The mid-nineteenth century was a time of enormous geographical change in the extent, shape, and prospects of the United States of America. Part of this alteration was overt and abrupt: the firm, formal acquisition of a long Pacific frontage upon the division of Oregon and acquisition of California. Other changes were more of a transition, less obvious and more incremental but no less decisive: the emergence of the railroad as a space-conquering instrument of revolutionary possibilities.

It did not take much imagination to discern a strategic interdependence in these two developments; only a radically efficient system of communication and transportation could ensure the integrity of a truly transcontinental republic, and the construction of such a system would demonstrate the remarkable power of the railroad and display to all the world the entrepreneurial energy and genius of the American nation and people. Yet the basic issue of where to build this essential facility was so momentous, so geographically contentious, that it defied resolution for many years. We therefore take a closer look than is usually accorded this topic to consider what was at stake, what alternatives were considered, and what was finally accomplished in this protracted and provocative struggle to fix the first firm transcontinental axis of the United States. Having completed this essential bond, we shall be ready to delineate the formation and character of the several American Wests of the time.
1. Forging the Iron Bond

CONCEPT

Quite suddenly, at midcentury, the United States assumed a new position and prominence on the world map. In less than the three years between 1846 and 1849 the bounds of the country had been so enlarged and reshaped that it now spanned the continent from sea to sea as "a magnificent parallelogram" three thousand miles across and half that in breadth, "equal to the whole temperate zone" of North America. With such a transformation "the great idea" so long dreamed of, "an inland communication" from the Atlantic to the Pacific, was "now ripe to be realized." It was worth pondering "what a wonderful circumstance in the history of the world" had made it so: "that there should be a nation whose domain is so extensive that she is able to lay down as she chooses, by law, a road across a continent, the whole distance under one flag, and one law."

As might be expected, Thomas Hart Benton, the redoubtable Missouri statesman who propounded these views, was quite ready to lay down by law just where and what sort of road this should be. It must be a "great national central highway," he said, linking San Francisco with St. Louis, from where it would connect with routes already opened or in process to form a direct line to the Atlantic and provide ready access to "all the States and cities of this Union." And it should be "a great public highway," open to the people and adapted to the different means of conveyance. "I propose," he said, to reserve a one-mile breadth of land "from the frontier of Missouri to the Pacific Ocean . . . for all sorts of roads—railway, plank, macadamized," as many tracks, independent of one another, as shall be necessary and practical, including a margin given over to "a plain old English road, such as we have been accustomed to all our lives—a road in which the farmer in his wagon or carriage, on horse or on foot, may travel without fear, and without tax—with none to run over him, or make him jump out of the way."

Senator Benton emphasized the "wonderful contingency" of the moment: the time was "ripe for action" because the whole country west from Missouri was "territorial" (and Congress need only "to conciliate the Indians—to get their consent"); the means "are ample" (indeed, the road "makes itself"—for it runs the entire way through public land and we simply take a per centum from the stimulated sales of that vast resource); "we have all the information that is necessary" (thanks to the "varied," "minute," and "accurate" investigations by John Frémont—Benton's son-in-law); and it is required and demanded of us, for obvious military, political, and commercial reasons—which he expounded in a grand rhetorical flourish.

Yet for all his vision and sense of urgency Benton was a voice more of the past than of the future. His emphasis on a set of parallel roads and of movement by
wagons and horseback (and sleighs in winter) and his openly expressed doubts about the feasibility of a railroad through the mountains exposed him as only partially attuned to the transformations of the times. For thirty years he had presumed to speak for the West and dilate upon its vast potentials (though he had never himself ventured there beyond Missouri), and he self-consciously carried an assumed commission from the revered Thomas Jefferson (whom he had met in Jefferson’s last months) to further the idea of a transcontinental trafficway. He therefore readily grasped the general significance of the acquisition of California, the inrush of people to the goldfields, and the imperative need to bind this Pacific Slope to the main body of the nation. Had he looked as intently eastward he might have discerned more clearly that the means for effecting those vital connections were becoming available at this same moment in history. For it had taken just twenty years to demonstrate what a radical, transforming instrument the steam-powered railway was. The building of several lines across the corrugated Appalachi ans, linking the Atlantic seaboard with the Ohio Valley or Lake Erie, confirmed the practicalities of such mountain engineering, the operation of these single-company linear systems displayed a new dimension of geographic management, and the scheduled daily services set new standards of speed and efficiency in the conquering of distance. Henceforth there need be no doubt that the continents, however broad, lay open to penetration; that all places, however isolated, might be connected; that all resources, however difficult of access, might be tapped by the spreading tentacles of the modern world system.

