

Power-Lined

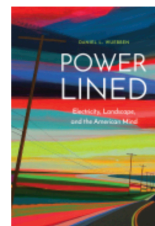
Daniel L. Wuebben

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Wuebben, Daniel L.

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Wires in the Garden, 1844-1882

Samuel Morse completed an experimental, 40-mile telegraph line in 1844. By 1853, eighty-nine long-distance connections covered 23,261 miles. In 1866 Western Union made a lasting transatlantic connection, introduced the first telegraph stock ticker, and took control of a vast 76,000-mile transcontinental network.¹ During these unstable decades of development, to watch workers erect wooden posts and pull copper or iron wire was to watch a place be figuratively tied to the United States. To travel through the wilderness and suddenly come upon a series of wired poles in an otherwise vacant landscape was to see the direction where American settlements had been or would soon follow.

Scholarly discourse of technology and American landscape has primarily overlooked telegraph infrastructure. For example, Leo Marx's seminal study *The Machine in the Garden* includes a single passage specific to telegraph lines. In 1850 an English visitor to the United States expressed surprise that lands recently occupied by "wild beasts, and still wilder Indians" had been "traversed in perfect security by these frail wires." The comment reinforces racist divides between "wild" nonwhites and a widespread apparatus for enforcing "perfect security." In addition, Marx suggests, the anecdote implies that in America "progress is a kind of explosion." Such a reading conforms to Marx's overall argument that between the late eighteenth century and early twentieth century, the seemingly sudden appearance of new, innovative machines framed the American pastoral and restructured the "landscape of the psyche." Marx reads this restructuring through the treatments of the mill, the steamboat, the factory, the combustion engine,

and especially the railroad by writers, including Thomas Jefferson, Ralph Waldo Emerson, Nathaniel Hawthorne, and Mark Twain.³

Closer attention to the creative renderings of telegraph lines can enhance our understanding of nineteenth-century technology and landscape, but these representations do not exactly support Marx's thesis. For example, Marx quotes from Walt Whitman's "Passage to India" (1869)—"In the Old World, the east, the Suez canal / The New by its mighty railroad spann'd, / The seas inlaid with eloquent gentle wires"—to show the "buoyant power" evoked by "the machine's [i.e., the railroad's] motion across the landscape."⁴ Whitman's vision of the expressive wires on the seafloors is less buoyant but no less critical in the material links between old world and new.

Lewis Mumford helps to explain the missing thread in Marx's argument. In the early twentieth century people overlooked the power utility and infrastructure because, he said, "attention is directed more easily to noisier and more active parts of the environment."⁵ The same was, and is, true of telegraph lines. The static, gentle wire that connected communities and traversed land and sea was not the locomotive beast that chugged coal, shrieked its whistle, and spewed smoke through the garden; it was the corresponding vine that crept through it.

During the first decades of telegraph development, the telegraph line, or simply "the wire," entered a synecdochic relationship with the practice of widespread, seemingly instantaneous communication. Meanwhile, telegraph lines sent conflicting messages through the landscape. Many Americans embraced the telegraph line as a wondrous miracle sent to "annihilate space and time," and in such readings the line signaled industrial and cultural advancement. Others resisted telegraphy, worrying that the iconic, visible web would tangle everything and everyone within its reach. A few individuals registered the infrastructure's subtler effects. Wind playing over the wires, or what is now called the "Aeolian effect," produced a discordant whistling sound that Thoreau said was "fairer news than the journals ever print."⁶ As telegraph lines stretched in Western Territories, they connected the farthest extremities of Anglo settlement to the rest of the United States. These nerves, homesteaders and armies learned, could be touched and also broken.

American Landscape, Charged without Wires

Samuel F. B. Morse personifies the crossovers and tensions between electrified landscapes and electric technologies in the mid-nineteenth century. He is most often remembered for his role in the technological revolution. In 1845, when Morse was fifty-three, a law clerk wrote a poem declaring Morse as the one who “yoke[d] the lightning to his rapid car” and would have his name etched “on the same tablet with our Franklin.”⁷ During the next decades the telegraph lines became colloquially referred to as “Morse lines.”⁸ In 1871, a year before Morse’s death, the poet William Cullen Bryant declared, “Every telegraph wire strung from post to post, as it hums in the wind, murmurs his eulogy.”⁹ However, in his late thirties, long before Morse lines made their vague, meandering mark on the visible terrain, the painter and professor worked fervently to make his mark as an artist and, as part of these efforts, helped give rise to the genre referred to as “American landscape.” For the rest of the nineteenth century painters and poets celebrated both wild and pastoral environments as repositories of organic, electric forces. These celebrations preceded, and then paralleled, the development of telegraph networks.

The genre of American landscape, the first significant school in American painting, might be traced back to 1826, when Morse, Thomas Cole, and Asher Durand founded the National Academy of Design in New York City. Morse was elected as president of the new artist organization, and, in March and April 1826 he delivered a series of lectures at Columbia College titled “On the Affinity of Painting to the Other Fine Arts.” Morse defined *landscaping* as the process of “hiding defects by interposing beauties; of correcting the errors of Nature by changing her appearance.”¹⁰ For Morse the main objective for the landscape gardener, architect, or painter was to “select from Nature all that is agreeable, and reject or change all that is disagreeable.”¹¹ This aesthetic approach is displayed in Morse’s three major landscape paintings: *The View from Apple Hill* (1828–29), *Allegorical Landscape of New York University* (1832–33) (fig. 4), and *Niagara Falls from Table Rock* (1835).

Morse’s belief that the artist should reject or correct nature’s “errors” ran contrary to the emerging trend in American painting, poetry, and fiction.



4. Morse's idealization of the university shares some stylistic qualities with his contemporary Thomas Cole's *Course of Empire* (1833–36). Samuel F. B. Morse, *Landscape Composition: Helicon and Aganippe (Allegorical Landscape of New York University)*, 1836. Oil on canvas, 22½ x 36¼ in. New York Historical Society.

For instance, Morse's *Allegorical Landscape* shows a formalist selection of nature's parts that follows his belief that the artist corrected errors and created an ethical message: nature, virtuous and tame. Cole, Durand, and other now-famous American artists and writers such as Emerson, Thoreau, and Walt Whitman embraced the bare, unruly, and abundant wilderness: nature, red in tooth and claw.

In 1831, after traveling abroad with Thomas Cole to paint pastoral scenes in Italy and France, Morse stopped in Paris and stayed with James Fenimore Cooper and his family to finish his most ambitious painting, *Gallery of the Louvre* (1831–33). Cooper had arrived in the French capital in 1826, on the heels of his most successful novel, *Last of the Mohicans* (1826). Cooper stayed overseas to write three more novels in the five-part *Leatherstocking Tales*, each featuring the trapper-turned-frontiersman Natty Bumppo. With these novels Cooper successfully packaged American ruggedness for European audiences; with *Gallery of the Louvre*, a massive painting

re-creating thirty-eight masterpieces in a single canvas, Morse wanted to bring European taste to the United States.

