1847: THE BEGINNING OF MASSIVE IMMIGRATIONS

Between 1865 and 1917 more than 25 million people immigrated to the United States. Starting in 1846-47, American immigration increased sharply, driven first by the Irish potato blight and subsequently by failed democracy movements in Europe. In the 1850s, 2,598,000 immigrated to America; the 1860s and ’70s brought 5,127,000 more, while the 1880s and the ’90s would bring another 8,935,000. Even higher rates of immigration — over 8,000,000 new residents per decade — followed until the First World War.

Early immigrants found homes on the farms, but the mechanization of agriculture initiated by the mass manufacture of the mechanical horse-drawn reaper by Cyrus Hall McCormick in 1850 resulted in drastic reduction in the need for farm labor. Later immigrants, finding little security in farming, congregated in cities, where the factory system had created a demand for a large mass of relatively unskilled labor. By 1900, New York City tenements housed 1,500,000 people.

Massive immigration, mechanization of the farms, and the factory system created an urban complex consisting of dense multi-storied factories in the city center intermingled with rapidly and often poorly constructed multi-storied tenements, the homes of millions of recently arrived Americans that became the focus of 20th century slum clearance and urban redevelopment programs.

Editor’s Note: Over the years I’ve found that many citizen planners are quite interested in broader issues concerning America’s land use and development pattern. I thought it might be beneficial to provide PCJ readers with some historical perspective — to help see how we’ve gotten to where we are. Planning historian Larry Gerckens (who has previously contributed several articles to the PCJ) generously accepted the challenge of trying to provide an overview of some of the key historical events that have shaped our cities. Obviously, it’s no easy task to sum up complex events in a few sentences. Nevertheless, I think you’ll find that Gerckens ably met the challenge.

As a follow-up to this article, Gerckens is preparing two additional short articles for the PCJ: one examining the most significant failures in 20th century American urbanism, the other looking at key planning success stories. I hope that by looking back, this series of articles will help us better understand the forces that have shaped — and in many ways continue to shape — our cities and towns.

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Tenement Housing

"The cleansing of the Augean stables was a small task compared to the cleansing of New York's 82,000 tenement houses, occupied by nearly three millions of people, representing every nationality and every degree in the social scale. . . .

Some of the conditions which are found in these buildings surpass imagination. It does not seem possible that human beings can actually live under them and retain the least vestige of health. Many cases have been found where the plumbing fixtures have been removed and the pipes left open, permitting sewer gas to find its way into the apartments and permeate the building. In some of the houses, where the owner has not employed a responsible janitor or housekeeper, the tenants have used the dumbwaiter shaft as a chute for the disposal of rubbish, fecal matter, and garbage… In some of these houses the water closets have been stopped up for weeks, the bowls overflowing and the floors covered."


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1885: Introduction of the Steel-Framed “Skyscraper”

With the construction of a nationwide system of railroads focused on Chicago as a central distribution point and creation of an immense internal market for goods through immigration, land prices in downtown Chicago skyrocketed. In order to profitably utilize such expensive land, income from multi-floor rentals was needed. Architect William Le Baron Jenny's ten-story Home Insurance Building, built in Chicago in 1885, was the first tall building constructed utilizing the principles of modern “skyscraper” construction. The building had cast iron and steel beams and girders supporting each floor that were fastened together and bolted to cast iron and steel columns, creating a cage-like metal frame that acted as the main load-bearing members of the building.

This system of construction combined with a safe passenger elevator (a steam-driven elevator with a safety brake had been patented by Elisha Graves Otis in 1861) made the modern high-rise structure possible, resulting in the familiar densely built cluster of business towers that constituted the skyline of the American city throughout the 20th century.

1886: Invention of the Electric Trolley Car

In 1886, J. Van Depoele put the first successful electric trolley car into operation in Montgomery, Alabama. It did for the upper-middle class what the earlier steam locomotive did for the wealthy: it gave them ready access to the perimeter of the city, permitting them to remove themselves from the urban poor and the filth and ugliness of the urban-industrial environment.

