This article was downloaded by: [UQ Library]

On: 13 March 2015, At: 05:44

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954

Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK

Journal of Geography

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rjog20>

Geographical Influences in Alaska

Lawrence Martin ^a

^a University of Wisconsin

Published online: 20 May 2008.

To cite this article: Lawrence Martin (1910) Geographical Influences in Alaska, Journal of Geography, 9:3, 65-70, DOI: [10.1080/00221341008986253](https://doi.org/10.1080/00221341008986253)

To link to this article: <http://dx.doi.org/10.1080/00221341008986253>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is

expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

GEOGRAPHICAL INFLUENCES IN ALASKA

By LAWRENCE MARTIN

University of Wisconsin

THE development of resources, the industries, the growth of cities and highways are still in that delightful frontier stage in Alaska when the geographical influence is large and development is going on so fast that one can actually see vast changes from year to year. The writer has spent four summers in Alaska, the first one only six years ago and even in this brief period the frontier has been developing so fast that the geographical influence has been plain to see. White man's Alaska is so young that the whole period of development is fairly well known, especially as the Americans have had so large a share in it, and the previous Russian regime is so recent.

TOPOGRAPHY AND CLIMATE

The territory of Alaska is not unlike western United States. There is a highland barrier next the ocean; the Aleutian-Alaska Peninsula mountains, the St. Elias Range, and the mountains of the Alexander Archipelago near Sitka, corresponding to the Coast Ranges of Washington, Oregon, and California, with submerged intermontane valleys like Shelikof Strait, Cook Inlet, Prince William Sound, and the fiords of the Inside Passage, matching the submerged and lowland Puget Sound, Willamette, and California valleys. Behind these rise the Alaska Range, with Mt. McKinley, the Wrangell Mountains, with their volcanoes, and the Coast Range of British Columbia, corresponding to the partly volcanic Cascades and the Sierra Nevada. Inside this is the Central Plateau of Alaska, with the Yukon and Kuskokwim rivers, placed similarly to the Columbia lava plateau, the Great Basin and the Colorado plateau. The Rocky Mountains find their northern continuation in Alaska in the Endicott Mountains, where the trend, however, is east and west instead of nearly north and south. There is now said to be a higher peak in the Endicott Mountains than Mt. McKinley. North is the Arctic slope in Alaska, which resembles the Great Plains of United States, but which merges with the Arctic coastal plain as our Great Plains merge into the Gulf coastal plain in Texas. The several positive and negative geographical influences of topography and coast lines will be discussed later.

In climate, however, there are great contrasts. Alaska, much farther north, extends beyond the Arctic Circle and has lower inclination of the sun's rays, but, because of the oceanic influence and the winds, has a climate more like Scotland and Scandinavia than Labrador. It may be truly asserted that the chief climatic disadvantage in Alaska is the unequal distribution of sunlight, the unending summer days being delightful but the long winter nights quite disadvantageous. Yet Norway and

Sweden have not found this geographical factor fatal to prosperity and high civilization. Heavy rainfall on the mountains of the coast (58 to 190 inches) continue the resemblance to northwestern United States, but low precipitation in the Central Plateau (11 to 21 inches) is not accompanied by aridity, as in the Great Basin, for evaporation is so much less in the Yukon, Tanana, and Kuskokwim valleys than in eastern Washington, Oregon, Utah and Nevada that agriculture in Alaska is a promise of the not remote future. The mean annual temperature in Alaskan towns is about the same as in the state of Washington, in Scotland, and in southern Norway and much higher than in Canada near Winnipeg, and in Wisconsin, Minnesota, and the Dakotas. The Alaskan climates are in general equable and may be said to constitute a favorable geographical influence. Though snow and ice are present in relatively narrow belts in the mountains of parts of the coast the proportion of Alaska covered with glaciers is very small indeed. In these regions the glaciers and snow-covered mountains constitute an important scenic resource, as the thousands of tourists who have seen the Muir, Taku, Davidson, Malaspina, Valdez, Columbia, Miles, Childs and other glaciers will testify.

GEOGRAPHICAL INFLUENCES IN EXPLORATION AND SETTLEMENT

The discovery of Alaska by the Russian, Gwosdef, in 1731 and the Dane, Bering, ten years later resulted in little immediate exploration, for each of them first landed on dangerous and inhospitable parts of the coast. The succeeding explorations by Russian fur traders and by Cook, Malaspina, Vancouver, and the other English, French, and Spanish seekers for the Northwest Passage and new territory for European colonization were much aided by the intricate, submerged, and fiorded character of the coast. The Russian explorers and settlers also reaped great advantage from this geographical factor. The Russians who penetrated into the interior went short distances only, because of the coastal mountain barriers, and it was only after the American occupation in 1867 that the lure of gold caused a real beginning of exploration and settlement within the Central Plateau. Climatic influence has prevented much exploration and all settlement in the Endicott Mountains and Arctic slope, except for a few prospectors and scattered tribes of Eskimo.

