 million (about the population of New York). It is the region's only **megacity**, defined as a city with 10 million people or more. However, settlement is rapidly changing in Africa south of the Sahara. The region has the world's fastest growing cities, and the urban population is expected to double over the next twenty-five years. This growth is a bi-product of high natural increase rates and **rural-urban migration**, or people moving from rural areas seeking opportunities in the city. Urbanization is a global phenomenon and a notable transition not only in where people live but also in ways of living. Urbanizing populations tend to be associated with increased access to higher wages, education, healthcare, and a subsequent decline in fertility rates. The economic prosperity of family members who move to the city tends to have a ripple effect in families. In Ghana, three quarters of the people who left villages for urban slums sent money to support their families back home and overwhelmingly perceived their city lives as better.[7]

Despite this optimistic outlook, the current growth of African cities outpaces current infrastructural and economic capacity. African countries are experiencing immense urban population growth, at a fast pace, and on a fraction of the economic means that helped the urbanization of other world regions. Much of this rapid urban growth is in the form of **urban sprawl,** as an uncoordinated and informal horizontal expansion of the city. Millions of Africans do not have access to affordable housing. Africa's cities have the highest prevalence of informal settlements often characterized by lack of basic infrastructure, sufficient living space, and structural durability of homes, called **slums**. On average, 60 percent of Africa's urban population is packed into slums — compared to about 30 percent in Asia and 20 percent in Latin America. Slums are grey areas of the city map: they exist in the city space and shape real lived experiences of millions of people but are not recognized in the formal functions of the city blueprint. In many African countries, most people do not have access to piped water, sanitation, and electricity, especially in rural regions but also in cities. In Nigeria, for example, only Lagos and Abuja have sewerage systems, and even in those cities most households are not connected. In Ethiopia, only Addis Ababa has a sewerage system, and the system serves only 10 percent of the

population. Most countries struggle to expand sanitation and electricity infrastructure to keep pace with the rapid urbanization.

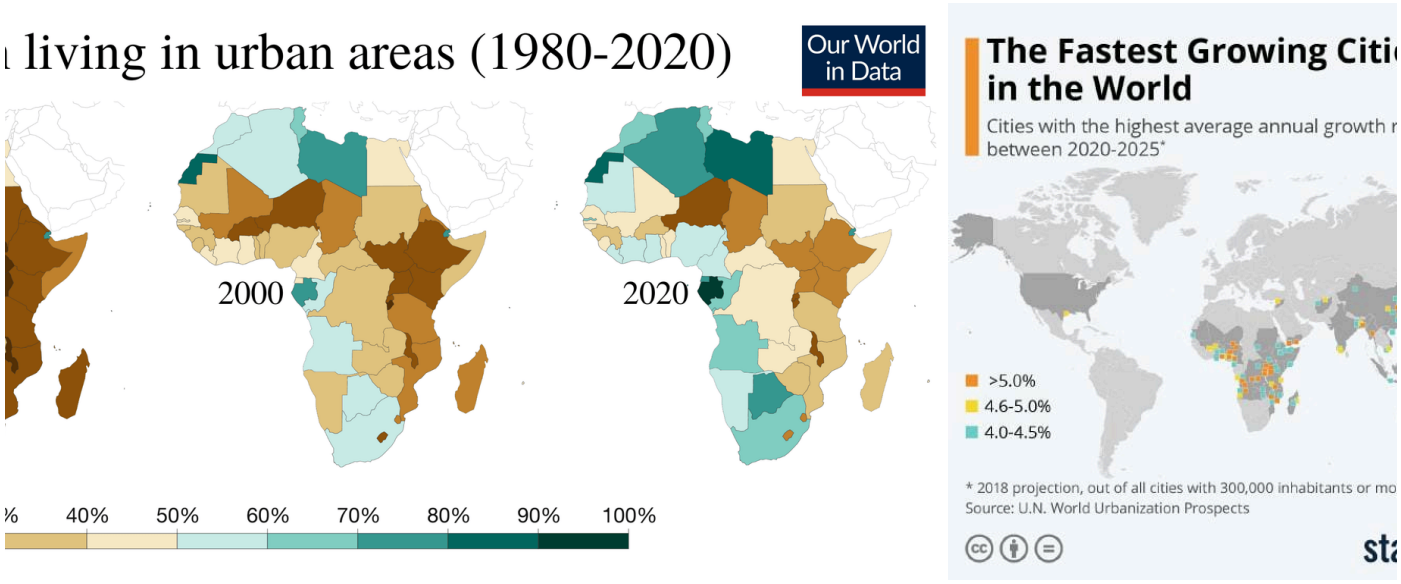


Figure 3.4.3: This visual collection illustrates the rapid urbanization and high shares of people living in slums in Africa South of the Sahara. [top] This first map sequence shows the share of urban populations in Africa over time. Green symbolizes countries with the majority of its populations living in cities. Note that West and Southern African nations have urban majorities - Gabon, shown in the darkest green, has 90% of its population living in cities (CC BY; adapted from Roser via Our World in Data). [bottom left] The fastest growing cities in the world. Cities with the highest average annual growth rates between 2020-2025. *2018 projection, out of all cities with 300,000 inhabitants or more. Most African cities are smaller agglomerations and the majority of Africans live in rural villages. Cities are growing rapidly, however, and the region has many of the fastest-growing cities in the world (CC BY ND; Buchholz via Statista). [bottom right] Where people don't have basic access to sanitation. Share of the people without access to at least basic sanitation services in 2020. *Defined as facilities that are not shared and include piped sewer systems, septic, or composting tanks or pits. The urban population growth rate is outpacing urban planning and development, and millions of people living in African cities lack access to important urban infrastructure: In Chad and Ethiopia, more than 80% of the population do not have access to basic sanitation (CC BY ND; Buchholz via Statista).

Just Transitions? Living on the Edge of the City in Post-Apartheid South Africa

When South Africa became independent from Britain in 1910, independence excluded non-white South Africans. A white minority of descendants of Dutch settlers, known as Afrikaners, came to power and legally instituted the notoriously racist policy of **apartheid**. The apartheid separated people into Black, white, coloured (mixed race), or Indian/Asian racial categories. It then restricted use of spaces and residence and forced the relocation of people from their homes into designated homelands based on their racial or ethnic background. In 1970s – 1980s, the apartheid regime received international condemnation. Many countries implemented economic sanctions and trade restrictions against South Africa to put pressure and bring the regime to an end. Opposition grew within the country and erupted into violence and social unrest. As a result, the white-dominated government of South Africa began to dismantle the apartheid system in the 1990s. The ban on political opposition parties, such as the African National Congress, was lifted. After twenty-seven years in prison, Nelson Mandela was released from prison, where he was held for his activism. The apartheid legislation was repealed, and Mandela was the first African to be elected president of South Africa in the new multiracial elections of 1994.

Despite the optimism that accompanied the end of apartheid regime and the subsequent approval of the 1996 Constitution, colonization and segregation systematically denied Black Africans access to high quality education and means of accruing wealth. It left an enduring legacy of inequality that is difficult to overcome in less than thirty years. Today, white South Africans have eight times the wealth of Black South Africans, and the richest 1 percent have retained steady high shares of wealth since the apartheid era.[8] Inequality also remains noticeable in the lack of sufficient water access of marginalized communities, mostly Black populations living in rural areas. In South Africa, less than 50 percent of households had access to piped water in their homes in 2019.[9] Large numbers of South African citizens, mostly Black and living in the poorest sections of townships or informal settlements, do not have continuous access to safe water.[10] International human rights emphasize

the principles of equality and non- discrimination, which also form part of the constitutional and legislative framework on access to sufficient water in South Africa. Even if unintended, the inadequate access to water by rural Black communities was a core feature of the politics under the apartheid regime. It has not considerably changed in post-apartheid South Africa.[11]

Many South Africans living at the edge of cities also lack access to electricity. Enkanini – Xhosa for "take by force" – is an informal settlement in Stellenbosch, is one of the communities that struggle with access to municipal services including electricity. In order to remediate the issue, the Sustainability Institute developed the ishack, abbreviation for "improved shack." It seeks to upgrade existing housing in Enkanini with better insulation and rooftop solar panels that are sufficient to power small appliances like lights, a TV, and cell phones. This energy leap eliminates the fire risk of using candles and paraffin lamps and provides an alternative to fossil fuels. Solar panels are produced locally and cheaply with local ingenuity and national/international funding. Enkanini's ishacks are a co-production effort that joined knowledge from scientists, policymakers, and residents to provide solar energy as a meantime solution to Enkanini's exclusion from the city's grid. It is also emblematic of contradictions: while non-governmental organizations (NGOs) are preoccupied with aligning their projects with climate change concerns, the full scope of including Enkanini as a legitimate part of the city remains unfulfilled. In other words, the ishack is an intermediate effort that pioneers green energy solutions for the poor. But are Ekanini's residents receiving solar panels as a token that accepts and even perpetuates their exclusion? Residents want more than a charged phone or a light bulb. And while ishacks alleviate immediate needs, residents worry that they do not open a window for full urban inclusion.[12][13] Full urban inclusion arguably can only come when residents of the periphery become integrated in service areas of their cities, receiving access to clean water, sanitation, and electricity.



Figure 3.4.4: Picture of an improved shack, or ishack, in Enkanini-Stellenbosch, South Africa. The micro-scale innovation attracted the attention of industry and municipal authorities as a way to address the need of underserved urbanites in informal settlements, as they await formal service delivery from the government (CC BY 4.0; Buyanan K. et al via Urban Transformations).

Emancipatory Map-Making and Slums of Hope: Lessons from Kibera (Nairobi, Kenya)

In Nairobi, Kenya, most of the city population lives in slums, and the slum population is expected to double within the next decade or so. Kibera is a populous slum in Nairobi that holds over 200,000 residents, a prominent and visible place. A group of geographers traveling to Nairobi for a mapping conference could not help but notice that Kibera was not on the map. Despite it being a major part of the city, official records show that authorities labeled the area as a forest. This inspired the project Map Kibera, a community-based open-source mapping project that began in 2009. The project was designed as a grassroots mapping effort that empowered residents of Kibera to take the lead and produce digital maps as tools to increase their representation and influence. The project enlisted participants to map landmarks and features that would be helpful for day-to-day life. A map of health services or schools of Kibera, for example, can help illustrate the bigger picture of health care and education and be used to face government officials and draw resources. There is also a certain sense of security

in being visible on the map, as visibility means that crackdowns on informal housing can be more easily broadcasted and known given Kibera's new cartographic connections to the digital (and international) space. In some ways, mapping Kibera became a matter of empowerment and pride.[14]

While maps alone cannot deliver urban inclusion, the community involvement exemplified in mapping Kibera is an essential component of any effort seeking to meaningfully respond to the needs of the residents of marginalized communities. Top-down governmental efforts to improve infrastructure within slums in Nairobi are often associated with negative impacts like demolition, relocation, displacement, and threats of loss of land and property. Based on these experiences, residents tend to distrust authority in truly taking interest in improving their lives. But community-based efforts require resources, so a matrix of grassroots, governmental, and international agencies is often needed to implement innovative ideas and improve the living conditions in slums. The Kenya Slum Upgrading Program (KENSUP), a collaboration between the Government of Kenya and UN-Habitat, utilized an integrative approach that combines the resources and structures of governmental institutions with community involvement in decision-making. Like Enkanini, Kibera became a site for **slum upgrading** and KENSUP projects focused on *immediate needs* like improving sanitation, drainage, waste collection, security, and transportation in slums.[15] The pilot project was completed in Soweto East, Kibera, as a "proof of concept" to demonstrate that upgrading the quality of life for slum residents is possible when resources are directed to include community members in decision-making. Recent studies reveal that the perception of Soweto East residents about the living conditions improved dramatically after the slum upgrades of KENSUP, especially in terms of water, housing, transportation, flooding risk, security, and education. This shows that integrative and community-involved approach for immediate solutions can result in effective outcomes.[16] [17]

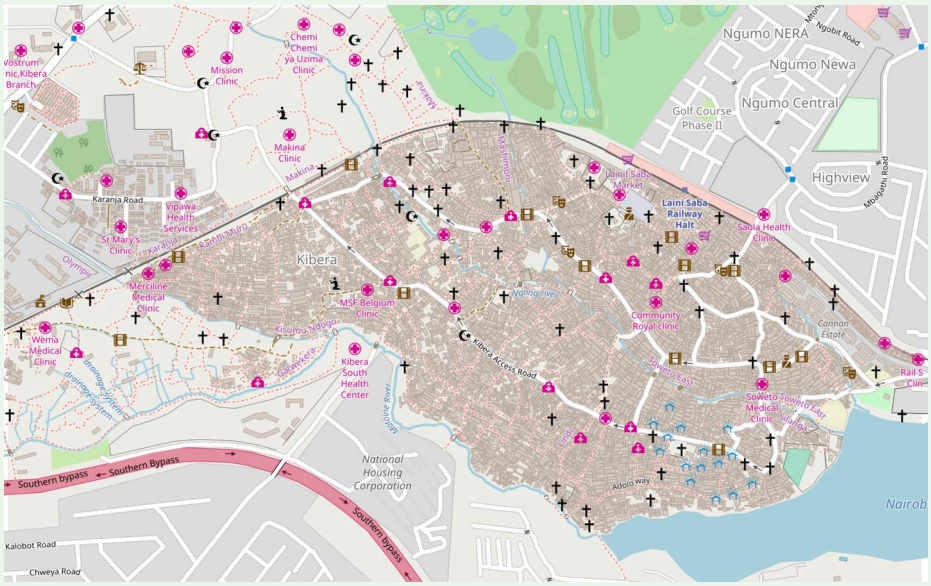


Figure 3.4.5: The community map of Kibera, Nairobi, produced via the Map Kibera initiative. Note the landmarks of importance for community cartographers: places of worship, entertainment, medical services, and schools (CC BY 4.0; Map Kibera via *This Is Not An Atlas*).

References:

[1] The Economist. (Mar 26, 2020). Africa's population will double by 2050. The African Century Special Report. *The Economist.*

[2] Desjardins, J. (Feb 15, 2019). Mapped: The Median Age of Every Continent. *Visual Capitalist.*

[3] The Economist. (Aug 10, 2019). A booming population is putting a strain on Africa's universities. *The Economist.*

[4] The Economist. (May 26, 2020). Africa's population will double by 2050. *The Economist.*

[5] The Economist. (May 26, 2020). Africa's population will double by 2050. *The Economist.*

[6] The Economist (March 26, 2020). Migration is helping Africa in many ways. *The Economist.*

[7] The Economist (March 26, 2020). Migration is helping Africa in many ways. *The Economist.*

[8] The Economist. (Sep 23, 2021). Unpicking inequality in South Africa.

[9] Stats SA. (2020). Measuring the progress of development in SA.

[10] Marcatelli, L.; Büscher, B. (2019). Liquid Violence: The Politics of Water Responsibilisation and Dispossession in South Africa. *Water Altern* 12, pp 760-773.

[11] Marcatelli, L.; Büscher, B. (2019). Liquid Violence: The Politics of Water Responsibilisation and Dispossession in South Africa. *Water Altern* 12, pp 760-773.

[12] Redfield, P. (2022). Shacktopia: The Meantime Future of Humanitarian Design. *Social Anthropology/Antropologie Sociale* 30(2), 16-33.

[13] Zora Kovacic, Josephine Kaviti Musango, Kareem Buyana, Amollo Ambole, Suzanne Smit, Baraka Mwau, Madara Ogot, Shuaib Lwasa & Alan Brent. (2021). Building capacity towards what? Proposing a framework for the analysis of energy transition governance in the context of urban informality in Sub-Saharan Africa. *Local Environment* (26) 3, pp 364-378.

[14] Visit MapKibera.org for more about their community mapping initiatives.

[15] Meredith, T., & MacDonald, M. (2017). Community-supported slum-upgrading: Innovations from Kibera, Nairobi, Kenya. Habitat International, 60, 1–9.

[16] Mitra, S., Mulligan, J., Schilling, J., Harper, J., Vivekananda, J., and Krause, L. (2017). Developing risk or resilience? Effects of slum upgrading on the social contract and social cohesion in Kibera, Nairobi. *International Institute for Environment & Development (IIED)* 29 (1). Pp 103-122.

Attributions:

“Making Africa a Population Asset”, Africa Progress Group Report (2020), CC BY SA 3.0.

“Empowerment of Women” by Max Roser via Our World in Data, CC BY 4.0.

“Africa’s Cities: Opening Doors to the World” by The World Bank (2017), CC BY 3.0.

"Emancipatory Map Making" by Erica Hangen, Julian Stanmanns, and Till Straube in *This Is Not An Atlas* (2018), CC BY 4.0.

"Living in the Edge of the City in Post-Apartheid South Africa" is adapted from Water 'Apartheid' and the Significance of Principles of Affirmative Action in South Africa by Ademola Oluborode Jegede and Pumzile Shikwambane, CC BY 4.0 and Southern Africa in *World Regional Geography* by the University of Minnesota, CC BY NC SA 4.0.

This page titled 3.4: Young and Rapidly Urbanizing Populations is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio & Jason Scott.

3.5: The Ongoing Scramble for Africa

Learning Objectives

1. Describe how the conventional ways we describe wealth and poverty underestimate Africa.
2. Explain the resource curse thesis and why many African countries are particularly vulnerable to it.
3. Explain the African democracy gap.
4. Compare and contrast the first and second scramble for Africa and their enduring legacies.
5. Describe the characteristics of a third scramble for Africa and how it mirrors patterns of the past
6. Define carbon inequity, climate vulnerability, and climate resilience in the context of African countries.

Plundered Wealth

The image most people have of African countries is one of poverty. By the conventional ways wealth and poverty are measured, Africa south of the Sahara is the world's poorest region. The region produces about 3 percent of the world's **gross domestic product (GDP)**,[1] a measurement of the monetary worth of economic goods and services produced and traded within a country. African countries south of the Sahara have the highest **extreme poverty rates,** defined as the share of the population earning less than $1.90 per day. While extreme poverty is decreasing in most countries, including many in Africa, defining poverty at such extremes should be questioned, as people earning, say, $2.50 per day still experience acute deprivations. There is growing consensus among economists that broader thresholds are needed for best gauging the global progress in eradicating poverty.[2] Because poverty affects a person's access to health, education, risks, and opportunities, a single measure is insufficient. For this reason, the Oxford Poverty and Human Development Initiative utilizes 10 indicators (including income, education, electricity, water, and sanitation) combined into a weighed **Multidimensional Poverty Index** to capture the world's poor in the context of a myriad of deprivations. In this more holistic measure, the same geographic pattern persists: deprivation impacts millions large shares of the population in Africa. Globally, this expanded multidimensional snapshot portrays a world in which deprivation is much broader and the share of the global poor is approximately 50 percent higher than what is defined by income measures alone.[3]

Conventional ways of measuring wealth and poverty can be problematic. First, the gross domestic product per person tends to mask the economic reality of most people because it produces an average figure that does not account for inequality. For example, South Africa has the highest GDP per person in the region, but it is also considered the world's most unequal country. In 2019, the richest 10 percent of South Africans held more than half of the national income.[4] Furthermore, many African economies are growing rapidly in terms of their GDP, but rates of poverty reduction are not mirroring this growth. This suggests economic growth is not necessarily reaching the poor. The GDP is also misleading because it does not record the **informal economy** which consists of non-recorded everyday economic activities. It is estimated that Africa has the largest informal economy in the world, and most economic output and employment in African countries is informal.[5] Lastly, even purchase parity calculations in our conventional measures cannot fully grasp the wide differences in cost of living, standards of living, and lifestyles in the world.[6] The World Bank, for example, often gauges urban infrastructure through access to toilets. Flushing toilets are wasteful devices in countries where water is scarce. Latrines, or pits on the ground, are water efficient and effective at preventing contamination and dismissing them distorts the reality of global sanitation. Thus, in one way or another, may it be via the GDP or toilets, our conventional ways to gauge poverty and wealth tend to underestimate Africa.

Africa is rich. It has a growing workforce, booming entrepreneurship, high levels of biodiversity, and substantial petroleum reserves. The region is among the world's richest when it comes to its natural resources, standing as a geological vault for close to one third of the world's minerals. Africa has most of the world's reserves of chromite, tantalite, cobalt, gold, phosphates, and platinum and produces most of the world's diamonds, platinum, and cobalt.[7] Petroleum, too, is the backbone of many African economies, and despite the planetary havoc of burning fossil fuels, it remains the world's primary source of energy. Why is it then that such precious natural resources make Africa rich by our conventional measures while at the same time large shares of the African people remain poor (by those same measures)? The answer is complex and beyond Africa. It is estimated that the majority of the world's poor live in countries that are resource rich, where oil and minerals play an important role in the national economy.[8] For example, in Nigeria and Angola, the two largest oil exporting economies, large shares of the population remain

poor. The Democratic Republic of Congo, containing vast mineral wealth with estimated worth in the trillions of dollars, remains entrenched in conflict and as one of the world's poorest countries. Economists have long generalized this phenomenon as the **resource curse**, or the tendency of resource rich countries to reproduce poverty, conflict, and instability. It is a wealth paradox.

"The curse" is not a universal phenomenon and does not singularly explain why countries experience conflict, instability, or hunger. In Kenya, for example, resource industries are a minimal part of the economy, but poverty and conflict still occur. The resource curse is also not the product of an inexplicable spell but what tends to happen in many countries that rely on exporting oil and minerals. Something like this: First, the nation experiences a boom in exports of natural resources, which increases incomes and the prices of domestic non-natural-resource goods. This results in greater imports of cheaper goods from abroad which hurts domestic manufacturing and agriculture. This decline of other important parts of the economy can lead to an economic dependency on natural resources. Second, oil and mineral price volatility can put countries in and out of recessions, creating economic instability and hindering growth. Third, the revenue that is generated from oil and mineral exports largely comes from selling licenses to foreign companies to pump and mine by paying economic rents directly to governments controlling the resources. At its worst, this extractive and centralized scheme is accompanied by rampant corruption by government leaders, tax evasion by companies, and wealth accumulation by elites. Put together, these factors have been the focus of much scholarly work[9] looking to dispel Africa's resource curse as a systemic looting that funnels profits from the land to both domestic and international actors.[10] [11] In this section, we will introduce some of these factors as they shape an ongoing scramble for Africa.

Legacies of Colonialism

Extractive economies

Many of the contemporary challenges in Africa today are rooted in the continent's colonial history. As discussed in Section 3.3, colonial borders and their dynamics outlived colonization, fragmenting historic ethnic homelands and shaping devastating ethnopolitical conflicts. The economic impacts of the protocolonial and colonial period also cannot be underestimated. For example, in the North American colonies alone, Europeans profited from an exorbitant number of hours of forced free African labor estimated to be worth more than the total of today's global economy.[12] Perhaps it is meaningless to attempt to quantify the plunder in trillions of dollars, as even the highest estimates are meager in the face of the suffering and enduring socioeconomic impacts of slavery.[13]

Even as the slave trade was abolished and begun to wane, slavery had established an economic model for the region based on extraction of Africa's economic assets. A model that shifted from extracting bodies to extracting minerals and raw materials.[14] It was the prospecting of Africa's natural wealth that led Europeans to rush to partition Africa into colonies in the **first scramble for Africa**. European colonizers were largely focused on exporting mineral and agricultural goods, with little attention to or investment in local development or connectivity. When rail lines were built in Africa, they were generally constructed to simply take resources from the interior to the coastal ports without concern for developing regional linkages. Local communities which may have previously practiced subsistence agriculture were shifted to export-oriented crops destined for European markets. This extractive relationship was based on an uneven exchange for manufactured goods from Europe. Consequentially, African markets were flooded with high value imported goods and indigenous production collapsed, resulting in a resource dependent economic model that persists in most of the region to this day.

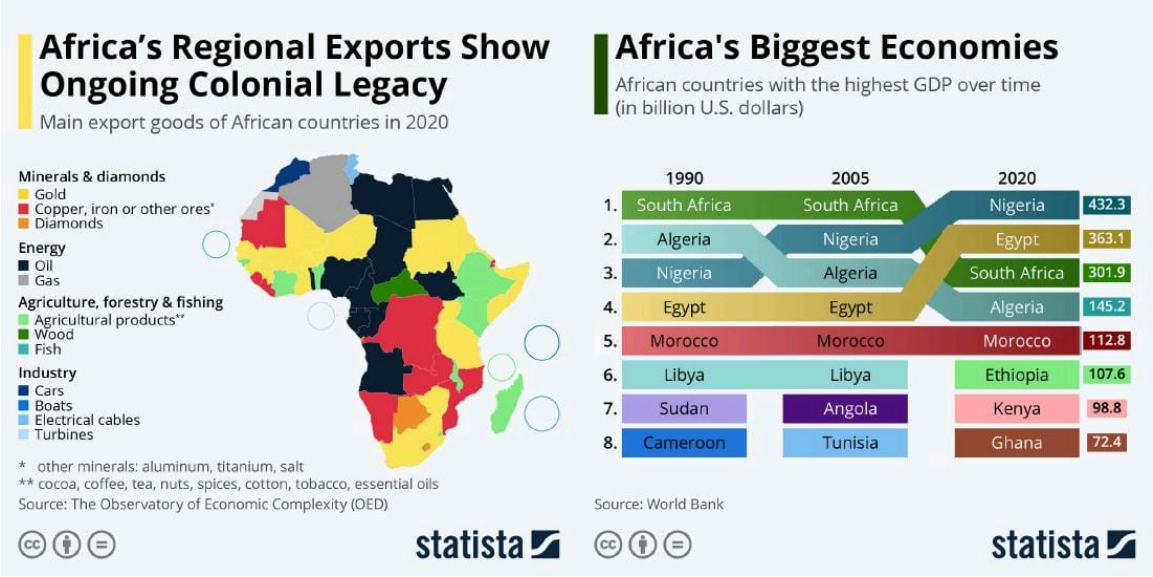


Figure 3.5.1: [left] Africa's regional exports show ongoing colonial legacy. Main export goods of African countries in 2020 (*other minerals include aluminum, titanium, and salt; agricultural products include cocoa, coffee, tea, nuts, spices, cotton, tobacco, and essential oils). Minerals, oil, and agricultural products are the most valuable exports of African countries south of the Sahara. This resource dependency is part of a colonial legacy where economic relations and physical infrastructure were established on the basis of extraction (CC BY-ND; Statista). [right] Africa's biggest economies: African countries with the highest GDP over time (in billion U.S. dollars) from 1990-2020. The world economy is largely controlled by a few countries. The US, China, Japan, and Germany alone account for half of the global GDP. Nigeria and South Africa are the only two African countries south of the Sahara that rank amongst the world's fifty largest economies (CC BY-ND; Statista).

The inheritance of authoritarianism

Nearly all African countries gained their independence during the Cold War. The struggle for control between the ideologies of the US and the Soviet Union shaped the **second scramble for Africa.** During the cold war, the US and allies and the Soviet Union backed many African **dictators**, government leaders who exercise absolute power. This foreign meddling played an important role in the chaotic beginnings of African states. For example, colonial powers like Britain helped rig elections in Kenya and Nigeria to assure that political allies would come to power, effectively corrupting attempts at political sovereignty.[15] Some of these newly "elected" leaders would rely on inherited authoritarian colonial practices upholding legal and economic systems for the benefit of the ruling few while legitimizing their authority through violence and repression. Decades after African independence were also marked by US or Soviet-backed **coups**, defined as the illegal overthrow of governments and their powers. It is estimated that between 1950 and 2010, the region experienced 87 coups,[16] many of which were violent and sponsored by outside interests.

Angola's post-war landscape: landmines, biodiversity, and oil

The ideological struggle of outside powers over Angola was an underlying force in Angola's war for independence (1961-1974) and the subsequent civil war (from 1975-2002). During this civil war, the US, South Africa, and other allies supported UNITA rebels fighting against the Soviet-Cuban backed MPLA government. Each side was part of a **proxy war** fought under the influence of competing foreign powers. While the war has ended two decades ago, Angolans continue to live with the imminent dangers of a war landscape with thousands of planted landmines left behind from the decades of conflict. The landmines are violent remnants of outside forces, manufactured in dozens of different countries and planted in Angola by competing military powers. It is impossible to know how many of these remain, but estimates speculate that there could be hundreds of thousands of unexploded landmines in Angola. Approximately 88,000 Angolans sustain injuries from exploded mines. The efforts to clear mines are dangerous, expensive, and time consuming. Non-profit organizations and state-led initiatives have joined efforts to demine Angola, inch-by-inch. It is estimated that these efforts half removed about half of the existing landmines, and Angola's government has set the goal to be mine-free by 2025.[27]

A National Geographic team of explorers identified the heavily mined interior Angolan highlands as of extreme value for wildlife conservation. It is part of the **Kavango-Zambezi Transfrontier Conservation Area (KAZA TFC)**, the largest network of conservation in the world set to protect a natural region that transcends the borders of Angola, Zambia, Zimbabwe,

Botswana and Namibia. Because wildlife knows no boundaries and many species migrate seasonally, a regional approach is often necessary to protect migratory species. For example, Angola's highlands are the primary source of the waters flowing into the **Okavango Delta** in Botswana, one of the largest and most biodiverse seasonal wetlands in the world at the heart of the KAZA TFC. The delta sustains large populations of cheetahs, lions, birds, wild dogs and the largest remaining population of the African elephant.[28] [29] Over forty years of conflict in Angola had severe impacts on elephant populations. Militias used poaching as a means of survival and sold elephant ivory to buy arms. With the war toll of human displacement in eastern Angola, elephant populations began to bounce back and reclaim territory and so did subsistence farmers. On one hand, the elephants threaten surrounding subsistence agricultural plots and property.[30] On the other hand, the restoration of wildlife creates attractive new economic opportunities for conservation-based local economies and wildlife tourism.[31] But eastern Angola remains one of the most heavily mined places in the world, disproportionately impacting the rural poor whose livelihoods are intertwined with mine-laced landscapes. Having such large parts of the country unsafe for people and wildlife hinders movement and economic possibilities for Angolans to derive their livelihoods from agriculture or wildlife conservation. Thus, mine removal is a first step towards expanding possibilities for sustainable livelihoods in an oil-dominated economy that employs few. Diversifying economic opportunities is an antidote to Angola's resource curse.

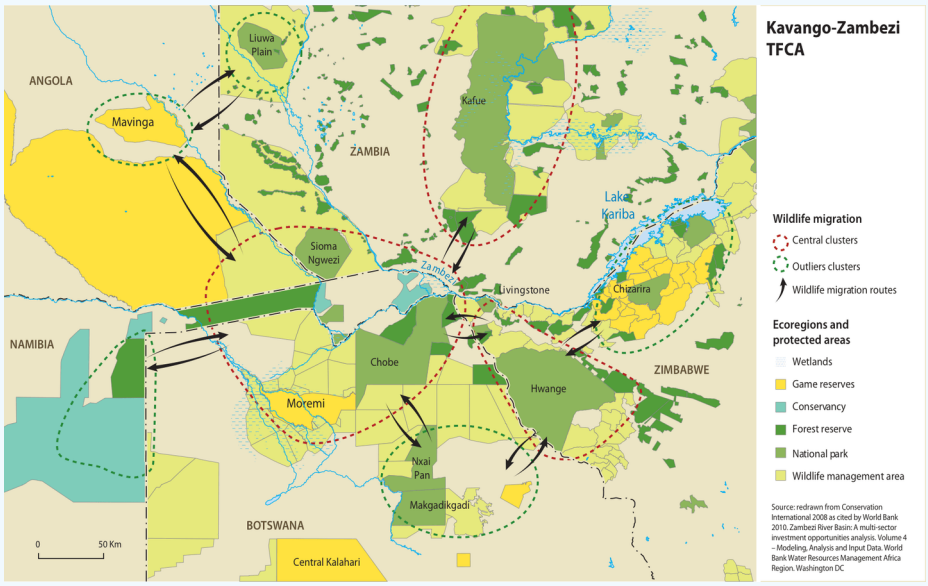


Figure 3.5.2: The KAZA Transfrontier Conservation Area (TFCA) covers 287,000 square kilometers, a natural region that joins Angola, Zambia, Zimbabwe and Namibia.Thirty-six protected areas including national parks, game reserves, community conservancies and game management areas are included, merging fragmented wildlife habitats into an interconnected mosaic of protected areas and transboundary wildlife corridors to allow the free movement of animals across international boundaries (CC BY-NC-SA 2.0; via GRID-Arendal).

Despotic leaders and coups are less common today than they were during the Cold War. The transfer of power in African countries in recent years has been largely peaceful and democratic. Yet, measuring democracy gains can be challenging because there is no universal definition of what constitutes a democracy. Most definitions would include a majority rule, free and fair elections, equality before the law, due process, political pluralism, and respect for basic human rights. Thus, reputable attempts to measure how well democracies are doing tend to look at these characteristics as a set of vital signs aggregated into an **index.** One of the most widely used democracy indexes comes from the Freedom House Organization. Their annual Freedom in the World Reports measure democracies by combining 10 indicators of political freedoms and 15 indicators of civil liberties[17]. From the combination of scores across these indicators, Freedom House ranks countries as either *free, partially free,* or *not free*. According to their 2022 Report, only seven percent of Africans live in **free countries** (South Africa, Namibia, Botswana and Ghana), places where individuals enjoy political rights and civil liberties. Like global patterns, the last decade is marked by a decline of democratic governance in much of Africa, especially in Mali, the Central African Republic, and Burundi. Overall, Freedom House designates most countries south of the Sahara as *not free*[18] (see Figure 3.5.3).

The Democracy Index is another widely used comparative tool ranking democracies around the world. It rates democracies across sixty indicators measuring the electoral process and pluralism, the functioning of government, political participation, political culture, and civil liberties around the world.[19] Based on an aggregate measure, the 2021 Democracy Index categorized most African countries (23) as **authoritarian** (see Figure 3.5.3). In these countries, political pluralism is either absent or limited. In

Rwanda and Eritrea, for example, the ruling party has absolute control on all aspects of political life. Eritrea has never held an election and Rwanda's leader, Paul Kagame, has served as Rwanda's president since 2000. Other authoritarian countries may hold unfair elections with deeply flawed and corrupted processes. Autocrats also show a disregard for civil liberties and silence the opposition through repression and censorship. Some countries (14) fare a little bit better and are categorized as **hybrid regimes.** In these countries, elections do take place, but they are not free and fair. Hybrid regimes are also characterized by corruption and weak rule of law. Examples include Nigeria and Benin. By contrast, Botswana, South Africa, Namibia, and Ghana are categorized as **flawed democracies,** the same categorization for the United States and various Western European countries. These countries have free and fair elections and basic civil liberties but show weaknesses in governance and political culture and participation. The overall message from the Democracy Index is that there is a bleak democracy landscape in Africa south of the Sahara.[20]

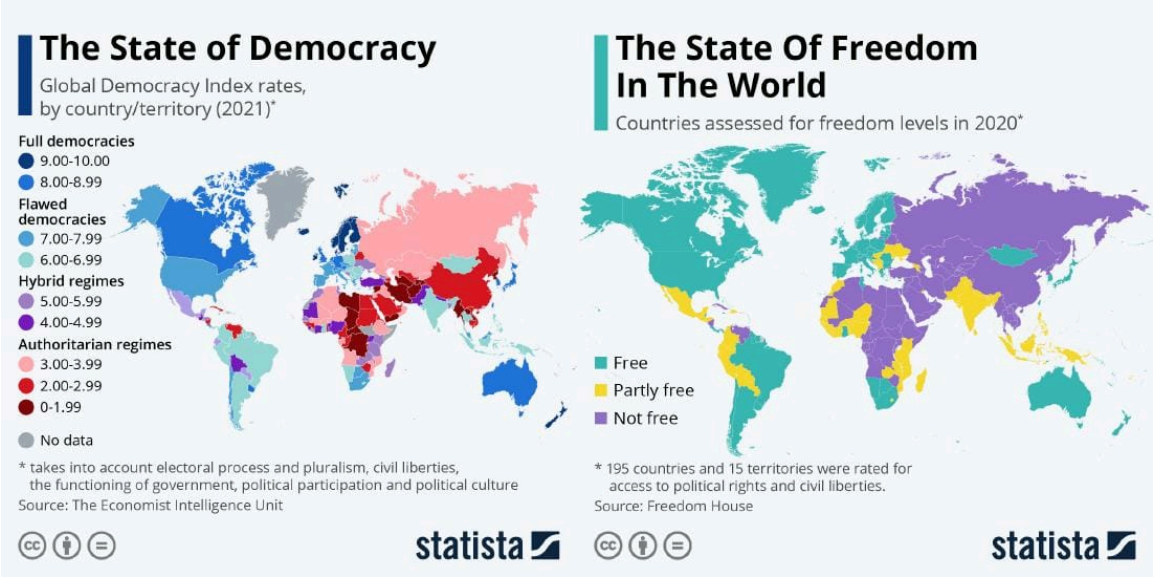


Figure 3.5.3: There are a number of ways that scholars try to understand how democracy is doing around the world. Indexes combine a series of indicators to provide a quantitative way of comparing countries. [left] The state of democracy: Global Democracy Index rates, by country/territory (2021). *Takes into account electoral process and pluralism, civil liberties, the functioning of government, political participation, and political culture. This categorizes the best-scoring countries as full and flawed democracies, symbolized in gradients of blue. Hybrid regimes are noted in purple and authoritarian regimes in red. Most countries in the world in 2021 were not democracies (CC BY-ND; Statista). [right] The state of freedom in the world: Countries assessed for freedom levels in 2020. *195 countries and 15 territories were rated for access to political rights and civil liberties. This illustration utilizes the Freedom House's assessment of freedom in the world to illustrate global differences in freedom. The majority of countries in the world are not considered free, including most countries in Africa South of the Sahara. World in Data provides interactive maps and charts of the Global Democracy Index and of Freedom in the World, for further exploration of how individual countries are doing and have done over time. The temporal patterns are grim, with democracies and global freedom on a consistent decline (CC BY-ND; Statista).

Africans want democracy

There is a gap between the autocratic regimes of Africa and the demand for democracy in Africa. The Afrobarometer provides a pulse of African opinion in 34 countries. According to different rounds of their surveys (2011-2013 and 2019-2021), a large majority of Africans consistently oppose one-person, one-party, or military rule and show strong support for democracy as "preferrable to any form of government."[21] Africans of all ages and levels of education reject leaders for life and support two-term presidential limits. In Gabon and Togo, two countries where a hereditary presidency has kept power within a single family for fifty years, the support for term limits is even higher. In all countries (except Lesotho) the majority prefer elections as a way of electing leaders. However, a recent decrease in support for elections shows disillusionment, especially with the malleability, irregularities, coercion, and violence that characterizes many elections.[22] Most do not believe their governments are handling corruption well and that corruption is getting worse.[23] The demand for accountability has substantially increased from the past Afrobarometer surveys, with most respondents agreeing that it is more important for the government to be accountable to the people and for presidents to "obey the laws and courts" even if the president "thinks they are wrong."[24]

Support for democratic governance is also expressed in courageous acts of protest and resistance to authoritarianism. In Chad, protesters demonstrated against President Deby's insistence on holding the presidency for a sixth term and continued to demand a return to civilian rule after his death in 2021. In South Africa, mounting discontent over cost of living, electricity, and corruption brought masses to protest in 2022. Both Ghana and Nigeria have had multi-sphere (digital and physical) social mobilizations in 2021. Ghana's #fixthecountry activists mobilized against unemployment, corruption, and military brutality. Journalists, too, brave repression promoting new broadcasting channels for anticorruption investigative reporting in Ghana and Benin.[25] These pro-democracy efforts are expressions of a strong public engagement and a desire for freedoms and inclusive institutions as a way to promote more just societies and better lives.

The resource curse does not help the African desire to boot autocrats. That is because most governments in Africa receive large shares of their tax revenues from natural resources, not income or property taxes. In Africa's biggest oil producer, Nigeria, only 4 percent of government revenue comes from taxing the people and about 85 percent comes from oil exports.[26] With petro-dollars flowing directly to government coffers, leaders feel less accountable to represent the interests of the people. Plus, an oil centered economy means that Nigeria is in and out of recession, depending on oil markets, and oil provides little economic benefits for Nigerians. For example, when Nigeria boasts high economic growth rates and increases its oil exports, unemployment in Nigeria continues to be high, especially for the youth. Autocrats also do not require popular support to fund their militaries and can leverage military muscle to remain in power. All of this results in lack of accountability and breeding grounds for corruption and reduced engagement with societal needs. But Nigerians remain committed to accountability. In 2021, the #endSARS movement sought to dismantle the Special Anti-Robbery Squad (SARS), a special police unit notorious for their impunity and brutality against Nigerian citizens. While #endSARS did not produce the change that young Nigerians had hoped, it sent a clear message that Nigerians want more democracy, not less.



Figure 3.5.4: Nigerians gather in protest in Africa's most populous city, Lagos, in October, 2020. Activists depicted hold the Nigerian flag and signs calling for the end of police brutality, killings, and robbery and also the end of corruption and injustice with the movement's hashtag #endSARS (both CC BY; Kaizenefi via Wikimedia Commons).

Scrambles 3.0?

China: Trading Partner or Neocolonial Power?

China's economic and political influence is a key characteristic of today's world. Nowhere else is this reality more evident than in Africa. Recently, China surpassed the United States as Africa's largest trading partner, and China has invested more in Africa than anywhere else outside of Asia. Djibouti, a small country in the Horn of Africa, is home to the only Chinese military base outside of China. The strategic location of Djibouti near to oil shipping routes coming from the Red Sea makes it desirable for military bases. It is here that both the US and Chinese militaries exist within close quarters. The presence of the two mightiest superpowers in a tiny African country is an acute example of how resources and power converge in exact locations connecting global and local scales in intricate ways. Djibouti is only one of the many strong footholds of the globalized US military. China's

exclusive military presence in Djibouti, however, is a window to China's leading role in broader shifts happening in the world.

The Chinese interest in resource-rich countries is not much different from the interests of western superpowers. China is an economic giant looking to secure access to oil, gas, and minerals and strategic ports to bolster its security and regional influence. China's strategy in Africa is part of the larger **Belt and Road Initiative (BRI),** a series of infrastructural investment projects looking to connect the economic giant to important resources and trading routes. It has been signed by 43 African countries and become a transformative force in the region. Take for example a tiny finishing village, Bagamoyo, in Tanzania. It is set to become Africa's largest port with billions of dollars of Chinese investment. On land, the East African railroad project is being built by a Chinese company in Kenya. It meant to connect the port city of Mombasa to Nairobi and eventually the rest of East Africa. The BRI represents an expanded Chinese investment and lending with no strings attached. This means that China does not get involved in Africa's governmental affairs and is willing to pour billions of dollars in infrastructural projects to access Africa's natural resources without the preconditions of political stability, transparency, democracy, or human rights. Given Africa's turbulent past with western influence and control, the "business only" approach is appealing. The African population is growing fast and urbanizing fast, more so than any region in the world. Chinese loans enable construction for much needed infrastructure to enhance extractive capabilities and boost trade and economic growth. [32]

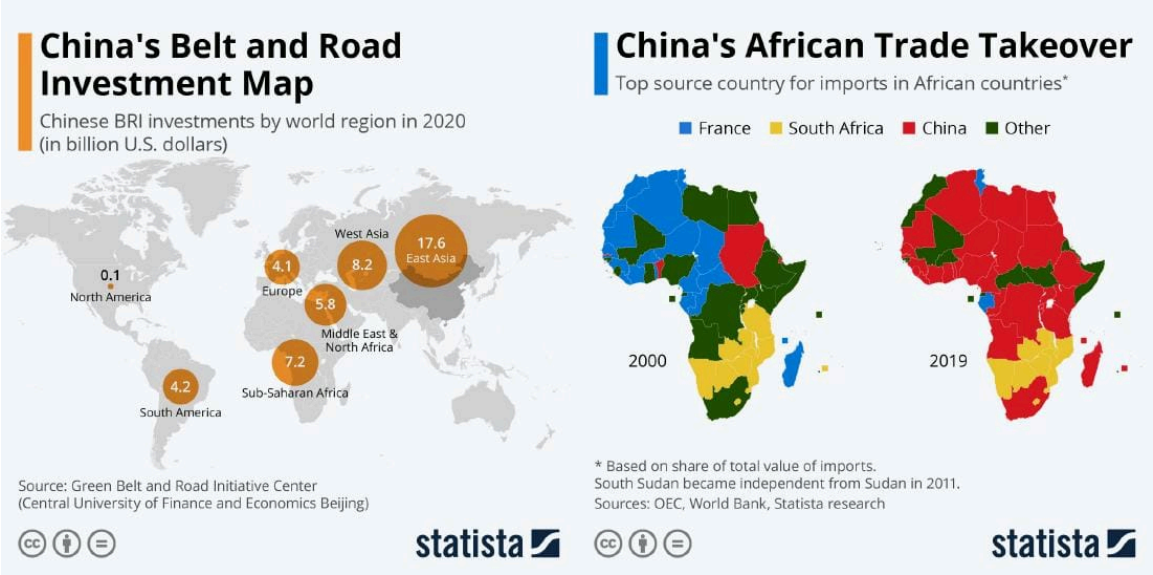


Figure 3.5.5: [left] China's Belt and Road Investment (BRI) map: Chinese BRI investments by world region in 2020 (in billions U.S. dollars). This map illustrate the global investments of China's Belt and Road Initiative (BRI). Note that Africa South of the Sahara has been the largest destination of Chinese monetary investments outside of Asia (CC BY-ND; Statista). [right] China's African trade takeover: Top source country for imports in African countries based on share of total value of imports between 2020 and 2019. Over the last two decades, China has substantially increased its trading with African countries. Note how from 2000-2019, China became the top source of imports for most African countries. *South Sudan became independent from Sudan in 2011 (CC BY-ND; Statista).

The Sino-African relationship has been subject of much scrutiny and speculation. There is no doubt that there are mutual benefits to the relationship. Yet, it is also undeniable that there is a great power imbalance when African countries meet the world's most populous nation and soon to be largest economy at the negotiating table. Some contend that China's willingness to borrow with favorable terms and low interest rates is a type of **debt diplomacy** because African nations are owing more and more to China. Others note that China is still mostly importing oil and minerals from Africa and that the increased cash flow props up authoritarian leaders and facilitates corruption. In doing so, it offers a new world order that is friendly to dictators. Angola is a good example of such critiques. Angola has borrowed more from China than any African country, and it has also become one of China's most important oil suppliers. Angola's autocrat, Jose Eduardo dos Santos, has been in power since 1979. Under his rule, billions of dollars have gone missing.[33] In Ghana, China might be seeing greater benefits from their relationship with one of Africa's few democracies paying obscurely low mining taxes in gold-rich Ghana. Chinese entrepreneurs have caught headlines for illegal mining operations, for abusive treatment of African workers, and for illegal fishing.[34]

What do Africans think? A 2019-2020 Afrobarometer survey suggests that Africans have positive views of China's influence in their countries. But when it comes to a developmental model, the majority in most African countries surveyed prefer a US-style democracy.[35] In other words, Africans value China's economic influence but still want democracy over authoritarian rule.

The Climate Burden

African countries carry a disproportionate burden of a global climate crisis. For decades, scientists warned that burning fossil fuels results in an accumulation of greenhouse gases in the atmosphere would disrupt global climate systems. Sea level rise, glacier melting, flooding, drought, loss of terrestrial and marine biodiversity, increased frequency and intensity of megafires and storms, heat waves, and increased uninhabitable land are all examples of the present and future impacts of climate change. Since the industrial revolution, African countries did not significantly contribute greenhouse gas emissions compared to European countries, the United States, and China. Since 1751, Africa south of the Sahara contributed a mere 2 percent of cumulative greenhouse gas emissions.[36] This is reflective of a deeply unequal world where the wealthiest 10 percent of the global population is responsible for more than half of the global greenhouse gas emissions. The global rich live everywhere in the world, but the US has the largest population of rich people.[37] Yet, it is the poorest people around the world, largely in Africa and Asia, that are disproportionately impacted by the adverse effects of climate change.

There is a myriad of ways to explore this disproportionate climate burden. Often, economic measures are used since there is no doubt that climate disasters pose economic costs. A global warming of 2°C is predicted to have a greater economic impact on poor countries with large projected GDP losses in Africa, especially those along the Sahel.[38] The World Bank estimates that business as usual means that 100 million more people will dip below the poverty line by 2030, exacerbating already acute deprivations in Africa and beyond.[39] Nigeria, the nation with the largest number of people living below the poverty line today, could see an additional 15 million people slip into extreme poverty.[40] These economic impacts are exacerbated because of the prohibitive costs of adapting to climate change. Countries unable to invest in technology and infrastructure experience greater **climate vulnerability.** Being vulnerable to climate change means being more likely to be adversely affected due to susceptibility to harm and lack of capacity to cope and adapt. A 2022 report from Intergovernmental Panel on Climate Change (IPCC) noted that human mortality from floods, droughts, and storms was much higher in regions identified to have high climate vulnerability. It also identified Africa south of the Sahara as a vulnerability hotspot due to intersecting factors that worsen climate risks like high instances of poverty, political instability, and conflict. Additionally, large populations of farmers, pastoralists, and fishing communities rely directly on natural resources for their livelihoods.[41] When environmental conditions cannot support livelihoods, people must flee. Climate-related migration is already happening all over the world. The World Bank projects that Africa South of the Sahara will see the largest number of displaced peoples due to climate change (see Figure 3.5.6). Considering these factors makes it clear that African countries face an environmental context that is economically burdensome.

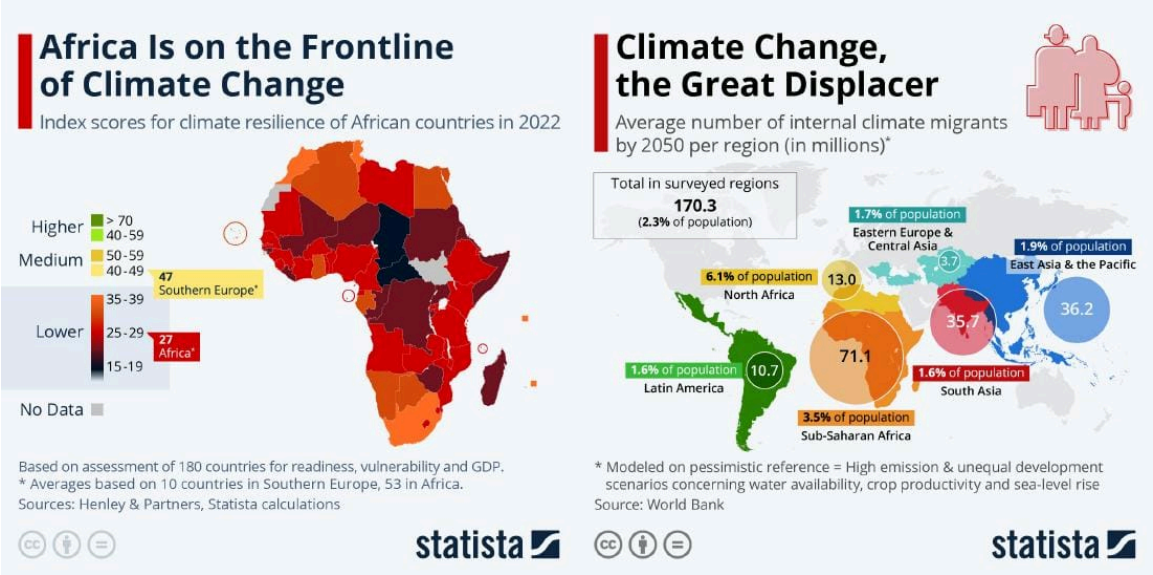


Figure 3.5.6: African countries are on the frontlines of climate change in terms of vulnerability and the projected displacements already happening due to climate change. [left] Index scores for climate resilience of African countries in 2022 based on an assessment of 180 countries for readiness, vulnerability, and GDP. *Averages based on 10 countries in Southern Europe, 53 in Africa. The map shows that all African countries have low climate resilience, or the ability to adapt to the rapidly changing climate (CC BY-ND; Statista). [right] Climate change, the great displacer: Average number of internal climate migrants by 2050 per region in millions. *Modeled on pessimistic reference = High emission and unequal development scenarios concerning water availability, crop productivity, and sea-level rise by the World Bank. Climate change is projected to uproot millions of people around the world. Based on these projections, Africa South of the Sahara will see the largest displacement, with over 70 million people pushed to migrate for climate-related reasons. This is more than double the displacement projected for South Asia or East Asia and the Pacific (CC BY-ND; Statista).

Toward climate resilience: The Great Green Wall and Green Energy

The Sahel region faces high levels of climate vulnerability. Sahelian populations are intimately dependent on the land, as 70–92 percent depend on agriculture and/or livestock for their livelihoods. Most of the agriculture is rainfed, thus agricultural productivity is vulnerable to the low and highly variable rainfall typical of the region. Due to climate change, temperatures are expected to increase 3–6 °C up until the end of the twenty-first century, causing significant reduction in crop yields. At the same time, rainfall patterns are changing in unpredictable ways with indications of a shorter rainy season and extended droughts, making agriculture more challenging. Combined with topsoil degradation due to intensive agriculture and overgrazing, previously fertile lands are being engulfed into a desert, a process known as **desertification.** The environmental changes in the Sahel are of particular concern because of the other volatilities already existent in the region. Sahelian states have among the highest levels of multidimensional poverty, population growth, and ongoing political instability and conflict in the world.

The Great Green Wall (GGW) is a monumental reforestation effort to halt land degradation and restore the Sahel. It is a multibillion-dollar initiative involving a range of stakeholders including national governments, international organizations, the business sector, and civil society. Its origins can be traced back to Thomas Sankara, a pan-African theorist and Burkina Faso's former president (1983-1987) who led efforts to combat desertification in his own country. By 2007, the idea of an African Green Wall had been resurrected and was adopted by 11 founding members at the conference of Heads of State and Government of the African Union. Since then, the project is 15 percent complete. It envisions to plant millions of trees along the Sahel with the aim to restore millions of hectares of degraded land by 2030 and improve livelihoods. This innovative solution is geared towards improving **climate resilience** by building the capacity of a social-ecological system to adapt and transform in the face of change to support human and environmental well-being. It reflects an ambitious long-term policy vision of a green, fertile, and prosperous Africa. The GGW could also be a potential catalyst in promoting closer collaboration between countries by strengthening solidarity among Sahelian states to combat the enormous social and ecological challenges of the region.

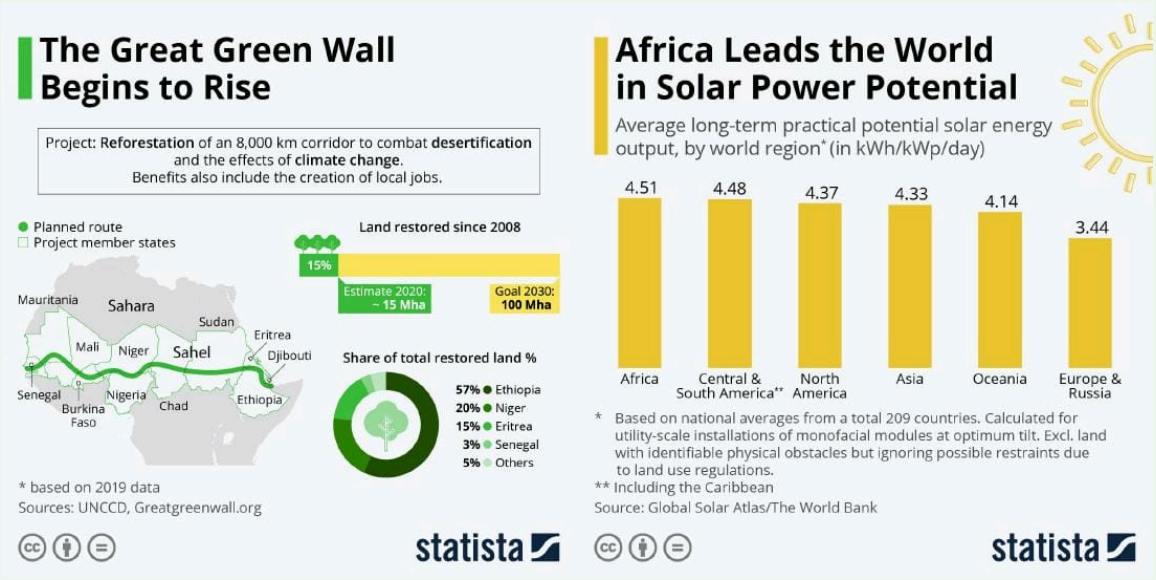


Figure 3.5.7: [left] The Great Green Wall Initiative is a pan-African reforestation effort looking to combat deforestation and the effects of climate change by planting millions of trees from Senegal to Djibouti. About 15% of the targeted geographical area has been restored, about 57 percent of the restored lands are in Ethiopia followed by Niger (20%) and Eritrea (15%). Project: Reforestation of an 8,000km corridor to combat desertification and the effects of climate change. Benefits also include the creation of local jobs (CC BY-ND; Statista). [right] Africa leads the world in solar power potential: Average long-term practical potential solar energy output, by world region in KwH/kWp/day). While renewable energy generation represents only 9 percent of African energy generation, there is great capacity for renewables to become a greater part of the energy grid. According to the World Bank's Global Solar Atlas, Africa leads the world in solar power potential, an untapped opportunity that could improve access to reliable energy improving the lives of millions of people. *Baed on national averages from a total of 209 countries. Calculated for utility-scale installations of monofacial modules at optimum tilt. Excluding land with identifiable physical obstacles by ignoring possible restraints due to land use regulations. Central and South America includes the Caribbean (CC BY-ND; Statista).

References:

[1] Statista. (2022). Share of global regions in the gross domestic product (adjusted for purchasing power) in 2021.

[2] Kochhar, R. (Jul 8, 2015). A global middle class is more promise than reality. Pew Research Center.

[3] The World Bank. Multidimensional Poverty Measure.

[4] Our world in Data. (2021). Income shares of the top 10 percent.

[5] Medina L., Jonelis, A. and Cangul, M. (2017). The informal economy in Sub-Saharan Africa: size and determinants. *International Monetary Fund Working Paper.*

[6] Ofori-Amoah. (2020). This is Africa. In *Africa's Geography: Dynamics, Place, Cultures, and Economies.* New Jersey: Wiley, pp 8-9.

[7] Ofori-Amoah. (2020). Mineral and Energy Production. In *Africa's Geography: Dynamics, Place, Cultures, and Economies.* New Jersey: Wiley, pp 449-451.

[8] Burgins, T. (2015). A Curse of Riches. In *The Looting Machine: Warlords, Oligarchs, Corporations, Smugglers, and the Theft of Africa's Wealth.* New York: Public Affairs.

[9] Badeeb, R., Lean, H., and Clark, J. (2017). The evolution of the natural resource curse thesis: A critical literature survey. *Resources Policy* 51, pp 123-134.

[10] Burgins, T. (2015). A Curse of Riches. In *The Looting Machine: Warlords, Oligarchs, Corporations, Smugglers, and the Theft of Africa's Wealth.* New York: Public Affairs.

[11] Henri, P. A. O. (2019). Natural resources curse: A reality in Africa. Resources policy, 63, 101406.

[12] Hickel, J. (Nov 2015). Enough of aid: Let's talk reparations. The Guardian.

[13] Michalopoulos, S., & Papaioannou, E. (2020). Historical legacies and African development. *Journal of Economic Literature*, *58*(1), 53-128.

[14] Michalopoulos, S. and Papaioannou, E. (Jul 30, 2021). European Colonialism in Africa is Alive. *Project Syndicate*.

[15] Cheeseman, N. and Fisher, J. (Oct 31, 2019). How colonial rule predisposed Africa to fragile authoritarianism. *The Conversation*. The summary from the authors is based on their book (2019) *Authoritarian Africa: Repression, Resistance, and the Power of Ideas*.

[16] Devermont, J. and Temin, J. (Jul/Aug 2019). Africa's democratic moment? The five leaders who could transform the region. *Foreign Affairs*.

[17] Each country and territory is assigned between 0 and 4 points on a series of 25 indicators, for an aggregate score of up to 100. Political rights are grouped into three subcategories: Electoral Process, Political Pluralism and Participation, and Functioning of Government. Civil liberties are grouped into four subcategories: Freedom of Expression and Belief, Associational and Organizational Rights, Rule of Law, and Personal Autonomy and Individual Rights. The totals are weighted equally to determine whether the country or territory has an overall status of Free, Partly Free, or Not Free. For full methodology, access Freedom House 2022 Methodology Notes.

[18] Freedom House. (2022). Freedom in the world 2022: The global expansion of authoritarian rule.

[19] The Economist Intelligence Unit's index of democracy, on a 0 to 10 scale, is based on the ratings for 60 indicators, grouped into five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture. Each category has a rating on a 0 to 10 scale, and the overall Index is the simple average of the five category indexes. The category indexes are based on the sum of the indicator scores in the category, converted to a 0 to 10 scale. See full methodology notes on pages 67-79 of the report cited below (19).

[20] The Economist Intelligence Unit. (2021). Democracy Index 2021: The China challenge.

[21] Gyimah-Boadi, E., Logan, C., & Sanny, J. (2021). Africans' durable demand for democracy. *Journal of Democracy* 32 (3), pp 136 – 151.

[22] M'Cormack-Hale, F. and Dome, M. (Sep 16, 2022). Support for elections weakens among Africans; many see them as ineffective in holding leaders accountable. *Afrobarometer Dispatch No. 551*.

[24] See 20.

[25] See 20.

[26] Burgins, T. (2015). Incubators of Poverty. In *The Looting Machine: Warlords, Oligarchs, Corporations, Smugglers, and the Theft of Africa's Wealth*. New York: Public Affairs.

[27] Vandome, C. (June 2019). Mine Action in Angola: clearing the legacies of conflict to harness potential peace. *Chatam House: The Royal Institute on International Affairs*.

[28] National Geographic. Okavango Wilderness Project.

[29] C.R. Thouless, H.T. Dublin, J.J. Blanc, D.P. Skinner, T.E. Daniel, R.D. Taylor, F. Maisels, H. L. Frederick and P. Bouché (2016). African Elephant Status Report 2016: an update from the African Elephant Database. Occasional Paper Series of the IUCN Species Survival Commission, No. 60 IUCN / SSC Africa Elephant Specialist Group. IUCN, Gland, Switzerland. vi + 309pp.

[30] Calle, A., Bradley, M., Corley, M., & Kriner, E. (2021, December). Predicting the Likelihood of Human-Elephant Conflict and Assessing Patterns in Human-Elephant Conflict & Movements Over Varying Habitat Conditions in the Kavango-Zambezi Area. In *AGU Fall Meeting Abstracts* (Vol. 2021, pp. GC25B-0659).

[31] Van der Meer, E., Badza, M. N., & Ndhlovu, A. (2016). Large carnivores as tourism flagship species for the Zimbabwe

component of the Kavango Zambezi Transfrontier Conservation Area. *African Journal of Wildlife Research*, *46*(2), 121-134.

[32] The Economist. (May 20, 2022). Chinese loans and investment in infrastructure have been huge.

[33]

[34] The Economist. (May 22, 2022). The price of friendship.

[35] Appiah-Nyamekye Sanny, J. and Selormey, E. Africans regard China's influence as significant and positive, but slipping. *Afrobarometer* Dispatch No. 407.

[36] Our World in Data. (2017). Who has contributed most to global CO2 emissions? Cumulative carbon emissions over the period 1751-2017.

[37] Roston, R., Kaufman, L., and Warren, H. (Mar 23, 2022). How the world's richest people are driving global warming. *Bloomberg*.

[38] Our World in Data. Economic impacts of 2°C. Based on projections from Pretis, Schwarz, Tang, Haustein, and Allen. 2018. "Uncertain Impacts on Economic Growth When Stabilizing Global Temperatures at 1.5°C or 2°C Warming". *Philosophical Transactions of the Royal Society*.

[39] Jafino, B., Walsh, B., Rozenberg, J., and Hallegatte, S. (Sep 2020). Revised estimates of the impact of climate change on extreme poverty by 2030. *The World Bank Climate Change Group & Global Facility for Disaster Reduction & Recovery*.

[40] Our World in Data. Additional people at risk of extreme poverty with high climate adaptation challenges, 2022 – 2030. Based on projections from Cuaresma, J. C., Fengler, W., Kharas, H., Bekhtiar, K., Brottrager, M., & Hofer, M. (2018). Will the Sustainable Development Goals be fulfilled? Assessing present and future global poverty. *Palgrave Communications*, 4(1), 29.

[41] IPCC, 2022: Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3–33.

Attributions:

Conventional measures of poverty are informed by the World Bank. 2018. Poverty and Shared Prosperity 2018: Piecing Together the Poverty Puzzle. Washington, DC: World Bank, CC BY 3.0.

"The Great Green Wall" is adapted from Goffner, D., Sinare, H. & Gordon, L.J. (2019). The Great Green Wall for the Sahara and the Sahel Initiative as an opportunity to enhance resilience in Sahelian landscapes and livelihoods. *Reg Environ Change* **19**, pp 1417–1428, CC BY 4.0.

This page is also adapted from World Regional Geography by Caitlin Finlayson, CC BY-NC-SA 4.0.

This page titled 3.5: The Ongoing Scramble for Africa is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio & Jason Scott.

4: SOUTHWEST ASIA AND NORTH AFRICA

Re-framing Southwest Asia and North Africa (SWANA)

When we define a region there are physical barriers and borders like mountain ranges and oceans, cultural distinctions like shared languages and religions, as well as historical reasons at the heart of the regional definition. Like with other world regions, each one of the places within Southwest Asia and North Africa (SWANA) has its own unique history, culture, and physical landscapes.

Although Islam, both Sunni and Shi'a, are dominant there are a multitude of other religious practices in this region. For example, Iran is a country predominantly identified with Shi'a Islam but is also home to traditions of Sufism, Judaism, Bahaism, Zoroastrianism, and Christianity. Minority groups are often overshadowed by majority groups giving the appearance of wholeness when in fact the whole is made up of diverse groups. Homogenizing a region in phrases like the East, "Arab World," or "Muslim World" is inaccurate and dangerous. The dangers of monolith logic or the homogenization of any region are that it threatens the dignity of the diverse cultures, histories, and geographies of a region. For the purposes of this textbook the world region of SWANA extends from the Atlantic to the Indian oceans. SWANA countries border the Mediterranean, Red, and Arabian seas as well as the Persian Gulf. The region includes seventeen unique countries (see Figure 4.3).

When you hear the term "Middle East" what comes to mind? For many North Americans several images might dominate your geographical imagination: large expansive deserts, a dry climate, women in black shrouds, and men in turbans might be a few ideas that spring forward. If you were to spend a bit more time thinking about it you might add Islam, fundamentalism, and oil. Let's unpack these broad strokes, generalizations, or stereotypes. Firstly, "Middle East" in relation to where? "Middle East" is only correct in relation to Europe and suggests that Europe is where geography begins and ends. This geographical tactic concretizes Europe as the center of the world. A less Eurocentric way to name this region of the world is Southwest Asia and North Africa (SWANA) because it uses the originating continent as its reference point.

In this chapter we acknowledge the existence, struggles, and resistances of indigenous people in SWANA. Indigenous peoples of Iran for example include Azeris, Kurds, Lurs, Baluch, and Arabs, Turkmen and other Turkic tribes, Armenians, Assyrians, and Afro-Iranians. Ethnic minorities named above are often unaccounted for in the state census. One of the most marginalized groups in Iran are the Dom who migrated from the Indian sub-continent in the 6th century. The Dom often live in quarantined areas with the majority of Dom, some 2.2 million people, living in southern Iran.

False polarization refers to the phenomenon of people perceiving a situation or issue as being more divisive than it is. This can occur when people are exposed to media that portrays two sides of an issue as being fundamentally opposed to one another, even if there is significant overlap or common ground between them. False polarization can lead to increased hostility and tension between groups and can make it more difficult to find common ground. Psychologists understand false polarization as a cognitive bias that functions to reduce cognitive dissonance (when belief and action are inconsistent) by assuming someone else's views are more extreme than our own. In this case, the differences between SWANA and the west are often exploited for political and economic gain. The Pew Research center conducted a survey of traits associated with Muslims by westerners. They found that "fanatical, "honest", and "violent" were the top three while Muslims associated "selfish," "violent," and "greedy" with westerners most often.

The concept of **orientalism** is critical for a discussion of SWANA. Orientalism is a way of thinking and acting that assumes that the cultures and societies of SWANA are inherently inferior to those of the West. It is a form of racism and cultural imperialism that involves stereotyping, fetishizing, and exoticizing these regions and their people. Orientalism is often evident in the way that people from these regions are portrayed in media, literature, and other forms of cultural production, and it can have real-world consequences in terms of how people from these regions are treated and perceived by others.

Edward Said, the Palestinian-American literary critic, authored a book in 1978 titled "Orientalism". This seminal text has gone on to influence and spark complex investigations into how and why Europeans and North Americans conceptualize and represent SWANA the way they do. The first place to begin is with the term **othering.** Art and paintings more specifically have had a profound impact on how this region of the world was depicted from a **Eurocentric** perspective (see Figure above).

Centering Europe and decentering the rest of the world is a tactic that creates hierarchy and points of comparison. Processes of othering and imperialism are fundamental to structuring relations of power not only between races but between classes, genders, sexualities, and those who are labeled as different than the norm.
How then did Said define **othering?**

Othering refers to the process of treating someone or a group of people as fundamentally different or separatefrom oneself or one's own group. This can involve exclusion, discrimination, and even violence based on the perceived differences between the "self" and the "other." Othering is often based on factors such as race, ethnicity, nationality, religion, language, culture, and other aspects of identity. It can lead to dehumanization and marginalization of the "other" group and can have serious negative consequences for the people who are othered. It is often fueled by biases, stereotypes, and prejudices, and it can be a barrier to understanding, empathy, and social cohesion.

Orientalist paintings often depicted the East as backwards, lawless, and barbaric. In these paintings there was a preoccupation with harems and the exoticizing of eastern women who ironically were often endowed with distinctly western features, like light skin and thin eyebrows. Orientalist paintings worked to spread propaganda and the nationalist agendas of countries like France and England. Up until 1800, Europe had had little contact with this region of the world until Napoleon Bonaparte invaded Egypt in 1801 and shortly thereafter the twenty-four-volume *Description de l'Égypte* (1809–22), illustrating the topography, architecture, monuments, natural life, and population of Egypt began affecting Europe's cultural imagination around the East. People, places, and things from lands unknown fed into the imagination of armchair tourists throughout Europe to delight in, be fearful of, and be curious about the unknown. Early imperialists from Columbus to Vasco da Gama aimed to reduce differences for governance and control. In contrast, exoticism is the deliberate focus on elevating cultural difference, even exaggerating cultural difference, to project a European fantasy onto far away people, places, and things.



Figure 4.1: [left] "Eugène Delacroix - Juive de Tanger" (Jewish Woman of Tangier) is a painting created by the French artist Eugène Delacroix in 1832, completed after a trip to North Africa. Delacroix often painted women in their homes in the style of romantic exoticism. He was known for his use of bold colors, like the red we see in this painting, to signify richness and sensuality. Delacroix once commented, "paintings should be a feast for the eye". Delacroix was known for his interest in Orientalism, and "Juive de Tanger" is an excellent example of this style. What do we see in this painting? Firstly, an ornamented woman looking off in the distance seated on fine silks. We also see a woman in the privacy of their own apartment depicted by a fascinated and possibly exploitative eye. The painting communicates exoticism and mystery from the point of view of an outsider (Public Domain; via Wikimedia Commons). [right] "The Snake Charmer" by Jean-Léon Gérôme (1824–1904) is a vivid and exotic image that captures the fascination with the Orient that was common in 19th century Europe (Public Domain; The Clark Institute via Wikimedia Commons).

The World Geographies Atlas: Navigate each world region through maps

For each of the world regions, our original atlas provides detailed maps to help you navigate the places discussed in this book. These maps are meant to be explored before and during the reading of this chapter. These maps are best enjoyed enlarged. Click on each map for an enlarged view, and zoom in to see the prominent biomes, physical features, and population centers of Middle and South America. We recommend that you download these for reference as you read this chapter's content and hope that you enjoy this original compilation.

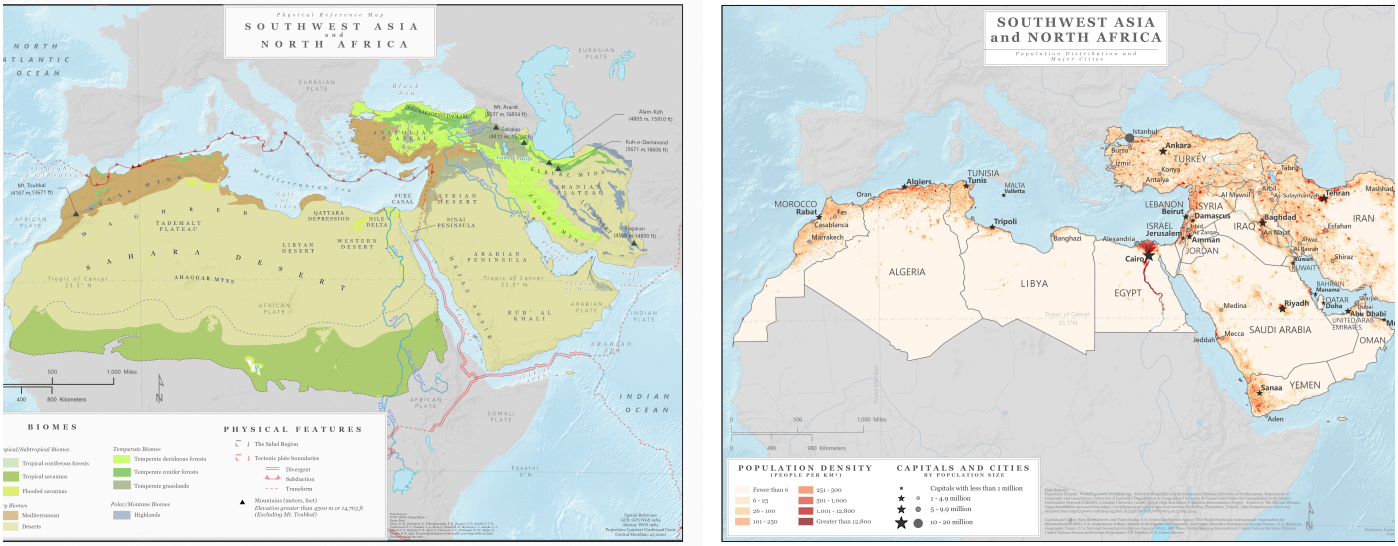


Figure 4.3: [left] This map shows the geographic distribution of biomes and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries in Southwest Asia and North Africa. The Sahel acts as the physical separation of North Africa, a region historically connected to southwest Asia and Europe (CC BY-NC-SA; Wallace via Flickr). [right] This map depicts internationally recognized countries, capitals, major cities, and population distributions of Southwest Asia and North Africa. Note that population distributions are most dense along the shores water bodies (CC BY-NC-SA; Sellers via Flickr).

References:

Blatz, C. W., & Mercier, B. (2018). False polarization and false moderation: Political opponents overestimate the extremity of each other's ideologies but underestimate each other's certainty. *Social Psychological and Personality Science*, *9*(5), 521-529.

Zagumny, L., & Richey, A. B. (2013). Orientalism (s), world geography textbooks, and temporal paradox: Questioning representations of Southwest Asia and North Africa. *International journal of qualitative studies in education*, *26*(10), 1330-1348.

- Chapter Sections and Summaries

4.1: The Natural Environment
4.2: Indigenous Worlds
4.3: Cultural Hearths of Writing and Abrahamic Religions
4.4: Oil and Uneven Development
4.5: Contemporary Art and Culture in SWANA

This page titled 4: Southwest Asia and North Africa is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Nazanin Naraghi.

4.1: The Natural Environment

Learning Objectives

1. Describe the physical geography of Southwest Asia and North Africa.
2. Identify key bodies of water, mountain ranges, and plate tectonic boundaries.
3. Evaluate the importance of water, arable land, and oil in the region.

Physical Boundaries of Southwest Asia and North Africa

Southwest Asia and North Africa are home to diverse physical landscapes and high mountain systems that feed into ancient river systems. SWANA is largely defined by vast deserts like the Sahara. The region is also bounded by the Mediterranean Sea in the northwest, mountain ranges in Iran and Turkey, the Indian Ocean to the east, and the Atlantic Ocean to the west.

In response to the environmental conditions, the people of this region have developed cultural systems. SWANA is home to some of humankind's earliest agriculture, and humans continue to transform the physical landscape in profound ways. The Sinai Peninsula's sandy deserts and mountains are framed by the Gulfs of Suez and Aqaba at the northern tip of the Red Sea. Gebel Katherina (Mountain of St. Catherine, 2637 meters) and Gebel Musa are the highest peaks (Mountain of Moses, also known as Mount Sinai, 2285 meters).

To the northeast, Israel and Jordan flank the Dead Sea, one of the world's saltiest inland bodies of water. Qumran is located on its northern border, with Jerusalem to the west. There are several large rivers. The Tigris and Euphrates rivers flow southeast through Iraq. The dark area between the two rivers, northwest of the Persian Gulf, is a very fertile region with a high concentration of fishing and farming. The Nile winds its way through eastern Egypt. Lake Nasser and the Aswan Dam are to the south, and the Nile continues north, passing the Temple of Luxor as it loops to the east. It then turns west and north, eventually passing through Cairo and spreading into a large delta before emptying into the Mediterranean Sea. The great Pyramids and Sphinx structures on the Giza Plateau are marked by a vivid dot just west of the delta's apex. The ancient city of Alexandria, Egypt's main seaport, is located on the coast west of the delta.

Arid Environments

The dominant bio-climatic feature of SWANA is **aridity,** or less than 10 inches (250 milliliters) of precipitation**.** The extensive east and west orientation of SWANA's territory is near the Tropic of Cancer (23.N) where global air circulation patterns drive the region's arid conditions. The low-pressure systems that arise because of the direct sun on the equator releases moisture and leads to tropical rainforests near the equator. The prevailing winds carry air masses to the subtropics, characterized by a high-pressure system of descending dry warm air which results in the world's deserts. The Sahara desert, the world's largest hot desert, spans much of North Africa and serves as a main geographical feature in distinguishing North Africa from Africa south of the Sahara. The Arabian Desert is dominant throughout the Arabian Peninsula, from Yemen to Iraq, as an extension of the Sahara Desert. There are also many **Semi-arid** environments, or environments with slightly more than 10 inches of precipitation, in much of Iraq, Jordan, Syria, and Yemen.

SWANA is particularly vulnerable to the impacts of a warming planet because it already experiences annual summer temperatures of 100°F (38°C) in most places. Adding to SWANA's vulnerability is the predominance of soils low in fertility. Because of mineral deficiencies in the soil and low precipitation, irrigation of crops is necessary. Unfortunately, this leads to **salinization**. Salinization is the accumulation of water-soluble salts in the soil. When the water evaporates, the salts are left behind. The main causes of salinization of soil are flooding, over-irrigation, seepage, silting, and a rising water table.

SWANA's aridity is broken up by a variety of environments, including fertile areas and mild climates. Turkey and the Nile floodplains have fertile soils, and the Central Highlands of Yemen receive rainfall from the Indian Ocean's summer monsoon. SWANA has fertile soils, mostly along river floodplains and in Yemen's Central Highlands, which receive rainfall during the summer Indian Ocean monsoon season. Additionally, the coastal mountain areas receive more rainfall than the rest of the region. In fact, the mountain ranges of Turkey, Iran, and Lebanon receive most of the the region's rainfall. A **rainshadow effect** occurs on the central Anatolian Plateau in Turkey and the Syrian Plateau. The high peaks create conditions for condensation and rainfall

on one side of the mountain while arid climatic conditions persist on the other. Mild Mediterranean climates follow the coasts of Morocco, Libya, Israel, and Syria along the Mediterranean Sea. Syria's biomes include desert, semiarid, Mediterranean, and steppe grasslands. Despite vast swaths of arid and semi-arid climates, the majority of human populations have settled around bodies of water and in Mediterranean climate regions.

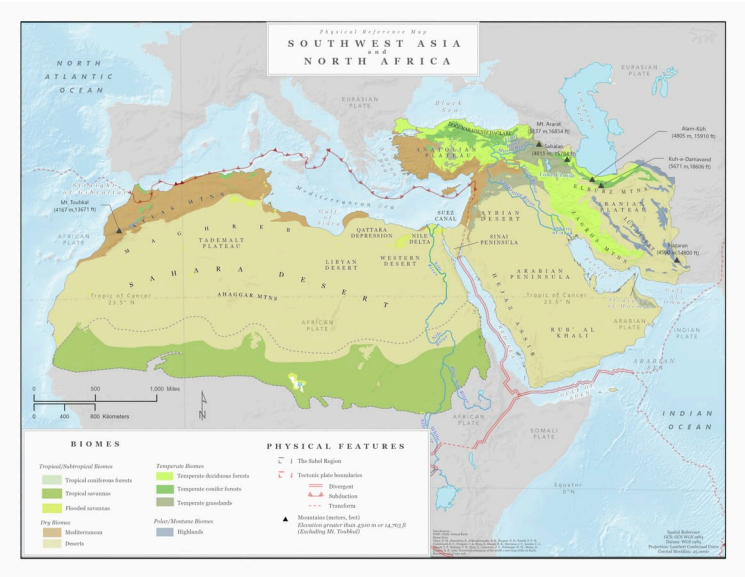


Figure 4.1.1: This map was shared in the opening of the chapter. It shows the geographic distribution of biomes and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries in Southwest Asia and North Africa. As can be noted here, the Sahel acts as the physical separation of North Africa, a region historically connected to southwest Asia and Europe. The Southwest Asia and North Africa region is also bounded by the Mediterranean Sea in the northwest and mountain ranges in Iran and Turkey, the Indian Ocean to the east, and the Atlantic Ocean to the west. Also note the tectonic plate boundaries along the Red Sea, Arabian Sea, and Mediterranean Sea and the Sinai Peninsula (CC BY-NC-SA; Wallace via Flickr).

Tectonic Activity and Mountain Ranges

The tectonic activity of SWANA is shaped by the interaction of several tectonic plates. The plate boundaries of the region include a diverging boundary that is continually splitting the Red Sea as the Arabia Plate moves northeast carrying the Arabian Peninsula away from Africa and towards Eurasia. This motion began millions of years ago, creating a rift valley that filled with water and is now the Red Sea. The Arabian Peninsula forms a tilted plateau and is the largest peninsula in the world. The peninsula is geologically significant because it stores one of the largest deposits of natural gas and coal in the world.

The northward motion of the Arabia Plate results in a convergent plate boundary along its northern edge, as the Arabia Plate continues to push towards the Eurasia Plate. The tectonic collision results in folding, faulting, and continental uplifting. The convergence zone is the geologic force pushing up the Zagros Mountains and the Iranian and Anatolian Plateau higher and higher each year in a seismically active region. In 2017, a massive 7.3 earthquake occurred along the Zagros Fold, with tremors in both Iraq and Iran killing over 600 people and leaving thousands without a home. The tectonic convergence also helps explain the differential topography of Southwest Asia, which is more mountainous compared to North Africa. In the **Levant,** the eastern Mediterranean region of Southwest Asia, the Lebanon Mountains rise 10,000 feet (3000 meters) in elevation. Turkey is home to several mountain ranges, notably the Pontic Mountains, which form an arch at the northern edge of the country and the Taurus Mountains along Anatolia's southern edge. Mountains in Southwest Asia run generally parallel to the plate boundaries and are created by compression along fault lines in the region.

North Africa lies on the northern portion of the Africa Plate, along a continuation of a convergent plate boundary located in the Mediterranean Sea. The Africa Plate and the Western end of the Eurasian plate are moving towards each other. The Atlas Mountains in North Africa run parallel to the Mediterranean plate boundary.

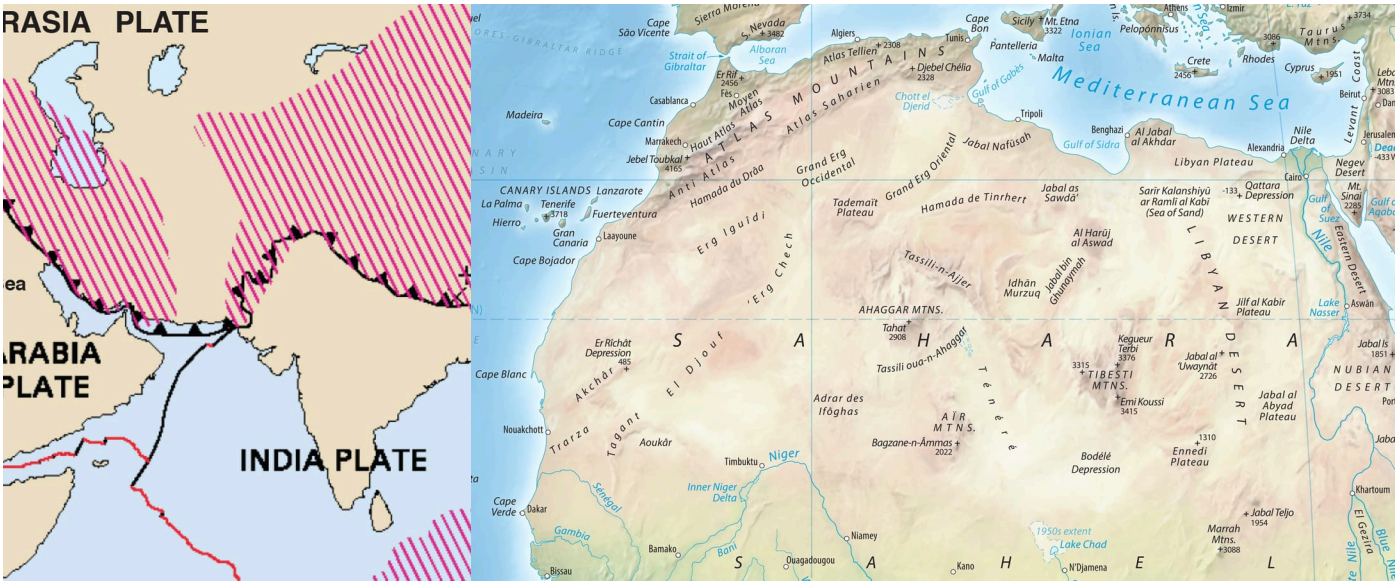


Figure 4.1.2: [top] This map illustrates the tectonic regions of SWANA, symbolizing plate boundaries that shape the region. Diverging plate boundaries are symbolized in red, where new crust is generated as plates move away from one another, notably along the Red Sea. The black lines are transform faults where plates slide past one another. Black lines with sawteeth are convergent boundaries. Note the collision zones along the northern edge of the Arabia Plate and North Africa Plate, both pushing towards the Eurasian Plate. Hatched redish lines are broad belts of deformation where mountainous regions are found. Red dots are hotspots, where material from the Earth's mantle wells up into the crust (Public Domain; USGS). [bottom] this map is another reference map showing the region's topography. Here you can note how moutain ranges correlate with the tectonic activity described (Public Domain; Equal Earth).

River Systems, Hydropolitics, and Desalinization

River Systems

We have established that SWANA is predominantly arid thus water is a precious commodity. The two major freshwater river systems in the region are the Nile (the world's longest river) and the Tigris and Euphrates. These river systems have been the source of life and livelihood for thousands of years, evidence suggests these rivers were settled by the world's earliest civilizations. Although the Nile is the world's longest river, it is one of the smallest major rivers in water flow. As it flows north, it serves as a major water lifeline for SWANA countries like Egypt. The Tigris and Euphrates run primarily through Iraq and extend into Turkey and Syria. The ancient civilization of Mesopotamia (from the Greek, meaning 'between two rivers') settled around the Tigris and Euphrates, a hearth of cultural, agricultural, urban, and technological innovations. Uganda, Ethiopia, South Sudan, Sudan, and Egypt all rely on the Nile River for water consumption and irrigation. Dense population centers are often near the river systems because of natural irrigation of crops and nutrient- rich soil.

The Nile and Tigris and Euphrates river systems in SWANA are examples of **exotic rivers.** An exotic river begins in a more humid area and transports water to a dry region. The Nile's source is in the humid highlands of East Africa. To form the Nile River, two tributaries of the Nile, the Blue Nile (flows northward across the Sahara) and the White Nile in Khartoum, Sudan join together and empty into the Mediterranean. Along its course, the Nile flows through vast arid, and hot landscapes and experiences high evaporation with no added moisture. Similarly, the Tigris and Euphrates rivers begin in Turkey and flow south to Iraq and Syria where they are critical freshwater sources.

The Euphrates is a major river in Western Asia that flows through Turkey, Syria, and Iraq. It is one of the longest rivers in the region, and it is an important source of water for irrigation, industry, and domestic use. The Euphrates rises in the Taurus Mountains of Turkey, and it flows southeast through Syria and into Iraq, where it eventually joins the Tigris River to form the Shatt al-Arab waterway, which flows into the Persian Gulf. The Euphrates passes through several major cities and agricultural areas, including the capital cities of Ankara and Baghdad, and it is an important transportation and trade route. The geography of the Euphrates is characterized by wide, fertile plains and rolling hills, with a hot, dry climate in much of the region. These exotic rivers are the life source for the people, animals, and vegetation of this region and tension and conflict over water access occur. Dam projects in southeastern Turkey, for example, have impacted access to Syria which is downstream of the dam.

Hydropolitics

Given the vitality of water for all civilizations, tensions and negotiations over water access are central to the political decisions of many countries in the SWANA region and everywhere in the world. The politics that impact access to water and water resources is referred to as **hydropolitics.** Arun P. Elhance, defines hydropolitics as “the systematic study of conflict and cooperation between states over water resources that transcend international borders". Sheik Ahmed Yamani, who was the oil minister of Saudi Arabia from 1962-1986 once commented that he wished they had discovered water and not oil. This statement makes it clear how essential water is even though oil has brought great wealth to the country. Saudi Arabia discovered oil in the 1930s and holds approximately 17.2% of the world’s oil reserves and is currently the largest exporter of petroleum in the world. Saudi Arabia, once a subsistence economy, is now the 18th largest economy in the world due in large part to its wealth in petroleum and natural gas. This wealth is mirrored by an acute scarcity for freshwater. From Sheik Yamani’s comments, we begin to understand the value of water and access to water. Water is necessary for all life on earth and there is no substance that can act as a substitute for it.

Water is a renewable resource in that it completes a cycle via evaporation, condensation, and precipitation. Water is a vital resource that is essential for all life on Earth. It makes up a substantial portion of the Earth's surface, with about 70% of the planet covered in water. However, most of this water is saltwater, which is not suitable for drinking or irrigation. Only a small fraction of the Earth's water is freshwater, and much of this is locked up in glaciers, ice caps, and underground aquifers. As a result, the availability of freshwater for human use can be a concern in some parts of the world.

Water availability can be affected by numerous factors, including population growth, climate change, and environmental degradation. In some areas, demand for water is outpacing the available supply, leading to water shortages and conflicts over access to water. Ensuring the sustainable management of water resources is critical for meeting the needs of human communities and protecting the environment.

People have done a lot to change how water is managed. We have made it harder for the Earth to store water because of the built environment (houses, roads, buildings), polluting water systems through industry, using too much water, and building dams on almost all of the world's major waterways. Former vice-president of the World Bank Ismail Serageldin said in 1995, "If the wars of this century (20th) were about oil, the wars of the next century will be about water." There are three main causes of water-related conflicts. First, people fight over water because of who owns it. Is it a public good or a private thing? Second, water privatization often leads to conflict. If water is limited, how do we decide who can use it and what it can be used for? Lastly, the diversion of water in mega-dam projects like those in Turkey, Egypt, and Lebanon, which can be seen all over SWANA, has had terrible effects on people who are already poor and live in fragile landscapes.

As water sources are used more for human needs, put under more pressure, and become less viable because of human activity, it makes sense that water is becoming more of a regional and global issue. Mismanagement of water, damage to the environment, overconsumption, population growth, and global warming are all serious problems that are linked to each other. The term, **hydro-hegemony,** describes gaining control of a river basin through capture, integration, and containment via coercive means that exploit uneven power dynamics. Hydro-hegemony is central to understanding hydropolitics. Central to **hydro-hegemony** is the consolidation of power over the river basin often in the hands of the actor(s) who exert geographical and material control over the area. In other words, hydro (which means water) and hegemony (which means dominance) has to do with who has control over a river system. An example of conflict and cooperation over water is the relationship between Turkey, Iraq, and Syria with the Tigris and Euphrates rivers. The Euphrates and the Tigris both begin in eastern Turkey and flow into Syria and Iraq. The Tigris Euphrates River system discharges into the Persian Gulf. Since the 1960s, the three **co-riparian** states (states that are situated on the banks of the rivers), have been both conflictual and cooperative.Currently, the three countries are in conflict over access to the water because each one has engaged in extensive dam building projects.



Figure 4.1.3: Atatürk Dam on the Euphrates River, Turkey. Atatürk Dam is the centerpiece of the Southeastern Anatolia Project (CC BY-SA 3.0 Bernard Gagnon via Wikipedia).

Water Mining and Desalinization

Humans often respond to scarcity with innovative methods, techniques, and strategies. Water mining is a method that requires collecting groundwater through a system of tunnels. Gravity flow brings this water to the surface. Known as a **gravity system** of water mining, the foothills of a mountain or a hill where there is runoff from rain or snowmelt is the perfect site to dig holes into the ground to transport water to the surface. This relatively reliable system enables year round irrigation. In different countries and regions, this system has different names, like *qanat* in Iran , *flaj* on the Arabian Peninsula, and *foggaro* in North Africa.

Desalinization or desalination is also an innovative albeit more controversial water mining technique. Desalination is the process of removing salt and other minerals from seawater, making it suitable for drinking and irrigation. There are several different methods for desalinating seawater, including reverse osmosis, distillation, and electrodialysis.

Reverse osmosis (RO) and distillation are the purification systems normally used in desalination. RO removes many dissolved and suspended materials from water. Reverse osmosis is a process in which seawater is forced through a membrane, which removes the salt and other minerals. Distillation involves boiling seawater to produce steam, which is then condensed back into freshwater. Electrodialysis uses electric fields to separate salt from seawater.

Desalination is often used in coastal areas where freshwater resources are limited or where the quality of available freshwater is poor. It can also be used to supplement traditional freshwater sources during times of drought or high demand. However, desalination can be expensive and energy-intensive, and it can also have environmental impacts, such as the production of brine, a highly salty byproduct of the desalination process.

There are over 21,000 desalination plants around the world. The largest ones are in the United Arab Emirates, Israel, and Saudi Arabia. The world's largest is in Saudi Arabia, the Ras Al-Khair Power and Desalination Plant. Ras Al-power Khair's and desalination plant is on Saudi Arabia's eastern coast. The Saudi Saline Water Conversion Corporation runs it. As of January 2017, the world's largest hybrid water desalination plant began operations in April 2014. Israel currently has some of the most efficient desalination plants.

Desalination is currently expensive. The highest expense is energy. Desalination plants are also less accessible for places and people deep in the interior of a continent or at high elevations. The process is also controversial because of its potential impact on fragile ocean ecosystems.

Ecology and Land Management

Desertification is the process of transforming once arable land into a desert. The causes of desertification include deforestation,

drought, and exploitative agricultural methods. Desertification, understood to be the degradation of land, is a natural process accelerated by exploitative agricultural practices by humans and global warming. Desertification impacts about ⅔ of the planet and has catalyzed the mass movement of people in search of land that will sustain them.

More than half of the ice-free terrain on planet earth has been altered by humans for a variety of purposes. On the image above, we can see that animal agriculture takes up 27% of the world's land area, or an area the size of North, Central, and South America (shown in red) (either grazing, meat and dairy production, or growing food for livestock). About 26% of the world's area is covered by forests. The largest biome on earth after the oceans is the Taiga, located in the northern latitudes. The green area in the accompanying map stands for the forested region, which is roughly the size of south of the Sahara Africa (excluding Libya), SWANA, and South Asia. The amount of land used to raise animals has had a big effect on the planet's soil fertility. Some experts say that one-third of the top soil has been lost. Industrial agricultural practices like tilling (turning the soil over, which upsets the delicate biology of the topsoil), using agrochemicals, and over-irrigating land are all major threats to the health and well-being of all life on Earth. Soil not only grows food, but it also stores carbon. This is what we call a "carbon sink." Studies have shown that soil and grasslands can store between 2.3 and 7.3 billion tons of carbon dioxide.

Like most places on our planet humans have decidedly transformed the natural environment, SWANA is no different. Biodiversity has dramatically decreased as human populations have increased. Looking at a map of SWANA's plant and animal biodiversity is misleading. In recent history there were lush forests throughout Iran, Syria, Turkey, and Lebanon. The modification of the natural environment by human beings including overgrazing and deforestation have altered these forests to the point of extinction. There are currently only a few small areas of Turkey and Syria where forests remain. Lebanon is holding on to the last of its famous cedar trees, a national symbol, which now only grow in high altitudes. Iran has deciduous forests and there are forests in Morocco and Algeria that are mainly used as timber. *Homo sapiens* have occupied this region of the world for millennia and reshaped the range or the existence of the fauna that once lived there. Large mammals like leopards, cheetahs, and lions once lived in the region. Instead, now there are domesticated camels, donkeys, and buffalo as well as bears, boars, and wolves.

References:

Elhance, A.P. (1999) Hydropolitics in the Third World: Conflict and Cooperation in International River Basins. US Institute of Peace Press.

Serageldin, I. (2009). Water wars? A talk with Ismail Serageldin. *World Policy Journal*, *26*(4), 25-31.

Zeitoun, Mark & Warner, Jeroen. (2006). Hydro-Hegemony- a Framework for Analysis of Trans-Boundary Water Conflicts. *Water Policy* 8(5).

This page titled 4.1: The Natural Environment is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Nazanin Naraghi.

4.2: Indigenous Worlds

Learning Objectives

- Describe the significance of Mesopotamia as a cultural hearth.
- Describe the Otoman Empire and identify forces of expansion and contraction.
- Evaluate the oucomes of the mandate system.
- Indetify Indigenous populations of the region.

The Cradle of Civilization

The first humans to settle in SWANA, did so between 10-12,000 years ago. During this time, humans began to domesticate cereals like wheat and live in semi-permanent settlements. Significantly, there are an exceptional number of empires that once thrived in in this region. Innovations of writing, math, and culture emerged and spread throughout the world through global trade and exchange. The discovery of oil and European colonization has shaped SWANA's geography as we will see throughout this chapter.

The **Fertile Crescent** is a region that arches in a crescent shape through the Syrian desert, the Nile Valley, and into the depression between the Tigris and Euphrates. The Fertile Crescent is a cultural hearth, an early center of agricultural innovations and subsequent population growth that led to urbanization and cultural development. **Mesopotamia,** the land between rivers, is named for the ancient river system. The Euphrates originates in Turkey eventually merging with the Tigris in the east and discharging into the Persian Gulf. These two rivers constitute a region of the world that was once controlled by many different empires, including Turkey, Iraq, Greece, and eventually Rome. Interactions between people and across empires led to cultural exchange and development on a global scale. Plant and animal domestication in the Fertile Crescent about 12,000 years ago allowed for these regional empires to develop. Plants such as wheat and chickpeas and animals such as sheep and camels were domesticated. With agriculture came permanent settlements and the shift from hunting and gathering to agriculture and pastoralism. New agricultural technologies were invented such as the plough and metallurgy with bronze and iron. Tools of cooking and harnessing fire were invented all of which led to larger permanent villages. The region became more urban as more people lived in closer relationships to one another. As a cultural hearth, we see the development of unique architecture, early urbanization, and the birth of three major religions.

The Ottoman Empire

Who were the Ottomans? They were Turkish Muslims that came into power in 1100 CE and ruled for 700 years. From 1299 to 1923, the Ottoman Empire was a multi-ethnic and multi-religious state. It was ruled by the Ottoman dynasty, which was made up of descendants of the empire's founder, Osman I. At its peak, the empire was centered in what is now Turkey and ruled over a vast territory that included parts of Europe, Asia, and Africa. The empire was known for its powerful military, complex government bureaucracy, and artistic, literary, and architectural achievements. After World War I, it was dissolved and replaced by the Republic of Turkey. The Ottoman Empire stretched from southeastern Europe from the Danube River-to North Africa,-and ended in the Mediterranean. The Persians, Central Arabs, and Morocco did not fall under the control of the Ottoman Empire. By World War I, the Ottoman Empire had already been reduced to just modern-day Turkey and parts of the Arabian Peninsula. By the mid 19th century, Europe was attacking the Ottoman Empire. Britain had occupied Egypt and Tunisia was occupied by France. These colonial interventions in the region sparked nationalist movements in countries that were ruled by the Ottoman Empire.

The Mandate System and its Aftermath

By the end of World War I the Ottoman Empire came to be made up of only Turkey and several Arab provinces. The Arab provinces came under European power through the mandate system. Following the end of World War I in 1918, the newly formed League of Nations, forerunner to today's United Nations, established the Mandate System. The League of Nations was founded on the principle of collective security, or the idea that by cooperating to ensure the security of all nations, each nation would, in turn, ensure its own security. The British and French appropriated the land of the defunct Ottoman Empire and German colonies.

The Sykes-Picot Agreement, also known as the Asia Minor Agreement, was a covert 1916 agreement between the United Kingdom

and France to disintegrate the Ottoman Empire. Their proposed spheres of influence and control in the Middle East were defined in the agreement. The agreement resulted in the division of the region into French and British spheres of influence, with the latter controlling modern-day Iraq and Jordan and the former controlling modern-day Lebanon and Syria. The agreement also proposed the formation of an independent Arab state or a confederation of Arab states in the Mediterranean Sea-Persian Gulf region. The Sykes-Picot Agreement is widely regarded as a major contributor to the current conflicts in the Middle East, as it resulted in the establishment of arbitrary borders that ignored the region's ethnic and religious diversity.

According to the mandate system, there were three types of territories: those that were close to independence, those that were not too far from independence, and those that likely would not reach self-determination (see below map depicting the direct control zones and “influence” zones of the British and French). The first step was for the European powers that held mandates in the region to establish constitutional governments.

A larger, established state would guide these territories. However, countries like Egypt, Iraq, Syria, and Palestine deeply resented European interventions in the region and revolted. In practice, the Mandate System was a sort of state-sponsored colonialism. By the end of World War II all the states that were once European mandates had achieved independence.

The legacy of the Ottoman Empire and the European mandate system left behind many complex issues for the development of these regions. How to unite a diverse citizenry under a new national identity that is not French, British, or Spanish? How to promote fair and even development when European rule had privileged urban centers over rural areas?

These countries were entering the new global economy of the time as autonomous countries. Autonomy instantiated diverse economic strategies that often created divisions between the rich and the poor. There was an attempt by countries such as Iran, Turkey, Egypt, Syria, Iraq, Tunisia, and Algeria to **deprivatize** or **nationalize** their key economic industries. In other words, to switch from private control to governmental control. Intergovernmental organizations began to pressure many of these countries to return to privatizing their economies. Institutions like the International Monetary Fund (IMF) and the World Bank demanded privatization in exchange for aid money. This economic model is known as **neoliberalism.** The main characteristics of the **neoliberal** approach are the privatization of basic services and economic sectors, deregulation of markets, lowering trade barriers, and economic austerity which involves decreasing government spending amongst other cutbacks. Neoliberal policies prompted social and geographical change in these countries. The cost of living and basic necessities like food increased while important social services like health and education were divested. Rural dwellers moved into the city to find higher paying work but in those cities access to transportation, housing, clean water, and education were limited. These limitations set up the conditions for the growth of squatter settlements less formally known as slums poor sanitation, and working in **informal economies,** or doing work that is not regulated or taxed.

The Negev Bedouin of Israel and the Jahalin Bedouin of Palestine

The Negev Bedouin have lived for centuries as semi-nomads in the Negev (Naqab in Arabic) desert for centuries.They are herders and agriculturalists that determine land ownership through kinship systems. The Negev live in complex relation with the harsh and arid climate and landscapes of the region. 65,000-100,00 Bedouin lived in the Naqab prior to 1948 and the establishment of the state of Israel. Today, approximately 11,000 Bedouin remain in the Naqab. The state of Israel dispossessed the Bedouin of the Negev desert of their ancestral homelands. The majority of the Bedouin were forced to migrate. They had little choice and now live in Gaza, the West Bank, Jordan, and Egypt. The Bedouin that do remain in Israel have been forced into military administration zones called **al-Siyāj.** Their ancestral lands were diminished to a tenth of what they once were. Entire Bedouin villages from the Northern and western Naqab were forced into the al-Siyāj. The state of Israel strategically rendered the Bedouin as refugees by way of legal proclamations such as the Absentee Property Law (1950), the Land Acquisition Act (1953), and the Dead Negev Doctrine. Israel decided that Bedouin land was M*awat (*“dead”, uncultivated agricultural lands) and reclaimed it as belonging to Israel. Scholars argue that the lack of state recognition of Bedouin land rights by Israel is illegal and that international law should protect the Bedouin. Currently, it is estimated that the Bedouin of the Negev desert numbering 200,000-300,000 people live in government planned townships, recognized villages, and unrecognized villages in Israel. Those who live in the unrecognized villages are considered to be trespassers by the state of Israel and they are about half of the Negev Bedouin population.[1]

The Amazigh of Algeria

The Amazigh also known as Berbers are an ethnic group indigenous to North African countries like Algeria, Morocco, Libya, and Tunisia. However, there are pockets of Amazigh in Mauritania, Burkina Faso, northern Mali, and northern Niger. Amazigh or plural Imazeghen means “free people.” The term Berber comes from meaning "non-Greek-speaking" or "non-Greek peoples." Amazigh is an indigenous term to refer to the ethnicity, Berber is the term given to the Amazigh by westerners and Arabs, while Kabyle is

one of the many tribal confederacies of Amazigh peoples in Kabylia.

In Algeria, the government does not recognize the Amazigh and therefore does not publish statistics on the number of Amazigh people in the country. It is estimated that there are at least 12 million Amazigh in Algeria. They live in at least five territories throughout Algeria, and there are large populations living in the northeast and in urban areas like Algiers. The majority of Amazigh living in urbanized populations have assimilated into the majority Arab ethnic group. Although Amazigh can be distinguished by belief systems, culture (like clothes, food, music) and language. Tamazight, the language the Amazigh speak, was recognized as a national and official language in Algeria's constitution very recently in 2016. While officializing their language is a form of visibility, the Amazigh in practice is marginalized by the majority Arab population and state institutions. Algeria is understood to be an Arab country and there are anti-Amazigh laws that continue to be enforced (see 1992 Law on Arabization).

Algeria in recent years has begun to actively pursue groups that the government believes to be engaged in terrorist activities, including the Amazigh.

References:

[1] Kedar, A., Amara, A., & Yiftachel, O. (2018). *Emptied lands: a legal geography of Bedouin rights in the Negev*. Stanford University Press.

International Work Group for Indigenous Affairs (IWGIA). (Mar 8, 2021). The Indigenous World 2021: Israel.

This page titled 4.2: Indigenous Worlds is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Nazanin Naraghi.

4.3: Cultural Hearths of Writing and Abrahamic Religions

Learning Objectives

1. Describe the cultural hearths and innovations of Southwest Asia and North Africa and provide examples.
2. Identify the languages of the region and predominant geographic distributions.
3. Compare and contrast the Abrahamic Religions and their connection to Jerusalem.
4. Describe the characteristics of Islamic practice and belief and how it shapes holy spaces.
5. Identify the geographies of Islam by religious sectors and evaluate the impact of the religion in the SWANA region.

A Center of Innovation

SWANA is the birthplace of some of the earliest forms of urbanization. As humans continued to domesticate plants and animals, they experimented with agricultural practices, invented systems to irrigate larger areas, and settled in larger numbers. Mesopotamia (modern Iraq) is home to the earliest settlements along the lower valley of the Tigris and Euphrates. By 3500 BC, cities like Eridu and Ur had reached populations as high as 35,000. As populations grew a class of artisans, priests, and administrators emerged. Because these cities were central to trade routes, new ideas were exchanged. Mesopotamia is credited with the invention of writing (innovations that also arised independently in Egypt, Indus Valley, China, and Mesoamerica). Many aspects of daily life taken for granted in the present day, such as the wheel, a code of laws, the sail, the concept of the 24-hour day, beer-brewing, civil rights, writing, and organized religion, for example, were all first developed in the land between the Tigris and Euphrates Rivers.

Among these fundamental cultural contributions, the development of writing is worth noting as we celebrate it at this very moment, conveying this lesson in written form. **Cuneiform,** a system of writing developed by the Sumerians of Mesopotamia (c. 3500-3000 BCE), is considered the world's oldest writing system and a cornerstone of human innovation. When the ancient cuneiform tablets of Mesopotamia were discovered and deciphered in the late 19th century CE, they shifted the epicenter of human understanding of history. Prior to this discovery, the Bible was considered the oldest book in the world, and the Song of Solomon was thought to be the oldest love poem. All of that changed with the discovery and decipherment of cuneiform, which established the oldest love poem in the world to be *The Love Song of Shu-Sin* dated to 2000 BCE, long before The Song of Solomon was written. The great literary works of Mesopotamia such as the famous *Epic of Gilgamesh* were all written in cuneiform and were completely unknown until the mid-19th century.

Cuneiform provided a foundation that other cultures would borrow and improve upon overtime. According to some scholars, the concept of writing diffused to Egypt through trade. Ancient Egyptian writing is known as **hieroglyphics** ('sacred carvings'), developed at some point prior to the Early Dynastic Period (c. 3150 -2613 BCE). While there certainly was cross-cultural exchange between the two regions, Egyptian hieroglyphics are completely Egyptian in origin; there is no evidence of early writings which describe non-Egyptian concepts, places, or objects, and early Egyptian pictographs have no correlation to early Mesopotamian signs. Thus, SWANA is home to two likely independent innovations in writing – cuneiform and hieroglyphics.

Languages

In North Africa and much of the Arabian Peninsula, **Arabic** is the predominant language. The vast geographical expanse of Arabic speakers make for great variations of how the language is spoken, with many dialects and context specific ways of communicating. The issue of when a new form of speech constitutes a new dialect or a full-fledged language is often highly contentious. Many of the languages of SWANA consist of numerous sub-dialects. Some are similar enough that speakers of different dialects can understand one another while others are not. It is a spectrum, rather than a definite line.

Arabic is part of the **Semitic Languages** group, which includes Hebrew, Armaic/Syriac and others. Semitic languages are important due to the histories of the Ancient Semitic civilizations, such as Sumeria, the Hebrew communities, Arab communities, and Aramaic-speaking communities of today. Abraham was an Akkadian speaker, and Jesus's native tongue was Aramaic. Hebrew is the traditional language of the Jewish people and the living language in Israel since the late 19th century. It is the language of the central Jewish scripture, the Torah.

Persian is the main language spoken in Iran (and Afghanistan and Tajikistan). Being one of the **Indo-Iranian languages**, and part of the Indo-European family of languages, it is much closer to English in structure than the Semitic or Turkic languages. Thus, it takes less time for a native English speaker to learn Persian than to learn Arabic, Hebrew, or Turkish. Lastly, **Turkish languages** are also widely spoken across political borders, predominantly Turkish in Turkey. Other Turkish languages are spoken in Northwestern and Southern parts of Iran. Together, Arabic, Persian, and Turkish are the most spoken languages in the SWANA region.

