





FIGURE 2.1

Europe is the most intensively settled of the major world regions, with a population of 726 million, 75 percent of whom live in Europe's cities, 63 of which have populations of more than 500,000 (Figure 2.1). The western, northern, and southern limits of Europe as a whole are quite clearly defined, since they are formed by the Atlantic Ocean on the west, the Arctic Ocean on the north, and the Mediterranean Sea on the south. The eastern edge of Europe merges into the vastness of Asia and is less easily defined. The mountain ranges of the Urals are sometimes used by geographers to mark the boundary between Europe and Asia, but the most significant factors separating Europe from Asia are human and relate to race, language, and a common set of ethical values that stem from Roman Catholic, Protestant, and Orthodox forms of Christianity. As a result, the eastern boundary of Europe is often demarcated through political and administrative boundaries rather than physical features.

For a few decades, between 1945 and 1989, there was a significant geopolitical division within Europe into eastern and western Europe. These two subregions share a great deal in terms of physical geography, racial characteristics, and cultural values, but for a while they were divided by the Cold War territorial boundary that separated the

capitalist democracies of western Europe from Soviet state socialism, a form of economy based on principles of collective ownership and administration of the means of production and distribution of goods dominated and directed by state bureaucracies. The result was what Winston Churchill called an "Iron Curtain" along the western frontier of Soviet-dominated territory: a militarized frontier zone across which Soviet and East European authorities allowed the absolute minimum movement of people, goods, and information.

Soviet influence to the east of the Iron Curtain created distinctive economic, social, and cultural conditions for a long enough period to have effected some modifications to the geography of eastern Europe. Since the collapse of the Soviet Union in 1991, however, its former **satellite states** in eastern Europe have reoriented themselves as part of the broader European world region. Meanwhile, most European states have joined together in the European Union, creating an extremely powerful economic and political force in world affairs. Europe as a whole still bears the legacy of a complex history of social and political development, but it has reemerged since World War II as a crucible of technological, economic, and cultural innovation.

ENVIRONMENT AND SOCIETY IN EUROPE

Two aspects of Europe's physical geography have been fundamental to its evolution as a world region and have influenced the evolution of regional geographies within Europe itself. First, as a world region, Europe is situated between the Americas, Africa, and the Middle East (see Figure 1.1). Second, as a satellite photograph of Europe reveals, the region consists mainly of a collection of peninsulas and islands at the western extremity of the great Eurasian landmass (Figure 2.2).

The largest of the European peninsulas is the Scandinavian Peninsula, the prominent western mountains of which separate Atlantic-oriented Norway from continental-oriented Sweden. Equally striking are the Iberian Peninsula, a square mass that projects into the Atlantic, and the boot-shaped Italian Peninsula. In the southeast is the broad triangle of the Balkan Peninsula, which projects into the Mediterranean, terminating in the intricate coastlines of the Greek peninsulas and islands. In the northwest are Europe's two largest islands, Britain and Ireland.

The overall effect is that tongues of shallow seas penetrate deep into the European landmass. This was especially important in the pre-Modern period, when the only means of transporting goods were by sailing vessel and wagon. The Mediterranean and North seas, in particular, provided relatively sheltered sea lanes, fostering seafaring traditions in the peoples all around their coasts. The penetration of the seas deep into the European landmass provided numerous short land routes across the major peninsulas, making it easier for trade and communications to take place in the days of sail and wagon. As we shall see, Europeans' relationship to the surrounding seas has been a crucial factor in the evolution of European—and, indeed, world—geography.

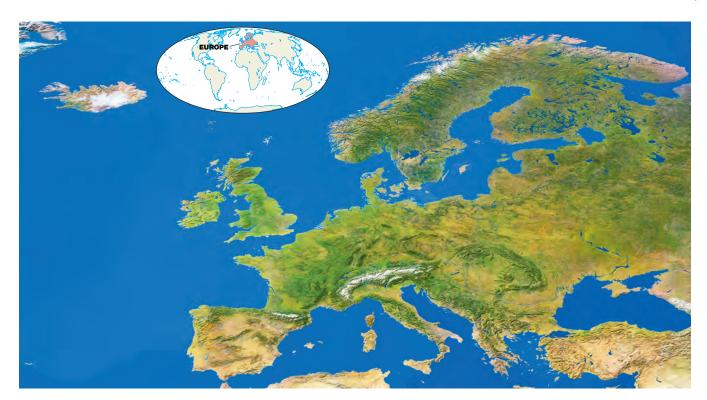


FIGURE 2.2 Europe from space This image underlines one of the key features of Europe: the many arms of the seas that penetrate deep into the western extremity of the great Eurasian landmass.

Europe's navigable rivers also shaped the human geography of the region. Although small by comparison with major rivers in other regions of the world, some of the principal rivers of Europe—the Danube, the Dneiper, the Elbe, the Rhine, the Seine, and the Thames—played key roles as routeways. Also, the low-lying watersheds (dividing ridges between drainage areas) between the major rivers of Europe's plains allowed canal building to take place relatively easily, thereby increasing the mobility of river traffic.

Landforms and Landscapes

The physical environments of Europe are complex and varied. It is impossible to travel far without encountering significant changes in physical landscapes. There is, however, a broad pattern to this variability, and it is based on four principal physiographic regions that are characterized by broad coherence of geology, relief, landforms, soils, and vegetation. These regions are the Northwestern Uplands, the Alpine System, the Central Plateaus, and the North European Lowlands (Figure 2.3).

Northwestern Uplands The Northwestern Uplands are composed of the most ancient rocks in Europe, the product of the Caledonian mountain-building episode about 400 million years ago. Included in this region are the mountains of Norway and Scotland and the uplands of Iceland, Ireland, Wales, Cornwall (in England), and Brittany (in France). The original Caledonian mountain system was eroded and uplifted several times, and following the most recent uplift, the Northwestern Uplands have been worn down again, molded by ice sheets and glaciers. Many valleys were deepened and straightened by ice, leaving spectacular glaciated landscapes. There are *cirques* (deep, bowl-shaped basins on mountainsides, shaped by ice action), glaciated valleys, and fjords (some as deep as 1200 meters—about 3900 feet) in Norway; countless lakes; lines of moraines that mark the ice sheet's final recession; extensive deposits of sand and gravel from ancient glacial deltas, and vast expanses of peat bogs that lie on the granite shield that forms the physiographic



FIGURE 2.3 Europe's physiographic regions Each of the four principal physiographic regions of Europe has a broad coherence in terms of geology, relief, landforms, soils, and vegetation. (*Source*: Adapted from R. Mellor and E.A. Smith, *Europe*: A Geographical Survey of the Continent. London: Macmillan, 1979.)

foundation of the region. Since the last glaciation, sea levels have risen, forming fjords and chains of offshore islands wherever these glaciated valleys have been flooded by the rising sea (Figure 2.4).

This formidable environment is rendered even more forbidding in much of the region as a result of climatic conditions. In the far north, the summer sun shines for 57 days without setting, but the winter nights are interminable. Oslo sees a *total* of only 17 hours of sunshine in the whole month of December. Rivers and lakes in the far north are frozen from mid-October on, while even farther south in Norway they freeze at the end of November and remain frozen until May. Snow, which is permanent in parts of Iceland and Lapland, begins to fall toward the middle of September and covers much of the landscape from October through early April.

Much of the Northwestern Uplands is covered by forests. In the southern parts of the region, conifers (mostly evergreen trees such as pine, spruce, and fir) are mixed with birches and other deciduous trees; further north, conifers become



entirely dominant, and in the far north, toward the North Cape, the forest gives way to desolate treeless stretches of the **tundra**, with its gray lichens and dwarf willows and birches. Not surprisingly, forestry is a major industry. The forests supply timber for domestic building and fuel and produce the woods that are in greatest demand on world markets: pine and spruce for timber and for the paper industry; birch for plywood and cabinetmaking; and aspen for matches.

The farmers in these mountain subregions depend on pastoralism, a system of farming and way of life based on keeping herds of grazing animals, eked out with a little produce grown on the valley floors. In the less mountainous parts of Scandinavia, as in much of Baltic Europe, with their short growing season and cold, acid soils, agriculture supports only a low density of settlement. Landscapes reflect a mixed farming system of oats, rye, potatoes, and flax, with hay for cattle. Oats, the largest single crop, often has to be harvested while it is still green. More than half of the milk from dairy cattle is used to produce butter and cheese.

In these upland landscapes, farms and hamlets are casually situated on any habitable site, their buildings often widely scattered. The countryside is dotted with trim wooden houses, roofed with slate, tiles, shingles, or even sods of turf. Often, the buildings of a particular district are distinguished by some special stylistic feature. In some places, the old weatherboard houses that were used as shelters in bad weather still exist. They date back to the Middle Ages, as does the custom of storing reserve stocks of food or hay in a special isolated building, the *stabbur*, decorated with beautifully carved woodwork. The predominant color of the buildings is gray, the natural color that wood acquires with age. Nearer to towns, the houses are painted brighter colors: yellow, dark red, and mid-blue.

The more temperate subregions of the Northwestern Uplands (in Ireland and the United Kingdom) are dominated by dairy farming on meadowland, sheep farming on exposed uplands (Figure 2.5), and arable farming (mainly wheat, oats, potatoes, and

FIGURE 2.4 The Northwestern Uplands The northern parts of the region are characterized by deeply eroded glacial valleys that have been drowned by the sea, creating distinctive fjord landscapes such as this one at Reine Harbor in Norway's Lofoten Islands.

FIGURE 2.5 The Northwestern Uplands The southern part of the region is characterized by rounded hills and moorlands, with pasture land on glacial outwash plains. Shown here is Loch Earn, Scotland.





FIGURE 2.6 The Alpine System Jagged peaks and glaciated valleys are typical of the Alpine ranges. This photograph is of the central Alps, with the peak of the Matterhorn in the background and the ski resort of Zermatt in the foreground.

barley) on drier lowland areas. In these areas, dispersed settlement, in the form of hamlets and scattered farms, is characteristic, and stone is more often the traditional building material.

Alpine Europe The Alps occupy a vast area of Europe, stretching eastward for nearly 1290 kilometers (about 800 miles) across the southern part of Europe from the Pyrenees, which mark the border between Spain and France, through the Alps and the Dolomites and on to the Carpathians, the Dinaric Alps, and some ranges in the Balkan Peninsula. The Apennines of Italy and the Pindus Mountains of Greece are also part of the Alpine System. The Alpine System is the product of the most recent of Europe's mountain-building episodes, which occurred about 50 million years ago. Its relative youth explains the sharpness of the mountains and the boldness of their peaks. The Alpine landscape is characterized by jagged mountains with high, pyramidal peaks and deeply glaciated valleys (Figure 2.6). The highest peak, Mont Blanc, reaches 4810 meters (15,781 feet). Most of the rest of the mountains are between 2500 and 3600 meters (about 8200 and 11,800 feet) in height. Seven of the peaks in the western Alps exceed 4000 meters (13,123 feet) in height. Although the Alps pose a formidable barrier between northwestern Europe and Italy and the Adriatic, a series of great passes—including the Brenner Pass, the Simplon Pass, the Saint Gotthard Pass, and the Great Saint Bernard Pass—and longitudinal valleys have always provided transalpine routeways.

The dominant direction of the Alps and their parallel valleys is roughly southwest to northeast. The major Alpine valleys thus have one sunny, fully exposed slope that is suitable for vine growing and a shaded side rich with orchards, woods, and meadows. The mountains and valleys of the Alps proper are surrounded by glacial outwash deposits that provide rich farmland. The limestone of the Alpine region is widely quarried for cement, while mineral deposits—lead, copper, and iron—and small deposits of coal and salt have long been locally important throughout the region. In addition, the Alps are a valuable source of hydroelectric power: about 65 billion watt-hours in Switzerland (60 percent of the country's electricity consumption), about 72 billion watt-hours in France (15 percent of the country's electricity consumption), and about 45 billion watt-hours in Austria (85 percent of the country's electricity consumption).

The traditional staple of the economy, however, has been agriculture, and farming has given the Alpine region its distinctive human landscape (Figure 2.7). The Alpine rural landscape is a patchwork of fields, orchards, vineyards, deciduous woodlands, pine groves, and meadows on the lower slopes of the valleys, with broad Alpine pasture above. In these pastures, which are dotted with wooden haylofts and summer chalets, dairy cattle wander far and wide. Farmers attach bells around the necks of their animals in order to

be able to locate them, and the consequent effect is a resonant pastoral "soundscape" of clanking cowbells. Farms and hamlets tend to cling to lower elevations, the chalet-style architecture drawing on timber or roughcast stone construction, with overhanging eaves, tiers of windows, and painted ornamentation.

The landscapes of the Alpine fringes are more lush. Lavender and fruit have been introduced to enrich and give variety to the mixed farming system of the Alpine fringes, which features vine and wheat growing, along with dairy cattle. The higher slopes, which receive more rainfall, provide lush pastures that have made the region famous for its rich cheeses, such as Gruyère.

The principal industry of the Alpine region is tourism. Attractive rural landscapes, together with magnificent mountain scenery, beautiful lakes, and first-class winter sports facilities, have attracted tourists to this region since the 1800s. Lakeside resorts such as Lucerne and Lugano, Switzerland; mountain resorts



FIGURE 2.7 Alpine landscapes The distinctive landscapes of the Alps juxtapose lush meadows and prosperous villages against jagged mountains, as in this photograph of the Pustertal in Italy's South Tyrol region.

such as Chamonix, France, and Innsbruck, Austria; and winter sports resorts such as Val d'Isere, France, and Davos, St. Moritz, and Zermatt, Switzerland, are all well established, with an affluent clientele from across Europe. With the growth of the global tourist industry, Alpine resorts have attracted a new clientele from North America and Japan.

Central Plateaus Between the Alpine System and the Northwestern Uplands are the landscapes of the Central Plateaus and the North European Lowlands. The Central Plateaus are formed from 250- to 300-million-year-old rocks that have been eroded down to broad tracts of uplands. Beneath the forest-clad slopes and fertile valleys of these plateaus lie many of Europe's major coalfields. For the most part, the plateaus reach between 500 and 800 meters (1640 and 2625 feet) in height, though they rise to more than 1800 meters (5905 feet) in the Central Massif of France. The Central Plateaus were generally too low to have been glaciated and too far south to have been covered by the great northern ice sheets of the last Ice Age. Rather, their landscape is characterized by rolling hills, steep slopes and dipping vales, and deeply carved river valleys.

In central Spain, the landscape is dominated by plateaus and high plains that go on for hundreds of miles, with long narrow mountain ranges—cordillera—stretched out like long cords along the edges. The flat landscape of the region is a result of immense horizontal sheets of sedimentary rock that cover a massif of ancient rock, with a general appearance of tables ending in ledges—hence the term Meseta, which is generally used to designate the center of Spain (Figure 2.8). These dry, open lands

FIGURE 2.8 The Central Plateaus

The Meseta of Spain covers thousands of square miles in the center of the Iberian Peninsula.





FIGURE 2.9 Black Forest The town of Waldkirch, shown here, is typical of the market towns that are strung along the valley bottoms of the Black Forest.

are preeminently areas of grain crops and of flocks and herds of sheep and cattle that in summer are driven up to the cooler mountains. Olive trees dominate the shallow valley slopes, and in irrigated valley bottoms vines and prosperous market gardens flourish.

Further east—in the Massif Central in France; the Eifel, Westerwald, Taunus, Hunsruck, Odenwald, and Franconian Jura in Germany—where the climate is wetter, the landscape is dominated by gently rounded, well-wooded hills, with villages surrounded by neat fields and orchards in the vales. These hills rarely rise above 700 meters (2300 feet), and the landscape includes many attractive and fertile subregions of low hills and rounded hillocks planted with vines and shallow valleys with orchards and meticulously maintained farms. The hills are covered with beech and oak forests, interspersed with growths of fir. The Black Forest is much higher, its bare granite summits reaching 1493 meters (about 4900 feet) in the south. It is scored by steep, narrow valleys with terraces of glacial outwash. The northeastern reaches of the Black Forest form an immense, silent, solid mass of fir forests. To the southwest, near the River Rhine, there are small fields and meadows with prosperous farms at the edge of white fir forests and

market towns nestling in tributary valleys (Figure 2.9). The Rhine has cut deep, scenic gorges through the higher plateau lands, but for much of its course across the central plateaus it is majestic and calm, with gentler slopes covered with vines and the bottomlands of the valley a busy corridor of prosperous towns surrounded by industrial crops and market gardens.

North European Lowlands The North European Lowlands sweep in a broad crescent from southern France, through Belgium, the Netherlands, and southeastern England and into northern Germany, Denmark, and the southern tip of Sweden. Continuing eastward, they broaden into the immense European plain that extends through Poland, the Czech Republic, Slovakia, and Hungary, all the way into Russia. Coal is found in quantity under the lowlands of England, France, Germany, and Poland and in smaller deposits in Belgium and the Netherlands. Oil and natural gas deposits are found beneath the North Sea and under the lowlands of

osits are found beneath the North Sea and under the lowlands of southern England, the Netherlands, and northern Germany. Nearly all of this area lies below 200 meters (656 feet) in elevation, and the topography everywhere is flat or gently undulating. As a result, the region has been particularly attractive to farming and settlement. The fertility of the soil varies, however, so that settlement patterns are uneven and agriculture is finely tuned to the

limits and opportunities of local soils, landscape, and climate.

