



MAPPING THE WEST

Isaac Stevens's 1853 Pacific Railroad Survey Expedition Across Northern Dakota

BY BRAD ALLEN

In the mid-nineteenth century, railroad fever had broken out across the country. By early 1853, new track was being added at a rate of almost two thousand miles per year, all east of the Mississippi River, to the approximately thirteen thousand miles of rail line then in operation.¹ The urgency felt both in the capital and across the country to take action—to bind the nation with an iron belt east to west even as sectional divisions were pulling it apart north from south—could not overcome parochial interests blocking the choice of a rail route across the trans-Mississippi West. So Congress instead funded a study, putting the question to the scientific minds of the US Army, thus launching the largest expeditionary force to that point across the continent “to ascertain the most practicable and economical route for a railroad from the Mississippi River to the Pacific Ocean.”² One of those expeditions, led by Isaac Stevens, first governor of the newly created Washington Territory, crossed present-day North Dakota in the summer of 1853. This is the story of where they went and what they saw.

A Rail Link to the Pacific

Commentators had been publicly suggesting the desirability of a railroad to the Pacific coast as early as 1832, but such an undertaking was considered beyond the realm of practicality.³ It was only through the efforts of wealthy New York merchant Asa Whitney that the public began to believe a rail link to the Pacific was not just desirable but possible. In 1841, at his own expense, Whitney began to research the feasibility of a route to the Pacific, presenting an official request to Congress in January 1845 that asked for a grant of public land in a sixty-mile wide corridor from Lake Michigan to Puget Sound to fund construction of a railroad.⁴

The scheme captured the public's imagination. Tales of adventure and bountiful lands available for settlement from those who had made the trek along the Emigrant Trail reinforced public enthusiasm for Whitney's Pacific terminus in the soon-to-be Oregon Territory, which became officially recognized in 1846. His persistence in repeatedly petitioning Congress coupled with

“Herd of Bison Near Lake Jessie” by artist John Mix Stanley. Stanley provided most of the landscape images from Stevens's expedition. Stevens's group encountered their first herd of buffalo in present-day Griggs County. *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 12, Plate X opposite p. 59



"St. Paul." Stevens's Pacific Railroad survey expedition set out from St. Paul on June 6, 1853. *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 12, Plate I opposite p. 35

his systematic analysis and detailed proposals made the idea of a rail route to the Pacific seem possible, and the suggested far northern route—running roughly parallel to the Upper Missouri and the Yellowstone River, across the continental divide, and down the Columbia River (bordering present-day Washington and Oregon) to Puget Sound—the most practical. Funding construction through the sale of public land, though controversial, was viewed by many as not just the most feasible but also the only constitutional path for federal government involvement in internal improvements. Whitney's scheme held one additional advantage—the availability of land as yet largely unsettled by whites along the entire route.

Between 1846 and 1850 Whitney's proposal earned favorable reports out of congressional committees. Legislation was put forward but never won enough support to be enacted. Time was not on his side. Competing interests had been energized; alternate routes were proposed favoring cities along the Mississippi from St. Louis, Missouri, to Vicksburg, Mississippi. Others tried to block any railroad west of the Mississippi River to protect shipping interests along the East Coast and in New Orleans. Within a few years, as settlement in Wisconsin encroached on his proposed route, Whitney was forced to move the eastern terminus from the edge of Lake Michigan to Prairie du Chien, Wisconsin, along the Mississippi River.⁵

A historian writing about the era described the push for a rail link to the Pacific as "the realization of the desire of almost four hundred years for a direct western passage to Asia."⁶ But by mid-century, more than trade with Asia was at stake.

In the brief space of less than four years, with the annexation of Texas (1845), the Oregon Treaty (1846), and the end of the war with Mexico (1848), more than one million square miles of new territory had been brought within the boundaries of the United States, expanding the nation's footprint by nearly 70 percent. For the first time since its founding, the country spanned the length and width of the continent from the Atlantic to the Pacific, from Puget Sound to San Diego.

With the discovery of gold in California—nine days before the Treaty of Guadalupe Hidalgo ended the war with Mexico and ceded California to the United States—the impetus for a rail link became even more urgent. Over the next four years an estimated two hundred thousand fortune seekers flooded the gold fields, increasing the non-Native American population more than tenfold. California had become the thirty-first state, joining the Oregon Territory in petitioning Congress for faster communication with the states back East. In addition, military and political leaders in Washington worried that without a railroad the national government would be hard pressed to defend California's lucrative gold fields and prosperous settlements against the ambitious and avaricious naval super-power, Great Britain.⁷

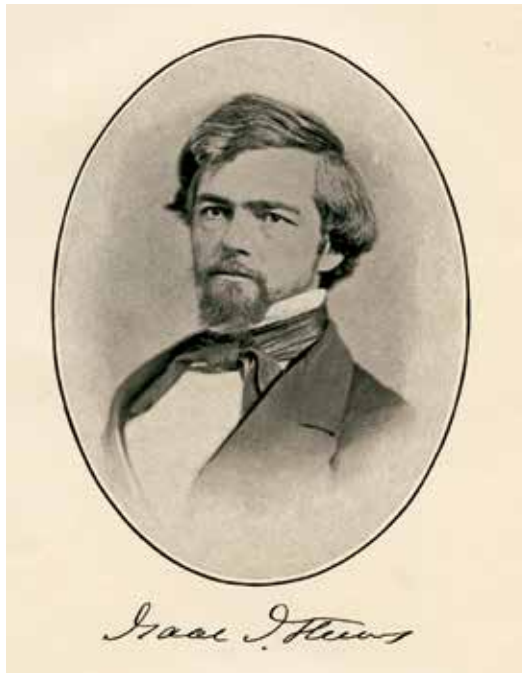
With support for a rail link to the Pacific splintered among sectional factions, legislation designating any particular route was doomed. The only question most congressional representatives agreed on was that much was still unknown about the vast region west of the Mississippi River. Army exploring parties had been going into the trans-Mississippi West since Lewis and Clark, sometimes to explore the

feasibility of wagon roads or railroads. But no systematic survey with an eye to building a railroad had ever been undertaken. Though trading corridors, emigrant trails, and trappers' pathways crisscrossed the wilderness, much was unknown about what lay between them, where mountain passes existed, and the source and course of rivers.⁸ In the waning days of the Thirty-second Congress, which had been obsessed with the railroad question, a compromise proposal was brought forward adding \$150,000 to the army appropriation bill and directing Secretary of War Jefferson Davis to oversee a survey of the main proposed routes, leaving the question of which route would actually win congressional support to the future. And so the Pacific Railroad survey came into being.⁹

