World Geography

This chapter requires a companion activity book in which students respond to questions on text content. A quiz follows every fifth lesson. Answers are found in the *Teacher's Resource Kit.*



Chapter 3

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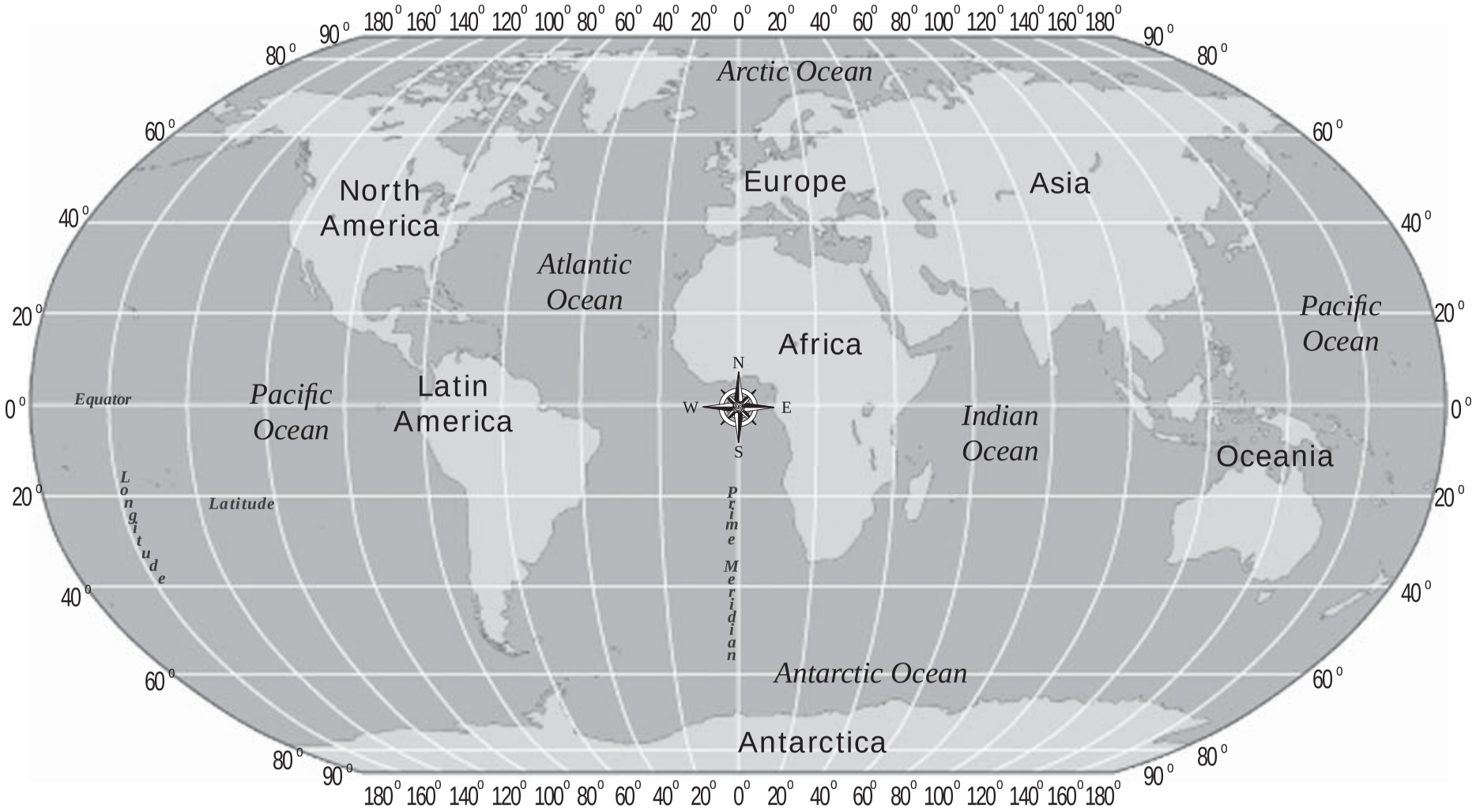

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MAP A

The World



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Largest Metropolitan Areas
Europe



World Rank	Rank	Central City	Country	Population	Outlying Areas / Suburbs
18	1	Moscow	Russia	13,500,000	
24	2	London	Great Britain	12,300,000	
26	3	Paris	France	10,000,000	
48	4	Madrid	Spain	6,100,000	
=54	5	Ruhr	Germany	5,700,000	Essen, Dortmund, Duisburg
=69	6	St. Petersburg	Russia	4,750,000	
=82	7	Berlin	Germany	4,275,000	
84	8	Barcelona	Spain	4,250,000	
=95	9	Athens	Greece	3,750,000	
=104	10	Milan	Italy	3,550,000	
106	11	Rome	Italy	3,500,000	
112	12	Kiev	Ukraine	3,400,000	
130	13	Naples	Italy	3,075,000	
=145	14	Katowice	Poland	2,775,000	Upper Silesian Area
=154	15	Stuttgart	Germany	2,650,000	
159	16	Hamburg	Germany	2,575,000	
=160	=17	Birmingham	Great Britain	2,550,000	
=160	=17	Lisbon	Portugal	2,550,000	
=166	19	Manchester	Great Britain	2,475,000	
=172	20	Warsaw	Poland	2,375,000	
=182	21	Budapest	Hungary	2,300,000	
=196	=22	Bucharest	Romania	2,125,000	
=196	=22	Leeds	Great Britain	2,125,000	
208	24	Vienna	Austria	2,000,000	
211	25	Munich	Germany	1,980,000	

All information from http://www.citypopulation.de/world/agglomerations.html and accurate as of December 31, 2009.

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World Geography

Chapter 3

Lesson 1
Borders and Boundaries

Section 1
Lessons 1-5

Borders and Boundaries of Europe



Of the seven continents, Europe is larger than only Australia in terms of land area. Consisting of fifty sovereign, individual nations, Europe spurs out from the rest of the Eurasian land mass, encompassing all the land from Ireland and Portugal in the west to Azerbaijan in the east. It stretches as far north as Scandinavia and south to Italy and Greece, although it has traditionally included islands outside these boundaries, including Iceland, Svalbard, and many Mediterranean islands. Europe has been termed the "peninsula of peninsulas" for its shape, which is almost entirely surrounded by water. The continent includes numerous peninsulas large and small, many of which—including Italy, Greece, and Denmark, to name a few—are individual nations.

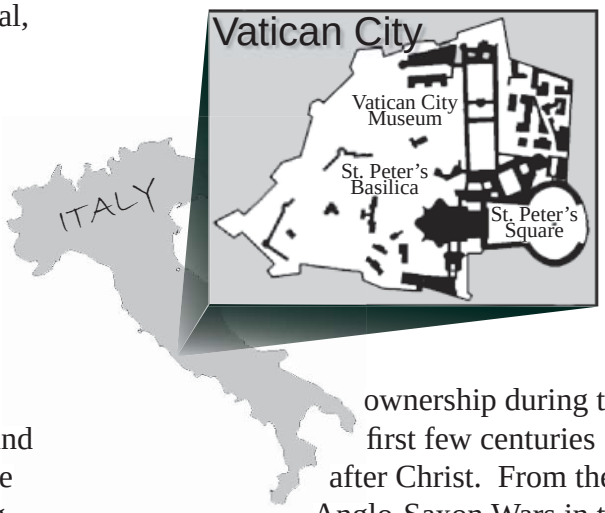
Despite these presently stable boundaries, the edges of Europe have always been somewhat in flux. Bodies of water and mountain ranges frame the continent in many places: the Caspian Sea and the Ural Mountains mark Europe's eastern edge, and the Caucasus Mountains divide it from the Middle East in the south. While it includes some islands in the Mediterranean Sea, the sea has consistently been Europe's southern border, and the Black Sea is likewise considered a relatively fixed boundary. Nevertheless, geographers and cartographers hold some eastern and southeastern nations in limbo—Turkey, Georgia, and Kazakhstan, for instance—because of their location straddling the Europe–Asia boundary. The definition of a continent is never a purely geographical

VOCABULARY

Culture: arts, music, recreational activities, and customs of a given country or race
Etymologist: person who studies the origins or history of words
Sovereign: independent of the control of other governments
Gross domestic product: total monetary value of all the goods and services produced in a nation annually
Agglomeration: metropolitan area; contiguous population center

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issue, but often considers cultural, political, and linguistic realities as well; and some geographically European nations are, in fact, much more Asian in ***culture***. The reverse is also true, particularly of some of the Mediterranean islands (such as Cyprus, which is considered to be in Asia but sports a distinctly European culture).



Europe is located in a particularly strategic position. Most likely due to its situation at the far west of the Eurasian land mass, some ***etymologists*** believe the name itself derives from a Greek word meaning "sunset"—when the sun sets on Europe, it is indeed setting on all of Eurasia. It covers a fair amount of land but retains close proximity to both Asia in the east and Africa in the south, providing it easy access to both regions for trade, tourism, and other vital political and economic interests. Perhaps even more important, Europe borders on the vast Atlantic Ocean, which serves as an open highway to the Americas and a boon to trade and transportation. The majority of the European continent is found in the middle latitudes—the continent's boundaries stretch from approximately 10°W to 50°E and from 35° to 70°N, though the population is denser farther south (see Map B).



National borders within Europe have changed dramatically throughout history as Germanic warriors clashed with Romans, Muslims, and Franks over ownership during the first few centuries after Christ. From the Anglo-Saxon Wars in the 5th century to Soviet occupation of Eastern Europe during the Cold War, the continent's boundaries have been remarkably fluid. The nations within modern Europe range in size from infinitesimal to very large. Excluding Russia (a portion of which is European), Ukraine is the largest country by far, covering some 233,090 square miles in a territory nearly as large as Texas. Other nations also boast considerable land area—France, Spain, and Sweden are all larger than Montana, and Germany bests New Mexico by several thousand square miles. On the other end of the spectrum, the Vatican City, headquarters to the Roman Catholic Church and the papal residence, covers just 0.17 square miles in the middle of Rome and is the world's smallest ***sovereign*** nation. Monaco, situated on the French Riviera, is not much larger at 0.7 square miles (although its population of 30,000 dwarfs the Vatican's 800). Other tiny nations include San Marino, whose twenty-five thousand residents claim it is the continent's oldest, and the island of Malta, located south

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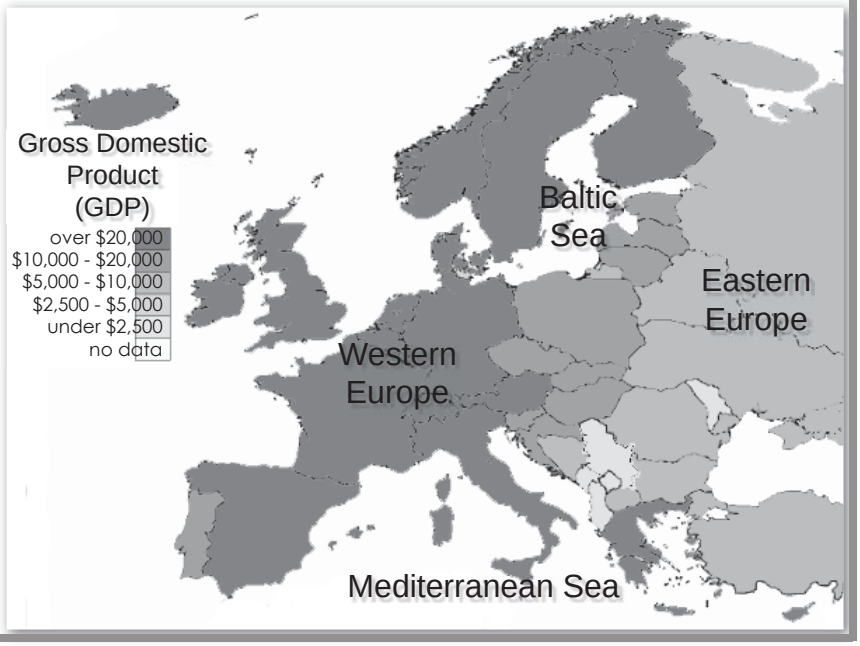
of Sicily in the Mediterranean Sea.

Both natives and foreigners referring to Europe often speak of "Western Europe" and "Eastern Europe," and occasionally to "Central Europe" as well. Similar to regions in the United States—the Pacific Northwest, for example, or New England—these designations serve to divide the continent into manageable chunks and group nations with like characteristics. Perhaps even more than the entire continent's ever-changing definition, these terms vary greatly between cartographers, political scientists, and other researchers, and even two casual travelers or tourists may have wildly different concepts of what constitutes a region. Often, such labels are undergirded more by political or sociological considerations than geographic ones: Greece, for instance, is often placed in Western Europe despite its decidedly eastern location, ostensibly because the Eastern countries overwhelmingly succumbed to the Soviet Union's influence during the Cold War, which raged from 1945 to 1991.

Generally speaking, Western Europe encompasses the greater area, covering all the nations from Ireland and Portugal in the west to Austria in the east. Italy and Germany are nearly universally considered Western, as are the peninsula of Denmark and all of Scandinavia. Greece and all the islands west of it fall into the West, including lonely Iceland, but interestingly, the countries directly north and northwest of Greece are, typically, regarded as Eastern European.

Eastern Europe, then, comprises the continent's remainder, buffering the West in a line that stretches from Poland down to Albania and excluding Austria. This line roughly mirrors the boundary between the Western and Eastern bloc nations in the Cold War, a political reality that accounts for the difficulty establishing standard definitions. Indeed, the shadow of communism still haunts many Eastern countries: the Eastern trails Western nations in ***gross domestic product*** (GDP) per capita, educational attainment, life expectancy, religious freedom, and a host of other categories. These realities are the fallout of the East's control by the Soviet Union's atheistic communism, in which all private property was abolished and replaced by government-run farms and industry.

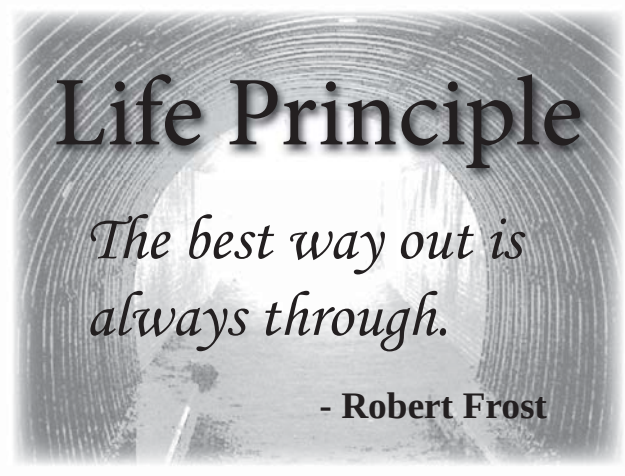
Despite its small size, however, the birthplace of Western culture—as Europe is often credited—is the third-most populous continent behind Asia and Africa, with population estimates around 830 million. The figure represents eleven percent of the world's total population, although abortions



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and declining birthrates, coupled with skyrocketing birthrates elsewhere, could lower that slice considerably over the next several decades. The western regions are populated somewhat more densely than the eastern, particularly in Germany, France, and Great Britain, which together comprise nearly 30% of Europe's residents. With the exception of Istanbul, located in Turkey's extreme northwest corner and whose metropolis spills into Europe, the largest metropolitan areas are in the west—London and Paris each boast approximately 12 million people, and Germany has several urban ***agglomerations*** of over 5 million.

The population is sparser in Europe's far northern and southern regions as well, although some southern areas, such as the southern coast of Spain and much of Italy, contain large numbers of residents. Armenia and Georgia contain moderate populations for their size, and several large metropolitan areas, such as Athens, Rome, and Naples, dot the southern landscape. To the north, a harsh climate and scant vegetation are prohibitive to larger cities and developments. St. Petersburg, Russia is the northernmost metropolis in Europe, with a population of approximately 4.75 million; Stockholm's 2 million and Moscow's sprawling 13.5 million are also among the continent's northern cities.



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World Geography



Lesson 2
Terrain

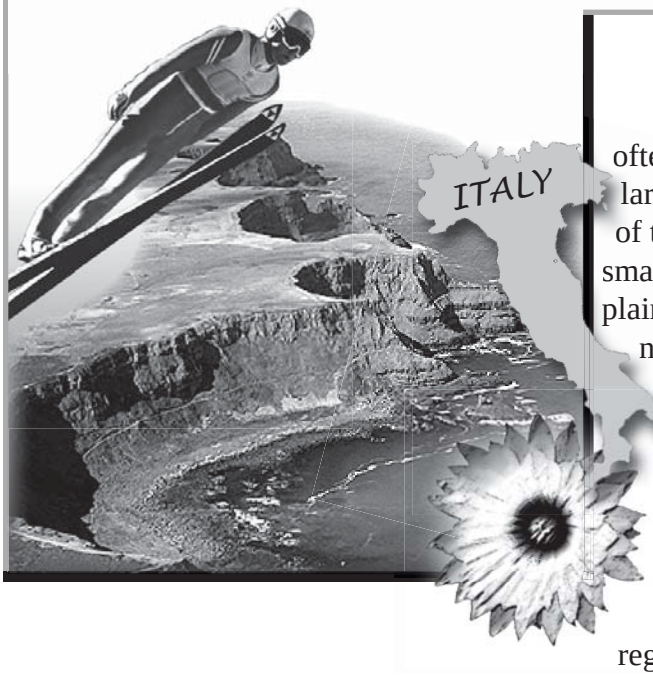
Chapter 3



Terrain of Europe

Section 1

Lessons 1-5



One of the paradoxes found in world geography is that smaller ***landmasses*** often display surprisingly diverse features that larger regions lack. Europe is a prime example of this phenomenon: for its size, Earth's second-smallest continent exhibits a dizzying array of plains, valleys, highlands, mountain ranges, natural harbors, and other landforms across its 3.9 million square miles. The continent boasts one of the world's highest mountain ranges, some of its most fertile plains, and a coastline over 200,000 miles long, and industry and commerce in Europe benefit from the opportunities these features afford. Although the continent's southern regions display greater diversity in landforms, soil, elevation, and other aspects, the central and northern countries are home to lush agricultural areas with broad river basins and productive soil. Highlands, including a smaller mountain range, also dot much of Northern Europe: the Alps' foothills stretch as far north as Ruhr, Germany, and the Scandinavian mountains cover large areas of Norway and Sweden with peaks significantly higher than the United States' Appalachian range. This diversity in terrain accounts for more than aesthetic benefits: much of Europe's climate, vegetation, wildlife, culture, and economics are tied directly to its geographic realities.

Central to the continent's diversity is its coastline, which meanders through 202,500 miles of Atlantic and Arctic Oceans and half a dozen seas within the continent. The oddly shaped continent, essentially a conglomeration of peninsulas collectively jutting out into the Atlantic, has the second-longest coastline of any continent behind North America

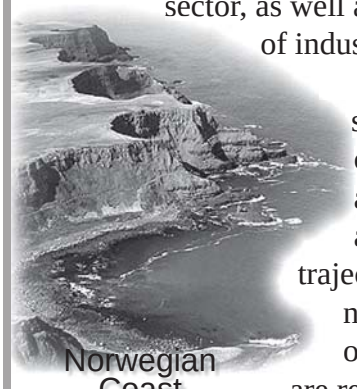
VOCABULARY

Landmass: large piece of land, such as a continent
Topography: the surface features of a place or region
Arable: suitable for farming
Lowland: land that is lower and flatter than the neighboring country
Plateau: flat plain rising sharply above adjacent land

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(defined mainly by Canada's 125,000 miles of beachfront property). Although it is surrounded by water on three sides, much of this length is derived from the thousands of inlets, bays, and natural harbors the coastal nations enjoy. Often, these countries have coastlines wildly disproportionate to their size. Norway, for instance, has an area of 148,746 square miles, ranking it at sixty-first in the world. Its continental coastline, however, is a long 15,626 miles, giving it a ninth-place ranking worldwide and its residents easy access to the water from nearly every point. Many other nations, such as Greece and the United Kingdom, share this curious reality, one that has held major ramifications for Europe's transportation sector, as well as an assortment of industries.





Like Europe's shape itself, the coastline follows an interesting and unhurried trajectory. The far northern reaches of Scandinavia are relatively flat and low-lying. Rounding the southern tip of Norway, the coastline is more dramatic and steeper, as Norway's trademark peaks descend quickly into the North Sea, especially in its southern regions. In the east, the Baltic Sea slices north into the landscape, washing on a much lower, calmer coast. On the European mainland to the south, the Baltic Sea meets a low fertile land scattered with deltas and river basins, occasionally causing flooding in Poland and Denmark, as does the North Sea, which borders Germany, the Netherlands, and Belgium. Just off the mainland, the United Kingdom has the thirteenth-longest coastline in the world, dominated by Great Britain's natural ports and inlets; in the north, the ocean washes on steeper ***topography*** than in the south. Neighboring Ireland is low-lying, while eight hundred miles north, Iceland crowns the Mid-Atlantic Ridge by rising dramatically out of the ocean (see Map B).

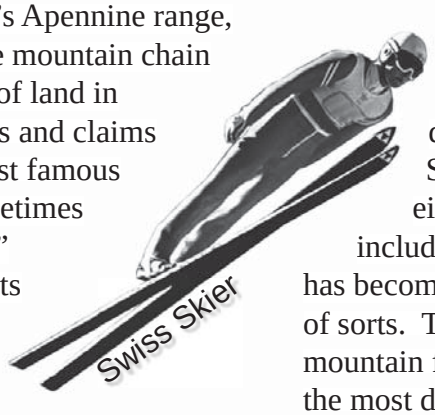
Europe's Mediterranean coast far exceeds its northern in both topographical diversity and population density. Spain's Baetic range traverses a path down to the water's edge in the country's far southern regions, and southern France is extremely rugged due to the Pyrenees Mountains in the west and the Alps' southern tip in the east. Further east, Italy's boot-shaped coastline is among the world's most recognizable features, carving out some 4,700 miles of water frontage from the



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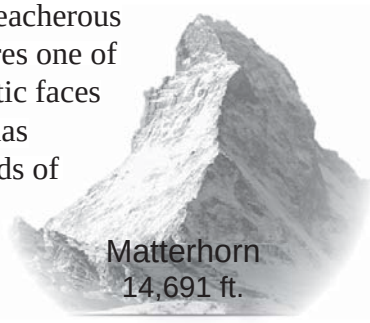
Mediterranean Sea. Italy's long, southeast-pointing peninsula is built on the backbone of the Apennine Mountains, which have rendered the picturesque tourist destination ill suited for agriculture and urban sprawl. To the east, Greece also has a mountainous terrain and encompasses a collection of 1,400 islands that propel its coastline to the tenth-longest in the world. In the far east, the peanut-shaped Black Sea is surrounded by low tidal basins, except on its eastern shore where the Caucasus mountains mark Europe's southeastern boundary.