This exploration, which is still in progress, has been predominantly along the natural routes provided by the rivers. Potent as the rivers have been there has been an element of disadvantage in their arrangement. The Yukon, like the Mississippi, was long known at the mouth and the head before the whole river was proved to be one stream in 1865. The Russians naturally ascended the Yukon from Bering Sea—its mouth points toward Siberia—just as the Spanish, starting in tropical America, first held the mouth of the Mississippi. The Americans in Alaska reached the head of the Yukon first by way of the White and Chilkoot Passes

which are nearer Washington and California, recalling the French exploration of the upper Mississippi by way of the Great Lakes, whose outlet, the St. Lawrence, points toward Europe.

In similar ways the exploration and settlement of all Alaska has been involved with the geographical features of the mountains, plains, and rivers, much more so than in the similar history of the United States.

THE FUR TRADE

The hunting and trapping which have yielded over seventy million dollars worth of furs in thirty years, since the purchase of Alaska from Russia, has been little involved, relatively, with geographical features. The earlier search for land furs, whose product is now less than a ninth of the whole, played some part in the exploration of eastern interior Alaska. The taking of seal and sea otter, however, along the coast of the Aleutian Islands and Alaska Peninsula and on the islands of Bering Sea, was perhaps aided by a geographical feature, the nature of the coast, more during the native and the Russian regime than now. Modern sealing in Bering Sea and the North Pacific has little of geographical relationship.

THE FISHING INDUSTRY

In contrast with the fur trade, the fishing industry in Alaska, which is now nearly twenty times as valuable, has been involved with obvious geographical relationships. Of the fishery products taken between 1868 and 1908 eight-ninths of the one hundred and nine million dollars worth has been the salmon. Salmon fishing is made possible by the many coastal rivers up which these fish swarm to spawn. They are caught near the mouths of the streams, where canneries cause temporary centers of population, mostly in summer, giving employment to many men and great revenues to the packers. It is interesting in this connection that one harbor in Alaska held over half the whole fleet of American sailing vessels now in existence one day during the summer of 1910 in connection with the salmon industry. Cod, halibut, and herring fishing, and whaling show slight relationships to geographical features in the development of Alaska. An interesting practice in south-eastern Alaska is that of shipping the halibut to the Seattle markets, nearly a thousand miles, packed in ice from the glaciers of the Inside Passage.

ALASKAN GOLD

Alaskan gold, and gold from the adjacent Klondike district in north-western Canada, has been constantly involved with geographical influences. Between 1880 and 1909 we took one hundred and sixty-nine million dollars worth of minerals out of Alaska, most of which was gold. Part of this was from mines, but the great bulk came from present and former beach and stream accumulations—placer deposits. Prospecting and mining has resulted in a wholesale exploration of the drainage systems and of

shorelines which would not have been nearly so well known for decades had it not been for the lure of the gold. The streams are utilized for washing the gold from the gravels. Trails follow rivers and creeks to mining camps, and temporary and permanent centers of population have grown up along the stream courses. Many of these matters of geographical influence in the gold prospecting and mining are familiar matters. Two of the gold mines, the Treadwell at Juneau and the Cliff Mine at Valdez, have a great advantage in being located on tidewater, so that installing machinery and bringing in supplies has been attended by much less expense than in connection with the placer gold camps of the Tanana valley near Fairbanks, the Canadian Klondike camps near Dawson, the Seward Peninsula camps near Nome and other mining districts in Alaska.

COAL AND COPPER

In Alaska, coal and copper mining has been somewhat retarded by unfavorable geographical relationships, but not nearly so much as by the government's delay in permitting the mining of coal. The Bering River or Controller Bay coal fields near Katalla suffer now because of the absence of a good natural harbor at the nearest sea coast, but this is only a temporary disadvantage, easily overcome. Of the fifteen billion tons of coal conservatively estimated to be now available in Alaska a large proportion lies very near the coast, giving this coal field great advantage over the Matanuska coal field which is farther inland. Most of the three and a half billion tons of high grade anthracite and bituminous coal can be easily shipped by water. With total Alaskan coal resources (150 billion tons at least) probably far in excess of the original coal supply in Pennsylvania, a good proportion of which is of equally high grade, there is an advantage in the fact of probable future cheap water transportation.

In connection with the copper mines, also, there have been geographical advantages and disadvantages. The first mine to ship, and practically the only one as yet, is in a deep protected fiord in Prince William Sound, the copper being mined in an open quarry close to the coast. The richer copper deposits near Mt. Wrangell, though known for some years, have not been mined yet because the river leading up from the coast was rendered unnavigable by glaciers athwart its lower course, and high mountains made the one trail or pack road to the coast unsuitable for transporting machinery and equipment, food supplies, and ore. Now that large capital has invested fifteen million dollars in a railway to this copper district, which will be completed in January 1911, the temporary geographical disadvantage will be overcome, and the mining industry will profit by the 200 miles of railway, following a gently-sloping valley across the lofty coast barrier. Mining and settlement in the interior of Alaska should have a great stimulus from this.

