JOHN MUIR

THE YOSEMITE

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Muir J.

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Содержание

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Chapter 1
The Approach to the Valley

When I set out on the long excursion that finally led to California I wandered afoot and alone, from Indiana to the Gulf of Mexico, with a plant-press on my back, holding a generally southward course, like the birds when they are going from summer to winter. From the west coast of Florida I crossed the gulf to Cuba, enjoyed the rich tropical flora there for a few months, intending to go thence to the north end of South America, make my way through the woods to the headwaters of the Amazon, and float down that grand river to the ocean. But I was unable to find a ship bound for South America–fortunately perhaps, for I had incredibly little money for so long a trip and had not yet fully recovered from a fever caught in the Florida swamps. Therefore I decided to visit California for a year or two to see its wonderful flora and the famous Yosemite Valley. All the world was before me and every day was a holiday, so it did not seem important to which one of the world's wildernesses I first should wander.

Arriving by the Panama steamer, I stopped one day in San Francisco and then inquired for the nearest way out of town. "But where do you want to go?" asked the man to whom I had applied for this important information. "To any place that is wild," I said. This reply startled him. He seemed to fear I might be crazy and therefore the sooner I was out of town the better, so he directed me to the Oakland ferry.

So on the first of April, 1868, I set out afoot for Yosemite. It was the bloom-time of the year over the lowlands and coast ranges the landscapes of the Santa Clara Valley were fairly drenched with sunshine, all the air was quivering with the songs of the meadow-larks, and the hills were so covered with flowers that they seemed to be painted. Slow indeed was my progress through these glorious gardens, the first of the California flora I had seen. Cattle and cultivation were making few scars as yet, and I wandered enchanted in long wavering curves, knowing by my pocket map that Yosemite Valley lay to the east and that I should surely find it.

The Sierra From The West

Looking eastward from the summit of the Pacheco Pass one shining morning, a landscape was displayed that after all my wanderings still appears as the most beautiful I have ever beheld. At my feet lay the Great Central Valley of California, level and flowery, like a lake of pure sunshine, forty or fifty miles wide, five hundred miles long, one rich furred garden of yellow *Compositæ*. And from the eastern boundary of this vast golden flower-bed rose the mighty Sierra, miles in height, and so gloriously colored and so radiant, it seemed not clothed with light, but wholly composed of it, like the wall of some celestial city. Along the top and extending a good way down, was a rich pearl-gray belt of snow; below it a belt of blue and dark purple, marking the extension of the forests; and stretching along the base of the range a broad belt of rose-purple; all these colors, from the blue sky to the yellow valley smoothly blending as they do in a rainbow, making a wall of light ineffably fine. Then it seemed to me that the Sierra should be called, not the Nevada or Snowy Range, but the Range of Light. And after ten years of wandering and wondering in the heart of it, rejoicing in its glorious floods of light, the white beams of the morning streaming through the passes, the noonday radiance on the crystal rocks, the flush of the alpenglow, and the irised spray of countless waterfalls, it still seems above all others the Range of Light.

In general views no mark of man is visible upon it, nor any thing to suggest the wonderful depth and grandeur of its sculpture. None of its magnificent forest-crowned ridges seems to rise much above the general level to publish its wealth. No great valley or river is seen, or group of well-marked features of any kind standing out as distinct pictures. Even the summit peaks, marshaled in glorious array so high in the sky, seem comparatively regular in form. Nevertheless the whole range five hundred miles long is furrowed with cañons 2000 to 5000 feet deep, in which once flowed majestic glaciers, and in which now flow and sing the bright rejoicing rivers.

Characteristics Of The Cañons

Though of such stupendous depth, these cañons are not gloom gorges, savage and inaccessible. With rough passages here and there they are flowery pathways conducting to the snowy, icy fountains; mountain streets full of life and light, graded and sculptured by the ancient glaciers, and presenting throughout all their course a rich variety of novel and attractive scenery–the most attractive that has yet been discovered in the mountain ranges of the world. In many places, especially in the middle region of the western flank, the main cañons widen into spacious valleys or parks diversified like landscape gardens with meadows and groves and thickets of blooming bushes, while the lofty walls, infinitely varied in form are fringed with ferns, flowering plants, shrubs of many species and tall evergreens and oaks that find footholds on small benches and tables, all enlivened and made glorious with rejoicing stream that come chanting in chorus over the cliffs and through side cañons in falls of every conceivable form, to join the river that flow in tranquil, shining beauty down the middle of each one of them.

The Incomparable Yosemite

The most famous and accessible of these cañon valleys, and also the one that presents their most striking and sublime features on the grandest scale, is the Yosemite, situated in the basin of the Merced River at an elevation of 4000 feet above the level of the sea. It is about seven miles long, half a mile to a mile wide, and nearly a mile deep in the solid granite flank of the range. The walls are made up of rocks, mountains in size, partly separated from each other by side cañons, and they are so sheer in front, and so compactly and harmoniously arranged on a level floor, that the Valley, comprehensively seen, looks like an immense hall or temple lighted from above.

But no temple made with hands can compare with Yosemite. Every rock in its walls seems to glow with life. Some lean back in majestic repose; others, absolutely sheer or nearly so for thousands of feet, advance beyond their companions in thoughtful attitudes, giving welcome to storms and calms alike, seemingly aware, yet heedless, of everything going on about them. Awful in stern, immovable majesty, how softly these rocks are adorned, and how fine and reassuring the company they keep: their feet among beautiful groves and meadows, their brows in the sky, a thousand flowers leaning confidingly against their feet, bathed in floods of water, floods of light, while the snow and waterfalls, the winds and avalanches and clouds shine and sing and wreathe about them as the years go by, and myriads of small winged creatures birds, bees, butterflies–give glad animation and help to make all the air into music. Down through the middle of the Valley flows the crystal Merced, River of Mercy, peacefully quiet, reflecting lilies and trees and the onlooking rocks; things frail and fleeting and types of endurance meeting here and blending in countless forms, as if into this one mountain mansion Nature had gathered her choicest treasures, to draw her lovers into close and confiding communion with her.

The Approach To The Valley

Sauntering up the foothills to Yosemite by any of the old trails or roads in use before the railway was built from the town of Merced up the river to the boundary of Yosemite Park, richer and wilder become the forests and streams. At an elevation of 6000 feet above the level of the sea the silver firs are 200 feet high, with branches whorled around the colossal shafts in regular order, and every branch beautifully pinnate like a fern frond. The Douglas spruce, the yellow and sugar pines and brown-barked Libocedrus here reach their finest developments of beauty and grandeur. The majestic Sequoia is here, too, the king of conifers, the noblest of all the noble race. These colossal trees are as wonderful in fineness of beauty and proportion as in stature–an assemblage of conifers surpassing all that have ever yet been discovered in the forests of the world. Here indeed is the tree-lover's paradise; the woods, dry and wholesome, letting in the light in shimmering masses of half sunshine, half shade; the night air as well as the day air indescribably spicy and exhilarating; plushy fir-boughs for campers' beds and cascades to sing us to sleep. On the highest ridges, over which these old Yosemite ways passed, the silver fir (*Abies magnifica*) forms the bulk of the woods, pressing forward in glorious array to the very brink of the Valley walls on both sides, and beyond the Valley to a height of from 8000 to 9000 feet above the level of the sea. Thus it appears that Yosemite, presenting such stupendous faces of bare granite, is nevertheless imbedded in magnificent forests, and the main species of pine, fir, spruce and libocedrus are also found in the Valley itself, but there are no "big trees" (*Sequoia gigantea*) in the Valley or about the rim of it. The nearest are about ten and twenty miles beyond the lower end of the valley on small tributaries of the Merced and Tuolumne Rivers.

The First View: The Bridal Veil

From the margin of these glorious forests the first general view of the Valley used to be gained–a revelation in landscape affairs that enriches one's life forever. Entering the Valley, gazing overwhelmed with the multitude of grand objects about us, perhaps the first to fix our attention will be the Bridal Veil, a beautiful waterfall on our right. Its brow, where it first leaps free from the cliff, is about 900 feet above us; and as it sways and sings in the wind, clad in gauzy, sun-sifted spray, half falling, half floating, it seems infinitely gentle and fine; but the hymns it sings tell the solemn fateful power hidden beneath its soft clothing.

