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KATMAI NATIONAL MONUMENT

EMBATTLED KATMAI

A HISTORY OF KATMAI NATIONAL MONUMENT

by

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PREFACE

This history of Katmai National Monument is one of the basic data studies required for the drafting of a new park Master Plan. It was prepared in accordance with Historical Resource Study Proposal, Katmai-H-1a.

The report is intended to be a reference work, providing park planners, administrators, and interpreters with the essential facts relating to human use of the monument from about 4000 B.C. to A.D. 1918, when the reserve was established. It gathers together and presents in a single narrative as much of the widely scattered historical data as time and reasonably available source materials would permit.

In order that the information may be of maximum usefulness, it has been organized largely by major cultural themes -- prehistoric, aboriginal, Russian, and American. Each of the main chapters dealing with these topics has been divided into two sections: one a general survey of the history and culture; and, two, a list of sites with a summary of what is known about the occupation of each during the period concerned.

Additional chapters treat special topics subsidiary to the main themes. For instance, two chapters on the advance of the Russian fur traders to the Alaska Peninsula and on Russian geographical discoveries in the Katmai region supplement the main chapter on Russian activities within the present monument.

Considerable emphasis has been placed on the natural phenomena and on the human efforts which led to the establishment of Katmai National Monument. This story, it is believed, has general interest as a part of the broader history of the development of the national park movement. Some of the facts presented in this connection appear to be recorded for the first time, and to that extent this work seems to be a contribution to knowledge.

An epilogue briefly summarizes the history of the monument from 1918 to 1954 with emphasis on the steady effort that has been required to preserve park values and resources. This section, too, may be of wider application, since it points up the need for a more detailed study of this important chapter in the broad conservation story.

ACKNOWLEDGMENTS

The time allotted for the preparation of this report was extremeley limited. Therefore no pretence is made that it constitutes a complete, well-balanced, or necessarily original history of Katmai National Monument.

This study is intended primarily as an administrative aid to be used by National Park Service personnel, who may be presumed to be familiar with the broad history of the conservation movement in the United States, with the development of the National Park System, and with the origins of other national parks and monuments in Alaska. This is a history of Katmai National Monument, which is an important and fascinating subject in its own right. It must be left to the reader to fit the events herein described into the wider story of some men's struggle to preserve our natural environment.

For the most part, the sources employed were only those which were available in the San Francisco Bay area and which it was physically possible to peruse during a period of a few months. Many works whose titles are known to the author had to remain unexamined merely because of lack of time to pull them from library shelves and official files and because travel could not be undertaken to distant repositories.

The study did benefit, however, from the results of several days of research conducted in Alaska during the summer of 1953. Special thanks are due to Mr. George L. Collins, former Chief, Alaska Recreation Survey, Region Four, National Park Service, who encouraged me to work on Katmai at that time and who contributed, in addition to this contageous enthusiasm, a number of historical items of importance.

Among those who went far beyond the requirements of their official positions to assist me in 1953 were Mr. John Mehler, Librarian, University of Alaska; Superintendent Grant H. Pearson and Park Naturalist William J. Nancarrow, Mount McKinley National Park; Mr. Edward L. Keithahn, Librarian, and Dr. Helen A. Shenitz, Assistant Librarian, Alaska Historical Library and Museum. At Juneau I also had the opportunity to meet the late Father Bernard R. Hubbard, S.J., ardent explorer of Katmai, who provided interesting information.

Particular thanks are extended to Mr. Horace Marden Albright, former Director of the National Park Service, who most generously supplied information, available nowhere else, on the discussions between the Service and the National Geographic Society which led to the establishment of Katmai National Monument.

Among those who have contributed to the later phases of this study by encouragement, advice, and information are a number of colleagues in the San Francisco and Anchorage Offices of the National Park Service, among whom are: Bailey O. Breedlove, Wayne W. Bryant, Mrs. Jane Harvey, John W. Henneberger, Norman B. Herkenham, Francis R. Holland, Jr., Mrs. Ann L. Howard, Mrs. Helen A. Hoy, William T. Ingersoll, Reed W. Jarvis, Merrill J. Mattes, and Paul J. F. Schumacher.

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John A. Hussey

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SUMMARY AND RECOMMENDATIONS

Historical Summary

Katmai National Monument, lying at the base of the Alaska Peninsula, is a magnificent wilderness area preserving scientific, scenic, and historic values. Originally set aside to protect the physical evidence of one of the world's greatest recorded volcanic upheavals, the eruption of Mount Katmai in 1912, it is now even more famed as one of the earth's most important wildlife refuges. It did not become a national monument by accident nor has it maintained that status without contest.

Anthropologists are not in agreement as to when man first occupied the Alaska Peninsula or as to who the successive peoples were who lived within the present monument from the earliest recorded times to the arrival of the first Europeans. The earliest evidence of human habitation on the shores of Naknek Lake, on the Bristol Bay slope of the monument, appears to date from about 2500 B.C. Across the Aleutian Range, on the shore of Shelikof Strait, occupation seems to extend from about 4000 B.C.

During the earliest times the people on the west side of the mountains appear to have been different from those living along Shelikof Strait, but about 1900 B.C. a people who may have been ancestral Eskimos apparently moved into the Naknek Lake area. Seemingly these people or their culture tended to expand southeastward to the Pacific, and by about A.D. 1000 there were a number of evidences of contact across the range. During the next 500 years the cultures on both slopes were virtually identical, and the people or peoples who inhabited the future monument were clearly Eskimos.

When Europeans first became acquainted with the northern Alaska Peninsula, between about 1784 and 1818, they found the Shelikof Strait coast near Katmai inhabited by an Eskimo group known as the Koniag. These same people also occupied the nearby Kodiak Archipelago. Exactly who occupied the western part of the future monument at that time is not entirely clear. Evidently a group known as the Peninsular Eskimos lived on the Bristol Bay slope until they were invaded and at least partly assimilated soon after the arrival of the Russians by an Eskimo tribe known as the Aglegmiut.

The Koniag were largely sea mammal hunters, skilled in the use of skin-covered boats or kayaks. The Aglegmiut of the Naknek River drainage basin, on the other hand, subsisted mainly on the salmon which swarmed upstream each summer. They also hunted caribou, bear, and other land animals. The Pacific coast natives traded with those on Bristol Bay, principally for walrus ivory; and one of the main routes for this commerce led over the range from the village of Katmai on Shelikof Strait, through Katmai Pass, and down the Ukak and Naknek river and lake systems to Bering Sea.

Russian fur traders, seeking the valuable pelt of the sea otter, established themselves on Kodiak Island in 1784 and soon expanded operations to the opposite mainland. By a harsh system of enforced hunting already perfected in their long march across Siberia and along the Aleutian chain of islands, the newcomers virtually enslaved the Eskimos along Shelikof Strait. The native economy was almost entirely directed toward the taking of sea otters, and the Eskimos became dependent on the traders for much of their food, utensils, weapons, and clothing. The situation of these "dependent" natives on the coast, who were Russian subjects, contrasted strongly with that of the "semi-dependent" inhabitants of the Naknek drainage, with whom the Russians dealt as traders and missionaries among an independent people.

Under the monopoly rule of the Russian American Company, from 1799 to 1867, Katmai Village was the principal trading post for most of the Alaska Peninsula's south coast. The barter for the furs of the upper Naknek drainage across the range to the west was also conducted from Katmai. Therefore, the trail over Katmai Pass continued to be used through the Russian period, although it is doubtful that many supplies for the Bristol Bay and Kuskokwim posts were transported by this route as has been claimed.

Orthodox missionary activities at the native settlement of Savonoski, on Naknek Lake, were supervised from Nushagak on Bristol Bay, whereas those on the coast were more directly under the jurisdiction of the church at Kodiak. Under the double influence of traders and missionaries, the natives of the present Katmai National Monument had been quite thoroughly "Russianized" by the time Alaska was purchased by the United States in 1867.

Soon after the transfer, the founders of the Alaska Commercial Company of San Francisco purchased most of the Russian American Company's assets, and the new firm quickly became the dominant force in the economy of western and central Alaska. But the

American company never achieved the absolute monopoly of its predecessor, and of course it exercised no governmental powers. Therefore rivalry between traders quickly resulted in a rise in prices paid to the natives for furs, particularly sea otter pelts; and over-hunting by about 1890 had brought about the almost complete extinction of the otter. By 1906 the trading stores which had been maintained by the Alaska Commercial Company and rival firms at Katmai and at a settlement called Douglas at the present Kaguyak were closed. The impoverished natives had long since been forced back to hunting and fishing and the trapping of land mammals for their existence. Beginning in the 1880's the establishment of salmon canneries in western Alaska provided new employment opportunities for the Eskimos of the Katmai region.

The old trail over Katmai Pass received considerable publicity during the American period due to its use by several prominent travelers and writers. For a short time this difficult track served miners hurrying to the gold fields at Nome, and the Post Office Department carried the winter mail for Bristol Bay and western Alaska settlements by this route for several years beginning with the 1900-1901 season. Prospectors for oil, coal, and precious minerals were also busy in the general area of Katmai about the turn of the century, but no deposits of commercial value were found within the present national monument.

Most of the natives in the Katmai region had left their homes by early June, 1912, to work at the canneries on Bristol Bay or at fisheries on the shores of Shelikof Strait. A series of earthquakes during the first few days of the month sent most of the remaining inhabitants fleeing for safety. Thus when a gigantic volcanic explosion in the region of Mount Katmai on June 6 sent ash and pumice raining down over a wide area, there was no loss of life, although all the settlements within the present monument were rendered uninhabitable.

It was quickly apparent to scientists that the Katmai eruption was one of the most violent volcanic disturbances of historic times. The National Geographic Society sent a series of expeditions to study the effects, and one of these parties, led by Professor Robert F. Griggs, in 1916 came upon the Valley of Ten Thousand Smokes, a large plain over which curled the steam from myriads of fumaroles. This phenomenon had been created when hot ash erupted in 1912 had inundated the upper valley of the Ukak River and much of the old Katmai Trail.

Griggs was so impressed by this wonder of nature and by the crater caused by the collapsed summit of Mount Katmai that he

determined to have the volcanic area set aside as a national park to preserve its scenic and scientific values. After two more expeditions in 1917 and 1918 enough data had been gathered to convince the National Geographic Society, the National Park Service, and the Department of the Interior that the "smoking" valley was no temporary phenomenon. National Geographic Society officers and Park Service officials, working with Dr. Griggs, evolved a proposal for a national monument. The campaign of Dr. Griggs and the Society was culminated with success on September 24, 1918, when President Wilson signed a proclamation establishing Katmai National Monument.

Although there seems to have been no opposition to the reservation at that time, the seeds of controversy had already been sown. By the end of 1918 several mineral claims of various types had been established within and near the new monument, and it was not long before persons with existing or potential commercial interests in the region began protesting against the reserve. Thus began a contest which has continued to the present day.

Recommendations

Need for continuation of study. The history of Katmai National Monument constitutes one of the great conservation stories of our time. It deserves to be studied in depth and with absolute frankness. It contains lessons applicable in the operation of both the National Park Service as a whole and of many individual parks.

The limitations of the present project precluded the pursuit of this subject both in the necessary detail and in the desired length of time span. For instance, the treatment of the Russian activities in the Katmai region is merely a sketchy outline, due mainly to the language barrier which prevented the use of many important sources. The lack of time and travel funds limited utilization of critical collections of Alaska Commercial Company papers. And nothing at all could be done with the significant story of area administration following the establishment of the monument in 1918.

It is estimated that at least one year's additional work, with provision for adequate translation assistance and travel to repositories in Alaska and Washington, D.C., would be required to produce a report that would adequately meet Service requirements.

Research suggestions. Much research yet remains to be accomplished before the historic resource study for Katmai National Monument can be considered complete. The materials which profitably could be searched include both general background studies, particularly recent works such as *The Pacific Basin: A History of its Geographical Exploration*, edited by Herman R. Friis, and the more specialized sources, such as collections of documents, government office files, and private holdings of photographs and letters.

As a beginning, it should be noted that James Wickersham's indispensable *A Bibliography of Alaska Literature, 1724-1924* was used in the preparation of the present study, but time would not permit an examination of all the listed items which perhaps relate to Katmai. A first step in a renewed project would be to follow up all possible leads in Wickersham.

The fact that anthropologists are in disagreement concerning certain aspects of the prehistoric occupation of the Katmai region points up the fact that additional archeological and ethnological work is needed in the monument and its vicinity. Although anthropologists are now largely convinced that it is too late to conduct profitable ethnological studies in this region, it appears possible that something might be done through local people, such as Mrs. Inisha McCormick of the Naknek area, who still make the effort to study the native languages. The Bristol Bay Historical Society seems to have made a start in this direction, and it might be worth while for a trained ethnologist to work with these local sources. Time, of course, is of the essence in this matter. More of the cultural elements are being lost as each day passes.

At least two major collections of Russian documents known to have material relating to the Katmai region exist in the United States. These are the Russian American Company Records in the National Archives and the Alaska Russian Church Archives in the Library of Congress. Some small parts of these documents have been made available in translation but the great bulk still remain inscrutable in Russian script. They are known to contain information concerning the Alaska Peninsula.

The Alaska Commercial Company Papers at the University of Alaska and at Stanford University also merit detailed study. Undoubtedly the various ledgers, account books, and journals of the Katmai district posts at the former institution would yield valuable information about fur-gathering activities within the present monument.

As late as 1946 the diary which Lord Lonsdale kept during his trip across Katmai Pass in 1889 was in the possession of his descendants. A search for this document might prove rewarding.

Much of importance concerning the Katmai region could be learned from a detailed examination of all known maps, Russian and American, of the Alaska Peninsula. The Library of Congress has a good collection. In particular, the successive U.S. Coast Survey and Coast and Geodetic Survey charts should be carefully compared to see when locations and names of coastal settlements were altered.

A great deal remains to be learned about the eruption of 1912. Captain McMullen and Mail Clerk Thwaites, of the *Dora*, took a series of photographs of the first day's activity; and Hesse and Horner in 1913 took the first pictures near the scene of the eruption. The monument staff should make every effort to get a complete series of these pictures from Alaskan sources or from the families of the men involved. Then the photographs should be carefully studied by a research historian to see what they reveal concerning both the eruption itself and the early exploration of the monument.

Undoubtedly more contemporary accounts of the eruption exist than have been seen by historians. Letters, postcards, diaries, photographs, and other source materials must yet remain in private hands. The monument staff should make every effort to uncover such items and copy them for the park files. Also, all pertinent materials at the Bristol Bay Historical Society, including items loaned for special exhibits, should be copied if permission can be obtained. These materials should be in fireproof storage.

Judge James Wickersham's diaries, in many volumes, are at his old home in Juneau, at present owned by an airline. These diaries should be examined for any references to Katmai but particularly to see if Wickersham's advice was asked when the Katmai National Monument proposal was under consideration during 1918.

It is our understanding that much information relating to the National Geographic Society's expeditions to Katmai, 1913 to 1931, may be in the files of the Society in Washington. Every effort should be made to examine this material so that several unanswered questions concerning these explorations may be settled.

Another fruitful field for investigation should be the records of the U.S. Revenue-Cutter Service. The logs of all the vessels involved in the 1912 rescue operations should be examined in an attempt to learn more about the visits to the Katmai coast at that time.

A big gap in the present study concerns the establishment of canneries and fisheries in the Katmai region and, particularly, the number of natives employed at these establishments. The published and unpublished reports of the U.S. Fish Commission and its successors should be carefully studied.

Above all, perhaps, the records of the National Park Service at the Washington Office, regional, and park levels should be examined for material relating to the history of the monument from 1918 to the present. Congressional documents and papers, including committee papers, should also be studied in this regard, as well as the papers of the Territory of Alaska.

Books recommended for the monument library. Unfortunately, there are no general works that cover any appreciable portion of the history of Katmai National Monument. If there is any single work which might be considered indispensable, however, it would be Robert F. Griggs, *The Valley of Ten Thousand Smokes* (Washington, D.C., 1922). It touches on the background history, presents the traditional story of the 1912 eruption, and describes in detail the expeditions which resulted in the effective discovery of the Valley of Ten Thousand Smokes and Katmai Crater and which led to the establishment of the monument. The more recent interpretation of the geology of the 1912 eruption is briefly and conveniently presented in Howel Williams (ed.), *Landscapes of Alaska* (Berkeley, California, 1958).

Two recent books present useful and understandable overall views of pre-Eskimo and Eskimo culture: Hans-Georg Bandi, *Eskimo Prehistory* (College, Alaska, 1969); and Wendell H. Oswalt, *Alaskan Eskimos* (San Francisco, 1967). A view of the cultural evolution of a neighboring native group during historic times is given in James W. VanStone, *Eskimos of the Nushagak River* (Seattle, 1967). This book contains much information concerning the history of the Bristol Bay slope of the monument. The most important description of the culture of the Eskimos who lived on the Shelikof Strait side of the area is in Ales Hrdlicka, *The Anthropology of Kodiak Island* (Philadelphia, 1944). A new publication, *Readings in Anthropology: People of the Bering Sea* (New York, 1971), by Ted Bank, has not yet been examined, but it may be of interest.

There still is no really good book covering the Russian period of Alaska history in the detail required to be meaningful as far as the history of Katmai is concerned. Hubert Howe Bancroft, *History of Alaska, 1730-1885* (San Francisco, 1886), is still the best work readily available. It has recently been reprinted. Harold McCracken, *Hunters of the Stormy Sea*, is a popular book about the Russian sea otter hunters; it follows Bancroft and several other sources very closely but has the advantage of being breezy in style and easy to read. S. B. Okun, *The Russian-American Company*, is biased, but it does present a fairly good view of the Russian trading apparatus.

Probably the best book written on the operations of the Russians in Alaska is that by P. A. Tikhmeneff, the translated title of which is *Historical Review of the Origin of the Russian American Company* (2 vols., St. Petersburg, 1861-1863). A typescript translation by Dimitri Krenov may be found in the University of Washington Library, among other places. It undoubtedly would be worth while for the park to obtain a Xerox copy of this translation.

By far the most important books covering the early American period, and also throwing much light on the native inhabitants, are the Alaska volumes of the Tenth Census (1880) and the Eleventh Census (1890). The titles of these works vary (see bibliography of this study), but the best editions are Ivan Petroff, "Report on the Population, Industries, and Resources of Alaska," in United States, Census Office, *Tenth Census*, vol. VIII (Washington, D.C., 1884); and United States, Census Office, *Report on Population and Resources of Alaska at the Eleventh Census: 1890* (Washington, D.C., 1893).

Victor H. Cahalane, *A Biological Survey of Katmai National Monument* (Washington, D.C., 1959), contains quite a sprinkling of miscellaneous historical information in addition to being a basic check list and description of the monument's plant and animal life. Lowell Summer, *Magnificent Katmai* [San Francisco, 1952], while largely descriptive in nature, provides superb photographs illustrating the condition of several historic sites in 1952.

After these fundamental books are acquired, attention could profitably be given to collecting a number of the works containing more specialized information, such as those by Erskine, Gsovski, Hubbard, Kitchener, Orth, Sherwood, Tilton, and Wirt (see bibliography for titles). It is assumed that the monument collections already contain the reports by Dr. D. E. Dumond and the other archeologists who have worked in the area. If not already owned, acquisition of these works is essential for an effective monument working library.

CHAPTER I

"Cradle of the Storms"

Katmai National Monument, wild, immense, and magnificent, lies at the base of the Alaska Peninsula. Its 4,363 square miles occupy a great block of land nearly as large as the State of Connecticut and stretching almost across the peninsula which there is about one hundred and ten miles wide, bounded on the southeast by turbulent, treacherous Shelikof Strait and on the northwest by Kvichak Bay, an arm of Bristol Bay and the Bering Sea.

The monument forms a rough parallelogram, eighty miles long from east to west and fifty miles wide, north to south, with a thirty-mile finger extending to the northeast to encompass the Cape Douglas region. On the west another finger stretches out twelve miles to include the lower end of Naknek Lake. The boundary for one hundred air line miles southwest from Cape Douglas lies five miles offshore from the island-dotted coast of Shelikof Strait.

The dominant landscape feature of the area is the Aleutian Range, the "backbone" of the peninsula. Rising sharply from the strait, this mountain chain sweeps through the monument in an almost unbroken line, twenty to thirty miles wide, from Mount Douglas on the north to Martin Mountain near the southern boundary. From a short distance below this latter point to the end of the peninsula the range disintegrates into isolated peaks and mountain masses separated by lower ridges. The heart of the Aleutian Range thus lies within the monument.

The summit of the chain forms the drainage divide of the peninsula. The crest lies only ten to fifteen miles west of Shelikof Strait, while it is about eighty-five to ninety-five miles east of Kvichak Bay. Hence the southeastern face of the range is frequently steep, dropping quickly to sea level. The northwestern slope tends to be more gradual.

As observers have noted, the Aleutian Range, when compared with many other mountain chains of Alaska, "is not among the most massive."[1] Yet this wall of peaks, particularly when viewed from the strait, presents an impressive sight, and travelers entering the mountains

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1 Victor H. Cahalane, *A Biological Survey of Katmai National Monument* (Smithsonian Miscellaneous Collections, vol. 138, no. 5, Washington, D.C., 1959), 7.

from tidewater quickly find themselves in the midst of "glaciers and eternal snows and scenes of alpine grandeur and solitude."[2]

Largely volcanic in origin, the range within the monument is marked by six peaks with altitudes in excess of 7,000 feet.[3] These are, from north to south, Mount Douglas (7,064 feet), Mount Steller (about 7,300 feet), Mount Denison, highest of them all (7,606 feet), Mount Griggs (7,589 feet), Snowy Mountain (7,142 feet), and Mount Mageik (7,244 feet). Before the eruption of 1912 there was one more of these giants, the 7,500-foot Mount Katmai, but the collapse of its bulky, triple-humped summit reduced the peak to a mere 6,715 feet.

Scattered among these higher mountains are "dozens" over a mile high, and there are at least fifteen active, or recently active, volcanoes in this section of the range.[4] From several of them columns of white "smoke" sometimes rise hundreds of feet into the air.[5] There are few passes having an elevation of less than 4,000 feet.

Except for a five-mile gap west of Kaguyak, the main ridge through the monument bears a year-round mantle of snow. The snowfields feed numerous glaciers, some of which, like the Serpent Tongue Glacier between Mount Denison and Snowy Mountain, are many miles in breadth. Others are ten to twelve miles long and three to four wide. Scientists have speculated that as recently as a century and a quarter ago some of these glaciers may have jettisoned bergs directly into Shelikof Strait, but the earliest available records of specific observations, dating from the first two decades of American rule, make it clear that by then no glaciers touched the coast.[6] At any rate, all have now retreated from the shore.

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2 Ivan Petroff, "Report on the Population, Industries, and Resources of Alaska," in U.S., Census Office, *Tenth Census*, VIII (Washington, D.C., 1884), 24.

3 For a good recent summary of the geology of the range, see Samuel A. Keller and Hillard N. Reiser, *Geology of the Mount Katmai Area, Alaska* (U.S. Geological Survey Bulletin 1058-G, Washington, D.C., 1959).

4 Cahalane, *op. cit.*, 7.

5 Walter R. Smith, "The Cold Bay-Katmai District," in A.H. Brooks and others, *Mineral Resources of Alaska . . . 1923* (U.S. Geological Survey Bulletin 773, Washington, D.C., 1925), 186.

6 Cahalane, *op. cit.*, 8; U.S., Census Office, *Report on Population and Resources of Alaska at the Eleventh Census: 1890* (Washington, D.C., 1893), 14. This work was also published as 52 Cong., 1 Sess., House, Misc. Doc. No. 340, part 7 (Ser. 3020).

The streams that drain the eastern slope are mostly short. Particularly in their upper courses they rush and roar down steep-sided canyons, forming numerous falls. Some of them roister along all the way to the sea, but most encounter gentler slopes and wider valleys before reaching the shore. Somewhat tamed, they meander through marshy bottoms or divide into numerous channels to form the braided rivers so characteristic of Alaska.

The coast watered by these streams is spectacular, marked by driftwood-piled beaches, quiet lagoons, deep fiords, rugged cliffs, and craggy islands, all backed by the imposing peaks of the Aleutian Range. Toward the northern and southern extremes of the shoreline are several wide, crescent-shaped bays bordered by long sweeps of sand. On the south, advancing northward from treeless, wind-swept Cape Kubugakli, are Kashvik Bay, Katmai Bay, and Dakavak Bay. Still shoaled by pumice and ash from the 1912 eruption, these harbors lie at the mouths of low, broad valleys that run far back into the heart of the range.

Katmai Valley has never recovered from the great ash fall of 1912, and its original cottonwood forests have given way to a barren wasteland. But dense alder thickets cover the ground at Kashvik, and cottonwoods border the river at Dakavak. The intervening headlands and ridges are cloaked in dense mantles of grass, alder clumps, and fields of buff-colored pumice.

Toward the northern part of the monument, just under the bulge tipped by Cape Douglas, are Hallo Bay, Kaguyak Bay, and Swikshak Bay, all wide sweeping harbors marked by long arcs of beach. Broad plains and wide valleys border much of the coast here, and the country back of the beaches is a grand melange of ponds, swamps, groves of cottonwood and Sitka spruce, alder and willow thickets, and low, grassy ridges. Old beach lines in this area, especially at Hallo Bay, now lie as much as thirty feet above the present high-tide level.[7]

Between these northern and southern series of open bays lies a forty-mile stretch of rocky coastline deeply indented by a number of narrow fiords. Amalik, Missak, Kuliak, Kaflia, and Kukak Bays are all "rugged inlets," with shores marked by islands and sheer cliffs from which the mountains rise abruptly. The surrounding ridges are colorful with "great slopes of wind-drifted, pale buffy pumice, and patches of dark green alders."[8]

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7 Keller and Reiser, *op. cit.*, 268.

8 Cahalane, *op. cit.*, 9.

North of Kaguyak Bay the Aleutian Range rises again to impressive heights after a short gap, forming a great peninsula that juts eastward into the Pacific and marks the boundary between Shelikof Strait and Cook Inlet. Mount Douglas and Fourpeaked Mountain dominate this bare, snow-capped, glacier-clad mass of peaks that falls off rapidly to a general level less than 3,000 feet. At the eastern tip of this prominent headland Cape Douglas proper, a barren spit of rock and sand, pushes bravely out for more than two miles into the turbulent sea. One observer has described this region, with its "cliffs, rockbound peninsulas, and offshore islets," as being "like a magnificent Oregon and Washington coast."[9]

The western slope of the Aleutian Range is generally less precipitous than the eastern face. Although the barren slopes of the summit peaks fall off quite steeply to the upper ends of the broad river valleys at an elevation of about 1,000 feet, the overall effect is softened by the many long spurs and outpost mountains that stand off to the west, some of them from 2,500 to 4,500 feet high even at distances of from 20 to 40 miles from the watershed crest. Glaciers streak the western face as they do the eastern, but they do not descend as far toward sea level.

Almost all the western slope within the monument is drained by the headwaters of a single stream, the Naknek River. The main tributaries -- the Savonoski River, Ikagluik Creek, Ukak River, and Hardscrabble Creek among others -- originate in the glaciers of the Aleutian Range. Murky or clouded with glacial "milk" and pumice, they drop, swift and turbulent, to the heads of wide valleys choked with glacial debris. Several of the streams spread out over these deposits and divide into numerous channels. At a somewhat more leisurely pace they make their way, sometimes through extensive swamps, to Lake Naknek, which has an elevation of only 33 feet above sea level.

The head of this lake, by far the largest in the monument, is only about 25 miles from the crest of the range at its nearest point. Some 43 miles farther westward the lake drains into the short and sluggish Naknek River, which in turn falls into Kvichak Bay.

Geologists now believe that the general courses of the larger tributary rivers predate the Pleistocene period, although undoubtedly their valleys were enlarged and straighteded by later glaciers.[10] At

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9 Lowell Sumner, *Magnificent Katmai* [San Francisco, 1952], 41.

10 Keller and Reiser, *op. cit.*, 265.

least two separate major glaciations are now recognized as having occurred on this section of the Alaska Peninsula. The first, and largest, known as the Brooks Lake glaciation, is believed to have lasted during the bulk of Wisconsin times, terminating by about 8,000 B.C. The second, the relatively minor Iliuk advance, has been assigned to the late Wisconsin stage, assumed to have ended by 4,000 B.C.[11]

These two glacial advances are responsible for the magnificent lake system which is the most prominent landscape feature of the western slope. The moraines of the Brooks Lake glaciation enclose Lake Brooks, Idavain Lake, Lake Coville, and, some geologists believe, the main Naknek Lake itself. The Iliuk Arm of Naknek Lake and probably Lake Grosvenor were formed by the Iliuk advance.[12]

Southernmost in the Naknek system is eleven-mile-long Lake Brooks, deep, cold, and strikingly clear and blue. It drains into Naknek Lake by Brooks River, a "swift and sparkling stream" that teams with salmon during the summer spawning season. Only a bit more than a mile and a half long, Brooks River falls about twenty-five feet between its source and mouth. About midway in its course the stream drops from six to nine feet over Brooks River Falls, a favorite fishing spot from aboriginal times to the present.

Mighty Naknek Lake, a veritable inland sea, is also clear and deep except for its long southern branch, Iliuk Arm. The great burden of silt carried by the Savonoski and Ukak Rivers has turned this part of the lake a yellowish gray.

North and northeast of Naknek Lake lie two long and narrow bodies of water. Lake Coville is eight miles long, and Lake Grosvenor curves between steep mountains for a distance of eighteen miles.

The eastern two-thirds of this lake region is hilly and even mountainous in character. From Lake Grosvenor and the two upper arms of Naknek Lake the shores rise steeply in places, sometimes to peaks from 2,400 to 4,730 feet high. The shorelands of Lake Brooks and western Naknek Lake, on the other hand, are mostly low and rolling. They merge into the coastal plain that stretches away drearily to the mud flats bordering Kvichak Bay. This plain is

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11 L.S. Cressman and D.E. Dumond, *Research on Northwest Prehistory: Prehistory in the Naknek Drainage, Southwestern Alaska* (multilithed, Eugene, Oregon: University of Oregon, Department of Anthropology, August 31, 1962), [7].

12 Keller and Reiser, *op. cit.*, 266. For a summary of a somewhat different interpretation by earlier geologists, see Cressman and Dumond, *op. cit.*, [7].

sprinkled with ponds and lakes and covered "helter-skelter" with smooth, rolling hills that impede drainage. The many streams of this region meander widely as they slowly wind their way to the Bering Sea.

From the summit peaks down to about 2,000 feet the western slopes present a habitat much like that found in the Arctic regions. The uppermost reaches, even where not perpetually covered by snowfields and glaciers, are largely bare of vegetation, since little life can survive in this region of rock, sand, and pumice swept by fierce and icy winds. As the altitude lessens, however, a few species of plants begin to take hold. They are low-growing, frequently with "thick, leathery or pubescent foliage" and extensive root systems capable of providing nourishment and anchorage in the coarse residual soils.

Still farther down slope, and in sheltered spots at the higher elevations, these plants -- lichens, mosses, running club moss, hispid blue grass, sedge, felty-leaved willow, dwarf alpine birch, Arctic wormwood, saxifrage, and others -- form dense mats wherever sufficient soil has formed between the rocks. This "high tundra" as it has been called extends downward to about 1,200 feet, but below about 2,000 feet more plants of the Hudsonian zone are present.

The extensive foothill, lake, and coastal plain area of the western slope below 2,000 feet lies in what scientists have frequently termed the Hudsonian zone. Great stretches of this region -- the western shores of Naknek Lake, the arms of the coastal plain extending into the monument along Angle Creek, and many other locations below the 1,200-foot level -- are covered with a dense mat of grasses, flowering plants, and shrubs forming the "low tundra." On these vast open expanses, trees are conspicuous by their absence. Only scattered clumps and stands of white spruce, birch, alder, and cottonwood have invaded this kingdom of the grasses, sedges, rushes, bog rosemary, and bog blueberry.

But from the borders of Lake Brooks northward and eastward the river valleys, swamplands, and hillsides lying between the lower and upper tundras are clothed in extensive forests. These woods are made up of several species, including cottonwood or balsam poplar, Kenai birch, green alder, and willow; but most conspicuous is the white spruce. For the most part the trees of the Katmai forests are rather small, but a government survey party in 1923 reported that spruce trees nearly three feet in diameter and from forty to fifty feet high were "frequently" observed in the Savonoski Valley.[13]

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13 Smith, *op. cit.*, 188-189.