The electric trolley car allowed for the creation of higher income-class corridors extending outward from the city center, removing from the city center all but the lower-middle- and the lower-income. With this came development of new retail centers and services at trolley stops beyond the city center — such as Shaker Square outside of Cleveland. Finer homes and apartments lined trolley routes, which provided prestigious locations that were both convenient to transportation and highly visible.

Land in the quadrants between the branches of the trolley system (beyond a four-to-eight block walking distance from the trolley lines) commonly remained undeveloped for residential use and was often used for foundries, slaughter houses, garbage dumps, and, in the 1920s, the first close-in airports. Many of the residential trolley corridors of the early 1900s became strip commercial corridors when the private automobile replaced the station-stop focused trolley car.

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1893: THE COLUMBIAN EXPOSITION

Over 27 million people attended Chicago’s Columbian Exposition, the great world’s fair of 1893. Visitors to the “The White City,” as the fair was often called, were stirred by the majestic grouping of public buildings and their associated open spaces and plazas — designed as a unity and planned both functionally and esthetically for the benefit of the citizen-visitor. Brilliantly lit by Edison’s electric lights and kept immaculately clean, the all-white composition stood in marked contrast to the sooty blackness and disorder of Chicago and other large American cities.

Architect Daniel Hudson Burnham, of Burnham and Root, coordinated the design and construction of the fair. He provided for generous and attractive public parks and plazas between the exhibit buildings, baby changing stations and other amenities to meet the needs of visitors, efficient transportation both to and within the fair, and an inspiring and soul-elevating public environment embellished with reflecting pools, terraces, and sculpture. Millions came to the fair and for the first time experienced what an American city could be: beautiful, clean, healthful, functional, efficient, cultured, and people-centered.

Millions left the fair determined to realize some part of that potential in their own home town. Businessmen returned to their commercial clubs to promote “city plans” for the improvement of their communities and to promote state legislation that would permit their cities to plan for the future. Based on this enthusiasm for public improvement, Burnham, the “Father of American City Planning,” would: guide the re-planning of Washington, D.C.; chair the development of a civic-center plan for Cleveland; draft full city plans for Manila and San Francisco; and prepare the first American metropolitan regional plan, the Chicago Plan of 1909, which would set the stage for long-range community planning in America.

1908: DEVELOPMENT OF THE INEXPENSIVE AUTOMOBILE

Henry Ford, chief engineer for the Edison Electric Company in Detroit, built his first automobile in 1896. His Ford Motor Company, organized in 1903, focused on producing a simple and inexpensive automobile. Following limited success with his “Model N,” he introduced the “Model T” in 1908. This sturdy black vehicle, with its 4-cylinder 20-horsepower gasoline engine, sold for $825. More than 10,000 were sold in its first year of production. With sales approaching 200,000 a year, Ford introduced the moving mass assembly line system at his plant in Highland Park, Michigan in 1914.

Columbian Exposition

“...it was indeed worth a journey of a thousand miles to stand on the north bridge of the great lagoon… here is such accord between the parts and the whole design that every column, every section, every angle is an object of grace and dignity… If any fault is to be found with this Columbian Exposition, it will be on account of the inability of the human mind to compass and appreciate it.”

— C.C. Buel, writing for The Century magazine, 1893.

“The fair! The fair! A city of palaces set in spaces of emerald, reflected in shining lengths of water which stretch in undulating lines under the arches of marble bridges… The results stand to-day… a vision and foretaste of how the world will one day build in earnest.”

In response to the influx of the automobile onto the American scene, and recognizing the need for better roads connecting the cities of America, Congress passed the first Federal Aid Highway Act in 1916. The Act provided for two-lane concrete roads connecting all of the urban centers of America, replacing the rutted mud-paths of an earlier era while creating an alternative to the railroad for inter-city transportation.

By 1927, when production of the “Model T” ended, America had become an automobile society — and the landscape was rapidly starting to change. The auto-oriented suburban shopping center, exemplified by the J.C. Nichols Company’s Country Club Plaza in Kansas City, Missouri, had become a reality. The first American new town accessible only by automobile, Mariemont, Ohio, was under construction. More significantly, suburban development, freed from the geographic constraints of trolley line location, began to spread cities to previously rural hinterlands. This residential expansion, moving away from the door, put back the old bad road, so that everything might be in the days of horses and buggies.

