

THE TUOLUMNE YOSEMITE IN DANGER

BY JOHN MUIR

THE Hetch Hetchy Valley, "that wonderful counterpart of Yosemite," as State Geologist Whitney called it, was discovered by Mr. Joseph Sereech in 1850, the year before the discovery of Yosemite, when the Digger Indians held possession of it as an acorn orchard. After my first visit in the autumn of 1871, I have always called it the Tuolumne Yosemite, for it is a wonderfully exact counterpart of the great Yosemite, not only in its crystal river and sublime rocks and waterfalls, but in the gardens, groves, and meadows of its flowery, park-like floor. The floor of Yosemite is about 4,000 feet above the sea, the Hetch Hetchy floor about 3,700; the walls of both are of gray granite, rise abruptly out of the flowery grass and groves, are sculptured in the same style, and in both every rock is a glacial monument.

Standing boldly out from the south wall is a strikingly picturesque rock called Kolona by the Indians, the outermost of a group 2,300 feet high, corresponding with the Cathedral Rocks of Yosemite both in relative position and form. On the opposite side of the Valley, facing Kolona, there is a counterpart of the El Capitan of Yosemite rising sheer and plain to a height of 1,800 feet, and over its massive brow flows a stream which makes the most graceful fall I have ever seen. From the edge of the cliff it is perfectly free in the air for a thousand feet, then breaks up into a ragged sheet of cascades among the boulders of an earthquake talus. It is in all its glory in June, when the snow is melting fast, but fades and vanishes toward the end of summer. The only fall I know with which it may fairly be compared is the Yosemite Bridal Veil; but it excels even that favorite fall both in height and airy fairy beauty and behavior. Lowlanders are apt to suppose that mountain streams in their wild career over cliffs lose control of themselves and tumble in a noisy

chaos of mist and spray. On the contrary, on no part of their travels are they more harmonious and self-controlled. Imagine yourself in Hetch Hetchy on a sunny day in June, standing waist-deep in grass and flowers (as I have oftentimes stood), while the great pines sway dreamily with scarce perceptible motion. Looking northward across the Valley, you see a plain, gray granite cliff rising abruptly out of the gardens and groves to a height of 1,800 feet, and in front of it Tueeulala's silvery scarf burning with irised sun-fire in every fiber. In the first white outburst of the stream at the head of the fall there is abundance of visible energy, but it is speedily hushed and concealed in divine repose; and its tranquil progress to the base of the cliff is like that of downy feathers in a still room. Now observe the fineness and marvelous distinctness of the various sun-illuminated fabrics into which the water is woven; they sift and float from form to form down the face of that grand gray rock in so leisurely and unconfused a manner that you can examine their texture, and patterns, and tones of color as you would a piece of embroidery held in the hand. Near the head of the fall you see groups of booming comet-like masses, their solid white heads separate, their tails like combed silk interlacing among delicate shadows, ever forming and dissolving, worn out by friction in their rush through the air. Most of these vanish a few hundred feet below the summit, changing to the varied forms of cloud-like drapery. Near the bottom the width of the fall has increased from about twenty-five to a hundred feet. Here it is composed of yet finer tissues, and is still without a trace of disorder—air, water, and sunlight woven into stuff that spirits might wear.

So fine a fall might well seem sufficient to glorify any valley; but here, as in Yosemite, Nature seems in nowise moderate, for a short distance to the eastward of Tueeulala booms and thunders

the great Hetch Hetchy Fall, Wapama, so near that you have both of them in full view from the same standpoint. It is the counterpart of the Yosemite Fall, but has a much greater volume of water, is about 1,700 feet in height, and appears to be nearly vertical though considerably inclined, and is dashed into huge out-bounding bosses of foam on the projecting shelves and knobs of its jagged gorge. No two falls could be more unlike—Tueeulala out in the open sunshine descending like thistledown; Wapama in a jagged, shadowy gorge roaring and thundering, pounding its way with the weight and energy of an avalanche. Besides this glorious pair there is a broad, massive fall on the main river a short distance above the head of the Valley. Its position is something like that of the Vernal in Yosemite, and its roar as it plunges into a surging trout-pool may be heard a long way, though it is only about twenty feet high. There is also a chain of magnificent cascades at the head of the Valley on a stream that comes in from the northeast, mostly silvery plumes like the one between the Vernal and Nevada falls of Yosemite, half sliding, half leaping on bare glacier-polished granite, covered with crisp clashing spray into which the sunbeams pour with glorious effect. And besides all these a few small streams come over the walls here and there, leaping from ledge to ledge with birdlike song and watering many a hidden cliff garden and fernery, but they are too unshowy to be noticed in so grand a place.

