

habits, structured their work lives in what Thompson would denote “preindustrial” ways, intermingling their work with recreation and with the conduct of their households. “The Founding Fathers, after all, lived in a preindustrial, not simply an ‘agrarian’ society,” as Herbert Gutman has remarked, “and the prevalence of premodern work habits among their contemporaries was natural.”

The social transformation from 1780 to 1835 signalled a transition from preindustrial to modern industrial work patterns. The replacement of family production for direct use with wage earning, the institution of time-discipline and machine regularity in place of natural rhythms, the separation of workplaces from the home, and the division of “work” from “life” were overlapping layers of the same phenomenon....

Despite the changes in its social context adult women’s work, for the most part, kept the traditional mode and location which both sexes had earlier shared. Men who had to accept time-discipline and specialized occupations may have begun to observe differences between their own work and that of their wives. Perhaps they focused on the remaining “premodern” aspects of women’s household work: it was reassuringly comprehensible, because it responded to immediate needs; it represented not strictly “work” but “life,” a way of being; and it also looked unsystematized, inefficient, nonurgent. Increasingly men did distinguish women’s work from their own, in the early nineteenth century, by calling it women’s “sphere,” a “separate” sphere.

Women’s sphere was “separate” not only because it was at home, but also because it seemed to elude rationalization and the cash nexus, and to integrate labor with life. The home and occupations in it represented an alternative to the emerging pace and division of labor. Symbol and remnant of preindustrial work, perhaps the home commanded men’s deepest loyalties, but these were loyalties that conflicted with “modern” forms of employment. To be idealized, yet rejected by men—the object of yearning, and yet of scorn—was the fate of the home-as-workplace. Women’s work (indeed women’s very character, viewed as essentially conditioned by the home) shared in that simultaneous glorification and devaluation.

The Changes Wrought by Cotton, Transportation, and Communication

DANIEL WALKER HOWE

On the twenty-fourth of May 1844, Professor Samuel F. B. Morse, seated amidst a hushed gathering of distinguished national leaders in the chambers of the United States Supreme Court in Washington, tapped out a message on a device of cogs and coiled wires:

From Daniel Walker Howe, *What Hath God Wrought: The Transformation of America, 1818–1848*, 1–2, 4–7, 125–126, 128–129, 131–134, 213–214, 216, 222–223, 227, 242. (New York: Oxford University Press, 2007). Reprinted by permission of Oxford University Press.

What Hath God Wrought

Forty miles away, in Baltimore, Morse's associate Alfred Vail received the electric signals and sent the message back. The invention they had demonstrated was destined to change the world. For thousands of years messages had been limited by the speed with which messengers could travel and the distance at which eyes could see signals such as flags or smoke. Neither Alexander the Great nor Benjamin Franklin (America's first postmaster general) two thousand years later knew anything faster than a galloping horse. Now, instant long-distance communication became a practical reality. The commercial application of Morse's invention followed quickly. American farmers and planters—and most Americans then earned a living through agriculture—increasingly produced food and fiber for distant markets. Their merchants and bankers welcomed the chance to get news of distant prices and credit....

The invention of electric telegraphy ... represented a climactic moment in a widespread revolution of communications. Other features of this revolution included improvements in printing and paper manufacturing; the multiplication of newspapers, magazines, and books; and the expansion of the postal system (which mostly carried newspapers and commercial business, not personal letters). Closely related to these developments occurred a simultaneous revolution in transportation: the introduction of steamboats, canals, turnpikes, and railroads, shortening travel times and dramatically lowering shipping costs.... Their consequences certainly rivaled, and probably exceeded in importance, those of the revolutionary "information highway" of our own lifetimes....

The most common name for the years ... is "Jacksonian America." I avoid the term because it suggests that Jacksonianism describes Americans as a whole, whereas in fact Andrew Jackson was a controversial figure and his political movement bitterly divided the American people....

Another term that has sometimes been applied to this period—more by historians than by the general public—is "the market revolution." I avoid this expression also. Those historians who used it have argued that a drastic change occurred during these years, from farm families raising food for their own use to producing it for distant markets. However, more and more evidence has accumulated in recent years that a market economy already existed in the eighteenth-century American colonies. To be sure, markets expanded vastly in the years after the end of the War of 1812, but their expansion partook more of the nature of a continuing evolution than a sudden revolution. Furthermore, their expansion did not occur in the face of resistance from any substantial group of people preferring subsistence farming to market participation. Most American family farmers welcomed the chance to buy and sell in larger markets. They did not have to be coerced into seizing the opportunities the market economy presented.