Henry Ford

“It wasn’t until 1909, after years of arguing with his partners, that Ford put out his first Model T.… That season he sold more than ten thousand tin lizzies, ten years later he was selling almost a million a year.… In 1913 they established the assemblyline at Fords. That season the profits were something like twenty-five million dollars, but they had trouble in keeping the men on the job, machinists didn’t seem to like it at Fords.… Henry Ford as an old man… bought the Wayside Inn near Sudbury, Massachusetts, he had the new highway where the newmodel cars roared and slithered and hissed oilily past (the new noise of the automobile), moved away from the door, put back the old bad road, so that everything might be the way it used to be, in the days of horses and buggies.”

From: John Dos Passos, The Big Money (1933)

When I got to the outskirts of Mt. Clemens, there was a railroad track with a very slow moving train. I brought the throttle up as far as I could to slow it down, but no, the caboose was still in front of me and I had to put the breaks on. It stalled. I got out and started cranking and the brakeman who was standing there said “Why did you stall it?” I told him every time I put the brakes on, it stalls. He said “Lift up that emergency brake and then it won’t stall.” I said “Thank you!”

I headed out of town to 23 Mile Road, a country road, and after a short distance I had a flat tire. I looked and found that I didn’t have a jack or a pump so I hailed a farmer coming by who stopped and loaned me a jack and a pump. He waited patiently while I repaired the tube. I went on to Algonac on the St. Clair River. I blew both the tire and the tube as I reached town. I didn’t have a spare, so I drove on the rim up to Robert’s Landing on the river, put the sign down signaling the car ferry to cross the river and pick me up. …

I started on my way to Wallaceburg, Ontario. I soon picked up a hitchhiker.

When I arrived in Wallaceburg, I stopped, pulled up the emergency brake and put the brake on. The hitchhiker said, “What are you doing that for?” and I said I do that because I didn’t want to stall it. He said, “You don’t have to do that. Put your clutch in halfway, with your brake on, and you won’t stall it. When you want to back up, you do the same thing, put your clutch in halfway and put your reverse in.” I said, “Thank you!”

I went in to Wallaceburg and I pulled into a tire shop, told them that I needed a tire but I didn’t have any money. He said “Do you know anyone around here?” and I said, “Yes, the farm right outside of town are relatives of mine.” So he called them up and the kinfolk said, “Yes, that’s o.k., give him a tire.” So the dealer installed it and there I was, hell bent for Mitchells Bay, running on all four tires, with 75 cents in my pocket and the best part… I knew how to drive a Model T.”

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Model T Ford Club International
The Triangle Fire

FIRE!

This first-hand account by Rosey Safran, one of the Triangle Waist Company workers, ran in the April 20, 1911 edition of The New York newspaper, The Independent:

“I, with a number of other girls, was in the dressing room on the eighth floor of the Asch Building, in Washington place, at 4:40 o’clock on the afternoon of Saturday, March 25, when I heard somebody cry “Fire!” I left everything and ran for the door on the Washington place side. The door was locked and immediately there was a great jam of girls before it. The fire was on the other side, driving us away from the only door that the bosses had left open for us to use in going in or out. They had the doors locked all the time for fear that some of the girls might steal something…

The fire had started on our floor and quick as I had been in getting to the Washington place door the flames were already blazing fiercely and spreading fast. If we couldn’t get out we would all be roasted alive. The locked door that blocked us was half of wood; the upper half was thick glass. Some girls were screaming, some were beating the door with their fists, some were trying to tear it open. There were seven hundred of us girls at the Triangle Waist Company, which had three floors, the eighth, ninth and tenth, in the Asch Building. On our floor alone were two hundred and thirty. Most of us were crazy with fear and there was great confusion. Some one broke out the glass part of the door with something hard and heavy, I suppose the head of a machine and I climbed or was pulled thru… and ran downstairs to the sixth floor, where some one took me down to the street.

… Altogether 145 were killed and of these 120 belonged on the ninth floor. When firemen broke open the door on the Washington place side they found fifty bodies piled up there. I, who worked on the eighth floor, was unhurt, except for the shock, and will go to work again at the same business as soon as I can get a job in a fireproof factory.”