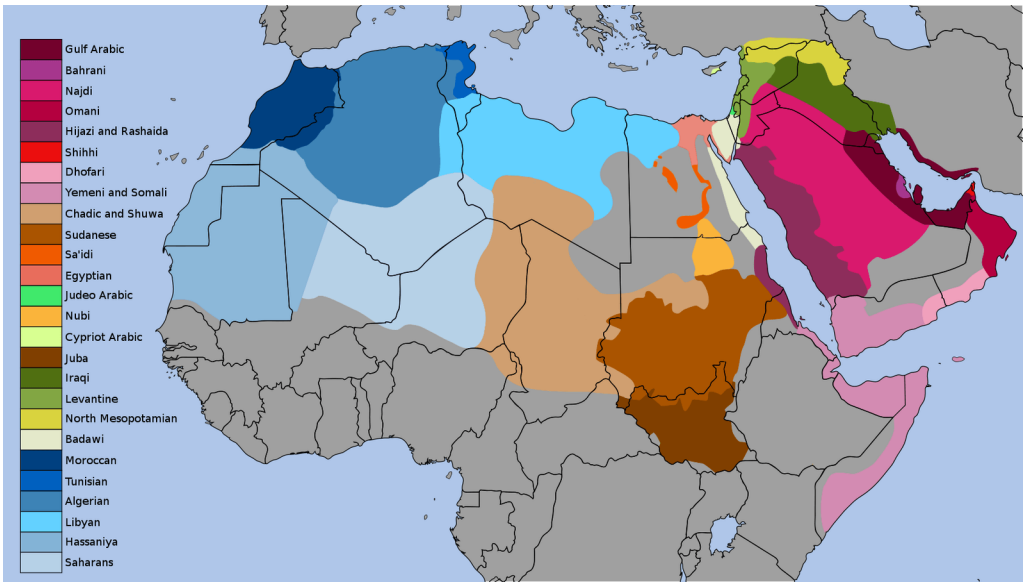


Figure 4.3.1: This map illustrates the distribution of different Arabic dialects in the SWANA region. While Arabic is the dominant and most spoken language (from the Afro-Asiatic language family), dialects make for notable variations. The predominant language in Iran is Persian (Farsi) and in Turkey, Turkish (CC BY; Rafi via Wikimedia Commons).

Origins of Judaism, Christianity, and Islam

The Fertile Crescent is traditionally associated with the Jewish, Christian and Muslim faiths as the earthly location of the Garden of Eden, a divine area that features prominently in the Bible and Quran.This sacred geography is central in the story of origins of Judaism, Christianity, and Islam, all **Abrahamic religions**, religions that trace their holy lineages and monotheistic traditions to Abraham. They all refer to the same God: Yahweh in Hebrew; Jehovah in English; Allah in Arabic; Khuda in Persian.

Judaism is recorded to be the world's first **monotheistic** religion, or religion that follows the belief that there is one and only God. Jews believe that Abraham, sometime in the 2nd millennium BCE, established the first covenant with God, an agreement that God would protect the chosen people of ancient Israel and Judah in return for their fate and devotion. The central Jewish holy text, the **Torah**, includes a discussion of the creation of the world as well as the establishment of this covenant. About 2,000 years later, Jesus brought new teachings to the Jewish people with love as the central religious doctrine. Those who believe Jesus was the **messiah**, or the divine representation of God sent to Earth to save humans from their sins, are followers of Christianity. The teachings of Christ are recorded in the Bible's New Testament and are central to Christian belief and practice. Later in Mecca, Saudi Arabia, Prophet Muhammad (570-632 CE) prophesized a continuation of the teachings of Abraham, based on new revelations from God received from angel Gabriel. The teachings of Prophet Muhammad are recorded in verses in the Islamic holy book, **the Quran**. Muslims believe Prophet Muhammad is God's last prophet, one who came after Christ with a new message to humankind. Islam teaches that Jesus was a prophet and much of the story of Jesus's death and life in the Quran is similar to the story in the New Testament.

This table categorizes Judaism, Christianity, and Islam - three Abrahamic religions - in terms of similarities and differences.

	Judaism	Christianity	Islam
Concept of God, monotheism	One god, considered as creator and sustainer of the universe. Worship of any additional gods is discouraged by banning images of humans and animals which could potentially be idols.	One god, considered as creator and sustainer of the universe. God as cause of Mary's immaculate conception, and "father" of Jesus. The Holy Trinity represents one God, as the Father, the Son, and the Holy Spirit.	One god, considered as creator and sustainer of the universe. God possesses no partner, no offspring. Worship of any additional gods, or idols, is strictly forbidden. Worship of any additional gods is discouraged by banning images of humans and animals which could potentially be idols.
Messengers of God/ Prophets	Belief in prophets of God.	Belief in prophets of God. Jesus is considered the Son of God and the messiah.	Belief in prophets of God. Belief that Muhammad is the last of God's prophets. Jesus is considered a prophet.
Scripture	Torah (including the Ten Commandments).	Torah (including the Ten Commandments); New Testament.	Torah (including the Ten Commandments); Psalms; Gospels of the Christian Bible; Qur'an
Main subdivisions	Conservative, Reform, Orthodox	Catholic, Protestant, Eastern Orthodox	Sunni, Shia, Sufi
Story of origins	Adam and Eve as the first humans; the great flood;	Adam and Eve as the first humans; the great flood;	Adam and Eve as the first humans; the great flood;
Sacred places	Jerusalem	Jerusalem, Bethlehem	Mecca, Medina, Jerusalem

Holy Jerusalem: A Complex and Contested Sacred Space

Jerusalem is holy land for Christians, Muslims, and Jewish who altogether account for half of the world's population. It is the world's most contested city as no other place has been more bitterly fought over for millennia. Jewish, Roman, Byzantine, early Muslim, Christian crusader, Ottoman, and recent rulers all have a hand in the two-thousand-year-old blueprint of Old Jerusalem. Some of its buildings are sacred places for innumerous followers of the world's Abrahamic religions. **The Wailing Wall,** or Western Wall, is sacred to Jews. It represents the remnants of King Solomon's (970-931 BCE) Temple of Jerusalem, a temple that has been destroyed, rebuilt, and destroyed again. Adjacent to the ruins of Solomon's temple, the **Dome of the Rock** contains the believed site of Abraham's demonstration of utmost fate through the near sacrifice of his son, a site sacred to all three religions. The 7th century building is one of the most ancient examples of Islamic architecture and the third most sacred site for Muslims, after Mecca (where the Kaaba is located) and Medina (where the tomb of Prophet Muhammad lies). Muslims believe it is the site where Prophet Muhammad journeyed and prayed with Angel Gabriel, ascended to heaven, and the furthest point from which he traveled from Mecca – hence the mosque's Arabic name *Al-Aqsa* (or "the furthest mosque"). As a shrine, not a mosque, it is open to all visitors. While Christians continue to revere the Old Testament and associated sacred sites, holy sites connected to the stories of Jesus's life and death are of particular importance. The most sacred is the **Church of the Holy Sepulcher,** believed to contain Jesus's tomb and the sites where he was crucified and resurrected. The centerpiece is the tomb itself which is housed in a cupola in the center of the church.



Figure 4.3.2: [left map] Map of Old Jerusalem showing religious quarters and holy sites (CC BY-SA 3.0; Obendorf via Wikimedia Commons). [top right, A] The foreground of the picture shows the Wailing Wall, the remaining structure of King Solomon's temple, a site sacred to Jews. Towering behind it is the Dome of the Rock, a sacred site to Abrahamic religions and the third most sacred site to Muslims (CC BY-ND; Larsen via Flickr). [bottom right, B] Picture showing the Church of the Holy Sepulcre, a sacred site where Jesus's tomb lies (CC BY-SA 4.0; Gerd Eichmann via Wikimedia Commons).

Diffusion

Judaism is an **ethnic religion**, attached to the identity of the Jewish people. The spread of Judaism is associated with the (often forced) migration of Jewish people, not active conversions. Nonetheless, not all Jews are religious, and non-religious Jews identify as Jews based on ancestry and culture. In contrast, Christianity and Islam are **universal religions**, or religions that aim to be open for anyone to ascribe to their belief systems. Both Islam and Christianity have adherents of diverse cultural identities all over the world, a biproduct of their paths of diffusion. Today, more than half of the world's population follows a monotheistic religion. Christianity is the world's largest religion (2.4 billion followers), followed by Islam (1.8 billion followers) which is also the fastest growing.

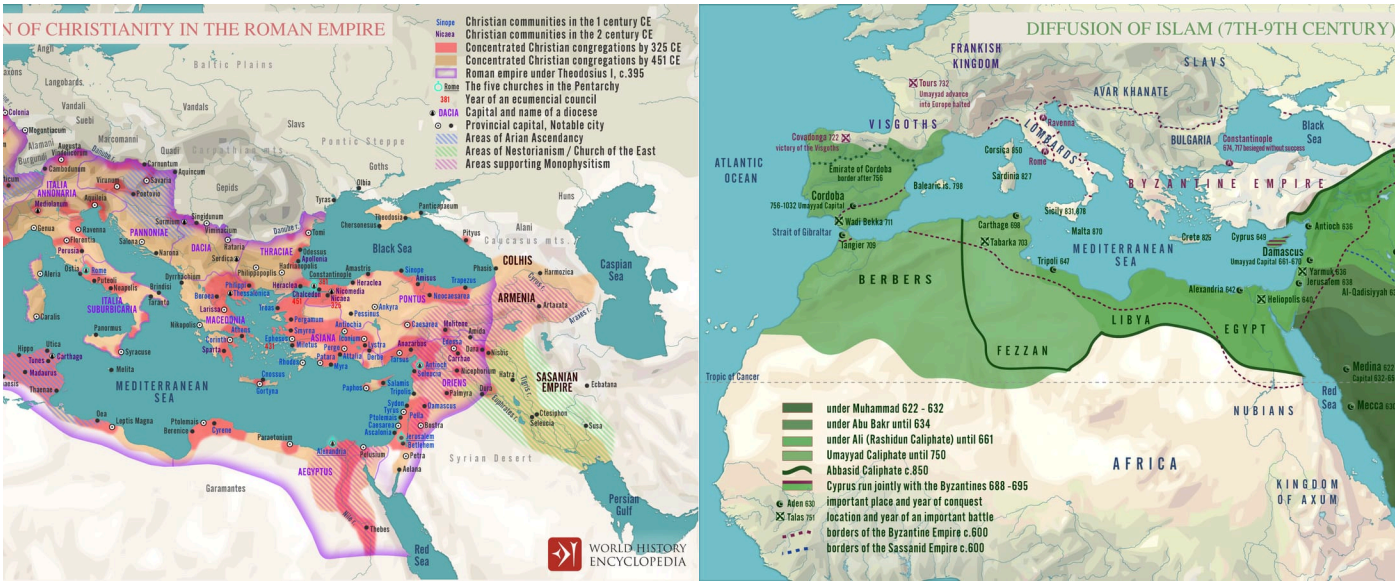


Figure 4.3.3: [top] This map illustrates the rise and spread of Christianity from a small Roman province of Judea across the urban centers and rural areas of the Roman Empire (CC BY-NC-SA 4.0; Simeon Netchev via World History Encyclopedia). [bottom] This map depicts the rise and expansion of early Islamic caliphates from the Prophet Muhammad until the 9th century. Note the diffusion from Mecca to North Africa, the Iberian Peninsula, and Southwest Asia (CC BY-NC-SA 4.0; Simeon Netchev via World History Encyclopedia). Click on maps for enlarged versions.

SWANA and the Muslim World

SWANA is often considered to be the land of Islam. About 93 percent of the SWANA population is Muslim and, except for Israel, every nation in SWANA is a Muslim majority nation. The prevalence of Islam and Arabic in SWANA often dub the region as the "Muslim World" or the "Arab World." The cultural connections between Arabic and Islam make it far too easy to conflate Arabs and Muslims. Most Arabs are indeed Muslim, but the vast majority of Muslims are not Arabs. Consider that the largest Muslim-majority country in the world, Indonesia, is neither Arabic-speaking, nor located in the SWANA region. In fact, most Muslims live outside of the region - in Indonesia, Pakistan, India, and Nigeria, for example, and are non-Arabs. Many Muslims in SWANA, too, are not Arabs, like Persians (the ethnic majority in Iran), Turks (ethnic majority in Turkey), and Kurds (ethnic group distributed in Syria, Iraq, Turkey). Thus, we are cautionary of sweeping such a vast region into a monolith, noting that while language, religion, and ethnicity are interrelated factors in shaping identities, they are not always aligned. Divisions within Muslims, like Shia and Sunni, further highlight a complex identity mosaic. Further complicating is the fact that Muslim-majority nations have sizable Christian populations, like Lebanon (40% Christian). In Egypt, Coptic Christianity remains a key character of the country's ancient history. Alexandria was home to the first school of Christian learning and Egypt has the largest Christian population in the region, despite Christians being a minority there.

With that said, there is still a great connection between an Arab identity and Islam. The Quran is in Arabic and terminology and script used in most Muslim majority countries is Arabic. Furthermore, Arabic and many aspects of Arab culture spread worldwide through Islam. Standard Islamic expressions, such as the greeting, *es-Salamu 'Alaykum (*"Peace Be Upon You") remain in Arabic, regardless of cultural context.

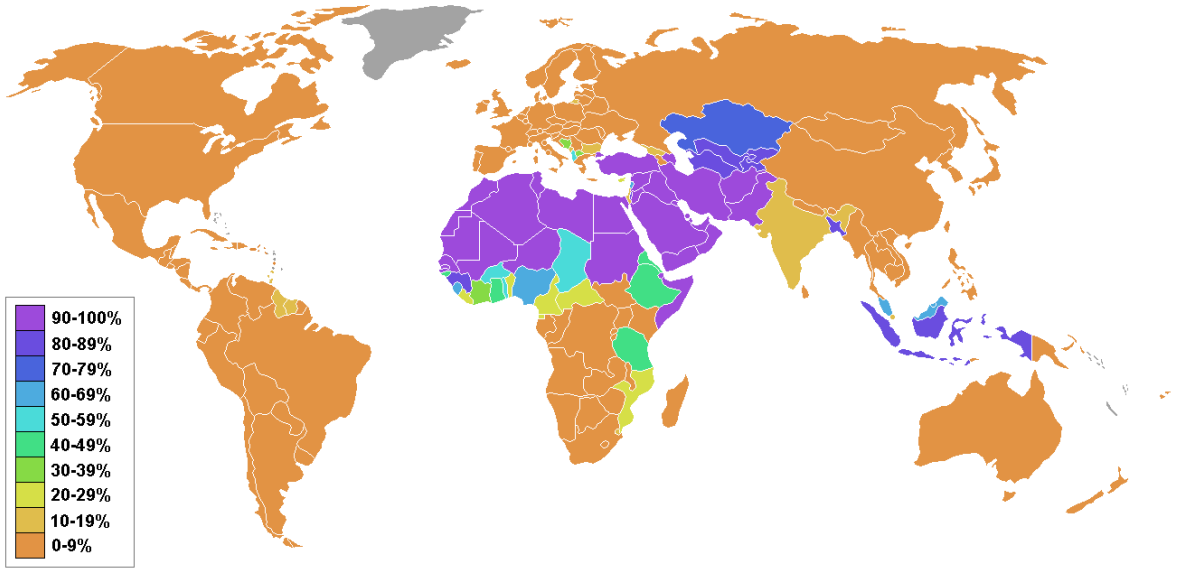


Figure 4.3.4: This world map shows that most countries in the SWANA region are Muslim-majority nations (Public Domain; based on CIA Factbook via Wikimedia Commons). The largest populations of Muslims live outside of SWANA: in Indonesia, Pakistan, India, Bangladesh, and Nigeria, for example. Despite Saudi Arabia's importance in the Muslim world, being home to two of its sacred sites, Saudi Arabia is home to a small share (about 16%) of the world's Muslim population. The map also illustrates that "the Muslim world" extends far beyond the SWANA region.

Practice and Belief

The **Five Pillars of Faith** form the foundation for Islamic belief into practice. First, the pillar of *Shahada*refers to a declaration of faith. It is generally recited in Arabic but translates as “There is no god but God (and) Muhammad is the messenger of God.” Stating this phrase with conviction is all that is required to convert to Islam. Second, the pillar of *Salat* refers to prayer five times per day. When Muslims pray anywhere in the world, they follow a cleansing ritual and face Mecca, the holiest site of Islam. The third pillar of Islam, *Zakat*, refers to charity. Muslims are required to donate 2.5 percent of all assets each year. The fourth pillar, *Sawm*, requires Muslims to fast during the month of Ramadan. During this month, adult Muslims abstain from food, drink, and sex during daylight hours. Those who are ill, pregnant, elderly, or are otherwise unable to fast are exempt from the requirement. The month-long fast is designed to bring Muslims closer to God, but also humble them with the feeling of hunger in the hopes that they will be mindful of those who are less fortunate throughout the rest of the year. Finally, the fifth pillar of Islam is **hajj**, a pilgrimage to Mecca that is expected for all physically and financially able Muslims to complete at least once in their lifetime. During the hajj, which lasts several days, Muslims complete a series of rituals, some dating back to the time of Abraham.

A Globalized *Hajj* and the Transformation of a Holy City: Mecca, Saudi Arabia

Nearly all belief systems of the world ascribe sacredness to places, often revering and transforming them in search of a greater connection with the divine. Often, sacredness is ascribed to places of significance in a messiah/prophet's life, like places of birth, enlightenment or divination, and death. In Islam, there are various sites that are significant in prophet Muhammad's life and the origins of Islam. The most sacred of these sites is in Mecca, Saudi Arabia, the location of the mosque of Mashid al-Haram. This great mosque contains the **Kaaba**, a cube-shaped structure draped in black silk that is considered the holiest object in Islam. Muslims believe that the Kaaba was built by Abraham with the help of his son Ishmael on a site historically sacred to local peoples of various beliefs in pre-Islamic times. Within it, there is a sacred stone revered as the only vestige of Abraham’s Kaaba. Every pilgrim seeks to touch it or kiss it, as Prophet Muhammad did. It is said that the stone has concaved from the sheer number of human hands that touch it and turned black from absorbing human sins.[1]

For centuries Muslims have sought to complete their pilgrimage to Mecca, the *hajj,* to replicate rituals following the steps of Prophet Muhammad. Before today’s ease of air travel, getting to Mecca was often a difficult and humbling journey – a pilgrim coming from Pakistan would have to cross mountains and the Arabian sea and desert before reaching the holy city. Access

is much easier today, and Mecca is among the most visited religious sites in the world. It hosts about 2 to 3 million pilgrims each year, a small number compared to the 1.8 billion Muslims in the world. Mecca remains an exclusive city. Non-Muslims are forbidden and yearly quotas for pilgrims are enforced, but the number of visitors outweigh the number of residents.

Mecca is one example of the struggle between local spaces transformed into globalized spaces. Geographers study these complex dynamics and the homogenizing and dispossessive effects of globalization. Hosting millions of pilgrims from all over the Muslim world has resulted in a transformation of Mecca. It is estimated that within the last several decades over 90 percent of its original buildings have been destroyed to expand Mecca's *hajj* capacity.[2] Saudi photographer, Ahmed Mater, recorded some of this spatial transformation through a collection of photographs titled "a prayer for Mecca" that showcases the scale of ambitious construction projects.[3] The story in Mater's photographs transmit great grief and echo pervasive criticisms of the bulldozing of historically and culturally significant sites to make way for expanded freeways and modern towers for five-star hotels and other global capitalist chains that dot many of today's urban landscapes. Modern Mecca is filled with contradictions, striped of its antiquity for skyline buildings that tower wealth over Islam's holiest site, a place where pilgrims come to be humbled before God. Ultimately, a globalized *hajj* has meant that more Muslims are able to access Mecca's holy sites but welcoming more pilgrims has resulted in the bulldozing of the landscape and the architectural memory of holy Mecca.

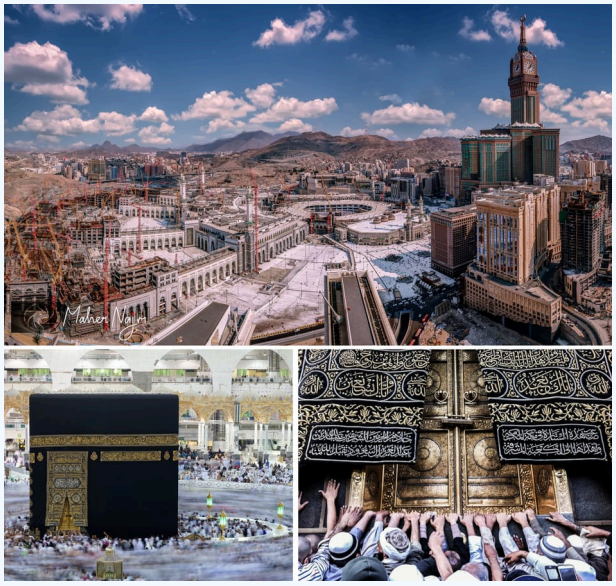


Figure 4.3.5: [top image] An aerial photo of Mecca's Mashid al-Haram, the sacred mosque in Mecca. Towering to the right is the world's tallest clock tower. To the left, a series of cranes show continuing construction in the holy city (Public Domain; Maher Najm via Flickr). [bottom left] A mass of pilgrims circle around the Kaaba in prayer (CC BY-NC-ND; Hashmi via Flickr). [bottom right] Pilgrims reach to touch the Kaaba, Islam's most sacred structure, a much anticipated moment of the hajj that few pilgrims are able to achieve (CC BY-NC; Ibrahim via Flickr).

Religious Divides

As with other Abrahamic religions, there are divisions within Islam that separate it into two major sects. Immediately after Muhammad's death, disagreements arose over who should succeed Muhammad as the leader of the Muslim faith. Most Muslims believed that the leader of Islam should be the person who is most qualified. Today, this group represents the **Sunni** branch of Islam. Others, however, believed that the only rightful leader must be a blood relative of Muhammad. This group is known as **Shia**, which derives from the Arabic phrase shi'atu Ali meaning "followers of Ali," who was Muhammad's cousin and son-in-law. The differences between Shia and Sunni Muslims are primarily rooted on this history and not as much on differences in doctrine. There are a lot of theological similarities between Shias and Sunnis: both follow the five pillars of faith, the Quran is word for word the same for both, and prayer is largely the same.

Sunni is the largest branch of Islam, with around 90 percent of Muslim adherents. Most nations in SWANA have a Sunni majority population, including all of North Africa and most nations in the Arabian Peninsula. Close to 10 percent of Muslims are Shia. In Iran, Iraq, and Bahrain, Shia Muslims makeup for the majority of the population. For centuries, s**ectarianism,** or divisions along sectarian lines of Islam, has culminated into tension and conflicts as Sunnis and Shias compete for political power and

representation. Saudi Arabia (Sunni) and Iran (Shia) are dominant geopolitical powers that take opposing sides in ongoing **sectarian conflicts** in the SWANA region. Their competing influence was particularly evident in Syria's civil war (2011), which started as peaceful protests that evolved into a violent and bitter war. On one side, Iran continued provided military support to Syrian dictator Bashar al-Assad. On the other, Saudi Arabia provided military support to rebel groups seeking to overthrow al-Assad. These outside investments (which included a network of powerful alliances within and beyond the region) exacerbated the capacity of both the rebels and the state for lethal violence and massive destruction in Syria. Over the years, the civil war became a transboundary phenomenon. It intensified sectarian instability in Iraq where the Shia and Sunni populations are evenly divided and where the US-invasion and retreat resulted in great instability. Sectarianism is manageable and does not always result in violent sectarian conflicts, but when they arise, they are not necessarily about religious difference but about which group should be in power. Often intertwined with many factors and allies, outside geopolitical interests often escalate these tensions.

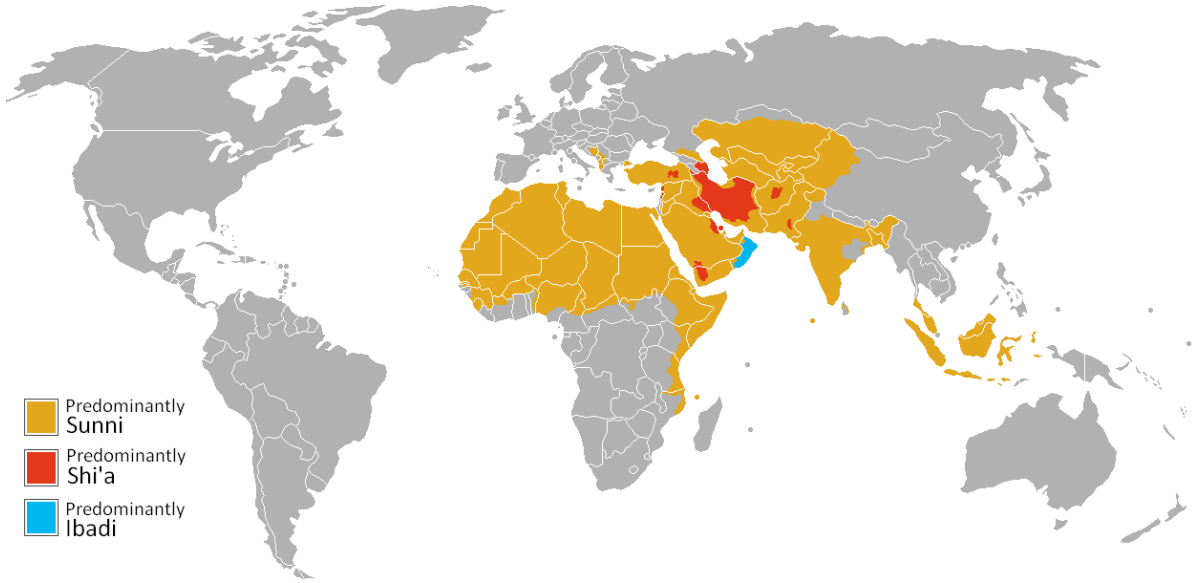


Figure 4.3.6: This world map shows the geographic distribution of Sunnis and Shias. Shia Muslims are the majority only in Iran, in Bahrain (a tiny island country in the Persian Gulf), and in Iraq (by a slight majority) (Public Domain; DinajGao via Wikimedia Commons). The lesser-known Ibadi sect is predominant only in Oman.

Sharia and Legislation

Devotion to Islam means a commitment to the five pillars of faith and to the lessons of Prophet Muhammad as a way of living that is embodied in a set of Islamic principles and rules called **sharia.** In Arabic, *sharia* means "the way" or "the correct path", a divine and philosophical guidance that forms the moral framework of Islam. Much of sharia is dedicated to everyday practice of Islam: like pray five times a day in prescribed manner, give to charity, and fast during Ramadan, for example. The Quran is the primary source for everyday guidance, as it details a path to a moral life, principles to live by. A part of *sharia* is about matters of public life.

The degree in which sharia transpired into legislation varies across SWANA and in the broader Islamic world. Countries with a declared separation of the state and church, where civil law is not informed by religious codes and where one religion is not favored by government institutions are called **secular states.** Countries where religious codes shape civil law and government institutions are called **religious states.** Religious states in the Muslim world often interpret sharia into a legal philosophy called **fiqh.** There is a misconception that *sharia* is taken directly from the Quran without any process of interpretation or application of legal precedents. In reality, religious scholars interpret the Quran and other holy documents to inform Islamic legal frameworks. The ways *sharia* is interpreted and implemented as the law of the land is subject of much debate, especially in areas of women's rights and corporal punishment. According to the Pew Research Center, public support for Islamic law varies in the SWANA region: While vast majorities support sharia as the law of the land in Afghanistan, Pakistan, Egypt, Jordan, and Palestinian territories, very few in Lebanon, Turkey, and Indonesia do.[4]

Rather than discrete categories, secular states and religious states are two ends of a continuum since there are various degrees in which religion percolates in governmental institutions and decisions. Even in secular states such as the United States phrases such as "in God we trust" or "one nation under God" are central to American nationalism as religion is deeply rooted in the world's

oldest democracy. In the SWANA region, Islam is a central in culture and governance and nearly all states have declared it as the official or favored state religion (exceptions include Israel, Turkey, and Lebanon).[5] About half of the world's Muslim-majority countries have sharia-inspired laws.[6] Saudi Arabia follows an ultra-conservative and rigid Wahhabi interpretation of the Quran. **Wahhabism** calls for the literal interpretation of the Quran and strict enforcement of religious codes and practices. It began in Saudi Arabia in the 18th Century as a social and religious reform movement and is associated with the consolidation of the Saudi kingdom.[7] In both Saudi Arabia and Iran, religious restrictions are high and Islamic law is enforced by religious police.[8] The two countries are part of a list of countries where a lack of contempt or reverence for God, blasphemy, is criminal offense. Muslims account for the largest number of people arrested due to blasphemy laws.

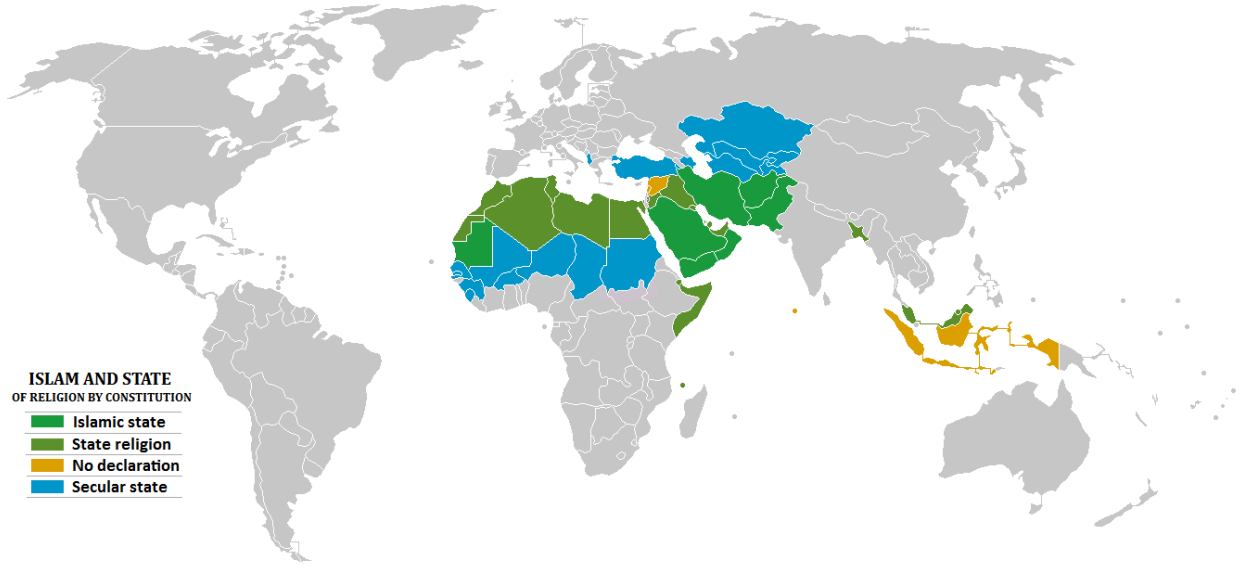


Figure 4.3.7: This map illustrates the relationship between Islam and state governance across in Muslim majority countries as declared by their respective constitutions. Saudi Arabia, Oman, Yemen, Iran, Pakistan, and Afghanistan are declared Islamic States (forest green). In Iraq, Jordan, Egypt, Libya, Algeria, Moroccoa and Western Sahara, Islam is the declared state religion (moss green). States in the Sahel and Central Asia (depicted in blue) are declared secular states, while countries like Indonesia and Syria have no declarations pertaining to Islam in their constitutions (yellow) (CC BY 3.0; Mohsin via Wikimedia Commons).

References:

[1] Peer, B. (Apr 9, 2012). Modern Mecca: The transformation of a holy city. *The New Yorker*.

[2] Taylor, A. (Sep 29, 2015). Mecca then and now: 128 years of growth. *The Atlantic*.

[3] Matter. A. A prayer for Mecca. Story published originally by Bekhrad, J. (Dec 8, 2017) in the *Financial Times*.

[4] Lipka, M. (Aug 9, 2017). Muslims and Islam: Key findings in the US and around the world. *Pew Research Center*.

[5] Pew Research Center (Oct 3, 2017). Many countries favor specific religions, officially or unofficially.

[6] Robinson, K. (Dec 17, 2021). Understanding sharia: The intersection of Islam and the law. *Council on Foreign Relations.*

[7] Fahmy, D. (Apr 12, 2018). 5 facts about religion in Saudi Arabia. *Pew Research Center*.

[8] Theodorou, A. (Mar 19, 2014). Religious police found in nearly on-in-ten countries worldwide. *Pew Research Center*.

Attributions:

"Cradle of ingenuity" is adapted from Cuneiform, Ancient Egyptian Writing, Fertile Crescent by Mark, J. (2018; 2016; 2018) in

World History Encyclopedia, CC BY-NC-SA.

“Languages” and “Hearths of Judaism, Christianity, and Islam” is adapted from Keys to Understanding the Middle East by Alam Payind & Melinda McClimans, Ohio State University, CC BY SA.

“Hearths of Judaism, Christianity, & Islam” is adapted from Fertile Crescent by Mark, J. (2018), in *World History Encyclopedia,* CC BY-NC-SA and The Religious Hearths of North Africa and Southwest Asia by Finlayson, C. (2020), CC BY-NC-SA.

“Holy Jerusalem” is adapted from Jerusalem by Denova, R. (2019), in *World History Encyclopedia,* CC BY-NC-SA.

"Pillars of Faith" and "Religious Divisions" are all adapted from the Religious Hearths of North Africa and Southwest Asia by Finlayson, C. (2020), CC BY-NC-SA.

“Islam and Legislation” is adapted from Keys to Understanding the Middle East by Alam Payind & Melinda McClimans, Ohio State University, CC BY SA.

This page titled 4.3: Cultural Hearths of Writing and Abrahamic Religions is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

4.4: Oil and Uneven Development

Learning Objectives

- Describe how oil impacted SWANA.
- Explain OPEC and its significance on a global scale.

SWANA Economies and Oil

For this section, the core message via geographer Neil Smith, is that there is significant global uneven development, and this uneven development expresses itself spatially. Uneven development indicates that for one place to be economically developed another one must remain stagnant. Three approaches to conceptualize unequal economic growth are colonial history and intervention in a region, corruption, transparency, and intergovernmental institutions like the United Nations in the region, and ultimately damaging postcolonial initiatives in the region. However, SWANA peoples and places existed prior to colonial interventions and continue to exist in spite of them.

The world has influenced SWANA, and SWANA has influenced the world. SWANA has substantial oil reserves. Numerous SWANA nations, particularly Saudi Arabia, Iraq, and the United Arab Emirates, have significant oil reserves and are among the world's major oil producers. SWANA has dominated the global oil market for much of the 20th and 21st century, and the oil sector has had a significant impact on the region's economies and politics. In the 20th century, the discovery of oil in SWANA led to a rapid expansion in the region's wealth and influence, and the sale of oil has been a key source of revenue for several of these countries.

Despite the numerous booming economies in the region, the majority of the wealth is concentrated in the oil states; moreover, a high GNI does not necessarily correlate with a high Development Index (HDI); see figure and pay particular attention to Qatar. The oil states that are constructing specialized towns, architectural marvels, luxurious hotels, and purchasing the rarest vehicles are also infringing on the human rights of the numerous South Asian migrant workers who provide the infrastructure for such endeavors.

Nonrenewable Resources: Fossil Fuels and Oil Generated Inequalities

Fossil fuels (made from the decomposition of plants and animals under prolonged periods of heat and pressure) such as 'natural' gas and oil also known as petroleum are the main source of energy for our industrialized world. Petroleum has an astonishing array of uses, including fuel, pharmaceuticals, asphalt, fertilizers, and plastics. The 20th century is the era where the use of fossil fuels to drive wars, ships, tanks, and cars has made an indelible impact on our planet and continues well into the 21st century. SWANA is critically important for these economies because it is the region of the world that holds the highest reserves of crude oil and natural gas. Although SWANA holds some of the highest reserves the US, Canada, China and Russia have been able to increase production (see Table _) which has had a significant impact on global petroleum prices. Petroleum production and control have had a critical impact on SWANA's economic geographies and national identities.

Colonial interventions in Petroleum and Natural Gas Reserves as the world's fossil fuel reserves were identified and it became apparent that SWANA had a sizable percentage of the reserves the UK and US began drilling projects in an attempt to control global production. First in Iran in the early 1900s, Iraq in the 1920s, and later in Arabian Peninsula countries like Bahrain and Saudi Arabia in the 1930s.

OPEC (Organization of Petroleum Exporting Countries) is an intergovernmental established in 1960 and headquartered in Vienna, Austria. Created by oil exporting nations in SWANA (Iran, Iraq, Kuwait, and Saudi Arabia) and Venezuela. Now there are 13 member nations and account for over 80% of the world's oil reserves. Prior to OPEC the "Seven Sisters" or Big Oil companies like Exxon Mobil and Shell determined petroleum prices. OPEC member nations coordinate their crude oil policies and thus have control over the global production and prices of oil and natural gas. The 1970s illustrated two such global oil shortages because of OPEC cut back on production. Countries like the US and Canada have increased their oil production to decrease dependence.

The Organization of Petroleum Exporting Countries (OPEC) is a cartel of 13 member countries that produce and export a significant amount of the world's oil. As a result, OPEC wields considerable power over global oil prices. What determines the price

we pay at the pump? Is it government policy, natural disasters, and other current events? Yes, it is all of those but very importantly it is the costs associated in the refinement and transportation of the oil and of course supply and demand. Most of the cost is refining the crude oil. Oils that come from OPEC countries are more challenging to refine however these oils are where most of the world's oil supplies come from.The primary goal of OPEC is to manage the supply of oil in the market to maintain stable prices and a consistent stream of revenue for its member countries. This is typically done by adjusting the amount of oil produced and exported by OPEC to balance the market and avoid a supply glut or shortage.When OPEC increases its oil production, oil prices may fall as the market becomes flooded with more supply than demand. When OPEC reduces its oil production, it can cause an increase in oil prices because the market becomes tighter with less supply.

SWANA Economies and Oil

The history of oil in SWANA is long and complex. In the first half of the 20th century in the Arabian Peninsula the discovery of crude oil in nations like the United Arab Emirates, Qatar, Bahrain, Kuwait, Oman and Saudi Arabia has spurred rapid urbanization and migrant laborers. There are several countries in SWANA that rely heavily on oil exports. The global dependence on oil is critical to the perpetuation of this wealth. **Petrodollars** are the returns generated by selling oil and are also significant for the world economy especially for the economies of regions like Europe, North America, and East Asia. However, the dependence on a single resource or **primary commodity** puts these states and their economies at risk. The lack of a diverse economic portfolio sets up the conditions for high vulnerability if the demand for oil decreases. Several countries have responded to this over dependence on fossil fuels by seeking out ways to expand their economies. In taking steps to move away from energy economies some of the Arab states like Qatar and UAE have embarked on becoming tourist destinations, knowledge cities, and rapid urban development centers (photograph of Borj Khalifa and Jean Nouvel museum). Highly specialized planned urban projects like Masdar City in Abu Dhabi aim to be a renewable energy city that is a center for technology development and research. These unique developments are meant to encourage investment, economic growth, and to concretize the cultural significance of these countries.

Countries like Egypt, Israel, Lebanon, and Turkey have growing agricultural economies and industrial development. Israel has a strong manufacturing base and aims to increase its food security through national agricultural development. Egypt has a well-developed manufacturing industry while Lebanon has a healthy agricultural economy and was also a banking and finance center. Lebanon was in a civil war between 1975-1990 and was engaged in war with Israel in 2006 further endangering its political and economic stability. Libya, Algeria, Mauritania, Morocco, and Tunisia sometimes referred to as **the Maghreb** have economies based on agriculture, tourism, and exploitation of natural resources including oil. Both Algeria and Libya are heavily dependent on oil exports while Tunisia and Morocco have phosphate reserves (most commonly used in fertilizers). Tourism is also a critical industry in this region, the region has picturesque beach resorts, mountain experiences in the Atlas mountains, and the Sahara desert.

Oil, Iran, and Contra-tactics

What is now known as the Islamic Republic of Iran has a long history of conquest and humiliation. The Greeks, Romans, Mongols, and Arabs conquered and divided Persia. In 651 CE, the Arabs conquered Persia and the Sassanid Dynasty, replacing Zoroastrianism with Islam. Persians, branched off into their own version of Islam, Shia Islam, to mourn the loss of their prophet Hussein. Throughout the twentieth century, Iran was subjected to numerous colonial interventions, primarily by England and the United States. Oil was the natural resource at stake. Iran controls roughly 10% of the world's petroleum reserves. The English conquered oil, Iran's most valuable and abundant natural resource, keeping the country under imperialist control for the majority of the twentieth century. In 1953, the United States intervened in Iran. The CIA, led by Kermit Roosevelt, orchestrated the assassination of Mohammad Mossadegh, the elected Prime Minister (see Abrahamian 1982 and Kinzer 2003). Mossadegh wanted to nationalize oil, and he was well on his way to doing so, much to the chagrin of the imperialists. Machiavellian tactics brought him to a halt. The English and Americans installed the imperialist-friendly monarch Mohammad Reza Shah in his place. Iran and Iranians have been haunted by this US and England's intervention in Iran and many argue that the current authoritarian regime is a direct consequence of this intervention.

Progressive or Traditional Societies in SWANA?

A common misunderstanding or misrepresentation of SWANA is that it is not modern. Because human rights, women and girls rights, and freedom of the press are decidedly a problem in SWANA, assumptions are made about SWANA's modernity. Are there toilets? Do people drive cars? Are there concrete buildings? Many countries in the Arabian Peninsula, like Qatar, the United Arab Emirates, and Bahrain discovered oil and natural gas in the last 60 years which transformed their economies, societies, and their

role in the global economy. Qatar is the first SWANA country to host the FIFA World Cup and only the second World Cup held in Asia. SWANA taken as a whole is both traditional and progressive not one or the other.

For many who have not traveled to this region they might be surprised to find unique architectural contributions and some of the most advanced urban centers in the world. The National Museum of Qatar is a museum in Doha, Qatar that tells the story of the country's rich cultural and historical heritage. The museum is housed in a distinctive building designed by the French architect Jean Nouvel, and it features a range of exhibits and interactive displays that explore the history, culture, and traditions of Qatar and the surrounding region. The museum covers a wide range of topics, including the natural environment, the history of Qatar's ruling family, the development of the oil industry, and the cultural traditions and customs of the Qatari people. It is a popular tourist destination and a major cultural institution in Qatar, and it is considered one of the most celebrated architectural innovations in SWANA.

Like Dubai in the United Arab Emirates, Doha is a “global city” with the majority of its population natives of countries like Bangladesh, Pakistan, and India. The race to design and build large-scale architectural statement structures that will be recognized globally is a critical component of displays of wealth and progress, and of power difference and migrant labor. Qatar has faced criticism and controversy over its treatment of migrant workers, particularly in the construction industry. Many of the workers who come to Qatar to work on large-scale construction projects, such as those related to the FIFA World Cup, are from other countries in Asia and Africa, and they often face difficult working and living conditions. Some workers have reported being paid exceptionally low wages while living in unsanitary accommodations. These laborers are often subjected to abuse and exploitation by their employers. There have also been concerns about the lack of legal protections for migrant workers in Qatar, and about the country's kafala sponsorship system, which ties workers visa status to their employers and can make it difficult for them to leave the country or change jobs. The Qatari government has taken some steps to address these issues, but there is still much work to be done to ensure that all workers in Qatar are treated humanely.

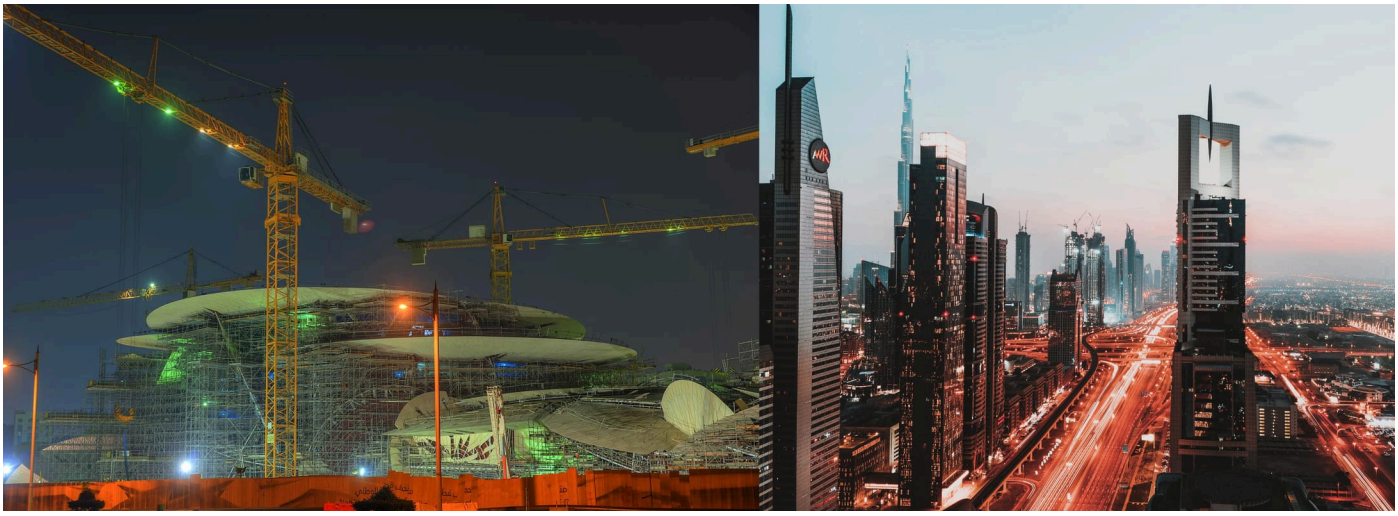


Figure 4.4.1: [left] Qatar National Museum under construction in 2015 (CC BY-SA 3.0; Sergeev via Wikimedia Commons). [right] Skyline of downtown Dubai. The Dubai Plan of 2021 aims to create a smart city, a city designed to improve its environmental sustainability and quality of life of city residents through maximizing technological innovation. Dubai's vision to become a driving force of sustainability, non-corrupt governance, and inclusive ideals is in direct opposition to its treatment of migrant laborers from countries like Bangladesh and Pakistan (Public Domain; Srivastava via Wikimedia Commons).

Attributions:

"SWANA Economies and Oil" is adapted from "Cultural Adaptations in North Africa and Southwest Asia" by Finalyson, Caitlyn, CC BY-NC-SA.

This page titled 4.4: Oil and Uneven Development is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Nazanin Naraghi.

4.5: Contemporary Art and Culture in SWANA

Learning Objectives

- Provide insights into contemporary cultural innovations in SWANA.
- Consider the importance of art and film from SWANA recognized on a global scale.

Visual Arts in Iran

In February of 2012, the Oscars anointed the first Iranian winner, Asghar Farhadi for his film "A Separation" (2011). This award is especially auspicious considering Iran is the target of diplomatic and economic sanctions and under threat of military attack from Israel, the US, and the United Kingdom. The images of Iran in the mainstream media are of menacing power plants, anti-Semitic presidents, and bearded robed men. And yet, visual art and film from the region and from the diaspora has received overwhelming international recognition not only from the mainstream Oscars but also from revered film festivals.

In 1997, Abbas Kiarostami received the highest prize at Cannes, the Palme D'Or, Shirin Neshat received a Silver Lion at the Venice Film Festival for best director in 2009, and again Asghar Farhadi was given a Golden Bear at the Berlin Film Festival in 2011. In other words, Iranians living under a repressive regime are producing some of the most highly impactful art of the 20th and 21st centuries.

The 'watershed' moment for Iranian visual arts came in May of 2006 at Christie's inaugural Contemporary Middle Eastern Art sale in Dubai. The auction brought in over 2 million US dollars while the following year saw sales well over 12 million US dollars. Middle Eastern art was delivering groundbreaking numbers and Christy's new category of Modern and Contemporary Iranian and Arab Art solidified Iranian art's critical status with dealers, curators, and collectors on a global scale. Iranian artists have brought in landmark sales, including Charles Hossein Zenderoudi's 1981 painting "Tchaar-Bagh" which sold for over 1.6 million US dollars in April of 2008 and Parviz Tanavoli's 1975 bronze sculpture "The Wall (Oh, Persepolis)" sold for a world record price of over 2.8 million US dollars in April of 2010.

Beginning in 2010, civil uprisings in Tunisia, Egypt and Bahrain and bloody civil wars in Syria and Libya have made corruption and human rights abuses in this region of the world visible to the international community, including the US and Great Britain. In Iran the protests and civil rights movement (now known as the Green Movement) beginning after the perfidious June 2009 elections has made it clear to the world that the Islamic Republic of Iran's government is abusive and is under serious scrutiny by Iranians in Iran and within the diaspora.

Because of Iran's oppressive political and social agenda there is a largely young and disenfranchised Iranian population finding outlet through various visual medias which leaves no shortage of work to be sold and recognized internationally. Iran's "golden age" of art is largely attributed to the establishment and steady growth of Christy's auction house in Dubai. The wealthy in and outside of Iran understand art to be an intelligent financial investment, as artist Parviz Tanavoli comments, "there is a lot of wandering money in this country which in the past was only invested in housing and the stock exchange. But this has changed now."[1] Another reason for the rise of Iranian art is that Iranian artists living, working, and consolidating the current civil rights movement of Iranians from within the diaspora, such as Shirin Neshat, are more recognized than ever. The art world began to take notice that Iran experienced profound shifts in the last century sparking artists both in and outside of the country to speak the language of those traumas. Neshat is an extraordinary example of an artist born of this trauma.

Shirin Neshat, in the circuits of contemporary art, is a household name. She arguably popularized a form of art that investigates identity, hybridity, history, and migratory processes. The relationship between ancient and modern in terms of identity, art, history and geography has been broached intensely in the photography and films of Neshat. Neshat first arrived as an artist in the mid 1990s with her photo series "Women of Allah", in which she attempts to visualize questions related to hybridity, gender, memory, identity, and the self. Much of her work deterritorializes language and bodies, by writing Islamic women's bodies (symbolized by the *chador* or full-length head/body covering) with the language of provocative and charged feminist Iranian poets such as Forough Farokhzad. The photograph "Speechless" (1996) was acquired by the Los Angeles Museum of Contemporary Art in April 2012. The image combines four dominant symbolic elements: text, veil, gun, and gaze. "Speechless" is representative of Neshat's concerns throughout the "Women of Allah" series. "Speechless", claustrophobically frames a mournfully indifferent face, (not her

own although she is featured in other photos), overwritten with Islamic text. The barrel of a gun peers out ominously from within her chador. The photo features the penetrating one-eyed soft gaze of the woman looking beyond the gaze of the camera. The image juxtaposes several powerful forces bearing on women's lives in Iran, Islam, violence, and the chador/veil.

In the 1990s, her approach was fresh and confrontational and she arguably began a movement, amongst diaspora artists and others, concerned with questions of identity, gender, geographical divides, democracy, and political exile. Neshat's presence and work has proven to be arresting. Neshat received the prestigious Dorothy and Lillian Gish Prize in 2006 while in 2010 cultural critic Roger Denson of the Huffington Post named her artist of the decade. Denson commends Neshat's work for its "chronic relevance to an increasingly global culture" and for its capacity to respond "to the ideological war being waged between Islam and the secular world over matters of gender, religion, and democracy". For Neshat to be named artist of the decade is indicative of how much her work has resonated with collectors, critics, and spectators.



Figure 4.5.1: Director Shirin Neshat (second from right to left) with friends at the Closing Ceremony photocall at the Palazzo del Casino during the 66th Venice Film Festival (CC BY-SA 2.0; Genin via Wikimedia Commons).

References:

This page titled 4.5: Contemporary Art and Culture in SWANA is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Nazanin Naraghi.

5: EUROPE

Re-framing Europe

Before we consider how Europe as a region has been traditionally formulated, it's important to note the influence of European thought on the geography taught in the United States and more broadly "geography's complicity in the development of imperialism and colonialism".[1] An example for the former is how the terms "Middle East" and "Far East" stem from the ethnocentric positioning of Europe as the center of the world. Examples of the latter include how European maps of colonial territories from the 1800s cemented a seemingly accurate and authoritative worldview on what were actually disputed territories and boundaries. Cumulatively, how Europeans portrayed peoples and lands beyond Europe–and European claims of discovery of "new" lands–created geographical imaginaries that influenced the discipline of geography in the United States.[2]

In thinking about Europe as a world region, it's important to recognize that the traditional borders of Europe that separate it from the rest of the Eurasian continent are the Ural and Caucasus mountain ranges. The Ural Mountains extend through the Russian Federation from the Arctic Circle to Kazakhstan while the Caucasus Mountains span between the Black and Caspian Seas north of Turkey and Iran. These boundaries were written as a way to separate the Christian-dominated areas of Europe from followers of Islam to the south and the people who, in the 17th century, were deemed "culturally inferior" to the east.[3]

The World Geographies Atlas: Navigate each world region through maps

For each of the world regions, our original atlas provides detailed maps to help you navigate the places discussed in this book. These maps are meant to be explored before and during the reading of this chapter. These maps are best enjoyed enlarged. Click on each map for an enlarged view, and zoom in to see the prominent biomes, physical features, and population centers of Europe. We recommend that you download these for reference as you read this chapter's content and hope that you enjoy this original compilation.

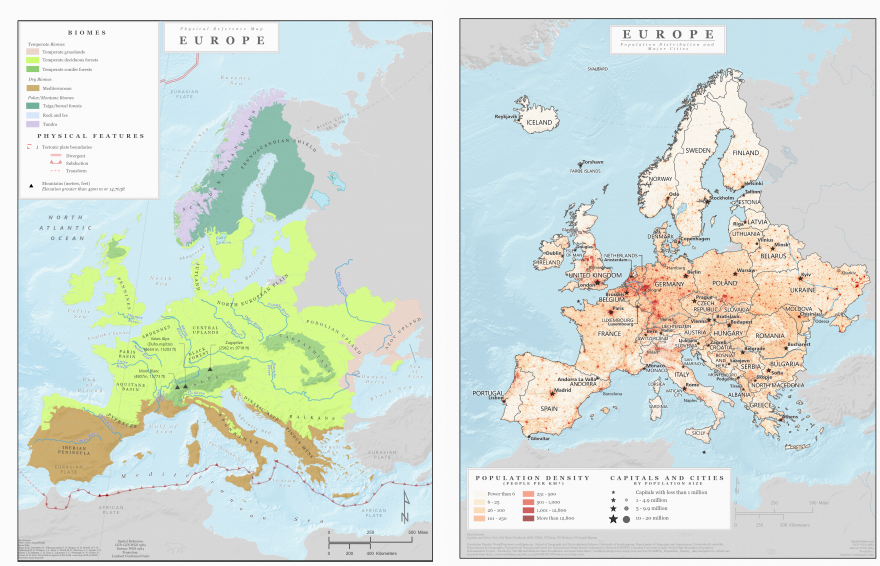


Figure 5.3: [left] This map shows the geographic distribution of biomes and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries in Europe (CC BY-NC-SA; Wallace via Flickr). [right] This map depicts internationally recognized countries, capitals, major cities, and population distributions of Europe (CC BY-NC-SA; Sellers via Flickr).

References

[1] Myers, G.A., McGreevy, P., Carney, G.O., & Kenny, J. 2003. Cultural Geography. In *Geography in America at the Dawn of the 21st*

Century (G.L. Gaile & C.J. Willmott Eds.), p. 81-96. New York: Oxford University Press.

[2] Gregory, D., Johnston, R., Pratt, G., Watts, M., & Whatmore, S. (Eds.). 2009. Africa (idea of), America(s) (idea of), Asia (idea of), Austral(as)ia, idea of, Eurocentrism, Exploration. In *The Dictionary of Human Geography*, 5th edition. Malden, MA: Wiley-Blackwell.

[3] Gregory, D., Johnston, R., Pratt, G., Watts, M., & Whatmore, S. (Eds.). 2009. Europe, idea of. In *The Dictionary of Human Geography*, 5th edition. Malden, MA: Wiley-Blackwell.



- Chapter Sections and Summaries

5.1: Natural Environments

5.2: Connecting Europe's Past to the Present

5.3: Identity and Migration in Europe

5.4: Europe's Regions

This page titled 5: Europe is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

5.1: Natural Environments

Learning Objectives

1. Identify the climate types found in Europe.
2. Explain the maritime influence on the region's climate types.
3. Describe Europe's form main landforms.
4. Analyze the distribution of natural resources in Europe.

Defining the Region

Europe? Where's that? It might seem like a relatively easy question to answer, but looking at the map, the boundaries of Europe are harder to define than it might seem. Traditionally, the continent of "Europe" referred to the western extremity of the landmass known as Eurasia (see Figure 5.1.1). Eurasia is a massive tectonic plate, so determining where exactly Europe ends and Asia begins is difficult. Europe is bordered by the Arctic Ocean in the North, the Atlantic Ocean and its seas to the west, and the Mediterranean Sea and the Black Sea to the south. Europe's eastern boundary is typically given as the Ural Mountains, which run north to south from the Arctic Ocean down through Russia to Kazakhstan. The western portion of Russia, containing the cities of St. Petersburg and Moscow, is thus considered part of Europe while the eastern portion is considered part of Asia. Culturally and physiographically, Western Russia is strikingly similar to Eastern Europe. These two regions share a common history as well with Russian influence extending throughout this transition zone.



Figure 5.1.1: Europe map. (CC BY-NC-SA; Wallace via Flickr).

Europe's Climate

Most places in Europe are relatively short distances from the sea and this proximity to water affects Europe's climate (see Figure 5.1.2). While you might imagine much of Europe to be quite cold given its high latitudinal position, the region is surprisingly temperate. The Gulf Stream brings warm waters of the Atlantic Ocean to Europe's coastal region and warms the winds that blow across the continent. Amsterdam, for example, lies just above the 52°N line of latitude, around the same latitudinal position as Saskatoon, in Canada's central Saskatchewan province. Yet Amsterdam's average low in January, its coldest month, is around 0.8°C (33.4°F) while Saskatoon's average low in January is -20.7°C (-5.3°F)!

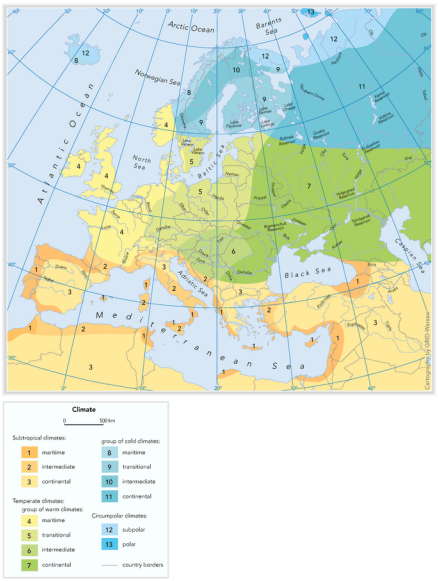


Figure 5.1.2: Climate map of Europe. (Re-use permitted; European Environmental Agency).

While geographers can discuss Europe's absolute location and the specific features of its physical environment, we can also consider Europe's relative location. That is, its location relative to other parts of the world. Europe lies at the heart of what's known as the land hemisphere. If you tipped a globe on its side and split it so that half of the world had most of the land and half had most of the water, Europe would be at the center of this land hemisphere (see Figure 5.1.3). This, combined with the presence of numerous navigable waterways, allowed for maximum contact between Europe and the rest of the world. Furthermore, distances between countries in Europe are relatively small. Paris, France, for example, is just over a two-hour high speed rail trip from London, England.

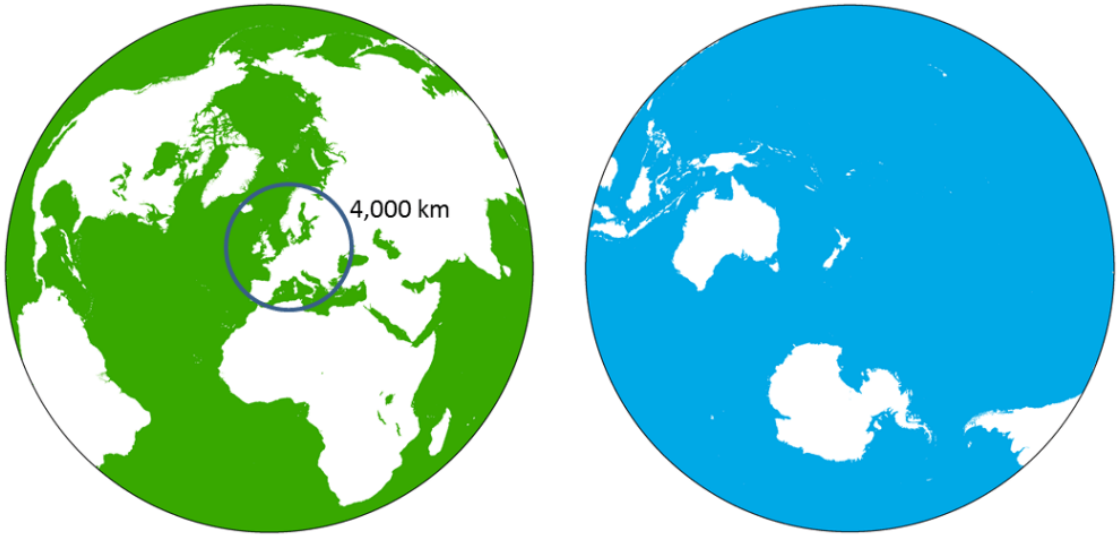


Figure 5.1.3: Map of land and water hemispheres and Europe's relative location. (Derivative work by Caitlin Finlayson from original by Citynoise, Wikimedia Commons, CC BY-SA 4.0).

This relative location provided efficient travel times between Europe and the rest of the world, which contributed to Europe's historical dominance. When we consider globalization, the scale of the world is shrinking as the world's people are becoming more interconnected. For Europe, however, the region's peoples have long been interconnected with overlapping histories, physical features, and resources.

Four Main European Landforms

Europe has four prominent landforms, many islands and peninsulas, and various climate types. The four prominent landforms include the Alpine region, Central Uplands, Northern Lowlands, and Western Highlands (see Figures 5.1.4 and 5.1.5). These diverse landforms provide Europe with an abundance of biodiversity. Biodiversity refers to the diversity of the number of species in an ecosystem and the number of members in each species. The physical environment also provides natural resources and raw materials for human activities. Europe's moderate climates and favorable relative location are supported by its access to the many rivers and seas. These advantageous developmental factors supported the development of the Industrial Revolution in Europe, giving rise to highly technical and urban societies. Europe has emerged as one of the core economic centers of the global economy. With Europe's urbanization, high human population densities have placed a strain on the natural environment. As a result, there has been significant deforestation and the loss of natural habitat, which has, in turn, has decreased the realm's level of biodiversity.

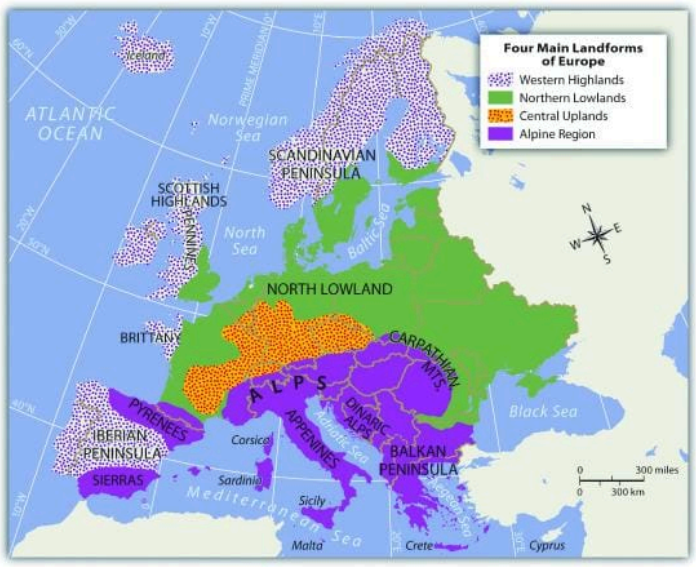


Figure 5.1.4: Four Main Landforms of Europe: Western Highlands, Northern Lowlands, Central Uplands, and the Alpine Region. (CC BY-NC-SA 4.0; University of Minnesota).



Figure 5.1.5: [top left] Western Highlands in Scotland (CC BY 2.0; Mike McBey via Flickr). [top right] Northern Lowlands in the Vistula Valley, Poland (CC BY-SA 4.0; Jakub Halun via Wikimedia Commons). [middle panorama] Central Uplands in the Rhine Valley, Germany (CC BY 2.0; Steve Knight via Flickr). [bottom panorama] Alpine Region in the Rhone Valley, Switzerland (CC BY 2.0; Robert J. Heath via Flickr).

Rivers are abundant in Europe and have provided adequate transportation for travel and trade throughout its history. Most of

Europe is accessible by water transport either via the many rivers or along the peninsulas and islands' extensive coastlines. Two main rivers divide Europe: the Danube and the Rhine. Both have their origins in the region of southern Germany on or near the border with Switzerland. The Rhine River flows north and empties into the North Sea in Rotterdam, Holland, one of the world's busiest ports. The Danube flows east through various major European cities, such as Vienna, Budapest, and Belgrade, before emptying into the Black Sea.

Alpine Region

The High Alps, which range from eastern France to Slovenia, are central to the Alpine region. Included in the Alpine Range are the Pyrenees, located on the border between France and Spain; the Apennines, running Italy's length; the Carpathians, looping around Romania from Slovakia; and finally, the shorter Dinaric Alps in former Yugoslavia. Mountains usually provide minerals and ores placed there when the earth's internal processes created the mountains. Mountains also isolate people by acting as a dividing range that can separate people into cultural groups.

The Alpine region encircles the Mediterranean coastlines, which have more temperate type C climates that are unusually warm with hot, dry summers and cool, wet winters. This climate type allows for the cultivation of food products such as olives, citrus fruit, figs, apricots, and grapes. Evergreen scrub oaks and other drought-resistant shrubs are common in the Mediterranean region.

The Central Uplands

The region bordering the Alps to the north, which includes a large portion of southern Germany extending eastward, is known as the Central Uplands. These foothills to the Alps are excellent sources of raw materials such as forest products and coal, which are valuable resources for industrial activities. The Central Uplands are also good locations for dairy farming and cattle raising. This middle portion of the continent has a mixed deciduous-coniferous forest, and the vegetation includes oak, elm, and maple trees intermingled with pine and fir trees. There are four distinct seasons in this region with moderate amounts of precipitation year-round.

Northern Lowlands

Similar to the breadbasket of the midwestern United States, Europe's Northern Lowlands possess excellent farmland. Primary agricultural operations here provide for a large European population. The land is flat to rolling with relatively good soils. The Northern Lowlands is a vast plain that extends across northern Europe from southern France, north through Germany, and then to the Ural Mountains of Russia. This area is typified by prairies and areas of tall grasses and is mostly used as farmland. The lowlands area also contains bogs, heaths, and lakes. A steppe biome characterizes the eastern part of this vast plain around Ukraine. It is a flat and relatively dry region with short grasses and is generally an agricultural region. This eastern area has large swings in temperature, both from day to night and from summer to winter. Winter temperatures in the eastern steppe can drop to below –40 °F, with summer temperatures reaching as high as 105 °F. This is similar to the steppes of eastern Montana or western North Dakota in the United States.

Western Highlands

On the western edges of the European continent arise small, rugged mountains called highlands that extend throughout Norway, parts of Britain, and portions of the Iberian Peninsula of Portugal and Spain. These Western Highlands hold sparser populations and are less attractive to large farming operations. Agriculture is usually limited to grazing livestock or farming in the valleys and meadows. The Scottish Highlands are noted for their wool products and Highland cattle. In England, the central chain of highlands called the Pennines proved valuable during the Industrial Revolution because they enabled hydropower and coal mining. Coal mining was prominent in the highland regions of Wales. In the far northern regions of Scandinavia, tundra environments prevail. In this coldest and driest biome, permafrost dominates the landscape, and the land becomes soggy for brief periods during the few weeks of summer. The flora consists primarily of lichens, mosses, low shrubs, and wildflowers.

Natural Resources in Europe

Europe's physical landforms provide a diversity of geographic opportunities that have catapulted Europe through the Industrial Revolution and into the information age. With an abundance of natural resources, European countries have gained wealth from

the land and leveraged their geographic location to develop a powerhouse of economic activity for the global marketplace. Europe has placed a strong focus on manufacturing activity to take advantage of its natural resources. The highly urbanized society has struggled to find a balance between modernization and environmental concerns. Industrial activities have contributed to the degradation of the environment and the demise of many species.

Different regions of Europe have freshwater supplies, good soils, and various minerals. Chief among the mineral deposits in Europe is iron ore, which can be found in Sweden, France, and Ukraine. Other minerals exist in smaller quantities, including copper, lead, bauxite, manganese, nickel, gold, silver, potash, clay, gypsum, dolomite, and salt. Extraction activities have supported the continent's industrialization.

The ready access to vast areas of the Atlantic Ocean and several major seas, lakes, and rivers has elevated fish to an essential natural resource in Europe. The seas around Europe provide about 10 percent of the world's fish catches. Mirroring the situation around the world, European fishing activity increased as the population increased. Europeans are becoming increasingly aware of the effects of overfishing. Stocks of Atlantic cod and Atlantic mackerel are considered to be at risk because of the twin threats of overfishing and changes in the environment that affect natural mortality and slowing spawning. Stocks of eastern North Atlantic bluefin tuna are also attracting attention for the same reason. Other species of fish in the North Atlantic and the Baltic Sea are considered overexploited. Changes to the fishery are a significant concern for strictly environmental and ecological reasons and because fish comprise such a substantial portion of the European economy.

With the EU's formation, Europe's countries began to work toward shared research and policies concerning the fishery. The Common Fisheries Policy was drafted and included strict and extensive rules and guidelines for fishing, particularly of cod. The rules are so strict and thus so controversial that Norway and Iceland decided to opt-out of the EU rather than agree to abide by these rules. The effect of these rules is incompletely known, but the cod stocks in the North Sea do not seem to be rebounding as quickly or substantially as expected.

Forest covers more than 40 percent of the continent's land area, with the majority on the Russian side. Forests exist primarily in the less populated Nordic and Baltic countries and Central Europe. About half the forest land in Europe is privately owned. Interestingly, there are several different forms of private ownership, including extensive family holdings, holdings by forest industries, and small to minimal holdings by thousands of individuals. Most of the forested land is managed, and about 85 percent of the forests produce exploitable resources. The percentage of forested land in Europe is rebounding because of an extensive tree-planting initiative since 2000. Pollution has caused great harm to the forests of Poland, the Czech Republic, and eastern Germany, and acid rain and air pollution have seriously harmed forests such as the Black Forest of southern Germany, which has also experienced substantial logging activity.

Soil resources are of critical importance. Soil is necessary for growing food, supporting livestock, supporting other natural resources such as the forests, and supplying groundwater. Soil resources are only just beginning to receive attention in Europe. Problems to be addressed include loss of topsoil from development and building activities, older-style agricultural practices, mining, contamination from industries and other sources, and acidification due to acid rain.

Coal, now substantially depleted, is abundant in Great Britain, including some offshore areas and Germany and Ukraine's industrial centers (Figure 5.1.6). Other coals deposits are found in Belgium, France, Spain, the Czech Republic, Poland, Slovakia, and Russia. The burning of coal has produced high levels of air pollution. Acid rain has been a significant concern in the northern countries, where wind currents carry pollutants north into Scandinavia from Central Europe's industrial regions. In Scandinavia, acid rain has diminished fish populations in many of the lakes. Forest health is also being challenged, diminishing regions' economic conditions that depend on forests for their economic survival.

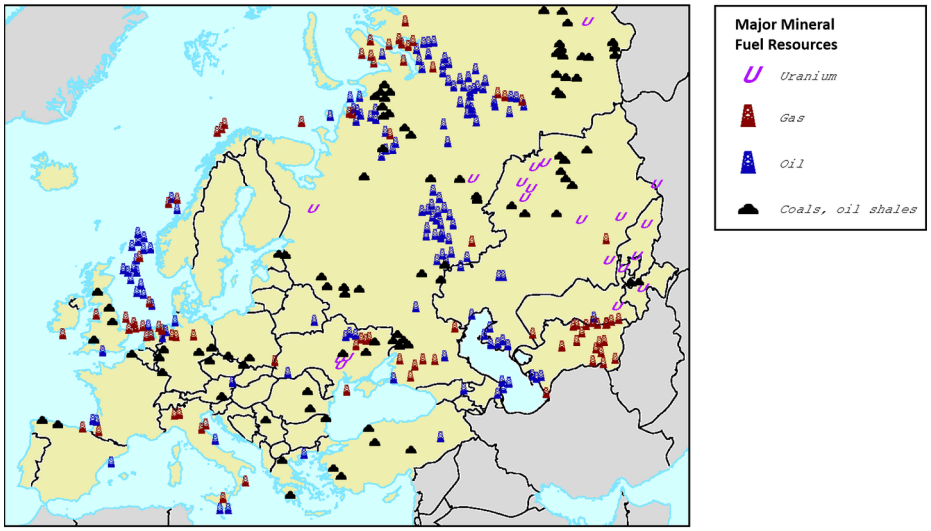


Figure 5.1.1: Locations of major deposits of uranium, gas, oil, coal/oil shales in Europe. (CC BY-NC-SA 3.0; UNEP/GRID-Arendal via European Environment Agency).

Petroleum and natural gas deposits exist underneath the North Sea and were first tapped in the 1970s. Five European countries have rights to these resources, including Norway, the United Kingdom, Denmark, the Netherlands, and Germany, with Norway holding the bulk of the rights. The governments of these five nations agree that half the North Sea oil reserves have been consumed although tapped only decades ago.

Before the extraction of petroleum products from the North Sea, Russia and the former Soviet Union's other republics supplied petroleum to Europe. These areas still have several active extraction operations. Hydroelectric power has been essential in Europe. With both coal and oil resources largely depleted and the desire to avoid the environmental damage caused by dams, the European Energy Commission is devoting substantial energy and resources to encouraging the use of renewable resources such as wind and solar energy. In March 2007, European leaders agreed that a binding target of 20 percent of all energy must be from alternative sources by 2020. Also, 10 percent of the transportation fuels used by EU members must be sustainable biofuels.

Attributions:

"Defining the Region" and "Europe's Climate" is adapted from World Regional Geography by Caitlin Finlayson (CC BY-NC-SA 4.0).

"Four Main European Landforms" and "Natural Resources in Europe" is adapted from Introduction to World Regional Geography by R. Adam Dastrup (CC BY-NC-SA 4.0).

This page titled 5.1: Natural Environments is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

5.2: Connecting Europe's Past to the Present

Learning Objectives

1. Describe European settlement patterns during different historical eras.
2. Explain how European boundaries have changed from over time.
3. Identify how European's economic regions are influenced by natural resources.

European Settlement

Europe's physical landforms, climate, and underlying resources have shaped the distribution of people across the region. When early humans began settling this region, they likely migrated through the Caucasus Mountains of Southwest Asia and across the Bosporus Strait from what is now Turkey into Greece. The Greeks provided much of the cultural and political foundations for modern European society. Greek ideals of democracy, humanism, and rationalism reemerged in Europe during the Age of Enlightenment. The Roman Empire followed the Greek Empire, pushing further into Europe and leaving its own marks on European society (Figure 5.2.1). Modern European architecture, governance, and even language can be traced back to the Roman Empire's influence.



Figure 5.2.1: Map of the Roman Empire, 117 CE (public domain; Andrei nacu via Wikimedia Commons).

The Roman's vast European and Southwest Asian empire united the region under Christianity and created new networks of roads and trading ports. With the fall of the Roman Empire, however, tribal and ethnic allegiances reemerged and a number of invasions and migrations occurred. England, for example, was settled by the Germanic Anglo-Saxons, from which the name "England" or "Angeln" is derived, then by the Normans from present-day France.

Europe today is comprised of 40 countries, but historically, this was a region dominated by kingdoms and empires – even fairly recently. A map of Europe from just 200 years ago looks strikingly different from today's political boundaries (Figure 5.2.2). At that time, Greece and Turkey were still controlled by the Ottoman Empire and Italy was a conglomerate of various city-states and independent kingdoms. Many of the countries and political boundaries of Europe we know today were not formed until after World War II.



Figure 5.2.2: Map of Europe, 1812 CE (CC BY-SA 3.0; Alexander Altenhof via Wikimedia Commons).

Europe's population has shifted and changed over time as well. Whereas Europe was once largely feudal and agrarian, today around 75 percent of its people live in cities. Europe's largest city is London, with a population of around 8.5 million within its city limits. Although the United Kingdom was the dominant force in Europe during industrialization, Germany now dominates the region in terms of population, gross domestic product, and size.

The Industrial Revolution

The differences in levels of development across Europe today have largely been shaped by the **Industrial Revolution**. The refers to the changes in manufacturing that occurred in the late 18th and early 19th centuries. These changes had profound effects on society, economics, and agriculture, not just in Europe, but globally. Prior to the Industrial Revolution, most goods in Europe were produced in the home. These so-called "cottage" industries consisted of individual workers making unique goods in their homes, usually on a part-time basis. These products, such as clothing, candles, or small housewares, could be sold by a farming family to supplement their income.

The Industrial Revolution began in the United Kingdom, and while it's difficult to pinpoint the exact point at which the revolution began, a key invention was James Watt's steam engine, which entered production in 1775. This steam-driven engine was adopted by industries to allow for factory production. Machines could now be used instead of human or animal labor. Interestingly, a side effect of the steam engine was that it enabled better iron production, since iron required an even and steady stream of heat. This improved iron was then used to build more efficient steam engines, which in turn produced increasingly better iron. These improvements and new technologies gradually spread across Europe, eventually diffusing to the United States and Japan.

During this time, there were also significant changes in agricultural production. The **Agrarian Revolution** began in the mid-1750s and was based upon a number of agricultural innovations. This was the Age of Enlightenment, and the scientific reasoning championed during this era was applied to the growing of crops. Farmers began using mechanized equipment, rather than relying solely on human or animal labor. Fertilizers improved soil conditions, and crop rotation and complementary planting further increased crop yields. During this time period, there was a shift to commercial agriculture, where excess crops are sold for a profit, rather than subsistence agriculture, where farmers primarily grow food for their own family's consumption.

Around the same time improvements in rail transportation changed both the way goods were distributed across Europe and the movement of people across the region. The use of steam engines and improved iron also transformed the shipping industry, with steamships beginning to set sail across the Atlantic Ocean.

The Agrarian Revolution coupled with the Industrial Revolution profoundly changed European geography. With the improvements of the Agrarian Revolution, farmers could produce more with less work. This provided an agricultural surplus, enabling a sustained population increase. Port cities and capital cities became centers of trade and expanded. Critically, the Agrarian Revolution freed workers from having to farm, since fewer farmers were needed to produce the same amount of crops, enabling people to find work in the factories. These factories were primarily located in cities, and thus it was the combination of these two revolutions that

dramatically increased urbanization in Europe. At the start of the 19th century, around 17 percent of England's population lived in cities; by the end of the 19th century, that figure had risen to 54 percent.

Overall, the Industrial Revolution considerably improved European power by boosting their economies, improving their military technology, and increasing their transportation efficiency. Even before the Industrial Revolution, Europe exerted a considerable amount of control over the rest of the world. European colonialism began in the 1400s, led by Portugal and Spain. In the 1500s, England, France, and the Dutch began their own colonial campaigns. By the start of WorldWar I, the British Empire, boosted by the improvements of the Industrial Revolution, had the largest empire in history, covering 20 percent of the world's population at the time (Figure 5.2.3).

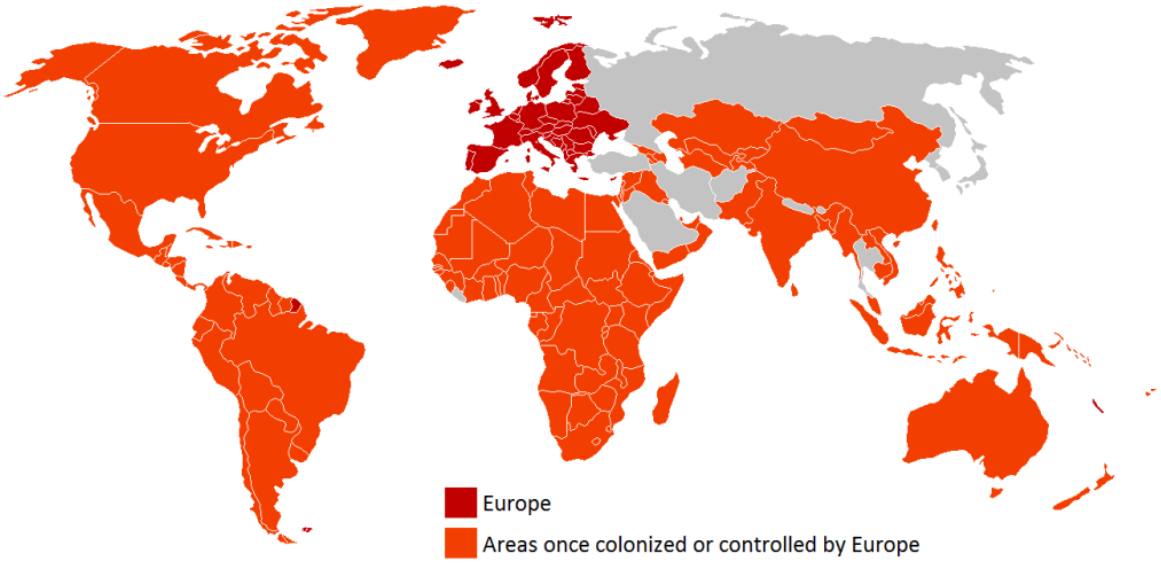


Figure 5.2.3: Map of European colonization (CC BY-NC-SA 4.0; derivative work of Cogito ergo sumo by Caitlin Finlayson via Pressbooks).

Coinciding with the Industrial and Agrarian Revolutions were a number of political revolutions in Europe. The most influential political change came as the result of the French Revolution, which occurred between 1789 and 1799 CE. This revolution ended France's monarchy, establishing a republic, and provided the foundation for numerous political revolutions that followed. It also weakened the power of the Roman Catholic Church in France, inspiring the modern-day separation between church and state that is typical of many Western countries, including the United States.

Today, the map of Europe reflects the changes brought about by the Industrial and Agrarian Revolutions as well as the political changes that took place throughout the time period. Europe's core area, where economic output is highest, is largely centered around the manufacturing areas that arose during the Industrial Revolution (Figure 5.2.4). These manufacturing areas in turn were originally located near the raw materials, such as coal, that could sustain industrial growth.

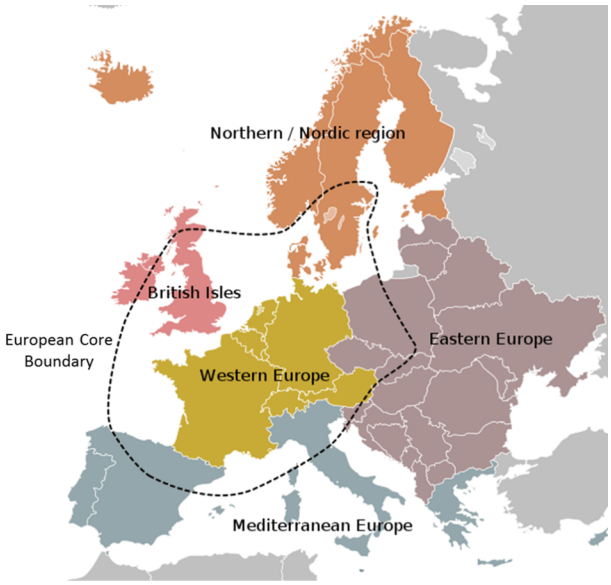


Figure 5.2.4: Map of Europe's regions (public domain; Koyos via Wikimedia Commons).

The shift in labor that occurred during the Industrial Revolution, as people left rural farms to find work in factories, led to the specialization of labor that is found in Europe today. Areas within Europe tended to specialize in the production of particular goods. Northern Italy for example, has maintained a specialty in the production of textiles. Germany continues to specialize in automotive manufacturing. The Benz Patent-Motorwagen, the world's first gasoline powered automobile, was first built in Germany in 1886 and would later develop into the Mercedes-Benz corporation. As regions focused on the manufacture of particular goods, they benefited from, the savings in cost per unit that results from increasing production. If you wanted to build a chair, for example, you'd have to buy the wood, glue, and screws as well as the tools needed to construct it, such as a drill, sander, and saw. That single chair would be quite costly to produce. If you wanted to make ten chairs, however, those same tools could be used for every chair, driving the cost of each chair down. Many areas in Europe have shifted from more traditional to high-tech manufacturing and industrial output in the region remains high.

Modern Europe

The political map of Europe continues to change, with shifting alliances, competing goals, and new pushes for independence. In general, Western Europe has moved toward cooperation. The **European Union** developed out of the Benelux Economic Union signed in 1944 between Belgium, the Netherlands, and Luxembourg. France, Italy, and West Germany signed an economic agreement with the Benelux states in 1957, and from there, the economic cooperation continued to expand. The European Union (EU) itself was created in 1993 and today, the organization has 27 member countries (Figure 5.2.5). Not all members of the EU use the euro, its official currency; the 19 member states who do are known as the eurozone. The United Kingdom is the only state to have left the EU. Its withdrawal is known as "**Brexit**" (meaning "British exit") and was finalized in January 2020.



Figure 5.2.5: 2023 Map of the European Union (reproduction authorized; European Union).

Today, it is relatively easy to travel across Europe, in part because of economic and monetary cooperation, but also because internal border checks have largely been abolished. The Schengen Agreement, signed in the 1990s allows member states to essentially function as a single territory in terms of entry. These states share a common visa system and residents and vehicles can travel freely throughout states participating in the agreement.

Although the European Union has provided member states with a number of advantages, the system has had some structural concerns. Greece, for example, admitted to the EU in 1981, adopted the euro in 2001. It has had continued issues with debt, however, and has required massive bailouts from other member states. The United Kingdom held a referendum in June 2016 and decided to leave the EU, the first time a country has made the decision to leave the organization. When analyzing the EU and its advantages and disadvantages, you might consider why a country would join a supranational organization. To join an organization like the EU, a country gives up some of its sovereignty, its independence in making economic, political, or legal decisions. Ideally, a country would gain more than it loses. Countries united economically can more easily facilitate trade, for example, or could share a common military rather than each supporting their own. Those who favored the United Kingdom withdrawing from the EU, however, argued that membership in the EU did not offer enough advantages and preferred the United Kingdom to control its own trade deals and immigration restrictions.

Devolution, which occurs when regions within a state seek greater autonomy, has continued in Europe, representing a tension between nationalistic ideals and ethnic ties. In the United Kingdom, a 2014 Scottish independence referendum was narrowly defeated but led to greater autonomy for Scotland. In general, policies offering increased autonomy have kept the map of Western Europe fairly intact. Ethnic groups seeking sovereignty often want political autonomy but economic integration, and thus devolution generally allows them more decision-making power.

In the Balkan region, however, strong ethnic identities has contributed to continued political instability and the formation of new states. In fact, the devolutionary forces found in this region led to the creation of the term Balkanization, referring to the tendency of territories to break up into smaller, often hostile units. The Balkans came under the control of the Ottoman Empire, and once the empire collapsed following World War I, several territories in this region were joined together as the country of Yugoslavia (Figure 5.2.6). Following World War II, Yugoslavia was led by Josip Broz Tito who attempted to unify the region by suppressing ethnic allegiances in favor of national unity. After his death, however, those ethnic tensions reemerged. In the 1990s, Yugoslavia was led by the dictator Slobodan Miloševic, a Serbian who supported a genocidal campaign against the region's Croats, Bosnians, and Albanians. In Bosnia alone, over 8,000 Bosnian Muslim men and boys were killed. Most recently, Kosovo, comprised mostly of Albanian Muslims, declared independence from Serbia in 2008, though its status as a sovereign state is still contested by some, including Serbia, Bosnia, and Greece.



Figure 5.2.6: Former Yugoslavia Map (public domain; United Nations via Wikimedia Commons).

The map of Europe continues to evolve. In February 2019, for instance, the country formerly known as the Former Yugoslav Republic of Macedonia officially changed its name to the Republic of North Macedonia, or just North Macedonia, resolving a long dispute with Greece.

While some countries in the region have decidedly benefited from globalization, others remain fairly limited in terms of global trade and global economic integration. Figure 5.2.7 is a map of gross domestic product (purchasing power parity) per capita reveals a marked difference between the states of Western Europe and the eastern region. Germany's GDP per capita as of 2021, for example, was $58,291 (in US dollars), according to the World Bank. In Moldova, a former Soviet republic bordering Romania, that figure was $15,391.

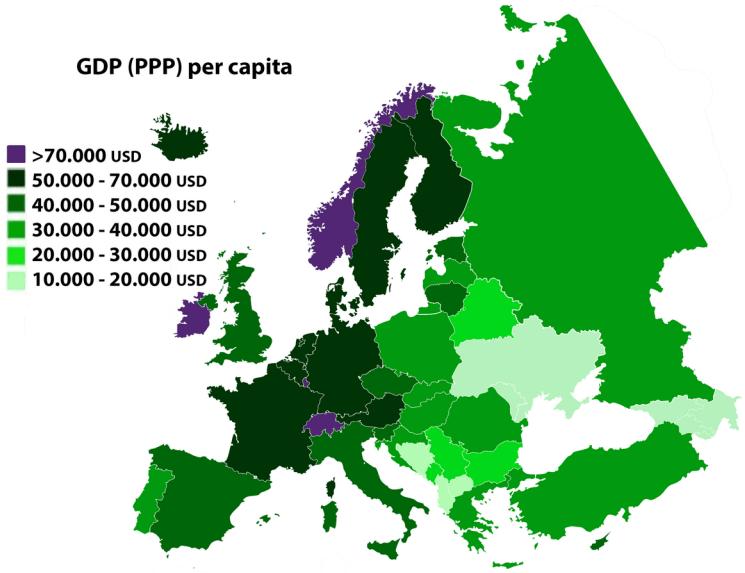


Figure 5.2.7: GDP (in PPP) per capita, 2021 from the World Bank. Note: In Europe and many other places, a period is not a decimal point. The period in a number is the same as a comma in the United States. So, 70.000 on the map is 70,000 (public domain; Wikimedia Commons).

Attributions:

"Connecting Europe's Past to the Present" is adapted from World Regional Geography by Caitlin Finlayson (CC BY-NC-SA 4.0).

This page titled 5.2: Connecting Europe's Past to the Present is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

5.3: Identity and Migration in Europe

Learning Objectives

1. Describe Europe's major migration flows.
2. Distinguish between centripetal and centrifugal forces.
3. Evaluation how nationalism influences Europe's geopolitics.

European Migration

The Industrial and Agricultural Revolutions shaped both migration patterns within Europe and immigration to the region. **Migration** refers to a move from one place to another intended to be permanent. When considering migration, geographers look at both intraregional migration, movement within a particular region, and interregional migration, such as migration from Europe to North America. Geographers who study migration also investigate push and pull factors that influence people to move. Push factors are those that compel you to move from your current location. A lack of job opportunities, environmental dangers, or political turmoil would all be considered push factors. Pull factors, on the other hand, are those that entice you to move to a new place, and might include ample jobs, freedom from political or religious persecution, or simply the availability of desirable amenities. Historically, most intraregional migration in Europe was rural to urban, as people moved from farms to cities to find work. Cities grew rapidly in the region as centers of trade and industry.

Before the industrial revolution, migration to the region was usually in the form of invasions, such as with the Roman Empire, the Islamic Empire, and the Ottoman Empire. One notable, historical migration that did not represent an invading empire was the Jewish diaspora following the conquest of Judea, the region now known as Israel and Palestine, by a number of groups including the Assyrians, Babylonians, and Romans. A **diaspora** refers to a group of people living outside of their ancestral homeland and many Jewish people moved to Europe to escape violence and persecution, particularly after the Roman destruction of the Second Temple in Jerusalem in 70 CE.

Jews migrating to Europe were often met with anti-Semitism, however. During the Middle Ages, European Jews were routinely attacked and were expelled from several countries including England and France. Jewish communities were destroyed during the mid-14th century as the Black Death swept across Europe and thousands of Jews were murdered, accused of poisoning the water and orchestrating the epidemic. In actuality, the disease was likely spread by rats, and worsened by the superstitious killing of cats in the same time period.

European Jews were often forced to live in distinct neighborhoods, also known as ghettos. In fact, this requirement to live in specific areas was required in Italy under areas ruled by the Pope until 1870. These distinctive communities were often met with suspicion by European Christians, many of whom continued to foster the same anti-Semitic sentiment that had been prevalent during the Middle Ages.

This anti-Semitic fervor and persecution of Jews reached its height at the time of the Nazi Party's rule in Germany. Prior to World War II, close to 9 million Jews lived in Europe; 6 million of them were killed in the Holocaust, the European genocide that targeted Jews, Poles, Soviets, communists, homosexuals, the disabled, and numerous other groups viewed as undesirable by the Nazi regime. Following the war, many surviving Jews emigrated back to the newly created state of Israel. Around 2.4 million Jews live in Europe today.

There was another shift in population after the signing of the Schengen Agreement in 1995, with large numbers of immigrants from Eastern Europe migrated to the western European countries in the core. Citizens of European Union countries are permitted to live and work in any country in the EU, and countries like the United Kingdom and Spain contain large numbers of Eastern European immigrants. Around half of all European migrants are from other countries within Europe.

Economic and political inequalities have driven much of the interregional migration to Europe since the 1980s. Immigrants from North Africa and Southwest Asia, for example, driven by limited employment opportunities and political conflict, have migrated to Europe in large numbers and now represent approximately 12 percent of all European migrants. In 2020, the three sending countries whose citizens received a first residence permit in the European Union and Norway were Ukraine (27% of all permits), Morocco (6%), and India (4%).

Shifting National Identities

What does it mean to be European? Perhaps simply it means someone who's from Europe. But what does it mean to be French or German or Spanish or British? These countries have long been comprised of a number of different ethnic and linguistic groups (Figure 5.3.1). Spain, for example, not only contains groups speaking Spanish, the language of the historic Castilian people of the region, but also the Basque-speaking region in the north, the Catalan-speaking region centered around Barcelona, and numerous other distinct language groups. The United Kingdom, while comprised primarily of people who identify as "English," also includes the areas of Wales, Scotland, and Northern Ireland, each with a distinct linguistic and cultural identity. The Welsh are actually believed to be the oldest ethnic group within the United Kingdom, so perhaps they could argue that they represent the original national identity.



Figure 5.3.1: Main European languages simplified by following national borders in many cases. The map does not reflect the fact that many regions are bilingual, officially and/or in practice. (public domain; Andrei nacu via Wikimedia Commons).

Before the creation of states as we understand them today, Europe, as with the rest of the world, was divided largely by ethnicity or tribe. Empires often took control of multiple ethnic areas. Familial allegiances were of fundamental importance. That's not to say that geography or territory didn't matter, but simply that *who* you were mattered more than *where* you were.

The creation of sovereign political states changed this notion. Multiple ethnicities were often lumped together under single political entities, sometimes due to peaceful alliances and sometimes due to armed conquest. In cases where a state was dominated by a single, homogeneous ethnic and linguistic cultural identity, we would refer to it as a **nation-state**, from the term state, meaning a sovereign political area, and nation, meaning a group with a distinct ethnic and cultural identity. Several European countries today are considered nation-states, including Poland, where 93 percent of the population is ethnically Polish, and Iceland, which is 92 percent Icelandic. Historically, countries like France and Germany were also considered nation-states, though immigration has changed their cultural landscape.

The concept of nation-state is distinct from the idea of **nationalism**, which refers the feeling of political unity within a territory. National flags, anthems, symbols, and pledges all inspire a sense of belonging amongst people within a geographic area that is distinct from their ethnic identity.

What happens when feelings of nationalism and national identity are linked with a particular ethnic group? In cases where a particular ethnic group represents the majority, nationalist ideals might be representative of that group's language or religion. But what if there are other, minority ethnic groups that are excluded from what people think it means to be part of a particular state's nationalist identity?

Migration has continually changed the cultural landscape of Europe and as immigrant groups have challenged or been challenged by ideas of nationalism. In 1290 CE, King Edward I expelled all Jews from England, essentially establishing Christianity as being at the core of English national identity. This expulsion lasted until 1657 CE. In France after the French Revolution, ideas of nationalism included "liberty, equality, and fraternity," and extended into areas they conquered. In Germany, what it meant to be

"German" under the Nazi Party excluded those who were considered to be "undesirable" and "enemies of the state," such as Jews, Roma (sometimes referred to as Gypsies), persons labeled as "homosexuals," communists, and others. Under Benito Mussolini, Italian nationalism excluded Slavs, Jews, and non-white groups.

Nationalism, taken to this extreme, is known as fascism. Fascists believe that national unity, to include a strong, authoritarian leader and a one-party state, provides a state with the most effective military and economy. Fascist governments might thus blame economic difficulty or military losses on groups that threaten national unity, even if those groups include their own citizens.

Within every country, ideas of nationalism grow, weaken, and change over time. **Centrifugal forces** are those that threaten national unity by dividing a state. These might include differing religious beliefs, linguistic differences, or even physical barriers within a state. In contrast, **centripetal forces** tend to unify people within a country. A charismatic leader, a common religion or language, and a strong national infrastructure can all work as centripetal forces. Governments could also promote centripetal forces by unifying citizens against a common enemy, such as during the Cold War. Although the countries of Europe always had a significant amount of ethnic and linguistic variety, they typically maintained a strong sense of national identity. Religion in particular often worked as a centripetal force, uniting varying cultural groups under a common theological banner.

Religious adherence in Europe is shifting, however. In Sweden, for example, over 80 percent of the population belonged to the Church of Sweden, a Lutheran denomination, in 2000. By 2014, only 64.6 percent claimed membership in the church and just 18 percent of the population stated that they believed in a personal God (Figure 5.3.2). This is indicative of a broad shift in Europe from traditional, organized religion toward humanism or secularism. **Humanism** is a philosophy emphasizing the value of human beings and the use of reason in solving problems. Modern humanism was founded during the French Revolution, though early forms of humanism were integrated with religious beliefs. Secular humanism, a form of humanism that rejects religious beliefs, developed later. **Secularism** refers broadly to the exclusion of religious ideologies from government or public activities.

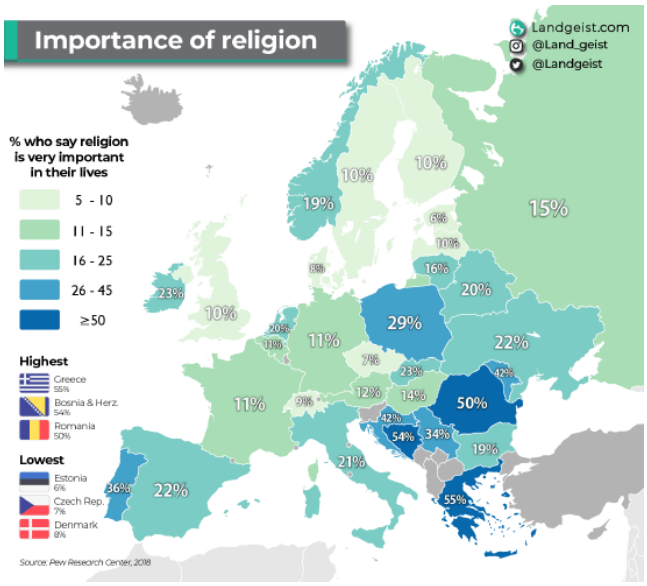


Figure 5.3.2: Importance of Religion in Europe. Percentage who say religion is very important in their lives based on Pew Research surveys conducted in 2015-2017 in 34 countries. The highest responses are from Greece (55%), Bosnia and Herzegovina (54%), and Romania (50%). The lowest responses are from Estonia (6%), the Czech Republic (7%), and Denmark (8%) (used by permission; Landgeist).

Geographers can examine how secularization has occurred in Europe; that is, how Europe has been transformed from countries with strong religious values to a more nonreligious society. In general, areas within the core of Europe tend to be more secular and thus some researchers link secularization with rising economic prosperity. Most Western European countries have strong social welfare programs, where citizens pay a higher percentage of taxes to support universal healthcare, higher education, child care, and retirement programs. These social welfare programs often serve as centripetal forces, unifying a country by providing government support and preventing citizens from falling into extreme poverty.

Current Migration Patterns

The increasing secularization of Western Europe has magnified the conflict over immigration to the region. Whereas Western Europeans have become less religious over time, immigrants to the region are generally more religious. Increasing numbers of

Muslim immigrants from North Africa and Southwest Asia have settled in Europe, lured by the hope of economic prosperity and political freedom. In 2010, around 6 percent of Europe identified as Muslim. That number is expected to grow to 10 percent by 2050. Muslims have the highest fertility rate among the major religious groups, so coupled with increasing immigration, this population is growing. In contrast, just under three-quarters of Europeans identified as Christian in 2010. This is expected to drop to 65 percent in 2050.

Europeans are divided about how open the region should be to immigrants, and how asylum seekers, refugees seeking sanctuary from oppression, should be treated. Even before the 2015 wave of Syrian migrants to Europe, a 2012-2014 survey showed that most Europeans (52 percent) wanted immigration levels to decrease. Opinions vary within the region, however. In the United Kingdom, 69 percent of people support decreased immigration. In Greece, a gateway country for migrants attempting to enter Europe, 84 percent of people desire decreased immigration. A majority of adults in Northern European countries, however, want immigration to stay the same or increase.

In 2014 and 2015, migration to Europe intensified as a result of an ongoing civil war in Syria. There were more refugees in 2014 than in any other year since World War II. 2015 shattered that record, however, as 65.3 million people were displaced. Germany has received the most applications for people seeking refugee status.

The journey for migrants is difficult and dangerous. Many attempt to cross by sea into Greece. Boats are often overcrowded and capsizing is common. Around 34 percent of refugees are children, many of them unaccompanied. Although the entire influx of refugees represents around 0.5 percent of Europe's population, it is not necessarily the sheer number of refugees that poses a problem, but rather, the *idea* of how immigrant populations might change the identity of a nation-state.

Many small towns in Europe have experienced shifting demographics as people move away to work in cities and immigrants move in to work in the available jobs. As Western Europe moved through industrialization, it has increasingly shifted away from heavy manufacturing and increased employment in service and high-tech industries, a process known as deindustrialization. The higher-skilled and higher-educated workers from small towns moved to the cities to find work, while lower-skilled immigrants worked the often dangerous or labor intensive jobs that remained. In the United Kingdom in particular, many of the people who oppose immigration and supported Britain leaving the EU are located in these small towns where immigration has quite visibly changed the cultural landscape that had already shifted as a result of deindustrialization.

For some, the debate over immigration and asylum are less questions of national identity and more issues of social justice. Do countries that have political freedom and economic prosperity have a moral obligation to assist those in need? Historically, the answer has often been "no." In 1938, on the brink of World War II, representatives from Western European countries voted not to accept Jewish refugees from Germany and Austria. Numerous countries in Europe have similarly voted not to accept Syrian migrants. Countries like Germany, which has accepted a relatively large number of asylum seekers, have been critical of other countries that have not been as welcoming. Sweden has specifically argued that if every country in Europe accepted a proportional amount of refugees, they would easily be able to accommodate the influx. Refugee populations typically have lower unemployment rates than native-born populations and though they require social services like housing and employment, can provide a long-term economic boost by increasing the labor force, especially in countries with otherwise declining populations.

Europe's population will continue to shift in terms of demographics and cultural identity. Recent economic changes and migration patterns have highlighted deep divides about ideas of national identity and the role of the region in global affairs. Europe continues to be an influential and economically important region and will likely continue to attract migrants from surrounding areas.

Attributions

"Connecting Europe's Past to the Present" is adapted from World Regional Geography by Caitlin Finlayson (CC BY-NC-SA 4.0).

This page titled 5.3: Identity and Migration in Europe is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

5.4: Europe's Regions

Learning Objectives

1. Describe the key geographic features of regions within Europe.
2. Analyze how natural resources and historical processes influence today's European countries.

Introduction to Europe's Regions

Europe has been traditionally divided into regions based on location according to the compass's four points: Eastern Europe, Southern Europe, Western Europe, and Northern Europe. The British Isles are often considered a separate region but can be included as a part of Western Europe. These regions are purely geographical regions that may share similar physical geography or cultural traits.

The traditional regions of Europe are not as relevant today as they have been historical with the creation of the European Union (EU). Economic and political relationships are more integrated than past eras when nation-states and empires were more significant. Economic conditions have often superseded cultural factors and have intensified the need for increased integration. Cultural forces have traditionally supported nationalistic movements that preserve a people's culture, heritage, and traditions. Regional cultural differences remain the social fabric of local communities that support the retention of their identity. Modern transportation and communication technology has brought this collection of European identities into one single sphere of global recognition.

Northern Europe

Europe has many different cultural identities within its continent. Northern Europe has traditionally included Iceland, Finland, and the three Scandinavian countries of Norway, Sweden, and Denmark. These countries are often referred to as the Nordic countries and were influenced by Viking heritage and expansion. Their capital cities are also major ports, and the largest cities of each country are their primate cities. The languages of the three Scandinavian countries are from the Germanic language group and are mutually intelligible. Finnish is not an Indo-European language but is instead from the Uralic language family. Most of Iceland's inhabitants are descendants of Scandinavian Vikings. Protestant Christianity has prevailed in northern Europe since about 1000 CE. The Lutheran Church has traditionally been the state church until recent years. These countries were kingdoms, and their royal families remain highly regarded members of society. The colder northern climate has helped shape the cultural activities and the winter sports that are part of its heritage. Peripheral isolation from the rest of Europe because of their northern location and dividing water bodies has allowed the northern culture to be preserved for centuries and shape the societies in northern Europe.

Human rights, education, and social concerns are high priorities of northern Europe's governments, and the quality of these elements rank highly based on the annual World Happiness Report. Standards of living are among the highest in Europe. Isolation in northern Europe does create an element of economic cost, and transportation technology has been leveraged to address this. A modern bridge has been constructed across the Baltic Sea (Figure 5.4.1) from Denmark to Sweden to increase the flow of people, goods, and materials between the Scandinavian Peninsula and mainland Europe. Iceland is the most remote of the Nordic countries. Its small population of less than half-million people is connected to Europe by sea and air transportation and communication technologies. Almost all elementary school children in the Nordic countries are taught English as a second language. The Nordic Diet consists of fish, meat, and potatoes are traditional dietary staples. The cuisine of the region is not noted for being spicy. Northern Europe has worked diligently to integrate itself with the global community and yet maintain its cultural identity.

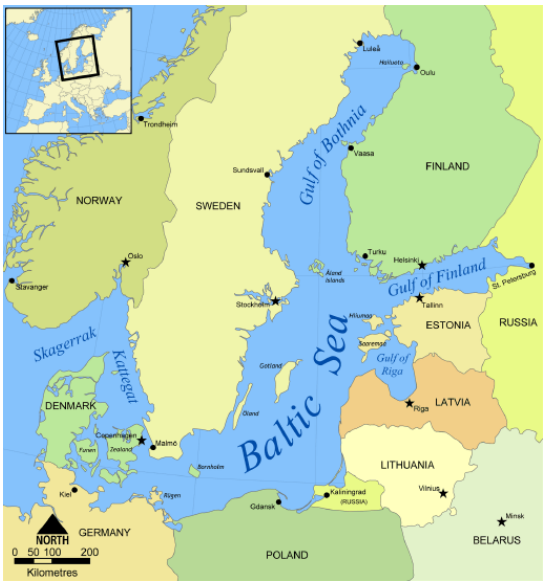


Figure 5.4.1: Map of countries surrounding the Baltic Sea. (CC BY-SA 3.0; NormanEinstein via Wikimedia Commons).

As a standard practice, the northern European countries have exploited their natural resources' opportunities and advantages to expand their economies. Sweden, northern Europe's largest country, has used its natural iron ore supply to develop its manufacturing sector. Sweden was the production base of Saab and Volvo vehicles and other high-tech products; however, GM purchased the Saab auto division in 2000, and some of its automobiles were manufactured in Mexico. In 2010, Saab was sold back to European investors, and production resumed in Sweden. Ford Motor Corporation purchased Volvo Car Corporation in 1999 and was then acquired by a Chinese automaker in 2010. Finland has vast timber resources and is one of Europe's significant sources of processed lumber. It was the original manufacturer of Nokia cell phones, an example of its technological advancements. Nokia is the largest manufacturer of mobile phones globally and has production facilities in eight different countries.

Norway has been benefiting from the enormous oil and natural gas reserves under the North Sea. Fishing and modest agricultural activities had been Norway's traditional means of gaining wealth, but now it is exporting the much-in-demand energy resources. Because of its economic and energy independence, Norway has opted not to join the EU.

Vikings were masters of the seas and colonized Greenland, located next to Canada, and is considered the world's largest island. Danish colonization included Greenland and the Faeroe Islands, located between Scotland and Iceland in the eighteenth century. Both are now under Denmark's government but retain a high level of self-rule and autonomy, which has helped them hold on to their cultural identity. Greenland has also opted not to become a part of the EU even though Denmark is a member. Greenland only had a population of roughly 56,600 in 2019, and 80 percent of its surface is covered with ice. Fish is Greenland's main export, but minerals, diamonds, and gold are also present in viable amounts.

Denmark has a consumer economy with a high standard of living. This Scandinavian country is often ranked as the least corrupt country globally and has the happiest people. The country has supported a positive environment and implemented strong measures to protect its natural areas. Denmark's main exports are food products and energy. The country has sizeable oil resources in the North Sea and receives over 15 percent of its electricity from wind turbines.

The Baltic states of Lithuania, Latvia, and Estonia have often been included in the northern European designation because of their northern location. Estonia has the strongest similarities in religion, traditions, culture, and geographic literature has often included it as a part of northern Europe. The Baltic states have been associated with Eastern Europe through the Soviet era but, like their neighbors to the north, are becoming more economically integrated with Western Europe.

Northern Europe is a peripheral region. Southern Sweden has an advanced industrial base and resembles a core area. Sweden's northern portion and the other Nordic countries' main parts act as sources of raw materials for Europe's urban core industrial region. In the core-peripheral spatial relationship, northern Europe resembles a semi-peripheral region with both the urban core and the rural periphery.

Norway, Sweden, and Finland are quite large in area but are not densely populated than other European nations. Sweden ranks as the fourth-largest European country in physical size. Sweden is larger than the US state of California, but in 2019, it has roughly

10.2 million people. In 2019, Finland, Norway, and Denmark all had less than six million people each.

The cultures and societies of northern Europe have progressed along similar paths; they have advanced from once Viking-dominated lands into modern democratic and socially mature nations. Northern Europe is known for its concern for the social welfare of its citizens. Their strong egalitarian ideals have contributed to significant advancements in free medical care, free education, and free social services for all, regardless of nationality or minority status. Civil rights for minorities, women, and other groups is assured and protected. Denmark does not have a legal age for alcoholic beverages consumption, though tradition sets the age at about fourteen. Culture and the arts are well developed, including giving the annual Nobel Peace Prize. Sweden has become a significant exporter of music worldwide. Rock, hip-hop, and pop music are common genres. With English as a widely spoken language in Scandinavia, music and cultural trends have a broader export market in places such as the United States and Britain.

Southern Europe

Southern Europe includes three large peninsulas that extend into the Mediterranean Sea and the Atlantic Ocean. The Iberian Peninsula consists of Spain and Portugal. The Pyrenees mountain range separates the Iberian Peninsula from France. Greece, the most southern country on the Balkan Peninsula, includes hundreds of surrounding islands and Crete's large island. The Italian Peninsula is the shape of a boot with the Apennine Mountains running down its center. Italy also includes the islands of Sicily and Sardinia. Technically, the island country of Cyprus is also included in southern Europe. There are five ministates in this region. The small island of Malta is located to the south of Sicily and is an independent country. Monaco, San Marino, Andorra, and Vatican City are also independent states located within the region. Southern Europe's type C climate, moderated by the water surrounding it, is often referred to as a Mediterranean climate, which has mild, wet winters and hot, dry summers. The rural-to-urban shift in southern Europe has not been as strong as that of Western Europe. Only about 50 percent of the people in Portugal are urban; in Spain and Greece, about 60 percent is urban.