This intersection of profound changes in the shape and position of America and in transport technology was recognized, in some degree, by many different persons. Whereas in 1846 a House committee had dismissed Asa Whitney’s intensely promoted scheme for a railway from Lake Michigan to Puget Sound as “a project too gigantic, and, at least from the present, entirely impracticable” (although some congressmen and many interested state legislatures expressed support for it), by 1852 relatively few questioned either the necessity or the practicality of such a national project, a railroad to the Pacific was the main theme of commercial conventions, orations, pamphlets, newspapers, and national periodicals, and Pacific railroad bills became a staple of every session of Congress. From this time on the basic questions were not could and should we build a transcontinental band of iron but how and where to do so. Historians have examined at length the tangle of political and financial interests involved and exposed some of the reasons why it took twenty years from general recognition of the need to the actual completion of the task. We shall focus attention on the deeply divisive issue of where such a connection or connections should be built, and why it took thirteen years and a drastic alteration of geopolitical circumstances to come to a decision.
OBJECTIVES

We may begin by noting the objectives, the declared purposes and benefits, of such a line. As a national project requiring broad public support, a varied mixture of these, ranging from the directly practical to soaring visions of national destiny, were expounded in every forum. Because the decision lay with the central government, we may conveniently confine our review mostly to those expressed in Congress (whose members certainly varied from the practical to the extravagant visionary).

The most obvious and simple objective was to create a national trunk line. Such a link was the essential “chain of union” ensuring “the integrity” of the whole. Inevitably, the famous imperial precedent was called into support: “we know that the Romans—from whom we borrow so many of our ideas, useful or grand—never considered a conquered territory added to the republic or empire until it was perforated by a road.” To defend the Pacific Coast was an obvious primary task of empire (concern over British attack was commonly cited), and a railway would also greatly enhance the efficiency and reduce the costs of supplying the many intermediate posts already established along the way to protect emigrants and “keep in check the dangerous Indians.” But the purpose here, as in the Roman case, was not only military but (in Edward Gibbon’s cited words) to unite “the subjects of the most distant provinces by an easy and familiar intercourse.” An American nation grounded upon popular government had an even more compelling need of such interaction. Not only was such a trunk line “necessary to the unity and promptitude of government, representation, administration, and defense,” as the web of railways spread outward from this “great base line of connection. . . . the laws of contact and association . . . will bind society together in all its parts” until it becomes “coextensive with the boundaries which embrace the American family.”

At least as much rhetoric was devoted to the role of the Pacific railroad as a developmental line. All advocates stressed its transforming power: “the western wilderness . . . will start into life under its touch.” Whereas the “law of nature” kept population and the commercial economy bound to the riverbanks, “the railroad operates as the river did in olden time. . . . The railroad is the river produced by modern science. We can carry these streams over mountains and across valleys, and they will be followed by towns and cities along the plains. From this great stream rivulets will flow, so that . . . American civilization will spring up, and the land teem with life.” “The geographical center of the Republic is almost unoccupied and uncultivated for want of the road we now seek,” said Senator William M. Gwin, presenting a Pacific railroad bill for debate in 1854. Up to that time some saw a need first to establish a series of soldier-colonies along the main route (Senator Stephen A. Douglas’s bill would provide special land grants
for such) so as to secure the means of forming an eventual "continuous line of settlements," but most speakers simply pointed to the experience of the Eastern states and referred to "the teeming millions who will follow the track of the railroad," confident that, as one put it, "what the Erie Canal has been to the State of New York, a Pacific railroad is destined to be to the whole country." In the final debate of 1862, a California senator offered the full developmental rationale:

The line of this great thoroughfare between two oceans, would offer the highest inducements, with every prospect of success in agricultural and mineral regions, now imperfectly developed. Soon, in fact, this almost blank in our geographical limits would be filled up by industrious producing classes, requiring all the appliances of civilized life. The effect in value upon such public land would be amazing, and the opening up of the arable surface and development of the precious and useful metals; the working of coal mines, establishment of machinery and workshops, would revolutionize the existing condition of "the plains," filling the waste places with occupation, and preparing the social and political condition of the country for a transition from Territories into sovereign States of the Union, linking by a great federative bond the whole political fabric from ocean to ocean.

And a Pacific railroad would be more than a national line. It was a decisive part of something far greater that was taking shape: the "last grand revolution in the commercial intercourse of the world"—"the consummation of the great idea which filled the mind of Columbus"—"the American road to India." Such a route was "destined to bear on its long lines that majestic procession of the commerce of the continents of Europe, America, and Asia." The rhetoric was extravagant, but dazzling visions of an intercontinental trafficway were connected, however tenuously, to some major discernible developments:

1. Communication, at a hitherto unimaginable speed, by telegraph, which was already transforming the means and expectations of commercial intelligence; most proposals for a rail included a telegraph line to the Pacific; the laying of a transatlantic cable, undertaken in 1857, was unsuccessful, but the attempt was quickly renewed and plans for a world-girdling network were under avid discussion;

2. More substantial was the emergence of the "Atlantic ferry": regular scheduled crossings by fast iron-hulled, screw-propelled steamships, a system that seemed readily adaptable to the Pacific to capture and expand the Asian trade; and

3. The rapid push toward consummation of another age-old commercial dream: a canal through the isthmus of Suez. In 1854 Ferdinand de Lesseps obtained a concession and formed his company, the next year he assembled an international commission of engineers and naval experts, and in April 1859 he turned the first spadeful of sand to begin excavation of this great ditch.
The Suez route was of course a direct rival of the American prospect, and there was fear that it would be augmented by a British "Asiatic railway from the Mediterranean, by the Persian Gulf and India, to the ports of China." Furthermore, warned Senator Gwin, British statesmen and engineers were "warmly advocating" a "scheme of a great continental railway from Halifax through British territory to the Pacific"; therefore, it was a contest "between London and New York, between Calcutta and San Francisco, between England and America, by land and by sea . . . [for] undisputed command of the commerce of the world." A keen sense of such rivalry (from the French as well as the British) was apparent through all these years of debate. A practical senator from Vermont might dismiss all this talk of overland Asian commerce as illusory, for "nothing but opium or silks" could pay the freight, but a sense of urgent need to secure for the United States a central position within a system that was "to produce a radical and permanent change" in the routes of world commerce remained a driving force.

Finally, a transcontinental railroad would be a national symbol of American character. Such a vast and challenging undertaking was "necessary to the highest destiny of the nation," it would "elevate our national pride, stimulate our national energies and consolidate our national character," and it would put the nation's virtues on munificent display to all the world. As an early senatorial endorsement phrased it, this "short route to the riches and marvels of the Indies" would soon be thronged with travelers, and

this crowd must pass through the heart of our country, witness its improvements, the increase of our population, the activity, the genius, and the happiness of our people, and contemplate the wisdom and the advantage of those free institutions which have produced such glorious effects. It would certainly not be unreasonable to suppose that this intercourse would have an extensive influence upon the opinion and feelings of the civilized world in favor of free institutions.

The rehearsal year after year of this compelling set of incentives underscored the great paradox: a project of such national importance widely endorsed by public sentiment was repeatedly thwarted by the inability of the Congress to act. Although members were eager to respond to such public interest, support was dispersed among a host of competing routes, and Congress was paralyzed by that lack of focus and the enormity of such a fundamental geographic decision.