“I AM APPALLED”
New York Governor Dix

The Police Commissioner points to the Mayor who gripes at the Governor, “I am appalled,” who sets on the State Labor Commissioner who blames the National Fire Underwriters who turn on the Fire Commissioner who cites the “City Beautiful” (for finding fire escapes ugly) who then faults the Architects who place it on Tenement Housing who says failure of the Health Department who then proclaim conspiracy between the Utility Companies and the Police Commissioner.


Editor’s Note: You can get a copy of Llewellyn’s excellent collection of poems about the Triangle Fire, winner of the 1986 Walt Whitman Award, from Bottom Dog Press, c/o Firelands College, Huron, OH 44839 for $10.00.

Ten Events…
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1916: ADOPTION OF THE NEW YORK CITY ZONING CODE

With the automobile permitting access everywhere around the city, and with the introduction of inexpensive electric motors in light manufacturing facilitating the use of multi-story warehouse lofts and business spaces for production industry, land use conflicts intensified. The public danger created by the invasion of light industry into a district built for storage was made tragically clear by the 1911 “Triangle Fire” in New York. Scores died as a result of the lack of fire escapes in a building designed and constructed for an entirely different use.

The Triangle Fire, coupled with public furor over the construction of the Equitable Building — an immense bulk that cut off all light from the lower floors of buildings for blocks around — emboldened New York City to undertake the control of private land development and use through comprehensive zoning. The legal basis for the New York City Zoning Code had it roots in the U.S. Supreme Court’s 1876 decision in Munn v. Illinois, in which the Court first expounded on the power of states to regulate private industry. Moreover, the Supreme Court had approved local regulation of the height of buildings in Welch v. Swasey (in 1909) and building setbacks and yards in Eubank v. Richmond (in 1912), and implied the constitutionality of land use zoning in Hadacheck v. Sebastian (in 1915).

The New York City Zoning Code set the stage for Cincinnati to become, in 1925, the first major American city to officially adopt a long-range comprehensive plan. The Cincinnati plan integrated future land uses (both public and private), transportation systems, and plans for utilities and public facilities in a policy document to be enforced through zoning laws. The U.S. Supreme Court validated the approaches taken by
New York, Cincinnati, and a number of other pioneering communities, in its landmark 1926 *Euclid v. Ambler* decision.

**1929: THE STOCK MARKET CRASH**

With the collapse of the American economy at the end of the 1920s, massive unemployment led the federal government to undertake scores of public works projects — many of which still benefit the nation more than a half-century later. The Civilian Conservation Corps engaged in large-scale reforestation and construction of metropolitan, regional, and national park facilities. The federal government built major dams (such as Boulder and Grand Coulee) which provided the cheap electricity that powered the arrival of great city status of Phoenix, Los Angeles, Seattle, Tacoma, and other cities of the Southwest and Pacific Northwest. Similarly, the great dams and electrification projects of the Tennessee Valley Authority provided the low-cost power that made the New South a reality during and after the Second World War.

In response to massive home mortgage defaults during the Great Depression, Congress, in 1934, created the Federal Housing Administration. Congress mandated that the FHA “encourage improvement in housing standards and conditions” and “provide a system of mutual mortgage insurance to promote small home construction as a means of creating jobs for the unemployed.” The minimum standards established for an FHA-insured home mortgage facilitated quick resale of defaulted dwelling units by assuring that units would be of a size and quality desired by those of above average means. FHA policies through the post-World War II years led to the emergence of the single family home on a suburban lot as the dominant American dwelling — a dwelling type to which Americans of below-average means would generally not have access.

**Dams**

**FRANKLIN D. ROOSEVELT: ADDRESS AT BONNEVILLE DAM**

*September 28, 1937*

“Truly, in the construction of this dam we have had our eyes on the future of the Nation. Its cost will be returned to the people of the United States many times over in the improvement of navigation and transportation, the cheapening of electric power, and the distribution of this power to hundreds of small communities within a great radius.

As I look upon Bonneville Dam today, I cannot help the thought that instead of spending, as some nations do, half their national income in piling up armaments and more armaments for purposes of war, we in America are wiser in using our wealth on projects like this which will give us more wealth, better living and greater happiness for our children.”