Italy is more representative of Europe, with about 68 percent of the population urbanized. Italy is also divided, with northern Italy being more industrialized than southern Italy. The southern regions of Italy, including the island of Sicily, are more rural with fewer industries. Northern Italy has the metropolitan city of Milan as an anchor for its global industrial and financial sector in the Lombardy region, including the city of Turin and the port of Genoa. This northern region of Italy has the economic muscle to be one of Europe's leading manufacturing centers. The so-called Ancona Line can be drawn across Italy from Ancona on the east coast to Rome on the west coast to separate the industrial north from the more agrarian south. The north also has the noted cultural cities of Venice, Florence, and Pisa.

A similar situation exists in Spain. The urbanized Catalonia region around Barcelona in the northeast has high-tech industries and a high standard of living. Southern Spain has large rural areas with economies heavily based on agricultural production. Portugal and Greece are not as industrialized and do not have the same economic opportunities. Historically, in particular, southern Europe, Portugal, and Greece have had a much lower gross domestic product (GDP) per capita than northern or Central Europe. Their economies have been much more aligned with the economic periphery than with Europe's industrial core region. Greece has had severe economic difficulty in the past few years.

Southern European countries have much larger populations than their northern European counterparts. Italy has about sixty million people in an area smaller than Norway, which has less than five million. Spain has about forty million; both Portugal and Greece have more than ten million. Cultural factors are also different here than in northern Europe. The culture of southern Europe has been built around agriculture. Traditional cuisine is based on locally grown fresh food and wine. Olive oil and wine have been major agricultural exports. Iberia and Italy's primary languages are based on the Romance language group, and Greek is an independent branch of the Indo-European language family. The most dominant religious affiliation in the south is Roman Catholicism, except in Greece, where the Eastern (Greek) Orthodox Church is prominent.

Spain is the most diverse nation in southern Europe with several distinct ethnic groups and languages spoken (Figure 5.4.2). The Basques in the north along the French border would like to separate and create their nation-state. The region of Galicia in northwest Spain is an autonomous region and was once a kingdom unto itself. There are many other autonomous communities in Spain, each with its distinct heritage and culture. Farther east in the Mediterranean is the island state of Cyprus, divided by Greek and Turkish ethnic groups. The southern part of the island is dominated by Greek heritage and culture, and Turkish culture and traditions dominate the northern part of the island. Islam is the main religion of the Turkish north. The people of southern Europe are diverse and hold to many different traditions but are tied together by the sea and the land, creating similar lifestyles and economic activities.

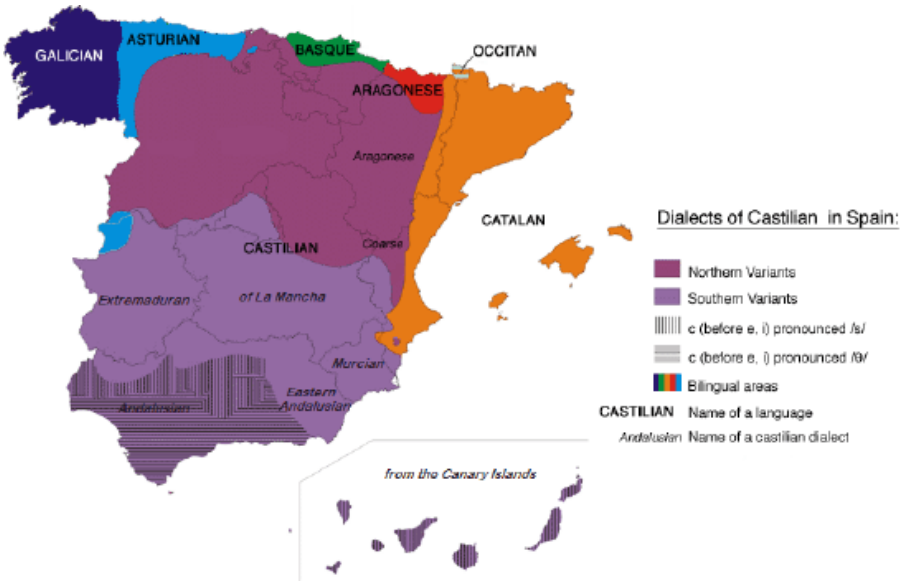


Figure 5.4.2: Language map with two variants of Castilian Spanish with regional dialects, and the languages of Galician, Asturian, Basque, Aragonese, Occitan, and Catalan. (CC BY-SA 3.0; Stephen Shaw via Wikimedia Commons).

Central Europe

In the regional sense of location, when discussing the European continent's political geography, the specific states located in the western part of the European mainland are often referred to as Central Europe. Germany and France are the two dominant states, with Belgium, the Netherlands, and Luxembourg making up the Benelux countries. Switzerland and Austria border the Alpine region. The ministate of Liechtenstein is located on the border between Switzerland and Austria. France is the only country with coastlines on both the Atlantic Ocean and the Mediterranean. These countries are located in Europe's core economic region and have stable democratic governments and a relatively high standard of living by world comparisons.

Central Europe is a powerhouse of global economics. The Rhine River is a pathway for industrial activity from southern Germany to Europe's busiest port of Rotterdam in the Netherlands, while Western France has the EU's political capital along the Rhine at Strasbourg. To the south is France's second-largest city, Lyon, a major industrial center for modern technology. Germany had the historical Ruhr industrial complex along the Rhine that supported the high-tech industries in southern Germany in the cities of Stuttgart, Mannheim, and Munich. Germany is the most populous country in Europe, with over 82 million people in 2019. Germany is also Europe's largest economy and has the largest GDP overall as a country. Belgium has important business centers in Brussels and Antwerp, whereas Switzerland is noted for its banking and financial markets. Luxembourg has one of the highest GDP per capita in all of Europe. Austria is noted for its high level of cultural activities in Vienna and Salzburg. All these countries complement each other in creating one of the dominant economic core areas in the world.

In the first half of the twentieth century, the political geography of Central Europe was not conducive to the high level of economic cooperation that now exists. In World War and World War II, Germany and France were on opposite sides, and the Benelux countries were caught in the middle. The cultural differences between the Germans and the French start with the differences in language and religious affiliation. Germany was divided after World War II into East Germany and West Germany, separated by the so-called Iron Curtain (Figure 5.4.3). East Germany was under a Communist government, and West Germany was a capitalist democracy. They were reunited in 1990 when the Iron Curtain and the Berlin Wall came down. The two countries merged under one government. Europe is gradually being united economically, but each country or region still retains its cultural uniqueness.

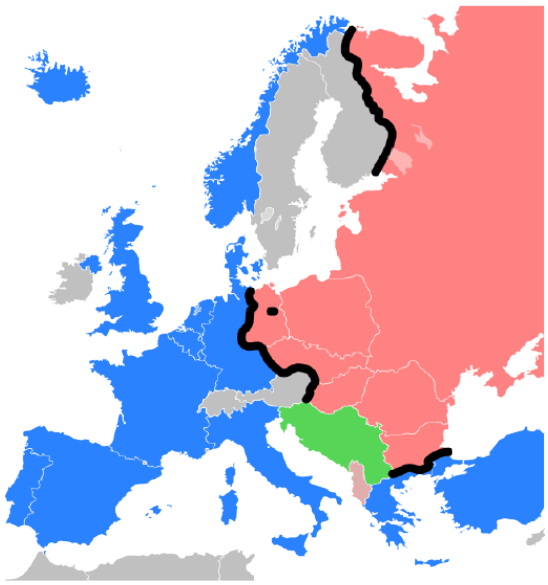


Figure 5.4.3: The Iron Curtain depicted by a black line. The black dot in East Germany is Berlin. NATO countries are shown in blue. Warsaw Pact countries shown in red. Neutral countries are shown in grey. Yugoslavia remained independent and is shown in green. Albania, shown in red and grey stripes, aligned with China from the 1960s (CC BY-SA 4.0; Semhur via Wikimedia Commons).

The Benelux Countries

The Benelux countries have a great deal in common historically. Before the economic union that created the term Benelux, these countries were collectively referred to as the Low Countries, so-called because of their relative position to sea level. The Benelux countries are some of the most densely populated countries. They have managed to work together toward a common economic objective despite their cultural differences.

The capital and largest city in Belgium is Brussels, with the other urban areas being Antwerp and Ghent's ports. Belgium is split into three broad geographic areas. The dominant language in Flanders' northern region is Dutch (Flemish), and the people are known as Flemings. In the southern region of Wallonia, most people speak French and are known as Walloons. German is the third official language and is spoken along the eastern border.

When the Industrial Revolution diffused across the English Channel and arrived in Europe, Belgium was one of the first countries to adapt to technological developments. Belgium remains heavily industrialized and is a significant exporter of products, including polished diamonds, food products, nonferrous metals, technology, petroleum products, and plastics. In general, Belgium imports the raw materials to manufacture these goods for export. Belgium also has a significant services sector. The services sector, including real estate, hotels, restaurants, and entertainment, thrives because Brussels is the headquarters of the North Atlantic Treaty Organization (NATO) and components of the EU. Many countries and organizations maintain Brussels offices to have easy access to these headquarters; therefore, Brussels is the temporary home to many diplomats and foreign business people.

The European country of the Netherlands also includes the colonies of the Netherlands Antilles in the Caribbean. Sometimes called Holland, the Netherlands is two provinces (North Holland and South Holland) in the country's northwestern part. The largest city is Amsterdam. The Hague is the seat of government and is home to the United Nations International Court of Justice. Rotterdam is located at the Rhine River's mouth and is one of the continent's busiest ports. The country is famous for its Zuider Zee, the sizeable inland region below sea level that has been drained of water and surrounded by an extensive dike protecting it from the North Sea. Reclaiming land from the sea in areas called polders has provided this densely populated country with more land area for its people to expand their activities.

For a small country with few natural resources, the Netherlands has an impressive GDP. The Dutch have made good use of their location on the North Sea and the location of several large navigable rivers. This has facilitated voluminous exports to the interior parts of Europe. The major industries include food processing, chemicals, petroleum refining, and electrical machinery. The Netherlands is a top exporter of agricultural products, which contribute substantially to its economy. Dutch agricultural exports consist of fresh-cut plants, flowers, bulbs, tomatoes, peppers, and cucumbers. The port of Rotterdam is the largest seaport in Europe, and the world's second largest seaport oustide of East Asia (Figure 5.4.4).



Figure 5.4.4: Entrance to the port of Rotterdam (CC BY 2.0; Maurits Verbist via Flickr).

The main languages spoken in the small landlocked country of Luxemburg are French, German, and Luxembourgish. Luxembourg's major city is Luxembourg City. Luxemburg has an enviable economic situation with a stable and prosperous economy, low unemployment, and low inflation. Thanks to rich iron-ore deposits, this country developed a robust steel industry, which was the cornerstone of the nation's prosperity until the 1970s. As steel declined, Luxemburg remade itself as an important world financial center. Luxembourg leads Europe as the center for private banking and insurance industries and is second only to the United States to be an investment fund center.

France

France covers 211,209 square miles and is the second-largest European country; Ukraine is slightly larger in physical size. France's physical landscapes vary widely from the northern low-lying coastal plains to the east's Alpine ranges. Mont Blanc, the highest mountain in the Alpine range at 15,782 feet, is located in France near the Italian border. In the far south, the Pyrenees run along the border with Spain. The south-central region of the country is home to the Massif Central, a plateau and highland region made up of a vast stretch of extinct volcanoes.

During the colonial era, France was a significant naval power and held colonies around the world. The French Empire was the second largest at the time. The French language is still used for diplomacy in many countries. Though the French Empire no longer exists, France has progressed into a post-industrial country with one of the world's most developed economies. It is a significant player in European affairs, the EU, and the United Nations (UN). France is a democratic republic that boasts a high-quality public education system and long life expectancies.

In 2019, France's population was about 67 million, with about ten million living in France's Paris primate city. The city of Paris is on an excellent site; it is favorably situated concerning its surrounding area. It is a significant core area of France serving a large peripheral region of the country. The next largest city of Lyon, which is a major high-tech industrial center for Europe's economy, can only boast a population of about 1.4 million. Even with a large population, the country can produce enough food for its domestic needs and export profits. France leads Europe in agricultural production.

France enjoys a robust economy and is one of the world's leading industrial producers. Its industrial pursuits are diverse, including planes, trains, automobiles, textiles, telecommunications, food products, pharmaceuticals, construction and civil engineering, chemicals, and mechanical equipment and machine tools. Additionally, defense-related industries make up a significant sector of the economy. France's production of military weapons is recognized worldwide. The country has been a leader in the use of nuclear energy to produce electricity. Nuclear energy supplies about 80 percent of the country's electricity, reducing the need for imported oil and other fossil fuels.

Agriculture is an essential sector of the French economy, as it has been for centuries, and is tied to the industry through food processing. Food processing industries employ more people than any other part of the French manufacturing sector. If you think of cheese and wine when you think of France, you have identified two of its largest food processing endeavors, along with sugar beets, meats, and confectionaries. World-renowned wines are produced in abundance, sometimes in areas that bear their names, such as in Burgundy, around the city of Bordeaux, and in Champagne in the Loire Valley. French cuisine and fashion have long been held in the highest esteem worldwide and are a national pride source. Food and wine are essential elements of the French way of life, and each region of France boasts a suite of famous dishes.

Thanks to the climate and favorable soil conditions, agriculture is highly productive and lucrative for France. France is second only to the United States in terms of agricultural exports. Exports mainly go to other EU countries, to the United States, and some countries in Africa. The plains of northern France are excellent for wheat, which is grown on large agricultural operations. Dairy products are a specialty in France's western regions, producing pork, poultry, and apples. Beef cattle are raised in the central portion, where a cooler, wetter climate provides ample tracts of grasslands for grazing. Fruit, including wine grapes, is grown in

the central and southern regions, as are vegetables. The Mediterranean region has hot, dry weather ideal for growing grapes and other fruits and vegetables.

Germany

Germany's location in Central Europe has meant that throughout history, many peoples—all with their own cultures, ideas, languages, and traditions—have traversed Germany at one time or another. Thus Germany's culture has received many influences over the centuries.

Germany's present geopolitical configuration is relatively young, as it reunified the eastern and western portions into a single entity in 1990. Germany was formed in 1871 during the leadership of Otto von Bismarck in an attempt to create a Germanic power base. World War I was fought during the last years of the German Empire. As part of the Central Powers (Germany, Austria-Hungary, and Bulgaria), Germany was defeated by the Allies with much loss of life. The German Republic was created in 1918 when, having been defeated in World War I, Germany was forced to sign the Treaty of Versailles.

In 1933, with an environment of poverty, disenfranchisement of the people, and significant instability in the government, Germany gave way to the appointment of Adolf Hitler as chancellor of Germany. Within a month of taking office, Hitler suspended natural rights and freedoms and assumed absolute power. A centralized totalitarian state quickly resulted. In a move to expand Germany, Hitler started to expand its borders. Germany's invasion of Poland in 1939 kicked off what would become World War II. In 1941, Germany invaded the Soviet Union and declared war on the United States. After Germany's defeat, the country was divided into East Germany, controlled by the Soviet Union, and West Germany, controlled by the Allied powers. The Iron Curtain divided the two Germanys, with the Berlin Wall dividing the city of Berlin. The Iron Curtain and the Berlin Wall were major symbols of the Cold War. In 1989, the Berlin Wall came down, and the two Germanys were reunited in 1990. Today, Germany is a vibrant country and an active EU member.

Germany is Europe's largest economy, with strong exports of manufactured goods. To gain national income, Germany has promoted manufacturing as a significant component of its economy. Most exports are in automobiles, machinery, metals, and chemical goods. Germany has positioned itself strategically to take economic advantage of the growing global awareness of environmental issues and problems by focusing on improvements and manufacturing of wind turbines and solar power technology. The service sector also contributes heavily to the economy. Deutsche Bank holds the enviable position of being one of the most profitable companies on the Fortune 500 list. Germany is also an important tourist destination. The Black Forest, Bavaria, the Alpine south, various medieval castles, national parks, and a vibrant assortment of festivals such as Oktoberfest attract millions of tourists to Germany every year.

German reunification in 1990 posed some challenges for the economy. Notably, the East German infrastructure was far behind that of the West. Telecommunications, and other areas needed to support industry, commerce, transportation, and enormous amounts of money were funneled into the system. While there has been considerable success in the renewal of infrastructure, unemployment in former East Germany is still significantly higher, and the workforce's necessary retraining is ongoing and expensive.

Language, religion, and education have been strong cultural forces in Germany. German is the official language of the country and the one spoken by most of its people. More than 60 percent of Germans self-identify as Christian, and another 30 percent self-identify as agnostic or atheistic. During the Cold War, East Germany was under a Communist government that promoted a non-religious ideology, resulting in a high percentage of people with agnostic or atheistic beliefs in that part of Germany. Historically, there has been a strong connection between religious reformation and education. The early leaders of the Christian Reformation were generally highly educated themselves and were strong advocates of education, which they viewed as a path to positive moral and social reform. The German tradition of excellence in education continues. Education is provided at no cost (other than taxation) to students at all levels, including the university level, though some universities are now starting to charge very modest amounts for tuition.

The Alpine Center

Landlocked in the center of Europe are the two states of Switzerland and Austria. Sandwiched on the border of these two states is the ministate of Lichtenstein. The Alpine ranges dominate this region. Switzerland, officially known as the Swiss Confederation, is divided into twenty-six cantons (states). Because of its location and close ties with neighboring countries, four languages are spoken in Switzerland: German, French, Italian, and Romansh. Typically, one language predominates in any given canton. Berne is the country's capital, and Geneva, Zurich, and Basel are the other major cities. As of 2019, Switzerland's population is roughly 8.5 million. It is a land area that is just slightly larger than the US state of Maryland.

Internationally, Switzerland is well known for its political neutrality. The UN European offices are located there. The Red Cross and the main offices of many international organizations are located in Switzerland. Switzerland joined the UN in 2002 and has applied for EU membership. Swiss culture is thought to have benefited from Switzerland's neutrality. During times of war and political turmoil, creative people found refuge within the Swiss borders. Swiss banking practices and policies are known worldwide, and Swiss banks have significantly benefited from their politically neutral status. Banking is one of the country's top employers and sources of income. Swiss people enjoy a high standard of living.

Sports are popular in Switzerland, and football or soccer is popular as it is in much of Europe. Switzerland has also produced excellence in hockey, skiing, and of late, tennis. There is an emphasis on science in Swiss culture with good historical reason: modern chemistry originated in Switzerland. The Bernoulli family, famed for their significant contributions to mathematics over many years, hails from Basel. The Federal Institute of Technology in Zürich, one of the world's top-ranked universities, has produced an unusually high number of Nobel Prize winners. Albert Einstein, though born in Germany, relocated to Switzerland and later became a Swiss citizen.

Austria is larger than its neighbor Switzerland and is similar in area to the US state of South Carolina. In 2019, the population was estimated at 8.7 million. Austria has various Alpine ranges, with the highest peak at 12,457 feet in elevation. Only about a fourth of the land area is considered low lying for habitation. The Danube River flows through the country, including the capital city of Vienna. Austria has a well-developed social market economy and a high standard of living.

For more than six hundred years, beginning just before the dawn of the fourteenth century, Austria was tightly associated with its ruling dynasty, the Habsburgs. The Hapsburgs came to power in a new way with the formation of the Austrian Empire in 1804. In Germany's rise to power before World War II, Hitler annexed his native Austria to Germany. Austria regained its independence a decade after the war ended and joined the EU in 1995. Austria is a German-speaking country, and nearly the entire population self-identifies as an ethnic Austrian.

Austria is predominantly Roman Catholic and was home to many monasteries in the Middle Ages, influencing a strong Austrian literary tradition. Austria's best-known cities are its capital of Vienna and Salzburg, and Innsbruck. Vienna was the Habsburg and Austrian Empires center and earned a place as one of the world's great cities. It is famed for its baroque architecture; its music, particularly waltzes; and theater. The Habsburgs were great patrons of the arts, and hence music, drama, and art thrived for centuries in Austria. The country has been home to many famous composers and musicians and has a worldwide reputation in music and the arts.

The British Isles

The British Isles are an archipelago, a group of islands separated from the English Channel's European mainland. The British Isles are often included in Western Europe when discussing political geography; however, they are separated from Europe's mainland by water, providing them with a separate identity. The British Isles consists of two separate, independent countries: the Republic of Ireland and Great Britain. The United Kingdom (UK) of Great Britain consists of England, Scotland, Wales, and Northern Ireland. All four regions are now under the UK government. The Republic of Ireland is independent of the United Kingdom and does not include Northern Ireland. The primate city and UK capital is London, which is a financial center for Europe. The capital city of the Republic of Ireland in Dublin.

Influenced by the Gulf Stream, the British Isles' climate is moderate, despite its northern latitude location. The UK and Ireland are located above the fiftieth degree of latitude, which is farther north than the US-Canadian border. The northern latitude would typically place this region into the type D climates, with harsher winters and more extreme seasonal temperatures. However, the surrounding water moderates temperature, creating a moderate type C climate covering most of the British Isles. The Gulf Stream pulls warm water from the tropics and circulates it north, off Europe's coast, to moderate Western Europe's temperature.

The Western Highlands and the Northern Lowlands dominate the islands. Scotland, Wales, and parts of England have highland regions with small mountains and rugged terrain, whereas the lowlands of southern England, Ireland, and central Scotland offer agricultural opportunities. The Pennines Mountains runs through northern England and was the source of the coal, ores, and waterpower that fueled the Industrial Revolution. To the east of Britain is the North Sea, which provided an abundance of petroleum resources (oil) for energy and wealth.

Though the British Isles' heritage is unique to this region, the geographic dynamics are similar to Central Europe. They tend to have smaller families, urbanization and industrialization are robust, enjoy high incomes, and are significantly involved with economic globalization. The EU has had an enormous influence on the British Isles. Ireland has embraced EU's economic connections, but the British people have been hesitant to relinquish full autonomy to the EU. This reluctance can be noted in the

fact that the United Kingdom kept the British pound sterling as their currency standard after the euro currency was implemented. However, the Republic of Ireland converted to the euro currency.

The regions of the British Isles follow similar dynamics to those of other countries in Western Europe. Though some regions are not as wealthy as others, they all demonstrate a high industrialization, urbanization, and technology level. These urban societies have smaller families and higher incomes and are heavy consumers of energy, goods, and services. Just as the Industrial Revolution attracted cheap labor, the aging workforce has enticed people from former British colonies to migrate to the United Kingdom in search of increased employment opportunities. The mix of immigrants with local heritage creates a diverse community. London has diverse communities with many ethnic businesses and business owners.

Devolutionary forces are active in the United Kingdom. Scotland and Wales are already governing their local parliaments. Devolutionary cultural differences can be noted by studying the different heritages found in each region. Just as the Welsh language is lingering in Wales, Gaelic continues in Ireland and Scotland. Each region has made efforts to retain local heritage and rally support for its nation-state (Figure 4.5.5). However, this is all done with the overall perspective of remaining under the umbrella of the EU.



Figure 5.4.5: Bilingual road signs in Ireland, Scotland, and Wales. [left] Failte chuig Dun Seachlainn. Welcome to Dunshaughlin. Meath: Ireland's Heritage Capital (CC BY-SA 3.0; Captain Fearnought via Wikimedia Commons). [center] Welcome to Scotland. Failte gu Alba. (CC BY-SA 2.0; kim traynor via Wikimedia Commons). [right] Powys. Sir Drefaldwyn. Montgomeryshire. Croeso i Gymru. Welcome to Wales (CC BY 2.0; Mike Finn via Flickr).

Northern England

Home to the Industrial Revolution, major industrial cities such as Manchester and Birmingham brought together the labor, raw materials, and industry connections necessary to manufacture products. The port city of Liverpool gave access to the world markets established by Britain's extensive colonial empire, and the colonies provided raw materials, new ideas, and cheap labor for the new industrial factories. Great Britain was an avid colonizer and controlled colonies on all inhabited continents. Raw materials such as cotton, which did not grow well in Britain, became a major import fueled by the Industrial Revolution's textile mills.

Industrialization caused a rural-to-urban shift in Britain. In 1800, only 9 percent of the population lived in urban areas, but by 1900 some 62 percent resided in cities and towns. As of 2019, over 90 percent of Britain's population is composed of urban dwellers. The British colonial empire also caused a migration pattern whereby people moved from colonies to the home country, with the core area located in northern England's Midlands. Cheap immigrant labor and resources from the colonies provided the manufacturing enterprises of wealthy British industrialists with good fortunes. Raw cotton was brought in from the colonies of India and Egypt. Cheap labor, brought in from the Caribbean and South Asia, resulted in a more diverse population in industrialized northern England.

As the information age developed, northern England's industrial centers gave way to a post-industrialized southern England. The north's heavy industries experienced a decline in demand. Factories closed, production became automated, and unemployment increased. The transition from the Industrial Revolution to a postindustrial society turned northern England into the British Isles' Rust Belt. The port of Liverpool has been updated with modern and automated systems that do not require the high level of manual labor necessary during earlier industrial times. Rail service connects Liverpool with London, connected to Paris through a tunnel under the English Channel called the Chunnel.

The postindustrial economic activities have shifted the focus of employment away from manual labor to the service sector of information. Many places have looked to tourism to boost their economic situation. Northern England has many attractive physical

environments that have been developed into major tourist attractions. The Lake District of northern England is a famous vacation destination, and small mountains and scenic landscapes attracted several of England's writers. The city of Blackpool on the Irish Sea, just north of Liverpool, is a major vacation destination for the English. The dales and moors of northern England, complemented by the short Pennines, provide a sharp contrast to London and southern England's urban metropolitan landscapes.

Southern England

Anchored by London's primate city, southern England also is home to Oxford and Cambridge's universities. This is Great Britain's most affluent region and is a center of postindustrial activity. Located on the Thames River, London is a central player in the world's financial markets. Southern England also houses about one-third of the UK population. With immigration from the former colonies, this region is also becoming more diverse. This is an urbanized region, where the cost of living, transportation, and housing is high. For example, gasoline in the United Kingdom might cost two or three times more than in the United States. Many urban dwellers do not own automobiles but instead use public transportation.

England is the most populous region of the United Kingdom, with about one thousand people per square mile. About half the population increase is because of immigration. The UK population is aging due to smaller family sizes and a growing number of senior citizens. This trend is common in countries in stage 5 of the index of economic development. Immigrants from many parts of the world have targeted England as their new home. Many are from former British colonies in Asia and Africa. England has a diverse population. Islam is the fastest-growing religion, even though Muslims make up less than 10 percent of the total population. London is even home to a growing Sikh community.

London is the United Kingdom's primate city and capital; it is the largest administrative municipality in the entire EU. Only Paris has a larger overall metropolitan area. London is a global center that holds prominence in world markets and the globalization process. About one-fifth of Europe's largest corporations have their headquarters in London. The city's cultural influence is felt worldwide in the fashion industry, media, entertainment, and the arts. London is an international city that has a powerful draw for tourists. London's international recognition anchors the core economic region of Europe.

Southern England is also home to Great Britain's seat of government. The UK government is considered a constitutional monarchy with a king or queen as head of state. The parliament is the official legislative body with a prime minister as head of government. The parliament has two bodies: the House of Commons, whose members are elected, and the House of Lords, whose members are appointed for life. As head of state, the monarch is mainly a figurehead with little actual political power. Several dependencies remain under the British Crown as far as sovereignty is concerned. Small islands such as Guernsey, Jersey, the Isle of Man, and various islands in the Caribbean and Atlantic and Pacific Oceans remain under the British government for administrative, economic, and defense purposes.

Wales

A highland region to the west of England, Wales holds a Celtic heritage in which the Welsh language and coal mining stories can still be heard. However, the English language has become more dominant, and tourism has replaced coal mining as the main economic activity. The decline in coal use depressed the economy but did not depress the Welsh people's culture and heritage – the largest city and capital of Wales in Cardiff. In the early twentieth century, Cardiff's port handled the largest amount of coal globally and handled more tons of cargo than Liverpool or London. The decline in coal mining has reduced the shipping activity in Cardiff's port in the twenty-first century.

Devolution is alive and well in Wales. Welsh nationalism prompted the declaration of a separate parliament in the capital of Cardiff. London's break provided local autonomy, but Wales is still reliant on the United Kingdom in national and foreign affairs. Many of the young people in Wales emigrate to find work because of the depressed economy. Emigration has caused a leveling off of population growth, and the number of people who speak Welsh has diminished. Wales and England share a common Protestant Christian religion. Wales is turning to tourism as a means of economic income; the scenic and picturesque landscape of the highland region, with its many castles, provides a pleasant experience for tourists.

Scotland

United with England in 1707, Scotland has been integrated into the United Kingdom while keeping its separate heritage and culture. Scotland has strong centripetal forces uniting the Scottish people, including victories over the British by Scottish clans, led by William Wallace in 1297 and Robert the Bruce in 1314; these forces within Scotland have created a devolutionary split with the UK parliament. In the quest to become a nation-state unto itself, in 1997, Scotland received permission to create its

parliament to govern local affairs. Though Scotland wants to separate into an independent state, they do not wish to isolate themselves from the EU or greater Europe. This opposite trend, in which local states want autonomy and self-rule yet also want to remain within the broader regional community for economic and national security, is common. The phrase “separate within the Union” is surfacing in Europe with stronger voices. Scotland remains under the British Crown and shares a Protestant Christian heritage with its UK associates.

The Scottish Highlands provide for livestock production, and the central Scottish Lowlands are favorable for agriculture. The North Sea has extensive oil resources. With resources such as these, Scotland can gain wealth and support its small population of about five million people. As an early export product, scotch whiskey has profited many whiskey marketers and has become the most extensive Scotland export product. Scotland benefited and gained wealth during the Industrial Revolution. As a part of an island, early shipbuilding produced ships that brought about trade and development that coincided with European colonialism.

Postindustrial activities have become a focus of the current economy. High-tech computer industries have concentrated in Silicon Glen, an information-age industrial sector between Scotland’s largest city, Glasgow, and Edinburgh’s capital. With natural resources and postindustrial opportunities, Scotland is in an excellent position to compete in the global economic community. Scottish banking firms reach around the globe through their investment holdings. Scotland attracts a healthy tourism market with its Highlands and many castles. Kilts and bagpipes are a part of Scottish history and often distinguish themselves as a part of the region’s heritage. The game of golf originated in Scotland and is still popular today.

Northern Ireland

Northern Ireland is a place in which strong cultural forces often erupt into violence. Officially part of the United Kingdom, this small region with about 1.8 million people has developed a unique set of social problems. Most people consider religious differences to be the main problem in Northern Ireland. People of Irish heritage are predominately Roman Catholic, and those of Scottish and English heritages are usually Protestant Christians. However, it is not so simple. If the troubles (as they are called in the United Kingdom) in Northern Ireland were based solely on religion, we should expect to see similar violence in other regions of the United States or Europe.

The core of the social problems in Northern Ireland is based on political affiliations. Most of the population in the region is not Irish. About 55 percent of the population is of Scottish or English descent, with only about 45 percent of Irish descent. The real problem centers on the governing of Ireland. The Irish would like to see Northern Ireland join with the Republic of Ireland, which received its independence from the British in 1921. The Irish do not want to be under the UK parliament with the Queen of England as head of state. Irish countrymen want total independence from the United Kingdom. The non-Irish population does not want to be a part of the Republic of Ireland and its Irish parliament and would instead remain under the British Crown. The people of Scottish descent would prefer total independence from all outside forces. English people want to remain with the UK parliament.

Though the real problem is political, religion has become the scapegoat. Because cultural differences can be witnessed between Catholics and Protestants, religion has become the two sides’ identifier. They are not necessarily fighting over religious beliefs but rather over political power and control.

The troubles of Northern Ireland have diminished its economic and employment opportunities. Underground paramilitary groups such as the Irish Republican Army (IRA) have heightened tensions between the two groups for decades, with car bombings and other terrorist acts. Hope might lie with a generational change in the population. As the younger generation seeks more opportunities and advantages, the issues that separate the two sides could diminish. Over the years, the hatred built up can be eased with each new generation if centripetal forces work to bridge the differences and unite the social fabric. If the killing and hatred are passed down to successive generations, it will only take longer to recover.

In 1998, after a series of terrorist acts that were condemned on all sides, a movement took place to create the Northern Ireland Assembly with both sides of the division. Obstacles continue to surface to disrupt this calming process, but there is hope that in the future, solutions such as this assembly can work toward producing a lasting peace. The devolutionary forces active in Wales and Scotland may act to create a more separate Northern Ireland. The Northern Ireland Assembly was only one step. Progress in Northern Ireland is an uphill battle with high unemployment, a weak resource base, and few economic opportunities. Only by working together will Northern Ireland become a stable, peaceful part of the British Isles.

The Republic of Ireland

The whole island of Ireland was under the control of the British Crown for centuries. In 1921 independence was gained from the British for all but Northern Ireland. This bitterly fought conflict has become well entrenched in Irish culture and literature. As an independent country separate from the United Kingdom, the Republic of Ireland has ascended the economic ladder to become a global economic community. Because the climate is type C, there is adequate rainfall for crops and vegetation, and the green landscape gives it the title, “The Emerald Isle.” The island has few other natural resources. There are trees but no vast forest reserves for commercial exploitation. Peat, an early version of coal, is cut from the bogs and burned as fuel.

Ireland is not a vast country. It is just a bit larger than the US state of West Virginia, with a population of about four million. There are no tall mountain ranges in Ireland. The soils are traditionally rocky with few nutrients. Before colonial times, the traditional food crops included such turnips and rutabagas. When the potato was imported from the Americas, it was well-received in Ireland. The potato plant grew well and replaced traditional root crops as the primary food source.

In the early 1800s, the population of the whole of Ireland (including what is now Northern Ireland) was as high as eight million. Starting in the 1840s, blight and rot destroyed much of the potato crop year after year, causing a severe famine in Ireland. More than a million people died, and another two million people left the island. The potato famine caused losses reminiscent of the Black Death, which had ravaged Europe centuries earlier. Black Death’s history may have led to the term Black Irish, which referred to people who fled Ireland during the potato famine and immigrated to the United States. They were often regarded as lower-class citizens and were discriminated against. Well-established Irish families had immigrated to the United States before the 1840s were not considered Black Irish and assimilated into mainstream American society more quickly.

The lack of natural resources and the lack of opportunities and advantages held back the Republic of Ireland from developing a strong economy. It was not until the 1990s that conditions improved. With the EU’s creation and communication advancements, Ireland became an ideal location for expanding North American corporations. The attractive elements included a mild climate, a similar English language, an educated workforce, and a low living cost. Many high-tech computer firms, communication companies, and electronic industries established their operations base in Ireland – Dublin in particular. Because Ireland was a member of the EU, it was a convenient intermediary location between the United States and the European mainland. Business boomed in the 1990s, and incomes and the cost of living rose. Tourism also has become a growing sector of the economy. The economic growth in Ireland earned it the title Celtic Tiger to indicate its growing economic power.

However, the rapidly expanding economic conditions of the 1990s have not extended into the twenty-first century. Since 2007, the global depression has taken its toll on the Irish economy. Starting in 2008, the country witnessed a sharp increase in unemployment that coincided with serious banking scandals. Various banks have been targeted for bailout funds from the government, and the economy witnessed a sharp decline. Property values have plummeted, and protesters have staged demonstrations in the streets demanding the government address the economic situation. Tourism has taken up some of the slack and has expanded by highlighting the Emerald Isle’s mild climate and green countryside. Cities such as Dublin are working with the growing pains of recovery in the economic recession.

Unemployment remains a concern, as well as declining economic opportunities. Overall, Ireland is working to reposition itself for future economic growth. The country wants to maintain itself as a vital link in the EU’s relationship with the United States. Ireland is bracing itself for a sluggish economic road ahead.

Attributions:

"Europe's Regions" is adapted from Introduction to World Regional Geography by R. Adam Dastrup (CC BY-NC-SA 4.0).

This page titled 5.4: Europe's Regions is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by LibreTexts.

6: NORTH AND CENTRAL ASIA

Re-framing North and Central Asia

The region of North and Central Asia brings together the world's largest country by area (the Russian Federation) with countries bordering the diverse regions of Southwest Asia, South Asia, and East Asia. This includes the countries in the Caucasus region (Armenia, Azerbaijan, and Georgia) and the "-stan" countries across the Caspian Sea from the Caucasus region. The "-stan" suffix comes from the Persian language roughly translated from "home to" or "place of". These countries include Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. (The remaining "-stan" country, Pakistan, is discussed in the South Asia region). So, Afghanistan is "the home of the Afghans".

It should be noted that Afghanistan is sometimes included in the South Asia region, which serves as a good reminder that the world regional boundaries are not fixed. Rather, countries can "fit" into different world regions based on what characteristics are used to define a world region, such as languages, histories, economics, or some other factor. Creating regions can often be a question of "lumpers and splitters;" who do you lump together and who do you split apart? Do you have fewer regions united by only a couple characteristics, or more regions that share a great deal in common?

The pairing of present-day Russia with Central Asia makes sense considering the history of the Soviets in the region. The Soviet Union, officially the Union of Soviet Socialist Republics (USSR), had its roots in the October Revolution of 1917, when the Bolsheviks, headed by Vladimir Lenin, overthrew the provisional government that replaced the Tsar. The Soviet Union was a federation of Soviet Republics that were outwardly independent nations, but existed essentially as satellite states under the control of Russian power. The Soviet Union was dissolved by the end of 1991, resulting in 14 countries (Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) declaring their independence in the course of the years 1990–1991.

Defining the region based on Soviet conquest can be problematic, however. World regional geographers understand that when we define a location by the people who conquered it, we are doing a disservice to the rich histories and cultures of the region prior to colonization or annexation. There's one more consideration for this world region: Russia can refer to the Russian Federation (the country), or to the idea of a united territory in the history of the region.

The World Geographies Atlas: Navigate each world region through maps

For each of the world regions, our original atlas provides detailed maps to help you navigate the places discussed in this book. These maps are meant to be explored before and during the reading of this chapter. These maps are best enjoyed enlarged. Click on each map for an enlarged view, and zoom in to see the prominent biomes, physical features, and population centers of North and Central Asia. We recommend that you download these for reference as you read this chapter's content and hope that you enjoy this original compilation.

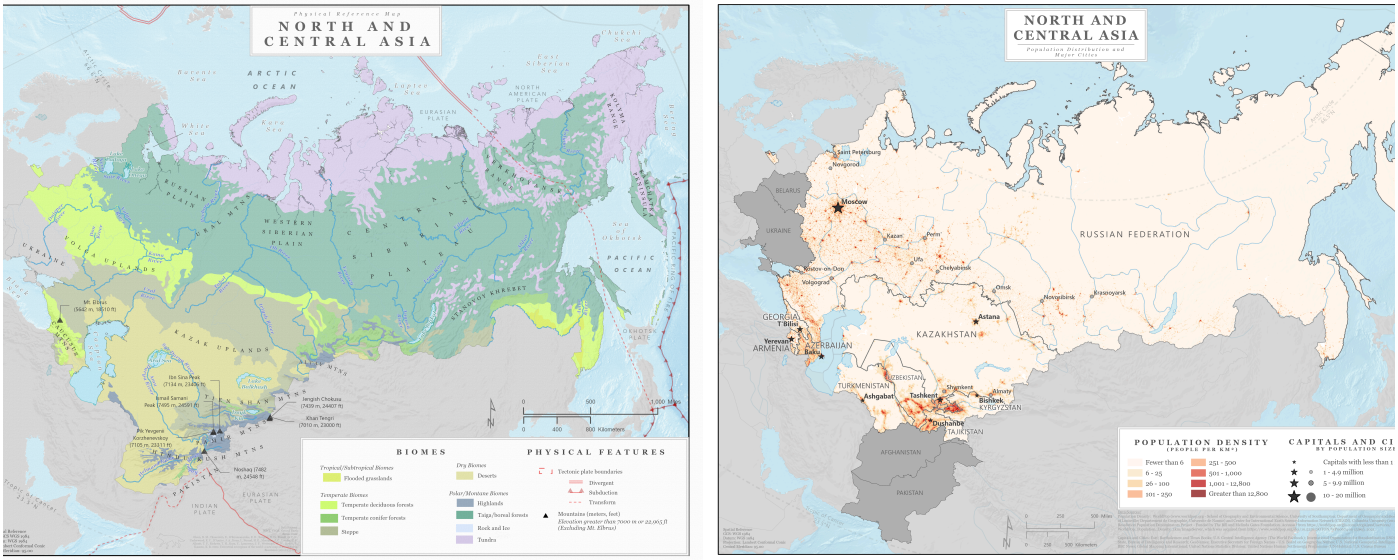


Figure 6.1: [left] This physical map shows the geographic distribution of biomes in North and Central Asia and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries (CC BY-NC-SA; Wallace via Flickr). [right] This map depicts internationally recognized countries, capitals, major cities, and population distributions of North and Central Asia (CC BY-NC-SA; Sellers via Flickr).

Attributions:

"Re-framing North and Central Asia" is adapted from The Soviet Socialist Republics by Lumen Learning (CC BY-SA), Unrest in the Soviet Union by Lumen Learning (CC BY-SA), and The World's Regions by Caitlin Finlayson (CC BY-NC-SA).

- Chapter Sections & Summaries

6.1: The Natural Environment
6.2: Indigenous Worlds- Diversity, Resilience, and Russian Nation-Building
6.3: Economic Geography- Transitions and Interdependence
6.4: Energy Interdependence, Conflict, and Climate Justice in the Arctic
6.5: Complex Geographies of Armed Conflict- Armenia, the Caucasus, Afghanistan, and Ukraine

This page titled 6: North and Central Asia is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

6.1: The Natural Environment

Learning Objectives

1. Analyze how plate tectonic activity created physical features in North and Central Asia.
2. Compare the biomes located in North and Central Asia.

The Physical Setting

Central Asia and Russia compose nearly one-third of the Eurasian continent. The numerous mountain chains in the region border several **cratons**, which are relatively flat and stable portions of a continent with igneous rocks that are more than one billion years old. Across Russia, the Western Siberian Plain and the Central Siberian Plateau are predominantly low-lying regions atop cratons. Major mountain ranges in Central Asia include the Tien Shan, Pamir, and Hindu Kush, which border grasslands and deserts (Figure 6.1.1). Located in the region between the Black and Caspian Seas, the Caucasus Mountains have two ranges: The Greater Caucasus in the north, which forms the border between Russia to the north, Georgia to the south, and Azerbaijan to the southeast; and the Lesser Caucasus to the south, which extends southeastward from Georgia to Armenia. The Ural Mountains in Russia traditionally divided Europe to the west and Asia to the east.



Figure 6.1.1: [left] This physical map shows the geographic distribution of biomes in Southwest Asia and North Africa and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries (CC BY-NC-SA; Wallace via Flickr).

The Ural Mountains extend roughly along the 60°E line of longitude (Figure 6.1.2, left). The mountain range spans 2,500 kilometers (1,550 miles) passing through Arctic **tundra** (a vast, cold and treeless biome) to the north and through forested and semi-desert landscapes to the south. Continental collisions gave rise to the Urals between 250 and 300 million years ago, making them among the oldest mountains on Earth. (For comparison, the very old Appalachians started to form about 480 million years ago, while the younger Himalayas started to form about 40 to 50 million years ago). To the east of the Ural Mountains lies the West Siberian Plain. This is a vast flatland area in central Russia that stretches almost the full latitude of the country—from the Arctic Ocean in the north to the foothills of the Altay Mountains in the south. Bound on the west by the Ural Mountains and on the east by the Yennisey River, the plain is one of the largest flatland areas in the world. The Central Siberia Plateau is marked with ridges and wide plateaus (Figure 6.1.2, right).





Figure 6.1.2: Left: Balbanyu River in the Ural Mountains, Komi Republic, Russian Federation. (CC BY-SA 4.0; RDA-Inta via Wikimedia Commons) *Right:* Central Siberian Plateau (CC BY 2.0; jxandreani via Wikimedia Commons).

In southwest Eurasia, between the Black and Caspian Seas, lies the Caucasus mountain range. The Caucasus Mountains form a border between Russia to the north, Georgia to the south, and Azerbaijan to the southeast. The Caucasus Mountains are the result of a **tectonic plate** collision between the Arabian plate moving northward with respect to the Eurasian plate. Tectonic plates are large slabs of solid rock that form the continents and ocean basins. The Caucasus Mountains form a continuation of the Himalayas, which are being pressed upwards by a similar collision zone with the Eurasian and Indian plates. The entire region is regularly subjected to strong **earthquakes** from this activity, especially as the fault structure is complex with the Anatolia/Turkey and Iranian Blocks flowing sidewise, which prevents subduction of the advancing plate edge and hence the lack of volcanoes (though some minor dome structures, such as Mount Elbrus' peaks, do exist, Figure 6.1.3). The earthquakes are the result of built-up stress being released along faults in the rock. At 18,510 feet in elevation, Mount Elbrus is the highest peak in Russia.



Figure 6.1.3: Road towards Mount Elbrus in the Russian republic of Kabardino-Balkaria in the North Caucasus (CC BY-SA 4.0; Ted.ns via Wikimedia Commons).

The Kamchatka Peninsula in Russia's Far East is part of the **Pacific Ring of Fire**. The ring is characterized by active volcanoes and frequent earthquakes associated with the many active and transform boundary zones around the Pacific tectonic plate. The Kamchatka Peninsula is home to more than 300 volcanoes, 20 of which are active, 114 of which have erupted in the Holocene Epoch (approximately 12,000 years ago to the present), making it one of the most volcanically and geothermally active regions in the world. The peninsula rides on the Okhotsk Plate, with the Pacific Plate diving under it at a rate of 8 to 10 centimeters per year. Figure 6.1.4 is a photograph by an astronaut above the International Space Station. Kronotsky and Kizimen stratovolcanoes are distinguished by their symmetrical cones. Kizimen last erupted in 1928, while Kronotsky—one of the largest on the peninsula—last erupted in 1923. Schmidt Volcano, to the north of Kronotsky, has the morphology of a **shield volcano** and is not known to have erupted since humans have been keeping records. Shield volcanoes are gently-sloping features formed by lava flows. To the south (left) is Krasheninnikov, comprised of overlapping **stratovolcanoes** (layers of ash and lava) that formed within an earlier volcanic crater, known as a **caldera**. Krasheninnikov may have last erupted in 1550. Two summit craters are clearly visible. Lake Kronotsky is Kamchatka's largest lake. It formed when lava flows from Kronotsky Volcano dammed the Listvenichnaya River.



Figure 6.1.4: [left] Locator map of the Kamchaka Peninsula (CC BY-SA 4.0; Lilpanadero via Wikimedia Commons). *[right]* An astronaut photograph of snow-covered volcanoes on Russia's Kamchatka Peninsula. (public domain; author via NASA Earth Observatory).

The Central Asian region is home to three major mountain ranges. The same tectonic forces that built the Himalayas also produced the Tien Shan, a similarly vast range of snow-capped peaks that extends 2,500 kilometers (1,500 miles) through Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, and western China (Figure 6.1.5, left). Tien Shan's glaciers play a crucial role in Central Asia's hydrological cycle. An estimated 15 percent of freshwater runoff in Kyrgyzstan comes from glaciers, and the contribution can be much higher during the melting season. In the east of Tajikistan lies the world heritage site designated Tajik National Park in the Pamir Mountains (Figure 6.1.5, middle). The park covers more than 2.5 million hectares (9,652 square miles) in the east of the country, at the center of the so-called "Pamir Knot", a meeting point of the highest mountain ranges on the Eurasian continent. It consists of high plateau in the east and, to the west, rugged peaks, some of them over 7,000 meters (22,900 feet) high, and features extreme seasonal variations of temperature. The longest valley glacier outside the Polar region is located among the 1,085 glaciers inventoried in the site, which also numbers 170 rivers and more than 400 lakes. Straddling the borders between Pakistan, Afghanistan, and India, the Hindu Kush is heavily populated (Figure 6.1.5, right). Though the valleys are heavily irrigated, growing crops at such high altitudes and low temperatures is difficult. The residents also have to worry about earthquakes, which are common as the Eurasian and Indo-Australian tectonic plates continue to push against one-another. This constant pressure and grinding create an average of four major (measuring at least 5 on the Richter scale) earthquakes a year.



Figure 6.1.5: [*left*] The Tien Shan mountains at the border between China, Kazakhstan, and Krgyzstan (CC BY 2.0; Chen Zhao via Wikimedia Commons). [*middle*] The Pamir Mountains, Tajikistan (CC BY 2.0; Irene2005 via Wikimedia Commons). [*right]* Kabul, Afghanistan in the valley below the Hindu Kush mountains (CC BY-SA 2.0; IJoe Burger via Wikimedia Commons).

Biomes

Although Russia's land area is quite large, much of the region is too cold for agriculture. As shown in Figure 6.1.5, the northernmost portion of Russia is dominated by **tundra**, a biome characterized by very cold temperatures and limited tree growth. Here,

temperatures can drop below -50°C (-58°F) and much of the soil is **permafrost**, soil that is consistently below the freezing point of water (0°C or 32°F). In the tundra summers, the top layer of soil thaws only a few inches down, providing a growing surface for the roots of vegetation. Precipitation in the tundra totals 150 to 250 mm a year, including melted snow. That's less than most of the world's greatest deserts. Still, the tundra is usually a wet place because the low temperatures cause evaporation of water to be slow. Much of the arctic has rain and fog in the summers, and water gathers in bogs and ponds. Vegetation in the tundra has adapted to the cold and the short growing season (Figure 6.1.6. left). Mosses, sedges, and lichens are common, while few trees grow in the tundra. The trees that do manage to grow stay close to the ground so they are insulated by snow during the cold winters.

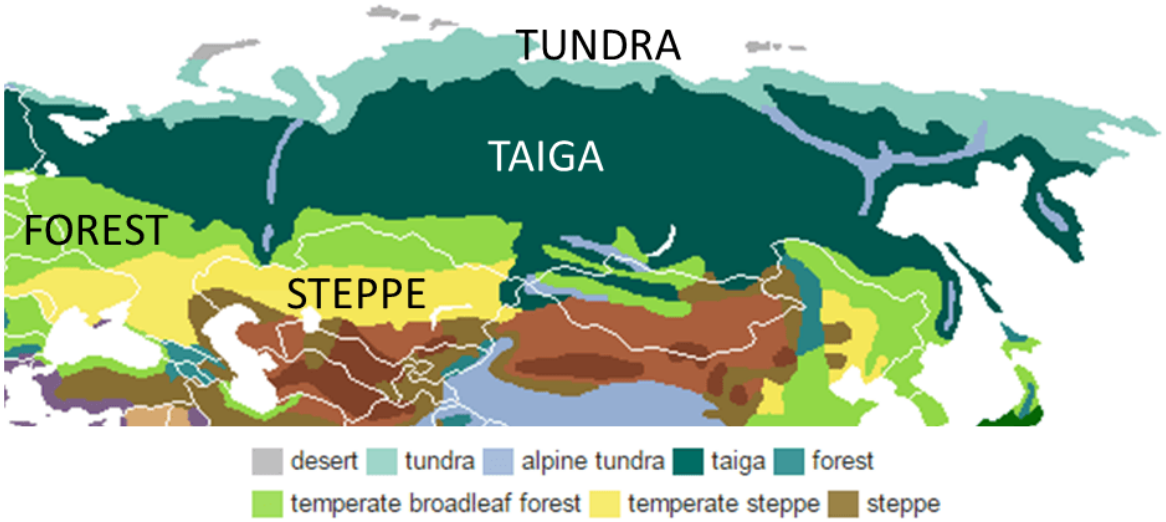


Figure 6.1.6: Biomes of North and Central Asia. Note: The dark reddish brown color not depicted in the legend represents an arid desert biome. (CC BY-NC-SA 4.0; Caitlin Finlayson derivative work from original by Sten Porse via LibreText).

South of the tundra is the **taiga** region, where **coniferous** (evergreen), snow-capped forests dominate (Figure 6.1.7, middle). In North America, taiga is referred to as **boreal forest**. This area of Russia contains the world's largest wood resources, though logging in the region has diminished the supply. Coniferous forests consist mostly of conifers, which are trees that grow needles instead of leaves and cones instead of flowers. Conifers tend to be evergreen—they bear needles all year long. These adaptations help conifers survive in areas that are very cold or dry. Some of the more common conifers are spruces, pines, and firs.

South of the taiga region are areas of temperate broadleaf forests and **steppe**, an area of treeless, grassland plains (Figure 6.1.7, right). The steppe has a long history of being one of Russia's most important breadbaskets. Intensive production and overuse during the Soviet era led to significant erosion of the soil in many places, but farmers in the area still manage to grow a range of crops, including wheat, sunflowers, buckwheat, soybeans, flax, peas, and sugar beets.



Figure 6.1.7: [left] Tundra on the Kola Peninsula, east of Finland (CC BY SA 4.0; Ninaras via Wikimedia Commons). *[middle]* Taiga in the Karelia region, east of Finland (CC BY SA 4.0; Eniisi Lisika via Wikimedia Commons). *[right]* Steppe in the Altai region, east of Kazakhstan (CC BY SA 3.0; Игоревич via Wikimedia Commons).

Central Asia has a variety of biomes including deciduous forest, steppe, desert, and alpine shrublands. The mountains of Central Asia are a designated biodiversity hotspot by the Critical Ecosystem Partnership Fund (CEPF). **Biodiversity hotspots** are regions with at least 1,500 endemic vascular plant species that have lost at least 70 percent of its native vegetation. "The hotspot

contains ancestors of domestic fruit and nut varieties: apricots, plums, cherries, apples, pears, cherry plums, grapes, pistachios, almonds, walnuts, and pomegranates. In addition, the wild crop relatives of many cultural herbaceous plants – wheat, barley, oats, rhubarb, sorrel, anise, coriander, onions, garlic, tulips – are still found here, making the region an important storehouse of genetic diversity."[1]

References:

[1] Critical Ecosystem Partnership Fund. 2017. Mountains of Central Asia Biodiversity Hotspot.

Attributions:

"Biomes" is adapted from World Regional Geography by Caitlin Finlayson, CC BY-NC-SA 4.0.
"Biomes" is adapted from Tundra, Coniferous Forest, and Shifting Seasons on the Steppe by the NASA Earth Observatory, Public Domain.

This page titled 6.1: The Natural Environment is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

6.2: Indigenous Worlds- Diversity, Resilience, and Russian Nation-Building

Learning Objectives

1. Analyze how Russian nation-building influenced the Indigenous populations of the Arctic Region.
2. Describe Central Asia's cultural diversity.

The Arctic Region

The global Arctic Region is home to numerous Indigenous groups. Figure 6.2.1 shows the Indigenous Population of the Arctic Region as a total share of the population in each location. Humans have inhabited present-day Siberia for more than 40,000 years.[1] Across the far north, numerous ethnic groups with distinct languages and cultural practices thrived. The word shaman originates in the Tungusic language of Siberia and represents a "worldview of people living in close connection to the environment with all its animate features including spirits" (p. 121).[2] As recently as 2014, shamanism was recognized as an official religion in the Sakha Republic in Russia.

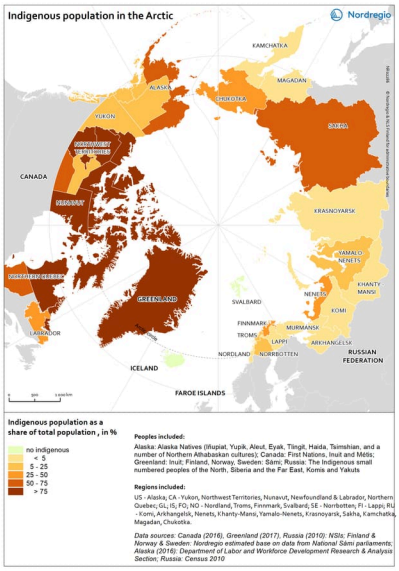


Figure 6.2.1: The Indigenous populations of the Arctic as a percentage of the total population. Peoples included: Alaska Natives (Iñupiat, Yupik, Aleut, Eyak, Tlingit, Haida, Tsimshian, and a number of Northern Athabaskan cultures); Canada (First Nations, Inuit, and Métis); Greenland (Inuit); Finland, Norway, Sweden (Sámi); Russia (The Indigenous small numbered peoples of the North, Siberia and the Far East, Komis, and Yakuts). Regions included: US - Alaska; CA - Yukon, Northwest Territories, Nunavut, Newfoundland and Labrador, Northern Quebec; GL; IS; FO; NO - Nordland, Troms, Finnmark, Svalbard; SE - Norrbotten; FL - Lappi; RU - Komi, Arkhangelsk, Nenets, Khanty-Mansi, Yamalo-Nenets, Krasnoyarsk, Sakha, Kamchatka, Magadan, Chukotka. Data sources: Canada (2016), Greenland (2017), Russia (2010), NSIs; Finland and Norway and Sweden: Nordregio estimated base on data from National Sámi parliaments; Alaska (2016): Department of Labor and Workforce Development Research and Analysis Section; Russia; Census 2010. (Used under terms of use; Shinan Wang via Nordregio).

The International Work Group for Indigenous Affairs (IWGIA) reports that there are more than 160 Indigenous groups in present-day Russia yet only 40 are officially recognized. The natural world provides materially and spiritually for the peoples of the Arctic. The relationship between humans and their environment is deep and multi-faceted. In the worldviews of indigenous people, it is a two-way relationship, with obligations and expectations for all beings that are part of the system. These groups traditionally relied on fishing and hunting, and reindeer herding in the north of the territory (Figure 6.2.2). Today, Indigenous peoples compose less than 1% of Russia's total population.[3]



Figure 6.2.2: Reindeer herding Dolgans, Khatanga Region, Taymyr, Russia, July 1993. (CC BY-NC-SA 2.0; Peter Prokosch for the GRID-Arendal resources library via Flickr).

Like in other parts of the world, Indigenous groups in Russia continue to endure hardships and dispossession. Many of Russia's natural resources are found on Indigenous lands and recent laws allow local authorities to overrule Indigenous land tenure in favor of resource extraction (Figure 6.2.3). Recent crackdowns on independent media and Indigenous activists and their supporters has caused a"second wave of repression against indigenous peoples in Russia's history".[4] The first happened during years of industrialization in the 20th century, when the Soviets colonized the Arctic and Siberia, subordinating them to the needs of the country. With few other options available, reindeer herders were simply resettled in reservations, while those who rebelled were sent to the Levashovo Wasteland, now a memorial site. This was how it happened in Murmansk Oblast, where the map of Sámi cemeteries shows that the native people were squeezed into the center of the Kola peninsula.

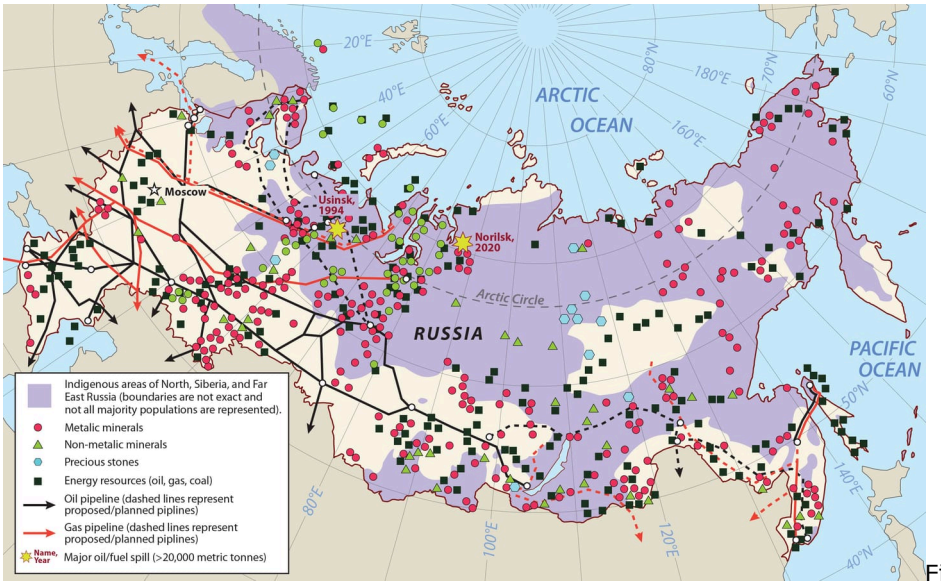


Figure 6.2.3: Map of Selected Indigenous regions with mines and pipelines. (CC BY-NC-ND 4.0; Waverly Ray adapted from Encyclopedia of Russia and EIA).

At the time of the Great Terror political purges in 1936-1938, 125 of the 2,000 Kola Sámi were arrested by Soviet authorities and the majority of them shot; 55 were sent to the Gulag. Only five survived. Those arrested included almost all of the Sámi leadership and the creator of the first Sámi primer. Few in number, the Sámi submitted meekly. Meanwhile, the Nenets people of the Yamal peninsula rose up, in a movement they called the Mandalada, outright refusing to surrender their reindeer to the state. Being left

in the tundra without reindeer is equivalent to death. A 10-year sentence in a prison camp was meted out on the same day as the trial, without any investigation. The first Mandalada was relatively successful, and its leaders even held direct talks with the government. They issued an ultimatum: re-establish the rights of the shamans, equality between the kulaks (wealthier peasants who owned land) and the poor, abolition of food-supply restrictions, and almost total elimination of Soviet power in the Yamal. As a result, the Mandalada itself was liquidated, without bloodshed. The second uprising, in the 1940s, was brutally repressed. The Dolgan people, living in the north of the present-day Krasnoyarsk region, also revolted against the division between the kulaks and the poor.

The act of maintaining cultural ways is also a form of resistance. The preservation of Indigenous languages is of particular importance for cultural survival. Scholars have identified Eastern Siberia as a language hotspot, meaning that it is an area with high levels of endangered languages combined with high levels of linguistic diversity, and low levels of documentation of the endangered languages. Programs to preserve and revive languages strengthen the intergenerational cultural bonds.

Linguists with the Living Tongues Institute for Endangered Languages are working with Ös speakers to record speakers, publish books, and create a written form of the language. The Ös documentation project explains:

> Middle Chulym or Ös has become endangered in part as a result of open hostility from the state during the twentieth century. Unlike most native Siberian languages, it was never committed to writing. In the 1940s, with the establishment of the 'second mother tongue' policy, children were rounded up into boarding schools and forbidden to speak their mother tongue. This led to rapid abandonment of the language.
> In addition, Ös [Chulym Turkic] people were dropped from census statistics as a distinct ethnic group after 1959, regaining separate ethnic identity only in 1999. In the 1970's, they were forcibly consolidated into larger, Russian-speaking settlements, thus losing their population base and traditional language milieu.[5]

Russification

Much like the expansion of European settlers throughout North America and the **dispossession** (depriving people of their land and property) and **forced assimilation** (an involuntary process where religious or ethnic groups are forced to adopt the language and culture of another group) of native peoples, contemporary North and Central Asia is shaped by the expansionist historical legacy of the Russian Federation. Its vast territory is the product of more than 700 years of conquest that has expanded Russian control southward and eastward across Eurasia.

Ethnic Russians

Ethnic Russians are a Slavic group with roots before recorded history. The term "Slavs" designates an ethnic group of people who share a long-term cultural continuity and who speak a set of related languages known as the Slavic languages (all of which belong to the Indo-European language family). Little is known about the Slavs before they are mentioned in Byzantine records of the 6th century CE, and most of what we know about them prior to this time is mainly derived from archeological and linguistic studies (Figure 6.2.4).



Figure 6.2.4: Map of East, West, and South Slavic languages. (CC BY-NC-ND 4.0; Waverly Ray adapted from Rezonansowy via Wikimedia Commons).

Linguistic evidence suggests that at some stage during their early times, the territory of the Slavs reached into the western region of Russia and the southern Russian steppes, where they came in contact with Iranian speaking groups. This is based on Slavic languages sharing a striking number of words with the Iranian languages, which can only be explained through diffusion from Iranian into Slavic. Later on, as they moved westward, they came into contact with German tribes and again borrowed several additional terms from Germanic languages. Interestingly, a Polish thinker named Józef Rostafiński had noticed that in all Slavic languages the words for beech, larch, and yew are borrowed from foreign languages, which implies that during early times these type of trees were unknown to the Slavs, a suggestion that could be used as a clue to determine where the Slavic culture originated.

Religion adds to the cultural diversity of the Slavic peoples. The Great Schism refers to formal institutional separation in 1054 CE between the Eastern Church of the Byzantine Empire (into the Orthodox Church, now called the Eastern Orthodox Church) and the Western Church of the Holy Roman Empire (into the Catholic Church, now called the Roman Catholic Church). Figure 6.2.5 shows the separation between the two main church bodies. This separation served as a basis for present-day nation state boundaries.

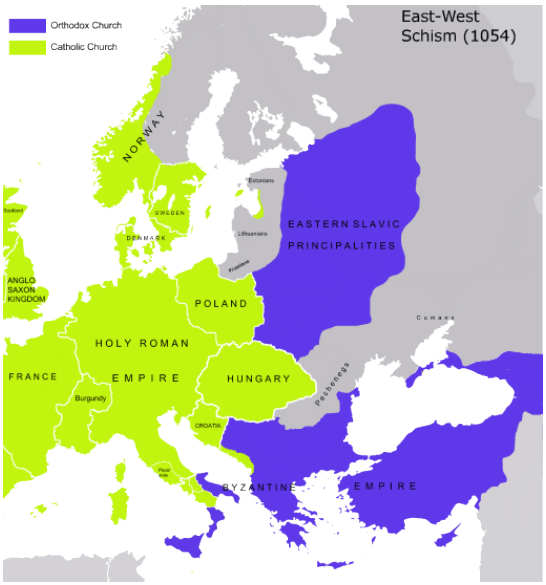


Figure 6.2.5: East-West Schism in 1054 CE. (CC0 1.0; Tobi85 via Wikimedia Commons).

In the 19th century, the Pan-Slavism movement sought to unify Slavic peoples in order to strengthen cultural and political ties in part to protect against Austro-Hungarian and Turkish interference in Slavic-dominant nation states. The main idea of Pan-Slavism can be identified as an attempt to transcend a more isolated national identity and create a greater, "pan-national," identity, including, in the spirit of the geopolitics of the time, a territory larger than the area of a nation state. However, even at the time of its greatest popularity, the concept of unity of the various Slavic nations did not come to be clearly defined and was challenged by low practical feasibility. The Pan-Slavism movement contributed to the implementation of russification in the region as the Russian Empire capitalized on these cultural connections to justify its cause.

The Russian Empire

Most of the territory that makes up today's Russian Federation came from the conquests of the Russian Empire, which mostly took shape in the 14th and 16th Century. Under the direction of powerful **czars** (sometimes spelled tsars), or autocratic leaders of the Pre-1917 Russian Empire, the Russian territory expanded from a small area in the vicinities of modern-day Moscow to a vast land area. By the 19th Century, the Russian Empire had amassed many territorial conquests and reached its peak geographical extent: its borders stretched from the Northern Coast of Asia, to Eastern Europe to include the area that is now Ukraine (the north side of the Black Sea), to Central Asia (what is now Kazakhstan, Uzbekistan, and the other Central Asian republics), to Alaska (which Russia later sold to the United States), and from the Bering Sea to the eastern border of Germany in the west. The Russian Empire is considered the third largest in history, covering a total of 8.8 million square miles during its peak[6] (Figure 6.2.6). By 1922, the Russian Empire disintegrated and was replaced by the Soviet Union (the Union of Soviet Socialist Republics of USSR) who continued to seek to expand and strengthen control over its vast territory from Eastern Europe to the Pacific Ocean.

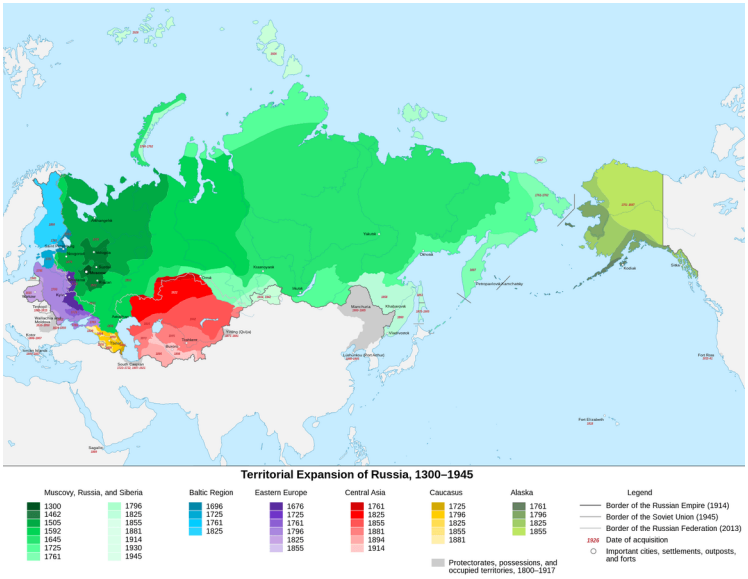


Figure 6.2.6: Territorial Expansion of Russia, 1300-1945. (CC BY-NC-SA 4.0; Mzajac via Wikimedia Commons).

Both the Russian Empire and the Soviet Union were imperial powers. In other words, these governments ruled a large variety of ethnic groups in distant places: people who spoke many languages, people who worshiped different gods in different ways, people who had various skin and hair colors, and people who did not consider themselves to be Russian. As an attempt to unify this diverse and immense empire under their central rule, Russian czars implemented a policy of **Russification**, or an attempt to diffuse and superimpose Russian culture and authority, to minimize cultural differences and turn all Russian subjects into Russians, or at least to make them as Russian as possible. The czars ruled this empire with Russification and the sword. As they were all subject to the Russian czars, people were taught the Russian language and were encouraged to convert to Russian Orthodoxy. Russification was not very successful, and the farther people were from Moscow the less likely they were to be Russified. When the Soviets took over the Russian Empire, millions of Muslims still lived in Central Asia, on the Crimean peninsula of southern Ukraine, in the Caucasus Mountains, and elsewhere.

The Soviet Era

The Soviets took a different tack when it came to taming the diversity of the empire. Instead of emphasizing unity under the Russian czar, the Russian language, and the Russian Orthodox religion, the Soviets decided to organize—and thus try to control—the diversity of ethnic groups found in the Soviet Union. They chose some of the major groups (Uzbek, Kazakh, and so forth) and established Soviet Socialist Republics that corresponded to these major groups. Thus they created the Uzbek Soviet Socialist Republic (Uzbek SSR), the Kazakh Soviet Socialist Republic (Kazakh SSR), the Ukrainian Soviet Socialist Republic (Ukrainian SSR), and a different republic for each of fourteen ethnic groups, plus the Russian Soviet Federative Socialist Republic (Figure 6.2.7). About eighty-five other ethnic groups were not given their own republics, although some of them were allocated regions within the Russian Republic. In theory, each of the Soviet Socialist Republics was an independent state choosing to ally with the Soviet Union. In practice, of course, these republics were part of a totalitarian, centrally ruled state with far fewer autonomous rights than states in the United States.



Figure 6.2.7: Map of the Former Soviet Union. The Russian Federation is shown in red with the former Soviet Socialist Republics are mapped along its borders. (CC BY-NC-SA 4.0; author via University of Minnesota).

The creation of these republics strengthened certain ethnic/national identities and weakened others. There had not been a fully developed Uzbek national identity before the formation of the Uzbek SSR. The same was true for the Kazakh SSR, the Turkmen SSR, and others. Although people in a certain area might have spoken the same language, they did not think of themselves as belonging to a nation of fellow Uzbeks, Kazakhs, or Turkmen until they were put into one by the Soviet rulers. In 1991, when the Soviet Union collapsed, these Soviet Socialist Republics were able to declare their independence from Russia, and the national identities fostered during the Soviet era came to fruition.

At the same time that the Soviets were organizing minority ethnic groups into republics, they were also sending ethnic Russians to live in non-Russian parts of the Soviet Union. Some were sent by force—such as Russians who were sent to prison camps in Siberia and stayed in the area after they were eventually freed. Other Russians were sent around the empire to work in factories, power plants, and other industries, or they were sent to help administer the government. By sending Russians to the far reaches of the Soviet Union, the Russian government hoped to consolidate its control over the various republics and to dilute the strength of the minority ethnicities. This policy also had unintended consequences: when the Soviet Union collapsed after 1991 and the various republics became independent countries, they each had to deal with sizable Russian minorities. For example, at the time of its independence, nearly as many ethnic Russians lived in Kazakhstan (38 percent) as ethnic Kazakhs (40 percent). In the twenty years since then, many Russians moved to Russia from the former Soviet republics. In 2010, Kazakhstan's population was only about 24 percent ethnic Russian.

The Russian Federation

The Russian federation was created with eighty-three federal subjects: two autonomous federal cities; forty-six provinces (oblasts) and nine territories (krais) that function in the same way and are the most common type of federal unit; twenty-one republics; four autonomous districts (okrugs); and one autonomous oblast (Figure 6.2.8). Moscow and St. Petersburg are the two federal cities that function as their own units. The oblasts and krais each have a governor appointed by the central government and a locally elected legislature. The governorship was an elected position in the 1990s, but President Vladimir Putin changed the structure to strengthen the power of the central state. The republics, designed to be home to certain ethnic minorities, are allowed to have their own constitutions and governments and to select an official language that will be used besides Russian, but they are not considered independent countries with the right to secession. The autonomous districts were also formed for ethnic minorities and are administered either by the central state or by the province or territory in which they are located. The only autonomous oblast was created in the 1930s to be a home for Jews in the Russian Far East, but only about 1 percent of the population remains Jewish today.



Figure 6.2.78: Map of Russian Districts. From west to east, Districts (and capitals): South (Rostov), Central (Moscow), Northwest (St. Petersburg), Volga (Nizhniy Novagorod), Ural (Yekatennburg), Siberian (Novosibirsk), and Far Eastern (Khabarovsk). (CC BY-NC-SA 4.0; Royal Berglee via University of Minnesota).

Central Asia at the Crossroads

Historically, the Central Asian region served as the crossroads to the Silk Road. **The Silk Road** was a network of ancient trade routes, formally established during the Han Dynasty of China in 130 BCE, which linked the regions of the ancient world in commerce between 130 BCE-1453 CE (Figure 6.2.9). Note that the Silk Road was not a single route from east to west, rather there were several routes spanning across southern Eurasia. While many different kinds of merchandise traveled along the network of trade of the Silk Road, the name comes from the popularity of Chinese silk with the west, especially with Rome. The Silk Road routes stretched from present-day China through India, Turkey, up throughout Southwest Asia, to Africa, and Europe. The greatest value of the Silk Road was the exchange of culture. Art, religion, philosophy, technology, language, science, architecture, and every other element of civilization was exchanged along these routes, carried with the commercial goods the merchants traded from country to country.



Figure 6.2.9: Routes of the Silk Road during the first century CE. (CC BY-SA 4.0; Kaidor via Wikimedia Commons).

Many groups of Central Asia were nomadic peoples who rode horses and herded livestock on the region's vast steppes. This way of life continued until the 1920s, when the Soviet Union forced many of the groups to abandon their lifestyle and settle on

collective farms and in cities. Most of the people of Central Asia continue to identify culturally with their nomadic past. Central Asians who live in cities often demonstrate a mix of local and Russian culture in terms of dress and food because of the massive influx of Russian populations in the region. More than six million Russians and Ukrainians were resettled into Central Asia during Soviet rule. Russian is often used as a **lingua franca**, a language that is adopted as a common language between speakers whose native languages are different. Despite the area being part of the Soviet Union, where religious activities were discouraged, Islam was and still is the dominant religion.

Figure 6.2.10 shows a 1993 map created by the U.S. Central Intelligence agency showing the major ethnic groups in Central Asia. This map helps to provide a cursory understanding of the spatial distribution of Slavic, Indo-European, and Turkic peoples in the region. Today the region's overall population of about 73 million is ethnically diverse and predominantly under 30 years of age; the majority religion in Central Asia is Sunni Islam, and the region is also home to religious minority groups including Shia Muslims and various Christian denominations, primarily Russian Orthodox. In addition to the local Turkic and Persian languages, Russian remains spoken throughout the region to varying degrees.

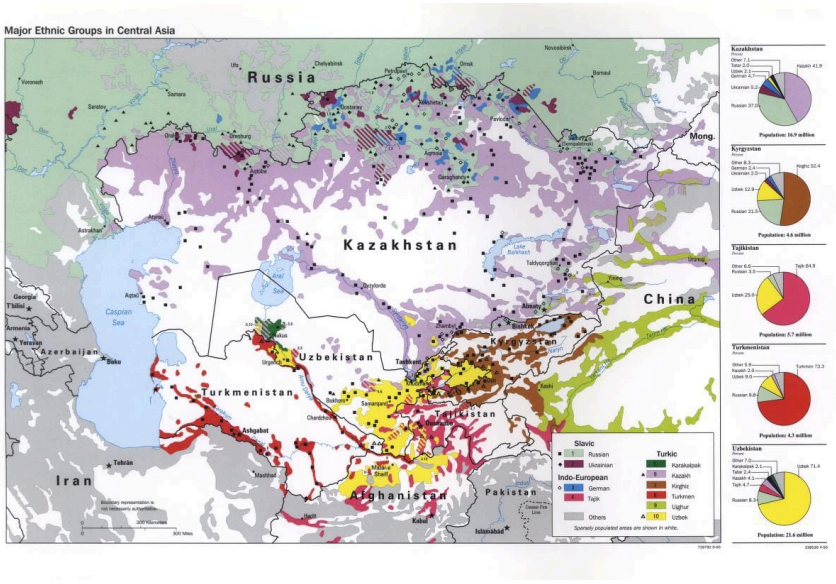


Figure 6.2.10: Major ethnic groups of Central Asia. (public domain; U.S. Central Intelligence Agency via Library of Congress).

References:

[1] Sikora, M., et al. 2019. The population history of northeastern Siberia since the Pliestocene. *Nature, 570*: 182-197.

[2] Nordic Council of Ministers. 2014. Arctic Human Development Report. Denmark.

[3] International Work Group for Indigenous Affairs. 2022. The Indigenous World 2022.

[4] Transitions Online. 222. New colonization in Russia's Arctic threatens indigenous rights.

[5] Living Tongues Institute for Endangered Languages. 2021. Ös (Chulym).

[6] McCarthy, N. 2020. The Biggest Empires in Human History. Statista.

Attributions:

"Indigenous Worlds" is adapted from Connections Between Arctic Peoples and Their Environment by Henry P. Huntington (CC BY-SA 3.0 IGO).

“Indigenous Worlds” is adapted from New colonization in Russia’s Arctic threatens indigenous rights by Transitions Online (CC BY 3.0).

“Russification” is adapted from World Regional Geography by University of Minnesota (CC BY-NC-SA 4.0).

“Russification" is adapted from Slavs by Cristian Violatti for the World History Encyclopedia (CC BY-NC-SA 4.0).

“Russification" is adapted from Revisiting Pan-Slavism in the Contemporary Perspective by Vladimir Đorđević et al. in *Nationalities Papers* (CC BY 4.0).

"Russification" is adapted from The Great Schism of 1054 by Lumen Learning (CC BY-SA 4.0).

“Central Asia at the Crossroads” is adapted from the Silk Roads Programme by the World History Encyclopedia (CC BY-NC-SA 4.0).

“Central Asia at the Crossroads” is adapted from the Central Asia by Adam Dastrup (CC BY-NC-SA 4.0).

"Central Asia at the Crossroads" is adapted from Central Asia: Background and U.S. Relations by the Congressional Research Service (public domain).

This page titled 6.2: Indigenous Worlds- Diversity, Resilience, and Russian Nation-Building is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

6.3: Economic Geography- Transitions and Interdependence

Learning Objectives

1. Compare the characteristics of command and market economies.
2. Explain the importance of remittances to countries in Central Asia.

Command Economy to Market Economy Transition

The Soviet Economy

The Russian Revolution succeeded in 1917 in overthrowing the czarist regime that had ruled the Russian Empire for centuries. Leaders of the revolution created the Soviet Union in its place and sought to establish a socialist state based on the ideas of Karl Marx. The leaders of the Soviet Union faced a difficulty in using Marx's writings as a foundation for a socialist system. Marx had sought to explain why capitalism would collapse; he had little to say about how the socialist system that would replace it would function. He did suggest the utopian notion that, over time, there would be less and less need for a government and the state would wither away. But his writings did not provide much of a blueprint for running a socialist economic system.

The two major economic systems in modern societies are capitalism and socialism. In practice, no one society is purely capitalist or socialist, so it is helpful to think of capitalism and socialism as lying on opposite ends of a continuum.

Capitalism is an economic system in which the means of production are privately owned. By *means of production*, we mean everything—land, tools, technology, and so forth—that is needed to produce goods and services. The hallmarks of capitalism are private ownership of the means of production, the pursuit of profit, competition for profit, and the lack of government intervention in this competition.

Socialism is an economic system in which the means of production are collectively owned, usually by the government. The most important goal of socialism is not the pursuit of personal profit but rather work for the collective good: the needs of society are considered more important than the needs of the individual.

Lenin's death in 1924 precipitated a power struggle from which Joseph Stalin emerged victorious. It was under Stalin that the Soviet economic system was created. Stalin began by seizing virtually all remaining privately-owned capital and natural resources in the country. The seizure was a brutal affair; he eliminated opposition to his measures through mass executions, forced starvation of whole regions, and deportation of political opponents to prison camps. Estimates of the number of people killed during Stalin's centralization of power range in the tens of millions. With the state in control of the means of production, Stalin established a rigid system in which a central administration in Moscow determined what would be produced.

Managers of state-owned firms were rewarded on the basis of their ability to meet the annual quotas set by the Gosplan (Figure 6.3.1). The system of quotas and rewards created inefficiency in several ways. First, no central planning agency could incorporate preferences of consumers and costs of factors of production in its decisions concerning the quantity of each good to produce. Decisions about what to produce were made by political leaders; they were not a response to market forces. Further, planners could not select prices at which quantities produced would clear their respective markets. In a market economy, prices adjust to changes in demand and supply. Given that demand and supply are always changing, it is inconceivable that central planners could ever select market-clearing prices. Soviet central planners typically selected prices for consumer goods that were below market-clearing levels, causing shortages throughout the economy. Changes in prices were rare.



Figure 6.3.1: 2014 photograph of the former Gosplan headquarters in Moscow. (CC BY 2.0; Jorge Láscar via Wikimedia Commons).

Centrally controlled systems often generated impressive numbers for total output but failed in satisfying consumer demands. Gosplan officials, recognizing that Soviet capital was not very productive, ordered up a lot of it. The result was a heavy emphasis on unproductive capital goods and relatively little production of consumer goods. On the eve of the collapse of the Soviet Union, Soviet economists estimated that per capita consumption was less than one-sixth of the U.S. level.

The Soviet system also generated severe environmental problems. In principle, a socialist system should have an advantage over a capitalist system in allocating environmental resources for which private property rights are difficult to define. Because a socialist government owns all capital and natural resources, the ownership problem is solved. The problem in the Soviet system, however, came from the labor theory of value. Since natural resources are not produced by labor, the value assigned to them was zero. Soviet plant managers thus had no incentive to limit their exploitation of environmental resources, and terrible environmental tragedies were common.

The Transition to a Market Economy

Command socialism (production and distribution of goods and services are controlled by the government and industry is publicly owned), which had reigned supreme in Russia for more than 70 years and in much of the rest of the world for more than 40 years, appeared to be a permanent institution. Indeed, many observers had expected its influence to increase by the end of the twentieth century. But in the span of five months in 1989, command socialist systems fell in six Eastern European nations. The Soviet Union, which had been the main adversary of the United States in the post-World War II period, and which possessed enough nuclear arms to destroy the world (as did the United States), broke up in 1991.

Just as leaders of the Soviet Union had to create their own command socialist systems, leaders of the economies making the transition to market capitalist economies must find their own paths to new economic systems. It is a task without historical precedent. Establishing a system of market capitalism in a command socialist economy is a daunting task. Former command socialist economies must establish systems of property rights, establish banking systems, deal with the problem of inflation, and work through a long tradition of ideological antipathy toward the basic nature of a capitalist system.

The Soviet Union, as we have already seen, had a well-established system of command socialism. Leading Soviet economists, however, began arguing as early as the 1970s that the old system could never deliver living standards comparable to those achieved in market capitalist economies. The first political leader to embrace the idea of radical reform was Mikhail Gorbachev, who became General Secretary of the Communist party—the highest leadership post in the Soviet Union—in 1985.
Mr. Gorbachev instituted political reforms that allowed Soviet citizens to speak out, and even to demonstrate, against their government. This policy was dubbed glasnost, or “openness.” Economically, he called for much greater autonomy for state enterprises and a system in which workers’ wages would be tied to productivity. The new policy, dubbed perestroika, or “restructuring,” appeared to be an effort to move the system toward a mixed economy (Figure 6.3.2).



Figure 6.3.2: 1988 stamp promoting perestroika with revolutionary soldiers and workers featured. (public domain; Matsievsky via Wikimedia Commons).

These measures, however, accomplished little. Black market prices for basic consumer goods were typically 10 to 20 times the level of state prices. Those prices, which respond to demand and supply, may be taken as a rough gauge of equilibrium prices. People were willing to pay the higher black market prices because they simply could not find goods at the state-decreed prices. Mr. Gorbachev's order to double and even triple some state prices narrowed the gap between official and equilibrium prices, but did not close it. Table 6-1 shows some of the price changes imposed and compares them to black market prices.

Table 6-1. Comparison of Prices from Old, New, and Black Markets. Rubles are Russia's paper currency (printed bills) and kopeks were coins. Adapted from Chapter 34: Socialist Economies in Transition by the University of Minnesota and Komsomolskaya pavda, CC BY-NC-SA 4.0.

Item	Old Price	New Price	Black Market Price
Children's shoes	2-10 rubles	10-50 rubles	50-300 rubles
Toilet paper	32-40 kopeks	60-75 kopeks	200-300 kopeks
Bottle of vodka	10.5 rubles	10-11 rubles	30-35 rubles
Compact car	7,000 rubles	35,000 rubles	70,000-10,000 rubles

To **privatize** state firms, Russian citizens were issued vouchers that could be used to purchase state enterprises. Under this plan, state enterprises were auctioned off. Individuals, or groups of individuals, could use their vouchers to bid on them. By 1995 most state enterprises in Russia had been privatized. Most of Russia's output of goods and services is now produced by the private sector.

While Russia has taken major steps toward transforming itself into a market economy, it has not been able to institute its reforms in a coherent manner. For example, despite privatization, restructuring of Russian firms to increase efficiency has been slow. Establishment and enforcement of rules and laws that undergird modern, market-based systems have been lacking in Russia. Corruption has become common.

While the quality of the data is suspect, there is no doubt that output and the standard of living fell through the first half of the 1990s. Despite a financial crisis in 1998, when the Russian government defaulted on its debt, output recovered through the last half of the 1990s and Russia has seen substantial growth in the early years of the twenty-first century. In addition, government finances have improved following a major tax reform and inflation has come down from near hyperinflation levels. Despite these gains, there is uneasiness about the long-term sustainability of this progress because of the over-importance of oil and high oil prices in the recovery. Mr. Putin's fight, whether justified or not, with several of Russia's so-called **oligarchs**, a small group of people who were able to amass large fortunes during the early years of privatization, creates unease for domestic and foreign investors. Many of the richest oligarchs, with fortunes of more than $10 billion dollars, gained their wealth during the privatization of mining operations, including oil, natural gas, nickel, platinum, and iron ore.

Interdependence in North and Central Asia

Migration and Remittances

Russia's population is declining, which has caused challenges to economic growth. Without a labor force big enough to keep the economy going, Russia has relied on immigration from Central Asia to fill jobs. Russia's government encourages this migration by offering visas and residency permits. In 2019, there were approximately 3.9 million migrants from Central Asia in Russia working in a variety of fields including trade, construction, industry, agriculture, and hospitality.[1] The international flow of migrants and remittances have been impacted by both the COVID-19 pandemic and Russia's invasion of Ukraine. When Russia's economy weakens, remittances to Central Asia decline causing poverty to increase. And, an increasing number of migrant workers return to their home countries, which causes an uptick in local unemployment levels.

The cash or goods that international migrants send to their families back home are known as **remittances**. Several countries in Central Asia are reliant on remittances to support their economies. In 2020, remittances composed 31% of Kyrgyzstan's gross domestic product and 27% of Tajikistan's.[2] It is estimated that remittances reduced Kyrgyzstan's national poverty rate by 11% in 2019.[3] The majority of remittances to Central Asia come from the Russian Federation. This illustrates the interdependence of the Russian Federation's employment needs and the migrants who rely on jobs in the Russian Federation to generate income to send back to their families in Central Asia.

References:

[1] Ratha, D., & Kim, E.J. 2022. Russia-Ukraine conflict: Implications for remittance flows to Ukraine and Central Asia. World Bank.

[2] United Nations. 2022. Sanctions on Russia already hitting remittance-dependent countries in Central Asia: IOM.

[3] UN Migration. 2020. Research summary: The impact of the COVID-19 pandemic on the state of migrants and remittances in Central Asia.

Attributions:

"Command Economy to Market Economy Transition" is adapted from Types of Economic Systems by the University of Minnesota, CC BY-NC-SA 4.0.

"Command Economy to Market Economy Transition" is adapted from Chapter 34: Socialist Economies in Transition by the University of Minnesota and Komsomolskaya pavda, CC BY-NC-SA 4.0.

This page titled 6.3: Economic Geography- Transitions and Interdependence is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

6.4: Energy Interdependence, Conflict, and Climate Justice in the Arctic

Learning Objectives

1. Explain the impacts of climate change in the Arctic region of North Asia.
2. Analyze how energy interdependence influences contemporary geopolitics.
3. Explain the impacts of the Northeast passage on global greenhouse emissions and Indigenous territories.

Russia's Natural Resources

Russia's forests are a major natural resource (Figure 6.4.1). With approximately 640 billion trees, more than one-fifth of all of the world's trees are in Russia.[1] While timber harvesting (deforestation) is one monetary benefit of forests, non-timber forests provide recreation, watershed protection, climate control, soil protection, and biodiversity protection. And, the value of carbon sequestration is a major ecosystem service provided by forests in Russia. In 2017, Russia's forests provided an estimated **carbon sequestration** of 639 million tons of carbon dioxide equivalent, which is a major planetary **carbon sink**. The term "carbon sequestration" is used to describe both natural and deliberate processes by which CO2 is either removed from the atmosphere or diverted from emission sources and stored in the ocean, terrestrial environments (vegetation, soils, and sediments), and geologic formations. Carbon is sequestered in carbon reservoirs (also known as "carbon sinks") such as the deep ocean or forests. As the permafrost in the Tundra Biome warms, it releases greenhouse gases that further accelerate global climate change. (Refer to the physical map of North and Central Asia provided at the beginning of the chapter to locate the Tundra Biome and other locations mentioned in this section).



Figure 6.4.1: Distribution of forests less than 30 years old across the Russian Federation, 2012, with a 500-meter resolution. (CC BY-NC-ND 4.0; Waverly Ray, adapted from Loboda and Chen 2016).

The Russian Federation is richly endowed with natural resources, which underscores its importance as a global commodity exporter. Owing to its rich resource base, Russia plays a crucial role in global energy and resource markets. Resource-rich economies like Russia face unique development challenges to transform an exhaustible resource, such as oil, into assets that can continue to generate income and employment once the oil is gone. And, volatility with oil or natural gas prices reduces the stability of Russia's economy. Beyond fossil fuels, Russia produces a host of other metals and industrial minerals like asbestos, diamond, aluminum, potash, silicon, gold, and nickel.

In 2020, Russia was the world's third-largest producer of crude oil (after the United States and Saudi Arabia). The Ob River runs

a course through the middle of Russia's largest and most important gas and oil region. The West Siberian Basin, a vast region of tundra and taiga in north-central Russia, contributes about two-thirds of the country's crude oil and natural gas output. Most of the gas fields are clustered north of the Arctic Circle along the Yamal and Gydan Peninsulas. The 2016 satellite image (Figure 6.4.2) shows oil-drilling operations near the confluence of the Irtysh and Ob river. The -oil drilling operations appear as a network of scattered gray dots against the green and brown landscape. In the floodplains and stream valleys, forests (green) dominate, whereas fall weather has turned vegetation in the bogs, fens, and mires (north and south of the river) brown. Large numbers of lakes (dark blue) are scattered throughout the image. The tendrils of green running through the swampy areas are forests.



Figure 6.4.2: Satellite image of the Ob River valley depicts oil fields shown as scattered gray dots. (public domain; NASA Earth Observatory).

It is estimated that Russia has the world's largest natural gas reserves, which are deposits of natural gas which are anticipated to be commercially recoverable. Russian government policies aim to incentivize the extraction of fossil fuels in the Arctic region. In 2018, Novatek announced the discovery of the North Obskoye field located in Ob Bay (between the Yamal and Gydan Peninsulas, Figure 6.4.3) and estimated that it held over 11.3 trillion cubic feet of natural gas reserves. In May 2020, Gazprom estimated that its 75 Let Pobedy field, which is located in the Yamal Peninsula, held more than 7.1 trillion cubic feet of total recoverable reserves. Both discoveries, if fully realized, would significantly increase Russia's natural gas production. A series of infrastructure projects in Ob Bay to deepen the shipping channel and build protective walls to protect freighters from sea ice are raising environmental concerns. Marine scientists argue that these projects threaten several fish species to extinction and wide-scale ecosystem damage.[2]



Figure 6.4.3: Locator map for the Gulf of Ob, which is the terminus of the Ob River. (GNU Free Documentation License; Mohonu via Wikimedia Commons).

Climate Justice in the Arctic

Climate justice is a concept that addresses the just division, fair sharing, and equitable distribution of the benefits and burdens of climate change and responsibilities to deal with climate change. Consider this perspective:

> If you look at climate change in the context of the Arctic you are witnessing humanity's capacity for irrationality at its zenith. Science informs us that there is an unprecedented melting of the Arctic, perhaps symbolized most acutely by the opening of the Northwest Passage and a scramble to exploit the region's rich and abundant resources as they become increasingly accessible. Yet many of these very resources and in particular the Arctic's hydrocarbons are the very factors fueling the melting in the first place as a result of the build-up of greenhouse gasses triggering climate change.[3]

Arctic warming is mainly driven by actions taken outside the Arctic. One prime example is the atmospheric concentration of carbon dioxide which is responsible for about two-thirds of the greenhouse gas effect. It is emitted primarily in mid and low latitudes but affects the globe as a whole due to the rapid mixing of the atmosphere on hemispheric (less than one year) and global scales (several years). A key challenge is the fact that the rate and magnitude of change experienced by Indigenous Peoples of the Arctic and other Arctic residents outpace changes at lower latitudes (Figure 6.4.4). Yet, policy in many Arctic nations is made in locales and by policymakers far removed from where the greatest impacts are felt. This reality, combined with a history of colonization and focus on extractive resource development, complicates the translation of lessons learned in the Arctic into national or global policy frameworks.

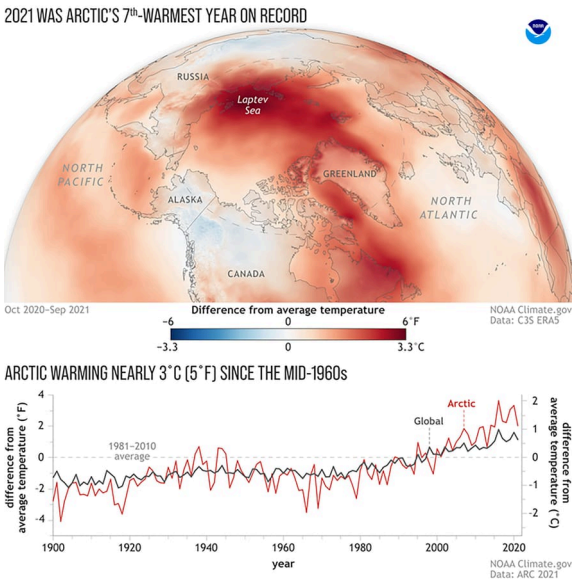


Figure 6.4.4: Arctic warming map and graph. The top image depicts the departure from the average temperature across the Arctic in 2020, with redder colors showing areas of greater warmth. As of 2021, 2021 was the Arctic's 7th-warmest year on record.The bottom half of this graphic shows how Arctic air temperatures varied from global temperatures since 1900. Arctic warming is nearly 3°C (5°F since the mid-1960s). (public domain; NASA).

The current pace and impact of climate change is beyond indigenous adaptive capacity – amplifying dispossession, marginalization, acculturation, and discrimination – and threatening indigenous peoples' general human rights. Their right to culture and traditional way of life are under immediate and direct threat. Despite some positive impacts, mitigation and adaptation projects can also have numerous adverse effects on indigenous livelihoods and rights.

International human rights law is clearly relevant to all people in the Arctic, whether as Indigenous peoples or as individuals, or both. Yet ratification of international human rights treaties is inconsistent among Arctic states. Notably, in recent years, there has been increased attention on the importance of intersectional human rights issues in the Arctic region, such as the implications of climate change for the realization of the human rights of Indigenous women as well as the importance of their contributions to climate governance.

Women generally face ongoing disadvantages in their access to economic and social resources. These resources include access to land, financing, new technologies, bargaining power, social capital, and training for climate adaptation and disaster preparedness. Such inequalities threaten women's resilience to climate change, at times preventing their effective engagement in development processes, and further exacerbating gender inequality. Low income and a lack of resources, for instance, may affect women's bargaining power at various levels – within households, in communities (including indigenous communities), nationally, regionally, and internationally. Women's insufficient representation in decision-making processes on climate change mitigation and adaptation can further exacerbate such vulnerabilities. The impacts of climate change on women, in particular, can be further exacerbated at the intersection of race and gender, thus impacting the lives of indigenous women differently. This is where an intersectional lens that accounts for historical, social, and political context is particularly useful. Activist Yana Tannagasheva, in exile from Russia, tells the story of coal mining in her homeland. You may read her statement on mining and Indigenous rights.

Northeast Passage and Global Warming

While climate change will bring about numerous regional changes across Central Asia and Russia, including water insecurity, long-term droughts, and melting permafrost, the opening of the Northeast Passage, also called the Northern Sea Route, is poised to have global consequences (Figure 6.4.5).

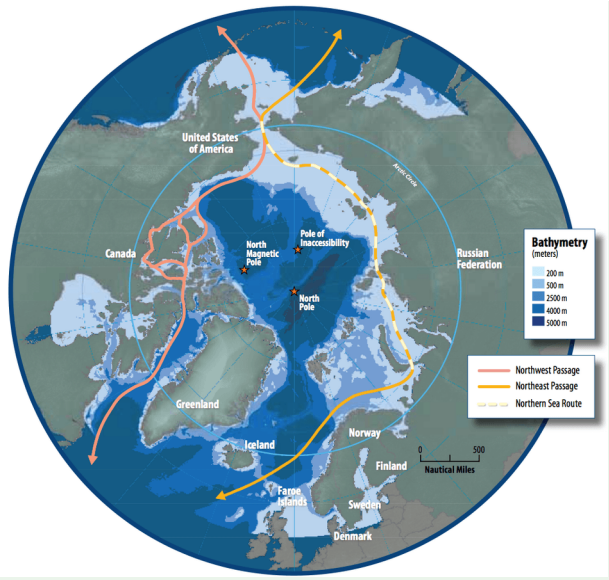


Figure 6.4.5: Arctic region map showing the Northwest Passage, Northeast Passage, and Northern Sea Route. (public domain; Susie Harder via Wikimedia Commons).

Maritime routes transport about 80% of the world's trade and an estimated 50% of carbon dioxide emissions from international trade comes from maritime transportation. With a Northeast Passage, there would be an estimated 37% decrease in shipping distance between Yokohama, Japan, and Rotterdam, The Netherlands (Europe's largest seaport).[4] Sailing from Taipei to Rotterdam would decrease carbon dioxide emissions by an estimated 3%. But the passage would also increase access to oil and gas fields on Indigenous territory (Figure 6.4.6).

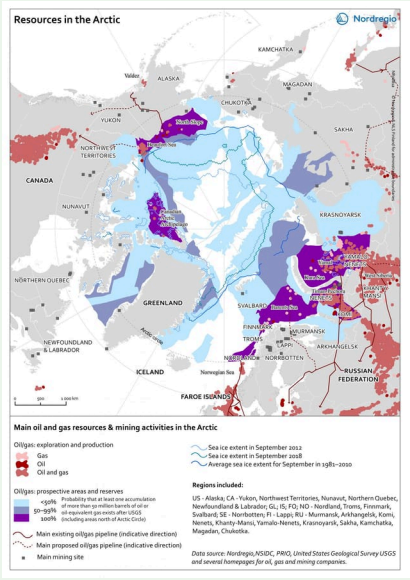


Figure 6.4.6: Main oil and gas resources and mining activities in the Arctic. This map shows both existing and potential sites of mineral and energy resources in the Arctic. Regions included: US - Alaska; CA - Yukon, Northwest Territories, Nunavut, Newfoundland and Labrador, Northern Quebec; GL; IS; FO; NO - Nordland, Troms, Finnmark, Svalbard; SE - Norrbotten; FL - Lappi; RU - Komi, Arkhangelsk, Nenets, Khanty-Mansi, Yamalo-Nenets, Krasnoyarsk, Sakha, Kamchatka, Magadan, Chukotka. Data source: Nordregio, NSIDC, PRIO, United States Geological Survey USGS and several homepages for oil, gas, and mining companies. (Used under terms of use; Eeva Turunen via Nordregio).

The opening of the Northeast Passage is also increasing geopolitical tensions due to the increase in warships using this route. Although warships enjoy both the right to innocent passage in territorial waters as well as the right to transit passage through straits used for international navigation, these rights are controversial and sometimes challenged. Navigation rights for warships are especially challenged in areas where the security interests of the coastal states bordering the passages is

crucial to protect. On the other hand, freedom of navigation is highly valued. Navigation rights for warships in accordance with the law of the sea is about balancing these interests, hence the debate. To secure navigation rights for warships in the Northeast and Northwest Passages is therefore challenging due to security implications for both Canada and Russia. To demonstrate its security interests, Russia has established its most valuable strategic deterrence capacities in the Arctic, especially in connection with their naval bases on the Kola and Kamchatka peninsulas. In addition to security issues, the interests of protecting the marine environment and Indigenous peoples' rights must be taken into consideration.

Biologists studying Arctic marine mammals identified threats to numerous species that will be come in contact with ships sailing in their habitats (Figure 6.4.7). A *Current Biology* article quotes researcher Kristin Laidre:
Narwhals have all the traits that make them vulnerable to vessel disturbances — they have high site fidelity in summer, they rely on sound for key things like finding food and communicating, they live in only about a quarter of the Arctic, and they're smack dab in the middle of shipping routes...They are notoriously skittish and sensitive to any kind of disturbance.[5]
"Walruses are also high on the vulnerability scale because their populations are small and close to the shipping routes. The walrus is the only surviving species of the genus Odobenus and the family Odobenidae and thus of high evolutionary uniqueness".[5]



Figure 6.4.7: Arctic marine mammals. Clockwise from *Upper-left:* Narwhal (CC BY SA 4.0; пресс-служба ПАО via Wikimedia Commons) *Upper-right:* Walrus (public domain; Joel Garlich-Miller for the USFWS via Science Direct) *Bottom-right:* Bowhead whales (public domain; NOAA Photo Library via Wikimedia Commons) *Bottom-left:* Beluga whale pod (CC BY SA 3.0; Ansgar Walk via Wikimedia Commons).

Shipping along the Northeast Passage threatens Indigenous communities who rely on the environment for their livelihoods. A member of the Udege people, native to the far eastern Arctic region of Russia, spoke at COP26 and emphasized the importance of linking the environment, the climate crises, and human rights. Rodion Sulyandziga stressed that the Arctic is not a "dead zone" with only polar bears and little else. He emphasized that the Arctic is home to populations living in "harmony with the environment".[6]

Energy Interdependence

Energy commodities refer to all of the power sources traded around the world. They include fossil fuels (such as crude oil, natural gas, and coal), nuclear energy, and renewable energy sources (such as solar, geothermal, wind). Compared to all other commodities on the global market, energy commodities have the highest monetary value. Researchers explain that:
Energy resources are integral parts of numerous production chains, and hence key to a nation's economic prosperity. Moreover, energy resources are of paramount importance for military activity, and thus, for national security. Given their strategic importance and inherent characteristic of being geographically endowed, securing reliable and affordable access

to energy resources may significantly impact the destiny of a nation.[7]
Energy interdependence refers to the fact that many countries' economies rely on either the import of energy commodities or the export of energy commodities.

Several historical moments help to explain the energy interdependence between Russia and western Europe. During the Soviet era, a pipeline was constructed to distribute Russian oil to present-day Ukraine, Belarus, Poland, Hungary, Slovakia, the Czech Republic, Austria, and Germany. Called Druzhba (meaning friendship) the pipeline was built in the 1960s and extends from the interior of the present-day Russian Federation 2,500 miles (4,000 kilometers) (Figure 6.4.8). This is the world's longest pipeline network.



Figure 6.4.8: Map of the Druzhba pipeline. (public domain; U.S. Energy Information Administration via Wikimedia Commons).

Later, disruptions to the world's oil supply due to events such as the embargo by Western states on Arab oil due to the Yom Kippur War in the early 1970s and the Iranian revolution of 1979, combined with the easing of Cold War tensions between the USSR and the West, led to western Europe and the USSR to negotiate the building of a pipeline to supply Soviet energy resources to western Europe. Natural gas flowed through the Yamal pipeline (since 1997), the Nord Stream pipeline (since 2011), the Blue Stream pipeline (since 2003), and the TurkStream pipeline (since 2020) (Figure 6.4.9). This infrastructure led many European countries to become dependent on Russia gas (Figure 6.4.10).



Figure 6.4.9: Map of Russian-European natural gas pipelines. (CC BY-ND; Statista).

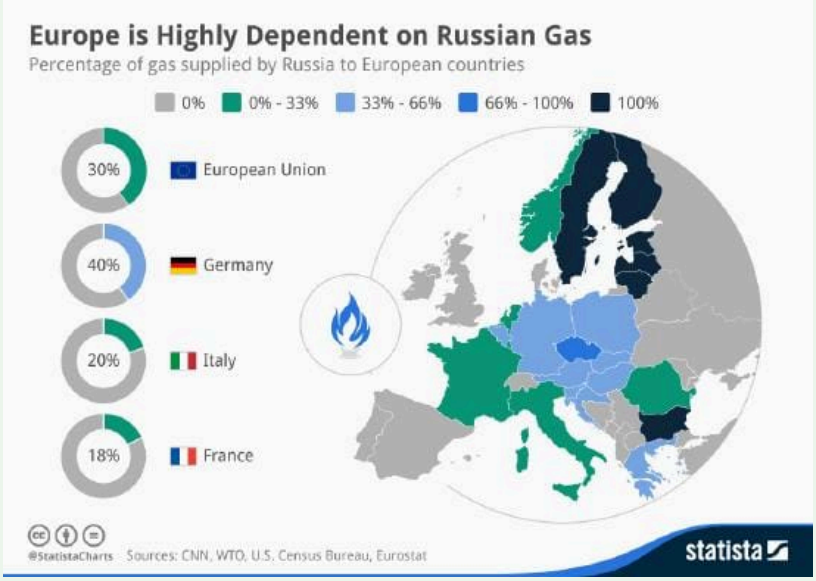


Figure 6.4.10: Europe's dependence on Russian gas supplies, 2014. (CC BY-ND; Statista).

References:

[1] Pearce, F. 2021. Will Russia's forests be an asset or an obstacle in climate fight? YaleEnvironment360.

[2] Kubny, H. 2020. Problematic changes in the Gulf of OB? *Polar Journal*.

[3] Steiner, A. 2009. Sustainable development of the Arctic: The challenges of reconciling homeland, laboratory, frontier, and wilderness, p. 13.

[4] Buixadé Farré, A., et al. 2014. Commercial Arctic shipping through the Northeast Passage: Routes, resources, governance, technology, and infrastructure. *Polar Geography, 37*(4): 298-324.

[5] Gross, M. 2018. Arctic shipping threatens wildlife. *Current Biology, 28*(15): R803-R805.

[6] Hager, J. 2021. Indigenous people's rights and climate change in the Arctic. *Polar Journal*.

[7] Gökçe, O.Z., & Hatipoğlu, E. 2022. Documenting energy flows between states: The Global Energy Relations Dataset (GERD), 1978-2014. *International Interactions, 48*(3) 492-519.

Attributions:

“Russia's Natural Resources” is adapted from How Wealthy is Russia? by the World Bank, CC BY 3.0 IGO is in the public domain.

“Russia's Resources” is adapted from Russia by the U.S. Energy Information Administration is in the public domain.

“Russia's Resources” is adapted from Oil Fields Along the Ob River by the Nasa Earth Observatory is in the public domain.

“Climate Justice in the Arctic” is adapted from The Arctic Highlights Our Failure to Act in a Rapidly Changing World by Peter Schlosser et al., CC BY.

“Climate Justice in the Arctic” is adapted from Climate Change and Arctic Sustainable Development by UNEP, CC BY-SA 3.0 IGO.

“Climate Justice in the Arctic” is adapted from Indigenous Rights and Interests in a Changing Arctic Ocean: Canadian and Russian Experiences and Challenges by Anna Sharapova et al., CC BY 4.0.

“Climate Justice in the Arctic” is adapted from The Rights and Role of Indigenous Women in The Climate Change Regime by Tahnee Lisa Prior and Leena Heinämäki, CC BY 4.0.

“Northeast Passage and Global Warming” is adapted from Environmental and Economic Analysis on Sailing from Taiwan through Arctic Passages by P.-H. Chen and T.-K. Liu, CC-BY.

“Northeast Passage and Global Warming” is adapted from Navigational Rights for Warships in the Northwest and Northeast Passages by I. Handeland, CC-BY.

“Energy Interdependence” is adapted from "The key is in our hands": Soviet energy strategy during Détente and the global oil crises of the 1970s by Jeronim Perović & Dunja Krempin, CC BY 4.0.

This page titled 6.4: Energy Interdependence, Conflict, and Climate Justice in the Arctic is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

6.5: Complex Geographies of Armed Conflict- Armenia, the Caucasus, Afghanistan, and Ukraine

Learning Objective

- Examine the conditions and consequences of armed conflict in the Caucasus region, Afghanistan, and Ukraine.

The Armenian Genocide

Ancient Armenia, located in the south Caucasus area of Eurasia, was settled in the Neolithic era but its first recorded state proper was the kingdom of Urartu from the 9th century BCE. The boundaries of the state varied considerably over the centuries but such common factors as religion and language were united by long-lasting dynastic clans, which gave Armenia its own unique identity throughout history. Armenia was the first nation to formally adopt Christianity (in the early 4th century CE). Despite periods of autonomy, over the centuries Armenia came under the sway of various empires including the Roman, Byzantine, Arab, Persian, and Ottoman. During World War I in the western portion of Armenia (beginning in 1915), the Ottoman Empire instituted a policy of forced resettlement coupled with other harsh practices that resulted in at least 1 million Armenian deaths along with tens of thousands of Christian Greeks and Assyrians in present-day Turkey. The Ottoman government's goal was to retain and exert Muslim Turkish power.

The term genocide describes destructive actions undertaken with the purposeful intent to destroy a specific group of people based on some perceived difference – usually racial or religious. Although this definition excludes cultural and political genocide, it serves as a starting point to describe processes designed to annihilate a group of people. Employing a spatial approach, researchers identify several stages that lead to genocide (Genocide Watch):

1. Classification: People are differentiated as "us" and "them"
2. Symbolization: People are forced to identify themselves
3. Discrimination: People begin to face systematic discrimination
4. Dehumanization: People equated to animals, vermin, or disease
5. Organization: Government creates separate groups (police/military) to enforce policies
6. Polarization: Government broadcasts propaganda against the targeted group
7. Preparation: Official action to remove/relocate people begins
8. Persecution: Beginning of murders, theft of property, and trial massacres
9. Extermination: Mass extermination begins - seen as "extermination" not murder, because people have been dehumanized
10. Denial: Government denies that it has committed any crime

There are varying dates for the end of the genocide: Many of the genocidal practices ended in 1918 when World War I concluded, but deportations and discrimation continued when the Republic of Turkey was founded in 1923. The University of Minnesota's Holocaust and Genocide Studies program explains that:

> As the first of the modern genocides, the Armenian Genocide holds a complicated place in world history. For decades, the Armenian community, dispersed throughout the globe, struggled with recognition. Today, more than twenty countries officially acknowledge the atrocities as genocide. Uruguay was the first to officially recognize the genocide back in 1965. Several countries, including Austria, Switzerland, Slovakia and, most recently, Cyprus in early April 2015, have gone as far to make genocide denial a crime.[1]

Landscapes of Memory and Trauma

How we memorialize the events of humanity's worst atrocities is a difficult yet necessary task. Holocaust survivor, novelist, and Nobel Peace Prize winner Elie Wiesel stated "To forget would not only be dangerous but offensive; to forget the dead would be akin to killing them a second time". Statues, monuments, murals, and other built components become part of

a cultural landscape that recognizes the pain and suffering, and survival, of a people. The Armenian Genocide Martyrs Monument in Los Angeles County, home to a large Armenian-American community, is dedicated to the victims of the genocide (Figure 6.5.1).



