9-23-1879

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John Muir

Daily Evening Bulletin.

San Francisco, Tuesday, Sept. 23, 1879.

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[CORRESPONDENCE OF THE BULLETIN.]

FORT WRANGEL, Alaska, September 5, 1879.

Three Doctors of Divinity and a merchant and their wives, a lady from Oregon, a missionary and myself, made up a party to visit the fine wild glacial country of the Chilcats, 250 miles to the northwestward of here. We chartered the small sternwheel steamer *Cassiar*, usually plying on the Stickeen river, for this excursion, and had her all to ourselves. Under circumstances so extraordinary, everybody felt hopeful and important and rich—the poorer the richer—glaciers, mountains, a thousand islands, and officers to obey us, sailing and coming to anchor when and where we would.

The legitimate object of the divines was to ascertain the spiritual wants of the warlike and conservative Chilcat Indians, with a view to the establishment of a church and a school in their principal village. The merchant and his party were bent on business and scenery, health and wealth; while I was moved mostly by the glaciers that are said to come grandly down into the salt water at the head of Lynn Canal.

This was towards the end of July, in the middle of a block of the very brightest and best of Alaska summer weather, when the mountains, towering sublimely in the gray pearl sky, had rest from storms, and the islands seemed to float and drowse in the glassy, sunny waters, their green shores keeping them raw and bare. Furthermore, because these channels have all been eroded out of the solid by the glacier ice, and so short a time has elapsed since the ocean water was admitted, the small waves and ripples have not had time as yet to nibble away the shore lines to any appreciable extent. The glacial grooving and winding is still plainly seen on all the harder rocks, therefore the curves of the coast lines are, generally speaking, as finely drawn and unwasted as those of a living shell, and so under present conditions they will remain for thousands of years to come.

Were it not for the briny fragrance in the air, and the strip of brown algæ seen at low tide, it would be difficult to realize that we are on waters in any direct way connected with the ocean. We seem rather to be on glacier lakes, thousands of feet up between mountain spurs.

FROM WRANGEL CHANNEL TO MAINLAND.

After we had passed through the Wrangel Channel the mainland, with its mountain range, came in full, clear view, adorned with crests and pinacles, aspiring in most impressive combinations, and glaciers beneath of every form and size, some of the largest and most river-like flowing down broad Yosemite valleys, their fountains far back and concealed, others plainly revealed, advertising themselves in open telling, mirrored in lines as keen and as clear as those of a sheltered woodland lake.

FORT WRANGLE.

This rare town, oozy, angling, wrangling Wrangel, with its commingled wealth of fish, furs, curs, Indians, traders, and all that, slowly vanished out of sight and sound as we sailed past the north end of the island. The Cassiar engines, under the control of our economical engineer, wheezed and sighed with doleful solemnity, venting their black breath at wide, gasping intervals, suggesting the calamity that was so soon to fall. But we were happy then in the fresh morning and first love of our enterprize, and the barometer was too high for the sudden appearance of sombre misgivings. Our course lay in a general northwesterly direction, through Wrangel Channel, Sanchoi Channel, Prince Frederic Sound, Chatham Strait, and Lynn Canal, all of which belong to that marvelously beautiful and involved maze of glacial fiords extending continuously northward along the coast from the Strait of Juan de Fuca.

the coast from the Strait of [illegible]