The spruce trees of Katmai National Monument represent almost the extreme southwestern limit of the great Hudsonian coniferous forest which stretches unbroken across the continent from Nova Scotia. Only sporadic stands are found west of the monument boundaries, and even these extend for only ten miles. It has been estimated that on nearby Kodiak Island the tree line is advancing southward about a mile a century, and it seems reasonable to assume that a similar movement is occurring in the Katmai area.[14]

Frequently intermixed with the trees, particularly the deciduous species, are dense and extensive stands of grasses, some of which grow four or more feet in height. The forest understory is luxuriant and includes such plants as sedges, bluejoint, lady fern, white hellebore, cucumber-root, starflower, and bedstraw.[15]

Katmai's vast expanses, rich in vegetation and water, support an abundant animal population. Although the number of species is comparatively small, there is more variety than in many other northern areas. Large mammals and fur-bearers are numerous.

Undisputed king of the monument is the awe-inspiring Peninsula brown bear. This great beast is the world's largest land carnivore. Some individuals seen in the Katmai region are believed to weigh as much as 1,500 pounds, though most are in the 500 to 1,000-pound range.

The monument provides optimum habitat for these magnificent animals, and bears were reported to be "very numerous" in the vicinity of Katmai in 1898.[16] Today probably about 200 of them live within the boundaries. They are found most frequently in the valley bottoms, where in summer they line the streams fishing for salmon, but they range upward even to the snowfields in search of berries, ground squirrels, and other delicacies to satisfy their omnivorous appetites.[17]

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14 Wendell H. Oswalt, *Alaskan Eskimos* (San Francisco: Chandler Publishing Company, 1967), 16. In 1923 a "single spruce tree" was seen on Cape Kubugakli, "many miles from its nearest neighbor." This tree, perhaps the most southerly recorded conifer in the monument area, probably was a Sitka spruce. Smith, *op. cit.*, 188-189.

15 Cahalane, *op. cit.*, caption to plate 5, figure 1.

16 J.E. Spurr and W.S. Post, "Report of the Kuskokwim Expedition," in U.S. Geological Survey, *Maps and Descriptions of Routes of Exploration in Alaska in 1898* . . . (Washington, D.C., 1899), 34.

17 Cahalane, *op. cit.*, 158-185.

Another abundant resident is the Alaska moose. This huge animal, largest of all the moose, is believed to be a relative newcomer to the peninsula. In fact, it is maintained that the moose did not enter this region until after the Russians began to occupy the country to the northeast toward the end of the eighteenth century.[18]

If such was the case, they migrated swiftly, for moose were soon numerous in the Katmai vicinity and constituted an important source of food for the native people. Moose bones have been found at excavated historic period village sites at Kukak and Kaguyak, and probable remains were recovered at Savonoski.[19] By 1898 the animals were so common that a traveler reported seeing moose "just before" crossing barren 2,500-foot Katmai Pass.[20]

A reverse distribution pattern is true of the Grant's caribou. This rather small and pale subspecies was once abundant in the Katmai region. Caribou bones have been found at native village sites on both sides of the Aleutian Range in the monument, and observers during the 1880's and 1890's reported that the residents of Katmai Village could take these animals "in plenty" by hunting in the nearby mountains.[21]

By the opening of the present century commercial slaughter had so reduced the herds that they had almost vanished from the northern end of the peninsula. During 1902 a biologist noted that "small herds" could still be seen in the tundra region just south of the present monument, and there were reports of caribou kills north of Lake Clark; but by 1921 a geologist surveying the Cold Bay [the present Puale Bay] district, about 15 miles outside the

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18 Oswalt, *op. cit.*, 18; Cahalane, *op. cit.*, 219.

19 Wilbur A. Davis, with the assistance of James W. Leach, *Archaeological Investigations of Inland and Coastal Sites of the Katmai National Monument, Alaska*, with foreword by W.S. Laughlin (dittoed, [Eugene, Oregon: University of Oregon], March 4, 1954), 19, 54, 60-61.

20 Josiah Edward Spurr, "A Reconnaissance in Southwestern Alaska in 1898," in U.S. Geological Survey, *Twentieth Annual Report . . . 1898-1899*, part VII (Washington, D.C., 1900), 92.

21 Cahalane, *op. cit.*, 225-227.

southern boundary, reported that the caribou had "completely disappeared" from that vicinity.[22] Evidently a few individuals remained, however, since members of another geological expedition in 1923 observed a few caribou tracks somewhere between Cold Bay and the Naknek River.[23] Since that date there have been no authenticated sightings of caribou within the monument.[24]

Among the other fur-bearing mammals which from aboriginal times to the present have drawn human attention to the Katmai region are the monument's most abundant carnivore, the red fox; the river otter; beaver; short-tailed weasel or ermine; least weasel; mink; wolverine; lynx; Alaska wolf; porcupine; Alaskan Arctic hare; varying hare; and Arctic ground squirrel, another extremely common resident. Marten are also reported among the animals formerly plentiful and much sought by trappers.[25]

The shoreline along Shelikof Strait also teemed with wildlife. Most important in the economy of the native people in pre-Russian times and "by far the most abundant marine mammal on the Katmai coast" was the Pacific hair seal. It is still extremely common, particularly in sheltered harbors; and herds of as many as a thousand individuals are occasionally encountered. Another mammal much sought by the natives was the northern sea lion, whose skins were required to cover the small boats or bidarkas so essential to the Eskimo way of life. Sea lions, sometimes in large groups, are seen today along the monument coast, but they can scarcely be described as numerous.[26]

Gray whales range along the coast of the Alaska Peninsula, and bones of what probably were representatives of this species have been recovered during archeological excavations at Kaflia Bay within the monument. Although sightings have not been recorded in recent years, available evidence appears to indicate that whales of several species, including the gray whale and the baleen whale, frequented

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22 Stephen R. Capps, "The Cold Bay District," in A.H. Brooks and others, *Mineral Resources of Alaska . . . 1921* (U.S. Geological Survey Bulletin 739, Washington, D.C., 1923), 85.

23 Smith, *op. cit.*, 190.

24 At least until 1959 when the results of Cahalane's biological survey were published.

25 Cahalane, *op. cit.*, 223; Smith, *op. cit.*, 190.

26 Cahalane, *op. cit.*, 197-199.

the bays of Katmai in the past and undoubtedly are still occasional visitors.[27]

Historical testimony indicates that the northern sea otter was once an abundant resident along the shore of Shelikof Strait. If the natives here were like their Aleut neighbors to the westward, they hunted the otter for food and furs during the many centuries before contact with Europeans but did not particularly value the soft, lustrous pelts.[28]

This situation changed radically when the Russian fur traders reached this part of the peninsula during the 1780's. The natives were enlisted to hunt the sea otter, often to the near exclusion of their more normal economic pursuits. Within a century the gentle otter had been harried nearly to extinction.

By 1890 an agent of the United States Census Office noted that the residents of Katmai were required to journey far from home to find the otters upon which they chiefly depended for a living and that "the number of skins brought home grows smaller and smaller every year."[29] A Federal law protecting the sea otter was passed in 1899, with amendments in 1910 and 1912, but illegal hunting continued as long as the extremely valuable pelts were available.[30] It is known that as late as 1902 otters were killed directly north of the present monument and near Puale Bay, a few miles to the south.[31]

For many years no sea otters were observed along the Katmai coast, but a Federal program for the rehabilitation of this species was begun at Amchitka in the Aleutians during 1939. Its spectacular success has resulted in a gradual increase in the number of otters living off Katmai's rocky shores. The main concentration is in the Cape Douglas vicinity, but sightings also have been made at Kukak Bay, Hallo Bay, and Katmai Bay. At least 115 otters now inhabit the monument coast.[32]

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27 Cahalane, *op. cit.*, 228; Cressman and Dumond, *op. cit.*, 8-9.

28 Harold McCracken, *Hunters of the Stormy Sea* (Garden City, N.Y.: Doubleday & Company, Inc., 1957), 36.

29 U.S., Census Office, *Eleventh Census*, 72.

30 McCracken, *op. cit.*, 292-293.

31 Cahalane, *op. cit.*, 224.

32 Memorandum, General Superintendent, Alaska Cluster Office, to Director, Western Service Center, Anchorage, February 13, 1970, in files, National Park Service, Western Service Center (hereafter cited as "WSC files").

Many sea birds are found along Shelikof Strait. Gulls, grebes, loons, cormorants, murres, puffins, plovers, snipe, and sandpipers, generally several species of each, and a number of other water-loving birds visit the coastal areas. A number nest there, and most are also found on the inland lakes and streams. Whistling swans, Canada geese, and several varieties of ducks are residents or migrant visitors. Game birds include ptarmigan and grouse.

The lakes and streams of Katmai National Monument teem with fish. The great summer spawning migrations of the red salmon form the most conspicuous evidence of this fact, but annual runs of chum, pink, king, and silver salmon also occur. The Fish and Wildlife Service in 1962 estimated that on an average over half a million salmon leave the sea each year to enter Katmai's waters.[33]

Other fish include lake trout, rainbow trout, Dolly Varden, Arctic grayling, northern pike, round whitefish, humpback whitefish, longnose sucker, and Arctic char. In all, twenty-seven species of native fish have been identified within the monument boundaries.[34] Some individual trout and other fish attain large size. One northern pike caught in the monument measured 35 inches and weighed 11 1/2 pounds.

Pervading all in this land of natural abundance, influencing the actions and lives of men there from aboriginal times to the present day, is the weather. Summers, while not as severe as on the outer peninsula and the Aleutians, are characterized by rainy, overcast days, often spiced by high winds and by wet, driving fogs that frequently shroud the mountain crests. Entirely clear days -- except during exceptional years -- are few and sporadic and most likely to appear in spring and fall. The annual precipitation probably is about 23 inches on the western slope and up to 80 inches on the Pacific side of the Aleutian Range.

The first freeze generally comes early in September, but the large lakes usually do not close over until November. Winter snowfall averages about 45 inches, although depths seldom exceed 2 1/2 feet in the far western portions. Since the climate is somewhat

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33 Cressman and Dumond, *op. cit.*, 9.

34 Lowell Sumner, Special Report, Katmai Master Planning Field Study, September 5-13, 1963 (typewritten, U.S. Department of the Interior, National Park Service, Washington, D.C., [1963]), 14.

moderated by the nearby seas, winter temperatures seldom drop below minus 20° F.[35] Mean December and January lows are about 6° F. The lakes usually open again by April 20.

Summer and winter the Katmai region is periodically racked by violent winds. Numerous witnesses have attested to Katmai's evil name in this respect. Robert F. Griggs, who made numerous expeditions to the area for the National Geographic Society, found the Alaska Peninsula "notorious as a storm-breeder." With perhaps a certain amount of exaggeration he declared that Katmai Pass "had a reputation for bad weather not to be matched elsewhere on the American continent."[36] Father Bernard R. Hubbard, another Alaskan explorer, characterized the Aleutian Range as the "Cradle of the Storms."[37]

The direction of these blasts depends upon differences in barometric pressure over the Bering Sea or the Pacific Ocean, and reversals can come suddenly. Most dreaded, however, are the fierce winds known to residents of nearby Kodiak Island as the "westerlies." Cold from the frigid tundras of the far north and heavy with moisture from the Bering Sea, these currents sometimes reach speeds greater than one hundred miles an hour as they pour around and over the volcanic summits of the Aleutian Range. Here their burden of water condenses, leaving great banks of clouds wreathing the mountain peaks, while the dry air roars down the valleys and gorges toward Shelikof Strait with the speed of an express train. When the winds reach the sea they fan out and whistle away toward Kodiak Island, "leaving a turbulence of salt froth, waves and wind streaks in their wake."[38]

Few if any travelers today visit the passes in the Aleutian Range during winter, but sand-blasted willows in the Valley of Ten Thousand Smokes are mute evidence of the violent storms which sweep over the summit at that season. Before the 1912 eruption, when a

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35 The coldest temperature recorded at King Salmon, a short distance west of the monument, is 40° below zero. Federal Field Committee for Development Planning in Alaska, *Alaskan Natives and the Land* (Anchorage, Alaska, October, 1968), 116.

36 Robert Fiske Griggs, *The Valley of Ten Thousand Smokes*, (Washington, D.C.: National Geographic Society, 1922), 127.

37 Bernard Rosecrans Hubbard, S.J., *Cradle of the Storms* (New York, 1935).

38 Wilson Fiske Erskine, *Katmai: A True Narrative* (London, New York: Abelard-Schuman, 1962), 16; Smith, *op. cit.*, 188.

well-known trail traversed Katmai Pass, the natives would cross the divide, summer or winter, only in calm weather, because they feared the cutting sand and gravel and even the sizable pumice rocks that hurtled through the air during the fierce gales. These winds stripped the upper slopes of soil and snow, producing desert-like conditions. Accounts by numerous travelers agree that when the gales were howling through the mountain passes, progress against them was "almost impossible."[39]

This vast area of rugged coast, glacier-covered peaks, active volcanoes, spectacular lakes, and abundant and varied fauna and flora constitutes one of the largest scenic, scientific, and wild-life reserves in the world.[40] It did not become a national monument by accident nor has it maintained that status without contest.[41]

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39 Smith, *op. cit.*, 188.

40 Compare Cahalane, *op. cit.*, 4.

41 This description of Katmai National Monument is based largely and sometimes closely upon the following sources: Cahalane, *op. cit.*, 7-13; Cressman and Dumond, *op. cit.*, 7-9; Smith, *op. cit.*, 185-188; and Sumner, *Magnificent Katmai*, 35-42.

CHAPTER II

Prehistoric Hunters and Fishermen

In 1953 when a number of Government agencies and scientific institutions began field work on the first overall professional analysis of the resources of Katmai National Monument, the University of Oregon archeologists who undertook unraveling the region's human story quickly discovered that they were prospecting in virgin territory.[1] "From the standpoint of history and ethnology very little is known about the aboriginal inhabitants of the northern portion of the Alaska peninsula," wrote Wilbur A. Davis, who prepared the university's report on the first season's operations.[2]

Davis noted that all the major general works on the Eskimos made some mention of the peninsula and its aboriginal inhabitants, but he found that the treatments in every case consisted of "generalities" and were "superficial." He concluded that the "foremost source on the peoples of Bristol Bay and the Alaska peninsula" was still the writing of Ivan Petroff, who surveyed the area for the Census Office late in the nineteenth century.[3]

In Davis's opinion, this situation was due to the theoretical assumption on the part of anthropologists that the purest examples of Eskimo culture were to be found north of the Arctic Circle. "Investigations of problems of antiquity and origin were thus focused upon the cultures east of Point Hope, Alaska," he wrote.[4]

Davis also pointed out, however, that as early as 1916 Edward Sapir had called attention to the great importance of western Alaska in the development of Eskimo culture. Later studies by such eminent authorities as A.L. Kroeber, W.S. Laughlin, and others had supported this view.[5]

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1 As far as is known, except for unauthorized "pot hunting" by fishermen and other visitors, the only scientific archeological work conducted within the monument prior to 1953 consisted of some testing "without result" along the coast under Ales Hrdlicka in 1934 and collecting performed on Takli Island by Robert Heizer in 1935. Donald E. Dumond, *Archaeological Survey in Katmai Monument Alaska, 1964* (dittoed, [Eugene, Oregon]: University of Oregon, Department of Anthropology, May 15, 1965), 2, 21.

2 Davis, *Archaeological Investigations of Inland and Coastal Sites of Katmai National Monument*, 4.

3 *Ibid.*

4 *Ibid.*

5 *Ibid.*

Meanwhile, archeologists and anthropologists had become increasingly interested in the peninsula and nearby related areas such as Kodiak Island and Cook Inlet. The work of Ales Hrdlicka in the Kodiak Archipelago from 1931 to 1936, and the studies of Frederica de Laguna in Central Southern Alaska during the early 1930's, for example, threw light upon the prehistory of certain segments of the general peninsula region. Farther north, the collections of James A. Ford near Point Barrow in 1932; the excavations of Helge Larsen, Froelich G. Rainey, and James L. Giddings at Point Hope between 1939 and 1941; and a number of other important discoveries greatly enhanced knowledge of successive prehistoric cultures which appeared to be forerunners of the Eskimo culture of historic times in Alaska.[6]

Not all the results of these studies had been published by 1953 when the University of Oregon team surveyed and tested occupation sites in both the coastal and inland portions of Katmai National Monument. The situation in this respect was only slightly better the next season, 1954, when Wendell H. Oswalt, sponsored by the University of Alaska, made an aerial survey of the shore along Shelikof Strait and excavated a small site at Kaflia.[7] Therefore, these investigators had available a rather limited amount of data with which to compare the materials they recovered, and they were handicapped in attempting to place their finds in the proper perspective and interpret their significance.

Also, the limited size of the crews and the brief time available for field work did not permit sufficient excavation to establish a cultural sequence within the monument. These two seasons of survey, however, did serve to identify the principal occupation sites, some of which were presumed to be of some antiquity. These preliminary investigations thus formed a solid foundation for future studies. And the work in 1953 produced important records of post-contact chapels and other structures which have since largely disappeared. No archeologists who have since worked in the area have shown a comparable interest in historical values.[8]

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6 Hans-Georg Bandi, *Eskimo Prehistory*, translated by Ann E. Keep (College, Alaska: University of Alaska Press, 1969), 91-130.

7 Wendell Oswalt, *Prehistoric Sea Mammal Hunters at Kaflia, Alaska* (mimeographed, [n.p.], December, 1954.)

8 A University of Oregon archeological team did visit Kaguyak in 1964 to determine the condition of the historic structures and did make drawings of the charred remains of the chapel. Dumond, *Archaeological Survey in Katmai National Monument, Alaska, 1964*, 13.

By the time archeological investigations were resumed in Katmai National Monument in 1960, the general state of knowledge concerning the early inhabitants of Alaska had altered considerably. As James L. Giddings wrote in 1962, "The facts of Alaskan prehistory have been accumulating so rapidly in the past decade that publication has not been able to keep up with progress."[9] Nevertheless, the intervening years, and the next several, saw the appearance of such major works as those by Giddings describing the Choris culture (1957), the Onion Portage sites (1962), and the Denbigh culture (1964); by de Laguna on the prehistory of Prince William Sound (1956); by James A. Ford on the prehistory of Point Barrow (1959); and by Robert F. Heizer describing excavations on Kodiak Island (1956). Information about a much broader spectrum of Alaskan cultures was now available for use in evaluating artifacts which might be recovered at Katmai.

The University of Oregon recommenced archeological excavations in the monument during the summer of 1960. The main objective was to test a hypothesis advanced by Professor L.S. Cressman to the effect that cultural influences from the Columbia River region may have extended in prehistoric times to southwestern Alaska. It was also hoped that archeological remains would throw light upon the cyclical nature of salmon runs.[10]

The field work was largely under the direction of Donald E. Dumond and was concentrated both during the first season and during 1961 at Brooks River. In the latter year, however, a party under Wilbur A. Davis simultaneously conducted excavations to the west of the monument on the lower Naknek River, at occupation sites thought to mark the permanent homes of people who used the Brooks River area for seasonal fishing and hunting.

The investigations of 1960 and 1961 convinced Cressman and Dumond that the cultural orientation of the Naknek drainage in prehistoric times was toward the northwest or Bering Sea region and not toward the Pacific Coast. They also revealed little about salmon runs. Far from being disappointing, however, the studies opened up a new picture of the prehistory of southwestern Alaska. A

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9 James Louis Giddings, *Alaska Aboriginal Culture* (United States, National Park Service, The National Survey of Historic Sites and Buildings, Theme XVI, Indigenous Peoples and Cultures, Special Study; mimeographed, [Washington, D.C.], 1962), 97.

10 Apparently the immediate impulse for the renewed work at Katmai came from the Bureau of Commercial Fisheries which in 1959 "approached and offered support" to the University of Oregon to conduct archeological research near the salmon research station at Brooks River to see if light could be thrown on fluctuations in prehistoric salmon migrations. "Early Racial and Cultural Identifications in Southwestern Alaska," in *Science*, vol. 171 (January 8, 1971), 89. The work in 1960 and 1961 was also assisted by a grant from the National Science Foundation.

rudimentary sequence of cultures was discovered which appeared to indicate that a subsistence pattern of summer interior fishing existed in the Naknek drainage, except for one gap of about a millenium, from about 2000 B.C. to early in the present century.

"The results of the two years work," wrote the two archeologists in their summary report, "make convincingly clear the key nature of this area for an understanding of the prehistory of Southwestern Alaska." They predicted that several more years of digging would be required to give final definition to the sequence of cultures within the monument.[11]

Thus when work was renewed in the monument in 1963 with the financial support of the National Science Foundation and the National Park Service, the principal objectives from the standpoint of the university, as defined by Dumond some years later, were "to expand the rudimentary sequence from the Naknek drainage, seen as representative of the southern Bering Sea, and to develop a second sequence from Pacific Coastal sites located as close as possible to the upper Naknek drainage, in order that the prehistoric cultural developments of the Pacific coast and of the Bering Sea coast could be effectively compared."[12] The goals of the National Park Service were both to gain knowledge of prehistoric occupation of the monument and, primarily, to locate and evaluate archeological sites for purposes of protection and interpretation.

Donald E. Dumond headed the University of Oregon teams which during the three seasons of 1963, 1964, and 1965 worked on these problems. Operations during the first season were concentrated largely at Brooks River, but an extended survey was also carried out in the western or inland portion of the monument which identified a number of occupation sites. Sufficient surveying was performed along Shelikof Strait to permit intelligent planning of the next season's program.[13]

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11 Cressman and Dumond, *Research on Northwest Prehistory*, [1] -3.

12 "Early Racial and Cultural Identifications in Southwestern Alaska," 89.

13 The 1963 work is reported in Donald E. Dumond, *Archaeological Survey in Katmai National Monument, Alaska, 1963*, prepared with the assistance of Harvey S. Rice, Michael Nowak, and Stephen F. Bedwell (dittoed, [Eugene, Oregon]: University of Oregon, Department of Anthropology, May 15, 1964).

During 1964 the main survey of the monument was completed by a careful examination of the entire coastal region from Cape Douglas to the southern boundary. A two-man team continued excavations at Brooks River, but the chief effort was concentrated at Kukak Bay, where the large site tested by Davis in 1953 was extensively dug. Two weeks of intensive excavations were also conducted on Takli Island at the mouth of Amalik Bay. This season's work demonstrated that the coastal section of the monument also saw a succession of cultures spanning a period of at least 4,000 years.[14]

The excavations at Brooks River, Kukak Bay, and Takli Island were continued during the summer of 1965 under a grant from the National Science Foundation. A radiocarbon date resulting from the previous year's work at Takli Island had indicated a possible antiquity of a site there at somewhat earlier than 2000 B.C., so work in this locality was conducted with anticipation. Additional surveying in 1965 brought the total number of sites located within Amalik Bay to 14.[15]

One important aspect of the University of Oregon's excavations, particularly from 1961 to 1965, was the careful attention paid to dating the different cultural sequences. Chief reliance was placed on radiocarbon dates obtained from organic materials found in the several artifact assemblages, but these were supplemented by correlation with volcanic ash deposits. As the result of expert analysis, ten of these layers, deposited since about 5000 B.C., were at least tentatively dated. Artifacts could then be approximately dated by their positions in relation to one or more of these deposits.[16]

The University of Oregon, with an archeological party again headed by Dr. Dumond, returned to Katmai National Monument in 1967. The immediate objective was the excavation of aboriginal dwellings at Brooks River so that interpretive exhibits could be developed to explain the domestic economy of the successive peoples who lived

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14 The 1964 operations are reported in Dumond, *Archaeological Survey in the Katmai National Monument, 1964.*

15 This season's operations are described in Donald E. Dumond, *Report to the Secretary, Smithsonian Institution on Archaeological Research in Katmai National Monument, Alaska, 1965* (dittoed, [Eugene, Oregon]: University of Oregon, Department of Anthropology, November 2, 1965).

16 Dumond, *Archaeological Survey . . . 1964*, 4-8; Donald E. Dumond, *Prehistory of the Northern Alaska Peninsula: Final Report to the National Science Foundation* (dittoed, [Eugene, Oregon]: University of Oregon, January 2, 1969), 7-8.

in this region. The work was sponsored by the National Park Service under a grant from the National Geographic Society. The archeologists also hoped to obtain additional artifacts representing certain prehistoric cultures, and they desired to make further studies of "non-portable cultural features" -- chiefly dwelling sites -- in the area.

Several house depressions were excavated during 1967, and one dwelling dating from about A.D. 1300 was selected for partial reconstruction. The work could not be completed during one season, however, and Dr. Dumond returned to Brooks River in 1968 to finish the exhibit. The scientific results of the 1967 excavations were also rewarding. The implements recovered threw additional light upon the cultural affiliations of the prehistoric occupants of Brooks River; and the examination of the "non-portable" features, among other things, confirmed that the initial use of the deeply sunken entrance passage for dwellings in the Naknek drainage came during the period from about A.D. 1000 to 1500.[17]

In order to have any real understanding of the discoveries made by archeologists within Katmai National Monument, it is necessary to possess at least a general knowledge of the broader story of the origin, development, and spread of Eskimo Culture. Unfortunately, anthropologists themselves are not in agreement concerning these matters. There are so many gaps in the evidence, and there are so many options for interpreting what information is available, that no concensus has yet been possible. Even Hans-Georg Bandi, perhaps the supreme exponent of the thesis that the work of archeologists in recent decades has removed a good deal of the obscurity surrounding Eskimo prehistory, must admit that "much remains uncertain or hypothetical."[18]

It seems best, then, in considering this problem, to start with what is agreed upon and later to deal with the disputed matters of cultural origins and development. When the region that is now Katmai National Monument first became well known to Europeans, between about 1785 and 1818, the entire area was occupied by Eskimos, a people widely scattered from Asia across northern North America to Greenland and possessing remarkably distinct cultural and linguistic

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17 The 1967 and 1968 projects are described in Donald E. Dumond, *Reconstruction of An Aboriginal Dwelling in Katmai National Monument, Alaska* (mimeographed, Eugene, Oregon: University of Oregon, Department of Anthropology, January 15, 1969); and Dumond, *Prehistoric Dwellings in Katmai National Monument, Alaska* (mimeographed, Eugene, Oregon: University of Oregon, Department of Anthropology, 1970).

18 Bandi, *op. cit.*, vii.

characteristics. The basic elements in Eskimo culture are an emphasis on hunting sea mammals and an adaptation to cold climates.[19]

Furthermore, archeological investigations show that as early as about 1900 B.C. the people inhabiting the Brooks River area possessed implements which were associated with the Arctic Small Tool tradition, the stone artifacts of which, says Wendell H. Oswalt, "blend into those later forms which clearly are Eskimo."[20] Donald E. Dumond believes that from that period the cultures in the Naknek drainage were Eskimo in character.[21]

On the Shelikof Strait side of the Aleutian Range, archeologists have found evidence of occupations dating back to about 4000 B.C. The origins of the people who lived on the southeastern coast between approximately 4000 B.C. and A.D. 1000 are still being debated by anthropologists, but beginning about A.D. 1000, it seems clear, at least in the judgment of Dr. Dumond, that the inhabitants spoke a form of the Eskimo language.[22] Eskimos continued to occupy this region until they were driven from their ancestral homes by the deep ashfalls of the 1912 eruption.

These are the known facts concerning the occupation of the Katmai region by Eskimos or by peoples possessing Eskimo-like cultures. If we are to progress further in our understanding of these early inhabitants we must now face the knotty problem of where they came from and how their cultures evolved.

After an analysis of the scholarship in all the pertinent fields, Hans-Georg Bandi has recently attempted a synthesis of existing theories. Certainly not all anthropologists will agree with his conclusions or even his basic assumptions, but at least his explanation of Eskimo origins forms an understandable narrative which may prove useful in placing the archeological finds at Katmai National Monument in perspective. His hypothesis can be summarized as follows:

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19 Bandi, *op. cit.*, 9. It is true that there are a number of inland Eskimos who do not hunt sea mammals, but anthropologists recognize an adaptation to the sea as one of the primary distinguishing elements in defining Eskimo culture.

20 Oswalt, *Alaskan Eskimos*, 237.

21 Donald E. Dumond, "Prehistoric Cultural Contacts in Southwestern Alaska," in *Science*, vol. 166 (November 28, 1969), 1110.

22 Dumond, "Prehistoric Cultural Contacts in Southwestern Alaska," 1111.

The prehistoric inhabitants of the Americas reached the New World from Asia, and the only reasonable and practicable route for this migration was over a land bridge linking Siberia and Alaska. Such a tie existed several times between about 90,000 and 10,000 years ago, but during much of that period great ice sheets cut off ice-free northern and western Alaska from the more southern parts of the American continents. Only from about 28,000 to 23,000 years ago and from approximately 13,000 to 10,000 years ago are a land bridge and an ice-free corridor to the interior known to have existed simultaneously.

However, a series of sites in North, Central, and South America reveal primitive stone industries which almost certainly are of still earlier dates. These discoveries indicate the probability that a migration took place over a land bridge believed to have existed prior to 40,000 to 35,000 years ago. It is likely that these immigrants of more than 28,000 years ago formed the basis of what are known as the "pre-projectile stage" cultures.

During the period 28,000 to 23,000 years ago another migration from Siberia occurred, this time by a people making simple leaf-shaped stone points for their weapons. These newcomers scattered out quickly over the Americas, and traces of them are found at sites producing more elaborate projectile points with bifacial retouch and the special fluted points so well known under the names of Sandia points, Clovis points, and Folsom points, among others. These people developed into the Indians of historic times. After their southern push, some of them turned northward again, following the retreating ice at the end of the glacial age.

A third wave of Asiatic peoples, probably of Arctic-Mongoloid stock, crossed the land bridge between about 13,000 and 10,000 years ago. In Siberia during the several millennia preceding this time Upper Paleolithic industries gradually replaced the old leaf-shaped projectile points and other flake tools of earlier techniques. The chief characteristic of this Upper Paleolithic infiltration was the gravette point, named after a site in France where it was found. This small flint tool consisted of a knife-like blade with a very sharp point and a blunt, straight back edge. Some of the so-called gravettoid elements were carried by the new migrants to America, where they also spread rapidly. Among the most prominent of these elements were burins, "tabular pieces of flint from which blades or spalls were struck."*23* Also characteristic were microblades and boat-shaped cores from which the microblades were flaked.

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23 Oswalt, *Alaskan Eskimos*, 42.

It is theorized, although not proved by skeletons and other positive evidence, that these so-called Epi-Gravettian people mingled with the Paleo-Indian people of the second migration who were returning northward at the same time the third wave from Siberia was arriving. At any rate, the new arrivals seem to have made their main thrust across Alaska and then through the Canadian Arctic as far as Greenland, where they arrived as early as approximately 4,500 years ago (2,500 B.C.).

"We can hardly go wrong," says Bandi, "in associating this 'American Epi-Gravettian,' which has a tendency in favor of small implements, with the origins of Eskimo culture and in surmising that its representatives were the ancestors of the Eskimos."[24] But Bandi does not claim that the development from American Epi-Gravettian to historic Eskimo culture took place in a straight line. There were a number of divergent developments, false starts, and outside influences that still obscure the main line of evolution toward the typical Eskimo coastal culture, though Bandi believes the thread can be discerned.

The spread of the American Epi-Gravettian people across the Subarctic and the Arctic probably took place in several waves, differing in time and culture. In its later periods, the Epi-Gravettian culture developed into a phase known to many anthropologists as the Arctic Small Tool tradition. This evolution probably was influenced by new impulses from Siberia.

Characteristic features of the Arctic Small Tool tradition were the continued use of microblades, and such features as small burins, inset points, and lateral inset blades for arrowheads. Originally the Epi-Gravettian people appear to have been largely oriented toward the interior, where they seemed to prefer tundra country affording caribou and fish, while sea mammals may have been hunted from shore in the coastal portions of their ranges.[25]

As the Arctic Small Tool people spread across the north, however, groups of them adjusted to life on the coast and subsisted partly by hunting sea mammals. In Alaska, this evolution is shown, among other groups, by a people whose culture has been termed the Denbigh Flint complex. The artifact forms of this Small Tool culture that flourished at Iyatayet on Norton Sound from about 3000

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24 Bandi, *op. cit.*, 33.

25 Dumond, *Reconstruction of An Aboriginal Dwelling*, 33.

B.C. to about 2500 B.C. have been termed those "with the clearest and most direct bearing on Eskimo cultural origins."[26]

In the developments which took place from the termination of the land bridge around 10,000 years ago to the emergence of the Denbigh Flint complex, it appears likely that the portion of Southwestern Alaska from Norton Sound to Bristol Bay played an important part. Some archeologists, like Chester S. Chard, believe that about 2000 B.C. there began in this area the developments which further evolved in the Bering Strait region into the highly specialized Eskimo cultures of sea mammal hunters.