Figure 6.5.1: Photograph of the Armenian Genocide Memorial in Montebello, California. (CC BY-SA 3.0; Serouj via Wikimedia Commons).

Conflict in the Caucasus

Several ethnic groups that remain in Russia desire independence, particularly in the outskirts of the country in the Caucasus region along Russia's border with Georgia and Armenia (Figure 6.5.2). Chechnya is largely comprised of Chechens, a distinct Sunni Muslim nation. The territory opposed Russian conquest of the region in the 19th century but was forcefully incorporated into the Soviet Union in the early 20th century. 400,000 Chechens were deported by Stalin in the 1940s and more than 100,000 died. Although Chechnya sought independence from Russia, sometimes through violent opposition, it has remained under Russian control following the collapse of the Soviet Union. Dagestan has been the site of several Islamic insurgencies seeking separation from Russia. Ossetia remains divided between a northern portion controlled by Russia and a southern region controlled by Georgia.



Figure 6.5.2: Map of the Caucasus Region . (CC BYSA 3.0; Jeroenscommon via Wikimedia Commons).

In an area as large and as ethnically diverse as Russia, controlling the territory in a way that is acceptable to all of its residents has proven difficult. In many large countries, the farther away you get from the capital area and large cities, the more cultural differences you find. Some governments have embraced this cultural difference, creating autonomous regions that function largely independently though remain part of the larger state. Stalin and Russia's czars before him tried to unify the country through the suppression of ethnic difference, but people have resisted the imposition of Russian and Soviet power and control.

Afghanistan

The ancient history of Afghanistan, a landlocked country in Central Asia, is full of fascinating cultures, from early nomadic tribes to the realms of Achaemenid Persia, the Seleucids, the Mauryans, the Parthians, and Sasanians, as well as steppe people like the Kushans or the Hephthalites. All these civilizations have left their mark on the region, leading to a unique blend of cultures and religions. Afghanistan shares borders with Iran to the west, Turkmenistan and Uzbekistan to the north, Tajikistan to the northeast, China to the east and northeast, and Pakistan to the southeast. The country is one of the main connectors between Central and South Asia. This fact has given the territory tremendous geopolitical importance. Throughout millennia, vital strategic invasion routes and trade ways crossed the areas of contemporary Afghanistan. Notable examples are the Silk Road and the Khyber Pass (Figure 6.5.3).



Figure 6.5.3: The Khyber Pass in Pakistan links the Indian subcontinent to Central Asia. (CC BY-SA 2.5; James Mollison via Wikimedia Commons).

Still, passage through Afghanistan has challenges. Most of the country varies between mountainous terrain and deep, narrow valleys. The mighty Hindu Kush range separates the plains in the north and southwest. The southern part is comparably arid, and the Registan Desert covers large areas in the Kandahar province (Figure 6.5.4).



Figure 6.5.4: A photograph from 1969 showing a caravan through the Registan Desert, Afghanistan. (CC BY-SA 3.0; Mouliric via Wikimedia Commons).

As in early times, many of the population today are modest farmers or herders, especially in northern parts of the country that provide fertile ground. Rivers and streams have always played a vital role in urban structures and early farming. Ancient cultures have developed close to waterways such as the Helmand, Kabul, and Oxus rivers.Afghanistan is also rich in minerals, and mining activities have played a pivotal role since ancient times. The mountainous and rough terrain, however, makes it challenging to reach these resources. Early inhabitants of Afghanistan, therefore, had to work hard to harvest precious ores.

Afghanistan from the Late 1800s through the Cold War

In the late 19th century, Afghanistan became a buffer state in the “Great Game” between British India and the Russian Empire. Russia was fearful of British commercial and military inroads into Central Asia, and Britain was fearful of Russia adding “the jewel in the crown,” India, to the vast empire it was building in Asia. This resulted in an atmosphere of distrust and constant threat of war between the two empires. Afghanistan’s relations with Moscow became more cordial after the Bolshevik Revolution in 1917. The Soviet Union was the first country to establish diplomatic relations with Afghanistan in 1919 after the Third Anglo-Afghan war and signed an Afghan-Soviet nonaggression pact in 1921, which also provided for Afghan transit rights through the Soviet Union. Early Soviet assistance included financial aid, aircraft and attendant technical personnel, and telegraph operators. At the beginning of Soviet intervention in Afghanistan in 1953, the Soviet government had three main long-term objectives. The first was to threaten the Iranian oilfields or put themselves in a position to do so in the coming years. The second was to strengthen influence in the Indian Peninsula. The last goal was to divert western weapons to unproductive areas.

On October 31, 1979, Soviet informants to the Afghan Armed Forces, under orders from the inner circle of advisers under Soviet premier Brezhnev, relayed information for them to undergo maintenance cycles for their tanks and other crucial equipment. Meanwhile, telecommunications links to areas outside of Kabul were severed, isolating the capital. With a deteriorating security situation, large numbers of Soviet Airborne Forces joined stationed ground troops and began to land in Kabul on December 25. Foreign ministers from 34 Islamic nations adopted a resolution that condemned the Soviet intervention and demanded “the immediate, urgent and unconditional withdrawal of Soviet troops” from the Muslim nation of Afghanistan. The UN General Assembly passed a resolution protesting the Soviet intervention in Afghanistan by a vote of 104–18. Soviet troops occupied the cities and main arteries of communication, while the mujahideen waged guerrilla war in small groups in the almost 80 percent of the country that escaped government and Soviet control. Soviets used their air power to deal harshly with both rebels and civilians, leveling villages to deny safe haven to the enemy, destroying vital irrigation ditches, and laying millions of land mines.

The Rise of the Taliban

Following the Soviet withdrawal, some of the foreign volunteers (including Osama bin Laden’s Al Qaeda) and young Afghan

refugees, went on to continue violent jihad in Afghanistan, Pakistan, and abroad. From 1989 until 1992, the Afghan government tried to solve the ongoing civil war with economic and military aid, but without Soviet troops on the ground. The Taliban's early victories in late 1994 were followed by a series of defeats that resulted in heavy losses. The Taliban attempted to capture Kabul in early 1995 but were repelled by Afghan forces. In 1996, the Taliban, with military support from Pakistan and financial support from Saudi Arabia, seized Kabul and established the Islamic Emirate of Afghanistan.

The Taliban have been condemned internationally for the harsh enforcement of their interpretation of Islamic Sharia law, which has resulted in the brutal treatment of many Afghans, especially women. During their rule from 1996 to 2001, the Taliban and their allies committed massacres against Afghan civilians, denied UN food supplies to 160,000 starving civilians, and conducted a policy of scorched earth, burning vast areas of fertile land and destroying tens of thousands of homes. In its post-9/11 insurgency, the group has been accused of using terrorism as a specific tactic to further their ideological and political goals.

In December 2001, after the Taliban government was overthrown and the new Afghan government under President Hamid Karzai was formed, the International Security Assistance Force (ISAF) was established by the UN Security Council to assist the Karzai administration and provide basic security. Taliban forces also began regrouping inside Pakistan, while more coalition troops entered Afghanistan and began rebuilding the war-torn country.

The U.S. Withdrawal

Even by the standards of Afghanistan's tumultuous history, 2021 marked a major watershed for the country. In 2021, U.S. and international forces departed after nearly two decades of operations in Afghanistan; the internationally backed Afghan government and its military forces collapsed; and the Taliban, a Sunni Islamist extremist group that formerly ruled the country from 1996 to 2001, retook power. The aftershocks of these events continue to reverberate within Afghanistan, throughout its region, and in the United States as Afghans and U.S. policymakers alike grapple with the reality of the Taliban's renewed rule.

At the outset of 2021, the Afghan government was a close U.S. counterterrorism partner, the result of nearly 20 years of substantial U.S. and international support, including the deployment of hundreds of thousands of troops and the provision of tens of billions of dollars in assistance. President Donald Trump had withdrawn all but 2,500 U.S. troops, the lowest U.S. force level since 2001, in advance of the full military withdrawal to which the United States agreed in the February 2020 U.S.-Taliban agreement. U.S. officials committed to continue to provide financial support to Afghan forces and expressed confidence about their capabilities vis-a-vis the Taliban, while conceding that those forces remained reliant on U.S. support.

At the same time, the Taliban were arguably at their strongest since 2001, when they were driven from power by U.S., international, and U.S.-backed Afghan forces, having steadily gained territory and improved their tactical capabilities over the course of their resilient two-decade insurgency. The Afghan government against which the Taliban fought was weakened by deep internal divisions, factional infighting, and endemic corruption, and Taliban forces enjoyed certain advantages over their Afghan government counterparts, including greater cohesion and financial sustainability, according to one January 2021 outside assessment.

The Afghanistan in which the Taliban came to power in August 2021 was in many ways a different country than the one they last ruled in 2001. After 2001, women became active participants in many parts of Afghan society; protections for them, and ethnic and religious minorities, were enshrined in the country's 2004 constitution. While some early Taliban actions suggested a possible measure of moderation from their highly oppressive 1996-2001 rule, UN Rapporteur Bachelet said in June 2022 that "what we are witnessing in Afghanistan today is the institutionalized, systematic oppression of women" and that "Afghan women are rapidly facing the worst-case scenario many-feared."

The Taliban takeover appears to have reduced high levels of violence that characterized the conflict, a development particularly welcomed by those in rural areas, but it has increased fears of many Afghans about repression and women's rights. The Taliban have closed the Ministry of Women's Affairs, which had been a part of the former Afghan government, and have reinstated the Ministry of Propagation of Virtue and Prevention of Vice, which enforced the Taliban's interpretation of Islam in the 1990s. The ministry has issued guidance that seeks to impose new restrictions on Afghan women, including by directing that women should not be allowed to travel long distances without a male guardian and that male relatives of women who do not wear a hijab that fully covers their bodies should be punished. Amnesty International reported in July 2022 that increasing numbers of women and girls have been arrested for violating these policies. Those restrictions, together with the overall economic collapse, have led to a decline in women's participation in the workforce.

Invasions of Ukraine

Although Russia today is comprised mostly of people who speak Russian and identify with the Russian ethnicity, it contains 185 different ethnic groups speaking over 100 different languages. The largest minority groups in Russia are the Tatars, representing around 4 percent of the population with over 5 million people, and Ukrainians at around 1.4 percent or almost 2 million people. Other ethnic groups, like the Votes near Saint Petersburg, have only a few dozen members remaining. Because of the Soviet resettlement policies, the former Soviet republics have sizable Russian minorities. Kazakhstan and Latvia, for example, are almost one-quarter Russian. This has often led to tension within Russia as minority groups have sought independence and outside of Russia as ethnic groups have clashed over leadership.

In Ukraine in particular, tension between the Ukrainian population and Russian minority has remained high and represents a broader tension between the Eastern European regions that are more closely aligned with Russia and those that seek greater connectivity and trade with Western Europe. Eastern Ukraine is largely comprised of Russian speakers, while Western Ukraine predominantly speaks the state language of Ukrainian (Figure 6.5.5). Overall, around three-quarters of people in Ukraine identify with the Ukrainian ethnicity.

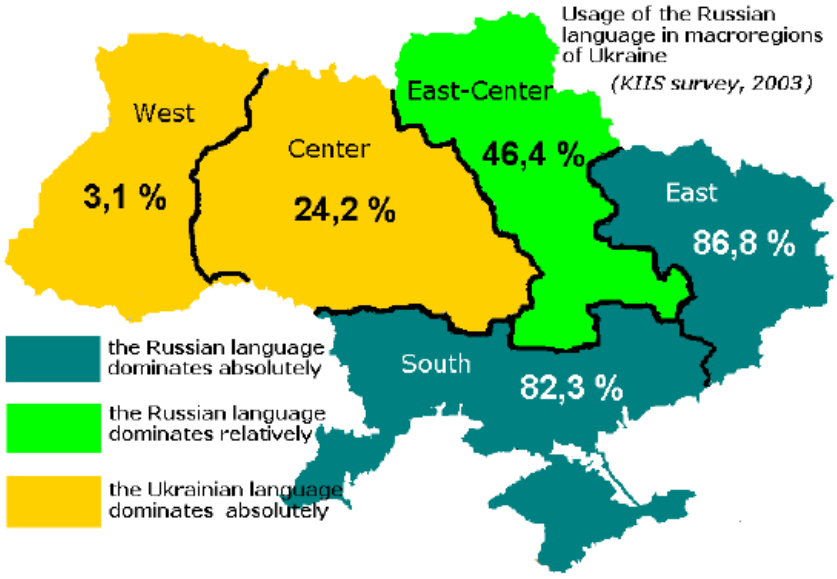


Figure 6.5.5: Russian Language Usage in the Macroregions of Ukraine, KIIS Survey, 2003. In the East (86.8%) and South (82.3%) macroregions, the Russian language dominates absolutely. In the East-Center (46.4%) macroregion the Russian language dominates relatively. In the West (3.1%) and Center (24.2%) macroregions, the Ukrainian language dominates absolutely. (CC BY-SA 2.5; Russianname via Wikimedia Commons).

Russia sought control of Crimea, an area that had been annexed by the Russian Empire and was an Autonomous Soviet Socialist Republic until the 1950s when it was transferred to Ukraine. After protests in 2014, a majority of the people of Crimea supported joining Russia and it was formally annexed by Russian forces. The region is now controlled by Russia (Figure 6.5.6). The international community, however, has largely not recognized Crimea's sovereignty or Russia's annexation. This conflict again escalated in 2022 when Russia invaded Ukraine, leading to the largest European refugee crisis since World War II. Perspectives on the actions of Putin vary but a key notion is that recent efforts want to assert a particular notion of Russian national identity which sees Russia not as a nation-state but as a 'civilisation', that extends beyond the boundaries of the Russian Federation and is incompatible with an independent Ukraine (Figure 6.5.7).



Figure 6.5.6: Map of Crimea. (CC BY-NC-SA 4.0; Caitlin Finlayson based on derivative work by Crosswords, Wikimedia Commons, via Press Books).



Figure 6.5.7: How Far Does Putin's Imperial Dream Stretch? Bordes of Today's Russia (in solid red shading) and the Russian Empire in 1914 (in red and grey stripes). (CC BY-ND; Statista).

On February 24, 2022, the Russian Federation launched an invasion of Ukraine from the air, land, and sea. On March 2, a rare emergency session of the United Nations General Assembly was called to discuss a measure condemning the invasion and calling for Russia's immediate withdrawal from Ukraine. The measure passed by a vote of 141 in support, 5 against (Belarus, Democratic People's Republic of Korea, Eritrea, Russian Federation, and Syria), with 35 countries, including China, abstaining. Many countries imposed sanctions on Russia and Belarus and major multinational corporations closed their operations in Russia. Meanwhile, NATO countries pledged billions of dollars in military, financial, and humanitarian aid to Ukraine.

Figure 6.5.8 shows where Ukrainians refugees fled to in the early months of the conflict. By August 2022, more than 6.4 million people have fled Ukraine as refugees. As of May 24, 2022, there were:

- 3,505,890 Ukrainian refugees in Poland,
- 961,270 Ukrainian refugees in Romania,
- 919,934 Ukrainian refugees in Russia,
- 644,474 Ukrainian refugees in Hungary,
- 471,223 Ukrainian refugees in Moldova,
- 442,316 Ukrainian refugees in Slovakia, and

- 27,308 Ukrainian refugees in Belarus.

An estimated 7 million people remain in Ukraine as internally displaced persons (IDPs). The United Nations World Food Programme reported that one in three Ukrainians are unable to meet their daily food requirements due to the war and that globally, millions of people are facing food insecurity because of the Russian blockades of Ukrainian grain.

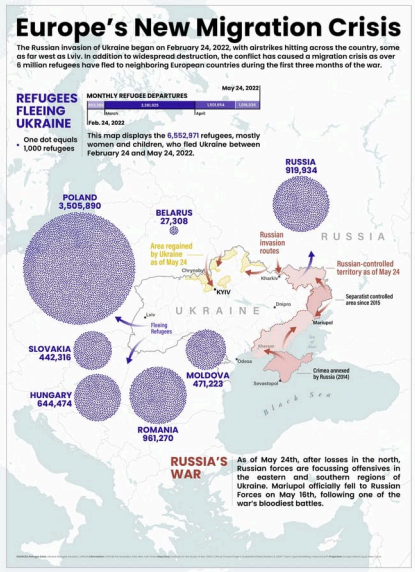


Figure 6.5.8: Ukrainian refugees as of May 24, 2022. This map displays the 6,552,971 refugees, mostly women and children, who fled Ukraine between Feburary 24 and May 24, 2022. The Russian invasion of Ukraine began on February 24, 2022, with airstrikes hitting across the country, some as far west as Lviv. In addition to widespread destruction, the conflict has caused a migration crises as over 6 million refugees have fled to neighboring European countries during the first three months of the war. As of May 24th, after losses in the north, Russian forces are focusing offensives in the eastern and southern regions of Ukraine. Mariupol officially fell to Russian forces on May 16th, following one of the war's bloodiest battles. (Used under terms of use; Elbie Bentley via Visual Capitalist).

Putin's Rhetoric on the Ukraine Invasion

In July 2021, Putin wrote a 5,000 word article elaborating on his long-stated belief that Ukrainians and Russians are "one people." The article stated that Ukrainian soldiers fought alongside Russians for "their great common Motherland" during World War II, but Putin provided no evidence the Red Army's Ukrainian soldiers ever believed Russians and Ukrainians are the same people. His article also demeaned Ukraine's persistent independence movements, which Soviet leaders were unable to stamp out for decades. Many notable historians and scholars denounced the article as a flawed and amateurish recounting of history, with the sole purpose of advancing Putin's geopolitical goals. Historian Anne Applebaum called the article "essentially a call to arms," and researcher Anders Åslund deemed it "one step short of a declaration of war [on Ukraine]." Just seven months later, Putin's forces followed through and launched an all-out, brutal war against Ukraine. The falsehoods about Ukraine and Ukrainians that Putin trumpeted in his article played an important role in his justification for Russia's full-scale invasion.

To rationalize his current war of choice against Ukraine, Putin invoked the language and imagery of World War II, specifically the words "Nazi," and "genocide" (a term coined by Raphael Lemkin, a Jewish lawyer who studied in Lviv, in what is now western Ukraine) to evoke the Nazi Party's policy of systematic murder of Jews and other groups targeted for annihilation. The Kremlin has turned the word "Nazi" into a catchall for anyone who disagrees with Putin and his regime, insulting the memory of all those who suffered and died at the hands of the Nazis and their collaborators.

In his February 24 speech declaring his war of choice against Ukraine, Putin falsely asserted, "the purpose of this operation is to protect people who, for eight years now, have been facing humiliation and genocide perpetrated by the Kyiv regime. To this end, we will seek to demilitarize and denazify Ukraine." Invoking his discredited "one people" narrative, Putin directly addressed members of Ukraine's military, stating, "your fathers, grandfathers and great-grandfathers did not fight the Nazi occupiers and did not defend our common Motherland to allow today's neo-Nazis to seize power in Ukraine."

Russia's officials have even used the word "Nazi" against Volodymyr Zelenskyy, Ukraine's Jewish president, whose family members

were killed by Nazis. Experts on genocide, Nazism, and World War II voiced their strong opposition to Putin's attempt to compare Ukraine and its democratically elected government to that of Nazi Germany. Hundreds of historians and scholars signed a letter condemning the Russian government's "cynical abuse of the term genocide, the memory of World War II and the Holocaust, and the equation of the Ukrainian state with the Nazi regime to justify its unprovoked aggression." The United States Holocaust Memorial Museum also released a statement saying that "Vladimir Putin has misrepresented and misappropriated Holocaust history by claiming falsely that democratic Ukraine needs to be 'denazified.'"

Press Freedoms

In the early 2000s, Putin launched a campaign to severely restrict all independent media outlets in Russia. The campaign was undertaken in the name of ending "misinformation" spread by these news agencies. In Putin's view, most news reports that diverged from official, state-sponsored media outlets, constituted misinformation. Media crackdowns persisted and intensified following every major crisis experienced within Russia. In some cases, Putin ordered the arrest and imprisonment of owners of media outlets, including Russian oligarch, Vladimir Gusinsky. One by one, independent news agencies were shut down or brought under the direct control of the Russian government.

"Press freedom is defined as the ability of journalists as individuals and collectives to select, produce, and disseminate news in the public interest independent of political, economic, legal, and social interference and in the absence of threats to their physical and mental safety".[1] Each year the international non-profit organization Reporters Without Borders creates the World Press Freedom Index based on:

- Quantitative data on abuses against journalists and media outlets, and
- Qualitative surveys sent to journalists, researchers, academics, and human rights defenders.

Based on this data, Reporters Without Borders assigns countries a score where 100 is the best possible score (the most press freedom) and 0 is the worst (Figure 6.6.2). Russia ranks 155 out of 180 countries in the World Press Freedom Index. Reporters Without Borders notes that since the invasion of Ukraine almost "almost all independent media have been banned, blocked and/or declared 'foreign agents'".[2]

Figure 6.5.2: Map of world press freedom, 2022. Countries ranked by level of press freedom in 2022. Highest ranked countries: Norway (1), Denmark (2), and Sweden (3). Lowest ranked countries: Iran (178), Eritrea (179), and North Korea (180). (CC BY-ND 3.0; Statista),

References:

[1] University of Minnesota. 2022. Armenia.

[2] Reporters without Borders. 2022. Methodology used for compiling the World Press Freedom Index.

[3] Reporters without Borders. 2022. Russia.

Attributions:

"The Armenian Genocide" is adapted from Ancient Armenia by Mark Cartwright (CC BY-NC-SA 4.0), Armenia by CIA World Factbook (public domain), and Spatiality of the Stages of Genocide: The Armenian Case by Shelley J. Burleson and Alberto Giordano (CC BY-NC 4.0).

"Conflict in the Caucasus" is adapted from World Regional Geography by Caitlin Finlayson (CC BY-NC-SA 4.0).

"Afghanistan" is adapted from Ancient Afghanistan by Ralf Rotheimer (CC BY-NC-SA 4.0), Afghanistan by Lumen Learning (CC BY-SA), Rise of Anti-Soviet Sentiment by Lumen Learning (CC BY-SA), The Soviet Invasion of Afghanistan by Lumen Learning (CC BY-SA), The United States and the Mujahideen by Lumen Learning (CC BY-SA), Emergence of Extremism by Lumen Learning (CC BY-SA), and Afghanistan: Background and U.S. Policy: In Brief by Congressional Research Service (public domain).

"Invasions in Ukraine" is adapted from World Regional Geography by Caitlin Finlayson (CC BY-NC-SA 4.0) and The Sources of

Russia's Great Power Politics: Ukraine and the Challenge of the European Order by Taras Kuzio and Paul D'Anieri (CC BY-NC-SA 4.0), The Chameleon in the Kremlin: Contemporary Russia under Putin by Anna McCollum et al. (CC BY-NC-SA 4.0), and Vladimir Putin's Historical Disinformation by U.S. Department of State (public domain).

This page titled 6.5: Complex Geographies of Armed Conflict- Armenia, the Caucasus, Afghanistan, and Ukraine is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

7: SOUTH ASIA

Re-framing South Asia

South Asia is a world region well recognized by its distinctive physical geography. The world's tallest mountains physically separate a large sub-Himalayan landmass from the rest of Asia. Often called "the Indian Subcontinent," the region is characterized by monsoon climate systems, a diverse biogeography, and major river systems that have shaped human settlement and development for thousands of years. The significance of these rivers is encrypted in ancient texts that call this land *Sapta Sindhava* – "the land of the Seven Rivers" in Sanskrit (a 3,500-year-old language used in the earliest Hindu scriptures, the Vedas). *Sapta Sindhava* is an ancient Indigenous conceptualization of land and sense of place based on its rivers and the great civilizations that have emerged along their floodplains.

South Asia is one of the most complex regions in the world to contemplate about the geographical significance of place names, called **toponyms.** This complexity arises from the region's ancient cultural landscapes that are recollected and reconstructed by immensely diverse ethnic, religious, and linguistic groups. With over 1600 spoken in the region, South Asia is considered one of the most culturally diverse regions on Earth. The vocabulary used to refer to place names reflects this immense cultural diversity – and the transformations imposed by foreign influences.

Take for example the name *India*, the toponym the British ascribed to their colonial holding in the subcontinent. The term refers to the land beyond the *Indus River,* a toponym that originated from Persian and Greek interpretations of *Sindhu*, the Sanskrit name for the same river.[1] Thus, *India* is an **exonym,** a place name given by foreigners based on translations and pronunciations of the Sindhu River in their respective languages. But well before *India* there was *Hindustan*, meaning "the land of the Hindus," an inscription found in various historical maps to label a geographical entity that extended from the Himalaya Mountains in the north to the Indian Ocean in the south.[2] But well before Hindustan, geographical conceptions of a broad civilizational space were encrypted in the Vedas, in Indigenous place names called **endonyms**. *Bharatavarṣa* (or *Bharat,* the official Hindi endonym for India) is a Sanskrit term referring to king Bharata, a legendary figure in Hindu mythology. The roots "*bhr"* of the word *Bharata* is associated with "to bear or carry" and "support and nourish." *"Varsa"* means a division of the earth, a land or continent. *Jambudvipa,* the "the land of Jambu trees," is another Sanskrit term used to describe one of the world's seven *varsas,* a continent of the cosmos in ancient Hindu, Jain, and Buddhist scriptures.[3]

Considering toponyms aids in reframing our perspective on the contemporary map of South Asia, which portrays relatively young independent states with defined political boundaries stemming from the region's colonial history. Precolonial endonyms transcend this political map communicating geographical memory of one of the oldest regions to be continuously inhabited by humans. Including these precolonial conceptions in our geographical framing of the region helps enhance our understanding of the ways that territory has been conceived in the region for millennia – and how colonization has reshaped the region and contemporary territorial conflicts. Toponyms are more than evidence of history. They also serve to erase Indigenous history and legitimize how powerful entities define space. It takes many names to understand complex historical and cultural legacies in South Asia, and the ongoing struggle to reclaim them.

The World Geographies Atlas: Navigate each world region through maps

For each of the world regions, our original atlas provides detailed maps to help you navigate the places discussed in this book. These maps are meant to be explored before and during the reading of this chapter. These maps are best enjoyed enlarged. Click on each map for an enlarged view, and zoom in to see the prominent biomes, physical features, and population centers of South Asia. We recommend that you download these for reference as you read this chapter's content and hope that you enjoy this original compilation.

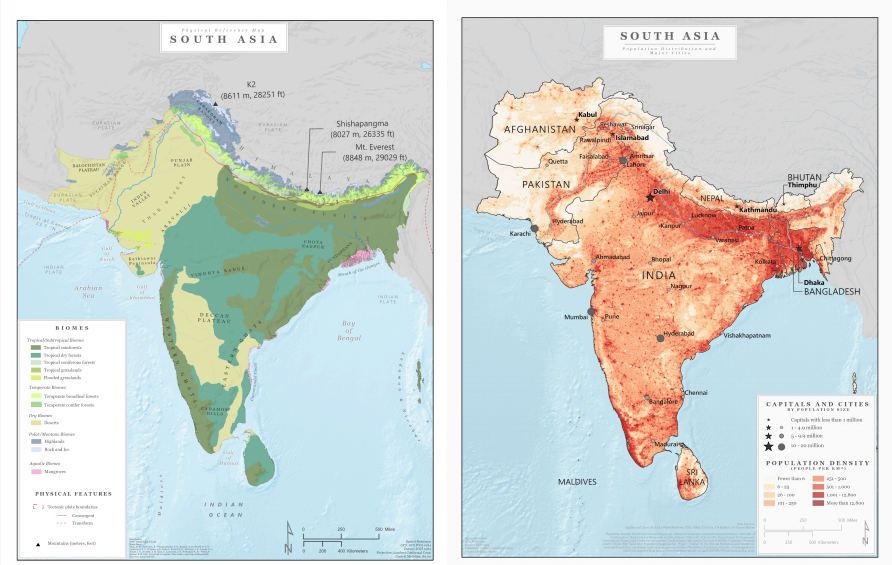


Figure 7.1: [left] This physical map shows the geographic distribution of biomes in South Asia and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries (CC BY-NC-SA; Wallace via Flickr). [right] This map depicts internationally recognized countries, capitals, major cities, and population distributions of South Asia (CC BY-NC-SA; Sellers via Flickr).

References:

[1] Kapur, A. (2019). Chapter 2: Nation's Names. In: *Mapping place names of India*. Taylor & Francis.

[2] Asif, M. A. (2020). *The Loss of Hindustan: The Invention of India*. Harvard University Press.

[3] Kapur, A. (2019). Chapter 2: Nation's Names. In: *Mapping place names of India*. Taylor & Francis.

- Chapter Sections and Summaries

7.1: Natural Environments and Climate Vulnerability
7.2: Indigenous Worlds: Cultural Hearths, Empires, and Colonial Legacies
7.3: Cultural Diversity- Languages and Religions of South Asia
7.4: Population, Malthusians, and Critics

This page titled 7: South Asia is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

7.1: Natural Environments and Climate Vulnerability

Learning Objectives

1. Describe the dynamics of plate tectonics in South Asia and the formation of the world's tallest mountains.
2. Explain the hydrology of the Hindu Kush Himalayan Region identify the disruptions brought by climate change.
3. Define carbon inequity and climate vulnerability in the context of South Asia.
4. Describe the unique characteristics and ecosystem values of the Sundarbans.

Plate Tectonics and the World's Highest Peaks

South Asia is a region well defined by physical geography. It is often referred to as the Indian Subcontinent because its landmass was once its own continent atop the Indian Plate. Over millions of years, the **Indian Plate** has carried this landmass north, forming a convergent plate boundary with the Eurasian Plate that began around 40-50 million years ago (See Figure 7.1.1). The pressure from the collision between the two continental plates has forced the Earth's crust to fold, buckle, and rise, pushing bedrock upwards. This is the geologic force responsible for the formation of the tallest mountains in the world, the **Himalayas**. The Himalayas are a dramatic geographic feature, a natural barrier extending some 1,500 miles (about half the width of the United States) between India and China, also containing the highland countries of Nepal and Bhutan. **Mount Everest** (29,029ft), the world's highest peak, is located between Nepal and China. Between Pakistan and Afghanistan, the Karakoram range extends through Kashmir and then meet up with the high ranges of the Himalayas. The **Karakoram Range** includes some of the world's steepest peaks, including the world's second tallest mountain, **K2** (28,251 ft). There are only 14 mountain peaks in the world higher than 8,000 m (26, 247 ft) in elevation – all of them are in the Himalayan or Karakoram ranges (See Figure 7.1.2). Known as the "eight thousanders," the world's highest peaks continue to grow by as much about 5 millimeters (about 0.2 in) per year, since the Indian Plate continues to shove landmass towards the Eurasian Plate.

The tectonic collision between the Indian and Eurasian plates makes South Asia one of the most seismically active regions in the world. Some of the most devastating earthquakes in recent history happened in the region, including the 7.8 magnitude earthquake that hit Nepal on April 25, 2015. The earthquake caused widespread destruction in the capital city of Kathmandu as well as many other parts of the country, flattening hundreds of buildings, historic landmarks, and temples, and killing and injuring thousands and impacting millions of people. The Indian Plate is also in collision with Burma Plate in the east, causing tremendous tension in a subduction zone in the Indian Ocean. On December 26, 2004, the epicenter of a massive earthquake of 9.3 magnitude occurred at the bottom of the ocean releasing energy that triggered a tsunami that reached 30 meters in height, devastating many countries in the Indian Ocean, including Sri Lanka and the Maldives. It remains the deadliest tsunami in recorded history, with a total death toll estimated at 230,000.[1] While these catastrophic seismic events are relatively infrequent, their consequences are devastating in terms of the loss of life and infrastructure damage. South Asia is a populous low-income region, qualities that make environmental disasters particularly calamitous. When catastrophic seismic events occur, it takes many years for countries and communities to recover. Reconstruction plans include establishing early warning and evacuation plans as well as building for resilience.

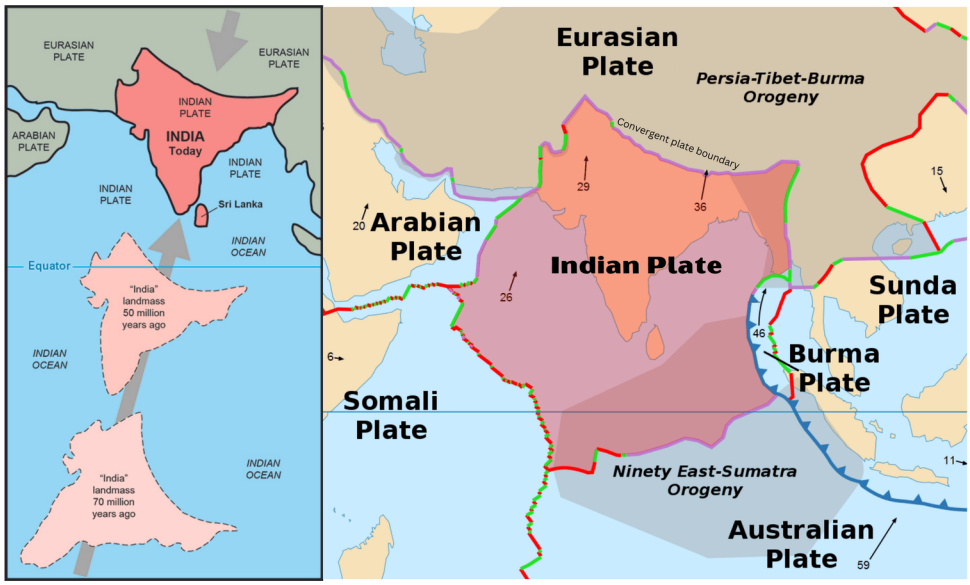


Figure 7.1.1: [left] This map illustrates the movement of the Indian Subcontinent. Over 70 million years, the Indian Plate has moved north towards the Eurasian Plate, eventually resulting in the contemporary collision zone (Public Domain; USGS). [right] The Indian Plate continues to push towards the Eurasian Plate creating a convergent plate boundary and a continental uplift that continues to build the world's tallest mountain ranges, the Himalayas (CC BY-SA 4.0; alataristarion via Wikimedia Commons).

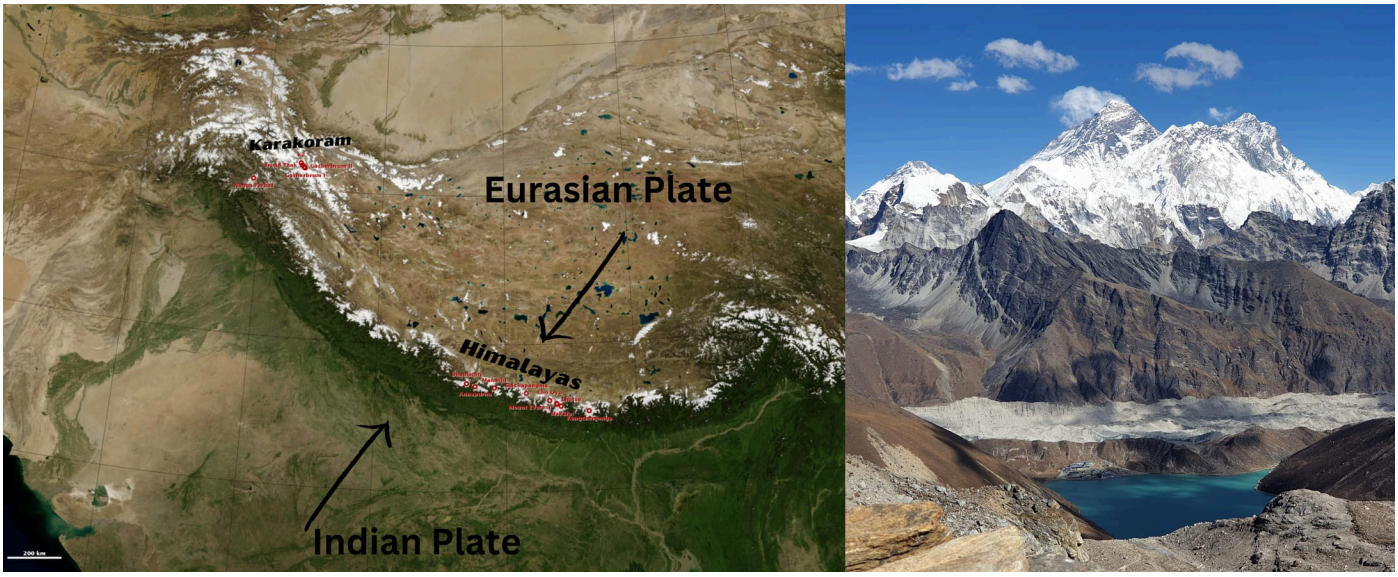


Figure 7.1.2: [left] This satellite image shows the world's tallest mountains, labeling in red the 14 mountains that exceed 8,000 meters in elevation: Shisha Pangma, Gasherbrum II, Broad Peak, Gasherbrum I, Annapurna, Nanga Parbat, Manaslu, Dhaulagiri, Cho Oyu, Makalu, Lhotse, Kangchenjunga, K2, and Mount Everest. All of them are found in either the Karakoram or Himalayan mountain ranges (adapted from NASA; permitted use). [right] This picture shows the south face of Mount Everest, the world's tallest peak, and Gokyo Lake at the bottom (CC BY-SA 4.0; Zippy Monkey via Wikimedia Commons).

Hindu Kush Himalayan Hydrology

The Himalayas are part of a larger alpine system stretching across Eurasia known as the **Hindu Kush Himalayan Region (HKH)**. It stretches 3500 kilometers across eight countries: Afghanistan, Bangladesh, Bhutan, China, India, Nepal, Myanmar, and Pakistan. The Hindu Kush Himalaya are arguably the world's most important **water tower**. The ranges store the largest volume of ice and snow outside of the Arctic and Antarctica and are often referred to as "the third pole." These glaciated mountains are the source of water for ten of Asia's largest rivers. Together, they support the drinking water, irrigation, and energy for over 240 million people in the region and another 1.9 billion people living downstream.

All major rivers in South Asia originate in the Himalayas. The **Indus River**, which has been a center of human civilization for

thousands of years, starts in the Tibetan Plateau and flows through the center of Pakistan. The basin stretches from the Himalayan mountains to the north to the dry, alluvial plains of Sindh province in Pakistan and flows out into the Arabian Sea. Pakistan's food security relies heavily on the Indus River as it provides irrigation water for 80 percent of the country's crops. Similarly, the **Ganges River** flows through northern India, providing a water lifeline for India's food production. As the Ganges flows out of the Himalayas, it creates a narrow, rugged canyon. It then flows through the Indo-Gangetic plain, a vast fertile area that makes up most of the northern and eastern parts of India as well as parts of Pakistan, Nepal and Bangladesh. Today, the Ganges River basin is the most populated river basin in the world with about 400 million people. Many Hindus visit the Ganges River in Varanasi, which is considered the holiest of cities. The city's culture is also closely tied to the river, as the Ganges is the most sacred river in Hinduism. In Bangladesh, the main branch of the Ganges is known as the Padma, then downstream as the Meghna. They represent the merging of waters with the **Brahmaputra River,** one of the three major rivers in South Asia. It flows through Tibet and enters India from the east where it meets up with the Ganges in Bangladesh to flow into the Bay of Bengal. The Ganges Delta is a vast and highly fertile area and the world's largest delta. While the Indus, Ganges, and Brahmaputra rivers trace their origins to the glaciated landscapes of the Hindu Kush Himalaya, contributions of glacial meltwater to river basin run-off tends to decrease from west to east and are most important in the Upper Indus basin. In the Ganges and Brahmaputra, the tropical monsoon rains are the main source of water replenishment and stream flow.

The **tropical monsoon** is the prevailing climate in South Asia. It is distinguished by a seasonal reversal of winds that drive pronounced wet and dry season. The driving mechanism behind the seasonal shifts of the tropical monsoon is largely attributable to differential heating and cooling of the continent and the surrounding water bodies. In the summer, the continent heats up quickly warming the adjacent air that eventually begins to rise. The rising hot air creates a vacuum that pulls in warm moist airmasses from the Bay of Bengal and the Indian Ocean bringing moisture-laden clouds and abundant rain over land. The summer monsoon rains—usually falling between June and September—feed the rivers and streams of South Asia and provide the water needed for agriculture. Summer monsoons are anticipated events, and people in South Asia have tuned their agricultural cycles and celebrations in anticipation of the rains they bring. More than 70 percent of the annual precipitation of the region occurs during the summer monsoon months. By October, the rainy season is generally over. In the winter, the cold, dry air above the Asian continent blows to the south, and the winter monsoon is characterized by cool, dry winds coming from the north, a dry season.

South Asia's mountains are rain-catchers of the moisture carrying airmasses that the summer monsoon brings, and much of the rain falls in the form of **orographic precipitation.** Orographic precipitation occurs when moisture carrying airmasses are pushed towards a mountain range and force to rise, cool, condense, and precipitate. The summer monsoon carries moist airmasses to the foot of the Himalayas, a formidable topographic barrier that forces the incoming air up. The resulting precipitation feeds the streams and basins that flow into the major rivers, such as the Brahmaputra, Ganges, and Indus. The topographic barrier also creates drastic landscapes in on its windward and leeward sides. On the south-facing side of the Himalayas, we find some of the wettest places on Earth. On the other side, the rain shadow from the mountains forms the arid Gobi Desert and Tibetan Plateau. A similar pattern can be noted in India's Western Ghats, a mountain range on its western coast that causes orographic precipitation on its windward side.

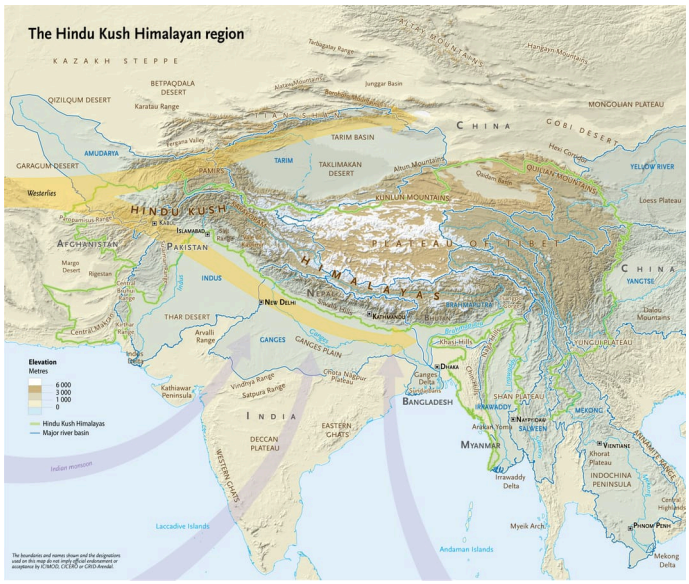


Figure 7.1.3: This map illustrates the combined mechanisms contributing to the Hindu Kush Himalayan hydrology. The region holds the third largest glaciers in the world, only second to those in the poles. Seasonal ice melt is an important contributor to freshwater flows, especially in the Indus River. The three major river basins - especially the Ganges and Brahmaputra - rely on the rains of the tropical monsoon to replenish their streams. Most of the annual precipitation comes in the summer monsoon when moist maritime air rushes in to replace the warm rising continental air. The mountains trap these incoming air masses forcing them to rise and cool and precipitate. This orographic precipitation drenches the foothill landscapes of the south-facing Himalayas. The downpour makes the Ganges River the most voluminous river in South Asia. Visible here in this map is also the rainshadow effect, with the Tibetan Plateau in the north facing dry conditions as it sits on the leeward side of the Himalayas (CC BY-NC-SA 2.0; GRID Arendal via Flickr).

Climate Vulnerability in Pakistan and Bangladesh

Glacier Retreat in the Hindu Kush Himalayas

The Hindu Kush Himalaya is on the frontline of climate change. Over the past decades, there has been a strong and clear warming trend across the region. Higher altitude areas have warmed faster than lowland areas and faster than the global average. This temperature increase has led to most glaciers to retreat and lose mass. In the future, temperatures will increase by 1–2°C on average by 2050, even reaching 4–5°C in some mountainous and high-altitude areas under a high emissions scenario. Even in the best-case scenario of a 1.5°C in global warming, the average increase in the HKH is projected to be 1.8 ± 0.4°C. Glaciers are some of the most sensitive indicators of climate change, as they respond rapidly to changes in temperature and precipitation. The retreat of glaciers has wide-reaching impacts on natural ecosystems and human settlements through risking local water supplies. In the short-term, the rapid melting will add volume to rivers. However, as glaciers continue to melt, run-off will eventually decrease, especially in river basins that receive substantial amounts of water from glaciers, such as the Indus River basin. This continued melting of glaciers is also resulting in an increase of glacial lakes, some of which may experience outburst flows that put mountain and downstream communities at great risk.

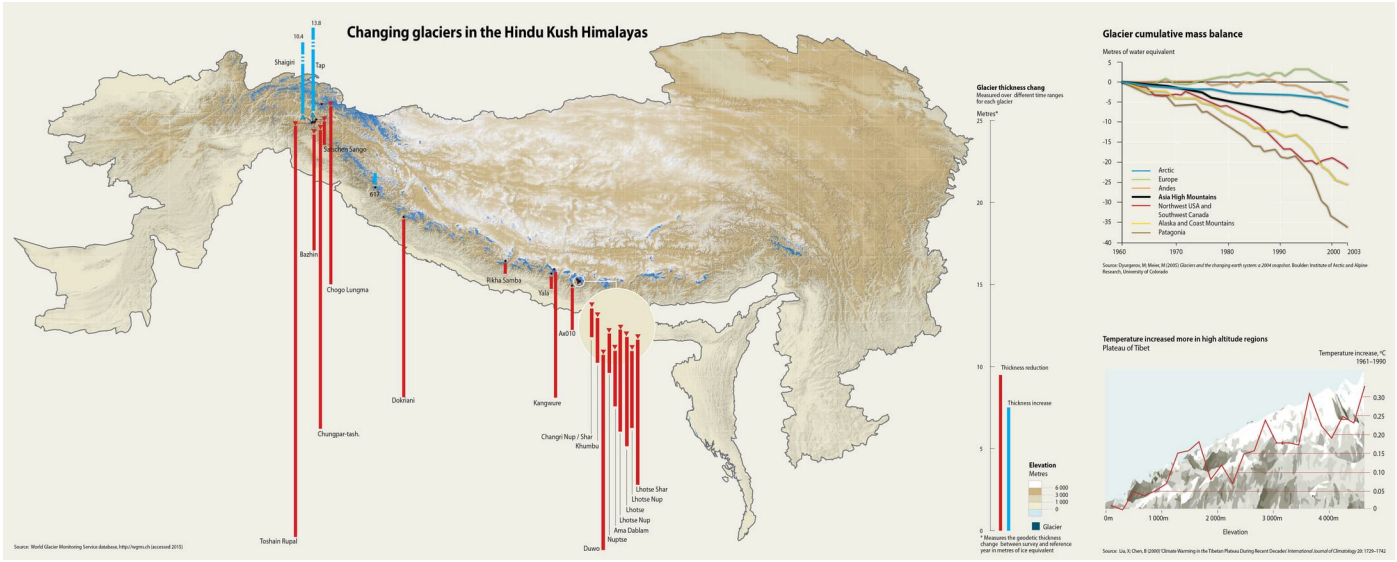


Figure 7.1.4: This map shows in blue the glaciers of the Hindu Kush Himalayas and the overall trend of ice loss, illustrated by the size of the red bars. With the exception of a few glaciers in the Karakoram Range, Himalayan multi-year ice is experiencing an alarming retreat. This is a global trend. As the graph on the top right illustrates, the world's major glaciers are melting at an alarming rate as temperatures increase, especially drastically in high-altitude regions (see graph on the bottom right). Glaciers are some of the most sensitive indicators of climate change, as they respond rapidly to changes in temperature and precipitation. Glaciers can provide local water resources in the mountains as well as influence runoff in lowland rivers and recharge river-fed aquifers. The retreat and advance of glaciers has wide-reaching impacts and affects on natural ecosystems and human settlements through effects on water supply and water flow patterns, affecting the availability of water for hydropower generation, agriculture and ecosystems (CC BY-NC-SA 2.0; GRID Arendal via Flickr).

Catastrophic Floods in Pakistan and Bangladesh

The heavy rains the monsoon brings every summer already pose great risks of floods and landslides in the region, and climate change is affecting the predictability and intensity of the monsoons. In Pakistan, the combination of record-breaking summer temperatures, rapid glacial melting, and a historically intense monsoon downpours culminated into a tragic flood event in July-August 2022. Glacial lakes overflowed and rivers expanded beyond their floodplains, affecting some 33 million people, and causing more than 1,400 deaths. The worst flooding occurred along the Indus River where some provinces received five to six times more monsoon rain than the 30-year average. Across the country, about 150 bridges and 2,200 miles of roads have been destroyed, and more than 700,000 livestock and 2 million acres of crops and orchards were lost.[2] It was a devastating monsoon season for Pakistan, a place where floods are the most frequent and costly hazard, and likely to worsen due to climate change.

Coastal Bangladesh is also at the frontline of climate change related risks. Home to over 40 million people, the coastal zone of Bangladesh is located downstream of the Himalayas where over 400 rivers and tributaries flow and eventually discharge through the Ganges Delta into the Bay of Bengal. One of the great natural hazards of coastal Bangladesh is the occurrence of **tropical cyclones**, a tropical storm that forms over warm oceans (about 80°F) and reach wind speeds of at least 74mph. Cyclones, which are accompanied by powerful winds and heavy rainfall, are a regular phenomenon and pose a serious threat to coastal communities along the entire coastline. On average, about one cyclone makes landfall every year, striking the funnel-shaped and shallow northern portion of the Bay of Bengal—a perfect natural amplifier— at times raising waters more than 10 meters above the sea level. Tropical cyclones are extreme weather events likely to increase in frequency and intensity due to climate change. With 62 percent of the coastal land having an elevation of less than three meters above sea level, much of coastal Bangladesh is at risk of catastrophic floods from cyclones and intensified monsoons. This susceptibility is only exacerbated by sea-level rise, caused by an expanding warmer ocean and ice melt. Sea level rise will further increase coastal flooding, push salt water into tidal channels, and threaten drinking water supplies.[3]

As we explored here, a combination of factors like the thawing of glaciers, intensified monsoons and cyclones, and sea-level rise are climate regional expressions of climate change that pose high threats to large populations in Pakistan and Bangladesh. According to the Intergovernmental Panel on Climate Change (IPCC), **climate vulnerability** refers to the predisposition to be adversely affected by climate impacts and lack of ability to cope and adapt. Human mortality from floods, droughts, and storms is much higher in regions identified to have high climate vulnerability. The latest IPCC Report (2022) rendered countries in South Asia as highly vulnerable countries in comparison to other countries in the world.[4] Both Pakistan and Bangladesh are

populous countries with densely populated floodplains and coastal areas where tens of millions of rural and poor people face higher exposure and vulnerability to floods, and are less capable of preparing for, dealing with, and recovering from floods.

For decades, scientists warned that burning fossil fuels results in an accumulation of greenhouse gases in the atmosphere that disrupts global climate systems. Reflecting on the adverse impacts of climate change in places like Pakistan and Bangladesh gives us another opportunity to examine **carbon inequity,** the disproportionate greenhouse gas emissions of a handful of wealthy countries that have imposed a climate burden on other countries. Since the Industrial Revolution, South Asian countries contributed a negligible share of CO^2 emissions while the United States, countries of the European Union, and China account for most of the CO2 emissions to date.[5] Even though India has drastically increased its total CO2 emissions in recent years, it has a large population, and the per person figures are still small in relation to wealthy countries. The disastrous effects of the climate crisis are costly – they cost human lives, livelihoods, cultural ways, and billions of dollars worth of damage. This is a burden for countries with already struggling economies. In a worst case scenario, the World Bank projects that climate change could worsen the living conditions of as many as 800 million people in South Asia and potentially displace 36 (about 1.6% percent of its population), all by 2050.[6] [7]

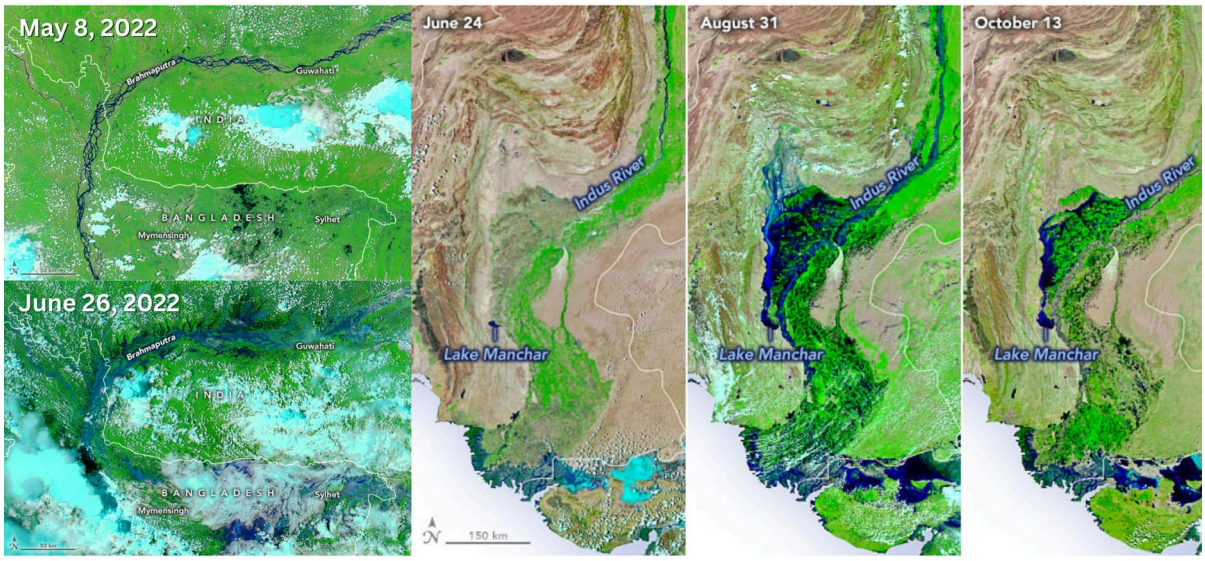


Figure 7.1.5: These satellite images depict the catastrophic floods of 2022 along the Brahmaputra River in Bangladesh (left) and the Indus River in Pakistan (right). These false-color images, acquired with NASA's Moderate Resolution Imaging Spectroradiometer (MODIS) satellite, combine infrared and visible light to make it easier to see the boundary between water and land. Water appears navy blue and black; clouds are white or cyan; and vegetation is bright green. [left] In mid-June 2022, Bangladesh was pummeled by intense torrential monsoon rains. After weeks of downpours, flooding swamped millions of homes and displaced hundreds of thousands of people in India and Bangladesh. Officials have called the floods the worst to hit the area in more than a century. The map on the top left shows the Brahmaputra before the monsoons (May 8, 2022) and the bottom shows the floods induced by the downpours (June 26, 2022) (NASA; permitted use). [right] In early September 2022, floods in Pakistan were the worst in a decade. Accelerated glacial melt and monsoon rains had pummeled the region for several weeks and floodwaters inundated large areas. This map series depict a progression from June 24th before the monsoon, to floods around August 31, and receding waters in October 13th, 2022. It was a historical episode that affected over 33 million people (NASA; permitted use).

Ecosystem Valuation in the Sundarbans

The **Sundarbans** is the world's largest remaining mangrove forest in the Ganges Delta spanning between India and (mostly) Bangladesh along the Bay of Bengal. **Mangroves** are a unique biome that exist along tropical coastlines as buffer zones between land and sea. They are typically made up of trees and shrubs that have unique adaptations to cope with the harsh conditions of high salinity, warm temperatures, extreme tides, muddy waters, and oxygen-depleted soils. The Sundarbans is of global importance for its exceptional biodiversity, including numerous threatened species such as the emblematic Royal Bengal tiger, the Ganges river dolphin, the estuarine crocodile, and the Indian python. It contains 35 of the 50 known global mangrove plant species.[8] The significance of Sundarbans is acknowledged by UNESCO, which declared the Indian and Bangladeshi sections of the mangrove World Heritage Sites in 1987 and 1997, respectively.

The Sundarbans provide a range of ways for us to conceptualize **ecosystem valuation,** or the different ways value can be ascribed to ecosystems. Mangroves are widely recognized for their valuable services, especially amidst a global climate crisis. They are a powerful natural barrier that serves as a first line of defense against hurricanes by dissipating wave and wind energy and reducing erosion. The Sundarbans protects roughly 14 million inhabitants in India's Kolkata Metropolitan Region's and other areas from cyclones, rising sea tides, and other adverse natural events that have the potential to take a large toll on human life and property. In addition, mangrove forests are considered **carbon sinks** because they absorb and retain carbon from the atmosphere. During their growth, trees use the carbon from carbon dioxide to form their leaves, roots, and branches. When these parts eventually die, the carbon becomes buried in the mangrove waterlogged soils. Known as **blue carbon**, the carbon from submerged vegetation can be stored underwater for millennia, if left undisturbed. Although mangroves cover much less territory than forests, it is estimated that they can store more carbon than forests, largely because of their underground biomass.[9]

The lives of traditional communities are intertwined with the Sundarbans. The inhabited areas consist of 54 islands populated by over 4.4 million people, where poverty is prevalent and economic opportunities are limited. Thus, the Sundarbans have a local **economic value,** and many communities depend on the mangrove forest for wood, fish, crabs, shrimp, honey, and fruits as a source of livelihood. The hostile living conditions have also formed and shaped inhabitants' religious beliefs and **cultural values** about the natural environment for hundreds of years. The Bengal tiger, for example, is a feared and revered animal with many myths and legends surrounding this native and endangered species. The worship of nature is a customary practice in the area, and hundreds of cultural legends have emanated from the mangrove forest. The local people perceive the Sundarbans as a key part of their identity and sense of place. It is an important cultural and natural heritage site that connects them to their history and ancestral roots. The interconnected human and nonhuman lives in the Sundarbans (and beyond) also have **intrinsic value**, the right and worth to continue to exist and manifest their biocultural legacies.

As the disruption of the global climate was initiated from the excesses and ways of life from afar peoples, the biocultural communities in the Sunderbans face an existential threat as sea levels continues to rise and inundate mangroves beyond their adaptive capabilities. Discussions about these impacts are incomplete without the moral consideration of the intrinsic worth of peoples and environments endangered by our current planetary havoc.



Figure 7.1.6: [top left] Bengal tigers are tiger sub-species native to South Asia. The picture above shows a Bengal tiger in the Sundarbans, home to the largest population of Bengal tigers in the world. They have adapted to living in a unique environment. They have larger paws and webbed feet to help them swim and move through the muddy terrain to hunt. They are endangered and revered (and feared) animals by local peoples who hold many traditional myths and legends surrounding them (CC BY-SA 4.0; Nandy via Wikimedia Commons). [bottom left] Mangrove trees have some unique adaptations to the salty, muddy, and flooded mangrove environment. Many trees in the Sundarbans have prop roots that grow out from the trunk and help to anchor the tree in the soft, muddy soil and increase root access to oxygen. The trees pictured here are in the Sundarbans National Park (CC BY-SA 4.0; Oo91 via Wikimedia Commons). [right] The Sundarbans mangrove forest is not only a critical ecosystem for the world's biodiversity, but it is also of immense significance to the people living in the region. It is an important source of livelihood, culture, identity, and sense of place. Depicted here is a local navigating the streams of Sundarbans National Park at dawn (CC BY-SA 2.0; bk via Flickr).

References:

[1] Suppasri, A., Goto, K., Muhari, A., Ranasinghe, P., Riyaz, M., Affan, M., ... & Imamura, F. (2015). A decade after the 2004 Indian Ocean tsunami: the progress in disaster preparedness and future challenges in Indonesia, Sri Lanka, Thailand and the Maldives. *Pure and Applied Geophysics*, *172*, 3313-3341.

[2] Earth Observatory, NASA. (Sep 1, 2022). Devastating Floods in Pakistan.

[3] Kazi, Swarna; Urrutia, Ignacio; van Ledden, Mathijs; Laboyrie, Jean Henry; Verschuur, Jasper; Haque Khan, Zahir-ul; Jongejan, Ruben; Lendering, Kasper; Mancheño, Alejandra Gijón. 2022. Bangladesh: Enhancing Coastal Resilience in a Changing Climate. World Bank, Washington, DC. © World Bank.

[4] IPCC, 2022: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, pp76. [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA.

[5] Our World in Data. (2021). Share of global cumulative CO_2 emissions.

[6] Sengupta, S. and Popovich, N. (June 28, 2018). Global warming in South Asia: 800 million at risk. *The New York Times*.

[7] Zandt, F. (Nov 4, 2021). Climate Change, the Great Displacer. *Statista*.

[8] Titumir, R. A. M., Paran, M. S., & Pasha, M. W. (2019). The Sundarbans is our mind: An exploration into multiple values of nature in conversation with traditional resource users. *Understanding the multiple values associated with sustainable use in socio-ecological production landscapes and seascapes (SEPLS)*, *5*, 97-117.

[9] NOAA. What is blue carbon?

Attributions:

“Hindu Kush Himalaya” and “Climate Vulnerability” is adapted from Alfthan, B. et al. (2018). Outlook on climate change adaptation in the Hindu Kush Himalaya. Mountain Adaptation Outlook Series. United Nations Environment Programme, GRID-Arendal and the International Centre for Integrated Mountain Development, Vienna, Arendal and Kathmandu. CC BY-NC-SA 3.0.

“Climate Vulnerability” is adapted from Hamidi, A. R. et al. (2022). Flood Exposure and Social Vulnerability Analysis in Rural Areas of Developing Countries: An Empirical Study of Charsadda District, Pakistan. *Water*, *14*(7), 1176. MDPI AG, CC BY 4.0; and Kazi, S. et al. 2022. Bangladesh: Enhancing Coastal Resilience in a Changing Climate. World Bank, Washington, DC. © World Bank, CC BY 3.0 IGO; and NASA (2022). Devastating Floods in Pakistan. Permitted use.

"Ecosystem Valuation in the Sundarbans" is adapted from World Bank. 2014. Building Resilience for Sustainable Development of the Sundarbans: Strategy Report. Washington, DC. © World Bank. CC BY 3.0 IGO.

This page titled 7.1: Natural Environments and Climate Vulnerability is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

7.2: Indigenous Worlds: Cultural Hearths, Empires, and Colonial Legacies

Learning Objectives

1. Describe the characteristics and significance of the Indus Civilization.
2. Describe the monsoon navigational routes and the ancient trading networks of the Indian Ocean.
3. Explain motivations and methods of European colonialism in South Asia.
4. Describe the underlying factors that led to the Partition of 1947 and its long-lasting impacts.
5. Evaluate legacies of British colonialism in South Asia.

Ancient Civilizations and Empires

Indus Civilization

The Indian subcontinent has a long history of human occupation. The earliest known civilization on the subcontinent was the **Indus Valley Civilization (3300 BCE to 1500 BCE)** that flourished along the floodplains of the Indus River, in modern-day Pakistan and northwest India. It is considered one of the world's earliest civilizations, akin to Mesopotamia in terms of its early innovations, starting with the domestication of crops around about seven thousand years ago. Regarded as a **cultural hearth**, the Indus civilization served as a hub of innovation where ideas originated and disseminated from. Remnants of the ancient Indus Civilization feature sophisticated architecture and meticulously planned cities, characterized by grid-like street layouts, sewage systems, and multi-story brick houses. In addition to being known for its refined urban planning, the Indus civilization developed one of the world's earliest writing systems, a script that has yet to be deciphered, known as the Indus or Harappan script.

Agriculture, architecture, and writing are hallmarks of social complexity found in many of the world's cultural hearths. However, unlike other great early civilizations, there is a clear lack of evidence of elaborate tombs, individual-aggrandizing monuments, large temples, and palaces. Early excavations of the region led scholars to conclude that the Indus civilization was far more **egalitarian**, more equal, than other early complex societies of the time. Despite nearly a century of research and exploration, there is still no clear evidence that a ruling class of managerial elite existed.[1] This is significant because the absence of a discernable wealthy elite challenges the notion that all social complexity arises from stratified social relations and hierarchies of wealth. It could be that the accumulation of resources, wealth, and power in the hands of a ruling class was absent from the Indus civilization. Instead, architectural ruins at Mohenjo Daro, one of the best-known excavated cities of the Indus Civilization, showcases a focus in great public works. The finest structure resembling the glory of a temple is a large public bath built in the center of the city, known as **The Great Bath**. It is one of the earliest known examples of public bathing and a testament of the importance of public works and communal structures in this early civilization. It is also suggestive of the ancient roots of bathing as a religious ritual, still practiced by both Hindus and Muslims in South Asia.

Between c. 1900 - c. 1500 BCE, the Indus civilization began to decline for unknown reasons. Scholars believe it may have had to do with climate change, the drying up of the Sarasvati River, an alteration in the path of the monsoon rains, overpopulation, a decline in trade, or a combination of any of the above.

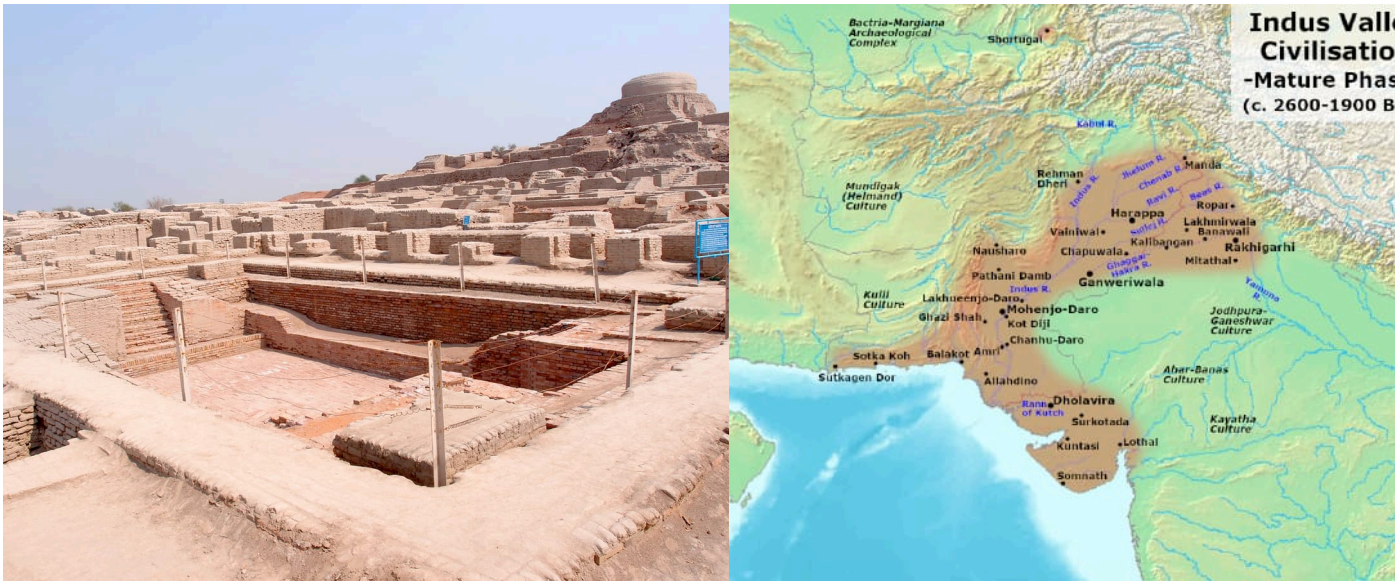


Figure 7.2.1: The ruins of the huge city of Mohenjo Daro (in modern-day Pakistan) – built entirely of unbaked brick in the 3rd millennium B.C. – lie in the Indus Valley, mapped on the right (CC BY SA; Avantiputra7 via World History Encyclopedia). [left] This image shows the excavated ruins with the Great Bath in the foreground. The Great Bath is a globally significant architectural ruin not only due to its antiquity as an urban structure but also its significance as an infrastructural feature built for puclic use (CC BY; Qayyum via Wikimedia Commons). Mohenjo Daro is the most ancient planned city on the Indian subcontinent and exerted great influence on the subsequent urbanization of human settlement in the Indian peninsula. It is considered a UNESCO Heritage Site.

The Mauryan and Mughal Empires

The northern plains of South Asia, which extend through the Ganges River valley over to the Indus River valley of present-day Pakistan, were fertile grounds for several empires that controlled the region throughout history. The **Mauryan Empire (322-185BCE)** was one of the most extensive and powerful political and military empires in ancient India. It was a prosperous empire that greatly expanded the region's trade, agriculture, and economic activities. One of the greatest emperors in the Mauryan dynasty was Ashoka the Great (268-232 BCE), who ruled over a long period of peace and prosperity. Ashoka embraced Buddhism and focused on peace for much of his rule. He created hospitals and schools and renovated major road systems throughout the empire. His advancement of Buddhist ideals is credited with being the reason most of the population on the island of Sri Lanka is Buddhist to this day.

Islam diffused to South Asia through trade and invasion and became powerful force in the region. Muslim dynasties or kingdoms that ruled India between 1206 and 1526 are referred to collectively as the **Delhi Sultanate**. The Delhi Sultanate ended in 1526 when it was absorbed into the expanding Mughal Empire. The Islamic **Mughal Empire** (1526-1857) governed a vast empire encompassing territories from modern-day Iran and Afghanistan to Pakistan and Uzbekistan, and nearly the entire Indian subcontinent. The Mughal empire represents one of the largest centralized states in the pre-modern world, with a territorial expanse covering most of the Indian subcontinent from the Indus River Basin, Afghanistan and Kashmir to present-day Assam and Bangladesh highlands – a territory with a population of about 100-150 million in 1700s. It commanded resources unprecedented in Indian history and, in sheer size, surpassed its two rival Islamic empires - Safavids and Ottomans, being comparable only to Imperial China of the time.

The Mughals' reputation for their military might and trading prowess, coupled with their religious tolerance for other faiths and appreciation for the arts, earned them widespread recognition. They are also recognized for their distinct architectural skills and design. They built many of the monuments we associate with India, including the Taj Mahal, the Red Fort in Lahore, and the Agra Fort.

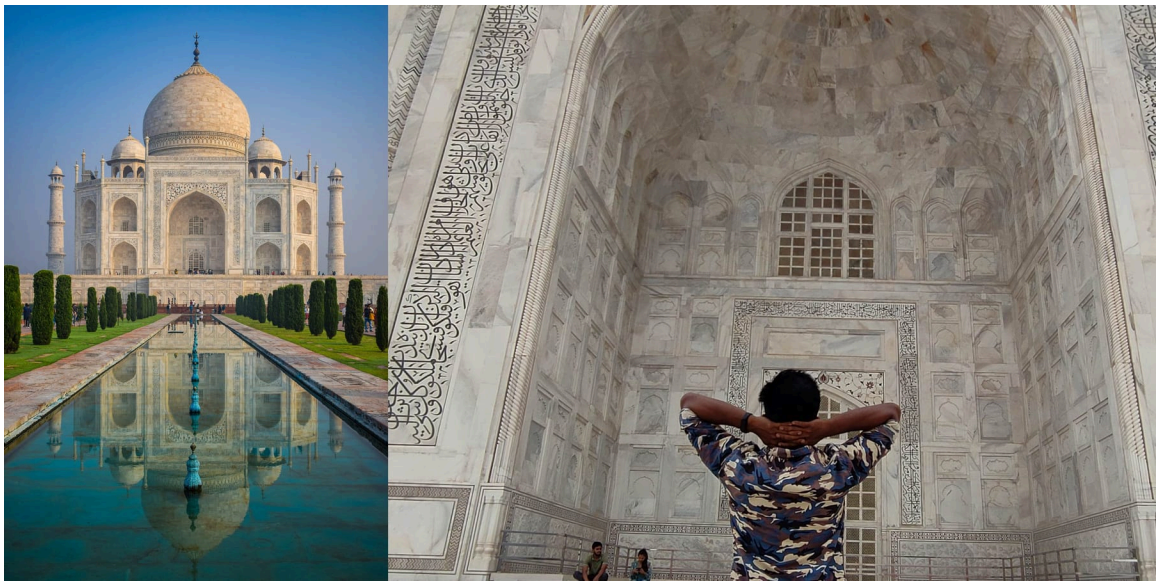


Figure 7.2.2: An immense mausoleum of white marble, built in Agra between 1631 and 1648 by order of the Mughal emperor Shah Jahan in memory of his wife, Mumtaz Mahal. The Taj Mahal (Persian for "Crown Palace") is the jewel of Muslim art in India and one of the universally admired masterpieces of the world's heritage, a UNESCO World Heritage Site and one of the world's wonders. It is said that Jahan never recovered from the loss of his love and planned a mausoleum of black marble to be connected to his wife's resting place through a bridge. [left] a picture of the front yard of the Taj Mahal (CC BY-SA-4.0; Anuragtripathi via Wikimedia Commons). [right] A visitor stares in admiration of a grandiose arch of etched marble in the Taj Mahal (CC BY-SA-4.0; Jeeeth via Wikimedia Commons).



Figure 7.2.3: The Red Fort Complex was built as the palace fort of Shahjahanabad – the new capital of the fifth Mughal Emperor of India, Shah Jahan. Located in Delhi, the Red Fort is considered to represent the zenith of Mughal creativity which, under the Shah Jahan, was brought to a new level of refinement. The planning of the palace is based on Islamic prototypes, but each pavilion reveals architectural elements typical of Mughal building, reflecting a fusion of Persian, Timurid, and Hindu traditions. The Red Fort's innovative planning and architectural style, including the garden design, strongly influenced later buildings and gardens in Rajasthan, Delhi, Agra, and further afield. [left] This picture shows a portion of the massive complex of fortifications known as the Red Fort Complex (CC BY-SA-4.0; Halun via Wikimedia Commons). [right] A closer look at some of its ornate arches (CC BY-SA-4.0; Islam via Wikimedia Commons).

Maritime Traditions and the Ancient Networks of the Indian Ocean

The Indian Subcontinent has a vast coastline surrounded by the waters of the Indian Ocean. Merchants sailed these waters for at least two millennia (until the 16th century), interconnecting East Africa, the Arabian Peninsula, and Asia in cultural and material exchanges that tied peoples from distant lands through an Indian Ocean network. These exchange networks were developed by skilled sailors who understood how to harness the changing monsoon winds for navigation in traditional vessels

generally known as dhows, a Swahili term.[2] From April to September, the monsoon winds rush towards Asia, enabling sailing from East Africa and the Arabian Peninsula towards Asia. From November to February, the winds shift in direction enabling a return. Harnessing the winds for navigation meant that it was the seasonal patterns of the monsoon that dictated when sailors could travel east or west, limiting travel frequency and prolonging stay until the winds changed. Sometimes having to wait for months, merchants mingled around their trading posts resulting in a greater cultural exchange amongst peoples in East Africa, the Arabian Peninsula, Persia, India, and beyond to China and southeast Asia – peoples that were otherwise separated by a vast ocean.

The precolonial monsoon market moved an array of goods, including aromatic oils, precious stones, glass beads, pottery, enslaved persons, grains, textiles, and spices.[3] Protruding into the middle of the Indian Ocean, the eastern and western shores of the Indian Peninsula are centrally located in this ancient network of commerce. India's Malabar Coast (in the southwest) was well known as the world's hub for pepper and fine textiles, attracting traders from afar in search for these highly prized goods. Abundant with variety of superb timber, the Malabar Coast was also the center of shipbuilding. Indian shipwrights mastered the construction of traditional vessels in teak, a highly durable hardwood. These ships varied in size and types, but some were large sea-faring vessels capable of transporting elephants and hundreds of passengers.[4] Navigational expertise too was well-rooted in Indian maritime traditions, and Indian navigators dominated the waters of the Indian Ocean (along with their Arab counterparts). All aspects of this maritime tradition were unwritten, entirely passed from one generation to the next as a way of life. These ancient cultural and economic systems that were devasted with the advent of European colonization.[5]



Figure 7.2.4: [left] This map illustrates trade routes of the Indian monsoon trading system that interconnected a vast area surrounding the Indian Ocean. Guided by ancient seafaring traditions, Indian Ocean traders moved goods a diverse array of goods. Among them was the highly prized Indian pepper and cotton textiles (Smithsonian National Museum of African Art; permitted use). [right] This image depicts an *Odam,* a handcrafted boat that exemplifies traditional ship used in the ancient Indian Ocean commerce (CC BY 4.0; Varadarajan via Open Edition Journals).

Colonization of South Asia

Asia was at the center of European colonialism and the history of globalization. It was the lure of spices, in high demand for culinary and medicinal uses, that drove European expeditions in search for new maritime routes to reach the east. In the 15th century, spices came to Europe via Southwest Asia, a region Europeans referred to as the "Middle East." Seeking to maximize profits, Europeans set sail to establish new routes and gain direct access to Asia's spices and other valuable commodities. Columbus landed in the Americas, believing he had arrived in India and labeling the locals "Indians," while Vasco da Gama sailed around African Cape of Good Hope, up the coast of East Africa, and across the Indian Ocean, ultimately reaching India in 1498.

From 1500 onwards, European powers pursued control of the spice trade and the ports and territories that involved it. Lacking desirable trade goods, they became pirates in the Indian Ocean, looting seafaring merchants and eventually leveraging their cannon ships and weapons to seize the spice trade by force, through colonization. The Portuguese were the pioneers of colonization in the Indian Subcontinent, establishing their first colony in the Malabar Coast, an established center of valuable goods (spices) and crafts (shipbuilding) discussed earlier. Established in 1510, Goa remained a colony of Portugal for 450 years, one of the longest held colonial possessions in the world. This colonial legacy can be noted by many of Goa's historic buildings and cathedrals.

British Colonization

The British eventually displaced other European powers and established their dominance in South Asia, starting in 1600 when Queen Elizabeth established the **East India Company (EIC).** Before the EIC, the British bought goods from India like everyone else, by trading with native merchants and intermediaries. The chartering of the EIC, however, granted a few hundred British merchants with exclusive right on all trade, effectively monopolizing the trade of highly desirable and profitable commodities, primarily spices, but also silk, opium, indigo, and tea. Backed by the British Empire, the EIC evolved into a brutal colonial power, eventually employing a massive private army to seize and tax vast territories in the Indian subcontinent.[6] By 1800, the company's domain extended from many trading ports along the Indian coast to as far north as the Delhi, the capital of the Mughal Empire the EIC replaced (see map).

In 1857, however, Indian soldiers working for the EIC's army, known as *sepoys,* revolted against the rule of the EIC. Known as the **Sepoy Rebellion**, the revolt united Muslim, Sikh, and Hindu soldiers against the British, igniting a wider unified first war for independence. The uprisings motivated the British Empire to suppress rebellions with military force and to bolster its control, replacing the EIC to rule South Asia as a colony.

The British Raj, or British colonial rule, directly controlled as much as two thirds of the Indian Subcontinent. The remaining territories continued as **princely states,** territories that remained under the ordinance of local rulers. The British were intentional about calling these rulers "princes," not "kings," and their territories "princely states," not "kingdoms" – a reminder that the British monarch was supreme. Princely states were ruled indirectly, as the British maintained control through **subsidy treaties**. These treaties entailed annual payments to the British crown in exchange for British military support and protection. While these arrangements allowed princes a degree of sovereignty on internal matters, the British maintained the economic benefits of collecting payments and controlling international affairs. It was part of a "divide and rule" strategy for consolidating dominion of the region by leveraging a native governing elite and exploiting internal divisions.[7]

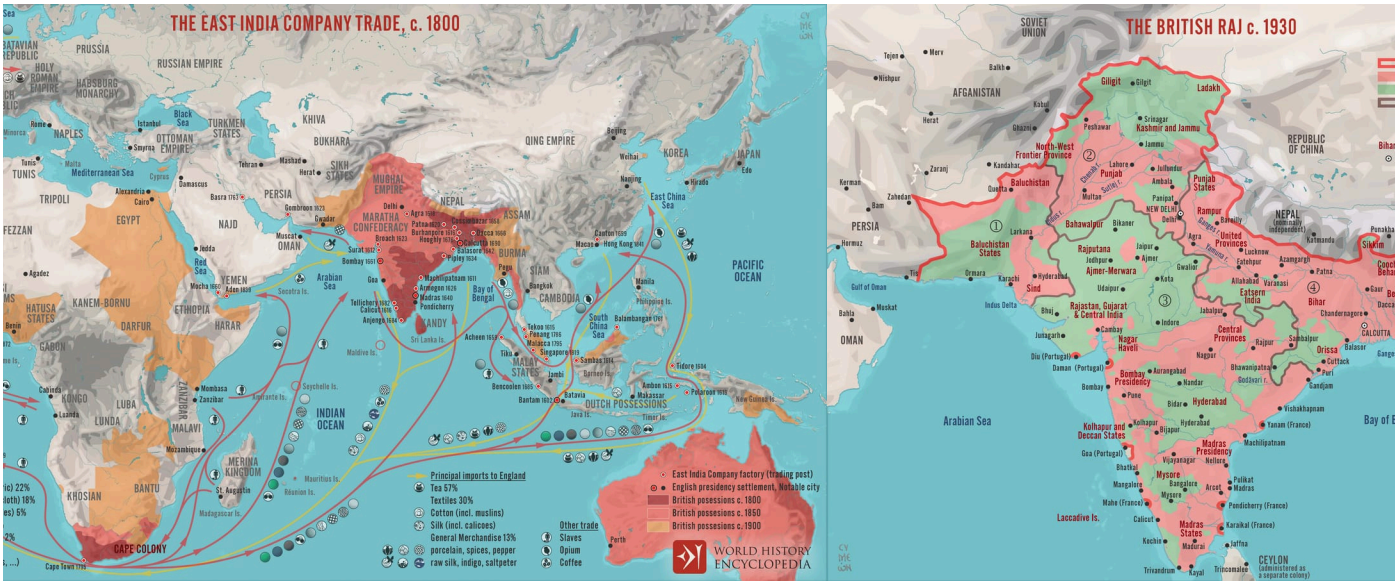


Figure 7.2.5: [top] A map illustrating the markets and goods traded by the East India Company (EIC) with East and Southeast Asia and India around 1800. Incorporated on December 31, 1600, by Queen Elizabeth I's Royal Charter, it was given an initial 15-year monopoly on English trade from the Cape of Good Hope eastward to the Straits of Magellan. By 1620 the Company had twelve trade outposts (factories) and by 1700, was making close to thirty annual sailings to the Far East, had its shipbuilding yard, a fleet of 10,000 tons, more than 2,500 seamen, and, by 1803, a private military force of 260,000 men and was responsible for almost half of all of Britain's trade (CC BY NC SA; Netchev via World History Encyclopedia). [bottom] This map illustrates the territories under direct and indirect rule under the British Raj. Although the British maintained military control and directly administered large swaths of land in South Asia, two-fifths of the subcontinent was fragmented into about eight hundred native principalities, called princely states, with various degrees of independence under British subsidiary alliances. This system of governance lasted until 1947, when British India was partitioned into two sovereign dominion states: the Dominion of India and the Dominion of Pakistan (CC BY NC SA; Netchev via World History Encyclopedia).

The Partition: A Bittersweet Independence

India had always been the pride and prize of the British Empire – an imperial treasure chest and model of colonial rule. Yet, by the early 20th century Indians increasingly sought after an independent India. For decades a grass-roots movement led by Mohandas Gandhi and two political parties, the Indian National Congress and Muslim League, had petitioned, protested, and boycotted against colonial rule. World War II proved to be the tipping point, as by the end of the war in 1945, British rule in India seemed irreparably damaged. In addition to the continuing independence movement, the wartime Bengal famine (1943) had shown British officials woefully inept in managing the country. With Britain bankrupt and open unrest amongst British troops in India, few believed Britain had the strength or moral right to rule India anymore.

In 1946, British officials were ready to negotiate India's independence. After elections were held across the country, Indian politicians joined the British to write India's first constitution. The two major Indian political parties, however, were unable to compromise on what a united independent India should be. The Indian National Congress led by Gandhi's ally Jawaharal Nehru insisted India must stay united and have a strong central state. By contrast, the head of the Muslim League Mohammad Ali Jinnah would only agree to a partition, or physical separation into separate states. For centuries Hindus and Muslims had lived side by side across the subcontinent. Yet with the arrival of mass democracy and independence, Jinnah and the Muslim League feared Muslims, as the smaller population, would be perpetually sidelined in a Hindu-majority India. Dividing India into separate Hindu and Muslim states would guarantee Muslims could determine their own future.

With no compromise found, the political tensions filtered down to the local level. Riots broke out between Hindus and Muslims in the northeast provinces and support for partition grew stronger. Gandhi's pleas for unity and tolerance fell on deaf ears and he vowed to starve himself until the violence stopped. While Gandhi's threat worked, as the bloodletting came to a pause, a sullen mood hung over the country. With law and order breaking down and colonial authority fading, the British took decisive action. They accelerated their withdrawal plan and brokered an end to the deadlock between Nehru and Jinnah, with Nehru and Indian National Congress agreeing to partition; a Hindu-majority India and a Muslim-majority Pakistan it would be. When independence arrived for two whole days, August 14-15, 1947, exuberant crowds and euphoria swept across the land as the old British Raj became two new countries: India and Pakistan.

Independence proved bittersweet. Even before the celebrations began, communal violence exploded along the still unclear borders. Communities that had co-existed for almost a millennium became enemies overnight, attacking one another in a wave of immense violence. When the borders were declared, a tidal wave of refugees took to dirt roads by foot or crammed onto overflowing railroad trains going in opposite directions in one of the largest migrations of human history; Hindus fleeing Pakistan to India and Muslims fleeing from India to Pakistan. By 1948, two million people died, including Gandhi by political assassination, and some 15 million people abandoned their homes never to return. It was a defining moment for 20th Century South Asia, one that is still influences how South Asians recollect the past and envision the future.[8]

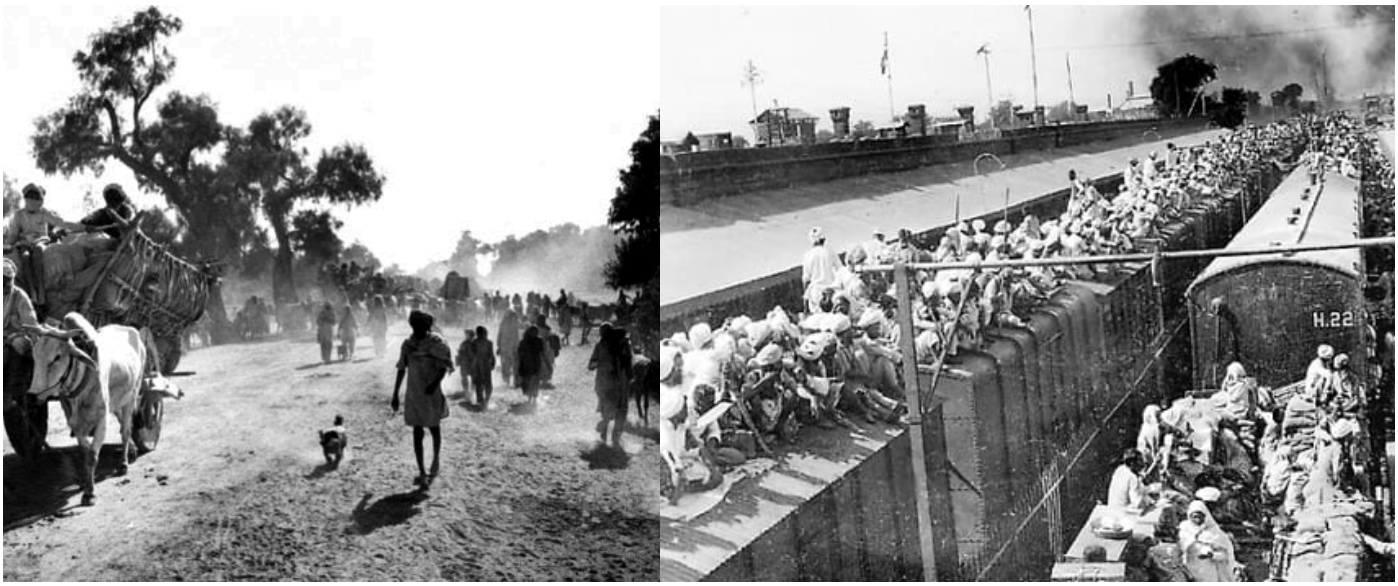


Figure 7.2.6: [left] This image depicts partition refugees commuting by foot (Public Domain; Government of India via Wikimedia Commons) and by train (CC BY ND; Saktishree via Openverse), both taken in the Punjab region and depicting what became one of largest migrations in human history. The violence that ensued the partition claimed over two million lives and left painful memories of the period of independence.

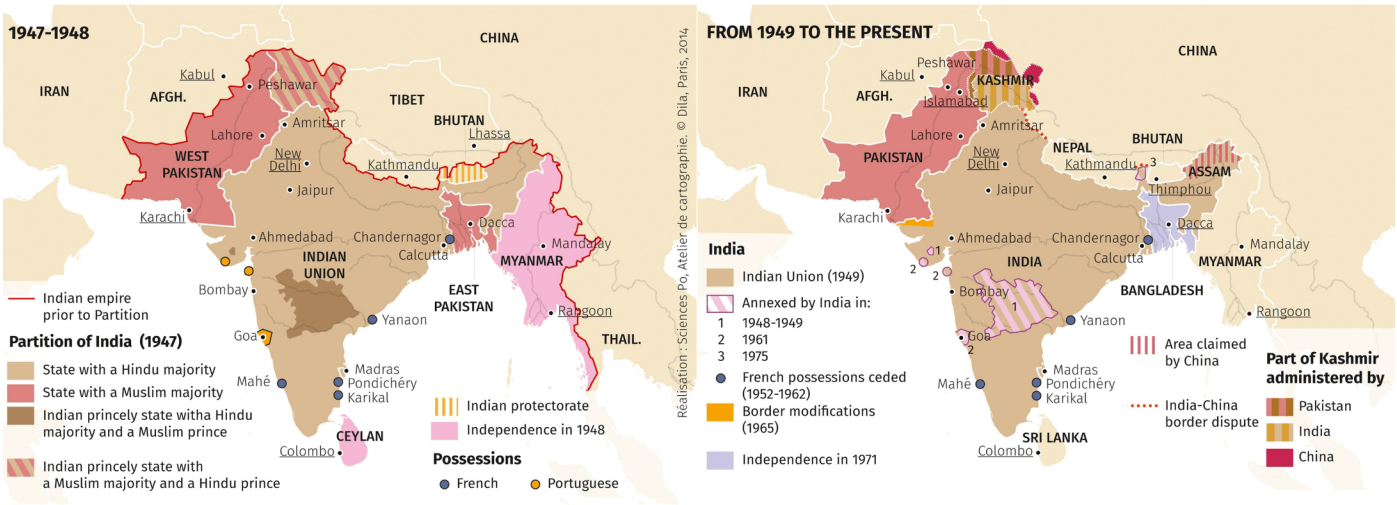


Figure 7.2.7: These two maps present the British partition of the following the Indian Independence Act of 1947 and the subsequent redrawing of state boundary lines from 1949 to the present day. The redrawing of boundaries are a result of many factors, including the factionalization of religious groups under divisive tactics employed by the British Empire (Copyright; Espace Mundial l'Atlas, permitted use).

Gifts from colonizers? The (im)balance sheet of the "Inglorious Empire"

While the voracious nature of British colonization is well documented and hard to contest, some contend that British colonization in the Indian subcontinent provided the region with some lasting benefits Indians enjoy until this day. The rationale follows that prior to colonization a unified India did not exist, and that it was the British that brought India together into a cohesive unit of governance, connected through a system of railroads and a common language (English). The notion that colonizers have bestowed gifts onto colonized peoples is more pervasive than many realize: A 2020 poll on British opinion reports that about one-third of Britons believe that the British Empire is a source of pride and that former British colonies are better off from having been colonized by Britain.[9]

This narrative promoting the most pervasive colonizer in human history as a benevolent force demands critical reflection. Shashi Tharoor, an Indian public intellectual and diplomat, vigorously challenged such interpretations of history in *Inglorious Empire: What the British Did to India* (2017). The book provides a historical exploration that contests romanticized notions about British colonization, explaining that the British were not benevolent rulers who left "gifts" for India. Instead, the author details how British colonization plundered a great civilization, leaving behind a centuries-long legacy of exploitation and fragmentation.

For one, Tharoor argues that the British Empire did not unify India. As described in the opening of this chapter, the notion of a geographical entity in the subcontinent is well encrypted in Sanskrit texts describing a land among sacred rivers that has existed for thousands of years. Precolonial India was a civilizational space where diverse cultural groups with many overlapping cultural practices coexisted. Instead of acting as a unifying force, the British focused on sharpening, even constructing, class and religious divisions to impose their control. One of the first examples of this "divide and rule" strategy was the first national census (1872) that classified Indians based on religion, caste, or tribes according to British assumptions about Indian society. The census served to legitimize and accentuate differences among groups, a strategy used to prevent unity against British rule which was construed as necessary to maintain political coherence and peace. English teaching and learning, too, was solely conducted to create a "class of interpreters" to facilitate British rule. The British had no intentions of expanding education to the masses.

The extensive Indian railway system, often touted as a lasting benefit from colonization, was a colonial venture funded by the Indian people who paid high taxes to return exorbitant profits for British "investments" in their construction. Yet, the Indian-funded railway infrastructure was primarily designed to serve the needs of the Indian people but to facilitate the export of natural resources to Britain. Among these was the exports of rice that effectively diverted food from hungry masses during devastating famines that claimed millions of Indian lives. To make matters worse, the entire industry – from the manufacturing of trains to the employment of technicians and conductors – was highly exclusive of Indians and its profits channeled to Britons.

The cementing of religious divisions and the leveraging of the English language and railways are only a few among many of the examples that Tharoor provides of how the British never intended to benefit Indians with their tools of conquest. The fact that Indians have leveraged the English language, railways, or any vestige of colonialism for their own liberation and economic gain, Tharoor argues, is to the credit of Indians, rather than the benevolence of the British. Contrary to the imagination of many Britons, the Indian subcontinent had thrived without the British. Their fabled wealth lured Europeans to venture across the seas into the unknown. Far from being peripheral or poor, the Indian subcontinent constituted a much larger share of the global economy than Britain, as it was an epicenter of resources, production, and trade.[10] In other words, the rise of Britain was predicated upon the appropriation of India's wealth, a wealth accumulation by dispossession estimated at trillions of dollars.[11]

Considering the critical reflections presented in Tharoor's book opens an opportunity to replace apologetic narratives about "gifts from colonizers" with a recognition of the substantial and long-lasting cultural and economic harm experienced by colonized peoples in India and elsewhere.

References:

[1] Green, A. S. (2021). Killing the priest-king: Addressing egalitarianism in the Indus civilization. *Journal of archaeological research*, *29*(2), 153-202.

[2] Smithsonian National Museum of African Art showcases a digital exhibition, Sailors and Daugters: Early Photography and the Indian Ocean.

[3] One of the most detailed record of the ancient trade network of the Indian Ocean is the book *Periplous of the Erythrean Sea,* published in the 1st Century AD by an unknown Greek author. This map depicts the trade routes and goods described in this record.

[4] Mathew, K. S. (2017). *Shipbuilding, navigation and the Portuguese in pre-modern India*. Routledge.

[5] Tharoor, S. (2018). *Inglorious empire: What the British did to India*. Penguin UK.

[6] Dalrymple, W. (March 4, 2015). The East India Company: The original corporate raiders. *The Guardian*.

[7] Rahman, A., Ali, M., & Kahn, S. (2018). The British art of colonialism in India: Subjugation and division. *Peace and Conflict Studies*, *25*(1), 5.

[8] Dalrymple, W. (June 22, 2015). The Great Divide. *The New Yorker Magazine*.

[9] Smith, M. (March 11, 2020). How unique are British attitudes to empire? *You Gov, UK*.

[10] From 1600-1940, as quantified in Tharoor, S. (March 8, 2017). 'But what about the railways...?' The myth of Britain's gifts to India. *The Guardian*.

[11] Hickel, J. (Dec 19, 2018). How Britain stole $45 trillion from India. And lied about it. *Al Jazeera*. Based on the works of Nielsen, K. B. (2020). Agrarian and Other Histories: Essays for Binay Bhushan Chaudhuri: Shubhra Chakrabarti and Utsa Patnaik (eds)(New Delhi: Tulika Books, 2017).

Attributions:

"Indus Civilization" is adapted from Green, A. S. (2021). Killing the priest-king: Addressing egalitarianism in the Indus civilization. *Journal of archeological research*, *29*(2), 153-202. CC BY 4.0; and Mark, J. (Oct 7, 2020). Indus Valley Civilization. *World History Encyclopedia,* CC BY NC SA 4.0.

"Mughal Empire" is adapted from Netchev, S. (2022). Mughal India. *World History Encyclopedia,* CC BY NC SA 4.0.

"Colonization" is adapted from Cartwright, M. (June 9, 2021). The spice trade & the age of exploration. *World History Encyclopedia,* CC BY NC SA 4.0; and Cartwright, M. (October 31, 2022). Indian Princely States, CC BY NC SA 4.0.

"A Traumatic Independence" is adapted from New Nations of Asia, CC BY NC SA 4.0.

This page contains adaptations from "Patterns of Human Settlement in South Asia" by Caitlin Finalyson, CC BY NC SA 4.0; and "Introducing the Realm" by the University of Minnesota. CC BY NC SA 4.0.

This page titled 7.2: Indigenous Worlds: Cultural Hearths, Empires, and Colonial Legacies is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

7.3: Cultural Diversity- Languages and Religions of South Asia

Learning Objectives

- Explain the characteristics of Hinduism, Buddhism, Jainism, and Sikhism.

Languages

South Asia is a diverse region in terms of its ethnic landscape, culture, and religious beliefs. In the northern portion of the region, the Indo-European languages like Hindi dominate as a result of the Aryan invasion. Along the Himalayas, languages in the Sino-Tibetan family dominate. In southern India, however, most groups speak a language in the Dravidian family, comprised of the indigenous languages of South Asia that were present before the arrival of the Aryans. These language families reflect broader differences in culture and ethnicity, including particular religious practices and food customs. Thus the label "Indian cuisine" actually encompasses a diverse array of regional and traditional specialties.

Religions

South Asia is a hearth area for several of the world's great religions. Out of the Aryan invasion of northern India came a religious belief system known as **Vedism**. The religious texts of Vedism, known as the Vedas, combined with local religious beliefs developed into the modern-day religion of Hinduism by around 500 BCE. **Hinduism** is a polytheistic religion with a wide variety of individual beliefs and practices. Hinduism is a highly regional and individual religion and its polytheistic nature reflects this open understanding of belief. Of Hinduism's over 1 billion followers, 95 percent live in India.

At its heart, there are four key features of Hinduism: dharma, karma, reincarnation, and worship. **Dharma** refers to the laws and duties of being and is different for every person. You might be a student and an employee and a child and a sibling. All of those roles have prescribed responsibilities. To be a good student, for example, means to attend class, read the textbook, and study. In Hindu culture, there are also restraints and observances for how you interact with other people depending on their status.

Hindu views on the afterlife are quite different from the Judeo-Christian conception of heaven. Hindus believe in **karma**, which means that your deeds, good or bad, will return to you. They also believe in reincarnation, which is the idea that once you die, your spirit is reborn. Thus, you are the sum of numerous past existences. Karma, dharma, and reincarnation go hand in hand. If someone had done good deeds, had good intentions, and lived virtuously, when they die and are reincarnated, they might come back as something great – a prince, perhaps. Conversely, if someone was a terrible person, accumulating an excess of negative karma, when they are reincarnated, they might come back as someone of very low status – or maybe not even a person at all.

Hindu scripture discusses four distinct **castes**, or groups, of people in society, an example of social stratification. This social hierarchy is known as the caste system. The Brahmins, the highest caste, consist of priests and teachers and represent around 3 percent of India's total population. There is a warrior caste, a merchant caste, and finally the lowest, the laborer caste of landless serfs. Excluded from this caste system, and viewed as so below it that they are not even a part of it, are the "untouchables," also known as "Dalit" meaning "oppressed." The untouchables are so-named because they perform work that makes them spiritually unclean, such as handling corpses, tanning hides, or cleaning bathrooms. Traditionally, higher castes would get ritually purified if they touch a Dalit. Many "untouchables" are Indigenous, non-Aryan Indians.

So how might the belief in karma and reincarnation affect social justice in South Asia? Although the caste system was outlawed by the Indian constitution, widespread discrimination and persecution persists. Many Hindus believe that those in lower castes were reborn into that social status because they had committed misdeeds in their past life. However, other Hindus fought against the caste system and have worked to more fully integrate the Dalits into Indian society.

Buddhism emerged out of Hinduism in northern India following the life and teachings of Hindu prince Siddhartha Gautama. According to Buddhist belief, Siddhartha lived a life of luxury, but became disenchanted with his life of privilege when he was faced with society's injustices, such as illness and extreme poverty. Since Hinduism offered no clear cessation of what Siddhartha

viewed as an endless cycle of suffering through samsara, the soul's continual death and rebirth, he sought out new ways of ending suffering. For a time, Siddhartha practiced meditation and extreme asceticism, eating only dirt and bits of rice. But neither the path of luxury nor the complete absence of worldly pleasures gave him the insight he sought. Eventually, Siddhartha, in meditation under a Bodhi tree in Bodh Gaya, India, discovered what Buddhists refer to as the Middle Way, a path of moderation. He is said to have achieved enlightenment and is known as the first Buddha, meaning "awakened one."

Although Buddhism, like Hinduism, is a highly regional religion with many different forms of individual expression, Buddhists generally share a belief in the **Four Noble Truths**: 1) Suffering is universal and inevitable, 2) The immediate cause of suffering is desire and ignorance, 3) There is a way to dispel ignorance and relieve suffering, and 4) The eightfold path is the means to achieve liberation from suffering. Buddhists also share with Hindus a common belief in karma, dharma, and reincarnation.

Buddhism diffused across Asia, though never taking a strong hold in India. The Maurya Emperor Ashoka, in particular, was responsible for the widespread diffusion of Buddhism in the 3rd century BCE. The religion has three primary branches, each with a distinct regional concentration. The oldest branch, Theravada, is primarily practiced in Southeast Asia, in places like Cambodia, Laos, Myanmar, and Thailand and is also the majority religion on the South Asian island of Sri Lanka. Mahayana is practiced by most Buddhists worldwide, particularly in places like China and Japan. Vajrayana Buddhism, which is sometimes considered a subset of Mahayana Buddhism, is practiced in the Himalayas and Tibetan Buddhism is a notable example. Buddhism has around 500 million followers worldwide.

Although Buddhism and Hinduism are the most widely practiced, South Asia was also a hearth area for the Jain and Sikh religions. **Jainism** emerged in India in the first century BCE and emphasizes ahimsa, nonviolence toward all living beings. Even insects found in the home are gently ushered out rather than killed. Jains also seek to break free from attachments and inner passions, and aim to keep an open mind toward different perspectives. The teachings of Jainism were influential for Gandhi and his emphasis on nonviolent resistance.

Sikhism emerged in the Punjab region of northwestern India and northern Pakistan in the 15th century. It is a monotheistic religion founded on the teachings of Guru Nanak that combines elements of both Hinduism and Islam. Like Hindus, Sikhs believe in reincarnation and karma. But unlike Hinduism, Sikhism prohibits the worship of idols, images, or icons. Sikhs believe God has 99 names, an adaptation of Hindu polytheistic belief. Sri Harmandir Sahib, commonly called the "Golden Temple," in Amritsar, India is the holiest Sikh temple, which are called gurdwara. However, the building is open to everyone and every visitor is offered a free meal. Over 100,000 people visit the site every day.

These religions, along with other minority religions like Christianity and indigenous belief systems, have not always coexisted peacefully in South Asia. Although India is officially secular, having no official religion, regional religious conflicts have often occurred throughout history. The difficulty is that in this region, very few people actually are secular, with no attachment to religion. Governments have thus struggled to find ways of accommodating minority religious groups while not offending the majority.

Attributions:

"Languages and Religions of South Asia" is from Cultural Groups in South Asia by Caitilin Finalyson, CC BY-NC-SA.

This page titled 7.3: Cultural Diversity- Languages and Religions of South Asia is shared under a license and was authored, remixed, and/or curated by LibreTexts.

7.4: Population, Malthusians, and Critics

Learning Objectives

1. Explain population distribution and demographic patterns in South Asia.
2. Describe the demographic transition model and the population patters of each stage.
3. Critique Malthusian conceptions of overpopulation through examples in South Asia.
4. Describe the impacts of Malthusian logic on women and girls in India.

This page is in drafting and review

A Human Epicenter

At the end of 2022, the world's population reached 8 billion. About 60 percent of the world's people live in Asia, a region with a long history of large populations. In South Asia, landscapes are engraved by long-standing patterns of human settlement, especially along its river valleys that have sustained high population densities from antiquity to this day. Now with two billion people, South Asia is home to a quarter of the world's people, a giant hub within Asia's population epicenter. In 2023, India surpassed China as the world's most populous country - the world's two "population billionaires" have about 1.4 billion people each. Pakistan and Bangladesh, too, are among the most populous ten countries in the world.

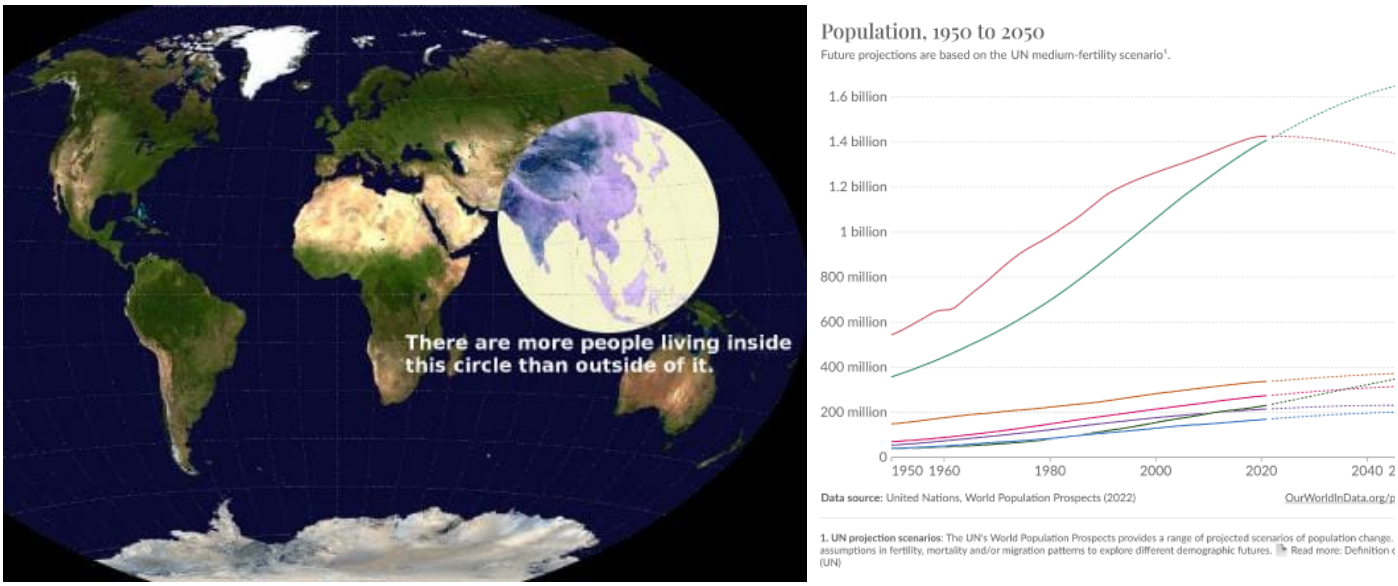


Figure 7.4.1: For hundreds of years, South and East Asia have been an epicenter of human population. This map indicates the high concentration of the world's peoples in the region effectively: there are more people living inside the area circled than outside it. The circled area encompasses some of the world's most populous countries: India, Pakistan, Bangladesh, China, Japan, and Indonesia (Public Domain; NASA via Wikimedia Commons). The two population billionaires are projected to stabilize in population size. China is no longer growing and India's population is projected to peak by 2060, as depicted in this chart (CC BY; Our World in Data).

Population scholars largely attribute the monumental growth in human population (in South Asia and everywhere) to improvements in medicine, sanitation, and crop yields. These factors have decreased human deaths and extended human lives everywhere in the world. And now that more babies are surviving to become adults, more people living in cities, and more women studying and joining the workforce, mothers all over the world are also having less children. These statements are true on a global scale, but different countries are making the progression towards longer lives, more education, and smaller families at a different pace.

The Demographic Transition Model Explained

Population growth is determined by births and deaths. Every country has seen very substantial changes in both: mortality and fertility rates have fallen across the world. But declining mortality rates and declining fertility rates alone do not explain why populations grow. If these changes happened at the same time, the size of the population would not increase. What is crucial is the *timing* at which mortality and fertility changes.

The **demographic transition model (DTM)** explains why countries go through a period of rapid population growth is called the 'demographic transition'. The DTM charts population patterns through the birth rate, death rate, and population growth rates to make connections to larger socioeconomic changes happening within countries and at a global scale. It ultimately depicts how improvements in medicine, agriculture, infrastructure, and education drive population patterns that are generalized into five stages. As countries progress through these stages, populations peak, stabilize, and might begin to decline. See each stage below:

Stage 1: high mortality and high birth rates. No country today remains in this stage. In the long time before rapid population growth the birth rate in a population is high, but since the death rate is also high we observe no or only very small population growth. This describes the global population patterns of most of human history. Societies around the world remained in stage 1 for many millennia, with extremely slow population growth. At this stage the population pyramid is broad at the base but since the mortality rate is high across all ages – and the risk of death is particularly high for children – the pyramid gets much narrower towards the top.

Stage 2: mortality falls but birth rates remain high. Ex: Pakistan, Nepal, Kenya, Guatemala. In the second phase the health of the population slowly starts to improve and the death rate starts to fall. Since the health of the population has already improved, but fertility remains as high as before, this is the stage of the transition at which the size of the population starts to grow rapidly. Historically it is the exceptional time at which the extended family with many (surviving) children is common.

Stage 3: mortality is low and birth rates begin to fall. Ex: India, Bangladesh, Sri Lanka, Indonesia, Mexico. Later the birth rate starts to fall and consequentially the rate at which the population grows begins to decline as well. When the mortality of children is not as high as it once was parents adapt to the healthier environment and choose to have fewer children; the economy is undergoing structural changes that makes children less economically valuable; and women are empowered in education and work and have fewer children than before.

Stage 4: low death rates and low birth rates. Ex: Canada, China, US. Rapid population growth comes to an end in stage 4 as the birth rate falls to a similar level as the already low mortality rate. Populations begin to stabilize as the mortality rate at young ages is now very low the younger cohorts are now very similar in size and only at an old age the cohorts get smaller very rapidly.

Stage 5: birth rates lower than death rates, declining natural increase rates. The demographic transition describes changes over the course of socio-economic modernization. What happens at a very high level of development is not a question we can answer with certainty since only few societies have reached this stage. Contemporary Japan is a vivid example, a rapidly aging population and future population decline is likely (as discussed in the next segment).

