The history of modern Europe can be said, rather arbitrarily, to have begun approximately seven centuries ago with the gradual emergence of Europe from a period that historians have called the Medieval or Middle Ages into a new era labeled, equally arbitrarily, the Renaissance. Historians have long since disproved the old characterization of the medieval period as having been some sort of "dark ages." A comparison of the later, or "high," Middle Ages with the earlier, or "low," Middle Ages indicates a great deal of change in many areas: intellectual, architectural, technological, military, political, and economic. But what can be said without contradiction about these eight or nine centuries is that the pace of life, the speed with which change and development occurred, was dramatically slower than it had been in the preceding classical Greek and Roman periods and than it was again in the so-called Renaissance that ushered in Europe's modern age in the fourteenth and fifteenth centuries.

During the six centuries immediately preceding the twentieth, Europe gradually emerged as a global leader in many fields of human endeavor. Intellectually and culturally, in the arenas of economic, scientific, and technological development; in the evolution of new forms of political organization and the concept of human rights; in the overall betterment of the standard of living of its peoples, both in economic and human terms—in all of these and almost any other area one can imagine, Europe by the end of the nineteenth century had assumed uncontested leadership in the world.

So overwhelming was this supremacy that it led, almost inevitably, to ever increasing European mastery and control of the globe. By the end of the nineteenth century, Great Britain ruled one-fifth of the total
land mass and Russia controlled another one-sixth. All of Africa, save Abyssinia (today Ethiopia) and Liberia, had fallen under European domination, as had India, Australia, New Zealand, all of Southeast Asia, and Indonesia. The oceans of the World were policed by the British navy, and European trade, commerce, and investment capital dominated the international economic arena. As Europeans entered the twentieth century, it did indeed seem as if they were history's chosen peoples. No wonder that the decades immediately preceding World War I have been characterized by some as Europe's "age of triumphant optimism."

Why? What caused all of this to happen? What led Europe in such a short period of time to establish a superior economic and cultural standard of living, to gain a nearly total global economic, political, and military dominance from which only the United States and Japan (both eager imitators of things European) were excluded? How had Europe achieved so quickly a level of scientific, cultural, and intellectual development that set it apart and led the rest of the world to send its best young minds to study and learn in Europe?

**Modernization and European History**

The possible answers are many, and their subcomponents countless. Different historians, writing in different times and from different perspectives, have packaged them in varying ways. The present does indeed lend perspective to the past, and we should not expect that solutions to historical questions and problems presented today will be agreed on by all or regarded as equally valid in a future decade or century. But from the vantage point of the final decade of the twentieth century, two broad factors seem to provide jointly the most comprehensive framework for understanding the acceleration of European growth and development that led to its era of dominance in the late nineteenth century.

The first of these elements was a rapid escalation of the pace of accrued scientific knowledge about the world in which humans lived and the concomitant transfer of that knowledge into developments in the field of technology. Second, and second only because it followed after and in some sense derived from the first, was a fundamental shift in people's thinking about their lives, their purpose on earth, their goals, and their capabilities. In other words, along with an enormous acceleration in the development of scientific knowledge and technical application went a fundamental change in humans' attitudes about themselves and about their reason for existence on this earth. The combination of these factors provided the fuel for a driving, motivating force in history that has even been given a name: modernization.

If indeed "modernization" or the "drive toward modernization" constitutes the single most inclusive theme of modern European history, it deserves at least some basic explanation and definition. This is not as easy as it may sound. Many volumes have been written that intensively develop and explicate the concept of modernization. But for our purpose, the relatively straightforward and simple explanation provided by Patricia Branca and Peter Stearns seems particularly satisfactory:

A modern society is an industrial society, so during the process of modernization most people cease depending on agriculture and do newer kinds of work, often with new machines, in factories, offices, even schools. Modern society is urban.... Modernization involves more, however, than simply how people work and where they live; it involves a new state of mind.... Many social scientists agree that modern people differ from most historic peoples by believing in progress instead of relying on traditions to guide them. They are more individualistic, making choices by themselves, guided by their own pleasure, rather than referring to a larger family or community. Modern people are secular and materialistic, usually reducing the role of religion in their lives. They are politically conscious, believing that they have rights of participation in the state and that the state owes them attention to their welfare. The modernization of outlook is not necessarily sudden or complete. It occurs in different stages with different groups in society. And of course it may not be a good thing; individualistic people may be more neurotic, while expectations of progress may simply lead to frustrations. But most social scientists would agree that modern man is fundamentally different, in any industrial society, from his premodern counterpart.
The Medieval World

Although the full effects of modernization did not become apparent until the last half of the nineteenth century, its antecedents can be seen as far back as the fourteenth and fifteenth centuries. To understand the enormity of the change that began at that time, we must at least briefly sketch in some of the main characteristics of the so-called medieval world.

Social Structure and Lifestyles

The basis of medieval life was rural and agricultural. Society and politics were dominated by a feudal, aristocratic, landholding class, whose members waged constant internecine warfare within an ever more fragmented and decentralized political system. The basic social and economic unit was the manor, a fundamentally self-sufficient territorial unit within which the nobility supplied military security and protection. The church and its clergy provided guidance and direction toward the path leading to eternal salvation. Peasant/serfs worked the land, providing sustenance not only for themselves but for members of the other two groups as well. For the masses of peasant/serfs, it was in some sense not too bad a bargain. Through their work they supported the community economically; [beginning of page 7] in turn the nobles protected their bodies and the clergy looked out for their souls.

The diversity and energy of a late medieval town is well reflected in this woodcut of a Dutch marketplace: public speakers; a craft guild on parade; archery contests; the bartering of goods; a tavern; and central to and looming over all, the church. The children play ring-around-the-rosy, a singing rhyme and dance game whose Black Death origins were reflected in its final line, "All fall down!" (Photo from the Bettmann Archive.)

The role of urban life in all this was very secondary. Towns, such as they were, tended to exist around major cathedrals, where perhaps a bishop or archbishop had his headquarters, or outside the walls of a castle belonging to an important member of the nobility, perhaps a duke, earl, or prince. In both cases the town's residents would be primarily artisans, craftspeople, and laborers who gained their livelihoods by performing the services necessary for building and maintaining the cathedral or castle and supporting the large retinue that surrounded the important persons who inhabited it. There were also occasional market towns, often found at river junctions, where trade in goods brought from various areas or even overseas took place, but these communities served a fringe function and were in no way central to the economic, political, or spiritual needs of the medieval world. [Beginning of page 8]

Life on the manor was basically routine, conducive to the preservation of unchanging tradition. It was based on a cooperative method of economic production in which everyone plowed, planted, cultivated, and harvested in the same way and at the same time. Thus it was difficult for individual experimentation or initiative to emerge. The peasant/serfs, protected by a host of long-established traditions known as the
"custom of the manor," were hardly slaves, though life for these people was neither comfortable nor pleasant. But the system did provide them security, as well as revenue for the church and the nobility. Undoubtedly, the lack of a larger, centralized governing authority made it the best and most suitable form of living to meet the needs of the time. Yet it also created a society of rich and poor—the manor did not produce middle classes of any type. Only in towns did the first indication of such groups appear.

The Christian Church

The role of religion in the medieval world was enormous, for life on earth was regarded as only a moment in terms of eternal existence. It was a brief "vale of tears" that must be passed through, its purpose the preparation for eternal life. The church was also the repository of knowledge preserved from previous generations and, as such, controlled education and learning. Only late in the medieval period did certain universities, though initially sponsored by the church, begin to act and teach independently.

Fear of hell and hope of heaven dominated the lives of medieval men and women. The wrath, the power, and the mystery of God were all too apparent in the world around them—in thunder and lightning, in famine-inducing droughts, in floods or blizzards, in the suddenness of death from unknown causes, in the recurrent epidemics of the "Black Death" that swept through Europe.