According to Wendell H. Oswalt, the "earliest Alaskan mainland culture of unquestioned sea-mammal hunters" was the Old Whaling culture, which was discovered on Cape Krusenstern.[27] Dating from about 1800 B.C., it was characterized by large spearheads and by arrowheads with notched bases which clearly were not in the Small Tool tradition. As Bandi points out, it is difficult to correlate the Old Whaling culture with other Eskimo groups, and therefore its place in the development of recent Eskimo culture cannot be assessed with any assurance.[28]

Meanwhile, the Small Tool cultures had been evolving in the Bering Strait region toward modern Eskimo forms. One of the more significant developments appears to have been the Choris culture which seems to have emerged about 700 B.C. or 650 B.C. on the Choris Peninsula on Kotzebue Sound. The Choris stone implements were clearly derived from the Arctic Small Tool tradition and the Denbigh Flint complex in certain features, but in other aspects, as in the absence of microblades and in the shape of the common flint tools, they were distinct. Another innovation was the use of slate, which was scraped and not polished. The presence of toggle harpoon heads demonstrates that sea mammals were hunted, though caribou seems to have been the principal source of meat.

The Choris culture also marks the first authenticated use of pottery in Alaska. The Choris pottery was marked by tempering with feathers or other fibers; that is, these materials were added to the clay to prevent cracking as the vessel dried prior to firing. The

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26 Oswalt, *Alaskan Eskimos*, 42. Admittedly, there is uncertainty as to how much the Denbigh Flint complex people relied upon sea mammals for their subsistence.

27 *Ibid.*, 236; Bandi, *op. cit.*, 54.

28 Bandi, *op. cit.*, 58.

vessels were decorated with stamped linear patterns. In technique of manufacture and in decoration the Choris pottery was clearly derived from Asia.[29]

J.L. Giddings, who discovered the Choris culture, believed that it might mark a stage in development from the Denbigh Flint complex to the somewhat later Norton culture, which he also found at Cape Denbigh. Giddings estimated that the Norton culture, at least at Cape Denbigh, extended from about 400 B.C. to "shortly after the beginning of the Christian era." But since the time of his discovery it has been determined that "people of the Norton-like horizon" by approximately 200 B.C. were spread along the coast from the Alaska Peninsula to the Mackenzie River (near the present northern end of the Canada-Alaska boundary.) In this broader context, the Norton culture survived until it was replaced by the Thule people about the end of the first millennium after Christ.[30]

The Norton people were definitely sea-oriented. Their permanent winter dwellings were on the coast, and sealing appears to have been their chief means of subsistence, though salmon were also of major importance where they were available. Large harpoon heads seem to indicate that whales were taken. Caribou and other inland game were hunted but formed only a minor part of the food supply.

The rectangular houses of the Norton people were marked by entrance tunnels with floors lower than those of the main dwellings. Stone lamps and stone net-sinkers were common. Pottery vessels were usually rather small and thin; they often had rounded bottoms. Sand tempering made its appearance, though evidently fiber tempering continued to be preferred.[31] Stone implements were largely made of chipped basalt, although there was some use of slate, generally "ground in a cursory fashion." A few items, such as adze blades, were occasionally polished.[32]

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29 Bandi, *op. cit.*, 62-65, 180; Oswalt, *Alaskan Eskimos*, 44.

30 Bandi, *op. cit.*, 65-66; Dumond, *Reconstruction of An Aboriginal Dwelling*, 33-35. For the sake of simplicity, this discussion omits mention of the Near Ipiutak and Ipiutak cultures which paralleled the Norton and preceded the Thule period in some of the far northern portions of Alaska.

31 Oswalt, *Alaskan Eskimos*, 44.

32 Bandi, *op. cit.*, 65-66; Dumond, *Reconstruction of An Aboriginal Dwelling*, 33-34.

Thus during the last millennium B.C. and the first millennium A.D. several remarkable Eskimo-like cultures developed in Northern Alaska and across Bering Strait in Siberia. They evidently originated at a center which has not yet been located, although Southwestern Alaska is a likely candidate for the honor.

During this same period, however, elements began to appear elsewhere which became predominent in "the true Eskimo culture as represented much later by the Thule culture." Such elements included bone and antler objects, especially harpoon heads, which are found as early as 2000 B.C. among the Pre-Dorset people who carried on the Small Tool tradition in the eastern American Arctic and in Greenland. Toggle harpoon heads and other Thule-like features are also found shortly after 1000 B.C. among the Kachemak I people of Central Southern Alaska.[33]

Although the immediate source of the stimuli which brought about the change is still obscure, the Norton culture gave way in Northern Alaska to the Thule culture in the tenth and eleventh centuries A.D. From Northern Alaska the Thule culture virtually exploded, spreading its influence to Siberia but chiefly marching across the Arctic to Greenland. This movement occurred so rapidly and in such a succession of waves that a notable degree of cultural unification resulted over a vast distance. "By about A.D. 1400," said Wendell Oswalt, "modern Eskimo culture in the American Arctic had taken form."[34]

The chief distinguishing mark of the Thule people was their intensive use of the sea and its resources. Whaling was important wherever conditions permitted. Thule villages were "invariably" on the seacoast. Permanent houses were often semisubterranean and round, rectangular, or multi-roomed, with elevated earth benches for sleeping and sitting. Entranceways were marked by depressions to trap cold.

Implements included characteristic crescent-shaped soapstone lamps, and there was an emphasis on polished slate. Pottery was generally heavy, and gravel was often used for tempering. Other distinctive features included the sinew-backed bow, characteristic harpoon heads, bola balls, and the bow and drill for making fire.[35]

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33 Bandi, *op. cit.*, 93-97.

34 Oswalt, *Alaskan Eskimos*, 48.

35 Bandi, *op. cit.*, 150-154; Oswalt, *Alaskan Eskimos*, 48.

Thule culture did not remain completely stable. Changes took place before the era of European contact, but these were relatively minor. In several places, such as Point Barrow in Alaska and in eastern Canada, Thule culture survives relatively intact to the present day.[36]

When viewed against this broad panorama of Eskimo prehistory, the development of human occupation in the Katmai region takes on added meaning. Because the Alaska Peninsula was largely covered by ice during the height of Wisconsin times, from about 23,000 to 10,000 years ago, and because the later Iliuk advance, in the opinion of some geologists, brought glaciers back to the region of Lake Grosvenor and the Iliuk Arm of Naknek Lake until approximately 4,000 B.C., there apparently is little prospect that man could have inhabited the present Katmai National Monument much before 6,000 years ago. This conclusion seems to be supported by archeological evidence.[37]

As has been seen, Katmai National Monument is very obviously divided by the summit of the Aleutian Range into two distinct ecological zones: the northwest slope largely drained by the Naknek River system, a rich salmon-breeding region marked in part by tundra-covered glacial outwash plain; and the southeast coast, an area of fjords and islets, abundant sea mammals, and much rain. It might be expected that the aboriginal human inhabitants of these zones would display certain cultural differences, at least to the extent of reflecting the different economies and life styles resulting from the contrasting environments. Such seems to have been the case during much of the time since man began living in the Katmai area.

On the Bristol Bay slope within the monument, one of the most favorable localities for habitation lies along both banks of Brooks River, the mile-and-a-half-long stream which drains Brooks Lake into Naknek Lake. A series of terraces, marking previous courses of the river and the fluctuating levels of the two lakes, show abundant evidences that man for thousands of years has camped there to take the fish which swarm up the stream each season and to hunt the caribou and other game which in times past found an ideal environment nearby. As far as has yet been determined, there were few other settlements on the western slope, and, except for the village

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36 Bandi, *op. cit.*, 154. Except where otherwise indicated, this summary of Eskimo prehistory is based on *ibid.*, 175-186.

37 Bandi, *op. cit.*, 20-21; Cressman and Dumond, *Research on Northwest Prehistory*, [1]. Studies of pollens from the coastal and inland portions of the Katmai area recently caused D.E. Dumond to conclude that the upper Alaska Peninsula was "substantially deglaciated" as early as 8000 or 9000 years ago (6000 B.C. - 7000 B.C.). "Early Racial and Cultural Identifications in Southwestern Alaska," in *Science*, vol. 171, (January 8, 1971), 90.

at the head of Naknek Lake which was in recent years known as Savonoski, they were generally small and more in the nature of seasonal camps than permanent residences.

Archeologists have divided the era of prehistoric occupation in the Naknek drainage into four periods, which may be listed in order from earliest to most recent as follows: Kittewick Period, Gomer Period, Brooks River Period, and Naknek Period. These, in turn, are made up of eight sequential phases, some periods consisting of only one phase, some of several. Each phase is marked by an assemblage of artifacts which seems separate in type or in proportion of types from each of the other assemblages and seems to represent a distinct cultural stage.

The earliest period thus far discovered on the Bristol Bay slope of the monument is the Kittewick Period, which extended from about 2500 B.C. to approximately 1900 B.C. The recovered artifacts were all found in what appear to be temporary campsites on the beach ridges which edged Naknek Lake as it was around 4000 years ago. These camps were all situated at what was then the mouth of Brooks River, and they all contained bits of caribou bone. These facts raise the possibility that the inhabitants were largely an inland people, more interested in hunting than fishing.

Characteristic artifacts of the Kittewick Period included large ground and chipped lance or knife blades, chipped side-notched and leaf-shaped knives, and shallow, D-shaped pecked stone lamps. There was a "considerable" use of ground slate. Pottery was lacking.[38]

The culture of the Kittewick people shows obvious influences from both the Shelikof Strait coast and from the north. As shall be seen, by 2500 B.C. the people living on the Pacific coast of the peninsula were already using the ground slate technique to form a high percentage of their tools and weapons. The Kittewick Period collections reveal that the same process was employed, but to a lesser extent, in the Naknek drainage, where it was confined largely to the principal thrusting implements. It is assumed, therefore, that the influence was exerted from east to west.

On the other hand, the non-polished implements of the Kittewick people strongly resemble those used by the inhabitants of Cape Krusenstern in the north and by the people of the Alaskan interior, particularly as regards side-notched projectile points and knives. The Kittewick artifacts do not correspond with those of the more

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38 Dumond, *Prehistory of the Northern Alaska Peninsula*, 8-9, 21. The Kittewick Period coincides with what is also known as the Brooks River Strand Phase in the Naknek drainage cultural sequence.

coastal-oriented cultures of the Arctic Small Tool tradition and its successors.[39] Thus Professor D.E. Dumond believes that the Kittewick people may not have been ancestors of the Eskimo at all but American Indians "who had lived in the vicinity of the Pacific long enough to pick up some coastal habits" such as the use of polished slate and the employment of stone lamps using sea mammal oil for fuel.[40]

Next in time came the Gomer Period, which lasted from about 1900 B.C. to around 1000 B.C. Remains of at least 100 dwellings from this area have been found at 12 localities scattered along Brooks River. Some of these structures were only camp shelters, but others were houses of substantial construction. The latter were about 12 feet square, partly excavated, with sloping entrance passages and central fireplaces. Probably sod was used on the roofs. Such habitations suggest winter or year-round occupation, and their locations on the river may indicate an emphasis on salmon fishing by the Gomer Period inhabitants.

The artifacts from this era were characterized by various types of small tools, including small, delicately chipped chalcedony bi-pointed endblades, points, occasional microblades, burins, and chipped adzes with polished bits. Oil lamps seem to have been lacking.[41]

The culture of the Gomer Period was so different from that of the earlier Kittewick Period -- Dumond says there was "virtually no continuity whatever" -- that some archeologists now believe an actual displacement of population occurred in the Naknek drainage about 1900 B.C. "These new inhabitants," writes Professor Dumond, "with small bipointed projectile blades, burins, microblades, manifest an obvious affiliation with the Arctic Small Tool tradition, the nearest exemplar of which is the Denbigh Flint complex of Cape Denbigh."[42]

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39 Dumond, "Prehistoric Cultural Contacts," 1110.

40 Dumond, *Reconstruction of An Aboriginal Dwelling,* 41-42.

41 Dumond, *Prehistoric Dwellings in Katmai National Monument,* 3; Dumond, *Prehistory of the Northern Alaska Peninsula,* 9-11, 21. The Gomer Period is coterminous with a stage in the Naknek drainage cultural sequence known as the Brooks River Gravels Phase.

42 Dumond, *Prehistory of the Northern Alaska Peninsula,* 33.

"From this time on," says Dumond, "the Naknek drainage sequence may reasonably be said to pertain to Eskimos."[43] Noteworthy is the fact that during the Gomer Period there is scarcely any evidence of contact between the inhabitants of the Bristol Bay slope and "their slate polishing neighbors of the Takli Birch phase" on the Pacific coast.[44]

Following the Gomer Period there apparently was no occupation of the Brooks River vicinity for about 800 years. At least no traces of habitations or even of the presence of humans has yet been found. Nevertheless, certain artifacts of unchanged form, such as adzes and dwellings, seem to show a technological continuity between the Gomer Period and the succeeding Brooks River Period. Perhaps other locations in the Naknek area, most likely along the Bristol Bay shore, were inhabited during this time span.

Then, about 200 B.C., signs of occupation again appear in the upper Naknek drainage, and the era from then until around A.D. 1000 is known as the Brooks River Period. It includes three phases -- the Smelt Creek Phase, the Brooks River Weir Phase, and the Brooks River Falls Phase -- which, says Professor Dumond, "are closely related in developmental fashion" and are in "a general Norton tradition."[45] The chief identifying characteristics of this period are "the use of fiber-tempered pottery, of small chipped projectile blades, and . . . a steady increase in use of slate rubbing" to form polished implements.[46]

The earliest phase of the Brooks River Period, the Smelt Creek Phase, extended from about 200 B.C. to A.D. 100. No permanent house remains dating from this time have been found at Brooks River, leading to the conclusion that the Smelt Creek people only used this vicinity for temporary camps. Seemingly, their permanent houses were farther to the west, below Naknek Lake on Naknek River.

The Smelt Creek Phase was notable in that it marked the introduction of pottery into the monument area. This ware was thin, fiber-tempered, and either undecorated or impressed with small square or rectangular checks or diamonds. Characteristic artifacts were lamps and formed vessels of stone, small polished adzes, projectile points with "square based contracting stems or contracting bases," flaked sideblades, and small flaked knives and drills.[47]

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43 Dumond, "Prehistoric Cultural Contacts," 1110.

44 Dumond, *Prehistory of the Northern Alaska Peninsula*, 33.

45 Dumond, *Prehistoric Dwellings in Katmai National Monument*, 3; Dumond, *Prehistory of the Northern Alaska Peninsula*, 21.

46 Dumond, *Prehistory of the Northern Alaska Peninsula*, 21.

47 *Ibid.*, 11-13.

In certain elements the Smelt Creek culture reveals borrowing from the north, particularly from the Norton culture of Cape Denbigh. Indeed, much of the pottery is "virtually indistinguishable" from that found at Cape Denbigh.[48] The formed stone lamps present in the Naknek drainage during this phase perhaps were borrowed from the south coast. On the other hand, the stone implements show a strong continuity with the preceding Gomer Period. In fact, Gomer and Smelt Creek small polished stone adze blades were "identical," and the small chipped chalcedony points were similar.[49] This continuity makes it likely that the northern influences were spread by an exchange of ideas and not by an invading people.

Thus the Smelt Creek people seem to have been descendants of the Gomer people who introduced the Arctic Small Tool tradition. By Smelt Creek times, they were oriented toward sea mammal hunting.

The second phase of the Brooks River Period, the Brooks River Weir Phase, extended from about A.D. 100 to approximately 500. Remains dating from this time span were found at five sites in the Brooks River vicinity, but only one substantially constructed house was uncovered. The other habitations seem to have been parts of small seasonal camps.

Polished slate knives, stemmed projectile points with rounded shoulders or with contracting stems, and formed stone vessels were characteristic of this phase. Pottery continued to be made with fiber tempering, but the decorations now consisted of small or large square or diamond checks, and shapes were barrel or cylindrical. The plain thin pots with restricted openings so typical of the Smelt Creek Phase also continued to be made, but in lesser quantity.[50]

In fact the Weir Phase and its successor, the Brooks River Falls Phase, are described as "local descendants" of the Smelt Phase "in clear and unbroken descent."[51] As one phase passed into another, however, the resemblances to the Norton tradition became less marked.[52]

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48 Dumond, *Prehistory of the Northern Alaska Peninsula*, 34.

49 Dumond, "Prehistoric Cultural Contacts," 1110.

50 Dumond, *Prehistory of the Northern Alaska Peninsula*, 13-14.

51 *Ibid.*, 34.

52 Dumond, *Prehistoric Dwellings in Katmai National Monument*, 4.

The last phase of the Brooks River Period was the Brooks River Falls Phase. It lasted from about A.D. 500 to 1000. Due to disturbance by later inhabitants of the one site on Brooks River attributable to this phase, little is known about how the Brooks River Falls people lived. Professor Dumond concludes, however, that "well-constructed slab hearths from this phase suggest that some reasonably permanent structures may have existed.[53]

By this phase, the ratio of chipped to polished stone implements was noticeably lower than in the two earlier phases. Polished ulos (women's knives) and polished knives were more common. Projectile points were quite often stemmed, with shoulders or barbs. Pottery was still fiber-tempered, but it was now found in both thin and thick forms and was either plain or decorated with large off-square to diamond-shaped impressions.[54]

As shall become apparent later, many elements of the Brooks Falls culture were also found in the contemporaneous Kukak Beach Phase (also A.D. 500 to 1000) across the Aleutian Range on the coast of Shelikof Strait. The resemblances were so marked in fact that archeologists now believe that people from the Naknek drainage actually expanded southward to the Pacific shore, though not to the extent of completely eliminating the earlier inhabitants.[55] Dumond hypothesizes that this movement was sparked by a desire to hunt sea mammals in the ice-free waters of Shelikof Strait.[56]

Succeeding the Brooks River Period came the Naknek Period (A.D. 1000 to 1912). It too, was composed of three phases: the Brooks River Camp Phase, the Brooks River Bluffs Phase, and the Pavik Phase. All were "clearly related to one another." This period was marked by the introduction and use of gravel-tempered pottery and by a decided emphasis on the manufacture of polished slate implements. Dwellings at Brooks River included a number suitable for year-round use; and with the Camp Phase appears what seems to have been a newly introduced structural element, the deeply sunken house entrance.[57]

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53 Dumond, *Prehistory of the Northern Alaska Peninsula*, 16.

54 *Ibid.*, 15-16.

55 *Ibid.*, 34-35.

56 Dumond, "Prehistoric Cultural Contacts," 1114.

57 Dumond, *Prehistoric Dwellings in Katmai National Monument*, 4, 10; Dumond, *Prehistory of the Northern Alaska Peninsula*, 22.

The most obvious fact about the Naknek Period culture is its clear similarity to the western Thule Culture which blossomed in northern Alaska in the tenth and eleventh centuries A.D. Only a short time later, about A.D. 1000 or 1100, rapid cultural changes took place in the Naknek drainage, but Professor Dumond believes the continuity from earlier phases was so marked that introduction of Thule elements came about without a "wholesale replacement of population."[58]

Another outstanding feature of the Naknek Period is the close correspondence between the cultures on both sides of the Aleutian Range. It has been seen that this similarity was marked during the preceding Brooks Falls-Kukak Beach phases (A.D. 500 to 1000). Apparently, the communication opened during that period led to an even greater degree of contact during the Naknek Period. As Professor Dumond points out, artifact assemblages of the Brooks River Camp Phase (A.D. 1000 to 1500) from the interior and of the Kukak Mound Phase (A.D. 1000 to 1500) for the coast "are to all practical intents indistinguishable from one another."[59]

It seems quite evident that the impulse for the gravel-tempered pottery that prevailed throughout the Katmai area during the Naknek Period came from the north, but the source of the upsurge in slate polishing is still undetermined. "What is clear," says Dumond, "is that with the early Naknek period came a time of increased communication throughout Eskimo Alaska, the time which also saw a movement of Thule people from northern Alaska to Greenland."[60]

This expansive force pushed even beyond the southern shores of the Alaska Peninsula and reached such widespread regions as the Kenai Peninsula and Prince William Sound. It is noteworthy that pottery appeared on Kodiak Island about the beginning of this period and that it was much like that being made in the Naknek drainage and, indeed, in practically all of coastal Alaska at the same time.[61]

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58 Dumond, *Prehistory of the Northern Alaska Peninsula*, 35.

59 *Ibid.*, 36.

60 *Ibid.*

61 *Ibid.*; Cressman and Dumond, *op. cit.*, 36-37.

The earliest phase of the Naknek Period has been called the Brooks River Camp Phase. It spanned the half millennium from about A.D. 1000 to approximately 1500. Remains of occupation during this phase were found at two sites in the Brooks River vicinity, and there were signs that the northern bank of that stream was "rather heavily used." One indication of this use was the large number of clay-lined pits dating from this phase. Some of them seem to have been used for making the popular "stink fish," an odoriferous delicacy prepared by burying fish parts until they were partially decayed.

Although some of the habitation sites probably were seasonal camps, a number of dwelling remains indicate that habitations suitable for winter occupancy were clearly present. Several of these permanent house sites were excavated, with instructive results. The dwellings were heavily timbered and were "roughly square," ranging in size from about 9 by 12 feet to about 12 by 15 feet. They were semisubterranean, and were entered through a sunken tunnel. Sometimes this tunnel was as long as the room to which it led. The roof of timbers and mud probably was supported by four posts which rose from the earth floor of the room. A low bench probably ran along the back wall.

The important characteristics which distinguished the Brooks River Camp Phase from earlier periods were the appearance of thick, gravel-tempered, globular jar pottery, plain or, rarely, decorated with impressed concentric circles, and the very high ratio (one to one) of polished to chipped stone implements. The pottery was practically identical with the ware being produced elsewhere in western Alaska as far north as Point Barrow.

Projectile insert blades of ground slate made their appearance during this phase, and small polished knives, polished ulos, and flat sandstone slabs, evidently for grinding artifacts, were typical. Also, unbaked clay lamps arrived on the scene at this time. Bones recovered on the sites reveal that the Brooks River Camp people relied heavily on caribou and salmon for food, though other land animals also were utilized, as were sea mammals, but as might be expected, to a more limited extent.[62]

Following the Brooks River Camp Phase and spanning the period from about A.D. 1500 to 1820 was the Brooks River Bluffs Phase. This culture, known from excavations made at two sites in the Brooks River vicinity, was the one encountered by the Russians when they first penetrated the interior of this part of the Alaska Peninsula. Animal

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62 Dumond, *Prehistory of the Northern Alaska Peninsula*, 16-18.

and fish bones excavated at Bluffs Phase living places, as well as the presence of many clay-lined pits, reveal that the economy of Bluffs people differed little from that of their immediate predecessors.

Their houses, too, were much like those found at Brooks River Camp Phase sites. Those excavated were smaller, however, and may not all have been suitable for winter occupancy.

By Bluff Phase time polished stone implements outnumbered flaked artifacts two to one. Slate was the favorite stone material, and from it were made such characteristic items as ground projectile insert blades, ulos, and adze blades. Pottery was still tempered with gravel and was either thick or thin, plain or with a modeled external ridge. The globular jar shape was still made, but there were also vessels shaped like a modern flower pot.[63]

The last phase of the Brooks River Period has been termed the Pavik Phase. It extended from 1820 to 1912, the era of Russian and early American occupation of the Katmai Region. Most of the archeological evidence concerning this phase was recovered from sites along the lower Naknek River outside the present monument, but the settlement of Savonoski, at the head of Naknek Lake, was also tested and yielded materials related to this time span.

The culture of the Eskimos who lived in the upper Naknek drainage basin during historic times will be discussed in later chapters of this study, but it might be well to summarize here the archeological findings. The most startling fact is that polished artifacts, represented chiefly by ground slate projectile insert blades, now outnumbered flaked implements by a ratio of seventeen to one.

Such pottery as was made after the introduction of European utensils was thin, plain, and gravel-tempered. The flower-pot shape predominated, though the old globular jar form was occasionally followed. The impact of European trade goods was strong, as is shown by the finding of projectile insert blades shaped like those of stone but made of thin iron. Also commonly found were glass beads, steel axes and knives, chinaware, and window glass. As might be expected, an analysis of recovered artifacts reveals a decrease in the use of stone implements of all types.[64]

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63 Dumond, *Prehistory of the Northern Alaska Peninsula,* 18-19.

64 Dumond, *Prehistoric Dwellings in Katmai National Monument,* 5.

Living areas produced bones of caribou, moose, and several species of small land mammals, and salmon. The sites near the Bristol Bay shore also were characterized by bones of small whales and walruses.[65]

The prehistoric occupation of the Pacific coast of Katmai National Monument, as revealed by archeological excavations to date, presents quite a different picture from that of the inland areas. Habitation sites were not concentrated in one general area as were those at Brooks River and about Naknek Lake but were widely distributed along the lengthy shoreline. Also, archeological survey and testing on Shelikof Strait has, in the words of Professor Dumond, "not been adequate" to delimit satisfactorily the area to which the sequence of cultural levels pertains.[66]

As matters stand at present, archeologists have established a sequence of five cultural phases covering the known time span of prehistoric occupation of the monument coast. These are the Takli Alder Phase (4000 B.C. - 3000 B.C.); the Takli Birch Phase (2200 B.C. - 800 B.C.); the Takli Cottonwood Phase (A.D. 200 - A.D. 500); the Kukak Beach Phase (A.D. 500 - 1000); and the Kukak Mound Phase (A.D. 1000 - 1500).

The oldest coastal culture yet found, designated as the Takli Alder Phase, was identified by remains at one site on Takli Island, about 16 miles northeast of Katmai Village, and at another site on Kukak Bay, some 25 miles farther to the north. Radiocarbon dates from this phase do not permit the time span to be determined with precision, but one sample from about 3880 B.C. makes an early limit of about 4000 B.C. appear reasonable. Approximately 3000 B.C. has been assigned as the upper limit.

Implements from this period are nearly all chipped, and the most characteristic artifacts include flaked stemmed projectile points with shoulders, flaked symmetrically bipointed points, flaked projectile blades, scrapers, and large leaf-shaped and oviod knives. Some polished adze or gouge blades were also found, but no other polished artifacts were uncovered.

Dwelling remains revealed little about house construction, but some habitations evidently were semi-permanent in nature. An abundance of shells and sea mammal bones, principally of seal and sea lion, graphically demonstrate the dependence of the Alder Phase

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65 Dumond, *Prehistory of the Northern Alaska Peninsula*, 19-20.

66 *Ibid.*, 22.

people upon the ocean as a source of food. In fact, this same orientaion is characteristic of all the prehistoric inhabitants along Shelikof Strait.[67]

Artifacts from the Takli Alder Phase show relationships with those from the Ocean Bay I Period on Kodiak Island. They also seem to be related to collections from the Aleutian Islands. These similarities have caused some archeologists to theorize that perhaps about 4000 B.C. "a single ethnic group was spread along the Pacific coast of the Alaska Peninsula and into the Aleutians" and that these people were the ancestors of the Aleuts and spoke a form of proto-Aleut. Their economy was based largely on the hunting of sea mammals in the ice-free waters of the North Pacific.

It is theorized that about 3000 B.C. the descendants of these people on the peninsula and on Kodiak Island started to use the grinding and polishing techniques in the manufacture of implements. With this innovation they started on a different path of material culture from that taken by the people who became today's Aleuts.[68]

Deposits from the next phase, the Takli Birch Phase, were found at two sites on Takli Island and one at Kukak Bay. Although Birch Phase cultural strata overlay those of the Alder Phase at two locations, the dating of the Birch Phase is difficult. The greater part of the deposits can safely be assigned to the period from 1500 B.C. to 800 B.C., but a radiocarbon date of 2160 B.C. apparently pertains to this phase also, and polished slate implements are much like those found in the Naknek drainage by 2500 B.C. and on Kodiak Island by about the same time. Thus, Dr. Dumond, the scholar who has most intensively studied the prehistory of Katmai National Monument, reasons that the polishing of slate on the peninsula coast must have begun before 2500 B.C. Tentative dates of about 2200 B.C. to 800 B.C. have been given to the long-enduring Takli Birch Phase.

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67 Dumond, *Prehistory of the Northern Alaska Peninsula,* 23-24.

68 Dumond, "Prehistoric Cultural Contacts," 1114; Dumond, *Prehistory of the Northern Alaska Peninsula,* 30-32. It should be noted, however, that other archeologists do not support this theory of a single people in the Pacific coast region of Western Alaska about 4000 B.C. They point out that skeletons of early Aleuts and early residents of Kodiak Island are quite distinct from each other. They claim that on the basis of skeletal remains the Pre-Koniags of Kodiak Island were more clearly associated with the Bering Sea Eskimos than with the Aleuts. "Early Racial and Cultural Identifications in Southwestern Alaska," 88.

During this time span, as during the previous phase, there is little remaining evidence concerning dwelling types. Hearths, post holes, and outline patterns of stones indicate habitations, but they give small hint of construction methods.

The Birch Phase is primarily characterized by a much higher percentage of polished artifacts than during the preceding Alder Phase. The ratio of polished to chipped implements was 1 to 1.7. Typical manufactures included flaked, stemmed projectile blades, large flaked leaf-shaped knives, polished slate projectile blades, some with barbs, polished slate stemless projectile or lance blades, polished rectangular slate knives, polished slate ulos and knives, two-notched stone sinkers, and formed stone lamps.[69]

As has been seen, Professor Dumond hypothesizes that the descendants of the Proto-Aleut peoples who may have populated the peninsula coast as early as 4000 B.C. began to polish slate prior to 2500 B.C. He believes that before long their "tool kits took on the look of the Takli Birch assemblage."[70] If this theory is accepted, it is a natural step to his next conclusion that the Takli Birch Phase "is clearly descended from the Takli Alder Phase."[71]

It will be remembered that the first known occupants of the Naknek drainage appeared on the scene about this same time (2500 B.C.) and that their artifacts likewise included large ground slate lance or knife blades. Because of these "obviously shared forms" it is believed that there were cultural contacts between the coast people of the Takli Birch Phase and the inland dwellers of the Kittwick Period and that the techniques of grinding and polishing passed from the south, where it was clearly established, over the Aleutian Range to the Naknek drainage, where it was adopted for projectile and lance heads only.[72]

The third cultural complex found on the coast has been called the Takli Cottonwood Phase. It was identified at one site on Takli Island only and appears to date from A.D. 200 to 500. As was the case with the two earlier coastal phases, the midden deposits of the Cottonwood culture reveal little of dwelling construction. One "rather indistinct" house was rectangular in shape, about 15 feet square, with no evidence of an entrance. Postholes were "scarce." The most definite feature was a large rock-lined hearth seemingly near one of the walls.

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69 Dumond, *Prehistory of the Northern Alaska Peninsula,* 24-26.

70 *Ibid.,* 32.

71 Dumond, *Reconstruction of An Aboriginal Dwelling,* 45.

72 Dumond, *Prehistory of the Northern Alaska Peninsula,* 32.

The ratio of polished to chipped stone artifacts continued to be high, 1 to 1.2. Characteristic artifacts were flaked stemmed projectile points and stemless bipointed points, large flaked leaf-shaped knives, polished slate stemmed projectile blades with barbs, adzes with polished bits, two-notched sinkers, and formed stone lamps.

Pottery first appeared on the coast during the Cottonwood Phase. It ranged from thin to thick and was fiber tempered. It had the shape "of a slightly out-flaring cylinder."[73]

Although the Cottonwood Phase "unmistakably" descended from the preceding Birch Phase, with the same forms of flaked and polished artifacts in evidence, the culture of this phase was also strongly influenced by the contemporaneous Brooks River Weir Phase (A.D. 100 to 500). The pottery, for instance, is "indistinguishable" from some of that made on the Bristol Bay slope at the same time. The size of the coastal projectile blades was reduced and there was an increased use of chalcedony for their manufacture. Both of these traits could have crossed the Aleutian Range from the Naknek drainage.[74]

Following the Takli Cottonwood Phase came the Kukak Beach Phase. It was associated with a large coastal village site east of Devil's Cove on the north shore of Kukak Bay.[75] The extensive cultural deposits here have produced strata assignable to this period which underlie materials of the succeeding Kukak Mound Phase, and radiocarbon dates quite clearly indicate a time span extending from about A.D. 500 to 1000.

The surface of the occupation site shows evidence of at least 88 house depressions, more than half of which are thought to date from the Beach Phase. Excavations reveal that the structures were roughly square in ground plan, ranging in size from 15 feet to about 21 feet on a side. They were semisubterranean and were entered by a "simple sloping channel without cold trap." There usually was a central fireplace. In one instance this heating and cooking facility was made of vertical stone slabs.

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73 Dumond, *Prehistory of the Northern Alaska Peninsula*, 26-27.

74 *Ibid.*, 34.

75 This site is numbered KK-1 on United States Department of the Interior, National Park Service, "Archeological Base Map, Part of the Master Plan, Katmai National Monument" (San Francisco: Western Office of Design and Construction, revised 1965).