The Bridal Veil shoots free from the upper edge of the cliff by the velocity the stream has acquired in descending a long slope above the head of the fall. Looking from the top of the rock-avalanche talus on the west side, about one hundred feet above the foot of the fall, the under surface of the water arch is seen to be finely grooved and striated; and the sky is seen through the arch between rock and water, making a novel and beautiful effect.

Under ordinary weather conditions the fall strikes on flat-topped slabs, forming a kind of ledge about two-thirds of the way down from the top, and as the fall sways back and forth with great variety of motions among these flat-topped pillars, kissing and plashing notes as well as thunder-like detonations are produced, like those of the Yosemite Fall, though on a smaller scale.

The rainbows of the Veil, or rather the spray- and foam-bows, are superb, because the waters are dashed among angular blocks of granite at the foot, producing abundance of spray of the best quality for iris effects, and also for a luxuriant growth of grass and maiden-hair on the side of the talus, which lower down is planted with oak, laurel and willows.

General Features Of The Valley

On the other side of the Valley, almost immediately opposite the Bridal Veil, there is another fine fall, considerably wider than the Veil when the snow is melting fast and more than 1000 feet in height, measured from the brow of the cliff where it first springs out into the air to the head of the rocky talus on which it strikes and is broken up into ragged cascades. It is called the Ribbon Fall or Virgin's Tears. During the spring floods it is a magnificent object, but the suffocating blasts of spray that fill the recess in the wall which it occupies prevent a near approach. In autumn, however when its feeble current falls in a shower, it may then pass for tears with the sentimental onlooker fresh from a visit to the Bridal Veil.

Just beyond this glorious flood the El Capitan Rock, regarded by many as the most sublime feature of the Valley, is seen through the pine groves, standing forward beyond the general line of the wall in most imposing grandeur, a type of permanence. It is 3300 feet high, a plain, severely simple, glacier-sculptured face of granite, the end of one of the most compact and enduring of the mountain ridges, unrivaled in height and breadth and flawless strength.

Across the Valley from here, next to the Bridal Veil, are the picturesque Cathedral Rocks, nearly 2700 feet high, making a noble display of fine yet massive sculpture. They are closely related to El Capitan, having been eroded from the same mountain ridge by the great Yosemite Glacier when the Valley was in process of formation.

Next to the Cathedral Rocks on the south side towers the Sentinel Rock to a height of more than 3000 feet, a telling monument of the glacial period.

Almost immediately opposite the Sentinel are the Three Brothers, an immense mountain mass with three gables fronting the Valley, one above another, the topmost gable nearly 4000 feet high. They were named for three brothers, sons of old Tenaya, the Yosemite chief, captured here during the Indian War, at the time of the discovery of the Valley in 1852.

Sauntering up the Valley through meadow and grove, in the company of these majestic rocks, which seem to follow us as we advance, gazing, admiring, looking for new wonders ahead where all about us is so wonderful, the thunder of the Yosemite Fall is heard, and when we arrive in front of the Sentinel Rock it is revealed in all its glory from base to summit, half a mile in height, and seeming to spring out into the Valley sunshine direct from the sky. But even this fall, perhaps the most wonderful of its kind in the world, cannot at first hold our attention, for now the wide upper portion of the Valley is displayed to view, with the finely modeled North Dome, the Royal Arches and Washington Column on our left; Glacier Point, with its massive, magnificent sculpture on the right; and in the middle, directly in front, looms Tissiack or Half Dome, the most beautiful and most sublime of all the wonderful Yosemite rocks, rising in serene majesty from flowery groves and meadows to a height of 4750 feet.

The Upper Cañons

Here the Valley divides into three branches, the Tenaya, Nevada, and Illilouette Cañons, extending back into the fountains of the High Sierra, with scenery every way worthy the relation they bear to Yosemite.

In the south branch, a mile or two from the main Valley, is the Illilouette Fall, 600 feet high, one of the most beautiful of all the Yosemite choir, but to most people inaccessible as yet on account of its rough, steep, boulder-choked cañon. Its principal fountains of ice and snow lie in the beautiful and interesting mountains of the Merced group, while its broad open basin between its fountain mountains and cañon is noted for the beauty of its lakes and forests and magnificent moraines.

Returning to the Valley, and going up the north branch of Tenaya Cañon, we pass between the North Dome and Half Dome, and in less than an hour come to Mirror Lake, the Dome Cascade and Tenaya Fall. Beyond the Fall, on the north side of the cañon is the sublime Ed Capitan-like rock called Mount Watkins; on the south the vast granite wave of Clouds' Rest, a mile in height; and between them the fine Tenaya Cascade with silvery plumes outspread on smooth glacier-polished folds of granite, making a vertical descent in all of about 700 feet.

Just beyond the Dome Cascades, on the shoulder of Mount Watkins, there is an old trail once used by Indians on their way across the range to Mono, but in the cañon above this point there is no trail of any sort. Between Mount Watkins and Clouds' Rest the cañon is accessible only to mountaineers, and it is so dangerous that I hesitate to advise even good climbers, anxious to test their nerve and skill, to attempt to pass through it. Beyond the Cascades no great difficulty will be encountered. A succession of charming lily gardens and meadows occurs in filled-up lake basins among the rock-waves in the bottom of the cañon, and everywhere the surface of the granite has a smooth-wiped appearance, and in many places reflects the sunbeams like glass, a phenomenon due to glacial action, the cañon having been the channel of one of the main tributaries of the ancient Yosemite Glacier.

About ten miles above the Valley we come to the beautiful Tenaya Lake, and here the cañon terminates. A mile or two above the lake stands the grand Sierra Cathedral, a building of one stone, sewn from the living rock, with sides, roof, gable, spire and ornamental pinnacles, fashioned and finished symmetrically like a work of art, and set on a well-graded plateau about 9000 feet high, as if Nature in making so fine a building had also been careful that it should be finely seen. From every direction its peculiar form and graceful, majestic beauty of expression never fail to charm. Its height from its base to the ridge of the roof is about 2500 feet, and among the pinnacles that adorn the front grand views may be gained of the upper basins of the Merced and Tuolumne Rivers.

Passing the Cathedral we descend into the delightful, spacious Tuolumne Valley, from which excursions may be made to Mounts Dana, Lyell, Ritter, Conness, and Mono Lake, and to the many curious peaks that rise above the meadows on the south, and to the Big Tuolumne Cañon, with its glorious abundance of rock and falling, gliding, tossing water. For all these the beautiful meadows near the Soda Springs form a delightful center.

Natural Features Near The Valley

Returning now to Yosemite and ascending the middle or Nevada branch of the Valley, occupied by the main Merced River, we come within a few miles to the Vernal and Nevada Falls, 400 and 600 feet high, pouring their white, rejoicing waters in the midst of the most novel and sublime rock scenery to be found in all the World. Tracing the river beyond the head of the Nevada Fall we are lead into the Little Yosemite, a valley like the great Yosemite in form, sculpture and vegetation. It is about three miles long, with walls 1500 to 2000 feet high, cascades coming over them, and the ever flowing through the meadows and groves of the level bottom in tranquil, richly-embowered reaches.

Beyond this Little Yosemite in the main cañon, there are three other little yosemites, the highest situated a few miles below the base of Mount Lyell, at an elevation of about 7800 feet above the sea. To describe these, with all their wealth of Yosemite furniture, and the wilderness of lofty peaks above them, the home of the avalanche and treasury of the fountain snow, would take us far beyond the bounds of a single book. Nor can we here consider the formation of these mountain landscapes– how the crystal rock were brought to light by glaciers made up of crystal snow, making beauty whose influence is so mysterious on every one who sees it.

Of the small glacier lakes so characteristic of these upper regions, there are no fewer than sixty-seven in the basin of the main middle branch, besides countless smaller pools. In the basin of the Illilouette there are sixteen, in the Tenaya basin and its branches thirteen, in the Yosemite Creek basin fourteen, and in the Pohono or Bridal Veil one, making a grand total of one hundred and eleven lakes whose waters come to sing at Yosemite. So glorious is the background of the great Valley, so harmonious its relations to its widespreading fountains.

The same harmony prevails in all the other features of the adjacent landscapes. Climbing out of the Valley by the subordinate cañons, we find the ground rising from the brink of the walls: on the south side to the fountains of the Bridal Veil Creek, the basin of which is noted for the beauty of its meadows and its superb forests of silver fir; on the north side through the basin of the Yosemite Creek to the dividing ridge along the Tuolumne Cañon and the fountains of the Hoffman Range.

