The Growth of Industrial Prosperity

The “Second industrial Revolution”: steel, chemicals, electricity, and petroleum

New Products
Steel replaced iron – allowed for lighter, smaller, faster machines
   Britain was #1 in 1870s, Germany overtook Britain by 1910 (U.S. was #1 by 1890)

Chemicals
   France and Germany overtook Britain in producing alkalies used in textiles, soap, and paper
   Germany surpassed Britain in dyestuffs (which produce dyes), led in photographic chemicals

Electricity
   Incredibly valuable, because it could easily be converted into heat, light, and motion
   1870s: first practical generators; 1881: first British public power station
   1910: hydroelectric power stations introduced common source of power for business and home
   Spawned new inventions
      - Light bulb (Edison), home and city electrification (Swan)
      - Telephone (Bell, 1876), wireless telegraph (Marconi, 1901)
      - Electric streetcar (Berlin, 1879), later subways
      - Widely employed in factories

Internal Combustion Engine
   First engine in 1878, but it waited for the development of liquid fuels: petroleum and its derivatives
   Improved by Gottfried Daimler (1886)
   Spawned the automobile and the airplane
      - French were initially the leaders in autos, but the U.S. surpassed it by 1906
      - Henry Ford’s assembly line (1916) enabled faster production and consequently cheaper cars
      - Zeppelin airship (1900) and Wright Brothers (1903)

New Markets
World markets were saturated, so industries looked again at Europe
   Rise in population and income made it ripe for sales
   British and German economies tripled and real wages increased by two-thirds
   Costs dropped with improved transportation
   Creation of the department store
      - Desire for more consumer goods created the modern economy

Tariffs and Cartels
   Increased competition for limited markets cause opposition to free trade
   By 1870s, industrialists and politicians increasingly imposed tariffs
   Cartels (groups of businesses working together to control prices and limit production) were formed

Larger Factories
   Especially in iron and steel, machinery, and chemical industries
   Owners called for greater efficiency in their operations
      - Mechanized transportation in the factories (large cranes, etc.)
      - Used precision tools for manufacturing interchangeable parts – leading to more assembly lines

New Patterns in an Industrial Economy
   “Boom and bust” intensified, occurred more often
   Overall, prosperity increased, leading Europe to call the era La Belle Époque (“Golden Age” – Gilded Age in U.S.)

German Industrial Leadership
   By 1870, Germany was the industrial leader
   Britain, having started earlier, had older factories, ill-suited to the new technologies
   Germans were willing to build, the British were reluctant
   Germany had been more enthusiastic about scientific and technical education
   Industries needed more specialized scientific knowledge, and Germany was willing to educate (doctorates)

European Economic Zones
Europe was divided (north-south) into primarily industrial or agricultural economies
    North: Britain, Belgium, France, Netherlands, Germany, Austria, and Northern Italy
        High standard of living, decent transportation systems, healthy and educated populations
    South: Spain, Portugal, Hungary, the Balkans, and Russia
        Lower transportation costs resulted in lower food prices

Spread of Industrialization
    After 1870, it spread most noticeably to Russia and Japan
        Japan: government invested in industries and railroads, brought in foreign experts
            Established national education system based on applied science (technology)
            As earlier in Europe, workers fled farms to the cities and worked in horrendous conditions

A World Economy
    Economic developments + transportation revolution = world economy
    Europeans were importing from around the globe
        Partly as a result of investing heavily to develop railways, mines, power plants and banks abroad
    Profits overseas were high, creating an incentive for investing
    Markets overseas handled the surplus of manufactured European goods
    It was a world economy that Europe dominated

Women and Work: New Job Opportunities
    The issue of “women’s right to work” was debated
        Working-class men preferred their women to stay home (for the good of the family)
            That made it easier to exploit them when they actually went to work
        Desperation for income led to low-paying “piecework” jobs

White-Collar Jobs
    After 1870: although locked out of heavy jobs, business created “white collar” jobs
        Clerks, typists, secretaries, file clerks, sales clerks
    Government service offered new jobs: secretaries, telephone operators, jobs in health and social services
    Because they required less training and/or education, these jobs had limited chance for advancement, good pay
    Most new white collar jobs were filled by working-class women, and they really didn’t add to the labor force