A salient characteristic of the Beach Phase was the marked alteration in the ratio of polished to chipped implements. From 1 to 1.2 in the Cottonwood Phase, it went to 1 to 9. The characteristic artifacts included "stemmed projectile points with slight shoulders, square shoulders, or slight barbs, with stems less than 10 mm. in length," projectile points of the same small size but with contracting bases, flaked projectile points with indented bases, polished ulos and knives, small flaked adze blades with polished bits, formed stone lamps, and two-notched pebble sinkers.

Pottery was still thin to thick and fiber tempered. Shapes, however, were "barrel or cylinder."[76]

It will perhaps be recognized that during the Kukak Beach Phase the culture of the coast showed a marked resemblance to that found northwest of the Aleutian Range during the Brooks River Falls Phase (also A.D. 500 to 1000). "Indeed," says Dr. Dumond, "careful consideration of the collections of the B. R. Falls and the Kukak Beach phases leads to the conclusion that the Kukak Bay site was at that time inhabited by people proper to the Naknek drainage."[77] The most obvious marks of the northern culture are seen in the similarity of the smaller projectile blades of the two areas and in the very noticeable decline of slate polishing in the Kukak Beach Phase.

But while Dumond considers it likely that there was a certain amount of migration across the Aleutian Range at this time, he believes the continuity of cultures on the coast is so unbroken as to preclude the possibility of a complete population replacement. He also finds during this phase as well as during the preceding Cottonwood Phase a decreasing degree of cultural relationship between the peninsula coast and other Alaskan Pacific areas such as Kodiak Island. For this reason he believes that the impulses reaching the Katmai Coast from the interior were largely confined to the nearby mainland shore.[78]

The last prehistoric cultural period recognized on the coast is the Kukak Mound Phase. It was defined from materials uncovered at the same large Kukak Bay site that produced the evidence of the preceding Kukak Beach Phase. In places remains from the Mound Phase were found overlying those of the Beach Phase, and there was little difficulty in assigning it the span of time between A.D. 1000 and 1500.

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76 Dumond, *Prehistory of the Northern Alaska Peninsula,* 27-29.

77 *Ibid.,* 34.

78 Dumond, "Prehistoric Cultural Contacts," 1111; Dumond, *Prehistory of the Northern Alaskan Peninsula,* 35.

Many of the dwellings erected during this period were merely seasonal camps, but remains of more substantial habitations were evident. One of these was a semisubterranean house, about 15 feet square, with a sunken entrance excavated below the floor level to form a cold trap.

During the Kukak Mound Phase a resurgence of polished implements occurred, the ratio of polished to chipped being 1 to 1.7. Characteristic artifacts were "projectile insert blades of polished slate with trapezoidal butt facet, or with barbs," polished slate barbed dart heads, small polished knives called "polished lancets," polished ulos, and "large flaked adze blades of slate, with polished bit."

Pottery changed from fiber-tempered to gravel-tempered. It was largely thick and undecorated, in globular jar form. The same type of paste was used to make thick clay lamps which apparently were baked.[79]

It has already been pointed out but merits repetition here that the Mound Phase was "an almost perfect duplicate" of the Brooks River Camp Phase (also A.D. 1000 to 1500) of the Naknek drainage. From this fact Dumond concludes that "a single people lived on both sides of the Aleutian Range on the Alaska Peninsula at Brooks River and Kukak Bay." By this time, he continues, "the people of the coast surely were speaking a form of Western Eskimo."[80]

It might also be helpful to call attention once again to the fact that the artifact assemblages from both sides of the range in the present monument during the period from about A.D. 1000 to 1500 not only resemble each other but also seem related to those from contemporaneous sites on Kodiak Island and in the Bering Sea region.[81] In short, the powerful impulses of the Thule tradition not only surmounted the Alaskan Range but they extended into the North Pacific.

As will be seen in the next chapter, the Eskimos who inhabited the Katmai Coast when the Russians arrived were closely related to those on Kodiak Island. The importance of the Mound Phase time span in creating this unity can be appreciated when it is realized that from the date of the earliest known occupation of Kodiak Island, about 3500 B.C., until some time between A.D. 900 and 1500 the recovered remains reveal a cultural continuity there. During the

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79 Dumond, *Prehistory of the Northern Alaska Peninsula*, 29-30.

80 Dumond, "Prehistoric Cultural Contacts," 1111.

81 Dumond, *Reconstruction of An Aboriginal Dwelling*, 47.

latter period, however, artifact forms changed abruptly, probably indicating a migration of cultural impulses or people from the Bristol Bay region.

Apparently up to the time of this change the Kodiak Archipelago had been occupied by persons "representing a north Pacific sea-hunting tradition." They were sea mammal hunters who sometime after about 3,000 B.C. began to place more emphasis on ground slate implements at the expense of their earlier preference for flint tools and weapons. The people of the Katmai Coast were of the same North Pacific tradition but, as has been seen, they were strongly influenced at different periods by their neighbors across the Aleutian Range. But from about A.D. 900 to 1500 the Thule impulse brought a general cultural unity to the entire Eskimo community in South Central and South Western Alaska.

Although some excavation and testing have been conducted at Pacific coast sites of the period from A.D. 1500 to 1912, notably at Kaguyak by Wilbur A. Davis in 1953 and at Cape Chiniak in 1963 by the University of Oregon, the results evidently did not produce a representative assemblage of artifacts.[82] However, similarities between objects found in the Naknek drainage and on Kodiak Island dating from this time span have led Professor Dumond to conclude that there "was probably little diminution of contact across the Peninsula during the period." This conclusion seems to be supported by the findings of ethnographers and by the fact that the inhabitants of both sides of the peninsula spoke dialects of the Western Eskimo language.[83]

After years of study, Professor Dumond sums up the prehistory of the Katmai region by concluding that "at no time between about 2500 B.C. and the beginning of the Christian era was there a single people inhabiting both sides of the Alaska Peninsula. But after their arrival in the Naknek drainage at about 1900 B.C. with the B[rooks] R[iver] Gravels phase of the Arctic Small Tool tradition, people presumed to be ancestral Eskimos showed an increasing tendency for expansion onto the North Pacific; this resulted in some population movement before A.D. 1000, and culminated in open communication across the Peninsula by A.D. 1500."[84]

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82 Davis, *op. cit.*, 45-56; Dumond, *Archaeological Survey . . . 1963*, 39-41. In 1969, Professor Dumond wrote: "Unfortunately, the period from A.D. 1500 to 1900 is not sampled on the Pacific Coast of the Peninsula." Dumond, *Prehistory of the Northern Alaska Peninsula*, 36.

83 Dumond, *Prehistory of the Northern Alaska Peninsula*, 36.

84 *Ibid.*, 36-37.

It has already been pointed out that while Dr. Dumond's identifications of prehistoric cultural periods and phases in the Katmai region have not been specifically challenged, some of the conclusions drawn by him from these identifications have been questioned by other archeologists. For instance, the affiliation of the Gomer Period remains with the Arctic Small Tool tradition is considered "not demonstrable" by the challengers, as is the hypothesis that the Gomer Period culture was brought to the Naknek drainage by a migrating people.[85]

Such questions suggest the possibility that the prehistory of Katmai National Monument may merit further study and that additional major contributions to knowledge of man's cultural evolution in Alaska may yet be made. In any event, even the analysis of remains already recovered promises stimulating debate for years into the future.

Prehistoric Habitation Sites

For purposes of park administration and interpretation it is not sufficient merely to summarize what is known about the prehistoric inhabitants of Katmai National Monument. An indication must also be given of the locations and relative significance of the sites at which these people are known to have lived.

Admittedly, archeological surveys have not yet been extended to all parts of the monument, and many areas surveyed from the air can be expected to produce additional sites when examinations can be made on the ground.[86] Yet it seems reasonably certain that the principal habitation sites have been located and at least tested.

On the Shelikof Strait coast within the monument, the principal prehistoric sites, from north to south, are the following:

Cape Chiniak. This site, marked CK-1 on the Archeological Base Map of Katmai National Monument, is situated on the south side of the lagoon which lies immediately north of Cape Chiniak. It is about 3 1/2 miles south of the present abandoned village of Kaguyak.

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85 "Early Racial and Cultural Identifications in Southwestern Alaska," 87-88.

86 Dumond, *Archaeological Survey . . . 1964*, 44-45.

Although now quite severly eroded, this site seemingly was once fairly extensive as is shown by the thick midden deposit and nine house depressions. Tests in 1963 produced stone artifacts which seemed related to those found at Kukak (KK-1) and at Kaflia (KA-1). An analysis of ash deposits at the site led to the conclusion that occupation dated from pre-contact time, "with a maximum age of about 900 years." Professor Dumond states that because of "its proximity and temporal priority it is possible that CK-1 represents a village directly ancestral to historic Kaguyak."[87]

Kukak. This large and important site, identified as KK-1 on the Archeological Base Map of Katmai National Monument, is located on the north shore of Kukak Bay about 1 1/4 miles northwest of the tip of Kukak Point and east of Devil's Cove. It was tested in 1953 and 1963 and was rather extensively excavated in 1964 and 1965.

The work in 1963 revealed 48 depressions in the main portion of the site, and excavation of five of these produced artifacts similar to the Brooks River Camp Phase across the Aleutian Range. A tentative dating of between A.D. 1100 and 1500 was therefore assigned to the site.

The more extensive survey and excavation in 1964 resulted in the discovery of a total of 89 "house-like depressions." Recovered materials resulted in the definition of two "major" prehistoric cultural phases, the Kukak Beach Phase (A.D. 500 to 1500) and the Kukak Knoll Phase (A.D. 1000 to 1500). A significant result of the 1965 season's work was the excavation of a large, square Beach Phase house with an earth floor, "a large central stone-filled hearth, indications of timbered walls, and 67 postholes."[88]

Kaflia. In 1954 Mr. Wendell H. Oswalt excavated a small prehistoric site, identified as KA-1 on the Archeological Base Map of Katmai National Monument, on the neck of the peninsula separating the inner and middle portions of Kaflia Bay. The small area of the site apparently restricted occupation to not much more than could be accomodated in one large house, so the population was never great despite proximity to one of the best red salmon streams on the Katmai coast.

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87 Dumond, *Archaeological Survey . . . 1963,* 37-41; Dumond, *Archaeological Survey . . . 1964,* 14.

88 Davis, *op. cit.,* 13-36; Dumond, *Archaeological Survey . . . 1963,* 31-35; Dumond, *Archaeological Survey . . . 1964,* 14-15; Dumond, *Report to the Secretary, Smithsonian Institution . . . 1965,* 7-8.

Recovered artifacts and ash layers appear to indicate that all occupation was later than about A.D. 1000, but the duration of settlement could not be determined. It is known from historical records, however, that natives used the site for seasonal fishing as late as 1912.[89]

Amalik Bay (Takli Island). The first recorded fruitful scientific archeological collecting within Katmai National Monument was performed by Robert Heizer in 1935 at a site on the southeast corner of Takli Island at the mouth of Amalik Bay. However, no significant use was made of the small surface collection gathered at that time.

Not until a University of Oregon survey team visited the island in 1964 was the importance of this vicinity in Alaska prehistory confirmed. Two sites (AK-1 and AK-2) on the northern shore produced artifacts ranging in time from about 2000 B.C. to the beginning of the Christian era.

In 1965 the studies in Amalik Bay were expanded. That season surveys brought the total number of identified sites in the harbor to 14; half of these were on Takli Island. Excavations at three locations produced an abundance of artifacts.

Later analysis of these collections, together with those recovered at Kukak, resulted in the definition of three coastal cultural phases: the Takli Alder Phase (4000 B.C. - 3000 B.C.), the Takli Birch Phase (2200 B.C. - 800 B.C.), and the Takli Cottonwood Phase (A.D. 200 - A.D. 500). The major scientific importance of these discoveries has already been indicated. A description of the excavations at the largest Takli Island site and an exposition of the factors which resulted in defining the two earlier phases are given in Gerald H. Clark, *The Archaeology of the Takli Site, Katmai National Monument, Alaska* (unpublished M.A. thesis, University of Oregon, 1968).[90]

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89 Dumond, *Archaeological Survey . . . 1963*, 36-37; Dumond, *Archaeological Survey . . .1964*, 17; Oswalt, *Prehistoric Sea Mammal Hunters at Kaflia*, 6, 8-9, 16-17, 19, 31. Oswalt believes there probably were not more than four houses at the site in prehistoric times. On the basis of the bones and shells recovered, the inhabitants relied heavily on hair seal and clams as the basis of their economy. The site probably was inhabited only periodically. The seal probably had ceremonial associations for the inhabitants.

90 Dumond, *Archaeological Survey . . . 1964*, 21-25, 33-43; Dumond, *Report to the Secretary, Smithsonian Institution . . . 1965*, 9-12.

Dakavak Bay. A site, numbered DK-1, situated on both banks of the Dakavak River at its "easternmost meander" and about one-fourth mile inland from the coast, was found in 1964 to contain a number of house depressions and midden deposits. One house site was clearly post-contact in date, but the others were apparently prehistoric. On the basis of recovered artifacts and from ash deposits, archeologists concluded that "antiquity greater than one thousand years seems unlikely."[91]

On the northwest side of the Aleutian Range, on the Bristol Bay slope, the principal prehistoric occupation sites are:

Brooks River. The largest and most important prehistoric occupation area thus far discovered within Katmai National Monument is situated along the banks of the mile-and-a-half-long Brooks River and the adjacent shores of the two bodies of water linked by that stream, Lake Brooks and Naknek Lake. Habitation sites are scattered liberally over the terraces formed as the water dropped in the large post-glacial lake which once covered the present Naknek drainage lake system to a height of about 118 feet above sea level (the present elevation of Naknek Lake is approximately 32.8 feet) and on the later terraces created as Brooks River developed its present course.

All in all some 1014 depressions have been found in this vicinity, and at least 60 per cent of them are believed to contain evidence of human occupation. The depressions supposed to represent dwelling remains have been grouped into 22 numbered sites.[92]

Excavations conducted at Brooks River in 1953, 1960, 1961, 1963, 1964, 1965, and 1967, with some additional work in 1968, have produced evidence of human habitation in this vicinity almost continuously from about 2500 B.C. to the present, except for a period from approximately 1000 B.C. to 200 B.C. when no signs of occupation have been found in the upper Naknek drainage. The archeological work, coupled with related studies of ash falls, geology, radiocarbon dating, climatic changes, and other auxiliary matters, has permitted the definition of "a sequence of cultural phases thought to be generally representative of the area of the Naknek Lake and River drainage system and of the nearby portions of the Bering Sea Coast."[93]

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91 Dumond, *Archaeological Survey . . . 1964*, 25-29.

92 Dumond, *Archaeological Survey . . . 1963*, 9-10.

93 Dumond, *Prehistoric Dwellings in Katmai National Monument*, 2.

A comparison of the results obtained at Brooks River with cultural finds on the monument coast and elsewhere throughout Alaska and the American and Asiatic Arctic has led to several broad conclusions, or perhaps theories would be a better word, concerning the place of Southwestern Alaska in the development of Eskimo culture and concerning the relationship between the cultures found in the Naknek drainage and those encountered elsewhere in Alaska. These hypotheses have been discussed as the several phases of the Katmai cultural sequence have been presented.

Savonoski. A habitation site extending eastward in a long, thin line up the south bank of the Savonoski River from its mouth in Naknek Lake was tested by archeologists in 1953 and 1963. The results led to the conclusion that no part of the site was occupied before about A.D. 1500. The western portion appears to have been inhabited only until 1778, when a layer of volcanic ash was deposited over the vicinity. The upstream or eastern section, however, was occupied until the eruption of 1912. This part of the site, generally known as Savonoski in recent times, is described in more detail in the chapters concerning the Russian and American periods.[94]

Savonoski River. There are several prehistoric occupation sites along the Savonoski River above the zone of habitation at Savonoski Village. The largest of these, identified as site SR-2 on the Archeological Base Map of Katmai National Monument is located at the confluence of the Grosvenor and Savonoski Rivers. More than 50 house depressions extend for about one-quarter mile along the west bank of the former and about the same distance along the north shore of the latter.

The locality was an excellent place at which to fish for migrating red salmon, but not enough excavation has been undertaken to determine if occupation was year-round or seasonal. Artifacts recovered during testing in 1963 appear to indicate that people began to live here about A.D. 200 during the Brooks River Weir Phase.

No trace of habitation has been found dating later than about A.D. 1100, just after the end of the Brooks River Falls Phase. However, evidence of later occupation may yet be found, since in 1961 a former Savonoski Village resident claimed he was born before

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94 Dumond, *Archaeological Survey . . . 1963*, 18; Dumond, *Archaeological Survey . . . 1964*, 7. This site is numbered SR-1 on the "Archeological Base Map . . . Katmai National Monument."

1912 at a site tentatively identified as SR-2 when his mother was there on the regular seasonal visit of her people to this location.[95]

Lake Grosvenor. A site designated as GL-1, on the north bank of the lagoon connecting Lake Coville and Lake Grosvenor has been dated as "between A.D. 1500 and 1912; probably after A.D. 1750." It contains fewer than 10 surface depressions.[96]

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95 Dumond, *Archaeological Survey . . . 1963*, 18-23.

96 *Ibid.*, 23. Despite the fact that the name appears frequently on official maps as "Lake Colville," the correct designation for this body of water is Lake Coville. Donald J. Orth, *Dictionary of Alaska Place Names* (U.S. Geological Survey, Professional Paper No. 567, Washington, D.C., 1967), 242.

CHAPTER III

Koniag and Aglegmiut

When Europeans first became acquainted with Southwestern Alaska, they found the area inhabited by three broad groups of people. These were the Aleuts, who lived on the Aleutian Islands and on the tip of tha Alaska Peninsula as far as about Port Heiden or Port Moller; the Eskimos, who occupied the rest of the peninsula and the Bering Sea coast to the north, the Kodiak Archipelago, and the Pacific coast of the mainland eastward past the entrance to Cook Inlet as far as the Prince William Sound region; and the Athapaskan Indians, interior dwellers who reached the sea at Cook Inlet and who were as close to the peninsula as the northern portion of Lake Iliamna.[1]

Linguistic affinities clearly demonstrate that at one time the Aleuts and Eskimos spoke a common language, a stock (or phylum according to some linguists) known as Eskaleutian. Centuries after their migration to America from Asia, the Eskaleuts began to split into the predecessors of the modern Aleuts and Eskimos.

Anthropologists and linguists are hopelessly at variance in estimating the time of this division. At present dates between about 4000 B.C. and 2600 B.C. seem to be most generally favored. The cause of the split is also a subject of dispute. Some archeologists, particularly Professor D.E. Dumond, believe that a wedge of expanding inland Indians, such as that which may have occupied the Naknek drainage during the Kittewick Period, formed a barrier which resulted in the Aleuts going their separate way. Other anthropologists hypothesize that different factors, such as an ice barrier and the early adaptation of the Aleuts to an open sea environment, may have hastened an already developing divergence.[2]

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1 The general objective of this chapter is to present an overall, layman's view of the natives who inhabited the present Katmai National Monument as they existed immediately prior to the arrival of the Russian fur traders. For the purposes of this paper these people are called the aboriginal inhabitants, and the time span in which they lived is called the aboriginal period, which is thus arbitrarily and with no scientific authority distinguished from the prehistoric and the historic periods.

2 "Early Racial and Cultural Identifications in Southwestern Alaska," 88; Oswalt, *Alaskan Eskimos*, 31-36.

At any rate, the split took place, and then the Eskimo stock itself divided into two broad languages: Eastern Eskimo spoken by the Eskimos of Alaska north of Norton Sound and all the way across arctic America to Greenland; and Western Eskimo, spoken by the Eskimos of Siberia and by those Alaskan Eskimos who lived south of Norton Sound. The Eastern Eskimo language is known to linguists as Inupik, while the Western Eskimo language is termed Yupik. The degree of difference between the two is about as great as that between English and German.[3]

The Alaskan division of the Western Eskimo language, in turn, was divided into three dialects: Yuk, spoken by the Eskimos living from Norton Sound south to Bristol Bay and Iliamna Lake; Cux, spoken by the Eskimos living on Nunivak Island in the Bering Sea; and Suk, spoken by the Eskimos living on the Kodiak Archipelago, the adjacent mainland, and along the coast eastward to Prince William Sound. According to relatively recent tests, Eskimos speaking Yuk and Cux can understand each other quite well, but they "possibly" cannot understand Suk.[4] In other words, the Eskimos of Bristol Bay probably should not have been able to carry on a conversation with those living on Shelikof Strait. If this situation is true, it raises some interesting questions as to the identity of the natives who lived on both slopes of the Aleutian Range within the present Katmai National Monument, since evidently such conversations were held.[5]

The Russian fur traders who began operating in the Aleutians in the 1740's and quickly expanded their activities to Kodiak Island and the Alaska mainland made it their business to know the natives with whom they dealt. Before the end of the century the largest company had inaugurated the practice of taking censuses of the groups within its sphere of operations. Therefore, what the Russians wrote about the names and distribution of the various Eskimo "tribes" is not to be taken lightly.

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3 Oswalt, *Alaskan Eskimos*, 28-31.

4 *Ibid.*, 29.

5 "Alaska's Census," in *New York Herald*, January 11, 1881, p. 5; Cressman and Dumond, *Research on Northwest Prehistory*, 11. However, J.E. Spurr, who crossed the peninsula in 1898, said there was "a marked difference in speech" between the people of the Naknek drainage and those of the Shelikof Strait coast. Spurr, "A Reconnaissance in Southwestern Alaska in 1898," 93.

In 1792 Evstrat Delarov of the Shelikhov-Golikov Company reported that about 6,510 natives lived on Kodiak Island and in the Katmai area on the opposite mainland which was inhabited by the same people.[6] Alexandr Andreievich Baranov, general manager of the Shelikhov-Golikov Company and its successor, the Russian American Company, from 1790 to 1818, wrote at an unspecified date, evidently around 1805: "The Kadiak [sic] Islanders and the inhabitants of Alaska [the Alaska Peninsula] near the coast are supposed to be of one tribe."[7] During 1806 G.H. von Langsdorff, a German naturalist attached to a Russian exploring expedition, visited Kukak Bay on the Shelikof Strait coast of the present Katmai National Monument. "The customs, the manners, and in a great degree the clothing and language of the Alaksans [people of the peninsula coast]," he noted, "are the same as those of the people of Kodiak."[8]

The observations by the Russians that the people of Kodiak belonged to the same tribe as those on the opposite peninsula shore were later confirmed by such ethnological studies as were conducted prior to the abandonment of the Katmai coastal settlements due to the eruption of 1912. The work of these investigators, particularly Henrik Johan Holmberg, a Finnish naturalist who visited Alaska during the Russian period, and William Healey Dall, a scientist with the Western Union Telegraph Expedition of the late 1860's and with the United States Coast and Geodetic Survey in the 1870's, was liberally drawn upon by Ivan Petroff, Alaskan enumerator for the Tenth United States Census of 1880, to produce a map of tribal distribution which is today still the basic authority on the subject

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6 Frederica de Laguna, *Chugach Prehistory: The Archaeology of Prince William Sound, Alaska* (University of Washington Publications in Anthropology, vol. XIII, Seattle, 1956), 256. It should be noted, however, that Petroff's translated digest of Delarov's census does not specifically state that the natives of Kodiak and Katmai were the same people. Petroff, "Report," *Tenth Census*, 32.

7 P. Tikhmeneff, *Historical Review of the Origin of the Russian-American Company . . .*, translated by Michael Dobrynin (typescript and MS, 2 parts, [n.p.], 1940), I, 159.

8 G.H. von Langsdorff, *Voyages and Travels in Various Parts of the World, during the Years 1803, 1804, 1805, 1806, and 1807* (2 vols. in 1, London, 1813-1814), II, 236. Two other early Russian visitors, Evstrat Davidof and "Khvostov," are quoted as follows: "The natives of Kodiak and all the islands belonging to the archipelago call themselves Koniagi; but it seems that under this name they also understand the natives of the Peninsula." Ales Hrdlicka, *The Anthropology of Kodiak Island* (Philadelphia, 1944), 15.

despite many later refinements of detail as the result of more scientific ethnological studies.[9]

According to Petroff, the Kodiak Archipelago and the southeastern coast of the mainland from mid-Kamishak Bay southwest to about opposite the Shumagin Islands was occupied by an Eskimo tribe called the "Kaniagmute." This distribution agrees generally with that given by Dall and, as far as the southern limit is concerned, with the range of the "Kaniagmioutes" as ascertained by personal observation in 1871 on the part of the French linguist, Alphonse Louis Pinart.[10]

This same general distribution is accepted by most of the standard authorities today.[11] However, many anthropologists now confine the Kaniagmiut -- the version of the name favored by the Bureau of American Ethnology -- to that portion of Petroff's range which lies southeast of the crest of the Aleutian Range.[12]

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9 Margaret Lantis, ed., *Ethnohistory in Southwestern Alaska and the Southern Yukon: Method and Content* (Studies in Anthropology, No. 7, Lexington, Kentucky: The University Press of Kentucky, 1970), 160-161; 162-165. For a statement concerning the general usefulness of Petroff's map today, see Oswalt, *Alaskan Eskimos*, 3-4. Petroff's map is found in his "Report," *Tenth Census*, map II.

10 Alphonse Louis Pinart, *Voyage a la côte nord-ouest d' Amerique d' Ounalashka a Kodiak* (Paris, 1874), 18.

11 For example, see John R. Swanton, *The Indian Tribes of North America* (Smithsonian Institution, Bureau of American Ethnology, Bulletin 145, Washington, D.C., 1952), 561-562; Federal Field Committee for Development Planning in Alaska, *Alaska Natives and the Land* (Anchorage, Alaska, October, 1968), 247.

12 Dumond, *Reconstruction of An Aboriginal Dwelling*, figure 12, p. 37. Dumond extends the territory of the Kaniagmiut somewhat farther north than did Petroff, to about opposite Augustine Island. Petroff's western boundary for the "Kaniagmute" evidently extended inland farther than the crest of the range in places, though perhaps this westward location of the boundary merely reflected his ignorance of the true location of the summit, since in the Katmai Village area, at least, he apparently recognized the crest as the boundary. Petroff, "Report," *Tenth Census*, 136.

In very recent years some anthropologists have begun to question the distribution of the Kaniagmiut as described by the Russians and as delineated by Petroff. Wendell H. Oswalt, for instance, limits this group to the Kodiak Archipelago and that portion of the mainland coast immediately opposite. On his map of tribal distribution the mainland Kaniagmiut extend from a little north of Augustine Island southward to about the modern settlement of Kanatak, some 30 miles south of the present Katmai National Monument. The remainder of the peninsula coast southward past the Shumagins is shown by Oswalt as being occupied by a group called the Peninsular Eskimos.[13]

Professor Donald E. Dumond now is also inclined to believe that Petroff was in error concerning the distribution of the Kaniagmiut. He hypothesizes that the natives who occupied the larger part of the northwestern slope of the Alaska Peninsula, the so-called Peninsular Eskimos, also occupied the Pacific slope.[14] Since Dr. Dumond has not yet published on this subject, however, it is not possible to state his views with precision.

As far as the portion of the peninsula's Pacific slope which lies within Katmai National Monument is concerned, it appears premature to disregard the very clear and positive statements by Russian fur traders, travelers, and earnest, if untrained, early ethnologists that the Katmai coast was occupied by Eskimos belonging to the same tribe as those on Kodiak Island.[15] Therefore, for the purposes of this study, it is assumed that the entire Pacific slope of the monument was, in aboriginal times, inhabited by the Kaniagmiut.

These natives spoke the Pacific Eskimo dialect termed Suk by linguists. They were known to the Russians, among other names, as Koniagimute, Kadiaktzi, or Koniagi.[16] The standard designation for these people among anthropologists has long been Kaniagmiut, but in recent years the name Koniag has won almost universal acceptance.[17] Henceforth in this study the aboriginal occupants of the Pacific Slope of Katmai National Monument shall be referred to as Koniag.

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13 Oswalt, *Alaskan Eskimos,* map 2, opp. p. 7.

14 Telephone interview, Donald E. Dumond with J. A. Hussey, February 5, 1971.

15 It is fully recognized that the term "tribe" is not really applicable to the Eskimo groups, since they had no political organization and were distinguished largely be a "sense of in-group unity," sometimes further marked by certain social or cultural traits or by language differences. But, as Wendell H. Oswalt states, "there is no more satisfactory designation." Oswalt, *Alaskan Eskimos,* 2.

16 Petroff, "Report," *Tenth Census,* 136; Lantis, *op. cit.,* 155.

17 Federal Field Committee, *Alaskan Natives,* 247; Oswalt, *Alaskan Eskimos,* 6.

The problem of which group of Eskimos lived on Katmai's southeast coast is simple when compared with that of determining who was inhabiting the section lying across the Aleutian Range to the northwest immediately prior to the arrival of the Russians. Petroff's map of 1880 and the text it accompanied assigned the entire Bristol Bay slope of the northern peninsula, from about the Kvichak River and Iliamna Lake south to the Ugashik River to a group he called the Aglemute. He definitely included the native settlements in the upper Naknek drainage in the territory occupied by this tribe. He described the region south of the Ugashik as being occupied by the Aleuts.[18]

There seemingly was good reason for Petroff's general conclusions in this regard. Not only was he in accord with the findings of earlier ethnologists, but he seemed to be supported by the words of Father Veniaminov, the famous Russian missionary who undoubtedly knew more about the natives of the Aleutians and the Alaska Peninsula than any other person of his time. Veniaminov stated in 1839 that the people of the northern shore of the peninsula, "apart from the Aleuts," were Aglegmiut.[19]

With some important modifications, Petroff's distribution has been accepted by most later scholars. The Bureau of American Ethnology describes the "Aglemiut" territory as extending along the north portion of the peninsula "from the mouth of Nushagak River [south] to Heiden Bay."[20] As late as 1969 Professor D.E. Dumond depicted the range of the "Aglemiut" as including all of the peninsula west of the Aleutian Range summit from about the mouth of the Kvichak River on the north to between Port Heiden and Port Moller on the south, with an Aleut enclave at the mouth of the Ugashik River.[21]

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18 Petroff, "Report," *Tenth Census*, 136, and map II.

19 Oswalt, *Alaskan Eskimos*, 5. Veniaminov, it should be noted, also said that there were on the peninsula, in addition to the Aglegmute and the Aleut, about 1,600 "inhabitants of southern shore of the Aliaska Peninsula," who were listed separately from the "Koniagi" of Kodiak Island. This fact has been interpreted by some anthropologists to support the view that the Peninsular Eskimos and not the Koniag inhabited the Pacific slope. Petroff, "Report," *Tenth Census*, 35-36.

20 Swanton, *op. cit.*, 559.

21 Dumond, *Reconstruction of An Aboriginal Dwelling*, figure 12, p. 37.

In very recent years, however, the translation of Russian American Company records now in the National Archives of the United States has thrown an entirely different light upon the aboriginal occupation of the northwestern portion of the Alaska Peninsula. These sources appear to show that the Aglegmiut, as these people are now generally called, had their legendary origins north of the peninsula, perhaps in the Kuskokwim area. Under pressure from other Eskimo groups they were forced southward and were approaching the mouth of the Nushagak River when the first Russians reached that area in the early 1790's.

When reexamined in the light of this new information, the better-known Russian sources seem to bear out this view. The earliest mentions of the Aglegmiut by Europeans appear to indicate that the tribe then lived at the northern end of Bristol Bay, particularly on the north shore. In the spring of 1791 the Russian navigator Bocharov sailed up the peninsula as far as the Kvichak River. It had been his intention to continue on "to the coast of the Aglegmutes," but he was stopped by adverse weather.[22] Four years later the manager of the largest trading concern in Alaska reported that he had obtained captives from "the large Aglogomute settlement on the mainland beyond Bristol Bay."[23]

The Aglegmiut evidently were still moving into the area near the mouth of the Nushagak River when the Russians established a trading post, Alexandrovski Redoubt, there in 1818. Since intertribal warfare was detrimental to fur gathering, the Russians extended their protection over the Aglegmiut and encouraged them to expand their hunting operations. Thus sheltered from their ancient enemies the Aglegmiut rapidly increased in numbers, though they evidently were never a large group. The total population in 1832 was about 500.

They also pushed southward onto the Alaska Peninsula, concentrating largely along the Bristol Bay shore.[24] "It seems," says Wendell H. Oswalt, "that soon the Aglegmiut came to control most of the Alaska Peninsula under Russian sponsorship." By the remark-

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22 Hubert Howe Bancroft, *History of Alaska, 1730-1885* (San Francisco, 1886), 320.

23 Tikhmeneff, *op. cit.*, II, appendix [b], 191.

24 As early as 1833 the native settlement at the mouth of the Naknek River was known as the "V[illa]ge d' Ouglaghmoutes." See United States, *Alaskan Boundary Tribunal: The Case of the United States* . . . (2 vols. in 1 and atlas, Washington, D.C., 1903), atlas, map 13. This usage may have originated as early as 1826. See plate 12 of the present report.

ably early date of 1839 Veniaminov was thus able to say truthfully that the northern shore of the peninsula, except for the Aleut territories, was inhabited by the Aglegmiut.[25]

As the Aglegmiut moved into the Nushagak area and the adjacent coasts of Bristol Bay they evidently forced the previous inhabitants onto the Alaska Peninsula. These latter people and the Aglegmiut who moved southward behind them must have compressed, pushed still farther southeast, or assimilated the Eskimos who were already living on the peninsula.