Aside from its coastline, a glance at a topographical map will reveal that Europe's most striking feature is the hook-shaped mountain range known as the Alps in the mainland's southwest. Beginning at the northern tip of Italy's Apennine range, the continent's premiere mountain chain cuts through 600 miles of land in seven different countries and claims some of the world's most famous peaks. The region, sometimes termed the "Swiss Alps" because its highest points are overwhelmingly in Switzerland, is home to many of Europe's most profitable mining and cattle-breeding operations and, in recent decades, has become a requisite stop for countless European tourists, especially during the winter ski season.


Swiss Skier

Because the range links to the smaller Apennine Mountains in Italy, the southern boundary of the Alps is difficult to pinpoint. They are, typically, considered to begin in Italy and travel northwest into France, then turn northeast into Switzerland. This is the mountain range over which Hannibal led his elephant-mounted Greek army to invade Rome in the 3rd century BC. The chain continues through tiny Liechtenstein and Germany's southern edge before spilling into Austria and brushing Slovenia to the south. Often, Europeans and those familiar with the region refer to the Eastern and Western Alps, with the boundary on the Swiss-Italian border; the Western side is slightly shorter in length, but is higher, and includes the range's ten highest peaks. While they are dwarfed by some other large chains worldwide, such as the Himalayas and the Andes, these mountains are higher than the Rockies of North America: the highest, Mont Blanc in Italy, tops California's Mt. Whitney by 1,276 feet.

When treated in media, such as film and television, the Alps' Swiss and Austrian segments are often featured prominently because these nations are disproportionately mountainous. Switzerland boasts seven of the eight highest Alpine summits, including the famed Matterhorn, which has become a national and regional symbol of sorts. The treacherous mountain features one of the most dramatic faces in Europe and has claimed hundreds of lives since its first ascent, and has inspired rides at Disneyland and Disneyworld. A litany of novels and films have been set or filmed in the region: the 1965 classic, *The Sound of Music*, centers on the Austrian range, and other classics, like Johanna Spyri's 1880 novel, *Heidi*, feature the region prominently.


Matterhorn
14,691 ft.

In the mainland's north lies a land

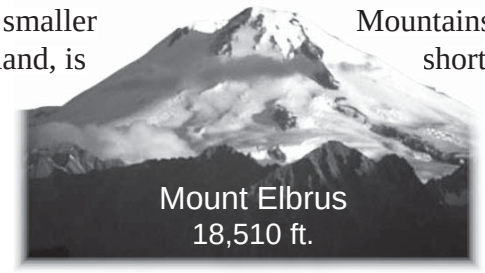
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that contrasts starkly with the dramatic slopes to her south. As the Alps give way to foothills and highlands, and the land gradually becomes more ***arable***, the European Plain slowly softens some of the outlying hill country, growing lusher and more fertile towards the northern coast. This table land stretches from the steppes of Russia in the east to the western coast of France, carving out a broad swath through the continent's belly. Following the natural arc of the continent, this largest European landform is roughly crescent-shaped in the west—Alpine uplands reach far into northern Germany—but blankets eastern nations with valuable farmland, keeping the terrain low and even. This low-lying topography is particularly intriguing in the far east: Belarus, for example, has a highest point of just 1,130 feet, a fact made more interesting given that the country is larger than the U.S. state of Minnesota. This is the region through which Napoleon Bonaparte led his French Army in the ill-fated attempt to conquer Russia. The severe Moscow weather led to Napoleon's defeat at Waterloo (see Map C).

Many large Western European cities are located in this massive ***lowland***, which is actually comprised of the East European Plain and the Northern European Lowlands. In the northwest corner of France, Paris has an altitude of 115 feet, while Amsterdam and Copenhagen are similarly low. Germany's Ruhr area and its capital Berlin are in this region; Luxembourg, which is slightly smaller than the U.S. state of Rhode Island, is situated entirely in the Plain. The feature carries across the English Channel to Great Britain, where the nation's fields are home to agricultural endeavors and livestock raising.

Outlying areas away from the bulk of Europe have widely divergent terrain. Spain and Portugal are highland nations dominated by the Meseta Central, a ***plateau*** that covers nearly half of Spain and much of neighboring Portugal. The Pyrenees Mountains on the Spanish-French border include some high summits, such as Aneto, as does the Baetic range to a lesser extent. To the north, Great Britain is split by the Highland Boundary Fault, separating the southern plains from the Scottish plateaus and moors. Neighboring Ireland is largely low-lying, especially near its capital, Dublin.

Across the European continent, the Mediterranean nations are generally more mountainous than lands north, with the exception of Romania, which is scarred by the Carpathian range. The nations on the Greek Peninsula are, like Italy, formed along the spine of the Pindus Mountains. At the end of its namesake cape, Greece and its islands jut out into the Mediterranean, providing a breathtakingly scenic backdrop for the millions of tourists it entertains each year. These are the islands from which Alexander the Great began his quest to conquer the world in the 4th century BC. In Bulgaria, two small mountain chains, the Balkans and the Rhodopes, overshadow the country, but north in Moldova and Ukraine the terrain is relatively smooth, owing to the European Plain's influence. Countries further east are generally low, especially Kazakhstan, all the way to the Ural Mountains. In the southeast, the short Caucasus Mountain range rises higher than even the Alps, with peaks as high as Mount Elbrus; countries here lie


Mount Elbrus
18,510 ft.

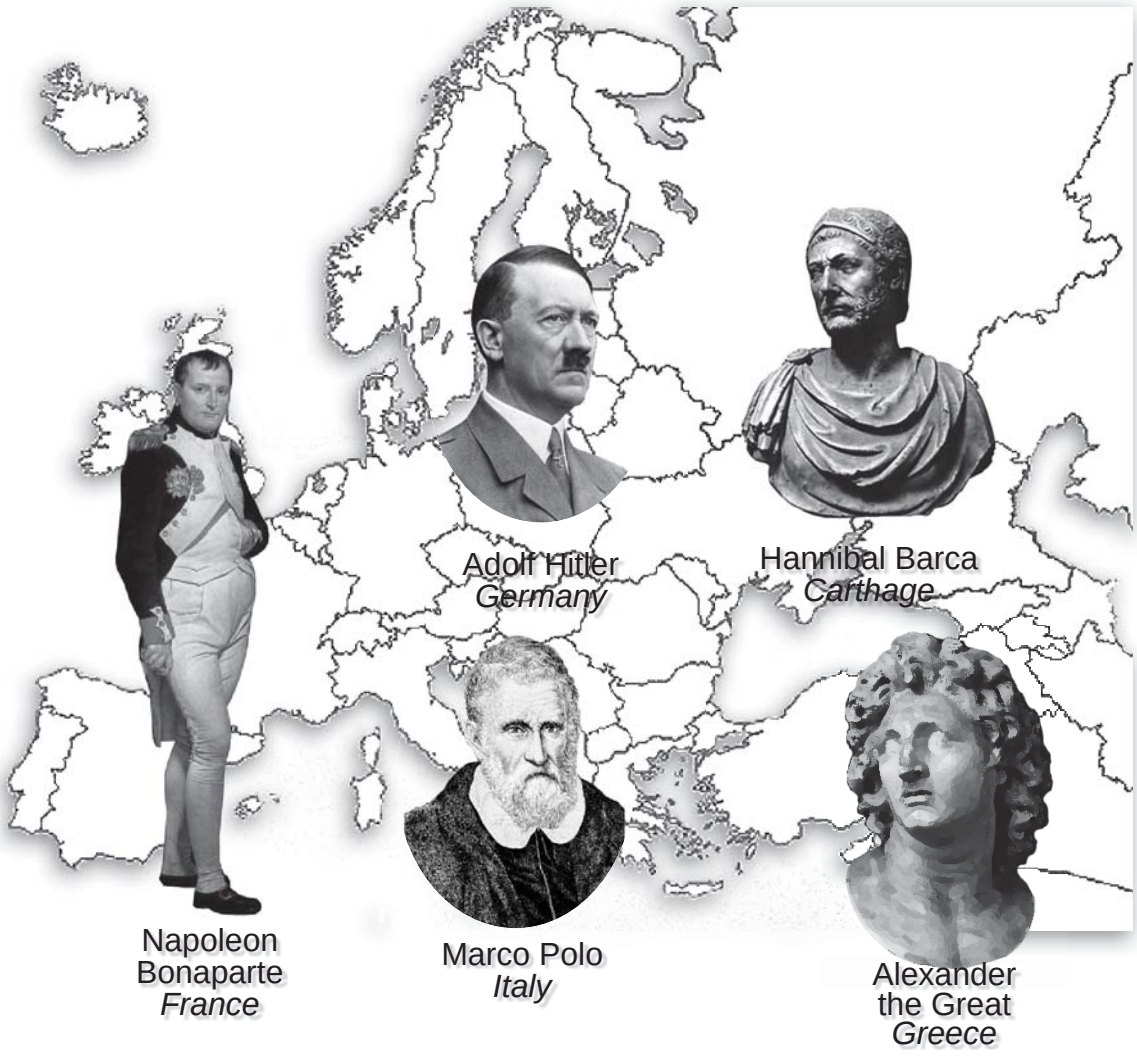
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at the meeting point of this and the Pontic chain, and are, consequently, extremely rugged. This is the region through which Marco Polo traveled in the 13th century on his famous trip to open trade with India and China. Scandinavia is, likewise, close to the water, with the exception of the far west.

Life Principle

I feel the greatest reward for doing is the opportunity to do more.

- Jonas Salk



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World Geography

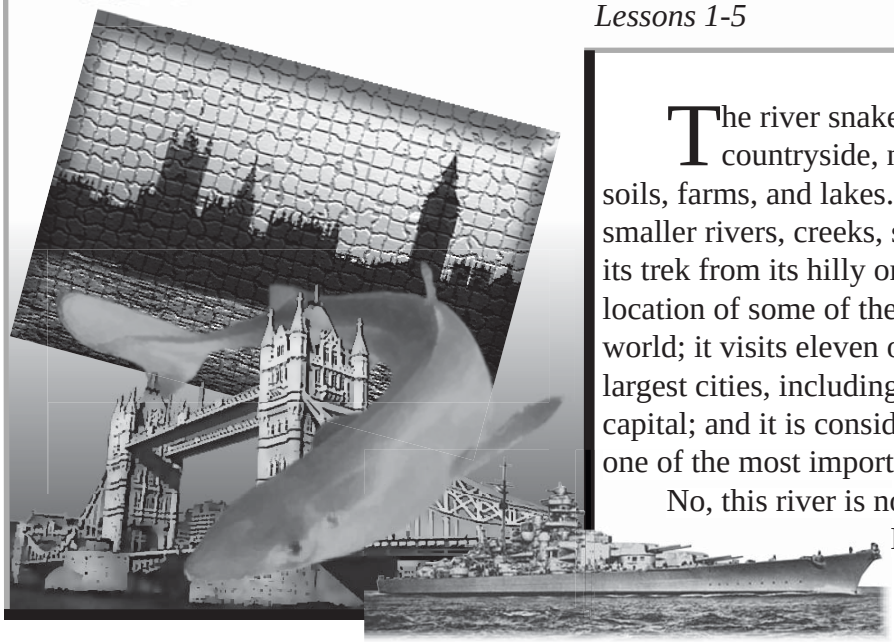
Chapter 3



Lesson 3
Bodies of Water



Section 1
Lessons 1-5



The river snakes through 2,000 miles of countryside, nourishing and feeding soils, farms, and lakes. It spawns hundreds of smaller rivers, creeks, streams, and ***tributaries*** in its trek from its hilly origins to the sea. It is the location of some of the largest reservoirs in the world; it visits eleven of its host nation's twenty largest cities, including its world-renowned capital; and it is considered the national river of one of the most important countries on Earth.

No, this river is not the lengthy Nile in Egypt or South America's colossal Amazon, or even the mighty Mississippi. It is the Volga, the longest river in Europe and among the largest in the world. It is a river whose name conjures up blank stares and head scratching from many Westerners, because it owns no world records and wins no contests. Yet this waterway, which derives its name from a Slavic word meaning "humidity" or "wetness," is among the most significant in Eurasia because of its length and breadth, and, ultimately, its role in the land it calls home. It is located in western Russia in the oblast—the Russian equivalent of a state—of Tver and discharges into the Caspian Sea, is 2,294 miles in length, and drains a 533,000 square mile swath of countryside, providing fertile deltas and farmland to the parched steppe. The river is the largest in Europe by length, ***watershed***, and discharge, and is unique in that its mouth at the salty Caspian Sea is actually ninety-two feet below sea level (see Map C).

The Volga, however, is not atypical on the European mainland. Like its coastline, Earth's sixth-largest continent features a fascinating and varied system of seas, lakes,

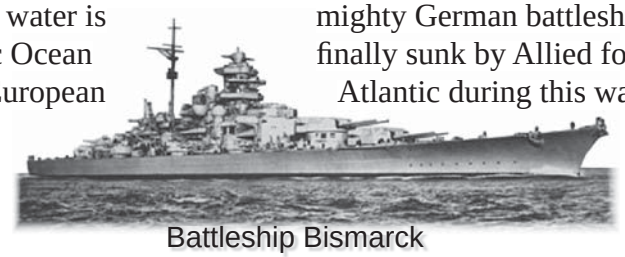
VOCABULARY

Tributary: river that flows into a larger river
Watershed: the region drained by one river system
Meromictic: characterized by a lack of mixing of surface and deep waters
Brackish: water with higher salinity than fresh water, but less than sea water
Navigable: deep and wide enough to provide passage to ships

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bays, rivers, and streams that provide water for most of the largest cities and offer a diverse collection of vegetation, wildlife, landforms, and opportunities for Europeans.

Glance at Map C of Europe, and the most obvious body of water is the sprawling Atlantic Ocean into which the giant European peninsula juts. The Atlantic Ocean is the second largest in the world and connects with the majority of Europe's seas and bays, draining several major rivers, as well. Although only six nations border the Atlantic Ocean proper, most of the continent's nations have water access to the ocean through a series of bays, straits, and canals. Indeed, some of Europe's largest metropolitan areas sprang up precisely because of the ease of access to the Atlantic—cities such as London, Dublin, Lisbon, and Oslo. The Atlantic Ocean holds immeasurable importance to Europeans, who depend on it for shipping, particularly to the Americas; food, both the fish and the land wildlife that live near it; transportation; recreation; even its climate. Northwestern Europe's temperatures are moderated by the warming Gulf Stream current, which brings warm air from Florida and the Caribbean to the British Isles and into Scandinavia.

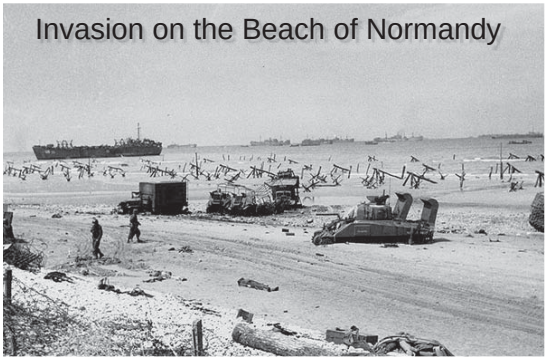


Battleship Bismarck

Throughout history, great military encounters were fought on the seas and oceans along Western Europe. The Spanish Armada was devastated by a severe Atlantic storm in 1588. The Normandy beaches were the site of the world's largest sea invasion, during which Allied forces crossed the English Channel to attack German forces occupying France in World War II. The mighty German battleship *Bismarck* was finally sunk by Allied forces in the North Atlantic during this war, as well.

Aside from the expansive ocean waters, however, Europe's many seas contribute substantially to the region. The Mediterranean Sea, which covers nearly a million square miles in dividing the continent from Africa, has birthed an entire culture on its bordering lands and is considered central to the study of human origins and of Western civilization, especially.

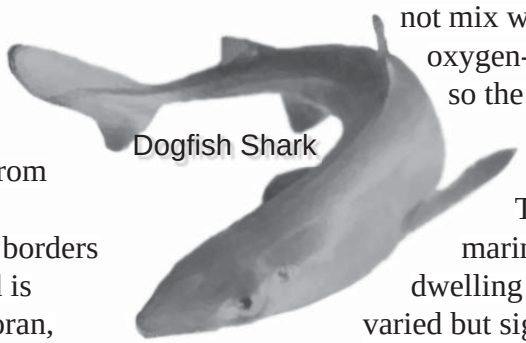
Many geographers, historians, and other researchers agree. "For the three quarters of the globe, the Mediterranean Sea is similarly the uniting element and the center of world history," writes Georg Hegel in his century-old volume, *The Philosophy of History*. The region, which many vacationers consider among the world's most exotic and pristine locations, gave rise to the ancient Greek and Roman civilizations, upon which modern Western society is primarily based. Two thousand years ago, the governmental and economic ideas—largely democracy and capitalism—in this region were radical and revolutionary, and today the Mediterranean Basin region continues to be among the world's most important cultural, economic,



Invasion on the Beach of Normandy

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and financial centers. This is the historic region where the Hellenic Wars were fought and where Roman ships controlled commerce from Africa to Asia.


Dogfish Shark

The Mediterranean Sea borders twelve European nations and is divided into the smaller Alboran, Balearic, Ligurian, Adriatic, Ionian, and Aegean Seas, and the Sea of Marmara. It is, on average, about 4,900 feet deep, although its deepest point reaches 17,280 feet in the Ionian Sea, and it connects to the Atlantic Ocean via the Strait of Gibraltar, which measures only nine miles wide at its narrowest point near Spain. It is home to a rich variety of fish and other wildlife, including large bottlenose dolphin and octopus populations. The fishing industry prizes the area for its swordfish and catfish. The loggerhead turtle, a threatened reptile and one of the Portuguese Man o' War's only predators, lives here.

The Black Sea is second-largest among Europe's inland seas, stretching across 168,000 square miles of territory in the southeast. Constrained by Russia, Turkey, and several former Soviet nations, its shape resembles a peanut and it connects through the Sea of Marmara to the greater Mediterranean Sea, into which it dumps more water than it receives back. There is some uncertainty concerning how the Black Sea got its name; some explanations suggest that it is due to the water's high algae concentration and low visibility, while others propose that it had to do with ancient and more complex naming conventions.

The Black Sea is the largest ***meromictic*** basin in the world, and as such has several unusual characteristics. Bodies of water of this kind have deeper waters that do not mix with the higher, oxygen-receiving waters, so the deeper waters lack oxygen that life needs to survive. This has limited marine life to surface-dwelling species, which are varied but significantly fewer: various kinds of stingrays, spiny dogfish sharks, and beluga. Below about 650 feet, where the last traces of oxygen stop, only simple, bacterial and microbial life exists, gathering oxygen from organic litter and other material. These deep regions are also considerably more saline than the surface; salt concentrations reach almost oceanic levels, a fact that owes to the Mediterranean inflow and the lack of fresh river water and precipitation permeating the Black Sea's depths (see Map C).

Other seas in Europe maintain their own wildlife, cultures, industries, and economic benefits. The Caspian Sea, often considered the world's largest lake for its lack of an outlet, lies at the extreme eastern edge of Europe and is bounded by Russia and Kazakhstan in Europe. It sits at ninety-two feet below sea level and drains Russia's Volga River, and its salinity is about one-third of ocean levels, which is high for an inland sea.

In Scandinavia, the Baltic Sea is sometimes regarded as the world's largest ***brackish*** body of water, carving a path north from Germany up through Sweden and Finland. The water covers 145,000 square miles, and nearly half of its surface freezes in winter, providing habitat for seals and other cold-climate animals. The region is home to many shipbuilding companies and serves as an export highway for Russian goods, especially oil. Also in the

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north, the Barents Sea girds the northern edges of Finland and Russia, as does the Norwegian Sea to the west of Norway. The North Sea, between Norway and Great Britain, claims the busiest shipping waters in the world (Map C).

The Volga is Europe's longest river; it tops a long and extensive river system throughout the continent. The Danube ranks second in length but is, the better known river, trekking through ten countries and the cities of Vienna, Bratislava, and Budapest en route to its mouth at the Black Sea. Its basin covers an area of 315,000 square miles, or nearly twice the size of California, and it receives water from dozens of smaller rivers and tributaries, many of which are themselves major waterways. By way of Germany's Rhine-Main-Danube Canal, shipping vessels can travel from the North Sea to the Black Sea, an opportunity that has dramatically increased the river's ship traffic (Map C).

Other European rivers are significant as well. The Ural River comes in third in length and traverses southwest Russia and Kazakhstan from the Ural Mountains to the Caspian Sea. At 1,500 miles long, this heavily traveled waterway forms the boundary between Europe and Asia but drains a smaller area than other rivers of equal length. The East's Dnieper River originates in Russia, cutting through Belarus and Ukraine's capital of Kiev before emptying into the Black Sea. It is ***navigable*** along nearly its whole length, making it an important shipping route in the region. Further west, the Rhine is Germany's longest river, though it actually touches five countries between its source in the Swiss mountains and its mouth in the North Sea. Also largely navigable, this river once formed a boundary for the Roman Empire and in the Middle Ages served as a geographical and political border, also sparking the establishment of many towns and cities. Some of Germany's largest urban areas—Düsseldorf and Cologne—are situated on the Rhine's banks (Map C).

In Poland, the 650-mile Vistula draws a basin that includes over half the country, serving population centers as a shipping route and a natural boundary. Spain's Ebro River dumps its massive volumes of



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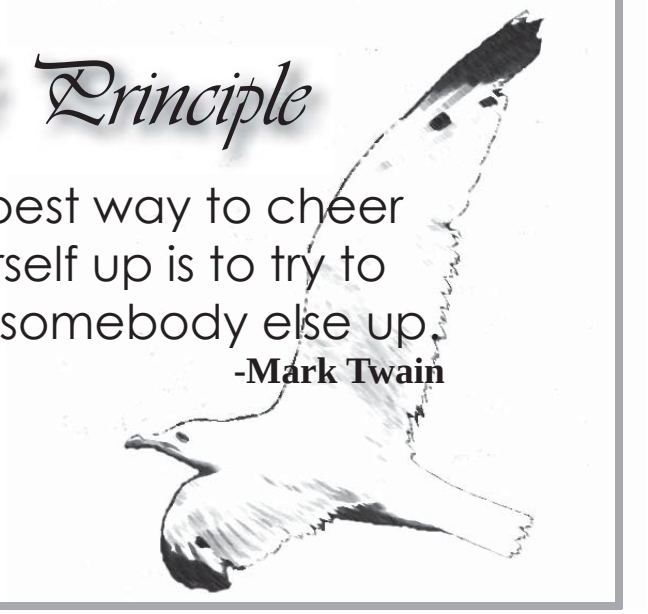
water into the Mediterranean in the nation's east, though its delta and discharge is currently being threatened by natural climactic change and increased irrigation. In Britain, the famous Thames River flows through London, and in Paris, the Seine River provides an invaluable shipping channel, as well as a scenic backdrop for one of the West's cultural hotspots. This river, which has been depicted in countless films and television programs, boasts exceptionally good water quality, particularly for a river that cuts through a major world city.

This is only a cursory examination of Europe's water bodies. Other important rivers, such as the Loire in France or the Tisza in Eastern Europe, contribute vitally to their regions' geographic, economic, cultural, and ecological livelihoods. These bodies of water form the backbone for the continent's varied hydrological system, which is as rich and diverse as the residents who call these waterways home.

