Photographic fame was up for grabs in the summer of 1871, as commercial photographers reached the wonders of Yellowstone for the first time. William Henry Jackson, accompanying the Hayden Survey, would gain prominence the following winter when Jackson’s photographs helped convince Congress to set the area apart as the nation’s first national park. Jackson’s renown is undiminished, and he is usually cited as the first to photograph Yellowstone National Park. But William Henry Jackson was not the only cameraman in Yellowstone that summer. Three or four others were at work, yet they remain as obscure as Jackson is famous.

Joshua Crissman, a photographer from Bozeman, Montana Territory, actually worked alongside Jackson in both 1871 and 1872, but his images never enjoyed wide distribution. Another Bozeman photographer, Henry Bird Calfee, may have been in Yellowstone in 1871 as well, but like Crissman, Calfee is little known. More enigmatic yet is Augustus F. Thrasher. He photographed Yellowstone in 1871, but not one of his Yellowstone images can be located today.

Of all the early Yellowstone photographers who had the gold ring slip from their grasp, however, the saddest experience may be that of Thomas J. Hine. A photographer with a penchant for travel, Hine was based in Chicago, headquarters of the army’s Division of the Missouri, commanded by Lieutenant General Philip Sheridan. Sheridan had become interested in Yellowstone while inspecting frontier forts in 1870. In June 1871, the United States Department of the Interior was poised to send a large geological survey into the region under Dr. Ferdinand Vanderveer Hayden. Sheridan’s yearning to learn more about Yellowstone and to have his War Department included in its exploration spurred him to send his own, independent military reconnaissance party to accompany Hayden’s group.
Thomas J. Hine
One of Yellowstone’s Earliest Photographers

by James S. Brust and Lee H. Whittlesey
Thomas Hine photographed the Yellowstone region in 1871 while in the company of the John W. Barlow military expedition. Barlow, a Civil War veteran, is shown at right seated center with his sword beneath his arm in a James F. Gibson photograph taken near Fair Oaks, Virginia, in June 1862. At the time, Barlow was an officer in the U.S. Horse Artillery.

General Sheridan ordered his chief engineer officer, Captain John Whitney Barlow, to lead the expedition and explore the headwaters of the Yellowstone River. Highly competent and versatile, Barlow had graduated from the United States Military Academy at West Point in 1861 and achieved a distinguished record as a Civil War artillery officer before transferring to the engineers. He was the kind of scientist-soldier to whom Sheridan would have given such an assignment.

Barlow selected a small team of five men, including Thomas Hine. Expedition leaders liked to have a photographer along to provide visual documentation of the survey findings. Although photographers like Hine usually received no salary, they kept the rights to their photos and the profits from their sales. How Barlow chose Hine, and whether the two had worked together before, is not known, but when Barlow’s party departed for its two-month frontier adventure, Thomas J. Hine accompanied the expedition as photographer.

Hine produced two hundred glass plates that summer, which he took back to Chicago in the fall. From these he produced a few stereographs (stereos) that were shown locally. Then disaster struck. The Chicago fire of October 8–9, 1871, destroyed all of Hine’s Yellowstone negatives. Prints of only sixteen of his photographs were known to have escaped the blaze, but in a further irony, even the whereabouts of those have been heretofore unknown. Hine’s work might have matched Jackson’s in quality and importance, but with his photographs destroyed, Hine was forgotten, and park historians were left with not one of his Yellowstone images. Until now.

Over a century and a quarter after they were taken, seven of Thomas J. Hine’s lost 1871 Yellowstone views (vintage stereographs) have been discovered, including the first-ever photograph of Old Faithful in eruption, an image not captured that year by Jackson or any other photographer. While researching an unrelated topic in the Print Room of the New-York Historical Society in April 1998, author James Brust reviewed its


2. See elsewhere in this issue, Steven B. Jackson, “Joshua Crissman: Yellowstone’s Forgotten Photographer.”


4. “Diary of Cornelius Hedges,” box 3, folder 2, MC 35, Montana Historical Society Archives, Helena; and Bozeman Advance Courier, November 2, 9, 23, 1871. See also Whittlesey, “Everyone Can Understand a Picture.” Additional information on Augustus Thrasher provided by researcher Mary C. Horstman, Missoula, Montana, in conversation and correspondence with the authors since September 1992.


The map at left traces the route Thomas Hine followed with Barlow’s 1871 expedition from Fort Ellis near Bozeman, Montana, to the Bottler ranch on the Yellowstone River, and then south into what Congress designated as Yellowstone National Park a year later.

was “Col. Barlow.” Here were early Yellowstone stereos, issued by a Chicago photographer, with Barlow’s name written on the reverse. Could these photographs be associated with Thomas Hine’s 1871 work with the Barlow expedition? Was there a link between Hine and Copelin? Indeed, Thomas Hine and Thomas Copelin were partners, and Hine made negatives for Copelin.