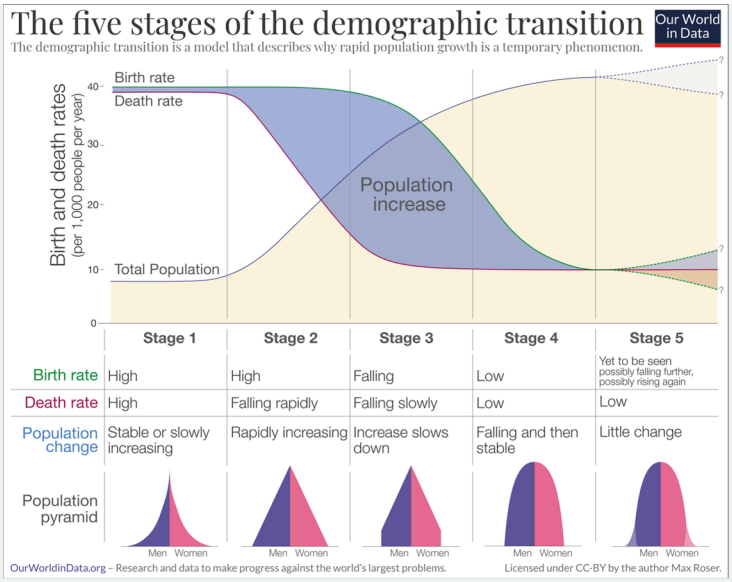


Figure 7.4.2: The demographic transition model (DTM) explains why countries go through a period of rapid population growth is called the 'demographic transition'. It charts population patterns through the birth rate, death rate, and population growth rates to make connections to larger socioeconomic changes happening within countries and at a global scale. This diagram depicts the stages described above. As countries industrialize and populations urbanize, improved socioeconomic conditions like better access to healthcare, education, food, and work result in decreased birth death rates and birth rates overtime (CC BY; Roser via Our World in Data).

South Asia's Growing Pains

South Asia has experienced rapid population growth during the latter half of the twentieth century. India's population quickly climbed from 350 million in the 1950s to over one billion in the late 1990s, nearly tripling the population within less than fifty years. This rapid growth was a by-product of demographic transitions discussed above. As death rates declined and birth rates remained high, the population soared. While the population of Pakistan and Nepal continue to reflect this pattern of rapid growth, India and Bangladesh have progressed into a mature Stage 3 of the demographic transition model. This transition is largely due to a remarkable drop in the **fertility rate,** the average number of births per woman. In the 1960s, there were about 6 child births per woman in India (7 in Bangladesh). In 2022, there were about 2 child births per woman in both India and Bangladesh. This is below the **replacement** level, or the number of children needed to replace their parents and maintain a population. Based on the current trends, the number of children under five years old in both countries peaked in 2005 and on a steady decline ever since.

Expanding education for women and girls and greater participation of women in the workforce means that Indian and Bangladeshi families are getting smaller, especially those in urban areas. While declines in fertility rates are expected as economic opportunities and access to education and family planning expand, the declines in India and Bangladesh are also largely attributable to concerted government efforts to control population growth (See "Impacts of Malthusian Logic on Women and Girls in India" below).

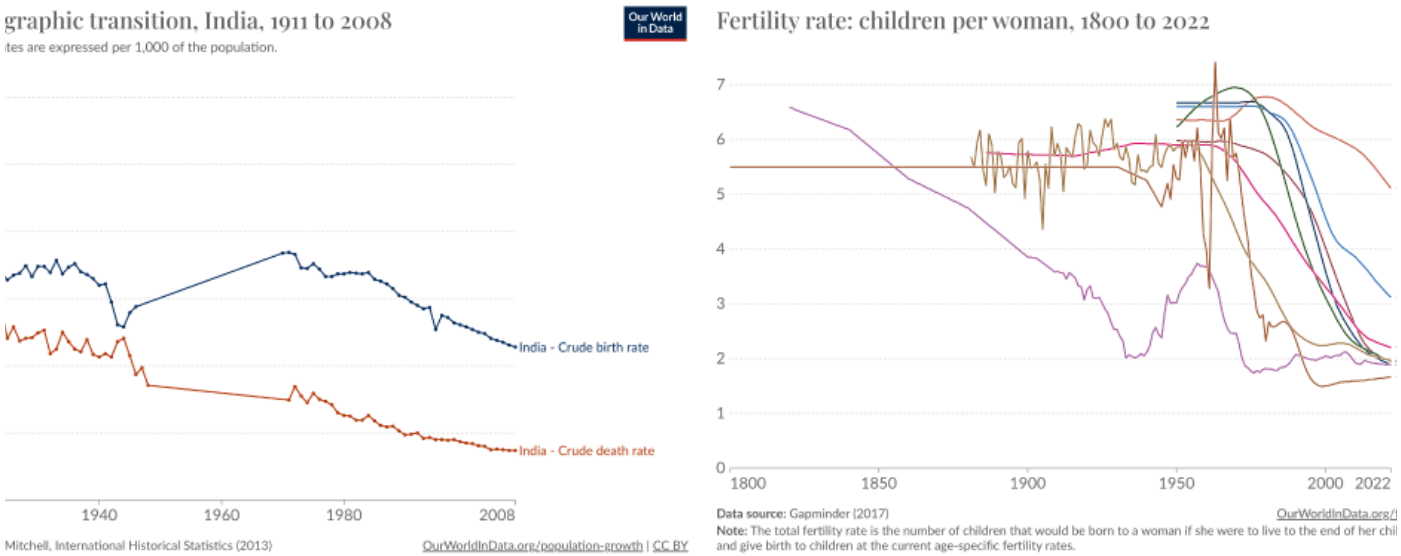


Figure 7.4.3: [left/top] The demographic transitions of India are charted through the birth and death rate overtime (1911-2008). The birth rate has continued to decrease since 2008 and India has entered a mature stage 3 of demographic transition, where the gap between the birth rate and death rate is starting to close and the population is projected to stabilize (CC BY; Roser via Our World in Data). [right/bottom] Women are having less children everywhere in the world, and this is well exemplified in South Asia: India and Bangladesh have seen steep declines in the fertility rate, and now families are having less babies the replacement level (CC BY; Our World in Data).

Still, despite having reached a fertility rate below replacement levels, the population in South Asia are expected to continue to grow rapidly because of a **demographic momentum**. This is means that the large number of young people will continue to drive population growth as they have their own babies. India is projected to reach a population peak of 1.7 billion people in 2060. The population of Pakistan will have nearly doubled by that time. By 2060, it is projected that South Asia will be home to an additional 400 million people – the equivalent of the entire population of the United States (plus some). The population growth patterns of the past and the present has placed South Asia at the center of academic discussions pertaining to population growth and concerns about overpopulation.

The Malthusian Doctrine

In his famous 1798 essay, *An Essay on the Principle of Population,* Thomas Malthus presented one of the first discussions on overpopulation. In this infamous publication, Malthus warned that the human population would grow more rapidly than our ability to grow food, and that this would eventually lead to mass starvation and conflict. His calculations compared the arithmetic growth of food production versus the exponential growth of the world's population, sending alarm about a mathematical impossibility of feeding the world's people. As a solution, Malthus endorsed some extreme measures to facilitate mass deaths, what he called "necessary mortality," including the conscious planning of swampy, crowded, and unsanitary living spaces for the poor, spread of disease, and withholding remedies for lethal diseases.[1]

Malthusian alarmism pertaining to population growth has continued to resound through time. In 1968, Ehrlich, a Stanford University population biologist, wrote the bestseller called *The Population Bomb*, which echoed the same warnings of Malthus of impending mass starvation due to overpopulation. (Elrich still warns us that there is too many people and humanity is heading for calamity). In 1970s and 1980s, Malthusian views became widespread and population control became a focal strategy of the United Nations that saw overpopulation as the root cause of environmental destruction and poverty. At around the same time, **Eugenicists** were aiming to "perfect the human race" by preventing the reproduction of people they regarded as inferior, supporting plans to "breed out" traits they thought to be undesirable. Malthusians and Eugenicists alike supported sometimes aggressive measures to population control perceiving the growing numbers of people (primarily nonwhite people in poor countries) an existential threat to the "common good." Both would lead to policies that sorted which humans were worthy of reproduction and which were not.

Malthusian Critiques

India became a posterchild for Malthusian logic. Overpopulation was a common explanation for reoccurring famines and mass

starvation. Malthusian logic followed that population growth outpaced food production, and there was simply not enough food to sustain the large and rapidly growing population. What is often omitted from such explanations is the profound impact of colonialism on the ability of farmers to feed themselves. The colonization of India resulted in the appropriation of crucial arable land for the cultivation of cash crops to meet the demands of the British Empire. This forced Indian farmers to shift cultivation from food crops to cash crops such as cotton or indigo for export, thereby endangering the food security of the Indian people to satisfy British demands.

The situation became especially dire when lapses in monsoon rains resulted in crop failures and caused a series of devastating famines under the British Raj. The **Bengal famine of 1943** stands as one of the most catastrophic famines in history, costing the lives of nearly 4 million people in India. Yet, Malthusian narratives focusing on overpopulation as a cause of famine have dismissed the impact of British exports of immense amounts of food grains from India while civilians starved en mass. Prime Minister Winston Churchill notoriously ordered the diversion of food from Indian civilians to well-fed British troops and to stockpile food in Europe.[2] Adding to the insult, Churchill resorted to blaming the Indian people for the staggering death toll of famines, making derogatory remarks about Indians "breeding like rabbits" and deflecting from British responsibility in the catastrophic proportions of famine.[3]

There is something compelling about Malthusian logic: a finite land area has a finite carrying capacity and cannot continue to feed a growing population indefinitely. From such a perspective, famine-afflicted countries simply have too many mouths to feed. However tempting this simplistic rationale continues to be, it fails in the face of a simple fact: The world's population has continued to increase from less than one billion in 1800 to eight billion today, but the number of people dying due to famine has decreased and become only a tiny fraction of that in previous eras.[4] India exemplifies this well. From 1992 to 2017, the population in India grew by 44.5%, but child wasting, undernourishment, child stunning, and child mortality (as captured by the Global Hunger Index, GHI) has decreased by 14%. Bangladesh, also growing by population size at a similar rate, has seen a 27% decrease of the same indicators of hunger.[5]

The explanation to this trend lies in increased agricultural productivity. The technological innovations of the **Green Revolution** that employed mechanization, irrigation, agrochemicals, and the use of high yielding seed varieties produced a substantial change in agriculture all over the world. To address recurring cycles of severe famine under British, independent India made large economic, technological and social investments in improved agricultural practices. The technological innovations of the Green Revolution were introduced to India in the 1960s improving food production dramatically. Shown below, we see that since around 1970, cereal output has grown at a faster rate than India's population (increasing by 238%, and 182%, respectively). This remarkable increase of food crops such as rice and wheat enabled India to avert Malthusian predictions. Over the last five decades, India transitioned from being food scarce to food sufficient, now a top producer and exporter of staple crops such as wheat and rice.

Still, focusing solely on the mathematics of agricultural productivity in discussions about overpopulation is short-sighted because it overlooks issues of resource distribution and the various factors that lead hunger to persist in many parts of the world. Despite producing enough food, India has one quarter of the hungry population in the world, with 195.9 million undernourished people lacking sufficient food to meet their daily nutritional requirements. Clearly, other factors aside from agricultural productivity are at play. Among these is how the shifting agricultural production to high yielding monocrops has put a variety of indigenous crops that had been cultivated for thousands of years into non-existence.[6] Furthermore, the productivity of monocrops is based on the use of fertilizers, pesticides, and groundwater. The overuse of agrochemicals and of freshwater has led to water pollution, infertile lands, and depleted groundwater sources. Along with climate change, these factors will continue to challenge boosting food production to meet the demands of a still growing population.

Impacts of Malthusian Logic on Women and Girls in India

Reiterations of Malthusian concerns have motivated India's government to control population growth since the early years after independence. From 1975-1977, India's Prime Minister Indira Gandhi declared a national "Emergency," pioneering a population control program that mandated mass sterilizations of men and women. Under this program, more than 8 million Indians were rounded up and coerced to have surgical sterilization procedures.[7] Mandatory sterilizations under the Emergency were quite unpopular and were soon discontinued, and the government expanded family planning measures and established clinics, provided information, and distributed free or low-cost birth control pills, injectables, and condoms. However, sterilization remains the primary form of birth control in India: more than ninety percent of sterilizations are of women, and 37 percent of women in India have undergone sterilization (in comparison to 1 percent of men).[8] The

massive scale of government sponsored sterilization has resulted in the deaths of hundreds of women who have undergone procedures in sterilization camps under abhorrent conditions. (The Indian Supreme Court finally banned mass sterilization camps in 2016).[9]

As observed all over the world, empowering girls and women is the best contraceptive. Few socioeconomic factors are as influential in lowering the fertility rate as expanding education and economic opportunities for women and girls. India's indicators largely exemplify this as the states with the highest fertility rates have the lowest socioeconomic indicators for women. In Bihar, where India's fertility rate is the highest (at 3.2), there is also the highest percentage of illiterate women (26.8 percent). By contrast, Kerala's low fertility is matched a 99.3 percent literacy rate, a by-product of governmental campaigns dedicated to improving health and education. In urban areas, fertility rates are much lower because women are more likely to go to school, marry later, and work.



Figure 7.4.4: [left] Anju Salvi (in the middle), photographed with UN Women's Second Chance Education programme beneficiaries. Anju is the president of the Sakhi Sangam Women's Federation, representing 4,500 women from the remote villages of Chittorgarh district in Rajasthan, India. She is also a community educator for UN Women's Second Chance Education programme in India which is helping women re-enter formal education, get vocational and skills training, and secure employment or entrepreneurial opportunities. Anju is one of the few women in her community to complete a college education. The Second Chance Education programme is running in four Indian states – Bihar, Maharashtra, Rajasthan and Odisha – covering 12 districts and 200 villages which have some of the highest rates of poverty and lowest indicators for gender equality. [right] Women from a village in Gaya (a district in the state of Bihar, India), are seen sitting in a circle, attending a community meeting (CC BY NC ND; UN Women via Flickr).

But pressures for smaller families, motivated by Malthusian logic or policy, can exacerbate pre-existing gender bias. In India, widespread cultural norms place a preference for sons when inheritance is passed along male descendants who are seen as caretakers of their aging parents. Traditionally, men are also recipients of **dowries**, a substantial direct payment given from the bride's family to the groom upon marriage. The pervasiveness of these cultural practices varies by geography, but, where prevalent, these traditions act as economic disincentives for having girls, many times leading to reproductive decisions based on a son bias. Once pre-natal testing allowed for sex detection of fetuses, selective abortions of females in India took off. The Pew Research Center estimated that between 2000 and 2019, at least 9 million female births went "missing" because of female-selective abortions.[10] In expected biological ratios, boys slightly outnumber girls at birth, with the natural population ratio of 105 male babies per 100 female babies. This natural ratio existed in India in the 1950s-1960s but was severely skewed to 110 male babies to 100 female babies by the 2000s.[11] Between 2000-2020, India had one of the most skewed sex ratios at birth in the world.

While the imbalances in the sex ratio at birth seems to be averting in recent years, the cumulative legacy of decades of sex-selective abortion will continue to shape India's demographic challenges for some time to come. With an excess of about 37 million males in 2018, India faces several societal issues because of its gender imbalance. The large number of bachelors are now facing a **marriage squeeze,** or a shortage of women and a surplus of men seeking a bride. Many are not successful, which in turn adds pressure to the aging mothers caring for adult sons who are unable to marry and start their own families.

This is especially acute in rural areas, where men of less economic means will be least eligible to compete to marry scarce prospective wives. The high demand for wives is also fueling the trafficking of women and girls into a bride market and increasing harassment and violence against women and girls.[12]

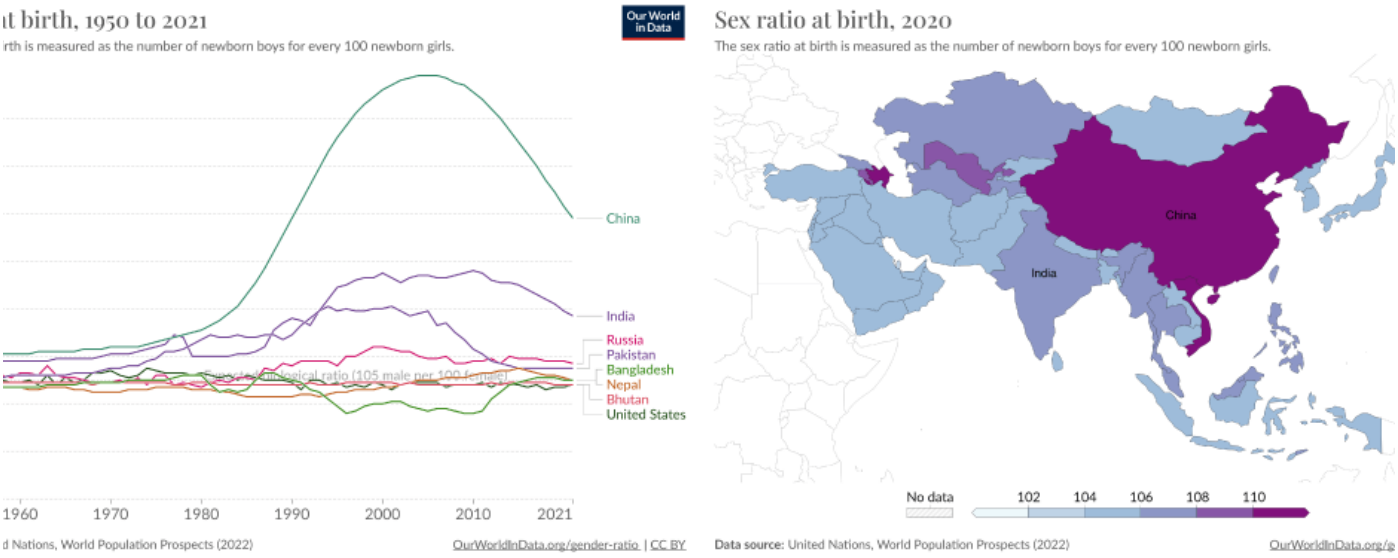


Figure 7.4.5: China and India have among the most imbalanced sex-ratios in the world. Cultural preferences for a son and pressures for smaller families through governmental policy and narrative have been contributing factors for sex-selective abortions in both countries. While sex-ratio figures indicate the sex ratio imbalances at birth are beginning to improve, the large population of males without prospect for a bride generate societal problems (CC BY; Our World in Data).

---

[1] https://www.econlib.org/library/Malthus/malPlong.html?chapter_num=47#book-reader

[2] https://www.theguardian.com/world/2019/mar/29/winston-churchill-policies-contributed-to-1943-bengal-famine-study

[3] Inglorious Empire. pp

[4] https://ourworldindata.org/famines#does-population-growth-cause-famine

[5] https://ourworldindata.org/famines#within-countries

[6] Eliazer Nelson, A. R. L., Ravichandran, K., & Antony, U. (2019). The impact of the Green Revolution on indigenous crops of India. *Journal of Ethnic Foods*, 6(1), 1-10.

[7] Chandrashekhar, V. (Dec 12, 2019). Why India is making progress in slowing its population growth. *Yale Environment 360*.

[8] Chandrashekhar, V. (Dec 12, 2019). Why India is making progress in slowing its population growth. *Yale Environment 360*.

[9] https://www.reuters.com/article/us-india-women-sterilisation/indian-activists-welcome-top-court-ban-on-sterilization-camps-after-womens-deaths-idUSKCN11M1YT

[10] Pew Research Center. (Aug 2022). India's Sex Ratio at Birth to Normalize.

[11] Pew Research Center. (Aug 2022). India's Sex Ratio at Birth to Normalize.

[12] Denyer, S. and Gowen, A. (April 18, 20218). Too Many Men. *Washington Post*.

Attributions:

"The Demographic Transition Model" is from Roser, M. (2023) - Demographic transition: Why is rapid population growth a temporary phenomenon? Published online at OurWorldInData.org.

This page titled 7.4: Population, Malthusians, and Critics is shared under a license and was authored, remixed, and/or curated by LibreTexts.

8: EAST AND SOUTHEAST ASIA

Re-framing East and Southeast Asia

In grouping East and Southeast Asia together as a collective for this chapter, the region will illustrate similarities that connect the region and highlight the importance in distinguishing the many defining attributes of both that makeup the vast region. China is the glaring superpower nation within the collective realm, serving as a somewhat nucleus for geopolitical, economic, and military strategic planning of east and southeast Asia. Part of China's rise out of the Maoist era in the late 1970s was the further development of conformists' communist rule that merge with western capitalism practices. With China's current leader Xi Jianping amassing an indefinite reign, the nation is seemingly poised to continuing become a major force of global influence that is aiming to replace western society's imprint upon the global stage. Past western stereotypes of the nation being stagnate and a somewhat recent past history of being oppressed by Japan, is not a distant memory as the nation continue to expand exponentially in various modes of development. China's continued growth and influence out of the 2020 pandemic has been contested by western theorists and intelligence communities as a somewhat facade, but its interests within neighboring Asia, Europe, Africa, and Central/South America continue to deepen. With China's expanding influence over the region, how will the stability of buffer zone and regional neighbors of the Korean Peninsula, Taiwan, Japan, and Mongolia be impacted? This is also with considerations to the smaller nations respective development, historical context, and ambitions. Mongolia is has a renown history tied to conquests with influences and roots stretching as far as Europe and extending farther over into the Americas. The tensions within the Korea Peninsula continue to be instigated by outside forces and China's exertion upon Taiwan to be "officially" annexed is growing with momentum. Also, will Japan be able to continue sustaining it's economy and a livelihood as a stand alone in the region with no formidable allies?

Is it fair to categorize southeast Asia as a mere subregion with no context as it relates to grander understandings of what is known as Asia? Definitely not! Many outer perceptions tend to view the region as a tourist's haven with some of the world's lowest cost of living standards for indulgence or exploitation. Tropical beaches, islands, coastlines, dense jungles, hills, seas, religious temples, street food markets, proximity to other inter-regional areas, fluid and flexible processes for visa requirements all aid the lure to the region. Although, the underbelly of southeast Asian urban lifestyle as it relates to industries, services, development, and illicit sectors are also key components of the region's identity. Despite the duality of perception versus the reality of regional livelihood that exists, the area has a rich history development that continues to strongly influence the region's stability. The people of southeast Asia continue to maintain cultural resilience as well, despite the different eras of conquests and natural occurrences that impact the area.

The collective of Asia continues to evolve, rapidly develop, and endure turmoil throughout various regions within Asia despite outer perceptions and societal assumptions. In current times, the ASEAN collective is potentially emerging as an economic force and center for natural resources refinement hyper-productivity. Migration trends throughout the region from outer-realm foreigners continues to fluctuate as interests in subregion is growing. A future of affluence sustained uneven development, environmental atrocities, catastrophic atmospheric occurrences, and modern appeal could be in the making of a distinguished complex ASEAN. Despite east Asia having a longstanding imprint of "modernity" compared to southeast Asia, high urban population density, ongoing development, modes of turmoil and prosperity may be within the grasp of East Asia's immediate future as the subregions aims to elevate regional livelihood. In this chapter, it is a primary goal for the authors to highlight and distinguish the region of Southeast Asia as its own evolving realm. Southeast Asia cannot be generalized under the "Asia" umbrella without appropriate context and comprehensive insight to the dynamics that continue to shape its landscape.

The World Geographies Atlas: Navigate each world region through maps

For each of the world regions, our original atlas provides detailed maps to help you navigate the places discussed in this book. These maps are meant to be explored before and during the reading of this chapter. These maps are best enjoyed enlarged. Click on each map for an enlarged view, and zoom in to see the prominent biomes, physical features, and population centers of East and Southeast Asia. We recommend that you download these for reference as you read this chapter's content and hope that you enjoy this original compilation.

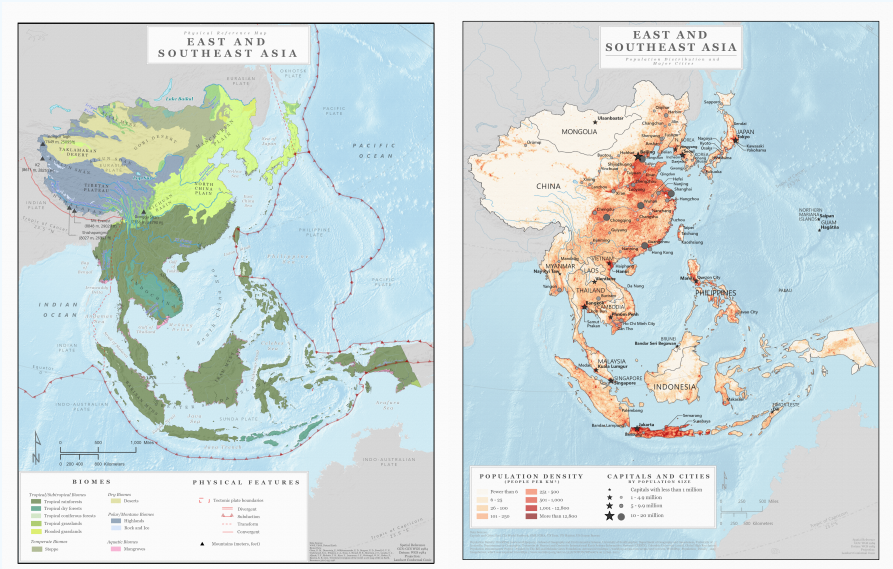


Figure \(\PageIndex{3}\): [left] This map shows the geographic distribution of biomes and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries in East and Southeast Asia (CC BY-NC-SA; Wallace via Flickr). [right] This map depicts internationally recognized countries, capitals, major cities, and population distributions of Southwest Asia and North Africa. Note that population distributions are most dense along the shores water bodies (CC BY-NC-SA; Sellers via Flickr).

- Chapter Topic Sections & Summaries

8.1: Natural Environments
8.2: Indigenous Worlds- Migration and Ancient Civilizations
8.3: Cultural Hearths, Diversity and Resilience
8.4: Paradigm Shifts, Industries, Governance, Imperialism
8.5: Tourism, the Informal Sector, and "Dependency"

This page titled 8: East and Southeast Asia is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Jason Scott.

8.1: Natural Environments

Learning Objectives

- Describe east and southeast Asia's latitudinal situation and how it shapes its major biome regions.
- Explain the mechanisms of east Asia's vast landscape and how it varies.
- Identify the significance of the major river basins and political borders of east and southeast Asia.
- Explain the tectonic dynamics as it relates to the Ring of Fire and associated tsunamis.

East and Southeast Asia's Physical Barriers

The region of East and Southeast Asia are divided from the rest of Asia by a number of formidable physical barriers. In the north, Mongolia's Altay Mountains, the Mongolian Plateau, and the Gobi Desert separate the region from Russia. In the south, the Himalaya Mountains divide China from South Asia and contain the world's highest mountain, Mount Everest. These mountains are so high, in fact, that they form the Gobi Desert by preventing rainfall from passing over South Asia into Central Asia. In the southeast, the Arkan Mountains and Naga Hills, which stretch across Myanmar and India, and the rolling hills of China's Yunnan Plateau separate Southeast Asia from the rest of the continent. In general, this is a realm of relatively high relief, meaning there are significant changes in elevation on the landscape. Even the islands of this region have a rugged topography, from Japan's Mount Fuji to Indonesia's Mount Carstensz.

The rivers of this region have supported both ancient cultures and modern societies providing irrigation for agriculture, river transportation, and in some cases, hydropower. Asia's longest river, the Yangtze, flows through central China; the economic activity surrounding its river valley generates around one-fifth of the entire country's gross domestic product (GDP). In 2003, the Chinese government built the Three Gorges Dam, the world's largest hydroelectric power station, which spans the river. China's other major river, the Huang He River, also known as the Yellow River, flows through the highlands of Western China before discharging in Northeastern China. It was on the banks of the Huang He that Chinese civilization first began. In Southeast Asia, the region is dominated by the **Mekong** and **Irrawaddy Rivers**. The Mekong River, one of the most biodiverse rivers in the world, has been heavily dammed, impacting the area's ecology, and plans are underway to dam the Irrawaddy in several places. In addition, both the Mekong and the Irrawaddy originate in China, presenting issues over river flow and ownership. The Mekong River's significance to human development within the region is so significant that six countries share a border with the streams like China, Lao, Thailand, Myanmar, Vietnam, and Cambodia.

East Asia's Vast Landscape

East Asia is surrounded by a series of mountain ranges in the west, Mongolia, and Russia in the north, and Southeast Asia to the south. The Himalayas border Tibet and Nepal; the **Karakoram Ranges**, **Pamirs**, and the **Tian Shan Mountains** shadow Central Asia; and the Altay Mountains are next to Russia. The **Himalayan Mountains** are among the world's highest mountain ranges, and Mt. Everest is the planet's tallest peak. These high ranges create a rain shadow effect, generating the dry arid conditions of type B climates that dominate western China. The desert conditions of western China give rise to a sizeable uninhabitable region in its center. Melting snow from the high elevation feeds many of the streams that transition into the major rivers that flow toward the east.

Created by tectonic plate action, the many mountain ranges are also home to earthquakes and tremors that are devastating to human livelihood. The Indian tectonic plate is still pushing northward into the Eurasian plate, forcing the Himalayan ranges upward. With an average elevation of fifteen thousand feet, the Tibetan Plateau is the largest plateau region of the world. It has high elevations and type H climates. The plateau is sparsely populated, and the only places with human habitation are the river valleys. Lhasa is the largest city of the sparsely populated region. Sometimes called "the Roof of the World," the Tibetan Plateau is a land of superlatives. The small amount of precipitation that occurs often comes in the form of hailstorms mixed with wind. Its landscape is generally rocky and barren.

Gobi Desert in the Western Periphery of China

The vast arid regions of western China extend into the **Gobi Desert** between Mongolia and China. Colder type D climates dominate the Mongolian steppe and northern China. The eastern coast of the Asian continent is home to islands and peninsulas, which include Taiwan and the countries of Japan and North and South Korea. North Korea's type D climates are similar to the northern tier of the United States, comparable to North Dakota. Taiwan is farther south, producing a warmer tropical type A climate. The mountainous islands of Japan have been formed because of tectonic plates and are prone to earthquakes. Since water moderates temperature, the coastal areas of East Asia have more moderate temperatures than the interior ones. A type C climate is dominant in Japan, but the north has a colder type D climate. The densely populated fertile river valleys of central and southeastern China are matched by contrasting economic conditions. Fertile alluvial soils and moderate temperatures create excellent farmland that provides enormous food production to fuel an ever-growing population.

Biomes of East and Southeast Asia

The biome setting of the collective region is vast with great diversity, provided that east and southeast Asia's landscape extends from just south of the North Pole to the equator, and well into the Southern Hemisphere. Biodiversity, climate, and a complexity of landforms illustrate distinctive attributes that makeup the physical identity and greatly influence the habitable identity of the region. Although, there are vast river streams, plate boundaries, ocean currents, and vegetation similarities that connect the region throughout most parts.

Tropical Biomes: Rainforests, Savannas, and Monsoons of Southeast Asia

Most of the southeast Asian countries are located between the tropics with northern Myanmar (Burma) being the only nation with a border extending up to 28°N into the subtropics. Although, the island nations of Indonesia, Singapore, and Malaysia are positioned within island zones that are closer to the equator. The positioning of the listed nations in proximity to the equatorial region of Southeast Asia is where a Wet Tropical Rainforest (Af) climate is present. The region's climate indicates that there is very minimal seasonality, with year-round rainfall, warmth, humidity, and high constant heat insulation. Nations like Thailand, Myanmar, Vietnam, and Cambodia are located within continental zones that are closer to the periphery of the tropical climate zones north and south of the equator. The listed continental nations tend to experience a combination of climate factors that consists of tropical savannas, rainforests, and monsoons within their established border regions. The presence of a larger tropical savanna climate is most dominant across the continental region where seasonality is most commonly present between wet summer and dry winter season spell periods.

The northern continental winds and southern warmer winds interact in a manner that creates differential heating, thus inducing the development of reversal seasonal monsoonal winds. The Intertropical Convergence Zone (ITCZ) is a significant factor of influence upon precipitation patterns within the region as low pressure and high pressure meet in a common space of uplifting and downshifting air movement. Variations in pressure systems intensifies convection, which results in precipitation throughout as the transfer of latent heat moves from the lower to higher regional latitudes.[1] Throughout the region in entirety, temperature ranges between 77°-95°F annually between equatorial tropics and the tropical savannas periphery regions.

A perception of Southeast Asia being a tropical haven is partly supported by 15% of the world's remaining tropical forests reside within the region. A common landscape feature of the region is the variation in jungle tree cover that often begins at the lowland coastlines and extends across the densely covered highlands of both the region's continental and island areas. The tropical setting and dense jungle cover of the region is a distinguishable attribute of the region from nearby China that is filled with subtropical plains as a defining landscape feature. The region's lush and fertile vegetation is a primary reason for strong agrarian-based societies that have maintained a great presence in the region. High humidity, changing elevations, and rich vegetation is a defining characteristic of the region's identity and greater landform makeup. Maritime trading in proximity to the region's landscape between the larger nations of India and China are also components emphasize Southeast Asia's uniqueness.[2]



Figure 8.1.1: This picture illustrates the lush tropical vegetation of Sungai Palum Tambun Rainforest Sabah, in Borneo, Malaysia (CC BY 2.0; Levy via Wikimedia Commons).

Mid-Latitude and Temperate Biomes of East Asia

Most of China's population lives in its eastern region, called **China Proper**, with type C climates, freshwater, and good soils. China Proper has dense population clusters that correspond to the areas of type C climate that extend south from Shanghai to Hong Kong. Around the world, most humans have gravitated toward type C climates. These climates have produced fertile agricultural lands that provide an abundance of food for the enormous Chinese population. To the south, the temperatures are warmer, with hot and humid summers and dry, warm winters. The climates of China Proper are conducive for human habitation, which has transformed the region into a highly populated human community. The **North China Plain** at the mouth of the **Yellow River** (Huang He River) has productive farmland and is the most densely populated region in China.

Northwest of Beijing is **Inner Mongolia** and the Gobi Desert, a desert that extends into the independent country of Mongolia. Arid type B climates dominate the region to the southern half of Mongolia. The northern half of Mongolia is colder with continental type D climates. In the higher elevations of the highlands in western Mongolia, there is a section of type H highland climates. Its climate and location identify Mongolia as a landlocked country in the northern latitudes with a low level of precipitation. The areas of type D climate that extend north from Beijing through Northeast China at times receive more precipitation than northern Mongolia. Northeast China features China's vast forests and excellent agricultural land. Many of China's abundant natural mineral resources are found in this area. Balancing mineral extraction with the preservation of agricultural land and timber resources is a perennial issue.

Lying north of the Great Wall and encompassing the autonomous region of Inner Mongolia is the vast Mongolian steppe, which includes broad flat grasslands that extend north into the highlands. North China includes the Yellow River basin as well as the municipalities of Beijing and Tianjin. Areas around parts of the Yellow River are superb agricultural lands, including vast areas of loess that have been terraced for cultivation. Loess is extremely fine silt or windblown soil that is yellow in this region. Deciduous forests continue to exist in this region, despite aggressive clearcutting for agricultural purposes. The Great Wall of China rests atop hills in this region.

Most of western China is arid, with a type B climate. Western China has large regions like the **Takla Makan Desert** that are uninhabited and inhospitable because of hot summers and long cold winters exacerbated by the cold winds sweeping down from the north. In a local Uyghur language, the name Takla Makan means, "*You will go in, but you will not go out*." To the far west are the high mountains bordering Central Asia that restrict travel and trade with the rest of the continent. Northwestern China is a mountainous region featuring glaciers, deserts, and basins.

The central portion of China Proper is subtropical. This vast region includes the southern portion of the **Yangtze River** (Chang Jiang River) and the cities of **Shanghai** and **Chongqing**. Alluvial processes give this area prime agricultural land. Its climate is warm and humid in the summers with mild winters; monsoons create distinct summer rainy seasons. Tropical China lies in the extreme south and includes **Hainan Island** and the small islands that neighbor it. Annual temperatures are higher here than in

the subtropical region, and rainfall amounts brought by the summer monsoons are at times very substantial. Low mountains and hills characterize this area.

Southeast Asia's Rivers, Borders, and Deltas

The rivers streams, water bodies, and political borders that makeup southeast Asia have an interesting history regarding its collective importance to human settlement and developmental identity. The water bodies within southeast Asia have been and continue to be a primary factor for resource accessibility, land dispute, and historical significance for human settlement. Despite human dynamics associated with the region's waterbodies, biodiversity thrives and the natural processes that continue to shape the landscape remain highly active.

River Streams

There are three significant rivers of the region that illustrate stories for marine life, ecosystems, and human inhabitants. The Mekong, Red, and Irrawaddy, are longest river streams within the region. All three rivers are located on the mainland and have their headwaters in the high elevations of Himalayan ranges of China. The Mekong River makes its way from the high Himalayas in China and helps form the political borders of Laos and Thailand on its way through Cambodia to Vietnam where it creates a giant delta near Ho Chi Minh City (Saigon). The **Red River** flows out of China and through Hanoi to the Red River delta on the Gulf of Tonkin. The Irrawaddy River flows through the length of Burma providing for the core area of the country. Another major river of the mainland is the Chao Phraya of Thailand. With its many tributaries, the Chao Phraya creates a favorable core area that is home to the largest population of the country. Many other rivers can be found on both the mainland and the insular region. The rivers transport water and sediments from the interior to the coasts, often creating large deltas with rich soils that are major agricultural areas. Multiple crops of rice and food products can be grown in the fertile river valleys and deltas. The agricultural abundance is needed to support the ever-increasing populations of the region.

Borders and Deltas

Various countries within the region have the appearance of complex asymmetrically shaped political borders by comparison to outer region nations. Regions like Africa, western Europe, North America, and South America have various nations with more evenly shaped square or rectangular political borders. The history of conquest and settlement have played a significant role in shaping the region for human inhabitants, but the region’s three primary river streams illustrate a unique design of national bordering. In reference to the continental area of Southeast Asia, the Mekong River partially forms and connects the borders of Laos, Thailand, Cambodia, Myanmar, and Vietnam. The Mekong River **meanders** in a winding and contorting direction from the Chinese Himalayas throughout Southeast Asia with several tributaries before letting out into the South China Sea. Regional rivers transport sediments from the continental interior to the coasts where vast deltas are formed and enrich soil fertility for agricultural purposes.



Figure 8.1.2: [left] This picture illustrates the importance of the Mekong River for fishing communities with two people on a fishing boat. The tropical environment of the region can be the lush vegetation in the background (Public Domain; Schoch via Wikimedia Commons). *[right]* The Mekong River starts at the base of the Himalayas and meanders south to discharge into the Sea of China. Vietnam, Laos, Myanmar, Thailand, and Cambodia have their borders defined by the river (CC BY SA 4.0; Shannon via Wikimedia Commons*)*.

River Basins of China

Two major river systems provide fresh water to the vast agricultural regions of the central part of China Proper. The Yellow River (Huang He River) is named after the light-colored silt that washes into the river. It flows from the Tibetan highlands through the North China Plain into the Yellow Sea. Dams, canals, and irrigation projects along the river provide water for extensive agricultural operations. While wheat, sorghum, corn, and soybeans are common with vegetables, fruit, and tobacco grown in smaller plots. The North China Plain must grow enough food to feed its one thousand people per square mile average density. This plain does not usually produce a food surplus because of the high demand from the large population of the region. Beijing borders the North China Plain. Its nearest port, **Tianjin**, continues to expand and grow, creating an economic center of industrial activity that relies on the peripheral regions for food and raw materials. Cotton is an example of a key industrial crop grown here.

The Yangtze River (Chang Jiang River) flows out of the Tibetan Plateau through the Sichuan Province, through the Three Gorges region and its lower basin into the East China Sea. Agricultural production along the river includes extensive rice and wheat farming. Large cities are often located along this river, including Wuhan and **Chongqing**. **Nanjing** and Shanghai are situated near the delta on the coast. Shanghai is the largest city in China and is a growing metropolis. The **Three Gorges Dam** of the Yangtze River is the world's largest dam. It produces a large percentage of electricity for central China. Oceangoing ships can travel up the Yangtze to **Wuhan** and, utilizing locks in the Three Gorges Dam, these cargo vessels can travel all the way upriver to Chongqing. The Yangtze River is a valuable and vital transportation corridor for transporting goods between periphery and core and between the different urban centers of activity. Sichuan is among the top five provinces in China in terms of population and is dependent on the Yangtze River system to provide for its needs and connect it with the rest of China.

Northeast China was formerly known as Manchuria, named after the Manchu ethnic group, which had dominated the region in Chinese history. Two river basins create a favorable industrial climate for economic activity. The lower **Liao River Basin** and the **Songhua River Basin** cut through Northeast China, along the cities of **Harbin** and **Shenyang** to be located there. This region is known as the **Northeast China Plain**. It has extensive farming activities located next to an industrial landscape of smokestacks, factories, and warehouses. Considerable mineral wealth and iron ore deposits in the region have augmented the industrial activities and have created severe environmental concerns because of excessive air and water pollution. In its zenith in the 1970s, this was China's leading steel production area, but the region is being reduced to a rustbelt since many of China's manufacturing centers are now being developed in the southern regions of China Proper.

Plate Tectonics and Natural Hazards

The vast natural distribution of regional island nations and connecting continental nations share a commonality beyond

climatology and simple proximity. Majority of the region's natural landscape is positioned within areas of high tectonic activity along the western portion of the total 24,900 miles stretching **Pacific Ring of Fire**. In total, the Ring of Fire is known to be responsible for approximately 90% of global earthquakes. The ongoing and frequent tectonic collision of landscapes presents a region of instability regarding natural hazards. According to the United States Geological Survey (USGS) earthquake database, within the last 50 years Southeast Asia has experienced over 13,426 earthquakes with an intensity between 4.1-6.0 magnitude. Another component of tectonic activity within the region is volcanic eruptions that also play a significant role in shaping the region's landscape. In 1991, Mt. Pinatubo erupted, spewing ash and smoke into the atmosphere causing a noticeable disruption in short-term global climate. The occurrence of earthquakes along the Ring of the Fire creates the development for the not so anomaly of advancing tsunamis ocean waves that can reach 100 feet in height. The high prevalence of earthquake occurrences upon the region's landform areas and its inhabitants, as it relates to the proximity of the Ring of Fire, continues to showcase a region of random instability.

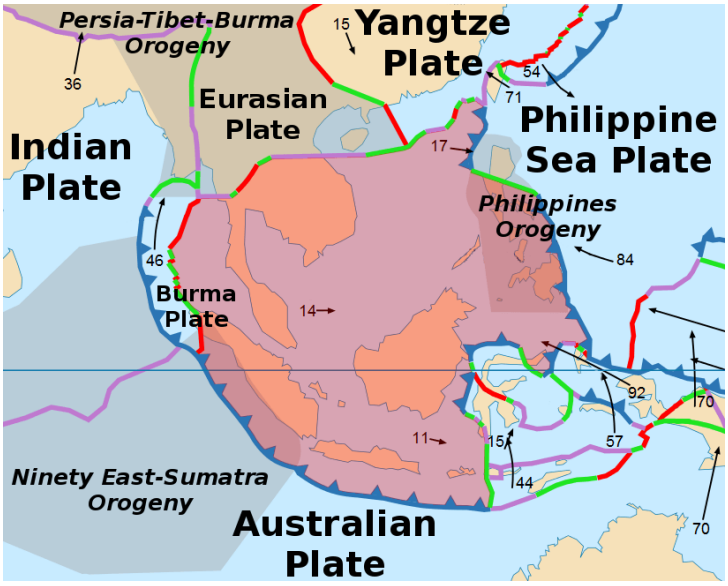


Figure 8.1.3: This map illustrates the complex dynamics of plate tectonics in Southeast Asia. The region is part of a larger Ring of Fire, where a subduction zone encompasses shorelines along the Pacific Ocean. This highly active tectonic region is prone to destructive volcanic eruptions, earthquakes, and tsunamis (CC BY-SA 4.0; Alataristarion via Wikimedia Commons).

Volcanic Eruptions

Volcanic activity is prevalent throughout the region, especially as it pertains to islandic area of southeast Asia that is positioned within the Pacific Ring of Fire. The Ring of Fire is where the highest number of active volcanoes are located, which also coincides with the inhabited landmasses of islandic southeast Asia. In 1815, Indonesia's Mount Tambora volcano erupted and caused global temperatures to cool significantly, which resulted in crop failure that extended as far as the Mediterranean. In 1883, the volcanic island of Krakatoa, located between the Indonesian islands of Java and Sumatra, erupted violently to the point of the volcano collapsing. The devastation of this volcanic event led to the death of over tens of thousands of nearby human inhabitants. The sound of the volcano's eruption is still considered the loudest sound in modern history that can be heard over 3,000 miles away. The intensity of volcanic occurrences in the region have historically caused mass destruction upon inhabited spaces, in addition to having an impact upon global natural processes.

Tsunamis

With a variation of natural hazards that can take place at any time from the root of tectonic activity, the subsequent occurrence of tsunamis can with little to no warning of advancing. **Tsunamis** tend to occur because of ocean floor earthquakes as the seafloor crust thrusts upward upon a seismic event. Thus, generating power and intensity upon ocean wave movement before eventually crashing regional shorelines causing devastation. Due to the high prevalence of seismic activity within the collective region, tsunami devastation is a highlighted attribute of Southeast Asia's landscape. Historical occurrences of tsunamis within the region have proven to produce a somewhat usual "expected" occurrence of destruction that aids the instability of Southeast Asia's habitable landscape. In 2004, a powerful undersea earthquake occurred off the coast of Sumatra with a magnitude of 9.1. The earthquake ruptured a 900-mile stretch fault line where the Indian and Australian plates meet as the occurrence caused the

ocean floor to rise as much as 40 meters. The rise of the ocean floor suddenly triggered a massive tsunami that generated several 100-foot waves that crashed the shoreline of Banda Aceh within 20 minutes of the initial quake. The tsunami killed more than 100,000 people in the Banda Aceh area and 230,000 people in total including inhabitants of nearby Thailand, India, Sri Lanka, and reaching as far as the coast of South Africa.[3]



Figure 8.1.4: This picture illustrates the devastation of the 2005 tsunami in Bahasa, Indonesia. Tsunamis are a persistent threat in the region along the Sunda trench, a subduction zone bracketing the islands of Indonesia (Public Domain; McDaniel via Wikimedia Commons).

Natural Disaster Readiness

Since the 2004 Indian Ocean earthquake and tsunami occurrence, regional governments, the United Nations, and groups established the office of Disaster Risk Reduction and Preparedness (UNISDR) to mitigate future disaster occurrences. Three weeks after the 9.0 quake struck, 168 representatives of various nations agreed to cooperate in disaster readiness with the Hyogo Framework for Action. The plan laid a foundation for ocean floor earthquake sensors to be installed to trigger early warning detection so that trained local communities can evacuate upon disaster. With much attention in recent years gained from the destruction caused by tsunamis and subsequently implemented readiness investment, is volcano eruption readiness up to equal par? Attention to volcano eruption readiness has trailed behind tsunami preparedness plans noticeably in the region until 2018. The Anak Krakatau volcano eruption in the Sunda Strait caused undersea landslides that triggered a tsunami that struck the coastlines of Sumatra and Java killing over 400 people. Since the 2018 Anak Krakatau occurrence, the Indonesian government has been working on plans like the Volcanic Eruption Emergency Plan of Action (EPoA) to add adequate volcano censoring warning systems to better manage eruption occurrences.[4]

Deforestation

Due to the unfortunate ongoing occurrence of climate change in the age of Anthropocene, the region has become a major global deforestation hotspot. The region's deforestation rate is on par and comparable to the deforestation rate of similar tropical regions like that of Latin America and Central Africa.[5] On a grander scale since 1990 until 2019, over 420 million hectares of global forest have been lost due to human activity. Between 1990 and 2010, the region has loss 1.6 million hectares of forest cover, reducing its forest size from 268 million hectares to 236 million hectares in the given timeframe.[6] At the current rate of deforestation, it is feared that Southeast Asia will lose over 40% of its biodiversity as the region's forests dwindle by 1.2% annually.

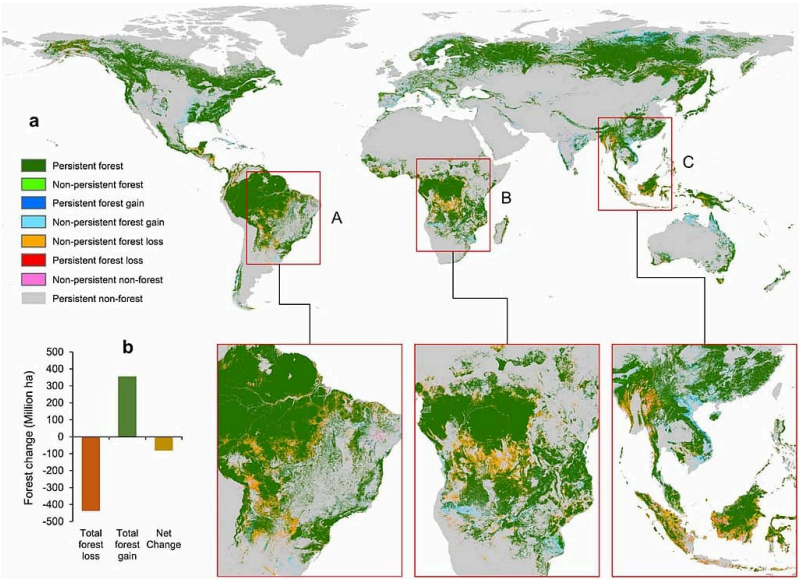


Figure 8.1.5: Tropical rainforests are important biodiversity reservoirs and carbon sinks. This map series illustrates the net forest loss of the three largest tropical rainforests on Earth: the Amazon, Congo Basin, and Southeast Asia rainforests. Deforestation is largely attributed to commodity export-driven agriculture in the Amazon and Southeast Asia and to mining and small-scale logging in the Congo Basin (CC-BY-4.0; Estoque *et al* via Wikimedia Commons).

Deforestation in the region is not a random occurrence, there are several economically influenced factors for ongoing deforestation. Palm oil production and its quadrupling land use cover since 1980 in keeping pace with global demand continues to aid the deforestation phenomena, as 72 million tons was produced in 2018. Palm oil has high utility in food ingredients, cleaning, and detergent products. Over 84% of global palm oil production occurs in Indonesia and Malaysia, accounting for 57% and 27% of both nation's deforestation. Logging and cropping play another key role in regional ongoing deforestation as illegal logging of timber and its exportation continues to plague Indonesia's landscape. The widespread over-practice of **slash-and-burn**, an ancient Indigenous Americas forest burning technique for cultivation primarily in Borneo, is degrading forests opposed to clearing with settling ash nutrients. A dependent variable in the dynamic of deforestation is the subsequent loss of biodiversity. The loss of regional species is apparent with fewer than 400 Sumatran tigers remaining in the world. Orangutans of the region have resorted to eating tree bark with fruit trees continuing to decrease. At the 2021 UN Climate Change Conference (COP26), over 100 countries that include Indonesia took a pledge to stop and reverse deforestation by the year 2030. Best case scenario, by the COP26 agreement and various governmental efforts suggest that 19.6 million hectares of forests can be recovered by 2050. Worst case scenario, continued deforestation actions and especially that of illegal logging continues, 5.2 million more hectares of forests may be lost by 2050.[6]

References:

[1]. Gupta, A. 2005. The Physical Geography of Southeast Asia Oxford. Oxford Academic.

[2]. Stibig, et al. Change in tropical forest cover of Southeast Asia from 1990 to 2010. Biogeosciences.

[3]. Reid, K. 2020. 2004 Indian Ocean earthquake and tsunami. World Vision.

[4]. Sodhi, et al. 2009. The state and Conservation of Southeast Asian Biodiversity. SpringerLink.

[5]. Lai, O. 2022. Deforestation in Southeast Asia. Earth.org.

[6]. Stibig, et al. Change in tropical forest cover of Southeast Asia from 1990 to 2010. *Biogeosciences* 11, 247–258 (2014).

Attributions:

“East and Southeast Asia's Physical Barriers” is adapted from East and Southeast Asia by Caitlin Finlayson, CC BY-NC-SA 4.0.

"East Asia's Vast Landscape" is adapted from East Asia's Physical Geography of the Region by R. Adam Dastrup, CC BY-NC-SA 4.0.

"Major Biomes of East Asia" is adapted from East Asia's Physical Geography of the Region by R. Adam Dastrup, CC BY-NC-SA 4.0.

"River Basins of China" is adapted from East Asia's Physical Geography of the Region by R. Adam Dastrup, CC BY-NC-SA 4.0.

“Tsunamis” is adapted from East and Southeast Asia by Caitlin Finlayson, CC BY-NC-SA 4.0.

“River Streams” is adapted from Southeast Asia by the University of Minnesota, CC BY-NC-SA 4.0.

This page titled 8.1: Natural Environments is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Jason Scott.

8.2: Indigenous Worlds- Migration and Ancient Civilizations

Learning Objectives

- Identify the earliest migration trends of regional human inhabitants and development over time
- Explain how indigenous culture created a foundation for regional identity
- Describe the rise and fall of ancient civilizations as it relates to trade, conquest, development, and migration
- Explain the impact of colonialism upon the region and its continued impact

East and Southeast Asia Uniformed or Distinguished?

Could it be that society outside of Asia tend to have a collective understanding that Asia is one large synonymous cultural and physical region? Despite the overwhelming reality of diversity and societal complexity stemming from Asia's massive landscape, feudal perceptions still remain evident in an evolving world that continues to have influences of a lazy desire for bias categorization. Meanwhile, many people within various aspects of Asian society, seemingly appears to have some understanding of how some non-Asians perceive the Asian population and landscape without factual context. One of the most differentiating components of understanding Asian roots and current society can be distinguished between east and southeast Asia. Historically and now, various connections between both regions that makeup over 30% of the world's population with over 2.5 billion inhabitants is apparent, but there are stark differences that make both sub-regions within the larger region, distinguished. Some examples of diversity and complexity include climate, religious practice, genetic makeup, and migration trends to name a few. A constant in understanding the realm is that despite perceptions, the region continues to move pace forward at an unmatched rate in which outer perceptions do not define the collective region.

Southeast Asian Migration and Inhabitance

Southeast Asia is a region with immense natural landform complexity. Some of the world's most unique endemic species, and a variation of tropical climate elements was a shared home to the Hoabinhian culture of modern-day Indonesia dating back to the timeframe of 13,000-4000 BCE. Although, the earliest fossil remains of Homo sapiens carbon date back in the region to approximately 40,000 years ago. **Hoabinhian** culture was believed to have earliest settlements and interactions with nearby inhabitants across the Makassar Strait. Between the narrow straight body of water is where indigenous communities from the islands of Borneo and Sulawesi Indonesia is where cultural exchange and inter-regional migration would occur. Evidence of ancient stone tools that shared similarities in design and crafting, were found throughout various regions of modern day Indonesia during the Hoabinhian era. Due to the combination of climate factors and geophysical regional dynamics, Southeast Asia's cultural settlements did not develop uniformly. As the human adaptation to the environment continued throughout both the island and mainland areas in ancient times, the mastery of subsistence agrarianism stabilized the existence of numerous tribal communities with practices that currently exist in the 21st century. Labor intensive and highly skilled trades in bronze molding and rice cultivation were being practiced by the 3rd century BCE in Thailand and Vietnam. Original technology in constructing sailing vessels along with navigational skills were in widespread use amongst the indigenous people of the area during the same timeframe. Settlement, migration, development, and cultural connections through seafaring practices of the time made it possible for the widespread of the Austronesian Languages to occur within the last 5,000 years.[1] Migration from the west ensued, then inter-regional migration began to circulate more commonly as various early tribes established lasting roots within the region. As the region continues to evolve and work diligently toward economic stability, a common goal of future sovereignty, partnerships, and prosperity is on the horizon for the region. Creative efforts like the 21st century regional governmental collective (excluding Timor-Leste) known as the Association of Southeast Asian Nations (ASEAN), have set an ambitious goal to "bring together desperate neighbors to address economic and security issues" according to the Council on Foreign Relations.

The collective of 11 southeast Asian nations is a landscape that highlights a region of remarkable and distinguishable environmental attributes within a tropical setting. The subregion and the emergence of one's own distinctive geopolitical landmass is wedged between two "Goliath" like nations with India to the west and China to the east. Peninsulas and island nations like the 17,000 collective chain **archipelago** of Indonesia, Timor-Leste, Malaysia, 7,100 island chains of the Philippines, Singapore, and Brunei help makeup the region. Countries like Myanmar (Burma), Thailand, Laos, Vietnam, and Cambodia are positioned on the mainland Eurasian continent. The region in its entirety shares similarities in plant and animal species, in addition to having a warmer climate with historical development connections based in its tropical setting. Regional nations have

collective proximity to **maritime** seafaring industries, with the nearby or surrounding seas that has historically and continues to play a major role in the development of the region. The region in its entirety is surrounded by the Indian and Pacific Ocean, with an abundance of seas, bays, and straits that creates collective political borders of Southeast Asia. The Gulf of Thailand, South China Sea, Philippine Sea, and the Java Sea are a few of several water bodies that aid the natural development of the region's landscape while also continuing to influence regional human settlement.



8.2.1: This map shows the landmass of central Indonesia with the Makassar Strait at the center of the image. The Islands of Borneo and Sulawesi were areas originally settled by the Indigenous Hoabinhian culture between 13,000-4000 BCE (CC-BY-3.0; Roregan via Wikimedia Commons).

East Asian Migration and Inhabitance

In East Asia, evidence of modern humans can be found in the region dating back to over 80,000 years ago. Around 10,000 years ago, several cultural groups emerged in China during the Neolithic Period, also known as the New Stone Age. This was a time of key developments in early human technology, such as farming, the domestication of plants and animals, and the use of pottery. Along China's Yangtze River, humans first domesticated rice around 6500 BCE. Villages, walled cities, and great dynasties, or families of rulers, emerged later. Chinese dynasties dominated the political landscape for much of the region's history. They established trade routes, a strong military, and forged connections with Korea and Japan. China became a unified state under the **Han Dynasty**, which ruled from 206 BCE to 220 CE, and this long period of stability is viewed as a golden age in Chinese history. The dominant ethnic group in China, the Han, take their name from this ruling family. It was also during this time that Confucianism became the state religion. **Confucianism** takes its name from the influential Chinese philosopher and teacher Kong Fuzi (551-479 BCE), often referred to by the Latinized version of his name, Confucius. One of Confucius' key teachings was the importance of relationships, both within the family and within society as a whole and the religion emphasizes human goodness and self-reflection rather than the worship of a divine being. Confucius also emphasized education and his teachings have dominated Chinese culture for centuries. In general, the Chinese dynasties were largely isolationist. China has a number of physical barriers that separate it from the rest of Asia, such as the Himalayas, the rugged western highlands, and the Gobi Desert. The only region where it was vulnerable to invasion was its northeastern region. Here, the ruling families of China built a series of walls, known today as simply the Great Wall of China.

Mainland Southeast Asian Migration and Andamanese Negrito

It is believed that the earliest inhabitants of mainland southeast Asia arrived in the region around 60,000 years ago, originating from migration trails out of Africa moving eastward. Evidence to support the earliest migration claims for the region are based in DNA studies funded by the National 973 project of China, where DNA samples of over 5,000 males across 73 regional communities within the region indicate that the earliest human ancestry of the mainland area was an indigenous group known as the **Andamanese**. The highest concentration of genetic lineage for the Andamanese can be found in the Andaman Islands which is located between the Andaman Sea and the Bay of Bengal partial wedged between India, Myanmar, and Thailand. The migration

imprint of the region's "first" settlers has the oldest lineage tracing of the Andamanese in Tibet and as far away as Japan.[1] The Andamanese Negrito population currently are scattered throughout parts of southern India, the Andaman Islands, Malaysia, and the Philippines. The genetic lineage and cultural traits of the region's earliest settlers have been disappearing for centuries due to assimilation via mixing populations and due to the generational loss of land/resources.[2] Historical events related to the diminishing presence of the region's indigenous population's is an ongoing occurrences that can be observed throughout various indigenous communities globally. Although, the cultural practices and influences of the Andamanese have greatly contributed to the development of the region's collective of ethnic groups that inhabit southeast Asia currently.

Indigenous Migration in the Pacific: Taiwanese, Filipino Negrito and Polynesia

As migration continued eastward towards the periphery of the region, it was around 4,000 BCE when Taiwan began to become populated with inhabitants from the Asian mainland by crossing the Taiwan Strait by water vessels. Although, the earliest inhabitants of Taiwan may have arrived on the island more than 10,000 ago from southern China or Polynesia, based on DNA evidence and 21st century studies. Within the last 1,000 years, the **Hoklo** and **Hakka** people arrived in Taiwan from the Chinese provinces of Fujian and Guangdong. Currently, almost 2% of Taiwan's current population is considered to be indigenous and is recognized by the Taiwanese government as a part of 16 distinctive aboriginal tribes. The **Ami People** is the largest group of aboriginal Taiwanese, making up 40% of the remaining indigenous population. The Hoklo or commonly referred to as Fukien Taiwanese ethnic group, make up the majority of the nation's inhabitants at 65% of the population. Migration from Taiwan continued southward into the Philippines by 3,000 BCE and eastward throughout the vastness of the Pacific Ocean. Human migration throughout the Philippines has been widespread for several centuries aside from early Chinese and Taiwanese migration. The nation is an archipelago collective of over 7,000 islands with numerous ethnic groups that inhabited the region from various directions within the Asian mainland, Indian and Pacific Ocean. In present times, there are over 100 distinctive ethnic groups that are indigenous to the Philippines. The earliest inhabitants of the islands are a group of people known as the Negrito, that make up less than 1% of the current population. The term **Negrito** refers to a collective of ethnic groups that have dark skin and are of smaller stature as represented by the **Aeta, Ita, Agta People**. The term was given to the Indigenous population by 16th century colonial Spain and has remained a common term of identification for the Filipino public in reference to indigenous peoples. 10th century mixing of indigenous Negritos with Chinese migrants resulted in a group of mixed Filipino-Chinese descent people that make up a large portion of the nation's modern nation population. The Negrito population declined significantly during the 1600s upon Spanish colonialism in the area. The population continues to decline due to outsider encroachment, deforestation, loss of wildlife species, poverty, and disease as it is estimated that only 15,000 distinctively indigenous Negritos remain in the Philippines.

Considering the passing of generational settlement and development, migration onward to farther but evermore connecting regions like the Polynesian realm would become evident by 1,000 BCE. Voyages led by various ethnic groups from Taiwan and Indonesia reached as far as the Hawaiian Islands to the east and New Zealand to the south. Eventually the Malay people would reach the island of Madagascar between 500 and 700 ACE, despite pre-existing indigenous communities having already settled the island. The Malay people brought a variety of tropical fruits, languages, cultural customs, and distinctively core southeast Asian tools for development to the outer-periphery Pacific Ocean landmasses.[1] Ethnic groups like the Malay are one of many settlers that has contributed to the development of the region's cultural identity that extends beyond the periphery into the core mainland and islands southeast Asia.

Neighboring Influences: Chinese Conquest and India's Impact

With a mature settlement of various ethnic groups inhabiting the region, how did it come to past for China and India to leave its imprint on southeast Asian society that has carried on into current times? Around 2,000 years ago, present day China began to visit the region with larger groups with the intent for long-term settlement. During the early 100 BCE-200 CE brought the descendants of China's **Qin Dynasty** and the long reigning Han dynasty to southeast Asia. It is worth noting that descendants of the Han Dynasty make up of over 90% of China's current population as their impact upon region settlement became significant over the past two millenniums. Chinese migration extended over into northern Vietnam, Laos, and Cambodia early on before moving southward and westward more fluidly throughout the region. Prior to Chinese migration, southeast Asia had already established itself as an integral center for trade and communication that extended to the Red Sea and the western shores of the Pacific Ocean. The port establishments of the region connected outer-regions to exotic items and endemic spices that we exclusive to Indonesia. In the efforts of expanding China's empire, the Qin Dynasty led conquests throughout the region with motivations to take over Vietnamese ports before conquering other regional ports.[3] After the Qin Dynasty fell in just a 15 year spanning era, the Han Dynasty rose to power out of China and continued migration into Vietnam and maintained colonial rule over the area until Vietnam gained its independence in 939 CE. The Han ethnic group would go on to rapidly migrate throughout

the outer edges of the region in both the islands and mainland southeast Asia over the course of several centuries.

India's 3rd century onward trail through the region left behind a different legacy of settlement behavior than that of the mentioned ancient Chinese dynasties history in southeast Asia. There is no significant evidence available to suggest that conquests, colonization, or even any periods of extensive migration into the region had occurred from India compared to China. With India being a trade partner of the region and having some settlement roots, some customs carried over in writing systems, literature, social hierarchies, and religious customs deriving from the Indus and Ganges River valleys of India. Although, some values from India and China regarding the social views and practices of legal inferiority towards women were rejected throughout the region. A lasting India custom in the region that carried on into the 19th century was the establishment of **mandalas** by various groups of indigenous peoples. Mandalas in Sanskrit mean 'circle', which established territorial units of power in concentric circles organized upon the landscape. The construction of mandalas were the first form of semi-urbanized settlements within the region that allowed for a more organized state of rendering political authority and international trade. By the 6th century CE, a number of larger circular mandala states of kingdoms and empires emerged in areas like Cambodia, Myanmar, Sumatra, and Java.



Figure 8.2.2: [left] Map of the Han Dynasty's initial spread into southeast Asia's Vietnam in 30 BCE. (Public Domain; via Time Maps).



Figure 8.2.3: [right] Ancient southeast Asian concentric settlement circular patterns known as *mandala*s that derived from India. (CC-BY-SA-3.0; Gunkarta via Wikimedia Commons)

Ancient Civilizations

When looking at southeast Asia's current political boundaries, the mainland region that make up Myanmar, Thailand, Cambodia, Laos, and Vietnam appear to have a clustered and asymmetrical shape. The boundary formation of the region has divisions of water bodies like the renown Mekong River that connects all four nations, but the Mekong may not be the region's only connection. Given how the region of nations are established now, is there a relationship between the nations that can be explored and provide historical insight as to how they may be connected? The ancient kingdoms of Cambodia, Laos, Vietnam, Thailand, and Myanmar of the region's mainland highlights a history of ethnic clustering in a shared space along the southeast mainland area. Historical conflict over borders, southeast shifting terrain, and a will for regional newcomers to establish lasting roots over area's like the Thailand in the later years, all continue to play a major role in shaping the region's mainland identity. First, let's observe the history of some of the mainland region's earliest civilizations with that of ancient Cambodia. Ancient Cambodia provided a blueprint of lasting settlements along the Mekong River in the tropical southernmost area of the region prior to the incoming of future regional civilizations that would eventually reign throughout.

Ancient East Asia and Confucianism

In East Asia, the Chinese dynasties dominated the political landscape for much of the region's history. They established trade routes, a strong military, and forged connections with Korea and Japan. China became a unified state under the Han dynasty, which ruled from 206 BCE to 220 CE, and this long period of stability is viewed as a golden age in Chinese history. The dominant ethnic group in China, the Han, take their name from this ruling family. It was also during this time that Confucianism became the state religion. Confucianism takes its name from the influential Chinese philosopher and teacher Kong Fuzi (551-479 BCE), often referred to by the Latinized version of his name, Confucius. One of Confucius' key teachings was the importance of relationships, both within the family and within society as a whole and the religion emphasizes human goodness and self-reflection rather than the worship of a divine being. Confucius also emphasized education and his teachings have dominated Chinese culture for centuries. In general, the Chinese dynasties were largely isolationist. China has a number of physical barriers that separate it from the rest of Asia, such as the Himalayas, the rugged western highlands, and the Gobi Desert. The only region where it was vulnerable to invasion was its northeastern region. Here, the ruling families of China built a series of walls, known today as simply the Great Wall of China. However, the term "the" Great Wall of China is a misnomer. In fact, there is a series of overlapping walled fortifications that began being constructed by early dynasties in the 5th century BCE and continued through to the 17th century CE. Walls are a defensive military structure and are thus an expression of a civilization that wished to be left alone. Emperors generally disregarded China's extensive coastline, and where port cities did emerge, they were primarily used for local trade.

The Angkor Civilization (Khmer Empire) of Cambodia

During the 3rd millennium BCE, ancestors of the Angkor civilization migrated to Cambodia along the Mekong River before establishing their cultural center at Lake Tonle Sap around the timeframe of 1,000 BCE. Tonle Sap is currently located in the center of modern-day Cambodia and is the largest lake in the southeast mainland area. The significance of the lake regarding the Khmer Empire's reign and sustainability was of the utmost importance for regional transportation, agriculture, settlement, and marine life consumption. The enormous size of the lake along with local ingenuity influenced the creation of sophisticated irrigation systems that allowed the spread of civilization to reach far into the countryside away from the lake. The **Khmer Empire** reigned from 800-1300 CE which was the Angkor civilization's golden era before the eventual collapse of the society due to several components of internal strife, shifting governing philosophies, and external encroachment by neighboring groups. At the Khmer empire's peak, the practice of Hindu and predominantly Buddhism belief systems were prevalent throughout along with extensive trade connections to Rome, India, and China that lasted for several centuries. Cambodian society was fluid in operation as its citizens maintained the nations with various duties as religious nobles, artisans, fisherman, rice farmers, soldiers, and as elephant keepers in which elephants were used as protection by the military. Khmer cities would trade rare woods, elephant tusks, wax, gold, silver, silk, and spices with China for centuries prior to it's collapse. A prime jewel of religious history that remain intact in the Krong Siam Reap province is the **Angkor** (constructed 1110-1150) complex where Hindu temples that were later converted to Buddhists temples are located and still being preserved. The province of where the temples are located is in the of Krong Siem Reap, Cambodia. The temples within within the region are also known as a **wat**, have inscriptions that detailed a bartering system for ancient goods that date back to the earliest times of Khmer settlement in the region. The main attraction on the 72 wat complex is one of the world's largest outdoor religious structures known as **Angkor Wat**. The name of the Krong Siem Reap (translate to the defeat of Thai) province in Cambodia has stuck due to land disputes and Thailand's prior reign over the region within the last century. The end of the Angkor civilization came in the 14th century as a swift change in syncretic Hinduism and contemporary Buddhism practices got replaced by a more democratic and newly structured form of Buddhist practices.[4]

Angkor Wat: World's largest religious temple

The Angkor Wat (Temple City) Buddhist temple located in northern Cambodia, is the world's largest religious monument that is four times larger than the Vatican City in Europe. The monument was constructed in the 12th century originally as a Hindu temple dedicated to the Hindu god Vishnu. Spreading across over 400 acres of land, Khmer Emperor Suryavarman II is crediting with having the temple city built as it served as a political center for his empire. In the 1970s during the Khmer Rouge regime sparked a civil war in which the temple sustained noticeable but minimal damage. The temple is no longer active for traditional or political practices but serves as an important tourist attraction. The city of Siem Reap, where Angkor is located, has an inhabiting population of 200,000 people. In 1992, Angkor Wat was named a UNESCO World Heritage site and receives over 500,000 visitors every year. [5]



Figure 8.2.4: Aerial photo of Angkor Wat in Siem Reap, Cambodia constructed in the 12th century. (CC BY-NC-SA 2.0; Nick M. via Flickr).

Ancient Myanmar (Burma): Pyu and Mon Kingdoms

Burma which was renamed Myanmar in 1989, is the entry point to southeast Asia from the west as the nation borders India with Bangladesh and Sri Lanka in close proximity. Partly due to proximity and migration trends, for centuries Myanmar has been influenced by India culturally as it related to merchant shipping, trade, linguistics, and religious practices notably. Prior to 1989, the nation was officially known as Burma in which its name came from the predominate ethnic group of people known as the Burman.[6] The history of Burma's for first human settlers who arrived 11,000 years ago, gives insight to early developments that distinguish it from the nation's classic era that is more interconnected with South Asia. Between the 100 BCE and 800 ACE, the **Pyu People** established kingdoms in Myanmar at Binnaka, Mongamo, Shri Kshetra, and Halingyi. During the time of the Pyu, trade routes between China and India passed through the northern areas of the country across the Chindwin River valley. The Pyu had established sovereignty over 18 kingdoms throughout Myanmar, according to ancient Chinese written records of the area. Life throughout the Pyu states was vibrant as the men wore blue with gold head pieces. The women wore jewels in their hair and criminal behavior was treated with humane practice. Chinese records indicate that prisons did not exist in the area and criminals were disregarded without brutal intent. The **Mon People** and kingdom once occupied the area of western Thailand but now parts of the eastern delta region and south of Myanmar is their home where they have lived for over 1,200 years now. The Mon city of Thaton was conquered by the Burmans in 1057 and they were forced south. A lasting and notable attribute of the Mon that remains is that they are first the people in mainland southeast Asia to adopt Buddhism. By the 11th century, Myanmar had become the center of the Theravada Buddhist practice that adhered to the preserved teachings of Gautama.



Figure 8.2.5: [left] Map of Mon State and settlement on the eastern region of Myanmar CC BY 2.0; Dany via Flickr.



Figure 8.2.6: [right] Contemporary Mon girls in Mawlamyaing Myanmar. (CC-BY-4.0; Anagoria via Wikimedia Commons).

Thai Civilization Amongst the Mon and Khmer

As development to the west in Myanmar continued, development to the east in Cambodia continued as well and wedged Thailand into a pressured state of emergence. Around the time of 1,000 CE, the Tai people moved into mainland Southeast Asia where they came in contact with Mon and Khmer groups that were already settled in the land area of modern-day Thailand. As the Tai began to settle throughout different areas within the Mon-Khmer land areas, they adopted various practices of Indian culture that were observed with royal ceremonies, dance, and literature influences. By the 13th century, the Tai began to apply pressure onto both the Mon and Khmer empires for territorial expansion as the Kingdom of Sukhothai came into power by the mid-13th century. A local Tai ruler led a revolt against a Khmer outpost and established the upper Chao Phraya basin. Ramkhamhaeng came to power for the Tai towards the end of the 13th century and expanded the Sukhothai south to the Indian coast. Several generations of war, consolidation, and retreating of land with the Khmer would ensue all the way until the 20th century as the descendants of the Tai fought to maintain its current land area. Religious temples and settlement remain of Thailand's ancient culture are well preserved throughout the nation as millions of tourists visit country annually.

Ancient Vietnam: Phung-Nguyen, Dong Son and The Kingdom of Van Lang

A coastal land front with a direct neighboring southern border to China is where the nation of Vietnam can be found. The development of Vietnam's society and landscape highlights an important transition area into southeast Asia from the northeast and surrounding areas where cultures have converged. It is believed that the first Vietnamese people known as the **Phung-nguyen** settled the area sometime between 2000-1400 BCE with rice farming being the predominately activity that created sustainability within the region. The evolution of the Phung-nguyen in the area led to the eventual rise of the Dong Son culture which brought in advance bronze work, weapons, arts, and sophisticated tools that were exclusive to the area. Commonly throughout Vietnamese culture, stories of the semi-mythical kingdom of **Van Lang** was the original kingdom of the area but scholars believe the Van Lang is a mixture of accounts from the Phung-nguyen and eventual Dong Son cultures. By the 3rd century BCE, the Vang Lang were overthrown by a rival kingdom called the Thuc. The name Viet was given to the region by the colonial Chinese after the fall of Qin Dynasty, as Viet meant 'south' being that the area was south of China. Over the same timeframe, the kingdom became known as Nam Viet and several centuries later became globally known as Vietnam. Vietnam has remarkable cultural makeup with a noticeable mix of ethnic Chinese and Vietnamese cultures with intertwining imprints throughout the nation. Also, the role of western appeal due to historical conflict has become a part of the nation's outer identity. Figure 8.2.7 below shows the inside of Chinese Buddhist temple in the capital city of Ho Chi Minh where westerners commonly take part in the area's religious customs.



Figure 8.2.7: [left] Thien Hau Pagoda Chinese Buddhist temple located in Zone 5 of Ho Chi Minh City that dates back to the 1830s. Source: co-author Jason Scott.

China's Periphery and Indigenous Classification

On east Asia's mainland, the Communist Party of China reigns over vast territories within a diverse landscape that inhabits distinguished groups of people. Regions like Tibet and **Xinjiang Uyghur** Autonomous Regions inhabit the southwestern area of China's political border in an area that is rurally populated by comparison to China's eastern region. Eastern China is where of over 90% of its population reside and is a predominately makeup of people from the Han ethnic group. With the expansion of the country's territory within the two hundred years, China came to occupy and accumulate the southwest region by force. In modern times, referring to the southwest area of the nation by province name, with the omission of recognizing China continues to be viewed as a method of undermining the CPC's rule over by the Chinese government. The same sentiment of undermining is shared by the Chinese government regarding diplomatic affairs and media rhetoric towards Taiwan as well. China's expansion and ruling power over various groups of Indigenous people has historically disregarded inhabitants' ambition to be sovereign and independent of China's influence. It is worth noting that China did sign a UN Declaration of Rights for Indigenous People, that "clarified" China has no Indigenous people, primarily because western colonization did not breach China's interior landscape. China's declaration can be viewed as an attempt to assimilate the Indigenous people into Chinese society with unequal minority designations, despite longstanding roots within China's borders. The Chinese Communist Party does recognize that 55 different ethnic minority groups inhabit the nation’s territory, with the Han ethnic group representing over 90% of the China’s population. Interesting enough, China has voted in favor of the United Nations Declaration on the Rights of Indigenous Peoples but has yet

to implement a plan within China to recognize its own like the **Hmong** and **Miao** that inhabit the south, central and western parts of the nation.

Mongolia and Buffer Zone Position

The semi-remote interior nation of Mongolia has a population of over three million people, that includes at least four primary ethnic groups with ancient cultural influences that stretches as far as North America. Global observations of the country insight reference to ancient expansionists rulers like **Attila the Hun** (434-453 CE) of the **Hunnic Empire** and Mongol ethnic group, in which various Mongol sub-groups such as the **Durvud**, **Buriad**, and **Dariganga** continue to inhabit the country. Although, the collective Mongols makeup over 90% of the country's ethnic identity. After the fall of the Mongol Empire in the 1400s, cultural influences and migration activity within the country became more active with spread of Buddhism, Islam, Christianity, and traditional Lamaism remaining apart of the nation's identity according to the Minority Rights Organization. Interesting enough in modern times, almost 40% of the population claim to have no religious identity. Part of the Mongolia's modern intrigue is not only the nation's rich historical past, but its physical position wedged between powerhouse governments like China and Russia. Mongolia's position has created a relationship between both nations that has Mongolia serving as a **buffer zone**, that illustrates a sovereign nation being compelled to allowing more powerful neighboring countries like China and Russia to have concessions, infrastructure, and political free will within its nation. A reliance for energy and resources has been created within Mongolia based on its relationship with China, that especially impacts the nation's non-traditional population. Although, tension between China to the south of its border has not created significant hostility despite ideal ambitions of not wanting a dependence or potential intimidating force operating within their sovereign borders.

Colonialism in East and Southeast Asia

Throughout the history of human settlement and migration, the ability to maintain a defined space on Earth has always been challenged by various factors that include the natural occurrences of region, resource sustainability, climate, societal implosion, and conquest to list a few. As human existence moved forward into the 16th century onward, most of the world began to experience the ails of European colonialism across every human habitable region on Earth. Despite the complexity of a tropical climate setting, natural dangers, semi-remoteness, and a variation of "harsh" landforms did not shield Southeast Asia the experience of European colonialism by the mid-18th century. Colonialism of the southeast islands and mainland altered the future of regional borders, development, and ethnic relations of southeast Asian collective nations. Ongoing turmoil from sustained generational acts of brutality, colonial ambitions, and philosophy continue to have a lasting impact upon the region. Conquests and ethnic tensions have always been a part of regional dynamics but western colonialism brought in an age of dissolving cultural traits, intensified destruction of regional societies, and unstable sovereignty unlike any other known observed time periods in southeast Asian history. Although, an outlier of colonialism distinguished from the west, came in the form of Japanese colonialism towards the beginning of the 19th century as Japan rose into power and began to establish a lasting reign over mainland and island areas of southeast Asia.

Mainland and Islands Colonialism Impact

In 1799, the Dutch government began to rule over various parts of the Indonesian archipelago until the entirety of the archipelago that included Sumatra and Bali had completely come under Dutch control within 100 years. The colonial era of control over the region shaped Indonesia's current pollical borders. The British at the time had become well known for their efforts in seizing territories, extracting resources, and establishing ports in foreign lands. By 1824, Britain began to war with Burma over control of its land before eventually taking over the nation and incorporating it into its Indian empire by 1886. Gradually over time, the British also took over the Malaya peninsula that became modern-day Malaysia by 1874 in which more fluid trade was established in the region from Malaysia to Europe. France colonized Vietnam, Laos, and Cambodia to eventually proclaim the French Indochina Union in 1887. Thailand was an outlier in which the nation remained free from colonial rule due to its stable monarchy that successfully resisted outside forces during the region's colonial era. The impact of regional colonialism caused a great deal of ethnic divide and tensions across the mainland and islands due to preferential policies implemented by western nations. For instance, the British preferred Chinese and Indian immigrants to "work" in skilled positions in Malaysia and dismissed the Malaysian population as peasantry. The French favored Vietnamese people for educational policies over the Cambodian public as Vietnamese people were brought into Cambodia. The British also encouraged widespread immigration of Indians and Chinese into Burma as its longstanding subsistence farming industry began to shift into large-scale exports that benefited Britain. Policies like the **cultuurstelsel**, applied in Indonesia, forced farmers to grow export crops in which poverty and famine ensued throughout the region. Despite the societal disruption that was caused by colonialism within the region, ancient text and sites were preserved, and the resilience of the region's inhabitants remained relatively immune to the westernization.

During the colonial era, majority of the island region's population was a combination of Muslim, Buddhist, or Christian, but the islands were home to numerous diverse groups of indigenous peoples who share aspects of cultural identity with nearby Polynesians and other Pacific Islander groups. Many of the indigenous groups lived in isolated enclaves often separated by thousands of miles of each other and had shared beliefs in the supernational will provide safety and prosperity to the various communities. By the mid-19th century, Christian missionaries began to convert indigenous peoples from their local religions and traditional arts, textiles, and sculptures creations began to decline. Historically, Christian missionaries converging success has been tied to force, coercion, and exploitation of impoverished people. Although, it is worth noting that various isolated communities throughout, continue to practice ancient traditions in religion, art, and village community sustainability.

Ambitions of Independence and Responses to Colonialism

Southeast Asia faced a severe crisis of disintegration and overall failure of numerous states due to the impact of western colonialism during the 18th century onward. European control over the region redirecting predating trade, caused forced migration, and the displacement of various groups of people throughout the region and beyond. Often, colonialism is portrayed as a phenomena that happens and the actions of the colonizers is highlighted in boastful manner that portrayed an image of vulnerable and defeated victims. In most cases, submission to the efforts of colonialism without resistance is false, as the accounts of rebellions will be highlighted. Despite the exertion of control that was implemented upon the region, resistance was constant by numerous groups and nations within the realm.

Due to Europe's inability to adequately be in the same place at one time to control all of its colonies and the will of regional inhabitants to be independent, rebellions like the Tay Son rebellion by the Vietnamese raged from 1771 to 1802. The rebellion was based in a struggle to sweep the region of longstanding Confucian ideals that governed the public in societal philosophies of livelihood. In the mainland, the three great ruling eras of Myanmar (1782-1819), Thailand (1782-1809), and Vietnam (1802-1820) were fully aware of the dangers internal and external dynamics posed regarding the stability of its societies. Therefore, the rulers of the region began to implement a hybrid of new age policies while carefully choosing to maintain certain traditional practices to address issues of the evolving times and to strengthen the collective realm from both internal and external forces. By 1820, mainland nations stood at the height of their powers before collective European efforts against the sustainability of the area's societies came to past towards the later of the century. On the island of Java, the Dutch ruled over the area beginning in the mid-1750s but by 1825, the Java War ensued and last for five years until the region was defeated. Difficulties in expelling European forces became increasingly difficult as the allegiance of western nations became more invasive after the year 1850. By 1886, Britain, Spain, France, Belgium, and eventually the United States would solidify control over the various nations well into the 1920s until the west began to use more "peaceful", or imperialistic approaches at encroachment against regional sovereignty that was gaining by then.[7]

Japan's Colonial Ambitions in Asia

Japan took note of these imperial pursuits. In 1868 CE, the Japanese Emperor Meiji ended the shogunate and began a series of reforms known as the Meiji Restoration. As part of the reform, the government sought to increase Japan’s modernization and industrialization and began a systematic study of the developed world. Why were some countries more powerful and more industrialized than others? Britain, for example, was an island nation like Japan and yet was considered to be the most powerful country in the world. Education was critical, as was industrial technology, but Japanese leaders believed that Britain’s colonial ambitions, its direct control over the resources of other areas, was key to its success. By the beginning of World War II, Japan had built up an impressive military and had colonized much of East and Southeast Asia including northeastern China, the Korean peninsula, Taiwan, French Indochina, the Philippines, Indonesia, and Malaysia. In 1941, Japanese military forces attacked the US base Pearl Harbor in Hawaii. Following the attack, the US declared war on Japan and entered World War II. Following Japan’s loss in World War II, the countries of East and Southeast Asia were able to acquire independence. Some countries, like the Philippines and Burma, achieved independence through a peaceful turnover of control, while others such as Indonesia won independence only after a violent period of opposition. The end of World War II reshaped not only the political map of East and Southeast Asia but development in the region as well.

References:

[1] Timing the First Human Migration into Eastern Asia. National Library of Medicine. Negritos of Southeast Asia.

[2] Unique origin of Andaman Islanders: Insight from Autosomal Loci. Indigenous Andamanese.

[3] Archaeology of Early Chinese Settlement in Southeast Asia, Old World. Journal of Ancient Africa and Eurasia. Chinese Migration into Southeast Asia.

[4] Ankgor Civilization, the Khmer Empire in Southeast Asia. Thought Co. Khmer Kingdom of Cambodia.

[5] Angkor Wat. History.com Editors. Wat (temples) of Cambodia.

[6] Explainer: Myanmar, Burma and Why the Different Names Matter. AP NEWS. Burma or Myanmar?.

[7] Southeast Asia, 1800-1900 A.D. In Heilbrunn Timeline of Art. Colonialism in 19th Century Southeast Asia.

Attributions:

“East Asian Settlements and Confucianism” is adapted from East and Southeast Asia by Caitlin Finlayson, CC BY-NC-SA 4.0.

“Japan's Colonial Ambitions in Asia” is adapted from East and Southeast Asia by Caitlin Finlayson, CC BY-NC-SA 4.0.

This page titled 8.2: Indigenous Worlds- Migration and Ancient Civilizations is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Jason Scott.

8.3: Cultural Hearths, Diversity and Resilience

Learning Objectives

- Explain various cultural hearths that revolutionized numerous societies within the region
- Describe the role diversity has played in developing regional language, religion, and innovative practices
- Describe the innovative resilience in spite of rapid population growth

Diversity and Distribution

East Asia has a population of around 1.7 billion and southeast Asia has a population of over 650 million people. More than half southeast Asia's population lives on the many islands of Indonesia and the Philippines.The small island of Java in Indonesia is one of the most densely populated places on Earth. More than half of the 245 million people who live in Indonesia live on the island of Java.The island of Luzon in the Philippines is also one of the more densely populated areas of the insular region. The Philippines has over one hundred million people, Vietnam has more than ninety million, and Thailand has about sixty-seven million. Local areas with high food-producing capacity are also high population centers, which would include deltas, river valleys, and fertile plains.

Cultural Hearths

Historically the collective of east and southeast Asia has a longstanding history of innovative contributions to regional and neighboring societies linked to trade, food, architecture, and numerous products geared towards human consumption. Ancient Chinese inventors were the first to create various products like silk, soap, ink, parasols, and kites for example. These various products were traded along the **Chinese Silk Road** established in 130 BCE-1453 CE, through central Asia and having a final destination of the route in Europe by the 2nd century CE. The trade route refers to an era in which new goods and products were traded from China to Europe along a network of trade routes for over 1,500 years before the Ottoman Empire closed off trade with the west. Europe is believed to have benefited the most with receiving an early fireworks and weaponry product known as **Pyro (gun powder)** in 850 ACE from China. Pyro originated from the **Tang Dynasty (618 to 907 CE)**, as Pyro powder was used to make fireworks for celebrations and for spiritually ceremonies. European entities would eventually go on to reverse engineer early guns and Pyro into modern use to aid European dominance over various parts of the world in ancient times. In addition to various products that came from Asia, blueprints for irrigation, map-making, time, and writing systems were developed throughout an interconnecting web of Asia societies.[1]



Figure 8.3.1: This map shows the ancient Silk Road trade route collective from China that reached the Ottoman empire before fully Europe by the 2nd century CE. The route lines are several as shown for China, India, Africa, Europe, and the Pacific Ocean having a complex and fluid system for trade (CC BY-SA 4.0; Kaidor via Wikimedia Commons).

Hearths from China

Ancient tales state that silk was discovered and developed upon around 4,000 BCE in China as legend states that **Empress Lei Tsu** found a silkworm in her hot tea. Instead of dismissing the silkworm, Empress Tsu noticed the worm unraveling into smooth filaments and creating fibers. Although, archeological and writing history suggests that farmers were cultivating silk from silkworms around 3,200 BCE, and using mulberry trees to feed silkworms for cultivation. By 2,500 BCE, the Chinese developed ink for writing purposes which is also around the same timeframe the Egyptians developed writing ink as well. Ink replaced the time consuming craft of stone carving that was common in both cultures at the time of invention. It is unclear as to when and who specifically created kites in China but the Chinese have been flying kites for thousands of years, being the earliest known people on Earth to do so. Some early kites likely made of silk stretched over bamboo frames, and other early kites were made of large leaves or animal skins.[2]

Southeast Asian Inventor of the Face Mask

Face mask are of common use throughout East Asia and have become a part of societal norms in health responsibility and infectious disease prevention. Although, how did face mask become ubiquitous in Asia society and eventually global society? Dating back to 1910 China, The **Great Manchurian Plague** swept through the northeastern Harbin province of China and killed 95% of people that were infected with the plague. Even though plague was believed to be of Chinese origins and mainly affecting the public of northeast China, Russia and Japan were two neighboring countries that were more proactive in preventing the spread of Manchuria as the Chinese Qing government got blamed for not doing enough to stop the spread. As result, the Qing court invited Dr. Wu Lien-Teh, a Cambridge educated doctor from Penang, Malaysia to investigate the outbreak. Upon Dr. Lien-teh's time in China, he devised a mask made from two layers of gauze called "Wu's mask", which were adopted from existing surgical masks to slow down the spread of Manchuria. Afterwards, face masks were used in global prominence to slow spreading against other airborne diseases like the Spanish flu and eventually the 2020 coronavirus. Dr. Wu was nominated for a Nobel prize for medicine and his work pneumonia, to become the first person of Malaysian decent to be nominated for the award.



Figure 8.3.2: [left image] Picture of Dr. Wu Lien-teh who developed face masks to address the spread of the Great Manchurian Plague of early 1900s northeast China. (Public Domain; Bain New Service via Wikimedia Commons). *[right image]* Pictures of healthcare workers during the Manchurian Plague crisis wearing the newly developed face masks created by Dr. Wu Lien-teh (Public Domain; Hahn via Wikimedia Commons).

Ethnic Diversity

The ethnic mosaic of Southeast Asia is a result of the emergence of local differences between people that have evolved into identifiable cultural or ethnic groups. Though there are a multitude of specific ethnic groups, a number of the larger ones stand out with recognizable populations. On the mainland the Burmese, Thai, Khmer, and Vietnamese are the largest groups, coinciding with the physical countries from Burma to Vietnam. A similar situation can be found in the insular region. Many distinct groups can exist on the many islands of the region. The island of New Guinea, for example, has hundreds of local groups with their own languages and traditions. The large number of ethnic groups is dominated by Indonesians, Malays, and Filipinos, coinciding with the countries of Indonesia, Malaysia, and the Philippines. Each of these main groups has many subgroups that hold to their own cultural heritage in the areas where they exist. The many islands of Indonesia and the Philippines create the opportunity for diversity to continue to thrive, in spite of the globalization process that increased the interaction and communication opportunities between groups.

Southeast Asia is also home to over thirty million **overseas Chinese**—ethnic Chinese who live outside of China. The Chinese exodus to the realm was the greatest during the last Chinese dynasties and during the colonial era. European colonial powers enhanced this migration pattern by leveraging the use of people with Chinese heritage in their governing over the local populations in the realm. Life has often been difficult for overseas Chinese. The Japanese occupation of the realm during World War II was a time of harsh discrimination against Chinese. Japanese occupation and colonialism diminished with the end of World War II. The overseas Chinese minority retained an economic advantage because of their former colonial status and their economic connections. Chinatowns emerged in many of the major cities of Southeast Asia. The discrimination against the Chinese, fueled by religious or socioeconomic differences, often continued after World War II by the local ethnic majorities. Nevertheless, overseas Chinese in Southeast Asia have been instrumental in promoting the global business arrangements that have established the Pacific Rim as a major player in the international economy.

Language

Language and associated writing systems of the collective region are complex, diverse, and numerous modes of both have been widespread throughout the realm for several thousands years in human history. Language families and sub-groupings of languages have direct ties to larger and remote ethnic groups from the interior parts of Mongolia, down to the island regions of the Indonesia and the Philippines where over 700 languages combined derived out of the region. Due to the age of globalization and westernization's influence, various colonial words have been adopted into Asian languages as the region continue to evolve. A few languages within the region are dominant in use based the population and inhabitance of mainly China's 90% Han ethnic

group, which equal around 955 million people speaking Mandarin. Other languages spoken in China and through the collective realm are spoken by significantly lesser than that of Mandarin and collective Chinese languages that derived out of the Sino-Tibetan and Tibetan-Burmese language families. The evolution of language in the more remote northeastern area of the realm consisting of Japan and Korea, has been a topic of debate by modern researcher since the mid 20th century with both languages with categorized as isolated languages. Both countries and their languages developed intricately over several millennia due to remote regional influences that became distinguishable from its early connections to interior mainland Asia. Korean, which is also known as the **Kugo language** has around 62 million speakers in total throughout both the north and south of the Korea Peninsula. Kugo is believed to have origin to Altaic languages of central Asia that includes Mongolian, Siberia, and Turkish languages. The **Yayoi culture** migrated from mainland Asia to Japan in 300 BCE, brought in the roots of what is now modern-day Japanese. The language is believed to have initial roots from southern Korea and began to spread eastward with small-scale migration to Japan. Despite the practice and widespread use of Sino-Tibetan languages, the early roots of languages coming from areas outside of interior Asia share deep connections and has the appearance of distinguishable attributes that details language's role in developing the greater region.

Southeast Asian Language Diversity

Language and the diversity of language is deeply tied to the history of human existence within southeast Asia for countries like Laos, Thailand, Burma, Malaysia, and Indonesian for example. Thailand and the Tai people of later settlements of the area where the Pyu of Burma and the Khmer of Cambodia predating ruled over, have a distinctive language that is not directly connected to the larger language families within the region, despite being wedged between Cambodia and Burma. During the western colonization, the Thai language incorporated words from German and the Spanish language into it's language. Predominately, the Thai language was heavily influenced by ancient languages like Sanskrit and Puli. The Malay language spoken in Malaysia, has a a great influence of Arabic, Sanskrit, Portuguese, Dutch, and Chinese due to colonization. Chinese migrants into southeast Asia are historical known to speak languages like Cantonese, Hakka, Hokkien, and Teochew, which are languages that derived out of East Asia and have influence speech within the southeast Asia realm.[3]

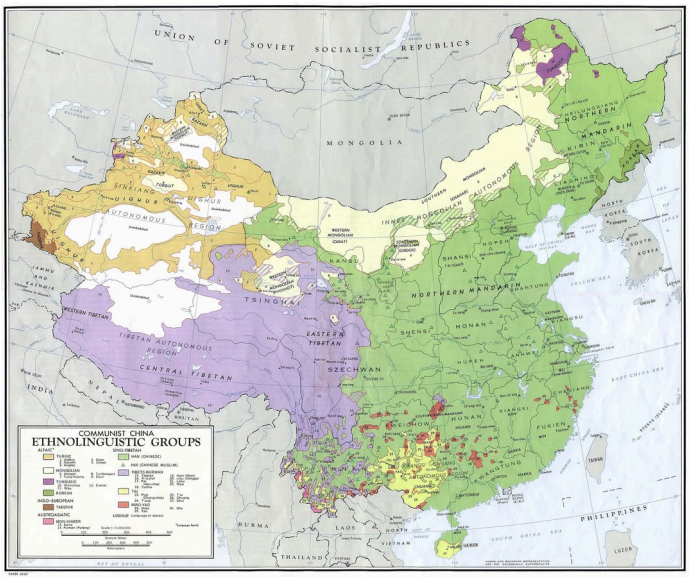


Figure 8.3.3: Map of China's ethnoliguistic groups from the 1967 where you can see that Han ethnic group in the east predominately speak Mandarin (Chinese) and Tibetan-Burmese languages were commonly spoken in the west of China. Currently, the distribution of ethnic groups from 1967 still occupy the same regions within China (Public Domain; CIA via Wikimedia Commons).

Religion

Spirituality and the various modes of religious expression are deeply connected to collective Asian cultures, especially when it comes to the intrigue garnered from western culture. Indonesia is also home to the largest Muslim population in the world. All major religions can be found here. The Philippine population is predominantly Christian, but there is a minority Muslim community, including rebel insurgents. Over 64% of the Malaysian population are followers and practicers of Islam. About 95 percent of the people in Thailand and more than 60 percent of the people in Laos are Buddhist. Hinduism is present in the Indonesian island of Bali and in various other locations in the region. Animism and local religions can be found in rural and

remote areas. Clearly, Southeast Asia is a mix of many ethnic groups, each with its own history, culture, and religious preference. With the diffusion of Buddhism having a significant impact upon the spiritual development of east and southeast Asia, derivatives of Buddhism developed in Japan known as Shintoism. The word **Shinto** means "the way of the *kami*" or divine power, had been introduced into Japanese society in the 6th century ACE. **Shintoism** evolved out of Japanese society's desire to exclude formal Buddhism from its society by formulating a "purer" Japanese version with regional references of philosophy.

Southeast Asia and Religion

With a region of over 650 million people, the majority of the inhabitants follow the teaching of Buddhism which was hearth in Lumbini modern-day Nepal by the accounts of a Hindu prince named **Siddhartha Gautama**. The teaching of Buddhism began to spread well after Siddhartha's death as king Asoka the Great by 268 BCE began to influence the spread of Buddhist philosophy from India to countries eastward into the East Asia and southeast Asian realm. Buddhism derived from its parent religion of Hinduism but is considered to be more of a philosophy that does not have a focal point on deities and traditional customs associated with prior Hindu influences. Although, various forms of Buddhism like the Theravada practice along with others, developed over time with their own distinctive customs rooted with core teaching of early Buddhism. Theravada Buddhism focuses on the eighth part of the Eightfold Noble Path that leads to enlightenment of which Buddha experienced through meditation. Despite the widespread practice of Buddhism throughout the region, Christianity, Islam, Hinduism, Confucianism, Taoism, and Animism are of common practice throughout. Islam is the state religion for Brunei and Malaysia, as Buddhism is the official religion for Cambodia, Laos, and Thailand.[3]

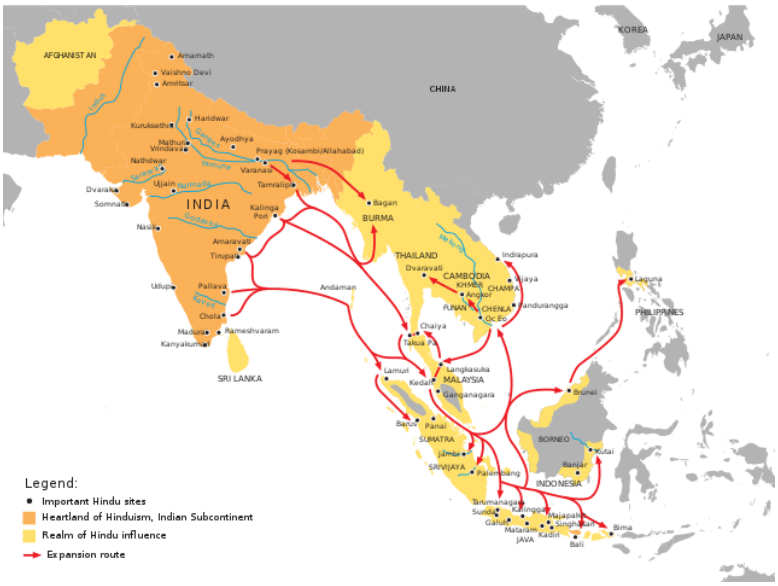


Figure 8.3.4: This flow map shows the spread of Hinduism and relating monuments spread throughout East and southeast Asia (CC BY-SA 4.0; Kartapranata via Wikimedia Commons).

Resilience

The ancient history of the collective region illustrates a timeline of rapid human migration that continues throughout the region in current times. Throughout various eras of famine, war, and conquests, the cultural identity of the region highlights areas of ancient preservation and cultural fusion that isolates east and southeast Asia. Recent history details a past consisting of western colonial disruption, the rise and fall of nations in which the region continues to evolve with a method of forwardness. Resilience of the region's inhabitants, biodiversity, and natural processes highlighting a vibrant balancing connection the distinguishes east and southeast Asia. The current complexity and history of the region is distinctive to a point where contrasts between east Asia, mainland southeast Asia, and oceanic southeast Asia can be highlighted. Cultural hearths and diffusions continue to occur from industries of technology, farming, tourism, spirituality, and more despite the influence of geopolitical matters. Consider the region as a potential model or area of focus for society moving into the future.

Innovation and Forwardness in Southeast Asia

As a precursor to the industries section of southeast Asia, it is worth noting that the region is developing rapidly and continuing to do so at an unsettling current time in human history with the not so anomaly of infectious disease and climate change dynamics. Inhabitants of the region are continuing to develop technologies that can have the power to transform future society, especially as it pertains to environmental sustainability. In the Philippines, discarded plastic bottles known as solar bottle lights are becoming an inexpensive and popular commodity. Commonly referred to as The Liter of Light, was developed by a Filipino non-profit known as MyShelter Foundation, in which daytime filled bottles of water refract light and at night, the bottles run of solar batteries. In Bali, the passive cooling architecture is of widespread use at over 80% resorts as replacements for air-conditioners. The practice is based on incorporating green walls into buildings to improve airflow and reduce exterior surface heat generated by the sun. Myanmar has the lowest electrification rate in all of Asia due to rural lifestyle and Singaporean implemented Microgrids by using decentralized power plants that run off of solar energy and backed up by diesel generators at a 4% capacity, to reduce to carbon emissions and provide energy to rural areas.[4]

Cultural Appropriation and Identity

The way culture is consumed, observed, and revered is complex in thought from western societies to Asian societies. The facts of identifying **cultural appropriation** and the mentality of what classifies such in a manner that aids the marginalization of a culture, vary. The term refers to the adopting cultural attributes of a people that often co-opts or diminishes a marginalized group's customs for monetary gain or else. Cultural outsiders tend to not have any significant ties to a particular culture aside from ambitions to exploit a group for one's own gain. Exploitation often comes in the form of non-existent cultural contribution, mimicking, and financial gain for the dominant group at the expense of an oppressed group that does not have equal access to profit from. Also, the often oppressed and appropriated group lacks the influence to prevent cultural exploitation. The fluidity of Asian travel and tourism has created numerous opportunities for non-Asian groups to globally monetize Asian culture through modes of cuisine, religion, fashion, and recreation to list a few. In many regards, some may argue that such opportunities for profit can be afforded to Asian people and cultural reverence can be respected more definitively. Although, the concept itself may be polarizing in perspective from Asian living in the West versus various groups of people living in Asia. Can cultural appropriation exist within Asia and outside of Asia? Western societies tend to broadly group Asia into a monoculture category, but that is a fallacy. Classism, colorism, racism, and other forms of intersectionality exists within Asian society to where people are placed into societal sub-groups, then endure marginalization and appropriation specific to one's ethnic group. For example, colorism has been appropriated or adopted from the West, as various people tend to disapprove of darker skinned Asian people on television and throughout various household. Therefore, two or more modes of Asian cultural appropriation can exist within the region and from the actions of non-Asian people.[5]

Cultural Contribution or Appropriation?

In relation to Western practices of mimicking and profiting from marginalized groups cultural expressions, could it be possible in the more affluent "western friendly" regions of east Asia that cultural appropriation is thriving? Or could it be possible that cultural contribution and transcendence may be in process with consideration to nations like Japan and South Korea for example? In recent years, a trend of Chicano American cultural customs and practices has spread through urban Japanese society as media outlets like VICE News highlighted in 2019. Consider that after WWII, the West went on to aid the rebuilding of Japanese society that also helped bring in a current era of "modernity" and wealth, that may appear to exploit groups that are not as closely aligned with Western philosophy or favor as that of Japan. Many within Chicano American culture have the belief that their cultural is being mocked by many within urban Japanese society without a true understanding of Chicano roots and oppression. Furthermore, modes of homage, respect, and contribution to Chicano culture are not being demonstrated. Although, the manner in which many within Japanese society pay respect and honor to Chicano culture may be present in some form and misunderstood, or in fact, disregarded. According to various people within Japanese society and those interviewed by VICE, honor and respect for other cultures is best demonstrated by not trying to change, add, or deter away from the practiced customs of a group of people despite historical context. In most cases, the best way to show honor and acknowledge other cultures that are appreciated within Japanese society is to be identical as possible in expressing one's cultural.[6] In nearby South Korea, a history of appropriation or claims relating to such have a more complex history related to anti-blackness abuse and practices within South Korea, despite the renowned music genre of K-Pop having influence from Black American culture. In some cases, there has been a call out of hypocrisy against South Korean society for pointing out Western racism and Orientalism but choosing to disregard Black American cultural influence upon Korean music and cuisine dating back to the Korean War era.[7] Although, recently various famous entertainers within Korean society have been making more conscious efforts in acknowledging K-Pop and urban Korean

cultural practices rooted from cultures outside the country. With using Japan and South Korea as an example for cultural appropriation or appropriation, it is important to understand that the concerns and observations made about east Asian cultural dynamics are not generalizing or universal truths. The context of cultural identity in the region provides important perspectives of historical and ongoing occurrences connected to the influence of the West.

Cultural focuses on the region also highlight cultural theft and monetization of practices that either originated or evolved out of the region with yoga, Tai chi, and Buddhist practices for example. Travelers from all over the world experience, consume, and spread cultural practices, in addition to migrants that bring cultural practices to areas outside of hearth spots. Therefore, there are many opportunities for cultural theft and exploitation to occur, especially as it relates to merging various cultural practices into global capitalism that does not often benefit marginalized innovators of culture the most. Perhaps considering fairness of financial gain is a moot point for various people of Asian decent that are bound by the cultivation and adherence to cultural practices independent of capitalistic philosophies.

Buddhism Exploited?

As the philosophical teachings and practices of Buddhism has spread across the world, especially to the West over the past few centuries, could there be brewing concerns of exploitation for monetary gain and cultural theft? It can be argued that teaching of Buddhism connects with the individual in ways that are unique by comparison to some of the larger practiced spiritual faiths in the world. Teaching of Buddhism tend to more on lived experiences, with minimal accounts of mysticism that is commonly associated with various spiritual practices. The individual connections provided within Buddhist practices does not also appear to have significance in attaching followers to a particular place, setting, or hierarchy like that of Christianity or Islam for example. Therefore, it is possible for some followers of Buddhism, especially many individuals conditioned by Western thought to develop and possessiveness or ownership type of perspective when it comes to Buddhist expression. The "realistic" everyday life teachings of Buddhism have inspired a lucrative industry of **mindfulness** to blossom in the capitalistic West and beyond. The mindfulness industry has a focus on meditation, ethics, and morality that translates into corporate workspaces as well as for the individual, while becoming an industry worth more than $4 billion USD.[8] On the surface, mindfulness practices in corporate spaces and within the individual is a positive practice, but who is profiting from the mindfulness industry that has "borrowed" roots from Asia? Also, at the core of Buddhist thought, is it irrelevant to be concerned with potential prioritization and misleading practices that come elsewhere?

References:

[1] Szczepanski, K. How China Invented Gunpowder. ThoughtCo. Gun Powder and Fireworks from China.

[3] Asudkar, S. Culture of southeast Asia-religions, clothing, food and more. Holidify. Southeast Asian Culture, Language, Religion, and Art.

[4] Mock, A., & Xuan Kong, Y. 7 Smart Innovations from Southeast Asia to Speed up the Energy Transition. Eco. Innovations in southeast Asia.

[5] Tiara, C. Asians in asia view cultural appropriation differently than you realize. The Establishment. Cultural Appropriation Viewpoint.

[6] Ulloa, Y. Japan's Chicano subculture: cultural appropriation or appreciation or something in between? The History, Philosophy and Ethics of Design.

[7] Williams, A. What's the Deal with K-Pop and Cultural Appropriation?. Pop Life.

[8] Dale, L. Can Westerners respectfully engage with Buddhism?. Medium.

Attributions:

"Population, Diversity, and Religion" is adapted from East and Southeast Asia by Caitlin Finlayson, CC BY-NC-SA 4.0.

This page titled 8.3: Cultural Hearths, Diversity and Resilience is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Jason Scott.

8.4: Paradigm Shifts, Industries, Governance, Imperialism

Learning Objectives

- Explain how paradigm shifts in societal livelihood has transformed the region in recent times
- Describe how manufacturing and industrial efforts has primed the region for global placement

Paradigm Shifts in East and Southeast Asia

The second half of the 20th century was a time of significant political change for East and Southeast Asia. The former colonies of Japan were able to break away from their colonial past and become independent, but as in many other parts of the world, that independence often coincided with political conflict. For Japan, the end of World War II brought a period of **Westernization** and rapid economic growth. Westernization refers to the process of adopting lifestyle and societal practices from the west, in particularly European and American cultural values. Japan adopted a new constitution and embraced democratic principles. It continued to industrialize and would become a global leader in electronics and automotive production. Today, Japan has the fourth largest GDP behind only the United States, the European Union, and China.

New Age East Asia

In other parts of East and Southeast Asia, the political changes to the region following World War II tended toward **communism**, a social, political, and economic system that seeks communal ownership of the means of production. Communism is associated with **Marxism**, an analysis of social class and conflict based on the work of Karl Marx (1818-1883 CE). In a typical society, factories are owned by a wealthy few who then pay workers a lower wage to ensure that they make a profit. In a communist society, however, the goal of Marxism would be a classless society where everyone shares the ownership and thus receives equal profits. Marxist ideas spread to China by the early 20th century and found particular support among Chinese intellectuals. The Communist Revolution in Russia inspired Marxists in China who founded a communist political party that would eventually be led by Mao Zedong. The communist party continued to gain traction in China and following a civil war, Mao Zedong established the communist People's Republic of China in 1949. The previous Chinese government fled to the island of Taiwan, which is officially known as the Republic of China and claims control of the entire mainland. China, however, maintains that Taiwan is part of China. After securing political control of China, Mao Zedong sought to transform China's culture by reorienting it around the ideology of communism. One of the first steps in this transformation was the **Great Leap Forward** from 1958 to 1961 which sought to reshape China's agrarian society into an industrial power. Unfortunately, the changes led to widespread famine and the deaths of tens of millions of Chinese as a direct result. Following the failure of the Great Leap Forward, Mao aimed to eliminate any remaining traditional elements of Chinese culture or capitalist thinking through the Cultural Revolution. Millions were imprisoned, forcibly relocated, or tortured, and historical relics and cultural sites were destroyed. After Mao's death, several leaders responsible for the abuses committed during the Cultural Revolution were arrested and China began a period of modernization and economic reform.

