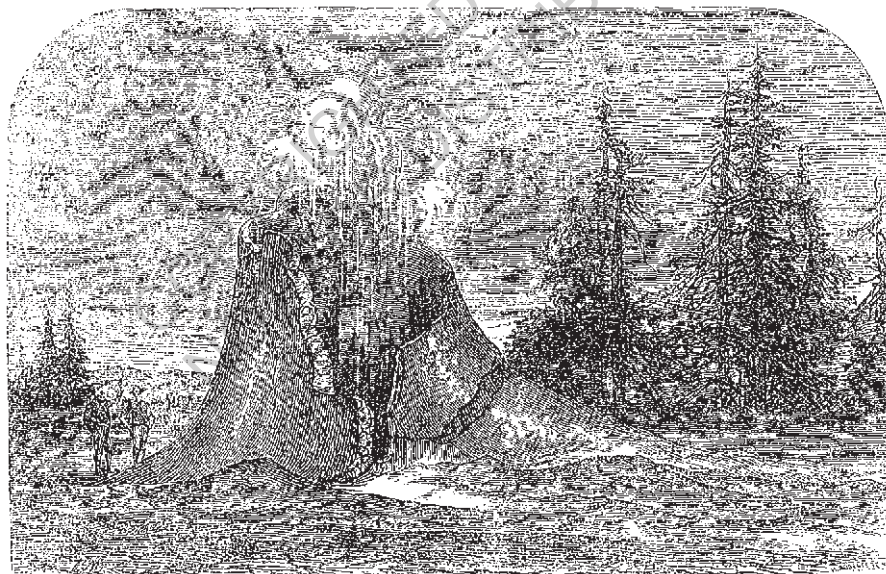




CONTENTS

FOREWORD BY ROBERT W. RIGHTER	viii
ACKNOWLEDGMENTS	x
INTRODUCTION	2
1 THE UNEXPLORED YELLOWSTONE	6
2 1871: PHOTOGRAPHY COMES TO YELLOWSTONE	16
3 THE WET COLLODION PROCESS	22
4 FINDING THE PHOTOGRAPHS	26
5 CAPTIONS, EXCERPTS, AND NOTES	34
6 WILLIAM HENRY JACKSON'S 1871 PHOTO- GRAPHS WITH CONTEMPORARY COMPARISONS	38
7 AFTER THE SURVEY	272
APPENDIX A: YELLOWSTONE ACT OF 1872	277
APPENDIX B: SOURCES FOR WILLIAM H. JACKSON'S PHOTOGRAPHS	278
AFTERWORD	280
NOTES	283
BIBLIOGRAPHY	291
CREDITS	293
INDEX	296

YELLOWSTONE
NATIONAL PARK
THROUGH THE LENS OF TIME



THE GIANT.



INTRODUCTION



Previous page. Lower Falls and the Grand Canyon of the Yellowstone River, from the bottom of the Red Rock Trail.

“Nothing has been, nothing can be said, to magnify the wonders of this national pleasuring ground. It is all and more than all that it has been represented. In the catalogue of earthly wonders it is the greatest, and must ever remain so. It confers a distinctive character upon our country . . . here, the grandest, most wonderful, and most unique elements of nature are combined, seemingly to produce upon the most stupendous scale an exhibition unlike any other upon the globe. It should be sustained. Our Government, having adopted it, should foster it and render it accessible to the people of all lands, who in future time will come in crowds to visit it.”

—NATHANIEL P. LANGFORD, FIRST ANNUAL REPORT OF THE
SUPERINTENDENT OF YELLOWSTONE NATIONAL PARK, 1872

I FIRST VISITED YELLOWSTONE WHEN I WAS ABOUT TEN. MY PARENTS LOADED my brother and me into an old Chevy Blazer, pop-up camper in tow, and we headed west from our home in the Black Hills of South Dakota, destined for the world’s first national park. We were a typical American family on a great American road trip.

One of my most vivid memories of that unforgettable summer vacation was standing at the Brink of the Lower Falls of the Yellowstone River, watching the water rush by and plummet more than 300 feet into the Grand Canyon of the Yellowstone River. I remember it being loud, having to almost yell as I barked questions at my dad, questions he probably only pretended to know the answers to.