That a professional relationship existed between Copelin and Hine is supported by at least three important facts: In 1866–1867, Thomas Hine was listed in the Chicago city directory as a photographer at 151 Lake Street, the same address from which the recently discovered Copelin & Son Yellowstone stereos were issued; in 1870, the photo gallery of Copelin & Melander was at 151 Lake Street, and Hine was listed as “artist, [for] Copelin & Melander,” making it probable that Hine took photographs that Copelin published from the same Lake Street address that appears on the Yellowstone stereos; and finally, some later Copelin & Son stereos carried the words “Negatives by T. Hine.”

Even more direct evidence of a Copelin-Hine partnership came with publication of certain stereographs in the aftermath of the 1871 Chicago fire. The mounts of three sets of these were marked “Copelin & Hine, Photographers, Chicago, Ill.” showing Copelin and...
Hine together in autumn 1871, when the sixteen Yellowstone stereos were made.

The December 1871 issue of the Philadelphia Photographer confirms that these seven Copelin & Son Yellowstone stereos are the work of Thomas J. Hine. Discussing fire-related losses suffered by Chicago’s photographic community, the article lists: “Mr. Hine, with Copelein [sic] & Son . . . Lost his series of Yellowstone negatives made last summer, after three months’ labor with a government exploring party . . . Total loss about $7,000; no insurance. In business again, of the firm of Copelein [sic] & Hine. Full of Chicago vim and enterprise.”

Vim and enterprise were surely characteristics required for the rigors faced by all those who participated in early Yellowstone explorations. In what would become a summer-long odyssey, Captain Barlow’s small party, including Thomas Hine, left Chicago by rail on July 2, 1871. Five days travel took them 1,200 miles west to Corinne in northern Utah Territory. From that point, the modes of transportation became progressively less comfortable and the pace slowed. Continuing first by stagecoach and then by smaller passenger wagons, Barlow’s group reached Fort Ellis, Montana Territory, by way of Virginia City and Bozeman.

Outfitted at Fort Ellis, Barlow’s expedition headed south on July 16, 1871, for a six-week, loop-like tour of Yellowstone’s main features. They advanced only thirty-five miles over the next three days, reaching Bottler’s ranch opposite Emigrant Peak at the end of the third day. Here they had to leave the wagons behind; travel would be by horse and pack mule—or on foot—the rest of the way.

Continuing south, they reached the site of the first of these seven surviving Thomas Hine Yellowstone photographs. Just north of Yellowstone National Park’s present-day boundaries is the Devil’s Slide, a gracefully curved swath of distinctively colored rock running almost the full height of Cinnabar Mountain. The gentleman proudly posed in front of the feature in Hine’s view appears to be Captain John Barlow himself.

Moving on, the group followed the Gardner River to an area Barlow referred to as Soda Mountain—now known as Mammoth Hot Springs. Here Thomas Hine

11. Two of the Copelin & Hine series were marked with the identical wording “Stereoscopic Views of Chicago, Before and After the Fire,” though a different print style on each (examples in James Brust collection). A third set read “Views of the Great Fire in Chicago, October, 1871” (example at the American Antiquarian Society, Worcester, Massachusetts).

12. Philadelphia Photographer, 8 (December 1871), 403. The same article lists “Copelein [sic] & Son, 131 Lake Street. Loss, $8,000.”

16. Ibid., 9; Chicago Evening Journal, January 13, 1872.
Among the stereographs discovered in the New York Historical Society is Thomas Hine’s image “Devil’s Slide,” taken just north of Yellowstone Park’s present-day boundary and inscribed “Copelin & Son, 331 Lake Street, Chicago.” The man posed in the foreground is probably Captain John W. Barlow.

recorded two more of the newly found stereos. “Terraces & Pools. Hot Springs on Gardner’s river,” is a view looking northwest across Minerva Terrace. “Cap of Liberty” is a familiar landmark, named by Ferdinand Hayden in 1871. Hine’s photograph title, along with Barlow’s use of the same term, shows how quickly this place name gained acceptance.16