Accordingly, I provide an alternative interpretation of the early nineteenth century as a time of a "communications revolution." This, rather than the continued growth of the market economy, impressed contemporary Americans as a startling innovation. During the thirty-three years that began in 1815, there

would be greater strides in the improvement of communication than had taken place in all previous centuries. This revolution, with its attendant political and economic consequences, would be a driving force in the history of the era....

More than any other discussion, the debate over the future of human slavery in an empire dedicated to liberty threatened to tear the country apart. The communications revolution gave a new urgency to social criticism and to the slavery controversy in particular. No longer could slave-holders afford to shrug off the commentary of outsiders. Critics of slavery seized upon the new opportunities for disseminating ideas to challenge the institution in the South itself. Alarmed, the defenders of slavery erected barricades against the intrusion of unwelcome expression. Better communication did not necessarily foster harmony....

The World That Cotton Made

The end of the War of 1812 precipitated one of the great migrations of American history. White settlers eagerly took advantage of Andrew Jackson's expropriation of 14 million acres from the Creeks. Shortly after signing the Treaty of Fort Jackson, the general sent his topographical engineer to report on the condition of the Alabama River valley. Along his route, Major Howell Tatum could observe farms with all their improvements that had been abandoned by the dispossessed natives (many of whom, ironically, had been Jackson's allies in the war). The officer concluded in his report that the land was "capable of producing, in great abundance, every article necessary to the sustenance of man or beast." Jackson encouraged white squatters to move onto the lands immediately, without waiting for survey or legal authorization. In December 1815, President Madison ordered them evicted, but his proclamation proved impossible to enforce. When the army moved people off, they came back again as soon as the soldiers had left....

Seldom in human history has so large a territory been settled so rapidly. Between 1810 and 1820, Alabama's population increased twelvefold to 128,000; Mississippi's doubled to 75,000 even though the Choctaw and Chickasaw Indian tribes still owned the northern two-thirds of the state. The population of Louisiana also doubled to 153,000, as an influx of white American southerners arrived to rival the old multicultural society of colonial New Orleans. Fittingly, when the ambitious settlers of Mississippi established a capital for their state, they called the new little settlement Jackson....

What made migration into this hazardous environment so attractive was the high price of cotton. The difficulties in processing short-staple greenseed cotton into textiles had earlier been surmounted through a series of technological innovations culminating in the development of the "saw" cotton gin ("gin" being short for "engine"). The contribution of the Connecticut Yankee Eli Whitney to this long process has been much exaggerated. But the Napoleonic Wars had inhibited international commerce and delayed the mass marketing of cotton for nearly a generation. Now, within a year of the end of hostilities in Europe and North America, the price of raw cotton doubled on the New Orleans market, reaching twenty-seven cents a pound. Wherever the soil was suitable and the

farmer could count on two hundred frost-free days in the year, short-staple cotton suddenly became an economically attractive crop. The virgin earth of the New Southwest seemed ideal: While backcountry South Carolina yielded three hundred pounds of cotton per acre, the Alabama black belt could yield eight hundred or even a thousand pounds per acre. In response to an apparently insatiable world demand for textiles, U.S. cotton production soared from seventy-three thousand bales in 1800 to ten times that in 1820—the year the United States surpassed India, long the leading cotton producer. Cotton, fueling an expansion of transatlantic industrial capitalism, enormously enhanced the importance of the United States in the world economy. In 1801, 9 percent of the world's cotton came from the USA and 60 percent from Asia. Half a century later, the United States provided 68 percent of a total world production three times as large. The American South was to be the most favored place for the production of a raw material of global significance, as the Caribbean sugar islands had been in the eighteenth century or as the oil-rich Middle East would become in the twentieth.