**ROLL ON COLUMBIA**

by Woody Guthrie

Roll on, Columbia, roll on
Roll on, Columbia, roll on
Your power is turning our darkness to dawn
So roll on, Columbia, roll on

In response to massive home mortgage defaults during the Great Depression, Congress, in 1934, created the Federal Housing Administration. Congress mandated that the FHA “encourage improvement in housing standards and conditions” and “provide a system of mutual mortgage insurance to promote small home construction as a means of creating jobs for the unemployed.” The minimum standards established for an FHA-insured home mortgage facilitated quick resale of defaulted dwelling units by assuring that units would be of a size and quality desired by those of above average means. FHA policies through the post-World War II years led to the emergence of the single family home on a suburban lot as the dominant American dwelling — a dwelling type to which Americans of below-average means would generally not have access.
Ten Events... continued from page 17

1940-45: The Second World War

Faced with the prospect of American involvement in the expanding European war — and the immediate need for large-scale defense industry housing — Congress, in 1940, passed the Lanham Act. The Act authorized the federal government to contract out to private industry to build temporary wartime housing, providing $150 million for that purpose, and granted use of the federal government’s power of eminent domain to acquire the sites. In contrast, during the First World War the federal government created government-owned nonprofit corporations to build permanent new towns for defense industry workers. Those federally constructed new towns provided well-built economical housing and public facilities in a total planned community environment — and became the models for the best projects undertaken by private enterprise in the 1920s and ’30s.

Under the Lanham Act the results were quite different. Kaiser, on the West Coast, built Vanport, Oregon, consisting of 600 identical, bleak apartment buildings housing 40,000 residents. On the East Coast, Levitt learned how to mass produce single-family detached housing units at low cost. Carrying these systems over to the peacetime economy at the end of the war resulted in creation of a number of Levittowns and their emulators — projects which provided needed housing but lacked the broader community planning and design principles reflected in many post World War I developments.

During the Second World War, new industries typically located at the suburban perimeter of cities, building single-floor production facilities on cheap land. This set the pattern for a post-war dispersal of production industry away from city centers.

The war left the continental United States virtually unscathed and with a booming industrial economy, while virtually all of America’s pre-war competitors had suffered the destruction of their industrial capacity. This put the United States in command of the world economy, ushering in a half century of American prosperity.

On-Line Comments

“...the only event missing is our entrance to the Information Age and the invention of the computer/personal computer. These machines have shaped our lives in the past 40-50 years. Because they can do so much in such a short period of time, we have become dependent on them to take care of almost everything. They have also conditioned us into thinking that anything can be done in an instant. As we know, planning and implementation take time.”
— Barbara Sweet, Hyde Park, New York

“This is a very interesting article — I enjoyed reading it and thinking about other trends or events to consider. Among them would be the change in household structure including the entrance of women in the workplace and the movement of household activities such as sewing, cooking, etc. to the market place; the replacement of small locally owned retail with large chain style stores; the increase in time and resources devoted to education and delayed entry of young people into the workforce; computers, and television — just to name a few.”
— Lucie Vogel, Charlottesville, Virginia

“I read with interest Mr. Gercken’s 10 events that influenced the development of our cities. Although I’m sure everyone has events to add, there is one omission which you might consider. The single most important development for the creation of towns and large cities was the creation of systems to provide clean, potable water to large numbers of people. This issue of clean drinking water was a huge problem for towns until the mid to late 1800’s. By the 1920’s, with George Spalding’s invention of the activated carbon method of filtration at the Hackensack Water Company site here in Oradell, New Jersey, the issue of safe, drinkable water became a non-issue for most major cities.”
— Maggie Harrer, Oradell, New Jersey

“I agree the ten ‘events’ are pivotal ones. However, I think the elevator was as important as any, and more important than many of the events mentioned. In addition to enabling the skyscraper, the elevator enabled vertical industrial development that was critical to the multilevel spatial geometry of the 19th century industrial city and subsequently to the achievement of the spatial density that makes a modern central city possible.”
— Jerald Powell, AICP, Portland, Oregon