Down The Yosemite Creek

In general views the Yosemite Creek basin seems to be paved with domes and smooth, whaleback masses of granite in every stage of development–some showing only their crowns; others rising high and free above the girdling forests, singly or in groups. Others are developed only on one side, forming bold outstanding bosses usually well fringed with shrubs and trees, and presenting the polished surfaces given them by the glacier that brought them into relief. On the upper portion of the basin broad moraine beds have been deposited and on these fine, thrifty forests are growing. Lakes and meadows and small spongy bogs may be found hiding here and there in the woods or back in the fountain recesses of Mount Hoffman, while a thousand gardens are planted along the banks of the streams.

All the wide, fan-shaped upper portion of the basin is covered with a network of small rills that go cheerily on their way to their grand fall in the Valley, now flowing on smooth pavements in sheets thin as glass, now diving under willows and laving their red roots, oozing through green, plushy bogs, plashing over small falls and dancing down slanting cascades, calming again, gliding through patches of smooth glacier meadows with sod of alpine agrostis mixed with blue and white violets and daisies, breaking, tossing among rough boulders and fallen trees, resting in calm pools, flowing together until, all united, they go to their fate with stately, tranquil gestures like a full-grown river. At the crossing of the Mono Trail, about two miles above the head of the Yosemite Fall, the stream is nearly forty feet wide, and when the snow is melting rapidly in the spring it is about four feet deep, with a current of two and a half miles an hour. This is about the volume of water that forms the Fall in May and June when there had been much snow the preceding winter; but it varies greatly from month to month. The snow rapidly vanishes from the open portion of the basin, which faces southward, and only a few of the tributaries reach back to perennial snow and ice fountains in the shadowy amphitheaters on the precipitous northern slopes of Mount Hoffman. The total descent made by the stream from its highest sources to its confluence with the Merced in the Valley is about 6000 feet, while the distance is only about ten miles, an average fall of 600 feet per mile. The last mile of its course lies between the sides of sunken domes and swelling folds of the granite that are clustered and pressed together like a mass of bossy cumulus clouds. Through this shining way Yosemite Creek goes to its fate, swaying and swirling with easy, graceful gestures and singing the last of its mountain songs before it reaches the dizzy edge of Yosemite to fall 2600 feet into another world, where climate, vegetation, inhabitants, all are different. Emerging from this last cañon the stream glides, in flat lace-like folds, down a smooth incline into a small pool where it seems to rest and compose itself before taking the grand plunge. Then calmly, as if leaving a lake, it slips over the polished lip of the pool down another incline and out over the brow of the precipice in a magnificent curve thick-sown with rainbow spray.

The Yosemite Fall

Long ago before I had traced this fine stream to its head back of Mount Hoffman, I was eager to reach the extreme verge to see how it behaved in flying so far through the air; but after enjoying this view and getting safely away I have never advised any one to follow my steps. The last incline down which the stream journeys so gracefully is so steep and smooth one must slip cautiously forward on hands and feet alongside the rushing water, which so near one's head is very exciting. But to gain a perfect view one must go yet farther, over a curving brow to a slight shelf on the extreme brink. This shelf, formed by the flaking off of a fold of granite, is about three inches wide, just wide enough for a safe rest for one's heels. To me it seemed nerve-trying to slip to this narrow foothold and poise on the edge of such precipice so close to the confusing whirl of the waters; and after casting longing glances over the shining brow of the fall and listening to its sublime psalm, I concluded not to attempt to go nearer, but, nevertheless, against reasonable judgment, I did. Noticing some tufts of artemisia in a cleft of rock, I filled my mouth with the leaves, hoping their bitter taste might help to keep caution keen and prevent giddiness. In spite of myself I reached the little ledge, got my heels well set, and worked sidewise twenty or thirty feet to a point close to the out-plunging current. Here the view is perfectly free down into the heart of the bright irised throng of comet-like streamers into which the whole ponderous volume of the fall separates, two or three hundred feet below the brow. So glorious a display of pure wildness, acting at close range while cut off from all the world beside, is terribly impressive. A less nerve-trying view may be obtained from a fissured portion of the edge of the cliff about forty yards to the eastward of the fall. Seen from this point towards noon, in the spring, the rainbow on its brow seems to be broken up and mingled with the rushing comets until all the fall is stained with iris colors, leaving no white water visible. This is the best of the safe views from above, the huge steadfast rocks, the flying waters, and the rainbow light forming one of the most glorious pictures conceivable.

The Yosemite Fall is separated into an upper and a lower fall with a series of falls and cascades between them, but when viewed in front from the bottom of the Valley they all appear as one.

So grandly does this magnificent fall display itself from the floor of the Valley, few visitors take the trouble to climb the walls to gain nearer views, unable to realize how vastly more impressive it is near by than at a distance of one or two miles.

A Wonderful Ascent

The views developed in a walk up the zigzags of the trail leading to the foot of the Upper Fall are about as varied and impressive as those displayed along the favorite Glacier Point Trail. One rises as if on wings. The groves, meadows, fern-flats and reaches of the river gain new interest, as if never seen before; all the views changing in a most striking manner as we go higher from point to point. The foreground also changes every few rods in the most surprising manner, although the earthquake talus and the level bench on the face of the wall over which the trail passes seem monotonous and commonplace as seen from the bottom of the Valley. Up we climb with glad exhilaration, through shaggy fringes of laurel, ceanothus, glossy-leaved manzanita and live-oak, from shadow to shadow across bars and patches of sunshine, the leafy openings making charming frames for the Valley pictures beheld through gem, and for the glimpses of the high peaks that appear in the distance. The higher we go the farther we seem to be from the summit of the vast granite wall. Here we pass a projecting buttress hose grooved and rounded surface tells a plain story of the time when the Valley, now filled with sunshine, was filled with ice, when the grand old Yosemite Glacier, flowing river-like from its distant fountains, swept through it, crushing, grinding, wearing its way ever deeper, developing and fashioning these sublime rocks. Again we cross a white, battered gully, the pathway of rock avalanches or snow avalanches. Farther on we come to a gentle stream slipping down the face of the Cliff in lace-like strips, and dropping from ledge to ledge–too small to be called a fall–trickling, dripping, oozing, a pathless wanderer from one of the upland meadow lying a little way back of the Valley rim, seeking a way century after century to the depths of the Valley without any appreciable channel. Every morning after a cool night, evaporation being checked, it gathers strength and sings like a bird, but as the day advances and the sun strikes its thin currents outspread on the heated precipices, most of its waters vanish ere the bottom of the Valley is reached. Many a fine, hanging-garden aloft on breezy inaccessible heights owes to it its freshness and fullness of beauty; ferneries in shady nooks, filled with Adiantum, Woodwardia, Woodsia, Aspidium, Pellaea, and Cheilanthes, rosetted and tufted and ranged in lines, daintily overlapping, thatching the stupendous cliffs with softest beauty, some of the delicate fronds seeming to float on the warm moist air, without any connection with rock or stream. Nor is there any lack of colored plants wherever they can find a place to cling to; lilies and mints, the showy cardinal mimulus, and glowing cushions of the golden bahia, enlivened with butterflies and bees and all the other small, happy humming creatures that belong to them.

After the highest point on the lower division of the trail is gained it leads up into the deep recess occupied by the great fall, the noblest display of falling water to be found in the Valley, or perhaps in the world. When it first comes in sight it seems almost within reach of one's hand, so great in the spring is its volume and velocity, yet it is still nearly a third of a mile away and appears to recede as we advance. The sculpture of the walls about it is on a scale of grandeur, according nobly with the fall plain and massive, though elaborately finished, like all the other cliffs about the Valley.

In the afternoon an immense shadow is cast athwart the plateau in front of the fall, and over the chaparral bushes that clothe the slopes and benches of the walls to the eastward, creeping upward until the fall is wholly overcast, the contrast between the shaded and illumined sections being very striking in these near views.

Under this shadow, during the cool centuries immediately following the breaking-up of the Glacial Period, dwelt a small residual glacier, one of the few that lingered on this sun-beaten side of the Valley after the main trunk glacier had vanished. It sent down a long winding current through the narrow cañon on the west side of the fall, and must have formed a striking feature of the ancient scenery of the Valley; the lofty fall of ice and fall of water side by side, yet separate and distinct.

The coolness of the afternoon shadow and the abundant dewy spray make a fine climate for the plateau ferns and grasses, and for the beautiful azalea bushes that grow here in profusion and bloom

in September, long after the warmer thickets down on the floor of the Valley have withered and gone to seed. Even close to the fall, and behind it at the base of the cliff, a few venturesome plants may be found undisturbed by the rock-shaking torrent.