The scope of the project was immense. Hundreds of men—expedition leaders hand-picked by Davis (who favored a far southern route), accompanied by soldiers, surveyors, artist/illustrators, civilian guides, and mule drivers as well as naturalists and scientists equipped by the Smithsonian—were recruited to explore three different east-to-west bands of latitude along the 47th to 49th, 38th to 39th, and 35th parallels from the Mississippi to the coast and north-south corridors from Puget Sound to San Diego. A fourth route across the 32nd parallel was launched after the Gadsden Purchase in 1854. The impatient Congress demanded an aggressive and unrealistic pace, commanding the expeditions to report their findings in eleven months—and it was expensive. Future Congresses would appropriate an additional \$190,000 to complete the surveys and a further \$1.2 million, almost four times the cost of the expeditions, to print the massive and detailed twelve-volume expedition reports.¹⁰

Isaac Stevens Takes Command

The trans-Mississippi West of the mid-nineteenth century was a stage on which personal ambition let loose and where wealth, fame, and glory were available, at least in imagination, to those willing to act. Isaac Ingalls Stevens (1818–62) was one such man. First in his class at West Point, a respected commander in the Army Corps of Engineers, and a distinguished veteran of the Mexican-American War, Stevens, in 1849, was named as assistant to the director of the US Coast Survey. The appointment in Washington City, as the nation's capital was referred to at the time, brought him into contact with influential politicians and scientists, awakening within the young major ambitions that extended beyond the army.¹¹



Isaac Ingalls Stevens (1818–62) at the age of 43. President Franklin Pierce appointed Stevens the first governor and Indian agent for Washington Territory as well as leader of the Pacific Railroad survey from St. Paul to Puget Sound. SHSND SA B0276-00001

During the presidential election of 1852, Stevens took a risky step for an active-duty army man when he campaigned for Democrat Franklin Pierce, who was running against Stevens's former commander and Whig presidential candidate Winfield Scott. Pierce's supporters "were ecstatic that a military man of Stevens' credentials would step forward," offering a partial counterbalance to Scott's prestige. Once Pierce was elected, Stevens resigned his commission and collected on his political debt, gaining appointments as the first governor and Indian agent of the newly created Washington Territory (1853–57) as well as leader of the Pacific Railroad survey between the 47th and 49th latitudes (essentially paralleling the Whitney plan), from St. Paul to Puget Sound. Governor Stevens would first set foot in the territory of his new office as the head of the survey party.¹²

Tasked with exploring paths suitable for a railroad along the northernmost route, Stevens faced three major obstacles presented by mountain geography: he needed to find a pass with acceptable grade across the continental divide through the Rockies, a path turning the route across the northern flank of the Bitterroot Mountains, and a winter pass through the Cascades where snow would not block the way. In addition to completing the railroad survey, Stevens was determined, as much as possible, to build on the legacy of the Lewis and Clark expedition's scientific contributions to natural history and ethnography and explore the breadth of the entire corridor between the 47th and 49th parallels.¹³

A meticulous and thorough planner, Stevens aggressively set about organizing and outfitting the expedition as soon as he received his appointment. His experience, contacts, and location in the capital gave him a head start over other expedition leaders, all active-duty army men. With the help and encouragement of Joseph Henry, head of the newly established Smithsonian Institution, and Henry's assistant Spencer F. Baird, Stevens recruited leading naturalists to fulfill his scientific ambitions for the expedition. He also convinced the well-known western landscape artist and illustrator John Mix Stanley to accompany the expedition. Using his contacts from previous service in the Army Corp of Engineers and US Coast Survey Stevens was able to secure available engineering talent as well as surveying and meteorological instruments, made scarce because of the Perry expedition to Japan and several Arctic expeditions also underway at the time. And he succeeded in "bluffing the army" into outfitting

his expedition with a scarce allocation of the army's newest Sharps rifle.¹⁴ According to one unnamed observer writing to newspapers back East, the flood of equipment and material sent up the Mississippi into St. Paul to equip the expedition in the spring of 1853 shut out the normal flow of goods to the city. The writer described Stevens admiringly as "a go-ahead man."¹⁵

To achieve his ambitious goals and meet the aggressive schedule set by Congress, Stevens broke his force into two main divisions—120 men under his command heading west from St. Paul, and a contingent of sixty men under the command of Captain George B. McClellan heading from Puget Sound east to explore passes and snow depths through the Cascades. As they proceeded, Stevens would divide the main westward traveling expedition into smaller parties to run parallel to the main force to explore as much territory as they could. He also sent a small force, under the command of Lieutenant Andrew Jackson Donelson, to travel from St. Louis up the Missouri River, exploring the upper reaches of the river and resupplying the expedition at the confluence of the Yellowstone and Missouri Rivers at Fort Union, along the present-day western border of North Dakota.¹⁶

The Expedition Begins

Stevens's Pacific Railroad survey expedition set out from St. Paul on June 6, 1853, two and a half weeks before any other. In his official report he provides near daily entries, ranging from evaluation of rail routes and agricultural potential to descriptions of the landscape, life on the trail, and people met along the way. The journals summarized and excerpted here, covering the segment across present-day North Dakota, present a picture of the northern Great Plains and its inhabitants at mid-century as they contemplated the coming of the railroad and large-scale white settlement.

Mules were the pack animal of choice for the army, but trained and broken-in mules were scarce. Before the expedition set out, the men had to break in their own mules, providing "a source of mirthful enjoyment" as well as bruises and one dislocated shoulder.¹⁷ It quickly became apparent that mules were ill-suited to the tall grass and mud of the prairie landscape, so as the expedition proceeded west, Stevens purchased Pembina carts and oxen. Recognizing the practical value of the all-wood wagons and ox teams, Stevens wrote: "They look as if made for only one trip, and the creaking of the wheels on their wooden axle does not give the idea of their standing much service . . . as they moved over the prairie the singular noise produced by their wheels assured us that with such an accompaniment no need existed for any musical instrument or player for these discoursed most sweetly."¹⁸

On June 23, after two and a half weeks of slogging through rain-swollen creeks and Minnesota mud, the party reached Pike Lake near present-day Farwell, Minnesota, fifty miles east of the Red River. On the borders of a region only loosely charted by previous explorers, Stevens wrote in his journal that he considered Pike Lake "the real starting point of the expedition."¹⁹

Here Stevens issued orders intended to maintain discipline and forward progress, establishing an aggressive schedule and reflecting the trepidation they all felt as they approached the Bois de Sioux tributary to the Red River, entering territory where they expected to encounter potentially hostile American Indians. As recorded in his journal:

Cook fires to be made up at two o'clock a.m.; the cooks and teamsters to be called at three, and the animals to be put in good grass; reveille to be sounded at four, and all the officers to be called by name; the whole camp to breakfast about four and the teamsters immediately to commence harnessing up, tents struck at half-past four, and camp in motion by five; the sentinels instructed to fire upon any prowling Indians.