Life Principle

The best way to cheer yourself up is to try to cheer somebody else up.

-Mark Twain



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World Geography

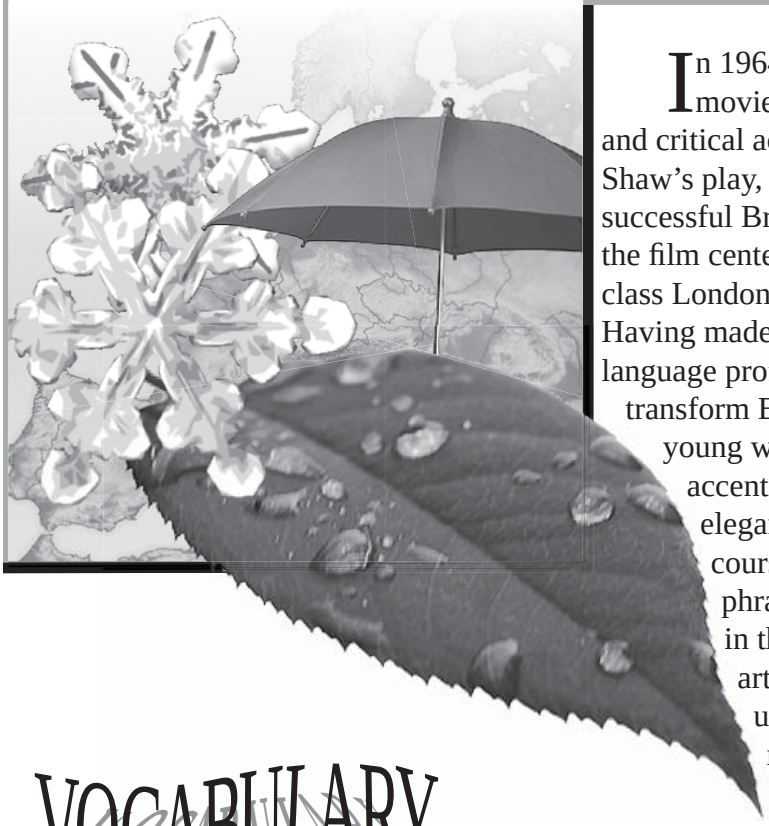
Chapter 3



Lesson 4
Climate and Precipitation

Section 1
Lessons 1-5

Climate and Precipitation of Europe



In 1964, Warner Brothers released the movie *My Fair Lady* to instant popular and critical acclaim. Based on George Bernard Shaw's play, *Pygmalion,* and adapting the successful Broadway musical of the same name, the film centered on Audrey Hepburn as lower-class London flower seller, Eliza Doolittle. Having made a bet with a friend, eccentric language professor Henry Higgins attempts to transform Eliza into a cultured, upper-class young woman by refining her speech and accent, which he claims is the key to elegance and social standing. In the course of her training, Eliza repeats the phrase, "The rain in Spain stays mainly in the plain," ultimately improving her articulation but carrying other quite unexpected consequences. Upon the movie's success, the phrase entered the vault of classic American movie lines, immortalized by the sweet tones of the young actress who spoke it and propelling European weather to the forefront of a generation's consciousness.

In truth, the rain in Spain does stay mainly in the plain, concentrated largely in the north, west of the Pyrenees. Spain, like the rest of Europe, has a diverse climate with dramatic differences between neighboring regions, a fact that owes to its topography and proximity to the sea. This wide variance has created distinct opportunities and challenges, alike for the continent's fifty nations, and has allowed for the population and flourishing of an area that, in some respects, seems inhospitable to large-

VOCABULARY

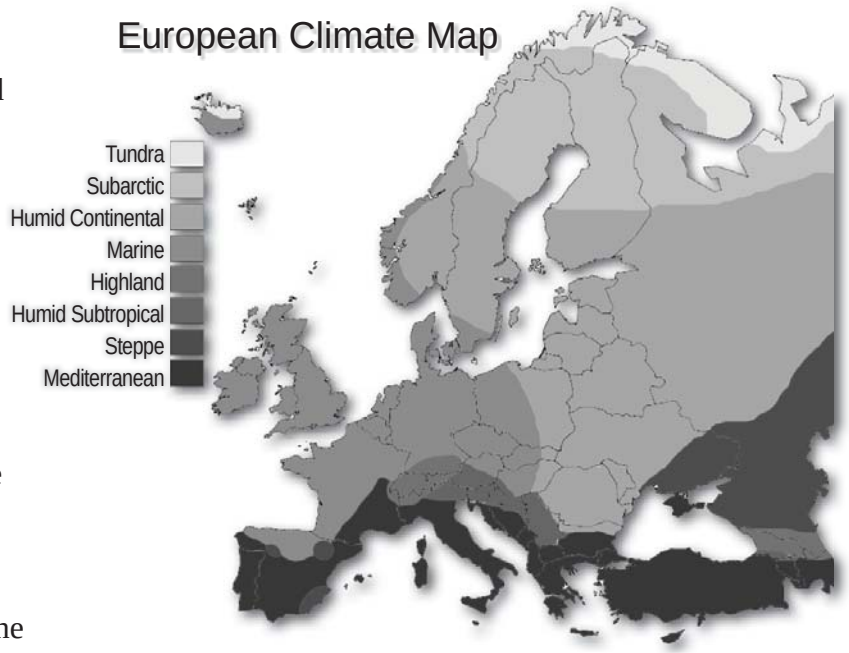
Climatologist: person who studies climate
Tundra: vast treeless plain in the arctic regions, usually characterized by permafrost
Taiga: cold semi-permanently frozen region south of the tundra
Aurora borealis: bands of light appearing in the northern sky at night; northern lights

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scale human settlement. Understanding the climate can unlock knowledge and insight concerning many aspects of European life, from settlement trends to economic activities, from linguistic regions to the cultural realities at play.

When geographers, ***climatologists***, and other researchers study climates around the world, they use a system of terminology that has been standardized and applied equally to one continent as to another. The terms are not extremely specific—the ***tundra*** in Russia, for instance, may look vastly different from the tundra in Canada, but both are, nonetheless, tundra—rather intending to provide broad ideas of a region's average temperatures, humidity, precipitation, and winds in order to group like zones together. The terms in this chapter reflect that standardization, and although they do not provide a perfect snapshot of any area's climatological realities, they do describe and explain the primary forces at work in shaping the region.

Essentially, Europe has eight different ***climate zones***, although only five are widespread. The northwestern portion of the continent, from the British Isles to around central Poland and central Hungary and excepting the Alps, is marine, with regularly high humidity and frequent precipitation. The eastern half, following a line from northern Moldova up the Black Sea coast, into Ukraine and Russia, is humid continental—this region is far from the sea, but enjoys at least minimal rainfall

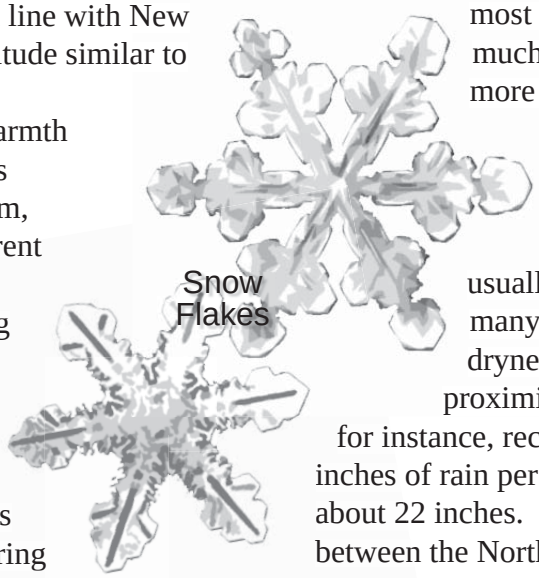


(the actual amount varies considerably, but is enough to support large-scale life and vegetation). Most of southern Scandinavia falls into this zone. In eastern Ukraine and southwestern Russia, including the countries near the Caucasus Mountains, the steppe is semiarid, cool and changing to more desert-like conditions. In the Mediterranean Basin, including Portugal and southern Spain, the climate is Mediterranean, warm and alternately humid and dry. In a narrow crescent stretching from Italy eastward to Serbia, a humid subtropical climate dominates, with warm weather almost year-round and increasing humidity. The Alps just north of this and the Caucasus range in the east have a highland climate, a designation for mountain elevations that implies cold temperatures, high winds, and often heavy snowfall. In northern Scandinavia, the semi-permanently frozen ***taiga*** is subarctic, with correspondingly low temperatures and limited life forms, and in the extreme north the land is tundra, permanently frozen and with even less biological diversity (Map C).

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The fact that Europe is so densely populated at all is intriguing, considering its relatively high latitude. When compared to America, European countries, and especially major population centers, are considerably farther north, many with climates that do not immediately correlate to their high latitudes. Barcelona, Spain, for example, is in a Mediterranean climate zone, with summer highs in the eighties and winters that seldom see freezing temperatures. Yet it is on the same latitude as Cleveland, Ohio, which regularly endures snowy winters and has an average January high of only 34°F. Other cities experience the same phenomenon: London, with warm, humid summers and cold but tolerable winters, is farther north than Calgary, Alberta, home to uncomfortably cold winters and severe blizzards. Remote Reykjavík, Iceland, the world's northernmost capital city, experiences weather in line with New York City despite a latitude similar to Nome, Alaska.

The key to this warmth at such high latitudes is the Atlantic Gulf Stream, an immense ocean current originating in the Gulf of Mexico and bringing warm air and waters across the Atlantic to Western Europe. The Gulf Stream moderates temperatures in these regions, rendering much of Western Europe comfortable when otherwise it would be relatively cold. This temperate air current warms the continent and waters around it, and it is, perhaps, the single most important element of Europe's rich and variegated climate (Maps B and C).


Snow Flakes

The Gulf Stream's influence extends hundreds of miles inland, as the ***marine*** climate zone covers the British Isles, southwestern Norway and Sweden, most of France and Germany, northern Austria, the Czech Republic, and on over to a roughly north-south line just east of Budapest, Hungary. Characterized by warm, humid summers and mild winters, this region seldom experiences prolonged freezing periods and undergoes less dramatic temperature swings than areas farther inland. In mainland Europe—and even in the British Isles, though it is less common in Scandinavia—summer temperatures can, occasionally, reach 90°F.



Precipitation is common year-round, but the wet season is usually in summer; this, however, varies by country, as Denmark tends to receive the most rain in the fall, while much of Germany receives more rain during spring and summer's early months. Despite the high frequency of precipitation, rainfall is usually light and sporadic, so many areas tend toward relative dryness considering their proximity to the coast. London, for instance, receives an average of 23 inches of rain per year, while Berlin gets about 22 inches. Even Denmark, wedged between the North and Baltic seas, receives only around 24 inches annually.

As with any region, however, the marine climate zone does not represent a fixed, static condition, but rather a set of influences, such as distance from water, elevation, and surrounding landforms, that systematically affect unpredictable and

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changing weather patterns. Instinctively, the area, like many, is marked by an increasingly ***continental*** climate, both farther inland and at higher elevations. Central and southern Germany are more hilly than the north—the Alps run through Germany's far southern regions. Consequently, this region displays less precipitation and wider temperature variations. Eastern Austria, though technically marine, exhibits characteristics of highlands regions—lower temperatures, moderate winds, and regular snowfall. The Czech Republic, likewise, buffered by the Alps to the southwest and several hundred miles from the sea, features more of a continental than a marine climate, with hot summers, cold—and at higher elevations, snowy—winters, and greater precipitation in the mountains.



East of this region stretches the humid continental zone, whose seasons are not so forgiving, which displays weather patterns more familiar to North Americans. This swath of land reaches from central Poland and Hungary east to the Ural Mountains, south to Bulgaria, and follows a diagonal line through Ukraine into Russia, excluding southwest Russia and the Caucasus region. It encompasses all of non-marine southern Scandinavia and the nations east of the Baltic Sea. These regions have mild to warm summers and cool to cold winters, with northern and more inland areas understandably cooler (see Maps B and C).

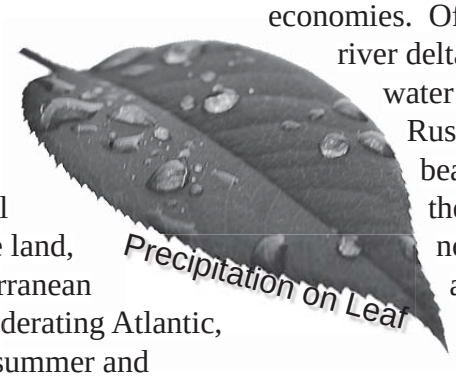
Because of the zone's size, however, the divergent conditions that characterize the marine region are even more pronounced here. Romania and Bulgaria border on the Mediterranean zone, which is similar to ***subtropical*** regions. These areas receive considerable rainfall—around 30 inches per year in much of Romania—and hot summer months with only cool winters. While Romania has developed a fledgling skiing industry, colder weather and regular snowfall is found primarily in the higher elevations rather than throughout the country, and the Balkans' influence there, and in neighboring Bulgaria, seems to be somewhat limited. On the other hand, Belarus, Europe's second-largest landlocked country (to Kazakhstan), sees July averages in the 60s and 70s, while January temperatures can linger below freezing for weeks. The nation is flat and scattered with marshes, its highest point only 1,130 feet, so prevailing continental winds cool the land throughout all seasons.

Other areas display different climatological trends. Russia's capital, Moscow, annually averages around 27 inches of rain and has mild, humid summers and extremely cold winters. Snow falls up to five months a year, and subzero temperatures from December to March are not uncommon. Warsaw, Poland is not quite as harsh as Moscow, but has long, cold winters and mild summers, as well, with only 17 inches of rain per year. Oslo, Norway, which is inside the Arctic Circle and through winter months receives only six hours of sunlight per day, is cool, though like much of Scandinavia is warmed by the Gulf Stream and does not endure bitingly cold winters (see Map C).

To the southeast, the Russian steppe is dry, not parched enough to be considered desert but too much so to support trees and large plant life. The region, covered by dirt and sand and small, drought-tolerant shrubs

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and grasses, is confined to eastern Ukraine and the Caucasus countries (excluding the higher mountains themselves), Kazakhstan, and most of southwest Russia, ultimately spreading all the way to Mongolia in Asia. It is here that Europe sees some of its widest seasonal temperature variations: the land, outside the path of Mediterranean winds and far from the moderating Atlantic, can easily reach 100°F in summer and drop below freezing in winter, with greater extremes in certain locations. Astana, in eastern Kazakhstan, for instance, is generally considered the second-coldest national capital in the world and yet endures extraordinary heat in the summer: the highest temperature on record in the city is 108°F, while a wintertime low of -62°F has been recorded as well. The southwest Russia commercial hub of Volgograd mirrors the trend, with July highs in the eighties and January lows in the teens.


Precipitation on Leaf

Scarce precipitation in the steppe is the rule, with most areas receiving under 20 inches in rain or equivalent snowfall per year. Snowy winters are typical, particularly in the highlands regions near the Caucasus, though they are less common near the Black Sea where the Mediterranean's influence is more acute. Although the climatologist would be hard-pressed to define a "wet season" in this semiarid land, summers generally bring a slightly better chance of rain than do winters—in the summer, there is greater clash between cold and warm air masses, and winter snows are typically dry.

Paradoxically, some steppe soil is supportive of large-scale agricultural production despite the land's apparent austerity. In Russia and Ukraine, grain and other dry-climate crops are harvested regularly. This industry contributes substantially to local and national economies. Often, this is due to rivers and river deltas that snake through and water the countryside: Astrakhan, Russia, near Volgograd and bearing the distinction of being the driest place in Europe, nonetheless enjoys a thriving agricultural sector, facilitated by the colossal Volga Delta (see Map C).

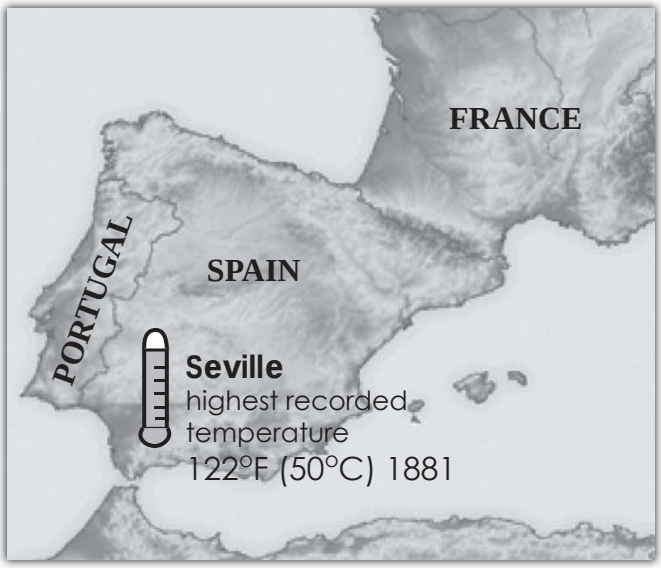
At 15,940 square miles, Switzerland is a small enclave in many ways and is among the most mountainous nations in the world—and climatologically, it is almost entirely in the highlands zone, which extends into southern Germany and Austria, as well, and also touches Italy and France. Indeed, this small segment of land, coupled with the Caucasus Mountain range, are Europe's only highlands areas in regard to climate, and they display climate patterns stunningly similar to other mountain regions worldwide. Temperatures here are cold, with winds increasing further into the mountains, and precipitation is highly dependent on proximity of nearby mountains. In the Alps, Zürich, Switzerland, a decidedly highland city, enjoys a temperate climate, with summer highs near 75°F and winter lows around 25°F. In the west, Geneva also has mild seasons—bearable winters and pleasantly warm summers.

In the Caucasus range, the situation is a little more localized. Heavy precipitation in Georgia and just north breaks the steppe, caused by polar air masses that cannot pass the mountains and dump their contents here. On the range's southern slopes, however, in what is technically Asia, the land is dry and

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continental, with somewhat warm summers and cooler winters. This is because the air that most often invades the area comes down from Scandinavia and the Baltic, chilling the region. The mountains, which are oriented almost directly east to west, effectively block this cool air and moisture from the south, which are appreciably drier and hotter than lands just north. Armenia and Azerbijian, then, have more subtropical and Mediterranean climate features than Georgia, which still lies in the steppe. In the mountains themselves, the weather is cold and windy, with varying degrees of precipitation.

The region reaching from Portugal through most of Spain, along the Mediterranean coast to include Italy, and all the way to the Greek Peninsula, technically constitutes two climate zones, although they are really so much alike as to resemble one. The Mediterranean zone, which accounts for most of it, is warm, alternately wet and dry, and sunny most of the year, while just above it the humid subtropical zone shows slightly more diverging winter and summer temperatures, as well as generally higher precipitation totals. Summer temperatures can be very warm, with the highest temperatures found further inland, and winters are, typically, mild and wet. In this aspect, the Mediterranean climate zone differs from much of Europe: summers can be extremely dry, with several months in a row with no rain, while winters can bring sustained rainfall or wet snowfall, depending on elevation and location.



Because the Mediterranean area is somewhat large, however, actual conditions vary from place to place. Most of Spain has a Mediterranean climate: Europe's highest recorded temperature was in Seville (122°F in 1881), and large sections of the country stay above freezing almost year-round. In northern Italy, on the other hand, cities in the shadow of the Alps are cooler, with mild summers and occasional winter snowfall. In places without snow, humidity is usually high in the winter, collecting water to nourish native plants and vegetation through the scorching summer months (Maps B and C).

Most of Scandinavia earns the subarctic or tundra designation, the distinction being the soil's freezing status. Tundra typically refers to ground that is permafrost, while subarctic areas may be frozen part of the year, but not year-round. In reality, only a small percentage of Scandinavian land is actually tundra—the extreme north, including the Norwegian island of Svalbard; the tip of Russia and northern Iceland are also permanently frozen. Connecting these zones, however, is a barrenness and insuitability to most life. It is harsh and cold for much of the year.

In Norway and Sweden, the subarctic region begins at about the midway point

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north, while more northerly Finland is mostly subarctic. Summers can be pleasant here—Oulu, Finland experiences average July highs of 70°F—but, generally, winters are long and harsh, with extended periods below freezing. Near the coast the effects of cold are diminished, while they are amplified greater inland, and across flat stretches the biting polar winds can be nearly as dangerous as the temperatures themselves. These lands are located within the Arctic Circle: daylight is short in winter and long in summer, producing expected accompanying temperature changes. Snowfall is common, unquestionably more so inland where the warm Gulf Stream cannot penetrate.

In the tundra, such as on Svalbard and in central and northern Iceland, life, both human and otherwise, is scarce, winters are harsh and summers brief. At these high latitudes, the ***aurora borealis*** presents a spectacular nightly display for the few brave inhabitants who choose to live there.


Aurora Borealis

Life Principle

Only the educated are free.

- Epictetus



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World Geography

Chapter 3

Lesson 5
Vegetation and Wildlife

Section 1
Lessons 1-5

Vegetation and Wildlife of Europe



Students of geography often find that many aspects of a country or a region do not exist in vacuums; they are closely intertwined with each other. Just as a nation's political and economic realms, for example, are codependent on one another, typically painting a unified picture of its values and ideals, geographical realities frequently display a cause-effect relationship. This is especially true in the study of terrain, climate, and vegetation—a region's highs and lows, coupled with climactic patterns, largely determine the plant life that can grow in it. Among the direct consequences of Europe's widely varying topography is a plentiful and diverse land of vegetation that changes rapidly from place to place. This important result of the continent's terrain serves as its own cause, in that certain vegetation attracts certain wildlife. Just as Europe's plants owe their existence largely to the terrain, many species throughout the continent flourish because the vegetation serves as habitat or food. The plant and animal life found in Europe is not merely a trivial curiosity, but is of utmost importance to population patterns, urban growth, national boundaries, economic industries, and inestimable other fields. The continent has several distinct ***biomes***, and each contains a bountiful and vibrant world of trees, grasses, shrubs, marshes, birds, fish, mammals, and other life.

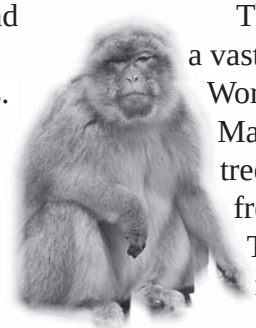
The southernmost of these zones is the Mediterranean Basin. Similar in climate and topography to regions in California and other temperate biomes, the zone covers the bottom half of Spain and snakes its way along the Mediterranean coast to include much of Italy and the

VOCABULARY

Biome: self-contained vegetation and wildlife zone with unique characteristics
Shrubland: region characterized by low, woody plants
Savanna: treeless or sparsely treed plain
Steppe: extensive, treeless plain
Lichen: moss-like plant that grows in patches on rocks and trees
Hardening: biological alteration in far northern trees to make their bark more cold-resistant

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southern Greek peninsula. Far from the chill of the northern tundra, this region enjoys a warm climate with mild, rainy winters and hot, dry summers. Inland Spain, in particular, can experience summers with numerous 100°+ days. Despite usually high humidity and regular rainfall, some agricultural areas, such as in Spain's Meseta Central and inland Italy, require extensive irrigation systems during the summer to support agriculture.