The correspondence between the Hetch Hetchy walls in their trends, sculpture, physical structure, and general arrangement of the main rock-masses and those of the Yosemite Valley has excited the wondering admiration of every observer. We have seen that the El Capitan and Cathedral rocks occupy the same relative positions in both valleys, so also do their Yosemite Points and North Domes. Again, that part of the Yosemite north wall immediately to the east of the Yosemite Fall has two horizontal benches timbered with gold-cup oak, at about 500 and 1,500 feet above the floor. Two benches similarly situated and timbered occur on the same

relative portion of the Hetch Hetchy north wall, to the east of Wapama Fall, and on no other. The Yosemite is bounded at the head by the great Half Dome. Hetch Hetchy is bounded in the same way, though its head rock is far less wonderful and sublime in form.

The floor of the Valley is about three and a half miles long and from a fourth to half a mile wide. The lower portion is mostly a level meadow about a mile long, with the trees restricted to the sides, and partially separated from the upper forested portion by a low bar of glacier-polished granite across which the river breaks in rapids.

The principal trees are the yellow and sugar pines, Sabine pine, incense cedar, Douglas spruce, silver fir, the California and gold-cup oaks, Balm of Gilead poplar, Nuttall's flowering dogwood, alder, maple, laurel, tumion, etc. The most abundant and influential are the great yellow pines, the tallest over two hundred feet in height, and the oaks assembled in magnificent groves with massive rugged trunks four to six or seven feet in diameter, and broad, shady, wide-spreading heads. The shrubs forming conspicuous flowery clumps and tangles are manzanita, azalea, Spiræa, brier-rose, Ceanothus, Calycanthus, Philadelphus, wild cherry, etc.; with abundance of showy and fragrant herbaceous plants growing about them or out in the open in beds by themselves—lilies, Mariposa tulips, Brodiaeas, orchids—several species of each—iris, Spraguea, Draperia, Collomia, Collinsia, Castilleia, Nemophila, larkspur, columbine, goldenrods, sunflowers and mints of many species, and honeysuckle, etc. Many fine ferns dwell here also, especially the beautiful and interesting rock-ferns—Pellæa, and Cheilanthes of several species—fringing and rosetting dry rock piles and ledges; Woodwardia and Asplenium on damp spots with fronds six or seven feet high; the delicate maidenhair in mossy nooks by the falls; and the sturdy, broad-shouldered Pteris beneath the oaks and pines.

It appears, therefore, that Hetch Hetchy Valley, far from being a plain, common, rock-bound meadow, as many who have not seen it seem to suppose, is a grand landscape garden, one of

Nature's rarest and most precious mountain mansions. As in Yosemite, the sublime rocks of its walls seem to the Nature-lover to glow with life, whether leaning back in repose or standing erect in thoughtful attitudes giving welcome to storms and calms alike. And how softly these mountain rocks are adorned, and how fine and reassuring the company they keep—their brows in the sky, their feet set in groves and gay emerald meadows, a thousand flowers leaning confidently against their adamant bosses, while birds, bees, butterflies help the river and waterfalls to stir all the air into music—things frail and fleeting and types of permanence meeting here and blending, as if into this glorious mountain temple Nature had gathered her choicest treasures, whether great or small, to draw her lovers into close, confiding communion with her.

Sad to say, this most precious and sublime feature of the Yosemite National Park is in danger of being dammed and made into a reservoir to help supply San Francisco with water and light, thus flooding it from wall to wall and burying its gardens and groves one hundred and seventy-five feet deep. This destructive scheme has long been planned and prayed for, and is still being prayed for by the City Supervisors, not because water as pure and abundant cannot be got from sources outside of the Park, for it can, but only because of the comparative shortness and cheapness of the dam required.