In 1853 Congress funded expeditions to determine the most practical and economical railroad route from the Mississippi River to the Pacific Ocean.

Stevens ran afoul of his own strict rules when he failed to finish breakfast on time, and Lieutenant J. W. Moffett, "one of the most inflexible men in the party, rigidly interpreting orders . . . had the tents struck over our heads."²⁰

Because of wet, marshy conditions from St. Paul to Pike Lake, this first leg had taken longer than expected. As a result, Stevens placed the expedition on reduced rations, causing some grumbling as the men were told they would have to rely on foraging and hunting to supplement their larder until they reached Fort Union, where additional supplies would be awaiting them.²¹ Stevens was correct; the bounty of the northern Great Plains fed them well. Throughout the trek across present-day North Dakota, Stevens describes the party supplementing supplies through a harvest of wild strawberries, ducks, cranes, pike, pickerel, catfish, elk, and buffalo. For example, camped along the banks of the Bois de Sioux, he recorded, "Numerous large catfish were caught this afternoon, some weighing from 12 to 20 pounds." At 11:30 that night, they "sat down to a supper of ducks, catfish, and coffee, and all the men were in fine spirits."²²

The men encountered the usual burdens of life on the trail, including fierce thunderstorms, rain following them for days, wagons sinking to their axles in mud, and nearly undrinkable brackish water at many campsites. But one annoyance was ever present through the summer of 1853. In a journal entry made along the Sheyenne River, Stevens describes a



"Pike Lake." Stevens's survey party reached Pike Lake, located near present-day Farvell, Minnesota, on June 23, 1853. *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 12, Plate VI opposite p. 49

vexing reality of camp life: "The mosquitos are exceedingly annoying, flying against the sides of the tents with a noise like the pattering of rain, while the inside is perfectly black with them. Their constant humming drove the men out into the open air, and rendered it almost impossible to sleep."²³

Entering Buffalo Country

On June 28 the main party camped on the eastern bank of the Bois de Sioux along the southeastern border of present-day North Dakota. In his notes, Stevens reflected on the journey from St. Paul over the previous three weeks and expressed relief at reaching the river, which marked "the end of bad roads and the commencement of buffalo country."²⁴

Three days later, on July 1, they encountered their first of several parties of Métis, or mixed-blood, traders from the Red River valley along the Canadian border. These semi-nomadic farmer/hunters were "on their annual trip to St. Paul, with robes, skins, pemmican, and dried meat of the buffalo." Stevens's party purchased pemmican, "articles of dress worked with porcupine quills . . . and some carts and oxen, being deficient in transportation." The next day the expedition hurried across the Sheyenne River over a bridge left by the traders before rising waters from the previous night's storm flowed over the bridge, "saving us considerable trouble and delay."²⁵

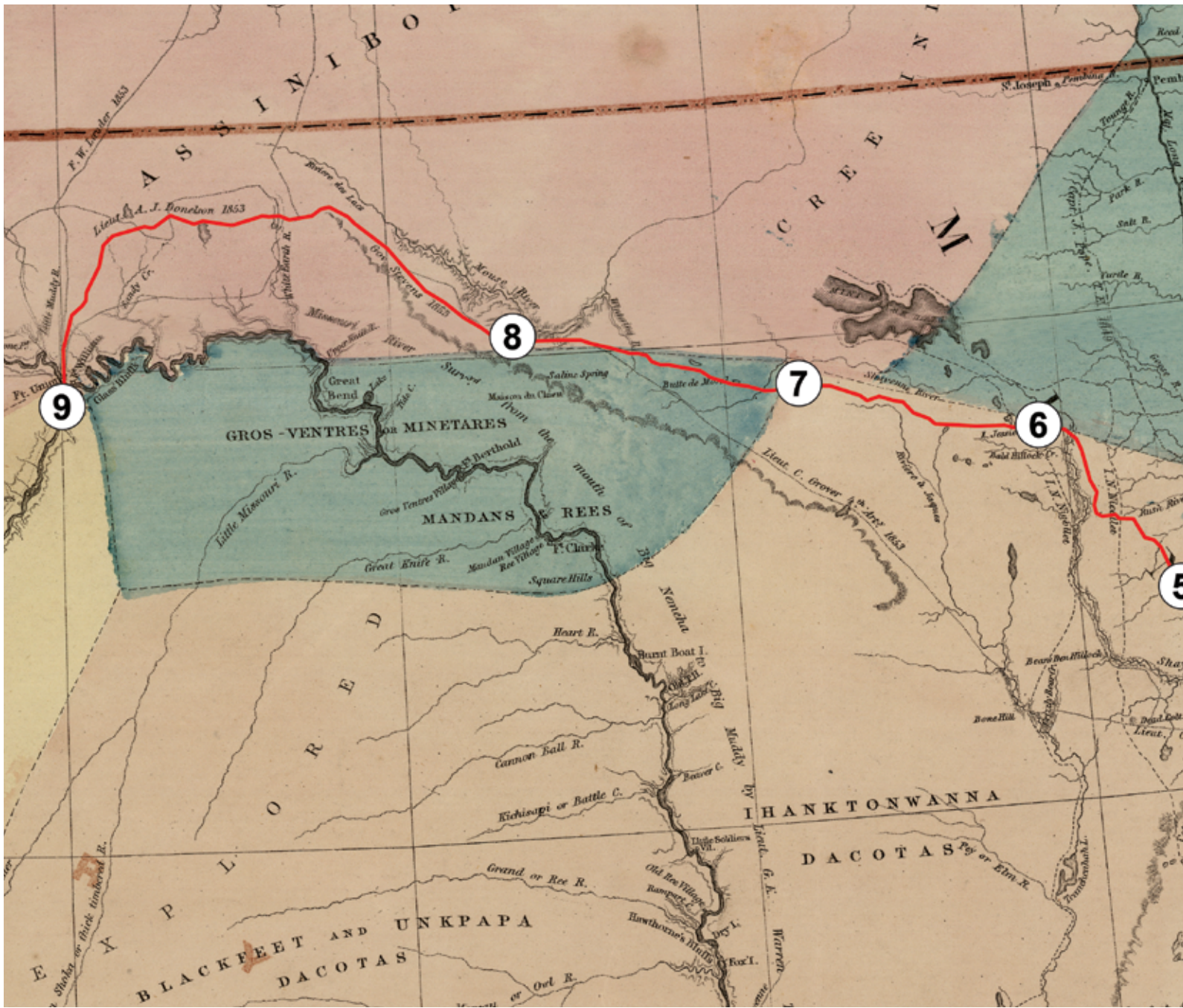
The route thus far Stevens gauged to be "exceedingly favorable for a railroad" and estimated construction to this point "will not cost over \$20,000 per mile." But crossing

the meandering and deep-banked Sheyenne River, which he described as "a great obstacle," Stevens estimated would cost an additional \$100,000.²⁶