In the Korean peninsula, allied forces divided the former Japanese colony along the 38th parallel. Russia would control the northern portion, where it helped install a communist government and economic system. The United States occupied the southern portion, where it assisted a pro-Western government in its political and economic development. Tensions between the two territories led to the Korean War in the early 1950s. Technically, the two sides are still at war having never signed a peace agreement and simply agreeing to a cease-fire. Today, North Korea, officially the Democratic People's Republic of Korea (DPRK), follows a Marxist model of development with state owned enterprises and agriculture. The government has been accused of numerous human rights violations and the people of North Korea are severely restricted in terms of their economic, political, and personal freedom. In South Korea, on the other hand, officially known as the Republic of Korea, a democratic government replaced a series of military dictatorships and the country is considered one of the most developed in the region according to the Human Development Index.

Communist ideals spread to Southeast Asia, as well, where Marxism influenced the governments of newly independent countries. In Vietnam, for example, a communist movement was begun by Ho Chi Minh to try to gain independence from France following the end of Japanese occupation in World War II. The communist forces were able to defeat the French in a key battle in 1954 and established a government in the northern territory. The country was then divided into a communist north and anti-communist

and majority Catholic south. This was a time of high tension between the United States and the Soviet Union, and the US feared that the entire region would eventually come under communist control, essentially creating a Western capitalist hemisphere and an Eastern communist hemisphere. The fear that the fall of one country to communism would lead to the fall of other surrounding countries to communism was known as **domino theory**, and was originally meant as an anecdote but became the basis for US foreign policy in the region.



Figure 8.4.1: Image of Marxist and Communist propaganda from 1968 showing Chinese former leader Mao at the forefront of the movement, allied with western leaders in Marxism. (Public Domain; Zhuyi via Wikimedia Commons).

New Age Southeast Asia

The United States aimed to support South Vietnam's resistance to the communist north's goal of unification and began sending military advisors to the region. Military combat units followed and bombing campaigns began in 1965. The terrain of Vietnam was quite different than the geography of other areas where the US had previously fought. Much of Southeast Asia was tropical rainforest, and was ill-suited for the types of tanks and heavy artillery that had been so successful in World War II. The **Viet Cong**, referring to the Vietnamese communists, engaged in guerrilla warfare, using the terrain to support small, mobile military units. To try to combat these tactics, the US military sprayed chemical defoliants and herbicides, like Agent Orange, over Vietnam's forests. In the end, waning support for the Vietnam War led the US to withdraw and in 1975, Vietnam was unified under communist rule. Over 1 million Vietnamese and 58,000 Americans died in the fighting. Millions others were exposed to Agent Orange causing health problems and disabilities, and the chemical had devastating effects on Vietnam's ecosystem where it has lingered in the soil.

During the same time period, a communist organization known as the **Khmer Rouge**, which is French for "Red Khmers," came to power in Cambodia. Khmer refers to the dominant ethnic group in Cambodia. The Khmer Rouge opposed Westernization and US involvement in the newly independent country and believed in a return to an agrarian society. Pol Pot (1925-1998 CE), the leader of the Khmer Rouge, led a campaign to eliminate the country's schools, hospitals, and other institutions and make the entire society work on collective farms. Urban cities would no longer be the economic and political focus, but rather wealth would be spread out around the countryside. Most of the country's intellectuals, including teachers and even people with glasses who were simply perceived as academic, were killed. Large prison camps were set up to house those who were believed to be a threat to communism. Cambodians of other ethnicities or who practiced religion were also executed. In total, more than one million people were killed, often buried in mass graves known as the Killing Fields. Cambodia's attempt to transform into an agrarian society ultimately led to widespread famine and starvation. In 1978, Vietnamese forces invaded Cambodia and defeated the Khmer Rouge, but human rights continue to be severely restricted in the country.

Much of East and Southeast Asia exhibits characteristics of a **shatter belt,** an area of political instability that is caught between the interests of competing states. Beginning in the colonial era and continuing today, Western involvement in this region has at times led to industrialization and economic growth and at other times economic depression and a drive to return to traditional values. Today, political instability continues to plague several countries in the region.

Industries and Development in East and Southeast Asia

Despite the political changes and conflicts that marked the 20th century, the 21st century has largely been marked by economic development across East and Southeast Asia. Economic geography is a branch of geography that explores the spatial aspect of economic development. Economic geographers don't just ask "Where is economic development occurring?" but also "*Why* is economic development occurring in some areas and not others?" In East and Southeast Asia, economic growth has largely resulted from regional and global trade. However, development is not spread evenly across the region and economic inequalities still persist.

Collective and Distinguished Economics

Global connections have been the principle driver of economic success in East and Southeast Asia. Much of the trade connections have emerged between the countries in this region and the larger **Pacific Rim**, referring to the countries that border the Pacific Ocean. Many of these countries are members of the Asia-Pacific Economic Cooperation (APEC) which promotes free trade across Asia and the Pacific. In Southeast Asia, the countries of the region formed the **Association of Southeast Asian Nations**, or ASEAN. The organization aimed to promote political security, economic growth, and social development among member countries.

In China and Japan, histories of relative isolation gave way to an embrace of globalization and global trade. Although China's government is communist, it has allowed more free-market oriented economics in areas known as **Special Economics**, or SEZs. These SEZs are located in coastal China and have special incentives to attract foreign investment. Other capitalist shifts have occurred in China even allowing for US supermarkets and restaurants to open locations in the country. These SEZs, as well as other special development areas in China, have functioned as **growth poles**, which are areas that have attracted economic development in the region. In 2010, China displaced the United States as the global leader in manufacturing. Broadly, **foreign direct investment** (also called FDI), the control of a business in one country by a company based in another country, has been a key driver of China's economic success. In 2017, China was the second most attractive company for foreign investors, behind the United States, with over $136 billion in foreign direct investment flowing into the country according to the 2018 World Investment Report. China has done its own foreign direct investing as well, increasing outward flows of FDI from $5.5 billion in 2004 to over $125 billion in 2017, according to the same report. Hong Kong is the primary destination for Chinese foreign direct investment, but substantial sums also flow to countries in Africa as well as Australia, where China is the largest trading partner. Within Southeast Asia, China is now the top investor in Myanmar and has increased foreign direct investment in Singapore.

Asian Tigers

While China and Japan remain the largest economies in the region, other areas have experienced high rates of economic growth. The **Four Asian Tigers**, in particular, referring to Hong Kong, Singapore, South Korea, and Taiwan, experienced rapid industrialization and economic development led by export-driven economies, low taxes, and free trade. Some have also theorized that the Confucian work ethic present in these countries complemented the process of industrialization. Each country also developed a distinct specialty and maintains a competitive advantage in that area. South Korea, for example, is known for its manufacturing of information technology while Hong Kong is a leading financial center. Much of the economic growth of the Asian Tigers as well as Japan has come from the export of **value added goods**. When countries export raw materials, their economic benefit is limited since those raw materials are often not inherently valuable. When these raw materials are made into something useful, however, value is added and the product can be sold for a higher profit. Lumber is quite cheap, for example. When the lumber is made into a dining table, it has a much higher value. Many companies located in these countries have become household names in electronics, computing, and the auto industry. China has traditionally exported relatively low value added goods, but in 2016, the Chinese government announced a shift to higher value added products like transportation technology and telecommunications.

Southeast Asia's Geographical Position Advantage

Southeast Asia has benefited from its key geographical position as the **entrepôt**, a French term meaning a commercial center of trade, for the rest of Asia. The Strait of Malacca in particular is the main shipping channel between the Pacific Ocean and the Indian Ocean and a key transportation gateway. Around one quarter of all the world's exported goods travels through the strait each year. Malaysia's economic success as an entrepôt is exemplified by its Petronas Towers in Kuala Lumpur, which were the tallest buildings in the world from 1998 to 2004. Indonesia has the largest economy of Southeast Asia, exporting primarily to Japan, Singapore, the United States, and China. Singapore has the highest GDP per capita in the region, again owing to its key

geographical position.

One lingering issue in many of these countries has been crony capitalism, the notion that the success of a business depends on its relationship to other businesses and the state. A politician might have an old friend in the manufacturing industry, for example, and give the friend a government contract with beneficial terms. In 1997, a financial crisis that started in Thailand spread throughout the Southeast Asia region and to South Korea was, in part, blamed on the business dealings of corrupt politicians. Several countries in this region rank high on an index of corruption perception, as shown in, and some have expressed concern that the communist countries of this region will continue to embrace capitalism when it is politically beneficial rather than as part of a broader and more transparent economic system.

Uneven Development in Southeast Asia and Outlier North Korea

Economic development is not spread evenly throughout the region. By most estimates, North Korea remains the poorest country in the region with an estimated GDP per capita of just $1,300 in 2016. Mainland Southeast Asia, with the exception of Thailand, remains relatively poor. Cambodia, Laos, Myanmar, and Vietnam all have GDP per capitas of less than $8,000 as of 2018 and remain far less well off than their more developed neighbors in the region. Where economic growth has occurred, it is often confined to an urban area which can drive up population densities as people move to the city in search of work. In Indonesia, the island of Java is very densely populated while other surrounding islands are relatively sparse. The Dutch colonizers and later the Indonesian government, in a stated effort to reduce poverty and overcrowding, created a policy of transmigration seeking to relocate people to the less densely populated islands. This program has been controversial, however, and the indigenous people who inhabit the surrounding islands see the program as a threat to their way of life.

Vietnam

The elongated state of Vietnam is slightly larger than Italy and about three times the size of the US state of Kentucky. In 2010 it was estimated to have a population of about ninety million people. Sixty percent of the population is under age twenty-one. This indicates that the population was only about half its current size at the end of the Vietnam War. Vietnam has two main urban core areas: Ho Chi Minh City (Saigon) in the south and the capital, Hanoi, in the north. The middle region of Vietnam is narrow, with higher elevation. Each core area is located along a major river delta. The **Red River** delta is located east of Hanoi in the north, and the mighty **Mekong River** delta is located next to Saigon in the south. These river deltas deposit silt from upstream and provide excellent farmland for growing multiple crops of rice and food grains per year. ishing provides protein to balance out nutritional needs. More than 55 percent of the population works in agriculture. Family size has dropped dramatically because of population growth and a trend toward urbanization. Rural-to-urban shift has caused the two main urban core cities to grow rapidly. Saigon is the largest city in Vietnam and has a port that can accommodate oceangoing vessels. Hanoi, the capital, is not a port city and is located inland from the nearest port of Haiphong on the coast of the **Gulf of Tonkin**.

An understanding of Vietnam is not complete without understanding the changes in political control the country of Vietnam has experienced. Different Chinese dynasties controlled Vietnam at different times. When France colonized Vietnam, it imposed the French language as the *lingua franca* and Christianity as the main religion. Both changes met resistance, but the religious persecution of Buddhism by the French colonizers created harsh adversarial conditions within the culture. The French domination started in 1858. The Japanese replaced it in 1940; this lasted until the end of World War II. With the defeat of Japan in 1945, the French desired to regain control of Vietnam. The French aggressively pushed into the country, but met serious resistance and were finally defeated in 1954 with their loss at the battle of Dien Bien Phu.

In the mid-1950s, the Vietnamese began asserting their request for an independent country. The dynamics were similar to that of Korea. After 1954, Vietnam needed to establish a government for their independent country. They were not unified. The northern section rallied around Hanoi and was aligned with a Communist ideology. The southern region organized around Saigon and aligned itself with capitalism and democratic reforms. During the Cold War, the United States opposed Communism wherever it emerged. Vietnam was one such case. Supporting South Vietnam against the Communists in the north started not long after the defeat of France. By 1960, US advisors were working to bolster South Vietnam's military power. After the assassination of John F. Kennedy, President Lyndon Johnson had to make a choice to either pull out of Vietnam or push the US military to fully engage the Communists in North Vietnam.

Chinese Diaspora and Regional Future Outlook

In some cases, uneven distribution of economic development has led to both interregional and intraregional migration as people move in search of economic advancement. China in particular has seen a significant amount of rural to urban migration. Around

11 percent of the entire country's population migrated from rural to urban areas in 2009 and most of them are young adults. Many of China's migrants are part of a **floating population**, which refers to members of a population who reside in an area for a period of time but do not live there permanently. Around 50 million Chinese reside overseas, mostly in Southeast Asia. Thailand has the largest population of overseas Chinese, and Chinese also represent the majority ethnic group in Singapore. Long before colonization, East and Southeast Asia was a realm of global economic influence, from the Chinese empire to the trade routes of Southeast Asia. As some countries of the realm have moved toward political stability and economic growth, others have remained in a state of political and economic turmoil. Tourism could bring some of these countries an economic boost, but the prospect of tourism in countries with government instability is limited. Still, although countries like Laos, Myanmar, and Cambodia currently have some of the world's smallest economies, they are some of the fastest growing in the world and improvements in agricultural and natural resource development combined with a stable political infrastructure could expand the economic strength of the region.

Attributions:

"Paradigm Shifts & Industries" is adapted from East and Southeast Asia by Caitlin Finlayson, CC BY-NC-SA 4.0.

This page titled 8.4: Paradigm Shifts, Industries, Governance, Imperialism is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Jason Scott.

8.5: Tourism, the Informal Sector, and "Dependency"

Learning Objectives

- Describe the various components of tourism as a migration transition into the region as a leisure, opposed to a necessity
- Explain the modes of exploitation and economic dependence that aides the underdevelopment of areas within the region
- Identify key functional components to the region's informal sector and its impact upon human livelihood
- Explain how accommodations for tourism may be aiding the decline of local populations

Tourism: Integrating East and Southeast Asian Society

In observation of components related to regional development, the impact of tourism is significant to the region as it pertains to economic dependency, stability, migration, cultural appropriation, and exploitation. This section will explore the various ways in which the economic bubble of tourism has morphed into a defining attribute of societal identity. Tourism within the realm is tightening human connections but is also bringing a plethora of economic disparity and internal/external immorality. Migration is a component of tourism as it pertains to examples like that of **expat** migrants. Expats tend to live outside of their home country with more affluence, accessibility, and their presence within the region has a polarizing impact upon regional cost of living. The description and presence of expats in the area may describe the actions of what is classified as an **immigrant**. There are differences between both as many, but not all expats tend to migrate to areas based on desire of lifestyle choice with minimal obstacles, as immigrants tend to migrate based on necessity of push and pull factors collectively.[1] Although, in east Asia expat presents and tourism has ongoing deep ties to western military presence in countries like Japan and South Korea. In recent times, increasing expat migration and hyper-inflation has caused cost of living standards throughout the realm to fluctuate unevenly. Southeast Asia in particular, continues to be a migration hotspot for many foreigners of more affluent backgrounds and interregional migrants looking for higher economic opportunities. Part of the region's appeal is its landscape diversity, ancient cultural practices, and its historical low cost of living standards throughout, with the exception of Singapore.

The factors of longstanding western presence throughout various Asian countries vary based on geopolitical relations, but recent times has brought in a renewed era of sovereign ideology regarding Japanese nationalism and Korean Peninsula diplomacy that could potentially increase expat presence or threaten to expel western presence from the area. Immorality tied to the market of tourists demand is complex as accessibility to illegal drugs, trafficking, and commercialized **sexploitation** attracts interregional and foreign indulgence. Sexploitation is based on the commercialization of sex as a industry in which primarily foreigners travel to areas where the industry can indulged in for currency. The pandemic of 2020 and a few years after, brought in an era of extreme travel influx with short notice change in travel regulations, even as society strives onward in a semi-post coronavirus era. At the height of travel uncertainty, is being met with the impact of global inflation is continuing to raise the cost of living to record highs in some of the poorest nations within the collective region.

Other components of tourism bring up the ideology/action of cultural contribution vs. appropriation. Cultural contribution from the west has been minimal and is often masked in generational imperialism. Cultural appropriation of the region is rampant, partly due to accessible and accommodating tourism/migration. Appropriation of religious expression, martial arts, fashion, and cuisine to list a few, are all examples of foreign exploitation for profit made possible by transnational accessibility. With all being stated, is it possible that tourism is undermining the stability of the region more than it is aiding the development of the region?

Southeast Asian Tourism Influx: Cost of Living and “Dependency”

Majority of the tourists that travel to east Asia’s mainland and to southeast Asia are from Europe, North America, and Japan historically. In recent years, a higher rate of Chinese tourists has been flocking to southeast Asia with 30% of regional tourists come from China as of 2019. Visitors from India has also been traveling to the region in higher frequency for a combination of leisure and business purposes. Excluding leisure traveling will be the presence of people Russia and African south of the Sahara that are ties to pull factors, trafficking, and business relations. In 1958, an average of 200,000 tourists visited southeast Asia a year, but that number rapidly increased to 30 million annually by 1996.[2] By the end of 2022, 139 million international visitors traveled to the ASEAN region mainly for leisure.

After more than two years of pandemic lockdowns from 2019, flights to southeast Asia have returned to pre-2019 frequency with Thailand, Singapore, and Malaysia being among the most popular destinations for visitors. In 2022, the tourism industry accounts for 10% of the gross GDP in Vietnam, Singapore, and Malaysia, and 25% of the GDP for Thailand. Due to economic distress endured by revenue loss from the industry during the pandemic, most ASEAN countries were under duress to open its borders prematurely. Re-opening borders for tourism came with various countries no longer requiring travel insurance and discontinuing Covid-19 tests before travel and arrival.[3] The "necessity" of tourism to regional economies revealed a potentially unsettling dependency that poses a threat to public health. According to the founder of Oriental Travel and Tours Stanley Foo of Singapore, tourism is surging again because of "**revenge traveling**". Which is a term to indicate that travel is robust in current times due to many having the savings to travel, along with anxiousness due to the pandemic lockdowns.

Farming community networks as they relate to cuisine in southeast Asia and the modernity of societies throughout east Asia, are just two broader reasons that make the areas appealing for migrants. Factors of economic opportunity, education, cultural connection, retirement lifestyle, tourism infrastructure, and informal sector indulgence are more specific reasons for migration to the realm. Most aspects of foreign migration, especially from wealthier foreigners continues to create local job opportunities but often at the expense of increase costs for locals. The increased costs can be observed regarding healthcare services and general costs for goods in the more insulated urban sectors curated for foreign residents. Although, in 2022 the cost of living standards fell due to weakening currencies for the collective of southeast Asia, but rebounded in 2023 after the announcement of the Chinese Yuan taking over as the world's global trading currency. The cost of living for locals and expats in Bangkok, Kuala Lumpur, and Singapore fell for 12 straight months before rebounding in early 2023. Despite the temporary decline in costs, "unique" nations like Singapore still ranked as the number 13th most expensive place in the world, with inflation being higher than the global average by 5%. Rising petroleum costs and the cost of increasing construction projects also factored into fluctuating living costs throughout.[4]

Sex Tourism in Asia and Western Influence

The advertisement of Asia's many red-light districts and associated eroticism is partly rooted in U.S. and western military presence with established bases throughout the region. Former American GIs after the Vietnam war would often travel back or move to regions that were once and are still "occupied" by the U.S and European nations. Military bases and expats communities can be found vastly throughout South Korea, Japan, Guam, Vietnam, the Philippines, along with port visits in Cambodia, Malaysia, and Thailand. Past foreign military roots in the region helped established and build upon the current infrastructure of the sex tourism industry in Asia. The past era of military presence birthed the concept of **sexual orientalism**, which refers to the hyper-sexualization and fetishism of Asian women, particularly. Post-Korean War society was plagued with poverty as a former military prostitute Yeon-ja Kim from South Korea recounts a life of abuse by American GIs. Kim and others recall having to wear "tags" indicating that they were STD-free, along with witnessing an American GI murder two of her friends. Orientalism has been and continues to be used as a marketing ploy that aids the industry of sex tourism expansion.

Orientalism created a racial power imbalance that eroticized the Asian body and race, as Asian sex workers were viewed as "experiences", opposed to being viewed as people. Despite most Asian countries establishing prostitution as illegal, organized crime entities, multinational corporations, and various governments are either directly involved supporting the industry or are complicit in some capacity. Thailand and the Philippines are among the most popular destinations for sex tourism, but prostitution in some form, is rampant all over Asia and the world. Even in areas where prostitution is illegal, sex tourism can account for anywhere between 2%-14% of a nation's GDP, as Asia's international travelers is expected to reach 1.8 billion by 2030. Evidence of the industry's growth indicates that sex tourism is not going to disappear anytime soon due to the generations of infrastructure established, and governmental complicity.[5]

Informal Sectors: Human Trafficking and Tourists Demand

In recent history, security threats to a region tended to come in the form of military conflict, poor diplomacy, and nuclear proliferation. As the world continues to "modernize" in current times, nontraditional security threats related to economics and migration are fueling the industry of **human trafficking**, or "**modern slavery**". Human trafficking negatively impacts the lives of over 40 million men, women, and children throughout southeast Asia. Trafficking is the forceable or coerced migration for forced labor, sexual exploitation, and marriage. The trafficking industry is one of the world's most lucrative forms of organized crime, with a revenue of over $150 billion a year according to the Walk Free Foundation's Global Slavery Index. China, Japan, Malaysia, and Thailand are the leading destinations for trafficking victims and many others compelled by economic pull factors. Malaysia has been a primary destination for trafficking victims coming from Indonesia, the Philippines, and Vietnam. Over fifty percent of trafficking victims from east Asia are women, and one third are children. Many of trafficking victims migrate for higher economic

purposes but often wind up in forced labor industries such as fishing, agriculture, construction, and sex tourism to name a few.

How do trafficking victims get forced or coerced into the industry? Most commonly two occurrences are the primary reasons, natural disasters like typhoons and armed conflict aid preying traffickers. For example, in 2013 Typhoon Haiyan was one of the strongest topical storms ever recorded had struck the Philippines. The aftermath of the typhoon forced thousands of Filipino survivors into servitude, vagrancy, prostitution, and substandard laboring. Climate change was the primary cause for the historic atmosphere occurrence known as Typhoon Haiyan, but climate change is rarely discussed as a contributor of human trafficking. Refugee crisis from conflict are other influences upon trafficking as thousands of people from Myanmar were trafficked into nearby Bangladesh and Thailand in 2017 according to the US Department of State. Women from China, Thailand, and the Philippines are commonly sold into marriage at higher rates upon the occurrences of regional heightened arm conflicts, economic turmoil, and natural disasters.[6]

Corruption in Anti-trafficking

Generally, local law enforcement agencies throughout the collective region lack skillsets, knowledge, and resources in effectively halting trafficking. A more severe problem with anti-trafficking efforts is the ongoing collusion between government officials and criminal organizations, along with apathy. It is a common occurrence for mass graves of trafficking victims to be found throughout nations within southeast Asia. In the 2015, 62 Thai police officers and criminals alike were convicted for crimes related to the death of trafficking victims when a mass grave was uncovered along the border of Thailand and Myanmar.[7] Trafficking victims tend to receive insufficient protection and assistance due to a lack of resources, governmental reliability, and functionality. Various anti-human trafficking laws have been implemented throughout Cambodia, Thailand, and other regional nations but enforcement of the laws remain a ineffective.

Components Driving the Informal Sector

Even though human trafficking is a massive regional industry, its not the only illicit industry impacting the wellbeing and livelihood of the public. Illegal goods like narcotics and smuggled throughout southeast Asia annually, generating billions in revenue. The Asia-Pacific drug trade is estimated to be worth over $60 million annually, with 90% of the region's methamphetamines seizures coming out of Thailand, Myanmar, Cambodia, and Laos. The drug trade and consumption thrived during the pandemic lockdown as illicit drug makers exploited Thailand's inefficient vaccine supply chain. The inefficiency made it possible for drug makers to flood the pharmaceutical market with counterfeit Covid-19 products through social networks on Facebook, Twitter, and LINE.[8] Border patrol enforcement was weakened during the pandemic lockdown, creating more exploitation that continues regarding inefficiencies in slowing down drug trafficking and money laundering. The drug trade also finances armed conflicts in countries like Myanmar for example, as the nation continues to deal with severe human rights issues and an unstable governmental regime. **Super labs** drug making laboratories producing crystal meth, also known as "ice", have thrived more since the Myanmar coup in 2021. Since 2020, a growing number of illicit goods now travel more frequently along the Mekong River, which runs through the borders of six regional nations. Wildlife animals, guns, terrorists, and human trafficking victims are also being heavily linked to the growing Mekong illicit trade route. The United Nations office on Drugs and Crime (UNODC) established the Mekong Memorandum of Understanding of Drug Control, which has provided Thailand, Laos, Vietnam, Myanmar, Cambodia, and China an operational plan to address smuggling along river. Many professionals involved in combating the region's illicit sector believe that a wider effort from the ASEAN community and partners like the United States is needed to combat the region's illicit markets before the industry become too big to fail. Although, it can be argued if it is already too late and mitigation is a more effective approach.[9]

References:

[1] Nash, K. (2017). The difference between an expat and an immigrant? semantics. BBC Worklife.

[2] Poh, W. (2003). Tourism Development in Southeast Asia: Patterns, Issues, and Prospects. Southeast Asia Transformed: A Geography of Change.

[3] Phua, R. (2022). Tourists are flocking back to Southeast Asia- but the robust recovery is showing signs of cracks. CNBC.

[4] Hollis, C. (2022). Expat cost of living in most of southeast Asia falls due to weakening currencies. Thailand Property.

[5] Hsu, L., Barnes, M., & Kandra, M. (2020). The dark side of sex tourism in Asia. Women's Republic.

[6] Caballero-Anthony, M. (2018). Human trafficking in southeast Asia - IMF finance 7 development magazine. IMF.

[7] Jirenuwat, R. & Goldman, R. (2017). Dozens found guilty in Thailand human-trafficking case. The New York Times.

[8] Duangdee, V. (2021). Meth 'Super Labs' said to thrive in Myanmar coup chaos, spilling drugs across Mekong. VOA.

[9] Arcado, N. (2022). Ice and instability: Illicit financial flows along Thailand's borders: New perspectives on Asia. CSIS.

This page titled 8.5: Tourism, the Informal Sector, and "Dependency" is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Jason Scott.

9: MIDDLE AND SOUTH AMERICA

Re-framing Middle and South America

The Americas are often framed within the context of “European Discovery” of a “New World”. This terminology contradicts the archeological evidence and historical records that have long depicted the region as thoroughly populated prior to European colonization. Great Indigenous civilizations serve as a testament that the Americas before Europeans was just another old world filled with stories of human ingenuity. The domestication of corn dates Mesoamerican agriculture to be among the earliest in human history. It enabled the rise of great urban centers comparable in architecture and population size as any of the greatest cities in the Pre-Columbian world. Evidence suggests that even the Amazon rainforest, a place still erroneously imagined as an empty jungle, Indigenous peoples cultivated lands and mastered a livelihood that supported populations in the millions. This is worth noting, since the European “age of exploration” was never a product of inconsequential curiosity. The colonization of the Americas caused the biggest demographic collapse in recorded history and the largest forced migration in human history. No other world region experienced such extensive depopulation and repopulation.

Middle and South America are often referred to as “Latin America and the Caribbean”. The term ‘Latin’ accentuates the Iberian colonial heritage and the Latin roots of Spanish and Portuguese. It is true that the region has more speakers of both Spanish and Portuguese than in Europe or anywhere else in the world, and that these are the predominantly spoken languages and cohesive cultural factors in the region. It is also true that the Iberian heritage made most places in the region predominantly Catholic. However, describing Middle and South America as “Latin” dismisses the ethnolinguistic diversity and the strong African and Indigenous character of many parts of Middle and South America. It can be a form of erasure of *million*s of Indigenous peoples and *million*s of Afro-descendants. In the Caribbean, English speaking peoples would further be excluded by the “Latin” generalization. Unlearning the label “Latin America” is not a mere vocabulary exercise. It is based on a reflection of the accuracy and point of view of our chosen terminology.

As a chapter written for US students, many who might have family ties to Middle or South America, it is important to point to the flawed notion of *latitinidad,* or the idea of a unified Latinness sweeping the Americas south of the US-Mexico border. People in Middle and South America tend to not primarily identify as Latinos, Latinas, or Latinx. Instead, they are more likely to primarily identify with their ethnoracial groups or nationalities. Often, a Latin identity develops for those who migrate to other parts of the world and find greater similarities with others from Middle and South America than the mainstream culture of their host countries. In other words, Mexicans, Brazilians, Peruvians, Puerto Ricans, and Cubans might relate with each other based on cultural similarities but still have distinctive music, foods, customs, religion, language and/or ways of speaking, etc. Despite their cultural uniqueness, all these identities are aggregated as “Latin” in the United States. Lastly, many Latin (umbrella term for people from the region) and Hispanic (Spanish-speaking) peoples in the United States have difficulty with American ethnoracial identifications, not knowing exactly how to fit in the boxes of the US Census. Most people in Middle and South America are of mixed ethnic/racial backgrounds.

In consideration of the great diversity within Middle and South America, geographers tend to regionalize it in various ways. Depending on the criteria used, Mexico could be either part of North America or Middle America. Mexico is geologically part of the North American plate and holds strong economic ties with the United States and Canada. The American Southwest also has a strong Spanish and Mexican heritage, and many counties a Hispanic-majority population. Nonetheless, Mexico’s colonial and neocolonial heritage creates greater similarities with Spanish-speaking Mesoamerican countries of the south than with the English-speaking Anglo superpower of the north. Thus, we include Mexico with all the countries south of the US-Mexico border, as most geographers do. The Caribbean is often its own region, given its unique geography and diverse history of colonization. South America, too, could be its own chapter, and even further regionalized into smaller units. In other words, while the region has strong cultural and historical ties, it is a region with many realities (and sub-regions). Putting everything south of the US-Mexico border in a region is a broad stroke, but we can make sense of it with a thematic approach. In these chapter sections, we will highlight different geographical contexts in a selection of topics that should stimulate a greater understanding of the geographies of Middle and South America.

The World Geographies Atlas: Navigate each world region through maps

For each of the world regions, our original atlas provides detailed maps to help you navigate the places discussed in this book. These maps are meant to be explored before and during the reading of this chapter. These maps are best enjoyed enlarged. Click on each map for an enlarged view, and zoom in to see the prominent biomes, physical features, and population centers of Middle and South America. We recommend that you download these for reference as you read this chapter's content and hope that you enjoy this original compilation.

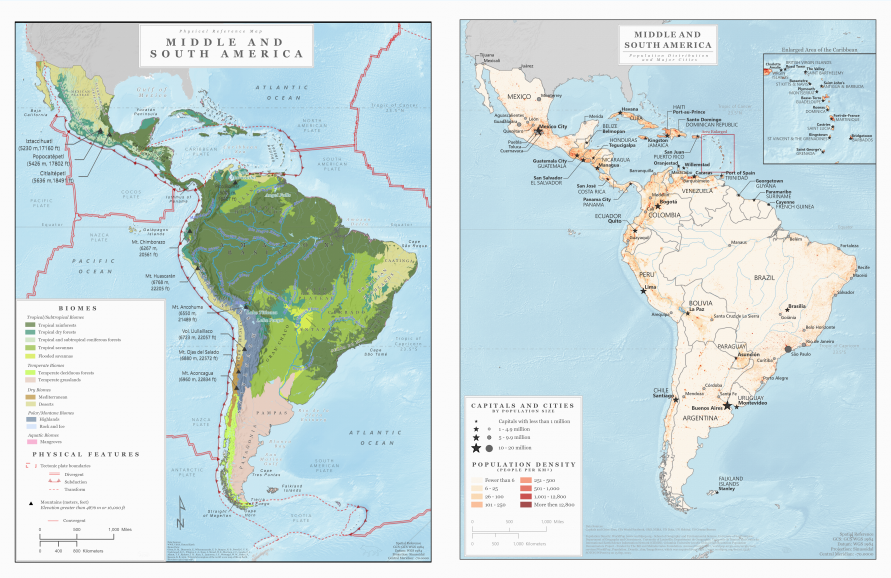


Figure 9.1: [left] This physical map shows the geographic distribution of biomes in Middle and South America and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries (CC BY-NC-SA; Wallace via Flickr). [right] This map depicts internationally recognized countries, capitals, major cities, and population distributions of Middle and South America (CC BY-NC-SA; Sellers via Flickr).

- Chapter Sections and Summaries

9.1: Natural Environments

9.2: Indigenous Worlds- Amerindian Civilizations, Colonization, and Revival

9.3: The Cultural Mosaic- Diasporas, Race, and Ethnicity

9.4: Inequality and the City

9.5: Tropical Deforestation and the Rights of Nature and Indigenous Peoples

This page titled 9: Middle and South America is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

9.1: Natural Environments

Learning Objectives

1. Explain the tectonic activity of Western Middle and South America and identify some of the resulting physical features.
2. Explain the physical processes driving the earthquake and hurricane hazards of Middle America.
3. Describe the biomes of Middle and South America and their shaping mechanisms and geographic distributions.
4. Explain the characteristics and significant of rainforests in Middle and South America.

Plate Tectonics

Seen from space, the Americas can be seen as two large landmasses stretching from the northern and southern hemisphere. They are connected by the **Isthmus of Panama,** a thin strip of land that bridged the Americas at around 15 million years go. The Isthmus is a biproduct of the collision of two tectonic plates. Scientists believe the formation of the Isthmus of Panama is one of the most important geologic events to happen on Earth in the last 60 million years. Even though it is only a tiny sliver of land relative to the sizes of continents, the Isthmus of Panama had an enormous impact on Earth's climate and its environments. By shutting down the flow of water between the two oceans, the land bridge re-routed currents in both the Atlantic and Pacific Oceans. Atlantic currents were forced northward, eventually establishing an oceanic current that we call the Gulf Stream. With the warm Caribbean waters flowing toward the northeast Atlantic, the climate of northwestern Europe grew warmer. The Atlantic, no longer mingling with the Pacific, also grew saltier. Each of these changes helped establish the global ocean circulation patterns we see today.

The tectonic processes that have joined the Americas through the Isthmus of Panama shaped many of its landforms over millions of years. Middle and South America today experience the dynamics of seven interacting tectonic plates. We can synthesize this tectonic activity into two general tectonic regions: the active subduction zones of the western mountain system of Middle and South America and the transverse boundaries of North/South America and the Caribbean.

Western Mountain System



Figure 9.1.1: Map of major tectonic plates of Middle and South America and their general direction of movement. A subduction zone dominates the west coast and is responsible for the volcanic mountains and earthquakes of the western spine of the region - the Sierra Madres, Volcanic Axis, and the Andes are part of this western mountain system. The Caribbean plate has a combination of boundary types - in its northern boundary, it slips past the North American plate causing frequent earthquakes in the region (CC-BY-SA 3.0; adapted from Eric Gaba author via Wikimedia Commons).

The West Coast of the Americas is part of a highly active tectonic region. In Middle and South America, most of the west coast is a long **subduction zone** where plates are subducting. In Middle America, this occurs with the **Coco's Plate,** a fast-moving plate headed east and in direct collision with the Caribbean Plate. Having a dense oceanic crust, the Cocos plate subducts underneath the Caribbean Plate. This is the physical process beneath a strip of volcanic mountains in Central America dotting lands from Guatemala to Costa Rica, called the **Central American Volcanic Axis**. Guatemala is known as the country with the highest density of active volcanoes in the world, a place where one can experience naturally volatile but astonishing landscapes surrounded by volcanic mountains. For years, the towering *Volcán de Fuego* near Guatemala City, for example, has puffed continuously, punctuated by occasional episodes of explosive activity.

In its northern edge, the Coco's Plate also forms a subduction zone with the North American Plate, an important geologic force in Mexico. Many active volcanoes are found along the **Trans-Mexican Volcanic Belt,** also known as *Eje Volcánico Transversal*. The volcanic belt lines the southern part of the **Mexican Plateau**, a highland that sits as high as 8,000ft tucked between Mexico's largest mountain ranges: the *Sierra Madre Oriental* (Eastern) and *Sierra Madre Occidental* (Western). Mexico's largest city, Mexico City, lies on the southern portion of this plateau. It is regularly rattled by earthquakes, at the foot of various volcanoes like *Popocatépetl* (17, 802ft) and *Iztaccihuatl* (17,159ft). Aztec legend holds that the origins of the two volcanoes is rooted in the love between a princess (Iztaccihuatl) and a warrior (Popocatépetl), both immortalized when the Gods turned them into mountains and blanketed them in snow. Despite the proximity of the legendary lovers, their similar age, and geologic character, Iztaccihuatl has not erupted in historic times. This has encouraged the establishment of numerous agricultural fields around it. Named a "smoking mountain" the Aztec language, Nahuatl, Popocatépetl remains one of the most active volcanoes in Mexico.

In South America, the **Nazca Plate** functions similarly to the Cocos Plate, heading east and subducting underneath the South American Plate. This is the physical process responsible for the world's longest mountain range, the **Andes Mountains,** which extend from the northernmost to the southernmost parts of the South American continent. Given its wide latitudinal range, the Andes display diverse environments, towering over tropical, sub-tropical, and temperate regions with many peaks high enough to hold glaciers. The Andes have the highest mountain peaks outside Asia, including the highest peak in the western hemisphere, Mt. Aconcagua (22,841ft), and hundreds of active volcanoes.

Together, the subductions of the Cocos and Nazca plates form the geologically active west coast of Middle and South America. It results in a western system of nearly continuous mountain ranges running through many degrees of latitude. This western spine is also part of the greater **Ring of Fire,** a ring of volcanic ranges that encircles the shores of the Pacific Ocean. It is here that many of the world's volcanoes and largest earthquakes occur as a byproduct of subduction.

Sacred Towers: *Las Madres* and *Apus*

Mexico's prominent ranges bear the name *Sierra Madres* – Spanish for "Mother Mountains." This naming is rooted in how Indigenous people perceive their mountains. In many Indigenous cultures mountains are believed to be dwellings of the Gods, sacred sites of pilgrimage and ritual. Tlaloc, for example, an Aztec deity of rain, is believed to roam the mountains of the Trans-Mexican Volcanic Range and reside in Mt. Tlaloc, signaled by the presence of rain clouds frequently hover over the mountain peak. The mythical connection of the mountains with Tlaloc as a deity of water, sustenance, lightning, and storms suits the capricious characteristics of highland climates where conditions can change drastically within a day. By controlling water, Tlaloc is a central deity in the Aztec pantheon, one responsible for sustenance as rains influence agricultural and natural cycles.[1]

In South America, the Andes are the center of the Inca universe, the believed realm of deities. The Inca named their tallest snow-capped mountains *apus* – a Quechua word meaning "God." Innumerous pilgrims hike these mountains in religious rituals seeking a connection with the divine. The antiquity of this spiritual connection is supported by archeological findings of human offerings and sacrifice in various Andean peaks. A prominent example is the infamous Juanita, an excavated mummy of a young noble Inca girl found in Mt. Apato (Peru), believed to have been sacrificed for the Inca Gods five hundred years ago. Juanita and other recovered mummies had been frozen in the ice caps of the mountains, only made accessible by a volcanic discharge that sent ice blocks rolling down the slopes. Juanita stunned archeologists with the well-preserved features, accessories, and the fine wool that wrapped her body, signs of a prestigious offering to the Inca Gods. The location of Machu Pichu, a famous Inca sacred site, atop steep Andean cliffs is another example of the role of mountains in the Inca spiritual universe.

As geographers, we interpret this ascribed sacredness to a deep understanding of life-supporting environmental services. The mountain ranges that surround Aztec and Inca territories are central to the ecology and the hydrology that have supported civilizations for millennia. The ice caps of the Andes, for example, are water storage systems that replenish rivers

during dry seasons, supporting people and ecosystems. In addition to their hydrological importance, volcanic mountains line the land with nutrient-rich volcanic soils that have enabled agriculture and sustained civilizations. Mountains also capture moisture carrying clouds and provide habitat for a wide array of species that find home in their ecological zones. Indigenous reverence for these natural towers reflects an understanding of the vital functions the Mesoamerican and Andean mountains provide.

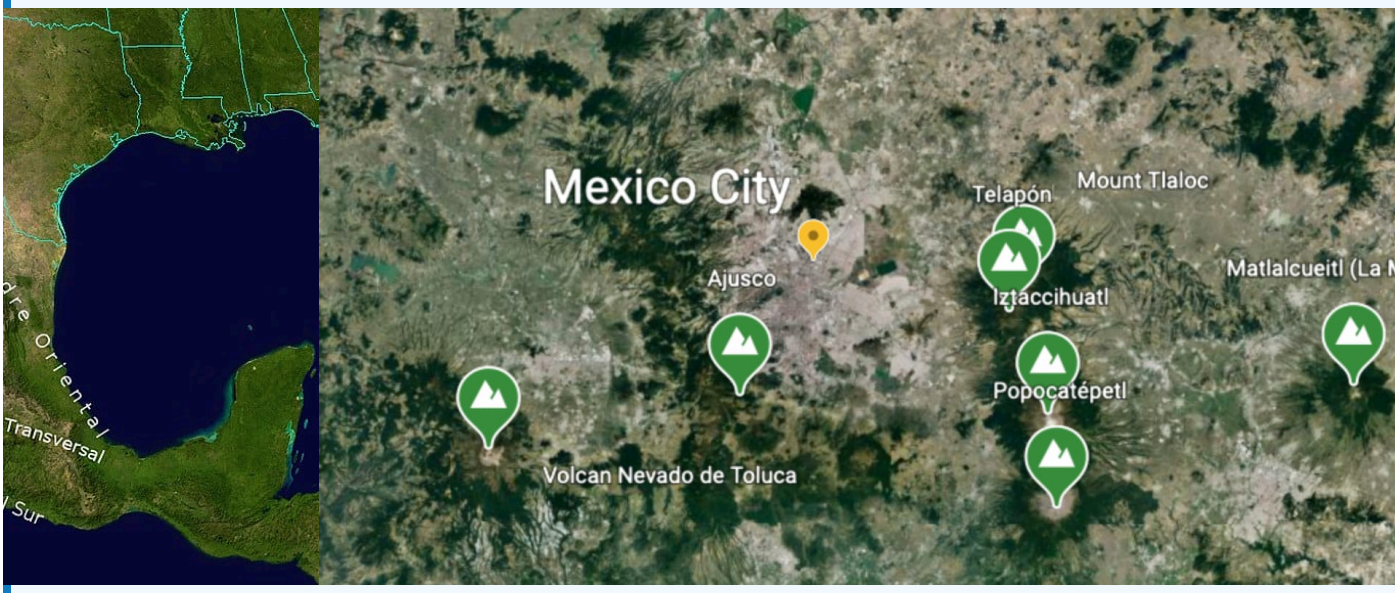


Figure 9.1.2: [top] This satellite map of Mexico situates its prominent mountain ranges: *Sierra de California*, *Sierra Madre Occidental* (Western Sierra Madre), Sierra Madre Oriental (Eastern Sierra Madre), and *Sierra Madre del Sur* (Souther Sierra Madres). The *Eje Volcanico Transversal* (Trans-Mexican Volcanic Belt) crosses the country diagonally from the Pacific Ocean to the Caribbean at the southern portion of the Mexican Plateau (Public Domain; NASA via Wikimedia Commons). This satellite image illustrates some of the iconic volcanoes of the Trans-Mexican Volcanic belt, south of Mexico City. To the right of it, a replicated drawing of Tlaloc, the deity of rain thought to dwell among these ranges and reside in Mount Tlaloc (This graphic was created by Aline Gregorio using Google Earth; permitted use. Tlaloc as depicted in the Codex Magliabechiano via Wikimedia Commons, Public Domain).

Middle America's Turbulent Land and Atmosphere

Middle America showcases turbulent geological processes and the friction zones in all borders of the **Caribbean Plate**. To the east, the tectonic collision of the Caribbean plate and the North American plate formed the Caribbean **archipelago**, or island chain. Many of these islands are the tops of underwater mountains. The islands of the Caribbean are divided into the Greater Antilles and the Lesser Antilles. The **Greater Antilles** include the larger islands of Cuba, Jamaica, Hispaniola, Puerto Rico and the Cayman Islands. The **Lesser Antilles** are smaller volcanic islands arching eastern edge of the Caribbean plate. On the northern edge of the Caribbean Plate, various islands are on a seismic ride as the plate heads east and slides past the North American Plate. This lateral slipping forms a **transverse** boundary, a friction zone that has resulted in several severely destructive earthquakes. Haiti, for example, sits on a series of faults that have been the epicenter of destructive earthquakes – the 2010 earthquake had a 7.0 magnitude and subsequent aftershocks that destroyed buildings, killed over two hundred thousand people, and left over one million people immediately homeless.[2] As the poorest country in the western hemisphere, the impacts of the earthquake have been enduring. Ten years later, Haiti still had not recovered the disaster, despite billions of dollars of international aid. It is an example of how natural hazards can be particularly destructive in poor and politically unstable countries.

Countries in Middle America are also highly susceptible to **hurricanes**, tropical storms with winds of 74 miles per hour or more. They tend to develop over the warm waters (about 80°F or higher) of the Atlantic Ocean and often escalate into hurricanes headed towards the Caribbean and Gulf of Mexico in the fall (between August and October). Hurricane Irma, for example, hit the Caribbean in September 2017, leaving a trail of devastation. Irma's winds approached 180 miles per hour, the most powerful Atlantic Hurricane ever recorded. Satellite images reveal green islands turned brown as winds stripped trees and damaged infrastructure. Islands like San Martin and Barbuda faced near total devastation while Puerto Rico, Dominican Republic, and Haiti experienced extensive electricity loss and infrastructural damage. Scientists warn that as ocean waters are becoming warmer due to global warming, destructive hurricanes like Irma are more likely to occur.

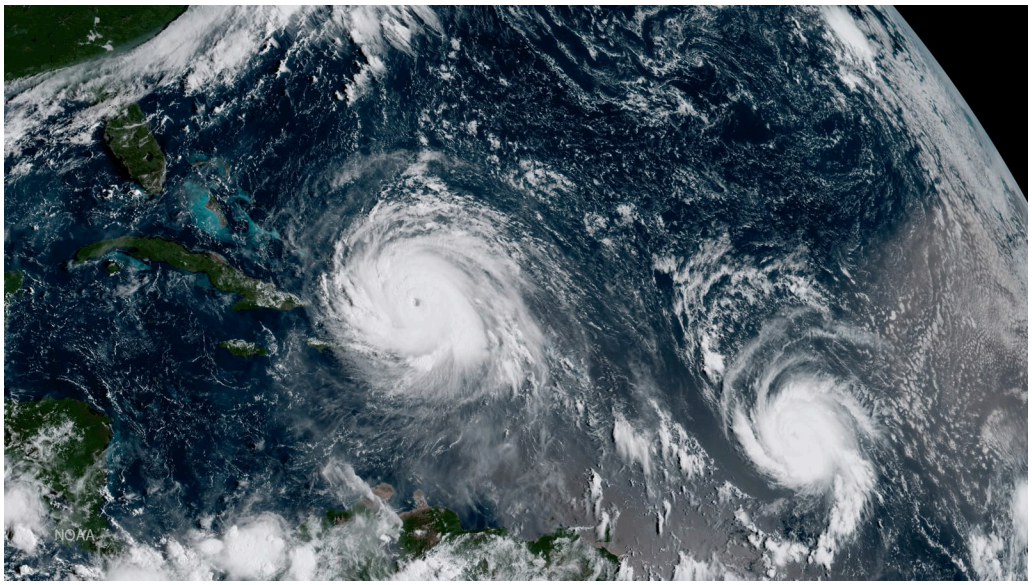


Figure 9.1.3: Between August and October, the Caribbean and tropical Atlantic waters are warm enough to fuel powerful hurricanes. This satellite image captures hurricane Irma (to the left) and hurricane Jose (to the right) in the Atlantic Ocean on September 7, 2017 (CC BY 2.0; NOAA National Environmental Satellite via Wikimedia Commons). These are two of the many destructive hurricanes that have battered the region resulting in the loss of life and infrastructure.

Middle & South America's Biomes

Middle and South America display immense environmental diversity. Atop the dynamics churning beneath the Earth lies a vast region with great topographical variability. Mountains, plateaus, and lowlands make for distinctive environmental conditions. Regions in higher altitude have cooler temperatures and less evaporation and display colder environments than lowlands. Furthermore, the wide latitudinal range of Middle and South America situates its vast territory within various global climate regions. In this section, we will explore how topography, latitude, and situation to airmasses shape natural environments in the region.

The ITCZ

Most of Middle and South America territories extend through a wide latitudinal range, through tropical and subtropical regions. As discussed in Chapter 1, latitude establishes a relationship between the Earth and the Sun, shaping global pressure systems and air circulation patterns to a large extent. Tropical latitudes receive the most direct solar radiation, which warms up the lands and oceans and the adjacent air. Warm air rises, as it rises it expands and cools, and as it cools the air is less able to hold moisture. Thus, the tropics are marked by the presence of an enveloping cloud belt, a rising air mass that generates abundant rainfall in tropical regions. This low-pressure system (of rising air and rain) is called the **Intertropical Convergence Zone (ITCZ).** The ITCZ is a latitudinal belt that shifts north and south of the equator with the seasons: in July (northern hemispheric summer) it shifts towards the north and in December (southern hemispheric summer) it shifts towards the south. The presence and seasonality of the ITCZ shapes the distribution of the tropical rainforests and savannas in Middle and South America and other parts of the world.

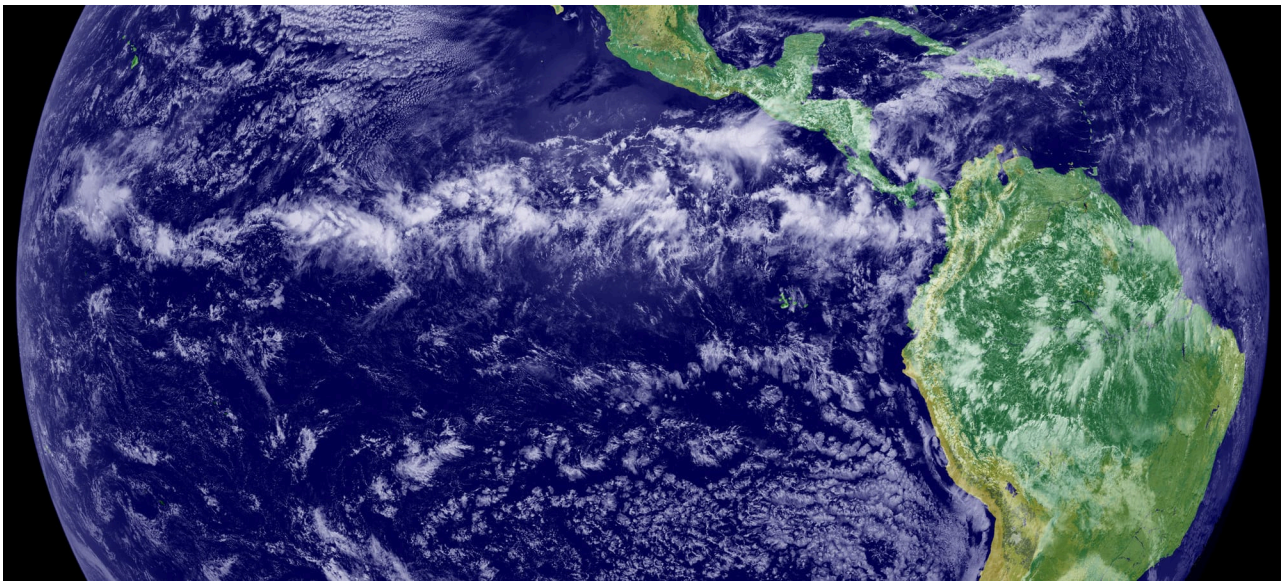


Figure 9.1.4: The clouds of the Intertropical Convergence Zone are visible along the equator and the tropical Pacific Ocean. The intense sun and warm water of the equator heats the air in the ITCZ, raising its humidity and causing it to rise. As the air rises it cools, releasing the accumulated moisture in an almost perpetual series of thunderstorms. Variation in the location of the ITCZ drastically affects rainfall in many equatorial nations (Public Domain; NASA via Wikimedia Commons).

Tropical Rainforests

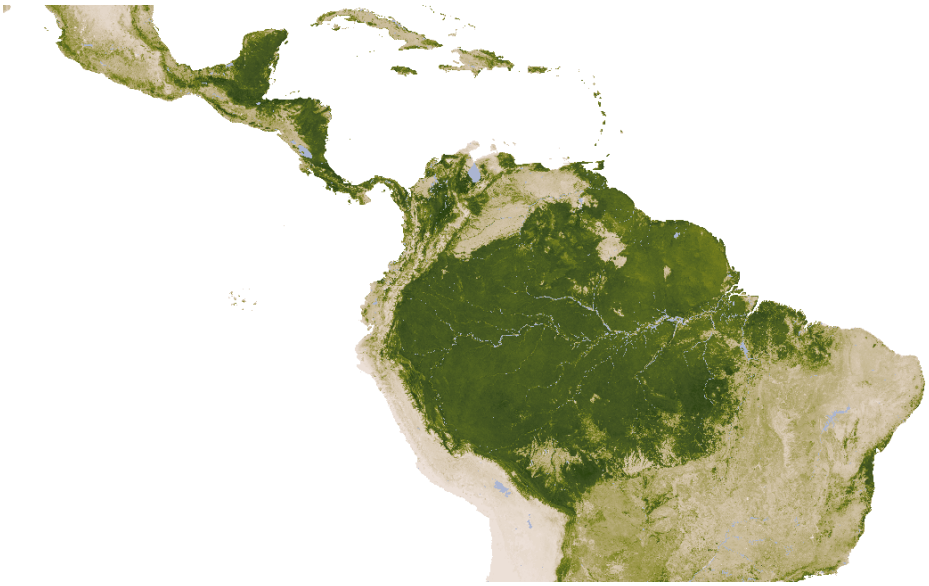


Figure 9.1.5: This satellite image shows the geographic distribution of tropical rainforests in Middle and South America. Notice the Mesoamerican rainforests extending from Mexico's Yucatan Peninsula south to Panama. In South America, much of the Amazon rainforest lies in the Amazon Basin, the lowlands of the Amazon River. Forests near the river and tributaries are adapted to flooding (Public Domain; NASA Observatory).

Middle and South America is home to vast tracts of **rainforest**, a lush biome with an immense biodiversity. Tropical rainforests experience warm temperatures (mean about 80°F) and abundant rains (over 80in) per year, a biproduct of the tropical latitude and the ITCZ overhead. These biomes are often viewed in simplistic terms (warm, wet, and green) when in reality they are complex ecosystems intertwined with myriad lifeforms, many of which are yet to be described by scientists. While tropical rainforests makeup for only six percent of the Earth's landmass, they are home to about half of all species on Earth. They are known for their unparalleled high levels of terrestrial biodiversity and **endemic species,** species that are found nowhere else on Earth. Rainforests in Middle and South America have over 30,000 species of vascular plants, more than three times as many as Africa and Asia.[3] Six of the world's most biodiverse countries are within Middle and South America: Brazil, Colombia, Ecuador, Mexico, Peru, and Venezuela.[4]

Tropical rainforests are characterized by their vertical arrangement of three canopy layers that are home to most life forms occupying different stories of the forest. The top canopy contains giant trees that act as an inverse umbrella catching rain and sunlight and reducing access for species near the ground. Given the dense foliage and fierce competition, very little sunlight reaches the forest floor and most species live in the trees. Examples include countless colorful birds, sloths, monkeys, snakes, and jaguars. By contrast, the forest floor is dark, inhabited by shade loving species and fairly sparce of vegetation and animal life compared to the densely inhabited vegetation layers above.

Tropical plants play a fundamental role in their local climates. Trees contribute to the local precipitation by releasing moisture back into the atmosphere in a process called **evapotranspiration**. It is estimated that as much as half of the precipitation that falls on the Amazon Basin comes from the moisture returned to the atmosphere from the trees themselves. This self-sufficiency is also evident in how tropical trees manage nutrients. It may be surprising that the soils beneath so much life are acidic and leached of nutrients from the heavy rains. These nutrient-poor reddish soils are called **oxisols** and **utisols,** and they provide a challenging foundation for canopy giants to grow from. As an adaptation to this low soil fertility, tropical trees have shallow roots which are better equipped to access nutrients from the rapidly decomposing leaves on the moist forest floor. The scent of wood and decaying vegetation typical of rainforests is a sensory indicator of the ongoing nutrient cycling of this dynamic ecosystem.

While most of the tropical rainforests in Middle and especially South America are found in lowlands, topographical differences make for unique rainforest ecosystems. The **Amazon Basin** is a low-lying and relatively flat area of over 2.7 million square miles of a vast drainage system of the Amazon River, the most voluminous river in the world. Along the course of over 2,000 miles, it joins the waters of over a thousand tributaries and discharges into the Atlantic Ocean. It represents about one fifth of all river flow in the world. The Amazon River expands in the wet season and submerges vast areas of rainforest along its floodplain. These **floodplain rainforests,** also called várzeas, are composed of vegetation adapted to remain underwater for months out of the year (December – May). Fruit trees form symbiotic relationships with fish that swim through the forest floor, eat their fruits, and disperse their seeds. Sloths and freshwater pink dolphins roam the waters of flooded forests, a symbol of a seasonal fusion of riverine and terrestrial worlds.

Tropical mountain environments are also associated with high levels of biodiversity largely due to the variations of temperature and moisture at different elevations. In a small country like Ecuador, for example, the intersection of the Andes mountains, the Equator, and ITCZ at Yasuni National Park form an ecological epicenter with a remarkable diversity of plants, mammals, birds, and amphibians. It may be the most biodiverse place on Earth.[5] Some rainforests in higher elevations of mountain slopes, in Ecuador and beyond, become consistently submerged by clouds. Known as **cloud forests**, these misty environments are cooler and almost always humid. Thus, they contain lifeforms specifically adapted to these conditions. In Central America, an emblematic example of a cloud forest species is the quetzal, an iridescent turquoise bird highly revered by Mesoamerican Indigenous cultures for its beauty. Guatemala is home to one of the largest unbroken extents of cloud forest in Mesoamerica containing the largest remaining habitat of the quetzal, an endemic species of the region. Other species that reside here include the endangered tapir, howler monkey, jaguar, and harpy eagle. Like the quetzal, many species face an uncertain future due to habitat loss. The causes and consequences of tropical rainforest destruction will be discussed later in this chapter (In Section 9.5).



Figure 9.1.6: This collection of images illustrates floodplain rainforests of Brazil and cloud forests of Costa Rica. [top left] The Amazon rainforest on the Urubu river, a tributary of the Amazon River running through Amazonas State, Brazil (CC BY 2.0; Deak via Wikimedia Commons). [top right] Aerial view of the Amazon Rainforest, near Manaus, the capital of the Brazilian state of Amazonas (CC BY-NC-ND; Palmer via Flickr). [bottom left] Tropical trees covered in mist at the cloudforest of Monteverde, Costa Rica (CC BY-NC-SA 2.0; Crisp via Flickr). The iconic quetzal, an endemic species of Mesoamerican cloudforests (CC BY-SA 4.0; Harleybroker via Wikimedia Commons).

Tepuis, the sky islands of the northern Amazon

The Guiana Highlands are known for the pronounced flat-top mountains called **tepuis,** sandstone and quartzite rock features that are remnants of a once-continuous plateau that eroded over millions of years. Tepuis are fascinating due to their prominence in the landscape, their antiquity, and their internal structures. Many tepuis contain extensive cave systems, rivers, and tunnels within them. There are about one hundred tepuis in South America, mostly in Venezuela but also in northern Brazil and western Guiana. One of the most well-known is the heart shaped *Auyán Tepui* in Venezuela. It is home to the world's highest waterfall, **Angel Falls,** which drops nearly 1,000 meters (3,300 feet)—19 times farther than Niagara Falls.

Tepuis can be described as sky islands. They tower above the forest disconnected from each other and the environments beneath them. While *tepuis* have been minimally explored by scientists, it is estimated that many unknown endemic species inhabit their cliffs. Tepuis host many mammals on their lower slopes, including monkeys, jaguars, pumas, and sloths, and several bat species. Reptiles, such as snakes, iguanas, and lizards, are found on the summits and slopes. The Pemón, the local indigenous people of the region, have mythologies connected to nearby rivers, waterfalls, and rock formations. To the Pemón, the tepuis are sacred, the home of the Gods, and forbidden to humans.[6]

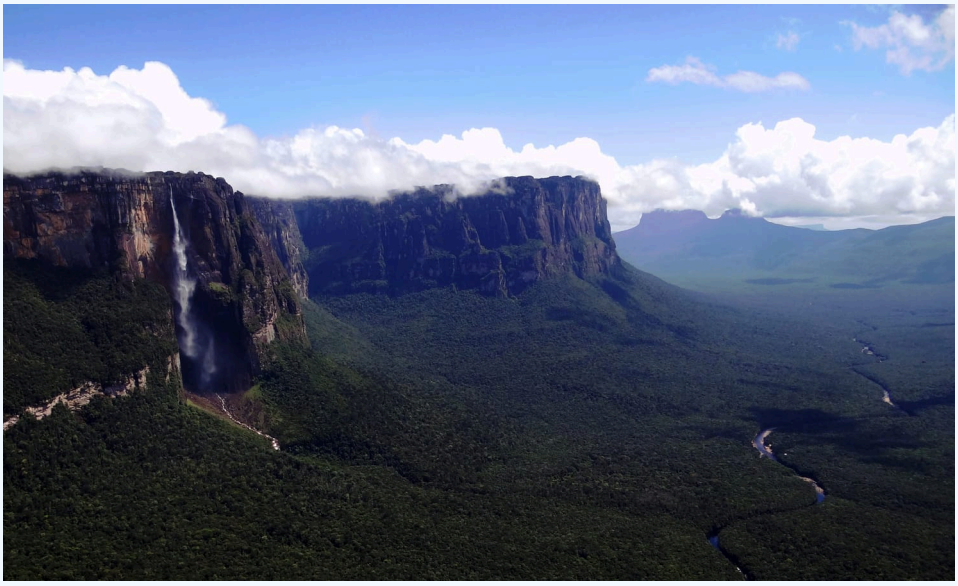


Figure 9.1.7: A panoramic photo of Angel Falls, Venezuela, the world's tallest waterfall. Its waters cascade from the Auyán-tepui mountain in the Canaima National Park, a UNESCO World Heritage. The rock cliffs tower ver a canyon, *Cañon del Diablo,* and a meandering river, *Río Churun* surrounded by lush tropical forest (CC BY-SA 3.0; Dezeo via Wikimedia Commons).

Deserts

The vast territorial expanse of Middle and South America includes not only tropical rainforests but also pronounced deserts. The **Atacama Desert** is well known as the world's driest desert, receiving only a few millimeters of rain per year, sometimes only in the form of coastal fog. Framed by the Andes Mountains in the east and the Pacific Ocean in the west, it extends from the northern coast of Chile to the south coast of Peru. Not so far from vast tropical regions, the Atacama Desert is situated at the foothills of the Andes, a formidable topographic barrier that traps the incoming humid air masses coming from the Amazon Basin. Moisture-laden clouds are carried west from the Atlantic to the Amazon Basin. When they reach the Andes, the moist air forced to rise. As it rises, it cools, condenses, and precipitates in the east side of the Andes leaving the west dry. The Atacama Desert is in the **rain shadow** of the Andes mountains. The desert is also shaped by the **Peru Current** (also known as the Humboldt Current), an oceanic current along Atacama's coast that brings cold waters from Antarctic latitudes north. Since cold water does not evaporate, the adjacent air masses are dry and bear little to no moisture for the Atacama coast. The current is also associated with abundance along the Chilean coast, as it forces up cold water nutrients that sustain rich fisheries. Together, the Andes and the Peru Current are the major factors making the Atacama the driest desert in the world.

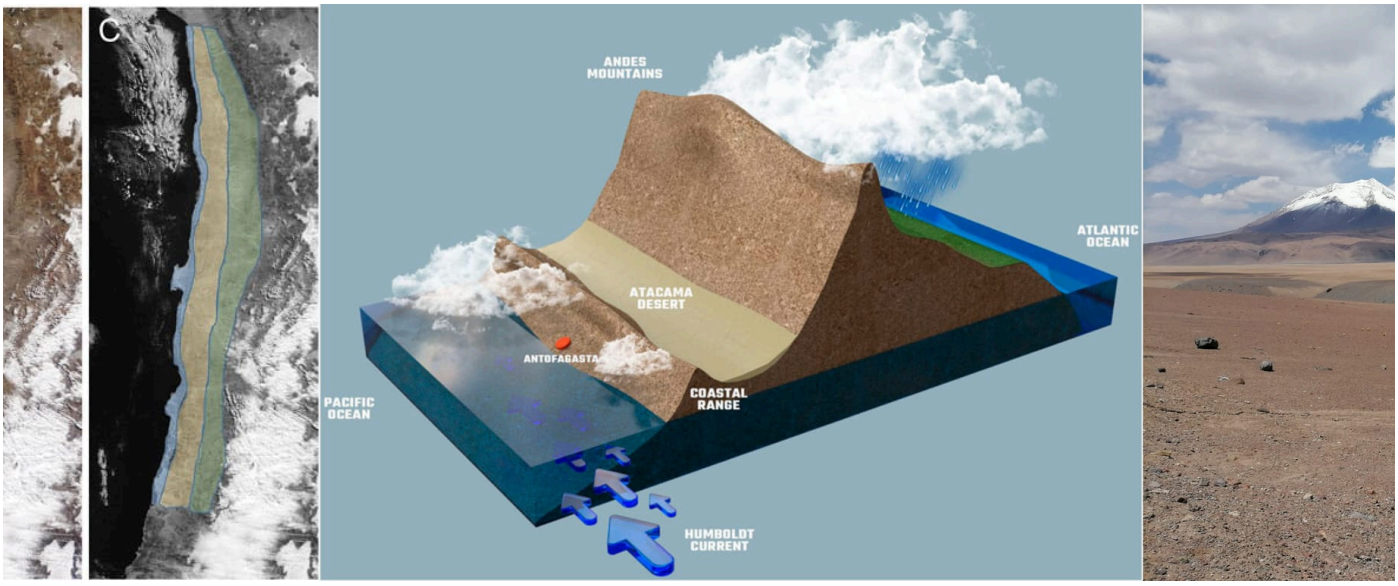


Figure 9.1.8: [top left, map A] The map illustrates the location of the Atacama Desert in South America. [top right, maps B and C] The Zoom of the white frame shown in map A depicts the masses of clouds at the eastern side of the Andes over Argentina and Bolivia. The general location of the Coastal Range (light blue), the hyperarid core Atacama region (Yellow), and the Andes Mountains and its foothills (green). [bottom left] This diagram shows the incoming air masses from the east being trapped by the Andes mountains, leaving the west side dry. The Atacama lies at the shore of the Pacific Ocean, dominated by the Humboldt Current, a cold oceanic current (CC BY; Azuza-Bustos et al. 2022, via Frontiers). [bottom right] An Atacama landscape showing the snowcapped mountains of Nevado Tres Cruces National Park, along the Atacama region in Chile (CC BY; Cadenas via Wikimedia Commons).

Reiterations of the rainshadow effect are evident throughout many landscapes in Middle and South America (and the world). For example, note the distribution of rainforests in the eastern slopes of the Central American Volcanic Axis. The moisture-carrying airmasses carried by the northeast trade winds bring precipitation to the east while leaving western portions of Central America drier. Similarly, along the southeastern coast of Brazil, the Atlantic Forest is elevated by the rolling hills of Serra do Mar, a coastal mountain system that captures incoming rain clouds that provide moisture for a continuous rainforest along the coast of São Paulo and Rio de Janeiro. Further south, the westerlies encounter the western portion of the Andes mountains, with Chile in the windward side and Argentina in the rainshadow of the mountain chain. Thus, the Argentinian Patagonia is a cold desert, not only because of the blockade of the Andes but also the presence of the cold oceanic current, the Falkland Current bringing Antarctic waters to the Argentinian coast. In short, the great mountains of Middle and South America provide for great environmental diversity based on their latitudinal and altitudinal range and interaction with circulating air masses.

References:

[1] Popovici, C. (2022). The Ritual Ascent at Mount Tlaloc, Mexico. *MAVCOR Journal* 5 (2).

[2] Savard, J., Sael, E., and Clormeus, J. (Jan 9, 2020). A decade after the earthquake, Haiti still struggles to recover. *The Conversation*.

[3] Miller, S. W. (2007). *An environmental history of Latin America*. Cambridge University Press. pp 5.

[4] Miller, S. W. (2007). *An environmental history of Latin America*. Cambridge University Press. pp 5.

[5] Blitz, M. (May 15, 2022). This park in Ecuador is one of the most biodiverse places on Earth. *Smithsonian Magazine*.

[6] Sharpe, C. J., & Rodríguez, I. (1997, January). Discovering the lost world: Canaima National Park and world heritage site, Venezuela. In *The George Wright Forum* (pp. 15-23).

Attributions:

“Isthmus of Panama” is adapted from Isthmus that Changed the World by NASA, permitted use.

Parts of “Tropical rainforests” is adapted from Hope for Guatemala's national bird by the World Wildlife Fund (WWF), CC BY NC.

“Hurricane Irma” is adapted from Hurricane Irma Strengthens by NASA, permitted use.

“Tepuis” is adapted from Venezuela’s flat topped mountains by NASA, permitted use.

This page is also adapted from World Regional Geography by University of Minnesota and World Regional Geography by Caitlin Finlayson, both CC BY-NC-SA 4.0.

This page titled 9.1: Natural Environments is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

9.2: Indigenous Worlds- Amerindian Civilizations, Colonization, and Revival

Learning Objectives

1. Describe the geographical distribution of Pre-Columbian Indigenous civilizations and their cultural contributions.
2. Explain the biological, demographic, and cultural impacts of colonization.
3. Identify major languages and population clusters of Indigenous peoples of Middle and South America.

Great Ancient Civilizations

The Americas have been populated for thousands of years, and great civilizations and innovations have emerged from the region. We do not know exactly how many people lived in the Pre-Columbian Americas, but archeological and historical evidence support an estimated population of 60 million.[1] Historical accounts from Columbus and Bartolomé de las Casas in the Caribbean, Magellan in Tierra del Fuego, and Gaspar de Carvajal in the Amazon all describe the region as fully settled.[2] The domestication of corn dates Mesoamerican agriculture to be among the earliest in human history. It enabled the rise of great urban centers comparable in architecture and population size as any of the greatest cities in the Pre-Columbian world. Evidence suggests that even the Amazon rainforest, a place still erroneously imagined as an empty jungle, Indigenous peoples cultivated lands and mastered a livelihood that supported populations in the millions. In other words, there was nothing "new" about the indigenous worlds of the Americas before it became the "New World" or even "America" to Europeans.



Figure 9.2.1: These two paintings represent some of the cartographic art displayed in the National Museum of Anthropology, Mexico City. *[left]* This mural map depicts the location of major archeological sites of Mexico and parts of Guatemala and Belize and their iconic structures and artifacts. This map was painted by multiple collaborators under the direction of Ernesto Vasquez Beltran and Luis Covarubias. *[right]* The early painting depicts Lake Texcoco, Tenochtitlan, and Aztec sites surrounded by mountains and the snowcapped and mythical volcanoes of *Popocatépetl* and *Iztaccihuatl* in the southeast corner. Artist unknown (CC BY-NC-SA; Gregorio via Flickr).

Mesoamerica

Mesoamerica is home to several great ancient civilizations. Each inherited and built upon innovations of their predecessors. One of the earliest cultures to develop into a civilization with large cities in central/southern Mexico was the **Olmec (1200 BCE-400BCE)**. They left behind a legacy of monumental sacred complexes, massive stone sculptures, ball games, and the drinking of cocoa. The **Maya (classical period 250-950 CE**) established a vast civilization after the Olmec that lasted for two thousand years. Centered in the Yucatán Peninsula region of Mexico, Belize, and Guatemala, the Maya built some of the most magnificent cities and stone pyramids in the Western Hemisphere. The Maya civilization is known for their advancements in astronomy, engineering, mathematics, and architecture. They developed an accurate calendar based on the seasons and the solar system.

They represent one of the world's earliest civilizations, leaving behind great monuments and achievements.

By the 9th Century, Mayans had abandoned cities and scattered to surrounding regions. Scientists have attempted to piece together the causes of this haunting story of societal collapse. Some scholars contend that the collapse of the Maya outstripped their local resources due to their large populations and lavish demands of the governing elite. Maya agriculture enabled large and dense populations that required more and more land clearing to grow corn, leading to a serious deforestation problem. The Maya also cleared vast areas of rainforest for firewood used to make plaster to line the walls of their temples and appease the Gods to bring rain. Plaster layers became thinner and thinner overtime, suggesting that resources grew scarce. As a compounding effect, climate data suggests that an extended drought, partially driven by deforestation, may have pushed the Mayans to flee famine and conflict.[3] The Spaniards never encountered the empire but burned most of the forty Mayan Codices (books) – only three survived. While millions of speakers of Mayan languages exist to this day, the complete history about the empire's rise and fall continues to be a subject of scientific research and exploration.

The **Aztec Empire (c. 1345-1521)** replaced the Toltec and Maya as the dominant civilization in Mexico. The Mexica, along with other Nahuatl-speaking ethnic groups, collectively made up the peoples we know as the Aztecs. Their empire extended outward from the city capital, Tenochtitlán, to a wide expanse in Mexico's Central Valley and most of northern Mesoamerica. Though they borrowed ideas and innovations from earlier groups such as the Maya, they made great strides in agriculture and urban planning (see "The Heart of Mexico" in Section 9.4). Their empire was forged from a Triple Alliance between Tenochtitlán, Texcoco, and Tlacopan who subjugated other groups and extracted taxes and tributes from them. Tribute could take the form of traditional precious materials such as gold and jade, exotic feathers, animals such as eagles and jaguars, or in the form of clothes, fabrics, and foodstuffs such as corn and cacao. The desire to increase the diversity and quantity of tribute paid to the governing elites motivated battles of conquest that rapidly expanded the Aztec control. It also increased tensions with neighboring tribes, which proved to be a consequential advantage for the Spaniards who leveraged local rivalry to take down the empire.

The Inca

The **Inca Empire (c. 1400 and 1533 CE)** at its height extended across western South America from Southern Colombia and Ecuador in the north to Chile in the south. The Inca managed to thrive in the highlands of the Andes and the diverse surrounding environments that included plains, mountains, deserts, and tropical rainforests. Cuzco was the religious and administrative center of the empire, the navel of the Inca world radiating out highways, roads, and sacred sighting lines to each quarter (north, south, east, and west) of the Empire. The Inca network of roads covered over 40,000km, and although there were no wheeled vehicles, the road system was utilized by llamas and porters. It enabled the transportation of goods, armies, and messenger runners known as *chasquis*. Famed for their unique art and architecture, they constructed imposing stone buildings using massive stone blocks so precisely fit together that no mortar was needed. Impressive terraces, highways, and mountain-top buildings in the world-famous Machu-Picchu continue to inspire admiration for Inca architecture and ingenuity.

Agricultural Successes of Mesoamerican and Andean Civilizations

Agricultural successes underlie all great civilizations. Settled or partially settled agriculture was common practice in pre-colonial Middle and South America. The region is home to two of the world's ancient cultural hearths, centers of innovation of the Neolithic Revolution (10,000 BP) where agriculture began and diffused from. Unlike other cultural hearths of the world that primarily emerged along fertile river valleys, Mesoamerican and Andean civilizations harnessed diverse topographies and highlands. The two civilizations were mostly geographically disconnected by distance and the vast topographical barrier of the Andes Mountains south of the Panama Isthmus. Over millennia, Mesoamerican, Andean, and other Indigenous civilizations seized upon local innovations and mastered their environments with independent agricultural techniques that supported bountiful landscapes and rich food systems.

The Aztec inherited maize (corn) from their Mesoamerican predecessors. The domestication of maize around 6,000 years ago[4] is a feature of a breeding expertise that perplexes scientists because the crop that became a sacred foundation for great Indigenous civilizations is very different from its closest wild ancestor, a grass called teosinte. Over thousands of years, farmers in Mesoamerica bred teosinte into maize, cultivating varieties favorable to their local environments. Maize comes in blue, purple, orange, yellow, pink, black, and multicolored varieties that reflect the region's immense ecological and cultural diversity. It is a formidable example of human mastery, one that has been highly rewarding since the crop has been a staple in Mesoamerican diet for thousands of years. The traditional way of cultivating maize, the **milpa**, is a form of slash and burn agriculture practiced to this day. Farmers clear plots of land and burn the vegetation. The ashes fertilize the soils that are

then cultivated with a variety of crops for several seasons, then left fallow for soil nutrients to be restored. The cultivation of maize together with the cultivation of varieties of beans, peppers, tomatoes, chilis, avocados, squash, the highly prestigious cacao and chia, and the harvesting of insects and spirulina, gave Mesoamericans a diverse and nutritious diet.

Mesoamericans also developed the highly productive **chinampas**. These are raised agricultural fields that look like floating gardens, but they are more like artificial agricultural islands in wetlands or lake shorelines. Chinampas are built by adding layers of collected mud and vegetation atop a reed structure that is anchored by using stakes and willow trees. The plots are spaced by canals that allow access to fish and are easily accessible by canoes. This system essentially brings agriculture to water instead of the other way around. The water around each chinampa acts as a temperature moderator, a valuable feature given the drastic temperature changes of the highland environment of the Mexican plateau. Chinampa fertility has been historically managed by the harvest and application of lake sediment and organic waste, including human waste. This lakeside agricultural system greatly increased the agricultural capacity of the land to support large populations in pre-Columbian Tenochtitlán. The use of chinampas dates to centuries ago and continues to this day. Other parts of Mesoamerica and South America use similar strategies. In the Peruvian and Bolivian altiplano, the practice of *waru waru* agriculture along Lake Titicaca is another example of raised field agriculture with similar techniques and benefits of the chinampas.

Along the Andes mountains, Indigenous farmers carved mountains into extensive hillside agricultural plots called **terraces.** Terraces are pronounced features of the cultural landscape in Andean South America, with thousands of kilometers of these structures carving mountain sides. Terracing maximizes land area for agriculture, turning steep hillsides into wide stone stairways that provide a flat surface to maximize solar exposure, water absorption, and reduce erosion in agricultural plots. They often included canals, as the Incas were experts at diverting water, carrying it across great distances, channeling it underground, and creating outlets and fountains. Andean farmers managed fertility by transporting fertile river soils to terraces and using compost. They also used human and llama manure, but nothing was quite as potent of a fertilizer as **guano,** the bird droppings mined in the coastal islands of Peru. The Inca harvested guano as fruits of their geography. The Peru Current flowing through their coasts is a cold oceanic current that pushes nutrient-rich waters that support rich fisheries in Chile and Peru to this day. The birds eat the fish, and the nearby islands where they breed became mining places for the potent dung that became the most important fertilizers of Inca agriculture. Guano was strictly regulated by the Inca empire, and the droppings were precious trade commodities.

Terracing was also an important strategy to harness the various microclimates of the Andes. As altitude increases, temperature decreases, and thus each altitudinal zone can support different crops and animals, something known as **altitudinal zonation**. The hot, coastal area known as *tierra caliente* (from sea level to 2,500 feet) can support tropical crops like bananas, manioc, sweet potatoes, and beans. *Tierra templada* (2,501 – 6,000 feet) has cooler temperatures optimal for an array of crops like corn, coffee, and vegetables. *Tierra fria* (6,001 – 12,000 feet) is the highest altitude for most trees but various crops do well in these cooler temperatures, including wheat, barley, and quinoa. Past the tree line in the higher elevation of the *tierra helada*, animals like llamas can graze on cool grasses. There are few crops that grow in high elevations. Nevertheless, Andean farmers domesticated the potato, a hardy crop that can grow at altitudes well past 12,000 feet. The starchy crop is high in calories, can be stored underground, and withstands frost. They are the staple of the Andean diet. Together with the protein-rich quinoa, also domesticated in the Andes, these highland crops provide nutritious foods that are well adapted to the Andes.







Figure 9.2.2: These photographs depict some of the foundational crops and agricultural techniques of Mesoamerican and Andean civilizations. *[top left]* This picture highlights the diversity of Mexican maize, depicting blue, purple, orange, yellow, pink, black, deep red, and multicolored maize varieties (CC BY 2.0; Feria de Productores via Wikimedia Commons). *[top right]* A man tends to one of the remaining chinampas, artificial raised fields amidst the waters of Lake Xochimilco, in the vicinities of Mexico City. Given its significance in precolonial history of Mesoamerica, Xochimilco is considered a UNESCO World Heritage Site (CC BY SA; JFlo 23 via Wikimedia Commons). *[bottom left]* Inca terraces can be found in vast areas of Peru, Ecuador, and Bolivia. This picture depicts the stair-like agricultural plots carving steep mountainsides in the Peruvian Andes, in Machu Picchu (CC BY-NC; Feuerborn via Flickr). *[bottom right]* An Andean farmer holds a potato, a hardy crop domesticated in the Andes (CC BY-NC-SA 2.0; CCAF via Flickr).

Colonization

European colonization started with Christopher Columbus (1451-1506) who landed in the Caribbean in 1492, first in the Bahamas then Cuba and Hispaniola, introducing the Americas to the European map. Sailing for Spain, Columbus stumbled upon the continent seeking a new maritime route to Asia to access the riches of the East. Columbus opened the way for Spanish colonists to settle in the region, along with the English, French, Dutch, and other Europeans. The arms race to colonize the Americas led to the **Treaty of Tordesillas (1494),** an arbitrary line demarcating the Spanish and Portuguese spheres of influence in the Americas (see maps 9.2.3). The Spanish would control territory to the west of the line while Portugal would control territory to the east.

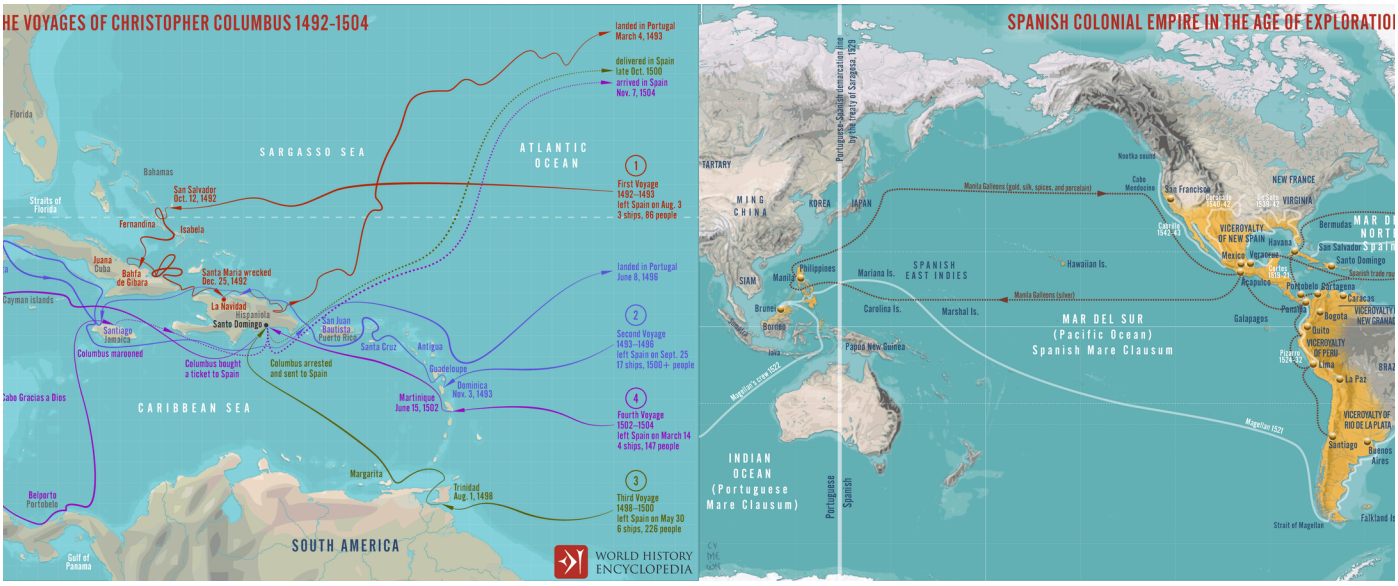


Figure 9.2.3: [top] A map illustrating the four voyages of Christopher Columbus to the Americas. Although Columbus's intended mission was to discover a westward trade route to Asia, his voyages had an enormous impact on world history because they initiated a wave of European colonialism (CC BY-NC-SA 4.0; Netchev via World History Encyclopedia). [bottom] This second map illustrates the rise of Spain into a global colonial and trading power in the 15th Century (not so much 'exploration' as the cartographer chose to describe in the title). It depicts the navigational routes of Columbus (1492), Cortes (1519-1521), Magellan (1519-1522), Pizarro (1524-1532), and Cabrillo (in white lines) (1542-1543). It also shows the formed Spanish trading routes, highlighting the silver mined in the new American colonies that was later taken by the Manilla Galleons to be exchanged for desired goods like gold, silk, spices, and porcelain from Asia. Lastly, the vertical lines symbolize agreements between Spanish and Portuguese powers. In the Americas, the Treaty of Tordesillas allowed the Portuguese to colonize Brazil (CC BY-NC-SA 4.0; Netchev via World History Encyclopedia).

The Columbian Exchange

The arrival of Columbus and the subsequent colonization initiated an ongoing transformation of the Americas. One of the earliest and most dramatic was the impacts of the exchanges of plants, animals, and diseases from once-separate worlds, known as the **Columbian exchange.** Europeans brought domesticated animals like the horse, sheep, cattle, goats, and pigs. They also brought crops like wheat, olives, rice, grapes, citrus, sugarcane, and coffee. From the Americas, maize, potatoes, tomatoes, peanuts, tobacco, and cacao were among the plants that journeyed across the Atlantic. Tobacco, traditionally smoked by Native Americans, became a valuable cash crop in Europe. Seen as a food of the gods, cacao was a crop with a long history of prestige among Mesoamerican civilizations. It was usually ground into a powder and infused into water to make a bitter ceremonious drink called *xocóatl*. Spaniards disliked its bitterness, and eventually added sugar, honey, and vanilla, making the luxurious chocolate most people love to this day. It is the potato, however, that had arguably the biggest impact. As a subsurface tuber, potatoes allowed the conquered to survive the various European wars, whereas in the past, the conquerors burned the crops as they left, and the people starved. Potatoes also consists of essential vitamins and nutrients and can grow in various soil types, cooler climates, and higher elevations. Its introduction ended centuries-old cycles of malnourishment and famine in Europe, increasing lifespans and fueling population growth.

The Columbian exchange is considered one of the most pivotal events in human history. It shifted diets all over the world, introducing crops that profoundly changed the agricultural landscapes and foodways of the Americas, Africa, and Europe. It also introduced alien microbes to the Americas that above all else led to the decimation of the Indigenous populations.

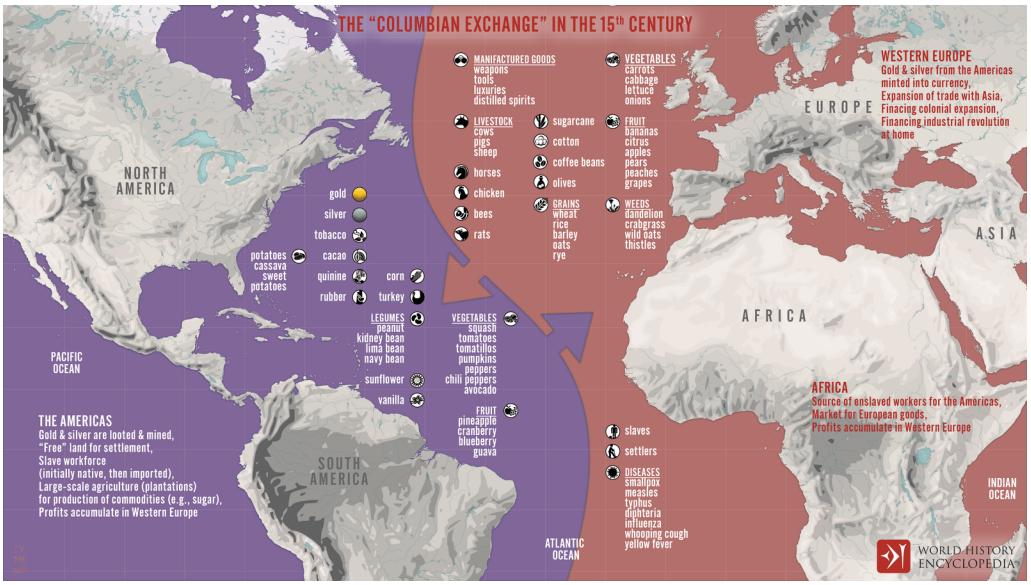


Figure 9.2.4: This map illustrates the items of the Columbian Exchange. From the Americas, Europeans took fruits and vegetables like squash, tomatoes, tomatillos, pumpkins, peppers, avocado, pineapple, cranberry, guava, corn, cacao, rubber, peanuts, tobacco, and beans. Silver and gold was looted and mined and large scale agriculture would enslave first indigenous peoples then, later, Africans. Profits accumulated in western Europe, where currency was minted from gold and silver from the Americas, trade expanded with Asia, colonial expansion was financed, and the industrial revolution on European soil was financed. From Europe, the Americas received things like horses, chickens, bees, rats, cotton, sugarcane, coffee, olives, citrus, peaches, weeds, wheat, rice, barley, oats, carrots, cabbage, lettuce, onions, diseases, weapons, and tools. Africa was a source of enslaved workers for the Americas and a market for European goods, both which ensured profit accumulation in western Europe. (CC BY-NC-SA 4.0; Netchev via World History Encyclopedia).

The Demographic Collapse & The Pristine Myth

The colonization of the Americas is sometimes attached to words like "encounter," "discovery," or even "the age of exploration." These are curious terms to describe the cataclysm unleashed onto the Indigenous worlds of the Americas (and other places "explored" during the colonial era). The European invasion resulted in a collapse of Indigenous populations due to slavery, warfare, famine, and the introduction of diseases like smallpox, measles, influenza, and the bubonic plague were introduced to the Americas by European settlers and enslaved Africans. Most of these diseases originated from domesticated farm animals, something that Indigenous populations had no previous exposure to. American civilizations had low numbers of domesticated animals and therefore did not have such diseases to transmit to Europeans. Thus, European diseases ravaged the Americas, not vice versa.[5] Each of these diseases typically killed about 30 percent or more of the initial population, so a series of epidemics in rapid succession could have led to the loss of whole societies. These are called **virgin soil epidemics** because new pathogens were introduced to an entire population that had not been exposed to such pathogens and therefore did not yet possess the antibodies to survive them. Within 150 years of European contact, 90-95 percent of the Indigenous population in the Americas died. In the Caribbean, about 99 percent of the Indigenous inhabitants died.[6] It is the most precipitous demographic collapse in recorded history. Mexico's Central Valley, the most populous region in the Americas before colonization, did not reach its Pre-Columbian population again until the 20th Century.[7]

The large scale of human loss in vast areas meant that previously cultivated lands were emptied. This led to the **pristine myth,** or the idea that a vast pristine wilderness existed in the Pre-Columbian Americas. In other words, the Americas were thought to be a land without people. In some areas, Europeans thought they had "discovered" empty wilderness, but evidence suggests that they actually encountered depopulated landscapes.[8] An army of pathogens swept through the Americas killing large shares of the Indigenous populations, many times ahead of European arrival. Vast landscapes were covered by vegetation growth that covered the evidence of human occupation that would later serve as cues to scientists piecing together the Pre-Columbian history of the Americas.

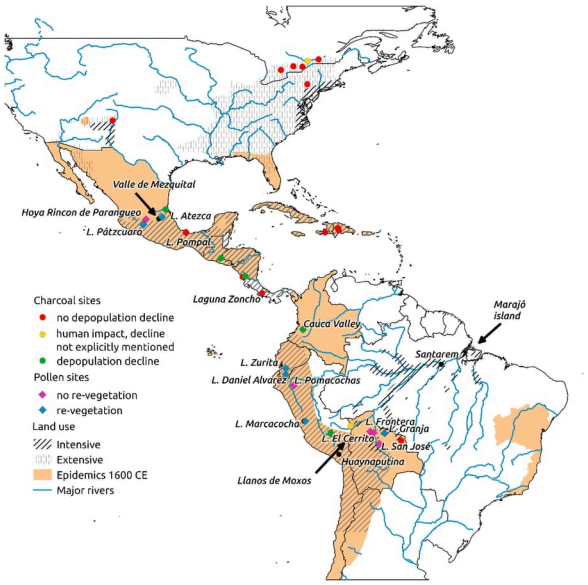


Figure 9.2.5: This map depicts regions known to have been affected by disease outbreaks by 1600 CE and pre-Columbian land use. It also shows the extent of land use that is based on high densities of archeological sites, earthworks, and Amazonian Dark Earths. This map shows that vast areas of intensive land-use experienced population loss. Many of these areas were reclaimed by vegetation (CC BY 4.0; Koch et al. 2019 via Elsevier).

Contemporary Indigenous Populations

Indigenous peoples have undergone centuries of colonization and dispossession of their ancestral lands, and their struggle to exist carries on to this day. Miscegenation (discussed in Section 9.3) and cultural repression and change have resulted in the erosion of Indigenous languages and traditions. Increasingly, native languages are being replaced by Spanish and Portuguese, especially among younger generations. Nonetheless, there are large Indigenous populations in many parts of the Americas where Indigenous peoples maintain and increasingly reclaim their identities. The largest population clusters are found in Mesoamerica (Mexico and Guatemala) and Andean South America (Ecuador, Peru, Bolivia). The most spoken languages are Nahuatl (Mexico's Central Valley), Quechua (Andean South America), and Tupi-Guarani (Brazil & Bolivia).

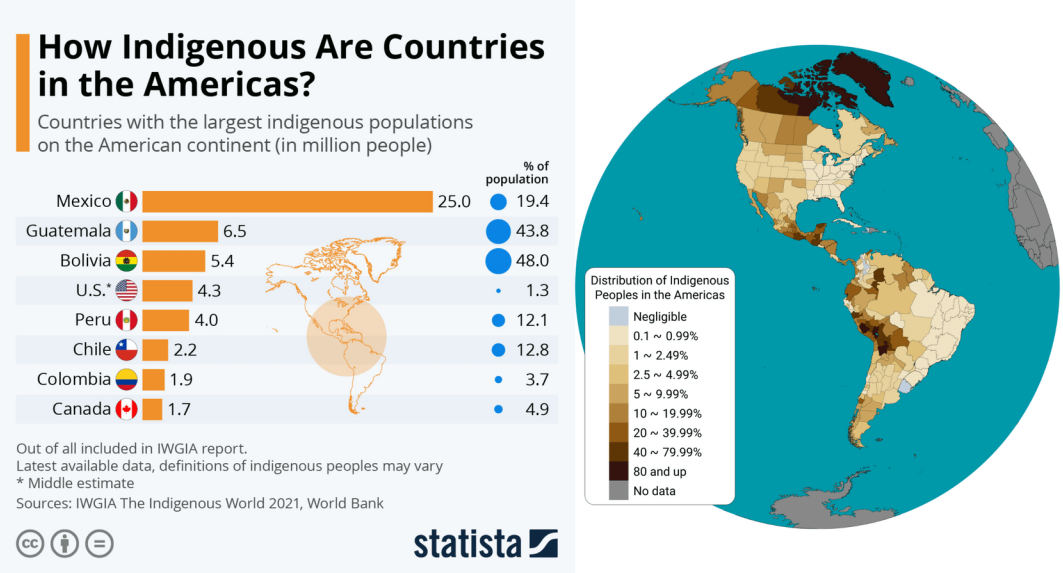


Figure 9.2.6: [left] How Indigenous Are Countries in the Americas? Countries with the largest Indigenous populations on the American continent (in million people). Mexico (25 million), Guatemala (6.5 million), and Bolivia (5.4 million) have the highest population sizes, but Indigenous people represent a higher percentage of the population in Bolivia (48%) and in Guatemala (43.8%) than in Mexico (19.4%). Notes: Based on IWGIA The Indigenous World 2021 and latest available World Bank data; definitions of Indigenous peoples may vary. For the United States, a middle estimate was used (CC BY ND; via Statista). [right] This map depicts the shares of Indigenous populations for all of the Americas at the state level. The cartographer used data from multiple sources, mostly combining the latest national census, where people may self-identify. The figures do not include mixed populations, like mestizos. The finer state-level data allows us to visualize populations within countries. For example, note how in Brazil, only north and western states have greater shares of Indigenous peoples. Southern Mexico, Peru, Bolivia, and southern Colombia stand out with high shares of the population being Indigenous. Southern Mexico and Guatemala and Andean Countries like Bolivia and Peru have the two largest Indigenous population clusters in the Americas (CC BY SA; locoluis via Wikimedia Commons).

Determining the exact number and distribution of Indigenous peoples in Middle and South America is difficult for various reasons. The main challenge is related to the very politicized nature of recognizing Indigenous identities. Indigenous peoples often rely on their official recognition to be protected from or included in aspects of decision making that could affect their lives, assets, and cultures. Thus, the politics of **indigeneity,** the recognition of who is and who is not Indigenous, has become increasingly relevant and controversial in recent decades largely because of new legal frameworks and international agreements safeguarding Indigenous rights. For example, in Venezuela, the 1999 constitution included, for the first time, the full status of adult citizens to Indigenous peoples with added special provisions for the protection of their cultures, languages, territories, natural resources, customary forms of social order, and health. The constitutional changes overrode the 1915 Missions' Law that delegated the responsibility to the Catholic Church to oversee the basic civil rights of Indigenous people. As a result of recognized rights, more people self-identified as Indigenous in the census. In the Caribbean, where Indigenous peoples were long thought to have been extinct, many Taíno descendants are rejecting invisibility and asserted their cultural existence and survival. In doing so, they contest erasure and provoke lively discussions about who can claim indigeneity and what it means to be Indigenous in the Caribbean today.[9] [10]



Figure 9.2.7: This map depicts the major languages of Middle and South America. According to the World Bank, there are 560 indigenous languages spoken in Latin America & the Caribbean. The most spoken languages are Nahuatl (most spoken language in Mesoamerica, language of the Aztec) and Quechua (most spoken language along the Andes, language of the Inca). The Amazon region contains the largest number of Indigenous languages (about 186 languages), despite not having the largest Indigenous populations in the region. Nonetheless, language loss in the region (and the world) is a great indicator of the continuous threat to Indigenous endurance amidst hundreds of years of disenfranchisement (All rights reserved. Map by Judy Blomquist/Harvard Staff; source: Américo Mendoza-Mori. Included with permission).

References:

[1] Koch, A., Brierley, C., Maslin, M. M., & Lewis, S. L. (2019). Earth system impacts of the European arrival and Great Dying in the Americas after 1492. *Quaternary Science Reviews*, *207*, 13-36.

[2] Miller, S. W. (2007). *An environmental history of Latin America*. Cambridge University Press. pp 10-11.

[3] Diamond's Collapse.

[4] del Castillo, R. F., & Rivera-García, R. (2022). Biophysical and Biocultural Upheavals in Mesoamerica, a Conservation Perspective: Mountains, Maize-Milpa, and Globalization. *Frontiers in Forests and Global Change*, *5*, 763009.

[5] With exceptions like syphilis, which is of American origin. Nonetheless, it did not result in a demographic collapse in Europe in comparable ways. The exchange of diseases and their impacts are incomparable.

[6] Koch, A., Brierley, C., Maslin, M. M., & Lewis, S. L. (2019). Earth system impacts of the European arrival and Great Dying in the Americas after 1492. *Quaternary Science Reviews*, *207*, 13-36.

[7] Miller, S. W. (2007). *An environmental history of Latin America*. Cambridge University Press. pp 10-11.

[8] Denevan, W. M. (2011). The "pristine myth" revisited. *Geographical Review*, *101*(4), 576-591.

[9] Feliciano-Santos, S. (2021). *A Contested Caribbean Indigeneity: Language, Social Practice, and Identity Within Puerto Rican Taíno Activism*. Rutgers University Press.

[10] Woodaman, R. (Dec 28, 2017). Bringing Taíno peoples back into history. *The Smithsonian Magazine*.

Attributions:

"Mesoamerican Civilizations" is adapted from Maya Civilization by Joshua Mark and Aztec Empire, Aztec Food and Agriculture, Tenochtitlan, and Inca Civilization by Mark Cartwright via World History Encyclopedia, CC BY-NC-SA 4.0.

"Colonization" is adapted from European Colonization of the Americas by Joshua J. Mark via World History Encyclopedia, CC BY-NC-SA 4.0.

"The Columbian Exchange" is adapted from Columbian Exchange by John Horgan, CC BY-NC-SA 4.0 and Earth system impacts of the European arrival and Great Dying in the Americas after 1492 by Koch, A., Brierley, C., Maslin, M. M., & Lewis, S. L. (2019) via Quaternary Science Reviews, CC BY 4.0.

This page is also adapted from World Regional Geography by University of Minnesota and World Regional Geography by Caitlin Finlayson, both CC BY-NC-SA 4.0.

This page titled 9.2: Indigenous Worlds- Amerindian Civilizations, Colonization, and Revival is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

9.3: The Cultural Mosaic- Diasporas, Race, and Ethnicity

Learning Objectives

1. Describe the geographies of the Transatlantic Slave Trade and its significance.
2. Identify forms of African resistance as a feature of the cultural mosaic of Middle and South America.
3. Explain the context and significance of the Haitian Revolution.
4. Identify the geographies of the East Asian, South Asian, and European Diasporas.
5. Explain blanquiamiento, mestisaje, and some of the criticisms of the racial democracy narrative.

The African Diaspora

The Transatlantic Slave Trade

The historic demographic collapse of Indigenous peoples in the Americas was followed by the largest forced migration in human history, the **Transatlantic Slave Trade.** Between the 15th and the 19th century, around twelve million Africans were violently uprooted and taken across the Atlantic to repopulate the Americas as forced laborers in plantations of the so called “New World.” The Transatlantic Slave Trade took enslaved peoples mostly from the west African coasts, from Senegal to Angola. As much as 95 percent of African captives were taken to Middle and South America, mostly to Caribbean and Brazil.[1]

Over four hundred years, African people were a principal form of capital in a larger economic trading system known as the **triangular trade,** a trans-Atlantic trading system moving people and goods from Europe, Africa, and the Americas. Europeans would exchange manufactured goods such as cloth and guns for enslaved Africans who would be forced to cultivate commodity crops like cotton, tobacco, and sugar in the Americas. At every step of this system, mechanisms of scientific thought were used to reduce captive Africans to quantifiable commodities and to extract maximum profits from African bodies and the colonized lands. Enslavers would deprive captives of food, deny them medical attention, and pack them tightly onto slave ships to maximize their profits. Slave ships were overcrowded and unsanitary, vessels of trauma, sickness, and death. Such horrendous conditions earned their name of coffin ships, **tumbeiros** in Portuguese. It is estimated that as much as 20 percent of African captives died in transport to the Americas. Still, slavery was an extremely profitable system that supported Empire building and accumulation of wealth in Europe.[2] In the process, Indigenous and African survivors were dispossessed of their personhood; their labor, knowledge, and skills; their land and natural resources; and their cultural heritage, family ties, and social networks.

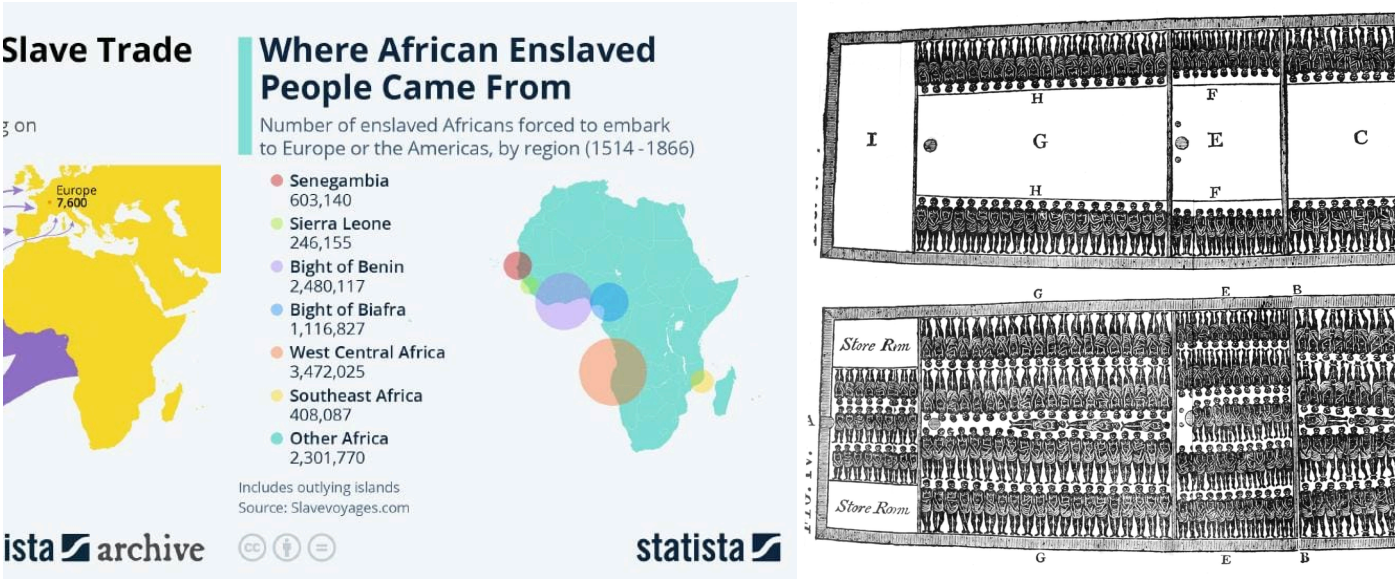


Figure 9.3.1: [top] These two maps illustrate the Trans-Atlantic Slave Trade, where enslaved Africans come from, and where they went. As part of the larger triangular trade, the Trans-Atlantic Slave Trade uprooted approximately 12 million Africans over a span of four centuries. *[top left]* This map shows the number of enslaved Africans arriving on the American continent (1514-1866). As much as 95 percent of enslaved Africans were taken to plantations in Brazil and the Caribbean (CC BY-ND; Statista). The slave trade was abolished in the Americas by 1866 (1807 in the US), but the institution of slavery lived decades beyond that. Cuba (1886) and Brazil (1888) were the last countries to abolish slavery. *[top right]* This map illustrates where African enslaved peoples came from, mostly regions in West Africa, especially West Central Africa, the Bight of Benin, and Bight of Biafra (CC BY-ND; Statista). *[bottom]* This diagram illustrates how slave ships were logistically planned to ship human bodies as commodities, a plan designed to maximize the profits of each voyage. African captives were tightly packed side-by-side to journey across the Atlantic in such horrendous conditions that slave ships were known as *tumbeiros,* or coffin ships. An estimated twenty percent of Africans died on the journey to the Americas (CC BY SA; Great Britain House of Commons via Wikimedia Commons).

African resistance

Colonial violence was never met with passiveness or submission. Africans and African descendants (and Indigenous peoples) in the Americas employed a myriad of tactics to fight back in waves of resistance and rebellion. Many large-scale runaway communities were formed in isolated regions, beyond the reach of colonists, like the remote interior lands of Brazil and the mountainous regions of Mexico, Jamaica, and Colombia. Some of these communities were organized like African-style kingdoms with an armed military prepared to defend against colonists. These self-liberated communities were territories of survival and emancipation, called **quilombos (**in Brazil), **pelenques** (in Spanish America), or **maroon societies** (in English-speaking areas). In northeast Brazil, *Quilombo dos Palmares* banded several settlements into a larger self-emancipated republic that reached a population of about 15,000.[3] It was the largest quilombo in the colonial Americas, and it lasted for over a hundred years. Maroon societies also existed in Africa, in regions that were overrun by the slave trade. Africans attempted to protect themselves and their communities using a range of tactics, including evading kidnappers to form maroon settlements as well as revolting on slave ships. Many young warriors who had been fighting capture in Africa became warriors of abolitionist movements in the colonies of the Americas.[4]

European enslavers generally dismissed forms of resistance by categorizing them as actions of an animal. The Spanish word ascribed to maroon societies or fugitives of enslavement, *cimarrón*, means “wild beast.” European colonists sought to suppress *cimarrones* and destroy runaway communities everywhere they existed. In Brazil, the Portuguese launched military expeditions to eliminate *quilombos*. For decades, most of them failed. Where they succeeded, new spurts of rebellion would establish new *quilombos* after old ones had been destroyed. In Colombia and Venezuela, *pelenques* were in constant formation as newly arrived Africans would escape to the mountains and form new communities or join existing ones. In Jamaica, maroons exhausted the British, who eventually signed a peace treaty with maroons that recognized them as free and sovereign until slavery was abolished.[5]

Even as slavery was abolished in Middle and South America, *quilombos, pelenques,* and maroon communities continue to be spaces of Black self-determination to this day. In Brazil, the 2022 Census estimates that approximately 1 million Afro-descendants live in *quilombos*.[6] Some Afro-descendants who have rooted ancestry in maroon communities recognize their

African heritage as a cultural identity, not a perceived race. The **Garifuna**, for example, are a recognized culturally distinct group that occupy an area that spread through Belize, Guatemala, Honduras, and Nicaragua. They are descendants of shipwrecked enslaved West Africans who lived in the island of St. Vincent, where they mixed with the Kalinago Indigenous population (Caribs) and adopted Indigenous practices.[7] They speak a type of **Creole**, a hybrid language that combines Carib/Arawakan and several European languages. Although the Garifuna initially coexisted with French colonists, they engaged in a series of revolts in the late eighteenth century against British colonial authorities. After losing the war, they were resettled by British forces on the island of Roatán (off the coast of Honduras), from where they migrated to the Atlantic coasts of Belize, Guatemala, Honduras, and Nicaragua. In these countries, they are recognized as an Afro-Indigenous ethnic group.

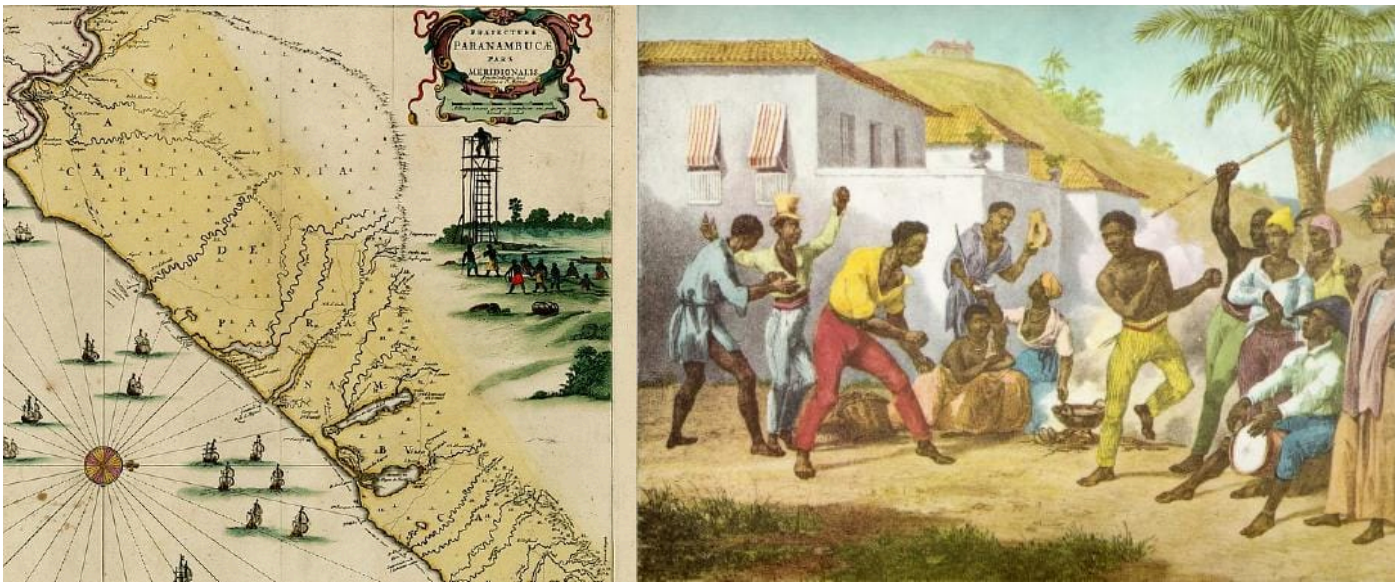


Figure 9.3.2: [left] A cartographic illustration showing the southern portion of the Capitania of Pernambuco (1647), a colonial territorial subdivision of northeast Brazil. It includes an illustration of Quilombo dos Palmares in the refuge of the interior lands, remote from the coastal areas under colonial control (Public Domain; Frans Post via Wikimedia Commons). [right] This oil painting is titled "Jogar Capoëra - Danse de la guerre", loosely translated "Playing capoeira, the dance of war" by Johan Mortiz Rugendas (1835). **Capoeira** is a practice of martial art and dance that started in Brazil as a manifestation of resistance and the fight for freedom during the times of slavery. It was practiced by enslaved Africans in the form of fight-dance, as acts of resistance and preparation for uprisings (Public Domain; via Wikimedia Commons).