The Aglegmiut concentrated their settlements along the shore of Bristol Bay.[26] Evidently at the few inland camps or villages the assimilation was not complete, and more of the pre-Aglegmiut culture survived. For instance, in 1953 natives who prior to the 1912 eruption had lived at Savonoski, a village on the upper Naknek drainage, still maintained that they were a different people from the Aglegmiut who resided at the mouth of the river on Bristol Bay. Both the former Savonoski residents and the natives on the coast continued to recognize a difference in dialect between the coast and inland peoples though they had been living together for 41 years.[27]

In view of the evidence that the Aglegmiut did not reach the peninsula until after contact had been made with the Russians, it is necessary to agree with Wendell H. Oswalt that the long-held view that they were the aboriginal occupants of the northwest slope is "invalid."[28] But if the Aglegmiut are ruled out, who in fact were the aboriginal inhabitants?

This question is not easy to answer. Wendell H. Oswalt, the only anthropologist who thus far has seriously dealt with this problem in print, has for want of a "more fitting designation," called the predecessors of the Aglegmiut the Peninsular Eskimos. "The assumption is," he states, "that these aboriginal, peninsular

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25 Oswalt, *Alaskan Eskimos*, 4-5. The complicated subject of the distribution of the Aglegmiut, as viewed by a multitude of early travelers and by scholars from the nineteenth century to the present day is treated in brief in James W. VanStone, *Eskimos of the Nushagak River: An Ethnographic History* (University of Washington Publications in Anthropology, vol. 15, Seattle, 1967), 109-111, 118-119.

26 Petroff, "Report," *Tenth Census*, 136.

27 Davis, *Archaeological Investigations of Inland and Coastal Sites of the Katmai National Monument*, 68-69.

28 Oswalt, *Alaskan Eskimos*, 8.

Eskimos were partially absorbed by the Aglegmiut and both were in turn rapidly Russianized." He believes they probably spoke Yupik (Western Eskimo), but their dialect remains undetermined. He pictures them as occupying the entire Alaska Peninsula as far south as the Aleut territory west of the Shumagin Islands, except for a small slice on the north end near the Kvichak River occupied by the Aglegmiut and except for the Koniag enclave on the coast opposite Kodiak Island.[29]

Unfortunately, nothing seems to be known of these people in their pre-Aglegmiut state either from historical or ethnological sources. The only known descriptions of the peninsular Eskimos and their culture date from the period when they had been so thoroughly absorbed by the Aglegmiut that travelers and others who dealt with them thought they actually were Aglegmiut who had "lived from time immemorial upon the portage routes between Bering Sea and the north Pacific, across the Aliaska peninsula."[30]

If we are to have any concept of the natives who lived on the Bristol Bay slope of Katmai National Monument, therefore, we must of necessity discuss them as they were during the historic period, when they were known as Aglegmiut. How much of their culture came from the aboriginal inhabitants of the peninsula and how much from the invaders there seems to be no way of telling. If archeology can throw light on this matter seemingly no one has yet addressed himself to the problem.

The Bureau of American Ethnology uses the name "Aglemiut" for the residents of the peninsula's Bristol Bay slope, but Aglegmiut is the form preferred by the most recent specialists in this field.[31] The latter form is employed in this study. The Aglegmiut proper spoke the Yuk dialect of the Yupik language, but as we have seen the inland Aglegmiut on the Peninsula spoke a somewhat different tongue from those on the Bristol Bay coast. This fact raises the possibility that the inland people preserved at least elements of the old Peninsular Eskimo language, whatever it was. Since the natives of the upper Naknek drainage are said to have been able to communicate with the Koniag of Shelikof Strait though their speech was different, there is room to speculate that perhaps the Peninsular Eskimos spoke the Suk dialect or at least a Yupik dialect that was closer to Suk than Yuk.

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29 Oswalt, *Alaskan Eskimos*, map 2, opp. p. 7, and p. 8.

30 Petroff, "Report," *Tenth Census*, 136.

31 Oswalt, *Alaskan Eskimos*, 4; VanStone, *op. cit.*, 180.

The Koniag of Kodiak Island have been observed and described by Europeans since the latter half of the eighteenth century. The literature is voluminous if not always enlightening. The standard ethnology is Ales Hrdlicka's *The Anthropology of Kodiak Island*, published in Philadelphia in 1944. It covers the Koniag of both the Kodiak Archipelago and the opposite mainland, but the emphasis is on the islands.

Rather than provide a digest of Hrdlicka's book, the present study assumes that the reader is acquainted with that source and concentrates instead upon two aspects of the subject: first, a summary of what travelers and other observers said specifically about the Koniag of the peninsula coast; and second, certain aboriginal Koniag customs and practices which should be described in order that the changes produced by contacts with European culture may be better understood. A complete ethnological study of the aboriginal Eskimos of Katmai National Monument is far beyond the intended scope of the present report.

When Langsdorff visited Kukak on the Katmai coast in 1806, he noted that the natives there differed little in appearance from those on Kodiak Island. That is, they were of medium stature with copper-colored skin, large round faces, small black eyes, protruding cheek bones, and "brilliant white teeth." Some early Russian observers maintained that the dark skin color was the result of constant exposure to the elements and that in reality these people were light skinned.

Hair was black and straight. Men sometimes cut their hair short, but both men and women generally wore it long. Some witnesses say the men let their hair hang loose, others say it was gathered in plaits. Women twisted it in a roll or "club" on the back of the head, but in front the hair was trimmed in a straight line just above the eyes.

Langsdorff stated that the men at Kukak, unlike those on Kodiak, did not pluck out the hair of their beards but clipped the strands "in the old Spanish fashion into small mustachios between the nose and chin, and leave only a small part of the beard in the middle of the chin."[32] Ninety years later, after long contact with Europeans, some of the natives of Katmai Village wore "profuse bushy beards."[33]

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32 Langsdorff, *op. cit.*, II, 233.

33 Spurr, "A Reconnaissance in Southwestern Alaska," 92.

Visitors noted that the Koniags were a broad-shouldered people, and since they were not forced to remain in their cramped boats for long voyages as often as were the Aleuts, they did not walk with the "stooped shuffle" of the latter. All in all, the Katmai Village residents later impressed observers as being "stronger and in every way a finer race" than most of the natives on the north side of the peninsula. J.E. Spurr, who made such a judgement in 1898, attributed some of the differences in stature and physiognomy to an admixture of blood, probably Aleutian.[34]

The chief article of Koniag clothing, as with all Eskimos, was the long, shirt-like garment known to the Kodiak natives as the *konagen* but more generally called a parka after the Russians brought the term from Siberia. Reminding the earliest Europeans of a carter's frock, it hung loosely from neck to the knees or even to the ankles (observers of the Koniag differ on this point) with no openings except at the top and bottom. It closed snugly around the neck with a broad stiff collar, and in winter it was fitted with a hood. Over the parka men wore girdles low on the waist from which hung square, apron-like pieces of mammal skin; women circled their waists with a sealskin sash about two inches wide. When engaged in active work, the natives often drew the parka up to the knees, fastening it in place with the girdle and letting the folds hang down about the waist.

Parkas were usually made of animal skins, ground squirrel pelts being greatly favored for this purpose; but the skins of bears, marmots, mink, caribou, and other animals were also used. As might be expected, the Koniag of the peninsula coast, where caribou were plentiful, used the skins of these animals for clothing to a much greater extent than did the residents on Kodiak Island, where caribou did not exist and where the pelts had to be traded from the mainland. When the Russians first arrived they found the natives wearing cloaks made of sea otter skins; usually three pelts made a garment. The fur traders quickly put an end to this practice by taking away all of the much-coveted otter skins. The breast skins of birds, with the feathers attached, were also used for making parkas.

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34 Spurr, "A Reconnaissance in Southwestern Alaska," 92. Except when otherwise indicated, this description of the physical appearance of the Koniag is based upon Iurii Fedorovich Lisianskii, *A Voyage Round the World, in the Years 1803, 4, 5, & 6; Performed . . . in the Ship Neva, by Urey Lisiansky* (London, 1814), 194; McCracken, *Hunters of the Stormy Sea,* 141; Petroff, "Report," *Tenth Census,* 138.

Parkas were frequently ornamented with the beaks of sea parrots or long strips of seal or otter fur. The seams often were decorated with feathers or with strips of animal skin which were "ingeniously worked" and dyed bright colors.

Men and women wore fur or leather trousers in extremely cold weather or for certain types of work, such as fishing. Shirt-like underwear of light skins was also worn. Such a garment, reported Petroff, was likely to become "an heirloom in the family, highly polished and redolent of the natural Innuit [Eskimo] odor."[35] Strangely enough, most early witnesses agree that the Koniag went "always barefooted," except when they traveled some distance by land in low temperatures. Then they wore "a sort of boot" of sealskin. Evidently the habitual use of boots did not come until after the arrival of the Russians.

Perhaps the most conspicuous item of Koniag clothing was the *kamleika* or rain garment. Shaped like the parka, it was made from the dried entrails of sea lions, bears, seals, or occasionally other animals such as the sea otter. These were cut into strips and skillfully sewn together with sinew thread and bone needles to form a waterproof covering. This garment, too, had a hood, and its seams were frequently decorated with animal hair and small feathers. Without it the Koniags would not have been able to make sea voyages in their small boats.

The usual headdress for men and women was a broad-brimmed hat woven of grass and fine roots. This headgear was often decorated with dentalia shells, sea lion whiskers, and painted figures in blue, black, and red. The blue color was made from an ore found on the Alaska Peninsula. Sometimes, however, both sexes wore caps made from the skins of sea birds, and Langsdorff found the natives at Kukak wearing "weasel-skin" caps.

Like most Eskimos, the Koniag enthusiastically ornamented their persons. On festive occasions the hair, well greased with whale oil, was sprinkled with red powder and white down. The edges of the ears, the partition between the nostrils, and the lower lip were pierced and decorated with various items, generally small pieces of polished bone. Sometimes strings of such beads hung from the lower lip or from the ears. Strings of beads, occasionally made of amber, were also worn around the neck and, by women, on the arms and feet. The hole in the gristle of the nose permitted the wearing of bunches of sea lion whiskers or a "cylindrical pin of bone" about four or five inches long. A favorite ornament was the dentalium

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35 Ivan Petroff, *Population and Resources of Alaska*, 46 Cong., 3 Sess., House, Ex. Doc. No. 40 (Ser. 1968), 41. Although Petroff's remarks referred specifically to the Eskimos of Bristol Bay, it apparently was equally applicable to the Koniag.

shell which, not being found in western Alaska, had to be traded from the Pacific Northwest coast. The women tattoed the chin, breasts, and back, while both sexes on occasion painted designs on their faces.[36]

Along the coast of the Alaska Peninsula the Koniag chose the locations of their permanent villages largely with a view to convenient access to an adequate supply of wood, their principal building material and fuel. In the northern part of the Katmai region where few large trees grew near the shore, piles of driftwood were often deciding factors. At other places, such as Katmai, heavy forests were an attraction. An additional requirement was a safe landing place for the delicate bidarkas or small boats. Strangely enough, archeologists believe that nearness to a good fishing stream was not particularly important in selecting the site of a permanent settlement.

Favorite living places were small capes or gravel spits jutting into Shelikof Strait and providing sheltered beaches nearby. Also popular were the sandspits or gravel spits separating coastal lagoons or the lower courses of rivers from the sea. Sandy ridges overlooking shallow waters where shellfish abounded were also favored. During the salmon runs each summer, the Koniag generally moved with their entire households to temporary camps beside good fishing streams.[37]

The dwellings of the Koniag conformed in general to the housing pattern common to most Alaskan Eskimos, that is, villages were modest in size and habitations were semisubterranean with four-post roof construction, raised benches slightly above floor level, and low entrances.[38] Being covered with mud upon which the grass quickly sprouted, the typical Koniag house struck one unromantic Russian visitor as being in appearance "not very unlike a dunghill."[39]

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36 This account of Koniag dress and ornamentation is based on the following sources: Langsdorff, *op. cit.*, II, 36-40, 63, 233-236; Lisianskii, *op. cit.*, 194-195; Petroff, "Report," *Tenth Census*, 136-140.

37 U.S., Census Office, *Eleventh Census*, 167-168.

38 Oswalt, *Alaskan Eskimos*, 112.

39 Lisianskii, *op. cit.*, 214.

The houses generally consisted of a fairly large central room off which were two or sometimes more side rooms. Two or three families might occupy each of the side sleeping compartments, while the main room was used in common for cooking, working, and social gatherings. Like many natives of North America, the Koniag were extremely fond of steam baths. One of the sleeping rooms was sometimes used for this purpose, or a special bath room heated by stones might adjoin the main room.

One of these houses or barabaras was built by excavating the rooms to a depth of about two feet. Substantial posts, about four feet high, were then erected, one in each corner of each square or rectangular room. Beams were placed so as to connect the posts and outline the rooms, and against them were leaned vertical wall planks. Roofs over each room were dome-shaped, flat, or most commonly on the Katmai coast at least, vaulted with log cribbing. The entire structure was given a thick exterior coat of mud and sod. A fire pit was dug in the floor of the main room, and over it was a hole through which the smoke escaped. This opening could be covered with a translucent gut cover to keep out moisture but still permit light to enter. The door was generally a small framed opening over which hung a seal skin.

The sleeping rooms were lower than the central structure and each had a ceiling opening with a dried entrail covering. All sides of the sleeping room except that containing the very low door were lined by low earthen shelves for sitting and sleeping. These were about 3 1/4 feet wide and their outer edges were delimited by logs which sometimes were ornamented with otter teeth. The floors were covered with dried grass and, said one witness, "never cleaned." No privacy was provided for sanitary arrangements, and urine was collected in vessels "placed at their very doors" for washing both persons and clothes.

Langsdorff, who visited one of "the summer-huts" at Kukak in 1806, noted that the interior, with its floor strewn with "chips and hay" was "upon the whole much cleaner than any we had seen at Kodiak." He found the house "small," with an entrance so low that it could be traversed only by crawling on hands and knees. Inside, he found the family seated around the central fire, over which boiled a "kettle" of fish. By that date the vessel probably was made of metal, but pottery containers pierced at the top for hanging were known to the coastal natives in aboriginal times. Langsdorff also noted that a number of small salmon, spitted on sticks stuck in the ground, were roasting near the fire.[40]

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40 Langsdorff, *op. cit.*, II, 235.

Like many other Eskimo groups, the Koniag generally built a communal house, known as a *kashima, kashim,* or *kashga,* in each permanent village. Construction details have not survived, but presumably the *kashimas* were erected in the same manner as the barabaras but on a larger scale. The *kashima* served as a sort of men's clubhouse and as a community workroom for the building of boats and other major items. It was also the council house and the scene of dances and religious ceremonies.[41] Women often participated in these latter events.

The construction skills of the Koniag were largely concentrated upon their boats, which were described by a competent observer as being "remarkable for fine workmanship and graceful form."[42] In aboriginal times the Koniag made two types of craft: the small, decked "canoe" known as the bidarka or kayak; and the large open boat called the baidar or umiak.

The bidarka was essentially a frame of spruce wood held together by strips of split whalebone, the whole encased in a cover of taughtly stretched sea lion or seal skin. The shape of the bidarka varied among the different Eskimo groups. The bow of the Kodiak craft was pointed and turned upward, but the stern was cut off square.

The only openings in the bidarka were the small hatches in the top deck in which the boatmen and passengers sat. The boats had one, two, or three hatches depending on their purpose and size, but some sources state that three-hatch bidarkas were made only after the arrival of the Russians. A one-hatch bidarka was about 15 feet long, a two-hatch about 20 feet, and a three-hatch about 27 feet. The width of beam varied from about two feet four inches to two feet eight inches, and the depth from one foot to one foot three inches.

The kayaks had a certain "elasticity" in the water which made them very seaworthy, but it required considerable skill to keep the narrow craft upright. A waterproof skin "apron" fastened securely around each hatch could be drawn up to the armpits of the occupant and secured so tightly that the boat would remain dry even in case of upsets. Eskimo and Aleut bidarkas were propelled by either single-bladed or double-bladed paddles, but it is reported that the Koniag preferred the former.

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41 This account of Koniag houses is based on the following sources: Langsdorff, *op. cit.*, II, 62; Lisianskii, *op. cit.*, 212-214; Oswalt, *Alaskan Eskimos,* 108-109; Petroff, "Report," *Tenth Census,* 136-145.

42 Petroff, *op. cit.*, 141.

The baidars or umiaks were also wood and whalebone frames covered with heavy skins, but they were open on top and shaped something like a European whaleboat. Some accounts say they were about 30 feet long and 6 feet wide, with a depth of about 2 1/2 feet. Perhaps they were larger, however, as they were said to carry 30 to 40 persons "easily," and one observer said they were capable of holding 70 persons. They were propelled by single-bladed paddles.

The baidars were used in wars and for long journeys. The Russians frowned on such activities on the part of the natives as diversions from the important business of fur-gathering. Thus most of the baidars were quickly purchased or usurped by the newcomers. When Langsdorff visited Kukak in 1806 only one baidar remained in the possession of the community. The German and his Russian companions were much impressed by this product of the Katmai coast. "Its form and the symmetry and neatness with which it was made were far beyond any we had yet seen," he recorded.[43]

The Koniag of the Katmai coast fell within what is known to anthropologists as the Pacific whaling and fishing subsistence pattern. Though sea mammals and fish were their chief reliance for food, their subsistence resources were vast and varied. In fact, early observers agreed that the Koniag were practically omniverous. "There is," recorded Gavrila Davidof, "not one mollusk, or cephalopod; or any repulsive sea worm, and almost no plant, which they do not use for food."[44] Land mammals and birds were also taken, but Koniag economy centered around the sea mammals -- whales, seals, sea lions, otters, and others -- which were basic necessities for not only food but clothing, boats, and oil for lamps.

Perhaps the most prized food was the meat and blubber of the whale. In fact, whale oil was an almost necessary accompaniment of nearly all other foods. Hunting whales was conducted almost exclusively by particular families, and the right was passed down to those children who proved most proficient in the chase. The occupation of whale hunting was surrounded by an aura of secrecy and ritual.

The Koniag pursued only relatively small whales. The really small individuals were hunted in single-hatch bidarkas with toggle-headed harpoons, but generally two-hatch boats were employed, and

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43 Langsdorff, *op. cit.*, II, 235-236. This account of Koniag boats is based on Lisianskii, *op. cit.*, 211-212; McCracken, *op. cit.*, 55-56; Oswalt, *Alaskan Eskimos*, 163; and Petroff, "Report," *Tenth Census*, 141.

44 Federal Field Committee, *Alaska Natives*, 248.

the weapon was a six-foot spear with a detachable slate blade. Once the quarry was lanced, no further effort was made to follow it or tow it in. The hunters returned to their village to wait for the whale to die and drift ashore. Marks on the lance head indicated who had made the kill; and the fortunate hunter, the village chief, and every person in the settlement were assigned portions of the carcass.[45]

Bones recovered during archeological excavations along the Katmai coast appear to indicate that the Pacific hair seal was the primary source of animal food among the Koniag.[46] Seals and sea lions were pursued in kayaks in open water and struck with harpoons having toggle or barbed heads. A line from the head was attached to a bladder float which served to tire the quarry and force him to the surface, where he could be speared again or dispatched with a club. Early accounts also make it clear that these animals were also caught with nets in aboriginal times and that they were speared when caught sleeping on land. Sometimes seals were enticed toward shore by natives who half concealed themselves behind rocks and, wearing wooden caps resembling seal heads, imitated the calls of the animals.[47]

Koniag hunters cooperated in chasing and towing to shore such large animals as the sea lion, but perhaps the highest degree of teamwork was required in the pursuit of the sea otter. These shy animals seldom congregated in large groups and hardly ever touched shore. A single hunter had little chance of approaching one except during severe storms when the roar of the wind masked all other sounds. Thus the most practicable method of taking otters with the weapons available to the aboriginal natives was to surround them, cut off their avenues of escape, and tire them until they could be struck with arrow or harpoon.

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45 Langsdorff, *op. cit.*, II, 45; Lisianskii, *op. cit.*, 202; Oswalt, *Alaskan Eskimos*, 130; Petroff, "Report," *Tenth Census*, 140, 142; Tikhmeneff, *op. cit.*, I, 166-167. It should be noted that Baranov said that "neither whale meat nor oil was used for food anywhere on the American shore" and that whaling by the natives was conducted on the islands only. But it is known, for instance, that the Chugach of Prince William Sound hunted whales, so perhaps the Katmai people did also. Tikhmeneff, *op. cit.*, I, 166. Whale bones have been found at archeological sites on the Katmai coast. Cahalane, *op. cit.*, 228.

46 Cahalane, *op. cit.*, 198-199.

47 Lisianskii, *op. cit.*, 205; Tikhmeneff, *op. cit.*, I, 167.

For otter hunting, the two-hatch bidarka was used. The paddler sat in the rear and followed the instructions of the hunter who occupied the forward opening. In pre-contact times parties of from about 6 to 20 canoes -- it is sometimes said there were occasionally as many as 100 -- set out for the otter grounds on calm days, the boats being spaced about 50 or 100 yards apart across a broad semi-circular front. When a hunter saw an otter, he tried to hit it with an arrow or spear if he could and, if unsuccessful, went to the place where the otter had dived and raised a paddle. Up to about 20 of the other kayaks would detach themselves from the line and form a large circle about the stationary canoe, waiting for the quarry to reappear. After about a quarter of an hour the otter would have to surface momentarily for a breath of air, and as soon as he did the nearest hunter rushed toward him and attempted another strike. Meanwhile, all the other hunters shouted to scare the animal into diving before he could get sufficient breath. A new circle was formed about the site of the second dive, and the process was repeated until the otter was so exhausted that a native could finally get near enough to make a certain kill.

The usual weapon for hunting otters was an "arrow" or short harpoon with a wooden shaft about two feet long and a bone head-piece about six or seven inches in length. A sharp, barbed bone point was set into the headpiece and attached to the shaft with long cords, but it became detached when the otter was struck. The point remained in the flesh while the shaft, at the end of the cords, served as a drag to impede the escape of the animal. Ordinarily the harpoon was hurled with the aid of a throwing board which imparted a remarkable velocity, but bows were also used. According to some early accounts, the bow and arrow were preferred by the natives of the mainland coast.

Since each otter was generally struck several times before finally succumbing, there was room for argument as to whom the pelt belonged. An elaborate set of rules governed the decision-making process, but unfortunately early witnesses do not agree upon their exact nature in aboriginal times. Each arrow or harpoon head bore the mark of its owner, and thus those persons who had actually struck the otter could be determined by an examination of the carcass. Some observers say that the hunter who first wounded the animal had the highest claim; others say the pelt went to the man whose arrow struck closest to the head.[48]

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48 Lisianskii, *op. cit.*, 203-205; McCracken, *op. cit.*, 38-39; Oswalt, *Alaskan Natives*, 130; Petroff, "Report," *Tenth Census*, 52-53, 142; Tikhmeneff, *op. cit.*, I, 167.

Although land animals were not as important as sea mammals in the Koniag economy, a reasonable amount of hunting was conducted in the valleys and on the mountain slopes behind the shore. Evidently the usual method of killing bears was with spears. During such chases dogs were sometimes used, and the hunters might wear bear-skins and masks which resembled bears' heads. Snares and deadfalls were also employed to capture bears.

Various types of deadfalls, traps, and spring pole snares were used to take such smaller animals as marten, mink, river otter, and fox. The common types of foxes were red, silver, and black. A pure white fox was occasionally encountered, but the Koniag viewed them with suspicion. According to their superstition, "white foxes always presaged some disaster."[49] Beaver were usually killed by searching out the entrances to their houses with dogs, plugging them, and then opening the structures from above.

Except for bears, the only other important large land animal was the caribou. It was hunted with bow and arrow.

Birds, particularly cormorants, ducks, and sea parrots (tufted puffins?), were in much demand by the Koniag, since the skins were required for certain types of parkas. Great nets, sometimes 80 feet long and 14 feet wide, were used to capture birds, though spears, bows and arrows, and gorges were also employed. Petroff reported that bird spears and arrows were headed by three or four thin bone prongs.[50]

Despite the emphasis on sea mammal hunting, the principal food of the Koniag was fish. In summer the natives moved to the vicinity of salmon streams, where the fish entering in swarms to spawn were caught with nets, spears, and even, said Lisianskii, with the bare hands. Halibut and other fish were caught in the sea by bone hooks fastened to lines made of "sea-leek," which sometimes grew 200 feet long and was considered better for the purpose than whale sinew.

Freshly caught fish were generally cooked before being eaten, but raw salmon heads, particularly if slightly putrified, were considered a delicacy. Most of the fish, however, were dried and saved for winter food. According to Petroff, the dried fish were

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49 Tikhmeneff, *op. cit.*, I, 168.

50 Petroff, "Report," *Tenth Census*, 143. He also said that he had seen six different kinds of arrows and spears used by the Koniag for hunting various types of animals. *Ibid.*, 142. It should be noted that Oswalt says the multiprong bird dart was not used by the Pacific Eskimo. Oswalt, *Alaskan Eskimos*, 174.

usually stored in the dwellings, being piled up along the walls. "But if the supply is great," he wrote, "it frequently happens that the floor is covered with them several feet high, and the family live on the top of their food until they gradually eat their way to the floor."[51]

The Koniag were skillful carvers of the walrus ivory. However, the walrus did not inhabit the Pacific shore of the peninsula, and the tusks had to be traded from the natives of Bristol Bay. Trails across the Aleutian Range were used for this traffic. The Koniag used stone and shell implements for carving in aboriginal times, though they were also using iron before the Russians arrived. The metal evidently came by the process of trade from Asia or was found in driftwood.[52]

The Koniag had no central or tribal government; the individuals and settlements were linked merely by the feeling of belonging to a single community or people. Each village had a chief or *toyon* who was chosen from a family of hereditary chiefs, but the power of the leader was not great, and frequently the commoners paid more attention to another prominent personage such as a good hunter or a man of property. The *toyon* served as a leader in war and in the chase, and he settled disputes as to the ownership of game, but he did not, for instance, direct community punishment of murderers, vengeance in such cases being considered a prerogative of the family of the victim.

In pre-contact times the Koniag were polygamous. Lisianskii said that a *toyon* might have as many as eight wives, while ordinary persons had a smaller number according to their station and property. Russian observers reported that "good-looking and active women" sometimes kept two or three men "without any appearance of jealousy among them."[53] There was no particular marriage ceremony, and dissolution of the union was simply a matter of the husband returning to his own family. Mothers often raised their favorite sons to be "male concubines."[54]

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51 Petroff, "Report," *Tenth Census*, 140. The accounts of Koniag hunting and fishing are based on the following sources in addition to those already indicated: Lisianskii, *op. cit.*, 195, 202-210; Oswalt, *Alaskan Eskimos*, 129-131; Petroff, "Report," *Tenth Census*, 136-143; Tikhmeneff, *op. cit.*, I, 167-168.

52 Petroff, "Report," *Tenth Census*, 141.

53 *Ibid.*, 137.

54 Langsdorff, *op. cit.*, II, 64; Lisianskii, *op. cit.*, 198-199.

Slavery was an accepted institution among the Koniag, but the number of slaves was relatively low and they were looked upon as laborers and servants and not merely as property. Slaves were generally obtained by barter with neighboring peoples; women and children might be enslaved as the result of wars, but men prisoners were killed or saved for torture. This institution came to an end with the arrival of the Russians, since the slaves fled to the newcomers for protection, and the traders were glad to receive them as workers and allies who could be trusted.[55]

Among the Koniag, as among a number of other Eskimo groups, a supernatural figure, Raven, was believed to have created earth and the human race. Supernatural forces or spirits of various types were thought to influence events and human affairs, or more precisely, these forces were considered sources of power "used by humans in maintaining the natural world." These forces "might be dealt with by ordinary individuals, by the community collectively, or largely by shamans [persons competent in extrasensory matters]."[56]

In theory anyone might become a shaman who could convince people of his powers, but among the Koniag the calling often was handed down in certain families. The shaman's chief functions were to cure the sick, foretell the future, influence the weather, and "promote the general welfare by helping to make animals amenable to capture."[57]

One observer in the 1890's reported that the Eskimos living on the south side of the Alaskan Peninsula believed that after death their spirits passed into the bodies of animals. Consequently, for example, if a school of whales was seen, the natives often congregated along the shore to shout their word of greeting, "*chummai*," and to throw food into the water as a gift to the spirits of their ancestors.[58]

The long winters were largely given up to festivities, dances, and "dramas" of various types. These ceremonies were generally held in the *kashimas* and usually had a religious significance. Some, for example, were associated with "prayers" to spirits for good fortune in hunting; others might be memorial feasts for the dead. Other types of rituals served more earthly purposes, such as to introduce eligible young people into the adult community. Still other dances were purely social in purpose.

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55 Petroff, "Report," *Tenth Census*, 138.

56 Oswalt, *Alaskan Eskimos*, 221.

57 *Ibid.*, 222.

58 Spurr, "A Reconnaissance in Southwestern Alaska," 76.

Face masks were important parts of these ceremonies. A tambourine-type drum was the principal musical instrument.[59]

Among the Koniag the work performed by women was on the whole quite different than that reserved for men. The women and girls were quite generally employed during the summers in cleaning fish and hanging them up to dry and in gathering berries and roots for winter use. Women also made the clothes, drew thread from the sinews of whales and caribou, sewed together the skins for boats, and made boots, "slings for javelins," and fishhooks. In their leisure time, particularly during the winters, the women made mats, hats, baskets, and pouches or purses of dried grasses and roots. The men largely confined their economic activities to hunting and fishing, though they also made boats, oars, weapons, and throwing sticks for harpoons.[60]

In summary, the Koniag were the most numerous tribe of the Pacific Eskimos, a fact which clearly indicates their successful adaptation to their resource-rich environment. About 6,500 Koniag lived on Kodiak and its neighboring islands, but only about 500 inhabited the opposite shore of the Alaska Peninsula. Wendell H. Oswalt believes this disparity was due to there being fewer resources on the mainland, but in view of the abundance of food and fuel on the Katmai coast this thesis perhaps requires reexamination.[61]

At any rate, the Koniag differed in certain other respects beside population density from their Pacific Eskimo neighbors. For instance, they were the only Pacific Eskimos to use bird arrows and seal nets. The Pacific Eskimos, including the Koniag, differed in certain respects from their neighbors in the Bering Sea region to the north. "Among the traits and trait complexes present among the Pacific Eskimos but absent among other Alaskan Eskimos," says Wendell H. Oswalt, "were the following: a well-developed warfare complex including fortified and habitable positions, whaling with poisoned slate-lanced blades and secret rituals for whale hunters, separate sleeping rooms in the houses, transvestites common particularly among the Koniag, 'slavery' and the killing of a slave at the death of his owner, differential forms of burial for persons of different statuses, breast tattoos on women, halibut hooks, and cylindrical wooden quivers."[62]

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59 Hrdlicka, *op. cit.*, 74-77; Oswalt, *Alaskan Eskimos*, 229-231.

60 Langsdorff, *op. cit.*, II, 46-47, 65.

61 Oswalt, *Alaskan Eskimos*, 243-244.

62 *Ibid.*, 246.

There are no satisfactory ethnological studies of the so-called Aglegmiut who inhabited the northwest slope of the Alaska Peninsula in the late aboriginal and early post-contact periods. And, as James W. VanStone says of the Alaskan Eskimos as a whole, there "seems to be a general feeling that the reconstruction of ethnography is no longer profitable or even possible."[63] Too many cultural changes had occurred by the time modern ethnographic field work began during the twentieth century.

As has been seen, however, the Aglegmiut proper were migrants from the Kuskokwim and Nushagak regions to the northward. According to most observers they did not differ essentially in appearance and culture from the peoples who occupied those regions during historic times.[64]

Travelers' accounts present violently contrasting views of the physical appearance of the Aglegmiut. Charles Bryant, a Treasury agent who visited Nushagak in 1869, found the natives there to be "men of large stature," with copper-colored skin, aquiline features, and well-developed limbs.[65] J.E. Spurr, on the other hand, described the Eskimos at Savonoski, in the upper Naknek drainage, as "a sickly and undersized race."[66]

It is probable that the natives seen by Bryant represented the Aglegmiut proper of the coastal region, while those seen by Spurr may have been Peninsular Eskimos who had been crowded into the interior by the invading Aglegmiut. Under the circumstances it seems best to accept the description given by Ivan Petroff, who in 1880 found the Bristol Bay natives to be "taller and more shapely" than the northern Eskimos, averaging about 5 feet 6 or 7 inches in height, with fair skins, "slightly Mongolian in complexion," rather broad faces, prominent cheek bones, large mouths with full lips, small black eyes, and "much depressed noses."[67]

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63 VanStone, *op. cit.*, 157.