The western parts of the North European Lowlands are densely settled and intensively farmed, the moist Atlantic climate supporting lush agricultural landscapes (Figure 2.10). Further east, the Lowlands are characterized by a drier Continental climate and lowland river basins with a rolling cover of sandy river deposits and loess (a fine-grained, extremely fertile soil). The hills are covered with oak and beech forests, but much of the region consists of broad loess plateaus where very irregular rainfall averages around 40 centimeters—approximately 16 inches—a year. There are no woods and irrigation is often necessary to sustain the typical two-year rotation of corn and wheat. In some parts, several meters of loess and rich, sandy soil rest on the rocky substratum. Stone and trees are so scarce that houses are built of pisé, a kind of rammed-earth brick. The scarcity of trees forces storks to build nests atop chimneys and telegraph poles. The rich soils produce high yields of wheat and corn, together with hops, sugar beets, and forage crops for livestock.





The area also features residual regions of **steppe**: semiarid, treeless, grassland plains with landscapes that are infinitely monotonous. This land, which is too dry or too marshy to have invited cultivation, was once the domain of wild horses, cattle, and pigs, but today huge flocks of sheep find pasture there. The climate, though, is harsh, with seasonal extremes of burning hot and freezing cold, the winter easterlies blowing down from mid-continent Russia. Population densities are low, and there are few villages.

It should be stressed that, within these broad physiographic divisions, marked variations exist. The mosaic of regions and landscapes within Europe is both rich and detailed. Physical differences are encountered over quite short distances, and there are numerous specialized farming regions where agricultural conditions have influenced local ways of life to produce distinctive landscapes. In detail, these landscapes are a product of centuries of human adaptation to climate, soils, altitude, and aspect (exposure), and to changing economic and political circumstances. Farming practices, field patterns, settlement types, traditional building styles, and ways of life have all become attuned to the opportunities and constraints of regional physical environments, with the result that distinctive regional landscapes have been produced (see Signature Region: Mediterranean Europe, p. 66).

Climate

The seas that surround Europe strongly influence the region's climate. In winter, seas cool more slowly than the land, while in summer they warm up more slowly than the land. As a result, the seas provide a warming effect in winter and a cooling effect in summer. Europe's arrangement of islands and peninsulas means that this moderating effect is particularly marked, contributing to an overall climate that does not have great seasonal extremes of heat and cold. The moderating effect is intensified by the North Atlantic Drift, which carries great quantities of warm water from the tropical Gulf Stream as far as the United Kingdom.

Given its latitude (Paris, at almost 49° N, is the same latitude as Winnipeg and Newfoundland in Canada), most of Europe is remarkably warm. It is continually crossed by moist, warm air masses that drift in from the Atlantic. The effects of these warm, wet, westerly winds are most pronounced in northwestern Europe, where squalls and showers accompany the passage of successive eastward-moving weather systems. Weather in northwestern Europe tends to be unpredictable, partly because of the swirling movement of air masses as they pass over the Atlantic and partly because of the complex effects of the widely varying temperatures of interpenetrating bodies of land and water. Farther east, in continental Europe, seasonal weather tends to be more settled, with more pronounced extremes of summer heat and winter cold. In these interior regions, local variations in weather are influenced a great deal by the direction in which a particular slope or land surface faces and its elevation above sea level.

The Mediterranean Basin has a different and quite distinctive climate. In winter, low-pressure systems along the northern Mediterranean draw in rain-bearing weather fronts from the Atlantic. When low pressure over the northern Mediterranean coincides with high pressure over continental Europe, southerly airflows spill over mountain ranges and down valleys, bringing cold blasts of air. These events have local names: the *mistral*, for example, which blows down the Rhône Valley in southern France, and the *bora*, which blows over the eastern Alps toward the Adriatic region of Italy. In summer, hot, dry air masses from Asia and Africa dominate the Mediterranean Basin, producing dry, sunny conditions.

Environmental History

Temperate forests originally covered about 95 percent of Europe, with a natural ecosystem dominated by oak, together with elm, beech, and lime (linden). By the end of the medieval period, Europe's forest cover had been reduced to about 20 percent, and today it is around 5 percent. Between A.D. 1000 and A.D. 1300, a period of warmer climate, together with advances in agricultural knowledge and practices, led to a significant

Mediterranean Europe

Mediterranean Europe is an extensive region that stretches along the coastline of the Mediterranean Sea from southern Spain to eastern Greece, a distance of some 2414 kilometers (about 1500 miles). The distinctiveness of the region derives not only from its ties with the sea but also from its climate and vegetation and its long tradition of urban life. The watershed of rivers that drain into the Mediterranean provides a good approximation of the extent of the region (Figure 1).

The Mediterranean climate is such that winters are cool, with an Atlantic air stream that brings overcast skies and intermittent rain—though snow is unusual. In spring the temperature rises rapidly and rainfall is more abundant. Then summer bursts forth suddenly as dry, hot, Saharan air brings three months of hot, sunny weather. There is no rain save an occasional storm; the soil cracks and splits and is easily washed away in the occasional downpours. In October the temperature drops, and deluges of rain show that Atlantic air prevails once more.

In such conditions, delicate plants cannot survive. The Mediterranean climate precludes all plant species that cannot tolerate the range of conditions—cold as well as heat and drought as well as wet. The result is a distinctive natural landscape of dry terrain dotted with cypress trees, holm-oaks, cork oaks, parasol pines, and eucalyptus trees. These same conditions make agriculture a challenge. The crops that prosper best include olives, figs, almonds, vines, oranges, lemons, wheat, and barley. Sheep and goats graze on dry pastureland and stubblefields. Irrigation is often necessary, and in some localities it sustains high yields of fruit, vegetables, and rice.

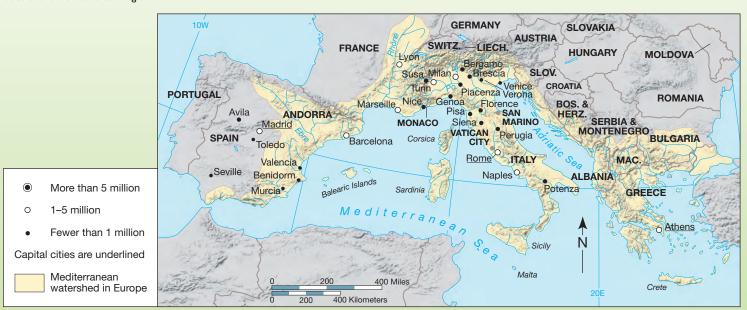
In a few subregions, conditions are naturally more favorable, making for rich rural landscapes. In Tuscany, for example, a

regional landscape has evolved that reflects an intensive and carefully developed system closely adapted to the land. On the better and well-watered soils of the valleys, there are artificial meadows that favor stock-breeding, along with fields of wheat, mulberries, and corn. On the hills around the scattered farms and villas, elegant cypress trees stand out against the silvery-green of olive trees, and in the fields there is a rich mixture of cereals, vegetables, fruit



FIGURE 2 Mediterranean landscapes The dry climate of the Mediterranean has led to distinctive landscapes, such as this Tuscan landscape near San Quirico d'Orcia, Italy.

FIGURE I The Mediterranean region Reference map showing principal physical features, political boundaries, and major cities of the Mediterranean region.



trees, and vines (for chianti wine). This classical Tuscan landscape (Figure 2), developed over centuries, became emblematic of Italy itself with the creation of modern Italy and the *Risorgimento* ("revival through unification," 1815–61) and has been the subject of landscape painters, romantic poets, and novelists ever since.

The landscapes of the Mediterranean reflect the imprint of successive cultures over a very long history. The fields themselves are a good example. Under Roman colonization, land was often subdivided into a checkerboard pattern of rectilinear fields. This highly ordered system was known as centuriation, and the pattern can still be seen in some districts today—in parts of the Po valley, for example. Elsewhere, across large tracts of the Mediterranean, the soil can be cultivated only on a large scale, and the poor quality of pastureland necessitates vast untilled areas being left for flocks and herds. In these areas, successive conquerors, from the Greeks, Phoenicians, and Carthaginians to the Ottoman Turks and Christian Crusaders, carved out huge estates, known as latifundia, on which they set peasants to work. Land that did not belong to these big estates was often subdivided by independent peasant farmers into very small, intensively cultivated lots, or minifundia, most of which are barely able to support a family.

Settlement patterns also reflect these influences. Both *latifundia* and *minifundia* systems tend to result in clustered settlements. In more productive districts, these can be quite large, with

"villages" of 10,000–12,000 people, as in the huerta districts of southeastern Spain and the picturesque whitewashed villages of the Greek islands (Figure 3). The history of the Mediterranean, however, has made it above all a land of towns. Fears of invasion encouraged people to cluster together in easily defended sites: typically on steep-sided hills, as in Avila and Toledo in Spain and in Siena, Perugia, and Todi in Italy (Figure 4). Other towns naturally emerged at strategic locations: at the entrance to a valley (for example, Murcia, Spain, and Verona, Italy); and at bridging points (for example, Piacenza, Italy, and Seville, Spain).

More recently, the urban landscapes of the Mediterranean have been transformed by tourism and retirement migration. The classic landscapes, picturesque hill towns, and ancient cities of the Mediterranean have attracted affluent tourists and retirees from the rest of Europe since the late 1700s, but the advent of massmarket tourism after World War II has created resort towns and brought tourist amenities—hotels, restaurants, night clubs, bars, and so on—to much of the region's coastline. Benidorm, on Spain's Costa del Sol, was a fishing village of just 1500 inhabitants in the early 1950s. Today, it is a mass-market, package-tour resort with more than 30,000 hotel beds and 100,000 more in rental apartments. Similar transformations have taken place elsewhere, as millions of vacationers and retirees from the colder, industrialized regions of northern Europe have made Mediterranean beaches their destination.

FIGURE 3 Santorini, Greece The villages of the Greek island of Santorini still retain much of their old visual character. Fear of pirates was the compelling motive that led to original village sites on steep cliffs. Climate and topography led to high-density settlements with narrow streets and small, whitewashed buildings with thick walls.



FIGURE 4 Todi, Italy Todi's site, perched on a bluff high above the valley of the Tavere (Tiber), derives from the practical rationale common to northern Italian hill towns: It was easy to defend.



transformation of the European landscape. The population more than doubled, from around 36 million to more than 80 million, and a vast amount of land was brought under cultivation for the first time. By about 1200 most of the best soils of western Europe had been cleared of forest and new settlements were increasingly forced into the more marginal areas of heavy clays or thin sandy soils on higher ground and heathlands. (Heath is open land with coarse soil and poor drainage.) Many parts of Europe undertook large-scale drainage projects in order to reclaim marshlands. The Romans had already demonstrated the effectiveness of drainage schemes, reclaiming parts of Italy and northwestern Europe. In the 12th and 13th centuries there were extensive drainage and resettlement schemes in Italy's Po Valley, in the Poitevin marshes of France, and in the Fenlands of eastern England.

In eastern Europe, forest clearances were organized by agents acting for various princes and bishops who controlled extensive tracts of land. The agents would also arrange financing for settlers and develop villages and towns, often to standardized designs.

This great medieval colonization came to a halt nearly everywhere around 1300. One factor was the so-called Little Ice Age, a period of cooler climate which significantly reduced the growing season—perhaps by as much as five weeks. Another factor was the catastrophic loss of population during the period of the Black Death (1347–51) and the periodic recurrences of the plague that continued for the rest of the 14th century. The Little Ice Age lasted until the early 16th century, by which time many villages, and much of the more marginal land, had been abandoned.

The resurgence of European economies from the 16th century onward coincided with overseas exploration and trade, but domestic landscapes were significantly affected by repopulation, by reforms to land tenure systems, and by advances in science and technology that changed agricultural practices, allowing for a more intensive use of the land. In the Netherlands, a steadily growing population and the consequent requirement for more agricultural land led to increased efforts to reclaim land from the sea and to drain coastal marshlands. Hundreds of small estuarine and coastal barrier islands were slowly joined into larger units, and sea defense walls were constructed in order to protect low-lying land, which was drained by windmill-powered water pumps, the excess water being carried off into a web of drainage ditches and canals.

The resulting polder landscape provided excellent, flat, fertile, and stone-free soil. Between 1550 and 1650, 165,000 hectares (407,715 acres) of polderland was established in the Netherlands, and the sophisticated techniques developed by the Dutch began to be applied elsewhere in Europe—including eastern England and the Rhône estuary in southern France. While most of these schemes resulted in improved farmland, the environmental consequences were often serious. In addition to the vulnerability of the polderlands to inundation by the sea, large-scale drainage schemes devastated the wetland habitat of many species, while some ill-conceived schemes simply ended in widespread flooding.

These environmental problems were but a prelude to the environmental changes and ecological disasters that accompanied the industrialization of Europe, beginning in the 18th century. Mining—especially coal mining—created derelict landscapes of spoil heaps; urbanization encroached on rural landscapes and generated unprecedented amounts and concentrations of human, domestic, and industrial waste; and manufacturing, unregulated at first, resulted in extremely unhealthy levels of air pollution and in devastating pollution of rivers and streams.

EUROPE IN THE WORLD-SYSTEM

The foundations of Europe's human geography were laid by the Greek and Roman empires. Beginning around 750 B.C., the ancient Greeks developed a series of fortified city-states (called *poleis*) along the Mediterranean coast, and by 550 B.C. there were about 250 such trading colonies. Figure 2.11 shows the location of the largest of these, some of which subsequently grew into thriving cities (for example, Athens and Corinth), while others remain as isolated ruins or as archaeological sites (for example,

Delphi and Olympia). The Roman Republic was established in 509 B.C. and took almost 300 years to establish control over the Italian Peninsula. By A.D. 14, however, the Romans had conquered much of Europe, together with parts of North Africa and Asia Minor. Most of today's major European cities had their origin as Roman settlements. In quite a few of these cities, it is possible to find traces of the original Roman street layouts. In some, it is possible to glimpse remnants of defensive city walls, paved streets, aqueducts, viaducts, arenas, sewage systems, baths, and public buildings. In the modern countryside, the legacy of the Roman Empire is represented by arrow-straight roads, built by their engineers and maintained and improved by successive generations.

The decline of the Roman Empire, beginning in the fourth century A.D., was accompanied by a long period of rural reorganization and consolidation under feudal systems, a period often characterized as uneventful and stagnant. In fact, the roots of European regional differentiation can be traced to this long feudal era of slow

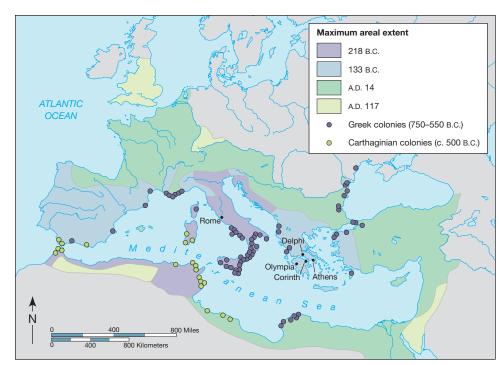


FIGURE 2.11 Greek colonies and extent of the Roman Empire This map shows the distribution of Greek *poleis* (city-states) and Carthaginian colonies and the spread of the Roman Empire from 218 B.C. to A.D. 117. (Source: Redrawn from R. King et al., The Mediterranean. London: Arnold, 1997, pp. 59 and 64.)

change. Feudal systems were almost wholly agricultural, with 80 or 90 percent of the workforce engaged in farming and most of the rest occupied in basic craft work. Most production was for people's immediate needs, with very little of a community's output ever finding its way to wider markets.

By A.D. 1000 the countryside of most of Europe had been consolidated into a

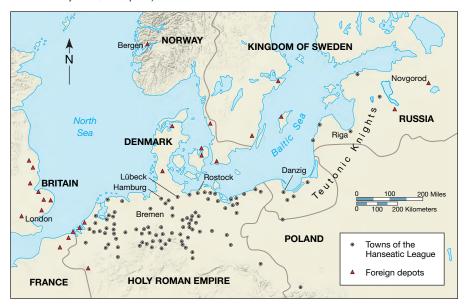
regional patchwork of feudal agricultural subsystems, each of which was more or less self-sufficient. For a long time, towns were small, their existence tied mainly to the castles, palaces, churches, and cathedrals of the upper ranks of the feudal hierarchy. These economic landscapes—inflexible, slow-motion, and intro-

scapes—inflexible, slow-motion, and introverted—nevertheless contained the essential preconditions for the rise of Europe as the dynamic hub of the world economy.

Trade and the Age of Discovery

A key factor in the rise of Europe as a major world region was the emergence of a system of merchant capitalism in the 15th century. The immensely complex trading system that soon came to span Europe was based on long-standing trading patterns that had been developed from the 12th century by the merchants of Venice, Pisa, Genoa, Florence, Bruges, Antwerp, and the Hanseatic League (a federation of city-states around the North Sea and Baltic coasts that included Bremen, Hamburg, Lübeck, Rostock, and Danzig, as shown in Figure 2.12).