Cotton cultivation required labor-intensive application, but chattel slavery remained legal in the states where the climate was favorable to cotton. The new marketability of short-staple cotton prompted the expansion of slave-plantation agriculture far beyond the areas that would have sustained the traditional export crops, tobacco, rice, and indigo. The spread of cotton cultivation entailed not only the westward migration of free farmers but also the massive forced migration of enslaved workers into the newly acquired lands. Not all cotton planters in the Southwest were self-made pioneers, for some already wealthy men hastened to the area and purchased large holdings, clearing the forest and draining the swamps with slave labor. Whether he owned many slaves or few, a master might bring his bondsmen with him, but sometimes he would go out and select the lands to buy first, returning (or sending agents) later to buy a workforce suited to the property. Most often, the southwestern planter bought slaves who had been transported to that region by a trader. Because the importation of slaves from overseas had been illegal since 1808, the trader's human merchandise could only come from the seaboard slave states. Contemporaries typically observed the transit of a slave coffle with disgust and shame: "a wretched cavalcade ... marching half naked women, and men loaded with chains, without being charged with any crime but that of being black, from one section of the United States to another, hundreds of miles." Such a procession could number anywhere from a dozen to over a hundred souls, who were expected to walk up to twenty-five miles a day and sleep on the ground. The long trek overland from Virginia to Mississippi or Louisiana would consume six to eight weeks and was usually undertaken in winter, when agricultural labor could best be spared. Coastal vessels, more expensive, absorbed some of the traffic when the great slave marketplace in New Orleans was the destination. Only later, after Kentucky and Tennessee acquired surpluses of slaves and began exporting them, did the phrase "sold down the river" come into common use. The slave traders favored people in the prime of life—late teens or early twenties—since they could withstand the rigors of the march and bring a good price as field

hands and (in the case of the women) breeders. Small children accompanying their mothers were placed in the supply wagon. The interstate slave trade was big business; the Chesapeake Bay region alone exported 124,000 enslaved workers, mostly across the Appalachians, during the decade following 1810....

The rapid rise of "the Cotton Kingdom" wrought a momentous transformation. Cotton became a driving force in expanding and transforming the economy not only of the South but of the United States as a whole—indeed of the world. While the growing of cotton came to dominate economic life in the Lower South, the manufacture of cotton textiles was fueling the industrial revolution on both sides of the Atlantic. Most of the exported American cotton went to Britain, in particular to the port of Liverpool, convenient to the textile mills of Lancashire. During the immediate postwar years of 1816 to 1820, cotton constituted 39 percent of U.S. exports; twenty years later the proportion had increased to 59 percent, and the value of the cotton sold overseas in 1836 exceeded \$71 million. By giving the United States its leading export staple, the workers in the cotton fields enabled the country not only to buy manufactured goods from Europe but also to pay interest on its foreign debt and continue to import more capital to invest in transportation and industry. Much of the Atlantic civilization in the nineteenth century was built on the back of the enslaved field hand....

The same short-staple cotton that spread plantation agriculture all over the South gave rise to textile mills. In New England, the War of 1812 climaxed a series of interruptions playing havoc with the maritime trade and fishing that had been the mainstays of the regional economy. American commerce was driven from the seas. Watching their ships rot in port, Yankee investors hit upon a solution. As southern planters solved the problem of worn-out lands and low tobacco prices by shifting their workforce to the new cotton fields, New England merchants solved their own problem by shifting capital from shipping to manufacturing. What they started to manufacture was inexpensive cloth, made from local wool and southern cotton....

Farm women had long supplemented the family income by weaving woolen yarn and cloth, using spinning wheels and hand looms at home. Now cotton from the South provided raw material much more plentiful than local sheep. So young women left home, recruited by company-owned boardinghouses in Lowell. There they put in long hours under unhealthy conditions and contracted not to leave until they had worked at least a year. But twelve to fourteen dollars a month was a good wage, and the new town had attractive shops, social activities, churches, lending libraries, and evening lectures. The "mill girls," as they called themselves, wrote and published a magazine, the *Lowell Offering*. Americans had feared industrialization, lest it create an oppressed, depraved, and turbulent proletariat. But because these women typically worked for only a few years prior to marriage, and did so in a morally protected environment, they did not seem to constitute a permanent separate working class. To observers, the community looked like an industrial utopia, more successful than the Scottish models that Francis Lowell and Nathan Appleton had toured years before. Lowell, Massachusetts, boasted the largest concentration of industry in the United States before the Civil War....