Above all, I remember being filled with deep and fantastic wonder. I could actually *feel* the power of the falls—as wind on my face, an unseen force on my chest. It is what raw power feels like, a feeling that’s hard to describe and best experienced.

I was also just a little scared. In my child’s mind everything was so *big*. Even with a safety rail at the overlook, I held my dad’s hand, and I swear I can remember him squeezing mine, as if he were just a little scared too.

The overlook at the Brink of the Lower Falls is one of my favorite places in the park because it always invokes that sense of childlike wonderment I first experienced almost thirty years ago. Everything—from the towering canyon walls to the rushing water and deep roar of the falls—is exactly how I remember it. Everything is still *big*, and I still feel the force of the Lower Falls in my chest. It is an experience so phenomenal, it is unforgettable. Standing at the overlook today still makes me just a little scared, but I know now it's not necessarily fear; it's simply incredible to be so close to something so powerful.

I began this project as a personal curiosity to explore the park and reconnect with that memorable summer of my childhood. It has evolved into a journey to connect Yellowstone's own past with its present.

One can only imagine what pioneer photographer William Henry Jackson must have felt as he explored Yellowstone with the rest of the 1871 Hayden Survey, hundreds of miles from civilization, in a land so extraordinary that it was almost mythical. There were few trails, vague maps, and little knowledge of the region. Upon entering Yellowstone, they encountered a land that was completely and truly wild.

Yellowstone is always changing. The Grand Canyon is getting deeper and wider as the Yellowstone River carves a chasm into the earth. The activity of geysers, mud pots, and other thermal features are in constant flux. The flows of the great hot springs at Mammoth are always shifting, creating new layers of delicate, colorful cascades and leaving the old terraces to crumble in decay. These changes are barely noticeable in a single person's lifetime. Some can be witnessed over decades. Others are measured in centuries, millennia, and eons. Most of the changes we see today are the intrusion of humans upon the landscape.

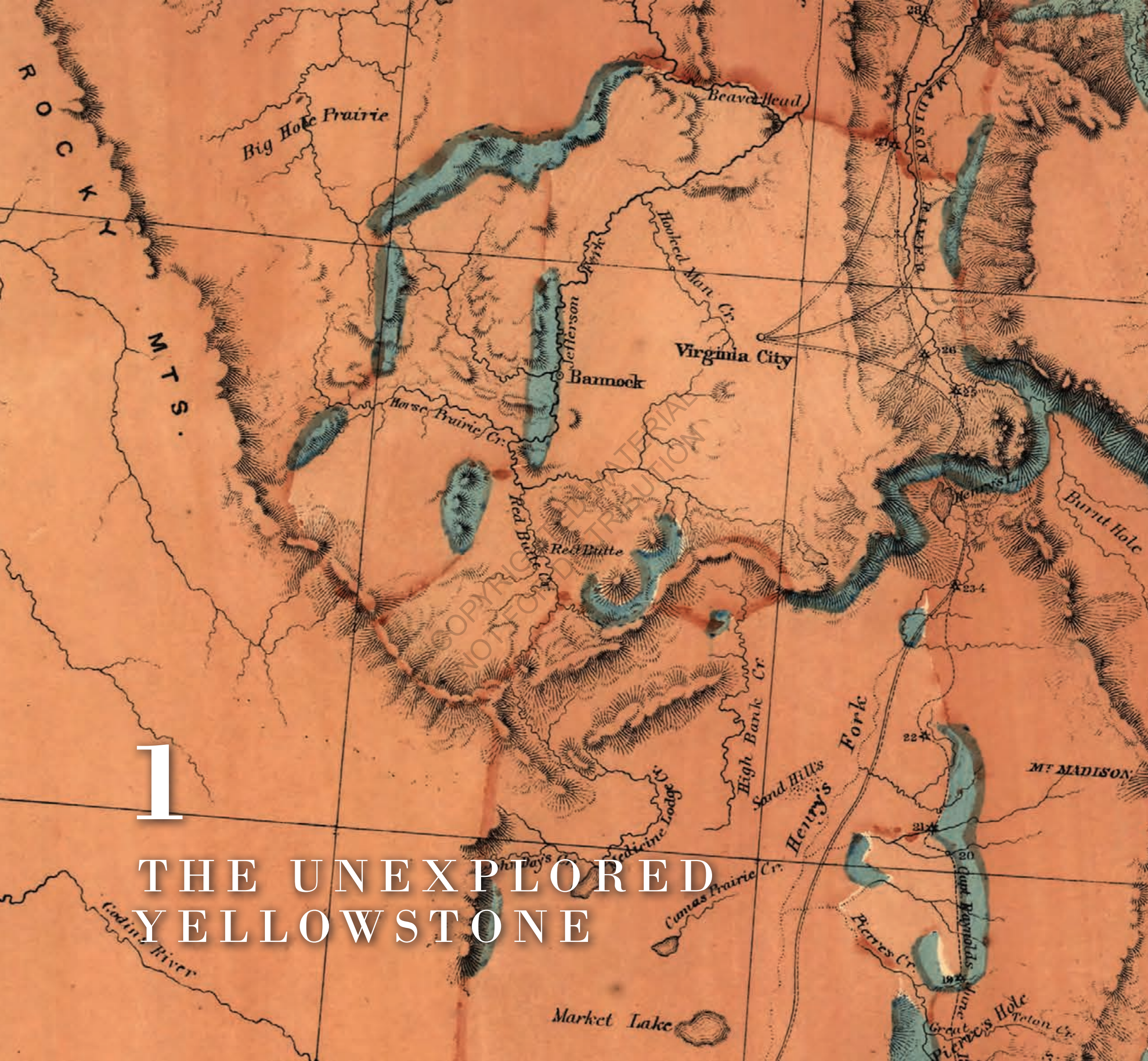
Today, roads and bridges wind through the park. There are pathways and boardwalks where people can safely walk, and restaurants, campgrounds, and hotels where they can eat and sleep. These are inevitable sacrifices that make it possible for millions of visitors to experience the wonders of Yellowstone every year.