FIGURE 2.12 The Hanseatic League The Hanseatic League was a federation of city-states founded in the 13th century by north German towns and affiliated German merchant groups abroad to defend their mutual trading interests. The League, which remained an influential economic and political force until the 15th century, laid the foundations for the subsequent growth of merchant trade throughout Europe. (*Source*: Redrawn from P. Hugill, *World Trade Since 1431*. Baltimore: Johns Hopkins University Press, 1994, p. 50.)



Innovations In the 15th and 16th centuries a series of innovations in business and technology contributed to the consolidation of Europe's new merchant capitalist economy. These included several key innovations in the organization of business and finance: banking, loan systems, credit transfers, company partnerships, shares in stock, speculation in commodity futures, commercial insurance, and courier/news services. Meanwhile, technological innovations began to further strengthen Europe's economic advantages. Some of these innovations were adaptations and improvements of Oriental discoveries—the windmill, spinning wheels, paper manufacture, gunpowder, and the compass, for example. In Europe, however, there was a real passion for mechanizing the manufacturing process. Key engineering breakthroughs included the more efficient use of energy in water mills and blast furnaces, the design of reliable clocks and firearms, and the introduction of new methods of processing metals and manufacturing glass.

It was the combination of innovations in shipbuilding, navigation, and naval ordnance, however, that had the most far-reaching consequences for Europe's role in the
world economy. In the course of the 15th century, the full-rigged sailing ship was developed, enabling faster voyages in larger and more maneuverable vessels that were less
dependent on favorable winds. Meanwhile, Europeans developed navigational tools
such as the quadrant (1450) and the astrolabe (1480) and acquired a systematic knowledge of Atlantic winds. By the mid-16th century, armorers in England, Holland, and
Sweden had perfected the technique of casting iron guns, making it possible to replace
bronze cannons with larger numbers of more effective guns at lower expense. Together,
these advances made it possible for the merchants of Europe to establish the basis of a
worldwide economy in less than 100 years after Portuguese explorer Bartholomeu Dias
reached the Cape of Good Hope (the southern tip of Africa) in 1488.

Changing Patterns of Advantage The geographical knowledge acquired during this Age of Discovery was crucial to the expansion of European political and economic power in the 16th century. In societies that were becoming more and more commercially oriented and profit-conscious, geographical knowledge became a valuable commodity in itself. Information about overseas regions was a first step to controlling and influencing them; this in turn was a step to wealth and power. At the same time, every region began to open up to the influence of other regions because of the economic and political competition unleashed by geographical discovery. Not only was the New World affected by European colonists, missionaries, and adventurers, but the countries of the Old World found themselves pitched into competition with one another for overseas resources.

Gold and silver from the Americas provided the first major economic transformation of Europe. The gold and silver bullion plundered by Spain and Portugal from the Americas created an effective demand for consumer and capital goods of all kinds—textiles, furniture, weapons, ships, food, and wine—thus stimulating production throughout Europe and creating the basis of a Golden Age of prosperity for most of the 16th century. Meanwhile, overseas exploration and expansion made available a variety of new and unusual products—cocoa, beans, maize, potatoes, tomatoes, sugarcane, tobacco, and vanilla from the Americas, tea and spices from the Orient—that opened up large new markets to enterprising merchants. Wine was one of the early luxury products that established the pattern of merchant trading within Europe, and when Europeans branched out to incorporate more of the world into the orbit of their world-system, they began organizing the production of wine wherever climatic conditions were encouraging: in warm temperate zones, roughly between latitudes 30° and 50° north and south (see Geographies of Indulgence, Desire, and Addiction: Wine, p. 72). Not least, the emergence of a worldwide system of exploration and trade helped establish the foundations of modern academic geography.

These changes had a profound effect on the geography of Europe. Before the mid-15th century, Europe was organized around two subregional maritime economies—one based on the Mediterranean and the other on the Baltic. The overseas expansions pioneered first by the Portuguese and then by the Spanish, Dutch, English, and French reoriented Europe's geography toward the Atlantic. The river basins of the Rhine, the

Seine, and the Thames rapidly became focused on a thriving network of entrepôt seaports (intermediary centers of trade and transshipment) that transformed Europe. These three river basins, backed by the increasingly powerful states in which they were embedded—the Netherlands, France, and Britain, respectively—then became engaged in a struggle for economic and political hegemony. Although the Rhine was the principal natural routeway into the heart of Europe, the convoluted politics of the Netherlands allowed Britain and France to become the dominant powers by the late 1600s. Subsequently, France, under Napoleon, made the military error of attempting to pursue both maritime and continental power at once, allowing Britain to become the undisputed hegemonic power of the industrial era.

Industrialization and Imperialism

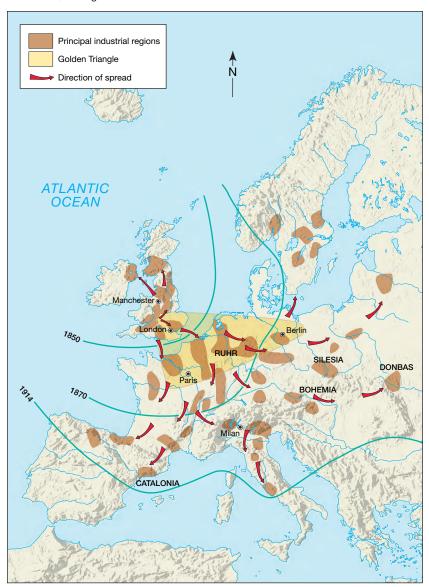
Europe's regional geographies were comprehensively recast once more by the new production and transportation technologies that marked the onset of the Industrial Revo-

lution (from the late 1700s). Production technologies based on more efficient energy sources helped raise levels of productivity and create new and better products that stimulated demand, increased profits, and generated a pool of capital for further investment. Transportation technologies enabled successive phases of geographic expansion that completely reorganized the geography of Europe. As the application of new technologies altered the margins of profitability in different kinds of enterprise, so the fortunes of particular places and regions shifted.

Waves of Industrialization There was in fact not a sudden, single Industrial Revolution but three distinctive transitional waves of industrialization, each having a different degree of impact on different regions and countries (Figure 2.13). The first, between about 1790 and 1850, was based on a cluster of early industrial technologies (steam engines, cotton textiles, and ironworking) and was highly localized. It was limited to a few regions in Britain where industrial entrepreneurs and workforces had first exploited key innovations and the availability of key resources (coal, iron ore, and water).

The second wave, between about 1850 and 1870, involved the diffusion of industrialization to most of the rest of Britain and to parts of northwest Europe, particularly the coalfield areas of northern France, Belgium, and Germany (see Figure 2.13). New opportunities were created as railroads and steamships made more places accessible, bringing their resources and their markets into the sphere of industrialization. New materials and new technologies (steel, machine tools) created opportunities to manufacture and market new products. These new activities prompted some significant changes in the logic of industrial location. Railway networks, for example, attracted industry away from smaller towns on the canal systems and toward larger towns with good rail connections. Steamships for carrying on coastal and international trade attracted industry to larger ports. At the same time, steel produced concentrations of heavy industry in places with nearby supplies of coal, iron ore, and limestone.

FIGURE 2.13 The spread of industrialization in Europe European industrialization began with the emergence of small industrial regions in several parts of Britain. As new rounds of industrial and transportation technologies emerged, industrialization spread to other regions with the right attributes: access to raw materials and energy sources, good communications, and large labor markets.



GEOGRAPHIES OF INDULGENCE, DESIRE, AND ADDICTION

Wine

The production and consumption of wine reflects the evolution of the world-system. The original domestication of wine grapes (*Vitis vinifera*) seems to have taken place as early as 8000 B.C. along the mountain slopes of Georgia, eastern Turkey, and western Iran. Wine had symbolic and ritual significance in early civilizations of the eastern Mediterranean, partly because its ability to intoxicate and engender a sense of "other-worldliness" provided a means through which people could feel in contact with their gods, and partly because of the apparent death of the vine in winter and its dramatic growth and rebirth in the spring. Greek civilization established viticulture—the cultivation of grape vines for winemaking—as one of the staples of the Mediterranean agrarian economy, along with wheat and olives. By the sixth century B.C., Greek wine was being traded as far as Egypt, the shores of the Black Sea, and the southern regions of France.

Under the Roman Empire, viticulture spread west along the north shores of the Mediterranean and along the valleys of navigable rivers in France and Spain, while the wine trade extended north, to the North Sea and the Baltic. By the first century A.D., wine had become a commodity of indulgence, desire, and—for some—addiction throughout Europe. Viticulture and the art of winemaking survived (but did not prosper) through the Middle Ages, even in those parts of Mediterranean Europe that came under Islamic rule, where the consumption of alcohol was, theoretically, prohibited. Then, in the late medieval period, the growth of towns provided a substantial and increasingly affluent consumer market that led to the development of large, commercially oriented vineyards. Commercial viticulture spread to the south-

east-facing slopes of the major river valleys in northern France and Germany, and merchant traders, drawing on innovations in finance, banking, and credit, facilitated the movement of vast quantities of wine, together with spices, perfumes, and silks, from the Mediterranean to England, Flanders, Scandinavia, and the Baltic. These northern European regions, meanwhile, paid for their luxury imports with the proceeds of exports of furs, fish, dairy produce, timber, and wool.

In the 16th century, Spanish and Portuguese overseas expansion saw the introduction of viticulture to the New World-to Mexico in the 1520s, Peru in the 1530s, Chile in the 1550s, and Florida in the 1560s. The British introduced viticulture to Virginia in the 1600s and the Dutch established vineyards in the Cape Colony of southern Africa in the 1650s. The first vineyards in California were established by Franciscan missions in the 1770s, in southeastern Australia in the 1790s, and in New Zealand in the early 1800s. Meanwhile, in Europe, demographic growth and increasing prosperity rapidly expanded the market for wine. Winemakers developed new types of wine (including champagne, claret, and port), began to specialize in particular varieties of grapes (red grapes such as Cabernet Sauvignon, Nebbiolo, and Pinot Noir, and white grapes such as Chardonnay, Riesling, and Sauvignon Blanc), and found ways of storing wine, so that especially good quality wines could be aged without spoiling. Vintage wines, carefully aged and stored, acquired special value for connoisseurs.

Disaster hit European winemakers in the 1860s in the form of an aphid, *phylloxera*, which had somehow been brought to



FIGURE I The globalization of wine consumption Imported wine for sale in one of the dozens of curbside stalls in Cholon, the ethnic Chinese quarter of Ho Chi Minh City, Vietnam.

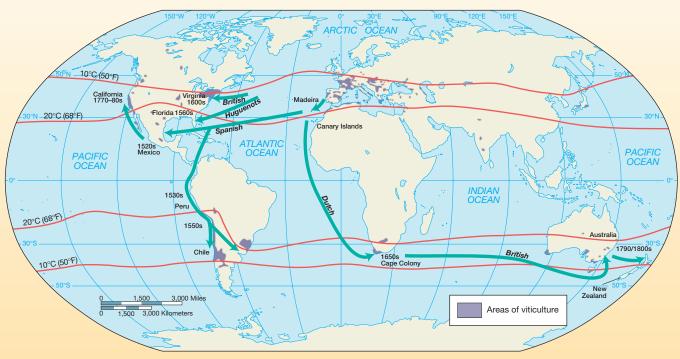
Europe on American vines. Though American vines were immune to *phylloxera*, the aphid killed European species. Many European vineyards were devastated before it was discovered, in 1881, that grafting European vines onto American rootstock would produce high-quality and *phylloxera*-resistant plants.

On recovering from the *phylloxera* episode, the makers (and consumers) of fine wines faced other problems: Unscrupulous merchants and foreign competitors sought to pass off lesser wines as prestigious wines, supplies of good wines were watered to stretch limited supplies, and poor wines were adulterated with chemicals to improve their color or their shelf life. In response, the exclusivity of wines was protected by new systems of regulation. In France, for example, the *Appellation Contrôlée* system was introduced to guarantee the authenticity of wines, district by district. In Germany, the classification system was based not on geographic origin but on levels of quality and degrees of sweetness. Such regulations have been important in reinforcing the appeal of wine as a commodity of indulgence and desire.

Today, wine is one of the most widespread commodities of consumer indulgence. Fine wines denote affluence and distinction throughout the world's core regions and in the affluent enclaves of many of the metropolises of peripheral regions, while cheaper wines are consumed throughout much of the world (Figure 1). The globalization of viticulture and the more widespread consumption of wine have made branding an issue. Japanese supermarket shelves are lined with locally produced bottles with French-language labels that allude to nonexistent châteaus, while California wineries produce "Chablis," "Champagne," and "Burgundy."

Two of the most important changes in relation to wine production date from the mid-20th century and have contributed a great deal to the globalization of wine as a commodity of indulgence and desire. First, the deployment of scientific approaches and new technologies, combined with large-scale capital investment in the industry, allowed the development of first-class wines in North America, Australia, New Zealand, and elsewhere (Figure 2). Second, the hedonistic cultural shift of the 1960s in Western societies brought the consumption of wine firmly into the routine practices of the middle classes. The result is that the production and retailing of wine is now a significant component of the activities of large, conglomerate, and transnational corporations. The most successful of these are able to exploit and manipulate changing patterns of consumption, introducing profitable new products such as wine coolers in order to broaden the market.

FIGURE 2 The global distribution of viticulture In general, the best areas for viticulture lie between the 10°C and 2°C annual isotherms, equating approximately to the warm temperate zones between latitudes 30° and 50° north and south. In detail, the geography of viticulture is heavily influenced by soils and micro-climatic conditions. Where grapes are produced successfully nearer the equator, as in parts of Bolivia and Tanzania, it is usually because they are grown at higher altitudes. (Source: Adapted from T. Unwin, Wine and the Vine. New York: Routledge, 1996, pp. 35 and 219.)



The third wave of industrialization saw a further reorganization of the geography of Europe as yet another cluster of technologies (including electricity, electrical engineering, and telecommunications) brought different resource needs and created more new investment opportunities. During this period, industrialization spread for the first time to remoter parts of the United Kingdom, France, and Germany and to most of the Netherlands, southern Scandinavia, northern Italy, eastern Austria, Bohemia (in what was then Czechoslovakia), Silesia (in Poland), Catalonia (in Spain), and the Donbas region of Ukraine, then in Russia. The overall result was to create the foundations of a core-periphery structure within Europe (see Figure 2.13), with the heart of the core centered on the "Golden Triangle" stretching between London, Paris, and Berlin.

The peripheral territories of Europe—most of the Iberian peninsula, northern Scandinavia, Ireland, southern Italy, the Balkans, and east-central Europe—were slowly penetrated by industrialization over the next 50 years. The environmental impacts of these changes were profound. Much of Europe's forest cover was cleared, while remaining forests and woodlands suffered from the acid rain resulting from heavy doses of atmospheric pollution. Many streams and rivers also became polluted, while the landscape everywhere was scarred with quarries, pits, cuttings, dumps, and waste heaps.

Imperialism and War Several of the most powerful and heavily industrialized European countries (notably the United Kingdom, Germany, France, and the Netherlands) were by now competing for influence on a global scale. This competition developed into a scramble for territorial and commercial domination through imperialism—the deliberate exercise of military power and economic influence by core states in order to advance and secure their national interests. European countries engaged in preemptive geographic expansion to protect their established interests and to limit the opportunities of others. They also wanted to secure as much of the world as possible—through a combination of military oversight, administrative control, and economic regulations—to ensure stable and profitable environments for their traders and investors. This combination of circumstances defined a new era.

During the first half of the 20th century, the economic development of the whole of Europe was disrupted twice by major wars. The devastation of World War I was immense. The overall loss of life, including the victims of influenza epidemics and border conflicts that followed the war, amounted to between 50 and 60 million. About half as many again were permanently disabled. For some countries, this meant a loss of between 10 and 15 percent of the male workforce.

FIGURE 2.14 Dresden, Germany Bomb damage during WWII.



Just as European economies had adjusted to these dislocations, the Great Depression created a further phase of economic damage and reorganization throughout Europe. World War II resulted in yet another round of destruction and dislocation (Figure 2.14). The total loss of life in Europe this time was 42 million, two-thirds of whom were civilian casualties. Systematic German persecution of Jews—the Holocaust—resulted in approximately 4 million Jews being put to death in extermination camps such as Auschwitz and Treblinka, with up to 2 million more being exterminated elsewhere, along with gypsies and others. The German occupation of continental Europe also involved ruthless economic exploitation. By the end of the war, France was depressed to below 50 percent of its prewar standard of living and had lost 8 percent of its industrial assets. The United Kingdom lost 18 percent of its industrial assets (including overseas holdings), and the Soviet Union lost 25 percent. Germany lost 13 percent of its assets and ended the war with a level of income per capita that was less than 25 percent of the prewar figure. In addition to the millions killed and disabled during World War II, approximately 46 million people were displaced between 1938 and 1948 through flight, evacuation, resettlement, or forced labor. Some of these movements were temporary, but most were not.