Those who could afford it sought to assuage their fears and assure their salvation by gifts, particularly of land, to the church—with the result that the church came to possess enormous power and wealth, which tended to make it extremely rigid and conservative. Yet historians have also suggested that the total dominance of Christianity in Europe during the medieval period was greatly responsible for the ultimate opening up of the world to scientific investigation and technological experimentation, both of which would be key to Europe's movement away from a society wedded to tradition and resistant to change.

[Beginning of page 9]

Unlike the pagan religions that it had replaced, Christianity was not animistic in its teaching; it denied the concept of spirits existing in animals or inanimate elements and objects. Because wind, fire, grain, or cows contained in Christian teaching no essence or spirit of their own, human beings might acceptably examine them, experiment with them, and seek rationally to understand natural forces and objects. In fact the teachings of the church through the story of the Creation (and of Adam and Eve, specifically) gave to humans the right to control and manipulate everything else that existed on this earth. The concept that nature existed solely for the use and benefit of mankind, axiomatic in centuries of Christian teaching, became so thoroughly ingrained that even today people have difficulty considering seriously many of the pressing ecological problems that surround us. Yet this attitude also helps explain the fact that a sudden surge in technological development occurred in the last part of the medieval period. Christianity did, as most other religions did not, free humans to tinker with nature.\(^2\)

The Renaissance

Out of the medieval world that had dominated Europe for centuries there emerged in the fourteenth through early seventeenth centuries a new, vitalized Europe, in which the process of change accelerated with ever increasing rapidity. Historians have traditionally labeled this period the Renaissance.

Renaissance means rebirth, reawakening, renewal, rediscovery. As such it seems a concept that looks backward rather than forward. Certainly in a cultural and intellectual sense this was originally true. What initially characterized the period and what gave it its name was a renewed and awakened interest in classical culture, in the mathematics, science, literature, arts, architecture, and philosophical thought of the Greek and Roman civilizations that had dominated the Mediterranean world for centuries preceding the medieval period. The Renaissance, in one very important sense, was clearly a resurrection of the past.
Particularly significant, however, was the fact that this "rediscovered" cultural heritage was primarily secular not religious, earthly and not other-worldly in its emphasis. The dignity of "man," the worthwhileness of the human endeavor on earth, again became the centerpiece or focus of attention. Inevitably this old/new development brought learning, education, the arts, and philosophy out from under the control of the Christian church. Secularization in these areas also opened the door for increased interest in science and technology—in the desire by humans to investigate and seek explanations for the natural phenomena in the world rather than merely accept them as mysterious manifestations of the will, power, and authority of God.

**Rise of Trade and Commerce**

The Renaissance was also characterized by the rapid growth of commercial cities and towns. Ultimately, first in Italy and later in northern Europe, political and economic power became concentrated in these urban centers rather than in the landed, feudal economic and social structure that continued to control the countryside. In Italy this transition manifested itself in the growing wealth and power of city-states like Florence, Genoa, and Venice. In northern Europe what can clearly be called national states were coming into existence by the latter sixteenth century.

What prompted this massive and relatively sudden set of changes? Without question the dynamic, motivating force that triggered all these developments was an enormous revival of trade and commerce, first in the Mediterranean area and subsequently along the North Atlantic seaboard. The wealth generated by these developments flowed to cities and towns that became the centers for economic exchange. It concentrated itself primarily in the hands of new, prosperous, urban business/merchant/banking classes. These classes, whose attention was focused more heavily on the affairs of this world than the next, had money to spend and wanted to spend it on a lavish secular lifestyle. To achieve this they commissioned work by architects, artists, musicians, goldsmiths, and tapestry weavers. No longer was the church the sole patron of the arts, as it had been for centuries.

