A two-level Metra electric commuter train pauses at the Museum Campus/11th Street station on its way into downtown Chicago on former Illinois Central tracks, with the city's world-renowned skyline as a backdrop. Jack Delano made several iconic images just north of here, including the one on page 26. September 14, 2011. Scott Lothes

The Railroad and the Making of Modern America

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More than any other institution, the railroad made modern America. From the perspective of the twenty-first century, this is a surprising statement. The infrastructure of our contemporary lives is built around cars, trucks, and planes, not trains. Americans are, of course, very different from their European and Asian counterparts, who continue to travel primarily by railroad for work and pleasure. Train stations are centers of commerce, culture, and community in cities as diverse as Paris, Berlin, Tokyo, and New Delhi. They played the same role in New York, San Francisco, Kansas City, and especially Chicago during the decades between the Civil War and World War II.

The striking rarity of passenger trains in the contemporary United States should not blind us to the ways in which our privatized current travel is built on the networks, efficiencies, and prosperity that the railroad made possible. The Union victory in the Civil War, the integration of the continental economy, the spread of a truly national culture, and the mobilization of cross-regional institutions for the New Deal and World War II—all of these crucial developments relied on the railroad. All of these crucial developments allowed post-1945 Americans to live with more confidence, peace, and prosperity than did their predecessors. This peace and prosperity owed much to the railroad, but it also made the railroad less necessary with the now-affordable mass consumption of cars and airplane tickets. Or so it seemed to many before the problems of smog, congestion, flight delays, and terrorism turned Americans back to the beauty and efficiency of trains.

For citizens of the mid-nineteenth century United States, the railroad was like a supercharged, tireless black stallion, fed by coal and surging along tracks laid with incredible rapidity on terrain that had long been difficult to traverse. The locomotive was a demon that stormed across the land, returning time and again. The high-pitched whistle, the chug of the engine, and the clang of the wheels on the track supplanted the birds and other animals that had dominated the sounds of the landscape since time immemorial. If the night sky never looked the same after the invention of electric light, the landscape never sounded or smelled the same after the arrival of the railroad.

Trains created new towns at their junctions. Chicago was the train metropolis, formed by the meeting of countless east and west lines. These train lines enriched merchants, salesmen, and peddlers, who found new customers among the places the railroad served. The railroad also bankrupted those businesses and communities that it passed by without a stop. Bandits made new careers by chasing the money carried by trains; police and private Pinkerton detectives made new careers by chasing the bandits. For American Indians and other groups that fought to resist US expansion, the railroad ended any hope of success, bringing soldiers, settlers, and guns in greater numbers than ever before, all seasons of the year. The railroad created industrial warfare, and with it, genocidal capabilities. The motorized black stallion, like other technological innovations that came before and after, brought prosperity to some, suffering to others.

The historian Daniel Walker Howe observes that for more than two thousand years—from the time of Alexander the Great to the days of Benjamin Franklin—humans had never known any form of transportation faster than a galloping horse. The railroad brought unprecedented speed, along with consistency, precision, and reliability. It shrunk distance, reducing the barriers traditionally imposed by mountain, desert, river, and lake. Most of all, the railroad made people feel connected. You could travel across the continent and back from the seat of a train carriage, merchants could sell their goods from coast to coast, and mail could reach family and friends in other corners of the country with predictable precision. The famous Pony Express became obsolete, replaced first by the telegraph, then by the railroad.

Richard Sears (a former railroad station agent in Minnesota) and Alvah Roebuck (an Indiana-born watchmaker) used the railroad to invent an entirely new consumer culture. They distributed a mesmerizing catalog—reaching 532 pages in 1895!—to farmers and small-town dwellers across the country. It offered a huge range of products at a wide array of price points that were available in Chicago and other big cities, and it guaranteed shipment by railroad to the most distant corners of the continent. The rancher could purchase state-of-the-art kitchenware and the dairy farmer could acquire stylish new shoes at an affordable price with rapid train delivery. The transaction was safe, the quality was assured (based on price), and the rancher and dairy farmer could now imitate an urban lifestyle even if they never set foot into a big city. The railroad made the expansion of Sears, Roebuck possible: distributing the catalogs, delivering the payments, and shipping the goods from urban warehouse to rural home.

To be American in the late nineteenth century meant that you were connected to American citizens far away by the goods, services, and ideas carried on the railroad. The railroad was the infrastructure of the hyper-patriotic "imagined community" of Americans who supported the 1898 war against Spain and a more internationally assertive United States championed by Theodore Roosevelt and Woodrow Wilson in the early 1900s. After all, these great politicians campaigned primarily by train. The railroad made the president into a powerful national figure with a "bully pulpit," according to Roosevelt, storming into city and town, speaking to crowds assembled around the back of a train. From Theodore Roosevelt to Harry Truman in 1948, the "whistle-stop" tour was the bread and butter of ambitious political leadership in the United States.

Americans came to live by the timetable of the train and the standardization that it brought. It became much more important to know the time, to manage time, and to be on time. Precision replaced approximation; otherwise you missed the train, literally and figuratively. The timetable became the basic structure for managing work and recreation in many communities.