After the war, the Cold War rift between eastern and western Europe resulted in a further handicap to the European economy and, indeed, to its economic geography. Ironically, this rift helped speed economic recovery in western Europe. The United States, whose leaders believed that poverty and economic chaos in western Europe would foster communism, embarked on a massive program of economic aid under the Marshall Plan. This pump-priming action, together with the backlog of demand in almost every sphere of production, provided the basis for a remarkable recovery. Meanwhile, eastern Europe began an interlude of state socialism.

Eastern Europe's Interlude of State Socialism

After World War II, the leaders of the Soviet Union felt compelled to establish a buffer zone between their homeland and the major Western powers in Europe. The Soviet Union rapidly established its dominance throughout eastern Europe: Estonia, Moldova, Latvia, and Lithuania were absorbed into the Soviet Union itself, and Soviet-style regimes were installed in Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania, and Yugoslavia. In addition to the installation in 1947 of the Iron Curtain, which severed most economic linkages with the West, this intervention resulted in the complete nationalization of the means of production, the collectivization of agriculture, and the imposition of rigid social and economic controls within the eastern European satellite states.

Command Economies The economies of the former Soviet Union and its satellites were *not* based on true socialist or communist principles in which the working class had democratic control over the processes of production, distribution, and development. Rather, these economies evolved as something of a hybrid, in which state power was used by a bureaucratic class to create **command economies** in the pursuit of modernization and economic development. In a command economy, every aspect of economic production and distribution is controlled centrally by government agencies.

The Communist Council for Mutual Economic Assistance (CMEA, better known as COMECON) was established to reorganize eastern European economies in the Soviet mold—with individual members, each pursuing independent, centralized plans designed to produce economic self-sufficiency. This quickly proved unsuccessful, however, and in 1958 COMECON was reorganized. The goal of economic self-sufficiency was abandoned, mutual trade among the *Soviet bloc*—the Soviet Union plus its eastern European satellite states—was fostered, and some trade with western Europe was permitted. Meanwhile, Albania withdrew from the Soviet bloc in pursuit of a more authoritarian form of communism inspired by the Chinese revolution of 1949 (see Chapter 8); and Yugoslavia was expelled from the Soviet bloc (because of ideological differences over the interpretation of socialism) and allowed to pursue a more liberal, independent form of state socialism.

Industrialization of Command Economies The experience of the east European countries under state socialism varied considerably, but, in general, rates of industrial growth were high. As in western Europe, industrialization brought about radical changes in economic geography. In practice, however, the command economies of eastern Europe did not result in any really distinctive forms of spatial organization. As in the industrial regions of the West, the industrialized landscapes of eastern Europe came to be dominated by the localization of manufacturing activity, by regional specialization, and by core-periphery contrasts in levels of economic development.

The geography of industrial development under state socialism, as in democratic capitalism, was heavily influenced by the uneven distribution of natural resources and by the economic logic of initial advantage, specialization, and agglomeration



FIGURE 2.15 Socialist housing The socialist countries of eastern Europe eradicated a great deal of substandard housing in the three decades following World War II, rehousing the population in mass-produced, system-built apartment blocks. Although this new housing provided adequate shelter and basic utilities at very low rents, space standards were extremely low and housing projects were uniformly drab. This example is from Budapest, Hungary.

economies—the cost advantages that accrue to individual firms because of their location among functionally related activities. The most distinctive landscapes of state socialism were those of urban residential areas, where mass-produced, system-built apartment blocks allowed impressive progress in eliminating urban slums and providing the physical framework for an egalitarian society—one based on belief in equal social, political, and economic rights and privileges—though at the price of uniformly modest dwellings and strikingly sterile cityscapes (Figure 2.15).

Eventually, the economic and social constraints imposed by excessive state control and the dissent that resulted from the lack of democracy under state socialism combined to bring the experiment to a sudden halt. By the time the Soviet bloc collapsed in 1989 (see Chapter 3), Poland and Hungary had already accomplished a modest degree of democratic and economic reform. By 1992, East Germany (the German Democratic Republic) had been reunited with West Germany (the German Federal Republic); Estonia, Latvia, and Lithuania had become independent states once more; and the whole of eastern Europe had begun to be reintegrated with the rest of Europe. Only Kaliningrad, a small province on the Baltic between Poland and Lithuania, remains as part of the Russian Federation, retained as Russian territory because of its warm-water naval port.

THE PEOPLES OF EUROPE

A distinctive characteristic of Europe as a whole is the size and relative density of its population. With less than 7 percent of Earth's land surface, Europe contains about 13 percent of its population at an overall density of nearly 100 persons per square kilometer (260 per square mile). Within Europe, the highest national densities match those of Asian countries such as Japan, the Republic of Korea, and Sri Lanka. On the other hand, population density in Finland, Norway, and Sweden stands at about 15 persons per square kilometer, the same as in Kansas and Oklahoma (Figure 2.16). This reflects a fundamental feature of the human geography of Europe: the existence of a densely populated core and a sparsely populated periphery. We have already noted the economic roots of this core-periphery contrast.

While the population of the world as a whole is increasing fast, the population of Europe is roughly stable. Europe's population boom coincided roughly with the Industrial Revolution of the late 18th to late 19th centuries. Today, Europe's population is growing slowly in some regions, while declining slightly in others. The main reason for Europe's slow population growth is a general decline in birthrates (though certain subgroups, especially immigrant groups, are an exception to this trend).

It seems that conditions of family life in Europe, including readily available contraception, have led to a widespread fall in birthrates. The average size of families has dropped well below the rate needed for replacement of the population (about 2.1 children per family), to about 1.75 per family. A "baby boom" after World War II has been followed by a "baby bust." Meanwhile, life expectancy has increased, due to improved health care, medical knowledge, and healthier lifestyles. The effect is not sufficient to outweigh falling birthrates, but it has meant a dramatic increase in the proportion of people over the age of 65, from 9 percent in 1950 to nearly 17 percent in 2005. Germany's population (Figure 2.17) reflects these trends and shows the impact of two world wars.

The European Diaspora

The upheavals associated with the transition to industrial societies, together with the opportunities presented by colonialism and imperialism and the dislocations of two world wars, have dispersed Europe's population around the globe. Beginning with the

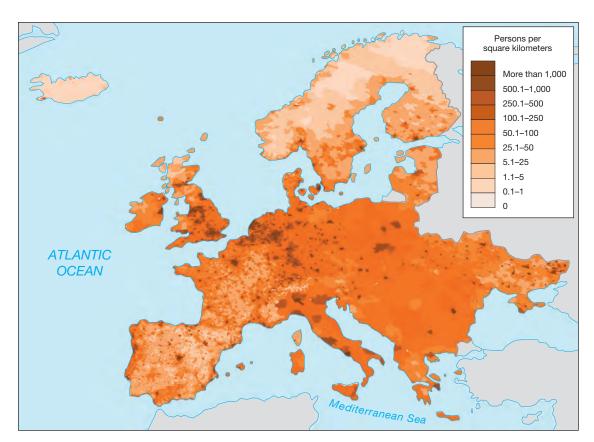
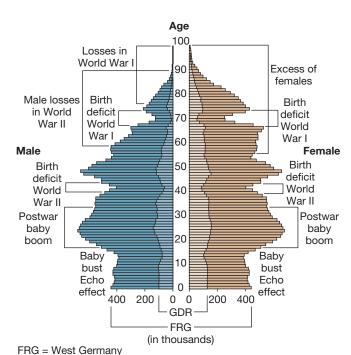


FIGURE 2.16 Population density in Europe The distribution of population in Europe reflects the region's economic history, with the highest densities in the "Golden Triangle," the newer industrial regions of northern Italy, and the richer agricultural regions of the North European Lowlands. (Source: Center for International Earth Science Information Network [CIESIN], Columbia University, Gridded Population of the World [GPW], Version 3. Palisades, NY: CIESIN, Columbia University, 2005. Available at http://sedac.ciesin.columbia.edu/gpw/.)

colonization of the Americas, vast numbers of people have left Europe for overseas. The full flood of emigration began in the early 19th century, partly in response to population pressure during the early phases of the demographic transition, and partly in response to the poverty and squalor of the early phases of the Industrial Revolution. The main stream of migration was to the Americas, with people from northwestern and central Europe heading for North America and southern Europeans heading for destinations throughout the Americas. In addition, large numbers of British left for Australia and New Zealand and eastern and southern Africa. French and Italian emigrants traveled to North Africa, Ethiopia, and Eritrea, and the Dutch went to southern Africa and Indonesia. The final surge of emigration occurred just after World War II, when various relief agencies helped homeless and displaced persons move to Australia and New Zealand, North America, and South Africa, and large numbers of Jews settled in Israel.

FIGURE 2.17 Population of Germany, by age and sex, 1989 Germany's population profile is that of a wealthy country that has passed through the postwar baby boom and currently possesses a low birthrate. It is also the profile of a country whose population has experienced the ravages of two world wars. (Source: J. McFalls, Jr., "Population: A Lively Introduction," Population Bulletin, 46[2], 1991, p. 1.)



GDR = East Germany

Migration within Europe

Industrialization and geopolitical conflict have also resulted in a great deal of population movement within Europe. With the onset of industrialization, the regional redistribution of population within Europe followed the economic pattern. The three major waves of industrial development drew migrants from less-prosperous rural areas to a succession of industrial growth areas around coalfields.

As industrial capitalism evolved, the diversified economies of national metropolitan centers offered the most opportunities and the highest wages, thus prompting a further redistribution of population. In Britain this involved a drift of population from manufacturing towns southward to London and the southeast. In France, migration to Paris from towns all around France resulted in a polarization between Paris and the rest of the country. Some countries, developing an industrial base after the "coalfield" stage, experienced a more straightforward shift of population, directly from peripheral rural areas to prosperous metropolitan regions. In this way, Barcelona, Copenhagen, Madrid, Milan, Oslo, Stockholm, and Turin all emerged as regionally dominant metropolitan areas.

Wars and political crises have also led to significant redistributions of population within Europe. World War I forced about 7.7 million people to move. Another major transfer of population took place in the early 1920s, when more than 1 million Greeks were transferred from Turkey and half a million Turks were transferred from Greece in the aftermath of an unsuccessful Greek attempt to gain control over the eastern coast of the Aegean Sea. Soon afterward, more people were on the move, this time in the cause of ethnic and ideological purity, as the policies of Nazi Germany and fascist Italy began to bite. Fascism, of which Nazism was one variety, involves a centralized, autocratic government and values nation and race over the individual. Jews, in particular, were squeezed out of Germany. With World War II, there occurred further forced migrations involving approximately 46 million people.

These migrations, together with mass exterminations undertaken by Nazi Germany, left large parts of west and central Europe with significantly fewer ethnic minorities than before the war. In Poland, for example, minorities constituted 32 percent of the population before the war but only 3 percent after the war. Similar changes occurred in Czechoslovakia—from 33 percent to 15 percent—and in Romania—from 28 percent to 12 percent. Southeast Europe did not experience such large-scale transfers, and as a result many ethnic minorities remained intermixed, or surrounded and isolated, as in the former republic of Yugoslavia. The geopolitical division of Europe after the war also resulted in significant transfers of population: West Germany, for example, had absorbed nearly 11 million refugees from eastern Europe by 1961, when the Berlin Wall was built.

Recent Migration Streams

More recently, the main currents of migration within Europe have been a consequence of patterns of economic development. Rural-urban migration continues to empty the countryside of Mediterranean Europe as metropolitan regions become increasingly prosperous. Meanwhile, most metropolitan regions themselves have experienced a decentralization of population as factories, offices, and housing developments have moved out of congested central areas. Another stream of migration has involved better-off retired persons, who have tended to congregate in spas, coastal resorts, and picturesque rural regions.

The most striking of all recent streams of migration within Europe, however, have been those of migrant workers (Figure 2.18). These population movements were initially the result of western Europe's postwar economic boom in the 1960s and early 1970s, which created labor shortages in western Europe's industrial centers. The demand for labor represented welcome opportunities to many of the unemployed and poorly paid workers of Mediterranean Europe and of former European colonies. By the mid-1970s these migration streams had become an early component of the globalization of the world economy. By 1975, between 12 and 14 million immigrants had arrived in northwestern Europe. Most came from Mediterranean countries—Spain, Portugal,

southern Italy, Greece, Yugoslavia, Turkey, Morocco, Algeria, and Tunisia. In Britain and France the majority of immigrants came from former colonies in Africa, the Caribbean, and Asia. In the Netherlands most came from former colonies in Indonesia. Most of these immigrants have stayed on, adding a striking new ethnic dimension to many of Europe's cities and regions.

Finally, it is estimated that more than 18 million people moved within Europe during the 1980s and 1990s as refugees from war and persecution or in flight from economic collapse in Russia and eastern Europe. Civil war and dislocation in the Balkans displaced more than 4 million people in the early 1990s, and by 2002 another 2.7 million had been displaced as a result of continuing conflict in the region (Figure 2.19).

European Cultural Traditions

The foundations of European culture were established by the ancient Greeks, who between 600 B.C. and 200 B.C. built an intellectual tradition of rational inquiry into the causes of everything, along with a belief that

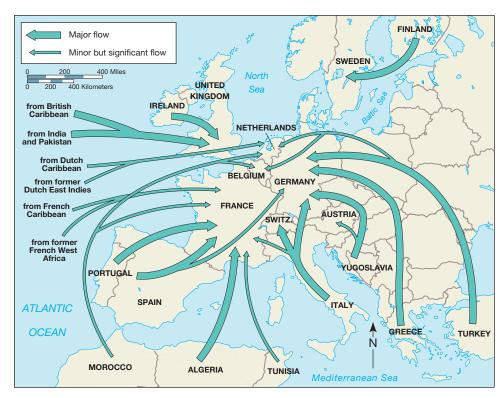


FIGURE 2.18 International labor migration This map shows the main international labor migration flows to European countries between 1945 and 1972. (*Source: D. Pinder [ed.], The New Europe: Economy, Society, and Environment.* New York: John Wiley & Sons, 1998, p. 265.)

individuals are free, self-understanding, and valuable in themselves. The Romans took over this intellectual tradition, added Roman law and a tradition of disciplined participation in the state as a central tenet of citizenship, and spread the resulting culture throughout their empire. From the Near East came the Hebrew tradition, which in conjunction with Greek thought produced Judaism and Christianity, religions in which the individual spirit is seen as having its own responsibility and destiny within the creation. At the heart of European culture, then, are the curiosity, open-mindedness, and rationality of the Greeks; the civic

responsibility and political individualism of both Greeks and Romans; and the sense of the significance of the free individual spirit that is found in the main tradition of Christianity.

When Europeans pushed out into the rest of the world in their colonial and imperial ventures, they took these values with them, imposing them onto some cultures and grafting them into others. By the 18th century they also carried the idea of Modernity, the genesis of which was in the changing world geography of the Age of Discovery. Modernity emphasized innovation over tradition, rationality over mysticism, and utopianism over fatalism. As Europeans tried to make sense of their own ideas and values in the context of those they encountered in the East, in Africa, in Islamic regions, and among Native Americans during the 16th and 17th centuries, many certainties of traditional thinking were cracked open. In the 18th century this ferment of ideas culminated in the Enlightenment movement, which was based on the conviction that all of nature, as well as human beings and their societies, could be understood as a rational system. Politically, the Enlightenment reinforced the idea of human rights and democratic forms of government and society. Expanded into the fields of economics, social philosophy, art, and music, the Enlightenment gave rise to the cultural sensibility of Modernity.

FIGURE 2.19 Immigrants The demographic composition of many European cities contains a broad variety of immigrant groups. This photograph shows Albanian refugees arriving in Bari, Italy in 1991.



GEOGRAPHY MATTERS

Europe's Muslims

Europe is home to approximately 15 to 20 million Muslims—between four and five percent of the total population of the region. The greatest concentrations of Muslims are in the Balkan countries, where Islam has been important for centuries, a legacy of the Turkish Ottoman Empire. Although the empire was dissolved at the end of World War I, Islamic culture has remained in place. In Albania, about 70 percent of the population is Muslim; in Bosnia-Herzegovina, the figure is 40 percent; in Macedonia, 30 percent; and in Serbia and Montenegro (including Kosovo), around 20 percent.

The majority of Europe's Muslims, however, are located in the industrial cities of western Europe, and they are a relatively recent addition to the population of the region (Figure 1). The mass immigration of Muslims to Europe was a consequence of Europe's post-World War II economic boom, which created labor shortages in western Europe's industrial centers in the 1960s and 1970s and spawned programs that encouraged migrant workers. The French

FIGURE I Europe's Muslims Immigrants from former colonies, recruited to Europe to solve labor shortages after World War II, have added a new cultural dimension to many of Europe's cities. These women in Copenhagen, Denmark, are immigrants from North Africa.



Muslim population of between 5 and 6 million is the largest in western Europe. About 70 percent have their heritage in France's former North African colonies of Algeria, Morocco, and Tunisia. By contrast, Germany's Muslim population of around 3 million is dominated by people of Turkish origin. In the United Kingdom, significant numbers of Muslims arrived in the 1960s as people from the former colonies took up offers of work. Some of the first were East African Asians, while many came from south Asia. Permanent communities formed, and at least 50 percent of the current population of 1.6 million was born in the United Kingdom, with one third of the Muslim population currently aged 15 or less. Approximately one million Muslims live in the Netherlands, the majority with ties to the former Dutch colonies of Suriname and Indonesia. Other west European countries with significant Muslim populations include Austria (339,000, representing 4.1 percent of the total population), Belgium (400,000; 4 percent),

FIGURE 2 Leeds Grand Central Mosque, England Newly built amid the 19th-century housing of the city's Burley neighborhood, the mosque serves the city's Muslim population, most of whom are Pakistani in origin.