The reasons for this revival of trade and commerce are complex and will not be examined in detail here. Suffice it to say that the decline of a once powerful and expansionist Arab-Muslim empire, the demise of the Eastern Christian Byzantine Empire, and the appearance in the Middle East of a new ruling group, the Ottoman Turks, opened the doors that allowed the transference of Mediterranean trade and commerce to the city-states of northern Italy. The Crusades of the eleventh, twelfth, and thirteenth centuries introduced western Europeans to new, exotic spices, fruits, and fabrics from the Middle East and generated subsequent demand for such items among the landed nobility. And the introduction of naval technology that replaced galleys and boarding forces with sails and artillery pieces opened up avenues first for Mediterranean and then for global expansion of trade and commerce.

It was no accident that this first wave of European global exploration, discovery, conquest, and exploitation coincided with the new view of the world and the escalation of technological innovation that characterized the Renaissance. The demand for riches and goods that motivated the expeditions of men such as Vasco da Gama, Christopher Columbus, Hernando Cortes, Ferdinand Magellan, and Richard Chancellor, as well as the ready availability of risk or "venture" capital to fund these projects, accurately reflects the secular spirit and mode of operation of this new era.

**Humanism**

Both in the city-states of the south and the emerging national states along the Atlantic coastline, there evolved during this period a growing emphasis on individualism and the study of human beings in their secular environment. This movement, aptly called humanism, emphasized the idea that human beings could rely on themselves and their intellect to improve the human condition. As people became more
self-reliant and technological and scientific discoveries multiplied, the dominance of religion as a motivating factor in their lives decreased. It was inevitable that in time traditional church authority to pass judgment on matters relating to the secular and physical nature of the universe would be challenged. On no issue was this clearer than the question of whether the earth was the center of the universe.

This issue assumed major import because of the position taken in church tradition that God had created earth, his masterpiece, as the center of the universe and had then placed man (created in God's own image) and his companion, woman, on earth and given them control over it. The trial and condemnation of the Italian scientist and technologist Galileo Galilei by the Roman Catholic Inquisition in the early seventeenth century became symbolic of the conflict between traditional, theological views of the universe and new forces represented by reason, scientific investigation, and technology. Although Galileo was forced to recant his espousal of new theories that removed the earth from its primary position in the universe, theories that had been developed not so much by Galileo as by predecessors such as Nicolaus Copernicus and by contemporaries such as Johannes Kepler, his trial and the issues joined in it clearly reflected the conflict between religious and secular systems of authority, and old and new views of the nature and purpose of the universe.

Thus by the middle of the seventeenth century, Europe had in a sense done an about-face from the medieval world. Though the majority of people still lived on the land and remained bound to the traditional economic and social structure, the dynamic forces governing growth and change had shifted almost completely to the urban scene. And in that urban climate a new money- and credit-based economy flourished that was vastly different from the trade in kind that had dominated medieval agrarian society. New business middle classes created a secular, urban society that had minimal time for or
inclination to accept the gloomy view of the world presented by medieval church theology. They were far too busy making fortunes on their own, and they looked forward to enjoying their wealth here on earth.

No longer was the nobility a class set totally apart. Wealth, culture, and education now joined family rank and birth to form new bases for social distinction and, more often than not, political power. By the mid-seventeenth century, political power had shifted to cities and national states, whose monarchs found support from emerging middle classes that applauded the end of the territorial fragmentation of the past and welcomed larger, more secure trade and market areas. Business initiative was recognized as a virtue. Ambition was legitimized. The resurrection of interest in both secular antiquity and the present world continued. Religion was no longer the binding force that it had been in the medieval scheme of things, where the purpose of human existence in this world was clearly understood and people's place in God's plan was unalterable and unquestionable.