As Morse painted in Paris, Durand and Bryant organized a picture book in New York City that they titled *The American Landscape* (1830). Durand and Bryant claimed their collaboration was the first to offer Americans “accurate views” of places such as the Delaware Water Gap, Catskill Mountains, and “Winnipiseogee Lake” (Winnepesaukee Lake). The collection of faithful drawings, historical allegory, and poetic illustrations crucially lacked those “tamings and softenings of cultivation” that “change the general face of the landscape” and “break up the unity of its effect.” The absence of civilization would remain crucial to the idealized American landscape. Meanwhile, formal landscape aesthetics may have been developed in Europe and epitomized by some of the paintings Morse copied in the Louvre, but the “perception of [nature’s] charms is not less quick and vivid among our countrymen.” For the American artist a perceptive eye and adventurous spirit can compensate for any lack of aesthetic training or long-standing tradition. Therefore, sharing such charming, rugged landscapes with fellow Americans, Bryant explained, is a means to “promote the success of an experiment hitherto untried, and perhaps hazardous.”¹² In other words, the experiment initiated by breaking free from European control and forming the United States gave rise to an experimental view of the North American continent. If *landscape* was a verb, then capturing and promoting the raw, wild, untamed American landscape was an act of patriotism.

Notwithstanding Morse’s own corrosive politics (he was a paranoid, anti-Catholic, anti-immigrant politician and a rabid conspiracy theorist), the professor had an ardent desire for public appreciation—and funding. Morse spoke about the difficult life of the starving artist on the first anniversary of the National Academy’s formation in 1827. As its president and the self-appointed champion of “Public Taste” in the United States, Morse, in his speech, stressed the artists’ collective need to raise the general level of appreciation for the arts and to create a market for American paintings and sculptures. If artists could teach the general public about the true value of art, then patrons may begin to pay for it. Educating the unruly masses about the finer qualities of art would be difficult. In fact, Morse painted a

rather dim picture of the art market and then asked his fellow artists: “Why do I speak to you of difficulties? For they are the glory of genius, without which its energy and its brilliancy would pass unnoticed away, like the electric fluid which flows unobserved along the smooth conductor, but when its course is thwarted, then, and only then, it bursts forth with its splendor, and astonishes by its power.”¹³

Some of the more talented and resilient artists listening to Morse’s National Academy speech, such as Cole and Durand, were able to tap into the forces that “flowed unobserved” through nature and help them “burst forth” with beauty and splendor on the canvas. The electric qualities of plein air painting appear in Cole’s “Essay on American Scenery” of 1836. Far from the city, Cole feels “the quickening spirit” of nature. He says that during one moment of sublimity, “such as I have rarely felt,” he feels the rocks, wood, and water “brooded the spirit of repose,” and “the silent energy of nature stirred the soul to its inmost depths.”¹⁴ Pure, unfettered energy captivates the artist, who then transmits the electric experience onto the canvas.

Morse curated and promoted artists who visualized untamed nature’s electrifying effects; Emerson verbally conducted electric landscapes. In “Literary Ethics” (1838), for example, Emerson said the American artist will someday, “like the charged cloud, overflow with terrible beauty, and emit lightnings on all beholders.”¹⁵ Morse used a controlled, technological image (smooth conductor), and Emerson offered an effervescent, natural image (charged cloud), but both implied that when American painters and poets do achieve greatness, their work will be like sparks erupting from a circuit or bolts tearing across the sky.

Although Emerson’s fascination with electricity and electric thinking has been well documented, these ideas are also germane to his treatment of landscapes.¹⁶ Solitary, titillating sensations suffuse Emerson’s experiences with the outdoors, especially his seminal text, “Nature.” *Landscape* appears four times in that essay, more often than the words *God* (3), *poet* (3), *mind* (3), or *beauty* (2). The only words Emerson repeats more often are *nature* (13) and *man* (12). The various inflections of Emerson’s “landscapes” merge in his most electric, transcendental experience. Walking across the bare

common, he declares: "I become a transparent eye-ball; I am nothing; I see all; the currents of the Universal Being circulate through me; I am part or particle of God."¹⁷ These invisible, circulating currents and particles seem to underlie Emerson's earlier reference to the "charming landscape" made of lands owned by farmers—"none of [whom] owns the landscape." The emotional transfer between self and environment lingers in the "tranquil landscape" and the "contempt of the landscape felt by him who has just lost by death a dear friend." Landscape for him is an attractive, unstable, invisible force that charms a sensitive perceiver. It is also like a light beam that the individual can project onto nature. For Emerson the most powerful landscapes, like electricity, are fusions of matter and spirit, of human and nature.

In 1844, the same year Morse sent his inaugural message, Emerson declared that "the Poet" had a "power transcending all limit and privacy" and was thereby a "conductor of the whole river of electricity."¹⁸ Inflections of Emerson's poet-as-conductor and popular beliefs in animal magnetism—the theory that some individuals could control electric forces and thereby hypnotize or sexually attract others—collide in Whitman's famous "I Sing the Body Electric" from *Leaves of Grass* (1855). In Whitman's poem the electric rhetoric is conveyed through evocative, erotic images: "Ebb stung by the flow and flow stung by the ebb, love-flesh swelling and deliciously aching, / Limitless limpid jets of love hot and enormous, quivering jelly of love, white-blow and delirious juice." The electric juice flows body to body—no wires required. Significant attention has also been called to Whitman's idea of the "body electric," but acknowledging how Whitman's language of electricity (*conductor, current, shock*) entwines with his depictions of landscape (*field, scene, vista*) enhances such readings. In "Song of Myself" for example, Whitman feels the currents of the masses coursing through him and boasts: "I have instant conductors all over me whether I pass or stop / They seize every object and lead it harmlessly through me."¹⁹

Approximately forty lines later, Whitman's electric, licentious sensations dissipate. As the energy that flowed in seems to ebb away, Whitman "stand[s] by the curb" and bears witness to "prolific and vital, / Landscapes projected masculine, full-sized and golden." Like Thoreau, who states in

Walden, or Life in the Woods (1854), “Wherever I sat, there I might live, and the landscape radiated from me accordingly,”²⁰ Whitman suggests landscape is more of a quality than an object, something that can be generated from within and radiated outward. To create this kind of esoteric, electric landscape, the poet draws the current pulsing through nature into her body and projects it back onto the environment.

Morse’s contributions to American art and culture deserve recognition, especially his portraits, his efforts to organize and educate aspiring artists, and his introduction of the daguerreotype to the United States. However, whereas his fellow painters and poets such as Emerson and Whitman embraced the wild, vulnerable, and electrifying, Morse continued to push for the refined, elevated, and conservative. Eventually, Morse abandoned his artistic pursuits. He earned wealth and fame from his telegraph, but he remained bitter about his artistic failures. He wrote in a letter to Cooper years later, “Painting has been a smiling mistress to many, but she has been a cruel jilt to me.”²¹ Morse’s art was unable to channel and transmit invisible, all-pervasive electric forces in the sublime and untamed; instead, he invented a telegraph that lined American landscapes with wires.

Electric Binds

In approximately two decades telegraphy changed American politics, journalism, finance, commerce, and war. These effects corresponded to the lines that Americans envisioned and saw stretched through the material landscape.

In June 1844, weeks after the inauguration of the nation’s first telegraph line and before plans for further lines had materialized, the *New York Herald* predicted that telegraph would “bind together with electric forces the whole Republic” and thereby “do more to guard against disunion” than any patriotic government. National cohesion and the flow of people, goods, and information would be facilitated with “this great, subtle, wonder-working element of electricity everywhere ready to do our bidding.” The telegraph would not work alone, but it would provide “the soul of the vast framework” of roads, rivers, ports, and railroads.²² Such comments follow Morse’s claim that the telegraph would make “one neighborhood of the country” and also

foreshadow ensuing assertions that the telegraph represented the “manifest destiny” of Anglocentric advance.