How enchantingly lovely the landscape was that rare morning—land and water combined in lines and colors beautiful beyond expression, everywhere exciting and satisfying our best aspirations. The slant yellow sunshine was streaming over the islands, silvering the mirror water, and lighting a widening swath of flashing, shimmering spangles along the rippled wake of our boat. The natural love of wild beauty that forms an essential part of every human being began to declare itself. Every eye was beaming and appreciative. Gaze in any direction, forward, back on either hand, soul and sight were filled. Island beyond island in long perspective, with fluent, feathery lines passing and interblending, dark green in the foreground, varying tones of blue growing more and more tender in the distance, innumerable bays holding soft, hazy shadows, graduating insensibly out into the open fields of light, headland and promontory reacting calmly into the blue levels with their spiry evergreens in imposing array, their light sedgy edgings showing in beautiful contrast; the headlands plunging boldly down at a sweep and dipping their feet into the deep, still water with fine arching insteps. Every island is forested to the summit save the largest, which rise here and there into snowy mountains, while the trees with a shaggy, leafy outer-fringe come close down to the tide-line—the tallest undergrowth frequently arching well out over deep water, so that one may sail in a canoe for miles beneath a luxuriant, arbored shade. For notwithstanding these long inland channels are at times swept by powerful storm-winds in the direction of their extension, no heavy swell-waves are raised to beat the shores and characters from top to bottom all along their courses. Every eye was turned to them and fixed. Forgotten now were the souls of the Chilcats and the whole system of seminary and pulpit theology, while the word of God was being read in those majestic hieroglyphics blazoned along the edge of the sky. The earnest, childish wonderment with which this glorious page of Nature's book was contemplated was hopeful and reassuring. All evinced a commendable desire to learn it. "Is that a glacier," they asked, "down in that canyon? and is it all solid ice? How deep is it, think you? you say it flows. How can ice flow? And where does it come from?" From snow that is heaped up every winter on the mountains. "And how, then, is the snow transformed to ice? Are those masses we see in the hollows glaciers also? Are those bluish draggled masses hanging down from beneath the snowfields, what you call the snouts of the glaciers? What made the hollows that contain them? How long have they been there?" etc. While I answered as best I could, keeping up a running commentary on the subject in general, while busily engaged in sketching and noting my own observations, preaching the glacial gospel in a rambling way in season and out of season, while the *Cassiar*, slowly creeping along the coast, shifted our position so that the icy cañons were opened to view and closed again in regular succession like the leaves of a book.

A GROUP OF NOBLE GLACIERS.

About the middle of the afternoon we were directly opposite a noble group of glaciers some ten in number, flowing from a highly complicated chain of crater-like fountains, and guarded around their summits and well down their sides by black jagged peaks and cols and curving mural ridges. From each of the larger clusters of fountains a wide sheer-walled Yosemitic cañon opened down to the foot of the range, that is to the level of the sea. Three of the trunk glaciers flowing in these main cañons descended to within a few feet of the sea level. The largest of the three fed by eight or ten tributary glaciers, and probably about fifteen miles long, terminates in the midst of a magnificent Yosemite Valley in an imposing wall of ice about two miles long, and from three to five hundred feet high, forming a barrier across the Valley, extending from wall to wall. It was to this glacier that the ships of the Alaska Ice Company resorted for the ice they carried to San Francisco and the Sandwich Islands, and, I believe, also to China and Japan. They had only to sail up the deep fiord within a short distance of the snout, and drop anchor in the terminal moraine, and load to capital advantage.

Another, a few miles to the south of this one, receives two large tributaries about equal in size, and then flows on down a forested valley in a magnificent sweep to within a hundred feet or so of sea level. The third of this low-descending group is four or five miles farther south, and though less imposing than either of the two sketched above, is still a truly noble object, even as imperfectly seen from the channel, and would of itself be well worth a visit to Alaska to any lowlander so unfortunate as never to have seen a glacier.

ICE, SCENERY, MISSIONARIES AND FINANCES.

The boilers of our little steamer were not made with reference to using sea water, but it was hoped that fresh water would be found at available points along our course where the mountain streams leap down the cliffs bounding the sheerest portions of the coast. In this particular, however, we failed under the existing management, and were compelled to use salt water an hour or two before reaching Cape Fanshaw, the supply of fifty tons brought in tanks from Wrangel having then given out. To make matters worse the Captain and engineer were not in good accord concerning the working of the engines. The Captain repeatedly called for more steam, which the engineer refused to furnish, keeping the pressure low, and running his engines at a ridiculously slow speed, for reasons known only to himself. At 7 o'clock in the evening we had made only about seventy miles, a fact which caused great dissatisfaction, especially among the divines, who thereupon called a meeting in the cabin to consider what they had better do about it. In the discussions that followed much indignation and economy was brought to light. We had chartered the boat for $60 per day, and the round trip was to have been made in four or five days. But at the present rate of speed it was found by means of a little simple arithmetic that the cost of the effort to reach and save the souls of the Chilcats would be from five to ten dollars too much for each person composing the party. Therefore, after considerable expenditure of fruitless negotiation with the Purser, the majority ruled that we return next day to Wrangel, unsaved Indians, beautiful islands, sunny waters reflecting God, the grand glacial revelations and all, seeming in the midst of this solemn, deliberative financial assembly to have suddenly become mere dust in the balance. The Wrangel missionary was eager to go on for the sake of both the Indians and scenery, and of course so was I for sake of the ice. It was easy, however, in the midst of our present abundance to bide our time. That slow engineer has much to answer for, and so also, I fear, have some of those halting doctors, because the Chilcats, while offering inflexible opposition to the advance of miners and explorers into their territory, have of late years been calling, like the ancient Macedonians, for Christian help. In turning back, though possibly influenced by some invisible necessity, yet nevertheless when they shall have returned to their comfortable feather-beds and parlors in the East, then in reflective moods surely some realization of a want in prosecuting the Lord's worldwork, some enduring sense of shortcoming that will not down, but rather rise gradually higher, like a glacial rock-boss in the very middle of their theological consciences.