The author, Brad Boner (*right*) and his brother, Brian, at the Upper Geyser Basin in Yellowstone National Park, circa 1985.

Even with the impact of humanity, Yellowstone remains remarkably intact. The Yellowstone River is the longest undammed waterway in the Lower 48. The park's landscape and iconic landmarks are relatively unchanged, save for those wrought by snow, ice, wind, rain, and fire. Because of the forethought of those enamored by Yellowstone more than 140 years ago, we can today experience a land that is still mostly wild. As intended, Yellowstone endures as a “pleasuring-ground for the benefit and enjoyment of the people.”¹

As the world's original national park, Yellowstone stands as America's first and greatest experiment in the preservation of an extraordinary landscape. When compared with Jackson's photographs from 1871, these contemporary images, taken during the summer seasons of 2011 through 2014, illustrate just how well that experiment has stood the test of time.



1

THE UNEXPLORED YELLOWSTONE



Previous page: The map produced by Capt. William Reynolds of his exploration of the Missouri and Yellowstone Rivers left the area surrounding Yellowstone Lake virtually blank after he failed to enter the region in spring 1860.

PRIOR TO 1869, THE RUGGED WILDERNESS SURROUNDING THE HEADWATERS of the Yellowstone River, in the northwestern corner of the Wyoming Territory, had remained relatively unexplored, save for Native Americans, trappers, and prospectors who ventured into the area in search of game or gold. Mountain men spoke of extraordinary wonders such as spouting geysers, bubbling mud pots, towering waterfalls, and a spectacular mountain lake; but their stories seemed exaggerated and were dismissed as ramblings of those who had spent too much time alone in the wilderness. Even the accounts of Jim Bridger, the legendary scout, trapper, and hunter who served as a guide to US Army and civilian parties alike, were often dismissed as embellished campfire tales.¹

Stories about the mythical Yellowstone region began to spread among the growing population of the southern Montana Territory drawn to the area by the construction of the Northern Pacific Railroad, and some began hatching plans to venture into the region themselves. In September 1869, Charles W. Cook, David E. Folsom, and William Peterson, three men from Diamond City, Montana—just east of present-day Helena—made the first organized excursion into the heart of what is today Yellowstone National Park, intent on verifying the stories. Following the Yellowstone River and entering the region from the north, the trio visited rumored wonders such as Tower Fall, the Grand Canyon of the Yellowstone and its waterfalls, Yellowstone Lake, and the Lower and Midway Geyser Basins on the Firehole River, where they witnessed the eruption of several geysers.