The notorious term emerged in 1845. As telegraph lines reached from Baltimore to Philadelphia and then to New York, John O’Sullivan’s *Democratic Review* argued that the annexation of Texas, and eventually all lands to the Pacific, was the predetermined and natural result of “the manifest destiny to overspread the continent allotted by Providence.” The expansionist ideology underlying manifest destiny had dictated development patterns for centuries. God had granted the American people wondrous technologies and a moral high ground; they were destined to use their talents and occupy the continent. Not only was this national growth a spiritual duty; it was efficient. O’Sullivan argued that other neighboring nations, particularly Mexico, could not build such a “vast skeleton framework of railroads, and an infinitely ramified nervous system of magnetic telegraphs.”²³ Even those indigenous peoples displaced by the spread of this utopian destiny stood to benefit from the technological, scientific, and cultural advancements that Americans brought with them. Colonization was veiled as altruism.

Manifest destiny explained, and often excused, the momentum guiding the settlers of the West. The telegraph was particularly effective at helping Americans visualize this push. Seven years after O’Sullivan coined the phrase *manifest destiny*, for example, the *American Telegraph Magazine* suggested it was “manifest destiny” that was “leading the ‘lightning’ abroad over this capacious continent of ours.” The lines acted like a magnet, pulling settlers and commerce westward and then keeping the nation bound together, “not merely by political institutions, but by a Telegraph and Lightning-like affinity of intelligence and sympathy.”²⁴ Trade, government treaties, and armed forces helped protect American interests, but the telegraph lines kept the nation in touch, physically and emotionally.

In addition to supporting expansionist ideologies, in 1846 the *New York Evangelist* predicted that in a few years “a vast revolution will have been affected in the newspaper business through the medium of the magnetic telegraph.”²⁵ Journalists and editors quickly learned that securing the latest telegraph dispatches from the wild frontier or the violent frontlines helped

sell newspapers. The telegraph thus influenced the gathering and distribution of news and allowed for regional, national, and even global issues and events to shape local policy debates.²⁶ During the violent conflict that followed the annexation of Texas—the U.S.-Mexican War (1846–48)—New York newspapers pooled resources to build telegraph lines and hire steamships to carry the latest reports from the frontlines. The collaboration led to the formation of the Associated Press. Again, the manifest destiny facilitated by the construction of telegraph lines across the American landscape enacted a kind of self-fulfilling prophecy. The wires helped initiate and then monitor expansion. As the networks stretched westward, often romanticized reports of “progress” flowed East.

In addition to distributing the latest news, the lines linked rural sites of production and urban sites of consumption. At the same time that the Treaty of Guadalupe Hidalgo ended the U.S. war with Mexico, in 1848, telegraph lines linked New York to Washington DC and on to New Orleans via Richmond, Charleston, and Mobile. Long-distance messages often required relays, and messages could take hours to reach their destination. Direct connections between major cities meant that intrastate conversations might only lag by a matter of minutes or seconds. By the midpoint of the century, however, telegraph lines bordered the Great Lakes—Erie, Cleveland, Toledo, Detroit, and Chicago—and went as far as St. Louis.²⁷ Farmers could check the price of grain or cotton in a distant market and then decide if they should harvest their crops or hold back in hopes of getting a better price. Goods ready to be shipped could be “sold” before they arrived. Bankers could check a customer’s credit from another city or another state.

Some communities were proud to see the lines entering their town, as they indicated a certain social standing. As the telegraph reached from Chicago to Racine and Milwaukee in 1848, excited farmers who lived along the route provided the workers with poles free of charge.²⁸ In 1848 an Ohio newspaper said the telegraph line from Columbus to Portsmouth was “better constructed than any other in the country, excepting the Townsend telegraph from Baltimore to Wheeling, which is superior to ours in one particular only, that is, the greater size of the posts.”²⁹ For many commu-

nities the size and design did not matter as much as the fact that the lines delivered the latest in politics, culture, and commerce well in advance of the mail carriers.

Electric information and electric lines were not always welcomed. Menahem Blondheim suggests that the ability to send messages from distant, unverified sources opened up the “potential prostitution of the [telegraph] invention.”³⁰ False rumors spread, especially in the initial years when newspapers scrambled to get a scoop. In 1845 a dispute in Boston led a New York newspaper to scoff that “fanaticism” and “some petty spite” had caused a group of newspaper editors to call for “the magnetic telegraph poles in that city cut down.”³¹ Public opinion also turned against the lines when reports surfaced of stock jobbing and manipulation of commodities prices. In 1846 a Charleston newspaper reasoned, “The law may make it a penitentiary offence to break down the wires, but in the present state of public opinion, no jury could be found to convict any one of the offence.” It advised readers, “The sooner the posts are taken down the better.” In New Orleans the general public had a “most fervent wish that the telegraph may never approach us any nearer than it is at present.”³² In 1850 a suspicious outage was linked to an unknown group of cotton speculators. As such practices primarily did injury to the “planters and raisers,” the *Mississippi Creole* said cotton farmers were justified in “tearing down the telegraph poles.”³³

The poles’ owners fought to protect their interests. In 1852 Moses Knight and an accomplice were found guilty of cutting telegraph wires in South Carolina. The contractor sent to fix the wires reported back to his superiors that Knight had been sentenced to “thirty-nine lashes on the bare back” and promised thirty-nine more lashes if he ever returned to Marlboro County. Although it is unclear what happened to Knight’s coconspirator, the contractor wrote that he believed that this man, and anyone else interfering with the lines, should be hanged.³⁴

General suspicions and isolated incidents of sabotage did less to slow development than lack of financial backing, shoddy construction work, and inclement weather. In theory the lightning lines integrated an expanding empire; in practice the “frail wires” erected in the initial bonanza years represented what Robert Luther Thompson describes as “methodless

enthusiasm.” By 1850 twenty telegraph companies existed, with half of them operating within the state of Ohio.³⁵ New companies, sometimes with competing telegraph systems or redundant routes, built haphazard lines between places where they felt demand could rise or where they felt they might undercut a competitor’s rates. Jokes circulated that in rural areas those trying to get a foothold in a particular market strung shoddy wires on “beanpoles and cornstalks.”³⁶ Batteries routinely failed, circuits shorted, and strong weather (as it still does) brought down poles. Lightning storms also wreaked havoc on the lines and supposedly supernatural forces caused telegraph keys to tap uncontrollably. Despite suspicions and inefficiency, the telegraph lines spread, and by 1851, 21,147 miles of telegraph wire connected approximately 500 cities and towns across the United States and Canada.³⁷ Telegraph poles studded the Eastern Seaboard, and the growing wire network advanced west of the Mississippi River.