**Traditional Christianity Challenged**

This growing emphasis on individualism, combined with the rising power of national monarchies, made it likely that the overarching doctrine and authority of the Roman Catholic church would sooner or later be challenged. The invention and growing use of the printing press in the late fifteenth century allowed ideas to be exchanged and generated more rapidly. Ultimately, during the sixteenth century a series of challenges, particularly those initiated by Martin Luther and John Calvin, splintered the monolithic Western church and led to the creation of a number of new, Protestant religious groups. Although these differed in theology and dogma, they had in common a rejection of the traditional institutional role of the Catholic church as guarantor of salvation through the use of ritual, conformity, and the total acceptance of hierarchical authority. Instead, the Protestants placed much more responsibility and emphasis on the role of the individual in developing a personal relationship with God. Attempts to achieve assurance of personal salvation would proceed from individual effort rather than institutional conformity.

Luther's emphasis on the separation of worldly and spiritual affairs and his willingness to accept the authority of princes or monarchs in secular affairs made his movement appealing to the rulers of the emerging sovereign German states. In a similar vein, the break with the Roman church engineered in England during the reign of King Henry VIII (1509-1547) represented not so much a theological split as the triumph of state authority over that of the church and the bringing of the latter under the direction and control of the former. The theology of Calvin stressed what later came to be known as the "Protestant work ethic," driven by the Calvinistic belief that the surest possible sign that one had been designated for eternal salvation was earthly success and material prosperity. These rewards, it was thought, God surely would bestow only on those predestined for salvation. Thus individualism, competition, capital accumulation, and concern with the secular affairs of this world, all regarded negatively in the medieval world, were now considered positive attributes in the new, "modern" society.

A word of caution must be entered here. If one excludes the religious divisions, the changes that have been presented thus far affected only a small segment of Europe's total population. The vast majority of people continued to live as peasant/serfs on the land in ways that varied only slightly from how their ancestors had lived for centuries. The impact of the new economic, political, scientific, technological, and intellectual forces unleashed during the late medieval and Renaissance periods would only begin to affect the masses in the latter eighteenth century and would culminate only with the triumph of industrialism in the nineteenth century.

**The Scientific Revolution and the Enlightenment**
The seeds of modernization were planted in the fourteenth through sixteenth centuries. It was only in the latter half of the seventeenth and the eighteenth centuries, however, that they came together in such a way as to revolutionize the European world and create a favorable climate for the rapid industrialization that would propel Europe into a position of global domination and leadership in the last decades of the nineteenth century. Important scientific and mathematical developments in the seventeenth century found themselves reflected in an eighteenth-century intellectual revolution so profound and all-encompassing that it is commonly referred to as the Enlightenment.

The end result was that for the scientific, intellectual, and cultural communities, the transition from the medieval "age of faith" that had begun several centuries earlier was now complete. Belief in traditional religious theology was replaced by a new faith, equally total and equally compelling, a faith in science and reason. It was now thought that human beings, using the analytical tools provided by mathematicians such as René Descartes and Gottfried Wilhelm von Leibniz and the techniques of investigation developed by theorists like Francis Bacon and scientists like Isaac Newton, could come to understand the laws by which nature operated. By putting their lives in harmony with these laws, people could progress toward the creation of a perfect society here on earth, if not immediately, then at some time in the future. In other words, using the tools of science, mathematics, technology, and reason, human beings could in time fully control their own destiny and environment. Hope for the future was essentially a human and secular matter; religious doctrines relating to life in a nonworldly heaven were unnecessary. One lived eternally through one's posterity; in a sense heaven could be created on earth by human beings themselves.

The function of God was relegated to the past, to the role of a creator who made the world, got it running, placed humans on it, and turned its destiny over to them. Deism, as it was called, saw God as a great engineer who had created a universe that operated like a perpetual motion machine in accordance with the laws of nature. Human beings, using the rational tools of deduction and induction and applying the scientific method of investigation (hypothesis -> experimentation -> observation -> generalization) should rigorously examine all aspects of the natural world around them. If indeed the world were a sort of machine, running according to "natural law," then humans could discover these laws. Nature could be understood—witness the discovery of the law of falling bodies by Galileo or the demonstration by Newton that the laws of force and motion applied in the heavens in the same way they did on earth. And perhaps nature, once understood, could be tamed by the combination of reason and scientific knowledge applied through technology (for example, Benjamin Franklin's development of the lightning rod).