Prostitution
    Often were rural, working-class girls new to the cities and vulnerable
        Thousands in London, Paris, and other large cities (perhaps 60,000 in London)
        Mostly in their late teens/early 20s; usually left to take other work or to get married
    Generally licensed and regulated by the government
        Subject to examination for venereal diseases
            That was protested as discriminatory (“Why not the men?”) and eventually (1886) repealed

Organizing the Working Classes
    Trade unions in the early 1800s were primarily mutual aid societies, focusing on unemployment benefits
    In the late 1800s, they moved toward forming political parties and labor unions

Socialist Parties
    Germany’s Social Democratic Party (SPD), led by Marxists Liebknecht and Bebel, got some members elected
        Worked for improving conditions for the working class
            1890: 1.5M votes, 35 seats in the Reichstag
            1912: largest single party in Germany
    France had a variety of socialist parties; they unified in 1905 as a Marxist-inspired party
    German-style parties in Belgium, Austria, Hungary, Bulgaria, Poland, Romania, and the Netherlands
    1898: Russia gets a Marxist Social Democratic Labor Party
    1887: The Second Internationale, a loose association of national parties formed
        promoted May Day (May 1) as a workers’ day, to be marked with strikes and mass demonstrations
        divided by issues of revisionism and nationalism

Evolutionary Socialism
    “real” Marxists” believed in collapse of capitalism and its replacement by socialist ownership of production
    Marxism was challenged by evolutionary socialism/revisionism
    1899: Eduard Bernstein (German socialist exiled to Britain) wrote Evolutionary Socialism
proposed that Marx was wrong:
capitalism and the middle class was actually expanding, proletariat’s position was actually improving
proposed working toward voting rights rather than revolution
was condemned as “bourgeois” by Marxists and the Second Internationale

The Problem of Nationalism
Marx and Engels thought that the working class would identify with their comrades, not their countries
They were wrong
1914: in the face of war, they sided with their countries and abandoned any international spirit

The Role of Trade Unions
Began in the 1870s as the right to strike was granted
By 1900: 2M workers in Britain belonged to unions but even by 1914 it was less than 1/5 of workers
Failed to develop as quickly on the Continent
In France they were tied to socialist parties, so they were divided
In Germany, despite socialist affiliations, most success was tied to collective bargaining (not revolution)
By World War I they had gained considerable improvement in the lives of workers

The Anarchist Alternative
The general socialist acceptance of “more democratic” means drove the radicals to anarchism
More prominent in less industrialized, less democratic countries
Anarchism wasn’t originally violent: it had believed that good people had been corrupted by government
Therefore true freedom would come with the abolition of government and existing social institutions
Late 1800s: if revolution was necessary to abolish the government, then it had to happen
Assassination became their primary instrument of terror
Russian tsar (1881), French president(1894), Italian king (1900), U.S. president (1901)

The Emergence of a Mass Society
Mass society was not just a combination of industrial production, mass consumption, and working-class organization
Larger and vastly improved urban environment, new social structure, gender issues, mass education and leisure

Population Growth
Over the 1800s, population grew by 70% primarily through decrease in the death rate
Caused primarily by medical discoveries and improved environmental conditions
Medical discoveries: vaccination against smallpox
Environment: reduction of water-borne illnesses of diarrhea, dysentery, typhoid fever, and cholera
Nutrition: increased agricultural output and more efficient transportation made foods more accessible
Pasteurization reduced infant deaths

Emigration
Increasing prosperity couldn’t support ever-greater populations, especially in overpopulated agricultural areas
Resulted in creasing emigration to the cities
Europe couldn’t absorb all the émigrés; booming economies, lower ship fares sent them to North America
Oppressed minorities particularly chose to leave (Poles, Slovaks, Serbs, Croats, Romanians, and Jews)

Transformation of the Urban Environment
Urbanization was one of the most important changes of the 19th C.
By 1900, 80% of the British lived in cities; 45% in France, 60% in Germany
147 cities of 100,000 or more (up from 21 in 1800)
London grew from 960,000 to 6.5 million; Berlin grew from 172,000 to 2.7 million