Radicalism In the late 20th century, after the decline of heavy industry and repeated episodes of economic recession; after two terrible world wars; after interludes of fascist dictatorships in Germany, Italy, Greece, Portugal, and Spain; after a protracted period of being on the front line of a Cold War that divided European geography in two; and after intermittent episodes of regional and ethnic conflict, it is not surprising that the culture of Europe is a culture of doubt and criticism, heavily influenced by a search for radical rethinking. In this search, Europeans have not only established a new cultural sensibility for themselves but they have also generated some powerful new ideas and philosophies that have begun to influence other cultures around the world. Dismay with the side effects of *laissez-faire* industrial capitalism and, later, horror at the results of fascism and Nazism gave a strong impetus to leftwing critiques that have been powerful enough to reshape entire national and regional cultures and, with them, some dimensions of regional geographies.

Denmark (270,000; 5 percent), Italy (825,000; 1.4 percent), Spain (1 million; 2.3 percent), and Sweden (300,000; 3 percent).

Many of these immigrant groups, now facing high unemployment and low wages as the postwar boom has leveled off, have settled in distinctive enclaves, where they have retained powerful attachments to their cultural roots. In the United Kingdom, Muslim populations have tended to concentrate in older inner-city neighborhoods (Figure 2), while in France the pattern is one of concentration in suburban public housing projects. Government policies in most European countries favor multiculturalism, an idea which, in general terms, accepts all cultures as having equal value. The growth of Muslim communities and their resistance to cultural assimilation, however, has challenged the European ideal of strict separation of religion and public life. By 2002, immigration had become a major electoral issue in Austria, Belgium, Denmark, France, and the Netherlands. In France, a ban on religious symbols in public schools provoked a major national row as it was widely regarded as being a ban on the Islamic headscarf. Although the U.S. wars against Afghanistan and Iraq received little popular support across much of Europe, Islamist terrorist attacks against west European targets have heightened fears and tensions between Muslim communities and host populations.

In March 2004 thirteen bombs on four packed commuter trains killed 191 people and wounded more than 1500 in Madrid, Spain. The attack was attributed to the Islamic militant group al-Qaeda. A few months later in the Netherlands a prominent filmmaker critical of Islam was murdered in 2004 by a radical Islamist. In July 2005, an Islamist attack on buses and underground trains in London left 52 dead. Later in 2005, the Danish newspaper Ivllands-Posten published a series of cartoons featuring the prophet Mohammad. Whereas European culture generally regards satire and caricature as accepted elements of free speech and democracy, Muslims regard visual representations of the prophet Mohammad as a profanity. The result was that the cartoons became a lightning rod for cultural tensions. Muslim leaders in Denmark were able to internationalize the issue, and a few months later a sudden wave of anti-Danish demonstrations swept across the Middle East and in Indonesia and Pakistan.



FIGURE 3 Paris riots Following the deaths of two teenage boys in an electrical sub-station after they had fled police in Clichy-sous-Bois in October 2005, there were extensive riots that spread to several other French cities with large immigrant populations.

Meanwhile, Muslim communities across Europe face increased resentment and hostility from host populations. In Muslim neighborhoods with high concentrations of unemployment, heavy-handed policing and racial discrimination can easily trigger civil disorder. This is what happened in the fall of 2005 in the Paris suburbs of Clichy-sous-Bois (Figure 3), where days of rioting followed the deaths of two teenagers who had been chased by police. The riots quickly spread to other French cities, including Lille, Lyon, Marseille, St Etienne, Strasbourg, and Toulouse; thousands of vehicles were burned and the French government was forced to order a state of emergency that extended until January 2006. Tensions remain high, and the cultural issues associated with Europe's Muslim population are likely to continue to be an important dimension of European politics, especially with the prospect of Turkey joining the European Union, which would add around 83 million Muslims to Europe's population.

The most profound influence of all was Karl Marx, whose penetrating critique of industrial capitalism (written in London and drawing heavily on descriptions of conditions in Manchester, England, supplied by his colleague Friedrich Engels) inspired both a socialist political economy in Russia and a fascist countermovement in Germany. After World War II, western European left-wing critique portrayed both fascism and Soviet-style socialism as essentially imperialist, while American-style capitalism was critiqued as being intrinsically exploitative in privileging the individual and property over the community and the public good.

Contemporary Europe has a distinctive set of social values, and the "European Dream" is quite distinctive from the "American Dream":

The European Dream emphasizes community relationships over individual autonomy, cultural diversity over assimilation, quality of life over the accumulation of

wealth, sustainable development over unlimited material growth, deep play over unrelenting toil, universal human rights and the rights of nature over property rights, and global cooperation over the unilateral exercise of power.¹

Present-day Europe also has a distinctive cultural cast. Intellectual debate—about the role of culture itself; about whether people's thoughts and lives should be understood in terms of the dynamics of the cultures in which they are embedded (structuralism) or in terms of individual consciousness (existentialism); and about whether any kind of single-viewpoint, big-picture understanding of the world is really possible (postmodernism)—has spilled over into literature, cinema, television, magazines, and newspapers. Thus contemporary European culture is marked by a critical awareness of the role of culture itself (see Film, Music, and Popular Literature, p. 104).

Gender and Inequality Another powerful postwar movement deeply critical of the dominant structures of capitalist society was feminism, built on the ideas of Simone de Beauvoir in her 1949 book *The Second Sex*. The strong liberal component of European culture has meant that, compared with peoples in most other world regions, Europeans have been more willing to address the deep inequalities between men and women that are rooted in both traditional societies and industrial capitalism. Still, patriarchal society and the culture of *machismo* remain strong in Mediterranean Europe—especially in rural areas—and working-class communities throughout Europe are still characterized by significant gender inequalities.

It is in northwestern Europe—and especially in Scandinavia—that gender equality has improved most, as a result of both the progressive social values of the "babyboom" generation and legislation that has translated these values into law. By the mid-1980s, younger men in much of northwestern Europe had acquired a new, progressive collective identity associated with ideals of gender equality—especially as they relate to men's domestic roles. More recently, however, a "men-behaving-badly" syndrome—known as "laddism" in the United Kingdom—has emerged in reaction.

In global context, Europe stands out as a region where women's representation in senior positions in industry and government is relatively high. Women in Europe generally have a significantly longer life expectancy than men and have comparable levels of adult literacy. Nevertheless, women in the European labor force tend to earn, on average, only 45 to 65 percent of what men earn. These statistics demonstrate a distinctly regional pattern. Broadly speaking, the gender gaps in education, employment, health, and legal standing are wider in southern and eastern Europe and narrower in Scandinavia and northwestern Europe. In part, this reflects regional differences in social customs and ways of life; in part, it reflects regional differences in overall levels of affluence.

Although Europe is a relatively affluent world region, there are in fact persistent and significant economic inequalities at every geographic scale. Annual per capita GDP (in PPP) in 2004 ranged from \$2119 in Moldova to \$63,609 in Luxembourg. Regional income disparities within many European countries are increasing. In northwestern Europe this is generally a result of the declining fortunes of "rustbelt" regions and the relative prosperity of regions with high-tech industry and advanced business services. In southern and eastern Europe it is a result of differences between regions dominated by rural economies (generally poorer) and those dominated by metropolitan areas (generally more prosperous). The resulting disparities are significant, with annual per capita GDP (in PPP) in 2004 ranging from \$51,906 in central London and more than \$30,000 in many major metropolitan regions to between \$12,000 and \$18,000 in many peripheral rural regions. Poverty and homelessness exist in every European country, though poverty as measured on a global scale (\$1 or \$2 a day per person) is virtually unknown within Europe.

¹J. Rifkin, The European Dream. How Europe's Vision of the Future Is Quietly Eclipsing the American Dream, New York: Tarcher, 2004, p. 3.

Culture and Ethnicity, Nations and States

While European culture is distinctive at the global scale, it is also characterized by some sharp internal regional variations. In the broadest terms, there is a significant north–south cultural divide. Southern Europe has always been more traditional in its religious affiliations—not just in terms of the dominance of Roman Catholicism over Protestantism, but of the prevalence of the conservative and more mystical forms of Catholicism. The Roman Catholic Church, still one of the most widespread within Europe, emerged in the fourth century under the bishop of Rome and spread quickly through the weakening Roman Empire. Missionaries helped spread not only the gospel but also the use of the Latin alphabet throughout most of Europe. The Eastern Orthodox Church, under the auspices of the Byzantine Empire centered in Constantinople (present-day Istanbul), dominated the eastern margins of Europe and much of the Balkans, while Islamic influence spread into parts of the Balkans (present-day Albania,

the European part of Turkey, and parts of Bosnia-Herzegovina) and, for a while, southern Spain. With the religious upheavals of the 16th and 17th centuries, Protestant Christianity came to dominate much of northern Europe. More recently, immigrants from the Middle East, Africa, and South Asia have reintroduced Islam to Europe, adding an important dimension to contemporary politics as well as culture (see Geography Matters: Europe's Muslims, p. 80).

Another distinctive aspect of southern European culture is its traditional patterns of family life, with larger, closeknit families that tend to stick together as a buffer against unemployment and poverty in societies with relatively underdeveloped social welfare systems. The western part of southern Europe also shares the Romance family of languages, the development of which was fostered by the spread of the Roman Empire. A second major group of languages, Germanic languages, occupy northwestern Europe, extending as far south as the Alps (Figure 2.20). English is one of the Germanic family of languages, an amalgam of Anglo-Saxon and Norman French, with Scandinavian and Celtic traces. A third major language group consists of Slavic languages, which dominate eastern Europe.

These broad geographic divisions of religion, language, and family life are reflected in other cultural traits: folk art, traditional costume, music, folklore, and cuisine. Thus there is a Scandinavian cultural subregion with a collection of related languages (except Finnish), a uniformity of Protestant denominations, and a strong cultural affinity in art and

FIGURE 2.20 Major languages in Europe Although three main language groups—Romance, Germanic, and Slav—dominate Europe, differences among specific languages are significant. These differences have contributed a great deal to the cultural diversity of Europe but have also contributed a great deal to ethnic and geopolitical tensions. (Source: Redrawn from R. Mellor and E. A. Smith, Europe: A Geographical Survey of the Continent. London: Macmillan, 1979, p. 22.)



music that reaches back to the Viking age and even to pre-Christian myths. A second distinctive subregion is constituted by the sphere of Romance languages in the south and west. A third is constituted by the British Isles, bound by language, history, art forms, and folk music, but with a religious divide between the Protestant Anglo-Saxon and Catholic Celtic spheres. A fourth clear cultural subregion is the Germanic sphere of central Europe, again with mixed religious patterns—Lutheran Protestantism in the north, Roman Catholicism in the south—but with a common bond of language, folklore, art, and music. The Slavic subregion of eastern and southeastern Europe forms another broad cultural subregion, though beyond the commonalities of related languages and certain physical traits among the general population, there is considerable diversity.

It is, in fact, the cultural and ethnic diversity of Europe's peoples and their languages, religions, and cultures that is one of the most significant aspects of its geography. Europe's cultural diversity has made it vital and attractive; it has contributed in large measure to the modern ideal of national states; and it has also made it the theater of innumerable wars, including two world wars within a single generation.

Ethnicity and National Identity Many of the countries of Europe are relatively new creations and the political boundaries of many have changed quite often. The whole idea of national states, in fact, can be traced to the Enlightenment in Europe, when the ferment of ideas about human rights and democracy, together with widening horizons of literacy and communication, created new perspectives on allegiance, communality, and identity. In 1648 the Treaty of Westphalia, signed by most European powers, brought an end to Europe's seemingly interminable religious wars by making national states the principal actors in international politics and establishing the principle that no state has the right to interfere in the internal politics of any other state.

Gradually, these perspectives began to undermine the dominance of the great European continental empires controlled by family dynasties—the Bourbons, the Hapsburgs, the Hohenzollerns, the House of Savoy, and so on. After the French Revolution (1789–93) and the kaleidoscopic changes of the Napoleonic Wars (1800–15), Europe was reordered, in 1815, to be set in a pattern of modern states. Denmark, France, Portugal, Spain, and the United Kingdom had long existed as separate, independent states. The 19th century saw the unification of Italy (1861–70) and of Germany (1871) and the creation of Belgium, Bulgaria, Greece, Luxembourg, the Netherlands, Romania, Serbia, and Switzerland as independent national states. Early in the 20th century they were joined by Czechoslovakia, Estonia, Finland, Latvia, Lithuania, Norway, and Sweden. Austria was created in its present form in the aftermath of World War I, as part of the carving up of the German and Austro-Hungarian empires. In 1921 long-standing religious cleavages in Ireland resulted in the creation of the Irish Free State (now Ireland), with the six Protestant counties of Ulster remaining in the United Kingdom.

The European concept of the nation-state has immensely influenced the modern world. As we saw in Chapter 1, the idea of a nation-state is based on the concept of a homogeneous group of people governed by their own state. In a true nation-state, no significant group exists that is not part of the nation. In practice, most European states were established around the concept of a nation-state but with territorial boundaries that did in fact encompass substantial ethnic minorities (Figure 2.21). The result has been that the geography of Europe has been characterized by regionalism and irredentism throughout the 20th century and into the 21st.

We have already cited the example of Basque regionalism in Spain and France (see p. 6 in Chapter 1). Other examples of regionalism include regional independence movements in Catalonia (within Spain), Scotland (within the United Kingdom), and the Turkish Cypriots' determination to secede from Cyprus. Examples of *irredentism* include Ireland's claim on Northern Ireland (renounced in 1999), the claims of Nazi Germany on Austria and the German parts of Czechoslovakia and Poland, and the claims of Croatia and Serbia and Montenegro on various parts of Bosnia-Herzegovina. Some cases of regionalism have led to violence, social disorder, or even civil war, as in Cyprus. For the most part, however, regional ethnic separatism has been pursued within the frame-

work of civil society, and the result has been that several regional minorities have achieved a degree of political autonomy. For example, the United Kingdom created regional parliaments for Scotland and Wales.

Ethnic Conflict in the Balkans Most cases of irredentism, on the other hand, have contributed at some point in history to war or conflict. Nowhere has this been more evident than in the troubled region of the Balkans. When 19th-century empires were dismantled after World War I, an entirely new political geography was created in the Balkans. Those political boundaries survived until the 1990s, when the breakup of Yugoslavia marked the end of the Great Powers' attempt to unite Serbs, Croats, and Slovenes within a single territory (Figure 2.22). The repeated fragmentation and reorganization of ethnic groups into separate states within the region has given rise to the term balkanization in referring to any situation in which a larger territory is broken up into smaller units, and especially where territorial jealousies give rise to a degree of hostility. In the Balkans themselves, the geopolitical reorganizations of the 1990s have left significant enclaves, culturally distinct territories that are surrounded by the territory of a different cultural group, and exclaves, portions of a country or of a cultural group's territory that lie outside its contiguous land area. These enclaves and exclaves remain the focus of continued or potential hostility. In Romania, for example, there are more than 1.6 million Hungarians, while in Bulgaria

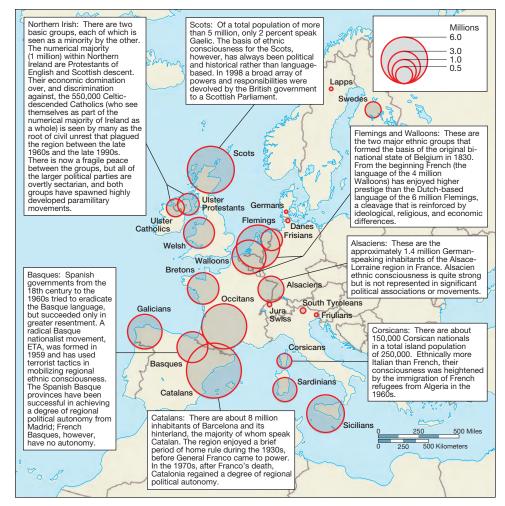


FIGURE 2.21 Minority ethnic subgroups in western Europe Regional and ethnic consciousness now represents a strong political factor in many European countries. Within Spain, for example, the dominant population—some 27 million—is Castillian, but there are between 6 and 8 million Catalans, almost 2 million Basques, and about 3 million Galicians. Belgium is divided into 4 million French-speaking Walloons and 6 million Flemings, whose language is Dutch-based. (Source: P. Knox, Geography of Western Europe. London: Croom Helm, 1984, p. 69.)





there are more than 800,000 Turks. Serbian nationalism, however, has provided the principal catalyst for violence and conflict in the region. In the 1990s, Serbian nationalism led to attempts at ethnic cleansing.