Rather than automatically binding the nation together, the spread of telegraph lines in the 1850s may have increased regionalism and stoked suspicions. In 1861, after a series of secessions and the first shots at Fort Sumter, the first transcontinental message was sent from California to New York and on to Washington DC: “May [this line] be a bond of perpetuity between the states of the Atlantic and those of the Pacific.” The conciliatory message of 1861 seemed like a hopeful plea compared to Morse’s 1844 proclamation of what God hath wrought. With the Civil War raging, Oliver Wendell Holmes wrote that the “first and obvious difference” between this war and all previous ones was that “the whole nation is penetrated by the ramifications of a network of iron nerves which flash sensation and volition backward and forward to and from towns and provinces.”³⁸ Historian Edward Ayers confirms Holmes’s view: “A long brewing sectional animosity boiled over when railroads, telegraphs, and newspapers proliferated in the 1840s and 1850s.”³⁹ In addition to stoking enmity between regions and states, the telegraph influenced the results. A “wired” war allowed newspapers to send updates from the battlefield that could then be passed to the waiting public. Commanders telegraphed reports to headquarters and to facilitate the movement of troops. Almost fifteen thousand miles of telegraph lines were built to help fight the Civil War, and most of them

were abandoned soon after, adding another layer to the devastation that the war inflicted on the American landscape.

The development of the telegraph industry coincided with a period of massive expansion in terms of the nation's size and a consolidation of wealth and management. When Morse inaugurated the telegraph, approximately forty thousand dollars had been invested in a forty-mile line. Missouri was the most western of the twenty-six states. In 1866 Congress passed the National Telegraph Act in an attempt to regulate the siting of lines, to promote rivalry between telegraph companies, and to limit the power of Western Union's burgeoning monopoly.⁴⁰ By 1867 the capitalization of the American telegraph industry had grown to forty million dollars, and eleven more states had officially entered the republic.⁴¹ Many of these new states—Texas, California, Nevada, Kansas, Iowa, Wisconsin, Nebraska—were larger in terms of acreage than any of the original twenty-six. Telegraph lines were required to maintain bureaucratic control over these disparate regions. The visions of a “vast framework” that might be charted on maps corresponded with visible changes in the countryside.

Again, the railroad looms largest in the American narratives of nineteenth-century development and progress. The steam engine, the steel rails, the train bridge, the water tank, and the station platform, remain crucial industrial icons. In the 1850s and 1860s, however, the telegraph lines and railroad became inseparable, from visual and system standpoints. The telegraph provided the “most important technological addition to the railways,” according to historian Wolfgang Schivelbusch.⁴² Train dispatchers relied on the telegraph lines that ran parallel to the tracks to signal ahead to avoid dangerous head-on collisions and to keep a consistent schedule based on nationally regulated railroad time.

The telegraph lines also framed the train travel experience. In 1851 one passenger described hearing “the pulse of the engine throbbing quicker and quicker, and the telegraph posts seem to have started off into a frantic gallop along the line.”⁴³ With the addition of telegraph poles alongside the rails, Schivelbusch explains, “no longer did [the traveler] see only the landscape through which he journeyed, but also, continuously, the poles and wires that belonged to the railroad as intimately as the rails themselves

do. The landscape appeared *behind* the telegraph poles and wires; it was seen *through* them.”⁴⁴ Rail travel offered Americans the first glimpses of what millions of Americans now ride or drive by everyday—the irregular, repeated rectangle made by parallel posts (the rectangle’s sides), the concatenated line or lines on top, and the horizon on the bottom. As visual artifact, the telegraph was the railroad’s sinewy sidekick; as a practice, however, according to Daniel Czitrom, telegraphy “split communication (of information, thought) from transportation (of people, materials).”⁴⁵

This split distinguishes telegraph from other revolutionary communication technologies. The spread of ancient orthographic systems and the invention of the movable type printing press in the fifteenth century also fundamentally altered the creation, distribution, and preservation of words and ideas. The telegraph, like previous innovations, circulated messages farther and faster than ever before. In the late 1850s the Pony Expresses that carried mail and packages across the Great Plains shaved ten days off the time it took messages to reach the Pacific coast. Within days of the inauguration of the transcontinental line in 1861, the Pony Express was rendered obsolete and ceased operations. With the correct connections, telegraphed messages annihilated space and time compared to messengers or shipments powered by foot, by horse, by boat, or by locomotive machine.

The speed and scope of telegraph networks increased the speed of written correspondence and capacity of the printing press. The telegraph could send information to many points and collect replies in a single hub. By the 1860s single wires carried multiples messages in different directions. The telegraph, printing press, and railroad worked together. Breaking news in any well-connected city could sweep across other urban areas in a matter of minutes. The advent of the steam press further shrunk the time required to send, receive, and print a story for mass distribution. With the development of railroad systems, printed reactions to the latest news could also be distributed more widely.

In each of these scenarios the telegraph initiated faster and broader circulation of information; however, telegraphy did not require anything to be “written.” The invisibility of telegraph messages and other coded electric impulses makes it seem, as Czitrom suggests, that the information

or thoughts contained in those messages had been divorced from material components (such as paper). Yet telegraphy—at least until the advent of wireless—required wires. The view of telegraphy as a dematerialized or disembodied practice stems from the physical qualities of electricity as well as the fact that only a small sliver of the population understood and touched its infrastructure. Line workers maintained the wires, poles, insulators, and relays. Another group of professional operators sent and received the messages. Considering the tariffs imposed on even short telegrams, it stands to reason that only wealthier individuals and representatives of larger business operations such as transportation, finance, and journalism regularly sent and received direct messages.

Telegraph *lines* seemed to resist the split between thought and material. Relatively few Americans directly engaged the telegraph as they might have engaged with other machines such as the rifle or the railroad. Instead, as David Hochfelder explains, most Americans “encountered the telegraph as a source of information in their daily newspapers.”⁴⁶ The lines in one’s environment provided another important means for encountering the telegraph. Indeed, without sending or receiving a message or reading a telegraph-sourced story in the newspaper, many Americans could see the telegraph as a visual artifact upon the landscape.

The Line as Industrial Icon

The telegraph line’s appearance in mid-nineteenth-century visual culture, especially popular prints, sketches, and landscape paintings, reinforced its position as an icon of industrialization and national cohesion. Two famous images utilize telegraph lines to send a similar, albeit ambiguous message: “progress.”

In Asher Durand’s *Progress: The Advancement of Civilization* (1853) the telegraph line controls the movement of the eye across the canvas (fig. 5). The telegraph starts in the middle foreground, climbs up the right side of the frame, dips toward the midway point, and then disappears. As the line descends the hill and winds first to the right and then back to the left, the poles seem increasingly smaller, and by the time they reach the valley, it is difficult to distinguish the poles from the fence posts that surround the



5. The icons of technological advancement along the right half of the canvas—steamboat, railroad, log cabin, and wagon trains—conclude with telegraph poles that may have been harvested from where Native Americans stand observing from a ridge surrounded by recently felled trees. Asher B. Durand, *Progress, or The Advance of Civilization*, 1853. Oil on canvas, 48 x 72 in. Privately owned, Metropolitan Museum of Art.

cow pasture. The train tracks also move from the bottom right to left and meet the locomotive and its billowing smoke in right center. The tracks, in tandem with the telegraph line, draw attention to the lake, where steamboats are docked next to factories and mills. The industrial area emits its own puffy clouds and serves as the landscape's vanishing point.

The frontier icons—the wagon, log cabin, train, bridge, railroad, and steamboat—support the dominant narrative about settlement and industrialization. When Durand's painting was first exhibited, a review in the *Knickerbocker* magazine announced: “[Durand's *Progress*] is purely AMERICAN. It tells an American story out of American facts, portrayed with true American feeling, by a devoted and earnest student of Nature.”⁴⁷ If the image is first and foremost “American,” then the depicted technologies

and their movement across the landscape—including the displacement of those already living there—seem like preordained facts.