THE PROBLEM OF ROUTE SELECTION

In the restless search for a formula that would break the deadlock, four desired qualities permeate the discussions: the route must be practicable, economical, national, and equitable. A major early effort to find a way toward a decision focused on the first two. The act of 1853 authorizing explorations and surveys directed the
secretary of War "to ascertain the most practicable and economical route ... from the Mississippi River to the Pacific Ocean." The professed hope was that scientists and engineers could assess several alternative routes for their feasibility (grade and curvature, availability of water and timber, winter snows, and so on), calculate the costs of each route (distance, excavation and grading, bridging and tunneling, well-drilling), and present the Congress with a route of decisive attractiveness. As William Goetzmann has observed, "It was ... characteristic of federal policy in the trans-Mississippi West when issues of public importance arose to seek recourse in the disinterested judgment of science. In a sense, this was a way of letting nature itself decide, not only because it placed the decision beyond the control of mere mortals but also because the decision seemed to depend on the overarching justice of the natural law. Upon such a premise was based the whole idea of the Pacific railroad surveys."

But that premise was inevitably compromised from the outset. Someone had to nominate the general routes to be investigated, select the leaders and members of the survey parties, and assess the results for presentation to Congress. There was no way of ignoring already vigorously competing interests or of erasing the experiences and biases of those assigned to the task. The Army Topographical Corps and the more than one hundred scientists who participated were for the most part a conscientious force, and they produced an immense amount of information in a short time—"an encyclopedia of western experience"—but they were not devoid of special interests and rivalries; and, indeed, the set of thirteen massive volumes includes some surveys sponsored by private promoters (such as some of Frémont's work), and several of the officers had invested in potential terminal sites.

In simple terms five "transcontinental" routes (the term is not literal in American railway usage but refers to companies and trunk lines extending from the dense web in the eastern half of the nation to the Pacific Coast) were examined, each designated by a particular parallel or parallels of latitude, and each implicitly related to interests focused on a particular city or cities or harbors at either end. On the Pacific Slope several longitudinal routes connecting the major terminals were also examined (fig. 1). We need not review in detail each route. Suffice it to note that four of the five were declared to be entirely practicable by their investigators (and each of these routes would eventually have one or more trunk-line railroads). Each had difficulties to surmount, chiefly the double mountain barrier of the Rockies and the Sierra Nevada—Cascades (or lesser extensions from these) and climatic conditions: the scarcity of water and timber on portions of the southern routes and (more controversial) the probability of deep snows on the northern routes. Only the Thirty-eighth parallel prospect (which had been included largely because of Senator Benton's intense lobbying) was dismissed as impracticable, no suitable pass being found through the complicated mass of the Southern Rockies.
The effort expended on study of these several routes varied greatly, with the least devoted to the most central—the Forty-first parallel—in part because long portions of it were already familiar from previous surveys of the emigrant trails to Oregon, Utah, and California, though in fact the best prospective route for a railroad across the Continental Divide in this sector was not closely examined.

As for "most economical," the figures produced by the leaders of the several surveys were highly uneven in totals and reliability, based as they were on hasty and sporadic engineering investigations, surmises derived from earlier reconnaissances, estimates about little-known conditions (such as geology, weather, and prospects for water), and the predilections of the investigators. Those ultimately in charge, Captain A. A. Humphreys and Jefferson Davis, secretary of War, grossly adjusted some of these figures (most notably increasing the estimate for the northernmost route from $117 million to $141 million and decreasing the Thirty-fifth parallel route from $169 million to $95 million), thereby leaving the whole topic open to severe challenge. Furthermore, cost tended to recede in significance. The nation was not in debt (indeed, said Senator Gwin, the annual accumulations of "an overflowing Treasury... are a source of embarrassment, reversing the experience of all other nations"), nor, it soon became clear, was it going to finance directly the building of such a road but only underwrite bonds and offer land grants from the public domain of the territories. And, after all, for such a facility most would agree that it was important to select the best route, not necessarily the cheapest one.

Such a combination of special and inherent difficulties and complications doomed this strenuous sprawling search for "nature's decision" to failure. As Goetzmann concluded:

In the end, the effect of the Pacific railroad surveys proved to be almost exactly opposite of their intended purpose as expressed by Congress. They did not furnish a conclusive report on "the most practicable and economical route..." Instead, confusion was deepened and competition intensified by the most obvious results of the reconnaissance, which indicated first not one but several extremely practicable routes existed, and second that because of this the far-western country was possibly more valuable than anyone had previously imagined.