Barbary Macaque

Plant life in the Mediterranean is extremely varied, depending on climate and elevation. Near the coast, grasslands and ***shrublands*** dominate, as the salty sea air and poor soil quality limits larger and more complex vegetation. Many of these shrubs are evergreens, while others are low and soft-leaved, and their roots are generally shallow, effectively capping their growth. In most areas, this low and scrappy vegetation is the only kind that can thrive in the environment, but logging and clearing for commercial development have pushed tree lines further north from the coast, leaving only the persistent shrub growth. ***Savannas*** are common where the climate is less arid, such as in parts of Spain, and traveling north, trees become more common. Perhaps the most famous Basin plant is the olive tree, which thrives in this tough ecosystem and is cultivated here more than in any other area; but other trees, including pines and oaks, are scattered throughout the landscape, giving way to evergreens in higher elevations. Because of the intense summer heat and strong Mediterranean winds, the land is prone to widespread fires, though these fires have been somewhat controlled near population centers, often to the detriment of local plant and animal life.


Evergreen Tree

The Mediterranean Basin supports a vast array of indigenous wildlife. Old World monkeys, such as the Barbary Macaque, can be found swinging in trees, and numerous goats wander freely through its coastal regions. The mouflon, which is closely related to numerous other sheep species, resides in mountains throughout the region, and many varieties of rodents make their home here. Sadly, several of the area's best known species owe their fame to their dwindling populations. The Iberian lynx, a carnivorous mammal that was once widespread here, is now considered the rarest cat in the world, and the Mediterranean monk seal numbers only about four hundred individuals. These rare breeds are threatened by hunting, habitat loss, collisions with vehicles, and other human-related dangers.

The Mediterranean region is bordered to the north by a series of mountain ranges that separate its warmer climate from cooler zones. Across these mountains lies the temperate deciduous region, Europe's largest vegetation expanse by far and a widely varying area. It spans the entire length of Europe's mainland as far as Russia, dipping south to include the Greek Peninsula and covering much of Ukraine and Moldova. The climate here can range from bitterly cold and wet to warm and dry, although the distinctions are not always intuitive—some southern countries near the Alps are actually significantly colder than northern nations, whose temperatures are moderated by the Atlantic's Gulf Stream. Irrigation is common in places, but most areas,

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even inland, receive plentiful rainfall and moisture (see Map C).

This temperate, deciduous region is marked by woodlands and forests and is very similar to North American vegetation zones in the same latitudes. Beech, fir, oak, pine, and spruce trees all thrive here, and the wetter areas tend to exhibit thicker and more widespread tree cover. In Western Europe, much of the land is sparser, and farms and ranches producing wheat, oats, and corn are common. Where cities have sprung up the trees have predictably dwindled, although the vast majority of central and northern Europe remains lush or heavily forested. Along higher altitudes, such as the Alps and portions of Southern Germany and Poland, deciduous trees give way to evergreens and conifers, which are heartier and can better withstand the harsh cold and wind. Also prevalent in northeastern countries, these trees are a valuable source of soft wood and are harvested liberally for lumber and paper.

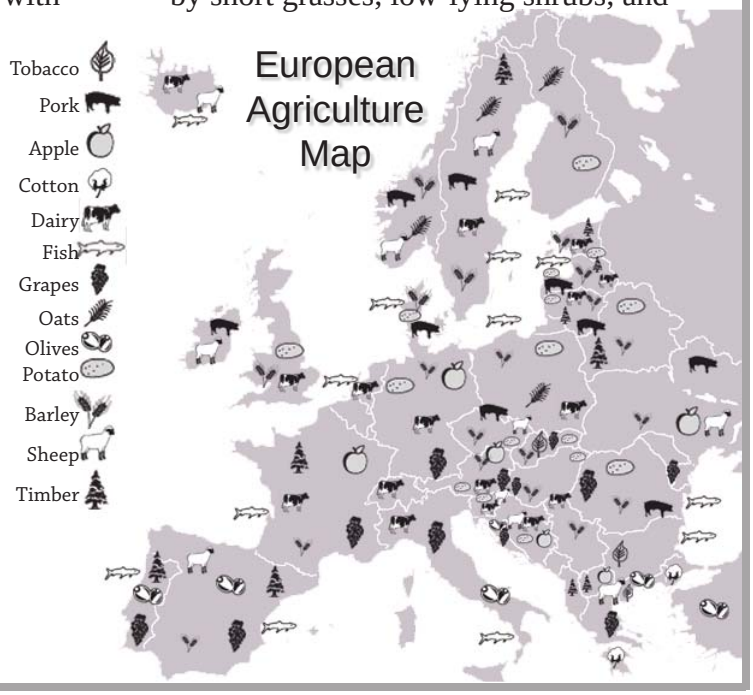


Europe's animal distribution mirrors North America's to a large extent, with woodland mammals and bird species occupying its forests and continental areas. Deer are as prevalent as they are in the United States, and smaller mammals, such as foxes, jackals, hedgehogs, and rabbits, maintain large populations. Vipers and other reptiles, like frogs and lizards, are spread throughout, while brown bears and wolves can be found in higher elevations, although they are more common in Russia and the Baltic nations. Marmots and large rodents are also prevalent through wide expanses of the region.



Venture into the southwest edges of Russia, and you will find the Great Steppe. The largest ***steppe*** in the world, the zone reaches into Ukraine and other Black Sea countries and south into Georgia, and displays extraordinarily fluid temperatures and a semi-arid climate. This biome is similar in appearance to North American prairies in Kansas and Nebraska, typically supporting limited, large vegetation. Because of its continental location, temperatures can reach quite high during the summer and drop quite low in winter, and can even fluctuate drastically during a twenty-four-hour period. Despite its lack of significant rainfall, however, the Great Steppe boasts a wide variety of life across its high, windy plains (see Map C).

Somewhere between savannas and deserts, the Great Steppe is characterized by short grasses, low-lying shrubs, and

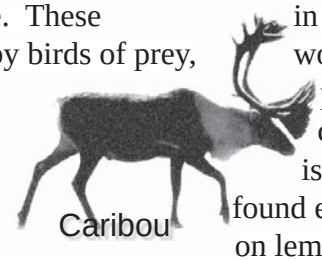


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other dry-climate plants. Its continental location is cool for much of the year, without any nearby water to warm the land, and rainfall usually averages less than twenty inches per year. Sagebrush and tumbleweed flourish in these dry conditions, as do certain other plants, such as the sweet vernal flower, which has medicinal value in treating kidney and heart problems. Rhubarb, a plant often found in North American recipes and desserts, also exists naturally; many European farmers have begun growing this extraordinarily large plant commercially in recent years.


Rhubarb

Because of inhospitable conditions in the steppe, animals are adapted to quick travel and feeding on grass, the major type of vegetation that exists. Horses have, historically, roamed the area, although centuries of human use have made wild horses few and far between. Deer and antelope, coupled with small animals such as rabbits and mice, call this barren land their home; burrowing animals, including some rodents, also live here. These populations are controlled by birds of prey, such as the falcon and the eagle, which regularly pass through the area.


Caribou

At the continent's north extremes lie the taiga and the tundra. These two subarctic regions are not synonymous, yet together they represent a gradual shift from forested, diverse southern lands to barren northern ones. The taiga, which blankets much of Asian Russia, nudges the far northern lands of the country's European portion, and also accounts for most of Scandinavia. The tundra picks up at the taiga's northern border and covers the northern limits of Scandinavia, as well as the highest Scandinavian Mountain peaks. Cold and desolate, the regions support few trees (none exist in the tundra) and are home to mosses and ***lichens***, which feed the disproportionate number of animals that live here.

While a region usually must have permafrost to be designated tundra, the taiga can support low shrubs and coniferous forests. Southern reaches of the zone are often referred to as Boreal forest and can include maple, larch—the most cold-resistant deciduous tree—and birch trees scattered among evergreens. Along with the piercing cold, these climates receive little rainfall to nourish plants, further curbing any substantial or lasting growth. In the taiga, trees undergo a process called ***hardening***, which is a biological alteration in their composition to make their bark less susceptible to freezing.

Wildlife at these northern latitudes include more exotic animals not often seen in the wild. In Scandinavia, lynxes and wolves roam freely, keeping mountain populations of deer and rabbits in check. The endangered arctic fox is the rarest of its kind and can be found even in the southern taiga, preying on lemmings and some birds. Caribou and the musk ox are found here; the Norwegian island Svalbard is home to large polar bear populations.


Musk Ox

Life Principle

Good clothes open all doors.
- Thomas Fuller

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World Geography

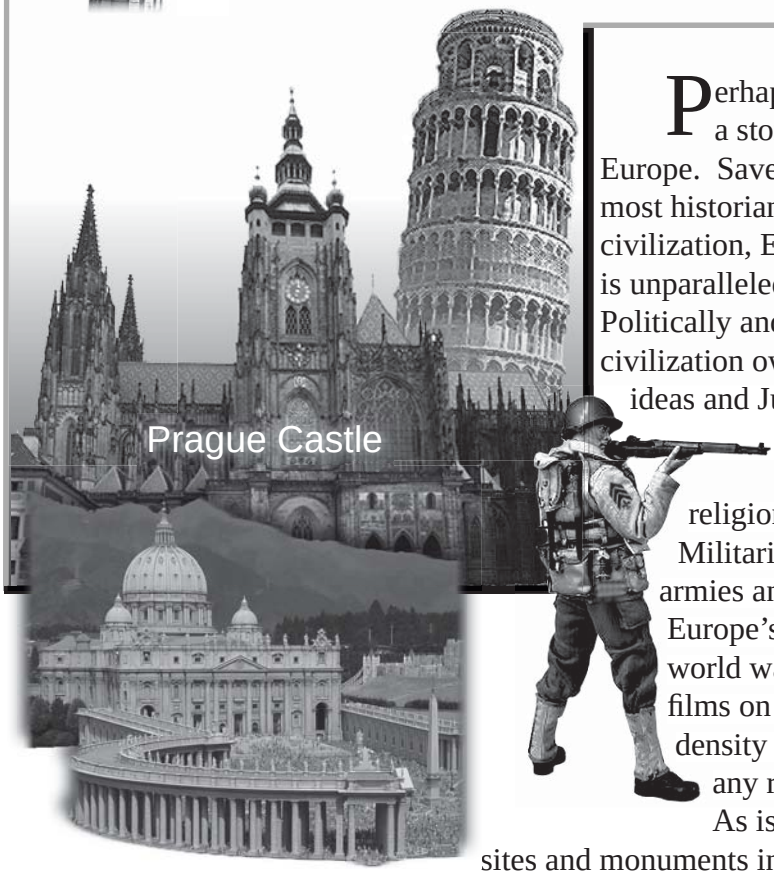


Chapter 3

Lesson 6
Famous Events and Sites

Section 2
Lesson 6-10





Perhaps no continent on Earth has such a storied and fascinating history as Europe. Save, perhaps, the Middle East, which most historians believe to be the cradle of civilization, Europe's global sway and influence is unparalleled, both historically and today. Politically and economically, all of Western civilization owes to Europe for its foundational ideas and Judeo-Christian values. Culturally, Europe has long been an innovator in arenas as diverse as technology, religion, medicine, fashion, and science. Militarily, some of history's most powerful armies and horrific battles have sprung from Europe's shores. It has been the site of two world wars, spawned countless books and films on its events, and birthed a higher density of tourist attractions than perhaps any region, including the United States. As is true of many regions, the important sites and monuments in Europe are inextricably tied to its history, and a proper appreciation for these places' significance depends on an understanding of the events that birthed them.

The fact that the seven most visited tourist attractions in Europe are in either London or Paris is a testament to Western Europe's far greater number of landmarks and monuments than Eastern Europe. Admittedly, this is partly a function of the regions' comparative economic situations. Western Europeans, far more wealthy, in general, than their eastern counterparts, have money to spend on both constructing landmarks and visiting them. However, the continent's western side is also more culturally and

VOCABULARY

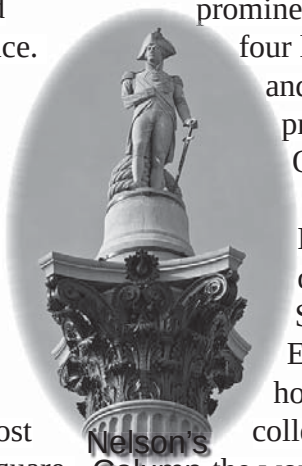
Classical antiquity: pertaining to ancient culture, especially Greek and Roman
Abdicate: to give up; to relinquish
Edifice: building; structure

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economically developed than its east, and thus, important sites in Eastern Europe are sparser and less widely known. As the entire continent, however, is steeped in cultural, religious, and political history, landmarks can be found throughout, with significant stories attached to each of them.



Europe was the birthplace of the Protestant Reformation that brought the world out of the oppressive Dark Ages. Religious reformers such as Martin Luther, John Knox, John Calvin, and William Tyndale gave the common people access to the Bible in their own languages. That freedom opened doors to new political insights, science, art, and literature that propelled Europe to worldwide prominence. Availability of the Bible in the English language is considered the pivotal event in European history because of its influence on world politics, religious freedom, and literature.


Nelson's Column

In the west, London accounts for three of Europe's top ten tourist attractions, including the world's fourth-most visited destination, Trafalgar Square. This plaza, in the heart of London, which attracts over 15 million visitors annually, centrally features Nelson's Column, a tribute to Admiral Horatio Nelson, and provides access to the National Gallery and The Mall, upon which Washington, D.C.'s National Mall was based. The square prominently features fountains, a set of four lions guarding Nelson's Column, and other aesthetic enhancements, in preparation for the 2012 Summer Olympics in London.

The British Museum is Britain's second-most popular destination, similar to the United States' Smithsonian Institution. Established in 1753, the museum holds some 7 million items in its collection, which is among the largest in the world. Items on display include ancient busts of Egyptian pharaohs dating to 1200 BC and earlier, the mummy of Cleopatra, and the Rosetta Stone. In addition, art, ranging from ***classical antiquity*** to ancient

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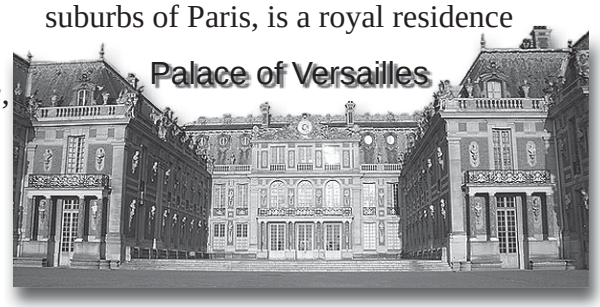
Buddhist limestone reliefs to Asian illustrations dating within the last several centuries, are part of the museum, which up until recently housed a massive library as well.

Two hundred miles south, Paris holds five of the seven most popular locations on the continent. Its premiere attractions are among the best known in the world. In recent years, France's tourism industry has boomed, making the country the most visited in the world, a trend that has largely been fueled by Paris's abundance of important sites. Ironically, France was the location for the horrible Reign of Terror during which occurred the bloody French Revolution that birthed the Napoleonic era. The French dictator's reign devastated thousands of communities across Europe. Interestingly, the French Revolution inspired numerous famous literary pieces: *A Tale of Two Cities*, *The Scarlet Pimpernel*, *The Hunchback of Notre Dame*, *Les Miserables*, and *The Man in the Iron Mask*. Notre Dame de Paris, a Gothic cathedral and the site of the Catholic Archdiocese of Paris, tops the list in the Île de la Cité, an island in the Seine and Paris's historic city center. Built over a two hundred year-span in the Middle Ages, the church houses one of the world's largest organs and is a spectacular example of Gothic architecture, among the first to use flying buttresses, which have long been considered a trademark of the Gothic style.


Eiffel Tower

While the British Museum may be the most famous in Great Britain, the Louvre takes the prize for the most famous museum in the world. Located in the 12th-century Louvre Palace, and boasting its iconic pyramid building, the museum is home to thousands of both French and foreign cultural artifacts, including the Mona Lisa, perhaps the world's most famous painting. Nearby, the Eiffel Tower is possibly the world's single most recognizable structure, towering 1063 feet above the capital city. It was completed in 1889 to serve as the entrance gate for the 1889 World's Fair, and for four decades was the world's tallest building. Today, the building is still the tallest in France and is the most visited paid monument in the world. It serves as an icon for the entire French nation. In a way, it is perhaps comparable with the United States' Statue of Liberty, which was a gift from France to the U.S.

France holds several other significant sites outside its renowned capital. The Palace of Versailles, located in the suburbs of Paris, is a royal residence established by King Louis XIV in 1682 and one of the most dramatic palaces in the world. It effectively moved the center of French political power out of Paris for two hundred years, only to ***abdicate*** it during the French Revolution. During its tenure, the site served as a seat for the entire national government. Still a national monument, the palace boasts 700 rooms, thousands of pieces of priceless artwork, and a staggering 550,000 square feet of floor space.


Palace of Versailles



In northwestern France, Normandy constitutes a region

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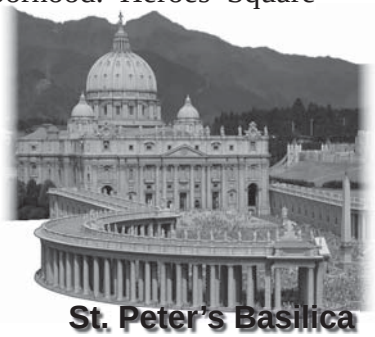
on the English Channel and is famous for World War II's D-Day Invasion that took place on its beaches. Among the war's bloodiest skirmishes—the Battle of Normandy saw around 10,000 Allied soldiers killed, wounded, captured, or missing—it marked the war's turning point, tipping the scales in favor of the Allied forces. The momentum shift eventually led to the surrender of Germany.

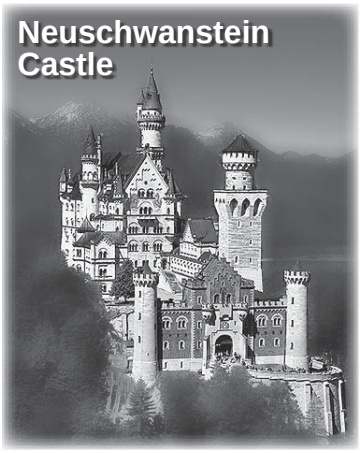
Like France, Italy also maintains an impressive list of famous sites. Rome is the location of many of these, foremost of which is the Colosseum, a two-thousand-year-old amphitheater in the central city that is partially in ruins. The largest example of Roman architecture still in existence, the building was completed in the 1st century AD, could seat 50,000 spectators, and is famous for hosting gladiator contests. The films *Ben-Hur*, *Gladiator*, and *The Robe* depicted this culture at the time of Jesus poignantly. Across town, the Pantheon is nearly as old, built as a temple to all Roman gods (hence the name "Pantheon") and including the world's largest unreinforced concrete dome. Elsewhere, in the city of Pisa, the Leaning Tower of Pisa is a curiosity for its small lean. Built as a bell tower for the adjacent cathedral, the 800-year-old tower began to lean shortly after construction and now angles about 4° from vertical.


Colosseum


Leaning Tower of Pisa

Other famous sites in Europe center on both historical and cultural realities. In Prague, Czech Republic, the Prague Castle is argued by some to be the oldest and largest castle in the world. Construction dates back to the 9th century and the castle contains numerous churches, halls, gardens, and other features in its territory, which comprises an entire neighborhood. Heroes' Square in Budapest, Hungary is among the most important squares in the country and home to the Millennium Monument, standing 118 feet high and crowned with a statue of the angel Gabriel. In central Rome, the Vatican City's 0.17 square miles are impressively dense with important sites, such as St. Peter's Basilica, one of the world's best known churches, and the Sistine Chapel. The enclave within Rome is the world's smallest country and serves as headquarters of the Roman Catholic Church. Other important sites in Europe include the Bridge of Sighs in Venice, Italy, Neuschwanstein Castle in southern Germany (the inspiration for Disneyland's Sleeping Beauty Castle), St. Michael's Golden-Domed Cathedral in Kiev, Ukraine, and the Athens Acropolis (a collection of buildings and monuments from ancient Greece). Amsterdam, Netherlands is home to one


St. Peter's Basilica



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of the world's finest orchestras and is also known for its culturally diverse nightlife and, unfortunately, rampant drug use, pornography, and prostitution.

If Eastern Europe has an equivalent of Paris in terms of important landmarks, it is Moscow. The capital of Russia, with 15 million residents in its metropolitan area, is home to some of the continent's, and indeed the world's, most recognizable buildings. The Kremlin, headquarters of Russia's executive branch, is a historic complex in the city center, built in the Middle Ages and comprising a combination of palaces, cathedrals, towers, and other ***edifices***. Ironically, religious freedom in Russia was shut down during the cruel reign of Joseph Stalin, who slaughtered more than 30 million Russians who opposed the communist collective farming policy. Nevertheless, Moscow is home to some of the most elaborate churches in Europe. The Kremlin is neighbored by the Cathedral of Christ the Saviour, the tallest Eastern Orthodox church in the world and notable for its large golden-domed roofs. Red Square in the downtown area, like London's Trafalgar Square, is a plaza from which originate some of Moscow's main transportation arteries and which is bordered by red buildings of significant importance to the nation.

Perhaps Russia's most familiar building is not a political one, however, but a religious one. Saint Basil's Cathedral, the flamboyant candy-colored church in central Moscow, was constructed in the 16th century at the command of Ivan the Terrible, and sports a mainly pink body with brightly colored domed rooftops. It is part of the Russian Orthodox Church and was named after Saint Basil of Russia, upon whose grave the adjoining chapel is built. Not quite as notable as the cathedral is the Ostankino Tower. It is Europe's tallest free-standing structure at 1,772 feet above the city and is used for radio and television broadcasting.



Bridge of Sighs Venice, Italy

LIFE PRINCIPLE



The man who makes no mistakes does not usually make anything.