Durand was a devotee of nature, but he also lamented the destruction wrought by American industrialization. In “Letters on Landscape Painting” he advises the young American artist to seek the “forms of Nature yet spared from the pollution of civilization.” The placement of Native Americans in *Progress* seems to hint at the ramifications of civilization. This group, apparently vanquished by the advancing settlers, stand amid trees that have been cut to the stump. The forest has been recently cleared, and some of the timber may have been used for the telegraph poles depicted to the right. In that corner the dirt road, log cabin, horse-drawn wagon, and telegraph line represent the present, action, and the first push of so-called progress. The present moves toward the future, following the line of industrial machines until it reaches the mill and the image’s apex—a brilliant sunset. The three sections form a visual and conceptual triangle of native past, frontier present, and industrial future. The viewer, like the group of Native Americans, gazes from the platform of an untamed past toward a murky present and into a pastoral future. Similarly, the telegraph line, with its scraggly, leaning poles and bending route, provide a subtle link between past, present, and future.

The telegraph line in John Gast’s *American Progress* (1872) sends a more heavy-handed message (fig. 6). Here the telegraph line is dropped like spider silk from the hand of an angelic, scantily clad messenger. Gast’s painting reinforces manifest destiny ideologies. The explorers and fur traders chase away the Native Americans and the buffalo herd. Behind them are the farmers, wagon trains, and railroads. A diaphanous figure floats above this chain of allegorical symbols and events. She carries a book of education in one hand and a spool of telegraph wire in the other. The telegraph is laced over the empty landscape in a visual pattern that attempted to reflect how peoples and technologies moved westward. It is worth noting that, in the allegory, the telegraph precedes the railroad. In many areas of the Great Plains and the western United States, the first infrastructure to appear on the landscape was a telegraph line.

A figure such as Gast’s angelic messenger also appears in Alexander Jones’s *Historical Sketch of the Electric Telegraph* (1852), a book that, in less



6. Tour guide and publisher George Crofutt commissioned Brooklyn-based John Gast to illustrate the “grand drama of Progress.” In *Crofutt’s New Overland Tourist and Pacific Coast Guide* (1878–79) he explains that the angelic figure bearing the “Star of Empire” on her forehead “carries a book—common school—the emblem of education and the testimonial of our national enlightenment, while with the left she unfolds and stretches the slender wires of the telegraph, that are to flash intelligence throughout the land.” John Gast, *American Progress*, 1872. Oil on canvas, 12¾” x 16¾,” Autry National Center, Los Angeles.

than two hundred pages, summarizes the progress in electrical science that led to Morse’s device, reviews the latest technical improvements, and lists current stations and tariffs. (It notes, for instance, that a ten-word dispatch from Winnebago, Wisconsin, cost two dollars.) For much of the mid-nineteenth century Jones’s book was “cited as authority on matters relative to the telegraph and telegraphing.”⁴⁸ In addition to providing technical descriptions, Jones poeticizes the telegraph line. The epigraph quotes act 2, scene 1, of Shakespeare’s *Tempest*, when shrewd sprite Robin (also called Puck) boasts, “I’ll put a girdle round the earth in forty minutes.” In

the context of the play Puck has agreed fly around the earth to retrieve a magical purple flower, “love-in-idleness.” Unlike Puck, the telegraph could not, in 1850, “girdle” the earth, but the pace of development had already instilled the idea that information would soon travel across the entire globe with supernatural speed (fig. 7).

In Jones’s introduction the allegorical figure seems to sweep across the continent: “In one moment we find it [the telegraph] conveying messages of intelligence in advance of time over a continent, measuring the degrees of longitude, and dropping copies of its news at each hamlet, village and town in its flights over mountain peaks ‘Where Alpine solitudes extend’ across valleys wide and rivers deep and strong; and as quickly at its post again.”⁴⁹

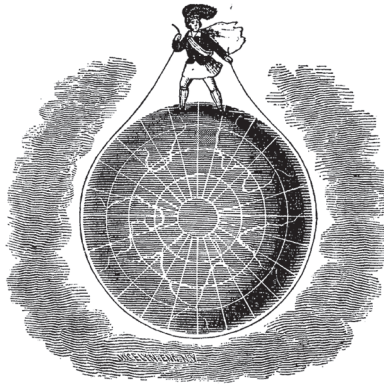
The telegraph helped surveyors and cartographers make more exact measurements of longitude. The use of open circuits also made it possible for the news sent between major hubs like New York, Washington DC, and New Orleans to be “dropped” at all of the stations in between. In Jones’s passage telegraphic communication is so fast that it troubles temporal structures: messages fly across the continent both “in one moment” and “in advance of time.” A similar notion that telegraph wires carry messages faster than thought appears in Benjamin French’s 1845 poem “The Changes of the World”: “Swifter than thought th’ intense and subtle fire / to do man’s bidding flies along the wire.”⁵⁰ In the final phrase Jones (perhaps deliberately) misquotes Oliver Goldsmith’s poem “The Traveler” (1764), replacing “where Alpine solitudes *ascend*” with “where Alpine solitudes extend.” The change implies the linear *ex-tension* of wires over mountain ranges and across territories such as Nebraska and the Dakotas. The telegraph line delivers thoughts ahead of time and pulls the seemingly boundless frontier within reach of eastern settlements.

In contrast to this poetic rendering, Laurence Turnbull’s *Electro Magnetic Telegraph: With an Historical Account of Its Rise, Progress, and Present Condition* (1853) presents the telegraph lines as objects that spark scientific inquiry. “No one,” he explains, “can view the extensive lines, and hear of and see its wonderful, nay, magical effects, without a strong desire to become better informed of its history and mode of operation.” The line had become a familiar feature of the landscape—“its lines of iron wire pass

HISTORICAL SKETCH
OF THE
ELECTRIC TELEGRAPH:

INCLUDING ITS
RISE AND PROGRESS IN THE UNITED STATES.

BY
ALEXANDER JONES.



"I'll put a girdle round about the earth in forty minutes."—SHAKESPEARE.

NEW-YORK:
GEORGE P. PUTNAM, 10 PARK PLACE.
M.DCCC.LII.

7. "I'll put a girdle round about the earth in forty minutes" is spoken by the mischievous fairy Puck in Shakespeare's *Midsummer Night's Dream*. Shakespeare uses *girdle* in the metaphorical sense, yet in the 1850s it seemed possible that telegraph wires would girdle the earth and allow for fast and efficient communication. Frontispiece to *Historical Sketch of the Electric Telegraph: Including Its Rise and Progress in the United States* (New York: George P. Putnam, 1852).

before their very doors and extend even into the most distant wilds of the country.”⁵¹ While many viewers recognized the lines by their rows of poles and signature shape, their function remained a mystery.

Turnbull’s history of electrically transmitted messages begins with electrical experiments conducted in Germany, France, and Spain in the late eighteenth century. In 1798 a twenty-six-mile telegraph wire connected the capital of Madrid to the Royal Palace at Aranjuez. The line provided Infante Don Antonia daily updates.⁵² Turnbull also describes and praises advancements such as Royal Earl House’s printing telegraph. House’s device had twenty-eight keys set up like a piano and allowed senders to type the letters of the Roman alphabet. The typed letters would be printed at the receiving end. In the 1850s House lines were built from New York to Philadelphia to Washington DC, but Morse’s system was cheaper and more successful.