Despite being waylaid by an early season snowstorm during the first week of their trip, the party covered a remarkable distance in a short amount of time, probably due to the group's small size. The trio exited the area via the Madison River at present-day West Yellowstone after less than a month in the region and returned to Diamond City.²

Though the Cook-Folsom-Peterson Expedition confirmed many of the stories about Yellowstone, major eastern publications were reluctant to pub-



Charles W. Cook, no date



David E. Folsom, no date



William Peterson, ca. 1890



Henry Washburn, 1869



Nathaniel P. Langford, 1870



Lt. Gustavus C. Doane, 1875

lish their written accounts, dismissing descriptions by the relatively unknown explorers as unreliable.³ However, their stories gained regional interest and drew the attention of Henry Washburn, surveyor-general of the Montana Territory, and businessman Nathaniel P. Langford, former US collector of internal revenue for the Montana Territory. The pair soon began organizing a larger party to explore the region more extensively in the coming summer.

In mid-August 1870, Washburn and Langford's party departed Helena for the Yellowstone region. Their group included thirteen civilian travelers, mostly fellow businessmen and political associates from the Montana Territory. Jay Cooke, a personal acquaintance of Langford and a major financial backer of the Northern Pacific Railroad, saw an opportunity to publicize Yellowstone as a destination for tourists who would travel to the region by rail. Cooke funded his friend's endeavor and eagerly awaited Langford's findings.

Given the influential status of many of the civilian members, Washburn lobbied for a military escort to accompany the explorers into potentially hostile Indian country. Led by Lt. Gustavus C. Doane, a small contingent of six troops from the US Army's Second Cavalry in Fort Ellis, near Bozeman, was assigned to travel with the group.⁴

The party followed the same general route the Cook-Folsom-Peterson Expedition took the year before. At Tower Fall, the group turned away from the Yellowstone River and headed south, ascending what is today Mount Washburn near Dunraven Pass, and continued to the Grand Canyon of the Yellowstone River. It was here that Walter Trumbull, a civilian member of the party, and Charles Moore, a US Army private in the military escort, would sketch the first crude representations of the Upper and Lower Falls of the Yellowstone.

Now reunited with the Yellowstone River, the expedition followed the waterway south to Yellowstone Lake. At the river's outlet at the lake's north end, they followed the eastern shoreline in a clockwise circumnavigation, climbing some of the high peaks of the Absaroka Range to the east and near the upper Yellowstone River to the south. At West Thumb, the party turned west, crossed the Continental Divide near present-day Craig Pass, and struck the Firehole River, following it north to the Upper Geyser Basin.⁵ Langford would later detail their witness to what is generally known to be the first named geyser in Yellowstone:

Judge, then, what must have been our astonishment, as we entered the basin at mid-afternoon . . . to see in the clear sunlight, at no great

distance, an immense volume of clear, sparkling water projected into the air to the height of one hundred and twenty-five feet. “Geysers! geysers!” exclaimed one of our company, and, spurring our jaded horses, we soon gathered around this wonderful phenomenon. It was indeed a perfect geyser . . . It spouted at regular intervals nine times during our stay, the columns of boiling water being thrown from ninety to one hundred and twenty-five feet at each discharge, which lasted from fifteen to twenty minutes. We gave it the name of “Old Faithful.”⁶

After exploring the basin and observing and naming several geysers, the party traveled north along the Firehole to its junction with the Madison River. Like the Cook-Folsom-Peterson group the previous year, they followed the Madison west out of the region. Near Virginia City, Montana, the party disbanded, Doane taking his small military contingent back to Fort Ellis while the rest of the party returned to Helena in late September.⁷

Local interest for a report from the highly publicized trip reached a fever pitch upon the party’s return to Helena. The editions of the *Helena Daily Herald* containing the expedition’s early reports sold out, prompting the newspaper to republish the articles only a few days later. Due to the reputable status of many of the influential members of the expedition—and the harrowing account of one member, Truman Everts, who became separated from the party and spent thirty-seven days alone and lost in the Yellowstone wilderness⁸—subsequent reports were widely published in several large newspapers and periodicals, including *Scribner’s Monthly: An Illustrated Magazine for the People*, Denver’s *Rocky Mountain News*, and the *New York Times*.⁹

The broader American public was becoming increasingly curious about the faraway land known as Yellowstone.