- Edward Phelps

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World Geography

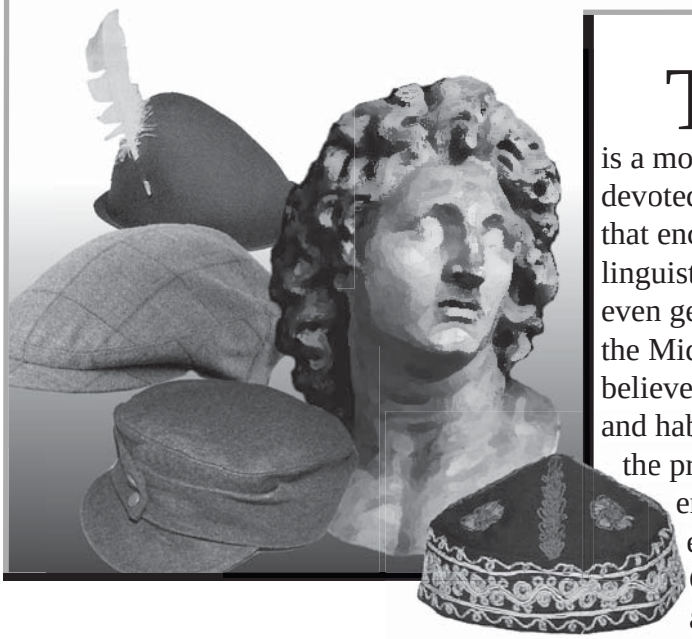


Lesson 7
Races and Ethnicities

Chapter 3

Section 2
Lesson 6-10





To fully grasp the complexities and intricacies of Europe's ethnic distribution is a monumental challenge. Researchers have devoted volumes to the subject, because it is one that encompasses a myriad of diverse factors: linguistics, nationality, religion, skin color, even geography. Given Europe's proximity to the Middle East—from which most historians believe life originated—its historical occupation and habitation, and its ***cosmopolitan*** flair, the primary people groups have become so entangled and intertwined that establishing even broad trends and patterns is difficult. Consequently, all but the most exhaustive accounts of European ethnic distributions must necessarily be fractured and incomplete. Nevertheless, in modern Europe several distinct ethnic groups emerge, ones whose varied branches throughout the continent comprise a significant percentage of its population.

Just as an exploration of Europe's famous sites and landmarks necessitates a brief historical overview of their existence and significance, understanding why its ***ethnic groups*** exist in specific localities requires explanation. Generally speaking, a half dozen different ethnic supergroups exist throughout the European continent, split into many subgroups and smaller classifications. These supergroups and subgroups typically constitute a majority population in some countries, while minorities are often spread throughout neighboring countries and elsewhere. Indeed, some 14 percent of Europeans—105 million people—are ethnic minorities in their respective nations, many of whom would be in a majority ethnicity

VOCABULARY

Cosmopolitan: free from local, provincial, or national ideas, prejudices, or attachments; at home all over the world
Ethnic groups: categories of people with common skin pigment and cultural values
Empire: group of countries or states under one ruler or government
Periphery: outskirts; edge; fringe

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in some other country. The dispersal of these groups has been quite complex, but six are typically considered to be sort of continental parent ethnicities from which the subgroups spring: the Celts, the Greco-Romans (or Latins), the Germanics (or Teutons), the Slavs, the Finnics, and the Turks. Other ethnic groups will be discussed as we move forward in this text.

Among the earliest people to settle permanently and widely in Europe were the Celts. Limited to a much narrower territory today, the people once covered a vast swath of Europe from present-day Turkey to Portugal, and north to the British Isles. Likely originating from the Russian steppes, the Celts migrated westward several centuries before Christ, spreading particularly in Western Europe. Modern Spain and Portugal once had large Celtic populations, the language prevalent through most of the land, and nations from modern Austria to Ireland, including virtually all of Germany and France, were swallowed by Celtic culture. Around 300 BC the Celts were at their maximum extent, but with the rise of the Roman Empire shortly afterward they were systematically pushed northward. As Rome began to expand into Western Europe, the Celts retreated northwest toward Britain, and in several centuries they were confined largely to Scotland, Ireland, and a northwest corner of France.



Today, the Celtic culture has slowly diffused into the reigning cultures, and the Celtic language is generally heard only in parts of Britain, Ireland, and northwest France. Despite this, Celtic influence is especially large in Western Europe, with large numbers in the British Isles, Portugal, Spain, France, and even Italy able to trace their heritage back to Celtic roots. Physically, Celtic influence has often been characterized by red hair, sometimes by light skin (although some branches, like those in Italy, are notably dark-skinned due to generations of specific DNA characteristics), and occasionally by specific accents. The unique Celtic language is held tightly by many speakers, who have watched it dwindle from use and seek to protect it from extinction.

Statistically, the Greco-Romans number greater than any other group in Europe except the Slavs. This group can trace its origins back to ancient Greek and Roman cultures and owes its expansion to the rise of these two empires. Beginning around 1100 BC, the culture began to spread through Greek conquest and colonization; and particularly before and during the tenure of Alexander the Great, Greek culture inundated the Mediterranean coast from modern Turkey to Gibraltar. In the 2nd century BC, Rome's power was building and Greece came under Roman authority. This authority rapidly spread north into Western Europe, and, ultimately, the fledgling ***empire***, which had adopted large political and cultural ideas from Greece and absorbed its population, drove back the Celts in the first few centuries AD. By the time the empire collapsed in 476, Greco-Roman influence and population was so widespread it would not be wiped out by successive invading cultures.



Alexander the Great

The modern Greco-Roman distribution is difficult to define and

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encapsulate because of its extent and influence. Modern Greece and Italy, particularly southern Italy, have retained Greco-Roman identities, as have other Balkan states such as Macedonia and Moldova. Thrace, the European section of Turkey, is largely Greco-Roman as well, and indeed the ethnicity is prevalent on the Mediterranean coast as far west as Spain. It roughly coincides with countries where Romance languages are spoken—Italy, Spain, Portugal, even France—and has a higher prevalence of Roman Catholicism, which was birthed here and is still headquartered in the heart of Greco-Roman culture.



If any single civilization is responsible for the fall of Rome, it is the Germanic people. These northern European tribes, less commonly referred to as Teutonic, settled across northern Europe from the Netherlands to southern Scandinavia as early as 750 BC, possibly migrating in from upper Scandinavia and the Baltic region. A warlike people, they fought amongst themselves regularly and appear to have established a moderately advanced culture, and they spread to France by the Iron Age in 500 BC. Shortly thereafter, Roman armies began coming into conflict with Germanic tribes—Goths, Vandals, and Visigoths, most dramatically—who largely held their own along Rome's northern ***periphery***. When the empire began fragmenting over the next couple centuries, Germanic tribes took advantage, invading gradually and ultimately deposing the Roman emperor.

Germanic people have since migrated south and north, covering most of Norway and Sweden, France, and Germany. Centuries of mixing with other Western European cultures, the Celts in particular, have brought Germanic lineage through much of the rest of the region; Britain was populated by Germanic tribes in an invasion centuries ago and also bears its influence. Much of the Alpine region, including Switzerland, is Germanic, and the culture's biological heritage has defined the region, which is stereotypically fair-skinned, blonde, and blue-eyed.

The Slavic peoples originated from, and still inhabit much of, Eastern Europe, where they developed a distinct culture nearly 1000 BC. This group was once organized tribally and primitively rather than centrally, and in the 4th and 5th centuries was among the biggest reasons for the fall of the Roman Empire. The people held their ground against Roman attacks quite well after the empire split between east and west; and pressure from the East, coupled with Germanic advance from the

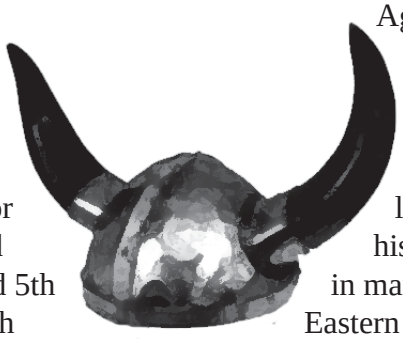
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north, slowly shrunk the empire until its death in the late 5th century. Seemingly Russian in physical appearance, language, and religion, the Slavic people have employed a variety of languages and do not fall neatly into one religious category, instead splitting among Catholicism, Eastern Orthodoxy, Islam, and small areas that are increasingly atheistic.



The Slavic ethnicity is the largest in Europe by both territory and population. Approximately 226 million people are primarily Slavic by descent, mostly spread throughout Russia and Eastern Europe. Slavs are often divided into three subcategories—East, West, and South, distinctions which may have more to do with linguistics and culture than biology. They still inhabit huge areas of Eastern Europe, including Poland, Belarus, Ukraine, and most of the Balkan Peninsula, where they have mixed with Greco-Romans. The rise of Nazi Germany in the early and middle 20th century threatened the Slavs, whom Hitler planned to exterminate systematically; ironically, regions of Germany and adjacent countries are now largely Slavic. The people are distinguishable by olive to dark skin, generally dark hair, and Russian-sounding names.

Originally from Scandinavia, primarily Finland, the Finnic people are a less easily defined group and a far smaller one. They have for centuries existed in Finland and northwest Russia, in the 4th and 5th centuries reaching south through Russia toward modern Ukraine. Scattered and independent, the Finnic people did not develop a distinct culture so much as share a common language, the common thread uniting the people. Beginning in the Viking Age around 800, Finnic culture spread, as Viking expeditions were conducted across the Atlantic to Iceland, Greenland, and eventually to modern Canada. Although the first mention of a separately Finnic culture is by the Roman historian, Tacitus, the first Western writing acknowledging its existence is the epic poem *Beowulf*, written in 800 as well.



Today, the Finnic people still thrive in Scandinavia, though more commonly in Finland. Northwest Russia is largely Finnic, and the area just south of this extending eastward into Asian Russia is Finnic. South of this, the Baltic nations include Finnic people mixed with Slavs. Some Germanic settlements have developed an ethnicity of their own, though Finnic heritage is still strong. Elsewhere in Europe, such as in Hungary, small pockets of Finnic people have largely assimilated into the larger culture.

Numbering about 30 million in Europe, the Turkic ethnicity is perhaps the most confined on the continent. These Asian peoples, whom many believed originated in east Asia—possibly China or Mongolia—and migrated westward in Europe, were limited until the Middle Ages, when the Ottoman Empire came to power and began an astonishing expansion that swelled into one of the largest and longest-lived empires in history. The empire was, in many ways, a child of the Eastern Roman Empire, although

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it did not officially begin until 1299 when headquartered in Constantinople. The Islamic civilization of Turks spread from modern Austria to the Caspian Sea and from the Gulf of Aden south of Yemen to northwestern Africa. Following its zenith during the late 17th century, the Ottoman Empire began to fold and Turkic influence shrank. Eventually, the ethnicity's European presence was confined mainly to Thrace and the Caucasus regions.



Turkic peoples display remarkably Asian and Middle Eastern physical characteristics, unsurprising considering their origins. Dark-skinned and dark-haired, most are concentrated in Thrace and in the Balkan countries, where they have intermarried with Greeks and produced a culture influenced both by Greco-Roman and Turkic aspects. They are closely related to the Caucasus peoples, but nonetheless are considered a separate ethnic group. Turkey's location at the crossroads of two continents, and not far from a third, has made the Turks a very diverse people.

Other ethnic groups exist in Europe as well. The Caucasian people, from which Western whites take their name, are centered in the Caucasus region and number 8 million. The Basques in northeast Spain are an indigenous people who have remained unknown by most of the world. The Semitic people, or Jews, are located throughout Europe, primarily in cities. Tragically, Nazi Germany attempted to spread its philosophy of a superior white race by exterminating millions of Jews between 1937 and 1944. Radical Muslims today still attempt to preserve and expand their culture by murdering Jews and people of other religions or ethnic distinctions. The Mongolic people, scattered about Germany, Switzerland, France, and the Czech Republic, are emigrants from Mongolia; they constitute locally significant communities in their respective regions.



Life Principle

Kindness is loving people more than they deserve.

- Joseph Joubert

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World Geography

Chapter 3



Lesson 8
Languages



Section 2
Lessons 6-10



One of the intriguing, and perhaps intuitive, facts about Europe's ethnicities is that they are largely governed by linguistic patterns. Although a host of other aspects come into play in determining ethnic boundaries and settlements—race, geographical borders, shared cultural traditions and customs—common ethnic groups tend to share common languages, a reality evidenced widely across the continent. In many situations, the two are nearly synonymous: ***anthropologists*** and sociologists speak of ***ethno-linguistic groups***, a system of classification that considers both elements in tracking ethnic distribution, built on the assumption that common ethnicities typically share a common linguistic heritage. Language groups' names, in fact, often correspond to ethnic group names. The Celtic, Greco-Roman, Germanic, and Slavic ethnic families all belong to the Indo-European phylum; languages spoken in these areas are generally referred to as Indo-European languages. The reality of this is that while language differs considerably across the European continent, the roots of these languages often trace back to the same place as their speakers' ethnicity, and to grasp one topic will go a long way to understanding the other.



Most of Europe's languages fall under the umbrella of the Indo-European language group, the world's largest

VOCABULARY

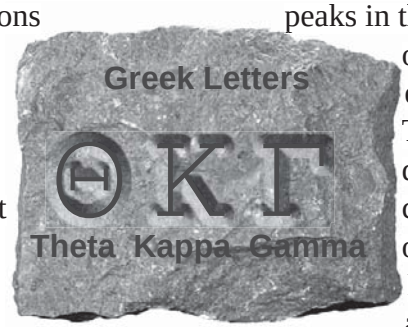
Anthropolgist: one who specializes in the study of human origins, physical and cultural development, biological characteristics, and social customs and beliefs of humankind

Ethno-linguistic group: classification category that considers both ethnicity and language

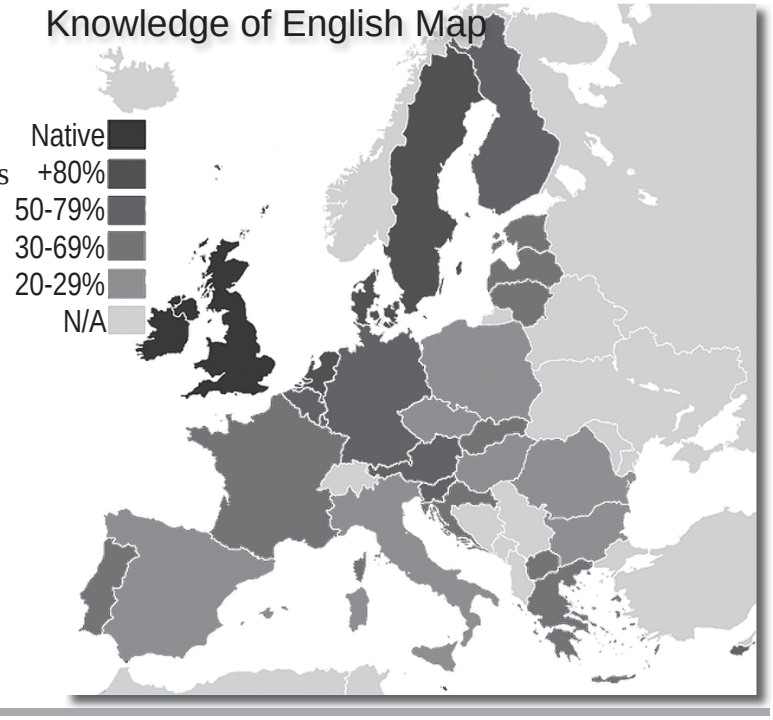
Medieval: pertaining to the Middle Ages

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linguistic family with more than 3 billion speakers. This massive family is subdivided into numerous manageable families that typically cover several nations. Like the continent's ethnic groups, the largest of these divisions are the Slavic languages, spread across Eastern Europe from the Czech Republic; Germanic languages, which account for the historical range of the Germanic people, including Germany, Scandinavia, and the British Isles; Romance languages span most of Western Europe and include Romania and Baltic languages, spoken in Latvia, Lithuania, and northeast Poland. To a lesser extent, Celtic is included in the Indo-European family, as are several Balkan tongues, including Greek. Behind this supergroup, the Finno-Ugric family, which itself stems from the larger Uralic language group, is prevalent in Scandinavia, particularly in the north: Estonia, parts of Russia, and Hungary. In southeast Europe, the Turkic family enjoys more prominent use, limited to localized pockets throughout the west. Tongues that do not fall neatly into one of these categories prevail in some nations: in Cyprus, Malta, and other small regions of the Mediterranean, Semitic languages are spoken, and the Caucasus nations speak different tongues that do not collectively comprise a larger body (Maps B and C).



Coinciding roughly with the Slavic people groups, the Slavic language family stretches across Eastern Europe from the Czech Republic to Russia. Broken to the south of Slovakia by a belt of non-Slavic tongues in Austria, Hungary, Romania, and Moldova, the family peaks in the Balkans and accounts for most of these nations, with the notable exceptions of Greece and Albania. The language family is further divided into East, West, and South categories. The West, smallest of these subdivisions, covers Poland, the Czech Republic, and Slovakia; the East includes Russia, Ukraine, Belarus, and Estonia; and the South includes the Balkan nations. Although these designations refer more to descent than to actual spoken realities in the countries, they do serve to group the languages together. In reality, Europeans speak dozens of different languages, usually confined to a certain country; this is in contrast to continents like Latin America, where Spanish is spoken predominantly across national boundaries, and only

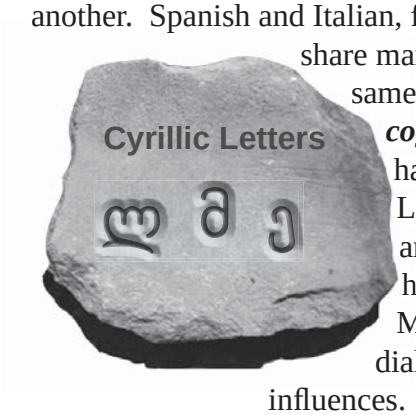


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dialectical changes are typically observed. Polish speakers, however, may be much more familiar with Czech tongues than with Bulgarian because of the commonalities harbored in the West Slavic designation.

Germanic languages, the third-largest among Indo-European language groups, originated in the Germanic tribes of northern Europe and Scandinavia. This family features two subdivisions, East Germanic and West Germanic, with the dividing line running through the North Sea into the Baltic and separating Denmark (East) from Germany (West). These languages owe many sources to their formation: in ***medieval*** Scandinavia, Norse tongues proliferated, and in the rural and isolated nations many dialects were spoken. As Germanic tribes gradually centralized power and began developing the region, language became more uniform, and the land's present tongues are often called Nordic, a name that recognizes their Norse origins. Icelanders also speak Nordic languages, although Icelandic is in many ways different from Swedish or Norwegian; Denmark falls under this classification as well. Germany and the neighboring Netherlands have moderately different languages. English, which was heavily influenced by both Nordic and Germanic speech, is the native tongue only in the British Isles. Because of the British Empire's historic reach throughout the world, and because it is also spoken in the United States, English has become the official language for international commerce and governmental agreements. In Scotland and parts of Ireland, Celtic languages compete with English for dominance, and Irish is a prevalent force in Ireland as well, although the vast majority of Irish residents speak common English.

Romance languages derive from Vulgar Latin, spoken throughout the Roman Empire. The largest language group in Europe, the Romantic language family is prominent throughout some of the continent's most populous nations and includes tongues bearing considerable resemblance to each other. Italian, French, Spanish, Portuguese, and Romanian all hearken back to Romantic beginnings, with influence throughout the Mediterranean, including the islands of Sardinia and Corsica. Due to their common ancestry, these languages overlap in many ways, and speakers of one language often have considerable advantage in learning another. Spanish and Italian, for instance, share many of the same roots and ***cognates***: both have a strong Latin heritage and draw heavily from Mediterranean dialects and influences.

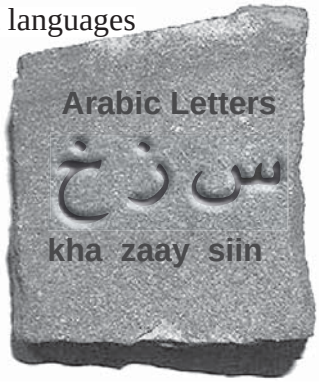


French is second-most widely spoken behind English and commands large minority segments in some countries, having served as the ***lingua franca*** from the 17th century until World War I. English, the most prevalent both in Europe and worldwide, is pervasive especially throughout the West. Because of linguistic similarities, an estimated 50% of Europeans speak more than one language.

Other language families, including the little-used Celtic tongues, are part of the Indo-European family as well. Although there are several main variations of Celtic, most are limited to Scotland, Northern Ireland, and northwest France. The largest of these variations is Irish,

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which has in modern times fallen out of favor with the influx of English. Today, only several hundred thousand people retain a working knowledge of Irish, with figures for the entire Celtic family only slightly higher. The Indo-Iranian language family, whose largest languages are Romany and Kurdish, is another small subset within the Indo-European classification.



Finno-Ugric languages are far more limited in their range, confined mainly to Scandinavia and east, and including Hungary in Central Europe. The language family, which combined common Scandinavian tongues before Germanic conquest, and the Uralic languages from the Ural Mountain region, has Slavic and specifically Russian influences. Its individual languages are not named according to their country, with the exception of Hungarian and Finnish, but rather have names similar to their historic labels. The largest Finno-Ugric language is Hungarian, which has approximately 15 million speakers, and Finnish and Estonian also boast several million speakers, most of whom are native speakers, as the languages see little use outside their home countries.

The Turkic family is the smallest of the main groups, containing the Turkish and Azeri languages, which together represent about 100 million speakers in Turkey and the Caucasus region. These languages are included under the larger Altaic family, which groups Turkic and other language branches together, but is disputed as an umbrella designation by some etymologists. Most of the above number live in Asian Turkey, although in Thrace, Turkic languages, including Turkish, are dominant. These languages are related to other Asian tongues, such as Iranian and Mongolian. In Kazakhstan, the official language, Kazakh, is Turkic.

Other language groups exist as well. In the Caucasus region, numerous tongues exist with small numbers of speakers, perhaps the largest of which is Georgian, spoken by 4 million in and around its indigenous country. Semitic tongues, such as Maltese and Cypriot Arabic, are spoken by some Mediterranean inhabitants. In nearly all places, Europe's relatively small size, high population density, and frequency of intercontinental travel have created languages with considerable influence from many areas. This has served to introduce new words into all languages, further blurring boundaries and bridging them with similarities.

VOCABULARY

Cognate: world similar or identical to another language's word
Lingua franca: common language; universal language

Life Principle

Because a thing seems difficult for you, do not think it impossible for anyone else.

- Marcus Aurelius

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World Geography

Chapter 3

Lesson 9
Religions

Section 2
Lessons 6-10

Religions of Europe



Glance at a map of Europe's religious groups, and the two most obvious realities will be the split between the East's Orthodoxy and the West's Roman Catholicism and Protestantism, and the dominance of Christianity in general. Historically, Christianity, whose roots are inextricably tied to the Mediterranean, has been the prevailing religion, and most Europeans still identify with Christianity, at least by heritage. Traditionally, Christianity has wielded a vast influence over Europe in art, culture, music, ethics, politics, law, and countless other arenas. While Christian influence is still strong in places, and its legacy endures through the societal frameworks built upon it, the reality is that Europe is a far more diverse and multifaceted religious landscape than maps reveal. Today, the continent is at a juncture in its religious history. Like nearly every other area of Europe, the sheer number and diversity of its inhabitants has brought about an equally pluralistic religiosity, and religion in general is diminishing rapidly as Europe grows increasingly secular.