Rebel Island: Maroonage and the Haitian Revolution

Maroon rebellions waged costly wars against colonial troops. In Hispaniola, they weakened Spanish colonial control in the 16th and 17th Century. By the time the French formally secured their claim to the western parts of the island in 1697, Hispaniola already had several loosely organized maroon communities. But under the control of the French, Saint Domingue (colonial Haiti) experienced the expansion of violent and repressive sugar plantations, prompted by the increased demands for sugar in Europe. The French *Code Noir* legalized the cruel treatment of enslaved persons as material property. For most of the 18th Century, Saint Domingue represented the depths of the violence underlying the slave trade and the plantation system. Nearly half of enslaved Africans brought to Saint Domingue died within three to five years from malnourishment, brutality, overwork, and various illnesses. The slave trade continued to funnel hundreds of thousands of new African captives to replenish the bonded population. These extreme conditions of dehumanization, death, and brutality inflicted upon enslaved peoples was the foundation of the profitability of the sugar plantations. Colonial Haiti was the crown of the French monarchy, the world's largest sugar producer, and the most valuable colony in the Americas. Its wealth was funneled almost exclusively to France.

The rapidly growing population of African and African descendants in Haiti also enhanced the creation of liberated spaces and networks of solidarity around common lived experiences. In August 1791, Haitian-born and African-born rebels gathered in a sacred Vodoo ritual ceremony to conspire against the plantation system. They joined in African-based oaths of secrecy and pleas to the spirit world for protection during the impending revolt. The moment forged a spiritual connection among rebels of diverse ethnic identities, bound in struggle and vision to abolish slavery. Their will was carried out in the subsequent uprisings of the **Haitian Revolution (1791-1804)**, a successful rebellion that led to the abolition of slavery and the overthrow of French colonial rule. It was the first abolitionist rebellion to form a free republic in the Americas, then

named Haiti (from the Indigenous name of the island, *Ayiti* in Taïno). The founding of Haiti was an astonishing shock to the prevailing system of slavery in the Atlantic world. It shut down the world's largest slave market in the Caribbean and freed 500,000 enslaved persons in Haiti.[8] Word of the Haitian Revolution quickly spread among Black communities of the Americas, influencing unrest among enslaved people and maroons and unleashing cultures of resistance.

The Haitian Revolution represents how Africans and African descendants assumed the role of redefining and universalizing liberation, taking advantage of the American and French Revolutions to abolish slavery, colonialism, and white supremacy. It actualized the principles of freedom of the American and French Revolutions before they were enshrined in national clauses that overlooked slavery. Both France and the United States rejected Haiti's freedom. The United States provided aid to suppress the Haitian Revolution, fearful that it would inspire emancipation movements and disrupt the profits of American slave owners. Newly independent Haiti was forced to pay France the equivalent of $20-$30 billion dollars, as reparations paid to enslavers.[9] It took Haiti more than a century to pay a debt that economically crippled its beginnings as a sovereign state. The United States did not recognize Haiti's independence until 1862, nearly six decades after the Haitian revolutionaries expelled the French and slavery from their shores. Even then, interventions with Haitian sovereignty came in the form of a violent 18-year US military occupation (starting in 1929) and a continued US meddling with Haitian affairs thereafter.[10]

The absurdity of paying enslavers for freedom is not lost in contemporary politics in Haiti. Democratically elected Haitian president Jean-Bertrand Aristide tried to hold France accountable for the plundering of Haiti. In 2003, he demanded the precise amount of $21,685,135,571.48 as reparations for the unjust payments Haiti was forced to give France for its liberation.[11] Aristide's multi-billion-dollar demand may seem astonishing at glance. However, a recent analysis suggests that his estimate may have been modest when accounting for direct payments and loan interests paid to France and the immense losses in economic growth that these payments imposed on Haiti.[12] Even as an underestimate, demands for restitution were perceived as political grenade thrown at France on the world stage. Aristide soon found himself removed from power, and France has yet to consider a tangible way to settle with history.



Figure 9.3.3: Picture of Citadelle La Ferrière and a painting portrait of Toussaint L'Overture, two symbols of the Haitian Revolution (1791-1804). [left] The *Citadelle La Ferrière* is a defensive fortress built by thousands of self-emancipated Haitians when Haiti proclaimed its independence. It is located in the mountainous interior, as a highland lookout and defense site against future invasions. The Citadel serves as an universal symbol of liberty. It is considered a UNESCO World Heritage Site given its historical significance (CC BY NC 2.0; Bennett via Flickr). Toussaint L'Overture is a former slave who came one of the famous generals to lead the Haitian Revolution. The general was captured and died before the Declaration of Haitian Independence, which stated *Liberté ou La Mort* (liberty or death). The document became the first freedom declaration to expand the principles of equality to the abolition of slavery (Public Domain, artist unknown via Black Past).

Trans-Atlantic Worlds

The African diaspora is a core element of the cultural character of many parts of Middle and South America where large populations of African descendants live today. In 2015, based on self-identification in their national census, there were about

133 million Afro-descendants in Middle and South America, close to 24 percent of the total population.[13] Over 91 percent are concentrated in Brazil (105 million) and Venezuela (17 million). Other countries like Colombia, Cuba, Ecuador, and Mexico collectively make up another 7 percent. In the Caribbean, a high percentage of the population identifies to be of African ancestry, like Jamaica (92%) and St. Lucia (87%). In Brazil and Venezuela, Afro-descendants constitute the majority of the population, and most identify with mixed-race categories of the national census.

African cultural influence is easily detected in the cultural expressions found in Middle and South America. Jamaican reggae, Dominican merengue, Brazilian samba, and Cuban rumba are clear examples of how African influences became global symbols of the musicality and culture of their respective countries. African influence is also well represented in the **syncretic religions,** mixed belief systems, that are prominent forms of spirituality in the region. **Voodoo,** for example, is a form of folk Catholicism based on elements of West African spirituality, a syncretic belief system practiced mostly in Haiti. Voodoo cemented the struggle of African and African descendants from diverse ethnic identities and became a unifying force in the Haitian Revolution. **Santería (**Cuba) and **Candomblé (**Brazil) are other prominent examples of religious syncretism. In both religions, the polytheistic belief systems of the Yoruba integrate Yoruba deities, called *orishas* or *Orixás,* into the pantheon of Catholic saints. While each of these belief systems have unique characteristics in their religious and healing traditions, they share the commonalities in how participants interact with the spiritual world in transcendent drumming and dancing rituals. They also represent the ways which African belief systems have survived and adapted in the Americas.

Race & the Myth of the Racial Democracy

Racial Whitening

In colonial times, Middle and South America had predominantly nonwhite societies that were subjected to colonial laws of social stratification known as ***sistema de castas***, a system that placed nonwhites on an inferior legal and social status. Driven by European ideas of racial purity and blood descent, whiteness was an index of honor and value, which entitled individuals to public office, recognition, and wealth. The *casta* system is illustrated in paintings from eighteenth-century Mexico and Peru. Afro-descendants were systematically relegated to the bottom of the social scale, experiencing little social mobility and facing extreme forms of deprivation. Ascription to a *casta* implied not only civil and religious rights, but also determined aspects of taxation, limits on public and religious office, travel restrictions, and property, among others. In principle, however, the blood-based ideology allowed certain mobility by means of racial mixing, known as **mestizaje (miscegenation)**. Individuals of lower *castas* could "whiten" their descent through intermarriage. Wealthy mixed-race individuals could pursue upward mobility by purchasing a document from the Crown that would buy them entry into a superior *casta*.

By the 1830s, most countries in Middle and South America gained independence from the Spanish and Portuguese empires and progressively dismantled the colonial system of *castas*. But national leaders in much of the region maintained an obsession with crafting societies that resembled those of Europe. ***Blanqueamiento*** (Spanish for "whitening") were whitening ideologies that sought to physically transform the demographics of the region. It informed policies, discourses, and practices built on the racist idea that white and European traits were superior to African or Indigenous ones**.** The impact of *blanqueamiento* ideologies on policymaking was clearly visible in the immigration policies of the time, which encouraged European migrants to settle in the continent as a means of progressively whitening the population and wipe out the perceived barbarism of nonwhite populations. As a result, from 1880 to 1930, Argentina, Brazil, Cuba, and Uruguay received over 11 million European immigrants. Altogether, the **European diaspora** represents a mass migration that shaped the cultural characteristics of southern Brazil, Uruguay, Chile, and Argentina, where most of the population have and European ancestry and European cultural expressions are pronounced.



Figure 9.3.4: A painted diagram of family portraits showcasing the miscegenation of Spanish, Indigenous, and African people in the Spanish Americas. It illustrates the *Sistema de Castas,* the categorization and stratification of racial categories of Spanish colonies (18th Century). The original illustration includes the 16 *castas*, cropped here for simplification (click on the image for the original version). The mixed racial categories shown in this abbreviated diagram read as follows: *1) Español con India, Mestizo; 2) Mestizo con Española, Castizo; 3) Castizo con Española, Español; 4) Español con Mora, Mulato; 5) Mulato con Española, Morisca; 6) Morisco con Española, Chino; 7) Chino con India, Salta atrás; 8) Salta atras con Mulata, Lobo* (Public Domain; unknown artist, Museo Nacional del Virreinato, Tepotzotlán, Mexico via Wikimedia Commons).

Browning & Mestizaje

Spearheaded by postrevolutionary Mexico, national elites began shifting from ideologies of whitening in favor of narratives that emphasized harmonious race relations, celebrating the ***mestizo***, the mixed Spanish and Indigenous heritage of the country. The *mestizo* identity was adopted as a way of moving beyond race, of parting from the colonial past and the racial antagonisms of the early republican period. *Mestizos* combined the alleged liberal and forward-thinking traits of Europeans along with the rooted traditions embodied in the Indigenous cultures of the country. The notion of *Mestizaje* spread rapidly, and most countries in Middle and South America promoted a version of national *mestizo* identities, even removing racial categories from the national census. This was seen as a solution to the class and race tensions accumulated after the young republics failed to deliver on their promises to the majority, the mixed-race working population.

National projects of *mestizaje* were not the same everywhere. Brazil and Cuba incorporated African culture as a central element of their mixed-race identity. In some countries, *mestizaje* national discourse tended to favor the selective inclusion of Indigenous traits while downplaying African ones. In Mexico, for example, the emphasis on the historical value of European-Indigenous miscegenation ignored large populations of Afro-descendants. Still today, Mexico has a population of two million Afro-descendants who struggle for recognition in a *mestizo*-majority country. The 2020 Census was the first time Mexicans had the option to self-identify as Black, Afro-Mexican, or Afro-descendant.[14] In the Dominican Republic, the state celebrated European and Indigenous Taino cultures while disavowing Blackness as something foreign and associated with neighboring, poorer Haiti. This has important consequences in the identification of Afro-Dominicans today, most of whom are counted as *indio* in the national census.

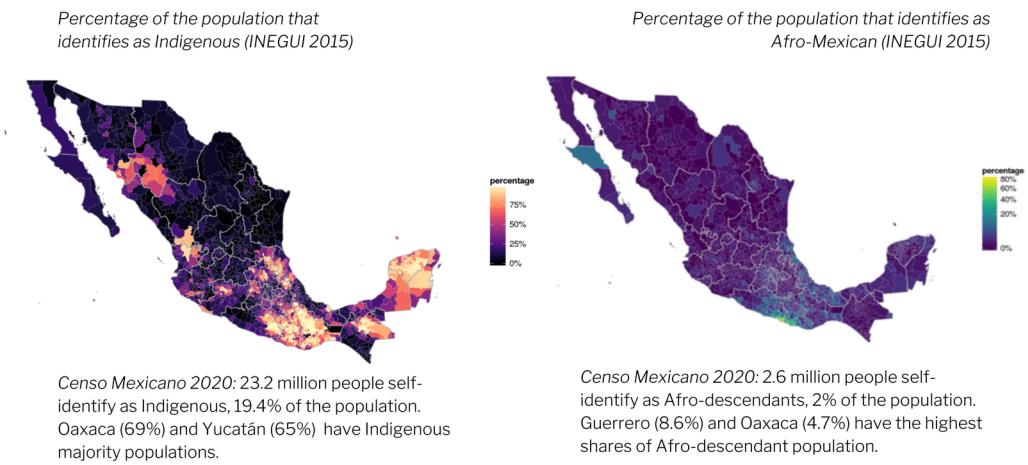


Figure 9.3.5: The majority of the Mexican population identifies as Mestizo. These maps illustrate the populations excluded from the narrative of *Mestizaje*. Based on the Mexican 2022 Census: [left] 23.2 million people self-identify as Indigenous, accounting for 19.4% of the Mexican population, mostly concentrated in southern Mexico. Oaxaca (69%) and Yucatán (65%) have Indigenous-majority populations. [right] 2.6 million people self-identify as Afro-descendants, 2% of the population. Guerrero (8.6%) and Oaxaca (4.7%) have the highest shares of Afro-descendant population. (Adapted from Valle-Jones based in INEGUI 2015; These maps illustrate similar geographical patterns of the Mexican Census 2022).

Beyond Race? Brazil and the Myth of the Racial Democracy

Diasporas and racial mixing in Middle and South America have shaped complex racial identities. Terms like *negro, moreno, pardo, mulatto, indio, caboclo, zambo,* and *creole,* for example, are much closer to the understanding of race and identity of peoples of African ancestry in the region than the binary racial categories used in the United States. In Brazil, it is more common to refer to color than race, as the continuum of hue and shade better grasps the Brazilian conceptualization of racial difference. Racial groups have historically been classified based on extensive color identifications. For example, one survey conducted in 1976 found that Brazilians identified themselves in more than 100 categories of color.[15] In 1995, another survey found similar results, but most survey respondents used only six racial categories.[16] Still today, the everyday language that Brazilians use to identify themselves is often in a color continuum that is not entirely grasped by official figures, like the popular everyday term *moreno,* used to describe the continuum of skin shades of brown.

The census depicts the Brazilian notion of skin color in a more restrictive sense, in five categories. In the latest census (2008), Brazilians identified as follows: 43.1% as *pardo* (brown), 7.6% as *preto* (Black), 0.5% as *indígena* (indigenous), and 47.7% as *branco* (white) and 1.1% as *amarelo* (yellow, translating as Asian).[17] This census indicates that most Brazilians racially identify as nonwhite. Brazil has the largest population of peoples of African origins in the Americas and the second largest of any country in the world (only after Nigeria). Thus, Brazil is often central in discussions about Blackness and racial relations.

Brazilian author Gilberto Freyre coined the term **racial democracy** as a way of depicting Brazil's racial relations. In the book *The Mansions and the Shanties* (1936), Freyre claimed that in Brazil slavery had been more benign, and racial mixing was publicly celebrated and made into a positive national symbol. Highlighting the absence of United-States-like segregation laws, Freyre distinguished Brazil as a society of racial harmony where societal divisions were based on socioeconomic class, not race. Since then, Brazilian state discourse has long promoted itself as a racial democracy, suggesting that Brazil had achieved a racially harmonious and racially equal society, in contrast to the United States.

In recent decades, the notion of a racial democracy in Brazil (and beyond) has been challenged by social movements of Indigenous and Afro-descendant groups who have pointed that the promotion of national mixed-race identities only serves as a form of denial of the unique lived experiences of Afro-descendants and Indigenous peoples. Rather than moving beyond race, the racial democracy narrative promotes an idealized worldview that obscures persisting racism, discrimination, and ample evidence of rampant racial inequalities. Consider the fact that Afro-descendants are disproportionately represented

among the poor in Brazil and throughout the region. They have fewer chances of social mobility, are 2.5 times more likely to be chronically poor, have fewer years of education, and are more likely to be victims of crime and violence.[18] These intersecting socioeconomic inequalities culminated in the wreckage of the covid-19 pandemic that was disproportionately fatal among Afro-descendants in Brazil (like in the United States).[19] These are indicators of racial inequalities that have become grounds for policy agendas and social movements in the country.



Figure 9.3.6: Angélica Dass is depicted in a TED Talk about the project *Humanae,* a global exposition of human hue. Dass describes her family as "full of colors": her father's skin as "deep chocolate." He was adopted by her grandmother, whose skin is "porcelain," and her grandfather, whose skin is "somewhere between vanilla and strawberry." Her mom is "cinnamon." Her sisters are more "toasted peanut." Dass's photography challenges how we think about skin color and ethnic identity. *Humanae* displays thousands of portraits of people of diverse skin colors matched to Pantone color cards as a background. It's an attempt to document humanity's true colors rather than the untrue white, red, black and yellow associated with race (CC BY NC 2.0; TED Conference via Flickr).

References:

[1] Slavevoyages.org maintains a renowned historical database of transatlantic slave voyages filled with educational resources worth exploring.

[2] Inikori, J. E. (2020). Atlantic slavery and the rise of the capitalist global economy. *Current Anthropology*, *61*(S22), S159-S171.

[3] Andrews, G. R. (2016). *Afro-Latin America: Black Lives, 1600–2000*. Harvard University Press. Pp. 38

[4] Andrews, G. R. (2016). *Afro-Latin America: Black Lives, 1600–2000*. Harvard University Press. Pp 38.

[5] Infrantry, A. (Feb 19, 2021). Meet the legendary community that fought for freedom in Jamaica. *National Geographic*.

[6] Agência Brasil (Oct 15, 2021). População residente em área indígena e quilombola supera 2 milhoes. *Based on a revived counting of quilombo populations that have not been identified in the census in 150 years.

[7] Oro, P. J. L. (2021). A Love Letter to Indigenous Blackness: Garifuna women in New York City working to preserve life, culture, and history across borders and generations are part of a powerful lineage of resistance to anti-Blackness. *NACLA Report on the Americas*, *53*(3), 248-254.

[8] Fortes-Lima, C. A. (2021). "Chapter 10 Disentangling the Impact of the Transatlantic Slave Trade in African Diaspora Populations from a Genomic Perspective". In Africa, the Cradle of Human Diversity. Leiden, The Netherlands: Brill.

[9] Rosalsky, G. (Oct 5, 2021). 'The Greatest Heist in History': How Haiti Was Forced to Pay Reparations for Freedom. *NPR*.

[10] Danticat, E. (July 28, 2015). The long legacy of occupation in Haiti. *The New Yorker*.

[11] By Méheut, C.; Porter, C.; Gebrekidan, S.; and Apuzzo, M. (May 20, 2022). The root of Haiti's misery: reparations to enslavers. *The New York Times*.

[12] By Méheut, C.; Porter, C.; Gebrekidan, S.; and Apuzzo, M. (May 20, 2022). The root of Haiti's misery: reparations to enslavers. *The New York Times*.

[13] "Freire, German; Diaz-Bonilla, Carolina; Schwartz Orellana, Steven; Soler Lopez, Jorge; Carbonari, Flavia. 2018. Afro-descendants in Latin America; Afrodescendientes en Latinoamérica; Afro-descendants in Latin America: Toward a Framework of Inclusion; Hacia un marco de inclusión. © World Bank, Washington, DC.

[14] Censo Mexicano (2020)

[15] Guimarães, A. S. A. (2012). The Brazilian system of racial classification. *Ethnic and Racial Studies*, *35*(7), 1157-1162.

[16] Telles, E. E. (2014). Race in another America. In *Race in Another America*. Princeton University Press. Pp 87.

[17] Instituto Brasileiro de Geografia e Estatistica (IBGE). Censo 2010. *The 2020 Census was delayed due to the covid-19 pandemic, thought to be released between 2023-2025.

[18] Freire, German; Diaz-Bonilla, Carolina; Schwartz Orellana, Steven; Soler Lopez, Jorge; Carbonari, Flavia. 2018. Afro-descendants in Latin America: Toward a Framework of Inclusion. World Bank, Washington, DC

[19] Martins-Filho, P. R., Araújo, B. C. L., Sposato, K. B., de Souza Araújo, A. A., Quintans-Júnior, L. J., & Santos, V. S. (2021). Racial disparities in COVID-19-related deaths in Brazil: black lives matter? *Journal of Epidemiology*.

Attributions:

"African Diaspora", including the highlight of "Rebel Island", is adapted and remixed from Eddins, C. (2022). Maroon Movements Against Empire: The Long Haitian Revolution, Sixteenth-Nineteenth Centuries. *Journal of World-Systems Research*, *28*(2), 219-241. CC BY 4.0.

"Whitening, Browning, and the Myth of Racial Democracy" is adapted and remixed from Freire, German; Diaz-Bonilla, Carolina; Schwartz Orellana, Steven; Soler Lopez, Jorge; Carbonari, Flavia. 2018. Afro-descendants in Latin America: Toward a Framework of Inclusion. World Bank, Washington, DC. CC BY 3.0 IGO; and Mitchell, J. (2022). Back to race, not beyond race: multiraciality and racial identity in the United States and Brazil. *Comparative Migration Studies*, *10*(1), 1-17. CC BY 4.0.

This page titled 9.3: The Cultural Mosaic- Diasporas, Race, and Ethnicity is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

9.4: Inequality and the City

Learning Objectives

1. Identify the major cities of Middle and South America.
2. Describe the colonial influence in the cultural landscape of Mexico City.
3. Explain underlying factors that explain the rapid formation of slums in Middle and South American cities.
4. Evaluate the prospect of smart city design for sustainability and social justice in Medellín and Santiago.

A Highly Urbanized Region

Although only 2 percent of the Earth's surface, cities represent the main order of settlement of humankind in the 21st century and the majority of the world's people live in cities. This is particularly true in Middle and South America, one of the most highly urbanized regions in the world. In every country (except Guiana) most people live in cities. The region's shares of city residents are quite variable, with smaller urban majorities found in Mesoamerican countries. In South America, the percentage of people living in cities is higher in Uruguay (95.5%), Argentina (92%), Venezuela (88%), and Chile (88%) than the United States (83%).[1] Overall, about 81 percent of people south of the US-Mexico border live in cities, the highest urban percentage outside of North America.

Middle and South America also have high population concentrations in large cities. A city with populations figures at least twice as large as the next largest city is called a **primate city.** Montevideo, for example, is home to about half of the population in Uruguay. Similarly, Panama City is home to about 43 percent of the population in Panama.[2] In the Caribbean, cities are relatively small in population size but represent important centers of human settlement in the region. Overall, the Americas have the highest percentage of people living in metropolitan areas of one million people or more than anywhere in the world.[3] Some of these are **megacities,** cities with populations of 10 million people or more. Three of them are among the largest in the world: Mexico City (Mexico) and São Paulo (Brazil) with 22 million people each, and Buenos Aires (Argentina) with 15 million.[4] Other megacities include Rio de Janeiro (Brazil), Lima (Peru), Bogotá (Colombia).

Many cities continue to grow in population size and in geographical footprint. **Urban sprawl,** the unorderly geographical expansion of cities, sometimes transcends political boundaries and merges adjacent cities into a larger urban region known as a **megalopolis.** Some megalopolises are even expanding beyond national borders, like the expanded urban areas merging Buenos Aires and Rosario in Argentina with Montevideo in Uruguay. Another example is the increased interconnected transnational megalopolis of Tijuana, Mexico and San Diego, California. Megacities are often seen as global hubs of access, opportunity, innovation, culture, and influence, but they face serious challenges with being inclusive, equitable, and sustainable.



Figure 9.4.1: Many cities in Middle and South America are quite beautiful. Cityscapes often layer the past, the present, and aspirations for the future in their architectural structures and urban design. This picture series depicts the four largest megacities in Middle and South America. They are among the most populous urban centers of the world. [top left] São Paulo, Brazil, is South America's most populous city south of the equator. Pictured here is a core downtown area featuring the Octávio Frias de Oliveira bridge (Public Domain; Pixabay via Wikimedia Commons). [top right] Rio de Janeiro, Brazil, is considered one of the world's most beautiful cities, highly sought by tourists from all over the world. The giant Christ the Redeemer statue overlooks the immense urban landscape of Rio de Janeiro, with Sugarloaf Mount in the background towering over Rio's Atlantic beaches. (CC BY-NC; Bahiense via Flickr). [bottom left] Buenos Aires, Argentina, combines elements of colonial and modern architecture, like other cities in the region. The Obelisk, pictured in the center, is a national historic monument emblematic of the city center (CC BY-NC-ND; sandeepachetan via Flickr). [bottom right] The image illustrates the iconic Angel of Independence, a monument towering over the Paseo da Reforma, a main avenue dotted with banks, shops, restaurants, hotels, and cultural spaces in Mexico City, Mexico, (CC BY 2.0; Palmero via Flickr).

Urban Layout

Middle and South America were home to some large pre-Hispanic urban centers, like Tenochtitlán (Mexico) (See “The Heart of Mexico” below). When Spaniards colonized the Americas, they destroyed many of its urban structures and built their city to mirror those in Europe (see Figure 9.4.2). The colonial city was structured around a main square, *Plaza Mayor,* with connecting roads radiating out in a grid-like pattern. Around the plaza on one side was the Catholic church. On the other sides of the plaza were government offices and stores. Residential homes filled in around the plaza.



Figure 9.4.2: A colonial legacy is evident in many central *plazas* of cities in Middle and South America, especially with the prominence of the Catholic Church. In Peru and Mexico, Roman Catholic structures were built atop Indigenous sacred sites. [left] This picture depicts the Convent San Domingo built atop the ruins of the Templo of the Sun, Qoricancha. This was the most sacred temple of the Inca universe, and some of its walls were covered with sheets of gold (Copyright; author via source). [right] This photo depictes the ruins of the Templo Mayor, the sacred Aztec temple located in Tenochtitlan, and the Mexico City Cathedral in the background (Copyright; author via source). Both Cuzco and Mexico City are excellent examples of urban landscapes that stratify Indigenous, colonial, and neo-colonial legacies in the city.

The colonial city model remains visible and has served as an underlying blueprint for many cities in Middle and South America today. Nonetheless, these cities have expanded and evolved into complex landscapes embodying forces of the past and present as well as visions for the future.[5] One way to visualize a city is through city models, or spatial diagrams that depict different land-uses in the urban landscape. Geographer Larry Ford's model is widely recognized. It identifies the contemporary city patterns in Middle and South America through distinctive zones of land-use that surround a central business district (CBD). Many of these city centers emerged from the colonial blueprint, around a main plaza with a church and government buildings dating back to a colonial era (or even earlier, like in Cuzco or Mexico City depicted above). The CBD also features contemporary structures and modern architecture reflecting the diverse and dynamic influences that have shaped the city over time. The size and character of each CBD varies throughout the region, but one important commonality is that CBDs are hubs of access where major stores, banks, government buildings, theaters, and transportation networks coincide. From this center, other zones radiate out, often with diminished access to public services, resources, and infrastructure in the outskirts of the city.

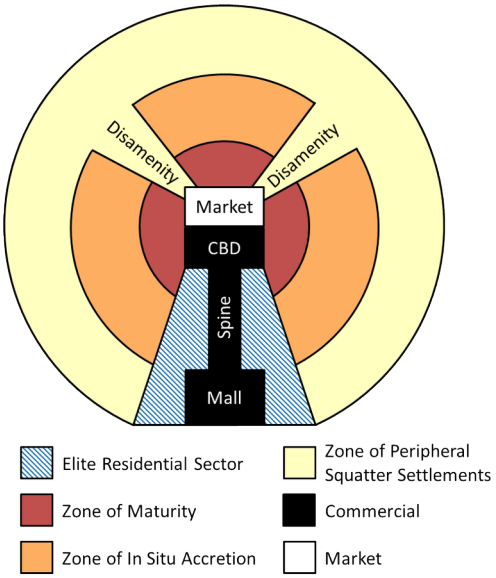


Figure 9.4.3: This visualization represents the "Latin American City Model" of Larry Ford. Each section of the city defines typical land-use zones found in contemporary cities of Middle and South America where cities have historically developed around a commercial business center (CC BY-NC-SA; Finalyson via libretext).

At the heart of Mexico: the urban landscape from Tenochtitlan to Mexico City (CDMX)

The Aztec political capital, Tenochtitlán, was founded by Mexica migrants in the 14th century as an island city in Lake Texcoco in the Valley of Mexico Basin. The center of the Aztec Empire was a feature of hydroengineering, built on a system of canals and dikes for irrigation and flood control. Large causeways linked the island and the mainland and divided the lake, helping control flooding and separating the salty waters of the lake from fresh water sources. These water works were accompanied by a sanitation system where human waste was collected and applied as fertilizers in the highly productive agricultural system of *chinampas*. At the center of the island of Tenochtitlán, the huge Sacred Precinct was a ceremonial square that included a ball court and various temples including Templo Mayor, the precinct's tallest and most sacred structure.

Tenochtitlán dazzled the Spaniards. It was the most populous city they had ever seen, with an estimated population of 200,000 people by the end of the 16th century.[6] Spaniards reported Tenochtitlan's impressive urban design, ornate architecture, artwork, and botanical gardens.[7] When the Spanish took the indigenous capital, they proclaimed it as the capital of New Spain and destroyed much of its structures to build a colonial city atop the ruins, a process that took four decades. They also prescribed a very specific set of urban planning guidelines, including building towns around a *plaza* (main square) and creating a road network on a grid system.

Today, the ruins of Tenochtitlán are engulfed in the larger Mexico City, the capital megacity of Mexico. It is where government buildings, churches, and the Aztec ruins are stratified at the Zócalo square, the historical city center. The Mexico City Cathedral towers over Templo Mayor where vast ruins and a museum are physical remnants of an Indigenous city. Many remarkable archeological discoveries have been made within the vicinities of Templo Mayor and grandiose Aztec sculptures and art are displayed there. The metro connects the Zócalo square along the lines of some of the historical Mexica causeways, another physical reminder of the city's Indigenous blueprint.[8] Zócalo often beats with the drums of Aztec dancers that gather by the hundreds at the square in front of the National Palace. It is a symbol of Indigenous cultural survival and revival that continues to pulsate at the heart of the Mexico City.

But the waters of Lake Texcoco are no longer there. Lacking the Mexica know-how of living within a lake environment, Lake Texcoco became a cesspool under Spanish rule and catastrophic floods ravaged the colonial capital. The Spaniards decided to drain the lake into the Tula River in the 17th century. Independent Mexico proceeded with the draining, and by 1910 the waters of Lake Texcoco were almost entirely gone. Drying the basin was a decision that defied geography, and it was problematic in several ways. The dried lakebed sediment left behind is a source of air pollution because winds suspend the particulate matter into the air in dust storms. Mexico City is often called a "dust bowl," sitting on a plateau at 7,000ft in elevation, surrounded by mountains that trap both the suspended lake dust and the air pollution of a megacity. Mexico City was once among the most polluted cities in the world (it has improved substantively in recent years).

Once an Indigenous city built on water, Mexico City is now parched and sinking.[9] The drying of Lake Texcoco has had a pronounced impact on the local climate. Since there is no more water being evaporated into the atmosphere from the lake, the climate became drier, especially with the compounding effect of climate change. As a result, Mexico City has been reliant on water from its natural underground water reserves, called **aquifers**. The immense water demand and the extensive paved surfaces of the city limit the amount of water percolating the soil and replenishing reserves. This means that more water is being pumped out than what is tricking underground, an imbalance in water flow that results in **aquifer depletion.** Given this reality, fresh water is transported into the city through pipelines from across the mountains. Leakage and inadequate maintenance cause a large percentage of the water to be lost before it can be used in the city. The emptying aquifers also means that the city is sinking, crumbling onto its emptying aquifer foundation. This is a visible reality around Zócalo where some buildings are tilting. Much of the historical architecture and even Mexico's national palace are threatened by the collapsing ground underneath.



Figure 9.4.4: This series of visuals depict Mexico City's indigenous and colonial imprint on the landscape. [top] A painting of Tenochtitlan by Luis Covarrubias displayed in the National Museum of Anthropology, Mexico City (Public Domain; via Wikimedia Commons). [middle] These maps illustrate Tenochtitlan within the valley of Mexico, then and now. It shows the contemporary basin of Mexico City with before and after the Lake Texcoco was drained. The aerial image shows the relative location of Tenochtitlan engulfed in the megacity (Decolonial Media License; Jordan Engel via Decolonial Atlas). [bottom left] This picture of Zocalo square shows the Mexico City Cathedral towering over the plaza displaying a giant Mexican flag at its center (CC BY-NC-SA; Aline Gregorio via Flickr). [bottom right] Diverse indigenous groups participate in Chinelo, Aztec, and contemporary dance at the Zocalo. The plaza is a center for expression and protest. It faces the Mexican National Palace in Mexico City (CC BY 2.0; Secretaría de Cultura de la Ciudad de México via Flickr).

Urbanization and Slums

In 1950, the population in Middle and South America was mostly rural. Today, about 80 percent of the population lives in cities. This rapid shift is noticeable in most parts of the world, and since 2007, most of the world's people have lived in cities. Planetary urbanization was mostly driven by the migration of people from rural areas to urban areas, known as **rural-to-urban migration,** the largest migratory pattern in human history. In other words, never have so many humans shifted settlement patterns so quickly, leaving a long legacy of farming behind in search of new ways of living in the city. This migration is motivated by a set of **push and pull factors** – factors that push people away from rural areas and those that attract them to urban areas.

In Middle and South America, the major push factor was unemployment. In the mid-20th century, the region experienced the **Green Revolution**, the introduction of modern farming technologies like advanced machinery, high-yield hybrid crops, and chemical pesticides and fertilizers. The implementation of technological advancements in farming dramatically improved yields, but it also reduced the need for farm labor. Unable to invest in expensive technologies, most farmers were unable to compete with larger corporate farms. This meant that farm laborers, subsistence farmers, and small farm owners were displaced from what was once their primary source of livelihood. At the same time, modern technologies were introduced in mining and logging that eliminated a lot of the remaining rural jobs. By the end of the 19th century, people had been leaving rural areas in droves, searching for new and higher paying jobs in cities with great hope to improve their lives and escape the poverty trap of rural areas. The city was (and still is) perceived as an opportunity to climb the socioeconomic ladder, as they provide better access to higher quality education, healthcare, and other public services along with economic opportunities.

The combination of agricultural transformation (push factor) and the lure of the city (pull factor) are responsible for most of the explosive urban growth of Middle and South American cities from 1950s to 1990s. But unlike Europe and the United States, where booming industrialization offered new city jobs and supported the urbanization process, the economies of Middle and South American cities were unable to catch up to urbanization rates.[10] The technological revolution in farming occurred *before* broader industrialization, providing limited opportunities for work. Overwhelmed cities could not provide adequate housing, utilities, schools, transportation, and economic opportunities for the masses of poor aspiring newcomers. Consequently, the rapid period of urbanization of Middle and South America was characterized by an unplanned urban expansion of informal settlements, where poor migrants established new communities with makeshift housing surrounding or within the city, without formal land ownership. These informal settlements are known as **slums,** *barrios* (in Venezuela and Colombia), *favelas* (in Brazil), *villas miseria*

(in Argentina), among other local names. The living conditions vary between slum communities, but they are often characterized by overcrowding, insecure property rights, lack of urban and social services (especially access to water and sanitation), hazardous environments, poverty, and exposure to crime and violence.

While the slum population in Middle and South America has decreased in recent years, they continue to be a feature of the urban landscape. The percentage of the population living in slums is still quite high in Bolivia (48%), Venezuela (44%), and Nicaragua (42%), but highest in Haiti (66%) and Jamaica (57%). In Brazil, close to 30 million people live in slums and in Mexico about 16 million.[11] The two countries have the largest slum populations in the region, 16 percent of the urban population in both countries. Mexico City, La Paz (Bolivia), and Caracas (Venezuela) have among the most populous slums in the world.[12] In total, 160 million people (about 23 percent of the population) in Middle and South America live in slums.[13]

Cities in Middle and South America showcase visible socioeconomic inequalities, where poverty and wealth co-exist side-by-side in landscapes of contrast in the world's most unequal region. Consider that in most countries in Middle and South America the richest 10 percent hold more than one third of the national income (this extreme accumulation of wealth is only surpassed by countries in Southern Africa).[14] Socioeconomic inequality is carved in urban spaces where luxurious residential and business compounds tower over slums, lived reminders of the persistence of poverty (see Figure 9.4.5). Despite of the important strides in regional poverty reduction in since the early 2000s, one in five people in Middle and South America have been chronically poor since 2004.[15] Overall, in 2022, 32 percent of the population lived in poverty and 13 percent in extreme poverty.[16] Unequal Scenes, an aerial photographic collection, brilliantly captures the spatial contrasts of highly unequal, fragmented, and segregated cities. It's highly worth exploring the photos of cities in Brazil, Peru, Mexico, and Argentina.



Figure 9.4.5: These photographs illustrate some common hillside scenes in many cities in Middle and South America. Hillsides in tropical Americas tend to be marginal and hazardous areas as they are prone to landslides and are peripherally located in relation to the recognized parts of the city (CC BY-SA 4.0; Delso via Wikimedia Commons). The top picture depicts a slum in the hillsides of Lima, Peru . In the bottom left, *favela* da Rocinha is shown in the hillsides facing the coast of Rio de Janeiro, Brazil (CC BY-SA 4.0; chensiyuan via Wikimedia Commons). On the bottom right, skyscrapers stand in the foreground as contrasting features amidst the vast slums of La Paz, Bolivia (CC BY-SA 4.0; Claure via Wikimedia Commons).

Aspiring smart cities: harnessing technology for more sustainable and inclusive cities

In order to better support planetary urbanization, city planners and leaders have been thinking creatively to increase the efficiency of the city's operations, grow the economy, and improve the quality of life of residents. A **smart city** is an innovative city that harnesses information and communication technologies to advance economic, social, and environmental goals.[17] Given that cities are centers of population, resource use, and greenhouse gas emissions, smart city design has immense potential to solve pressing urban issues. Cities could become more attractive, livable, inclusive, safe, connected, sustainable,

prosperous, and innovative spaces for people to live, work, and enjoy. Ultimately, these are ambitious goals that can be best achieved with smart data-driven decisions. With a focus on technology and data, smart city planners utilize a series of indicators to promote progress in urban mobility, environment, government, economy, people, and quality of life.

Santiago, Chile, is often cited as an aspiring smart city in South America. Situated in a basin surrounded by the Andes mountains, Santiago's physical setting is both beautiful and challenging. Like Mexico City, the surrounding mountains and an inversion layer above restrict air movement. The increased emissions of smokestacks and wood-burning heaters, especially in the winter, result in episodes of severe air pollution. Since 2014, Santiago initiated the campaign *Santiago Respira,* a part of Breathe Life, a global campaign to reduce emissions. To fulfill this mission, city planners are looking to replace wood burning heaters with low emission alternatives, increase the number of zero-emission vehicles on the road, and improve public transportation.[18] Sensors are used for monitoring trash bins, controlling lighting and irrigation, improving water and energy use efficiency. Like other megacities in the region (ex: Mexico City and Sao Paulo), Santiago maintains a rotational system for vehicles, establishing 'off the road' days based on the ending number of the license plate. This measure is meant to reduce the number of vehicles on the road, increase use of public transportation, and promote walking. There is also a renewal of city spaces with centrally located pedestrian walkways filled with art. These urban planning strategies are part of a larger plan to turn Santiago into a 'smarter' city.

Medellín (Colombia) is another well-known and evolving smart city. It is a particularly significant case study of urban transformation given its unique context. Known as the "murder capital of the world" in the 90s, the city was a hotspot for armed internal conflict for decades. Medellín's geography has also shaped its growth and the segregation patterns. The city is embedded within the Andes mountains in a basin surrounded by mountains. Low-income areas are clustered on steep slopes away from the city center, spatially segregated and excluded from city services and infrastructure. This situation is compounded by a high population density, high levels of poverty and social vulnerability, and exposure to flooding and landslide hazards. It is this complex reality that became the heart of highly visible initiatives set to transform Medellín with a people-centered approach. One of the most widely recognized interventions is the implementation of the *metrocable* in 2004*,* an aerial cable cart system designed to connect residents of the periphery to the city center.[19] This improvement in public transportation reduced commute times and helped improve access to and from the outskirts of the city. New educational facilities in poor areas, new public spaces, open and free internet zones, sensors monitoring traffic also became important strategies of a larger plan to improve the city.[20] Including and directing investment to the city's poorest communities is the underlying principle of **social urbanism.** Medellín is globally recognized for the positive outcomes of its initiatives, like increased access to free internet, more education and cultural facilities, and reduced poverty and violence.

The transformative potential of smart city design makes them popular concepts, but smart city approaches tend to be top-down and centered on technology (sometimes over people). This focus on digital intelligence is often removed from the daily grind and 'street smarts' of the city dweller. The emphasis on technology also makes initiatives expensive and corporate, driven by large global companies rather than local people. Thus, critics have highlighted that smart city interventions tend to be cosmetic, lacking the broad impact and participatory decision-making necessary for transformative change. Since 2019, Chile has experienced profound social unrest with the population calling for greater justice, equality, and dignity. Centering their demands is one way to further city planning success. In Medellín, too, improvements are short of addressing the larger issues of entrenched socio-economic inequality and spatial segregation. A renewed focus on equity, inclusion, and participation can help redefine and expand the breadth and depth of smart city initiatives in a way that better responds to the needs of the population.



Figure 9.4.6: This picture compilation highlights examples of aspiring smart cities seeking to harness technology to produce innovative solutions for pressing urban issues. [top left] Santiago is Chile's capital. The picture here shows the eclectic mixture of buildings with the snow-peaked Andes mountains in the backdrop - this is the geographical context that makes the city particularly prone to severe air pollution (CC BY-ND; Fuentes via Flickr). [bottom left] *Paseo Bandera* is a pedestrian zone, one example of Santiago's efforts to improve pedestrian access in the city center. The picture illustrates how colorful paint has been used to decorate the street surface, creating what has been called a 'floor mural'. *Paseo Bandera* has become highly valued by the Municipality of Santiago and a model of reference for pedestrian zones (CC BY-SA 4.0; Warko via Wikimedia Commons). [top right] A picture of the city center in Medellin, Colombia centering its metro transportation system (CC BY 4.0; Michu2709 via Wikimedia Commons). [bottom right] This picture shows cable carts overlooking the vast expanse of Medellin, Colombia. They repreesnt the word's first urban cable cart system and are globally recognized as an urban planning success that has substantially improved mobility and access for poor residents in the outskirts of the city (CC BY-SA 4.0; JoranL via Wikimedia Commons).

References:

[1] Our World in Data. (2020). Share of people living in urban areas.

[2] Our World in Data. (2021). Share of the urban population who live in the largest city.

[3] Our World in Data. (2021). Share of people living in urban agglomerations of more than 1 million.

[4] World Population Review. (2022). World city populations 2023. *Based on UN's Urbanization Prospects.

[5] Salim, Z. and Bosco, F. (2020). Latin American Cities: Transitions and Transformations. In: Jackiewicz, E. L., & Bosco, F. J. (Eds.). (2020). *Placing Latin America: contemporary themes in geography*. Rowman & Littlefield Publishers. *A comprehensive resource for understanding the dynamics of cities in Middle and South America in more depth.

[6] Miller, S. W. (2007). *An environmental history of Latin America*. Cambridge University Press. pp 18-23.

[7] Miller, S. W. (2007). *An environmental history of Latin America*. Cambridge University Press. pp 18-23.

[8] Decolonial Atlas. (May 12, 2018). Mexico City's Decolonial Blueprint.

[9] Kimmelmann, M. (Feb 17, 2017). Mexico City, parched and sinking, faces a water crisis. *The New York Times*.

[10] Vargas, J., Brassiolo, P., Sanguinetti, P., Daude, C., Goytia, C., Álvarez, F., ... & Fajardo, G. (2017). RED 2017. Urban growth and access to opportunities: a challenge for Latin America.

[11] Our World in Data. (2018). Urban population living in slums.

[12] Davis, M. (2006). *Planet of Slums*. London: Verso. Pp 28.

[13] Ezquiaga Arquitectura, S., & Territorio, S. L. (2015). The experience of Latin America and the caribbean in urbanization. In *Knowledge Sharing Forum on Development Experiences: Comparative Experiences of Korea and Latin America and the Caribbean*.

[14] Our World in Data. (2019). Income share of the top 10%.

[15] Magalhães, F., Acosta Restrepo, P., Lonardoni, F., & Moris, R. (2016). Slum upgrading and housing in Latin America. *Inter-American Development Bank*, 119.

[16] ELAC. (2022). Social Panorama of Latin America and Caribbean.

[17] Iraza´bal, C. and Jiron, P. (2020). Latin American smart cities: Between worlding infatuation and crawling provincializing. *Urban Studies,* pp 1-28.

[18] Breathe Life 2030. Santiago, Chile.

[19] Brand, P., & Davila, J. (2011). Aerial cable-car systems for public transport in low-income urban areas: lessons from Medellin, Colombia.

[20] Freedman, D. (Nov 18, 2019). How Medellín, Colombia, Became the World's Smartest City. *Newsweek*.

Attributions:

“The Heart of Mexico” is adapted from Montero-Rosado, C., Ojeda-Trejo, E., Espinosa-Hernández, V., Fernández-Reynoso, D., Caballero Deloya, M., & Benedicto Valdés, G. S. (2022). Water Diversion in the Valley of Mexico Basin: An Environmental Transformation That Caused the Desiccation of Lake Texcoco. *Land*, *11*(4), 542, CC BY 4.0.

“Inequality & the City” is adapted from Quam and Campbell. (2020). The Western Word: daily readings on geography, CC BY-NC-SA 4.0.

“Smart City” is adapted from Jirón et al. (2021). Placebo urban interventions: Observing smart city narratives in Santiago de Chile. *Urban Studies*, *58*(3), 601-620, CC BY 4.0; and Smith et al. (2022) Exploring the relevance of ‘smart city’ approaches to low-income communities in Medellín, Colombia, *GeoJournal,* CC BY 4.0.

This page is also adapted from World Regional Geography by University of Minnesota and World Regional Geography by Caitlin Finlayson, both CC BY-NC-SA 4.0.

This page titled 9.4: Inequality and the City is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

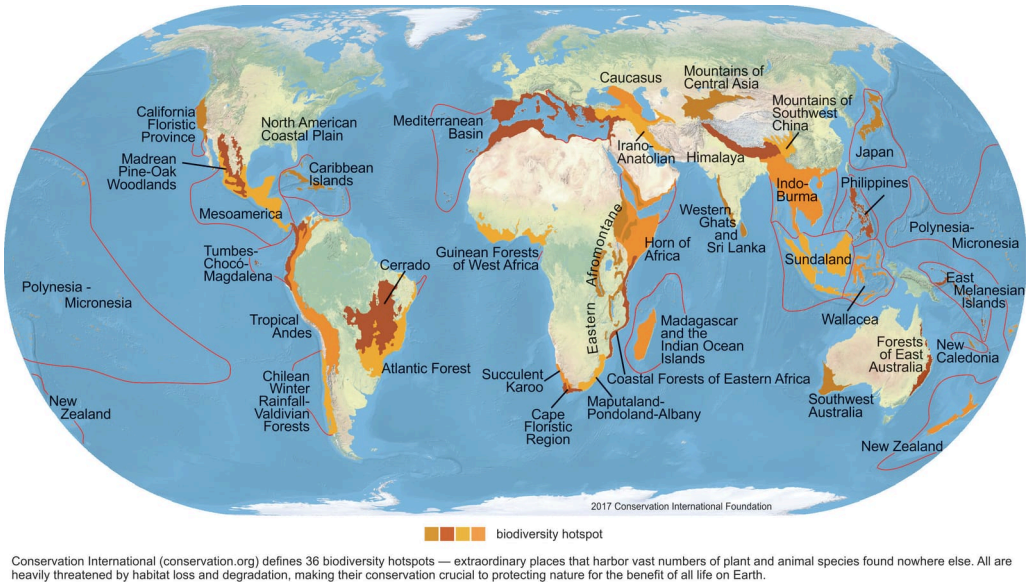
9.5: Tropical Deforestation and the Rights of Nature and Indigenous Peoples

Learning Objectives

1. Identify the main causes of deforestation and explain how economic globalization is connected to the loss of rainforests in Mesoamerica and the Amazon.
2. Describe the geography of deforestation, mining, and protected areas in the Amazon region.
3. Explain the concept of biocultural systems and the intersecting struggle for life in the Amazon region.

Tropical Deforestation in Mesoamerica

Tropical rainforests in Mesoamerica stretch from southern Mexico to Panama. Much of it lies in a narrow strip of land of varied topography and enormous biodiversity. Human settlement in Mesoamerican rainforests dates back centuries, with ancient civilizations and maize agriculture shaping the landscape. The impacts of human activities have only expanded overtime, with colonization and globalization of rainforest resources. Today, Mesoamerican rainforests have lost more than 70 percent of their original extent. This dramatic reduction makes tropical Mesomaerica one of the most urgent conservation priorities in the world. They are part of the world's **biodiversity hotpots**, a designation for biologically important biomes that have experienced substantial reduction of their original geographical extent.



Conservation International (conservation.org) defines 36 biodiversity hotspots — extraordinary places that harbor vast numbers of plant and animal species found nowhere else. All are heavily threatened by habitat loss and degradation, making their conservation crucial to protecting nature for the benefit of all life on Earth.

Figure 9.5.1: This map depicts the world's biodiversity hotspots - these are ecological regions of high biological importance and high threats of deforestation and land conversion. Middle and South America have several ecoregions listed as biodiversity hotspots and as a high priority for biodiversity conservation. The rainforests of Mesoamerica and the Brazilian Atlantic Forest are highly threatened (CC BY-SA 4.0; Conservation International via Wikimedia Commons).

The primary driver of deforestation in Mesoamerica today is the conversion of rainforests into pastures, a process called **grassification**. When large plots of rainforests are cleared, the nutrient-poor tropical soils become quickly eroded. Consequently, there is an ongoing pursuit for new lands driving an ongoing deforestation pattern responsible for extensive destruction of the rainforest. Cattle ranching in Mesoamerica was historically motivated by the international linkages of beef consumption. Historically, the rise of fast food and the increased demand for affordable beef in the United States in the 1950s-1970s escalated deforestation in Mesoamerican countries, important suppliers of American beef at that time. The connection between American hamburgers to tropical deforestation became known as the **Hamburger Connection.** Today, the Central American hamburger connection with the US is largely lost since American beef consumption is now reliant on domestic production and imports from Canada, Mexico, New Zealand, or Australia.[1]

Since the early 2000s, drug trafficking has emerged as a significant driver of deforestation in remote rainforests of Central America. The United States stands as the top consumer of cocaine in the world. The illicit drug is derived from coca plants grown in the Andes, then processed into a paste in Colombia, and eventually smuggled into the United States - mainly through Central America. In Guatemala, Honduras, and Nicaragua, billions of illicit dollars are accrued from cocaine trafficking. To legitimize profits, drug traffickers have used cattle ranching as a form of money laundering, a phenomenon known as **narco-deforestation.** This practice allows gains from the drug trade to be legitimized through agricultural operations and the destruction of rainforests. In the past decade alone, narco-deforestation accounted for about 15-30 percent of annual deforestation in Guatemala, Honduras, and Nicaragua.[2] Even protected areas are facing substantial challenge in maintaining biodiversity conservation efforts due to forest losses linked to the drug trade.[3] It is important to acknowledge, however, that the negative impacts of drug trafficking in Mesoamerica are well beyond deforestation. The illicit drug trade inflicts overwhelming violence in the region and poses a direct threat to Indigenous and peasant groups who find themselves powerless facing ongoing invasions of their lands.[4] And despite extensive efforts, decades of the American war on drug supply networks have proven ineffective and narcotrafficking networks remain largely undisrupted.[5]

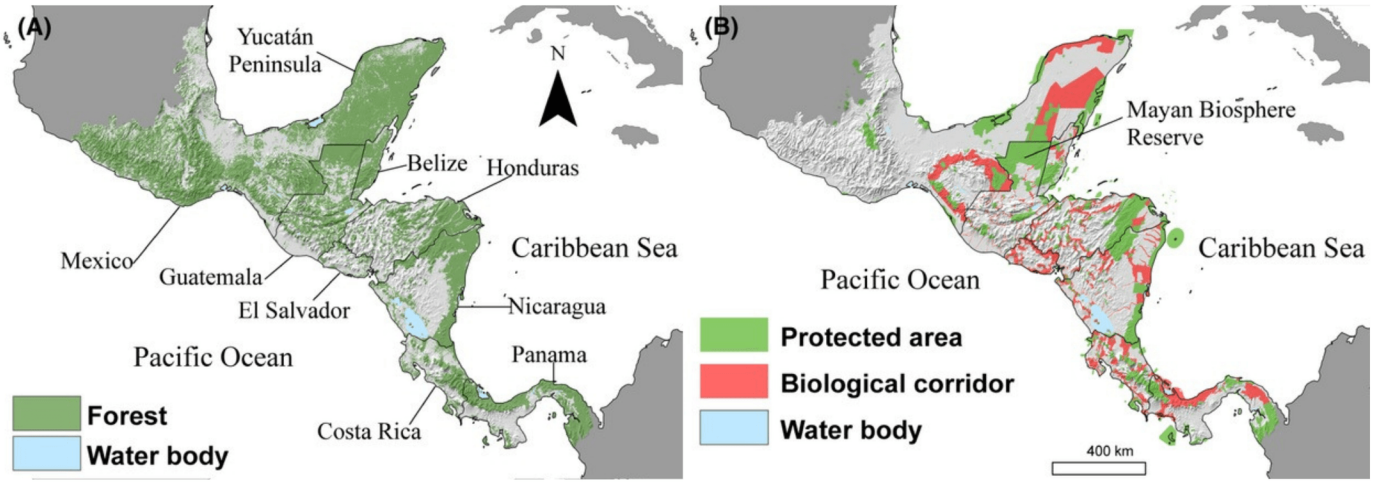


Figure 9.5.2: [left, A] This map shows the distribution of tropic rainforests in Mesoamerica. The extent of rainforest cover relies on a 2003 dataset, and the deforestation of the last twenty years have likely further fragmented these forest patches seen here. [Right, B] Much of the tropical rainforests of Mesoamerica are in a mosaic of protected areas aimed at forming a biological corridor, symbolized in red (CC BY 2.0; Pablo et al. 2013 via Researchgate).

Deforestation in the Amazon

The soy-cattle connection

The Amazon is the largest tropical rainforest on Earth. Occupying a vast expanse larger than the contiguous United States, it extends through French Guiana, Suriname, Guyana, Venezuela, Colombia, Ecuador, Peru, Bolivia, and Brazil. It is a renowned as a biodiversity reservoir and home to an estimated 10 percent of all living organisms, many of which are endemic and yet to be described by science. The Amazon is also the ancestral homeland of hundreds of Indigenous and traditional communities who rely on its resources for their cultural and economic sustenance.

Discussions regarding the Amazon tend to predominantly focus on Brazil, primarily because it is home to over 60 percent of the Amazon rainforest and because the Brazilian Amazon has experienced extensive forest losses over the last several decades. Since the 1970s, the region has been a frontier of the Brazilian developmental agenda. Like the American Manifest Destiny, developmental policies in Brazil have incentivized land conversion and westward expansion from the coastal cities into the Amazon. The construction of roads, a rubber boom, mining, and an ever-growing agribusiness sector have left a fifty-year legacy of deforestation in the Amazon region. Scientists estimate that approximately 20 percent of the rainforest has been cleared.

The beef industry has had the greatest impact on rainforest loss, as extensive areas of the Amazon are cleared each year to make way for cattle ranching.[6] When these pastures become degraded, soybean agriculture often takes their place. Brazil is the top exporter of both beef and soybeans, and the two industries have the greatest deforestation footprint in the Amazon region, making Brazil a net **deforestation exporter**. However, it is important to acknowledge that about 80 percent of beef produced in

Brazil is consumed domestically. [7] Thus, the hamburger connection in Brazil is characterized by a direct link between Brazilian meat consumption and deforestation in the Amazon.

The international demand for commodities also plays a significant role in shaping the fate of the Amazon rainforest. Due to rising incomes and changing dietary preferences, the contemporary Chinese diet includes more meat. Traditionally, pork has been the preferred meat in Chinese cuisine, and Brazil has recently become the main source of the protein-rich soybeans used to feed the Chinese pigs.[8] Beef consumption in China has increased too, and increased beef imports from Brazil is shaping an emerging connection between China and deforestation in the Amazon.[9] China's imports of commodities associated with tropical deforestation make it a net **deforestation importer.**[10]

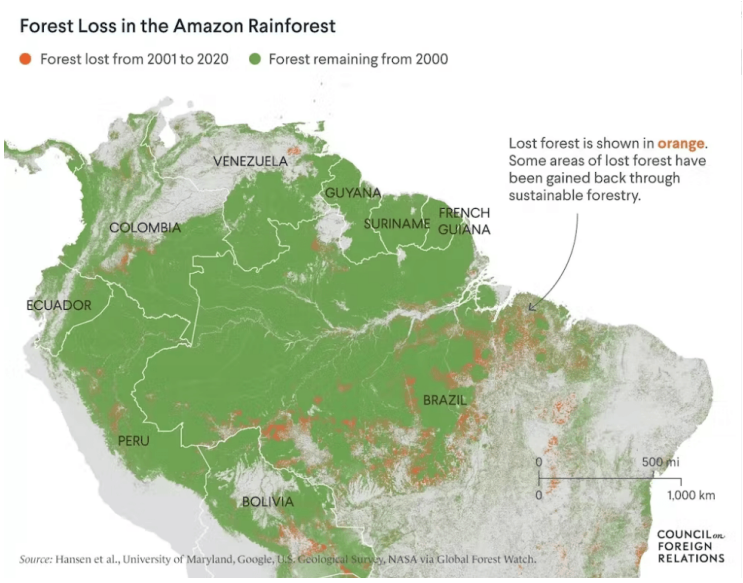


Figure 9.5.3: This map illustrates the loss of rainforest in the Amazon region in the last two decades in orange. Note how the southeastern portions of the region are a deforestation frontier, mostly for the expansion of cattle but also soybean cultivation. This orange outline in the southern parts of the Amazon in Brazil and Bolivia is know as the arc of deforestation (CC BY-NC-ND; Bricknell and Merrow via Council on Foreign Relations).

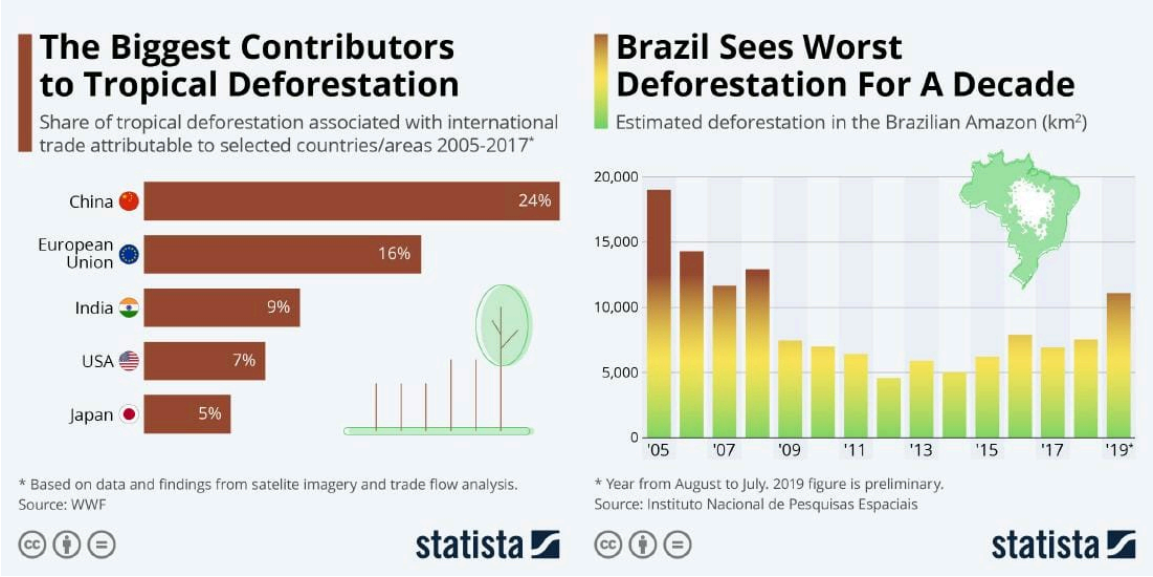


Figure 9.5.4: [right] Most tropical rainforests lost annually in the world are lost in Brazil. Deforestation in the Amazon is, to some extent, associated to increased international demand for beef and soybeans, the two principal land-uses in the country. It is important to note, however, that most beef consumption of Brazilian beef is domestic, and these figures here only illustrate the international trade. The graphic text states: The Biggest Contributors to Tropical Deforestation, Share of tropical deforestation associated with international trade attributable to selected countries/areas 2005-2017 (based on data and findings from satellite imagery and trade flow analysis, source: WWF). China (24%), European Union (16%), India (9%), USA (7%), and Japan (5%). (CC BY-ND; via Statista). Deforestation rates soared in 2019 under Brazilian president Jair Bolsonaro who envisioned the Amazon rainforest as a developmental frontier weakening federal agencies and regulations protecting the region. [left] Globally, China is the biggest contributor to deforestation in the tropics. China is the top importer of Brazilian soy and an important importer of Brazilian beef. The graphic text states: Brazil Sees Worst Deforestation for a Decade, Estimated deforestation in the Brazilion Amazon (km^2), Note: year from August to July 2019, figure is preliminary. Source: Instituto Nacional de Pesquisas Espaciais. (CC BY-ND; via Statista).

Railways and dams

China's reach in the Amazon is further demonstrated through the **Belt and Road Initiative (BRI),** a national strategy focused on expanding Beijing's economic connections and influence worldwide through a network of ports, railways, and energy infrastructure. In the Amazon, the BRI includes investments in expanding ports and energy distribution to strategically secure access to Amazonian resources, such as soybeans.[11] One example is the recent Chinese investment interests in the proposed *Ferrogrão,* a railway intended to facilitate the transportation of soybeans from the interior regions of Brazil to ports along the Amazon River, thereby reducing transportation costs and improving access to international markets. At the same time, the railway is projected to cut through the Amazon and the Brazilian Cerrado, leading to increased deforestation, biodiversity loss, and additional pressures on Indigenous lands.[12]

Ferrogrão is just one of the many developmental projects taking place in the Amazon region. Hydropower, for example, is the principal source of energy in Brazil, and the country's Energy Expansion Plans have called for expanding dams in the Amazon. While hydroelectric dams are often promoted as sustainable energy alternatives, critics often highlight that their environmental and social impacts in the Brazilian Amazon are understudied and overlooked.[13] Such large-scale infrastructural projects raise important questions about who really benefits from them. Often, much of the wealth generated ends up in the hands of investors who live in the core cities or in other countries rather than local people. The costs of biodiversity loss, lost ecosystem services, carbon emissions, and the socioeconomic and cultural impacts on local populations are seldom considered or adequately addressed.

Oil and Gas in the Western Amazon

The Western Amazon region, encompassing parts of Bolivia, Colombia, Ecuador, and western Brazil, faces unique challenges. It is home to diverse Indigenous communities and vast stretches of exceptionally biodiverse and relatively intact tracts of tropical rainforest. Beneath this extraordinary landscape lies rich reserves of oil and gas. Oil exploration in the western Amazon started as early as the 1920s in Peru and Ecuador, with a production boom following in the 1970s. The ongoing demand for fossil fuels

continues to drive new oil and gas exploration and extraction in the region, attracting numerous multinational mining companies that operate within **mining blocks,** areas allocated by national governments for oil exploration and production.

The development of oil and gas operations in the western Amazon have many social and environmental effects, including the clearing of forests to build access to roads, drilling platforms, and pipelines, and contamination from wastewater discharge and oil spills.[14] In Ecuador, crude oil is the primary export, and the largest oil reserves lie underneath the Amazon. Oil operations in the Yasuní region create a complicated geography where mining fields, roads, and pipelines overlap with protected areas and Indigenous reserves.[15]

Struggle for Life: The intersecting movement for the rights of nature and Indigenous peoples

Concerns surrounding tropical deforestation tend to highlight the ecological atrocity it represents. It is crucial, however, to broaden our understanding of the Amazon to include the Indigenous peoples who have ancestral ties to the rainforest. For millennia, Indigenous communities have found a home, a pharmacy, and a sacred sanctuary in the Amazon. Indigenous cultures possess a deep understanding of their natural environment, as their identities and livelihoods are intricately intertwined with the existence of the Amazon. The Amazon rainforest is as a **biocultural system** where biological and cultural diversity are inseparable. This more holistic view enables us to acknowledge the centrality of Indigenous peoples in environmental protection in the Amazon.

About 50 percent of the Amazon rainforest is under some form of protected area, mostly in **Indigenous Lands (ILs)** which are territories demarcated to guarantee Indigenous rights to land, livelihood, and social organization. Enshrined in the Brazilian 1988 Constitution, this legal recognition is a victory that stemmed from the alliance of environmental and Indigenous resistance movements. Indigenous lands are globally recognized to play a crucial role in preserving the Amazon rainforest.[16] ILs are an obstacle to deforestation because they cover three times the land area of natural protected areas in the Amazon and are often in the immediate path of the expanding agricultural frontier.[17]

However, the expanding pressures from agribusiness, logging, mining, and developmental projects continue pose imminent threats to protected areas in the Amazon. Illegal activities like mining and logging within Indigenous lands have resulted in violent clashes and the assassination of Indigenous leaders, environmental activists, and journalists. The lack of enforcement of demarcated Indigenous territories and pervasive discrimination are primary reasons why lethal violence continues be a threat for Indigenous peoples, particularly **uncontacted tribes**. The Amazon is home to the largest number and territorial expanse of isolated tribes in the world with up to 100 uncontacted groups with perhaps a total of 5,000 uncontacted people in total.[18] The term “isolated” or “uncontacted” is relative, as these groups are aware of their surroundings, and some have had limited contact with the outside world. The choice to live in isolation can be interpreted as a form of sovereignty for survival when considering the perilous history of contact with prospectors, missionaries, farmers, loggers, and miners that have resulted in the spread of disease, violence, and the decimation of Indigenous peoples.

Several organizations in Brazil are currently responsible for advocating for Indigenous peoples and putting pressure on the government, including the Articulation of Indigenous Peoples in Brazil (APIB) and Indigenous Organizations of the Brazilian Amazon (COIAB). Facing a hostile government actively dismantling environmental and Indigenous protections, APIB made a historic move by filing a statement with the International Criminal Court (ICC) in August 2021. The statement denounced the Brazilian government’ actions in the Amazon and its impact on its peoples as a form of genocide.[19] It was the first time in history that an Indigenous organization in the western hemisphere took a charge to the ICC, connecting the destruction of the rainforest to crimes against humanity. That same month, thousands of individuals from diverse Indigenous groups participated in the *Luta pela Vida* (Struggle for Life) protest in the Brazilian capital, Brasília.[20] The increased visibility of Indigenous peoples in Brazilian politics is also evidenced by the 2022 election that placed five Indigenous leaders in the National Congress, the highest number in the country's history.

The intersecting struggle for Indigenous rights and environmental protection has sparked a growing movement for coding the rights of nature into law. The notion of the rights of nature stems from the deep understanding within Indigenous cultures of the interconnectedness of all life forms. In 2008, the new Ecuadorian constitution became the first in the world to embrace the rights of nature, declaring that “Nature or Pachamama, where life is reproduced and exists, has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution.”[21] Suspicions that the clause was merely symbolic were recently put to rest when, in December 2021, Ecuador’s Constitutional Court ruled that mining activities pursued by a state mining company and its Canadian partner threatened the Los Cedros protected area’s right to exist

and flourish, legally halting the mining operation in the region. The landmark ruling provided a tangible legal enforcement foundation for safeguarding the rights of nature. Ecuador's example has had a ripple effect, inspiring other countries to follow. Bolivia, New Zealand, Bangladesh, and India have all established legal clauses on the rights of nature after Ecuador.

> "There is no other way forward but to recognize, strengthen, and promote the very important role played by us, Indigenous Peoples, within our territories. For us, talking about climate justice is precisely thinking about the fate of the present and future generations, as well as those who have chosen different forms of social structures like the Indigenous Peoples in isolation or recent contact who live in the Amazon. This is related to the need of respecting diversity. Indigenous cosmology makes us understand the signs of Mother Earth, imposing the duty to recognize ecocide. The rivers, lakes, animals, forests, and all cosmological beings that live within are subjects of rights just like us human beings, and their rights must be respected. Therefore, when talking about climate crisis, it requires recognizing the important role of Indigenous lands, and our own, who give our lives to protect the forests and its biodiversity, in balancing the climate and benefiting all Humanity. Yet, there exists a practical solution that we Indigenous Peoples have been pointing out. That is, demarcating our territories, shifting the production system, planting more trees, ending reliance on fossil fuels, and reducing the pressure on the Earth's natural resources. This must be a commitment from everyone, including governments, the private sector, and individual people." -- Tarumã Declaration: Statement on the climate crisis by the Indigenous Peoples of the Brazilian Amazon (COIAB)[22].



Figure 9.5.5: [top] This map illustrates the Indigenous territories and protected natural areas in the Amazon (2020). Recognizing and protecting indigenous lands and natural areas are crucial steps for safeguarding the biocultural diversity of the region. Together, indigenous lands and protected natural areas account for close to 50 percent of land area in the Amazon (RAISG; within permitted use). [bottom] More than 8,000 people representing over 200 indigenous groups in Brazil's capital, Brasilia, in the annual demonstration for indigenous rights called *Acampamento Terra Livre* ("Free Land Camp") in April, 2022 (#ATL2022). The mobilization was around the theme of the demarcation of indigenous territories, the impacts of illegal mining, and the promotion and complicity of the Brazilian government in indigenous genocide. The left picture shows a large globe where indigenous groups imprinted messages like the one shown with the phrase "salve o Tapajos", or "save Tapajos", a river in Brazil. On the right, an indigenous peoples march and display messages criticizing Brazilian former president, Jair Bolsonaro, whose policies threatened indigenous lands and the environment. The phrase *Demarcação Já* (#DemarcaçãoJá), demands "land demarcation now." The event happened at a critical turning point in Brazilian politics, months before the 2022 election that elected Bolsonaro's opponent, Lula da Silva, as the new Brazilian president (CC BY-NC 2.0; Mídia NINJA via Flickr).

Ted Talk, Nemonte Nenquimo: The forest is our teacher. It is time to respect it.

In this powerful video, Waorani leader Nemonte Nenquimo explains how for thousands of years the Amazon rainforest has been a provider of food, water, and spiritual connection for Indigenous peoples. Nonetheless, endless cycles of invasion and resource extraction by oil companies is destroying the forest and indigenous lives. She demands that outsiders respect Mother Nature and Indigenous peoples, for their sake and for the sake of the planet. The video transcript is available in 8 languages.

This interactive element is not available in this format. Visit the link or scan the QR code to access it online.

View this Interactive Content online

References:

[1] Statista. (2021). Distribution of beef import volume to the United States in 2021.

[2] Sesnie, S. E., Tellman, B., Wrathall, D., McSweeney, K., Nielsen, E., Benessaiah, K., ... & Rey, L. (2017). A spatio-temporal analysis of forest loss related to cocaine trafficking in Central America. *Environmental Research Letters*, *12*(5), 054015.

[3] Devine, J. A., Wrathall, D., Currit, N., Tellman, B., & Langarica, Y. R. (2020). Narco-cattle ranching in political forests. *Antipode*, *52*(4), pp 1018-1038.

[4] McSweeney, K., Nielsen, E. A., Taylor, M. J., Wrathall, D. J., Pearson, Z., Wang, O., & Plumb, S. T. (2014). Drug policy as conservation policy: narco-deforestation. *Science*, *343*(6170), 489-490. Also see: McSweeney, K., Richani, N., Pearson, Z., Devine, J., & Wrathall, D. J. (2017). Why do narcos invest in rural land?. *Journal of Latin American Geography*, 3-29.

[5] Magliocca, N. R., Summers, D. S., Curtin, K. M., McSweeney, K., & Price, A. N. (2022). Shifting landscape suitability for cocaine trafficking through Central America in response to counterdrug interdiction. *Landscape and Urban Planning*, *221*, 104359.

[6] Our World in Data. Annual tropical deforestation by agricultural product 2010-2014.

[7] Shimada, J. and Nepstad, D. (Dec 2018). Beef in the Brazilian Amazon. *Earth Innovation Institute*.

[8] Fuchs, V. B. (2020). Chinese-driven frontier expansion in the Amazon: four axes of pressure caused by the growing demand for soy trade. *Civitas-Revista de Ciências Sociais*, *20*, 16-31.

[9] Zu Ermgassen, E. K., Godar, J., Lathuillière, M. J., Löfgren, P., Gardner, T., Vasconcelos, A., & Meyfroidt, P. (2020). The origin, supply chain, and deforestation risk of Brazil's beef exports. *Proceedings of the National Academy of Sciences*, *117*(50), 31770-31779.

[10] Our World in Data. Who is contributing to tropical deforestation abroad?

[11] Chan, M. and Araujo, H. (Feb 15, 2020). China wants food. Brazil pays the price. *The Atlantic*.

[12] Costa, W., Davis, J., de Oliveira, A. R., Fernandes, F., Rajão, R., & Soares Filho, B. S. (2021). Ferrogrão railroad with a freight terminal in Matupá will split in half the indigenous lands of Xingu.

[13] Atkins, E. (2020). Contesting the 'greening' of hydropower in the Brazilian Amazon. *Political Geography*, *80*, 102179.

[14] Finer, M., Jenkins, C. N., Pimm, S. L., Keane, B., & Ross, C. (2008). Oil and gas projects in the western Amazon: threats to wilderness, biodiversity, and indigenous peoples. *PloS one*, *3*(8), e2932.

[15] Mason, V. (2013). The lure of oil. *National Geographic Magazine*.

[16] Garnett, S. T., Burgess, N. D., Fa, J. E., Fernández-Llamazares, Á., Molnár, Z., Robinson, C. J., ... & Leiper, I. (2018). A spatial overview of the global importance of Indigenous lands for conservation. *Nature Sustainability*, *1*(7), 369-374.

[17] Nelson, A., & Chomitz, K. M. (2011). Effectiveness of strict vs. multiple use protected areas in reducing tropical forest fires: a global analysis using matching methods. *PloS one*, *6*(8), e22722.

[18] Wallace, S., Fagan, C., and James, C. (October 2018). Isolated nomads are under siege in the Amazon jungle. *National Geographic*.

[19] Naknanuk, E. (August 23, 2021). Indigenous peoples sue Bolsonaro at the Hague for genocide and get ready for mass mobilizations in Brazil. *Cultural Survival*.

[20] Estes, N. (Sep 17, 2021). Indigenous people of Brazil fight for their future. *Globetrotter*.

[21] Haines, P. The rights of nature movement cannot be stopped. *Waging Nonviolence*

[22] Articulação dos Povos Indígenas do Brasil (APIB). (Oct 29, 2021). Tarumã Declaration: Statement on the climate crisis by the Indigenous Peoples of the Brazilian Amazon.

Attributions:

"Complex geographies and Indigenous rights" is adapted from Environmental threats over Amazonian Indigenous lands by Rorato, A. C., Picoli, M. C., Verstegen, J. A., Camara, G., Silva Bezerra, F. G., & Escada, M. I. S. (2021), CC BY 4.0; and The rights of nature movement cannot be stopped by Pamela Haines (2022), CC BY 4.0.

This page titled 9.5: Tropical Deforestation and the Rights of Nature and Indigenous Peoples is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio.

10: NORTH AMERICA

Re-Framing North America

One goal of a world regional geography course is to offer students a new perspective—to "see the world with new eyes". A foundational understanding is that a person's perspective is situated in a particular time and place. This is true for the authors of this textbook, who are community college geography professors in California. In this textbook, each world region is presented from a spatial perspective that highlights the interconnectedness of people and places around the world. In doing so, it's important to uncover the biased notions that we have about faraway places developed from misleading media, Eurocentric educational practices, and other sources of information that do not take into account the diversity of experiences in places we might never have direct contact with—what Chimamanda Ngozi Adichie calls a "single story". This chapter's goal is to continue to dismantle preconceived ideas, challenge spatial heuristics, and provide a more inclusive spatial perspective. This effort is particularly demanding because of the pervasiveness of the ideas of American exceptionalism, the attempted erasure of Native Peoples in both the past and present, and the unresolved and contradictory histories of both Canada and the United States. This chapter on North America is an invitation to question previous narratives about the American experience, and if not to see North America with new eyes, to at least build a depth of understanding to perspectives that are often ignored.

American exceptionalism refers to the beliefs and practices that the United States is superior to other countries. One policy example was "Manifest Destiny" which was used as a rationale to expand westward in the 1800s because God ordained it to be so with a complete disregard for the original inhabitants of the continent, causing genocide and dispossession of Native Americans. "Most statements of 'American exceptionalism' presume that America's values, political system, and history are unique and worthy of universal admiration. They also imply that the United States is both destined and entitled to play a distinct and positive role on the world stage".[1]

National pride is a common feeling experienced in countries all over the world,and that alone does not have negative outcomes, but the American experience of pride can be rooted in erroneous assumptions of how the United States compares with other countries. This hampers an understanding of world affairs. Certainly, there is no single perspective that could sum up how people in other countries view the United States, it's government, it's people, and it's cultural exports. But it is important to note that "nothing is more vexing to foreigners than Americans' belief that America is a shining city on a hill — a place apart where a better way of life exists, one to which all other peoples should aspire".[2]

Let's consider how the United States and Canada rank in terms of key indicators provided by the CIA World Factbook, the United Nations, and other sources when compared to the more than 190 countries in the world (Table 10-1). In doing so, it is clear that while the United States might be first in the hearts of Americans, it does not rank first in some key international comparisons. By understanding these realities we can address the underlying societal issues and make a better world for the future.

Table 10-1. Rankings of the United States and Canada on Selected Economic and Demographic Indicators.

Indicator	United States Ranking	Canada Ranking	Top Ranked Country
Gross Domestic Product (GDP per capita)[3]	17th	34th	Liechtenstein
Inequality-adjusted Human Development Index (IHDI)[4]	25th	14th	Iceland
World Press Freedoms Index[5]	42nd	19th	Norway
Maternal Mortality Ration (the number of female death per 100,000 live births)[3]	129th (55th best)	145th (39th best)	Belarus, Italy, Norway, Poland
Life Expectancy at Birth[3]	46th	6th	Monaco
Public Expenditure on Education as a percentage of GDP[3]	66th	48th	Marshall Islands

Indicator	United States Ranking	Canada Ranking	Top Ranked Country
Voter Turnout[6]	31st (among OECD countries)	43rd (among OECD countries)	Uruguay
Democracy Index Score[7]	30th	12th	Norway
Environmental Performance Index[8]	43rd	49th	Denmark
World Happiness Index[9]	15th	16th	Finland

As we consider these indicators and how they challenge the narrative of American exceptionalism, we invite you to reflect on a quote from the renowned writer James Baldwin: "I love America more than any other country in the world and, exactly for this reason, I insist on the right to criticize her perpetually".[10] Born in Harlem in 1924, James Baldwin made important and lasting contributions to American literature and social history (Figure 10.1). As a gay Black author, civil rights activist, and social commentator, Baldwin shaped discussions about race and sexuality. He was active and influential in literary, political, and social circles. Due to racial tensions in the United States, and especially to his personal experiences, Baldwin moved to France. He described himself as a "transatlantic commuter," traveling often between the United States and France. His work continued to focus on America's ongoing struggles with race. He wrote and spoke extensively about the Civil Rights movement and the reality of Black lives in America.



Figure 10.1: [left] A 1974 photograph James Baldwin in Amsterdam, the Netherlands, with a Dutch translation of his novel *If Beale Street Could Talk* (CC0 1.0; Rob Croes / Anefo via Wikimedia Commons). [right] A mural in 167th St. Station in New York memorializes James Baldwin. Murals are important windows to studying geography because they communicate important cultural and historical information as well as struggles, values, and aspirations of the local communities and the icons they celebrate in their public spaces (CC BY 2.0; Drasky via Flickr).

Notes of a Native son: The World According to James Baldwin - Christina Greer

Learn more about the biography of James Baldwin, his rejection of the label "an ambassador for Black Americans", and his impact on the national fabric of the United States in this video. To access the FBI's file on James Baldwin, visit the webpage provided by the FBI based on Freedom of Information Act requests.

This interactive element is not available in this format. Visit the link or scan the QR code to access it online.

View this YouTube Video online

The World Geographies Atlas: Navigate each world region through maps

For each of the world regions, our original atlas provides detailed maps to help you navigate the places discussed in this book. These maps are meant to be explored before and during the reading of this chapter. These maps are best enjoyed enlarged. Click on each map for an enlarged view, and zoom in to see the prominent biomes, physical features, and population centers of Middle and South America. We recommend that you download these for reference as you read this chapter's content and hope that you enjoy this original compilation.

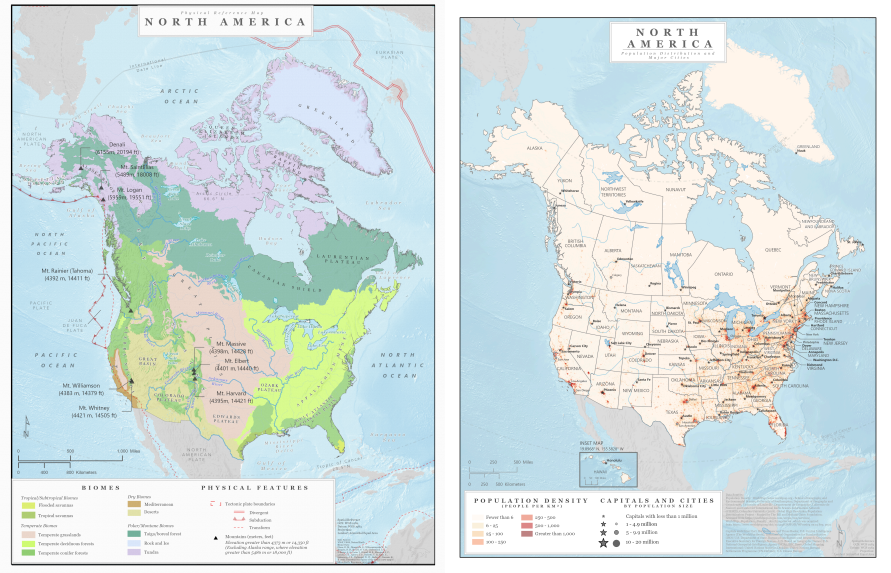


Figure 10.2: [left] This physical map shows the geographic distribution of biomes in North America and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries (CC BY-NC-SA; Wallace via Flickr). [right] This map depicts internationally recognized countries, capitals, major cities, and population distributions of North America (CC BY-NC-SA; Sellers via Flickr).

References:

[1] Walt, Stephen M. 2011. The myth of American exceptionalism. *Foreign Policy*.

[2] Kohut, Andrew & Stokes, Bruce. 2006. The problem of American exceptionalism. Pew Research Center.

[3] CIA World Factbook. 2022. Real GDP per capita, Maternal Mortality Ratio, Life expectancy at birth, Public Expenditure on Education.

[4] UN Data. 2022. Inequality-adjusted Human Development Index (IHDI).

[5] Reporters without Borders. 2022. World Press Freedoms Index.

[6] Pew Research Center. 2022. Turnout in U.S. has soared in recent elections but by some measures still trails that of many other countries.

[7] Economist Intelligence Unit. 2023. Democracy Index 2022.

[8] Yale Center for Environmental Law & Policy. 2022. Environmental Performance Index.

[9] Sustainable Development Solutions Network. 2022. World Happiness Report.

[10] Baldwin, James. 1955. *Notes of a Native Son*. Boston: Beacon.

Attributions:

“Re-Framing North America” is adapted from James Baldwin Residence, New York City by the U.S. National Parks Service (public domain).



- Chapter sections and summaries

10.1: Natural Environments and Nature-Society Interactions

10.2: Indigenous Worlds- Diversity, Survivance, and Decolonization

10.3: Culturally Diverse and Aging Populations

10.4: Urban Spatial Inequalities in the United States

This page titled 10: North America is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

10.1: Natural Environments and Nature-Society Interactions

Learning Objectives

- Classify North American biomes based on climate patterns and physical features.
- Analyze greenhouse gas emissions and the impacts of a warming planet.
- Explain how water resources are influenced by natural and human factors.

Biomes

North America has a vast range of biomes—from the Arctic conditions in the far north to the tropical humid forests found in southernmost Florida (Figure 10.1.1). Extending across the far north of the continent, the **tundra** biome experiences annual temperature ranges from -40°C (-40 °F) and 18°C (64°F) and 150 to 250 millimeters (6 to 10 inches) of rain per year. There are few trees due to the short growing season and **permafrost**, which is ground that has stayed frozen for at least two continuous years. In the tundra summers, the top layer of soil in permafrost thaws only a few inches down, providing a growing surface for the roots of grass and shrub vegetation. Even though there is little precipitation in the tundra biome, it is usually a wet place because the low temperatures cause evaporation of water to be slow. Much of the arctic has rain and fog in the summers, and water gathers in bogs and ponds. Lichens, mosses, grasses, sedges, and shrubs are commonly found in the tundra (Figure 10.1.2).



Figure

: This physical map shows the geographic distribution of biomes in North America and prominent physical features, like peaks, rivers, lakes, oceans, plateaus, mountains, and tectonic boundaries (

CC BY-NC-SA

; Wallace via

Flickr

).



Figure 10.1.2: Photograph of the tundra biome in Nunavut, Canada (CC BY 2.0; ADialla via Wikimedia Commons).

Two forest biomes are found south of the tundra, with the grassland biome in the central part of the continent. **Coniferous forests**—so-called because of the presence of evergreen trees that produce cones and needles—are mostly found between the tundra biome to the north and the deciduous forest to the south. Conifers, such as spruces, pines, and firs, are adapted to survive in areas that are very cold or dry (Figure 10.1.3, left). The **temperate deciduous forests** have broadleaf trees such as oaks, maples, and beeches. The deciduous forest regions are exposed to warm and cold air masses, which cause this area to have four seasons. The temperature varies widely from season to season with cold winters and hot, wet summers. During the fall, trees change color and then lose their leaves. This is in preparation for the winter season. Because it gets so cold, the trees have adapted to the winter by going into a period of dormancy (Figure 10.1.3, middle). **Grasslands** are generally open and continuous, fairly flat areas of grass (Figure 10.1.3, right). The height of grass correlates with the amount of rainfall it receives. Grasses vary in size from 2.1 meters (7 feet) tall with roots extending down into the soil 1.8 meters (6 feet), to the short grasses growing to a height of only 20 to 25 centimeters (8 to 10 inches) tall. These short grasses can have roots that extend 1 meter (about 3 feet) deep.



Figure 10.1.3: Left: Photograph of coniferous forest in Rocky Mountain National Park, Colorado (CC BY-SA 4.0; Sarbjit Bahga via Wikimedia Commons); Middle: Fall foliage in Maine as trees move into winter dormancy (CC BY 2.0; Kimberly Varderman via Flickr); Right: Grassland in Badlands National Park, South Dakota (CC BY-SA 2.5; Wing-Chi Poon via Wikimedia Commons).

The parts of the Mojave, Sonoran, Chihuahua, and Great Basin deserts comprise the desert biome in North America. Deserts get about 250 millimeters (10 inches) of rain per year—the least amount of rain of all of the biomes. The temperature in the desert can change drastically from day to night because the air is so dry that heat escapes rapidly at night. Since desert conditions are so severe, the plants that live there need to have adaptations to compensate for the lack of water. Some plants, such as cacti, store water in their stems and use it very slowly, while others like bushes conserve water by growing few leaves or by having large root systems to gather water. Some desert plant species have a short life cycle of a few weeks that lasts only during periods of rain. The cholla plant uses CAM photosynthesis, an alternative pathway to convert energy from the sun into food. Mesophyll cells in the leaves convert carbon dioxide into organic acids. This allows the cholla to conserve water by keeping the stomata (the traditional pathway for photosynthesis) closed during the day (Figure 10.1.4).



Figure 10.1.4: Teddybear or “jumping cholla” (Cylindropuntia bigelovii) grow in the transition zone between the lower, warmer Colorado Desert and the higher, cooler Mojave Desert ecosystems (public domain; USGS).

The **Mediterranean scrubland** extends along the California coast from northern Baja through southern Oregon. It is characterized by a climate of dry, hot summers and wet, cool winters. This region is one of the world’s most biodiverse areas. Thirty percent of its vascular plants (plants that have conducting tissue like ferns, flowering plants, and grasses) are **endemic**—meaning that they are only found naturally in this region. There were more than 5,000 vascular plants in the Mediterranean shrubland compared to about 20,000 in the entire continental United States; 25 percent of the biodiversity of vascular plants are found in the Mediterranean scrubland, which represents only 5 percent of the area of the continental United States.[1] Due to habitat loss and other threats, Conservation International identified this region as a global biodiversity hotspot. Named the California Floristic Province, only about one-quarter of its habitats remain intact with less than 90 percent of its wetlands destroyed by development and water diversion for agricultural and urban uses.[2]

Extending from northeast Mexico through the Gulf and Atlantic coasts to southeastern Massachusetts, the **North American Coastal Plain** is another global biodiversity hotspot found in North America. Wetlands, deciduous forests, and coastal plains are commonly found in this hotspot. When European settlers colonized the Northern American Coastal Plains, they introduced non-native grasses, trees, and grazing animals, which left less than 15 percent of the native savanna and woodland habitats intact. This gave the appearance that the number of endemic species and that the overall biodiversity was lower than it really is. For example, river habitats in this hotspot have particularly high levels of endemic fish species.[3]

Physical Features

North America is divided into a number of physical regions with distinct landforms (Figure 10.1.5). The western part of the continent is marked by the Rocky Mountains. The eastern portion of North America is defined by the ancient Appalachian Mountains, a mountain range that is much less rugged than the Rockies but with no less influence on the history and development of the United States. The interior of the continent is characterized by the Great Plains. To the north is the Canadian Shield, geologically the oldest part of North America, and a sparsely populated area with poor soils. At the southern and eastern edge of the continent is the Gulf-Atlantic Coastal Plain, a relatively flat zone that extends from New York to Texas.



Figure 10.1.5: Physical features of North America with low-elevation areas shaded in green and high-elevation areas shaded in dark grey (adapted from public domain; NASA/JPL).

Most of North America, to include Mexico, Greenland, and some of the Caribbean, is situated on the North American plate and is thus relatively geologically stable (Figure 10.1.6). One notable exception, however, is the Juan de Fuca Plate, which is subducting under the North American plate near California and Vancouver Island, an area known as the Cascadia subduction zone. Severe earthquakes, generating tsunamis, have occurred here roughly every 500 years; the last major earthquake in the area was in 1700 CE. Just to the south, the San Andreas Fault running along the edge of California forms the boundary between the Pacific Plate and the North American Plate. This is a transform plate boundary, with the two plates sliding past each other horizontally. San Francisco is located on this fault line and the area has experienced numerous earthquakes.



Figure 10.1.6: Plate tectonic map of North America labeled with numbers representing the average annual plate movement in millimeters (CC BY-SA 4.0; Alataristarion via Wikimedia Commons).

Climate Change

Earth's climate is changing. Multiple lines of evidence show changes in our weather, oceans, ecosystems, and more. Scientists have long established that natural causes alone cannot explain all of these changes. Human activities contribute to climate change, primarily by releasing billions of tons of carbon dioxide (CO_2) and other heat-trapping gases, known as greenhouse gases, into the atmosphere every year. The more **greenhouse gases** emitted, the more intense future climate changes will be. In 2020, North America accounted for approximately 21 percent of global carbon dioxide emissions (Figure 10.1.7) while representing less than 5% of the global population. This means that on a per person basis, Americans are among the top emitters of greenhouse gases in the world.

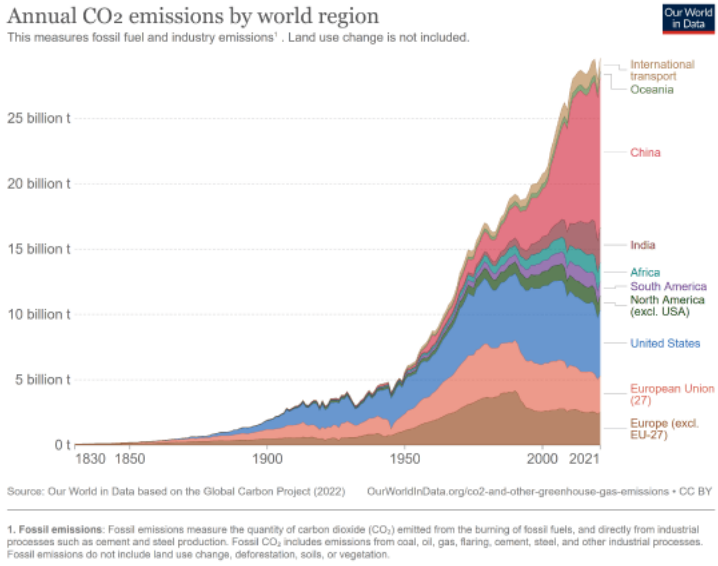


Figure 10.1.7: Annual carbon dioxide emissions by world region (CC BY 4.0; Our World in Data).

Yet, the impacts of greenhouse gas emissions and global climate change are uneven and vary by region. Climate change is already attributable to changes in precipitation patterns, ice loss, sea-level rise, ocean acidification, extreme weather, and more. In North America, these climate impacts vary geographically. Northern areas are projected to become wetter, especially in the winter and spring. Southern areas, especially the Southwest, are projected to become drier. Heavy precipitation events will likely be more frequent, even in areas where total precipitation is projected to decrease. Heavy downpours that currently occur about once every 20 years are projected to occur between twice and five times as frequently by 2100, depending on location. The proportion of precipitation falling as rain rather than snow is expected to increase, except in far northern areas. Thus, generally speaking, there are two Americas of the climate crisis: a parched west and a soaked east.[4] Figure 10.1.8 shows how annual temperature and precipitation patterns have changed from 1901 to 2020.

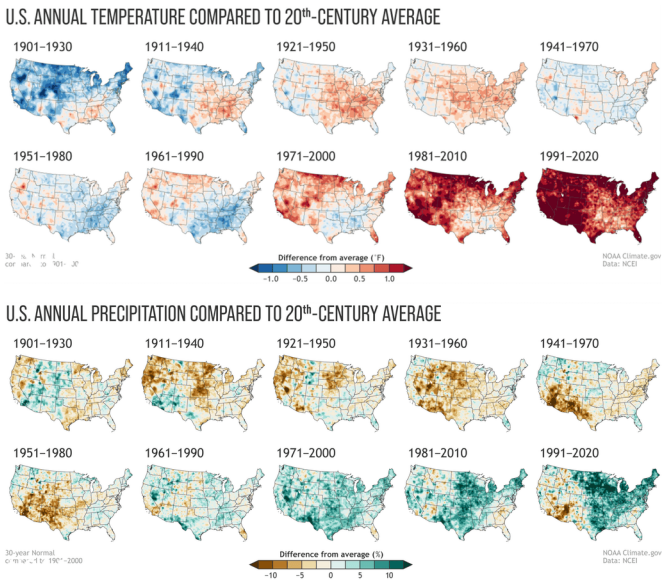


Figure 10.1.8: Top maps: Annual U.S. temperature compared to the 20th-century average. Bottom maps: Normal annual U.S. precipitation as a percent of the 20th-century average. (public domain; NOAA).

Hurricanes in the Gulf of Mexico and along the east coast are likely to increase in intensity and frequency. Cold-season storm tracks are expected to continue to shift northward with the strongest cold-season storms are projected to become stronger and more frequent. There will be changes to precipitation regimes, as well. Figure 10.1.9 shows the predicted precipitation pattern changes in North America modeled with the “higher emissions” future scenario.

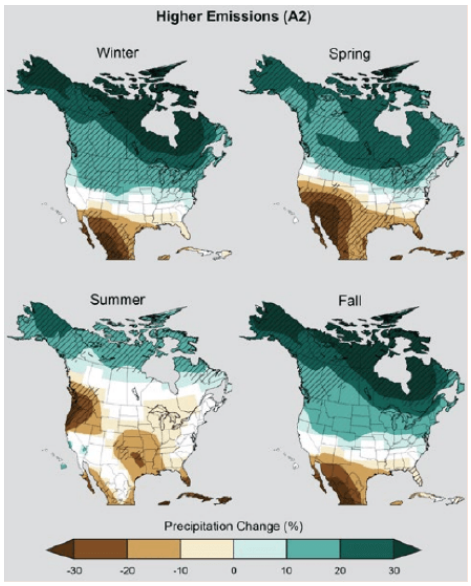


Figure 10.1.9: Projected future changes in precipitation for the end of this century, compared with 1970-1999, under a higher emissions scenario. For example, in winter and spring, climate models agree that northern areas in the United States are likely to get wetter and southern areas drier. There is less confidence in exactly where the transition between wetter and drier areas will occur. Confidence in the projected changes is highest in the areas marked with diagonal lines. The changes in white areas are not projected to be larger than what would be expected from natural variability. (public domain; National Climate Assessment).

In the Canadian Mackenzie Valley, permafrost temperature has increased over the last four decades by at least 2°C. The Arctic is experiencing steep temperature increases, and warming temperatures over lands with permafrost are projected to continue in all emissions scenarios. This is resulting in a sustained thawing of large areas of permafrost. Canada underlain by deep permafrost is projected to decline by 16 percent to 20 percent by 2090, relative to 1990. This thawing of permafrost will affect the hydrology

of the tundra region and release methane into the atmosphere, which would contribute to more warming.

Climate Justice

North America, and the United States in particular, has benefited more than others from the industries and technologies that are causing climate change. And at the same time, the countries that have benefited the least are more likely to be suffering first and worst because of climate change (See Africa South of the Sahara, Section 3.5). Wealthy, industrialized nations have released most of the greenhouse gas pollution to date — meaning they've played an outsized role in causing climate change. Climate justice calls for these countries, along with multinational corporations that have become wealthy through polluting industries, to pay their "climate debt" to the rest of the world. In this view, stopping their greenhouse gas emissions, while hugely important, is not enough to fully pay the debt from over a century of pollution; these actors also have a responsibility to share wealth, technology, and other benefits of industrialization with the countries least responsible for the climate crisis, to help them cope with the effects of climate change and build clean energy systems and industries.

Climate justice is the principle that the benefits reaped from activities that cause climate change and the burdens of climate change impacts should be distributed fairly. Climate justice means that countries that became wealthy through unrestricted carbon emissions have the greatest responsibility to not only stop warming the planet, but also to help other countries adapt to the adverse effects of climate change and develop economically with nonpolluting technologies.

Climate justice also calls for fairness in environmental decision-making. The principle supports centering populations that are least responsible for and most vulnerable to the climate crisis . It also means acknowledging that climate change threatens basic human rights principles, which hold that all people are born with equal dignity and rights, including to food, water, and other resources needed to support human health. Calling for climate justice, rather than climate action, has implications for policymaking, diplomacy, academic study and activism by bringing attention to how different responses to climate change distribute harms and benefits and who gets a role in forming those responses. It calls for a reflection on universal ethics and differential power.

A climate justice perspective also brings attention to inequalities within countries. Within high and low income countries, wealthier people are more likely to enjoy energy-intensive homes, private cars, leisure travel, and other comforts that both exacerbate climate change and buffer them from impacts like extreme heat. Climate change also worsens pre-existing social inequalities stemming from structural racism, socioeconomic marginalization, and other forms of social exclusion. In the U.S., for example, communities of color and immigrant communities are more likely to be located in places where climate risks are more severe, such as in flood zones or urban heat islands.

Watch the video below to learn about the connection of climate justice to Indigenous perspectives.

This interactive element is not available in this format. Visit the link or scan the QR code to access it online.

View this YouTube Video online

Water Resources

North America has a number of significant rivers, some of which are used for shipping and hydroelectric power. The longest North American river is the Missouri, which forms in Montana and flows into the Mississippi River. The Mississippi River is largely considered to be the most important waterway in terms of commercial transportation. The Port of South Louisiana, located along the Mississippi, is a commercial hub with the largest tonnage of trade goods flowing in and out of the United States. Canada's surface water resources are considerable, an estimated 7 percent of the world's renewable water supply. Approximately 60 percent of the country's freshwater drains to the north, away from the 85 percent of the population living within 300 kilometers of our southern border.

A **watershed** is an area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel. Watersheds can be as small as a footprint or large enough to encompass all the land that drains water into rivers that drain into Chesapeake Bay, where it enters the Atlantic Ocean. Figure 10.1.10 shows one

set of watershed boundaries in North America.

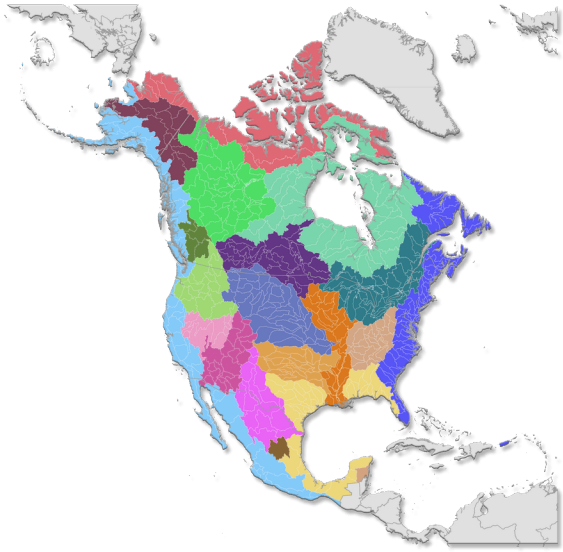


Figure 10.1.10: North America watershed map (public domain; USGS).

Dams

A **dam** is a constructed barrier along a river designed to hold back the flow of surface water, which creates a reservoir (Figure 10.1.11). There are more than 105,000 dams in North America but only a few percent produce hydroelectricity—most were built for flood control, the creation of reservoirs to hold water supplies, or for irrigation. Decades of human alteration through dams and other infrastructure have profoundly affected a host of hydrological and ecological processes. Because dams block the transport of sediment and nutrients downstream, there are many effects on downstream habitats.

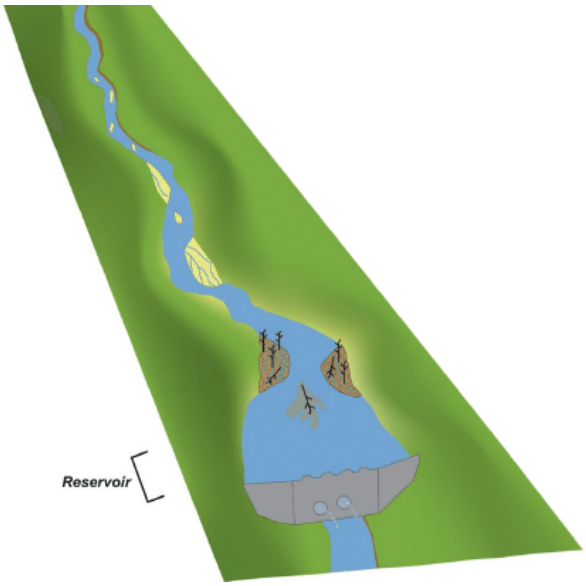


Figure 10.1.11: Simple diagram of a dam (adapted from public domain; USGS).

Over the past several decades, more than 1,100 dams have been removed nationally due to increasing public concern over their safety, an unwillingness to invest scarce resources in infrastructure repair, and a growing interest in restoring degraded

ecosystems.[5][6] Reasons for dam removal include improving water quality, improving native plant communities, and restoring wetlands.

The Elwha River in Washington state provides a case study of the rationale and benefits of dam removal. For millennia, the Elwha River ran wild, connecting mountains and seas in a thriving ecosystem. The river proved to be an ideal habitat for anadromous (sea-run) fish, with eleven varieties of salmon and trout spawning in its waters. These fish thrived in the cold, clear waters of the Elwha River and historically served as an important food source for the Lower Elwha Klallam Tribe living along its banks. American expansion spurred a continual demand for lumber. The growth of the logging industry in the region brought rapid change to the Olympic Peninsula and specifically to the Elwha River with the construction of two dams. However, construction of the dams blocked the migration of salmon upstream, disrupted the flow of sediment downstream, and flooded the historic homelands and cultural sites of the Lower Elwha Klallam Tribe.

For over a century, the web of ecological and cultural connections in the Elwha Valley were broken - then the river's story changed course. In 1992, Congress passed the Elwha River Ecosystem and Fisheries Restoration Act, authorizing dam removal to restore the altered ecosystem and the native anadromous fisheries therein. After two decades of planning, one of the largest dam removals in U.S. history began on September 17, 2011. Six months later the Elwha Dam was gone, followed by the Glines Canyon Dam in 2014. Today, the Elwha River once again flows freely from its headwaters in the Olympic Mountains to the Strait of Juan de Fuca (Figure 10.1.12).



Figure 10.1.12: Aerial photograph of the former Lake Aldwell reservoir and the Elwha River 16 months following the removal of the Elwha Dam, Washington State, USA (public domain; USGS).

Megadams and Energy Exports from Canada to the United States

All over Europe and North America big damns are no longer being built given grave environmental and social concerns associated with mega dams. Canada appears to be the exception to that.Large dams are still being built across Canada, from Muskrat Falls in Labrador to the generically titled “Site C” in British Columbia, despite cost overruns, outcry from some First Nations and even environmental concerns from the United Nations (Figure 10.1.13).



Figure 10.1.13: Protest sign that says “Site ‘C’ Sucks” (CC BY 2.0; by The Narwhal Canada via Flickr).

Hydroelectric power already supplies 60 percent of the country’s energy. But the dam building isn’t just to feed Canada’s power needs. It’s also become a hot export commodity. As U.S. states look to meet new clean energy targets, imported low-carbon hydropower from across the northern border has become a larger part of the conversation — and the grid. New England already gets 17 percent of its energy from Canadian hydropower, Midwest states around 12 percent and New York 5 percent. That number is likely to increase. A new transmission project to bring 250 megawatts of Canadian hydropower to the United States just came online in Minnesota. Two more are in the works for Massachusetts and New York.

Proponents say large-scale hydropower can help speed up the transition to **clean energy**, energy sources that have low or zero carbon emissions. Others caution that it comes with a larger environmental cost compared to wind and solar and could open the floodgates for more dam building. All told, over the life cycle of a project, most hydropower is cleaner than fossil fuels, but not as clean as wind and solar. A study in *Nature Energy* on the projected life-cycle emissions of energy sources put solar at 6 grams of CO2 equivalent per kilowatt hour and wind at 4. The researchers estimated typical hydro at 97, but there’s great variation between sites.[7]

There are other environmental considerations beyond greenhouse gas emissions, including habitat fragmentation, construction on contaminated ecosystems, and threats to endangered species. Hydropower may be renewable, but it damages ecosystems and threatens biodiversity. With the aim to maintain the ecosystem integrity and the cultural heritage of the region, a group of Cree and Inuit protestors paddled the Hudson River to Manhattan to ask New Yorkers to oppose a power purchase agreement between the state and Quebec and the construction of a second dam in the James Bay hydroelectric project in northern Quebec in 1990. They were successful. Now, 30 years later, a different group of First Nations is making a similar plea.

On October 7, 2020, the First Nations of Pessamit, Wemotaci, Pikogan, Lac Simon and Kitcisakik sent a letter to the U.S. Department of Energy stating their opposition to the Massachusetts transmission line. The groups wrote that one-third of Hydro-Québec’s installed power is “produced in our respective ancestral territories from reservoirs, dams, power plants and various other installations, without prior consultation, without our consent and without compensation.”[8] Major hydroelectric projects have altered the flow of rivers and in some cases and the food and cultural resources used by Indigenous communities. Thus, they raise questions about who benefits from such megaprojects, at what cost.

Aquifers

Below the surface of North America lies a number of aquifers, or underground layers of permeable rock that hold groundwater in natural reserves. The largest of these aquifers is the Ogallala Aquifer located in the central United States stretching from

South Dakota down to Texas. This aquifer supplies water to much of the Great Plains, about one-third of all groundwater used for irrigation in the United States. While aquifers are beneficial for irrigation, they replenish their water supplies relatively slowly through rainfall. The high demands for irrigation waters in the Great Plains means has accelerated the mining of groundwater from the Ogallala Aquifer at rates beyond natural replenishment, resulting in aquifer depletion (Figure 10.1.14). Once all of the water is depleted, it will take around 6,000 years to naturally replenish. This is a grave environmental problem, given the importance of groundwater this vital agricultural region of the United States.

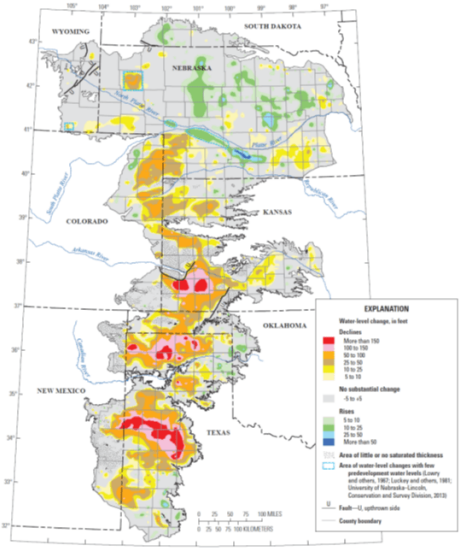


Figure 10.1.14: Map of the High Plains aquifer water-level changes, predevelopment (about 1950) to 2015; red areas have water-level declines of more than 150 feet and pink areas have water-level declines of 100 to 150 feet (public domain; USGS).

Water is already scarce in the American Southwest, so every drop is a precious resource. People in the Southwest are particularly dependent on surface water supplies like Lake Mead, which are vulnerable to evaporation. Thus, even a small increase in temperature (which drives evaporation) or a decrease in precipitation in this already arid region can seriously threaten natural systems and society. Droughts also contribute to increased pest outbreaks and wildfires, both of which damage local economies.Droughts also reduce the amount of water available for generating electricity—for example, at the Hoover Dam, which supplies roughly 8 million people in Arizona, southern California, and southern Nevada with power. Every part of the Southwest experienced higher average temperatures between 2000 and 2020 than the long-term average (1895–2020). Some areas were more than 2°F warmer than average (Figure 10.1.15).

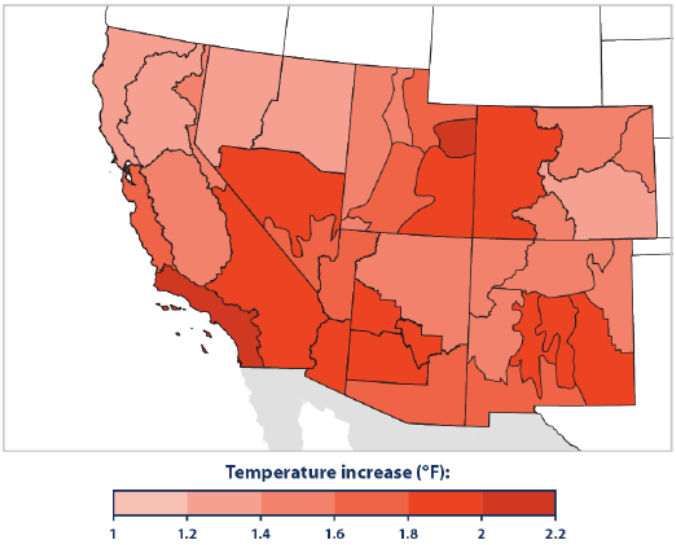


Figure 10.1.15: Map of average air temperature from 2000 to 2020 has differed from the long-term average (1895–2020) (public domain; EPA).