In November 1870, Langford began giving lectures on his experience from the previous summer. After speaking to eager local audiences in Helena and Virginia City, he took his lecture tour to the East Coast, delivering speeches in New York, Philadelphia, and Washington, DC. Jay Cooke, whose keen business mind knew tourists would become interested in visiting Yellowstone via the Northern Pacific, funded Langford’s lecture series, which grew in popularity so quickly that he often spoke to standing-room-only crowds.¹⁰

On January 19, 1871, Langford was scheduled to speak at Lincoln Hall in Washington, DC. For an admission price of 50 cents, an advertisement in the *Washington Star* declared, attendants would hear of “a trip during the past season to a hitherto unexplored region at the headwaters of the Yellowstone,



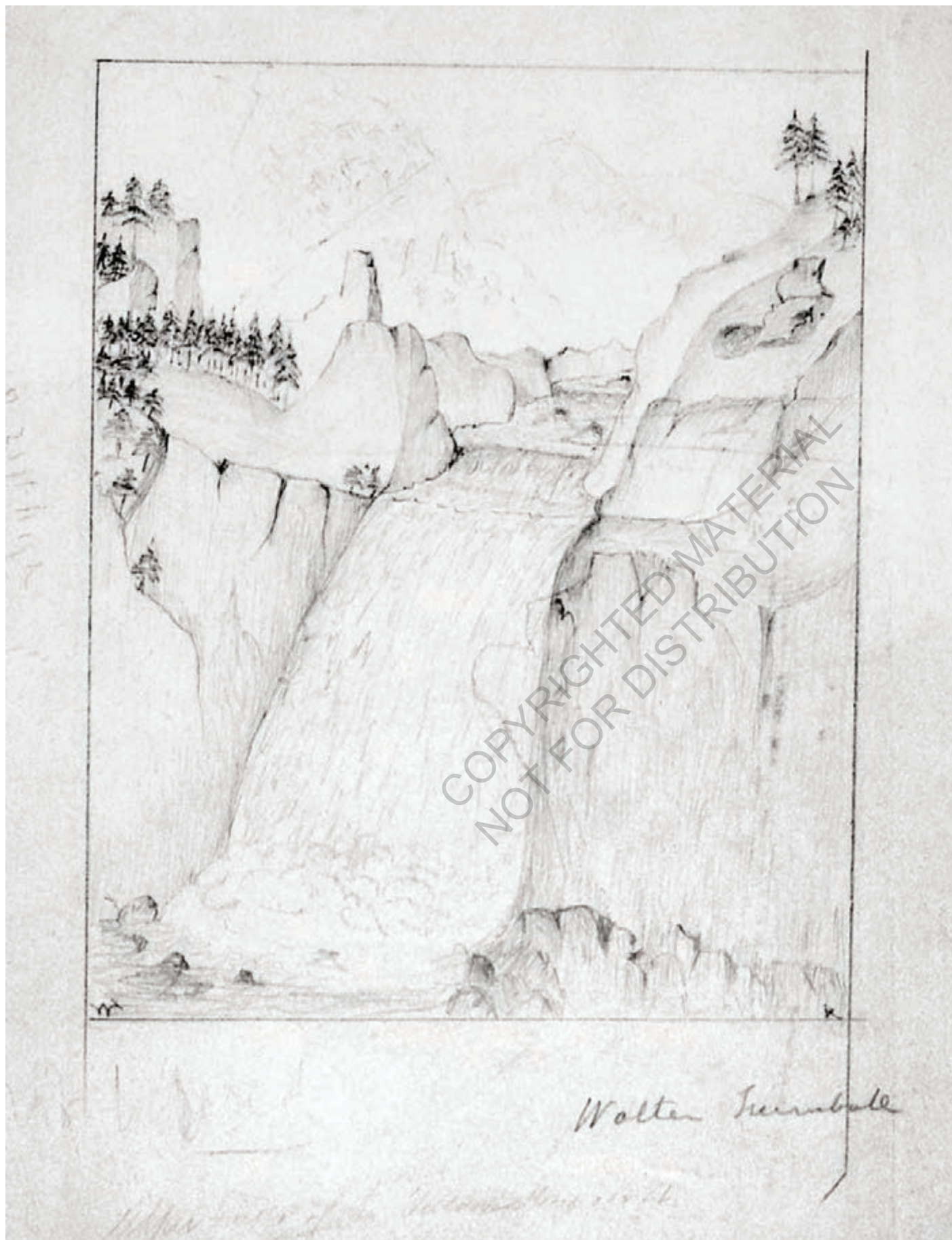
Ferdinand Vandever Hayden, 1870

including discoveries of cataracts many hundred feet high, active volcanoes, fountains of boiling water 200 feet high, and many other features of scenery, interesting and striking in the highest degree.”¹¹