If all this were true for the environment in which people lived, how equally true must it be for human beings themselves? Thus the intellectuals of the Enlightenment, led by a group of French thinkers who called themselves philosophe, advocated that all aspects of the human condition be subjected to careful scrutiny and analysis according to the test of reason and logic. If found wanting, they should be discarded forthwith and replaced by conditions and systems that could pass muster. Political theories and forms of government, religious institutions and the theological principles that supported them, social classes and the traditions and laws that justified them, any and all aspects of human life, endeavor, knowledge, and experience should be put to the test. "The proper study of Mankind," wrote Alexander Pope, "is Man."

Although the thinkers of the Enlightenment had no difficulty finding much to condemn in the world around them, they were not equally clear as to how, and with what, the concepts and systems they denounced should be replaced. One example will suffice. The philosophe were agreed in their rejection of the existing, rigid, class structure and the divine-right theory of absolute monarchy that had long justified the rule of the crowned heads of European continental states. For some, the answer lay in recognizing and delineating certain fundamental, inalienable human rights and in establishing a
government that would grant ultimate political power to a large segment of the population, which in turn would exercise its authority through a smaller body of elected representatives. Out of this approach sprang such documents as the American Declaration of Independence and Bill of Rights, and the 1789 French Declaration of the Rights of Man and the Citizen.

Other *philosophes*, distrusting profoundly the political acumen and judgment of the masses, opted instead for a new type of absolute monarchy called "enlightened despotism." The monarch would rule not in the medieval sense of being God's representative on earth with a divine mandate to govern secular affairs, but rather as the first servant of the state, who would govern as an absolute monarch in the best interest of all members of society. Within guidelines provided by the new rationalist doctrines of the Enlightenment. When asked why he rejected the concept of an elected parliament or assembly, the French philosopher Voltaire is reputed to have replied that he would rather be governed by one lion than a hundred rats. Just as our democratic, representative forms of government in the twentieth century are firmly rooted in the ideas of the Enlightenment, so also are ideas that have often justified modern forms of dictatorship in which the ruling establishment claims [Beginning of page 17] the right to govern autocratically in the interest and name of the masses.

![The storming of the Bastille](http://www.bettmann.com)

This romanticized and historically questionable portrayal of the storming of the Bastille, a royal fortress and prison, on July 14, 1789, nonetheless accurately reflects the intensity, emotion, and violence that characterized many of the economic and class conflicts that marked the French Revolution. Bastille Day, as a current national holiday in France, has a comparable significance to the Fourth of July in the United States.

The scientific and intellectual revolution that characterized the latter seventeenth and the eighteenth century was very much a middle-class affair. Some members of the nobility did participate, but the generating force came from the rising business and professional classes. By the end of the eighteenth century, they had been able to translate these new ideas, in conjunction with their growing economic power, into new, more representative forms of political authority in Great Britain and its former colony, the United States. The revolutionary and Napoleonic period in France (1789-1815), though at the time regarded as unsuccessful, had left such a strong ideological imprint, not only on France but on much of Europe, that any effort to return permanently to traditional, conservative political and social systems was doomed to failure. [Beginning of page 18]

**Modern Industrial Society**

It was also during the eighteenth century that Europe's permanent transition from an agrarian to an industrialized, urban society began. During the nineteenth century the success of this process eventually led Europe to a position of global economic, political, and cultural dominance. By the end of the century, the benefits of the industrial age were becoming available to an increasingly broad spectrum of society.
The widening dissemination of the fruits of modernization, gradual though it was, heralded the advent of mass culture, mass education, and mass political participation—forces that would wield incredible influence in the twentieth-century world.