Improving Living Conditions
1840s reformers (Chadwick in Britain, Virchow & Neumann in Germany) urged sanitation improvements
governments created boards of health looking public health hazards
new building codes lessened building shoddily
1875: Public Health Act in Britain required running water and an internal drainage system
政府 had to find ways of bringing clean water into the cities
dams and reservoirs for storage; aqueducts and tunnels to deliver it
hot water by gas (later by electricity) improved private bathing; showers appeared by the 1880s
waste treatment improved: underground pipes to carry it away for disposal (usually to rivers or oceans)
unfortunately, often the raw sewage severely polluted the lakes and rivers

**Housing Needs**

Overcrowded, disease-ridden slums seen as not just a physical problem but a moral one

“purity of the dwelling is almost as important for the family as the cleanliness of the body”

middle-class solution left it to private enterprise to solve it

some philanthropists looked to large-scale solution: model villages

“garden city” approach was to build new towns away from the city with green space in between

by 1880s: governments realized private construction wasn’t enough

cities should collect new taxes and build cheap housing for the working class

it wasn’t enough and after World War I larger-scale projects went forward

just one example where government intervention was eventually seen as necessary

**Redesigning the Cities**

Cities were outgrowing their earlier, walled (defensive) layout

In some cities, the medieval walls were torn down and replaced by a “ring” road

Broad vistas improved the quality of life” with impressive vistas of a city’s symbols (buildings, parks, etc.)

Demolition of slums left real estate open for development of department stores, museums, cafés, and theaters

Tailored in large measure for the pleasures of the newly-expanded middle class

Expansion of city’s borders led to streetcar and commuter train lines to get to work in the inner city

**Social Structure of the Mass Society**

After 1871, a generally improved standard of living

There was great poverty in Europe and an enormous gap between the rich and poor

**The Upper Classes**

The top 5% controlled 30-40% of the wealth

Landed gentry (aristocrats) joined forces with the wealthy industrialists, bankers, and merchants (*plutocrats*)

Gradually, the business “class” amassed the largest fortunes

Wealthiest person in Germany was the granddaughter of the arms manufacturer Alfred Krupp

Upper middle class began to purchase grand estates in the countryside

The two groups intermarried (aristocrats got money, plutocrats got titles)

Not always harmonious: anti-Semitism (many businessmen were Jewish) prohibited full acceptance

They assumed leadership roles in the government and military

**The Middle Classes**

About 15% of the European population

At the top were the professions (law, medicine), civil service, and moderately successful businessmen

Joined by business managers, engineers, accountants, architects, and chemists

Lower middle class: small shopkeepers, traders, manufacturers, and prosperous peasants

Lowest middle class: white collar jobs created by the Second Industrial Revolution

sales reps, bank tellers, telephone operators, salesclerks, and secretaries

Actively advocated the Victorian values of hard work, belief in progress and science, churchgoing, education

Concerned with propriety (the “right way” of doing things)

**The Lower Classes**

About 80% of the European population

Urban working class: skilled artisans, semiskilled laborers (carpenters, bricklayers, factory workers)

earned about 2/3 of what skilled workers earned

Rural working class: landholding peasants, agricultural laborers, and sharecroppers

But only 10% in Britain, 25% in Germany

Often held middle-class values (due to exposure through the military and schools)

Lowest working class: unskilled workers (day laborers who worked irregularly for very low wages) and domestic servants (1/7 of all jobs in Britain and held mostly by women)

After 1871, even their lives improved – higher wages and lower costs (especially food and clothing)

**“The Woman Question”**: The Role of Women

Throughout the 19th C., women remained legally inferior, economically dependent, defined by domestic roles

Perpetuated by the ability of a man’s wages to provide for the family’s need (women can stay at home)

Situation not the same for the lower classes, which required multiple wage earners
Marriage and Domesticity
Throughout the 19th C., marriage was seen as the only honorable career for women
Reinforced by the poor wages offered to women: that is, economically they needed to marry
Entering convents was unavailable and domestic service (even live-in jobs) was bad
Increase in marriage rates and decline of illegitimacy

Birthrates and Birth Control
Birthrates dropped significantly; apparently parents deliberately limited the size of their families
Many possible explanations: condoms and diaphragms, abortion, infanticide and abandonment
Emergence of a movement to publicize birth control (1882: first birth control clinic in Amsterdam)
Some thought lowering birthrate among the poor would solve the problem of poverty
But the practice more widely used by the upper classes