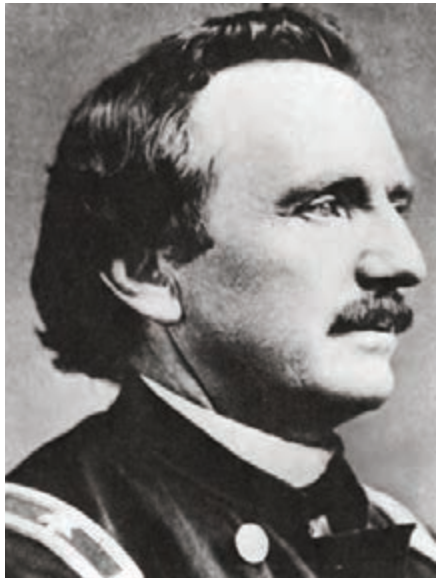
Fate proved to be on Yellowstone’s side, because a man in the audience that evening possessed the knowledge, experience, and influence that would eventually help create the world’s first national park.

THE 1871 HAYDEN SURVEY

The mid- and late 1800s were a time of great exploration in the American West, and the developing industries and increasing population of America’s Gilded



A pencil sketch of the Upper Falls of the Yellowstone by Walter Trumbull, son of US senator Lyman Trumbull of Illinois, during the 1870 Washburn-Langford-Doane Expedition.



Capt. William F. Reynolds, no date

Age increased demand for coal, lumber, gold, and other natural resources. The US government looked to the frontier lands in the western territories—much of which had remained unexplored since the Louisiana Purchase in 1803—to catalog the geology and potential resources of the region, in addition to scouting possible routes for a transcontinental railroad.

Ferdinand Vandever Hayden, a renowned geologist from Pennsylvania who had spent several years in the 1850s exploring regions near the Missouri River west of Fort Pierre in the Dakota, Montana, and Wyoming Territories, was appointed geologist-in-charge of the first task: a survey of the new state of Nebraska during summer 1867. Congress then expanded the surveys to include all unexplored lands in the western territories, particularly those surrounding the Rocky Mountains. Hayden received additional funds to explore the Colorado and Wyoming Territories for the next two years.

In 1869 Hayden led an exploration and survey of the Front Range of the Rocky Mountains in Colorado. The following year he explored the central and southwestern portions of the Wyoming Territory, which extended from the South Pass area, at the southeastern end of the Wind River Mountains, to the Henry's Fork of the Snake River in present-day Idaho.¹² Hayden spent winters at the Smithsonian Institution in Washington, DC, examining specimens and compiling his report from the previous year's work while laying plans for the upcoming season's exploration as well as teaching geology at the University of Pennsylvania in Philadelphia.

On January 19, 1871, Hayden attended a lecture by another explorer of the West that may have set his mind on exploring the Yellowstone in the coming summer. Nathaniel Langford had stopped in Washington, DC, to speak about his journey to the area surrounding the headwaters of the Yellowstone River.¹³ Hayden, who had also likely read Lieutenant Doane's report from the same expedition, was undoubtedly interested in Langford's lecture, given his own experience more than ten years earlier.

