

succession of islands, and back of these islands the coast to the boundary line is but the slope of a mountain range. The islands have not been explored, and even the interior of Sitka is unknown to the inhabitants of New Archangel, which is at the head of a small sound on the island, and is the principal station of the Russian Governor. This coast, with the neighboring islands, is generally well wooded quite down to the water. The islands are mountainous, and the general character of the shore is steep and rocky. Very little is known of the country back from the shore, and, with the exception of those who have gone into British Columbia by the Sticlun, which flows into the Pacific in the latitude of Sitka, it is not probable that the Russians or any whites have crossed the narrow strip of thirty miles. What we have said of the exploration of the coast to Mount St. Elias will apply generally to the whole coast. The Russians have ascended the Copper River for some distance, and on the Kwickpak they have established a post at the distance of about four hundred miles from the mouth. But it was reserved for the citizens of the United States to navigate this river for one thousand miles, and to put—for what on a map before me dated 1865 appears as "unexplored"—a clear line, which on all future maps will show that the Youkon flows into the Kwickpak. Most that is known of the interior of this country has been obtained from the natives, who have come to the coast to trade their furs, or have gone to the Russian post on the Kwickpak for the same purpose. From them we learn that south of the Kwickpak the country is generally wooded, and contains high mountains and large lakes. From Mount St. Elias to Alaska the shore is well wooded, but beyond that no forests are seen from the shore, though it is known that in the interior the forests extend for some distance north of the Kwickpak.

Of the Aleutian Islands we know more, for they are small and are quite destitute of trees, strangely contrasting with the woody mountains of the continent. The steep and rather high mountains of which the whole country consists appear like a genuine though rather irregular net-work of cones, the heights and slopings of which are of course very much diversified, and among which there are, in the interior, long but narrow valleys without plains. There are frequently real plains, as may be seen in an engraving of Unalaska, in a German work of F. H. von Kittlitz, who was with a Russian exploring expedition in the years 1827, '28, and '29. These plains have quite the character of alluvial soil, and are generally covered

with grass so luxuriant as quite to impede travel. Raspberry bushes and dwarf willows are also common. Up to a considerable height the mountains are covered with a rich turf, but their tops—some of which are 2000 feet high—exhibit nothing save the bare slate rocks, strips of perpetual snow, and here and there a few isolated plants. The snow line is by no means regular, owing to the broken surface of the country and the influence of the volcanic element in the temperature of the soil.

The climate of this country is not what might at first seem to belong to its high latitude. The eastern coast of North America is much colder than the western. A glance at a map showing the ocean currents of the Pacific will at once explain this difference. It will be seen that the heated water of the equator flows in a continual current toward the north, and that this northern current comes quite near to the coast from the parallels of 50° to 58° of north latitude, thus warming the whole coast to Mount St. Elias, and then curving along to the peninsula of Alaska and the Aleutian Islands. The temperature of the Aleutian Islands and of the coast to 54° 40' is very much the same in the winter, and for the month of January is about 32°, which is much higher than that of the same latitude in the interior. The January isothermal line of the Aleutian Islands runs through Sitka, Philadelphia, Amsterdam, and Peking. The climate there in winter is not too severe to support a large population. Above the Aleutian Islands, on the continent, the January isothermal runs nearly parallel with the parallel of latitude, as the coast there is not warmed by the ocean currents. In the summer we find quite a change in the climate of Sitka and of the Aleutian Islands. The Aleutian Islands are cooled by the cold winds that come from the north, and the masses of ice which float down through Behring Strait, while Sitka is protected from the northern winds, and is not reached by the masses of ice. The July isothermal of Sitka passes near Quebec. That of the Aleutian Islands runs north near the mouth of the Kwickpak, through North Labrador, Iceland, and Northern Norway. The warmth of the interior of Russian America, as compared with that of the Aleutian Islands, results from its protection from the winds of the north.

The average temperature of the Aleutian Islands is about 50° Fahr., nearly the same as that of Albany, Dublin, and Jeddo. From reports obtained from the Smithsonian Institute we extract the following, showing the range of the thermometer at various points:

	Spring.	Summer.	Autumn.	Winter.	Year.
St. Michaels, latitude 62° 28' N.....	28° 75	52° 25	27° 00	7°	27° 48
Fort Youkon, latitude 67° N.....	14° 22	59° 67	17° 37	23° 80	16° 02
Ikomut, latitude 61° 47' N.....	16° 02	40° 32	36° 05	0° 05	24° 57
Sitka, latitude 57° 3' N.....	59° 05	58° 27	43° 50	52° 30	42° 12
San Francisco.....	55° 70
Nain, Labrador, latitude of Sitka.....	29° 67	48° 57	38° 05	0° 4	26° 40
Portland, Maine, latitude 43° 38' N.....	40° 12	63° 75	45° 75	21° 52	42° 78
Fort Hamilton, New York, latitude 40° 37' N.....	47° 84	71° 05	55° 57	32° 32	51° 32