Mountaineering Photography—Old Style

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I AM an honorary member of three mountain climbing clubs. These memberships were conferred, however, not so much for mountain climbing alone as, I am led to believe, for what was gained by it. Photography was the incentive and the physical act of attaining a certain point of view was only incidental thereto, whether afoot, horseback or otherwise. Endowed with a natural fondness for the great out-of-doors, fostered, somewhat, by a year's service in the Civil War, I climbed, during my youthful days in Vermont, nearly all of the Green Mountain peaks, from Mansfield to Killington. But these were picnic trips, first steps in mountaineering, if I may call them such, that were to reach their greatest heights, some fifty years later on Mexico's Popocatepetl.

With these exceptions about all of my high altitude wanderings, as well as I remember, were in the Rocky Mountain section of our West in the '70s, when attached to the U. S. Geological Survey of the Territories (Hayden's) as official photographer. Topography being an essential part of the surveys business, it had much to do with the higher elevations in a mountainous region for triangulation purposes, and I, naturally, fell in for much of the same experiences.

As photography was an important feature in the work of the Hayden Survey a brief description of its methods at that time may not be amiss in explanation of the attention given to its outfitting, and that it wasn't a one man's job, as it is today, with prepared dry plates, films, and compact cameras. Briefly, a carefully cleaned glass plate was flowed over with collodion, then immersed in a bath of silver nitrate, and at the proper moment transferred to the plate holder for exposure in the usual manner. The plate still in the wet state (a necessary condition for its further treatment) was returned to the dark room for development and further treatment for the making of a negative. After a final washing it was dried, placed in a grooved box, and at the end of the day's work, varnished, and packed safely away. A portable dark room was necessary for these operations, usually a small tent lined with non-actinic material, or a hooded box supported on a tripod. With

everything assembled for work, chemicals, apparatus, and an ever-ready supply of water, the whole outfit would weigh around 100 lbs., depending upon the size of the camera in use at the time. These ranged from a 5 x 8 up to 20 x 24, the latter being the largest ever employed for a similar line of work in the West. These various sizes were required because enlarging methods had not yet come into general practice and a separate negative, for contact printing, had to be made for each.

All this, of course, had to be transported by pack mule, or otherwise, with at least two assistants, obviously limiting in mountainous regions the range of the photographer's quest for subjects. When at the "end of the trail," however, with greater heights yet to be reached, the pack load was transferred to the shoulders of the photographer, and his assistants, and the rest of the way made afoot.

I photographed for the Hayden Survey from 1870 to 1878, inclusive, all in the "wet-plate," collodion, period. Retiring from Government service in 1879 to carry on the same kind of work for myself, it was happily just as prepared dry plates and films were becoming commercially available. Freed from the impediments of old and cumbersome methods I had thereafter the joy and profit of taking my camera, single handed, wherever ambition pointed the way.

Across Wyoming in 1870, following the old Oregon Trail over South Pass, my first adventure into regions above timberline came in the Survey's exploration of the Uinta Mountains S. of Fort Bridger. Here I learned the importance of having water handy at all times. My water bags ran dry once when taking shots at some of the higher peaks of the range. As a thorough washing of the plate is necessary for its completion, the means, in this intance, was provided by spreading a black rubber blanket on the ground, throwing snow upon it, and have the sun do the rest.

Photographing the Yellowstone region in 1871 was almost entirely of its spectacular phenomena in hot springs, geysers, canyons, and water falls; but the next year, while en route again to the newly created National Park, a detour was made to Teton Basin, the Pierre's Hole of fur-trapping days, for the exploration of the western side of the Teton Range.

For the ten days the main outfit remained in this vicinity I spent nearly every daylight hour, in traversing with a few assist-

ants, the snowy fields of the high plateaus between the forks of Teton River. The central one of these, abutting the Grand Teton and overlooking the head of Glacier Canyon, afforded the best close-up view of the Grand Teton itself. This position was gained only after precarious encounters with snow drifts which have been described more fully in *The Pioneer Photographer* (World Book Company, 1929).

While I was busy with my work on Table Mountain, eleven men from the lower camp started out, blithely, the morning of July 29th, to climb the Grand Teton! One by one they dropped out until only the leaders, Langford and Stevenson, remained to claim first ascent of its almost impregnable height. A dramatic story of the adventure was published by Langford in *Scribner's Magazine,* but history sometimes reverses itself and what really happened figures largely in the history of the Grand Teton—even in the official Annals of the State of Wyoming itself.

The Survey transferred its operations to Colorado in 1873. At the same time James T. Gardner (he spelled it then without the "i"), formerly of the King Survey of the 40th Parallel, joined the Hayden organization as chief of the Primary Triangulation Division, bringing with him A. D. Wilson and two or three others from that well-known school of mountaineering. And Colorado is a mountainous region, having within its borders most of the 14,000-ft. peaks of the United States.