For a history book written in the first years of the telegraph’s development, Turnbull’s work is impressive. One reviewer praised the “plain, perspicuous style” with which Turnbull provided “the most complete and satisfactory work on Electric Telegraphs published in this country.”⁵³ Although Turnbull and other scientists and scholars helped to shed light on some of telegraphy’s “magical effects,” many Americans still felt leery in their presence.

Web Lines

The telegraph line’s role in mid-nineteenth-century spiritualism, poetry, and fiction suggests a different inflection than the visual iconography of landscape paintings or hagiographic tone of history books. In these more imaginative renderings, the line is like a spider web or a living nerve. Those within reach of the lines are connected, for better or worse, to all other minds, bodies, peoples, and nations in the network.

Electricity’s importance to some of these authors, such as Hawthorne, Melville, and Thoreau, has been established. The relationships between the authors’ depictions of telegraph lines has not yet been examined. In addition to the mysterious qualities of electricity, the line passing through the forest or strung alongside the train tracks symbolized a single thread in a broader meshwork buzzing with affect and intelligence. The telegraph line inspired and shaped visual, fictional, and theoretic engagements with landscape.

The climactic ending of Nathaniel Hawthorne's *House of Seven Gables* (1851) most clearly displays the telegraph line's central role in the industrialized landscape of the nineteenth century. The narrative action rises when Clifford and Hepzibah Pyncheon find the corpse of their cousin, Judge Jaffrey Pyncheon. Due to entrenched family feuds, the brother and sister fear they will be held responsible for Jaffrey's mysterious death and decide to flee the scene. For decades prior to their flight, Clifford and Hepzibah had kept themselves insulated within the House of Seven Gables, and thus, when they emerge into the street of this small New England town and decide to board a train, they feel suddenly "drawn into the great current of human life" and "swept away with it."⁵⁴

Hepzibah's earlier manic spell reveals "all strong feeling is electric," and now, as the train begins to move, the agitated Clifford strikes up a conversation with a fellow passenger about the wonders of electricity: "the demon, the angel, the mighty physical power, the all-pervading intelligence!" Clifford proclaims: "Is it a fact—or have I dreamt it—that, by means of electricity, the world of matter has become a great nerve, vibrating thousands of miles in a breathless point of time? Rather, the round globe is a vast head, a brain, instinct with intelligence! Or, shall we say, it is itself a thought, nothing but a thought, and no longer the substance which we deemed it!"⁵⁵ Clifford's speech hints at the "spiritual telegraph," a common analogy of the age. Some Americans believed the telegraph mirrored another ephemeral network that circulated divine messages. The spiritual telegraph spanned space like a vast organism. When blended with the idea of the body politic, the organism connects Americans across the continent. As one newspaper in 1846 explained, the telegraph "makes the pulse at the extremity beat—throb for throb and in the instant—with that at its heart . . . In short, it will make the whole land one being—a touch upon any part will—like the wires—vibrate over all."⁵⁶ Keys or other machines that sent and received signals acted like sensory organs; wires provided the nervous system. The line's ability to serve as a "brain" excites Clifford.

The passenger assumes that Clifford has referred to the literal telegraph, and "glancing his eye toward its wire, alongside the rail track," the man replies: "It is an excellent thing; that is of course, if the speculators in cotton

and politics don't get possession of it. A great thing indeed, Sir; particularly as regards the detection of bank-robbers and murders!"⁵⁷ The passenger has an equivocal reaction to the presence of the telegraph line. Brokers will likely use the lines to manipulate the cotton markets, yet in the hands of law enforcement, the line can help to maintain social order.

The possibility that he might be tracked by law enforcement unsettles Clifford. "An almost spiritual medium" like the telegraph, Clifford laments, should be "consecrated to high, deep, joyful, and holy missions. Lovers, day by day—hour by hour, if so often moved to do it—might send their heart throbs from Maine to Florida."⁵⁸ Rather than hunt criminals, the lines should throb with affect.

Hawthorne's scene embodies the conflicting readings of the telegraph line as an emotional conduit and an industrial tool. Emerson said that machines in the landscape can be divine, but they "are not yet consecrated in their reading."⁵⁹ Clifford echoes this call when he says that the "great nerve" should be "consecrated to high, deep, joyful, and holy missions."⁶⁰ Clifford believes that electricity will change the material world until it is "no longer the substance which we deemed it."⁶¹ This is a kind of naive social determinism: If the telegraph is only used for "holy missions," then the telegraph line can be considered as divine as the electricity it carries. The fellow passenger, and Hawthorne, knew that the telegraph was used for practical, and sometimes devious, purposes. Spiritual feelings may be like electricity, but "consecrating" the telegraph as a spiritual medium ignores the crony capitalism and rampant industrialization that facilitated the development of wire networks.

Published the same year, Herman Melville's *Moby-Dick* (1851) also employs a metaphorical telegraph wire to represent the uncertain transmission of emotions as well as the occupation (and exploitation) of the landscape. First, Ishmael references a telegraph wire in his distinction between "Fast-Fish" and "Loose-Fish": "Alive or dead a fish is technically fast, when it is connected with an occupied ship or boat, by any medium at all controllable by the occupant or occupants,—a mast, an oar, a nine inch cable, a telegraph wire, or a strand of cobweb, it is all the same." Any object that extends from an occupied ship to a fish can suffice to make that

fish “fast.” Using a cobweb or a telegraph wire to hunt a whale is unrealistic, but the passage offers another example of Melville’s engagement with contemporary symbols and events. The telegraph wire here symbolizes connection across nations (or ships), control of prey, and mark of ownership. This line-as-stake relates to the overall didactic function of the chapter, which concludes with Ishmael asking: “What was America in 1492 but a Loose-Fish, in which Columbus struck the Spanish standard by way of waiving it for his royal master and mistress? . . . What at last will Mexico be to the United States?”⁶²

Ishmael views the Fast-Loose dialectic governing language, politics, religion, and even “the great globe itself.” Nations attempt to occupy and control other countries, writers attempt to fasten thoughts to words and sentences, politicians attempt to lasso support for their agendas, and the titans of industry attempt to harness the “loose” landscape. But these things (nations, voters, readers, landscapes) are Fast-Fish *and* Loose-Fish, too, because even if they are staked by certain attitudes, ideologies, or “lines,” the hunters of the world (be they armies, ideas, or institutions) will continue their assault. Anything might be fastened, or refastened. Melville’s inclusion of a telegraph line in this extended metaphor suggests that in the first five years of its development the line already evoked tensions between colonialism, industrialization, and any loose parts of the planet.

The second telegraph wire in *Moby-Dick* evokes the lines’ power to metaphorically transmit affect. When Ishmael’s crew harpoons a whale, the animal dives deep below the surface. The men wait in the boat until Starbuck cries, “Stand by, men; he stirs!” They sit bobbing in the boat, waiting until “the three lines suddenly vibrated in the water, distinctly conducting upwards to them, as by magnetic wires, the life and death throbs of the whale, so that every oarsman felt them in his seat.”⁶³ The slight jerks and vibrations conduct intelligible messages, or “throbs,” across the wire between animal and man.