ABOUT ROCKS, PLANTS AND TREES.

Soon after the conclusion of this unhappy turn-tail discussion, we came to anchor in a

beautiful bay, and as the long northern day had still an hour or two of light to offer, I gladly embraced the opportunity to go ashore with Dr. Lindley to see the rocks and plants. One of the Indians employed as a deck hand on the steamer landed us at the mouth of a bright singing stream. The tide was low, exposing a strip of shingly, shelly, dulsey beach, which sent up a fine fresh smell from its luxuriant growth of algae. The shingle was composed of slate, quartz and granite, named in the order of abundance. The first land plant we met was a tall grass, nine feet high, forming a waving meadow-like margin immediately in front of the dark, coniferous forest. Pushing my way through a tangle of bushes well back into the forest, I found it composed almost entirely of two spruces, *abiez menziesii*, and *A. Meriensia*, with a few specimens of yellow cypress. The ferns were developed in remarkable beauty and size—two aspidums, one of which is about six feet high; a wodsia, comaria and polypodium. The underbrush is chiefly alder, rubus, cedum, three species of vaccinium and echinopanax horrida, the whole about from six to eight feet high, and in some places closely intertangled and hard to penetrate, especially the thorny echinopanax is well developed. On the opener spots beneath the trees the ground is covered to a depth of two or three feet with mosses of indescribable freshness and beauty, a few dwarf cornels often planted on their rich furred bosses, together with pyrola, coptis and Solomon's seal. The tallest of the trees measure about a hundred and fifty feet, with a diameter of about four feet, their branches mingling together and making a perfect shade. I was soon separated from my companion and left alone, and as the twilight began to fall I sat down on the mossy instep of a spruce. Not a bush or tree was moving, every leaf seemed hushed in deep brooding repose. One bird, a thrush, sang, silently lancing the silence with his cheery notes and making it all the more keenly felt, while the solemn monotone of the stream sifted through all the air, pervading every pore like the very voice of God, humanized, terrestrialized, and coming into one's heart as to a home prepared for it. How strange seem these untamed solitudes of the wild free bosom of the Alaska woods. Nevertheless they are found necessarily and eternally familiar. Go where we will, all over the world, we seem to have been there before.

The spruces on the banks of the stream lean over from side to side, making high, sharp arches, while it is bridged all along at short intervals with moss-embossed logs, which make its green, shady reaches exeeedingly picturesque. The one over which I crossed is the most beautiful bridge, wild or artificial, I have ever seen. The heavy, massive log is plushed to a depth of six inches or more with glossy, golden mosses of three or four species, their different tones of yellow shading finely into each other, while the delicate fronded branches and foliage lie in exquisite order, inclining outward and down the sides in rich, furred, clasping sheets overlapping and felted together until the required thickness is attained. The pedicils and spore-cases give a purplish tinge, and the whole is rendered complete by a row of young spruces and ferns and currant bushes with colored leaves, every one of which seem to have been culled from the woods for this special use, so perfectly do they harmonize in size, shape, color, etc., with the moss floor of the bridge, the width of the span, and the massive brushy abutments.

Sauntering out to the beach I found four or five Indians getting water, with whom I re turned aboard the steamer, thanking the Lo for so noble an addition to my life as was t one big glacial day. JOHN MUI