Though Hayden had never been to the upper Yellowstone, he had come very close. From 1859 to 1860, Hayden was the appointed naturalist for a US Army expedition commanded by Capt. William F. Reynolds to explore and map

the area between Fort Pierre and the headwaters of the Missouri River, including the Yellowstone. Reynolds's party had been productive during summer and fall 1859 as they explored the Missouri River and its tributaries north and west of the Black Hills in the Dakota Territory and those surrounding the Wyoming Territory's Bighorn Mountains. The expedition then journeyed south and encamped for the winter in central Wyoming, near present-day Glenrock.¹⁴

The following spring, Reynolds—who called Yellowstone “the most interesting unexplored district in our widely expanded country”¹⁵—planned to take his party into the region from the southeast, most likely via the upper Yellowstone River south of Yellowstone Lake, today called the Thorofare. He then intended to traverse the Yellowstone Plateau diagonally, from southeast to northwest, to Three Forks, Montana, near the headwaters of the Missouri River. It was late May by the time Reynolds and his party attempted to enter the area surrounding the headwaters of the Yellowstone, and a deep, lingering snowpack from the previous winter blocked their access near Togwotee Pass.¹⁶ Even their guide, mountain man Jim Bridger, who had more than twenty years of knowledge and experience in the region, could find no feasible entry. Reynolds later wrote that Bridger was adamant from the onset that the rugged Absaroka Mountains, still packed with a winter's worth of snow, would make it virtually impossible to access the Yellowstone's headwaters from the southeast.¹⁷

Forced to abandon his plans to explore Yellowstone, Reynolds continued west into Jackson Hole, then turned south at the Snake River. After a treacherous crossing of the Snake near present-day Wilson, Wyoming, the party ascended Teton Pass and crossed into Pierre's Hole—today's Teton Valley, Idaho. Now in familiar territory, the party headed more or less directly north, skirting the west slope of the Teton Range and Yellowstone's western edge to a scheduled rendezvous with the rest of Reynolds's command in Three Forks.¹⁸

The veil of mystery surrounding the upper Yellowstone would not be pulled aside for another decade, as government exploration of the western territories halted during the Civil War. Hayden, however, perhaps guided by fate if not by his own design, was destined to return.



Listening to Nathaniel Langford speak about the mystique of Yellowstone in January 1871 may have been a catalyst for Hayden's decision to attempt a return to the region, especially after being denied entry eleven years earlier with the Reynolds expedition. As a man of science, Hayden was also likely tempted by the prospect of leading a well-funded, well-equipped survey into a region of seemingly vast scientific potential. Financier Jay Cooke, who funded Washburn



Jim Bridger, no date

and Langford's expedition the summer before, also likely encouraged Hayden to make Yellowstone the subject of his next geographical expedition.¹⁹

A government survey of the Yellowstone region would inevitably occur, and given the rising public interest and lobbying from the Northern Pacific, Hayden likely decided its exploration should be conducted sooner rather than later. The US Congress, primarily interested in a detailed report of natural resources and a thorough mapping of the territories, felt it was within the scope of the survey's charge and approved Hayden's proposal, appropriating \$40,000 for the task, and he immediately began planning for the coming summer's work.²⁰ As fate would have it, the timing of Hayden's decision to explore Yellowstone in summer 1871 would prove pivotal in preserving at least part of the region from being exploited by those seeking personal gain.

Hayden's planning included a strategy to gather tangible evidence of the fascinating landscapes rumored to be within Yellowstone. While public interest had grown immensely, skepticism remained that published accounts about prior expeditions to the Yellowstone region—and even Langford's lectures—could have been exaggerated or fabricated entirely. Much later in life, Langford wrote that he lamented the absence of photographic documentation of his 1870 excursion into Yellowstone:

It is much to be regretted that our expedition was not accompanied by an expert photographer, but at the time of our departure from Helena, no one skilled in the art could be found with whom the hazards of the journey did not outweigh any seeming advantage or compensation which the undertaking promised.²¹

Hayden, who likely remembered Reynolds's use of a photographer during the expedition of 1859–1860,²² had begun to use photography as supplemental documentation during his own survey into the southern Wyoming Territory in 1870. The medium had become accepted as a more truthful representation of its subject matter; when sketches and drawings could be embellished, photographs couldn't lie. Now Hayden was preparing to enter one of the most mysterious regions ever explored, and if he was going to put so many resources into exploring and verifying Yellowstone's wonders, he was determined to bring back proof.²³

WILLIAM HENRY JACKSON

In spring 1866, Civil War veteran and budding photographer William Henry Jackson left Vermont the day his engagement to his fiancée came to an abrupt end. Seeking to leave the past behind, he left New England to search for adventure and a new life in the American West. Jackson paid his way to Salt Lake City by working as a bullwhacker on a wagon train, and in summer 1867 had settled in Omaha, Nebraska. By the following spring, Jackson had taken over a local photography studio and two galleries with his brother, Edward.²⁴