The Middle-Class Family
Its concept of the family was central to its behaviors
Men provided the income and women focused on the household and the children
Domestic servants (available at low wages) reduced women’s household work
Fewer children meant mothers could spend more time with children and at leisure
Family meant “togetherness”: modern view of Christmas, 4th of July was created
Women were educated to provide greater recreational environment for their children
Childhood was extended; games and toys were invented (dolls, checkers)
Education of sons was to prepare them to follow their fathers in business
Separated from girls, taught competitive sports to “toughen them up”
Discipline (sometimes paramilitary) spawned the Boy Scouts (1908)
Image of the “model” wife limited some women
Expected to maintain the image of the “idle” wife supporting her working husband
Freed from household drudgery and able to pursue “ornamental” hobbies
Often actually compelled to juggle managing budgets and doing the work (couldn’t afford maids)

The Working-Class Family
Women were often expected to work, usually before and after marriage
Childhood was over by age 9 or 10, when they became apprentices or worked odd jobs
As World War I approached, even some working-class families could enjoy a “middle-class” life
Wages increased for the working class and the price of goods continued to fall
Some working class families were able to rely on only one income, limit family size
Children could attend school rather than work jobs
 Strikes and agitation led to shortened work days/weeks (10-hour day and Saturday afternoon off)

Education in the Mass Society
Mass Education
Early 1800s: secondary education and university were limited to the elites, little government interest in primary education
After 1850: middle-class families sought public service, professions through scientific/technical schools
Universal Elementary Education
After 1870: mass education in state-run schools
Mandatory primary schools for both girls and boys from 6 to 12
State was responsible for training teachers
Rationale: liberals believed it was important for personal and social improvement (also aimed at replacing the Catholic Church teachings with more secular values)
Conservatives believed it would improve the quality of the military recruits and raise social discipline
Industries expected education would provide more skilled labor
Politicians believed the expanded suffrage required a more educated population to vote wisely (and it would instill patriotism and a loyalty to the state over the local or regional)
Curriculum: reading, writing, arithmetic, national history, geography, literature (and singing and drawing)
Girls were taught “practical” skills: sewing, washing, ironing, and cooking
Boys were taught “practical” skills like carpentry and military drill
Values: hard work, thrift, sobriety, cleanliness, and respect for the family
Female Teachers
Most teachers in elementary schools were women (seen as a “natural” extension of role as nurturers)
Paid lower wages (saving the government money)
The first colleges for women were actually teacher training schools
Universities weren’t open to women until the early 1900s

Literacy and Newspapers
Mass education led, not surprisingly, to mass literacy
Illiteracy was effectively eliminated in Germany, Britain, France, and Scandinavia by 1900
Mass-circulation newspapers grew in response
Written in easily understood style and tended toward the sensational (crime, gossip, sports)
Pulp fiction for adults included westerns (“cowboys and Indians”)

Mass Leisure
Prior to the Industrial Revolution, work and leisure were “related”; after it, they were viewed as opposites
Industrial rhythms dictated when leisure occurred: evenings, weekends, and maybe a week or two in summer
Mechanized urban transportation meant workers could venture beyond their own neighborhoods
Athletic events, amusement parks, and dance halls (not just the neighborhood tavern)

Music and Dance Halls
Music halls began in Britain in 1849, provided a variety of entertainment acts to be watched while drinking
Originally for men, but over time they became “more respectable” and attracted women and children
Dance halls were wildly popular around 1900, providing young people a chance to fraternize (“scandalous”)

Mass Tourism
With increased wages and paid vacations, the middle class could go touring
Thomas Cook offered trips to Paris (1867) and Switzerland (1880s) to the middle and industrial classes
Eventually, with “savings clubs” even the working class could take weekend excursions

Team Sports

The National State
Mass politics were a result of expanding the vote and creating political parties

Western Europe: The Growth of Political Democracy
Parliamentary democracy was found mostly in Western Europe