The basin at the foot of the fall into which the current directly pours, when it is not swayed by the wind, is about ten feet deep and fifteen to twenty feet in diameter. That it is not much deeper is surprising, when the great height and force of the fall is considered. But the rock where the water strikes probably suffers less erosion than it would were the descent less than half as great, since the current is outspread, and much of its force is spent ere it reaches the bottom–being received on the air as upon an elastic cushion, and borne outward and dissipated over a surface more than fifty yards wide.

This surface, easily examined when the water is low, is intensely clean and fresh looking. It is the raw, quick flesh of the mountain wholly untouched by the weather. In summer droughts when the snowfall of the preceding winter has been light, the fall is reduced to a mere shower of separate drops without any obscuring spray. Then we may safely go back of it and view the crystal shower from beneath, each drop wavering and pulsing as it makes its way through the air, and flashing off jets of colored light of ravishing beauty. But all this is invisible from the bottom of the Valley, like a thousand other interesting things. One must labor for beauty as for bread, here as elsewhere.

The Grandeur Of The Yosemite Fall

During the time of the spring floods the best near view of the fall is obtained from Fern Ledge on the east side above the blinding spray at a height of about 400 feet above the base of the fall. A climb of about 1400 feet from the Valley has to be made, and there is no trail, but to any one fond of climbing this will make the ascent all the more delightful. A narrow part of the ledge extends to the side of the fall and back of it, enabling us to approach it as closely as we wish. When the afternoon sunshine is streaming through the throng of comets, ever wasting, ever renewed, fineness, firmness and variety of their forms are beautifully revealed. At the top of the fall they seem to burst forth in irregular spurts from some grand, throbbing mountain heart. Now and then one mighty throb sends forth a mass of solid water into the free air far beyond the others which rushes alone to the bottom of the fall with long streaming tail, like combed silk, while the others, descending in clusters, gradually mingle and lose their identity. But they all rush past us with amazing velocity and display of power though apparently drowsy and deliberate in their movements when observed from a distance of a mile or two. The heads of these comet-like masses are composed of nearly solid water, and are dense white in color like pressed snow, from the friction they suffer in rushing through the air, the portion worn off forming the tail between the white lustrous threads and films of which faint, grayish pencilings appear, while the outer, finer sprays of water-dust, whirling in sunny eddies, are pearly gray throughout. At the bottom of the fall there is but little distinction of form visible. It is mostly a hissing, clashing, seething, upwhirling mass of scud and spray, through which the light sifts in gray and purple tones while at times when the sun strikes at the required angle, the whole wild and apparently lawless, stormy, striving mass is changed to brilliant rainbow hues, manifesting finest harmony. The middle portion of the fall is the most openly beautiful; lower, the various forms into which the waters are wrought are more closely and voluminously veiled, while higher, towards the head, the current is comparatively simple and undivided. But even at the bottom, in the boiling clouds of spray, there is no confusion, while the rainbow light makes all divine, adding glorious beauty and peace to glorious power. This noble fall has far the richest, as well as the most powerful, voice of all the falls of the Valley, its tones varying from the sharp hiss and rustle of the wind in the glossy leaves of the live-oak and the soft, sifting, hushing tones of the pines, to the loudest rush and roar of storm winds and thunder among the crags of the summit peaks. The low bass, booming, reverberating tones, heard under favorable circumstances five or six miles away are formed by the dashing and exploding of heavy masses mixed with air upon two projecting ledges on the face of the cliff, the one on which we are standing and another about 200 feet above it. The torrent of massive comets is continuous at time of high water, while the explosive, booming notes are wildly intermittent, because, unless influenced by the wind, most of the heavier masses shoot out from the face of the precipice, and pass the ledges upon which at other times they are exploded. Occasionally the whole fall is swayed away from the front of the cliff, then suddenly dashed flat against it, or vibrated from side to side like a pendulum, giving rise to endless variety of forms and sounds.

The Nevada Fall

The Nevada Fall is 600 feet high and is usually ranked next to the Yosemite in general interest among the five main falls of the Valley. Coming through the Little Yosemite in tranquil reaches, the river is first broken into rapids on a moraine boulder-bar that crosses the lower end of the Valley. Thence it pursues its way to the head of the fall in a rough, solid rock channel, dashing on side angles, heaving in heavy surging masses against elbow knobs, and swirling and swashing in pot-holes without a moment's rest. Thus, already chafed and dashed to foam, overfolded and twisted, it plunges over the brink of the precipice as if glad to escape into the open air. But before it reaches the bottom it is pulverized yet finer by impinging upon a sloping portion of the cliff about half-way down, thus making it the whitest of all the falls of the Valley, and altogether one of the most wonderful in the world.

On the north side, close to its head, a slab of granite projects over the brink, forming a fine point for a view, over its throng of streamers and wild plunging, into its intensely white bosom, and through the broad drifts of spray, to the river far below, gathering its spent waters and rushing on again down the cañon in glad exultation into Emerald Pool, where at length it grows calm and gets rest for what still lies before it. All the features of the view correspond with the waters in grandeur and wildness. The glacier sculptured walls of the cañon on either hand, with the sublime mass of the Glacier Point Ridge in front, form a huge triangular pit-like basin, which, filled with the roaring of the falling river seems as if it might be the hopper of one of the mills of the gods in which the mountains were being ground.

The Vernal Fall

The Vernal, about a mile below the Nevada, is 400 feet high, a staid, orderly, graceful, easy-going fall, proper and exact in every movement and gesture, with scarce a hint of the passionate enthusiasm of the Yosemite or of the impetuous Nevada, whose chafed and twisted waters hurrying over the cliff seem glad to escape into the open air, while its deep, booming, thunder-tones reverberate over the listening landscape. Nevertheless it is a favorite with most visitors, doubtless because it is more accessible than any other, more closely approached and better seen and heard. A good stairway ascends the cliff beside it and the level plateau at the head enables one to saunter safely along the edge of the river as it comes from Emerald Pool and to watch its waters, calmly bending over the brow of the precipice, in a sheet eighty feet wide, changing in color from green to purplish gray and white until dashed on a boulder talus. Thence issuing from beneath its fine broad spray-clouds we see the tremendously adventurous river still unspent, beating its way down the wildest and deepest of all its cañons in gray roaring rapids, dear to the ouzel, and below the confluence of the Illilouette, sweeping around the shoulder of the Half Dome on its approach to the head of the tranquil levels of the Valley.

The Illilouette Fall

The Illilouette in general appearance most resembles the Nevada. The volume of water is less than half as great, but it is about the same height (600 feet) and its waters receive the same kind of preliminary tossing in a rocky, irregular channel. Therefore it is a very white and fine-grained fall. When it is in full springtime bloom it is partly divided by rocks that roughen the lip of the precipice, but this division amounts only to a kind of fluting and grooving of the column, which has a beautiful effect. It is not nearly so grand a fall as the upper Yosemite, or so symmetrical as the Vernal, or so airily graceful and simple as the Bridal Veil, nor does it ever display so tremendous an outgush of snowy magnificence as the Nevada; but in the exquisite fineness and richness of texture of its flowing folds it surpasses them all.

One of the finest effects of sunlight on falling water I ever saw in Yosemite or elsewhere I found on the brow of this beautiful fall. It was in the Indian summer, when the leaf colors were ripe and the great cliffs and domes were transfigured in the hazy golden air. I had scrambled up its rugged talus-dammed cañon, oftentimes stopping to take breath and look back to admire the wonderful views to be had there of the great Half Dome, and to enjoy the extreme purity of the water, which in the motionless pools on this stream is almost perfectly invisible; the colored foliage of the maples, dogwoods, *Rubus* tangles, etc., and the late goldenrods and asters. The voice of the fall was now low, and the grand spring and summer floods had waned to sifting, drifting gauze and thin-broidered folds of linked and arrowy lace-work. When I reached the foot of the fall sunbeams were glinting across its head, leaving all the rest of it in shadow; and on its illumined brow a group of yellow spangles of singular form and beauty were playing, flashing up and dancing in large flame-shaped masses, wavering at times, then steadying, rising and falling in accord with the shifting forms of the water. But the color of the dancing spangles changed not at all. Nothing in clouds or flowers, on bird-wings or the lips of shells, could rival it in fineness. It was the most divinely beautiful mass of rejoicing yellow light I ever beheld–one of Nature's precious gifts that perchance may come to us but once in a lifetime.