The most extreme example of ethnic cleansing was in the Kosovo region. In 1998, Yugoslavia's Serbian leader, Slobodan Milosevic, initiated a brutal, premeditated, and systematic campaign of ethnic cleansing that was aimed at removing Kosovar Albanians from what had become their homeland. Serbian forces expelled Kosovar Albanians at gunpoint from villages and larger towns, looted and burned their homes, organized the systematic rape of young Kosovar Albanian women, and used Kosovar Albanians as human shields to escort Serbian military convoys. In addition, Serbian forces carried out widespread summary executions, dumping bodies in mass graves in an attempt to destroy evidence, and systematically stripped Kosovar Albanians of identity and property documents, including passports, land titles, automobile license plates, identity cards, and other forms of documentation. By systematically destroying schools, places of worship, and hospitals, Serbian forces sought to destroy social identity and the fabric of Kosovar Albanian society.

International outrage at these human rights violations finally led to the declaration of war against Yugoslavia by NATO in March 1999. A 78-day bombing campaign pushed back Serb forces, and within a few weeks Slobodan Milosevic and other Serbian leaders were indicted in the International Court of Justice for their roles in human rights violations. Since 2000, many Kosovar Albanian refugees have returned to their homeland in Kosovo to attempt to rebuild their lives, but Kosovo remains under UN control and the ethnic Albanian community has expressed frustration at the length of time being taken to decide Kosovo's future status.

A "European" Identity? Ethnic tensions and feelings of nationalism throughout Europe have been intensified by globalization. Globalization has heightened people's awareness of cultural heritage and ethnic identities. As we saw in Chapter 1, the more universal the diffusion of material culture and lifestyles, the more valuable regional and ethnic identities tend to become. Globalization has also brought large numbers of immigrants to some European countries, and their presence has further heightened people's awareness of cultural identities.

In the more affluent countries of northwestern Europe, immigration has emerged as one of the most controversial issues since the end of the Cold War. Although the economic benefits of immigration far outweigh any additional demands that may be made on a country's health or welfare system, fears that unrestrained immigration might lead to cultural fragmentation and political tension have provoked some governments to propose new legislation to restrict immigration from the former commu-

nist states of eastern Europe and from outside Europe. The same fears have been responsible for a resurgence of popular xenophobia—a hate, or fear, of foreigners—in some countries. In Germany, for example, right-wing nationalistic groups have attacked hostels housing immigrant families, while citizenship laws have prevented second-generation Gastarbeiter ("guest worker") families from obtaining German citizenship. In France, claims that immigrants from North Africa are a threat to the traditional French way of life have led to some success for the National Front Party. Asylum seekers, drawn to northwestern Europe from all parts of the globe in such large numbers that they have had to be accommodated in processing centers, have also provoked negative reactions (Figure 2.23). On the other hand, globalization has brought a degree of cosmopolitanism to many cities. London, in particular, has become a city with a global mix of populations and subcultures. Almost one-third of London's current residents—2.2 million people—were born outside England, and this total takes no account of the contribution of the city's second- and third-generation immigrants, many of whom have inherited the traditions of their parents

and grandparents. Altogether, the people of London speak more

FIGURE 2.23 Immigration concerns Local residents of Lee-on-the-Solent, England, protest against a proposed asylum center for refugees.



than 300 languages, and the city has at least 50 non-indigenous communities with populations of 10,000 or more.

All this raises the question, "How 'European' are the populations of Europe?" European history and ethnicity have resulted in a collection of national prides, prejudices, and stereotypes that are strongly resistant to the forces of cultural globalization. Germans continue to be seen by most other Europeans as a little overserious, preoccupied by work, and inclined to arrogance. Scots continue to carry the popular image of a dour, unimaginative, ginger-haired people who love bagpipe and accordion music, dress in kilts and sporrans, live on whisky and porridge, and generally spend as little as possible. The English are seen as a nation of lager-swilling hooligans, well-meaning middle classes, and out-of-touch aristocrats. Norwegians and Danes continue to resent the Swedes' "neutrality" during World War II, and so on. In reality, such stereotypes are, of course, exaggerations that stem from the behaviors of a relative minority, and opinion surveys show that these stereotypes, prejudices, and identities are steadily being countered by a growing sense of European identity, especially among younger and better-educated persons. Much of this can be attributed to the growing influence of the European Union, which is discussed in the next section.

CONTEMPORARY CHALLENGES IN A GLOBALIZING WORLD

Contemporary Europe is a cornerstone of the world economy with a complex, multilayered, and multifaceted regional geography. In overall terms, Europe, with about 12 percent of the world's population, accounts for almost 35 percent of the world's exports, almost 43 percent of the world's imports, and 33 percent of the world's aggregate GNP. Europe's inhabitants, on average, now consume about twice the quantity of goods and commercial services they did in 1975. Purchasing power has risen everywhere to the extent that basic items of food and clothing now account for only about 30 percent of household expenditure, leaving more resources for leisure and consumer durables. Levels of material consumption in much of Europe approach those of households in the United States (Figure 2.24). The development of European welfare states (institutions with the aim of distributing income and resources to the poorer members of society) has helped maintain households' purchasing power during periods of recession and ensured at least a tolerable level of living for most groups at all times. Levels of personal taxation are high, but all citizens receive a wide array of services and benefits in return. The most striking of these services are high-quality medical care, public transport systems, social housing, schools, and universities. The most significant benefits are pensions and unemployment benefits.

Contemporary Europe is a dynamic region that embodies a great deal of change. Because of the legacies of European history and culture, and because modern regional development in Europe was so closely tied to the technology systems of the Industrial Revolution, economic globalization and new high-tech, information-based technology systems present immense challenges and opportunities to places and regions within Europe. Formerly prosperous industrial regions have suffered economic decline, while some places and regions have reinvented themselves to take advantage of new paths to economic development. Meanwhile, the former Soviet satellite states have been reintegrated into the European world region and much of Europe has joined in the European Union, a supranational organization founded to recapture prosperity and power through economic and political integration (see p. 88).

FIGURE 2.24 A German family with their material possessions The Pfitzner family from Köln, Germany, photographed with their possessions outside their home in the mid-1990s, represents a statistically average German family in terms of family size, residence, and income



Growth, Deindustrialization, and Reinvestment

Europe provides a classic example of how long-term shifts in technology systems tend to lead to regional economic change (see Chapter 1). The innovations associated with new technology systems generate new industries that are not yet tied down by enormous investments in factories or tied to existing industrial agglomerations. Combined with innovations in transport and communications, this creates windows of opportunity that can result in new industrial districts and in some towns and cities growing into dominant metropolitan areas through new rounds of investment. Within Europe the regions that have prospered most through the onset of a new technology system are the Thames Valley to the west of London; the Île de France region around Paris; the Ruhr valley in northwestern Germany; and the metropolitan regions of Lyon–Grenoble (France), Amsterdam–Rotterdam (Netherlands), Milan and Turin (Italy), and Frankfurt, Munich, and Stuttgart (Germany).

Just as high-tech industries and regions have grown, the profitability of traditional industries in established regions has declined. Wherever the differential in profitability has been large enough, disinvestment has taken place in the less-profitable industries and regions. Disinvestment means selling off assets such as factories and equipment. Widespread disinvestment leads to deindustrialization in formerly prosperous industrial regions. Deindustrialization involves a relative decline (and in extreme cases, an absolute decline) in industrial employment in core regions as firms scale back their activities in response to lower levels of profitability. This is what happened to the industrial regions of northern England, South Wales, and central Scotland in the early part of the 20th century, and it is what happened to the industrial region of Alsace-Lorraine, in France, and to many other traditional manufacturing towns and regions within Europe in the 1960s and 1970s.

The European Union

The European Union (EU) had its origins in the political and economic climate following World War II. The idea behind the EU was to ensure European autonomy from the United States and to recapture the prosperity Europe had forfeited as a result of the war. Part of the rationale for its creation was also to bring Germany and France together into a close association, which would prevent any repetition of the geopolitical problems in western Europe that had led to two world wars. The first stage in the evolution of the EU was the creation in the 1950s of several institutions to promote economic efficiency through integration. These were subsequently amalgamated to form the European Community (EC), which was in turn expanded in scope to form the European Union (EU). EU membership has expanded from the six original members of the EC—Belgium, France, Italy, Luxembourg, the Netherlands, and West Germany—to 25 countries (Figure 2.25) with a population of nearly 457 million, and a combined gross domestic product (GDP) larger than that of the United States. It has developed into a sophisticated and powerful institution with a pervasive influence on patterns of economic and social well-being within its member states. It also has a significant impact on certain aspects of economic development within some non-member countries.

The origin of the organization that evolved into the EU was a compromise worked out between the strongest two of the original six members. West Germany wanted a larger but protected market for its industrial goods, while France wanted to continue to protect its highly inefficient but large and politically important agricultural sector from overseas competition. The result was the creation of a tariff-free market within the Community, the creation of a unified external tariff, and a Common Agricultural Policy (the CAP) to bolster the Community's agricultural sector.

Some of the most striking changes in the regional geography of the EU have been related to the operation of the CAP. Although agriculture accounts for less than 3 percent of the EU workforce, the CAP has dominated the EU budget from the beginning.

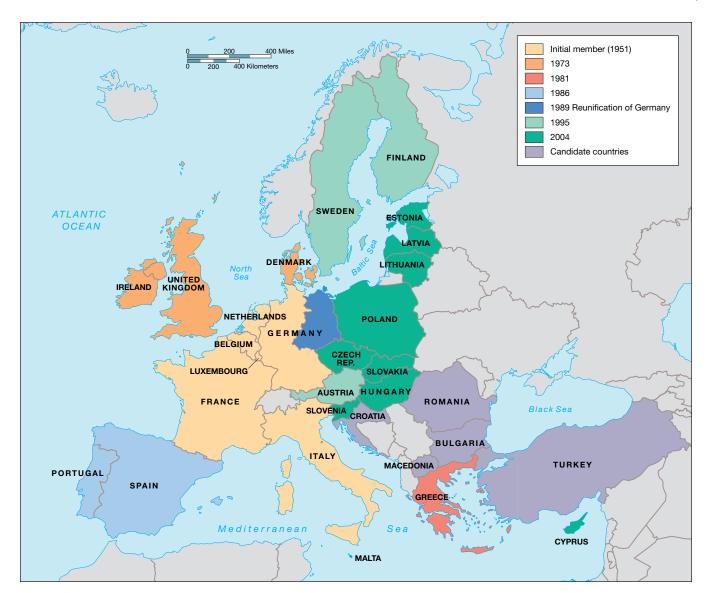


FIGURE 2.25 The expansion of the European Union The advantages of membership in the European Union have led to a dramatic growth in its size, transforming it into a major economic and political force in world affairs.

For a long time, it accounted for more than 70 percent of the EU's total expenditures, and it still accounts for more than 45 percent. Its operation has had a significant impact on rural economies, rural landscapes, and rural standards of living, and it has even influenced urban living through its effects on food prices.

The basis of the CAP is a system of EU support of wholesale prices for agricultural produce. This support has the dual effect of stabilizing the price of agricultural products and of subsidizing farmers' incomes. The CAP was originally designed to encourage farm modernization by securing higher incomes for farmers. An additional attraction of the policy, though, is that stable, guaranteed prices provide consumers with security and continuity of food supplies. Stable markets also allow trends in product specialization and concentration by farm, region, and country to proceed in an ordered and predictable fashion.

The overall result has been a realignment of agricultural production patterns, with a general withdrawal from mixed farming. Ireland, the United Kingdom, and Denmark, for example, have increased their specialization in the production of wheat, barley, poultry, and milk, while France and Germany have increased their specialization in the production of barley, maize, and sugar beet.

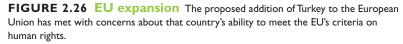
The reorganization of Europe's agricultural landscapes under the CAP brought some unwanted side effects, however, including environmental problems that have occurred as a result of the speed and scale of farm modernization, combined with farmers' desire to take advantage of generous levels of guaranteed prices for crops. Moorlands, woodlands, wetlands, and hedgerows have come under threat, and some traditional mixed-farming landscapes have been replaced by the prairie-style settings of specialized agribusiness.

The EU and Regional Interdependence The Treaty of European Union of 1992 (the Maastricht Treaty) gave to the EU most of the major functions of a sovereign national state, including creation of a single currency (the euro, launched in 1999), coordination of economic policies, redistribution of wealth among regions, and management of a common external policy covering foreign relations and defense. This relaunching was an impressive achievement, particularly since it was undertaken at a time of major distractions: coping with the reunification of Germany and the breakup of the former Soviet empire in eastern Europe and, not least, having to deal with a resurgence of nationalism within Europe. Nevertheless, the EU's progress toward more comprehensive unification based on a common constitution has been called into question. A Constitutional Treaty, approved by the European Council in 2004 subject to ratification by all 25 member states, was put on hold after the negative results of referenda on the proposed constitution in France and the Netherlands in 2005.

The overall economic benefits of EU membership have been apparent for a long time. Not surprisingly, a growing number of countries seek membership. Bulgaria and Romania are set to join in 2007, while Croatia and Turkey are officially "candidate countries" whose membership negotiations depend on their fulfilling EU criteria concerning democracy, the rule of law, human rights, and respect for and protection of minorities (Figure 2.26).

EU membership brings regional stresses as well as the prospect of overall economic gain. Existing member countries have found that the removal of internal barriers to labor, capital, and trade has worked to the clear disadvantage of peripheral regions and in particular to the disadvantage of those farthest from the Golden Triangle, which is increasingly the European center of gravity in terms of both production and consumption.

This regional imbalance was recognized by the Single European Act (SEA) of 1985, which included "economic and social cohesion" as a major policy. The SEA doubled its





grant funding for regional development assistance and established a Cohesion Fund to help Greece, Ireland, Portugal, and Spain achieve levels of economic development comparable to those of the rest of the EU. Regions eligible for these funds are shown in Figure 2.27. In its 2007–2013 budget cycle, the EU has allocated \$406 billion—about one-third of the total EU budget—to projects and policies designed to improve economic and social cohesion within and among its member countries.

New Infrastructure Integrated Europe The economic integration of Europe, following fundamental geographic principles, leans heavily on policies designed to increase accessibility and spatial interaction. In 1996 the EU approved a far-reaching plan for a series of trans-European networks (TENs) to weld together Europe's patchwork of national transport systems. The plan centers on 30 priority projects for new or upgraded highways, rail lines, waterways, bridges, and airports that will improve linkages among states, boost economic efficiency, and reinforce the social and political cohesiveness of the EU. Improvements to Europe's railway infrastructure account for 22 of the EU's 30 priority projects and about 85 percent of the \$275 billion budget.

With its relatively short distances between major cities, Europe is ideally suited for rail travel and less suited, because of population densities and traffic congestion around airports, to air traffic. Allowing for check-in times and accessibility to terminals, travel between many major European cities is already quicker by rail than by air. The high-speed London–Paris rail service—in direct competition with the airlines—has captured 60 percent of inter-city traffic since opening in 1994. The EU plans to coordinate and

Structural Funds 2004-2006: Areas eligible under Objective 1 and 2 Objective 1 Objective 2 Objective 1 Objective 2 Phasing-out (till 12/31/2005) Objective 2 (partly) Phasing-out (till 12/31/2006) Phasing-out (till 12/31/2005) Special programme Phasing out (partly) (till 12/31/2005) SWEDEN NORWAY RUSSIAN North **ATLANTIC** OCEAN KINGDOM DENMARK IRELAND RUSSIA NETHERLANDS **BELARUS** POLAND UKRAINE CZECH REP. MOLDOVA LIECH. AUSTRIA ROMANIA PORTUGAL BOS. & SPAIN SERBIA **BULGARIA** MONT. MAC ALBANIA GREECE TURKEY 400 Miles 400 Kilometers

FIGURE 2.27 European Union regions eligible for aid, 2006 Just over half of the total population of the European Union lives in areas eligible for regional assistance from the European Regional Development Fund and Cohesion Fund. Most of the EU's regional aid is allocated to "lagging" regions (where per capita GDP is less than 75 percent of the EU average) and to declining industrial regions. (Source: EU Inforegio. European Commission, European Regional Development Fund and Cohesion Fund, 2002. Available at http://europa.eu.int/ comm/regional_policy/funds/prord/guide/euro2000–2006_en.htm.)

subsidize a \$250 billion investment in 30,000 kilometers (almost 20,000 miles) of high-speed track to be phased in through 2012. The heart of the system will be the "PBKAL web," which will connect Paris, Brussels, Köln (Cologne), Amsterdam, and London, and which will be completed by 2007 (Figure 2.28).

Improved locomotive technologies and specially engineered tracks and rolling stock will make it possible to offer passenger rail services at speeds of 275 to 350 kilometers per hour (180 to 250 miles per hour). New tilt-technology railway cars, which are designed to negotiate tight curves by tilting the train body into turns to counteract the effects of centrifugal force, are being introduced in many parts of Europe to raise maximum speeds on conventional rail tracks. German Railways (DB), for example, introduced third-generation ICE (inter-city express) trains with a maximum speed of 330 kilometers per hour (205 miles per hour) in 2000.



FIGURE 2.28 High-speed rail in Europe The European Union is promoting 30,000 kilometers (almost 20,000 miles) of high-speed track to be phased in through 2012. The heart of the system, the "PBKAL web," will lead to some restructuring of European geography. High-speed rail routes will have only a few scheduled stops; cities with no scheduled stops will be less accessible and, then, less attractive for economic development.