On Sunday, July 3, a party of five men sent out to reconnoiter the Sheyenne returned with a tale that reveals both their heightened concerns about potentially hostile American Indians and their willingness to engage them aggressively, as well as Stevens's idea of humor. Spotting some unusual activity ahead, the party leader, a civilian engineer named F. W. Lander, mistook a skunk "moving leisurely through the grass with tail erect" for an Indian he was certain was "watching their movements." The men charged the target, "firing their revolvers, and the poor skunk fell riddled with balls and weltering in his blood." Recounting the incident to the rest of the party "afforded us a great deal of amusement," Stevens recorded. "Joking in camp is one of the pastimes to relieve the annoyances of the march."²⁷

The men celebrated the nation's birthday on the evening of July 4, encamped along the Maple River northwest of present-day Fargo. "About dusk we raised the American flag, made of white and red shirts contributed by the party and sewed together by Boulieau [one of the voyageurs]. As it went up the assembled command gave it three hearty cheers, and then indulged in some refreshments in honor of the day, ending the evening with songs and storytelling."²⁸

On July 8, while on a small reconnoitering party, Lander (leader of the skunk massacre) killed the first buffalo of the expedition, providing much needed fresh meat. Two



days later the party crossed the Sheyenne River again, in present-day Griggs County, and approached Lake Jessie (named after Jessie Benton Fremont, daughter of Missouri Senator Thomas Hart Benton and wife of explorer John C. Fremont). Here Stevens encountered his first buffalo herd. "About five miles from camp we ascended to the top of a high hill, and for a great distance ahead every square mile seemed to have a herd of buffalo upon it. Their number was variously estimated by members of the party—some as high as half a million. I do not think it is any exaggeration to set it down at 200,000." The John Mix Stanley lithograph of the scene included in the official report presents what one art historian has described as the best existing illustration

of a large, pre-railroad bison herd and leaves us with an iconic image of the northern Great Plains before large-scale settlement transformed the landscape forever.²⁹

Lost Party and Encounters with the Métis and Assiniboine

Continuing west, two days later on July 12, troubles began to beset the expedition. Stevens sent a small party, led by civilian surveyor A. W. Tinkham, to reconnoiter a forty-mile-wide band between the Sheyenne and Jacques (James) Rivers, with plans to rejoin the main party within a day. Stevens's main group advanced sixteen miles under a heavy downpour. "The rain fell in torrents; our supply of wood was limited and the buffalo chips were so wet as to be entirely useless."³⁰ Stevens also reopened an old hernia wound trying "to keep off a herd of buffalo from



1853 Isaac Stevens Party

1. June 6. The expedition left St. Paul.
2. June 23. The party reached Pike Lake, fifty miles east of the Red River near present-day Farwell, Minnesota. Stevens considered this the expedition's actual starting point.
3. June 28. The main party camped on the eastern bank of the Bois de Sioux River along the southeastern border of present-day North Dakota.
4. July 2. The expedition crossed the Sheyenne River over a bridge left by traders.
5. July 4. The men celebrated the nation's birthday while encamped northwest of present-day Fargo.
6. July 10. Stevens encountered his first buffalo herd near Lake Jessie in present-day Griggs County, estimating its number to be at two hundred thousand.
7. July 16. A group of thirteen hundred Métis Red River hunters camped near the expedition.
8. July 27. Along the Souris River northwest of present-day Minot, Stevens visited an Assiniboine encampment of one hundred fifty lodges.
9. August 1. Fifty-seven days after leaving St. Paul, Stevens arrived at Fort Union on the western border of present-day North Dakota at the confluence of the Yellowstone and Missouri Rivers.

Detail of map of the territory of the US from the Mississippi River to Pacific Ocean, *Reports of Exploration and Surveys, 917.8 Un3r, Vol. 11, Sheet 1*

the train." Though he would force himself to ride on his horse as they proceeded west when meeting American Indian parties or when arriving at army forts, the injury would confine him to the ambulance wagon "for many hundreds of miles."³¹

The next morning, July 13, a dense fog enveloped the party. Stevens delayed departure for two hours, hoping in vain that Tinkham's reconnoitering party would catch up to them. Stevens reported growing anxiety, as rumors circulated among the men that the small band had been set upon by hostile Indians or the storms of the previous day had stampeded their horses. Stevens sent out a search party, and for the next two days, as they followed the Sheyenne

west, the expedition shot off a howitzer at noon and at dusk, hoping to guide Tinkham toward them.

In camp on July 15 Stevens received a report of "a party of Sioux of 1,000 lodges" a few miles away. The expedition's guide, Pierre Boutineau, was convinced they were hostile, and his pronouncement "spread alarm through the whole camp." Later that evening two riders from the unknown encampment approached the train, identifying their group as a party of Métis Red River hunters from Pembina, along the Canadian border, on their annual summer buffalo hunt. This welcome news was shortly followed by word that Tinkham's party was safe and would soon join the main party, to the great relief of Stevens's men.³²

The next evening the Red River hunters camped near the expedition, and Stevens's detailed description provides a colorful picture of these Dakota inhabitants. Stevens noted the hunters pulled their carts into a tight circle or square, forming "a barrier impassable to either man or beast . . . [presenting] quite a contrast to the open camp adopted by us." Stevens described the group as "industrious and frugal . . . mostly of the Romish [Roman Catholic] persuasion, leading to a virtuous and pious life." They were "a population of half-breeds, traders of the Hudson Bay and Fur Companies, discharged employees of these companies, and Indians, representatives of every nation of Europe, Scotch, Irish, English, Canadians, and speaking a jargon of these dialects, intermingled with Chippewa and Sioux, patois French being the prevailing tongue."³³

Impressed by the large contingent of 1,300 men, women, and children, 824 carts, and about 1,200 animals, Stevens particularly noted the men's appearance:

The men dress usually in woollens [*sic*] of various colors. The coat generally worn, called the Hudson Bay coat, has a capot [hood] attached to it. The belts are finely knit, of differently colored wool or worsted yarn, and are worn after the manner of sashes. Their powder horn and shot bag, attached to bands finely embroidered with beads or worked with porcupine quills, are worn across each shoulder, making an X before and behind. Many also have a tobacco pouch

strung to their sashes, in which is tobacco mixed with kini-kinick [dried bark of the osier willow scraped fine], a fire steel, punk, and several flints. Add to these paraphernalia a gun, and a good idea will be formed of the costume of the Red river hunter.³⁴