The Minor Falls

There are many other comparatively small falls and cascades in the Valley. The most notable are the Yosemite Gorge Fall and Cascades, Tenaya Fall and Cascades, Royal Arch Falls, the two Sentinel Cascades and the falls of Cascade and Tamarack Creeks, a mile or two below the lower end of the Valley. These last are often visited. The others are seldom noticed or mentioned; although in almost any other country they would be visited and described as wonders.

The six intermediate falls in the gorge between the head of the Lower and the base of the Upper Yosemite Falls, separated by a few deep pools and strips of rapids, and three slender, tributary cascades on the west side form a series more strikingly varied and combined than any other in the Valley, yet very few of all the Valley visitors ever see them or hear of them. No available standpoint commands a view of them all. The best general view is obtained from the mouth of the gorge near the head of the Lower Fall. The two lowest of the series, together with one of the three tributary cascades, are visible from this standpoint, but in reaching it the last twenty or thirty feet of the descent is rather dangerous in time of high water, the shelving rocks being then slippery on account of spray, but if one should chance to slip when the water is low, only a bump or two and a harmless plash would be the penalty. No part of the gorge, however, is safe to any but cautious climbers.

Though the dark gorge hall of these rejoicing waters is never flushed by the purple light of morning or evening, it is warmed and cheered by the white light of noonday, which, falling into so much foam and and spray of varying degrees of fineness, makes marvelous displays of rainbow colors. So filled, indeed, is it with this precious light, at favorable times it seems to take the place of common air. Laurel bushes shed fragrance into it from above and live-oaks, those fearless mountaineers, hold fast to angular seams and lean out over it with their fringing sprays and bright mirror leaves.

One bird, the ouzel, loves this gorge and flies through it merrily, or cheerily, rather, stopping to sing on foam-washed bosses where other birds could find no rest for their feet. I have even seen a gray squirrel down in the heart of it beside the wild rejoicing water.

One of my favorite night walks was along the rim of this wild gorge in times of high water when the moon was full, to see the lunar bows in the spray.

For about a mile above Mirror Lake the Tenaya Cañon is level, and richly planted with fir, Douglas spruce and libocedrus, forming a remarkably fine grove, at the head of which is the Tenaya Fall. Though seldom seen or described, this is, I think, the most picturesque of all the small falls. A considerable distance above it, Tenaya Creek comes hurrying down, white and foamy, over a flat pavement inclined at an angle of about eighteen degrees. In time of high water this sheet of rapids is nearly seventy feet wide, and is varied in a very striking way by three parallel furrows that extend in the direction of its flow. These furrows, worn by the action of the stream upon cleavage joints, vary in width, are slightly sinuous, and have large boulders firmly wedged in them here and there in narrow places, giving rise, of course, to a complicated series of wild dashes, doublings, and upleaping arches in the swift torrent. Just before it reaches the head of the fall the current is divided, the left division making a vertical drop of about eighty feet in a romantic, leafy, flowery, mossy nook, while the other forms a rugged cascade.

The Royal Arch Fall in time of high water is a magnificent object, forming a broad ornamental sheet in front of the arches. The two Sentinel Cascades, 3000 feet high, are also grand spectacles when the snow is melting fast in the spring, but by the middle of summer they have diminished to mere streaks scarce noticeable amid their sublime surroundings.

The Beauty Of The Rainbows

The Bridal Veil and Vernal Falls are famous for their rainbows; and special visits to them are often made when the sun shines into the spray at the most favorable angle. But amid the spray and foam and fine-ground mist ever rising from the various falls and cataracts there is an affluence and variety of iris bows scarcely known to visitors who stay only a day or two. Both day and night, winter and summer, this divine light may be seen wherever water is falling dancing, singing; telling the heart-peace of Nature amid the wildest displays of her power. In the bright spring mornings the black-walled recess at the foot of the Lower Yosemite Fall is lavishly fine with irised spray; and not simply does this span the dashing foam, but the foam itself, the whole mass of it, beheld at a certain distance, seems to be colored, and drips and wavers from color to color, mingling with the foliage of the adjacent trees, without suggesting any relationship to the ordinary rainbow. This is perhaps the largest and most reservoir-like fountain of iris colors to be found in the Valley.

Lunar rainbows or spray-bows also abound in the glorious affluence of dashing, rejoicing, hurrahing, enthusiastic spring floods, their colors as distinct as those of the sun and regularly and obviously banded, though less vivid. Fine specimens may be found any night at the foot of the Upper Yosemite Fall, glowing gloriously amid the gloomy shadows and thundering waters, whenever there is plenty of moonlight and spray. Even the secondary bow is at times distinctly visible.

The best point from which to observe them is on Fern Ledge. For some time after moonrise, at time of high water, the arc has a span of about five hundred feet, and is set upright; one end planted in the boiling spray at the bottom, the other in the edge of the fall, creeping lower, of course, and becoming less upright as the moon rises higher. This grand arc of color, glowing in mild, shapely beauty in so weird and huge a chamber of night shadows, and amid the rush and roar and tumultuous dashing of this thunder-voiced fall, is one of the most impressive and most cheering of all the blessed mountain evangels.

Smaller bows may be seen in the gorge on the plateau between the Upper and Lower Falls. Once toward midnight, after spending a few hours with the wild beauty of the Upper Fall, I sauntered along the edge of the gorge, looking in here and there, wherever the footing felt safe, to see what I could learn of the night aspects of the smaller falls that dwell there. And down in an exceedingly black, pit-like portion of the gorge, at the foot of the highest of the intermediate falls, into which the moonbeams were pouring through a narrow opening, I saw a well-defined spray-bow, beautifully distinct in colors, spanning the pit from side to side, while pure white foam-waves beneath the beautiful bow were constantly springing up out of the dark into the moonlight like dancing ghosts.

An Unexpected Adventure

A wild scene, but not a safe one, is made by the moon as it appears through the edge of the Yosemite Fall when one is behind it. Once, after enjoying the night-song of the waters and watching the formation of the colored bow as the moon came round the domes and sent her beams into the wild uproar, I ventured out on the narrow bench that extends back of the fall from Fern Ledge and began to admire the dim-veiled grandeur of the view. I could see the fine gauzy threads of the fall's filmy border by having the light in front; and wishing to look at the moon through the meshes of some of the denser portions of the fall, I ventured to creep farther behind it while it was gently wind-swayed, without taking sufficient thought about the consequences of its swaying back to its natural position after the wind-pressure should be removed. The effect was enchanting: fine, savage music sounding above, beneath, around me; while the moon, apparently in the very midst of the rushing waters, seemed to be struggling to keep her place, on account of the ever-varying form and density of the water masses through which she was seen, now darkly veiled or eclipsed by a rush of thick-headed comets, now flashing out through openings between their tails. I was in fairyland between the dark wall and the wild throng of illumined waters, but suffered sudden disenchantment; for, like the witch-scene in Alloway Kirk, "in an instant all was dark." Down came a dash of spent comets, thin and harmless-looking in the distance, but they felt desperately solid and stony when they struck my shoulders, like a mixture of choking spray and gravel and big hailstones. Instinctively dropping on my knees, I gripped an angle of the rock, curled up like a young fern frond with my face pressed against my breast, and in this attitude submitted as best I could to my thundering bath. The heavier masses seemed to strike like cobblestones, and there was a confused noise of many waters about my ears– hissing, gurgling, clashing sounds that were not heard as music. The situation was quickly realized. How fast one's thoughts burn in such times of stress! I was weighing chances of escape. Would the column be swayed a few inches away from the wall, or would it come yet closer? The fall was in flood and not so lightly would its ponderous mass be swayed. My fate seemed to depend on a breath of the "idle wind." It was moved gently forward, the pounding ceased, and I was once more visited by glimpses of the moon. But fearing I might be caught at a disadvantage in making too hasty a retreat, I moved only a few feet along the bench to where a block of ice lay. I wedged myself between the ice and the wall and lay face downwards, until the steadiness of the light gave encouragement to rise and get away. Somewhat nerve-shaken, drenched, and benumbed, I made out to build a fire, warmed myself, ran home, reached my cabin before daylight, got an hour or two of sleep, and awoke sound and comfortable, better, not worse for my hard midnight bath.