FORESTS AND AGRICULTURE

The dense forests of spruce, hemlock, and cedar on the rainy coast ranges, the more open forests of the drier Central Plateau, the treeless Alaska Peninsula and tundras of the Arctic slope are all responses to the climatic control. There are grave misunderstandings popularly about the extent and value of the Alaskan forests. Today practically all lumber for permanent use in Alaska is imported from Puget Sound because the coast regions are so accessible to ships, even although heavily timbered. Canneries in thickly-forested regions ship all their box material to Alaska from Puget Sound, in one case because the cannery operator is also a saw-mill owner in Washington. Later this coast timber will be utilized more fully though it will never be exported to the States, for the laws forbid this. Much of it would never be useful except for pulp. Even in the more thinly forested interior there is ample timber for local use of miners and settlers. Today it is not much used except for fuel on the wood-burning steamboats on the Yukon and its tributaries.

Agricultural relationships in Alaska are not fully understood, being over- and under-stated in various quarters. Government agricultural experiment stations have demonstrated that many crops and fruits may be matured in parts of Alaska. There are already a few successful farmers. A Farmers Institute was held at Seward, Alaska, in 1909. Homesteading is increasing. The importation of hay and of potatoes to Alaska has decreased in recent years, although the consumption of food stuffs is increasing. Surely in the future Alaska will be able to supply a large proportion of the food supply of given localities, but it is not to be expected that there will be many agricultural products exported or that, in this frontier stage, economic independence will come at once, for mining and commercial centers like Duluth-Superior and Marquette on the Great Lakes are just beginning to get beyond the dependent stage in which most of the mining camps and seaports in Alaska are now. Agricultural and forest resources in Alaska are, therefore, seen to be little developed not because of unfavorable climatic conditions but because the time is not yet ripe for their utilization.

COMMERCE AND TOWNS

In 1909 we shipped seventeen million dollars worth of manufactured and raw material to Alaska and received thirty million dollars worth of minerals, fish, furs, etc. The coast towns in Alaska with cheap water transportation secured low rates for transportation, the river settlements of course paid more for their supplies and the cost increased with the distance and crudeness of transportation facilities involved. Geographical distribution, therefore, was the first factor in determining cost, and in Alaska distances are very great, for the territory is large. Freight on coal from Seattle to towns in Alaska varies, as Brooks has shown, from five to

one hundred and four dollars a ton, general merchandise (including most foodstuffs) from eight to one hundred and forty-seven dollars a ton, lumber from six and a half to one hundred and eighty dollars a thousand feet, machinery from eight to two hundred and five dollars a ton, and grain and hay from nine to one hundred and thirty-eight dollars a ton. With freight so large in proportion to the value of commodities, unnatural economic conditions are seen to exist, due chiefly to (a) absence of adequate transportation facilities, (b) absence of agricultural productivity for local needs, particularly in food supply. In this unnatural condition, however, as is always true on the frontier, especially with the native people fading away, the geographical influence is very plain. It is not complicated by all sorts of non-geographical relationships as is the case in Indiana, New Jersey, and Wisconsin.

It is quite clear why almost every town in Alaska exists and is larger or smaller than its neighbors. Some of the towns mentioned below are well known to the general readers. A selection has been made of the new ones that will be well-known to the geography teachers of a few years from now. Nome is a gold camp and seaport for mining communities inland. Fairbanks is a gold camp and river town related to distribution of foodstuffs and supplies for the adjoining mining district. Juneau is the capital and the seaport for the mining district nearby. Valdez is a seaport at the end of a road to the interior and, within the past year, for promising gold mines in the immediate vicinity. Skagway is purely a port, at the point where the Klondike and upper Yukon trail and railway begin. Cordova and Seward are seaports at the termini of railways to the interior, perhaps the first trans-Alaskan lines; and the shipment of coal, copper, foodstuffs, etc., will make large cities here. Yakutat and a number of other small settlements are chiefly cannery towns. The original native settlements were on the sites of a few of the places mentioned above and many others and have been perpetuated by missions, etc. Kodiak and Sitka, the two former Russian capitals, are small, shrinking, distributing centers for adjacent regions. Sitka was the American capital till a few years ago, though without as good geographical justification as during the time of the Russians, for Alaska is no longer a mere coastal fringe, and geographical relationships are shifting. One regrets the passing of beautiful Sitka. The period of littoral territory is over and the interior of Alaska dominates now. It is not dissimilar to the period when we were settling the middle West from the Atlantic coast, but one sees today in Alaska conditions similar to those which would have obtained if the United States had been settled from the West instead of the East, and with all the geographical relationships involved with a territory geographically similar to western United States.