In a subsequent meeting with the elected leader of another contingent of hunters from the Selkirk settlement, Governor de L'Orme (elected "governor" for the duration of the hunt) and Stevens discussed the Métis' status and allegiances. Stevens concluded the extended community straddling the border with Canada presented a potential strategic ally for the United States. "With but little care, our government could obtain the whole of these people as citizens, thus protecting and building up our frontier, and having in this vicinity always a controlling check upon the Indians."³⁵

On July 27, along the Souris River northwest of present-day Minot, Stevens visited an Assiniboine encampment led by Chiefs Blue Thunder and Little Thunder. Passing among 150 lodges with drying racks holding meat and hides and seeing the Assiniboine "abundantly supplied with horses, many of good quality," Stevens nevertheless noted the scene "had the look of poverty, judging from the meagerness of clothing . . . while all appeared very filthy and miserable."³⁶

This was Stevens's first encounter with Native Americans "relatively untouched by white civilization," and he described the ceremonial passing of the pipe in great detail:



"Camp of the Red River Hunters." On July 16, Métis Red River hunters on their annual summer buffalo hunt camped near the expedition. *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 12, Plate XII opposite p. 65

[A]n old man, one of the dignitaries of the tribe, prepared the pipe of reception, only smoked on great occasions. The stem was decked with ribbons of various colors, and when it stood obliquely feathers would drop down like the wing of a bird. At the lower end of this pipe where it enters the bowl, was a duck's head. The pipe stem was supported against a small stick stuck in the ground and crotched at the end. The pipe was turned towards the sun, the invariable practice in such cases.³⁷

A tribal elder rose and addressed Stevens "with great dignity . . . considerable fluency . . . [and] many gestures." He shared a troubled vision of the future Stevens would encounter repeatedly as he continued west. "We hear that a great road is to be made through our country. We do not know what this is for; we do not understand it; but I think it will drive away the buffalo. We like to see our white brothers; we like to give them the hand of friendship, but we know as they come our game goes back. What are we to do?"³⁸

Stevens replied that the US government would help the Assiniboine "learn to till the soil so as to obtain food with less labor than now." He also promised to secure peace with the feared Blackfoot, Sioux, and other raiding tribes that had plagued the Assiniboine. Impressed by the friendliness with which the Assiniboine had received his party, Stevens became convinced after this encounter that he could persuade indigenous tribes along the northwest route to welcome, or

at least to accept, the coming of the railroad, an attitude that would lead to disaster in just a few short years.³⁹

On August 1, Stevens arrived at Fort Union on the western border of present-day North Dakota at the confluence of the Yellowstone and Missouri Rivers, 2,019 feet above sea level. The expedition had travelled 715.5 miles (two-thirds across present-day North Dakota) and ascended from an elevation of 800 feet at St. Paul along the Mississippi River after forty-eight days on the move and fifty-seven days in total. Here he resupplied and rested his men and animals as they prepared for the much more strenuous journey ahead, across the Rockies and the Cascades to the Pacific coast.

As he moved west toward Washington Territory, Stevens continued to send smaller reconnoitering parties out, but this time with the dual purpose of geographic exploration and diplomatic contact with the American Indian tribes he eventually would have to deal with as governor and Indian agent of the territory. Stevens would finally arrive in the Washington territorial capital of Olympia on November 25, recording that "for the first time, I saw the waters of Puget sound."⁴⁰

Mixed Results of the Stevens Expedition

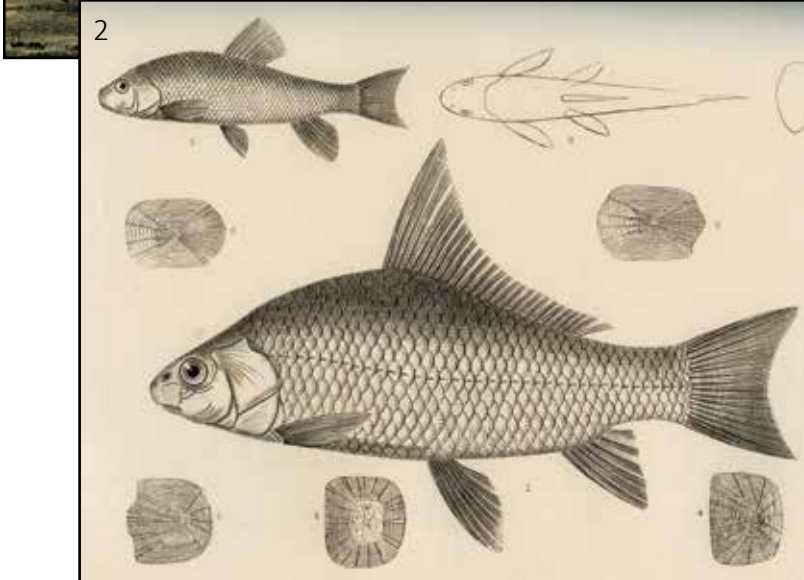
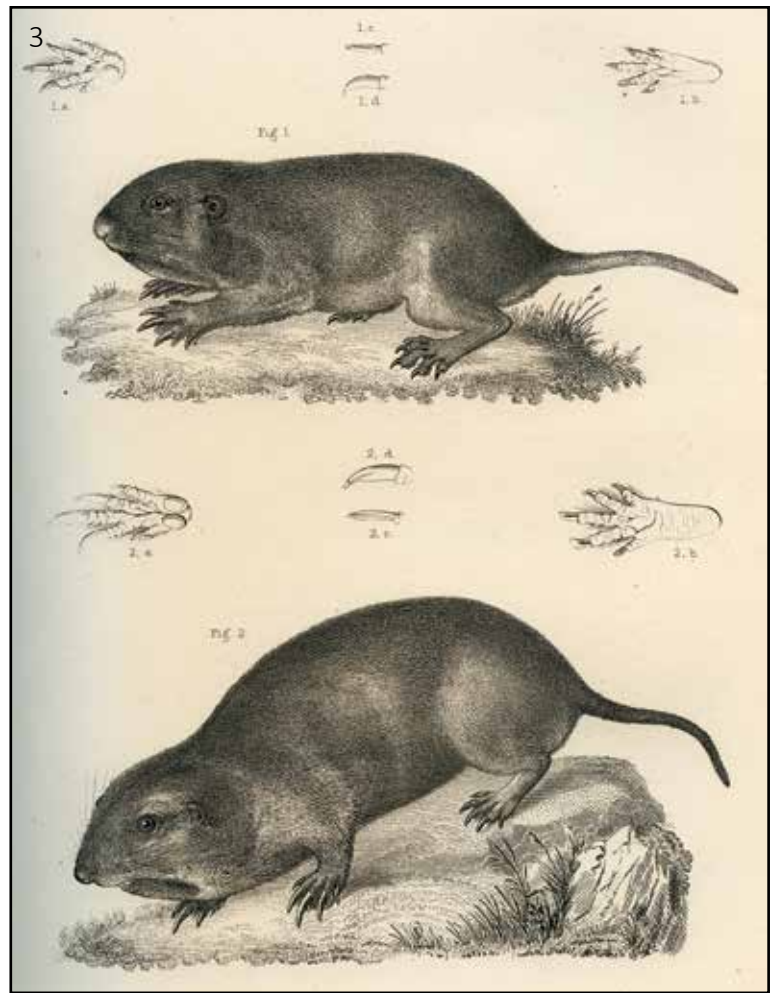
The northern expedition met two of its three geographic challenges, finding five potentially usable passes across the Rockies and tracing an acceptable path skirting the northern