Climate And Weather

Owing to the westerly trend of the Valley and its vast depth there is a great difference between the climates of the north and south sides–greater than between many countries far apart; for the south wall is in shadow during the winter months, while the north is bathed in sunshine every clear day. Thus there is mild spring weather on one side of the Valley while winter rules the other. Far up the north-side cliffs many a nook may be found closely embraced by sun-beaten rock-bosses in which flowers bloom every month of the year. Even butterflies may be seen in these high winter gardens except when snow-storms are falling and a few days after they have ceased. Near the head of the lower Yosemite Fall in January I found the ant lions lying in wait in their warm sand-cups, rock ferns being unrolled, club mosses covered with fresh-growing plants, the flowers of the laurel nearly open, and the honeysuckle rosetted with bright young leaves; every plant seemed to be thinking about summer. Even on the shadow-side of the Valley the frost is never very sharp. The lowest temperature I ever observed during four winters was 7° Fahrenheit. The first twenty-four days of January had an average temperature at 9 A.M. of 32°, minimum 22°; at 3 P.M. the average was 40° 30′, the minimum 32°. Along the top of the walls, 7000 and 8000 feet high, the temperature was, of course, much lower. But the difference in temperature between the north and south sides is due not so much to the winter sunshine as to the heat of the preceding summer, stored up in the rocks, which rapidly melts the snow in contact with them. For though summer sun-heat is stored in the rocks of the south side also, the amount is much less because the rays fall obliquely on the south wall even in summer and almost vertically on the north.

The upper branches of the Yosemite streams are buried every winter beneath a heavy mantle of snow, and set free in the spring in magnificent floods. Then, all the fountains, full and overflowing, every living thing breaks forth into singing, and the glad exulting streams shining and falling in the warm sunny weather, shake everything into music making all the mountain-world a song.

The great annual spring thaw usually begins in May in the forest region, and in June and July on the high Sierra, varying somewhat both in time and fullness with the weather and the depth of the snow. Toward the end of summer the streams are at their lowest ebb, few even of the strongest singing much above a whisper they slip and ripple through gravel and boulder-beds from pool to pool in the hollows of their channels, and drop in pattering showers like rain, and slip down precipices and fall in sheets of embroidery, fold over fold. But, however low their singing, it is always ineffably fine in tone, in harmony with the restful time of the year.

The first snow of the season that comes to the help of the streams usually falls in September or October, sometimes even is the latter part of August, in the midst of yellow Indian summer when the goldenrods and gentians of the glacier meadows are in their prime. This Indian-summer snow, however, soon melts, the chilled flowers spread their petals to the sun, and the gardens as well as the streams are refreshed as if only a warm shower had fallen. The snow-storms that load the mountains to form the main fountain supply for the year seldom set in before the middle or end of November.

Winter Beauty Of The Valley

When the first heavy storms stopped work on the high mountains, I made haste down to my Yosemite den, not to "hole up" and sleep the white months away; I was out every day, and often all night, sleeping but little, studying the so-called wonders and common things ever on show, wading, climbing, sauntering among the blessed storms and calms, rejoicing in almost everything alike that I could see or hear: the glorious brightness of frosty mornings; the sunbeams pouring over the white domes and crags into the groves end waterfalls, kindling marvelous iris fires in the hoarfrost and spray; the great forests and mountains in their deep noon sleep; the good-night alpenglow; the stars; the solemn gazing moon, drawing the huge domes and headlands one by one glowing white out of the shadows hushed and breathless like an audience in awful enthusiasm, while the meadows at their feet sparkle with frost-stars like the sky; the sublime darkness of storm-nights, when all the lights are out; the clouds in whose depths the frail snow-flowers grow; the behavior and many voices of the different kinds of storms, trees, birds, waterfalls, and snow-avalanches in the ever-changing weather.

Every clear, frosty morning loud sounds are heard booming and reverberating from side to side of the Valley at intervals of a few minutes, beginning soon after sunrise and continuing an hour or two like a thunder-storm. In my first winter in the Valley I could not make out the source of this noise. I thought of falling boulders, rock-blasting, etc. Not till I saw what looked like hoarfrost dropping from the side of the Fall was the problem explained. The strange thunder is made by the fall of sections of ice formed of spray that is frozen on the face of the cliff along the sides of the Upper Yosemite Fan– a sort of crystal plaster, a foot or two thick, racked off by the sunbeams, awakening all the Valley like cock-crowing, announcing the finest weather, shouting aloud Nature's infinite industry and love of hard work in creating beauty.

Exploring An Ice Cone

This frozen spray gives rise to one of the most interesting winter features of the Valley–a cone of ice at the foot of the fall, four or five hundred feet high. From the Fern Ledge standpoint its crater-like throat is seen, down which the fall plunges with deep, gasping explosions of compressed air, and, after being well churned in the wormy interior, the water bursts forth through arched openings at its base, apparently scourged and weary and glad to escape, while belching spray, spouted up out of the throat past the descending current, is wafted away in irised drifts to the adjacent rocks and groves. It is built during the night and early hours of the morning; only in spells of exceptionally cold and cloudy weather is the work continued through the day. The greater part of the spray material falls in crystalline showers direct to its place, something like a small local snow-storm; but a considerable portion is first frozen on the face of the cliff along the sides of the fall and stays there until expanded and cracked off in irregular masses, some of them tons in weight, to be built into the walls of the cone; while in windy, frosty weather, when the fall is swayed from side to side, the cone is well drenched and the loose ice masses and spray-dust are all firmly welded and frozen together. Thus the finest of the downy wafts and curls of spray-dust, which in mild nights fall about as silently as dew, are held back until sunrise to make a store of heavy ice to reinforce the waterfall's thunder-tones.

While the cone is in process of formation, growing higher and wider in the frosty weather, it looks like a beautiful smooth, pure-white hill; but when it is wasting and breaking up in the spring its surface is strewn with leaves, pine branches, stones, sand, etc., that have been brought over the fall, making it look like a heap of avalanche detritus.

Anxious to learn what I could about the structure of this curious hill I often approached it in calm weather and tried to climb it, carrying an ax to cut steps. Once I nearly succeeded in gaining the summit. At the base I was met by a current of spray and wind that made seeing and breathing difficult. I pushed on backward however, and soon gained the slope of the hill, where by creeping close to the surface most of the choking blast passed over me and I managed to crawl up with but little difficulty. Thus I made my way nearly to the summit, halting at times to peer up through the wild whirls of spray at the veiled grandeur of the fall, or to listen to the thunder beneath me; the whole hill was sounding as if it were a huge, bellowing drum. I hoped that by waiting until the fall was blown aslant I should be able to climb to the lip of the crater and get a view of the interior; but a suffocating blast, half air, half water, followed by the fall of an enormous mass of frozen spray from a spot high up on the wall, quickly discouraged me. The whole cone was jarred by the blow and some fragments of the mass sped past me dangerously near; so I beat a hasty retreat, chilled and drenched, and lay down on a sunny rock to dry.

Once during a wind-storm when I saw that the fall was frequently blown westward, leaving the cone dry, I ran up to Fern Ledge hoping to gain a clear view of the interior. I set out at noon. All the way up the storm notes were so loud about me that the voice of the fall was almost drowned by them. Notwithstanding the rocks and bushes everywhere were drenched by the wind-driven spray, I approached the brink of the precipice overlooking the mouth of the ice cone, but I was almost suffocated by the drenching, gusty spray, and was compelled to seek shelter. I searched for some hiding-place in the wall from whence I might run out at some opportune moment when the fall with its whirling spray and torn shreds of comet tails and trailing, tattered skirts was borne westward, as I had seen it carried several times before, leaving the cliffs on the east side and the ice hill bare in the sunlight. I had not long to wait, for, as if ordered so for my special accommodation, the mighty downrush of comets with their whirling drapery swung westward and remained aslant for nearly half an hour. The cone was admirably lighted and deserted by the water, which fell most of the time on the rocky western slopes mostly outside of the cone. The mouth into which the fall pours was, as near

as I could guess, about one hundred feet in diameter north and south and about two hundred feet east and west, which is about the shape and size of the fall at its best in its normal condition at this season.

The crater-like opening was not a true oval, but more like a huge coarse mouth. I could see down the throat about one hundred feet or perhaps farther.

The fall precipice overhangs from a height of 400 feet above the base; therefore the water strikes some distance from the base off the cliff, allowing space for the accumulation of a considerable mass of ice between the fall and the wall.