The Impact of Industrialization

During the nineteenth century the pace of modernization accelerated as the need to adapt institutions to perform new functions required by the expansion of scientific and technical knowledge rapidly grew. Tensions between tradition and modernity caused a wide range of problems, but gradually traditional practices and institutions were altered and new approaches tried. For example, large landowners in Great Britain, responding to an escalating demand for food to feed the urban, industrial population, often decided to "enclose" the land on their estates in order to create large fields on which crops could be grown more efficiently and with a higher yield. In turn, many peasant farmers or laborers, deprived of their traditional rights of free access to pasturage and woodlots on their landlord's estate once these portions were enclosed, found themselves unable to survive and fled to the cities in a desperate search for industrial employment. On the national level, an economic customs union, known as the Zollverein, was created among the north German states in order to promote trade and provide larger markets for industry. However, it also succeeded in creating an integrative economic environment conducive to helping achieve the subsequent political unification of Germany.

The surge of industrial development that characterized this period was more an evolutionary than a revolutionary process, if one views it only as a rational, progressive development of technological knowledge, invention, and implementation. The revolutionary aspect of industrialization lay not in the development of the reciprocating steam engine or, later, the internal combustion engine or the use of electrical power. Nor did it [Beginning of page 19] lie in the creation of machine technology that was hundreds of times more efficient than earlier forms of production that had depended primarily on direct expenditure of human energy. Even the development of the machine tool industry, which permitted the standardization and exchangeability of parts, though it clearly reflected the new spirit of experimentation and innovation, was in itself hardly "revolutionary."

If indeed a "revolution" was created by industrialization in the late eighteenth and the nineteenth centuries, it stemmed from the impact that these new technological developments had on the structure of society and the way a majority of people came to live. Over the centuries, cottage or domestic means of
production had become more and more sophisticated and specialized. The advent of a capitalistic, entrepreneurial system that administered and financed commodity production had introduced to the manufacturing and marketing process a managerial class and rudimentary forms of capital investment procedures. But the center of the productive process had remained the home or peasant cottage, and the basic labor unit continued to be the family. By the eighteenth century, specialization had developed to the point where many families performed only one or two of the many tasks required in order to finish a product. Nonetheless, there remained inherent problems resulting from the necessary transfer of goods from one site to another and the inability of those in charge to supervise effectively the work habits and procedures of those performing the labor.

The Factory System

All these problems were solved by the creation of the factory system of production. Now goods remained in one place as they were transformed from raw materials into finished products. Laborers were brought together in large buildings where they could be supervised, their working hours controlled and regulated, and their output and productivity levels constantly watched and evaluated. The availability of energy resources that could run dozens, or even hundreds, of machines placed under one roof made all this possible. In turn, the factory system promoted the production of more goods more efficiently and much more quickly than had ever been the case in the past.

The factory system also meant that instead of material being taken to peasant homes or cottages to be worked on, laborers had to move to where the goods were. Living close to factories, they wound up crowded into industrial urban slums, where housing was wretched and sanitary conditions abominable. No longer able to supplement their income with a garden plot or as hired laborers on landed estates and lacking the facilities to keep a few chickens, a pig, or a cow, working-class families became solely dependent on the hourly wage they received. Loss of work meant starvation. Families therefore regarded it as necessary and important that all members, including young children, seek and gain employment wherever they could find it, working whatever shifts were available. The concept of the family as a cohesive labor unit disappeared.

During this time, nation after nation in Europe experienced a sudden, rapid surge in the development of industry. The first, and the leader throughout most of the period, was Great Britain; the last was the conservative, traditional, autocratic state of Russia, where the acceleration of industrial development only appeared in the last two decades of the nineteenth century. Some states and areas, particularly in what we today refer to as Eastern Europe and the Balkans, did not experience it at all. But for most of the nations of Western Europe—with the exception of Spain and Portugal—the nineteenth century saw a permanent shift from an agrarian to an industrial economy. Peasants left the countryside in droves, both attracted by the potential of jobs in the new urban industrial world and pushed by the enclosures and technological development of more effective and efficient mechanized ways of farming, ways that produced more and required far less human labor than in the past.