With telegraph networks still in their infancy, Hawthorne and Melville were able to read between the lines, so to speak. They each critiqued the dominant views of this new advancement in communication. They accepted that telegraph lines may transmit throbs between bodies and across the

globe, but the lines also wrapped anyone seeking independence or autonomy into an expansive and uncertain web.

Line as Harp

In the summer of 1845, as the first slivers of telegraph wire began to reach up and down the Eastern Seaboard from Washington DC, the twenty-seven-year-old Henry David Thoreau built himself a one-room cabin next to Walden Pond with the intention “to live deliberately, to front only the essential facts of life.” The experiment concluded almost two years later, in 1847, and serious revisions of the journal he kept while living at the cabin began in 1851, the same year that telegraph lines reached Concord. In Thoreau’s famous rebuke of the telegraph, he declared, “We are in great haste to construct a magnetic telegraph from Maine to Texas; but Maine and Texas, it may be, have nothing important to communicate.”⁶⁴ Between 1846, when the United States went to war with Mexico, and 1854, when the Nebraska-Kansas Act declared that the new territories could decide whether or not to allow slavery, the farthest parts of the nation did, in fact, have important things to communicate. Most Americans agreed that telegraph lines from north to south and east to west kept open useful, even necessary, lines of commerce and communication. Thoreau, meanwhile, worried that “construct[ing] a magnetic telegraph [line]” and using it to “talk fast, and not to talk sensibly,” would clutter minds with useless news and eventually reap harsh consequences.

Thoreau’s negative views of telegraphy match the sentiments of Hawthorne and Melville. Thoreau’s critiques support the popular construct of him as a romantic, hermetic Luddite who prophesied modern laments about social media—emoticons, twitter rants, and sensationalized Facebook posts seem like means of talking fast and not sensibly. However, a comparison of Thoreau’s journal entries and the final publication of *Walden* in 1854 prove that while Thoreau criticized the messages commonly sent over the telegraph wires, he embraced “telegraphing” the fleeting experiences of nature.

In *Walden* Thoreau recounts: “So many autumn, ay, and wintery days, spent outside the town, trying to hear what was in the wind, to hear

and carry it express! . . . At other times watching from the observatory of some cliff or tree, *to telegraph* any new arrival.”⁶⁵ Thoreau’s use of the verb *to telegraph* likely refers to an older form of communication—the semaphore, or “optical telegraph,” an example of which Thoreau saw in 1851 on the coastline outside Boston and wrote about in his journal.⁶⁶ Even after the introduction of the electromagnetic telegraph, American ports like the ones near Boston still used semaphore telegraphs to signal to ships at sea. The semaphore also seems to inform Thoreau’s advice to “be your own telegraph, unweariedly sweeping the horizon, speaking all passing vessels bound coastwise.”⁶⁷ The telegraph sweeps outward like a lighthouse beacon; its messages are not directed *to* anyone (or anything) in particular. For Thoreau to “telegraph” is to send a message into the surrounding environment like a lightning bolt through an electrostatic field. This self-owned and self-operated telegraph is representative of his overall philosophy: true freedom requires control of oneself, one’s labor, and one’s modes and purposes of communication.

References to telegraphy and telegraphing in *Walden* pale in comparison with the repeated, unbound amazement Thoreau expressed for the mystical “telegraph harp.” His first reference to the telegraph harp appears in *A Week on the Concord and Merrimack Rivers* (1848), which was drafted in earnest during his stay at Walden Pond and which recounts an 1839 canoe trip with his brother, John. In a moment of apparent anachronism, Thoreau says as he and John walked near the railroad in Plaistow, New Hampshire, they heard “a faint music in the air like an Aeolian harp, which I immediately expected to proceed from the chord of the telegraph vibrating in the just-awakening morning wind.” In what would become a regular habit, Thoreau says he pressed his ear to the wooden post and heard a celestial message, “sent not by men but by gods.” Thoreau related the humming sound to “the first seashell heard on the seashore,” and he found meaning in this archetypal white noise: “It told of things worthy to hear, and worthy of the electric fluid to carry the news of, not of the price of cotton or flour, but it hinted at the price of the world itself and of things which are priceless, of absolute truth and beauty.”⁶⁸ Of course, Thoreau did not likely hear the electromagnetic telegraph during his trip with his brother in 1839, but

later journal entries prove he repeatedly stood next to telegraph poles and waited for the transcendent tunes.

Between 1851 and 1861 Thoreau made over thirty references to the telegraph harp in his journal. His first report questions the new technology's effectiveness: "In a day or two the first message will be conveyed or transmitted over the magnetic telegraph through this town, as a thought traverses space, and no citizen of the town shall be aware of it. The atmosphere is full of telegraphs equally unobserved. We are not confined to Morse's or House's or [Alexander] Bain's line."⁶⁹ Like the other technologies he criticizes in *Walden*, telegraphy seems to limit the individual's search for higher, nobler messages. The next day Thoreau went to inspect the line himself. The line was strung on stripped wooden poles next to the train tracks near a ravine named the Deep Cut. He describes the first surprising encounter in his journal: "As I went under the new telegraph wire, I heard it vibrating like a harp high over head. It was as the sound of a far-off glorious life, a supernal life, which came down to us, and vibrated the lattice-work of this life of ours."⁷⁰

Other Americans also imagined telegraph lines as the strings of a mystical instrument. In 1846 S. M. Partridge described telegraph wires as "strings on the fiddle of Animal Magnetism; and not till they are stretched from pole to pole can a perfect tune be expected; then will it raise its immense fiddle-bow wide as the heavens, and strike a harmonious movement that shall rock all the earth into a slumber."⁷¹ Similarly, in the short story "An Evening with the Telegraph Wires," the protagonist climbs a tree, touches a telegraph wire, and discovers that he can listen to messages being sent through the lines and feel the sender's emotions. The discovery sends the narrator into a series of ecstatic reveries, including the "gigantic fancy" that "this State of New York is a great guitar; yonder, at Albany, are the legislative pegs and screws; down there in Manhattan Island is the great sounding-board; these iron wires are the strings!" Contact with this guitar reveals the "invisible wires that connect one heart with another."⁷²

The metaphorical fiddle or guitar may have played sweet chords, but the real telegraph harp often made experimental noise. William Bender Wilson recalled that the telegraph wires in rural Pennsylvania made "musical, weird, fantastic sounds" that startled locals: "The public mind having something

of a superstitious bend . . . would walk a very considerable distance out of their way . . . to avoid passing under or near it.”⁷³ An 1847 report from Newcastle, England, said the wind over wires produced a “beautiful tone . . . resembling that of a Aeolian harp,”⁷⁴ but more often the wires emitted a high-pitched, eerie whistle. Thoreau found that sound intoxicating. He described it as “a beautiful paucity of communication” and “the finest strain that a human ear can hear.” The whispering signals were a “triumphant though transient exhibition of truth.”⁷⁵

Thoreau took detailed notes about “this magic medium of communication for mankind!” as if he were preparing a field study. He noticed that the harp responded differently to heat and cold. He placed his ear near the wooden posts, “where the vibration is apparently more rapid.” He also observed that the telegraph harp “does not require a strong wind to wake its strings; it depends more on its direction and the tension of the wire.”⁷⁶ Thoreau spent the fall of 1851 making his inspection and trying to attune his mind and body to the music. The next spring the harp helped to inspire one of the most climactic passages in American literature.