Chapter 2
Winter Storms and Spring Floods

The Bridal Veil and the Upper Yosemite Falls, on account of their height and exposure, are greatly influenced by winds. The common summer winds that come up the river cañon from the plains are seldom very strong; but the north winds do some very wild work, worrying the falls and the forests, and hanging snow-banners on the comet-peaks. One wild winter morning I was awakened by storm-wind that was playing with the falls as if they were mere wisps of mist and making the great pines bow and sing with glorious enthusiasm. The Valley had been visited a short time before by a series of fine snow-storms, and the floor and the cliffs and all the region round about were lavishly adorned with its best winter jewelry, the air was full of fine snow-dust, and pine branches, tassels and empty cones were flying in an almost continuous flock.

Soon after sunrise, when I was seeking a place safe from flying branches, I saw the Lower Yosemite Fall thrashed and pulverized from top to bottom into one glorious mass of rainbow dust; while a thousand feet above it the main Upper Fall was suspended on the face of the cliff in the form of an inverted bow, all silvery white and fringed with short wavering strips. Then, suddenly assailed by a tremendous blast, the whole mass of the fall was blown into thread and ribbons, and driven back over the brow of the cliff whence it came, as if denied admission to the Valley. This kind of storm-work was continued about ten or fifteen minutes; then another change in the play of the huge exulting swirls and billows and upheaving domes of the gale allowed the baffled fall to gather and arrange its tattered waters, and sink down again in its place. As the day advanced, the gale gave no sign of dying, excepting brief lulls, the Valley was filled with its weariless roar, and the cloudless sky grew garish-white from myriads of minute, sparkling snow-spicules. In the afternoon, while I watched the Upper Fall from the shelter of a big pine tree, it was suddenly arrested in its descent at a point about half-way down, and was neither blown upward nor driven aside, but simply held stationary in mid-air, as if gravitation below that point in the path of its descent had ceased to act. The ponderous flood, weighing hundreds of tons, was sustained, hovering, hesitating, like a bunch of thistledown, while I counted one hundred and ninety. All this time the ordinary amount of water was coming over the cliff and accumulating in the air, swedging and widening and forming an irregular cone about seven hundred feet high, tapering to the top of the wall, the whole standing still, jesting on the invisible arm of the North Wind. At length, as if commanded to go on again, scores of arrowy comets shot forth from the bottom of the suspended mass as if escaping from separate outlets.

The brow of El Capitan was decked with long snow-streamers like hair, Clouds' Rest was fairly enveloped in drifting gossamer elms, and the Half Dome loomed up in the garish light like a majestic, living creature clad in the same gauzy, wind-woven drapery, while upward currents meeting at times overhead made it smoke like a volcano.

An Extraordinary Storm And Flood

Glorious as are these rocks and waters arrayed in storm robes, or chanting rejoicing in every-day dress, they are still more glorious when rare weather conditions meet to make them sing with floods. Only once during all the years I have lived in the Valley have I seen it in full flood bloom. In 1871 the early winter weather was delightful; the days all sunshine, the nights all starry and calm, calling forth fine crops of frost-crystals on the pines and withered ferns and grasses for the morning sunbeams to sift through. In the afternoon of December 16, when I was sauntering on the meadows, I noticed a massive crimson cloud growing in solitary grandeur above the Cathedral Rocks, its form scarcely less striking than its color. It had a picturesque, bulging base like an old sequoia, a smooth, tapering stem, and a bossy, down-curling crown like a mushroom; all its parts were colored alike, making one mass of translucent crimson. Wondering what the meaning of that strange, lonely red cloud might be, I was up betimes next morning looking at the weather, but all seemed tranquil as yet. Towards noon gray clouds with a lose, curly grain like bird's-eye maple began to grow, and late at night rain fell, which soon changed to snow. Next morning the snow on the meadows was about ten inches deep, and it was still falling in a fine, cordial storm. During the night of the 18th heavy rain fell on the snow, but as the temperature was 34 degrees, the snow-line was only a few hundred feet above the bottom of the Valley, and one had only to climb a little higher than the tops of the pines to get out of the rain-storm into the snow-storm. The streams, instead of being increased in volume by the storm, were diminished, because the snow sponged up part of their waters and choked the smaller tributaries. But about midnight the temperature suddenly rose to 42°, carrying the snow-line far beyond the Valley walls, and next morning Yosemite was rejoicing in a glorious flood. The comparatively warm rain falling on the snow was at first absorbed and held back, and so also was that portion of the snow that the rain melted, and all that was melted by the warm wind, until the whole mass of snow was saturated and became sludgy, and at length slipped and rushed simultaneously from a thousand slopes in wildest extravagance, heaping and swelling flood over flood, and plunging into the Valley in stupendous avalanches.

Awakened by the roar, I looked out and at once recognized the extraordinary character of the storm. The rain was still pouring in torrent abundance and the wind at gale speed was doing all it could with the flood-making rain.

The section of the north wall visible from my cabin was fairly streaked with new falls–wild roaring singers that seemed strangely out of place. Eager to get into the midst of the show, I snatched a piece of bread for breakfast and ran out. The mountain waters, suddenly liberated, seemed to be holding a grand jubilee. The two Sentinel Cascades rivaled the great falls at ordinary stages, and across the Valley by the Three Brothers I caught glimpses of more falls than I could readily count; while the whole Valley throbbed and trembled, and was filled with an awful, massive, solemn, sea-like roar. After gazing a while enchanted with the network of new falls that were adorning and transfiguring every rock in sight, I tried to reach the upper meadows, where the Valley is widest, that I might be able to see the walls on both sides, and thus gain general views. But the river was over its banks and the meadows were flooded, forming an almost continuous lake dotted with blue sludgy islands, while innumerable streams roared like lions across my path and were sweeping forward rocks and logs with tremendous energy over ground where tiny gilias had been growing but a short time before. Climbing into the talus slopes, where these savage torrents were broken among earthquake boulders, I managed to cross them, and force my way up the Valley to Hutchings' Bridge, where I crossed the river and waded to the middle of the upper meadow. Here most of the new falls were in sight, probably the most glorious assemblage of waterfalls ever displayed from any one standpoint. On that portion of the south wall between Hutchings' and the Sentinel there were ten falls plunging and booming from a height of nearly three thousand feet, the smallest of which might have been heard miles away. In

the neighborhood of Glacier Point there were six; between the Three Brothers and Yosemite Fall, nine; between Yosemite and Royal Arch Falls, ten; from Washington Column to Mount Watkins, ten; on the slopes of Half Dome and Clouds' Rest, facing Mirror Lake and Tenaya Cañon, eight; on the shoulder of Half Dome, facing the Valley, three; fifty-six new falls occupying the upper end of the Valley, besides a countless host of silvery threads gleaming everywhere. In all the Valley there must have been upwards of a hundred. As if celebrating some great event, falls and cascades in Yosemite costume were coming down everywhere from fountain basins, far and near; and, though newcomers, they behaved and sang as if they had lived here always.

All summer-visitors will remember the comet forms of the Yosemite Fall and the laces of the Bridal Veil and Nevada. In the falls of this winter jubilee the lace forms predominated, but there was no lack of thunder-toned comets. The lower portion of one of the Sentinel Cascades was composed of two main white torrents with the space between them filled in with chained and beaded gauze of intricate pattern, through the singing threads of which the purplish-gray rock could be dimly seen. The series above Glacier Point was still more complicated in structure, displaying every form that one could imagine water might be dashed and combed and woven into. Those on the north wall between Washington Column and the Royal Arch Fall were so nearly related they formed an almost continuous sheet, and these again were but slightly separated from those about Indian Cañon. The group about the Three Brothers and El Capitan, owing to the topography and cleavage of the cliffs back of them, was more broken and irregular. The Tissiack Cascades were comparatively small, yet sufficient to give that noblest of mountain rocks a glorious voice. In the midst of all this extravagant rejoicing the great Yosemite Fall was scarce heard until about three o'clock in the afternoon. Then I was startled by a sudden thundering crash as if a rock avalanche had come to the help of the roaring waters. This was the flood-wave of Yosemite Creek, which had just arrived delayed by the distance it had to travel, and by the choking snows of its widespread fountains. Now, with volume tenfold increased beyond its springtime fullness, it took its place as leader of the glorious choir.