High-speed rail routes will cause some restructuring of the geography of Europe. They will have only a few timetabled stops because the time penalties that result from deceleration and acceleration undermine the advantages of high-speed travel. Places that do not have scheduled stops will be less accessible and, then, less attractive for economic development. Places linked to the routes will be well situated to grow in future rounds of economic development.

Other trans-European network projects feature new tunnels through the Alps and the Pyrenees and under the city of Antwerp; new motorways across Greece (connecting Athens to the Bulgarian border), and between Lisbon (Portugal) and Valladolid (Spain); and improvements to the connections between Milan's Malpensa airport, the city, and the railway network. There are also numerous energy-related infrastructure projects aimed at increasing the efficiency and capacity of power stations and extending natural gas pipelines and electricity grids across member countries—and even into neighboring countries that have petitioned for EU membership, in order to help boost their economic efficiency before they join the EU. The most striking project of all is the Øresund Fixed Link, a 15-kilometer bridge and tunnel that opened in 2000, connecting Sweden and Denmark for the first time since prehistoric times (before the land link was breached by rising sea levels). The two sides of the Øresund Sound, hitherto

entirely separate, will soon develop into a single functional economic region that will be well placed to form a commercial hub.

The EU and the Rest of the World The scale of the EU and its maintenance of a strongly protectionist agricultural policy has inevitably had a significant impact on non-member countries. The EU does extend favorable trading privileges to a large group of countries in Africa, the Caribbean, and the Pacific, most of them former colonial territories of EU member states. Nevertheless, sensitive products (that is, those that compete directly with EU agricultural and industrial products) are excluded from preferential treatment or are subject to seasonal restrictions.

Because the whole idea of the EU is based on improving Europe's competitiveness with the United States and Japan, it is not surprising that the EU's trade relations with those countries have been fractious. Other countries, especially those with strong traditional ties to European markets, have found themselves excluded by the EU's external tariff wall. New Zealand is a good example. The United Kingdom used to take nearly all of New Zealand's butter, cheese, and lamb. But after the United Kingdom joined the EU in 1972, New Zealand no longer had access to markets in the United Kingdom. As a result, New Zealand's agriculture had to be restructured, new products had to be developed—one notable success was the kiwi fruit—and new markets had to be developed in Latin America, India, and Japan (see Chapter 9). Meanwhile, the EU has become the biggest single donor of aid to less-developed countries.

The Reintegration of Eastern Europe

Between 1989 and 1992, all of the former satellite states of the Soviet Union in eastern Europe turned away from state socialism with command economies and began the process of establishing democracies with capitalist economies. In 1991 COMECON was abolished, and one by one, eastern European countries began a complex series of reforms. These included the abolition of controls on prices and wages, the removal of restrictions on trade and investment, the creation of a financial infrastructure to handle private investment, the creation of government fiscal systems to balance taxation and spending, and the **privatization** of state-owned industries and enterprises. After more than 40 years of state socialism, such reforms were difficult and painful. Indeed, the reforms are by no means complete in any of the countries, and economic and social dislocation is a continuing fact of life.

Nevertheless, the reintegration of eastern Europe has added a potentially dynamic market of 130 million consumers to the European economy. Within a capitalist framework, eastern Europe has the comparative advantage of relatively cheap land and labor. This has attracted a great deal of foreign investment, particularly from transnational corporations and from German firms and investors, many of whom have historic ties with parts of eastern Europe. In some ways, the transition toward market economies has been remarkably swift. It did not take long for Western-style consumerism to appear on the streets and in many of the stores in larger eastern European cities. On the flip side, it also did not take long for inflation, unemployment, and homelessness to appear. Overall, eastern Europe is increasingly reintegrated with the rest of Europe, but for the most part as a set of economically peripheral regions, with agriculture still geared to local markets and former COMECON trading opportunities and industry still geared more to heavy industry and standardized products than to competitive consumer products. Still very weakly developed are the service sector in general and knowledge-based industries in particular.

In detail, the pace and degree of reintegration varies considerably across eastern Europe. Ethnic conflict in Bosnia and Herzegovina, Croatia, and the former republic of Yugoslavia has severely retarded reform and reintegration, while Albania, Bulgaria, Macedonia, Moldova, and Romania suffer from the combined disadvantages of having relatively poor resource bases, weakly developed communications and transportation infrastructures, and political regimes with little ability or inclination to press for economic and social reform. In Ukraine, which has a much better infrastructure, a significant industrial base, and the capacity for extensive trade in grain exports and in advanced technology, reintegration has been retarded by a combination of geographical isolation from western Europe, continuing economic and political ties with Russia, and a surviving political elite that has little interest in economic and social reform.

The Baltic states of Estonia, Latvia, and Lithuania have been more successful in reintegrating with the rest of Europe. Their small size and relatively high levels of education have made them attractive as production subcontracting centers for western European high-technology industries. They are reviving old ties with neighboring Nordic countries, and in this regard Estonia is particularly well placed because its language belongs to the Finnish family, and it was part of the Kingdom of Sweden when it was annexed by the Russians in 1710. The best-integrated states of eastern Europe are the Czech Republic, Hungary, Poland, and Slovenia. All have a relatively strong industrial base, and Hungary has a productive agricultural sector. Poland and Hungary have been especially open to foreign direct investment and have been swift and vigorous in pursuing economic and institutional reform. They are among the principal contenders for membership in an expanded EU.

Regional Development

The economic and political integration of Europe has intensified core-periphery differences within the region. The removal of internal barriers to flows of labor, capital, and trade has worked to the clear disadvantage of geographically peripheral regions within

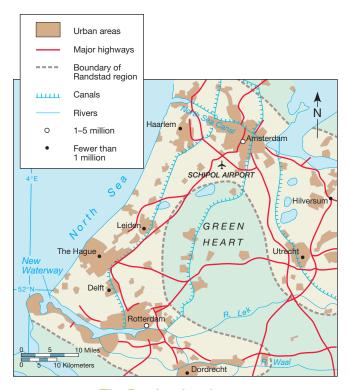


FIGURE 2.29 The Randstad region The Randstad is one of the world's most densely populated regions, and strict land-use planning has been required to protect agricultural resources and open spaces.

the EU, while core metropolitan regions have benefited. The principal core region within Europe is the Golden Triangle, centered on the area between London, Paris, and Berlin. A secondary emergent core is developing along a north–south crescent that straddles the Alps, stretching from Frankfurt, just to the south of the Golden Triangle, through Stuttgart, Zürich, and Munich to Milan and Turin. Both cores are linked by the new trans-European high-speed rail system.

Europe's Golden Triangle The character and relative prosperity of Europe's chief core region, the Golden Triangle, stem from four advantages:

- 1. Its geographic situation provides access to southern and central Europe by way of the Rhine and Rhône river systems and access to the sea lanes of the Baltic Sea, the North Sea, and, by way of the English Channel, the Atlantic Ocean.
- 2. Within it are the capital cities of the major former imperial powers of Europe.
- 3. It includes the industrial heartlands of central England, northeastern France, and the Ruhr district of Germany.
- Its concentrated population provides both a skilled labor force and an affluent consumer market.

These advantages have been reinforced by the integrative policies of the European Union, whose administrative headquarters are situated squarely in the heart of the Golden Triangle, in Brussels, Belgium. They have also been reinforced by the emergence of Berlin, Paris, and, especially, London, as world cities, in which a disproportionate share of the world's economic, political, and cultural business is

conducted. As these world cities have come to play an increasingly central role in the world economy, so they have become home to a vast web of sophisticated financial, legal, marketing, and communications services. These services, in turn, have added to the wealth and cosmopolitanism of the region.

Agriculture within the Golden Triangle tends to be highly intensive and geared toward supplying the highly urbanized population with fresh dairy produce, vegetables, and flowers. Industry that remains within the Golden Triangle tends to be rather technical, drawing on the highly skilled and well-educated workforce. Most heavy

industry and large-scale, routine manufacturing has relocated from the region in favor of cheaper land and labor found elsewhere in Europe or beyond.

In the Golden Triangle, a tightly knit network of towns and cities is linked by an elaborate infrastructure of canals, railways, and highways. The region has reached saturation levels of urbanization, as exemplified in Randstad Holland, the densely settled region of the western Netherlands that includes Dordrecht, Rotterdam, Delft, The Hague, Leiden, Haarlem, Amsterdam, Hilversum, and Utrecht (Figure 2.29). In addition to London, Paris, and Berlin, major cities of the Golden Triangle include Amsterdam (Figure 2.30), Antwerp, Birmingham, Brussels, Cologne, Dortmund, Düsseldorf, Hamburg (Figure 2.31), Hannover, Lille, Portsmouth, and Rotterdam. Nevertheless, the Golden Triangle still contains fragments of attractive rural landscapes, together with some unspoiled villages and small towns. These have survived partly because of market forces: They are very attractive to affluent commuters. Equally important to their survival, though, has been the relatively strong role of environmental, land use, and conservation planning in European countries.

FIGURE 2.30 Amsterdam The central districts of Amsterdam are distinctive for their network of canals, tree-lined streets, and town houses.





FIGURE 2.31 Hamburg Germany's second-largest city, Hamburg is Europe's second-largest port and the commercial and cultural center of Northern Germany.



FIGURE 2.32 Bulb fields This photograph is from Enkhuizen in the Netherlands.

Surrounding the advanced city regions of the Golden Triangle are the fruit orchards and hop-growing fields of Kent, in southeastern England; the bulb fields of the Netherlands (Figure 2.32); the dikes and rectangular fields of the reclaimed marshland (polders) of North-Holland, Flevoland, and Friesland along the Dutch coastal plain (Figure 2.33); the pastures, woodlands, and forests of the upland plateaus of the Ardennes, the Eifel, the Westerwald, and the Harz; and the meadows and cultivated fields separated by hedgerows and patches of woodland that characterize most of the remaining country-side: Picardy in France; Flanders and Brabant in Belgium; Limburg, Nordrhein-Westphalia, and Saxony in Germany; and Gelderland in the Netherlands, for example. Embedded among these distinctive landscapes are hundreds of villages and scores of market towns. Those within the orbit of the metropolises and advanced city regions have lost a great deal of their character. A few, like Aylsham, in southeastern England (Figure 2.34), have been bypassed both by industrialization and by the post-industrial

FIGURE 2.33 Dutch landscape This photograph shows the landscape around Kinderdijk, in the Netherlands.



FIGURE 2.34 Market town Because of its off-center geography—situated in England's rural East Anglia region, and away from major rail and road routes—the market town of Aylsham has been affected very little by industrialization.



economy and have retained much of their traditional character. Some, like Bruges in Belgium, have traded on their legacy to become tourist stops. It is the metropolises and advanced city regions, however, that both define and dominate the Golden Triangle.

Major City: Berlin If it were not for the geopolitical aftermath of World War II, Berlin would probably be a world city to rival Paris and London. Berlin is situated on a natural east—west commercial axis on the north European plain, with a favorable location on the river system that provides connections to the Elbe and Oder rivers. It is at once the most westerly city of eastern Europe and the most easterly city of western Europe. As such, it enjoys an excellent strategic location within continental Europe.

At the beginning of the 18th century, Berlin became the capital of the Hohenzollern dynasty of the Prussian monarchy. By the late 18th century it had a population of about 150,000, with soldiers and their families accounting for one in every five inhabitants. Berlin's position was further enhanced by the formation of the German Customs Union in 1834 and by the creation of the German Empire after the Franco-Prussian War (1871). The city is still graced by the monumental architecture of this period, although much was destroyed during World War II. With the Industrial Revolution, Berlin began producing machinery, chemicals, textiles, electrical goods, electronics, and clothing. It also became a hub in the central European transportation system and a major banking center. At its peak, in 1939, Greater Berlin had a population of 4.3 million. In physical terms, the building blocks of Berlin were Mietskaserne ("rental barracks"), four- or five-story apartment houses arranged around a courtyard and often extended by a series of rear courtyards, with access to the street only from the first court. With a new building ordinance in 1925, the classic Mietskaserne was effectively outlawed. The term continues to be used, however, for large-scale working-class housing developments.

Berlin was a cultural and intellectual center in the early part of the 20th century. It was a seedbed of avant-garde theater, film, cabaret, art, and architecture. World War II changed everything. By the end of the war, 34 percent of Berlin's housing had been destroyed, and another 54 percent was damaged. The city found itself embedded within the eastern, socialist part of a partitioned nation and was itself partitioned into eastern and western sectors. As a result, Berlin's dynamism was seriously disrupted.

West Berlin had to develop a new central business district, the old one having fallen within the eastern sector. In 1961 the division between the two half-cities was physically reinforced when East Germany built the Berlin Wall to stem the flow of migrants to West Berlin. After the wall went up, both East and West Berlin remained highly militarized, with troops and their equipment a very visible part of the urban landscape. Both also redeveloped their industry and refurbished their housing. East Berlin, with a

population of just under 1.5 million by the late 1980s, was a show-case for the German Democratic Republic. Its economy was based on a mixture of industry including electrical engineering and electronics, metals, automobile production, textiles, printing, publishing, and beverages. It was, however, dominated by bleak modernist architecture. West Berlin, with a population of more than 2 million (of whom more than 250,000 were foreign workers and their families), developed a significant youth counterculture, partly because of its many institutions of higher education (which together account for more than 120,000 students), and partly because its residents were not required to perform military service in the army of the Federal Republic of Germany.

With the reunification of Germany in 1989, Berlin reassumed its prewar role as a national political and cultural center. The city experienced a surge of construction as the two parts of the city were reconnected, wired, and plumbed together again and as the federal government and investors raced to install new infrastructure, department stores, office blocks, hotels, and entertainment centers in keeping with the city's restored position in the world (Figure 2.35). Federal offices have been moved from Bonn to Berlin, and

FIGURE 2.35 Berlin Since the reunification of Germany in 1989, Berlin has experienced a major construction boom, reflecting the city's restored role as a world city. Shown here is Marlene Dietrich Platz.



Potsdamer Platz, once a no-man's land of barbed wire, tank traps, and mines, has been redeveloped with 111,000 square meters (about 1.18 million square feet) of apartment space, 310,000 square meters (about 3.3 million square feet) of office space, 57,000 square meters (about 613,500 square feet) of retail shops and restaurants, plus two Imax theaters, eight cinemas, a concert stage, an underground train station, and a shopping arcade.

Major City: London London is a vast, sprawling city that covers more than 3900 square kilometers (about 1500 square miles) of continuously built-up area. It has a total population of just over 7 million (13 million including the metropolitan fringes). In the 19th and early 20th centuries, it was the center of global economic and geopolitical power. It dominates the economic and political life of the whole of the United Kingdom and remains the single most cosmopolitan city in Europe.

London grew up around two core areas: a commercial core centered on its port and trading functions and an institutional core centered on its religious and governmental functions. The commercial core has Roman roots: *Londinium* was the fifth largest Roman city north of the Alps, a major trading center that enjoyed the advantages of a deep-water port (on the River Thames) and a key situation fac-

ing the continental North Sea and Baltic ports. These same advantages helped London prosper with the resurgence of trade in the medieval period, when the wealth accumulated by wool merchants provided the economic foundation for growth. From this commercial nucleus grew an extensive merchant and financial quarter (Figure 2.36). The docks spread eastward from the financial precinct (the City), and specialized market areas grew to the north and east.

Today, this area remains the commercial core of the city. It contains the Stock Exchange, the Bank of England, the Royal Exchange, the Guildhall, and the Central Criminal Courts, as well as specialized commercial areas such as Fleet Street (the press/media precinct), Lincoln's Inn Fields (the legal precinct), and the sites of old marketplaces, such as Billingsgate (fish) and Smithfield (meat). Older docks, such as St. Katherine's next to Tower Bridge, have meanwhile been renovated and now boast yacht basins, hotels, a trade center, upscale pubs, bistros, specialty retail stores, galleries, and condominiums.

London's institutional core developed around Westminster Abbey, some 2.2 kilometers (2 miles) upstream from the commercial core (Figure 2.37). Early meetings of Parliament were held in the Abbey's Chapter House; the present Houses of Parliament date only from the 19th century. St. James's Palace was built as a London residence for the monarchy in the 16th century; Buckingham Palace, built for the Duke of Buckingham in 1703 and purchased by George III in 1762, became the royal residence during Queen Victoria's reign. To the north of the Houses of Parliament, along Whitehall, are government offices; between these and Buckingham Palace is St. James's Park; and to the north of the park are the palaces and mansions of the nobility, centers of culture (the Royal Academy, the National Gallery, and the Royal Opera House), the exclusive shops that cater to the city's elite, and the squares and townhouses of the rich and powerful.

London's population grew sixfold during the 19th century, reaching more than 6 million by 1900. As it grew, the two core areas merged together as part of a huge central business district. Downriver from the central business district, new docks and manufacturing industry attracted concentrations of low-income housing in the city's East End, while from around 1840 the railways triggered a process of suburbanization that created a mosaic of neighborhoods



FIGURE 2.36 London's financial core London's original river port trade gave rise to a commercial core that developed into a major financial hub in the district of London known as the City. Though the skyline of this financial precinct is still dominated by the dome of St. Paul's Cathedral, the City skyline has acquired a few high-rise buildings.