Thus when Jefferson Davis declared to Congress in early 1855 that a comparison "conclusively shows that the route of the 32d parallel is, of those surveyed, 'the most practicable and economical route'" because it was not only the shortest and cheapest (by a third) but could be completed much more quickly and would enjoy much less interruption of service once built, he was immediately accused of overweening sectional bias, and he succeeded only in turning the issue back to a contest completely focused on its national and equitable features.
In an early comprehensive report on transcontinental railroad proposals, De Bow's Review asserted that "a work so stupendous must be the common work of America, and for this it ought, as nearly as possible, to be central." Senator Benton had already propounded that axiom in support of his own St. Louis–San Francisco design: "a central road is the most national in its character, because it accommodates the greatest number, and because it admits of branches to the right and to the left with the greatest ease and convenience." Throughout these debates this simplest of designs—"one grand trunk central railroad" (as an 1855 amendment referred to it)—was repeatedly put forth as a logical and powerful proposition for such a national project.

Once California was acquired there was never great argument about the best Pacific terminus (although Southerners kept a fond eye on San Diego, and Puget Sound had its advocates) because "the bay of San Francisco, the finest in the world, is . . . central, and without a rival," and San Francisco would be "the Pacific seat of trade," a great "entrepôt" and the "équipoise" to New York, the great Atlantic emporium. At the outset St. Louis might call on the same kind of geographic logic. Since the days of Lewis and Clark it had been the unrivaled gateway to the West, and well-worn trails now led to Santa Fe, Utah, California, and Oregon. Pivotal to all the great waterways of Transappalachia, it would naturally become a prime objective of railroads in this rapidly developing interior. But any such claim was immediately challenged on other grounds. A resolution adopted by a Memphis convention, meeting just a week after a big one in St. Louis, pointed to the "special advantages" for "a national railroad" of "the route commencing at San Diego," thence via the Gila River, Paso del Norte, and "terminating at some point on the Mississippi between the mouth of the Ohio river and the mouth of the Red river" (the vagueness about an eastern terminus represented a compromise between Upper South and Lower South—Memphis versus Vicksburg—interests). By 1852 the claim for sectional equity had become overt: a Senate committee (chaired by Solon Borland of Arkansas) called for a national trunk line with two branches, one to St. Louis and one to Memphis, so as to "equalize the commercial interests of the States on the [Atlantic] seaboard, and, by these branches intersecting the Mississippi, upper and lower, those of all the western States by means of this noble river."

From this time on there was an intense contention between Northern and Southern interests; amendments to specify Memphis, or "not north of Memphis," were countered by those specifying St. Louis, or not south of St. Louis. A Kentuckian's proposal to designate the mouth of the Ohio (Cairo) as the eastern terminus got nowhere, but it openly declared the kind of centrality at issue: "[that point] may be said to be the mouth of all the rivers between the Alleghany and Rocky mountains, . . . [it] is half way from the head to the mouth of the Mississippi, and it is the point on that mighty river where the non-slaveholding and the
slaveholding States come together. Thus, sir, it is not only geographically, but politically, 
central."

By this time, however, developments in the North had further complicated the issue. By 1855 several railroads fanning out of Chicago had reached the Mississippi and extensions across Iowa were under way. Northern interests favoring a trans-Iowa—Platte Valley route thereby emerged as vigorous challengers of St. Louis. Because of a general assumption that Congress could offer land grants only within federal territories (not within states), this issue was often defined in terms of a line commencing from the western boundary of Iowa versus one from the western boundary of Missouri. That differentiation, in turn, was quickly translated into the sectional rivalry between nonslaveholding states (Iowa) and slaveholding ones (Missouri). Because the designation of any point as an eastern terminus was so inflammatory, recourse was also taken in specifying a band of territory defined by latitudes. However, since “every town on the Mississippi, from St. Paul to the Gulf, is contending for the terminus,” any such designation inevitably produced amendments to broaden the eligible band. Thus an attempt in 1855 to fix a terminus between 39°N and 40°N (Kansas City to just above St. Joseph) was quickly amended to 37°N–43°N (Cairo–Sioux City) and redefined the next day into two branches diverging from the trunk toward Lake Superior on the north and Memphis on the south. An 1859 bill underwent similar successive attempts at mutation until it reached the (obviously intended) reductio ad absurdum of 49° to the mouth of the Mississippi.