Motivated by the difficulties of managing multiple local time zones, delegates from forty-one countries met in Washington, DC, in 1884, at the invitation of President Chester A. Arthur, to create standardized time zones across North America, South America, Europe, and other continents. Diverse families living far apart now began to set their watches and clocks to a common but artificial time. The United States was divided east to west into four time zones, each an exact hour apart. Gone were the days of judging time from the position of the sun, which varied much more by locality and season than standardized time allowed.

Work was standardized as well, to make maximum use of time. This involved punching time clocks in factories, timing tasks on the workshop floor, writing contracts that specified exact delivery times, and breaking projects into small and repeatable tasks done at a consistent speed on an assembly line. By the first two decades of the twentieth century, standardization of time made the "scientific management" principles of Frederick Winslow Taylor possible, the assembly line of Henry Ford's Model T profitable, and the vertical integration of John D. Rockefeller's oil empire invincible.

Standardization diffused further still. Progressive reformers in the late nineteenth and early twentieth centuries made it a central organizing principle for their efforts. They sought standardized examinations for schools, standardized codes for health and hygiene, standardized rules for business, standardized protections for labor, and even standardized taxes for the income of wealthy citizens. The railroad was more than just a mechanism for standardizing society; it was the model for those who wanted a more fair and equal country, free from the arbitrariness of tradition and whim. Society looked like a big machine, and the railroad was one of the primary engines for making it work as it should, to the benefit of as many as possible.

The growth of the railroad between the Civil War in the 1860s and World War II in the 1940s is hard to quantify. It was central to everything in American society, and vital to both material and cultural developments. Between Abraham Lincoln's election in 1860 and Theodore Roosevelt's presidency (1901–1909)—less than fifty years—the miles of railroad track in the United States grew by more than 800 percent: from 30,000 miles of track in 1860 to more 259,000 miles of track in the early twentieth century. At the same time, American foreign exports more than tripled, from $316 million in 1860 to $1.03 billion in 1897.

The railroad carried the resources from the hinterlands to American factories, which built the products that the railroad carried to the coasts for export. This process made America wealthy as it amassed a huge trade surplus and, by the time of World War I, the largest gold reserves in the world. Americans used this gold to invest in new industries (like the automobile and the radio), to import the finest goods, and to build a world-class military. The railroad was the true fuel for the fast rise of the United States in the early twentieth century as a global economic and military power. Not surprisingly, Germany and Japan—the other fast-rising powers—used the railroad in similar ways.

Photographs from American railways are extremely helpful for us today not only because they capture a "lost world," as photographs always do. Seeing the trains, the workers, the passengers, and the landscapes of the time reminds us of how deeply embedded this remarkable period is in our American identity, even when trains no longer dominate our public spaces. The trains are still imagined when we speak of community and time. The trains are still intuitive in our thinking about production and distribution of cars, computers, and other products. Amazon.com does not sell through printed catalogs or trains, as Sears, Roebuck did, but the online retailer is using the Internet and air transportation in similar ways.

The point is not that the trains are still a part of us, which they are, but that their successor technologies have built upon their model. To understand how things work today, you must begin by understanding how the railroad system first worked and what it looked like.

The train society depicted in these photographs is like the colonial society of Benjamin Franklin, Thomas Jefferson, and James Madison. Contemporary America is far removed from the world of Franklin,

Jefferson, and Madison, but we continue to study these figures because their work gave our country its basic and enduring political form. Similarly, the train society of the post–Civil War decades is far removed from today's jet aircraft, Internet, and social media. Yet the train society gave economic and cultural form to the assumptions, institutions, and practices that continue to influence our travel, our purchases, and our communications. The railroads were indeed the "founding fathers" of the modern American economy.

The railroad transformed the old majority of Americans, who lived on scattered farms and stubbornly held to their local identities, into a new majority of urban and suburban citizens who built a superpower. The railroads uprooted traditional cultures and contributed to horrible boom and bust cycles, most notably the Great Depression. The railroads also carried the soldiers and supplies that took the country to war, and eventually out of the Great Depression. The photographs of the American railroad in the twentieth century are the photographs of what made us who we are.

We will never return to the railroad society of the past. Nor will Americans ever embrace bullet trains and center city stations that captivate contemporary French, German, Japanese, and Indian citizens. Americans, however, will never leave trains entirely behind. Mass, power, consistency, and precision are touchstones of modern American thinking. The interdependence of workers on the railway and the community of passengers on trains still encapsulate how Americans see themselves.

Automobiles and airplanes serve a purpose, but they are not enough. The lone driver and the frazzled airplane passenger (frisked by airport security personnel) need something more. They need the community of a train society, even if they choose not to ride trains. We remain a nation built by trains. They are the founding documents—the "Constitution"—for our contemporary social order.

A CSX westbound freight train arrives at the Indiana Harbor Belt's Blue Island Yard in Riverdale, Illinois, where Jack Delano spent several days in January and February of 1943. The enclosed freight cars carry finished automobiles, while the structure in the background at right is a grain elevator that has not been used since the early 1960s. November 5, 2011. Scott Lothes