In summer 1868, Jackson began photographing the construction of the Union Pacific Railroad for the company's promotional materials. The massive undertaking to connect the East and West Coasts provided Jackson with plenty of subject matter, as tens of thousands of workers in hundreds of crews toiled on the project. Jackson also took an interest in the region's Native American culture, photographing Indians from various tribes in his studio and on nearby reservations.²⁵



William Henry Jackson in July 1872, during the exploration of the Teton country with the United States Geological and Geographical Survey of the Territories.

Jackson's work led to a brief meeting with Hayden in summer 1869 as Hayden's team surveyed parts of Nebraska en route to the Front Range of Colorado.²⁶ In July the following year, Hayden, on his way to explore the central and southern regions of the Wyoming Territory, visited Jackson's studio during a layover in Omaha. Upon viewing the work Jackson had produced along the Union Pacific route, Hayden invited the young photographer to join his survey team for the summer—albeit unpaid except for travel and outfitting expenses, given the limited government appropriation.

Always interested in an adventure and keen to a business opportunity (he would be allowed to keep the rights to his photographs), Jackson accepted and worked with Hayden for the remainder of the summer. He documented the

survey's exploration of the southern foothills of the Wind River Mountains, Flaming Gorge on the Green River in the southwestern corner of the Wyoming Territory, and the Uinta Mountains in the northeastern Utah Territory. Jackson also photographed the great Chief Washakie and a band of Shoshone hunters at their camp near South Pass in central Wyoming as the tribe traveled to hunt bison in the Wind River Valley.²⁷

Hayden was so pleased by the young photographer's images that he offered Jackson a paid position as the official photographer for his survey team. Jackson enthusiastically agreed and left Omaha to take up residence in Washington, DC, in order to work more closely with Hayden and prepare for the following season.²⁸ In his first autobiography, *The Pioneer Photographer*, Jackson noted

the circumstances that put him and his camera on the trail to the Yellowstone region in summer 1871:

The general plan had been to continue the work of 1870 by extending it into adjacent territory. Before this plan took shape, however, public attention was directed to the wonders of the Yellowstone through lectures and magazine articles. A lecture in Washington made by Mr. N. P. Langford, which Dr. Hayden attended, made him decide on the Yellowstone as the field of his operations for 1871.²⁹

In late May and early June 1871, Hayden's team began to muster in Ogden, Utah, and on June 9, the survey's wagon train began the journey of more than 400 miles to Fort Ellis, Montana, just east of Bozeman.³⁰ Well equipped from a government appropriation almost twice that of the previous year, Hayden's survey included scientists specializing in geology, meteorology, botany, topography, mineralogy, and other practices as well as guides, hunters, cooks, and other support crew. Henry Elliott was the survey's artist and Jackson and his assistant, George Dixon, served as the survey's official photographers.³¹

A month later, Hayden's party arrived at Fort Ellis. Even though the team had explored and surveyed the southeastern Idaho Territory during the four

weeks of their journey from Ogden, the most anticipated portion of their summer's work was yet to come. Here, artist Thomas Moran joined the survey as a last-minute guest, whose travel expenses from the East were paid by Jay Cooke. Moran had illustrated Langford's "The Wonders of the Yellowstone" for *Scribner's Monthly*, based on description and rudimentary sketches, which inspired him to see Yellowstone for himself.³²

Hayden rested his team at Fort Ellis for almost a week, resupplying and coordinating with the US Army, which agreed to provide a military escort of about forty soldiers. The Army would also send their own expedition into Yellowstone under the command of Capt. John W. Barlow, chief engineer of the Division of Missouri. Barlow would share Hayden's escort while a small team of engineers focused on mapping the region, primarily working separate from, but sometimes in tandem with, Hayden's survey team.³³

Hayden's party departed Fort Ellis on July 15, 1871, heading southeast over the Gallatin Range to Trail Creek, which they followed to its confluence with the Yellowstone River on the northern end of present-day Paradise Valley, Montana. From here the Hayden Survey turned south and followed the Yellowstone into the "mythical wonderland" that, in less than a year, would become Yellowstone National Park.³⁴