Overthrowing the Tyranny of Distance

People throughout the United States recognized the need for a better transportation system. The Great Migration had increased the number of agricultural producers wanting to get their crops from the interior to national or international markets. While some people moved westward, others were migrating to the coastal cities to work in the merchant marine and its many ancillary occupations, from shipbuilding to insurance. These city people had a need to be fed even more urgent than that of the farmers to market their crops. Pressure for improvements in transportation came at least as much from cities eager to buy as from farmers seeking to sell. Urban merchants hoped to funnel as much farm produce as possible from as large a hinterland as possible into their own market, either for consumption or transshipment elsewhere. Technology, new or newly applied, made available improvements in transportation, but constructing "internal improvements" posed problems not only physical but also economic, legal, and political....

The invention of the steamboat enhanced the comparative advantages of water transportation. In 1787, John Fitch had built the first American steamer, but he could not obtain financial backing and died in obscurity. The first commercially successful steamboat, Robert Fulton's *Clermont*, plied the Hudson River starting in 1807. Steamboats proved most valuable for trips upstream on rivers with powerful currents, of which the Mississippi was the ultimate example. In 1817, a twenty-five day steamer trip up the Mississippi from New Orleans to Louisville set a record; by 1826, the time had been cut to eight days. Pre-steamboat traffic on the Mississippi had been mostly one-way downstream; at New Orleans, boatmen broke up their barges to sell for lumber and *walked* back home to Kentucky or Tennessee along the Natchez Trace road....

For all their utility, nineteenth-century steamboats were dangerous. Between 1825 and 1830 alone, forty-two exploding boilers killed 273 people. Commenting on steamboat accidents, Philip Hone of New York City, one of the great diarists of the period, observed in 1837. "We have become the most careless, reckless, headlong people on the face of the earth. 'Go ahead' is our maxim and pass-word, and we do go ahead with a vengeance, regardless of consequences and indifferent to the value of human life." In 1838, an enormous boiler explosion in Charleston took 140 lives....

Canals further extended the advantages of water transport. Canals might connect two natural waterways or parallel a single stream so as to avoid waterfalls, rapids, or obstructions. Locks raised or lowered the water level. Horses or mules walking along a towpath moved barges through the canal; an animal that could pull a wagon weighing two tons on a paved road could pull fifty tons on the towpath of a canal. In Europe, canals had been around a long time; the Languedoc Canal connected the Mediterranean with the Bay of Biscay in 1681. In North America, canal construction had been delayed by the great distances, sparse population, and (embarrassing as it was to admit) lack of engineering and management expertise. During the years after 1815, a society eager for transportation and open to innovation finally surmounted these difficulties. Because

canals cost more to construct than turnpikes, public funding proved even more important in raising the capital for them. Energy and flexibility at the state level got canal construction under way when doubts about constitutional propriety made the federal government hesitate. Many canals were built entirely by state governments, including the most famous, economically important, and financially successful of them all, the Erie Canal in New York....

As part of the celebration of the Erie Canal's completion, cannons were placed within earshot of each other the entire length of its route and down the Hudson. When Governor Clinton's boat departed from Buffalo that October morning in 1825, the first cannon of the "Grand Salute" was fired and the signal relayed from gun to gun, all the way to Sandy Hook on the Atlantic coast and back again. Three hours and twenty minutes later, the booming signal returned to Buffalo. Except for elaborately staged events such as this, communication in early nineteenth-century America usually required the transportation of a physical object from one place to another—such as a letter, a newspaper, or even a message attached to the leg of a homing pigeon. This was how it had been since time immemorial. But as transportation improved, so did communications, and improved communications set powerful cultural changes in motion....

From New York City, information dispersed around the country and appeared in local newspapers. In 1817, news could get from New York to Philadelphia in just over a day, traveling as far as New Brunswick, New Jersey, by steamer. To Boston from New York took more than two days, with the aid of steamboats in Long Island Sound. To Richmond the news took five days; to Charleston, ten. These travel times represented a great improvement over the pre-steamboat 1790s, when Boston and Richmond had each been ten days away from New York, but they would continue to improve during the coming generation. For the most important news of all, relay express riders were employed. In 1830, these riders set a record: They carried the presidential State of the Union message from Washington to New York in fifteen and a half hours.