64 Petroff, "Report," *Tenth Census*, 136; Spurr, "A Reconnaissance in Southwestern Alaska," 92.

65 Charles Bryant and H.H. McIntyre, *Letter to the Secretary of the Treasury Communicating . . . the Reports of . . .*, 41 Cong., 2 Sess., Senate Ex. Doc. No. 32 (Ser. 1405), 23.

66 Spurr, "A Reconnaissance in Southwestern Alaska," 92.

67 Petroff, *Population and Resources*, 40.

The Bristol Bay natives had an abundance of coarse black hair. Up to the age of about 30, men usually wore their hair "shingled close to the scalp." Thereafter it was allowed to grow and was worn "in ragged, unkempt locks, hanging as they may." Women let their hair grow to its full length and wore it parted in the middle and gathered into thick braids or bound in ropes by sinews or other materials. Some men, at least in historic times, wore beards.

Aglegmiut clothing was similar to that of most Alaskan Eskimo groups. The parka and the *kamleika* were universally used as was the case among the Koniag, though among the Aglegmiut winter clothing was ordinarily made of caribou skins. On the other hand, there was a considerable difference in personal adornment. The Bristol Bay natives seldom pierced their lips. The noses and ears of children were pierced and decorated with beads and other ornaments, but, noted Petroff, as maturity was reached these "attractions" were removed "and never returned to the vacant orifices in these organs." These Eskimos seldom tattooed their faces, although the married women sometimes were marked with "faint, transverse blue lines" under the lower lip and on the chin.[68]

For the natives inhabiting the northwestern slope of the present Katmai National Monument, the locations of settlements and even, to a large extent, the patterns of life were determined by the available food supplies. Dominating all in the economy of these people were the annual migrations of the salmon.

Several species of salmon make sizable runs up the streams and lakes of the Naknek system. Of these the red salmon is the most important. Each year more than half a million red salmon work their way up the short Naknek River from Bristol Bay and enter Naknek Lake. The Eskimos on the coastal plain took many fish in this lower part of the Naknek system, but it undoubtedly was easier for them to do their fishing in the smaller tributaries farther inland. About 100,000 red salmon annually branch off into Brooks River, while several hundred thousand more continue to the Savonoski River, most of them later turning into the Grosvenor River rather than continuing in the silt-laden Savonoski.

Not unexpectedly, then, the major aboriginal habitation sites in the western portion of the monument were on the Brooks, the lower Savonoski, and Grosvenor Rivers, where the maximum number of salmon could be taken with the greatest convenience. At least one of these villages, that later known as Savonoski at the mouth of the Savonoski River, was occupied the year round on a permanent basis, but since a

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68 Petroff, *Population and Resources*, 40-41; Petroff, "Report," *Tenth Census*, 136.

good proportion of the people who fished on the upper Naknek were coast dwellers, it follows that most of the upstream settlements were seasonal camps, either in whole or in part. And further, since the natives undoubtedly did not travel farther from the sea than was necessary to obtain good fishing, there were no major occupation sites, at least any yet known, on the uppermost tributaries even though some of these streams, such as the American River feeding Lake Coville, carried large salmon migrations.[69]

The houses of the Aglegmiut in general resembled those of the Koniag, although there were several differences. Perhaps the best description of a Bristol Bay dwelling was that made by Ivan Petroff as the result of his visit to the region in 1880. One version of his account is as follows:

> The Innuit [Eskimo] house is, in outward appearance, a circular mound of earth, grass-grown and littered with all sorts of Innuit furniture; a small spiral coil of smoke running up from the apex; a dog or two crouched upon it; children climbing up and down upon it or rolling down; stray titbits left from one meal until the next shall be in order. An entrance to this house is a low, irregular, square aperture (it cannot be called a door), through which the owner stoops and passes down a foot or two through a short, low passage on to the earthen floor within, where an irregularly-shaped circle or square 12, 15, or 20 feet in diameter, as the case may be, is found, and in which the only light from heaven comes from the small smoke-opening at the apex of the roof, which rises tent-like from the floor, the fire-place directly in the center. The rude beds or couches are of skins and grass mats laid upon clumsy frames slightly elevated above the floor, [the frames being made of] small logs and saplings, rough-hewn planks, and sometimes [on] mere platforms built up of peat or sod. In many instances a small hallway, with a decided bulge amidships, is erected over these entrances where, by this expansion, room is afforded in which to shelter their utensils, water-vessels, &c., and in which the everlasting dogs congregate.

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69 Dumond, *Archaeological Survey . . . 1963*, 42-43. It should be noted, however, that a native who had resided in Savonoski as a boy said during an interview in 1961 that the coastal people who lived at the present Naknek and the inland people who lived in the upper drainage were not friendly and fought with bows and arrows whenever they met. "In those days [aboriginal times?]," he said, "the Savonoski people never went down river and the Naknek people never came up river to the lakes." Report to the National Park Service, Region Four, on Tape Recordings of Eyewitness Accounts of Mt. Katmai Eruption of June 6, 1912 (typewritten, [Eugene, Oregon], January 5, 1962), MS, 24.

> Immediately contiguous or close by most of the houses will be found a small summer kitchen or cook-house fashioned in very much the same shape and style as the residence itself, only it is not excavated under ground, and is but 5 or 6 feet in diameter; it is also rendered offensive to our senses by being the inevitable dog rendezvous.[70]

Another description, made in 1891, adds certain details which reveal more concerning the aboriginal dwellings of the lower Nushagak region. The houses, said A.B. Schanz, each consisted of two "dug-outs" connected by a tunnel. One of these compartments was much smaller than the other and only through "this vestibule-like contrivance" was there communication with the outside world. Cooking was almost all done in this "ante-hut," which in some villages also sheltered the dogs. The inhabitants of the house slept on the floor of the main room, in which a fire was rarely made. They went to bed in their "ordinary clothes" without bedding, "curling up usually in indiscriminate heaps of humanity."[71]

Aglegmiut houses generally were equipped with a sunken entrance, a "clever device" which formed a cold air trap to keep the frigid winter air out of the dwelling. Under this arrangement the front door was approached by means of a sunken exterior path. Immediately inside the door the floor level dropped about two feet to the bottom of the entrance tunnel proper. The tunnel led under the front wall of the main house and terminated just inside. There the person entering stepped up onto the house floor.

When there was no fire in the main room, the hole in the roof, which was generally cribbed, could be covered with a translucent window of sea-mammal gut. Light at night was provided by stone or clay lamps in which seal oil was burned on a moss wick.[72]

As was the case at most Eskimo settlements, dogs were "omnipresent" in Aglegmiut households, and these ever-hungry animals made short work of any unprotected food, supplies of oil, or in fact any utensils or gear made wholly or in part of hide or dressed with

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70 Petroff, *Population and Resources*, 41-42. Another version, in Petroff's "Report," *Tenth Census*, 15, is more polished and better known; it provides the basis for the material inserted in brackets in the above quotation.

71 A.B. Schanz, "Our Alaska Expedition . . . II," in *Frank Leslie's Illustrated Newspaper*, LXXIII (October 3, 1891), 138.

72 Dumond, *Reconstruction of An Aboriginal Dwelling*, 20-22. Dr. Dumond reconstructed a house of the type used at Brooks River from about A.D. 1000 to the present century and describes its structure in detail in the report cited immediately above.

grease. Thus the Bristol Bay natives generally safeguarded such items by placing them in stout storehouses built of logs and set about four or more feet above the ground on heavy posts.[73]

The Aglegmiut were like their neighbors the Koniag and many other Eskimo groups in maintaining a community house, called the *kashima* or *kashga*, in each permanent settlement. A traveler along the lower Nushagak River about 1890 came to a settlement which contained only two barabaras or multi-family dwellings, but the "Kassigima" was a huge affair, noted far and wide for its great side planks which were 50 feet long and 3 feet wide.

The *kashima* was built by community effort and was the property of the entire settlement. It served as the public hall for ceremonies, dances, and councils. It was also the living place for the single men of the village and was the usual residence for guests and travelers. No cooking was done in this structure; the women of the village brought food to the bachelors and guests in wooden bowls.[74] There generally was a central fireplace nevertheless to provide heat for sweatbaths. The fireplace was often situated in a pit in the floor which also served as a dressing room for participants in ceremonies.

These structures generally were built in the same manner as the barabaras but were much larger. The interior was frequently floored with hewn timbers. Long planks ranged around the four walls provided seats for the ceremonies and beds for the bachelors.[75]

On the whole, the subsistence pattern of the Aglegmiut was that of the Bering Sea hunters and fishermen, though those on the upper Naknek drainage placed such an emphasis on the taking of salmon that their economy approached that of the Eskimos on the Yukon, Kuskokwim, and Nushagak Rivers who were classified by anthropologists as salmon fishermen.[76] Although the salmon was the chief reliance for subsistence, many other food sources were utilized. Birds, caribou, bear, and a variety of land mammals were actively hunted; and berries and other plant foods were gathered.

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73 U.S. Census Office, *Eleventh Census*, 169.

74 According to some accounts, married men also frequently slept in the *kashima* and ate their meals there. Petroff, "Report," *Tenth Census*, 128.

75 Schanz, "Our Alaska Expedition . . . II," 138-139; U.S., Census Office, *Eleventh Census*, 169.

76 Oswalt, *Alaskan Eskimos*, 127-129.

Salmon were caught with gill nets made of spruce root, or smaller fish were taken with scoop nets. Fish traps and weirs were also used, and harpoons with barbed heads were employed to capture individual salmon. Whitefish and other types of fish were captured with bone hooks, as well as being trapped or netted.[77]

The Eskimos who lived about Naknek Lake hunted caribou rather extensively. These animals were prized not only for their meat but even more for their skins, which were much used in making clothing and as articles of trade. Caribou hunts were generally conducted in the fall. A usual technique was to surround a herd and drive it toward hunters concealed in stone or bush blinds. The kill was made with bows and arrows, though snares were sometimes used and fawns were run to exhaustion.[78]

Caribou were sometimes plentiful in the valley of the Ukak River (the present Valley of Ten Thousand Smokes), and the residents of the settlement at the head of the Naknek Lake frequently hunted there. At times, however, it was necessary to make long journeys to obtain sufficient skins. One of the favorite hunting grounds for the Naknek Lake Eskimos was on the upper waters of the King Salmon River, in the extreme southwestern portion of the present National Monument. The native hunters reached this region in two days by following the southern shores of Naknek Lake and Brooks Lake to the western fringe of the terminal moraine system, where they turned south on the glacial outwash plain and found easy going to their destination.[79]

The most spectacular hunts, however, were those in quest of the immense brown bears of the Alaska Peninsula. Sometimes these animals were taken by traps or deadfalls of various types, but the usual method seems to have been for a single hunter to set forth to engage the beast in mortal combat. Natives of Savonoski in 1953 described the method of making the kill as follows:

> Bear were speared with a spear having a cross-piece on the spearshaft some distance back from the point which kept the spear from going too far into the bear, and as long as the hunter kept hold of the shaft the bear could not reach him. When the bear was speared, he would grab the spear and pull it into himself as far as the cross-piece would let it go.[80]

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77 Oswalt, *Alaskan Eskimos*, 128; Report to National Park Service . . . on Tape Recordings, MS, 22-23.

78 Oswalt, *Alaskan Eskimos*, 127; Report to National Park Service . . . on Tape Recordings, MS, 21.

79 Report to National Park Service . . . on Tape Recordings, MS, 24.

80 Davis, *op. cit.*, 70.

Another account from similar sources but obtained in 1961 gives a different version of how the "old ones" hunted bear. According to one informant a man who planned to seek a bear cut three pieces of wood and took them with him in the evening along a stream favored by his quarry. On meeting a bear, he threw the sticks at the animal to enrage the beast and cause him to charge. The onrushing animal was impaled on a stick or spear about 20 feet long. The bear was then said to have a handle. The remainder of the description is not too clear, but evidently the hunter hung onto the spear, pushing it about so that the one-and-a-half-foot blade would do its deadly work. By the time the bear finally succumbed, the man was so bruised he looked like a person who had received a severe beating.[81]

After a successful bear or moose hunt the meat and hide were often transported downstream to the Naknek Lake settlements by crude boats built near the scene of the kill. The frames for these double-ended craft with V-shaped or round bottoms were made of alder, birch, or willow saplings lashed together. Over the frame was stretched the bear or moose hide, the hair being inside. Sometimes two hides were used.

Despite certain testimony to the effect that relations between the Naknek Lake people and the natives at the mouth of the Naknek River were "not always friendly," there seems to have been a certain amount of trade between the inland and coastal Aglegmiut. The lake people carried caribou skins and other products downstream to the Bristol Bay shore in their crude craft covered with bear, moose, or caribou hides. Upon arrival at their destination, they abandoned these clumsy craft and traded for bidarkas, seal oil, and walrus ivory.[82]

Bear skins were prized by the Alaska natives for bedding and as hangings at the entrances to houses in place of doors. The leather was excellent for many types of bindings since it did not stretch when wet as did caribou and moose skins. Although there seems to be no direct testimony concerning Aglegmiut practices, it is highly probable that these people joined all other Alaska natives in demonstrating a high degree of respect for bears. It was the "universal custom" of Alaskan hunters to address complimentary remarks to a bear before attempting to kill it.[83]

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81 Report to National Park Service . . . on Tape Recordings, MS, 19-21.

82 Davis, *op. cit.*, 70; Cahalane, *A Biological Survey of Katmai National Monument*, 176-177 and plate 13; Federal Field Committee, *Alaska Natives*, 231; Report to National Park Service . . . on Tape Recordings, MS, 24.

83 Petroff, "Report," *Tenth Census*, 58.

The Eskimos of the Naknek Lake region also made annual trips across the Aleutian Range to hunt sea otter and other marine mammals and to gather shellfish on the Shelikof Strait coast. They kept their bidarkas and other gear on the Pacific side, while they crossed the mountains by "the Hallo Bay pass or Douglas pass." They did not employ Katmai Pass for this purpose. One of their camps was reported by later informants to be on the north shore of Hallo Bay.

For this marine hunting the Aglegmiut used both bidarkas and umiaks, which were propelled with both one or two-bladed paddles. As with much hunting in Alaska, there was a considerable amount of religious ceremony connected with the pursuit of marine animals. Seal bones, for instance, were disposed of by throwing them into the ocean or a river.[84]

The lake-tundra country west of the Aleutian Range was an important breeding ground for swans, ducks, and other waterfowl. These birds were hunted by the Aglegmiut with bows and arrows, snares, and lances both for meat and skins. Ptarmigan were taken with nets and snares.[85] During the fall, winter, and early spring a variety of land animals -- marten, beaver, lynx, mink, muskrat, fox, and others -- were hunted, largely by means of deadfall traps and snares of various types.[86]

The preparation of food was not a very troublesome matter among the Aglegmiut. Fresh fish were generally cooked by broiling them on sticks before a fire. Sometimes the fish were cleaned before being skewered in this fashion, but as one informant said in 1961, "if you want to cook the heads, and if you want to cook the eggs and all, you put it like that [on the stick], without taking anything out of the fish."[87]

For the most part, however, salmon were dried on racks after being caught and then stored for winter use. Fish treated in this manner or frozen were generally eaten raw. For a true delicacy, fish heads were buried in the ground and permitted to rot before being eaten. If meat was boiled, it was never well cooked, "being merely kept in boiling water for a short time." Seal oil was used as a universal sauce, and berries or fish roe put up in it were much fancied, particularly for winter festivals.[88]

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84 Davis, *op. cit.*, 70-71.

85 Oswalt, *Alaskan Eskimos*, 127-128.

86 Federal Field Committee, *Alaska Natives*, 230.

87 Report to National Park Service . . . on Tape Recordings, MS, 18.

88 Federal Field Committee, *Alaska Natives*, 231; Petroff, "Report," *Tenth Census*, 128.

The Aglegmiut, like the Koniag, were skilled carvers of walrus ivory. The two groups were dissimilar, however, in the methods by which they handled dogs. The Bristol Bay natives were much like most of their northern neighbors in this regard, since they "always" used their dogs as "beasts of draught," harnessing them to sleds and making them pull canoes on runners during overland journeys in winter. The Kodiak Eskimos, on the other hand, seldom harnessed their dogs, although admittedly little is known about the practices followed at Katmai Village and elsewhere along the Shelikof Strait shore of the peninsula.[89]

Only a few fragments of information have survived concerning Aglegmiut medical techniques. Evidently the shamans were not relied upon for all cures. Informants in 1961 said that porcupine fat was used to dress cuts and that an extract made from the flowers of a plant called the "pootski" was drunk to cure heart ailments.[90]

In village organization, marriage, and religion the Aglegmiut did not differ greatly from the Koniag as far as available information reveals, except that marriages appear to have been more permanent, and polygamy and male concubinage were less conspicuous. Dramatic presentations, dances, and religious ceremonies were held in the *kashima*. As reported by former residents of Savonoski, one of the principal events was the "November festival." Another favorite pastime was gambling. A stick game called "gathak" was played in the *kashima*.[91]

Aboriginal Habitation Sites

The settlements occupied by Eskimos in the present Katmai National Monument at the time of the arrival of the Russian fur traders between about 1786 and 1818 are imperfectly known. These aboriginal sites are revealed either by archeological explorations or by historical records; very little has been uncovered from ethnological sources. Therefore these settlements either have been discussed in detail in the previous chapter or will be treated in Chapters VI and VII. In the remainder of the present chapter the sites known to have been inhabited by the aboriginal Eskimos are briefly listed, but their descriptions will be found elsewhere.

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89 Petroff, *Population and Resources*, 42.

90 Report to National Park Service . . . on Tape Recordings, MS, 11-13.

91 Davis, *op. cit.*, 70; Petroff, "Report," *Tenth Census*, 126-136.

The aboriginal settlements along the Pacific coast within the present monument boundaries, from north to south, were the following:

Cape Douglas. In 1954 Mr. Wendell Oswalt found a small site near the northeastern tip of Cape Douglas. A few artifacts in a thin layer of organic soil just beneath the present ground surface suggested a brief occupation. No date has been assigned to this site, but the stratigraphy seems to indicate a rather recent habitation.[92]

Swikshak Lagoon. As will be evident from the discussion in the next two chapters of the historic settlement at this locality there is some possibility that there was an aboriginal village or camp here.

Kaguyak. Russian maps indicate that a native village was situated at the site of the present Kaguyak as early as 1802, but thus far archeological excavations have produced no artifacts or other materials dating from the Russian period or from aboriginal times. The present conclusions of the archeologists are summed up in Dr. Donald E. Dumond's sentence: "There is no evidence to suggest the village as an important pre-contact center."[93]

Hallo Bay. As has already been seen, the natives of the upper Naknek drainage made annual journeys to the shores of Shelikof Strait to hunt sea otter and to gather shellfish. One of their seasonal camps is said to have been on the north shore of Hallo Bay. Perhaps this site was at the single house pit observed by Wendell Oswalt in 1954 on the coast north of Ninagiak Island. This occupation area has been identified as CK-3 on the Archeological Base Map of Katmai National Monument, but it has not been tested.[94]

Kukak. From the extensive prehistoric remains at this site, described in the previous chapter, and from the fact that the Russians early found an important native village or seasonal camp at this point, there can be little doubt that the place known to archeologists as KK-1 was occupied during the period immediately prior to contact with Europeans. This site is quite fully described in Chapter VI of this report.

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92 Dumond, *Archaeological Survey . . . 1964*, 29-30. This site is identified as DS-1 on the Archeological Base Map of Katmai National Monument.

93 *Ibid.*, 13.

94 *Ibid.*, 30.

Devil's Cove. A small site, consisting of six house-sized depressions, on the north shore of Devil's Cove about one mile northwest of site KK-1, has been tested and dated as "probably historic." Until further work is done, however, there remains the possibility that this thinly occupied site, known to archeologists as KK-2, may have been inhabited before contact.[95]

Kaflia. This site, discussed in the previous chapter, was probably occupied at least seasonally during aboriginal times since it was situated near an excellent salmon stream.

Missak Bay. Four house-like depressions on a sand ridge "west of the mouth of the westernmost stream emptying into Missak Bay" appear to date before 1778, but how much before has not been determined from the few scraps of evidence revealed by testing in 1964. Therefore this settlement, identified as MK-1 on the Archeological Base Map of Katmai National Monument, must be considered as merely a possible aboriginal habitation site.[96]

Amalik Bay (Takli Island). Of major importance for the light they have thrown upon prehistoric occupation of the Katmai coast, the sites on Takli Island, or at least some of them, were undoubtedly occupied at least seasonally in the period just before European contact, since this was the traditional departure point for bidarka journeys eastward across Shelikof Strait.

Dakavak Bay. Primarily a prehistoric site, the settlement known to archeologists as DK-1 probably was occupied in aboriginal times since at least one house was known to have been inhabited during the late historic period. It can be assumed that seasonal camps were maintained here at least periodically from prehistoric times up to the 1912 eruption.

Katmai. As will be seen in the next chapter, a major native settlement was located at Katmai at the time of the earliest Russian contacts along the Pacific shore of the northern peninsula. There can be no doubt, therefore, that this site, identified as KI-1 on the Archeological Base Map of Katmai National Monument, was a principal permanent village of the Eskimos during the period immediately preceding the arrival of Europeans.

Unfortunately, topographical conditions at the village site have been radically changed as a result of the 1912 eruption, and a high water table has made it impossible for archeologists to excavate to any meaningful extent. Therefore no estimates have been made as

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95 Dumond, *Archaeological Survey . . . 1964*, 15-17.

96 *Ibid.*, 19-21.

to the age of the settlement, but undoubtedly this locality, with its abundance of natural resources, was inhabited in prehistoric times as well as during the aboriginal and historic periods.[97]

Kashvik Bay. A possible site, identified by archeologists as KI-2, "at the innermost point of Kashvik Bay" near the southern boundary of the monument, has not been excavated. The period of occupancy is thus unknown.[98]

Across the Aleutian Range, in the upper Naknek drainage, the places inhabited by the aboriginal natives include:

Brooks River. The numerous and important prehistoric sites scattered along this stream and the adjacent shores of Lake Brooks and Naknek Lake contain evidence of permanent habitation during several periods from that era, but as shall be detailed in Chapter VI of this report, the settlements from about 1500 to 1820 were largely seasonal in nature.

In 1880 Ivan Ivan Petroff encountered a large group of Eskimos fishing below the falls in Brooks River, and he was told that a village had "formerly" been situated there. According to the story told him by the natives, the settlement had been completely wiped out by a band of raiding "Aleuts" with the exception of one man who saved himself by hiding under the falls.[99]

In historic times the Eskimos called the former village "Kitowik." Lake Brooks seems to have been called "Ketivik" or "Kulik."[100]

Savonoski. It has already been seen that the upstream or eastern portion of this large site at the mouth of the Savonoski River was occupied from around A.D. 1500 to 1912. Little is known about the appearance or size of this settlement when it was first observed by the Russians, probably between 1800 and 1818. Almost certainly, however, it was occupied on a permanent basis, although perhaps there

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97 Davis, *op. cit.*, 33-44.

98 Dumond, *Archaeological Survey . . . 1964*, 30-31.

99 "Alaska's Census," in *New York Herald*, January 11, 1881.

100 Davis, *op. cit.*, 73; Orth, *Dictionary of Alaska Place Names*, 161; Report to National Park Service . . . on Tape Recordings, MS, 7. Ketivik is said to mean "beavers broke their houses a long time ago."

were periods where habitation was only seasonal.[101] The natives of Savonoski, according to information given in 1953, called Naknek Lake "Nunbak" and Iliuk Arm "Nunvianuk."[102]

Savonoski River. The possibility that natives may have continued to occupy the large site known as SR-2 at the mouth of the Grosvenor River after the latest date indicated by excavated artifacts, about A.D. 1100, has been mentioned in the previous chapter.

Lake Grosvenor. Archeological testing in 1963 indicated that a rather small site, containing fewer than 10 house depressions, on the lagoon between Lake Coville and Lake Grosvenor may have been occupied between A.D. 1500 and 1912, with the most probable period of habitation coming after 1750.[103]

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101 Dumond, *Prehistory of the Northern Alaska Peninsula,* 20.

102 Davis, *op. cit.,* 68. In 1880 the natives told Petroff that their name for Iliuk Arm was "Nanevagilnuk," meaning "never at rest." "Alaska's Census," in *New York Herald,* January 11, 1881.

103 Dumond, *Archaeological Survey . . . 1963,* 23.

CHAPTER IV

"God is High in His Heaven"

The opening decades of the eighteenth century saw Russia approaching the end of her long, relentless march eastward across Asia and through Siberia to the Pacific. Peter the Great wanted to know if the farthest reaches of his empire were linked by land with the American continent, and in 1725 he dispatched Vitus Bering to find out.[1]

The resultant voyages of Vitus Bering and Alexei Chirikoff in 1741 marked the effective discovery of the Alaskan coast by Russia. Furs brought back to Siberia by survivors of the Bering expedition excited the attention of the traders, or *promishleniks*, of the Kamchatka Peninsula in Siberia, and soon scores of Russians were venturing eastward in crude and makeshift vessels to explore and exploit the newly discovered Aleutian Islands and the mainland. These fur seekers knew practically nothing of deep-sea navigation, an ignorance which, as Alfred Hulse Brooks later pointed out, "fitted them in a measure for the task which they had undertaken, for experienced seamen would have refused to take part in such utterly hazardous and foolhardy enterprises."[2]

Sergeant Emilian Bassoff is generally credited with being the first of the *promishleniks* to hunt eastward from Kamchatka. His pioneer voyage, to Bering Island, was made in 1743, and from this venture and four later ones he is reported to have brought back furs valued at the equivalent of half a million dollars.[3]

For such rewards there was no lack of Russians who were willing to risk the terrors of the storm-lashed, fog-shrouded northern Pacific Ocean. In 1745 a party of fur hunters under the command of

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1 F.A. Golder, *Russian Expansion on the Pacific, 1641-1850* (reprint edition, Gloucester, Mass.: Peter Smith, 1960), 114, 133-134.

2 Alfred Hulse Brooks, "History of Explorations and Surveys," in Morgan B. Sherwood, ed., *Alaska and Its History* (Seattle and London: University of Washington Press, 1967), 27.

3 Hubert Howe Bancroft, *History of Alaska, 1730-1885* (San Francisco, 1886), p. 107, note 18.

Mikhail Nevodchikof landed on Agattu Island near the extreme western end of the Aleutians. A fight with the natives erupted almost immediately; and thus, "the long era of bloodshed, violence, and rapine for the poor Aleuts was begun."[4]

From Agattu and Attu other traders swarmed eastward. Their lack of navigating skills was no serious hardship, since the islands of the Aleutian chain are generally visible one from another. Thus island after island was discovered until the mainland was reached. The eastward progress was marked by cutthroat competition, cruel exploitation of the natives, and rapid depletion of the fur resources.

By 1763 the advance had extended to Kodiak Island. Stephen Glottoff is reported to have "discovered" the island during the summer of that year.[5] Glottoff wintered there, and his small settlement probably was the first Russian establishment on Kodiak. But his occupation was only temporary, and permanent settlement of Alaska had to wait another two decades.

The traders, after all, were not primarily explorers or settlers. As long as furs were plentiful in the Aleutians and on the lower peninsula, where the natives had already been subdued, there was little incentive to push farther into the unknown. The visit of Glottoff to Kodiak had not encouraged other ventures in that direction, since he was unable to obtain more than grudging cooperation from the fiercely independent Koniag who lived there.[6]

Thus far Russian expansion in America had largely been the result of initiative and enterprise on the part of a "murderous crew" of private individuals. The Court of St. Petersburg had shown little interest in this distant part of the world, and after the voyages of Bering it had been left to the voyages of the largely unschooled traders to reveal the geography of the Aleutian Islands, Kodiak, and parts of the Alaska Peninsula. Finally, between 1764 and 1768, the Russian government sent two naval expeditions to chart the coasts of its new possessions. Both were largely unproductive, although Captain Petr Kumich Krenitzin did touch the tip of the Alaskan Peninsula.[7]

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4 Bancroft, *History of Alaska,* 103.

5 Russian vessels are said to have been in "the vicinity of Kodiak" in 1761. P. Tikhmeneff, *Historical Review of the Origin of the Russian-American Company,* MS, I, 30.

6 Harold McCracken, *Hunters of the Stormy Sea,* 95.

7 Bancroft, *History of Alaska,* 157-167; Brooks, *op. cit.,* 28-29.

By the 1770's the sea otter and other fur-bearing animals were becoming more difficult to find on the Aleutians and lower Alaska peninsula, and the *promishleniks* began to seek new areas to exploit. About the same time it dawned on some of the more farseeing traders that long-range success could be obtained only through control of the country and an end to the vicious competition between small parties.

Groups of merchants combined to conduct the trade on a more permanent footing. While the immediate result was a series of bloody contests between powerful rival organizations, the eventual outcome was a monopoly that permitted the survival of the native population and the harvesting of furs on something approaching a sustained yield basis.

In 1783 one of these merchant combines made the "first direct attempt" to extend operations onto the mainland north and east of Kodiak. A formidable expedition was sent to Prince William Sound, but the Russians and their Aleut vassals met a hostile reception from the natives and were forced to retreat.[8]

A more solid base for exploitation of the mainland was initiated during that same year when the firm of Siberian merchants dominated by Grigory Ivanovich Shelikhov and Ivan Golikov launched a campaign to expand its operations in the Aleutians and on the American continent. Shelikhov's ambition was to control the entire fur traffic in northwestern America, with himself as the absolute ruler.

As a key feature of this program Shelikhov on August 3, 1784, sailed into a large harbor on the southeastern coast of Kodiak Island with the intention of founding a settlement. After subduing the natives he sent his axmen ashore to start construction at the place he named "Three Saints" after his vessel.

Thus was founded the first permanent European settlement in Alaska. During the next decade Three Saints became the company's principal establishment in America. From it the firm gradually pushed its operations to neighboring islands and to the mainland.

The same ten-year period witnessed the emergence of the Shelikhov-Golikov Company as the dominant force in the Alaska fur trade. In 1788 the Empress of Russia granted the firm exclusive control over the country it actually occupied, and the company vigorously competed with its rivals both in the field and for favor

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8 Bancroft, *History of Alaska*, 186-191.

at the imperial court. To guide the operations in America Alexandr Andreievich Baranov was employed as the firm's manager at Kodiak Island in 1790; two years later he became general manager of the company's American interests.

When Baranov reached Three Saints during the summer of 1791, he noted many disadvantages of the site, and he determined to found a new settlement at the harbor of Pavlovsk, or St. Paul, on the northern side of Kodiak Island. During the late summer of 1793 the American headquarters of the Shelikhov-Golikov Company were moved to the new town, known today as Kodiak, and by authority of the Russian government, missionaries and settlers were sent there the next year from Siberia.[9]

From 1793 until after the permanent founding of Sitka in 1804, Kodiak was the center of Russian activity in America. Here were the headquarters and main factory of the Shelikhov-Golikov Company and, after 1799, of its successor, the Russian American Company. From here explorations were pushed to many parts of Alaska, and from here departed expeditions to found a number of other Russian settlements. And here, until after 1816, the Russian Orthodox priests maintained their headquarters and centered their missionary activities.

Even after the Russian American Company transferred its American headquarters to Sitka about 1808, Kodiak remained a place of importance. By its charter of 1799 the firm was given the right of exclusive trade and occupation of the Russian dominions in America, and the main station for a large and prosperous fur-trading district of this monopoly was maintained at Kodiak. All of these facts were to play an important role in the development of the Alaska Peninsula, which lay a short distance to the west across stormy Shelikof Strait.[10]

With the establishment of Shelikov's colony on Kodiak Island in 1784, Russian exploration and exploitation of the Alaska Peninsula began in earnest. During the summer of 1785 the merchant sent parties to examine Kodiak Island; and one large expedition, consisting of 52 *promishleniks*, 11 Aleuts, and 110 Koniags set forth to reconnoitre nearby islands and the mainland coast. After visiting

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9 Tikhmeneff, *op. cit.*, I, 58.

10 This account of the background of Russian occupation of the Katmai region is largely based upon Bancroft, *History of Alaska*, 99-400; and S.B. Okun, *The Russian-American Company* (Cambridge, Mass., 1951), 7-34.