Both Barlow and his assistant, Captain David Porter Heap, mention a camp site at Meadow Brook that the group apparently used twice, both early in their trip on July 24, and on the way out of the area on August 28.17 The photo titled “Meadow Brook Camp” provides yet more proof that this group of stereotypes is the work of Thomas Hine with the Barlow party. The site is near the junction of present Yancey Creek and Lost Creek.18 Barlow tells us that the expedition used “two ‘A’ Tents and a wall tent fly,” which are seen in Hine’s photograph. Several people are visible. The face of the gentleman in the foreground is shaded by a tree, but his attire matches that of the man posed in front of the Devil’s Slide, who may be John Barlow. It is known that Barlow’s assistant, Captain Heap, wore buckskin, and he may be the man in the middle of the group of three in the background.19

The Meadow Brook campsite was opposite the mouth of the Yellowstone River’s “East Fork,” known today as Lamar River. It is likely that Hine recorded “View up the River—Yellowstone river near East Fork” about the same time the camp scene was taken.

Hine’s photographic endeavors almost came to an abrupt end shortly after that when his mule fell over a precipice. “I came to the wreck of a pack mule,” Barlow wrote, “which had made a false step in getting over a fallen tree, and had rolled, end over end, down the hill. His pack, consisting of the photographer’s apparatus, escaped without serious injury.”20

The group moved west toward the Firehole River and the great geyser basins. On August 3, 1871, Barlow discovered and named two-hundred-foot Fairy Falls.21 Not surprisingly, Hine photographed it, and his view, titled “Fall of the Fairies, Fire Hole Basin,” is the first of that feature, and indicates all the more that this newly found group of stereographs is part of Thomas Hine’s photographic record of the Barlow expedition.

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21. Ibid., 22-23. Barlow stated that Fairy Falls was 250 feet high, but it is actually just under 200 feet.
“Then” and “now” photographs provide valuable data to the historian and naturalist alike. Hine’s “Meadow Brook Camp” (upper left) corresponds well with the same location photographed by author James Brust in 1998 (upper right). The increased vegetation seen in the modern view is commonly found when comparing nineteenth-century landscape photos of such areas as Yellowstone to the present. In the pair below, Hine’s “Terraces and Pools, Hot Springs on Gardner’s river” (lower left) at first glance gives a different appearance than the corresponding 1998 photo (lower right). But it is characteristic of hot springs like this section of Minerva Terrace to lose their water flows at times and then regain them.

The background features, again with increased vegetation, show this to be the same spot.
A second view taken at the site Hine and Barlow knew as Soda Mountain or Hot Springs of the Gardner River (now called Mammoth Hot Springs) was Hine’s stereograph of the familiar landmark, Cap of Liberty (above), which was named by Ferdinand V. Hayden in 1871, showing how quickly the place name gained acceptance.

Within a few days, Hine captured a far more important photo-first: Old Faithful in eruption. Barlow leaves no question that this feat had been achieved: “Old Faithful’ and the ‘Giant were both measured and photographed while in action.” His words are directly reflected in Hine’s view “Old Faithful in Action, Fire Hole Basin.” Arguably the best-known scenic wonder in the nation, Old Faithful has since been recorded on film millions of times. Now, after 127 years, Thomas Hine’s image of Old Faithful has emerged to claim its honors as the first such photograph.

In this era of “point and shoot” photography, when the park visitor not already armed with an automatic camera is able to buy a disposable one a few hundred feet from the geyser, the difficulties faced in photographing Old Faithful in 1871 are hard to imagine, yet impossible to exaggerate. Hine and the others were using the wet-plate collodion process, whereby negatives were made on plates of glass that had to be individually coated and sensitized immediately before use. This was difficult enough in a studio, but carrying cumbersome cameras into the field, along with large supplies of fragile glass plates and potentially dangerous chemicals, was a formidable task indeed. Once at the site of the hoped-for photo, a dark tent had to be erected so the plate could be prepared in safe light. First, an adhesive substance called collodion was poured as evenly as possible across the glass, followed by a light-sensitive chemical prepared on the spot. Only then could the plate be placed, still wet, into a lightproof holder, to be transferred to the camera and exposed.

As difficult as all this was, photographing a geyser in eruption was harder yet. First there was the issue of timing. The plate took about six minutes to prepare, then for best results had to be used and processed within another fifteen to twenty minutes. The photographer, then, could neither wait until the eruption had begun to coat the plate, nor prepare it too far in advance. Even if he could be ready at the decisive moment, the photographic properties of the wet plates created two more problems. These plates were one hundred to two hundred times less sensitive than the film we use today, leading to exposure times of a full second or more, making it hard to freeze the motion of the fast moving water and steam. In addition, the photographic emulsion on the plate reacted only to blue and ultraviolet light, so blue skies appeared very light on the photo, while other colors appeared dark. White skies without cloud detail are characteristic of photos of that era. This was not a major problem on most landscape photographs, but made it very hard to distinguish the white water and steam from blue sky when shooting an erupting geyser.22