Communications profoundly affected American business. For merchants eagerly awaiting word of crop prices and security fluctuations in European cities, the advantage of being one of the first to know such information was crucial. New Yorkers benefited because so many ships came to their port first, even though Boston and Halifax, Nova Scotia, were actually closer to Europe. The extra days of delay in receiving European news handicapped merchants based in Charleston, Savannah, or New Orleans. The availability of information affected investors of all kinds, not only commodity traders. No longer did people with money to invest feel they needed to deal only with their relatives or others they knew personally. Through the New York Stock Exchange, one could buy shares in enterprises one had never seen. Capital flowed more easily to places where it was needed. Information facilitated doing business at a distance; for example, insurance companies could better assess risks. Credit rating agencies opened to facilitate borrowing and lending; the first one, the Mercantile Agency, was established by the Tappan brothers, who also created the *New York Journal of Commerce* and bankrolled much of the abolitionist movement. In colonial times, Americans had needed messages from London to provide commercially

relevant news. Now, they could get their news from New York and get it faster. Improved communications stimulated economic growth....

As early as 1822, the United States had more newspaper readers than any other country, regardless of population. This market was highly fragmented; no one paper had a circulation of over four thousand. New York City alone had 66 newspapers in 1810 and 161 by 1828, including *Freedom's Journal*, the first to be published by and for African Americans.

The expansion of newspaper publishing resulted in part from technological innovations in printing and papermaking. Only modest improvements had been made in the printing press since the time of Gutenberg until a German named Friedrich Koenig invented a cylinder press driven by a steam engine in 1811. The first American newspaper to obtain such a press was the *New York Daily Advertiser* in 1825; it could print two thousand papers in an hour. In 1816, Thomas Gilpin discovered how to produce paper on a continuous roll instead of in separate sheets that were slower to feed into the printing press. The making of paper from rags gradually became mechanized, facilitating the production of books and magazines as well as newspapers; papermaking from wood pulp did not become practical until the 1860s. Compositors still set type by hand, picking up type one letter at a time from a case and placing it into a handheld "stick." Until the 1830s, one man sometimes put out a newspaper all by himself, the editor setting his own type. The invention of stereotyping enabled an inexpensive metal copy to be made of set type; the copy could be retained, and if a second printing of the job seemed warranted (such as a second edition of a book), the type did not have to be laboriously reset. More important than innovations in the production of printed matter, however, were the improvements in transportation that facilitated the supply of paper to presses and then the distribution of what they printed. After about 1830, these improvements had reached the point where a national market for published material existed....

Late in 1833, a twenty-seven-year-old French engineer named Michel Chevalier arrived in the United States. American canals, bridges, steamboats, and railroads fascinated him. During his two-year tour of the country, he concluded that improvements in transportation had democratic implications. In former times, he remarked, with roads rough and dangerous, travel required "a long train of luggage, provisions, servants, and guards," making it rare and expensive. "The great bulk of mankind, slaves in fact and in name," had been "chained to the soil" not only by their legal and social status but also "by the difficulty of locomotion." Freedom to travel, the ability to leave home, was essential to the modern world and as democratic as universal suffrage, Chevalier explained:

To improve the means of communication, then, is to promote a real, positive, and practical liberty; it is to extend to all the members of the human family the power of traversing and turning to account the globe, which has been given to them as their patrimony; it is to increase the rights and privileges of the greatest number, as truly and as amply as could be done by electoral laws. The effect of the most perfect system

of transportation is to reduce the distance not only between different places, but between different classes.

As Chevalier realized, improved transportation and communications facilitated not only the movement of goods and ideas but personal, individual freedom as well. Americans, a mobile and venturesome people, empowered by literacy and technological proficiency, did not hesitate to take advantage of the opportunity provided (as he put it) to turn the globe to their account.

In traditional society, the only items worth transporting long distances had been luxury goods, and information about the outside world had been one of the most precious luxuries of all. The transportation and communications revolutions made both goods and information broadly accessible. In doing so, they laid a foundation not only for widespread economic betterment and wider intellectual horizons but also for political democracy; in newspapers and magazines, in post offices, in nationwide movements to influence public opinion, and in mass political parties.



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