“The telephone made quick, instant business communication possible, which simultaneously led to dispersion and concentration. It was now possible to do business in many different cities which broke from the one-capital-city model of Europe. But with quick, hour-to-hour and minute-to-minute interactive transactions possible, it made people want to be physically close to each other to actually deliver on the plans they’d make by phone.”
— Wayne A. Lenmon, Silver Spring, Maryland
**1950+: THE COLD WAR**

With the Soviet political confrontations that followed the end of the Second World War and initiation of the “Korean Police Action” in 1950, the United States experienced the creation of a permanent military establishment for the first time in its history. Large scale military expenditures resulted in virtually every American city gaining from employment and expenditures at nearby military bases, defense industries, or supply depots. Wartime investments made in the South and the West were continued and expanded, at the expense of reinvestment in the older cities of the Northeast.

The federal Housing Act of 1954 promised the “renewal” of the city as a whole, while engaging in wholesale central area demolitions. Federal government policy with regard to housing the urban poor shifted from providing “a decent home for every American” to “warehousing the poor” in projects like Pruitt-Igoe in St. Louis and Cabrini Green in Chicago.

The Interstate Highway System, begun in 1956 as a defense highway system, knit together auto-mobile America and stimulated the peripheral expansion of metropolitan areas. The Interstate system also fed the growth of huge over-the-road trucking fleets. At the same time, many of America's railroads slipped into disrepair, abandonment, and bankruptcy.

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*Ike Looks Back*

“On June 26, 1956 I signed [the Federal Aid Highway Act] into law. It was not only the most gigantic federal undertaking in road-building in the century and a half since the federal government got into this field by improving the National Pike between Cumberland, Maryland, and Wheeling, West Virginia — it was the biggest peacetime construction project of any description ever undertaken by the United States or any other country…. the big feature of the act was the amount it earmarked for the widening and improving of our interstate and defense highway system, a forty-one thousand-mile network of roads linking nearly all major cities with a population of fifty thousand or more....

The amount of concrete poured to form these roadways would build eighty Hoover Dams or six sidewalks to the moon. To build them, bulldozers and shovels would move enough dirt and rock to bury all of Connecticut two feet deep.

More than any single action by the government since the end of the war, this one would change the face of America with straightaways, cloverleaf turns, bridges, and elongated parkways. Its impact on the American economy — the jobs it would produce in manufacturing and construction, the rural areas it would open up — was beyond calculation.”


10 — 1958: INTRODUCTION OF COMMERCIAL JET AIRCRAFT

The Boeing Company delivered the first American commercial jet transport, a 707-120, to Pan American World Airways in 1958. The Boeing 707-120 could carry 181 passengers and had a range of 3,000 miles — a sharp increase in capacity and range from the piston-driven Douglas DC-7C which it displaced. The new jets were economical on long-range flights — when they were full — leading to promotion of new mass travel markets. Large-scale arrivals and departures from new airports contributed to the larger landing strips, taxiing, and terminal requirements of jet travel. The point of arrival at the American city from the railroad station and the highway to the regional airport.

By 1980, air transport had assumed the same stimulative role in the U.S. economy that the railroads had provided a hundred years earlier. The airport became a regional center with its own restaurants, hotels, and conference facilities. The regional airport and its related interstate highway that provided easy access primarily to and from the outer-belt perimeter of the city, helped pave the way for the explosive growth of “edge cities” — the preferred site for research and development facilities, corporate offices, and upscale retail activity located in close proximity to the suburban and exurban homes of the more well-to-do.

SUMMING UP:

The evolution of the form, character, and scale of the 20th century American city was fueled by the interjection of a vast mass of immigrants into an urban fabric set free of earlier constraints by innovations in technology. The American city was inspired at the turn-of-the-century by a “White City” vision of good municipal order, and then molded by reactions to socioeconomic adversity, military confrontation, and the initiation of public control of private development.

Laurence Gerckens, national historian for the American Institute of Certified Planners, founder of The Society for American City and Regional Planning History, and emeritus professor at The Ohio State University, teaches American urban planning history as an adjunct professor at the University of Michigan, Kansas State University, and Goucher College, Baltimore. Gerckens has contributed several articles to the Planning Commissioners Journal, most recently, “Single-Family-Only Zones” (a look back at the origins of single-family zoning) in PCJ #23 (Summer 1996).