Garden and park making goes on with civilization over all the world, for everybody needs beauty as well as bread, places to play in and pray in where Nature may heal and cheer and give strength to body and soul alike. This natural beauty hunger is made manifest in the little window-sill gardens of the poor, though only a geranium slip in a broken cup, as well as in the radiant rose and lily gardens of the rich, the thousands of spacious city parks and botanical gardens, and in our magnificent National parks—the Yellowstone, Yosemite, Sequoia, etc.—Nature's sublime wonderlands, the admiration and joy of the world. Nevertheless, from the very beginning, however well guarded, they have all been subject to attack by gain-seekers

trying to despoil them, mischief-makers and robbers of every degree from Satan to Senators, city supervisors, lumbermen, cattlemen, farmers, etc., trying to make everything dollarable, oftentimes disguised in smiles and philanthropy, calling their plundering "utilization of natural beneficent resources," that man and beast may be fed and the Nation allowed to grow great. Thus the Lord's garden in Eden and the first forest reservation, including only one tree, was spoiled. And so to some extent have all our reservations and parks. Ever since the establishment of the Yosemite National Park by act of Congress, October 1, 1890, constant strife has been going on around its borders, and I suppose will go on as part of the universal battle between right and wrong, however much its boundaries may be shorn.

The first application to the Government by the San Francisco Supervisors for the use of Lake Eleanor and the Hetch Hetchy Valley was made in 1903, and denied December 22 of that year by the Secretary of the Interior. In his report on this case he well says: "Presumably the Yosemite National Park was created such by law because of the natural objects of varying degrees of scenic importance located within its boundaries, inclusive alike of its beautiful small lakes, like Eleanor, and its majestic wonders, like Hetch Hetchy and Yosemite Valley. It is the aggregation of such natural scenic features that makes the Yosemite Park a wonderland which the Congress of the United States sought by law to preserve for all coming time as nearly as practicable in the condition fashioned by the hand of the Creator—a worthy object of National pride and a source of healthful pleasure and rest for the thousands of people who may annually sojourn there during the heated months."

Should this noble Valley be submerged as proposed, not only would it be made utterly inaccessible, but the great Tuolumne Cañon way leading to the Upper Tuolumne Meadows, the focus of pleasure travel in the High Sierra, would also be blocked. None, as far as I have learned, of all the thousands who have seen the Yosemite Park is in favor of this destructive water scheme, and the

only hope of its promoters seems to be in the darkness that covers it. Public opinion is not yet awakened, but as soon as light reaches it I believe that nine-tenths or more of even the citizens of

San Francisco would be opposed to Hetch Hetchy destruction. The voice of the San Francisco Board of Supervisors is not the voice of California nor of the Nation.

THE NATION'S HOUSEKEEPING AT PANAMA

BY GERTRUDE BEEKS

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The author of this article spent some time on the Isthmus of Panama as the representative of the National Civic Federation in order to make thorough investigation of the conditions as to social life, food, and housing under which the great work is being carried on by the employees of the United States. A full report on these subjects has been made and has been submitted by the Federation to Secretary Taft. It should be added that the Government has shown the greatest interest in this investigation, and some of the recommendations made by Miss Beeks have already been adopted, while others are still under consideration. It should further be stated that Miss Beeks's qualifications for this particular kind of work are quite unusual, because of her six years' practical experience in dealing with many phases of the industrial problem in the United States, and in making and putting into effect plans for the well-being of men and women in stores, mills, factories, and elsewhere.—THE EDITORS.

THE Government has on its hands not only a vast engineering work, but a stupendous task in caring for the material well-being of its employees on the Isthmus of Panama. At the outset, makeshifts were the order of the day. Two years of steady work has wonderfully improved the general conditions of living, and constant progress is being noted. That it takes time to build up a community life, with adequate provision for the physical and social necessities of its people, may readily be granted. While a good start has been made, there is still much to be done to produce conditions which we have a right to expect from an enterprise under the management of the National Government. The comparatively isolated position of the workers, combined with the exigencies of a tropical climate, necessitate comprehensive measures to secure health and well-being. Facts were gathered during an investigation of several weeks, with personal inspection, and converse with officials, employees, and all classes of residents. It is therefore believed that statements are accu-

rate, and that no needs have been formulated that are not genuine.

"How did you find the climate?" is the question asked on every side. There is great curiosity to know how a tropical climate, which the average person associates with intense heat, affects the visitor, as well as those who permanently locate in the Canal Zone. While the climate is, of course, one of continued summer, it is that of summer and nothing more. It has a rainy season, extending over eight months, with frequent though not uninterrupted rainfall. Then the moisture of the atmosphere brings with it some discomforts in the mustiness of bedding and the mold which accumulates on shoes and woolen clothing. The cloudiness which follows from the moist climate is oftentimes a grateful shield from the sun's rays. The dry season, which extends over four months, is described as most delightful. The nights are generally cool, and blankets a necessity.

In the long run, the tropical light begets nervousness, and the continued warm weather saps the energy of resi-