Christianity's extent in Europe hearkens back to its beginnings and the Roman Empire, which in the first several centuries AD controlled much of the European subcontinent. Birthed in Jerusalem and present-day Israel, Christianity was quickly imported into Europe from the eastern Mediterranean by missionaries such as Paul and Peter. Christianity was intensely ***evangelistic*** in nature, and despite widespread persecution, won large numbers of converts in the first and second centuries, eventually constituting a sizable majority. As these Christians, who sprung out of Judaism and threatened to supplant the existing polytheism

VOCABULARY

Evangelistic: characterized by preaching or missionary activity
Nonreligious: having no religion or belief system
Agnostic: characterized by indifference toward or feeling of futility toward knowing or discovering God
Atheist: disbelieving in God

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that marked Roman faith, spread north and west, they developed a considerable body of theological treatises defending their faith and in 313 won official Roman protection from Emperor Constantine. In 380, Emperor Theodosius I declared Christianity Rome's official religion, laying the groundwork for its further advance and eventual synonymy with Western culture. Vigorous missionary activity following the Roman Empire's decline spread Christianity to Scandinavia and the British Isles. With the threat of Islam in the Middle East in the 11th century, Pope Urban II launched the Crusades, which ultimately failed to achieve their goal of reclaiming the Holy Land (Israel).


Crusader

During the Medieval Era from 500-1400, Christianity slowly divided into two branches, largely over the issue of papal authority, Eastern Orthodoxy denying it and Roman Catholicism in the West affirming it. Several hundred years later, the Protestant Reformation was ignited in Wittenburg, Germany with the posting of Martin Luther's *Ninety-Five Theses*; the ensuing debate resulted in another schism, with Protestants decrying a series of crimes they claimed the Catholic Church was committing and forming independent Christian denominations. These protestors won a considerable fragment of Christianity in the split, including Scandinavia, the British Isles, and much of central Europe.


Pope

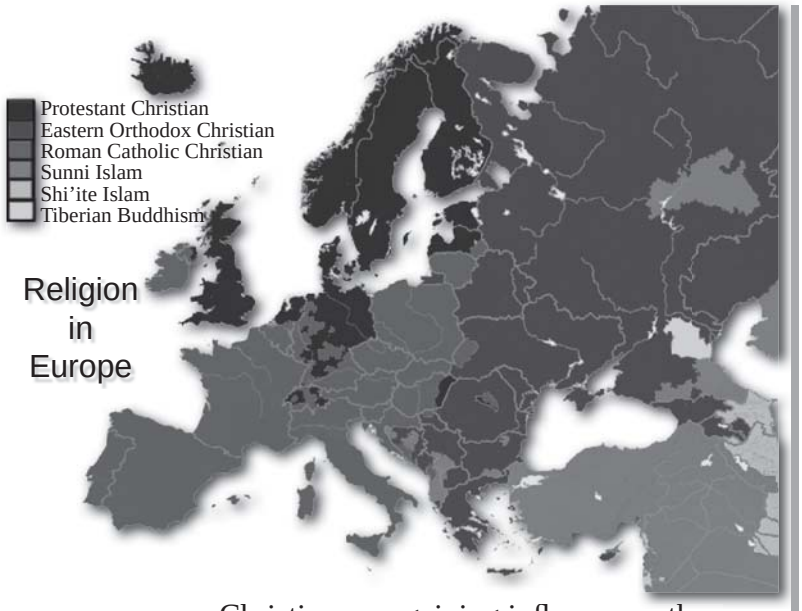
These regions of Protestant leanings today owe to the Reformation. Protestants, who derive their name from their protestation of the Catholic Church, are the group that eventually left Europe to establish colonies in the Americas in the 16th century.

The current religious makeup of Europe reflects both the spread of Christianity in the Roman Empire and the two great rifts in the Church. Roman Catholicism is the most prevalent faith, claiming about 285 million adherents, or about one-third of the population. Concentrated most densely in Western Europe, all the contiguous nations west of Ukraine, except Denmark and the Balkan Peninsula, have majority Catholic populations; some, such as Italy, are overwhelmingly Catholic. Protestantism dominates in Scandinavia, the Baltic nations, the United Kingdom, and Iceland, taking many forms: Anglicanism dominates in Great Britain, while Lutheranism leads in Scandinavia. Sizable Protestant minorities also survive elsewhere in Catholic Europe: Germany, which birthed the Reformation, had a Protestant community of 30% compared to Catholicism's 31% as of December 2007. The Netherlands, Switzerland, and eastern Hungary also retain large Protestant populations, as does Northern Ireland, which has seen constant warring between Catholics and Protestants since 1968.

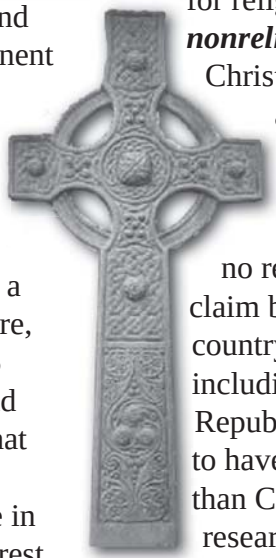
East of Hungary, Europe is overwhelmingly Eastern Orthodox. The church, which originated in Greece, spread north after its establishment and includes most of the Balkans, Russia, and the Caucasus nations of Georgia and Armenia. Claiming approximately 275 million adherents worldwide, most of whom live in Europe, Eastern Orthodoxy holds

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something of a monopoly on faith in many of these nations, constituting nearly 100% of some populations (98% in both Greece and Moldova, 85% in Belarus). In Kazakhstan, 40% of the populace is Orthodox, and large minorities exist in Thrace, Bosnia and Herzegovina, and elsewhere. Most often, these Christians coexist with Muslims, who make up large numbers in Serbia, Bulgaria, and Albania, where they dominate, and also the Caucasus nations.



All of this, nonetheless, is undermined by the actual realities at play in Europe's current religious climate. These numbers generally represent self-identification on census data and official tracking polls, but the numbers represent more inherited faith and vague beliefs than deeply held convictions, practice, and worship attendance. Increasingly, Europe is a secular society, and responses and feedback on independent surveys and polls confirm that most of the continent is Christian in name only. In the United Kingdom, for instance, although 72% currently profess Christianity on official census surveys, a 2005 poll revealed only 38% of respondents professed a belief in God, a startlingly low figure, especially when compared with US numbers that normally hover around 90%. A more recent study found that 71% of Britons claim that religion does not occupy an important place in their lives, a figure in line with the rest of Europe. Interestingly, evangelical Christians are gaining influence as they utilize electronic media to broadcast their faith and practical applications of family issues. In the 1980s and 1990s, American evangelist Billy Graham hosted crusades that were televised in Europe extensively. Today, stations like Trinity Broadcast Network (TBN) and Christian Broadcast Network (CBN) cover nearly 100% of Europe twenty-four hours a day.



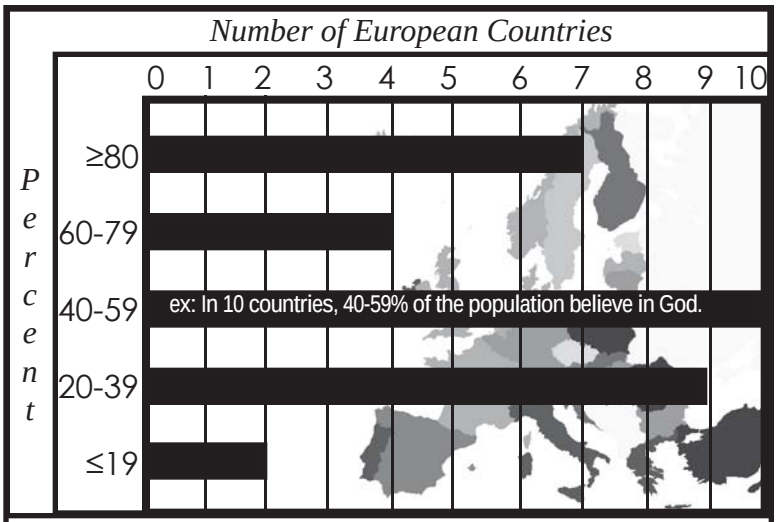
Elsewhere, the statistics are bleak for religion. Sweden, notoriously ***nonreligious***, officially has a 73% Christian population, but only 2% attend worship services regularly. Nearby Estonia is also a purportedly Protestant country, but 76% of the population claim no religious affiliation, and only 16% claim belief in God, the lowest of any country in Europe. Protestant nations, including Scandinavia, the Czech Republic, and the Baltic countries, tend to have less active religious affiliation than Catholic or Orthodox nations; some researchers and anthropologists estimate that in these countries, upwards of 75% of the population is ***agnostic*** or ***atheist***.

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In 1967, Albania became the world's first officially atheist nation, and approximately 18% of Europe's residents claim to be atheist today.

Notable religious minorities also exist throughout Europe. The most significant of these is Islam, which is prominent in some Balkan nations, including officially atheistic Albania. Interestingly, some largely Muslim nations boast higher levels of religious involvement and belief than do their Christian counterparts: Turkey, for instance, ranks highest in Europe with 95% professing a belief in God. Muslims comprise approximately 40% of Bosnia and Herzegovina and 33% in Macedonia, although their influence in Orthodox Greece has been negligible. Recently, Islam's migration westward has reached nearly 6% of the Netherlands, up to 7% of France, and more than 10% of Germany. The religion's proliferation in Western Europe has sparked conflicts in light of the threat of Muslim extremism: in 2009, French President Nicolas Sarkozy declared the *burka*, a traditional Arabic dress that includes a veil, unwelcome, claiming it was demeaning to women. Debates continue over the terroristic threat Islam poses to Europe and Western cultures.

To a lesser extent, Judaism exists throughout Europe, particularly in more developed nations. France has a Jewish minority of about 1%, and local concentrations are higher, especially in cities. In Kalmykia, Tibetan Buddhism is the dominant faith; Hinduism and less widespread religions can be found in pockets of some countries, although to varying extents.



This chart shows the **Belief in God** by percentage in population for each country.

LIFE PRINCIPLE

Discretion in speech is more than eloquence.

- Francis Bacon

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World Geography

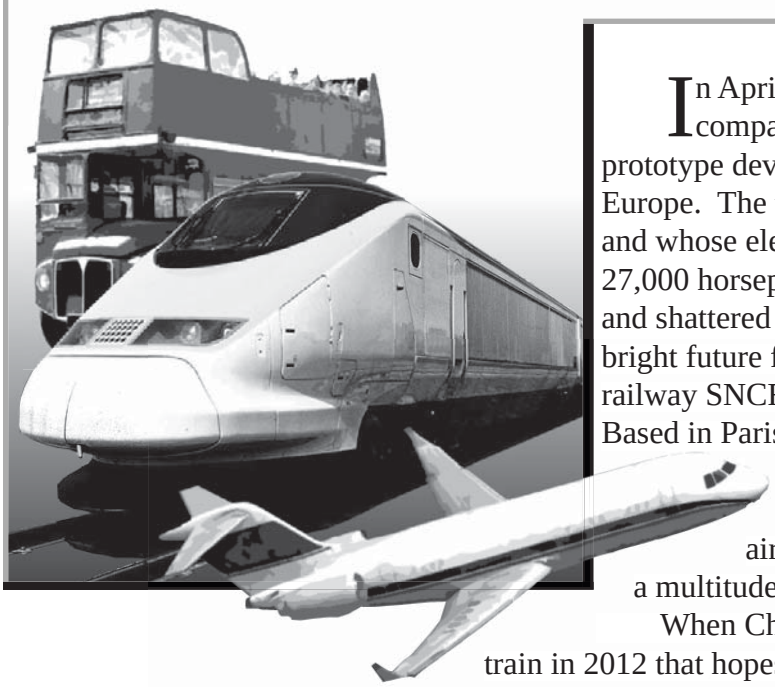
Chapter 3



Lesson 10
Transportation

Section 2
Lessons 6-10





In April 2007, France's TGV transportation company ran tests on a high-speed train prototype developed to expand rail service in Europe. The train, which was codenamed V150 and whose electrical power source put out nearly 27,000 horsepower, reached speeds of 357 MPH and shattered rail speed records, promising a bright future for both its developer and French railway SNCF, which currently operates the train. Based in Paris, the company provides ***commuter*** and traveler rail service within Western Europe, partnering with airlines and also transporting cargo for a multitude of diverse firms.

When China debuts its high-speed bullet train in 2012 that hopes to break the TGV's records, it will matter little in Europe, whose love affair with alternative transportation forms is long and storied. In contrast to America, where approximately 85% of commuters use personal automobiles, Europe's automobile industry lacks a ***monopoly*** on transportation, competing instead with rail, bus, and bicycle options. While some studies suggest that a majority of Europeans do use personal vehicles primarily, others peg the number under 50%, and the TGV's speed, reliability, and extensive service is among the largest contributors to this reality.

The advent of the automobile and the size of metropolitan areas have existed in a spiral cause/effect relationship since the 1950s, and have largely defined Europe's cities for the past several decades. As personal vehicles became more accessible and affordable following World War II when more people acquired them, urban design began to reflect the new transportation flexibility.

VOCABULARY

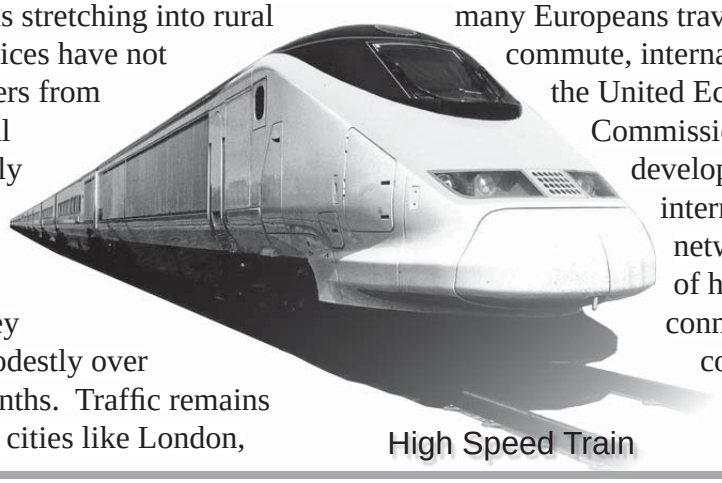
Commuter: having to do with travel to and from the workplace
Monopoly: exclusive control of a commodity or service
Primate city: central or largest city in a metropolitan area
Suburban: outside a city; sprawling from a city
Subsidized: financially assisted by the government

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People who previously traveled only nearby could cover large distances quickly. The development of larger cities increased reliance on cars to traverse them, and as vehicles became increasingly necessary for life, urban planners built cities that reflected the reality of their affordability and widespread ownership. The generalized term for this phenomenon is urban sprawl. It has been a reality in Europe since the mid-20th century. Despite a much tougher environment for personal automobiles than America, Europe boasts a developed and vast network of roads and freeways, an infrastructure element typical of developed continents. Considered by some to be the most advanced and diverse transportation network in the world, European cities and countrysides all have adequate road systems, varying to some degree by country and individual city. The largest metropolitan areas are sprawling, with densely populated ***primate cities*** and vast ***suburban*** areas stretching into rural areas. High fuel prices have not prohibited consumers from purchasing personal automobiles. In July 2008, average per-gallon rates in the Netherlands neared $11, and they tapered off only modestly over the next twelve months. Traffic remains a major problem in cities like London, which regularly has the worst in Europe. (The United Kingdom has the worst traffic of any country: in the 1980s and 1990s, car use jumped 52%, and the nation has among the lowest rail, bus, and bicycle use on the continent.) Generally speaking, vehicle use and ownership is higher in the suburbs, a trend echoed throughout the world, as downtown residents are more likely to use mass transit than suburban dwellers, where lower population density and high operational prices prohibit their availability.



Outside of cities, roads exist and are used to varying degrees. Because many Europeans travel, and even commute, internationally, the United Economic Commission for Europe developed the international E-road network, a system of highways connecting the continent much like the United


High Speed Train

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States' interstate system. In addition, many countries maintain their own road networks, with roadway conditions and laws determined by each country. The most famous of these is, arguably, Germany's autobahn highways, which generally do not have speed limits; safety records on these roads are, ironically, far better than other European highways. In some countries, highway use requires a toll or the purchase of a toll sticker called a vignette. Although the United Kingdom is a notable exception, most countries direct vehicle traffic to drive in the right lane. Several smaller nations in addition to the U.K., however, drive on the left.



Rail use in Europe is extensive and diverse, with local commuter trains, subway systems, and international high-speed rail networking the continent and serving millions of residents daily. Although infrastructural differences between countries have posed challenges to international rail travel—different countries use different gauge railways, and their systems are powered differently, —carriers such as the TGV lines and EuroStar now cross borders regularly, mostly in Western Europe. The higher use of rail in the West can be attributed to both the region's relative affluence and ability to invest in systems, and its higher population density. Eastern nations like Poland and Ukraine, nonetheless, boast systems far more developed than in America. The European Union has aided in providing more accessible and efficient international travel, funding lines that cross borders and developing plans for a trans-European high-speed network. Carriers have also voluntarily joined consortiums streamlining transportation such as Eurail, which sells rail tickets and passes that are accepted by many different carriers in a variety of forms. In 1994, the Channel Tunnel, or Chunnel, connected France and England, allowing rail traffic to travel between England and mainland Europe.

Because of Europe's extensive and busy waterway system, sea transport is popular in coastal countries and along busy rivers and seas. While the continent has 17 landlocked countries, most nations have an outlet to the sea, and many with longer coastline have large and active shipping ports, which facilitate the transportation of cargo more than passengers. Although some Europeans commute by ferry, shipping is chiefly the property of industry, and Europe's largest ports handle millions of dollars in goods every day. Rotterdam, Netherlands' Europort is the third busiest port in the world, having transformed a small coastal town into a major shipping city. Antwerp in Belgium also sees colossal volumes of cargo in its harbors every day; the United Kingdom's Port of Dover is the busiest passenger port in Europe. The North Sea, on which Rotterdam and Antwerp border, is among the world's busiest shipping regions: huge numbers of shipping vessels, recreational boats, and ferries streak across the surface every day of the year.

Non-powered forms of transportation comprise an important segment of Europe's transportation needs as well. Bicycles, used as a primary means

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of travel by less than 1% of Americans, account for large numbers of Europeans, and as city roads become increasingly congested, ridership promises to grow. In Amsterdam, Netherlands, bicycles account for nearly 30% of trips, and the figures are still high elsewhere. Denmarkers (also called Danes) choose bicycles 20% of the time, and 10% in much larger Germany; even in the United Kingdom, which sees only 8% of trips originate on bicycle, ridership is far higher than even the most cycling-friendly North American cities. Statistics indicate the trend is growing; in Germany, ridership rose 50% from 1985 to 2005. Government programs intended to aid traffic congestion and boost alternative means of transport have met with considerable success in other countries.



Segways and non-powered scooters constitute a small chunk of transportation as well. In the early 2000s, scooters gained popularity in Europe and elsewhere as commuters and tourists began embracing them, particularly in central city areas where densities are higher and businesses and residences closer together. Some cities have scooters and bicycles designated for public use, either subsidized or purchased outright by the city and usually available to anybody. Additionally, because many European cities are walkable, especially older ones in which walking was overwhelmingly the primary source of transportation, a small but steady number of people walk, typically residents who live in more central districts of a city.



For international travel, tourism, or long distances, air travel in Europe is extensive and developed, with a recent influx of low-cost airlines and high competition bringing prices into the affordable range for most Europeans. The continent is home to some of the busiest airports in the world—London's Heathrow Airport, for instance, handles more international passengers than any other—and air travel is a frequently used option in business travel as well. Most of the busiest airports are located in the West—Paris's Charles de Gaulle and Orly airports are 2nd and 11th busiest in Europe by number of passengers. Frankfurt, Madrid, and Rome are also extremely busy. In the East, Moscow's Domodedovo International and Greece's Athens International both transport more than 15 million passengers each year. Recently, high fuel prices and a global recession have stymied air travel in Europe. Smaller airlines with cheaper fares, coupled with more regional airport departures, have provided competition to major airlines that have traditionally dominated the market. Much of the air traffic in Europe, however, is tourist traffic from North America and elsewhere, and low-cost overseas travel is often not an option.

Life Principle

It is possible to fly without motors, but not without knowledge and skill.

- Wilbur Wright



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World Geography

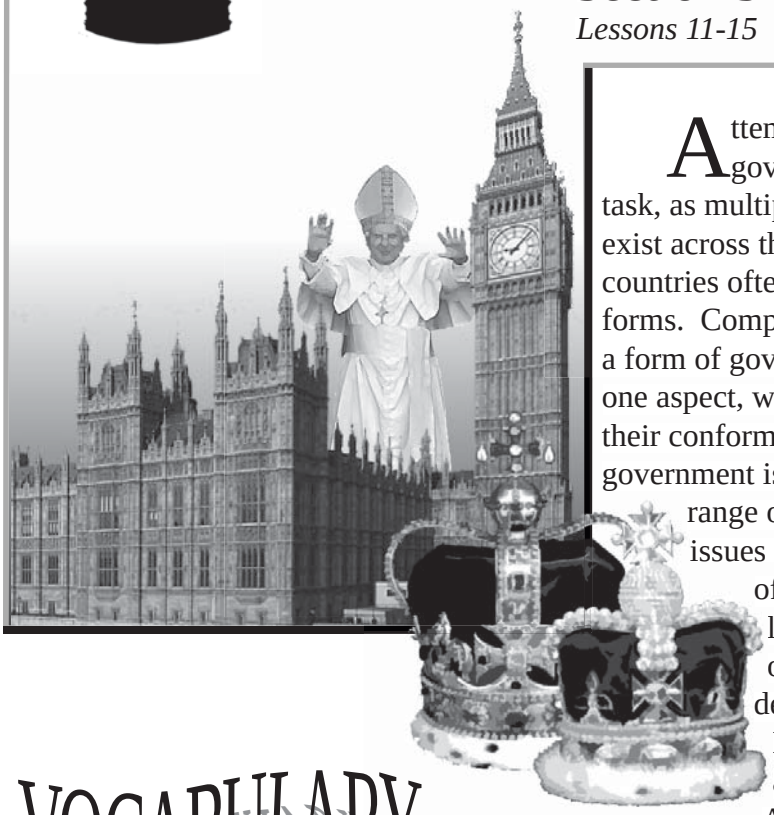
Chapter 3



Lesson 11
Governments

Section 3
Lessons 11-15





Attempting to catalog Europe's governmental systems is a complex task, as multiple systems of government exist across the continent, and neighboring countries often feature radically different forms. Complicating this job is the fact that a form of government does not merely reflect one aspect, with countries divided according to their conformity to a specific model. Instead, government is multifaceted and spans a wide range of questions and categories, from issues such as a strict classification of government to the number of legislative bodies, from the system of internal governance to the degree of republicanism. Of all European nations, only five retain a governmental system similar to America's, namely a presidential ***republic*** in which the president is independent of the legislature. The remainder, however, display a strikingly diverse governmental palette that is as varied and fascinating as Europe itself.