And the winds, too, were singing in wild accord, playing on every tree and rock, surging against the huge brows and domes and outstanding battlements, deflected hither and thither and broken into a thousand cascading, roaring currents in the cañons, and low bass, drumming swirls in the hollows. And these again, reacting on the clouds, eroded immense cavernous spaces in their gray depths and swept forward the resulting detritus in ragged trains like the moraines of glaciers. These cloud movements in turn published the work of the winds, giving them a visible body, and enabling us to trace them. As if endowed with independent motion, a detached cloud would rise hastily to the very top of the wall as if on some important errand, examining the faces of the cliffs, and then perhaps as suddenly descend to sweep imposingly along the meadows, trailing its draggled fringes through the pines, fondling the waving spires with infinite gentleness, or, gliding behind a grove or a single tree, bringing it into striking relief, as it bowed and waved in solemn rhythm. Sometimes, as the busy clouds drooped and condensed or dissolved to misty gauze, half of the Valley would be suddenly veiled, leaving here and there some lofty headland cut off from all visible connection with the walls, looming alone, dim, spectral, as if belonging to the sky–visitors, like the new falls, come to take part in the glorious festival. Thus for two days and nights in measureless extravagance the storm went on, and mostly without spectators, at least of a terrestrial kind. I saw nobody out–bird, bear, squirrel, or man. Tourists had vanished months before, and the hotel people and laborers were out of sight, careful about getting cold, and satisfied with views from windows. The bears, I suppose, were in their cañon-boulder dens, the squirrels in their knot-hole nests, the grouse in close fir groves, and the small singers in the Indian Cañon chaparral, trying to keep warm and dry. Strange to say, I did not see even the water-ouzels, though they must have greatly enjoyed the storm.

This was the most sublime waterfall flood I ever saw–clouds, winds, rocks, waters, throbbing together as one. And then to contemplate what was going on simultaneously with all this in other mountain temples; the Big Tuolumne Cañon–how the white waters and the winds were singing there!

And in Hetch Hetchy Valley and the great King's River yosemite, and in all the other Sierra cañons and valleys from Shasta to the southernmost fountains of the Kern, thousands of rejoicing flood waterfalls chanting together in jubilee dress.

Chapter 3
Snow-Storms

As has been already stated, the first of the great snow-storms that replenish the Yosemite fountains seldom sets in before the end of November. Then, warned by the sky, wide-awake mountaineers, together with the deer and most of the birds, make haste to the lowlands or foothills; and burrowing marmots, mountain beavers, wood-rats, and other small mountain people, go into winter quarters, some of them not again to see the light of day until the general awakening and resurrection of the spring in June or July. The fertile clouds, drooping and condensing in brooding silence, seem to be thoughtfully examining the forests and streams with reference to the work that lies before them. At length, all their plans perfected, tufted flakes and single starry crystals come in sight, solemnly swirling and glinting to their blessed appointed places; and soon the busy throng fills the sky and makes darkness like night. The first heavy fall is usually from about two to four feet in depth then with intervals of days or weeks of bright weather storm succeeds storm, heaping snow on snow, until thirty to fifty feet has fallen. But on account of its settling and compacting, and waste from melting and evaporation, the average depth actually found at any time seldom exceeds ten feet in the forest regions, or fifteen feet along the slopes of the summit peaks. After snow-storms come avalanches, varying greatly in form, size, behavior and in the songs they sing; some on the smooth slopes of the mountains are short and broad; others long and river-like in the side cañons of yosemites and in the main cañons, flowing in regular channels and booming like waterfalls, while countless smaller ones fall everywhere from laden trees and rocks and lofty cañon walls. Most delightful it is to stand in the middle of Yosemite on still clear mornings after snow-storms and watch the throng of avalanches as they come down, rejoicing, to their places, whispering, thrilling like birds, or booming and roaring like thunder. The noble yellow pines stand hushed and motionless as if under a spell until the morning sunshine begins to sift through their laden spires; then the dense masses on the ends of the leafy branches begin to shift and fall, those from the upper branches striking the lower ones in succession, enveloping each tree in a hollow conical avalanche of fairy fineness; while the relieved branches spring up and wave with startling effect in the general stillness, as if each tree was moving of its own volition. Hundreds of broad cloud-shaped masses may also be seen, leaping over the brows of the cliffs from great heights, descending at first with regular avalanche speed until, worn into dust by friction, they float in front of the precipices like irised clouds. Those which descend from the brow of El Capitan are particularly fine; but most of the great Yosemite avalanches flow in regular channels like cascades and waterfalls. When the snow first gives way on the upper slopes of their basins, a dull rushing, rumbling sound is heard which rapidly increases and seems to draw nearer with appalling intensity of tone. Presently the white flood comes bounding into sight over bosses and sheer places, leaping from bench to bench, spreading and narrowing and throwing off clouds of whirling dust like the spray of foaming cataracts. Compared with waterfalls and cascades, avalanches are short-lived, few of them lasting more than a minute or two, and the sharp, clashing sounds so common in falling water are mostly wanting; but in their low massy thundertones and purple-tinged whiteness, and in their dress, gait, gestures and general behavior, they are much alike.

Avalanches

Besides these common after-storm avalanches that are to be found not only in the Yosemite but in all the deep, sheer-walled cañon of the Range there are two other important kinds, which may be called annual and century avalanches, which still further enrich the scenery. The only place about the Valley where one may be sure to see the annual kind is on the north slope of Clouds' Rest. They are composed of heavy, compacted snow, which has been subjected to frequent alternations of freezing and thawing. They are developed on cañon and mountain-sides at an elevation of from nine to ten thousand feet, where the slopes are inclined at an angle too low to shed off the dry winter snow, and which accumulates until the spring thaws sap their foundations and make them slippery; then away in grand style go the ponderous icy masses without any fine snow-dust. Those of Clouds' Rest descend like thunderbolts for more than a mile.

The great century avalanches and the kind that mow wide swaths through the upper forests occur on mountain-sides about ten or twelve thousand feet high, where under ordinary weather conditions the snow accumulated from winter to winter lies at rest for many years, allowing trees, fifty to a hundred feet high, to grow undisturbed on the slopes beneath them. On their way down through the woods they seldom fail to make a perfectly clean sweep, stripping off the soil as well as the trees, clearing paths two or three hundred yards wide from the timber line to the glacier meadows or lakes, and piling their uprooted trees, head downward, in rows along the sides of the gaps like lateral moraines. Scars and broken branches of the trees standing on the sides of the gaps record the depth of the overwhelming flood; and when we come to count the annual wood-rings on the uprooted trees we learn that some of these immense avalanches occur only once in a century or even at still wider intervals.

A Ride On An Avalanche

Few Yosemite visitors ever see snow avalanches and fewer still know the exhilaration of riding on them. In all my mountaineering I have enjoyed only one avalanche ride, and the start was so sudden and the end came so soon I had but little time to think of the danger that attends this sort of travel, though at such times one thinks fast. One fine Yosemite morning after a heavy snowfall, being eager to see as many avalanches as possible and wide views of the forest and summit peaks in their new white robes before the sunshine had time to change them, I set out early to climb by a side cañon to the top of a commanding ridge a little over three thousand feet above the Valley. On account of the looseness of the snow that blocked the cañon I knew the climb would require a long time, some three or four hours as I estimated; but it proved far more difficult than I had anticipated. Most of the way I sank waist deep, almost out of sight in some places. After spending the whole day to within half an hour or so of sundown, I was still several hundred feet below the summit. Then my hopes were reduced to getting up in time to see the sunset. But I was not to get summit views of any sort that day, for deep trampling near the cañon head, where the snow was strained, started an avalanche, and I was swished down to the foot of the cañon as if by enchantment. The wallowing ascent had taken nearly all day, the descent only about a minute. When the avalanche started I threw myself on my back and spread my arms to try to keep from sinking. Fortunately, though the grade of the cañon is very steep, it is not interrupted by precipices large enough to cause outbounding or free plunging. On no part of the rush was I buried. I was only moderately imbedded on the surface or at times a little below it, and covered with a veil of back-streaming dust particles; and as the whole mass beneath and about me joined in the flight there was no friction, though I was tossed here and there and lurched from side to side. When the avalanche swedged and came to rest I found myself on top of the crumpled pile without bruise or scar. This was a fine experience. Hawthorne says somewhere that steam has spiritualized travel; though unspiritual smells, smoke, etc., still attend steam travel. This flight in what might be called a milky way of snow-stars was the most spiritual and exhilarating of all the modes of motion I have ever experienced. Elijah's flight in a chariot of fire could hardly have been more gloriously exciting.

Конец ознакомительного фрагмента.