Large portions of the Southwest have experienced drought conditions since weekly Drought Monitor records began in 2000. For extended periods from 2002 to 2005 and from 2012 to 2020, nearly the entire region was abnormally dry or even drier (Figure 10.1.16). Extended droughts have severe impacts on water supplies of the American southwest and beyond. In California, a state with high value agricultural crops, farmers are turning to pumping more water from its underground water reserves at rates that can result in aquifer depletion. California also diverts water from the Colorado River, a lifeline of the American southwest for more than 30 million people. Increased diversion from the Colorado by American municipalities means that Mexico, a country facing severe water stress, can no longer depend on the flow on a river. Since 2008, the Colorado River Delta has dried and its waters no longer reach the Gulf of California, like it had for millions of years.

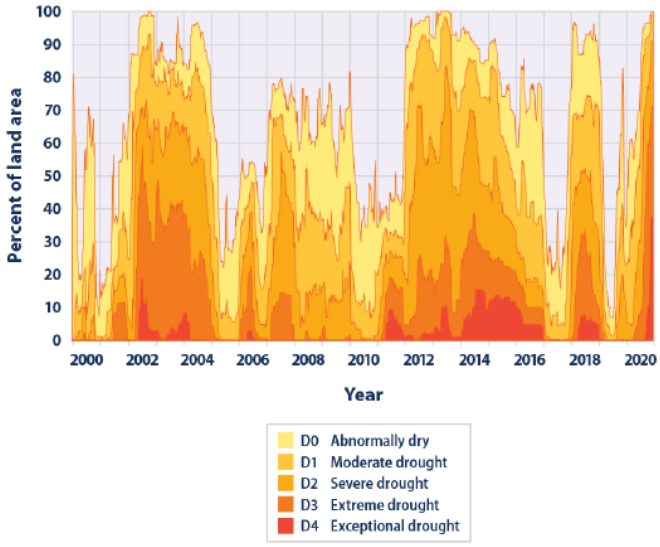


Figure 10.1.16: Percentage of land area in six southwestern states (Arizona, California, Colorado, Nevada, New Mexico, and Utah) classified under drought conditions from 2000 through 2020 (public domain; EPA).

References:

[1] Mooney, Harold A. 1988. Lessons from Mediterranean-Climate regions. *In* Biodiversity, E.O. Wilson, F.M. Peter (Eds.). National Academies Press.

[2] Conservation International. 2022. California Floristic Province.

[3] Conservation International. 2022. North American Coastal Plain.

[4] Popovich, N. and Bhatia, A. (2021). These maps tell the story of two Americas: one parched, one soaked. *The New York Times*.

[5] O'Connor J.E., Duda J.J., Grant G.E. 2015. 1000 dams down and counting. *Science, 348*: 496–497.

[6] Service R.F. 2011. Will busting dams boost salmon? *Science, 334*: 888–892.

[7] Pehl, M., A. Arvesen, F. Humpenöder, A. Popp, E.G. Hertwich, & G. Luderer. 2017. Understanding future emissions from low-carbon power systems by integration of life-cycle assessment and integrated energy modelling. *Nature Energy*, 2: 939-945.

[8] ICT. 2020, October 8. Opposition to the New England clean energy connect electricity transmission line project to Massachusetts.

Attributions:

"Biomes and Physical Features" is adapted from World Regional Geography by Royal Berglee (CC BY-NC-SA 3.0); World Regional Geography by Caitlin Finlayson (CC BY-NC-SA 3.0); Introduction to World Regional Geography by R. Adam Dastrup (CC BY-NC-SA 3.0); and Mission: Biomes by the NASA Earth Observatory (public domain).

"Climate change" is adapted from Climate Change Science and Climate Change Indicators by the U.S. Environmental Protection Agency (public domain); Canada's Changing Climate Report by E. Bush and D.S. Lemmen (editors) for the Government of Canada (public domain); and Climate Justice by Mariana Arcaya and Elizabeth Gribkoff (editors) for the Climate Portal (CC BY-NA-SA 4.0).

"Water Resources" is adapted from World Regional Geography by Caitlin Finlayson (CC BY-NC-SA 3.0); Hydrology of Canada by the government of Canada (public domain); River restoration by dam removal: Enhancing connectivity at watershed scales by F.J. Magilligan et al. (CC BY 4.0); Elwha River Restoration by the National Park Service (public domain); and Promise or Peril? Importing Hydropower to Fuel the Clean Energy Transition by Tara Lohan (CC BY-SA 2.0).

This page titled 10.1: Natural Environments and Nature-Society Interactions is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

10.2: Indigenous Worlds- Diversity, Survivance, and Decolonization

Learning Objectives

- Describe the cultural diversity among the Indigenous nations of North America.
- Examine the impacts of settler colonialism on the physical and cultural landscapes of North America.
- Analyze decolonization frameworks.

Cultural Diversity among Indigenous Peoples in North America

The Americas had long been settled before contemporary political borders were established. Various Indigenous groups lived in settled or semi-settled communities, moving as resources became limited, populations too large, or due to conflict. For example, before European contact, the people known as the Lakota lived in the prairies of what is now the state of Minnesota, part of the Northeast cultural-geographic area (Figure 10.2.1). Horses did not exist in the Americans until Europeans brought them. In 1680, many pueblos (communities) in the Southwest revolted against the Spanish who had attempted to colonize them. As a result of the revolt, many Spanish horses were freed. Eventually these horses, ancestors of the mustang, found their way to the Plains. In the meantime, European contact and forced relocation had pushed the Lakota onto the Plains. The Lakota soon came to depend on and revere the horse that helped them survive in their new environment. So should they be considered a society of the Northeast or the Plains? Ultimately, that is for the Lakota people to decide, if they want to frame their histories in this regional way at all. The story of migration and adaptation of the Lakota illustrates the complexities of regionalizing Indigenous civilizations. Thus, maps like the one below are too simplistic because they are static and do not depict the complex and mobile histories of indigenous groups. Figure 10.2.2, from Native-Land.ca, a Canadian Indigenous-led non-profit organization, provides a mapping platform for Indigenous peoples to represent themselves and their territories in their own terms.



Figure 10.2.1: Map of Indigenous Ethnic Regions (public domain; Nikater via Wikimedia Commons).



Figure 10.2.2: Unofficial, crowdsourced map showing the complexity and diversity of Indigenous peoples, nations, and cultures (by permission; Native Land.ca).

The Politics of Indigeneity in Canada and the United States

In 2020, about 9.7 million people (2.9 percent of the population) identified as Native American and Alaska Native in the United States (alone or in a combination with another racial/ethnic group), which represents a large increase since the previous census. Canada's 2021 census counted 1.8 million Indigenous people (5 percent of the population). Census numbers are based on self-identification, or the self-reported ethnoracial identities of individuals who responded to the survey. Indigenous identity, however, is subjected to governmental recognition in Canada and the United States (and other countries). Governments often stipulate which groups to recognize as indigenous in order to grant or recognize Indigenous land sovereigneity. In other words, governmental recognition matters because it may grant or deny rights to ancestral lands. How governments choose to recognize indigenity is what we call the **politics of indigeneity**.

In addition to the three office Indigenous groups recognized by the government of Canada (the Inuit, the First Nations, and the Métis), Canada defines a fourth group called "non-status Indians". This refers to people who identify themselves as Indians but who are not entitled to registration on the Indian Register pursuant to the Indian Act. Some may, however, be members of a First Nation band. In alignment with the United Nations Declaration on the Rights of Indigenous Peoples, Canada's Congress of Aboriginal Peoples uses the all-inclusive term "Indigenous" to refer to Indigenous peoples who are off-reserve, status and non-status Indians, Métis, and Southern Inuit. "The Congress arose as a representative for the "forgotten people" in response to the structural and systemic exclusion of Indigenous people in federal policy. The 2016 Census reported that of the 1.6 million Indigenous people in Canada, 51 percent, or 853,000, were not classified as Registered or Treaty Indians (i.e., Status Indians).[1]

The video below provides insights to the politics of indigeneity in the United States. It refers to the **blood quantum**, which refers to the fraction of a person's ancestors who are documented as Native Americans. "Throughout history, blood quantum was used to define a point at which responsibilities to tribes, entitlement programs, treaty rights, and reservations would end. The government hoped that using blood quantum would eventually eliminate Native peoples—that intermarriage would "dilute" the amount of 'Indian blood' in the population, causing descendants of Native peoples to become indistinguishable from the rest of the population".[2]

This interactive element is not available in this format. Visit the link or scan the QR code to access it online.

View this YouTube Video online

Because the external groupings of people with Indigenous heritage is fraught and Indigenous peoples are not a monolith, it is preferred to use the specific names of the Nations and communities when discussing history, territory, identity, or any other aspect of social life. There are many separate and unique nations.

Canada

Before there was Canada, there was Turtle Island—home to the first peoples of North America. Algonquin and Iroquoian peoples tell the story of a Sky woman falling toward the sea but finding refuge on Turtle, and of how a humble creature like Muskrat dove to the bottom of the sea to find the soil needed to build her a home on Turtle's back. While this origin story is representative of only some of the Indigenous population of present-day Canada, there are some commonalities across most Indigenous communities. Traditionally, Indigenous cultures are inclusive. Lynda Gray, from the Tsimshian First Nation, writes: "Everyone had a place in the community despite their gender, physical or mental ability, sexual orientation, or age. Women, Elders, Two-spirit, children, and youth were an integral part of a healthy and vibrant community".[3]

Education differed from European-style education because children engage in hands-on learning with their families and immediate community. Also, education is seen as a lifelong process as people grow into different roles from child, youth, adult, and Elder. Elders are cherished and respected. An Elder is not simply an older or elderly person, but is usually someone who is very knowledgeable about the history, values, and teachings of his or her culture. He or she lives according to these values and teachings. Each Indigenous community determines who are respected Elders. First Nations pass along values and family and community histories through oral storytelling.

Each Indigenous culture, community, and even family has its own historical and traditional stories, songs, or dances. Different cultures have different rules about ownership. Some songs, names, symbols, and dances belong only to some people or families and cannot be used, retold, danced, or sung without permission. Sometimes they are given to someone in a ceremony. Other songs and dances are openly shared.

Today, the Canadian constitution recognizes three broad groups of Indigenous peoples: the Inuit, the First Nations, and the Métis.

The Inuit are descended from people living north of the tree-line, in the Arctic areas of present-day Canada prior to European contact (Figure 10.2.3). The word Inuit means "the people" in the Inuit language of Inuktitut. Inuit have lived and thrived in the Arctic for thousands of years. A present-day map of Inuit languages shows the vast lands inhabited by Inuit peoples (Figure 10.2.3). Traditionally they lived off the resources of the land, hunting whales, seals, caribou, fish, and birds, and many Inuit continue to harvest these resources today. Cultural and oral traditions are based on sharing, co-operation, and respect for the land, the animals, fish, and peoples.



Figure 10.2.3: Present-day Inuit language distribution map (by permission; Historica Canada).

The First Nations are descendants of people living south of the tree-line. Historically, First Nations managed their lands and resources with their own governments, laws, policies, and practices. Their societies were very complex and included systems for trade and commerce, building relationships, managing resources, and spirituality.

Today, there are more than 630 First Nation communities in Canada, which represent more than 50 Nations and 50 Indigenous languages. Figure 10.2.4 provides the official Canadian government's map of Indigenous communities codified by the Indian Act of 1876 and the First Nations Land Management Act of 1999, which provided participating First Nations with the right to manage their own lands and set up land ownership rules.

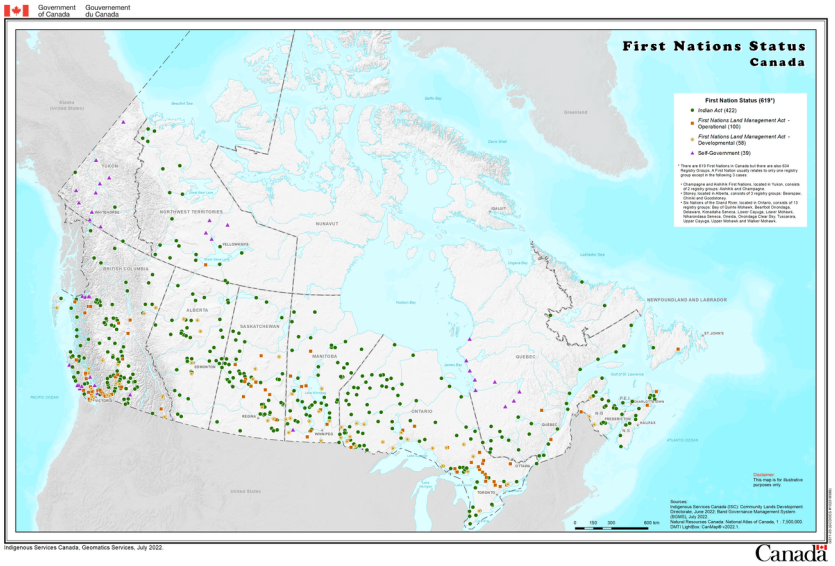


Figure 10.2.4: The Canadian Government's Map of First Nations. Four statuses are shown: Indian Act (422) shown with green circles, First Nations Land Management Act - Operational (100) shown with brown squares, First Nations Land Managemetn Act - Developmental shown with orange circles, and Self-Government (39) shown with purple triangles. (public domain; Indigenous Services Canada via Geomatics Services).

The Métis are descendants of multi-generational, intermarrying communities of mixed-race individuals, with Algonquian and

French heritages the most common. In the 17th and 18th centuries, many French and Scottish men migrated to Canada to work in the fur trade with the Hudson's Bay Company, the North West Company, or as independent traders. Some had children with First Nations women and formed new communities. The red "voyageur sash" is recognized as a part of the distinct Métis culture (Figure 10.2.5). It was part of the clothing worn by Métis people every day and had many uses such as a holder, washcloth, bridle or saddle blanket. The sash is worn by Métis people today in celebration of their culture and identity.



Figure 10.2.5: Photo of Métis sashes with the Métis flag (CC BY-NC-SA 2.0; Chris Corrigan via Flickr).

United States

A tremendous amount of diversity existed amongst the hundreds of Indigenous groups living in the present-day United States. The people of the West Coast had very little in common with the way that the peoples of the Southwest lived. However, groups within each region tended to have more commonalities. For instance, each region of the continent could be typified by the way in which peoples supported themselves, that is, their subsistence strategies. Other similarities might include kinship relations, political structure, and material culture, the objects and artifacts utilized by a people and having social significance to them. Language is also used as a key identifying characteristic.

The Pacific Northwest and California Peoples in the Pacific Northeast supported themselves largely through hunting, gathering, and fishing, relying most heavily on salmon fishing. Consequently, the salmon became an important figure in the cosmology of groups like the Tlingit and Haida. The Pacific Northwest region was densely populated and culturally diverse because of the rich natural resources that provided a relatively reliable and plentiful food source, which translated into a large population. Most groups lived in large, permanent towns in the winter. These towns formed the basis of the political structure for many Northwestern groups. People identified themselves by their town, and towns organized themselves into larger cultural and political groups through family and political alliances. Each town was led by a secular leader from one of the town's important clans. Clans are groups of families that recognize a common ancestor and a greater familial relationship amongst the group. Clans were often identified by a symbolic figure or idea important to the region. In the Pacific Northwest, for instance, clans were named for important animals such as raven, salmon, eagle, and killer whale. Society in Pacific Northwest groups was generally highly stratified in a complex system of hierarchy that ranked individuals, families, clans, and towns.

Some of the earliest peoples of the Midwest/Great Plains region were agriculturalists, settling in the south and central areas. However, the reintroduction of the horse to North America at European contact transformed Plains life (the ancestor of modern horses was found throughout much of North America in the Pleistocene era, but died out and disappeared from the continent). Groups quickly adopted use of the horse in following and hunting the great bison herds, and many groups such as the Sioux, comprising the Dakota, Lakota, and Nakota, were transformed from farmers to nomadic hunter/gatherers and emerged as one of the most important groups in the northern Plains region. Other important groups include the Crow in the north, the Cheyenne, Pawnee and Arapaho in the central plains area, and the Comanche in the south.

Northeastern groups were complex in many ways. Economically, they relied on both hunting/gathering and farming. Many participated in a system of exchange with shells as the medium. After the 1600s, groups began manufacturing wampum, made from white and purple shell beads, using them to record important events and to formalize agreements. Exact copies would be made for each party participating in an agreement. Politically, groups were led by men called sachems. Many towns organized themselves into tribes or nations; some tribes further allied to form political confederacies of affiliated nations. The Iroquois, or Haudenosaunee, made up of an association of the Mohawk, Oneida, Onondaga, Cayuga, and Seneca nations, was the largest and most successful of these northeastern confederacies. Confederacies were governed by councils made up of leaders from each of the member tribes.

In the Southwest and northern Mexico, peoples combined farming with hunting and gathering. In arid regions, irrigation systems were built to water fields of corn, beans, and squash. A range of social structures were common from extended family groups to politically independent pueblos. The Pueblo, Navajo, Yuman, and Tohono O'odham peoples, among many others, all called this region home. Chaco Canyon in present-day New Mexico was a major center of ancestral Pueblo culture between 850 and 1250 (Figure 10.2.6). The highly organized large-scale structures, featuring multi-storey construction and sophisticated coursed masonry, illustrate the increasing complexity of Chaco social structure, which distinguished itself within the regional culture of the ancestral Pueblo and dominated the area for more than four centuries. The high incidence of storage areas indicate the probability that the Chacoans played a central economic role, and the great size and unusual features of the ceremonial kivas suggest that complex religious ceremony may have been significant in their lives.



Figure 10.2.6: Pueblo Bonito at Chaco Canyon (GNU Free Documentation License; Circumspice via Wikimedia Commons).

Settler Colonialism

Settler colonialism is different from other forms of colonialism in that settlers come with the intention of making a new home on the land, a homemaking that insists on settler sovereignty over all things in their new domain. Settler colonialism incorporates components of **external colonialism**, the expropriation of fragments of Indigenous worlds, animals, plants and human beings, extracting them in order to transport them to —and build the wealth, the privilege, or feed the appetites of—the colonizers. It also incorporates **internal colonialism**, the biopolitical and geopolitical management of people, land, flora and fauna within the "domestic" borders of the imperial nation.

Within settler colonialism, the most important concern is land/water/air/subterranean earth. Land is what is most valuable, contested, and required. This is both because the settlers make Indigenous land their new home and source of capital, and also because the disruption of Indigenous relationships to land represents a profound violence. This violence is not temporally contained in the arrival of the settler but is reasserted each day of occupation. This is why Patrick Wolfe (1999) emphasizes that settler colonialism is a structure and not an event. In the process of settler colonialism, land is remade into property and human relationships to land are restricted to the relationship of the owner to property. The settlers sees themselves as holding dominion over the earth and its flora and fauna.

Settler colonialism has functioned, in part, by deploying institutions of western education to undermine Indigenous intellectual development through cultural assimilation and the violent separation of Indigenous peoples from our sources of knowledge and strength – the land. If settler colonialism is fundamentally premised on removing Indigenous peoples from their land, one, if not the primary, impact on Indigenous education has been to impede the transmission of knowledge about the forms of governance, ethics, and philosophies that arise from relationships on the land.

European settler colonization completely changed the cultural landscape of North America. In 1492, Columbus made contact with what are now the Bahamas, Cuba, and the island of Hispaniola, spurring Spanish and Portuguese colonization of the Americas. Early French and English settlements were not successful, but over time, they too gained control of territory and founded permanent colonies. The easternmost Indigenous groups were the first to experience the impacts of European invasion. Many were relocated, often forcibly, to the interior of North America to free up land for European settlement. Disease and war had a devastating effect on the Indigenous groups of the Americas. European settlers and explorers brought smallpox, measles, and cholera — diseases previously unknown to North America. In some areas, 90 percent of the Indigenous population died.

By the early 1700s, France, the United Kingdom, and Spain had established formal colonies in the Americas (Figure 10.2.7) and the population geography of North America today is largely rooted in the colonial developments during this time period. The British primarily set up settlements along the coast, including the thirteen colonies that would declare independence from the United Kingdom and form the basis of the United States. The French colonized much of Canada and the area surrounding the Mississippi River. Their primary objective was fur trading, and they founded a fur trading outpost at what would later become the city of Quebec. The Spanish colonized present-day Florida as well as much of Middle America, stretching into what is now the southwestern United States. They sought resources like gold, the expansion of trade, and opportunities to spread the Roman Catholic faith to Indigenous groups.



Figure 10.2.7: Map of European Colonization, 1750 (CC BY-NC-SA; Simeon Netchev via the World History Encyclopedia).

The early British colonies had highly specialized economies. The New England colonies, around the Massachusetts Bay area, were centers of commerce. The Chesapeake Bay area of Virginia and Maryland had a number of tobacco plantations. In the Middle Atlantic, around New York, New Jersey, and eastern Pennsylvania, were a number of small, independent-farmer colonies. Further south, the Carolinas were home to large plantations cultivating crops like cotton.

These large plantations relied on slave labor, a tragic legacy that would last for 250 years in North America. Initially, colonists partnered with indentured servants. These laborers paid for their passage to North America by agreeing to work for an employer under contract for a set number of years. These indentured servants often worked on farms, and once their contract expired, they were free to work on their own. Over half of all European immigrants to the Americas before the American Revolution were indentured servants.

As indentured servants gradually earned their freedom, the system of indentured servitude was replaced with slavery. The Portuguese were the first to bring slaves from Africa to the Americas during the 1500s. England, France, Portugal, and the

Netherlands would all later join in the transatlantic slave trade, with England dominating the slave trade by the late 17th century. The vast majority of slaves were destined for sugar colonies in the Caribbean and Brazil. Less than 10 percent would be brought to the North American colonies, but this number still represented hundreds of thousands of people. It is estimated that a total of 12.5 million Africans were shipped to the New World as slaves (discussed in Chapter 3 and Chapter 10).

During British colonization, slaves worked as house servants or laborers in the northern colonies and farm workers in the south. Britain formally abolished slavery in 1833, but slavery was so entrenched in the economies of the southern United States that it would take a civil war to end the practice. In their secession statement, Mississippi explained its reasoning for leaving the union: "In the momentous step which our State has taken of dissolving its connection with the government of which we so long formed a part, it is but just that we should declare the prominent reasons which have induced our course. Our position is thoroughly identified with the institution of slavery – the greatest material interest of the world. Its labor supplies the product which constitutes by far the largest and most important portions of commerce of the earth".[4]

When we think about the Civil War, it is important to understand the geographical differences between the North and South and to remember that the northern states profited from the slavery in the south. Just as geographers can divide the world into core and peripheral countries today, the early United States can similarly be analyzed in terms of its core and periphery. The southern states were indeed peripheral in terms of their economic development. Slavery, essentially forced free labor, provided the southern states with the maximum profit for their commodities. Even after slavery was abolished in the United States in 1865 with the 13th Amendment to the Constitution, the legacy of slavery and racialization continued to confine African descendents. It would be another 100 years before laws were passed in the United States that would bar discrimination based on race, color, religion, sex, or national origin. Even still, ethnoracial prejudice and discrimination continue to be a significant social issue.

Theorem 10.2.1 Missing and Murdered Indigenous Women, Girls, and Two-Spirit in North America



Figure 10.2.8: Vigil on Parliament Hill, Ottawa, Canada for Missing and Murdered Indigenous Women and Girls (CC BY-NC-SA 2.0; Obert Madondo via Flickr).

In North American, there has been a crisis—and what the Canadian National Inquiry called a genocide[5]—of violence against Indigenous women and girls. In Canada, Indigenous women and girls are 12 times more likely to be murdered or missing than women and girls from different racial/ethnic backgrounds.[5] In the United States, murder is the third-leading cause of death among American Indian and Alaska Native girls and women who are 10 to 24 years old.[6] The Missing and Murdered Indigenous Women, Girls, and Two-Spirit (MMIWG2S) social movement is working to raise awareness about this issue, support the families and communities affected by violence, and dismantle the underlying racist and settler colonial structures that limit the safety of Indigenous women, girls and Two-Spirit people.

LGBTQ+ and Two-Spirited people are disproportionately impacted by violence due to colonial racism, homophobia, and transphobia.[7] The term Two-Spirit is an identity related to some Indigenous groups in North America. It refers to people (male, female, or intersex) who identify as having both a masculine and feminine existence. With more than 1,000 tribes in Canada and the United States, there is tremendous diversity in perspectives and attitudes about sex and gender. In many tribes, Two-Spirit people were considered neither men nor women; they occupied a distinct, alternative gender status. Most Indigenous communities have specific terms in their own languages for the gender-variant members of their communities and the social and spiritual roles these individuals fulfill. The disruptions caused by conquest and disease, together with the efforts of missionaries, government agents, boarding schools, and white settlers resulted in the loss of many traditions in Native communities. Two-spirit roles, in particular, were singled out for condemnation, interference, and many times violence. As a result, Two-Spirit traditions and practices went underground or disappeared in many tribes. Today, lesbian, gay, bisexual, and transgender native people throughout North America are reviving the Two-Spirit role and its traditions.

Learn more about the situation in the video below, which includes a short interview with Abigail Echo-Hawk, a co-author on a 2018 report on MMIWG.

This interactive element is not available in this format. Visit the link or scan the QR code to access it online.

View this YouTube Video online

Decolonization

Decolonization may mean different things to different people, some legitimate and some not—especially when used too broadly. At the least, “decolonizing” begins with an acknowledgment of the systemic inequalities spread by colonialism, empire, and wealth extraction related to characteristics such as race, gender, sexuality, class, disability, and nationalism. From there, understandings or interpretations of “decolonization” can vary by discipline or cultural context.

A person’s **positionality**, which refers to the how differences in social position and power shape identities and access in society, plays an important role here. This requires an individual to develop an acute awareness of the social and political context that shapes their identity, values, and encounters with the world around them. But it should also extend to developing an acute awareness of any limitations to a person's “expertise,” including their understanding of how expertise develops and what forms it can take.

Decolonization brings about the repatriation of Indigenous land and life; it is not a metaphor for other things to do to improve our societies and schools. Decolonization can be seen as a way to address the destructive effects of settler colonialism. For some, the term survivance—combining survival and resistance—epitomizes decolonization efforts. But the methods of decolonization can be contradictory depending on the underlying motives of those who engage with the process. Table 10-2 provides a summary of different decolonization efforts in the context higher education.

Table 10-2. Decolonization Efforts in the Context Higher Education.

Framework	Meaning of Decolonization	Practices
“Everything is awesome”	No recognition of decolonization as a desirable project, but increased access or conditional inclusion into mainstream	None
Soft-reform	No recognition of decolonization as a desirable project, but increased access or conditional inclusion into mainstream	Providing additional resources to Indigenous, racialized, low-income, and first-generation students, so as to equip them with the knowledge, skills, and cultural capital to excel according to existing institutional standards

Framework	Meaning of Decolonization	Practices
Radical-reform	Includes recognition and authentic representation of Indigenous peoples and their rights	Center and empower marginalized groups, and redistribute and reappropriate material resources
Beyond-reform	Dismantling of modernity's systematic violences (capitalism, colonialism, racism, heteropatriarchy, nation-state formation)	Subversive educational use of spaces and resources

Land Back is a movement that seeks to return lands to the sovereign control of Indigenous groups, which is a goal of decolonization (Figure 10.2.9). Figure 10.2.10 highlights examples of lands returned to Indigenous care in the United States. In California, three case studies provide examples of what the return of lands to Indigenous peoples:

- In Los Angeles, a private landowner returned a parcel of land to the Tongva people.[8]
- The City of Oakland will return the rights of a portion of the Joaquin Miller Park to the Ohlone people.[9]
- In 2022, the Government of California's Ocean Protection Council funding supported the purchase of coastal lands for the Wiyot Tribe.[10]

For many Indigenous and non-Indigenous peoples, the matter of land back is not merely a matter of justice, rights or "reconciliation"; it is viewed that Indigenous jurisdiction can indeed help mitigate the loss of biodiversity and climate crisis.



Figure 10.2.9: Sketchbook of "Decolonization Tip #1": Land Back Now! The text says that Canada is a settler colonial nation state founded and sustained through domination over Indigenous peoples and lands. Decolonizing Canada requires returning the land to its original inhabitants. (CC BY-NC-SA; Robyn Bourgeois via Sketchbook Project).

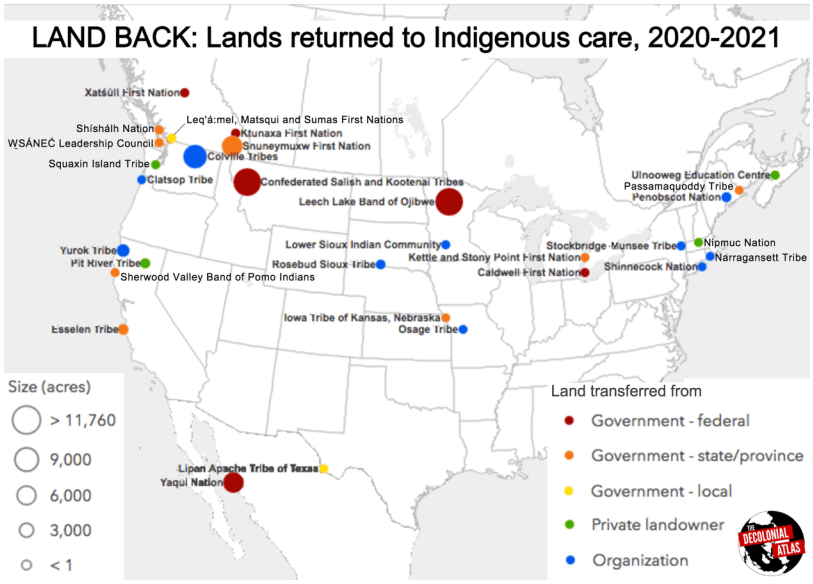


Figure 10.2.10: Map of lands returned to Indigenous care, 2020-2021. (Decolonial Media License 0.1; Jordan Engel via The Decolonial Atlas).

References:

[1] Congress of Aboriginal Peoples. 2021. National Action Plan on Missing and Murdered Indigenous Women, Girls and 2SLGBTQQIA+.

[2] Harmon, Maya. 2021. Blood quantum and the white gatekeeping of Native American identity. *California Law Review Online*.

[3] Gray, Lynda. 2001. *First Nations 101*. Adaawx Publishing.

[4] The Avalon Project. 2008. Confederate States of America - Mississippi Secession.

[5] National Inquiry into Missing and Murdered Indigenous Women and Girls. 2019. Reclaiming power and place: The final report of the National Inquiry into Missing and Murdered Indigenous Women and Girls.

[6] Urban Indian Health Institute. 2018. Missing and Murdered Indigenous Women and Girls: A Snapshot of Data from 71 Urban Cities in the United States.

[7] National Women's Association of Canada. (n.d.) LGBTQ+ and Two-Spirit.

[8] Valdez, Jonah. (10 October 2022). After nearly 200 years, the Tongva community has land in Los Angeles County. *LA Times*.

[9] Madrigal, Alexis. (10 October 2022). Oakland will be the first city in California to give land back to Native Americans. *KQED*.

[10] Eckerle, Jenn, & Rodriguez, Maria. (22 August 2022). Wiyot tribe celebrates the return of coastal land. Ocean Protection Council.

Attributions:

"Cultural Diversity among Indigenous Peoples in North America" is adapted from Economic Aspects of the Indigenous Experience in Canada by Anya Hageman (CC BY 4.0); First Nations by the Government of Canada (public domain); Pulling Together: Foundations Guide by Kory Wilson and Colleen Hodgson (CC BY-NC 4.0); Native Peoples of North America by Susan Stebbins (CC BY-NC-SA 4.0); United States History to 1877 by Catherine Locks et al. (CC BY-SA 4.0); and Chaco Culture by

UNESCO (CC-BY-SA IGO 3.0).

“Missing and Murdered Indigenous Women, Girls, and Two-Spirit in North America” is adapted from Two-Spirit by the Indian Health Service (public domain).

“Settler Colonialism” is adapted from Decolonization is not a metaphor by Eve Tuck and K. Wayne Yang (CC BY-NC 3.0); Learning from the land: Indigenous land based pedagogy and decolonization by Matthew Wildcat, Mandee McDonald, Stephanie Irlbacher-Fox, and Glen Coulthard (CC BY-NC 3.0); and World Regional Geography by Caitlin Finlayson (CC BY-NC-SA 3.0).

“Decolonization” is adapted from Decolonization and Indigenization by Andrea Wallace (CC BY 4.0); Mapping interpretations of decolonization in the context of higher education by Vanessa de Oliveira Andreotti, Sharon Stein, Cash Ahenakew, and Dallas Hunt (CC BY-NC 3.0); and Land Back: A Yellowhead Institute Red Paper by the Yellowhead Institute (CC BY-NC 2.5 Canada).

This page titled 10.2: Indigenous Worlds- Diversity, Survivance, and Decolonization is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

10.3: Culturally Diverse and Aging Populations

Learning Objectives

- Analyze immigration patterns in Canada and the United States.
- Compare geographies of language and religion in Canada and the United States.
- Explain the economic and social impacts of aging populations.

The Trans-Atlantic Slave Trade and its Legacy

W.E.B. Du Bois, one of the preeminent black intellectuals and activists of the late 19th and 20th centuries, wrote that the African slave trade, which transported between 10 and 15 million Africans across the Atlantic to work as slaves in the Americas, was the most important "drama in the last thousand years of human history." The trade tore Africans away from "the dark beauty of their mother continent into the new-found Eldorado of the West. They descended into Hell." Rather than a primitive, archaic system, the transatlantic slave trade, and the labor performed by African and African-American slaves, created the modern Western world—one characterized by a global, interconnected system of capitalist expansion. The trade regarded human beings as commodities who themselves labored to produce commodities—gold, silver, sugar, tobacco, cotton – that generated profits for plantation owners, manufacturers, and merchants. African and African-American slaves resisted enslavement at every stage and found ways to create new communities, new kinship networks, and new cultures in defiance of an inherently dehumanizing system of racial slavery that survived for more than four hundred years.

Despite the exploitation and dehumanization they endured as slaves, Africans created new cultures and kinship ties that drew from their roots in Africa and their new experiences and contacts in the Americas. These African-American cultures would become the basis of Black resistance and resilience for generations of enslaved persons while, later, also becoming a fundamental part of the history and culture of the United States of America.

Immigration Patterns

Canada

When Canada became a country in 1867, the first Prime Minister was an immigrant. Sir John Alexander Macdonald, was born in Scotland on January 11, 1815, came to Upper Canada as a child. In 1937, John Buchan, the 1st Baron Tweedsmuir and Governor General of Canada (1935-40) said immigrant groups "should retain their individuality and each make its contribution to the national character," a philosophy that is carried forward in Canada's Multiculturalism policy.

The Dominion Lands Act was the 1872 piece of legislation that granted a quarter section of free land (160 acres or 64.7 hectares) to any settler 21 years of age or older who paid a ten-dollar registration fee, lived on his quarter section for three years, cultivated 30 acres (11.1 hectares), and built a permanent dwelling. By 1914, some 170,000 Ukrainians, 115,000 Poles, and tens of thousands from Germany, France, Norway, and Sweden settled in the West and developed a thriving agricultural sector. Additionally, between 1901 and 1914, more than 750,000 immigrants entered Canada from the United States. While many were returning Canadians, about one-third were newcomers of European extraction—Germans, Hungarians, Norwegians, Swedes, and Icelanders—who had originally settled in the American West.

By the 1960s, one-third of Canadians had origins that were neither British nor French, and took pride in preserving their distinct culture in the Canadian fabric. Today, most immigrants come from China, Philippines and India. The proportion of foreign-born Canadians was 17.6 percent in 2021 and 24 percent of Canada's population speaks languages other than English and French. Since the fertility rate in Canada is only 1.68 children per female, the majority of Canada's population growth is due to immigration.

United States

Immigration and Race in Early Immigration Law

The history of U.S. immigration and nationality law demonstrates how race became a factor in determining who could come to America and who could not. Studies of Chinese exclusion laws or the old immigration "quota system" trace a tradition of racist immigration policy. The Supreme Court reinforced this policy in the 1920s with a decision stating that Americans shared a "common understanding" of who was and was not "white," and by extension shared a "common understanding" of who did and did not belong in the United States.

Despite Supreme Court pronouncements, federal officials charged with administration of U.S. immigration and nationality laws were keenly aware that not all Americans shared the same understanding at any given time. More importantly, any "common understanding" of race or ethnicity shared by a majority of American society evolved over time, while the law remained locked in eighteenth century language.

After 1790, and throughout the nineteenth century, Congress legislated separately regarding immigration and nationality. With the exception of the Chinese Exclusion Act of 1882, the two bodies of immigration and nationality law were not coordinated, nor did either make any reference to the other. During the antebellum years and for a time thereafter, immigration and nationality law appeared to agree and serve national goals. The United States achieved a policy of free and open immigration largely by failing to legislate on the subject at that time. The Steerage Act of 1819 remains Congress's most aggressive action regarding immigration prior to 1875, and the 1819 law worked to encourage immigration by ensuring safe and healthy conditions aboard passenger ships. As the nation marched west and dispossessed Native Americans, a regular supply of immigrants from Europe arrived to occupy new territories and hold them for their new nation.

Immigration to the United states has typically occurred in waves—with various groups of people moving in larger numbers at different points in American history (Figure 10.3.1). The first wave was comprised of more than 4 million Irish people who immigrated in the mid-1800s due to famine. In the 1800s, more than 5 million Germans immigrated due to religious persecution, high unemployment rates, and political unrest.

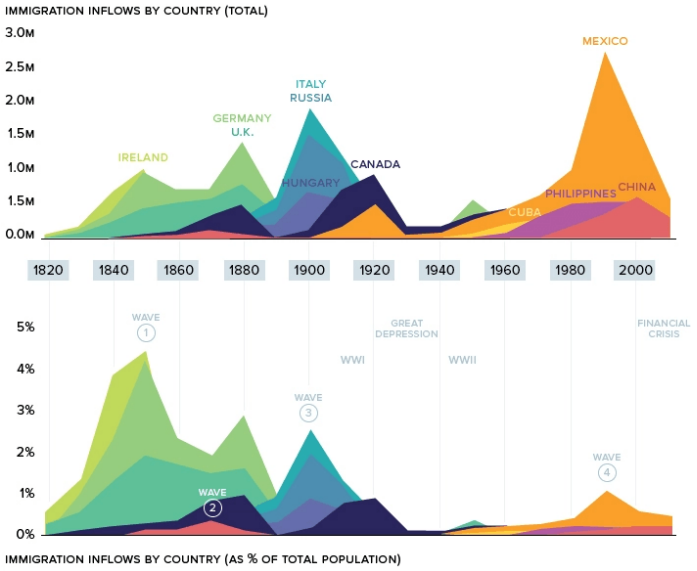


Figure 10.3.1: Immigration to the United States by country of origin (top graph shows total number; bottom graph shows percentage as a total of the U.S. population). (Used by permission; Nick Routley via Visual Capitalist).

When gold was discovered in California in 1848, Americans rushed west, hoping to strike it rich. At the same time, a crop failure in southern China and word of riches led approximately 300,000 Chinese to immigrate to the United States (labeled as wave 2 on the bottom charge of Figure 10.3.1). Once Chinese immigrants arrived in California, they found that gam saan or “gold mountain” was an illusion. Mining was uncertain work, and the gold fields were littered with disappointed prospectors and hostile locals. Work could be scarce, and new arrivals sometimes found it difficult to earn enough to eat, let alone to strike it rich. Even worse, they soon discovered that they were cut off from their families: With no source of money, the immigrants could not pay for their wives and children to make the long voyage from China, and could not go back home themselves. During their first few decades in

the United States, they endured an epidemic of violent racist attacks. The perpetrators of these crimes, which included Americans from many segments of society, largely went unpunished. In the economic depression of the 1870s, hostile attitudes toward Chinese immigrants only became worse. The door to the Chinese American dream was slammed shut in 1882, when Congress passed the Chinese Exclusion Act. This act was the first significant restriction on free immigration in U.S. history, and it excluded Chinese laborers from the country under penalty of imprisonment and deportation. It also made Chinese immigrants permanent aliens by excluding them from U.S. citizenship. Chinese immigrants in the U.S. now had little chance of ever reuniting with their families, or of starting families in their new home.

The early 1900s brought a third wave of immigration to the United States. Between 1900 and 1915, more than 15 million immigrants arrived in the United States. That was about equal to the number of immigrants who had arrived in the previous 40 years combined. In 1910, three-fourths of New York City's population were either immigrants or first generation Americans (i.e. the sons and daughters of immigrants). Not only were the numbers of immigrants swelling, the countries from which they came had changed dramatically as well. Unlike earlier immigrants, the majority of the newcomers after 1900 came from non-English speaking European countries. The principal source of immigrants was now southern and eastern Europe, especially Italy, Poland, and Russia, countries quite different in culture and language from the United States, and many immigrants had difficulty adjusting to life here.

A fourth wave of immigration began with an executive order, called the Mexican Farm Labor Program, that established the Bracero Program in 1942. This series of diplomatic accords between Mexico and the United States permitted millions of Mexican men to work legally in the United States on short-term labor contracts. These agreements addressed a national agricultural labor shortage during WWII and implicitly, they redressed previous depression-era deportations and repatriations that unjustly targeted Mexican Americans who were U.S. citizens. Upon its termination in 1964, the Bracero Program had brought more than four million Braceros (arms) to work in U.S. agriculture and on railroads. During World War II, the U.S. sought labor from millions of Braceros, who would return to their country of origin after their work permit expired. El Paso, Texas, the U.S. point of entry from Ciudad Juarez, served as a recruitment center for the program, which the U.S. Agricultural Department and independent farmer associations administered with the Farm Bureau managing English-language contracts. The United States and Mexico agreed on a set of protocols that would protect Braceros from discrimination and poor wages. Nonetheless, discrimination continued and Braceros experienced surcharges for room and board, deducted pay, and exposure to deadly chemicals. The Bracero Program concluded on December 31, 1964 as mechanization became more widespread. Ultimately, the program resulted in an influx of undocumented and documented laborers, 22 years of cheap labor from Mexico, and remittances to Mexico by Braceros.

In the late 20th and early 21st century, people from Mexico became the largest group of immigrants from any single country. In recent years, however, Asia and Central America have become the top source locations for immigrants. The push and pull factors are varied for immigrants coming from Mexico. The North American Free Trade Agreement (NAFTA) prompted more immigrants from rural, Indigenous, and farming communities to immigrate as farms needed to compete on a global scale. Forced displacement by the lack of safety caused by Mexican drug cartels contribute to the migration flow from Mexico, as well. Some Mexican immigrants are highly-skilled, with advanced degrees, and arrive to the United States for employment in health, education, and business fields.

There are many more important moments in the immigration history of the United States—too many to delve into here. What's most important, perhaps, is to think about how the Trans-Atlantic Slave Trade, U.S. immigration laws, the global economy, and political unrest around the world has shaped the unique ethnoracial composition of the U.S. population as reported in the U.S. Census (Figure 10.3.2). It is important to note that the definitions of ethnoracial categories have not been fixed or universally agreed to. For example, only in the 1930 census were Mexicans counted as a separate race. It was not until 1960 that people could choose their own race on U.S. census forms. And, it was not until 2000 when people could two or more race categories. Currently, the U.S. Census has two questions related to ethnoracial identities. The first relates to the category "Hispanic, Latino, or Spanish origin", which includes all individuals who identify with one or more nationalities or ethnic groups originating in Mexico, Puerto Rico, Cuba, Central and South America, and other Spanish cultures. The second question asks the persons race based on the Office of Management and Budget standards.

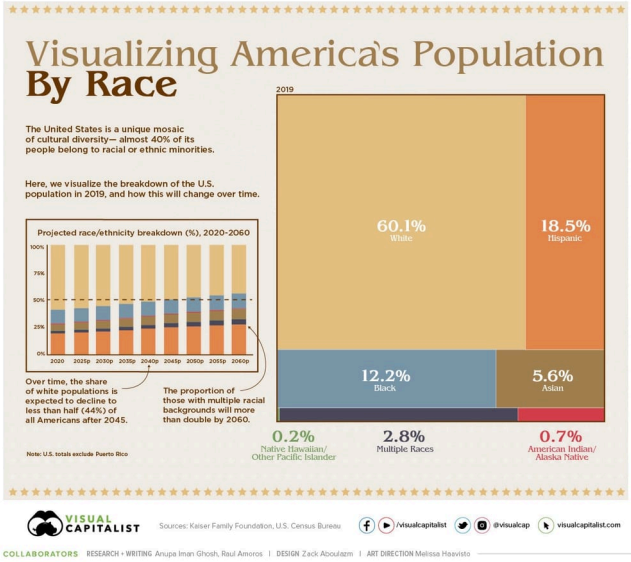


Figure 10.3.2: Visualizing America's Population. The United States is a unique mosaic of cultural diversity—almost 40% of its people belong to racial or ethnic minorities. Over time, the share of white populations is expected to decline to less than half (44%) of all Americans after 2045. The proportion of those with multiple racial backgrounds will more than double by 2060. As of 2019, the white population is 60.1% of the population, the Hispanic population is 18.5%, the Black population is 12.2%, the Asian population is 5.6%, the American Indian/Alaska Native population is 0.7%, the Native Hawaiian/Other Pacific Islander population is 0.2%, and the population with multiple racial backgrounds is 2.8%. (Used by permission; Anupa Iman Ghosh, Raul Amoros, and Zack Aboulazm via Visual Capitalist).

Language and Religion

An Eroding Linguistic Landscape

There are approximately 255 languages currently used in North America from dozens of language families (Figure 10.3.3). Nearly 94 percent of these languages are endangered, which means they are in danger of disappearing as its speakers shift to another language or die out. Colonization and the systemic suppression of Indigenous languages through the residential school system and other methods, has led to efforts to revitalize native languages. In 2019, Canada passed the Indigenous Languages Act and provided funding to support the teaching of First Nations, Inuit, and Métis languages. In 2022, the Canadian government released a statement with the following quotes from the Minister of Crown-Indigenous Relations: "Languages are more than just words; they connect people, tell stories, convey wisdom and traditions as well as define who we are. Close to 500 years of colonization has threatened the existence of Indigenous languages, which are core to their cultures. Cultural revitalization, including language promotion, is a crucial step towards dismantling this system. Through the Indigenous Languages and Cultures Program, our government continues to promote Indigenous languages alongside First Nations, Inuit and Métis partners on the path toward reconciliation".[1]

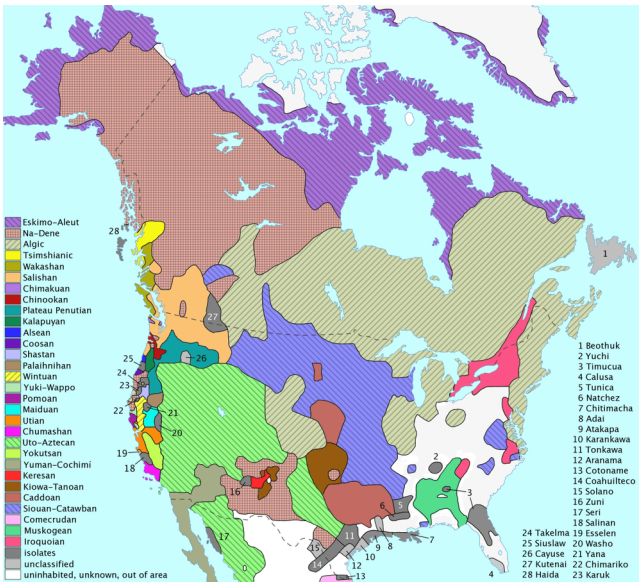


Figure 10.3.3: Map of language families in North America (CC BY 2.0; ish ishwar via Wikimedia Commons).

Religion

Among high-income countries, the United States and Canada larger numbers of religious people. A 2018 report by the Pew Research Center found that 53% of or respondents from the United States and 27% of respondents in Canada said that religion is very important to them in their lives compared to 10% in the United Kingdom, 11% in France, and 22% in Spain.[2] The same report indicates that of "102 countries, the U.S. is the only one with both above-average GDP (gross domestic product) per capita and above-average frequency of daily prayer".

Canada

About 53 percent of the Canadian population are Christian with Roman Catholicism being the largest denomination. Between 1991 and 2001, the number of Roman Catholics in Canada increased slightly, while the number adhering to Protestant denominations continued a long-term decline. The census enumerated just under 12.8 million Roman Catholics, up 4.8 percent, while the number of Protestants fell 8.2 percent to about 8.7 million. The largest gains in religious affiliations occurred among faiths consistent with changing immigration patterns toward more immigrants from regions outside of Europe, in particular South Asia and Southwest Asia. Approximately 5 percent of Canadians are Muslim, 2 percent are Hindu, 2 percent are Sikhs, 1 percent are Buddhist, and less than 1 percent are Jewish or have an Indigenous spirituality (Figure 10.3.4).

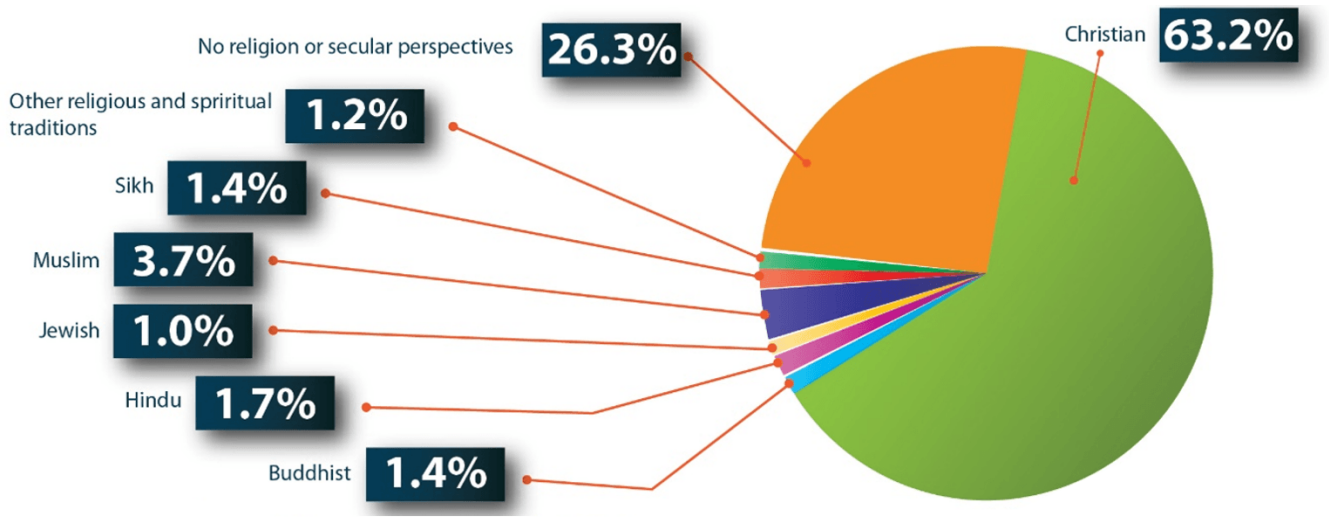


Figure 10.3.4: Distribution of religious affiliations, population aged 15 and older, 2017 to 2019. Christian (3.2%), No religion or secular perspectives (26.3%), Muslim (3.7%), Hindu (1.7%), Sikh (1.4%), Buddhist (1.4%), Other religious and spiritual traditions (1.2%), and Jewish (1%). (public domain; adapted from Statistics Canada).

United States

At its founding, most early settlers to the United States were Protestant Christians: Puritans lived in New England and Anglicans (later called Episcopalians) lived in Virginia. Roman Catholic immigrants settled in Maryland, and members of the Society of Friends (Quakers) founded Pennsylvania. Even within that overall picture, there was a great deal of religious diversity in the United States, and that diversity increased as new arrivals came from different countries with different religious backgrounds. The current pattern of religious affiliation in the United States remains quite complex, and one can find observers of nearly every major religion, and many minor ones, in virtually every area of the country. That being said, there are clear patterns to the geography of religion in the United States that tell stories of immigration and migration history, as well as stories about other aspects of American history. The map of leading church bodies shows regions of religious observance that are worth examining (Figure 10.3.5).

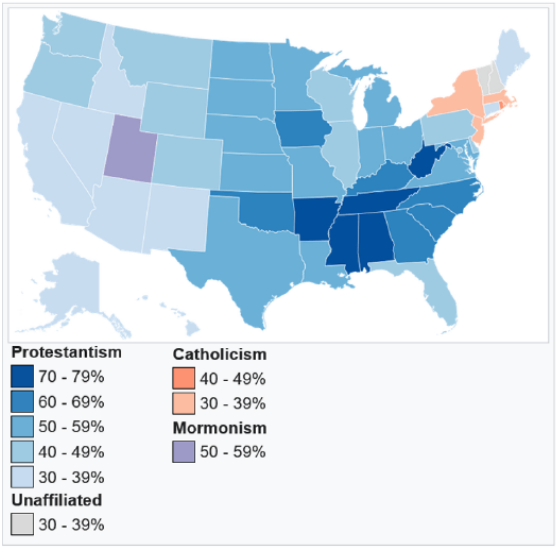


Figure 10.3.5: Major religious denominations by state, 2014 (CC BY-SA 4.0; via Wikimedia Commons using Pew Research Center data).

Baptist churches are the leading religious body in about 45 percent of all counties in the United States and most of those counties are found in the South. This region is considered the nation's Bible Belt, and it is a region in which churches are more likely than in other parts of the country to teach a literal interpretation of the Bible. Baptist churches grew in popularity in the South after the Civil War as more liturgical denominations such as Methodists went into decline, and Baptist churches are popular among both African American and white residents.

Another interesting Protestant region is northern Appalachia and the lower Midwest from Ohio to Iowa and Kansas. As seen on the map, some of these counties are Baptist, in some of them the strongest church presence is Methodist, and in others it is Christian churches (Disciples of Christ and historically similar denominations) that prevail. The Methodist and other Christian areas were heavily influenced by the Second Great Awakening of the early nineteenth century, which promoted the theology that every person could be saved through revivals. The movement provided for strong showings of Protestant denominations that arose during that time. The third Protestant region is the northern Midwest and Great Plains: Minnesota, the Dakotas, and surrounding areas. This was the destination of German and Scandinavian Lutheran settlers during the late nineteenth and early twentieth centuries, and the leading denominations today in much of that area remain Lutheran.

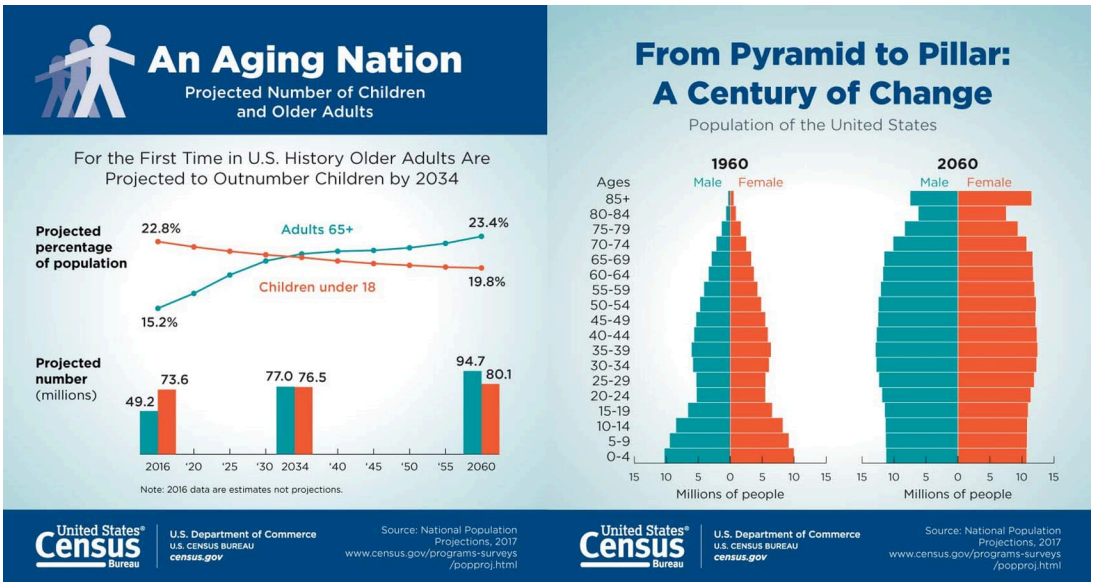
The Roman Catholic Church, which is the leading religious body in 40 percent of US counties, is well represented in the Northeast, West, and Southwest. In the Northeast and Midwest, the Catholic dominance points to nineteenth- and early twentieth-century immigration from Roman Catholic countries in Europe such as Italy, Ireland, and Poland. Those earlier Catholics have been joined more recently by large numbers of Hispanic immigrants. The dominance of Roman Catholics in the western United States, the Southwest, and even Florida in the Southeast are a reflection of the strong Hispanic presence in those parts of the country.

In the western United States, the Church of Jesus Christ of Latter-Day Saints (Mormon church or LDS) dominates a region including Utah and surrounding states. Utah was the destination of Mormon members as they migrated westward during the mid-nineteenth century.

Major urban centers are home to people who follow all the major religions of the world. About 2.4 percent of the U.S. population are Jewish. The states with the largest Jewish populations are New York, New Jersey, and Massachusetts. Muslim populations are found in cities as a result of late twentieth century immigrants arriving from countries such as India, Pakistan, and places in the Southwest and moving to urban areas for employment. Detroit and its surrounding counties in southeastern Michigan are one part of the country with a high concentration of Muslims, which make up about 1 percent of the U.S. population. Buddhists also make up about 1 percent of the U.S. population and a large concentration of Buddhists live in California.

Aging Populations

Several countries today are facing an aging population since the median age of the population has increased and a larger portion of the population is older. Two primary reasons for this are increased life expectancy and lower birth rates. Currently, the majority of the countries facing this demographic phenomenon consists of advanced economies, including Canada and the United States. This leads to higher values for the **old-age dependency ratio**, which is the number of individuals aged 65 and older per 100 people of working age (defined as those ages 20 to 64). In Canada, approximately 19 percent of the population is aged 65 years or older and the old-age dependency ratio is 32%. In the United States, the proportion of people aged 65 or older increased from 4 percent in 1900 to about 17 percent in 2020. The U.S. old-age dependency ratio is 30%. The number of older Canadians and Americans has increased in recent years due to the age of baby boomers—the generation that was born in the twenty years following World War II. As soldiers returned from war, families began to grow. This generation is now beginning to enter their older years. Figure 10.3.6 shows U.S. Census data: the graphs of the left compare the number of adults aged 65 and older to children under 18 years old. The graphics on the right show the 1960 and projected 2060 population pyramids for the United States.



Figure

: An aging nation: Projected number of children and older adults. For the first time in U.S. history, older adults are projected to outnumber children by 2034. (public domain by

U.S. Census Bureau

).

There may be some economic advantages to having a higher old-age dependency ratio. For example, since older people have higher accumulated savings per head than younger individuals do, an older population can result in lower interest rates as well as a lower rate of inflation. However, for the most part, an older population leads to a lot of financial pressure on both the public and private sectors. For example, it is probably going to become increasingly difficult to pay corporate, federal, and state pensions, because the number of workers relative to retirees is shrinking in the US. In order to improve the sustainability of the pension system, a few measures can be undertaken. And, the worker-retiree ratio can be rectified by increasing the retirement age or by changing employment and immigration policies. An immigration website by the government of Canada states that:

- If it weren't for immigrants, employers would have trouble finding enough qualified workers to fill available jobs. This is because Canadians are living longer and having fewer children. More people are retiring, and there are fewer students in schools. As a result, the pool of Canadian-born existing and potential workers is limited.
- Immigrants contribute to our economy, not only by filling gaps in our labor force and paying taxes, but also by spending money on goods, housing and transportation.
- Without immigrants to help support the needs of an aging population, younger Canadians would end up paying more income tax per person to provide retired Canadians with the same benefits that are available today.[3]

It may become necessary to expand resources to fund pensions through increased contributions or higher taxes. Trying to

implement any of these solutions will likely result in some level of controversy and public debate.

Another significant source of problems related to an older population resides in the healthcare sector. In 1965, Congress created Medicare under the Social Security Act in order to provide health insurance to U.S. citizens over the age of 65, regardless of their income and medical history. Aside from premiums paid by Medicare enrollees along with the fund source itself, Medicare is financed by revenue levied on employers and workers through the Federal Insurance Contributions Act and the Self-Employment Contributions Act. However, due to rising enrollment as the population ages and a decreasing ratio of workers to enrollers, Medicare is facing financial difficulties. While the Patient Protection and Affordable Care Act is supposed to address many issues confronting the healthcare sector today, the rising cost of healthcare remains a national problem, as patients are paying more in order to receive the same care as before.

References:

[1] Government of Canada. 2022. Government of Canada makes historic contribution to support Indigenous languages in the North.

[2] Pew Research Center. 2018. The Age Gap in Religion around the World.

[3] Government of Canada. 2022. #ImmigrationMatters: Canada's immigration track record.

Attributions:

"The Trans-Atlantic Slave Trade and its Legacy" is adapted from African American History for HIST 244 by Christopher Collins (CC BY-NC-SA).

"Immigration" is adapted from Race, nationality, and reality; INS Administration of Racial Provisions in U.S. Immigration and Nationality Law Since 1898 by Marian L. Smith for the National Archives (public domain); Immigration Reform and Control Act of 1986 by the Library of Congress (public domain); 1942: Bracero Program by the Library of Congress (public domain); and Backgrounder - Facts in Canada's Immigration by the Government of Canada (public domain).

"Language and Religion" is adapted from World Regional Geography by Royal Berglee (CC BY-NC-SA 3.0); World Regional Geography by Caitlin Finlayson (CC BY-NC-SA 3.0); Introduction to World Regional Geography by R. Adam Dastrup (CC BY-NC-SA 3.0); Religious Affiliation, 2001: Other Religions by Census Division by the Government of Canada (public domain); and Religion in Canada by the Government of Canada (public domain).

"Aging Populations" is adapted from SOC 002: Social Issues and Problems by Boundless (CC BY-SA 4.0).

This page titled 10.3: Culturally Diverse and Aging Populations is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

10.4: Urban Spatial Inequalities in the United States

Learning Objectives

- Explain present-day segregation patterns based on historic and contemporary factors.
- Differentiate between *de jure* and *de facto* segregation.
- Analyze the impacts of segregation on spatial inequalities.

Urbanization, Segregation, and Suburbanization

North America's urban landscape has been shaped both by colonization and by industrialization. Most of the early settlements in the region were small and were located close to the eastern coast. The Appalachian Mountains provided a formidable obstacle for early settlers before 1765. As settlement and colonization expanded, people moved steadily westward, still primarily situated close to waterways. Even today, most urban centers are located close to water.

North American urbanization occurred in distinct eras from the Colonial period where Eastern cities were modeled on European cities through the industrialization era where railroads allowed both Canada and the United States to expand their control westward. "As Europe had sought economic reward through colonization of the [so-called] New World, so, in turn, did the cities of the East Coast seek to enrich themselves through expansion of trade networks with the West".[1] Immigrants arriving to cities and rural-to-urban migration, especially that of the Great Migration where approximately six million African Americans moved from the South to cities in the north, midwestern, and western states starting in the 1910s, led the United States to have a larger population living in urban areas than in rural ones by 1913.[2] Similarly, industrialization prompted large-scale urban growth where more Canadians lived in cities a decade later. When the period of industrial growth ended after World War II, deindustrialization and the depopulation of urban areas created the suburbs and further segregated populations.

Geographical studies of inequalities are particularly focused on socioeconomic spatial patterns—that is, patterns of identity and class over space. **Segregation** refers to the physical separation of groups, particularly spaces of residence but also of social life and functions. Segregation is a practice rooted in discriminatory laws. The exclusion of African Americans from schools, workplaces, and neighborhoods was once a core characteristic of American life, legalized by the Supreme Court decision in *Plessy v. Ferguson* (1896), the case that upheld the "separate but equal" concept by a sanctioning Louisiana law that required African American and white passengers to ride in separate train cars. The Supreme Court reasoned that laws of racial separation were constitutional because separation did not threaten equality. The compounding effects of ***de jure*** (by law) and ***de facto*** (in practice) efforts to impose white supremacist ideologies and policies helps to explain the sociospatial segregation we see today. While the Civil Rights movement and subsequent laws addressed de jure segregation, we continue to see patterns of segregation today due to historical legacies and de facto segregation. When considering how the past helps us to understand the present, we can utilize a guiding premise that racism and prejudice are entwined with U.S. history and this painful, difficult history must be taught to counter white supremacy.

Defining White Supremacy

White supremacy is a complex concept that manifests both in overt and covert ways. It's fundamental basis—the existence of a "white race" based in biological differences—is a social construct. Although race is a social construct, it is important to note that it has a powerful impact on people's lived experiences and identities, and indeed, geographies.

Consider the following quotes:

- Geographers Anne Bonds and Joshua Inwood explain that: "The naturalization and invisibility of white racial identities and white skin privilege is made possible through the structures and logics of white supremacy. If privilege and racism are the symptoms, white supremacy is the disease".[3]

- The National Education Association defines white supremacy culture as “a form of racism centered upon the belief that white people are superior to people of other racial backgrounds and that whites should politically, economically, and socially dominate non-whites. While often associated with violence perpetrated by the KKK and other white supremacist groups, it also describes a political ideology and systemic oppression that perpetuates and maintains the social, political, historical and/or industrial white domination“.[4]
- Laura Pulido, a geography and ethnic studies scholar further elucidates that white supremacy “can be seen in fears of a nonwhite nation, whites’ sense of ownership and the right to exclude, and deeply racialized thinking that systematically undermines the well-being of people of color".[5]

Jim Crow Laws

Jim Crow laws were legislative mandates directed at separating African Americans and white Americas in residence and institutions. From the 1880s into the 1960s, a majority of American states enforced segregation through "Jim Crow" laws (so called after a black character in minstrel shows). From Delaware to California, and from North Dakota to Texas, many states (and cities, too) could impose legal punishments on people for consorting with members of another race. The most common types of laws forbade intermarriage and ordered business owners and public institutions to keep their black and white clientele separated. Below is a sampling of laws from various states.

- In Georgia: “It shall be unlawful for any amateur white baseball team to play baseball on any vacant lot or baseball diamond within two blocks of a playground devoted to the Negro race, and it shall be unlawful for any amateur colored baseball team to play baseball in any vacant lot or baseball diamond within two blocks of any playground devoted to the white race.”
- In Florida: “Any negro man and white woman, or any white man and negro woman, who are not married to each other, who shall habitually live in and occupy in the nighttime the same room shall each be punished by imprisonment not exceeding twelve (12) months, or by fine not exceeding five hundred ($500.00) dollars.”
- In New Mexico: “Separate rooms [shall] be provided for the teaching of pupils of African descent, and [when] said rooms are so provided, such pupils may not be admitted to the school rooms occupied and used by pupils of Caucasian or other descent.”
- In Alabama: “It shall be unlawful to conduct a restaurant or other place for the serving of food in the city, at which white and colored people are served in the same room, unless such white and colored persons are effectually separated by a solid partition extending from the floor upward to a distance of seven feet or higher, and unless a separate entrance from the street is provided for each compartment.

Anti-Miscegenation Laws

Anti-miscegenation laws or miscegenation laws are laws that enforced racial segregation at the level of marriage and intimate relationships by criminalizing interracial marriage and sometimes also sex between members of different races. While there have been no nationwide anti-miscegenation laws in the United States, there were state laws in individual states, particularly in the Southern States and the Plains States, that prohibited miscegenation.

All anti-miscegenation laws banned the marriage of whites and non-white groups, primarily Black Americans, but often also Native Americans and Asian Americans. The first anti-miscegenation law that applied to both men and women was enacted in the colony of Virginia in 1691 and was punishable by exile. It prohibited “English or other white man or woman being free” to intermarry with “a negroe, mulatto, or Indian man or woman bond or free”.[6] Sometimes, the individuals attempting to marry would not be held guilty of miscegenation itself, but felony charges of adultery or fornication would be brought against them instead. In addition, the state of Oklahoma in 1908 banned marriage "between a person of African descent" and "any person not of African descent". Louisiana in 1920 banned marriage between Native Americans and African Americans (and from 1920 to 1942, concubinage as well). Maryland in 1935 banned marriages between Black and Filipino individuals. In many states, anti-miscegenation laws also criminalized cohabitation and sex between whites and non-whites.

After the Second World War, an increasing number of states repealed their anti-miscegenation laws. These laws were a part of American law since before the United States was established and remained so until ruled unconstitutional in 1967 by the U.S. Supreme Court in Loving v. Virginia. Chief Justice Earl Warren wrote in the court majority opinion that: "the freedom to marry, or not marry, a person of another race resides with the individual, and cannot be infringed by the State."

Racially Restrictive Covenants (Deed Covenants)

From at least in the early 1900s to until 1948, individual property owners, homeowners' associations, and real estate developers employed **racially restrictive covenants** to prohibit anyone not considered to be part of the "white race" from sale or residency. The only non-white exceptions allowed by most racial covenants were for domestic servants. If a Black renter or homebuyer attempted to move into a house with a restrictive covenant, any white resident in that suburban development could sue to remove them from the neighborhood.

These deed restrictions occurred during the "Streetcar Suburbs" era of urbanization in the United States. This is when trolley lines from downtown areas provided opportunities for the middle-class to move from inner city apartment buildings to more spacious single-family homes. One such housing development occurred in the North Park neighborhood of San Diego. A 1921 advertisement from Stevens & Hartley promoted a location with access to two trolley lines that will take you to "the most up-to-date restricted residence in San Diego". The fourteenth restriction advertised, just after the restriction on farm animals, provides an example of the language used in racially restrictive covenants:

> No conveyance, transfer, or lease of said property, nor any lease of any building that may be placed thereon shall be used or occupied by any person not belonging to the Caucasian race, as owner, lessee or tenant, nor in any other capacity except as servant".[7]

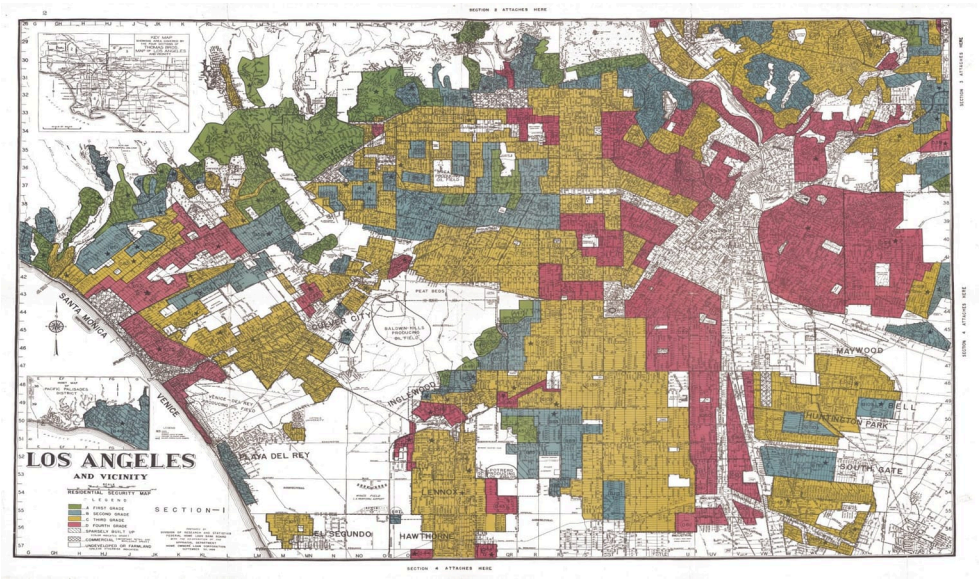
On May 3, 1948, the U.S. Supreme Court issued its decision that restrictive covenants based on race or ancestry violated the Equal Protection Clause of the 14th Amendment and were legally unenforceable.[8]

Redlining

The economic collapse of the 1930s prompted legislation that created the Home Owners Loan Corporation (HOLC), passed in the first 100 days of the Roosevelt Administration. HOLC helped restructure the American mortgage lending market by creating and standardizing several of its elements. HOLC supported the training of home appraisers and linking a home's appraisal to the loan that could be given became a widespread practice. HOLC's department of Research and Statistics drew upon its network of realtors, developers, lenders, and appraisers to create a neighborhood-by-neighborhood assessment of more than 200 cities in the country. These assessments included demographic data, economic reports, and the color-coded Security Maps later deemed infamous as instruments of "redlining." Loans were refused in areas deemed "hazardous", often due to the existence of people of color. HOLC assumed and insisted that the residency of African Americans and immigrants, as well as working-class whites, compromised the values of homes and the security of mortgages. In this they followed the guidelines set forth by Frederick Babcock, the central figure in early twentieth-century real estate appraisal standards, in his *Underwriting Manual*: "The infiltration of inharmonious racial groups ... tend to lower the levels of land values and to lessen the desirability of residential areas." Here are just a few examples from California cities:

- In southeast Fresno, "this large 'red' area contains the most mixed population of any part of the City of Fresno. In it are found Japanese, Chinese, negroes, uneducated Italians, and a few representatives of several other races."
- In south central Los Angeles, a redlined neighborhood was described as "This is the 'melting pot' area of Los Angeles, and has long been thoroughly blighted. The Negro concentration is largely in the eastern two thirds of the area."
- In southeast San Diego, a redlined area was described as a location with "a great many Mexicans with a definite trend of infiltration of this element".

Mapping Inequality: Redlining in New Deal America provides a GIS tool that integrates the HOLC appraisals across U.S. cities. Figure 10.4.1 shows the HOLC map for Los Angeles. At the time the map was created, 40% of the state's total population lived in Los Angeles County.[9] Figure 10.4.2 provides 2020 census data by tract for three ethnoracial groups in Los Angeles. The demographic patterns of segregation shown on the maps can be explained, in part, by the *de jure* and *de facto* practices of the past.

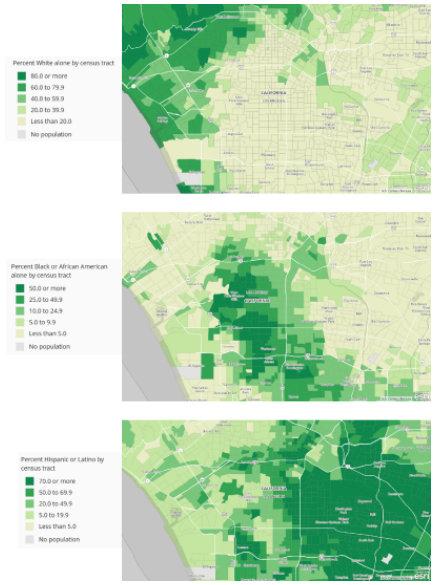


Figure

: Los Angeles HOLC map. Green shading indicates “best”, where maximum loans of up to 80% of the home appraisal amount would be granted; blue shading indicates “still desirable” where loans up to 65% of the home appraisal amount would be granted; yellow shading indicates “definitely declining” where it was less likely that any loan would be offered; and red shading indicates “hazardous” where loans where refused. (public domain via

Mapping Inequality

).



Figure

: Percentage of the population that is white (top map), Black or African American (middle map), and Hispanic or Latino (bottom map). (public domain via

2020 Census Demographic Data Map Viewer

).

Black Americans criticized HOLC staffing decisions and infrastructure that favored white homeowners and businesses at their expense. However, discussion in Black newspapers, such as the Chicago Defender, prompted only modest response by policy and media elites. The Roosevelt Administration rebuffed NAACP concerns about restrictive covenants, even when HOLC redlining was exposed in 1938. Black housing officials often worked incrementally on a host of issues, including ending white terrorism and getting new black housing built, even if that meant operating within the segregationist strictures of federal policy. Racial segregation in housing was not formally deemed illegal until the Fair Housing Act of 1968, which prohibits discrimination

concerning the sale, rental and financing of housing based on race, religion, national origin and sex. On October 14, 2022, the California Association of Realtors issued a formal apology for its past discriminatory policies, including the endorsement of redlining, restrictive covenants, and steering.

Blockbusting

Blockbusting is a technique for increasing real estate brokerage income by playing upon the racial fears of homeowners. The blockbusting broker bought a few properties in an adjacent minority neighborhood then sold it to minority buyers, sometimes at a loss. This was used as a scare fear tactic to solicit white owners to sell quickly to avoid devalued properties later or to have to live among (to them) unattractive neighbors. Sometimes the first minority members were fake buyers brought in to behave as offensively as possible. In effect, the blockbuster is seeking to create a bandwagon effect, a vastly increased volume of panicky home sales, for to gain solely from the increased number of sales commissions and has no regard at all for the ensuing decrease in property values (Figure 10.4.3).

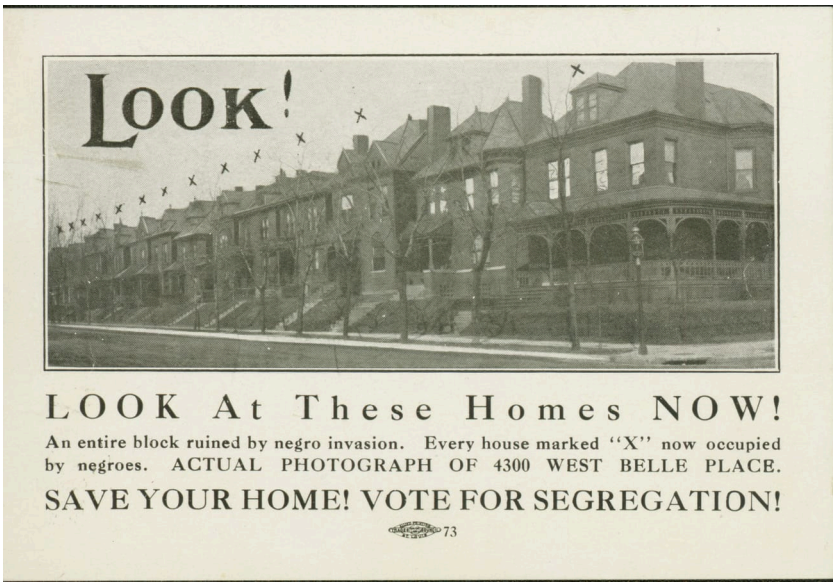


Figure 10.4.3: A 1915 postcard provides an example of blockbusting and the fomenting white fears about African American neighbors from the United Welfare Association showing houses in St. Louis, Missouri. Text on the postcard says: "LOOK at these homes NOW! An entire block ruined by negro invasion. Every house marked "X" now occupied by negroes. ACTUAL PHOTOGRAPHY OF 4300 WEST BELLE PLACE. SAVE YOUR HOME! VOTE FOR SEGREGATION!" (public domain via Missouri Historical Society).

Steering

Steering is another de facto process that segregated neighborhoods. Real estate agents would not show available houses in certain neighborhoods to non-white purchasers or Jewish people. One such example is the La Jolla neighborhood of San Diego. If a real estate agent was showing houses to Jewish buyers, they would put a green card in the window of their car to let the homeowners know their clients were Jewish.[10]

In 1963, the state of California passed the Rumford Fair Housing Act. This law would prohibit housing discrimination against people of color. The following year, the California Association of Realtors (formerly known as the California Real Estate Association) supported a proposition to overturn the Rumford Act so that the state of California could not prevent a person from selling or renting property "to any person as he chooses". In effect, the proposition allowed for discriminatory practices like steering to continue. The proposition passed with 65 percent of voters in support. In 1967, the U.S. Supreme Court ruled that the proposition was unconstitutional. And, in 1968, the U.S. passed the Fair Housing Act of 1968, which prohibits discrimination concerning the sale, rental and financing of housing based on race, religion, national origin and sex. On October 14, 2022, the California Association of Realtors issued a formal apology for its past discriminatory policies, including the endorsement of redlining, restrictive covenants, and steering.

Impacts of de jure and de facto White Supremacist Policies

White Flight and Suburbanization

The term **white flight** was coined in the mid-twentieth century to describe suburbanization and the large-scale migration of whites of various European ancestries from racially mixed urban regions to more racially homogeneous suburban regions. Segregation policies such as blockbusting, redlining, and racially restrictive covenants prompted this migration pattern. White flight contributed to the draining of cities' tax bases when middle-class people left. This contributed to **urban decay**, a process whereby a city, or part of a city, falls into disrepair and decrepitude. Symptoms of urban decay include depopulation, abandoned buildings, high unemployment, crime, and a desolate, inhospitable landscape. Urban decay was caused in part by the loss of industrial and manufacturing jobs as they moved into rural areas or overseas, where labor was cheaper.

Suburbanization is a term used to describe the growth of areas on the fringes of major cities. Sudden and extreme relocation out of urban areas into the suburbs is one of the many causes of urban sprawl, as suburbs grow to accommodate the increasingly large population. Many residents of suburbs still work within the central urban area, choosing instead to live in the suburbs and commute to work. During World War II, the United States had suffered from a housing shortage, especially in cities with shipyards or large defense plants. Now that the war was over, real estate developers and contractors rushed to alleviate the scarcity. Unused land on the fringes of American cities provided the perfect place for new housing, which attracted not only the middle class, which had long sought homes outside the crowded cities, but also blue-collar workers who took advantage of the low-interest mortgages offered by the Servicemen's Readjustment Act of 1944, known as the G.I. Bill. The vast majority of the 1.2 million African Americans who served the United States during World War II were denied access to the benefits of the G.I. Bill.

An additional factor was the use of prefabricated construction techniques pioneered during World War II, which allowed houses complete with plumbing, electrical wiring, and appliances to be built and painted in a day. Employing these methods, developers built acres of inexpensive tract housing throughout the country. One of the first developers to take advantage of this method was William Levitt, who purchased farmland in Nassau County, Long Island, in 1947 and built thousands of prefabricated houses. The new community was named Levittown.

Levitt's houses cost only $8,000 and could be bought with little or no down payment. The first day they were offered for sale, more than one thousand were purchased. Levitt went on to build similar developments, also called Levittown, in New Jersey and Pennsylvania. As developers around the country rushed to emulate him, the name Levittown became synonymous with suburban tract housing, in which entire neighborhoods were built to either a single plan or a mere handful of designs. Levitt used racially restrictive deed covenants with potential homeowners to ensure that only whites would live in his communities.

In the decade between 1950 and 1960, the suburbs grew by 46 percent. The transition from urban to suburban life exerted profound effects on both the economy and society. For example, fifteen of the largest U.S. cities saw their tax bases shrink significantly in the postwar period, and the apportionment of seats in the House of Representatives shifted to the suburbs and away from urban areas.

The development of the suburbs also increased reliance on the automobile for transportation. Suburban men drove to work in nearby cities or, when possible, were driven to commuter rail stations by their wives. In the early years of suburban development, before schools, parks, and supermarkets were built, access to an automobile was crucial, and the pressure on families to purchase a second one was strong. As families rushed to purchase them, the annual production of passenger cars leaped from 2.2 million to 8 million between 1946 and 1955, and by 1960, about 20 percent of suburban families owned two cars. The growing number of cars on the road changed consumption patterns, and drive-in and drive-through convenience stores, restaurants, and movie theaters began to dot the landscape. The first McDonald's opened in San Bernardino, California, in 1954 to cater to drivers in a hurry.

As drivers jammed highways and small streets in record numbers, cities and states rushed to build additional roadways and ease congestion. To help finance these massive construction efforts, states began taxing gasoline, and the federal government provided hundreds of thousands of dollars for the construction of the interstate highway system. Increased funding for highway construction also left less money for public transportation, making it impossible for those who could not afford automobiles to live in the suburbs. The increased construction of roads and highways often fragmented working-class neighborhoods and generated in opposition.[11]

Racial Segregation and Concentrated Poverty: The History of Housing in Black America

This video discusses the *de jure* and *de facto* policies that contributed to the formation of ghettoes in the United States.

This interactive element is not available in this format. Visit the link or scan the QR code to access it online.

View this YouTube Video online

Education

Prior segregation policies created gaps in the educational system because schools are greatly funded by property taxes. In California, local funding makes up about 33 percent, on average, of educational funding. This means that the wealthier the neighborhood, the higher the taxes and the greater the funding for the school district. States often try to equalize differential funding by giving more funds to poorer districts. Nonetheless, because disadvantaged communities often require supportive services that cost more, the state allocation often does not compensate for the inequality that exists. All in all, where a child lives will determine how much a particular district will spend per student.

School district boundaries many times draw sharp lines between two separate and unequal districts—districts that are predominately white and well-funded and those predominately non-white and underfunded. In the US, there are about 1,000 district borders separating advantaged and disadvantaged school districts. One in six American children attend a disadvantaged school district.

Environmental Racism

In terms of pollution, too, disparities exist across ethnoracial lines. Access of vital resources such as water and clean air is also notably restricted across color lines. For the past several years, Americans have been following the tragic case of Flint, Michigan. Thousands of black and white residents in Flint were exposed to lead contaminated water and the response to such poisoning has been remarkably slow. Disparities in environmental pollution and hazards led to the environmental justice movement.

In 1982, the North Carolina government decided to place 6,000 truckloads of soil containing toxic chemicals in the city of Afton. Afton is a small community located in poor, rural Warren County, North Carolina, and at the time, had an 84 percent African-American population. Protesters against siting the landfill in Afton argued that the siting decision was discriminatory and was made because the community was minority and poor. According to Dr.Robert Bullard, the Afton PCB landfill site was not the most "scientifically suitable location" because of the high risk for groundwater contamination. Throughout six weeks of protest, more than 500 people were arrested. Many veterans of the civil rights movement from the 1950's and 1960's supported the protesters and classified the protest as a new fight in the civil rights movement—the fight against environmental racism. **Environmental racism** refers to "any policy, practice, or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on race or color."[12]

Ethnoracial Wealth Gap

The U.S. wealth structure is extremely unequal and marked by very large racial gaps, with the average Black household holding less than one tenth the net worth—defined as the total sum of assets minus debts—of the average white household.[13] The current racial wealth gap is the consequence of many decades of racial inequality that imposed barriers to wealth accumulation either through explicit prohibition during slavery or unequal treatment after emancipation (Figure 10.4.4). Examples of postemancipation barriers include legally mandated segregation in schools and housing, discrimination in the labor market, and redlining, which reduced access to capital in Black neighborhoods.

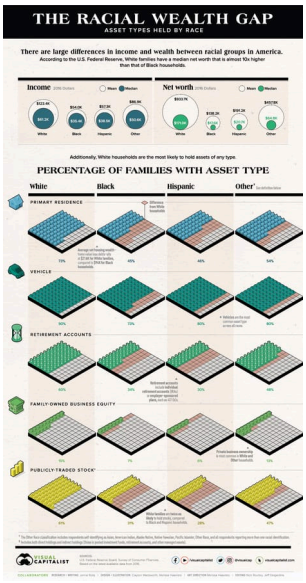


Figure 10.4.4: The Racial Wealth Gap (asset types held by race). There are large differences in income and wealth between racial groups in America. According to the U.S. Federal Reserve, White families have a median net worth that is almost 10x higher than that of Black households. Additionally, White households are the most likely to hold assets of any type. (used by permission; by Jenna Ross, Clayton Wadsworth, Melissa Haavisto, Nick Routley, and Jeff Desjardins via Visual Capitalist).

Black Lives Matter

Black Lives Matter is a global social justice activism movement that began in the United States and has since spread around the globe. The movement seeks to attain racial justice for African-Americans and those who identify as Black. Activists who participate in the movement aim to bring an end to violence and systemic racism aimed against Black people. Since its inception as a hashtag, it has transformed into a full-fledged movement that manifests on and offline. It expanded from being a response to police brutality to encompassing all types of injustices faced by Black people, including in the realms of education, the criminal justice system, and class relations.

The Black Lives Matter movement was created and was solidified in history by the deaths of three African-American men. On February 26th, 2012, Trayvon Martin, a 17-year-old African American high school student was shot and killed by George Zimmerman, a 28 year old mixed Hispanic man at Stanford, Florida. Martin was unarmed and later Zimmerman was charged with second degree murder, however, on July 13th, 2013 he was found not guilty. The shooting of Trayvon Martin and the verdict of the courts caused an outcry from the African American community for action against anti-black racism that permeates today's society. Out of a response to the acquitted Zimmerman, Patrisse Cullors created a hashtag on Facebook in response to a post by Alicia Garza about the incident called, #BlackLivesMatter. Later, Patrisse Cullors in collaboration with Alicia Garza and Opal Tometi started the #BlackLivesMatter campaign. Thus the movement began, in a local grassroots community of Oakland by the work and dreams of Cullors, Garza and Tometi. Yet the movement did not gain national recognition until a year later with the deaths of both Eric Garner and Michael Brown.

On July 17th, 2014, Eric Garner, a 43-year-old African American father of six children, was suffocated to death by Daniel Pantaleo, a 29 year old white policeman at Tompkinsville, Staten Island, New York. Video of the incident was captured on a cell phone and posted on social media, in which protests broke out across the country. This was the beginning of "Black Lives Matter"; supporters began to emerge, using this slogan to protest the police brutality occurring to the Black community. On August 9, 2014, less than a month after the death of Eric Garner, Michael Brown, a unarmed 18-year-old African American teenager, was shot and killed by Darren Wilson, a 28 year old white policeman in Ferguson, Missouri. Hundreds of protests broke out across the country to fight back against police brutality on African American men. #BlackLivesMatter signs were used in all the protests and people started rallying behind this movement.

The Black Lives Matter movement was cemented, and internationally recognized on December 13th when more than 100,000 people came together for the “Justice for all” rally in Washington and “Millions March” rally in NYC to protest police brutality against black people. It was on this stage that launched the Black Lives Matter movement into history. Figure 10.4.5 depicts a mural in Brooklyn, New York, that memorializes some of the Black Americans murdered by police.



Figure

: BLM mural in Brooklyn, New York, by LA Johnson. (CC BY-SA 4.0; by Rhododendrites via Wikimedia).

Gentrification

Gentrification has gained attention over the last 50 years, as social scientists attempt to explain the influx of middle-class people to cities and neighborhoods and the displacement of lower-class working residents. **Gentrification** occurs when wealthier people buy or rent property in low- income or working class neighborhoods, driving up property values and rent. While it brings money into blighted urban areas, it often comes at the expense of poorer, pre-gentrification residents who cannot afford increased rents and property taxes.

The first "urban pioneers" in a gentrifying neighborhood may have lower incomes, but possess the cultural capital (e.g., education) characteristic of suburban residents. They are often socially and professionally dominant while economically marginalized. Partially due to their age and low-incomes, these individuals frequently reside in households with roommates and are more tolerant of the perceived evils of the city, such as crime, poor schools, and insufficient public services. Thus, they are willing to move into marginal neighborhoods. When the number of urban pioneers reaches such a critical mass, it attracts business investment and new amenities such as bars, restaurants, and art galleries. Once the urban pioneers and businesses have taken the financial risk out of the community, risk-averse investors and residents may enter the newly gentrified neighborhood. Renewed business attracts more investment capital and new residents, increasing local property values. Ironically, upon full gentrification, the urban pioneers are frequently evicted as rents and taxes rise, and the young, poor professionals can no longer afford to live in the area.

Gentrification is often resisted by those displaced by rising rents (Figure 10.4.6). However, while protests have an economic dimension, claims are usually articulated as a loss of culture or dismay over the homogenization and flattening of a formerly diverse neighborhood: gentrification generally increases the proportion of young, white, middle- to upper-income residents.

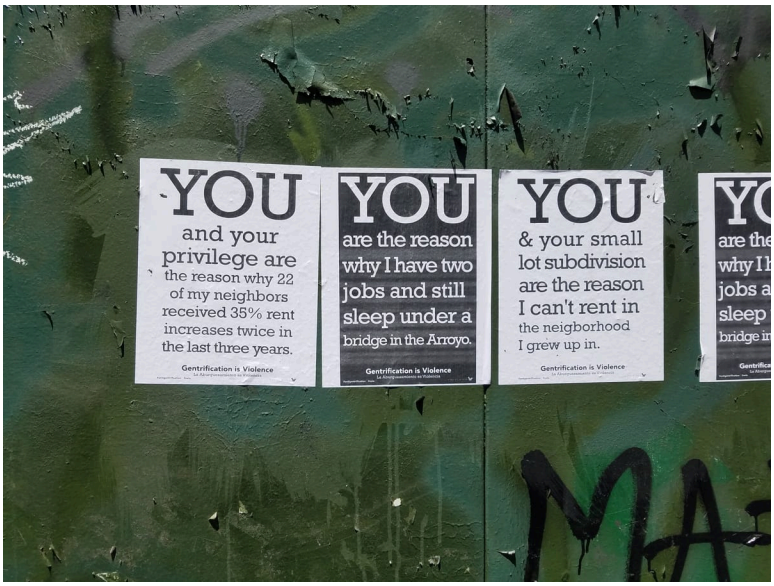


Figure 10.4.6: Flyers posted in protest to gentrification in Lincoln Heights, Los Angeles. The text says “You and your privilege are the reason why 22 of my neighbors received 35 percent rent increases twice in the last three years. You are the reason why I have two jobs and still sleep under a bridge in the Arroyo. You and your small lot subdivision are the reason I can’t rent in the neighborhood I grew up in. (CC BY 2.0; Umberto Brayj via Flickr).

Three different explanations address the root causes of gentrification. The demographic explanation emphasizes the impact of the baby boomer generation, born after World War II. In the 1970s, this led to a spike in the young adult population, increasing demand for housing. To meet the demand, urban areas had to be “recycled,” or gentrified. The new baby boomer residents departed from the suburban family idea, marrying later and having fewer children; women in the baby boomer generation were the first to enter the workforce in serious numbers. New urban residents were composed of higher, dual-income couples without children, less concerned about space for large families—one of the main draws to the suburbs for their parents. Instead, they were interested in living in cities close to their careers and enjoying the amenities their higher incomes could afford.

The sociocultural explanation is based on the assumption that values and beliefs influence behavior. It focuses on the changing lifestyles and values of the middle- and upper-classes in the 1970s. At this time, the suburban ideal was falling out of favor; fewer people were moving to suburbs and more were moving back to cities. These first few suburban transplants, or urban pioneers, demonstrated that cities were viable places to live and began developing a type of inner-city chic that was attractive to other baby boomers, which in turn brought an influx of young affluence to inner cities.

Political economic explanations argue new economic or policy incentives contribute to gentrification. In part, the changing political climate of the 1950s and 1960s produced new civil rights legislation, such as anti-discrimination laws in housing and employment and desegregation laws. These policies enabled Black families to move out of urban centers and into the suburbs, thus decreasing the availability of suburban land, while integrationist policies encouraged white movement into traditionally Black urban areas.

An alternative explanation suggests that developers and government encouraged gentrification with an eye toward profit. Gentrification may be driven by governments hoping to raise property values and increase revenue from taxes. It may be the result of fluctuating relationships between capital investments and the production of urban space. During the two decades following World War II, low rents in the city’s periphery encouraged suburban development; as capital investment moved to suburbs, inner-city property values fell. Developers were able to see that they could purchase the devalued urban land, redevelop the properties, and turn a profit.

References:

[1] Macionis, John J. & Parrillo, Vincent N. 2007. *Cities and Urban Life*. Upper Saddle River, NJ: Pearson Prentice Hall.

[2] National Archives. 2021. The Great Migration (1910-1970).

[3] Bonds, Anne, & Inwood, Joshua. 2016. Beyond white privilege: Geographies of white supremacy and settler colonialism. *Progress in Human Geography, 40*(6): 715-733.

[4] National Education Association. 2022. White Supremacy Culture Resources.

[5] Pulido, Laura. 2015. Geographies of race and ethnicity I: White supremacy vs white privilege in environmental racism research. *Progress in Human Geography, 39*(6): 809-817.

[6] Virginia General Assembly. 1691. "An act for suppressing outlying slaves".

[7] Stevens & Hartley. 1912. Hartley's North Park Addition advertisement. In the collection of the San Diego History Center.

[8] Vinson, F.M. & Supreme Court of the United States. (1947). Shelley v. Kraemer, 334 U.S. 1.

[9] Rey, Sergio Joseph, and Elijah Knapp. (2022). The legacy of redlining: A spatial dynamics perspective. *International Regional Science Review*, 1-42.

[10] Statthaus, Mary Ellen. 1996. Flaw in the jewel: Housing discrimination against Jews in La Jolla, California. *American Jewish History, 84*(3): 189-219.

[11] Mohl, Raymond A. 2004. Stop the road: Freeway revolts in American cities. *Journal of Urban History, 30*(5): 674-706.

[12] Bullard, Robert. 2001. Environmental justice in the 21st century: Race still matters. *Phylon, 49*(3/4): 151-171.

[13] Oliver, Melvin L., and Thomas M. Shapiro. 2006. *Black Wealth, White Wealth. A New Perspective on Racial Inequality*. 2nd ed. New York: Routledge.

Attributions:

"Jim Crow Laws" is adapted from Jim Crow Laws by the National Park Service (public domain).

"Anti-Miscegenation Laws" is adapted from Anti-miscegenation Laws by the Scholarly Community Encyclopedia (CC BY-SA 3.0).

"Racially Restrictive Covenants (Deed Covenants)" is adapted from Restricting with Property Covenants by Tracey Wilson, Vianna Iorio, and Jack Dougherty (CC BY-NC-SA 4.0) and Restrictive Covenants by Greg Robinson for the Densho Encyclopedia (CC BY-NC-SA 3.0).

"Redlining" is adapted from Introduction and Mapping Inequality: Redlining in New Deal America by Mapping Inequality (CC BY-NC-SA 4.0).

"Blockbusting" is adapted from Blockbusting by the Legal Dictionaries of the Encyclopedia of Law Project (CC BY 3.0).

"Impacts of de jure and de facto White Supremacist Policies" is adapted from The American Dream by P. Scott Corbett et al. (CC BY-NC).

"White Flight and Suburbanization" is adapted from Shrinking Cities and Counter-Urbanization by LibreText (CC BY-SA 4.0).

"Environmental Racism" is adapted from Environmental Justice: Examining the Environmental Protection Agency's Compliance and Enforcement of Title VI and Executive Order 12,898 by the U.S. Commission on Civil Rights (public domain).

"Ethnoracial Wealth Gap" is adapted from What Is Behind the Persistence of the Racial Wealth Gap? By Dionissi Aliprantis and Daniel R. Carroll (public domain).

"Black Lives Matter" is adapted from Black Lives Matter by The University of British Columbia (CC BY 4.0).

"Gentrification" is adapted from Urban Gentrification by LibreTexts (CC BY-SA).

This page titled 10.4: Urban Spatial Inequalities in the United States is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Waverly Ray.

INDEX

No index terms found.

This page titled Index is shared under a license and was authored, remixed, and/or curated by LibreTexts.

GLOSSARY

S

Sample Word 1 | Sample Definition 1

This page titled Glossary is shared under a license and was authored, remixed, and/or curated by LibreTexts.

DETAILED LICENSING

Overview

Title: World Geographies: A Critical Introduction (Aline Gregorio, Nazanin Naraghi, Jason Scott, Waverly Ray)

Webpages: 69

Applicable Restrictions: Noncommercial

All licenses found:

- CC BY-NC-SA 4.0: 79.7% (55 pages)
- Undeclared: 20.3% (14 pages)

By Page

- World Geographies: A Critical Introduction (Aline Gregorio, Nazanin Naraghi, Jason Scott, Waverly Ray) - *CC BY-NC-SA 4.0*
  - Front Matter - *Undeclared*
    - TitlePage - *Undeclared*
    - InfoPage - *Undeclared*
    - Table of Contents - *Undeclared*
    - Licensing - *Undeclared*
    - Program Page - *Undeclared*
    - About this book - *Undeclared*
  - 1: Geography Matters - *CC BY-NC-SA 4.0*
    - 1.1: Geography and Geo-Literacy - *CC BY-NC-SA 4.0*
    - 1.2: Where on Earth? The Geographic Grid - *CC BY-NC-SA 4.0*
    - 1.3: Maps- Place, Power, and Representation - *CC BY-NC-SA 4.0*
    - 1.4: Geographical Thought- Critical Reflections and Imagination - *CC BY-NC-SA 4.0*
  - 2: Our Connected World [Coming Soon] - *CC BY-NC-SA 4.0*
    - 2.1: Globalization - *CC BY-NC-SA 4.0*
    - 2.2: Climate Change - *CC BY-NC-SA 4.0*
    - 2.3: Global Development and Inequality - *CC BY-NC-SA 4.0*
    - 2.4: TBD - *CC BY-NC-SA 4.0*
    - 2.5: TBD - *CC BY-NC-SA 4.0*
  - 3: Africa South of the Sahara - *CC BY-NC-SA 4.0*
    - 3.1: Africa's Natural Environments - *CC BY-NC-SA 4.0*
    - 3.2: Indigenous Worlds- Pre-Colonial Civilizations and Reclaiming Independence - *CC BY-NC-SA 4.0*
    - 3.3: Cultural Diversity, Resilience, Tolerance and Tension - *CC BY-NC-SA 4.0*
    - 3.4: Young and Rapidly Urbanizing Populations - *CC BY-NC-SA 4.0*
    - 3.5: The Ongoing Scramble for Africa - *CC BY-NC-SA 4.0*
  - 4: Southwest Asia and North Africa - *CC BY-NC-SA 4.0*
    - 4.1: The Natural Environment - *CC BY-NC-SA 4.0*
    - 4.2: Indigenous Worlds - *CC BY-NC-SA 4.0*
    - 4.3: Cultural Hearths of Writing and Abrahamic Religions - *CC BY-NC-SA 4.0*
    - 4.4: Oil and Uneven Development - *CC BY-NC-SA 4.0*
    - 4.5: Contemporary Art and Culture in SWANA - *CC BY-NC-SA 4.0*
  - 5: Europe - *CC BY-NC-SA 4.0*
    - 5.1: Natural Environments - *CC BY-NC-SA 4.0*
    - 5.2: Connecting Europe's Past to the Present - *CC BY-NC-SA 4.0*
    - 5.3: Identity and Migration in Europe - *CC BY-NC-SA 4.0*
    - 5.4: Europe's Regions - *CC BY-NC-SA 4.0*
  - 6: North and Central Asia - *CC BY-NC-SA 4.0*
    - 6.1: The Natural Environment - *CC BY-NC-SA 4.0*
    - 6.2: Indigenous Worlds- Diversity, Resilience, and Russian Nation-Building - *CC BY-NC-SA 4.0*
    - 6.3: Economic Geography- Transitions and Interdependence - *CC BY-NC-SA 4.0*
    - 6.4: Energy Interdependence, Conflict, and Climate Justice in the Arctic - *CC BY-NC-SA 4.0*
    - 6.5: Complex Geographies of Armed Conflict- Armenia, the Caucasus, Afghanistan, and Ukraine - *CC BY-NC-SA 4.0*
  - 7: South Asia - *CC BY-NC-SA 4.0*
    - 7.1: Natural Environments and Climate Vulnerability - *CC BY-NC-SA 4.0*
    - 7.2: Indigenous Worlds: Cultural Hearths, Empires, and Colonial Legacies - *CC BY-NC-SA*

4.0
- 7.3: Cultural Diversity- Languages and Religions of South Asia - *Undeclared*
- 7.4: Population, Malthusians, and Critics - *Undeclared*

◦ 8: East and Southeast Asia - *CC BY-NC-SA 4.0*
- 8.1: Natural Environments - *CC BY-NC-SA 4.0*
- 8.2: Indigenous Worlds- Migration and Ancient Civilizations - *CC BY-NC-SA 4.0*
- 8.3: Cultural Hearths, Diversity and Resilience - *CC BY-NC-SA 4.0*
- 8.4: Paradigm Shifts, Industries, Governance, Imperialism - *CC BY-NC-SA 4.0*
- 8.5: Tourism, the Informal Sector, and "Dependency" - *CC BY-NC-SA 4.0*

◦ 9: Middle and South America - *CC BY-NC-SA 4.0*
- 9.1: Natural Environments - *CC BY-NC-SA 4.0*
- 9.2: Indigenous Worlds- Amerindian Civilizations, Colonization, and Revival - *CC BY-NC-SA 4.0*
- 9.3: The Cultural Mosaic- Diasporas, Race, and Ethnicity - *CC BY-NC-SA 4.0*
- 9.4: Inequality and the City - *CC BY-NC-SA 4.0*
- 9.5: Tropical Deforestation and the Rights of Nature and Indigenous Peoples - *CC BY-NC-SA 4.0*

◦ 10: North America - *CC BY-NC-SA 4.0*
- 10.1: Natural Environments and Nature-Society Interactions - *CC BY-NC-SA 4.0*
- 10.2: Indigenous Worlds- Diversity, Survivance, and Decolonization - *CC BY-NC-SA 4.0*
- 10.3: Culturally Diverse and Aging Populations - *CC BY-NC-SA 4.0*
- 10.4: Urban Spatial Inequalities in the United States - *CC BY-NC-SA 4.0*

◦ Back Matter - *Undeclared*
- Index - *Undeclared*
- Glossary - *Undeclared*
- Detailed Licensing - *Undeclared*
- Detailed Licensing - *Undeclared*

This page titled World Geographies: A Critical Introduction (Aline Gregorio, Nazanin Naraghi, Jason Scott, Waverly Ray) is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio, Jason Scott, Nazanin Naraghi, & Waverly Ray.

DETAILED LICENSING

Overview

Title: World Geographies: A Critical Introduction (Aline Gregorio, Nazanin Naraghi, Jason Scott, Waverly Ray)

Webpages: 69

Applicable Restrictions: Noncommercial

All licenses found:

- CC BY-NC-SA 4.0: 79.7% (55 pages)
- Undeclared: 20.3% (14 pages)

By Page

- World Geographies: A Critical Introduction (Aline Gregorio, Nazanin Naraghi, Jason Scott, Waverly Ray) - *CC BY-NC-SA 4.0*
  - Front Matter - *Undeclared*
    - TitlePage - *Undeclared*
    - InfoPage - *Undeclared*
    - Table of Contents - *Undeclared*
    - Licensing - *Undeclared*
    - Program Page - *Undeclared*
    - About this book - *Undeclared*
  - 1: Geography Matters - *CC BY-NC-SA 4.0*
    - 1.1: Geography and Geo-Literacy - *CC BY-NC-SA 4.0*
    - 1.2: Where on Earth? The Geographic Grid - *CC BY-NC-SA 4.0*
    - 1.3: Maps- Place, Power, and Representation - *CC BY-NC-SA 4.0*
    - 1.4: Geographical Thought- Critical Reflections and Imagination - *CC BY-NC-SA 4.0*
  - 2: Our Connected World [Coming Soon] - *CC BY-NC-SA 4.0*
    - 2.1: Globalization - *CC BY-NC-SA 4.0*
    - 2.2: Climate Change - *CC BY-NC-SA 4.0*
    - 2.3: Global Development and Inequality - *CC BY-NC-SA 4.0*
    - 2.4: TBD - *CC BY-NC-SA 4.0*
    - 2.5: TBD - *CC BY-NC-SA 4.0*
  - 3: Africa South of the Sahara - *CC BY-NC-SA 4.0*
    - 3.1: Africa's Natural Environments - *CC BY-NC-SA 4.0*
    - 3.2: Indigenous Worlds- Pre-Colonial Civilizations and Reclaiming Independence - *CC BY-NC-SA 4.0*
    - 3.3: Cultural Diversity, Resilience, Tolerance and Tension - *CC BY-NC-SA 4.0*
    - 3.4: Young and Rapidly Urbanizing Populations - *CC BY-NC-SA 4.0*
    - 3.5: The Ongoing Scramble for Africa - *CC BY-NC-SA 4.0*
  - 4: Southwest Asia and North Africa - *CC BY-NC-SA 4.0*
    - 4.1: The Natural Environment - *CC BY-NC-SA 4.0*
    - 4.2: Indigenous Worlds - *CC BY-NC-SA 4.0*
    - 4.3: Cultural Hearths of Writing and Abrahamic Religions - *CC BY-NC-SA 4.0*
    - 4.4: Oil and Uneven Development - *CC BY-NC-SA 4.0*
    - 4.5: Contemporary Art and Culture in SWANA - *CC BY-NC-SA 4.0*
  - 5: Europe - *CC BY-NC-SA 4.0*
    - 5.1: Natural Environments - *CC BY-NC-SA 4.0*
    - 5.2: Connecting Europe's Past to the Present - *CC BY-NC-SA 4.0*
    - 5.3: Identity and Migration in Europe - *CC BY-NC-SA 4.0*
    - 5.4: Europe's Regions - *CC BY-NC-SA 4.0*
  - 6: North and Central Asia - *CC BY-NC-SA 4.0*
    - 6.1: The Natural Environment - *CC BY-NC-SA 4.0*
    - 6.2: Indigenous Worlds- Diversity, Resilience, and Russian Nation-Building - *CC BY-NC-SA 4.0*
    - 6.3: Economic Geography- Transitions and Interdependence - *CC BY-NC-SA 4.0*
    - 6.4: Energy Interdependence, Conflict, and Climate Justice in the Arctic - *CC BY-NC-SA 4.0*
    - 6.5: Complex Geographies of Armed Conflict- Armenia, the Caucasus, Afghanistan, and Ukraine - *CC BY-NC-SA 4.0*
  - 7: South Asia - *CC BY-NC-SA 4.0*
    - 7.1: Natural Environments and Climate Vulnerability - *CC BY-NC-SA 4.0*
    - 7.2: Indigenous Worlds: Cultural Hearths, Empires, and Colonial Legacies - *CC BY-NC-SA*

4.0
- 7.3: Cultural Diversity- Languages and Religions of South Asia - *Undeclared*
- 7.4: Population, Malthusians, and Critics - *Undeclared*

◦ 8: East and Southeast Asia - *CC BY-NC-SA 4.0*
- 8.1: Natural Environments - *CC BY-NC-SA 4.0*
- 8.2: Indigenous Worlds- Migration and Ancient Civilizations - *CC BY-NC-SA 4.0*
- 8.3: Cultural Hearths, Diversity and Resilience - *CC BY-NC-SA 4.0*
- 8.4: Paradigm Shifts, Industries, Governance, Imperialism - *CC BY-NC-SA 4.0*
- 8.5: Tourism, the Informal Sector, and "Dependency" - *CC BY-NC-SA 4.0*

◦ 9: Middle and South America - *CC BY-NC-SA 4.0*
- 9.1: Natural Environments - *CC BY-NC-SA 4.0*
- 9.2: Indigenous Worlds- Amerindian Civilizations, Colonization, and Revival - *CC BY-NC-SA 4.0*
- 9.3: The Cultural Mosaic- Diasporas, Race, and Ethnicity - *CC BY-NC-SA 4.0*
- 9.4: Inequality and the City - *CC BY-NC-SA 4.0*
- 9.5: Tropical Deforestation and the Rights of Nature and Indigenous Peoples - *CC BY-NC-SA 4.0*

◦ 10: North America - *CC BY-NC-SA 4.0*
- 10.1: Natural Environments and Nature-Society Interactions - *CC BY-NC-SA 4.0*
- 10.2: Indigenous Worlds- Diversity, Survivance, and Decolonization - *CC BY-NC-SA 4.0*
- 10.3: Culturally Diverse and Aging Populations - *CC BY-NC-SA 4.0*
- 10.4: Urban Spatial Inequalities in the United States - *CC BY-NC-SA 4.0*

◦ Back Matter - *Undeclared*
- Index - *Undeclared*
- Glossary - *Undeclared*
- Detailed Licensing - *Undeclared*
- Detailed Licensing - *Undeclared*

This page titled World Geographies: A Critical Introduction (Aline Gregorio, Nazanin Naraghi, Jason Scott, Waverly Ray) is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Aline Gregorio, Jason Scott, Nazanin Naraghi, & Waverly Ray.