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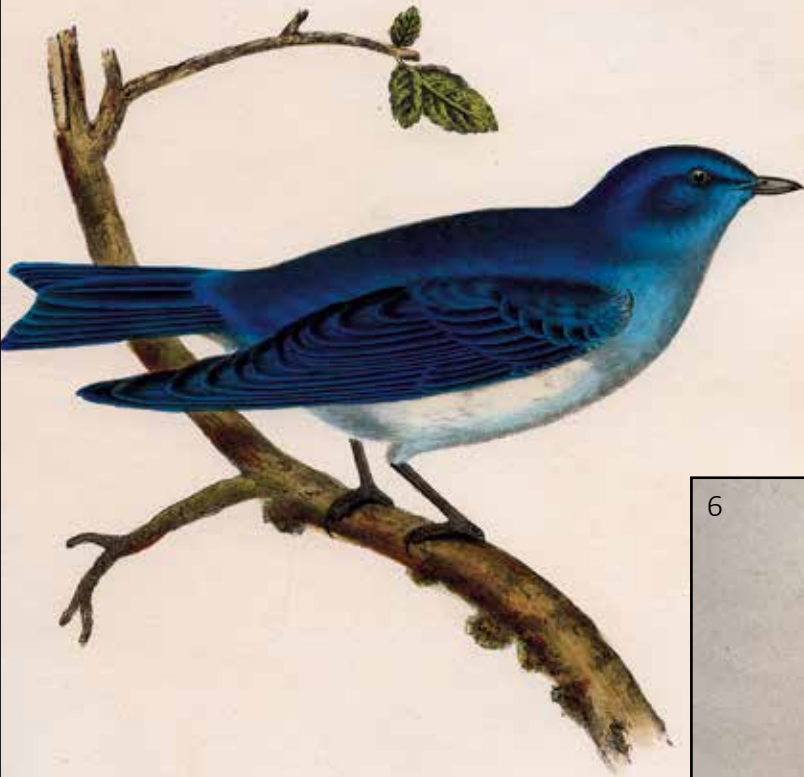


"Distribution of Goods to the Assiniboine." Stevens visited an Assiniboine encampment led by Chiefs Blue Thunder and Little Thunder along the Souris River northwest of present-day Minot on July 27. *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 12, Plate XVI opposite p. 85

These illustrations by various artists from *Reports of Explorations and Surveys* show the breadth of zoology, botany, ethnology, and landscapes depicted from multiple expeditions across the present-day United States.



5



1. "Mammoth Tree." *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 5, Part 2, Plate XIII opposite p. 258
2. "*Carpodites damalis*." *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 10, Part 4, Plate XLVIII opposite p. 35
3. "Fort Union Gopher." *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 10, Part 5, Plate X opposite p. 11
4. "Navajos." *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 3, Part 3, opposite p. 31
5. "Arctic Bluebird." *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 10, Part 2, Plate XXXV opposite p. 17
6. "Indian Ornaments." *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 3, Part 3, Plate 42 opposite p. 50

6



end of the Bitterroot Mountains.⁴¹ Uncertainty over snow depths through the mountains cast a shadow over the final report, however.

The western arm, led by George B. McClellan, was the expedition's noted failure. Charged with measuring winter snow depths through the Cascades, McClellan would refuse to go into the mountains passes in winter, instead relying on inaccurate rumors of twenty-foot snow drifts. Though Stevens would later counter McClellan's report with actual observations, the episode drove a wedge between the two and armed Secretary of War Jefferson Davis with arguments he used to eliminate the far northern route from consideration in favor of his preferred far southern route along the 32nd parallel.⁴²

Stevens was predictably enthusiastic that the northern latitudes were ideal for routing the Pacific Railroad. He asserted that the snows in the region, including through the Rocky Mountain passes, "would not present the slightest impediment to the passage of railroad trains." He was equally enthusiastic about the potential of the region for settlement, comparing the northern Great Plains "favorably with the best portions of the empire of Russia for the cultivation of the great staples of agriculture."⁴³

Like the other expeditions, the meticulous surveys and meteorological observations gathered by Stevens's men created a rich record. His determination to explore as much of the corridor between the 47th and 49th parallels as possible filled gaps in overall knowledge of the region's geography and

corrected errors, such as accurately placing the course of the Sheyenne River.⁴⁴

Stevens, while surveying for the railroad route, enthusiastically embraced his expedition's scientific mission. His naturalists sent a trove of animal, plant, and mineral specimens back to the Smithsonian, exceeding those of the other expeditions. Together the Pacific Railroad surveys added significantly to the young institution's growing collection, contributing to "one of the most rapid and complete inventories ever made of any portion of the globe. . . . American abundance was never better expressed than in the tidal wave of specimens of rocks and plants and animals that were thrust upon the scientists from out of the western wilderness."⁴⁵

Stevens estimated the cost to build a rail line along the northern route would total \$105,076,000. Secretary of War Davis would subsequently increase that estimate in the final report to \$140 million, based on the difficulties he envisioned in navigating deep snows and crossing the Rocky Mountains.⁴⁶

An Encyclopedia of the West

Noted Western historian William Goetzmann compared the Pacific Railroad surveys to Napoleon's conquest of Egypt. "Not since that celebrated Egyptian foray were the scientific results to prove so rich and overwhelming while



"Ft. Union and Distribution of Goods." On August 1, Stevens arrived at Fort Union on the western border of present-day North Dakota at the confluence of the Yellowstone and Missouri Rivers. *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 12, Plate XIV opposite p. 76

the practical results appeared to lead only to frustration.” The expeditions, Goetzmann concluded, produced “an encyclopedia of western experience . . . massive . . . government reports now consigned to dust and obscurity in public libraries and archives. In them was a matchless picture of the Old West before its settlement.”⁴⁷