22. Ibid., 31.
Neither William Henry Jackson nor Joshua Crissman recorded an eruption of Old Faithful until 1872, a year after Hine's August 1871 photograph. 24 Because Augustus Thrasher's summer 1871 geyser views cannot be located, we do not know if he photographed the now-famous landmark. It is clear, however, that Thrasher's group did not reach the great geyser basins until August 15—at least a week after Hine and Barlow had departed—ensuring that even if Thrasher shot an erupting Old Faithful, it was done later than Hine's. 25

Hine's adventures continued. On August 10, 1871, a day that began with temperatures below freezing in Yellowstone, it was Hine himself, rather than his equipment, that narrowly avoided disaster. With a soldier named Private Lemans, Hine went back along the trail to recover a tripod, and the pair got lost. Despite Barlow's efforts to find them, Hine and Lemans wandered for two days and had to kill a deer for subsistence before they were finally located. 26

Barlow's party, including Hine, continued, moving south of Yellowstone Lake to explore the upper reaches of the Yellowstone River. Heading north again, they traveled along the east side of the lake and down the Yellowstone River, eventually leaving the present park boundaries in late August along their original route. Upon reaching Fort Ellis on September 1, they took a side tour to the Crow Indian Agency, where Hine took additional photographs. These Indian portraits were lost too—a reminder that it was not just Yellowstone views that were destroyed by the fire. 27

We might assume that Thomas Hine was in good spirits when the group returned to Chicago on September 15, 1871. He had captured some two hundred spectacular (and salable) images on glass. Twenty-three

24. A detailed analysis of Jackson's photo inventory for both 1871 and 1872, conducted by Aubrey Haines, shows there was no view of Old Faithful until 1872. Aubrey Haines to Lee Whittlesey, May 22, Haines to Brust, August 20, Steve Jackson to James Brust, June 24, all 1998.
25. In Hedges Diary, December 11, 1871, Hedges states that "Thrasher showed his views of geysers in... [Helena]"; C. C. Clawson, "Notes on the Way to Wonderland; or A Ride to the Infernal Regions," Deer Lodge, Montana, New Northwest, September 23, 1871; and Barlow, "Reconnaissance in Wyoming," 30-31.
27. Ibid., 42. The Crow Indian Agency was then located at Mission Creek, five miles east of present Livingston, Montana. See Joseph Medicine Crow, From the Heart of the Crow Country (New York, 1992), 14-15.
days later, the great fire broke out and robbed the man and his work of a place in history. Though details of his career are sparse, Hine continued in photography, even traveling to the western frontier again. In 1873, just two years after the Yellowstone mishap, Hine served as photographer for an expedition into the San Juan Mountains of Colorado, led by Lieutenant Ernest H. Ruffner. The views he captured that summer were published on stereo cards bearing the mark of Copelin & Son, but this time with credit to Hine for having produced the negatives. In the late 1870s, Hine returned to Colorado to record views of Manitou Springs, which he issued under his own name.29 Hine’s “vim and enterprise” seemed to carry him through the hardship of losing his Yellowstone negatives.

The fire also destroyed John Barlow’s office, which contained data and specimens from the expedition. Fortunately, Captain Heap had taken enough of the group’s findings back to his St. Paul office to allow preparation of the most accurate map of the Yellowstone region of its time. Barlow, with apologies, created a remarkably descriptive report to General Sheridan using only his field notes. Barlow’s account, printed in the Congressional series the following year, provides vivid images of the group’s experiences and the sights of Yellowstone. More importantly perhaps, a lengthy extract of Barlow’s narrative was published as a supplement to the Chicago Evening Journal on January 13, 1872. Appearing at the same time as the national debate over preserving Yellowstone, Barlow’s words helped sway public sentiment in favor of creating the national park.29

The loss of Hine’s images has long left a gap in the story of early Yellowstone photography. This newly surfaced work is but a tiny fraction of what Hine’s contribution might have been, but the Old Faithful view alone should restore the name Thomas J. Hine to a prominent place in Yellowstone National Park history.

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Another photo-first for Thomas J. Hine was “Fall of the Fairies, Fire Hole Basin” (below), which John Barlow discovered and named on August 3, 1871. It and the other six newly revealed Hine views, preserved in these stereographs, constitute but a fraction of what Hine’s work might have contributed to the record of Yellowstone. Hine created more than two hundred glass plate negatives of Yellowstone in 1871, all of which were destroyed in the Chicago fire of October 1871.