It was under Gardner's direction, in line with breaking up the larger and more cumbersome organization into smaller units, that I was assigned a Photographic Division, independently of all others, with the regulation two packers and a cook, and one or more extras from among the unassigned young men, usually "naturalists," to act when needed as my assistant. With the usual allotment of a pack mule for each man, the Photographic Division made quite an imposing impression as it strung out on the trail. As to field work I was given a modified *carte blanche* to choose my own subjects, but mainly within the territory covered by the other Divisions.

The itinerary Gardner outlined for my first season in Colorado was from Denver, "To Long's Peak, thence south along the Snowy Range to Gray's Peak and from there work around by way of Pike's Peak to a rendezvous of all Divisions in South Park, after which I was to cross the Sawatch Range over into the Elk Mountain country beyond."

It was the 25th day of May when I left Denver with seven pack mules in my train and outfitted for making 11 x 14 negatives. It was too early for such an assignment and my most vivid recollection of the first part of that trip is that from Estes Park to James Peak we were constantly bucking nearly impenetrable snow drifts in getting up to the foot of the range; and that a little later, at Gray's Peak, I first climbed above 14,000 ft. Not much of an honor, as an easy horse trail leads to the very summit.

Over on the headwaters of the Arkansas, Mt. Elbert, highest of Rocky Mountain peaks, offered a temptingly easy ascent and, accordingly, with a couple of packs and two assistants, overnight camp was made near timberline for an early start for the summit. But "The best laid plans * * * gang aft agly." In the morning we found nearly all our animals paralyzed, "locoed" from browsing on that poisonous weed during the night. Compelled to abandon the attempt for the time being I next tried La Plata where the going, at first, was much harder as the pack could be taken only a little above timberline, the remaining 3000 ft. or so being negotiated afoot. But it turned out to be a day of intermittent storms sweeping over the peak and it was nearly sunset before I finished making a six-plate panorama of the entire horizon. A week later, over near Snow Mass Mountain, unlucky little cropped ear Gimlet, carrying the boxes containing my precious negatives, had a tumble that resulted in the loss of nearly every one of them, including the La Plata series. Under the circumstances there was nothing else to do but about face and make them all over again.

My work for the season came to an end with photographing of the Mt. of the Holy Cross. So much has been written about it by Fryxell and others from my original story in *The Pioneer Photographer,* that I mention it here only as one of the most difficult of my mountain-climbing photographic experiences. From its N. E. base, on what is now called Cross Creek, there was a 5000 ft. climb, approximately, to the summit of a ridge that faced the mountain with its distinguishing feature. Distributing the 100 lbs. of photographic outfit between myself and two assistants this summit was reached only to find ourselves enveloped in dense masses of clouds. Remaining until nearly sunset, in hope of a clearing, we finally stowed the apparatus under protecting rocks and retreated to timberline where we passed the night, supperless, beside a small fire. Morning came on beautifully clear with everything in our favor, but on reaching the summit of the ridge again, the

matter of water for the development and washing was of some concern. The day before all the snow banks had running streams from them, but this morning everything was frozen as tight as a drum head. A little exploration, however, discovered a pot hole among the rocks from which enough water was obtained to complete the photographic operations. Two 11 x 14 and four 5 x 8 and stereographic negatives were made, but it was nearly noon before they were safely stored away in their respective boxes. We got down from that mountain in very much less time than it took to go up.

In 1874-5 I was chiefly occupied with the archeology of the Southwest, but before extending my operations beyond the borders of Colorado I spent much time and effort among the rugged peaks and passes of the San Juan Mountains, reaching the summit, however, of only one of them, Sultan, when I accompanied Wilson for the fine view of the "quartzites" to be had from it. This was another instance of two climbs for one object, being driven off the peak the first time by a storm.

There was enough climbing over the high passes in and out of Baker's Park to have ascended most of the higher peaks of that region, but the limit upwards was fixed by the endurance of the "pack" in making it. Late in September of 1874 I crossed the 12,400-ft. pass from Las Animas to the San Miguel, at the foot of Mt. Wilson, only to be caught in a heavy snow fall in returning the next day. It was over this same pass, a year later, that I took my 20 x 24 camera, about as strenuous an undertaking as I ever made, not only because of the horrible trails but of the difficult photography under such conditions. This was typical of the other exposures made with that over-size camera among the San Juan Mountains by which I brought back twelve fine negatives of the largest size ever made under like conditions.

My last year with the Hayden Survey was signalized by climbing Frémont's Peak along with a party of seven, the first ascent, as far as known, since Frémont's time thirty-five years previously. My wet-plate outfit being impracticable on this occasion, I prepared six dry plates the night before with a collodio-bromide emulsion, by which I made that many negatives from the summit, three of which furnished detail for Holmes' fine panoramic sketch of the great glacial field lying N. E. of the peak.

This was my first successful use of dry plates for landscape photography.