On March 9, 1852, Thoreau writes in his journal about his daily walk through the Deep Cut, a land owned by the Fitchburg Railroad. The Deep Cut appears often in Thoreau’s journals and in *Walden*, serving as a kind of dividing line between the wilderness of Walden Pond and the civilization of Concord. On March 9 Thoreau begins his journal entry by describing the thawing soil on the banks of the railroad, which is “perhaps our pleasantest and wildest road.” From the rails below and banks on either side, Thoreau’s scope rises to include the telegraph harp above: “When I hear the telegraph harp, I think I must read the Greek poets. This sound is like a brighter color, red, or blue, or green, where all was dull white or black. It prophesies finer senses, a finer life, a golden age. It is the poetry of the railroad, the heroic and poetic thoughts which the Irish laborers had at their toil now got expression,—that which has made the world mad so long. Or is it the gods expressing their delight at this invention?” The telegraph harp sings “the poetry of the railroad” and thus might be the aspect of industrialization viewed most favorably by the gods. The sounds made by the telegraph harp eventually turn Thoreau’s attention back to the eroding

soil: “The flowing sand bursts out through the snow and overflows it where no sand was to be seen. I see whether the banks have deposited great heaps, many cartloads, of clayey sand, as if they had relieved themselves of their winter’s indigestions.”⁷⁷ The description of the harps’ song is enmeshed with the description of thawing banks. This journal entry informed a crucial moment in *Walden*.

In Thoreau’s journal the sounds of the telegraph harp speak of “a finer life, a golden age.” In the climatic chapter “Spring,” Thoreau observes pulpy streams of sand and mud oozing from the Deep Cut. The image, for Thoreau, is “the realization of a Golden Age.” The journal’s lines about the eroding bank match those of the *Walden* passage, but Thoreau’s book embellishes with a series of archetypal associations. The banks are lava-like and ooze “pulpy sprays” and the “lacinated lobed and imbricated thalluses” of lichens. Thoreau sees “coral, or leopards’ paws or birds’ feet, of brains or lungs or bowels, and excrements of all kinds.” The sandy rivulets that pour through the banks overlap and interlace, and Thoreau’s description seems to verge on hallucination when he notices that “this sandy overflow is something such a foliaceous mass as the vitals of the animal body.”⁷⁸ *Walden*’s description of the thawing banks is crucial to the philosophical transformation that is “Spring”; however, the sounds of the telegraph harp accompanied the original experience upon which this pivotal passage was derived.

We can imagine Thoreau standing beneath the wire, turning his head toward the sky, closing his eyes, and dissolving like Emerson’s eyeball. When the sound faded away, he might have opened his eyes and felt as if the powers around him were in balance. Thoreau, famous for his diatribes against technology and government, stood aside, awed and humbled by this strange and unintended effect of the nation’s newest infrastructure. While *Walden* should still be read and taught as a sobering reminder of our perpetual attraction to the latest technological wonder, it is telling that Thoreau hoped we might attune ourselves to one particular part of our new technological landscape, the telegraph line, so that we might hear its organic, electric, and uplifting messages across time and space.

Wired Frontiers

During the Civil War and subsequent era of Reconstruction, as the first lines were erected in California and then the transcontinental telegraph connected the East (via Omaha) to the West (via Carson City, Nevada, and Sacramento, California), widespread telegraphic infrastructure developed into a critical, necessary network. With this increased dependency came more widespread skepticism and anxieties, especially in the West, where lines could be wielded as an instrument of colonization and, conversely, sabotaged or severed.

Some midcentury onlookers believed North America, a frontier of “wild beasts, and still wilder Indians,” had suddenly been transformed and seemingly replaced by “frail wires” and other machines; however, the peoples already living in the Western Territories that eventually became Nebraska, Colorado, Wyoming, Utah, Nevada, and California initially engaged with the telegraph in ways similar to their Anglo counterparts. In other words, Native Americans reacted to wires with initial disbelief and wonder, followed by a basic understanding of the technology’s advantages and fear of its broader implications. In the East the lines aroused suspicions about deceitful messages and shady finance; in the West the presence (or absence) of the lines had sharper, sometimes violent repercussions.

The builders of the first lines to cross the western United States took various approaches when introducing this new technology. James Gamble used relatively progressive methods. In 1852 Gamble was superintendent for the first major line through California, which was strung between San Francisco and Marysville via San Jose, Stockton, and Sacramento. According to Gamble, as the teams erected poles and nailed the crossarms, a “certain devout Mexican woman” believed they were crosses used to ward off evil. She exclaimed, “I believe those Americans are becoming good Catholics!” When the line was complete, Gamble gathered the locals into his telegraph office. He showed them a letter he had written and then made it “disappear” into the wires. His display was meant to suggest the basic premise of telegraphy, but it also led the people to believe the letter had traveled along, or through, the wire. Overall Gamble’s practical joke seems to have been relatively harmless, and he nurtured amicable relationships with locals across the West.⁷⁹

In another instance, in 1860, Gamble's partner, James Street, met the chief of the Nevada Shoshones, Sho-kup, and explained the project they were undertaking. Sho-kup called the telegraph, "We-ente-mo-ke-te-bope," or "wire rope express," and Street offered to let Sho-kup use it to send messages. Sho-kup declined the offer, but the respectful exchange provided a foundation for the friendly relations between telegraph workers and Shoshones during the construction of the transcontinental line. In 1861, as the line was nearing completion, Gamble hired a number of Native Americans both to care for the crew's livestock and to gather poles, a scarce commodity in the desert regions of Nevada and Utah. Gamble said the men were efficient workers, and he hoped "that they might report to the different tribes how well they were treated, and in this way favorably influence the Indians toward the members of the party and the telegraph line."⁸⁰ In Gamble's hands the telegraph line was mysterious but not malicious.

Conversely, Edward Creighton and his team, including Charles Brown, introduced the telegraph to the Sioux of Nebraska and Wyoming via shocks. As Brown recalls in his diary in August 1861, Creighton visited a group of Sioux near Fort Laramie and had an operator, W. B. Hibbard, bring along a battery and wire. Through a translator Creighton explained that it would be dangerous to interfere with the line's construction. To demonstrate, he had some of those present join hands and then had Hibbard release a shock. According to Brown, they looked upon Creighton as a "big medicine man."⁸¹ In a separate, unverified incident, Creighton asked one chief to visit a station in Scottsbluff and another, possibly an Arapaho chief, to go to a station in Chimney Rock. Through interpreters the chiefs were asked to send messages to one another and then to meet at a place halfway between to compare the veracity of what each had said over the wire.⁸² Captain Eugene Ware interpreted the meeting differently, saying: "No effort was made to explain it to the Indians upon any scientific principle, but it was given the appearance of a black and diabolical art. The Indians were given some electric shock; and every conceivable plan, to make them afraid of the wire . . . to make the Indian dread the wire."⁸³

Eventually, such tactics backfired. The lines that passed through Nebraska, Colorado, and Wyoming would be repeatedly attacked and broken during

various battles and raids in the 1860s. In 1865 one newspaper complained of the attacks by “large bands of marauding savages, who now know that they are inflicting injury by destroying the telegraph line . . . fully aware what a tender point it is.”⁸⁴ It is impossible to know for sure how the different methods used to acquaint different tribes with overhead infrastructure influenced their subsequent reactions. However, it is telling that through vandalism and guerrilla warfare, Native Americans provided the first widespread resistance to overhead wires.