FIGURE 2.37 London's institutional core Westminster Abbey and the Houses of Parliament stand at the center of a distinctive district of government offices, royal palaces and parks, military barracks, and upscale residential neighborhoods.



of high-density terrace housing. These inner-city neighborhoods are now mostly obsolescent, and a good deal of the original housing has disappeared, replaced by municipal housing projects. In addition, the Dockland Development Corporation, established in 1981, has regenerated large tracts of formerly derelict docks and slums in the East End. Extensive areas of substandard housing remain in much of inner London, however—a mixture of older terraced housing and newer, but run-down, municipal housing.

London's outer suburbs are the product of extension of the city's underground rapid-transit system, establishment of a suburban railway network, and diffusion of the private automobile. These outer suburbs are relatively affluent and conservative, characterized by semidetached "villas" that form a broad ring about 11 kilometers (6.8 miles) deep, punctuated only by neighborhood shopping streets and industrial parks. The major problem for outer London is traffic, the whole region being swamped by a density of automobiles that is several times the capacity of the road system.

London's outer suburbs stop suddenly at the point they reached in 1947, when a strategic plan for the city established a greenbelt designed to halt suburban sprawl, protect valuable agricultural land, and provide an amenity for the city's population. Within the greenbelt, which covers some 2330 square kilometers (about 900 square miles) in a zone between 8 and 16 kilometers (5 and 10 miles) wide, development has been strictly policed by city planners, with the result that villages and small market towns have a picture-postcard quality that is much sought after by affluent commuter households.

Beyond the greenbelt is a metropolitan fringe that extends between 32 and 64 kilometers (20 and 40 miles) from the central area and contains nearly 6 million people. Within this zone are such older market towns as Luton, Reading, Guildford, and Maidstone, together with eight New Towns. These New Towns were established as part of the strategic plan for London and were designed to house "overspill" population and light industry as inner London was thinned out and rebuilt after World War II.

Major City: Paris While London is the most cosmopolitan European city, Paris is the most urbane and the most spectacularly monumental. Paris is the unrivaled focus of political, economic, social, and cultural life in France. It is an industrial center as well as a major international financial center. It is, in short, *the* French city, and there are few cities in the rest of the world (perhaps only Tokyo) that so dominate their national urban systems, their national economy, their politics, and their culture. Paris is by far the largest city in France, with a central-city population of 2.2 million in 2002, compared to 808,000 in Marseille, 422,000 in Lyon, and 366,000 in Toulouse.

In Paris itself, this dominance is reflected in the monumental buildings of the central

core, or Ville de Paris. The nucleus of this core is the Île de la Cité, a boat-shaped island about ten blocks long and five blocks wide, the site of the palace of the city's Roman governor and of the great cathedral of Notre Dame de Paris. The whole historic core is dominated by the river Seine, which runs some 9 meters (about 30 feet) below street level and is bordered by trees and shrubs, with another line of trees at street level, providing a sequestered setting in the heart of the city (Figure 2.38). Along the river are some of the greatest examples of urban design anywhere in the world. Beginning in the 17th century, royal sponsorship rebuilt and embellished the route from the Louvre (the old royal palace) through the Tuileries Gardens to the Champs-Élysées. In the 19th century, Napoleon built the Arc de Triomphe, giving a focal point to the far end of this axis. Napoleon took a particular interest in the development of Paris as a deliberate reflection of the power and glory of his empire. In addition to monumental embellishments such as the Arc de Triomphe, the church of the Madeleine, and the stylishly arcaded Rue de Rivoli, Napoleon initiated many public works and infrastructure improvements. However, it was his nephew, Napoleon III, who presided over the most comprehensive program of urban redevelopment and monumental planning. This work was directed by George Haussmann, Prefect of the Seine region between

FIGURE 2.38 Central Paris Central Paris is mostly low-rise, with only isolated skyscrapers.



1853 and 1870. Haussmann demolished large sections of old Paris in order to create a network of broad, new, tree-lined avenues that today form the basis of the most extensive one-way street system in Europe.

Despite this redevelopment, the continued growth of central Paris as a place of government, retail, office, and service employment has brought acute congestion that has fostered widespread conflict over land use and urban planning. The built environment has become a major focus of Parisian (and, indeed, French) politics. Some of the most intense and long-running conflicts have been focused on modernization projects—such as the redevelopment of Les Halles (the old produce market for Paris). More recently, however, the emphasis has been on conserving historic buildings and districts.

Beyond the historic core, suburban Paris extends for some 16 to 24 kilometers (10 to 15 miles), with another 16 kilometers (10 miles) or so of metropolitan fringe. The inner suburbs date from the 1880s. They are relatively high-density, by North American standards, with piecemeal development that now contains a mixture of middle- and high-rise apartment blocks and single-family homes. Many of the gaps left by earlier speculative development, along with much of the outer suburbs, are filled with grands ensembles of social housing. Built in haste to accommodate the city's postwar growth, these soon acquired a very negative reputation because of their uninspired architecture and lack of social facilities. The suburbs are heavily interspersed with industry, much of it large-scale and involving various kinds of electrical or mechanical engineering.

Managing the growth of the suburbs and metropolitan fringe while encouraging the decentralization of central Paris has been the principal concern of urban and regional planners. Central to their efforts has been the development of master plans. One early master plan sought to counteract the primacy of Paris by establishing eight growth centers, or *métropoles d'équilibre*, in other regions of France. Subsequently, planners sought to reduce the dominance of central Paris by establishing five new towns and encouraging nodes of commercial development outside the city center. The biggest and most successful of these suburban nodes is La Défense, a major set piece of modern planning (Figure 2.39). La Défense is a complex, multilevel, multiuse development with more than 1.39 million square meters (about 15 million square feet) of office space, 150,000 workers, and 20,000 residents. Still, the dominance of central Paris has become stronger than ever, with the new towns serving as dormitories for clerks and mid-level executives who are among the 1 million who commute to central Paris every day.



FIGURE 2.39 La Défense One of the largest and most successful growth centers within metropolitan Paris, La Défense was designed by planners to attract office development from the central core of the city.



FIGURE 2.40 Frankfurt am Main, Germany A city of global financial importance, Frankfurt is the seat of the European Central Bank and the Frankfurt Stock Exchange and is one of the most affluent cities in Europe.

Southern Crescent Stretching south from the Golden Triangle is a secondary, emergent, core region that straddles the Alps, running from Frankfurt in Germany through Stuttgart, Zürich, and Munich, and finally to Milan, Turin, and northern Italy. The prosperity of this Southern Crescent is in part a result of a general decentralization of industry from northwestern Europe and in part a result of the integrative effects of the European Union. Some of the capital freed up by the deindustrialization of traditional manufacturing regions in northwestern Europe has found its way to more southerly regions, where land is less expensive and labor is both less expensive and less unionized. The cities of the Southern Crescent have become key to the spatial reorganization of the whole region. Frankfurt (Figure 2.40) and Zürich (Figure 2.41) are global-scale business and financial centers in their own right, while Milan is a center of both finance and design, and Munich, Stuttgart, and Turin are important centers of industry and commerce.

This Southern Crescent stretches across a great variety of landscapes, from the plateaus of central Germany,

across the Alps, and into northern Italy and the Apennines. Overall, these landscapes are much less urbanized than are those of the Golden Triangle. However, the *rate* of urbanization is much higher.

Much urban growth is taking place in smaller towns and cities that are part of new-style industrial subregions that have benefited from the deindustrialization of northwestern Europe. They represent a very different form of industrialization based on loose spatial agglomerations of small firms that are part of one or more leading industries. Small firms using computerized control systems and an extensive subcontracting network have the advantage of being flexible in what they produce and when and how they produce it. Consequently, the new industrial districts with which they are associated are often referred to as **flexible production regions**. Within each of these regions, small firms tend to share a specific local industrial culture that is characterized by technological dynamism and well-developed social and economic networks.

Northern Italy provides examples of a number of flexible production regions (Figure 2.42). Here, regional networks of innovative, flexible, and high-quality manufacturers make products that include textiles, knitwear, jewelry, shoes, ceramics,

FIGURE 2.41 Zürich, Switzerland Switzerland's main commercial center is also a center of international banking and finance.



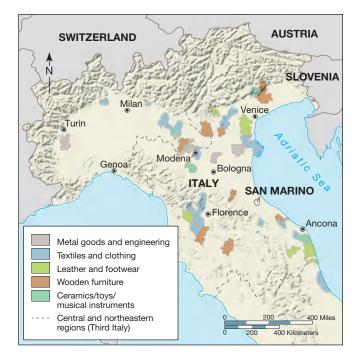


FIGURE 2.42 New industrial districts in northern Italy New industrial districts in the Southern Crescent are based on loose spatial agglomerations of small firms involved in a few key industries. There is a particular concentration of these new industrial districts in central and northeastern Italy—the so-called "Third Italy." (Source: D. Pinder [ed.], The New Europe: Economy, Society, and Environment. New York: John Wiley & Sons, 1998, p. 106.)

machinery, machine tools, and furniture. Other examples of flexible production regions based on a similar mixture of design- and labor-intensive industries include the Baden-Württemberg region around Stuttgart in Germany (textiles, machine tools, auto parts, and clothing) and the Rhône-Alpes region around Lyon in France.

The northern end of the Southern Crescent is dominated by the pastures, woodlands, and forests of the upland plateaus of the Hunsrück, the Taunus, the Odenwald, and the Franconian Jura. All of these uplands are crossed by rivers whose valleys contain prosperous, manicured landscapes of mixed farming, vineyards, and orchards. Farther south still are the rich meadows and dairy farms of the Alpine fringe, followed quickly by the spectacular mountains and lakes of the Alps themselves. Beyond the Alps is a belt of moraines that dam a series of sub-Alpine lakes (Maggiore, Lugano, Como, Iseo, and Garda) and form the hills upon which some of northern Italy's distinctive hill towns (such as Bergamo and Brescia) stand. The landscape then flattens out into a zone of low terraces that descend to the rich, broad floodplain of the River Po (Figure 2.43)

before rising again toward the hills of the Apennines.

City: Milan Milan provides a good example of the prosperity of the Southern Crescent. Although Rome is the Italian capital and Naples is perhaps better known, Milan is the leading city of the country—the richest, the most fashionable, the most innovative, and the best governed. With only 7 percent of the country's population, it accounts for 28 percent of Italy's national income. If Milan were still an independent city-state, it would be richer than Switzerland. It has a diversified economic base that has expanded in recent years as, along with other cities in the European sunbelt, it has attracted a significant amount of foreign investment. Industries include automobile assembly, aircraft, motorcycles, electrical appliances, railroad materials, metal trades, chemical production, and graphics and publishing. Although parts of the industrial sector have declined—Pirelli, for example, closed its huge tire factory in the northern suburbs of the city in the 1980s—the

FIGURE 2.43 Rural landscapes of the Southern Crescent The rich floodplain of the Po River valley in Italy is one of the most distinctive agricultural regions within the Southern Crescent. Shown here is the area around Mantua.





FIGURE 2.44 Milan Milan has long been a major regional center and today has developed into a prosperous city of global importance in finance, fashion, and industrial design.

service sector is growing rapidly. For every manufacturing firm that closed down or moved out during the 1990s, three service firms were created. Services now account for 70 percent of the local economy, and Milan has gained international significance as a financial center and as a center for design—both industrial and fashion. The Milanese are hard-working and entrepreneurial, with a strong progressive streak that is vigorously pursued by the (traditionally socialist) city government. The city exudes an exhilarating combination of the historic and the modern, of industry and culture, and of the fast track and laid-back urbanity.

The center of the city owes its street pattern to the pattern of successive defensive walls. It is dominated by the Duomo (cathedral), begun in the 14th century and completed in the 19th, and the Castello Sforzesco, a 15th-century castle. They look out on a low-rise city center in which are tucked away such landmarks as the Piazza Mercanti (the center of activity in medieval times), the theater of La Scala facing the Piazza della Scala with its statue of Leonardo da Vinci, the church

of Santa Maria delle Grazie with its mural of the Last Supper by Leonardo da Vinci, and the magnificent indoor shopping arcade of the Galleria Vittorio Emanuele (Figure 2.44). The narrowness of the streets in the center has precluded development of much industry; it is the suburbs, particularly to the north/northeast and south/southwest, that are the setting for Milan's industry. These suburbs are for the most part well built and well served. The pressure of population growth, however, has resulted in the expansion of slum housing and the appearance of shantytowns such as Brianza on the urban fringe.

SUMMARY AND CONCLUSIONS

Contemporary Europe is highly urbanized and is a cornerstone of the world economy with a complex, multilayered, and multifaceted regional geography. In overall terms, Europe accounts for almost two-fifths of world trade and about one-third of the world's aggregate GNP.

The rise of Europe as a major world region had its origins in the emergence of a system of merchant capitalism in the 15th century, when advances in business practices, technology, and navigation made it possible for merchants to establish the basis of a worldwide economy in the space of less than 100 years. These changes also had a profound effect on Europe's geography, reorienting the region toward the Atlantic and away from the subregional maritime economies of the Mediterranean and the Baltic. Since then, Europe's regional geographies have been comprehensively recast several times: by the new production and transportation technologies that marked the onset of the Industrial Revolution, by two world wars, and by the Cold War rift between eastern and western Europe.

The European Union emerged after World War II as a major factor in reestablishing Europe's role in the world. The EU is now a sophisticated and powerful institution with a pervasive influence on patterns of economic and social well-being within its member states. It has a population of more than 370 million,

with a combined GDP 10 percent larger than that of the United States. The reintegration of eastern Europe has added a potentially dynamic market of 130 million consumers to the European economy. Overall, eastern Europe functions as a set of economically peripheral regions, with agriculture still geared to local markets and former COMECON trading opportunities and industry still geared more to heavy industry and standardized products than to competitive consumer products.

The principal core region within Europe is the Golden Triangle, which stretches between London, Paris, and Berlin. A secondary, emergent core is developing along a north–south crescent that straddles the Alps, stretching from Frankfurt, just to the south of the Golden Triangle, through Stuttgart, Zürich, and Munich, to Milan and Turin.

Beyond Europe's core regions, major metropolitan areas, and specialized industrial districts, a mosaic of landscapes has developed around broad physiographic regions. In detail, these landscapes are a product of centuries of human adaptation to climate, soils, altitude, and aspect and to changing economic and political circumstances. Farming practices, field patterns, settlement types, local architecture, and ways of life have all become attuned to the opportunities and constraints of regional physical environments, producing distinctive regional landscapes.

KEY TERMS

acid rain (p. 74) agglomeration economy (p. 75) aspect (p. 65) balkanization (p. 85) buffer zone (p. 75) command economy (p. 75) deindustrialization (p. 88) disinvestment (p. 88) egalitarian society (p. 76) enclave (p. 85) Enlightenment (p. 79)

entrepôt (p. 71) ethnic cleansing (p. 86) exclave (p. 85) fascism (p. 78) feudal system (p. 69) fjord (p. 59) flexible production region (p. 100) heathland (p. 68) imperialism (p. 74) latifundia (p. 67) loess (p. 64) Marshall Plan (p. 75) merchant capitalism (p. 69) minifundia (p. 67) Modernity (p. 79) moraine (p. 59) municipal housing (p. 98) pastoralism (p. 61) physiographic region (p. 59) polder (p. 68) privatization (p. 93) satellite state (p. 58) social housing (p. 99) state socialism (p. 58) steppe (p. 65) tundra (p. 61) watershed (p. 59) welfare state (p. 87) xenophobia (p. 86)

REVIEW QUESTIONS

Testing Your Understanding

- **1.** How has Europe benefited from its location and its major physical features?
- **2.** Many European cultures have a strong history of seafaring. How did that become a crucial factor in European and world geography?
- **3.** As the Roman Empire spread westward, what modifications did the ancient Romans make to the European landscape? How did people living in medieval feudal systems affect the landscape of Europe?
- 4. What key inventions during the period from 1400 to 1600 helped European merchants establish the basis of today's global economy? Why?
- 5. Which imports from the American colonies helped transform Europe? Focus on natural resources and new crops.
- **6.** What was an entrepôt seaport? How have entrepôt functions affected a city like London?
- 7. What factors led to the end of the European colonial era?
- 8. What was the Cold War? Why did the Soviet Union establish a buffer zone in eastern Europe? Which two eastern European countries left the Soviet bloc to pursue alternate forms of state socialism?

- 9. How did the European Union (EU) develop? Why is the EU's Common Agricultural Policy (CAP) so important?
- 10. What are the main characteristics of Europe's two core regions? Please explain where these core regions are and why they are prosperous.

Thinking Geographically

- 1. Why was geographic knowledge and accurate mapmaking crucial to the growth of European power during the 1500s?
- 2. How did aid from the Marshall Plan and COMECON help rebuild Europe after World War II? Which regions or economies benefited first?
- 3. What migration patterns characterized Europe during the 19th and 20th centuries? Consider movement within Europe as well as movement to and from Europe.
- **4.** From Greece to Portugal, many European countries pride themselves on their wine production and rely on income from their wine exports. How does the history of wine as a commodity reflect the history of Europe from classical Greece to the present day?

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