Socialism

It was out of the same industrial, urbanized conditions that a new set of economic, social, and political doctrines emerged that attempted to represent the concerns and interests of the industrial working classes. Organizationally manifested in the development of labor unions, these concerns found expression ideologically through a multitude of doctrines that can be loosely grouped under the heading of socialism. Moderate movements, such as Fabian and revisionist socialism, sought to bring about change and reform gradually through education and participation in existing political systems and processes. Extreme, radical, activist doctrines advocated the revolutionary overthrow of the middle classes and seizure of the means of production by the workers. The most terroristic and violent were the Anarchists; the most
historical and theoretical the Marxists, with their doctrines of historical materialism, class struggle, and the inevitable triumph of communism and the industrial proletariat over capitalism and the bourgeois middle classes.

The Era of Triumphant Optimism

The economic stimulus generated by the spread of industrialism was also instrumental in bringing about an intensification of nationalism in the nineteenth century. The separate German and Italian states became united into single, major national states. Conversely, a rising tide of nationalist sentiment weakened and threatened the very existence of the ethnically diverse Austro-Hungarian and Ottoman empires. National pride and patriotism replaced old loyalties to one's community, region, or religious denomination as the dominating collective ethos in society. When Charles Darwin developed and publicized his theories of the biological evolution of species, nations were quick to seize on concepts such as the inevitable struggle for survival between species and natural selection within species. Twisting Darwin's theories far beyond legitimacy and almost beyond recognition, national patriotic theorists developed a set of concepts that came to be labeled as Social Darwinism. Domestically, these were often used to support elitist theories of gender, class and social distinctions, and group relationships. Internationally, they justified competition between national states at all levels, including war; legitimized the conquest of "inferior" races by the "fitter" Caucasian race; and even encouraged the totally spurious concept that one could identify and talk seriously about a British, French, or German "race."

The technological superiority, enormous personal and national wealth, and unbridled self-confidence prompted by the scientific, technological, and attitudinal components of triumphant modernization in Europe received its ultimate expression in the wave of European imperial conquest during the late nineteenth century, the results of which were described briefly at the beginning of this chapter. Imperial success seemed to prove beyond any doubt the total superiority of Europe's political, social, military, economic, religious, and cultural systems. Those parts of the world that were not directly controlled by European nations blatantly looked to Europe for leadership and direction in terms of modernizing their own societies. This was especially evident in the efforts of the United States, Japan, and tsarist Russia, though of course Russian leaders had long regarded their nation as being an integral part of, rather than apart from, Europe, and in this they were probably right.

Looking back, historians have been tempted to point out that Europe, as it entered the twentieth century, was indeed headed for a fall. The arrogant, smug complacency with which Europeans collectively viewed themselves and their society in comparison with the rest of the world led them virtually to ignore the rising tide of nationalism that threatened to turn Europe's member states against one another. Indeed, nationalism had already created a cauldron of seething ethnic rivalries in Eastern Europe and the Balkans. The laboring classes had only recently begun to derive some tangible economic benefits from the growth of industrialism, and these limited gains only made them hunger for more. Economic competition; imperial rivalries and ambitions; restless subject ethnic groups; massive arms buildups; a wide and increasing gulf between the economically well-off and the poor, the potentially explosive combination of nationalism and social Darwinism—all these and more can be seen in retrospect as warning signs that all was not well in Europe as it entered the first decades of the twentieth century.

Yet it also must be recognized that the course of European history from the fourteenth through the nineteenth centuries had created a situation in which, viewed from almost any aspect or angle one might choose, European nations did indeed hold preeminent positions of power, wealth, and influence. In European eyes, this patent supremacy thoroughly justified their collective view of themselves as the patricians of the human race, destined permanently to lead and administer the rest of the world. Not only
was this their manifest destiny, but it promised a future, they were sure, that would clearly be to the benefit of all concerned.

Notes

2. L. White, Jr., "The Historical Roots of Our Ecological Crisis" in Dynamo and Virgin Reconsidered (1971), pp. 75-94

Suggested Readings

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