One reason the reports have been all but forgotten in popular memory is their audaciously ambitious scope. The reports from all the expeditions were published in twelve volumes, containing more than 7,350 pages of text, charts, and illustrations plus hundreds of colored lithographic plates and scores of maps, weighing in at eighty-three pounds. Rushed into print between 1855 and 1860 in separate House and Senate versions, with sometimes slightly differing content and confusing organization, the resulting reports are both maddeningly frustrating and delightfully rewarding to peruse. They present “a collators’ nightmare” that Goetzmann characterized as “a little like the country they were intended to describe: trackless, forbidding and often nearly incomprehensible.”⁴⁸

More important, the Pacific Railroad surveys failed in their stated purpose “to ascertain the most practicable and economical route for a railroad from the Mississippi River to the Pacific Ocean.” Instead, the surveys revealed several

viable options, supporting competing arguments for different routes. Congress could not solve a political question with an engineering answer. Passage of the Kansas-Nebraska Act of 1854 inflamed sectional divisions further, dooming any chance of congressional agreement on a transcontinental railroad until the Civil War removed southern voices from the debate.⁴⁹

Arguably the single most important accomplishment of the expeditions was a set of maps, known as the Warren maps, which marked “the end of the period of reconnaissance . . . [and] remained the basic map[s] of the western states and territories for a generation.”⁵⁰ Field reports incorporated new and more accurate information, allowing meticulous army mapmakers to “fit the fragments into a reasonably correct mosaic”

of the trans-Mississippi West. “For the first time, Americans could turn to a map . . . and see the main features of the huge western domain.”⁵¹

The reports presented an encyclopedia of the West that would inform and influence transportation planning, mineral exploration, and land use and settlement practices; military, reservation, and treaty policies; the study of ethnology, zoology, botany, and geology; and even America’s image of itself. In addition, the tinted lithographs presented the

Stevens’s naturalists sent a trove of animal, plant, and mineral specimens back to the Smithsonian, exceeding those of the other expeditions.



“Puget Sound & Mt. Rainier from Whitby’s Island.” Stevens arrived in the Washington territorial capital of Olympia on November 25 and recorded seeing the waters of Puget Sound. *Reports of Exploration and Surveys, 917.8 Un3r, Vol. 12, Plate LXVIII* opposite p. 289



"Near Mouse River." While it did not win the argument over the first transcontinental rail route, Stevens's expedition left us with a portrait of the northern Great Plains on the cusp of settlement and change the railroad would eventually bring to the region. *Reports of Exploration and Surveys, 917.8 Un3r, Vol. 12, Plate XV opposite p. 84*

American public with a visual representation that revealed both the vastness and variety of the landscape west of the Mississippi River. John Mix Stanley, the famous painter of western scenes and American Indians, produced some of the most memorable and celebrated images of all the Pacific Railroad survey expeditions while accompanying the Stevens party. He took along a daguerreotype and captured the first photographic images of the Rocky Mountains. None of his daguerreotypes and few of his field sketches survive, though thirty-eight Stanley watercolors, from which the lithographs in the survey reports were made, now reside at Yale University.⁵²

The massive Pacific Railroad survey reports, "consigned to dust and obscurity," in Goetzmann's words, are frustratingly disorganized and dense with engineering tables and bureaucratic jargon. Nevertheless they remain a significant milestone, offering us a fascinating trove of both natural history and western exploration and a compelling picture, in word and image, of the trans-Mississippi West on the cusp of change. While it did not win the argument over the first transcontinental rail route, Stevens's expedition across the 47th to 49th latitudes left us with an important scientific record of mid-nineteenth century northern Dakota. It also left us with a portrait of the northern Great Plains on the cusp of settlement and change the railroad would eventually bring to the region. Isaac Stevens gets the last word in a brief excerpt from his

official journal as he described the landscape shortly after he entered present-day North Dakota:

The most remarkable features of this region are the intervals of level prairie, especially that near the bend of the branches of the Red river, where the horizon is as unbroken as that of a calm sea. Nor are other points of resemblance wanting; the long grass, which in such places is unusually rank, bending gracefully to the passing breeze as it sweeps along the plain, gives the idea of waves, (as indeed they are,) and the solitary horseman on the horizon is so indistinctly seen as to complete the picture by the suggestion of a sail, raising the first feeling of novelty to a character of wonder and delight.⁵³



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"Return of Governor Stevens." *Reports of Exploration and Surveys*, 917.8 Un3r, Vol. 12, Plate XXV opposite p. 107

Isaac Stevens's Controversial Career

Emboldened after his encounter with the Assiniboine near the Shyenne River, as Stevens worked his way west he systematically laid the groundwork for the government's reservation and removal policy to clear the way for railroads and white settlement. Using his dual authority as both governor and Indian agent for the new Washington Territory to engage with indigenous tribes throughout the region, he produced detailed estimates of both the location of various groups as well as their numbers and potential military strength.

On arriving in Washington Territory, Stevens aggressively set about striking treaties with the coastal tribes around Puget Sound and tribes further east across the Cascades through a combination of threats and promises. Within a year, virtually all the major tribes had treaties in place. Gold seekers and settlers almost immediately began moving onto Native American lands in Washington Territory, violating the newly signed treaties awaiting congressional ratification. By 1855, some of the earliest American Indian/white conflicts that would scar the trans-Mississippi West for the next four decades had broken out in the Pacific Northwest.

Stevens's aggressive prosecution of the Puget Sound War (1855–56) polarized the region, including his declaration of martial law (which drew a rebuke from President Franklin Pierce), his circumvention of the territorial army commander, and his reliance on undisciplined civilian militias. After a first trial exonerated Nisqually Chief Leschi, accused of murdering US soldiers in a military encounter, Stevens insisted on a second trial, resulting in the chief's execution. Stevens retained popular support and won election as Washington Territory's congressional delegate in 1857, when he left the territory for good.⁵⁴

At the outbreak of the Civil War, Stevens sought appointment as a general in the Union Army. He was initially rebuffed, due to the controversies surrounding his governorship in Washington Territory and opposition from his old commander, Winfield Scott. In August 1861—at virtually the same time his former survey party partner George B. McClellan, who had failed to measure the snows in the Cascades, was named head of the Army of the Potomac—Stevens accepted appointment as a colonel in the Ninth Regiment of New York Volunteers. Stevens was killed by a sniper's bullet on September 1, 1862, leading a charge at the Battle of Chantilly, Virginia.⁵⁵