Prince William Sound and Cook Inlet, this party wintered at Karluk, on the northwestern side of Kodiak Island.[11]

That winter expeditions were dispatched from both Karluk and Three Saints Bay to expand geographical knowledge. Some of the *promishleniks* visited the Alaska Peninsula, going as far north as Kamishak Bay. Trade was carried on without difficulty along the mainland coast, and hostages were received from the neighboring tribes.[12] According to Hubert Howe Bancroft the Russians also learned at this time of Iliamna Lake and of the several portage routes to the west side of the peninsula.[13]

When Captain Joseph Billings, a Britisher in Russian employ, visited Shelikov's establishment at Three Saints during the summer of 1790, a native was encountered who termed "Alaksa," as the peninsula was then named, a "kightak" or "island" because there was said to be a strait across it at a distance of three days' row north of Kodiak. Martin Sauer, secretary of Billings's expedition, made it his business to inquire into the matter.

He found that there was indeed a route west of Kodiak by which the natives, utilizing rivers and a lake, could cross to Bristol Bay entirely by water except for one interruption to carry their boats over a low mountain. He also discovered that this portage was known to the Russian hunters and that it was used by the natives of the Shelikof Strait area when obtaining walrus tusks from the northern shore of the peninsula.[14]

This route was undoubtedly that which ran from Iliamna Bay westward across Iliamna Lake and down the Kvichak River to Bristol Bay. That the Russians apparently were well acquainted with this portage by 1790 indicates that the exploring and trading expeditions sent out to the peninsula beginning in 1785 produced the desired results, at least initially.

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11 Bancroft, *History of Alaska,* 227-228.

12 Tikhmeneff, *op. cit.*, I, 15.

13 Bancroft, *History of Alaska,* 228.

14 Martin Sauer, *An Account of a Geographical and Astronomical Expedition to the Northern Parts of Russia . . . and of the Islands of the Eastern Ocean, Stretching to the American Coast: Performed . . . by Commodore Joseph Billings in the Years 1785, &c. to 1794* (London, 1802), 174-175. This trans-peninsula trade was important to the natives since Bristol Bay was the chief source of the walrus ivory they needed for spearheads, fishhooks, and other implements.

Early in May, 1786, Shelikhov made preparations to return to Siberia. The instructions he issued for the conduct of the colony after his departure reveal much concerning the rapid expansion of Russian control on the Alaska mainland and show that even by that early date the Katmai region was firmly within the orbit of Shelikov's operations. Of the Russians to be assigned to a number of far-flung posts when expected reinforcements should arrive, twenty were to be stationed at "Katmak" (Katmai) and eleven were to be posted at "the summer settlement between Katmak and Kamyshak" (Kamishak Bay). Should the new men not arrive, however, establishments were to be maintained only at Three Saints, Karluk, and Afognak Island.[15]

What the unfortunate natives of the Katmai area had in store from the Russians can be deduced from the *modus operandi* developed by the *promishleniks* during their advance across Siberia and up the Aleutian chain. After nearly two centuries of harrying the little sable all the way across Asia from the Ural Mountains, the fiercely independent *promishleniks* were experts at harvesting furs and subjugating native populations. The Cossacks who advanced with them, serving as the cutting edge of the Russian Empire, were ruthless and adept at collecting tribute from the conquered peoples for the czar -- and for themselves. Thus the pattern for exploiting a new land was already firmly fixed and the techniques were thoroughly understood when the first greed-drunk adventurers set forth in their crazy craft in Bering's wake.

The first *promishleniks* to reach the Aleutian Islands soon found, however, that some adjustments would be necessary. The only pelt they really wanted was the wondrously soft and luxurious fur of the sea otter, but the hunting methods they had employed so successfully against the sable were useless for capturing the otter, which hardly ever came ashore. Their crude and clumsy boats were likewise valueless for approaching these shy and elusive animals. Only the natives in their light canoes or bidarkas could harvest sea otter pelts in any numbers, and no Russian could hope to master the technique of handling the cranky native craft, particularly in the rough waters so favored by the otters. In addition, the newcomers quickly wore out their welcome, and it was unsafe for them to disperse in small groups to hunt or trap. As they saw it, there was no alternative but to induce the natives to hunt for them.

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15 Bancroft, *History of Alaska*, 230, note; Tikhmeneff, *op. cit.*, II, Appendix [b], 16-17.

One method of obtaining cooperation of the Aleuts was through trade. Vessels sailing westward from Siberia often carried cargoes of glass beads, hatchets and knives "of very bad quality," tobacco, tin pans, copper kettles, cloth, and other trade goods. But such items were scarce and costly, having to be tediously transported overland from Russia and then transshipped by small vessels to America. Most of the *promishleniks* preferred to mix trade with more direct methods of persuasion or, better, to rely on force alone.

The most usual procedure in the early years was for a party of Russians to anchor near an Aleut village, where winter quarters were established. Then the local chief was induced by bland promises, liquor, presents, or, if required, by force to send out all his hunters to seek furs. Hostages, usually the women and children, were held by the Russians to ensure their own safety and the fulfillment of the contract. Natives not capable of joining in the strenuous hunt for sea otters were set to trapping foxes. The *promishleniks*, meanwhile, "lived in indolent repose at the village, basking in the smiles of the wives and daughters."[16]

When the hunters returned, the furs were taken in exchange for a few trifling trade items or, sometimes, appropriated outright. Only when the natives refused to turn over their catch was there an attempt at honest trade. Usually any holding back resulted in forcible seizure or murder.[17] The Russians then moved on to another island to repeat the process.

As time went on, however, the *promishleniks* resorted more and more to brute force. A Russian officer who was with the imperial scientific expedition under Commodore Joseph Billings reported in 1790 that the usual practice of the fur traders was as follows: "Upon the arrival of any vessel at an inhabited island, the peredofshik [leader] sends an armed boat to the habitations, to take from the natives all the furs and valuable articles they possess; and, if the least opposition is made, they are silenced by the muskets of the hunters. Wives are taken from their husbands, and daughters from their mothers."[18]

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16 Bancroft, *History of Alaska*, 235-236.

17 McCracken, *op. cit.*, 62-63.

18 Sauer, *op. cit.*, Appendix, p. 56, as quoted by McCracken, *op. cit.*, 158-159.

After considerable brutality and the ruthless suppression of opposition, the Aleuts and later the Kodiak Eskimos and their neighbors were reduced to virtual slavery. Compulsory hunting became the standard pattern of procedure.

So complete was the subjugation that in 1783, when a combination of independent fur traders decided to shift operations from Unalaska to Prince William Sound, they took with them perhaps 150 or more Aleut hunters, who made the journey of nearly 1,000 miles in their small bidarkas. As far as the record is known, this was the earliest occasion on which the Russians took a large flotilla of Aleut hunters for any great distance. Soon the practice became commonplace, and hundreds of natives lost their lives from storms, disease, and combat with other native groups during these voyages.[19]

The Russians had other methods of squeezing furs from the natives. Certain traders would furnish supplies to the Aleuts during times of famine. Even a small amount of such assistance constituted a lien upon the catch of the next season.[20]

And the old custom of collecting tribute from the new subjects of the imperial ruler was not forgotten. Very soon after the first fur traders returned from voyages to the Aleutians, Empress Elizabeth issued a ukase directing that tribute collectors should sail in every vessel going to the new El Dorado.[21]

There are many records of Cossack tribute collectors who visited the Aleutians, but there was much evasion of the imperial decree and a generous diversion of collections to private use. The amount received by the crown was small. Nevertheless, the Russian traders made much of tribute-gathering. As Hubert Howe Bancroft has remarked, it "was a convenient mantle to cover all kinds of demands on the natives, and there can be no doubt that in early times at least half the trade was collected in the form of tribute, by means of force or threats, while at the same time the authorities at home were being petitioned to relinquish its collection, 'because it created discontent' among the natives."[22]

In 1771, upon the return of Captain-Lieutenant Mikhail Levashef to St. Petersburg from the Krenitzin expedition, the court at last learned the facts about the brutalities of the *promishleniks*. Even more serious was the report that tributes were being exacted in the

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19 McCracken, *op. cit.*, 107.

20 Bancroft, *History of Alaska*, 237.

21 McCracken, *op. cit.*, 42.

22 Bancroft, *History of Alaska*, 236-237.

name of the crown and then falling into private pockets. As a result, a ukase was issued forbidding further collection of tribute.[23]

But the imperial decrees and the displeasure of courtiers in St. Petersburg had little effect upon trading operations in distant America. The sea otter hunters went about their profitable business as usual. Their ruling philosophy was expressed by the saying, "God is high in His heaven, and our Most Gracious Empress is far away." Later the Russian American Company even won official recognition of its right to the services of the Aleuts "on the plea that it should be in lieu of tribute formerly paid to the government."[24]

There was another face to the coin, however. The *promishleniks*, mostly descended from Cossacks and from women of the conquered tribes of Siberia, had an instinct for getting along with primitive peoples. Once they had made the Aleuts and Eskimos understand what was expected of them, the Russian fur traders fraternized and intermingled with the natives on the most intimate terms. No other foreign traders, missionaries, or settlers in Alaska achieved the same degree of assimilation. "At all the outlying stations," wrote Ivan Petroff for Hubert Howe Bancroft, the Russians "lived together with and in the manner of the natives, taking quite naturally to filth, privations, and hardship, and on the other hand dividing with their savage friends all the little comforts of rude civilization which by chance fell to their lot."[25]

The Aleuts and Eskimos gradually developed a grudging respect for their conquerers, and as the races mixed and the natives became more and more Russianized the old animosities began to fade away. In fact, the natives eventually came to think of themselves as Russians. An observer in 1890 reported that the residents of the north peninsula villages divided mankind into two groups, Russians and non-Russians. "One unable to speak any Russian whatever," he reported, "is looked upon as pitifully ignorant and is treated with contempt."[26]

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23 Bancroft, *History of Alaska*, 168-169; McCracken, *op. cit.*, 91.

24 Bancroft, *History of Alaska*, 237.

25 *Ibid.*, 250-251.

26 U.S., Census Office, *Report on Population and Resources of Alaska . . . Eleventh Census, 1890*, 96.

It seems clear that Shelikhof's instructions of 1786 did not actually result in the immediate permanent settlement of traders among the Koniag on the peninsula opposite Kodiak Island, but it is certain that the Katmai natives were not long denied the pleasures of Russian rule. When Commodore Joseph Billings visited Three Saints in 1790 he was told by Evstrat Delarof, Shelikhof's manager, that 600 double bidarkas manned by about 1,200 natives had already been dispatched that season in search of sea otters. It seems reasonable to assume that residents of the Katmai coast were detailed to fill the ranks of the six parties into which this fleet was divided.[27] In any case, Russianization had begun.

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27 Sauer, *op. cit.*, 171.

CHAPTER V

Charting the Unknown Peninsula

While the Russian fur-seekers were pushing their operations by fits and starts toward the base of the Alaska Peninsula they had no time, nor had they the skill, to chart the fog-shrouded coasts along which they worked. This task was cheerfully assumed by navigators of other nations, whose rulers were anxious to know what the empress's subjects were up to in this part of the world as well as to answer some geographical questions of long standing. The resulting voyages fixed the positions of various points along the shore of the future Katmai National Monument, and they produced place names in the general vicinity that have endured to the present day.

Two Spanish voyages in 1774 and 1775 fell far short of reaching the Alaska Peninsula, but the great English explorer, Captain James Cook, was more determined. Under orders from the Admiralty to search for a northern sea route from the Pacific to the Atlantic, Cook followed the Alaska coast north during the spring of 1778. On May 21 he was near the entrance to Cook Inlet, but a gale forced him southward.

Four days later, on May 25, he was headed once more for Cook Inlet. Toward evening the hazy weather cleared, and above a bank of clouds to the westward he saw a "very lofty promontory" whose elevated summit was marked by "two exceeding high Mountains."

He named this bold headland Cape Douglas in honor of his "very good friend," Dr. John Douglas, Canon of Windsor and later editor of his journals. It is clear from Cook's own words that the feature he thus christened was the entire northeastern corner of the Alaska Peninsula dominated by Mount Douglas and Fourpeaked Mountain and not merely the 190-foot-high projection from it that today bears the name Cape Douglas. As far as is now known, this is the first place name, native or European, within the present Katmai National Monument to be placed in the written record.[1]

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1 J.C. Beaglehole, ed., *The Voyage of the Resolution and Discovery, 1776-1780* (The Journals of Captain James Cook on His Voyages of Discovery, III [in 2 parts], Hakluyt Society, Extra Series No. XXXVI, Cambridge, 1967), part 1, p. 360. In his log, however, Cook seemed to regard Cape Douglas as something distinct from but connected with the entire lofty promontory. *Ibid.*, note 2.

Cook also saw the northern entrance to Shelikof Strait, which his editor later called "Smokey Bay." The explorer speculated that this opening might in fact separate an island from the mainland, but he did not enter it. Continuing northward the next day, he discovered the range behind the present Kamishak Bay, and he applied the name Mount St. Augustine to the present Augustine Island, although he did not approach near enough to determine for sure its insular character.[2]

The British explorer next completed his examination of Cook Inlet, which was later called "Cook River" by Lord Sandwich because Cook believed it to be the mouth of a large stream.[3] Not finding the hoped-for passage through the continent or to the Arctic Ocean, Cook turned west once more, and for three weeks he coasted the shores of the Alaska Peninsula and the Aleutian Islands probing through mist and rain for a way to the north. His two ships, the *Resolution* and the *Discovery*, passed along the east side of Kodiak Island, and the Katmai coast was thus not further examined.

Finally entering the Bering Sea, Cook explored and named Bristol Bay. He evidently saw the mouth of the Naknek River, which he called the "River Bristol"; and he correctly surmised that it must "abound with Salmon."[4]

Moving northward, he passed through Bering Strait and examined both the Siberian coast and the Alaska shoreline as far as Icy Cape. In addition to confirming Bering's conclusion that there was no land connection between Asia and America, Cook for the first time delineated on charts the shape of Alaska practically as it appears today.[5] Another result of Cook's voyage was to bring to the attention of English and other European and American merchants the possibilities of large profits from the sea otter pelts obtainable in the Pacific Northwest.

Still worried over Russian advances in the north Pacific and anxious to establish its own territorial claims in this region, the Spanish government sent another expedition to Alaskan waters in 1779. Under the command of Lieutenant Ignacio Arteaga, the two vessels

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2 Beaglehole, *op. cit.*, part 1, pp. 360-361.

3 Bancroft, *History of Alaska*, 208.

4 Beaglehole, *op. cit.*, part 1, pp. 396-397. The Russian naval officer, Captain F. Lütke, in 1828 indicated his belief that Cook's River Bristol was the Kvichak River. Orth, *Dictionary of Alaska Place Names*, 557.

5 Alfred Hulse Brooks, *Blazing Alaska's Trails*, (Caldwell, Idaho, 1953), 154.

La Princessa and *La Favorita* coasted the shore as far as the entrance to Cook Inlet. No Russians were seen, and no word was heard concerning Cook's visit of the previous year. Lulled into a feeling of security, Arteaga sailed for Mexico on August 7 without pushing westward along the Alaska Peninsula. Spanish fears were temporarily set at rest.[6]

Very soon, however, word of Cook's discoveries revived the interest of Spain in the Northwest Coast, and it also stimulated further explorations on the part of other European countries. Perhaps even more important, private traders sailing under a variety of flags flocked to the region in a mad rush for sea otter pelts to satisfy the lucrative market that Cook's men had uncovered in China.

France was one of the first nations to respond to this double lure of opportunity to advance geographical and scientific knowledge and possibility of commercial gain. In 1785 the French government dispatched Jean François de Galaup de Lapérouse on an exploring tour around the world. Among other things, he was to report on trade prospects along the Northwest Coast, and he was to examine the Aleutians and other islands off the Alaska Peninsula. But when Lapérouse reached Alaskan waters in June, 1786, he preferred to explore the shore east of the peninsula and thus contributed nothing to knowledge of the Katmai region.[7]

Hard on the heels of Lapérouse, two British traders, Captain Nathaniel Portlock of the *King George* and Captain George Dixon of the *Queen Charlotte*, reached the Alaska coast during the summer of 1786. They had been sent out from England by a partnership established to conduct trade between the Northwest Coast and China. Arriving off the entrance to "Cook's River" on July 16, they ascended that body of water and traded for nearly a month before heading southward toward Nootka Sound and the Hawaiian Islands. The next year the two captains returned to the vicinity of Prince William Sound, and Portlock sent the *King George's* longboat on two trading voyages to Cook Inlet.[8]

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6 Bancroft, *History of Alaska*, 217-221.

7 *Ibid.*, 255-259.

8 *Ibid.*, 262-266; Orth, *op. cit.*, 26.

The visits of Portlock and Dixon in 1786 and 1787 apparently contributed little to knowledge of the Katmai area.[9] Rather, they may have served to confuse matters, for Portlock's general map, published in 1789, continued to show Kodiak Island as being attached to the peninsula in accordance with Cook's charts.[10]

Another British trading voyage of 1786 was much more productive of knowledge concerning the Katmai region. Captain John Meares sailed from Bengal, India, in the ship *Nootka* on March 2 of that year, and on August 1, 1786, he was off Atka Island in the Aleutian Chain. Turning eastward, he followed the route Lapérouse should have taken along the southern coast of the Alaska Peninsula.

Toward the end of the month he saw ahead "a large opening, which appeared to be formed by an island." Entering the present Shelikof Strait at its southern end, Meares and his officers were surprised that so extensive a channel should have escaped exploration by Captain Cook. Meares named the passage "Petrie's Strait" in honor of William Petrie.[11]

When the *Nootka* had penetrated the strait about 20 leagues, to perhaps opposite the present Amalik Bay or Kaflia Bay in Katmai National Monument, a "canoe" came out to the ship "from the inland side," and a Russian seaman climbed aboard. From him Meares learned that the Russians were established on Kodiak Island. This was bad news for the British captain who had hoped to open a profitable trade with the natives somewhere west of Cook Inlet.

Knowing that this competition would preclude a rich haul of furs at low prices, Meares continued feeling his way up the strait until he found, as he later wrote, "it brought us out near that point forming Cook's River [Cook Inlet], and distinguished by the name of Cape Douglas on Captain Cook's chart."[12] The *Nootka* anchored "under" Cape Douglas and was soon visited by several canoes manned by "Indians" from Cook Inlet.

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9 Henry R. Wagner, in his *The Cartography of the Northwest Coast of America to the Year 1800*, speculated that Dixon may have designated the present Kamishak Bay as "Bourdieus Bay" in 1787. Orth, *op. cit.*, 491.

10 Bancroft, *History of Alaska*, 265-266.

11 John Meares, *Voyages Made in the Years 1788 and 1789, from China to the North West Coast of America, to which are Prefixed, an Introductory Narrative of a Voyage performed in 1786 . . .* (London, 1790), ii-xi.

12 *Ibid.*, xi.

These natives sold Meares two or three sea otter skins, for each of which they were glad to receive about a pound of unwrought iron. This fact, together with the refusal of these people to accept tobacco, was taken by Meares as proof that they had no connection with the Russians. He may have changed his mind the next day, however, when two large boats carrying 36 Russian traders were seen emerging from Cook Inlet on their way to Kodiak Island.

Meares traded in Cook Inlet until late in September, when boisterous weather warned him it was time to be heading southward. He chose to spend the winter at Prince William Sound, where scurvy and starvation took a heavy toll of his crew. Rescued by Portlock and Dixon during May, 1787, he was forced to return to China.[13]

Undaunted, Meares was able to raise funds in India to outfit two more vessels to trade on the Northwest Coast. One of these ships, the *Iphigenia* under Captain William Douglas, reached Cook Inlet during June, 1788. While trading in this vicinity, Douglas met some natives who seemed never to have had commerce with Europeans. He conjectured that they were inland people who "had descended some river which empties itself into Smoky Bay," which was the upper part of Shelikof Strait just below Cape Douglas.[14] Valid or not, this observation is interesting in view of the later known habit of the Eskimos from as far east as Bristol Bay of visiting the Kamishak Bay-Cape Douglas region to hunt sea otters and other fur-bearing mammals.

Meanwhile, news of Russian expansion eastward from the Aleutians and of intrusion by English and other traders into what it considered its exclusive territory had once more stirred Spain to action. Estévan José Martinez was sent northward with two ships in 1788 to investigate. Bolder than his predecessors, he pushed westward out into the Aleutian chain as far as Unalaska. On the way he visited the east coast of Kodiak Island, and one vessel stopped at Shelikhov's settlement at Three Saints. Martinez learned from the Russians that Kodiak was not joined to the mainland, and he seems to have called Shelikof Strait the Canal de Flores.[15]

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13 This account of the *Nootka*'s voyage is based on Meares, *op. cit.*, [i]-xl.

14 Meares, *op. cit.*, 311-312.

15 Bancroft, *History of Alaska*, 271. Eustrate Delarof, in charge of the Russian colony at Three Saints, told the Spaniards that among six settlements the Russians maintained in America there was one of 40 men on a small island in Canal de Flores (Shelikof Strait). The strait undoubtedly was named for the viceroy of New Spain, and the name did not mean "Canal of Flowers" as is often stated. Henry R. Wagner, *The Cartography of the Northwest Coast of America to the Year 1800* (reprint edition, Amsterdam, 1968), 203, 454.

The voyage of Martinez convinced Spain that more active measures would be required to blunt the Russian drive eastward and southward along the Northwest Coast. In 1789, therefore, Spain took possession of Nootka Sound on the west side of Vancouver Island and seized four English-owned vessels found trading there. The resulting diplomatic dispute with Great Britain led to the Nootka Convention of 1790 by which Spain had to give up her claim to the exclusive right to trade and settle along the northern Pacific Coast of America.

Another consequence of the short-lived Spanish occupation of Nootka was the exploring expedition headed by Lieutenant Salvador Fidalgo. Sailing from Nootka in May, 1790, Fidalgo examined Prince William Sound and the entrance to Cook Inlet and visited Kodiak Island. Since he chose to ignore the place names applied by previous explorers in the Cook Inlet area, however, most of the new designations given by him have not survived.[16]

Still another result of the Nootka Sound Agreement was to have a more lasting impact upon the Katmai region. In 1791 Captain George Vancouver, in command of the sloop *Discovery* and accompanied by the armed tender *Chatham* under Lieutenant William R. Broughton, was sent from England to restore British rights at Nootka. He was also under orders from his government to survey the coast from central California north to Cook Inlet with a view to strengthening British territorial claims and to seeking once again the elusive Northwest Passage.

Vancouver passed three summers performing his very detailed and expert examination of the northwestern shores of the continent, and it was not until the third of those years, 1794, that this work brought him to the Katmai vicinity. April 11 found the *Discovery* cruising northward off the eastern side of Kodiak Island. Vancouver intended to round Cape Banks at the north end of the Kodiak group and head westward across Cook's Smoky Bay, that is to say the northern end of the present Shelikof Strait.

His motive for this plan is interesting and somewhat astounding. Had this project been carried out, he recorded, "some conclusion might have been drawn whether the land we had thus coasted along [the Kodiak group] was composed of islands, or whether it was as Captain Cook had considered it, a part of the continent."[17] Thus

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16 Bancroft, *History of Alaska*, 273-274.

17 George Vancouver, *A Voyage of Discovery to the North Pacific Ocean, and Round the World . . . Performed in the Years 1790, 1791, 1792, 1793, 1794, and 1795, in the Discovery Sloop of War, and Armed Tender Chatham* . . . (3 vols. and atlas, London, 1798), III, 91.

eight years after John Meares sailed through Shelikof Strait and four years after the publication of Meares's narrative and chart making it clear that Kodiak was well separated from the mainland, Vancouver was still wondering if, in fact, such a strait existed! Such is the weight of tradition!

Bad weather prevented Vancouver from carrying out the examination of Smoky Bay, however, and he turned northward into "Cook's River." Discovering that it was not the mouth of a large river as Cook had surmised, he altered the name to "Cook Inlet," which designation it still bears.

Vancouver thus did not personally examine the shores of the present Katmai National Monument. But while anchored in upper Cook Inlet, he was joined on May 7, 1794, by the *Chatham* which had been operating independently under the command of Lieutenant Peter Puget, R.N. On April 30 the tender had worked to within a few miles of Cape Douglas. There, Puget reported, "the coast is composed of a low tract of country, stretching into the sea from the base of very lofty mountains wrapped in snow, which also covered the surface of the land quite down to the water's edge."*18*

A short distance north of Cape Douglas Lieutenant Puget noted the existence of "a very low flat island." Evidently he did not name it at the time, and no name is mentioned in the text of Vancouver's narrative.*19* However this feature, designated as "Shaws I.," is shown on one of the charts in the explorer's atlas. Now within the boundaries of Katmai National Monument, it is still known as "Shaw Island."

Turning northward and westward, Puget found himself in "a deep bay" between Cape Douglas and Augustine Island. This indentation, already known to the Russians by its present appellation "Kamishak Bay," was also not mentioned by name in Vancouver's text, but his chart shows it as "Bourdieus Bay," a designation which has not survived.

Puget applied himself promptly to examining this expanse of water. He took soundings, but the shore was so rocky and dangerous that he kept well away from land. Overtaken by a storm, he was forced to anchor for the night in the open bay. The next morning, May 1, as the *Chatham* was preparing to get under way, a cable parted and an anchor had to be left on the ocean bottom, where it probably still remains.

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18 Vancouver, *op. cit.*, III, 133.

19 *Ibid.*

The next objective was Augustine Island, where a landing was made. There the British explorers encountered two Russians, and Puget understood that they lived on the northeast point of the island. Soon afterwards, north of Augustine, the English met a group of natives in about 150 skin canoes, some carrying three persons, some two, and a few only one. This, clearly, was an otter-hunting party and further evidence of the growth of Russian influence in the northern peninsula.

As a result of Puget's observations and of various subsequent contacts with the Russians, Vancouver lost all doubt as to the existence of Shelikof Strait. His chart including this section of the Northwest Coast clearly shows Kodiak as an island and portrays both shores of the strait generally as depicted on modern maps. From Cape Douglas northward the coast of the Alaska mainland was determined "by personal observation," but for the configuration of the peninsula shore south of that point Vancouver was forced to rely upon "Russian authority."[20]

As the experience of Vancouver revealed, Russian knowledge of Alaskan geography had advanced considerably since the voyage of Captain Cook had defined the general outline of the mainland. Some of the information so painfully acquired by the *promishleniks* in their remarkable sweep which between 1745 and 1780 unveiled the entire Aleutian Chain and the Alaska Peninsula and beyond to Kodiak, had been gathered and published by William Coxe and P.S. Pallas and others. The "Map of the Discoveries between Siberia and America to the Year 1780," published by Pallas in 1781, showed Kodiak as an island and depicted the general shape of the Alaska Peninsula.[21]

And of course the exploring and trading expeditions sent out by Shelikhov and rival merchants to the peninsula and to Cook Inlet and Prince William Sound beginning in 1783 had vastly extended this knowledge. Shelikof Strait was no geographical puzzle to the Russians. By the time Meares navigated the channel in 1786 the *promishleniks* were well acquainted with such native place names on the mainland coast as Katmai and Kamishak.

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20 This account of the Vancouver expedition's activities in the Katmai area is based upon Vancouver, *op. cit.*, III, 91-92, 126-136; and atlas, map titled "A Chart Shewing Part of the Coast of N.W. America . . . from the Latde. of 59° 30 North . . . to Cape Douglas . . . ."

21 For an excellent summary of this expansion of knowledge from Russian sources see James R. Masterson and Helen Brower, *Bering's Successors, 1745-1780: Contributions of Peter Simon Pallas to the History of Russian Exploration toward Alaska* (Seattle, 1948), iii-iv, 1-10.

But this information was merely the product of practical experience, and the results were not charted with precision. The foreign expeditions to Alaska, particularly that of Lapérouse, at last stimulated the court at St. Petersburg to initiate similar undertakings. In 1785 an Englishman, Captain Joseph Billings, was selected to command a scientific and geographical expedition to gain a more exact knowledge of Russian possessions in both Siberia and America.

It was March, 1790, before a ship had been built in far off Okhotsk and the American phase of the exploration was begun. Sailing to Unalaska, Billings continued eastward to Kodiak Island and then went on to Prince William Sound. The expedition returned to Kamchatka for the winter, and the next year it went northward into the Bering Sea as far as Bering Strait before turning back to Unalaska for the second winter. The expedition ended in 1792 without having achieved much in the way of geographical discoveries. Except for some harbor surveys on Unalaska Island, Billings contributed nothing not already accomplished by Cook.[22]

Although the Billings expedition failed to increase knowledge of the Alaska Peninsula -- its official reports were never published -- it did mark the beginning of a new era for the Katmai region.[23] Thereafter, except for the work of Vancouver's assistants, the charting of the western shore of Shelikof Strait and the mapping of the country westward to Bristol Bay was to be accomplished almost exclusively by Russians until the transfer of Alaska to the United States in 1867.

This renewed Russian effort at systematic exploration had its real beginnings with the dynamic Grigory Shelikhov. On May 4, 1786, before he left Kodiak Island to return to Russia, he instructed the manager he left in charge to send steersman's apprentice Dimitrii Ivanov Bocharov as soon as possible to make a minute survey and accurate description of Kodiak Island, the mainland coast from Katmai to Cook Inlet, and Prince William Sound.

In addition to all bays, rivers, harbors, capes, shoals, reefs, and "sunken and visible rocks," Bocharov was to record the resources of the country, including the kinds of fish and animals and useful plants. Most important, however, were the "human settlements." These must be noted, with the number of inhabitants of each. All topographical features and settlements were to be noted on maps. "The

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22 Bancroft, *History of Alaska*, 282-299; Sauer, *An Account of a Geographical and Astronomical Expedition*, 163-183.

23 Bancroft, *History of Alaska*, 301.

names of all these places," wrote Shelikhov, "must be those given by the local inhabitants," and not of Bocharov's own choice, "so that they can be located by asking the inhabitants."[24]

Before Shelikhov got away from Kodiak his ship, the *Saint Michael*, which had been three years *en route* from Okhotsk, made its appearance. He now ordered two voyages of exploration, one along the coast northward and eastward from Kodiak and the other along the north shore of the Alaska Peninsula and, if possible, northward to Bering Strait.[25] Unfortunately, conditions made it impossible for his manager to execute these directions promptly and fully, particularly as regards the voyage to the Bering Sea.[26]

When the company's ship *Three Saints* reached Kodiak from Okhotsk in April, 1788, however, it became practicable to carry out at least part of Shelikhov's intentions. The vessel, under Bocharov and Gerassim G. Ismailof, then described as "masters" or "pilots," went directly to Prince William Sound and surveyed the coast there and to the eastward, planting markers as evidence of Russian claims to the soil. The next year Ismailof made another voyage, during which he described the southwestern shores of Cook Inlet and Kamishak Bay. Maps of these explorations were sent to the Empress during 1790.[27]

Shelikhov was not satisfied with these accomplishments which were reported to him when Bocharov returned to Okhotsk in August, 1789.[28] Thus when he employed Alexandr Andreievich Baranov as his company's Kodiak manager, one provision of the contract made on August 18, 1790, called for the sending of an expedition to the northern side of the Alaska Peninsula to "discover new islands." The party was to winter at the first bay entering the peninsula "from the left side" and was to endeavor to obtain information on the shortest path of communication between that harbor and Cook Inlet "over the isthmus, giving a detailed description of the route

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24 Tikhmeneff, *Historical Review of the Origin of the Russian-American Company*, MS, II, appendix [b], 16-36.

25 Bancroft, *History of Alaska*, 229; Petroff, "Report," *Tenth Census*, VIII, 100.

26 Tikhmeneff, *op. cit.*, II, appendix [b], 48.

27 Bancroft, *History of Alaska*, 266-270; Tikhmeneff, *op. cit.*, I, 32-34; II, appendix [b], 57.

28 Tikhmeneff, *op. cit.*, II, appendix [b], 46-48.

and of its adaptability for transporting goods and provisions in case of attacks on the Company by hostile tribes."[29]

Only two days after signing this agreement, Baranov set sail for America from Okhotsk in the *Three Saints*. Master Bocharov, then considered "the most skillful navigator in those waters," commanded the vessel; but despite his reputation the vessel was wrecked, and Baranov and his party had to spend an impatient eight months on Unalaska Island.

In the spring of 1791 the stranded Russians built three large baidars in which to continue their journey to Kodiak, but Baranov sent two of them under Bocharov to conduct the required survey along the north side of the Alaska Peninsula. The pilot went as far as the Kvichak River, "ending his exploration with the north-eastern shore."[30] The travelers were welcomed by the local chief, who is said to have offered to give hostages and to keep peace with the Russians.[31]

According to Bancroft, using an unidentified source, Bocharov had intended to go farther, "to the coast of the Aglegmutes," but could not because his skin boats were waterlogged from constant use.[32] At any rate, blocked by bad weather, he decided to return to Kodiak by portaging across a narrow part of the yet unexplored peninsula by a route described to him by the natives.[33]

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29 Tikhmeneff, *op. cit.*, I, 39-40. Another translation of Tikhmeneff says that the party was to winter "in the first bay to the left of the Alaska Peninsula," which version seems to make more sense. Such an inlet would be the present Kvichak Bay or Nushagak Bay. Peter Aleksandrovich Tikhmenev, *The Historical Review of Formation of the Russian American Company and Its Activity up to the Present Time*, translated by Dimitri Krenov (2 vols., typewritten, Seattle, 1939), I, 38 (hereafter cited as "Tikhmenev" to distinguish it from the "Tikhmeneff" translated by Michael Dobrynin).