Reform in Britain
Two-party parliamentary democracy was fostered by the Reform Act of 1867
It was expanded with the Reform Act of 1884, giving the vote to almost all men
1885: representatives selected from roughly equal populations (no more rotten or pocket boroughs)
1911: salaries for the House of Commons (so not just the wealthy could be representatives)
Reform did not extend to Ireland
1801: the Act of union joined the English and Irish parliaments
but the Irish were fiercely nationalistic and despised their British landlords
despite Gladstone’s attempts to initiate land reforms, the Irish remained unsatisfied
they called for home rule (a parliament of their own but not independence)
when Britain didn’t act on home rule, the Irish began committing acts of terrorism
when the British government responded with force, the Irish demanded independence
1886: when Gladstone initiated a bill authorizing home rule, the Conservatives in Parliament voted it down

The Third Republic in France
With defeat in the Franco-Prussian War (1870), Napoleon’s Second Empire fell
A provisional republican government was set up, but Bismarck forced a vote by universal male suffrage
Monarchists won, so radical republicans formed an independent government called the Commune
The national Assembly decided to crush the Commune and fighting broke out in Paris
Working class (including women) played an great role in the Commune, but it was to no avail
Perhaps 20,000 were killed and 10,000 were shipped off to New Caledonia in the Pacific
The split between the working class and the middle class (begun in 1848-1849) now lasted for decades
Women were discouraged from trying to improve their situations
The monarchists in the National Assembly couldn’t agree on a king
1875: An improvised constitution that called for a republic
   Two Houses of parliament: Senate (chosen indirectly) and House of Deputies (chosen by all males)
   Created the Third Republic (which happened to last 65 years)
   always on shaky footing because of opposition: monarchists, Catholic clergy, army officers

Spain
1875: a new constitution, under Alfonso XII, established a two-party parliamentary government
   both parties (Liberals and Conservatives) were made up of wealthy landowners and industrialists
1898: Spanish-American War cost Spain Cuba, Puerto Rico, and the Philippines
   young intellectuals called for political and social reforms
   both parties tried to enlarge the electorate and win support
   industrialization radicalized the workers; violence broke out in Barcelona (1909)
   military crushed the violence and the conservative forces (Church, landowners, and the army) ruled

Italy
After unification, many Italians still felt more loyal to their town, city, or region
   Industrialized north and agricultural south were deeply divided, and most leaders were Northerners
Catholic Church (which had lost the Papal States) wouldn’t even recognize the new country
   As only 2.5% could vote, most Italians felt empowered
   Corruption, disorganization in government plagued the country

Central and Eastern Europe: Persistence of the Old Order
Germany and Austria-Hungary appeared to have parliamentary systems, but monarchies and conservatives ruled

Germany
Despite national parliament, some German states kept their own kings – and even peacetime armies
   Ministers reported to the Kaiser (emperor), not the Reichstag (the lower house)
   The Kaiser also commanded the military, conducted foreign policy, and controlled the bureaucracy
   The army was run by a senior staff that responsible directly to the Kaiser
Bismarck (chancellor until 1890) worked to prevent democratic institutions
   Joined by liberals, he attacked the Catholic Church (his Kulturkampf)
   They distrusted Catholics’ loyalty
Eventually, Bismarck turned, and he attacked the liberals and socialists
1878: 12 Democratic Socialists elected to the Reichstag
   Bismarck felt antinationalistic, anticapitalistic socialists were a threat to the empire
   He got Parliament to pass antisocialist laws
   He tried to woo socialists by instituting social welfare legislation
   Sickness, accident, and disability benefits, old-age pensions
   Socialism grew, but before Bismarck could find new means of repression, Wilhelm II fired him

Austria-Hungary
Despite establishing a parliamentary system, Emperor Franz Joseph appointed his own ministers
   Ethnic minorities (Germans ran the government) continued to trouble the empire
   Prime Minister Edward von Taffe’s attempts to compromise backfired
   German-speaking bureaucracy and aristocracy opposed them and brought von Taffe’s downfall
Emperor Franz Joseph was a great unifying force; the Catholic Church was the other
   In Hungary, the Magyars tried to impose their culture on the minorities

Russia
No mass politics, because the government made no concessions to liberal and democratic reform
   The assassination of Alexander II convinced his son, Alexander III, that reform was a mistake
   He instituted special measures, expanding the secret police and persecuting liberals
   The powers of the zemstvos were sharply cut back
   Alexander III instituted a Russification program to assimilate ethnic minorities
   It angered most of the groups
   Nicholas II, Alexander’s son, continued his father’s policies, but he was a weaker ruler