ENDNOTES

1. *Historical Statistics of the United States, 1780–1945*, Bureau of the Census (Washington, DC, 1949), 200.
2. United States War Department, *Reports of Explorations and Surveys, To Ascertain the Most Practicable and Economical Route for a Railroad from the Mississippi River to the Pacific Ocean*, vols. 1–12 (Washington, DC: A. O. P. Nicholson [etc.], 1855–60).
3. George Leslie Albright, *Official Explorations for Pacific Railroads, 1853–1855* (Berkeley: University of California Press, 1921), 8.
4. Asa Whitney, “Memorial of Asa Whitney Praying for a Grant of Land,” S. Doc. No. 30-28 (1848); Jere W. Roberson, “The South and the Pacific Railroad, 1845–1855,” *Western Historical Quarterly* 5, no. 2 (April 1974): 165.
5. Albright, *Official Explorations*, 14.
6. *Ibid.*, 1.
7. Walter Nugent, *Into the West: The Story of Its People* (New York: Vintage Books, 2001), 55; *Reports of Explorations and Surveys*, 1:133–34.
8. William H. Goetzmann, *Exploration and Empire: The Explorer and Scientist in the Winning of the American West* (New York: Knopf, 1971), 265–79.
9. Albright, *Official Explorations*, 38; Roberson, “The South and the Pacific Railroad,” 165.
10. *Reports of Explorations and Surveys*, 12:6; Albright, *Official Explorations*, 43; Kent D. Richards, *Isaac I. Stevens: Young Man in a Hurry* (1979; repr., Pullman: Washington State University Press, 1993), 122.
11. Richards, *Stevens*, 89–91.
12. *Ibid.*, 94.
13. Goetzmann, *Exploration and Empire*, 285.
14. Richards, *Stevens*, 103, 105–06.
15. *New York Tribune*, June 3, 1853.
16. *Reports of Explorations and Surveys*, 12:33–35.
17. *Ibid.*, 12:36–38.
18. *Ibid.*, 12:48–49; Richards, *Stevens*, 110.
19. *Reports of Explorations and Surveys*, 12:51–52.
20. *Ibid.*, 12:50; Richards, *Stevens*, 110–11.
21. *Reports of Explorations and Surveys*, 12:53.
22. *Ibid.*, 12:63–64.
23. *Ibid.*, 12:43–44.
24. *Ibid.*, 12:53.
25. *Ibid.*, 12:55. Pemmican is a concentrated mixture of dried meat and animal fat often mixed with berries for flavoring. It was a staple of Native Americans and a common trade item of the Métis, or mixed-blood inhabitants, on the northern plains.
26. *Ibid.*, 12:56.
27. *Ibid.*, 12:55.
28. *Ibid.*, 12:57.
29. *Ibid.*, 12:59; Richards, *Stevens*, 111, 143; Robert Taft, *Artists and Illustrators of the Old West, 1850–1900* (New York: Charles Scribner’s Sons, 1953), 15–21.
30. *Reports of Explorations and Surveys*, 12:61.
31. *Ibid.*, 12:62; Richards, *Stevens*, 57, 62–63, 111.
32. *Reports of Explorations and Surveys*, 12:64.
33. *Ibid.*, 12:65–66.
34. *Ibid.*
35. *Ibid.*, 12:86, 66, 70.
36. *Ibid.*, 12:73.
37. Richards, *Stevens*, 111; *Reports of Explorations and Surveys*, 12:73–74.
38. *Reports of Explorations and Surveys*, 12:74.
39. *Ibid.*, 12:73–76; Richards, *Stevens*, 111–13.
40. *Reports of Explorations and Surveys*, 12:83–85, 155.
41. *Ibid.*, 12:331.
42. *Ibid.*, 12:149, 150, 152, 156, 163–64, 192, 194; Richards, *Stevens*, 127–39. Richards examines the conflict between Stevens and McClellan extensively through their correspondence to friends and allies. McClellan’s cautiousness in exploring winter passes in the Cascades foreshadowed the hesitancy he would later display following the Battle of Antietam during the Civil War. Leading a numerically superior force, McClellan refused to pursue Robert E. Lee’s outnumbered and weary forces, allowing Lee to regroup. Lincoln removed McClellan from command of the Army of the Potomac.
43. *Ibid.*, 12:56.
44. *Ibid.*, 12:98; Richards, *Stevens*, 140–42.
45. William H. Goetzmann, “Death Stalked the Grand Reconnaissance,” *American Heritage Magazine* 23, no. 6 (October 1972): 1.
46. John A. Moore, “Zoology of the Pacific Railroad Surveys,” *American Zoologist* 26, no. 2 (1986): 331–41; William J. Rhees, *An Account of the Smithsonian Institution, Its Founder, Building, Operations, Etc., Prepared from the Reports of Prof. Henry to the Regents, and Other Authentic Sources* (Washington, DC: Thomas McGill, 1859), 22; William Stanton, *American Scientific Exploration, 1803–1860* (Philadelphia: American Philosophical Society, 1991), 4. In the period before Charles Darwin published *On the Origin of Species* in 1859, natural history was primarily a science of description, categorizing, and naming. Accordingly studies conducted under the Pacific Railroad surveys described, named, and categorized the varieties of animals and plants encountered by each expedition, although the description of vegetation along the route from Fort Smith to Los Angeles anticipated future research on the relation of altitude and geography to biomes. See Moore, “Zoology,” 337.
47. Richards, *Stevens*, 141–42.
48. Moore, “Zoology,” 336; William H. Goetzmann, *Army Exploration of the West 1803–1863* (New Haven, CT: Yale University Press, 1959), 313.
49. Albright, *Official Explorations*, 157–58.
50. Matthew T. Percy, “Science, Politics, and Bureaucracy: Andrew A. Humphreys and the Office of Pacific Railroad Explorations and Surveys,” *Military History of the West* 38 (2008): 89–91. The Warren maps were named after army cartographer Lieutenant Gouverneur Kemble Warren (1830–82).
51. Frank N. Schubert, *Vanguard of Expansion: Army Engineers in the Trans-Mississippi West 1819–1879* (Washington, DC: US Government Printing Office, 1980), 51, 57.
52. Peter H. Hassrick and Mindy N. Besaw, *Painted Journeys: The Art of John Mix Stanley* (Norman: University of Oklahoma Press, 2015), 182–98.
53. *Reports of Explorations and Surveys*, 12:54.
54. Richards, *Stevens*, 235–312. Richards provides a detailed account of Stevens’s prosecution of the Puget Sound War and the resulting controversies. See also Lisa Blee, *Framing Chief Leschi: Narratives and the Politics of Historical Justice* (Chapel Hill: University of North Carolina Press, 2014); Richard Kluger, *The Bitter Waters of Medicine Creek* (New York: Knopf, 2011); and Ezra Meeker, *Chief Leschi: War Chief of the Battle of Seattle and the Puget Sound War, 1855–56* (Lowman & Hanaford Stationery & Print Company, 1905), Kindle edition.
55. Richards, *Stevens*, 362, 387.