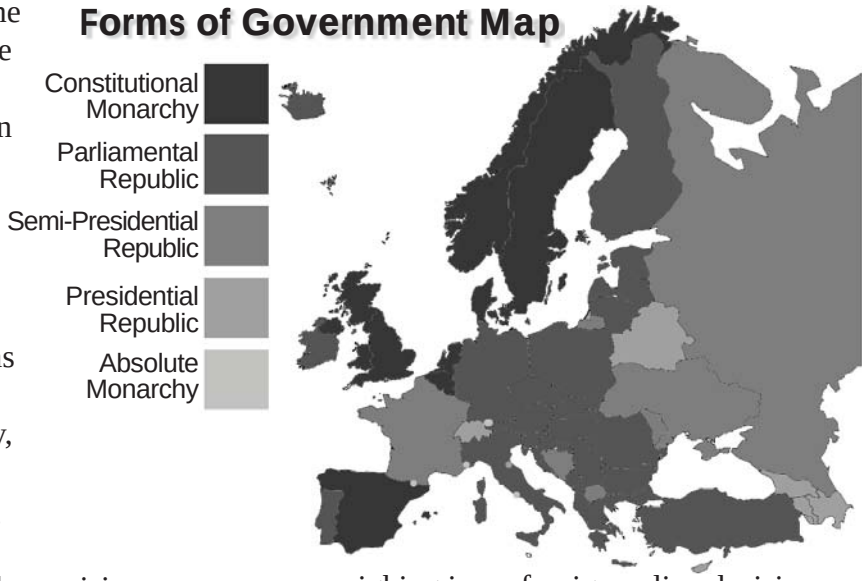
At the most fundamental level, Europe's governments can be broken into four categories. Most nations are parliamentary republics, particularly in Central Europe and the Balkan Peninsula. Several nations are monarchies, a group that can be subdivided into two classifications, and another handful are presidential republics, a category that also encompasses several governmental forms. A fourth group has governments that do not neatly fall into any of these categories, but instead rely on different forms of rule and power. Notably, the Vatican City does not function in

VOCABULARY

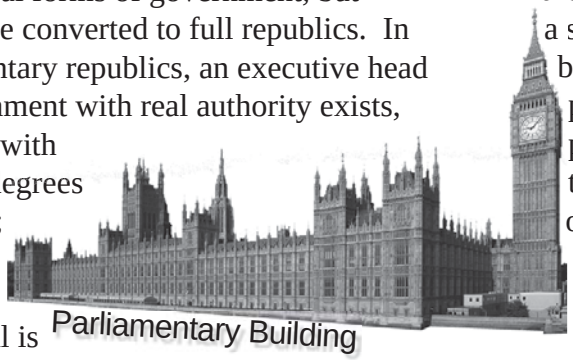
Republic: nation in which citizens elect representatives to manage the government
European Union: umbrella organization with limited authority over monetary and political issues
Parliament: legislative body in many nations
Prime minister: chief minister and highest elected official in a government

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any of these manners: the papal state is an absolute monarchy, a country in which power is vested in a single individual (the Pope) and one of only six nations worldwide in which this form prevails. Since 1993, the ***European Union*** has assumed an active role in governmental activity, uniting the continent on many levels—including the political and monetary systems—and exercising an ever-increasing presence in European affairs.



Most Central and many Eastern European nations are parliamentary republics, a system in which most power resides with the legislature, called a ***parliament***. Most often, these nations are ones that formerly employed monarchial forms of government, but have since converted to full republics. In parliamentary republics, an executive head of government with real authority exists, although with varying degrees of power; this individual is typically called a ***prime minister***. The legislature can be either ***unicameral*** or ***bicameral***, and the head of state is referred to by various names, although the designation of president is most common. Germany is noteworthy in that the head of government is not the prime minister, but the chancellor. Some parliamentary republics allow the president some duties outside of his typical ceremonial ones, such as weighing in on foreign policy decisions, while retaining most power in the hands of the head of government; this trend, however, is not widespread. Germany and Italy are the most significant of these nations. Twenty-six European countries have parliamentary republics.


Parliamentary Building

Currently, eleven nations in Europe are monarchies, or systems in which a single individual, traditionally, but not always, a king or queen, presides over the country. Like parliamentary nations, monarchies tend to differentiate between heads of state and heads of government. In this system—especially in constitutional monarchies, which account for seven of Europe's eight nations—the head of state is largely a ***figurehead***, a primarily ceremonial role with varying, but relatively limited, degrees of power. The head of government, conversely, is generally the chief executive official, with vested power in carrying out executive duties. The philosophical underpinnings behind this separation of powers dates to the French Revolution in the 1790s, although limits on the monarch's power were among

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the revolutionary principles of the English Magna Carta in 1215. Monarchs still held sweeping executive control alongside ceremonial status. With a European resurgent interest in the ideal of the republic in the 18th century, however, many monarchs gradually surrendered power to the democratically elected parliament. Ten of the eleven nations are constitutional monarchies; the eleventh, Vatican City, is the only pure theocracy in the world (Iran exhibits characteristics of a theocracy but blends other influences, as well).



Although most of these nations have kings or queens at the helm, two give their monarchs other titles. In Luxembourg the monarch is the Grand Duke; in the Vatican the Pope, who is head of the Roman Catholic Church, is sovereign. The latter is also one of only three examples worldwide of an elective monarchy, in which the leader is chosen popularly rather than by heredity. Belgium, whose king's title is King of the Belgians, is a popular monarchy, a largely symbolic term that seeks to broaden the monarch's legitimacy by linking him with the people.

The most prevalent form of government in the world today is strangely underrepresented in Europe. Presidential republics are scattered liberally throughout Asia and Africa, and in the western hemisphere they are used almost exclusively, but the European subcontinent only has 16 of these nations. Five of these are full presidential republics, systems identical to the United States', in which the popularly elected president is independent of the legislature. The remaining eleven are considered semi-presidential republics marked by a democratically elected president but a ***cabinet*** that is confirmed by, or intertwined with, the legislature. Although these serve as useful broad divisions into which these nations can fall, in reality there are great discrepancies between nations in relating the executive and legislative branches. In the semi-presidential system, the president and the prime minister split duties: in Finland, for instance, the constitution codifies the president's responsibility for foreign policy decisions, while the prime minister typically deals with domestic issues. While this system confers upon the president far more power than do parliamentary republics in which he is largely a figurehead, they are more limiting than full presidential republics. These nations—Belarus, Kazakhstan, Georgia, Armenia, and Azerbaijan—separate the president completely from the legislature and allow him a cabinet not subject to legislative approval or work. Of semi-presidential nations, France is the only Western example. Russia and Ukraine also employ this system. Russia's politics, however, are still influenced heavily by communist ideology, which has dominated its government since the Marxist revolution in 1917.



All presidential republics are characterized by a system of checks and balances to ensure that no branch grows too powerful, and they are intriguing in that because they divide power, officials must work together to achieve results. This forced interaction between the branches of government is a double-edged sword: it can either spark broad popular support across political parties, or can be astonishingly

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inefficient as different party leaders stalemate over ideological differences.

In addition to the form of government, the manner in which countries divide power between the national government and state or provincial governments is significant. In Europe, a handful of nations have either federal or federacy systems, which provide some amount of allocation of power. These countries may reserve issues of national concern, such as defense, for the central government, while allowing less pressing issues, such as education spending, to be handled by the regional governments. In theory, this shared power provides a check: either on states from growing too independent or on the national government from gaining too much power; in practice, however, most nations allow for national concerns to override regional desires in some situations, so there is a tendency toward growing federal government at the expenses of the states. Many European countries have opted for unitary systems, reserving most or all power for central government. Spain is Europe's only example of a devolved system, in which the national government has granted certain powers to regional governments, resulting in more of a loosely governed federation.

Though not technically a governmental entity, the European Union is a voluntary conglomeration of 27 nations created for streamlining trade, commerce, travel, and political interaction among member states. Its most notable accomplishment, the creation of a standardized currency across Europe, is economic; the organization's sway and influence in Europe is unprecedented globally and marks a new level of interrelation among sovereign nations. To gain membership, countries must meet certain criteria, mostly related to political and economic stability and human rights records. Most member nations are in the West: Greece is the easternmost member on the mainland, while the island of Cyprus is the only non-European member in the body. Turkey has sought membership but has been denied because of human rights and democracy violations.

VOCABULARY

Unicameral: having one legislative house
Bicameral: having two legislative houses
Figurehead: head of a country in name only with no real authority
Cabinet: body of persons appointed to head various governmental departments and to advise the head of government

Life Principle

Great ideas originate in the muscle.
- Thomas Edison



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World Geography

Chapter 3



Lesson 12
Diplomatic Relations

Section 3
Lessons 11-15






World War II
Japanese Plane

More than seventy years ago Germany, led by vicious dictator Adolf Hitler, attacked Poland. Two days later, the United Kingdom and France were compelled to declare war on Germany, which plunged the continent into World War II. The week marked the second time in the twentieth century the world's eye had fixed on Europe, and during the next six years, its attention held steadily on the continent whose war twenty-five years earlier was known as the War to End All Wars (World War I). On December 7, 1941, Japan unceremoniously attacked the United States' naval base at Pearl Harbor. The United States declared war on Japan and its ally, Germany, and American troops crossed the ocean to defend Europe. When Germany was finally defeated in 1945, it marked the end of World War II but not of European conflict: the continent whose battles dominated the first half of the 20th century continued to dictate news headlines, military actions, and ***diplomatic*** ties around the world. Russia invaded Europe and set up the Iron Curtain from East Berlin to Greece.



Indeed, Europe has proved a defining force in world politics and diplomatic relationships since long before World War II. The continent's historical reach is unparalleled by any nation or empire in history, having colonized all six inhabited continents and holding vast amounts of territory. Long before the United States asserted its independence and shrunk Great Britain's holdings in 1776, Europe was extending its reach across both East and West, a fact still

VOCABULARY

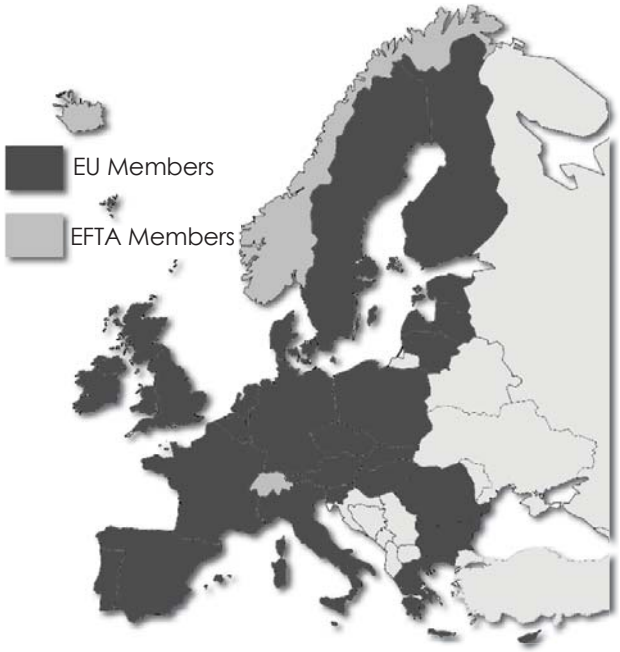
Diplomatic: having to do with relations between nations
Superpower: a nation with unusually far-reaching political, social, or economic influence
Neutrality: policy of not taking part in wars or even international associations or agreements
Coalition: temporary alliance for some special purpose

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reflected in the ethnic makeup, language, economic systems, and political forms of countless nations today. Despite its small size, the continent has a storied diplomatic heritage, and developments in Europe tend to have far-reaching influence around the globe.

The shadow of the world wars, and more recently of the Cold War, has determined diplomacy to a large degree over the past twenty years. Generally, Europe's diplomatic ties have been closely linked with individual nations' embrace or rejection of Western culture, their status as former Soviet bloc nations, and their level of industrialization. Western nations, which during the Cold War did not fall to Soviet domination, have tended to enjoy good relations with the United States and the western hemisphere. By and large affluent, democratic, and progressive in their economic views, nations such as Great Britain, Spain, France, and others have ranked among the United States' closest allies, and many continue to enjoy upbeat relationships. Great Britain, for instance, whose colonization efforts birthed the U.S., is America's closest friend, united by a common heritage, language, economic outlook, and relative social conservatism. Two of America's greatest antagonists in World War II, Germany and Italy, now enjoy prosperous connections with the world's only ***superpower***: Germany pours massive amounts of money into the U.S., a staggering 50% of foreign direct investment, and Italy has cooperated with the U.S. in its war on terror and in combating challenges like human and drug trafficking. The Netherlands, Poland, and Belgium are also particularly close to the U.S.

The United States does not singularly dominate the foreign relations of Western Europe, however, and neither are Western European nations uniformly cordial towards the United States. Despite supporting America diplomatically and militarily in the Afghanistan invasion after the U.S.'s September 11, 2001 attacks, Germany worked to undermine its coalition-building attempts preceding its invasion of Iraq, which it believed an ill-advised war. Similarly, France opposed the move and conspicuously cast suspicion on U.S. foreign policy, and French and American opinions of each other plummeted at the U.S.-led invasion of Iraq. Elsewhere in the world, Western relations are varied. China and India, both rapidly developing nations with yet huge challenges to address, have moderately healthy relations with much of the region, but trust is tempered somewhat by China's human rights violations and official atheistic status. Russia, a partially



European Union Members Map

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European nation, though not a European Union (EU) member, enjoys decent relations with Western Europe, despite disputes concerning defense missiles and the European purchase of Russian energy. These relations have taken somewhat of a dip recently, owing partly to these disputes and partly to Europe's close ties with the U.S. In Asia and Africa, many nations hold only polite and limited connections with Europe due to their own human rights problems that Europe does not approve. France and Germany are increasing their investments in Latin America and seeking to bolster the marginal political ties they have established. Among other curiosities of European foreign relations, Switzerland and Sweden have historically maintained ***neutrality*** through two world wars and a series of other conflicts; Switzerland and Norway are the only Western European nations to abstain from joining the EU.


Vladimir Putin

Further east, relations are colored somewhat differently. In nations clouded by former Soviet control, such as Serbia, Romania, and Belarus, the United States is received in wildly different manners. Belarus, for instance, has long been suspected of violating human rights and tampering with election results, and the United States' efforts to confront the nation on these issues have been received coldly, at best. The nation has failed to adhere to international economic agreements it signed with the International Monetary Fund and other organizations, and amidst other economic trials the United States passed a resolution advocating Belarusian democracy, which was viewed as inappropriate tampering with its affairs. The U.S. maintained good relations with Serbia until 2008, when the U.S. formally recognized the existence of Kosovo, a Serbian breakaway nation (Serbia does not recognize Kosovo). The largely westernized nation of Romania, on the other hand, is a strong ally of the U.S.'s, having watched its relationship flourish after the Cold War and fighting alongside the U.S. in the Iraq war. Other nations echo this hit-or-miss theme with American friendship, although America's friends outnumber its enemies. Since America's return of the Holy Crown of Hungary in 1978, Hungarian-American relations have been warm. Nations like Albania, Bulgaria, and Estonia all enjoy strong relationships and popular American support.


United Nations

Russia, in particular, has been the focus of intense scrutiny over its relationships with its allies since the Cold War. Led by Vladimir Putin, and currently by Dmitry Medvedev, the former headquarters of the Soviet Union has developed a fledgling industry and decidedly nationalistic culture, regarding Westernization skeptically and retaining a cautious stance toward America and her allies. While U.S. relations are friendly, Russia has adopted a somewhat proud manner in foreign policy, vocally opposing the U.S.'s involvement in Iraq and commenting on foreign countries' internal

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affairs, such as Belarus's presidential election. As Russia's economy develops and most Russians remain unsympathetic to American or Western ideals, the nation is a major voice on international concerns. The world's largest country was a key player in designing and organizing the United Nations (UN), on whose Security Council Russia has a permanent seat and veto power. Russia is also an observer in OPEC.



European Union

The diplomatic landscape of Europe is not merely confined to individual countries, however, but closely linked and often largely dependent on international diplomatic, economic, and political organizations. The EU has emerged as a key body in Europe, diplomatically as well as economically, with influence on what is best for a particular country's economics. The organization has aided many nations in their negotiations over Russia's energy supply to Europe. The EU is exploring options to purchase more from Middle Eastern nations (many oil-producing Middle Eastern nations, however, have far worse human rights records than Russia, creating a real dilemma). Its European Neighborhood Policy has also sought to strengthen bonds with non-EU states that are nonetheless important adjacent nations or trading partners, such as Ukraine and Kazakhstan.

Perhaps more importantly, the North Atlantic Treaty Organization (NATO) has since 1949 provided a mutual defense pact among member nations. Founded with only a dozen nations, the treaty has since expanded to include 28 countries in North America and Europe and assures members that if one is attacked, it will receive assistance from the others. Despite the organization's modest membership, the nations represented account for over 70% of global defense spending, an astonishingly high figure. NATO has a long history of military action since its inception, including buildup and support during the Cold War and intervention during the Yugoslavia conflict in the mid-1990s. After the September 11 terrorist attacks on the U.S., NATO provided token military support in Afghanistan through personnel and resources for the offensive, establishing a modest ***coalition*** against Taliban terrorists.

Life Principle

I realize that much will be asked of me, yet I am resolved to accept it as a great and splendid task.

- Beatrix, Queen of the Netherlands

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World Geography

Chapter 3



Lesson 13
Economic Systems

Section 3
Lessons 11-15





High school and college economic courses will traditionally define economic systems in three camps along a continuum. At the left end of the spectrum is communism, as designed by Karl Marx and promoted by his protégés in Russia, China, Cuba, North Korea, and North Vietnam. Communism demands the complete abolition of private property in favor of absolute government control. The system's maxim, "from each according to his ability, to each according to his need," promotes a society wherein each individual contributes labor solely to the community, whose bosses distribute basic essentials. On the other end, capitalism distrusts government intervention, arguing that private property, ownership of goods and means of production, and limited government regulation will stimulate production and provide incentive for workers to make a profit. In the middle of these poles, socialism controls both private property and government regulation to shape economics, with market forces enabling ***competition*** and the government dispersing tax money through welfare programs. Most societies around the world fall into one of these three categories.

Throughout the Cold War era, from the 1950s to the 1980s, eastern Europe suffered under the iron fist of communism. Today, European nations operate somewhere between the socialist and capitalist camps, with most nations incorporating elements of both systems. The U.S. form of capitalism has never been produced in Europe, where strong central governments have deep roots. Europe, along with most nations in the world, has relied largely upon ***mixed economies*** historically with varying degrees of government

VOCABULARY

Competition: economic principle wherein producers will vie for profits
Mixed economy: economic system that combines elements of two or more existing systems
Euro: standard unit of currency throughout much of Europe
Privatize: to deregulate; to allow private ownership without government entanglements
Tariff: protective import tax

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intervention. The continent's prosperity has strengthened as the economic systems of Europe have adapted forms of free market capitalism.

Despite its small size, Europe is the world's richest continent. If taken as a whole, the EU, which has united Europe economically with its launch of a unified currency and singular voice on political and economic issues, is the world's largest economy, with a GDP of $18 trillion in 2009. When including Europe's 23 non-EU states, the figure jumps to nearly $33 trillion, which tops second-place North America's $27 trillion. The unprecedented financial success is based on a wide variety of strong economies principally utilizing market forces. Indeed, of the world's 16 richest nations by nominal GDP per capita, 14 are in Europe, including the top ten. Since its introduction in 1999, the ***euro*** has done extremely well against foreign currencies, including the dollar, a fact that owes to its hosts' financial stability and affluence. Despite some well-publicized socialistic tendencies, European countries are among the most capitalistic in the world: in 2008, Ireland ranked third worldwide on the Index of Economic Freedom's annual rankings, generally considered a gauge of capitalism. In the midst of a global recession in 2008 and 2009, Europe has generally fared better than the United States and other developed nations in unemployment, GDP loss, stock markets, and a host of other categories.



In Western Europe, market economies prevail, with government exerting limited power over economic forces and activity. Nations such as Ireland, Switzerland, the United Kingdom, Iceland, and, to some degree, Scandinavia, are capitalistic in nature, with extensive private control of industries and services and few government monopolies. In Ireland, income tax is progressive, as it is in most countries, and the government manages transportation and some media corporations. Despite these elements, however, the nation's agricultural segment thrives, as does its service and manufacturing industries. Corporate taxes are generally low, a move adopted to encourage foreign investment, and pieces of the economy, such as electricity production and the Aer Lingus airline, have recently been ***privatized***. Finland is similarly free market-based, with its fledgling manufacturing and much larger service sectors profitable and thriving. However, Finland's tax rates are substantially higher than other northern European states', and the government controls the healthcare industry and enforces a strange legal monopoly on alcoholic beverages, which the company Alko alone has the right to sell. But it has recently made moves to privatize certain industries and has moved toward deregulation in some capacities, a trend echoed by other nations like Switzerland and Sweden.

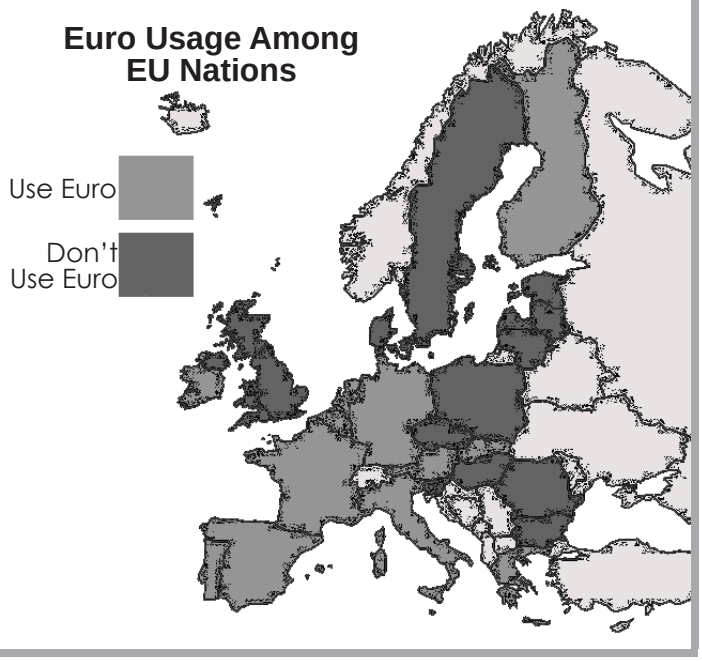
Interestingly (and perhaps instructively), levels of affluence tend to correspond with higher economic freedom throughout Europe. Switzerland ranks 3rd worldwide in nominal GDP per capita

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and 9th in economic freedom; Luxembourg ranks 1st and 15th respectively. Denmark has the 5th highest per capita GDP and is 11th in capitalism, while Ireland is 4th and 3rd. Conversely, smaller economies that rank further down in prosperity, such as Montenegro and Azerbaijan, have yet to implement capitalistic reforms in widespread fashion.

Further east, Central European nations have been a mixed bag after the Cold War, with communist tendencies slow to die but free market success stories abounding. In formerly communist Czech Republic, for instance, the government has privatized industries through selling shares, which buyers could in turn reinvest in privately held companies. Prior to 1989's Velvet Revolution, which resulted in the peaceful overthrow of predecessor Czechoslovakia's communist regime, state ownership of business hovered around 97%; within ten years, over 80% of business was privately controlled. Latvia has one of Europe's fastest growing economies, a trend owing to the privatization of business after the collapse of the Soviet Union. With the exception of the country's largest energy producer and several other important corporations, the government has relinquished most of its holdings, and as a result, Latvians have enjoyed new levels of prosperity.