This broadening of the eastern terminus issue demonstrated that the selection of a route or routes was not just a national and a sectional issue but one of regional equity as well. The first major Pacific railroad bill was obviously designed to meet all these requirements. Presented by California’s William Gwin, chairman of the Select Committee, it proposed a route from San Francisco southeastward in the Central Valley to Tejon Pass to pick up the general line of the Thirty-fifth parallel route eastward to Albuquerque, from whence the trunk line began to fan into half a dozen branches: to Matagorda Bay in Texas; to Fulton, Arkansas, with branches to Memphis, Vicksburg, and New Orleans; to St. Louis; to St. Joseph and Hannibal; to Dubuque via Council Bluffs. A long branch from the San Joaquin north to Oregon City and Puget Sound completed a vast “horseshoe” or “oxbow” system totaling 5,000 miles (fig. 2). Gwin was a Democrat well attuned to Southerners’ interests and their insistence on a southern trunk line (he would later serve as a Confederate agent in Europe), but the design was obviously the creation of a committee seeking to cater to every regional interest. A flurry of opposition sent it back to committee.

Impasse over the horseshoe design led to a different means to satisfy the same variety of interests (fig. 3). A new committee began with the idea of proposing two
2. The Gwin Plan.

trunk lines, a northern and a southern, but "concluded that unless we proposed
... three routes, and gave the chances to the different sections, no bill could
pass." The result was a bill authorizing land grants and other aids to facilitate the
construction of three transcontinental railroads:

1. A Northern Pacific, from some point on the western boundary of Wisconsin to a
   port in Oregon or Washington Territory;
2. A Central Pacific, from the western boundary of Missouri or Iowa to San
   Francisco Bay; and
3. A Southern Pacific, from the western boundary of Texas to a California port.

Although such a major change in geopolitical strategy generated its own brand of
resistance—"Why, sir, as if the difficulty were not enough in the execution of one
railroad, ... we are startled with the enormous proposition to make three"—the
Senate actually passed such a bill in 1855 and twice thereafter (1859, 1861), but
none were endorsed by the other house.

In the House of Representatives the focus was on either one central trunk line
with eastern branches or, at most, two trunk lines. Toward the latter 1850s the
increasing power of the North in Congress and in the nation led to greater insis-
tence on a single central route. As a senator defending such a proposal argued: "it is
more central as to the territory of the country; more central to population; more
central to the line of emigration; more central to the great business interests of the country." Even so, chronic geopolitical realities were also taken into account: "it is proposed that the line shall have two short branches: one from a slave State, and the other from a free State—one from a northern State, and the other from a southern State—Iowa and Missouri." However, by this time (1859–60) such a limited gesture only infuriated militant Southerners. Just as a similar bill in the Senate the year before had caused Alfred Iverson of Georgia to demand that "the South shall have an equal chance to secure a road within her borders, to insure her benefit whilst the Union lasts, to belong to her when, if ever, the Union is dissolved," so now a Texas congressman bitterly accused the House committee of designing a bill "for the sole purpose of giving supremacy to one section of the country to the detriment and injury of the other" and threatened secession. Recommitted, the bill reemerged as a proposal for two routes, northern and southern, each with eastern branches to serve contending regional interests; passed by the House (95–74) in December 1860, differences with the Senate's three-route bill remained unresolved before being overwhelmed by the secession crisis.

In the wake of secession and the onset of war geopolitical pressures for a Pacific railroad took on new urgency. The need to defend the national territory became more compelling (fears of British intervention in California were now heightened), and the need to "cement the two coasts of our country, and make the East and the West parts of a well-united nation, easily governed" was now starkly apparent. Even as we proceed to "crush out this rebellion . . . [and] have an