Many European nations, specifically in the east, still struggle to adopt free market policies. Along with other Balkan nations, Serbia has seen its GDP soar during the past decade. Serbia faced a 13% unemployment rate and a debt of several billion dollars in the spring of 2009, which is nonetheless considerably lower since 2000. Low taxes, however, have spurred aggressive foreign investment from high-profile companies such as Microsoft, Coca-Cola, and Phillip Morris, and satisfaction with business conditions is extremely high. In Belarus, the outlook is somewhat less sunny, as centralization lingers in the form of wage controls. Consequently, privatization has progressed slowly. Sectors as diverse as energy, banking, and agriculture are highly regulated, and many energy firms and banks find it difficult to compete under the artificial price controls and stiff guidelines imposed by government agencies. Inhabitation and, particularly, farming are limited, as fallout from the 1986 Chernobyl nuclear disaster contaminated much of the country. Some Eastern European nations like Romania and Turkey, however, have assertively pursued Western capitalistic policies, and standards of living are generally higher in these places.



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It is not possible to underestimate the influence of international and transgovernmental organizations on the economy of Europe. The EU, besides having standardized currency, has instituted policies to stimulate trade, such as removing ***tariffs*** and funding international trading programs. It has strengthened many sectors of Europe's economy, in particular, agriculture, which receives massive subsidies from the EU and is guaranteed minimum prices for some crops. Environmentally, the EU has directed energies toward building sustainable energy models and reducing pollution, the effects of which have threatened liveability in European cities. The EU has poured millions into promoting tourism throughout the continent, as well as supporting European companies that face foreign competition, such as aircraft manufacturer Airbus, cosmetics firm L'Oréal, and telecommunications giant Nokia.



Outside of the EU, the European Economic Area established a single market for European nations regardless of EU membership. It is comprised of EU nations and those in the European Free Trade Association (EFTA), which today number only four who have not joined the EU. EFTA nations, which include notoriously isolationistic Switzerland, have addressed barriers to trade and international transport and worked to reduce restrictions to intercontinental commerce.



Life Principle

Not he who has much is rich, but he who gives much.

- Erich Fromm

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World Geography

Chapter 3



Lesson 14
Natural Resources

Section 3
Lessons 11-15





Stretching across a vast swath of northern Russia from Europe to the Pacific lies the Siberian forest. This enormous region, whose two million square miles cover approximately one-third of the country and constitute the largest forested area in the world, supply 20% of Earth's timber and suck huge amounts of carbon dioxide out of the air every year. Because of their far northern location in a sparsely populated land, the forests are accessed moderately by logging companies. Representing an invaluable ***commodity*** to Russians, whose massive nation is already rich with coal and oil reserves, the forests are among Europe's most important natural resources and one of the least understood around the globe.

Siberia's timber is only one resource in a continent brimming with them, from uranium reserves in Ukraine to ***solar energy*** around the Mediterranean, and from fertile, arable soils in Romania to a dynamic fishing industry in Norway. Europe enjoys a peculiarly dense selection of resources for its size, a fact that has partially kindled its vibrant economy and affluence. Agricultural maps and satellite imagery reveal the large extent of farming and ranching in Western Europe due to fertile soils, as most areas that are not urbanized or prohibitively mountainous are invested in agriculture. To the east, large tracts of land are reserved for farming, as well, with timber harvesting important



VOCABULARY

Commodity: a good produced in an economy
Solar energy: energy derived from the Sun's rays
Uranium: element important in nuclear energy
Wind energy: energy derived from the wind

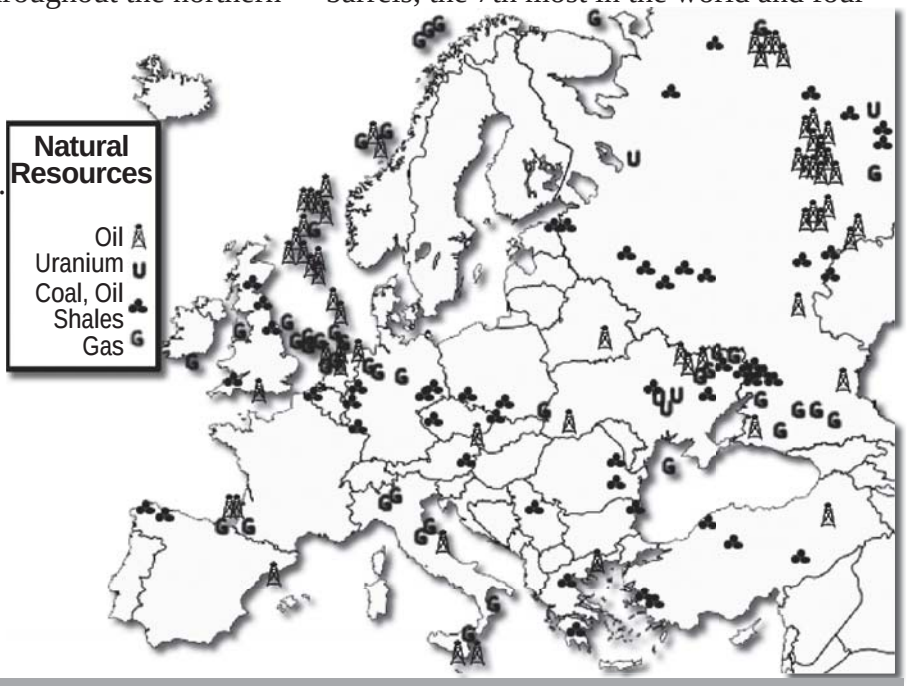
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here as well as in Scandinavia, which is thickly forested except for taiga regions in the extreme north. Coal resources are prevalent throughout France and Germany, and other minerals are scattered throughout eastern regions. Despite the seemingly random dispersal of resources, however, several trends can be observed throughout the continent, and the link between natural resources and economic benefits is fascinating.

The first observable pattern is Western Europe's proliferation of mineral resources, both materials for construction, such as limestone and granite, and metals like nickel and iron. Far more than the eastern countries, the West harvests native minerals that have a wide variety of applications and often serve as important exports. Spain has among the highest concentrations of some: silver is common across its plateaus, and lead and zinc are found throughout the northern reaches. The latter two exist on certain Mediterranean islands, too, like Sardinia and Corsica. In limited quantities, France has stores of ***uranium***, which are important in nuclear power, among Europe's largest coal supplies, and healthy natural gas resources. In Germany, copper, iron, potash, salts, and nickel are widespread, in addition to coal and petroleum. Among smaller nations, Belgium is known for its export of construction materials, such as carbonates. Italy has, arguably, one of the richest resource pools on the continent, with nickel, feldspar, copper, sulfur, pumice, barite, marble, and mercury prevalent in many areas. As a general rule, energy resources like coal and petroleum are most concentrated near the North Sea; iron is a major cornerstone of mining in the north and more significantly in Scandinavia. Mediterranean countries generally tend to be wealthier in resources than are nations further inland. Exceptions to these rules exist, however, such as the coal-producing regions in Ukraine, which constitute an important segment of economic production.

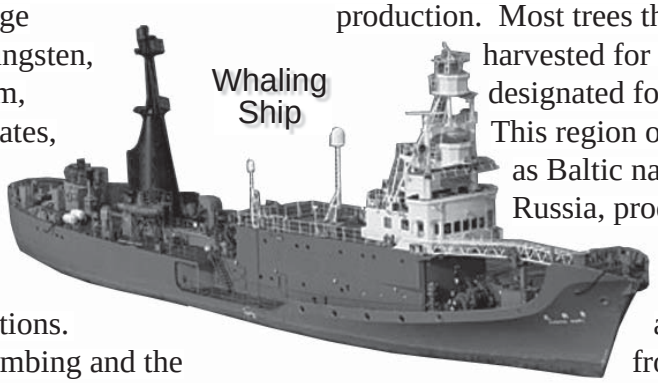


In the east, Russia is a major supplier of energy needs because of its vast oil, gas, and coal reserves. Estimates of Russia's oil reserves are around 80 billion barrels, the 7th most in the world and four



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times the United States' capacity. Indeed, the vast stores of petroleum, situated in a belt through the country's middle, and the coalfields, concentrated in the west down to the Caucasus, provide power for much of Western Europe, which often butts heads with Russia over occasional reliability problems and prices. The world's largest nation also enjoys huge supplies of copper, tungsten, manganese, chromium, iron ores, tin, phosphates, platinum, titanium, and nickel. In the local economy, these metals have wide-ranging applications. Copper is used in plumbing and the telecommunications industry. Platinum and chromium are largely decorative metals used in jewelry and automobile parts. Tin is used in roofing and in manufacturing sheet metal, a common construction supply. Neighboring Ukraine and Kazakhstan are famous for their uranium production and refinement and are, consequently, hotbeds of nuclear research and manufacturing, while further south, Greek hills and mountains are made of marble, a material used in home countertops and flooring, among other construction purposes.


Whaling Ship

In addition to widespread timber packed into dense forests, perhaps no activity better defines Scandinavia than its shipping and whaling industries. Rooted strongly in Norse history, the Norwegian, Swedish, and Finnish shipping industries are still vibrant and healthy, despite overfishing and increasing scarcity of species like cod and halibut off the coast. Interestingly, strict fishing limits have kept Norway from joining the EU: the cold and, in many places, non-arable country has historically survived on fish, although the introduction of crops like the potato and beans have alleviated some of that burden. Today, whaling and shipbuilding comprise large sectors of Scandinavia's economy and provide valuable exports.

Scandinavia and other forested nations are also notable for their paper production. Most trees that are not harvested for lumber are designated for paper products. This region of Europe, as well as Baltic nations and northern Russia, produces a great deal of the world's paper products as a result. Aside from its printing and writing uses, huge amounts of paper are used for packaging.

In a new and rapidly changing era, less obvious natural resources are experiencing development in innovative ways. In the south, solar energy is high because of the sun's intensity, both on the Mediterranean coast and further inland. On the Spanish plateaus, and particularly near Gibraltar, the potential for capturing solar energy holds the possibility for revolutionizing the energy landscape, providing a viable alternative to coal and oil-based power. Similar solar potential exists throughout Italy and the Balkan Peninsula, and holds a huge advantage over current production resources in its renewability. Moreover, ***wind energy*** carries the potential to power Europe several times over if production costs can be reduced, according to 2009 reports by the European Environment Agency.


Wind Turbine

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Although wind harnessing in Europe exists at higher levels than in many regions worldwide, companies have just begun to see the tip of the iceberg in terms of wind-generated energy. Currently, Germany tops a collection of mostly North Sea-proximate countries for biggest producer in Europe. Denmark currently generates over one-fifth of its electricity with wind. The potential locked up in this resource is among Europe's most promising economic realities.

Life Principle

If you worry about falling off the bike, you'd never get on.

- Lance Armstrong

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World Geography

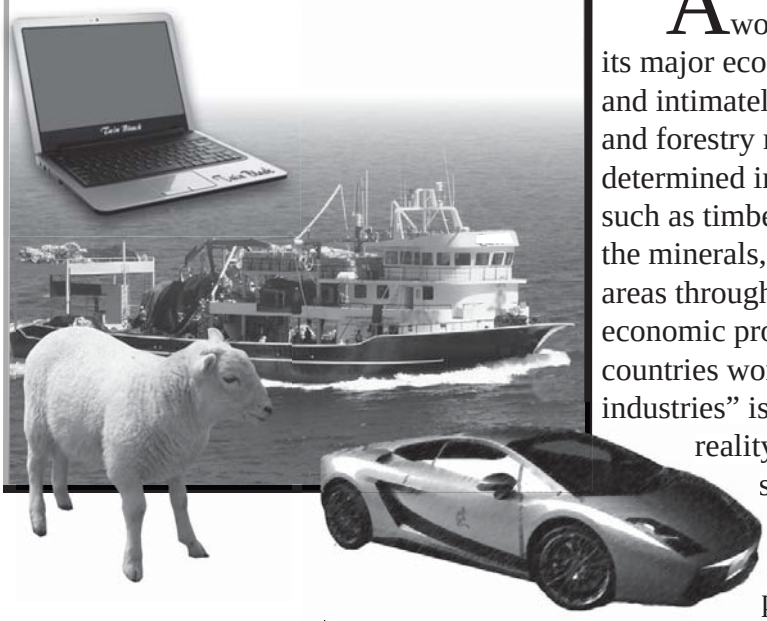
Chapter 3



Lesson 15
Imports, Exports and Major Industries

Section 3
Lessons 11-15





As is the case with most areas of the world, Europe's natural resources and its major economic activities are intrinsically and intimately related. Just as Russia's energy and forestry resources have to a large extent determined important industries—activities such as timber harvesting and oil refinement—the minerals, vegetation, and soil in many areas throughout Europe go hand in hand with economic production, precisely because the countries work with what they have. Yet "major industries" is a broader, more encompassing reality than a study of natural resources solely, as jobs in a modern economy often arise from service sectors marginally connected with certain products. Europe is a developed, industrialized continent, and even in less affluent nations, the economy is based more on activities like manufacturing and services than in third-world countries, for instance, where ***subsistence farming*** is prevalent. Across its many cities and countrysides is a diverse, multifaceted economic life that has emerged significantly in a changing 21st century.

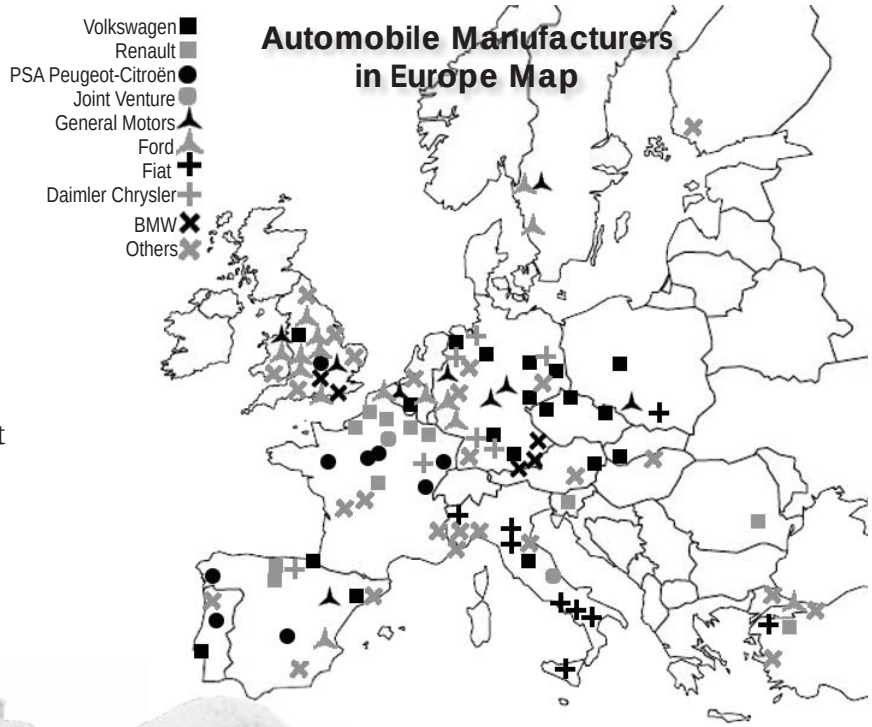
Among the most important concerns in any country is agriculture and food processing, and Europe has ***mechanized*** and streamlined the two industries into an efficient operation. Similar to many developed nations, countries like Great Britain produce huge percentages of national food needs—in its case, 60%—with a tiny fraction of the labor force, 2%. Technological advancements and free markets have effected this change in production. Indeed, Europe has shifted from a medieval landscape of

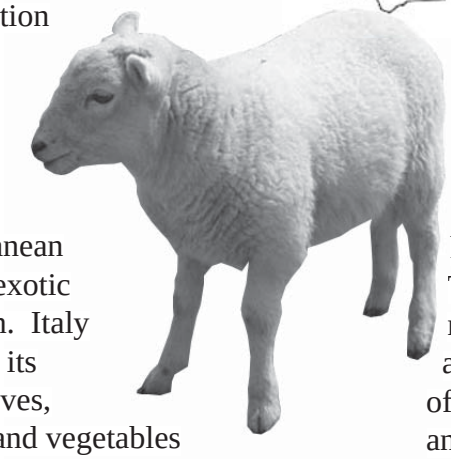
VOCABULARY

Subsistence farming: farming performed as a means to survive
Mechanized: relegated to or developed for machines
Labor force: workforce; those employed in a particular economy
Cuisine: local menu or style of food preparation
Renewable energy: energy derived from sources without fixed quantities, such as wind

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subsistence farming to intensive, company-operated agriculture. While agriculture contributes a relatively small portion of the GDP in most countries, it constitutes an important export and trade item within the continent's boundaries. France, Europe's largest agricultural producer and the world's second largest exporter, enjoys livestock raising, including cattle and sheep. Dairy production flourishes in the western regions. Further south, along the Mediterranean Basin, more exotic foods flourish. Italy is famous for its exports of olives, wine, fruits, and vegetables throughout Europe. Germany, France, and the Netherlands are important producers of cheese. Staple crops like wheat, oats, and barley grow widely across borders, comprising the largest parts of European farming. In coastal countries, especially in Scandinavia, fishing makes up a huge segment of food production; as seafood prices have remained consistently high, this industry is lucrative. Norway, for instance, is estimated to export 90% of its fishing yield each year, and the trend is paralleled in Portugal, Ireland, Sweden, and other western nations.



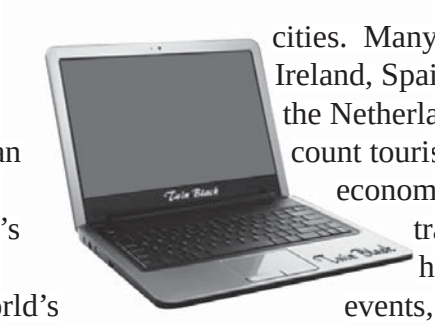


Manufacturing is a large component of most countries' economies, although its share of GDP and of total employment has shrunk modestly in recent years. Throughout the 2000s, the UK's manufacturing segment has comprised around 15% of national output and 13% of the ***labor force***, largely in heavy industry and automobile manufacturing. Eight percent of car manufacturers worldwide are located in Britain, many of them luxury brands like Jaguar, Mini, and Rolls-Royce. Aside from these, numerous companies are located or have important branches in Britain: Reebok, Cadbury, Umbro, HarperCollins, Burberry, Unilever, and brewers Diageo and SABMiller all call the United Kingdom home. In Austria, ski company Atomic and gun maker Glock headline the list



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of corporations. Ireland is home to high-tech offerings such as IBM, Intel, and Apple's European headquarters. France's Airbus is one of the world's largest aircraft producers, manufacturing half the world's airliners and holding significant market shares in defense and aerospace.



One trend in coastal countries and those with more extensive high-speed rail lines is the emergence and continued dominance of transportation as an important economic force. Belgium's tiny 41 miles of North Sea coastline has not deterred it from becoming one of the world's largest shipping countries: Antwerp is generally among the three busiest ports in the world by any measure, and the Bruges-Zeebrugge port is a significant shipping location as well, moving Europe's largest quantity of natural gas. In France, transportation has developed into a fledgling industry with densely populated cities, scenic countryside, and a well-connected rail network, which currently boasts some of the fastest trains in the world. Capital city Paris's twin international airports are also among Earth's busiest; other important international hubs include London's Heathrow Airport, Frankfurt Airport in Germany, and Barajas Airport in Madrid, Spain.

Fueling the transportation industry is not just a dense population and the easy international travel encouraged by the European Union, but also by a healthy tourism industry. Major Western European cities are the most visited in the world. France receives 75 million visitors every year, more than any other country; Paris, along with London, Rome, Barcelona, and Dublin are among the top 15 most popular cities. Many nations, in fact—the UK, Ireland, Spain, Germany, Italy, Austria, the Netherlands, Switzerland, Denmark—count tourism as one of their main economic activities, with international travelers flocking to enjoy heritage and culture, sporting events, world-class performing groups, and delectable local ***cuisines***. In the Alps, winter tourism often outstrips summer in numbers, as ski resorts and mountain getaways have cropped up in Austria, Czech Republic, Germany, and Italy; other mountain ranges in Spain, Scandinavia, and Georgia have their own resorts. Specialty segments of this industry have gained popularity in recent years, with travelers focusing on one particular niche rather than traveling for traveling's sake. In Greece, visitors might be interested in touring ancient Biblical sites or the sites of the Trojan War. In Italy, tourists may visit Rome and other cities to sample popular Mediterranean cuisine.

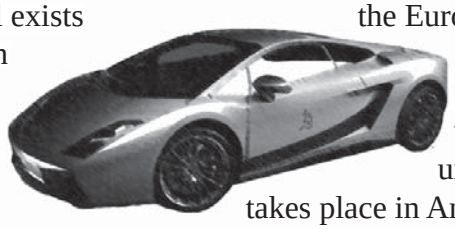
In Switzerland, a long history of bank secrecy and investment stability has solidified investor confidence in banking and financial institutions, and perhaps more than any other country Swiss banks are critical to the national economy. Banks here receive investments from all over Europe and the world, and careful reinvestment in large numbers of European manufacturing companies and other international businesses has diversified their portfolios and insured against dramatic collapses. Because of these safeguards, Switzerland's economy has fared better than other European economies, and far better than the U.S.'s, in the 2008-2009 recession, although it still took some hits. Zürich is Switzerland's largest city and most important financial center, host of the

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Swiss Stock Exchange.

Elsewhere in Europe, financial sectors are of critical importance. The London Stock Exchange is perhaps the single most important financial hub in the world. Major international banking and investment firms such as Bank of America, Citibank, Bear Stearns, Goldman Sachs, Morgan Stanley, and Hong Kong Shanghai Banking Corporation (HSBC) trade here. The financial industry also constitutes important parts of other countries' economies, particularly in major cities like Moscow, Berlin, Dublin, Kiev, and Vienna.

Aside from these industries, other major activities abound. Oil exists beneath the North Sea and in western Russia, providing huge boons to local economies, as does a belt of coalfields stretching southeast from the North Sea to the Ukraine.



Europe's telecommunications industry has developed quickly in recent years due to the rapid spread of cell phones and personal computers, spurring technologies like wireless Internet and mobile networking. Cell phone manufacturer Nokia, the largest worldwide, is headquartered outside of Helsinki, Finland and earned over 50 billion euros in 2008. Outside of Britain, the automobile industry in Europe is booming, although many of the vehicles produced arrive in the U.S. only in limited quantities. Luxury car makers Ferrari and Lamborghini are among the most high-profile vehicles in Italy, but companies like Mercedes, BMW, and Volvo also comprise a large percentage of both the European and the American car market. In Belgium, diamond trade thrives, as up to 50% of the world's uncut diamond business takes place in Antwerp and around its port. In the form of companies like Savile Row, Colore Bulgaria, and A.W. Hainsworth and Sons, textiles are an important business and make up a significant export item. Other industries, such as ***renewable energy*** and technology, promise to grow quickly in the near future.

Life Principle

Sometimes we stare so long at a door that is closing that we see too late the one that is open.

- Alexander Graham Bell



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