30 Tikhmenev, *op. cit.*, I, 41. There is some question as to the extent of Bocharov's explorations. Certain evidence may indicate he reached the Nushagak River and Iliamna Lake. VanStone, *Eskimos of the Nushagak River*, 4.

31 Petroff, "Report," *Tenth Census*, VIII, 103.

32 Bancroft, *History of Alaska*, 320.

33 Petroff, "Report," *Tenth Census*, VIII, 103.

Again according to Bancroft, the passage was made, with the baidars, in three days.[34] "In this manner," later wrote the Russian fur-trading officer and historian, Tikhmeneff, Bocharov "discovered the very shortest and most feasible route from the north side of the peninsula to its southern coast."[35]

After repairing their boats, evidently at a bay opposite Kodiak Island, the explorers crossed the strait and rejoined Baranov at Three Saints on June 27, 1791. It is said that Bocharov brought with him not only a large quantity of furs and walrus ivory but "a number of good charts."[36]

Unfortunately, Bocharov's maps, if they have survived, are not available for examination. Thus his "shortest and most feasible route" must remain a matter of conjecture despite the definite statement by one authority that the portage was made by way of Becharof Lake which lies a short distance south of Katmai National Monument.[37]

During his long reign (1790-1818) as manager of affairs in Russian America, Alexandr Baranov sent many expeditions to discover new hunting grounds, but he did not conduct an organized program of scientific explorations. Such work had to await the arrival of his successors, who reflected the emergence of the Imperial Navy as the dominant factor in the Russian American Company.

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34 Bancroft, *History of Alaska*, 320.

35 Tikhmeneff, *op. cit.*, I, 43.

36 Bancroft, *History of Alaska*, 320; Petroff, "Report," *Tenth Census*, 103.

37 Brooks, *Blazing Alaska's Trails*, 205. Becharof Lake, on one of the easiest trans-peninsula portage routes, seemingly was named for Master Bocharov, and thus there is logic to Brooks's conclusion. It is generally stated that the lake was named by W.H. Dall in 1868. Orth, *Dictionary of Alaska Place Names*, 120. But the name "Bescharow" is affixed to the first large lake south of Lake Naknek on a map published in Helsingfors in 1855. Holmberg, H.J., *"Karte des Russischen Amerika Nach den neuesten Quellen."* More commonly, however, the Russians seem to have designated the present Becharof Lake as "Ozero Ugashek" or "Oogashake." In considering the origin of the lake's name, it is perhaps worth noting that there was at least one other "Becharof" in the Russian colonies at that time: Ignaty Botcharoff, "the Kodiak interpreter," who was killed by the natives in 1794. Tikhmeneff, *op. cit.*, II, appendix [b], 135.

The results of Russian and foreign explorations in Alaska and the adjacent seas prior to the effective entry of trained Russian naval officers into the field were summarized in an excellent chart published at St. Petersburg in 1802 by the "Quarter-Master General's Department." Entitled "Map of the Marine Discoveries of Russian Navigators in the Pacific and Icy Seas, Accomplished in Various Years: Compiled at His Imperial Majesty's Department of Charts, Corrected by the Latest Observations of Foreign Navigators . . .," it indicates the locations of what appear to be two inhabited places on the coast of the present Katmai National Monument. The name of one, about where Kaguyak is shown on modern maps, seems illegible on the copy available, but that of Katmai is quite clear. This must be one of the earliest appearances, if not the earliest, of the name "Katmai" on a published map.[38]

Even under Baranov, however, there were occasional visits by trained navigators and scientists which resulted in permanent, recorded additions to geographical knowledge. By an imperial decree, Russian naval officers were permitted to take temporary employment with the Russian American Company without loss of rank or pay. The first to avail themselves to this opportunity were Lieutenants Gavril Ivanovich Davidov and Nikolai Alexandrovich Khwostov. Leaving St. Petersburg early in 1802, they made a journey of scientific observation among the Aleutians, on Kodiak Island, at Cook Inlet, and at Sitka before arriving back at the Russian capital in 1804. Davidov's account was published in two volumes by the Naval Printing Office in 1810 and 1812.[39]

The two naval officers returned to Sitka in 1805 in company with Grand Chamberlain Nikolai Rezanov, who was engaged in an intensive inspection of the Russian colonies in the New World. Also in his suite was a young German physician, Georg Heinrich von Langsdorff, who was engaged as a naturalist. On July 27-29, 1806, Langsdorff and Wilhelm G. Tilesius visited Kukak Bay, on the west coast of Shelikof Strait about 30 miles northeast of Katmai. Here, within the present Katmai National Monument, they collected botanical specimens, and Langsdorff and the ship's captain made a "sketch" of the harbor. Langsdorff noted that a nearby Eskimo settlement was called "Toujajak."[40]

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38 United States, *Alaskan Boundary Tribunal*, atlas, map 6.

39 Bancroft, *History of Alaska*, 458-459; Orth, *op. cit.*, 12.

40 Cahalane, *A Biological Survey of Katmai National Monument*, 15; Orth, *op. cit.*, 549; Langsdorff, *Voyages*, II, 233-235.

During the next decade and a half there were several actual and projected Russian exploring expeditions in the North Pacific and in the Bering Sea, but apparently none of them added significantly to knowledge of the lower Alaskan Peninsula. After the establishment of Alexandrovski Redoubt at the mouth of the Nushagak River in 1818, however, the search for information concerning western Alaska was pushed more vigorously.

In 1821 the current manager of the Russian American Company's possessions, Captain Matvei Muraviev of the Imperial Navy, sent two of his officers, Adolf Karlovish Etolin and Vasili Stepanovich Khromchenko, to survey the coast from Bristol Bay northward to Norton Sound. The two explorers continued their probings during the next year, and in the course of their travels they paid two visits to Nushagak Bay.[41] It may have been during these voyages that the name "Naknek" -- writen as "Naugeik" -- for the Eskimo village at the mouth of the Naknek River was first formally recorded by the Russians.[42]

The results of the naval explorations up to 1826 were collected in the Russian Hydrographic Office and published in St. Petersburg during that year under the title *Atlas of the Northern Part of the Pacific Ocean*. The 33 sheets in this important work were compiled under the direction of Vice-Admiral and Hydrographer Gavrila Andreevich Sarichev, who as a young lieutenant had visited Alaska with the Billings Expedition. Several place names in the Katmai region, including "Naugvik" (Naknek) and "Kukak," appear on map 3 of this atlas.[43]

Another major contribution to geographical knowledge of Alaska was the publication during 1827 of Captain A.J. von Krusenstern's *Atlas de l'ocean Pacifique*. Although he never visited the shores of America himself, Krusenstern commanded the first Russian voyage around the world in 1803-1806, and members of his command, notably Captain-lieutenant Iurii Lisianskii, surveyed parts of the Alaskan coast. From data gathered during his expedition and from other

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41 The best available account of these expeditions in English appears to be VanStone, *op. cit.*, 7-9.

42 Orth, (*op. cit.*, 671) states that this name was reported "about 1821" by Capt. Lt. Mikhail Nikolaievich Vasiliev. This could have been, since Capt. Vasiliev voyaged in the Unalaska-Sitka region in 1820 and 1821 in command of the *Discovery*. *Ibid.*, 42. However, the information available in English does not permit a determination of the circumstances in which he could have obtained the name "Naugeik." On the other hand there seems to have been another Vasiliev, a "Master Vassiliaef," with Etolin and Khromchenko in 1821-1822, and he may have reported the name. Bancroft, *History of Alaska*, 546.

43 Orth, *op. cit.*, 30-31, 549,671, 1081.

sources, Krusenstern compiled the maps which recorded -- and apparently sometimes first published -- a number of Katmai area place names. These included "Katmay" (Katmai), "Baie Katmay" (Katmai Bay), "P[orte] Aiou" (Hallo Bay), "C[ap] Noughchack" (Cape Nukshak), and "C[ap] Ighiack" (Cape Ugyak).[44]

While past knowledge was thus being collected and published, new explorations were being conducted along the shores of the peninsula. They resulted in the recording of additional place names and in the production of charts which served mariners for a number of years after Russian rule ended in Alaska.

The first of these was under the command of Captain Feodor Petrovich Lütke who at the direction of the Russian Government was engaged from 1826 to 1829 in an exploring expedition around the world. Lütke, in the corvette *Séniavine*, and his companion officer, Captain Mikhail Nikolaievich Staniukovich in the sloop *Möller*, reached Sitka during June, 1827. A little more than two months later they began a careful survey of the north coast of the Alaska Peninsula, a task which extended into 1828. Their work constituted the first detailed charting of that portion of the coast, and their results formed the basis for all maps of that region for many years.[45]

The *Möller* ended its cruise along the peninsula at the mouth of the Naknek River. The point of land north of the entrance was named "Cape Suwarof" by Captain Staniukovich in 1828.[46]

Lütke named a number of localities along the north shore. The results of his surveys were incorporated in the atlas to his *Voyage autour du monde* published in St. Petersburg in 1836. Among the place names recorded on his charts and in the "Nautical Part" of his narrative were those of Naknek Lake, Naknek River, and "Riviere Bristol or Kvitchak" [Kvichak River]. On the south coast, which he did not examine, Lütke's charts recorded a number of Katmai region names. These included "Cap Nelyupiaki" [Cape Kekurnoi], "Cap Koubougakhli" [Cape Kubugakli], "Cap Atouchagvik" [Cape Atushagvik], "Kaiayakak" [Kaguyak], and Swikshak Bay.[47]

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44 Orth, *op. cit.*, 16-17, 255, 402, 502, 708, 1004, 1077.

45 Walter R. Smith and Arthur A. Baker, "The Cold Bay-Chignik District," in A.H. Brooks and others, *Mineral Resources of Alaska, Report on Progress of Investigations in 1922* (U.S. Geological Survey Bulletin 755, Washington, D.C., 1924), 152.

46 Orth, *op. cit.*, 935.

47 Orth, *op. cit.*, 19, 93, 275, 484, 507, 547.

The Russian American Company desired a similar survey for the southern coast of the peninsula, and in 1831 this task was assigned to Sublieutenant Ivan Filippovich Vasiliev, who had just acquitted himself well during two years of exploring the country between Alexandrovski Redoubt and the Kuskokwim River in western Alaska.[48] Proceeding in baidars to Cape Douglas, Vasiliev and his party worked southward, examining the shoreline of the present Katmai National Monument.

Exactly how far Vasiliev's surveys extended seems to be uncertain. Tikhmeneff, the authoritative Russian historian, in one place says the examination was made "with great minuteness" for 80 miles along the coast below Cape Douglas.[49] A few lines farther down the page, however, he states that Vasiliev's exploration ended at "Cape Kumliuk," which is the present Cape Kumliun far out on the peninsula near Chignik Bay.[50]

Perhaps the explanation is that Vasiliev's examination extended over two years, 1831 and 1832, and that the shore as far as Katmai Bay was surveyed during the first season. At any rate, it is generally stated that his work was carried west "nearly to Chignik Bay."[51]

Vasiliev's chart was published in Lütke's *Voyage autour du monde*. He reported the name "Akulogak" for Naknek Lake, and he recorded the native designation "Kukak" for an Eskimo village four miles southwest of von Langsdorff's "Toujajak Village." He also named "Kaflia" from the Dutch "Kafel," and recorded the native name for "Yugnat Rocks."[52]

Vasiliev's surveys decisively remedied the "imperfect state" of knowledge which had existed concerning the southern peninsula coast. Among other things, they revealed that Shelikof Strait was

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48 VanStone, *op. cit.*, 9-10; Tikhmeneff, *op. cit.*, I, 367; Tikhmenev, *op. cit.*, I, 348-349. Vasiliev's rank is given by various authorities as master, ensign, sublieutenant, lieutenant, and captain. The form "sublieutenant," used by Tikhmenev, is adopted here as a reasonable compromise.

49 Tikhmeneff, *op. cit.*, I, 367.

50 Tikhmenev, *op. cit.*, I, 348-349; Orth, *op. cit.*, 552.

51 Orth, *op. cit.*, 40-42.

52 *Ibid.*, 42, 483, 549, 671, 1068.

narrower than hitherto supposed.[53] His charts, like Lütke's, long served as the basis for future maps of the region.[54]

The survey of the peninsula's south coast was continued in 1836 by Lieutenant Woronkofski, an officer of the Corps of Naval Cadets who had entered the service of the Russian American Company.[55] In command of the transport *Kodiak* he sailed from Kodiak Island across Shelikof Strait to Katmai Station and then followed the shore westward to Cape Kumliun, where Vasiliev's exploration ended. From there he worked still farther to the west as far as Unimak Island, until his surveys linked with those made by Captain Staniukovich in 1828.[56]

Thus, in the decade from 1827 to 1836, the shoreline of the entire Alaska Peninsula was carefully surveyed. The results of this work, as well as other accumulated knowledge, were incorporated in a valuable series of charts of northwest America, the Bering Sea, and the Arctic Ocean issued by the Russian Hydrographic Department between 1844 and 1854.

The coast of the present Katmai National Monument is depicted on Hydrographic Department Chart 1378, issued in 1847. On it appear a number of place names which, apparently, were there published for the first time or which differ from versions printed earlier. Among them are "M[ys] Nunakalkhak" (Cape Kekurnoi), "M[ys] Iltugitak" (Cape Ilktugitak), "Z[aliv] Kaflya" (Kaflia Bay), "M[ys] Nukhshak" (Cape Nukshak), "M[ys] Igisk" (Cape Ugyak), "K[amen] Yugnat" (Yugnat Rocks), "Os[trov] Takali" (Takli Island), "M[ys] Govorushechiy" (Cape Gull), and "Os[trov] Ukayukhpalyk" (Kiukpalik Island).[57]

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53 Alexander George Findlay, *A Directory for the Navigation of the North Pacific Ocean . . .* (2nd ed., London, [1870]), 497, 501.

54 Smith and Baker, "The Cold Bay-Chignik District," 152.

55 Tikhmeneff, *op. cit.*, I, 367, states that "Voronkovsky's" survey was conducted in 1837, but Orth, *op. cit.*, 42, evidently using more complete data, says the work was carried out in 1836 along the mainland coast and extended in 1837 to the Shumagin Islands.

56 Orth, *op. cit.*, 42; Tikhmeneff, *op. cit.*, I, 367.

57 Orth, *op. cit.*, 28, 396, 450, 483, 507, 527, 708, 942, 1004, 1068. A part of Chart 1378 is reproduced, on a reduced scale, on page 30 of Orth.

The expeditions of Lütke and Vasiliev were the last important scientific explorations to be conducted along the peninsula shores during the period of Russian rule.[58] Thereafter, except for searches for minerals, the quest for geographical knowledge was largely confined to the task of assimilating and publishing previously obtained results.

An "admirable summary" of the geographic and geologic work accomplished in Alaska to 1848 was compiled by Dr. Constantin Grewingk and assembled conveniently in a single volume. This work, whose title translated into English was *Contribution to the Knowledge of the Orography and Geography of the Northwest Coast of America and Neighboring Islands,* was published at St. Petersburg in 1850.[59]

Among other information concerning the peninsula, it contained notes on paleontology prepared by German scientists from specimens collected by Russian explorers and naturalists. One of the latter was Ilia G. Wosnesenski, who was sent to the American colonies in 1839 by the Imperial Academy of Sciences of St. Petersburg. During the years from 1840 to 1843 he conducted wide-ranging studies in California and Alaska. His extensive scientific collections included Jurassic fossils obtained at Katmai Bay. These were described and figured by Grewingk.[60]

The crowning achievement of Russian geographical efforts, however, was the great atlas, *The North-western Coast of America from Bering Straits to Cape Corrientes and the Aleutian Islands, with the Addition of a Few Points on the North-eastern Coast of Asia,* published by Captain Mikhail Dmitrievich Tebenkov in 1852. Tebenkov served in the American colonies for many years and was governor from 1845 to 1850. He personally took part in a number of surveys along the coasts of Alaska and made an effort to improve the charts available to the Russian American Company's navigators.

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58 Wallace W. Atwood, *Geology and Mineral Resources of Parts of the Alaska Peninsula* (U.S. Geological Survey Bulletin 467, Washington, D.C., 1911), 10.

59 C. Grewingk, *Beiträge zur Kenntniss der orographischen und geognostischen Beschaffenheit der Nord-west Küste Amerikas, mit den anliegenden Inseln* (St. Petersburg, 1850). For descriptions of this work see Atwood, *op. cit.*, 10-11; Orth, *op. cit.*, 15, 1075.

60 William Healey Dall, "Observations on the Geology of Alaska," in George Davidson, *Coast Pilot of Alaska* (Washington, D.C., 1869), 197; Orth, *op. cit.*, 42.

Between 1848 and 1850, while he was serving as governor at Sitka, Tebenkov directed the compilation of 39 maps of Alaska and the northern Pacific area. The charts were engraved in Sitka by Kozima Terentiev, a creole, and Tebenkov assembled them into his atlas and published them at St. Petersburg. This work, which was based on all previous explorations, has been termed "the most important contribution to the geography of Alaska made during the entire Russian occupation."[61]

The Katmai region is shown on maps 4 and 22 in the Tebenkov atlas. Among the place names which apparently were published for the first time on these charts are "M[ys] Kekurnoy" (Cape Kekurnoi), "Z[aliv] Katvik" (Kashvik Bay), "M[ys] Kulyak" (Cape Kuliak), Ninagiak Island, and "K[amen] Shakhun" (Shakun Rock).[62]

One phase of Russian scientific exploration in Alaska concerned a search for mineral resources, and this activity played its part in unveiling the Katmai region to the western world. The existence of coal deposits in the Russian colonies had been known at least as early as 1786, when Nathaniel Portlock reported beds in the Kenai area of Cook Inlet.[63] As Russian trading operations expanded and the country became better known, it was soon evident that coal deposits were widespread.

Exactly when lignitic beds were discovered on the shores of Shelikof Strait within the present Katmai National Monument is not clear. It seems probable, however, that such finds were known in Russian scientific circles by the late 1830's; and Ilia G.

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61 Brooks, "History of Explorations and Surveys," in Sherwood, *Alaska and Its History*, 38. For information on Tebenkov and his atlas, see Bancroft, *History of Alaska*, 576; Orth, *op. cit.*, 37, 1082.

62 Orth, *op. cit.*, 499, 507, 550-551, 689-690, 859.

63 Ralph W. Stone, "Coal Resources of Southwestern Alaska," in Alfred H. Brooks and others, *Report on Progress of Investigations of Mineral Resources of Alaska in 1904* (U.S. Geological Survey Bulletin 259, Washington, D.C., 1905), 151.

Wosnesenski, who collected with a fine-tooth comb throughout the colonies from 1840 to 1843, must have noted signs of coal when he was in the Katmai area.[64]

Reports of the Russian coal discoveries soon spread far and wide throughout the Pacific, carried by seamen wherever the company's vessels touched port. Late in 1847 they reached the ears of the United States Army quartermaster in San Francisco, who was seeking a source of fuel for steamships. "I am told that there is fine coal at some point on the Russian American coast near the island of Kodiak: perhaps on that island," he wrote to an officer of the Hudson's Bay Company.[65] Perhaps the accounts he heard referred to the deposits on the Katmai coast.

The Russians, however, made little effort to exploit Alaska's mineral resources. The fur trade was their principal interest and absorbed most of their energies. But as the sea otter became fewer and after the California gold discovery revealed the potential profits to be realized from mining along the Pacific Coast, the Russian American Company decided to explore the possibilities in this new field.

In 1849 a mining engineer named Peter Doroshin was brought to Alaska by the firm, and during the next two summers he searched for gold on the Kenai Peninsula without great success. Somewhat discouraged, the firm put Doroshin to looking for coal during 1852.

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64 Stone, "Coal Resources," 151, citing Grewingk, *Beiträge zur Kenntniss,* 39-41; and Ferdinand von Wrangell, *Statistische und Ethnographische nachrichten über die Russischen Besitzungen,* in E.K. von Baer, ed., *Beiträge zur Kenntniss des Russischen Reiches,* I (St. Petersburg, 1839), 168-170.

In 1892 William Healey Dall, who had traveled extensively in Alaska both before and after the change of flags in 1867, said that "the Russians" reported "good coal and plenty of it" behind Takli Island on the Katmai Coast. However, the date of these reports is not given. William Healey Dall and Gilbert Dennison Harris, *The Neocene of North America* (U.S. Geological Survey Bulletin 84, Washington, D.C., 1892), 238.

65 J.L. Folsom to James Douglas, San Francisco, December 22, 1847, in Correspondence Book, Fort Vancouver, 1848, MS, B.223/b/37, fos. 29-29d, in Hudson's Bay Company Archives, London.

Sailing westward along the shore of the Alaska Peninsula from Kenai, Doroshin reached Kamishak Bay. From there he pushed overland across the mountains to Lake Iliamna and then continued by boat down the Kvichak River and Kvichak Bay to the mouth of the Naknek River. Ascending the latter stream, he entered the present Katmai National Monument and followed Naknek Lake to a stream he called the Mishket River. This water course, probably today's Ukak River, was navigated as far as "the rapids," where the engineer once more took to the land and struck out over the range to Katmai.

Taking this long swing westward to the Bristol Bay region had caused Doroshin to miss an already known coal deposit at a place called Kanikagluk Bay, perhaps the present Amalik Bay or Kukak Bay, on the Pacific side of the peninsula east of Katmai. He sent a party to collect samples and was enthusiastic over the results. He regarded the coal from this location as the best in Alaska. However, after completing his exploration farther west along the peninsula and after additional studies in southeastern Alaska, he returned to Russia in 1853 or 1854 and recommended development of coal mines on the Kenai Peninsula.[66]

The Russian American Company followed Doroshin's suggestion, and from that time until the change of flags there is no evidence that the search for coal was an important factor in the exploration of the northern peninsula. Oil was found by the Russians on the west shore of Cook Inlet as early as 1853; and, as shall be seen in a later chapter, evidence of petroleum was discovered near Katmai Bay by about 1865.[67] But there was little interest in oil at that time, and thus the quest for it did not inspire further exploration of the Katmai area. Such developments had to wait the arrival of new rulers.

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66 This account of Doroshin's explorations is based upon Frank A. Golder, "Mining in Alaska Before 1867," in Sherwood, *Alaska and Its History*, 150-153.

67 Don J. Miller, Thomas G. Payne, and George Gryc, *Geology of Possible Petroleum Provinces in Alaska* (U.S. Geological Survey Bulletin 1094, Washington, D.C., 1959), 1, 9.

CHAPTER VI

The Katmai Crew

It has been seen that the first Russians to trade along the Katmai coast evidently received a friendly reception from the native inhabitants. The parties that explored the Alaska shores as far as Kamishak Bay in the winter of 1785-1786 reported no difficulties in carrying on their commerce, and during the summer of the latter year John Meares met a Russian who seems to have been visiting the mainland coast of Shelikof Strait. Earlier in 1786 Shelikhov confidently planned to station men at Katmai and at "the summer settlement" a short distance northward toward Kamishak.[1]

"In order to strengthen the hold of our company on the region," Shelikhov instructed his manager on May 4, 1786, "an effort should be made to induce the native tribes of Kykhtak [Kodiak], Alaksa [Alaska Peninsula], Kenai [Cook Inlet], and Chugatch [east side of Cook Inlet-Prince William Sound area] to become Russian subjects." A census should be taken of the inhabitants, and on the basis of it tribute should be collected "in return for the Empress's protection." Natives who regularly paid the tribute and were loyal subjects of the Empress might be rewarded with presents.

The natives were to be informed of the benefits of Russian laws and regulations. It was to be made clear that good subjects would prosper while "evil-disposed ones" would "feel the might of Her Majesty's arm." In order to avoid bad government, agents appointed by Shelikhov's manager were to have full power over the native settlements, and if possible an overseer would be placed in each.

Hostages were to be taken, but they were to be well treated. Justice should be impartial, and an end must be put to laziness and lack of thrift. The trading of furs from the natives must be on the basis of voluntary agreement, and no trade on credit was to be permitted.[2]

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1 The seasonal settlement probably was Kukak.

2 Tikhmeneff, *Historical Review of the Origin of the Russian-American Company*, MS, II, appendix [b], 17-24.

Perhaps the natives of the Katmai coast were not as eager to become tribute payers and forced hunters as Shelikhov believed they should be, for soon evidence begins to appear that the inhabitants of the peninsula had become decidedly unfriendly. It is undoubtedly significant that the Shelikhov Company early in 1786 established its first temporary mainland settlement to the east of the peninsula in Cook Inlet and that the first permanent Russian station on the mainland was also located there by the rival Lebedef Company later in the same year.[3]

The historian Tikhmeneff, in a work published in 1861, mentioned these early stations at Cook Inlet. "But," he added, "the inhabitants of the Peninsula of Alaska permitted no settlement on their soil and were irreconcilable."[4] When Shelikhov's new manager, Baranov, reached Kodiak during the summer of 1791, the natives on the peninsula still had not allowed any Russians to settle among them and "were held to be hostile."[5]

It was evidently during that same year, 1791, when that hostility broke into violence. The existing record provides but meager details. During August of that year the ship *Saint George*, belonging to the Lebedef-Lastochkin Company, entered Cook Inlet, and soon the Lebedef men were making assaults upon the post and parties of the rival Shelikhov Company there. In so doing, wrote Tikhmeneff more than a half century later, the intruders took advantage of the temporary absence of the Shelikhov hunters, "who had gone to punish the inhabitants of Alaska [the Alaska Peninsula] for participating in the destruction of the Katmai party."[6]

Another translation of the Tikhmeneff account places the affair in a somewhat different light. It states that Shelikhov's men were absent "to punish the Alaskans who took part in robbing the Katmai crew."[7] Regardless of which version is the more accurate, it is interesting to speculate that the "Katmai crew" may have been one of the six native hunting parties under Russian control of which Commodore Billings had been told at Three Saints during 1790.

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3 Bancroft, *History of Alaska*, 228, 314.

4 Tikhmeneff, *op. cit.*, I, 35.

5 Bancroft, *History of Alaska*, 321.

6 Tikhmeneff, *op. cit.*, I, 37. Since the strife between the rival trading companys lasted for several years in the Cook Inlet-Prince William Sound region, it is difficult to ascertain the exact date at which the Shelikhov hunters engaged in the punitive expedition to the peninsula.

7 Tikhmenev, *The Historical Review of Formation of the Russian-American Company*, MS, I, 35.

The punitive expedition seems to have had the desired effect. At least it is reported that an agent of the Shelikhov Company was able to include the village, which he called "Yakatmak," in a census taken in 1792.[8]

A more positive step toward Russian settlement of the northern peninsula occurred during the spring of that year, when a native chief from the Bristol Bay side arrived on Kodiak Island to see Baranov. This man, who was the leader of "one of the most populous tribes of the peninsula," had met Bocharov during the latter's exploring voyage the preceding year and had been given a medal bearing the arms of Russia.

The chief told Baranov that his people wished to be friends with the Russians and that they desired protection from tribes living on the coast and to the north in the interior. In return for this protection he submitted all his countrymen to Baronov's rule. As a guarantee of his sincerity he volunteered to move with his family to the neighborhood of a company establishment and he offered as hostages six men whom he had brought with him.

Baranov promptly accepted this proposal, since it was "the first indication of the possibility of a better understanding with the independent natives of the peninsula." At that time the Russians were particularly anxious to have such an alliance because of the importance placed upon the Iliamna portage route. The Russians were too few in number to keep this passage open unless peace with the native residents could be maintained.[9]

Friendly relations with the natives of the northern side of the peninsula were maintained with difficulty. On July 24, 1793, Baranov reported to Shelikhov that he had placed four settlements in that region "under the sovereignty of the Monarch" but that the company had very little interest in the people there because they did not know how to hunt sea otters and because there were few fur-bearing animals in their territory.

Although the Shelikhov men thus largely left these people alone, Baranov was disturbed when he heard that employees of the rival Lebedef firm had looted two of the friendly villages and carried the inhabitants into captivity. "We did not want them to be plundered," he told Shelikhov, "as they were our allies," and furthermore, "in time these tribes may be useful for our enterprises in the north."[10]

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8 U.S., Census Office, *Eleventh Census*, 33.

9 Bancroft, *History of Alaska*, 324-325; Tikhmeneff, *op. cit.*, I, 43.

10 Tikhmeneff, *op. cit.*, II, appendix [b], 90-91.

According to Bancroft, these villages were in the Iliamna and Nushagak regions.[11] If so, Baranov's concern seemingly was that the raids would alienate the natives who controlled the important trans-peninsular routes.

Little is known about Russian advances on the northern part of the peninsula during the next few years, but from scattered bits of evidence it is apparent that the natives were gradually being brought under control. In 1794, for instance, Baranov sent a party of more than 500 bidarkas from Kenai (Cook Inlet) eastward to Yakutat Bay. Among the natives of Kodiak, Kenai, and Prince William Sound who manned the flotilla were a number of "Alaskans," as the residents of the peninsula were then termed.[12]

On May 20, 1795, Baranov made a report of his activities. "In the interior of Alaska," he told Shelikhov, "in the northern part of the peninsula there are now five large and small pacified settlements which gave us hostages. These have been taken to Karluk [on Kodiak Island] and Katmai trading post on the Alaska Peninsula."[13] These words indicate that the Russians by that date had definitely established themselves at Katmai. They also may show that the term "Katmai crew" which appears in the record as early as 1791, may have referred to something more substantial than merely a hunting party operating in the Katmai area.

"I also," continued Baranov, "obtained as captives, by chance, three northern Alaskans, two girls from the large Aglogomute settlement on the mainland beyond Bristol Bay. On finding out everything I wanted from them, I ransomed them. Then after giving some presents to one of these girls, I sent her together with Gregory Raskashchikoff and some of the braver new converts among the local Alaska natives to her native settlement with offers of establishing peaceful relations."[14]

At the time of writing his letter, Baranov did not know the results of this embassy; but he was not too concerned since his examination of the captives had convinced him that the country of the "Aglogomute" was not rich in furs. He hoped, however, that

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11 Bancroft, *History of Alaska*, 340. Evidently these villages were those referred to by Tikhmeneff when he wrote that in 1793, "In the interior of the Alaska Peninsula hostages were also taken from four villages." Tikhmeneff, *op. cit.*, I, 47.

12 Tikhmeneff, *op. cit.*, II, appendix [b], 130.

13 *Ibid.*, 191.

14 *Ibid.*

through these people he could learn more about the "Kuik-Pagamute and others" who lived farther away and who might have "plenty of beavers."[15]

It was during this same period of the early 1790's, apparently, that the Russians may have made their first penetration of the southwestern Alaska interior. "Extremely scanty" records contain an account of a journey reported to have been made by a Lebedef Company employee, Aleksei Ivanov, from Cook Inlet to Nushagak by way of Iliamna Lake, the Kvichak River, and Kvichak Bay. Ivanov is then said to have ascended the Nushagak River and crossed the mountains to the northward to the Kuskokwim River, from whence he may even have portaged to the Yukon.[16]

While Baranov was tightening his grip upon the far northern reaches of the peninsula, he at the same time had to focus a bit of his widely spread attention upon the Kamishak Bay region, the southern part of which is within the present Katmai National Monument. Deposits of sulphur were found at "Kamyshatsky," and in 1795 Baranov sent off a sample to his superiors in far-off Siberia.[17]

The next summer his ship, *Three Saints*, while on her way to Yakutat Bay was caught by a storm and driven ashore at Kamishak Bay. Two men and two women perished, and the vessel was severely damaged. During the spring of 1797 Baranov sent a ship's carpenter to repair her, but he was able to accomplish nothing.[18]

Perhaps on that occasion, or perhaps during 1798 -- it is difficult to decipher the meaning of existing sources -- Baranov sent a party to make the vessel seaworthy and get her in the water. The task was found hopeless, and the wreck was burned. Some of the men then returned to Kodiak, while the rest "partly pacified" the local natives and took hostages. Then they "returned" to Lake Iliamna.[19]

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15 Tikhmeneff, *op. cit.*, II, appendix [b], 191.

16 James W. VanStone, *Eskimos of the Nushagak River*, 4; Lavrentiy Alekseyevich Zagoskin, *Lieutenant Zagoskin's Travels in Russian America, 1842-1844* (Toronto, 1967), 9-10, 79.

17 Tikhmeneff, *op. cit.*, II, appendix [b], 195.

18 *Ibid.*, I, 69. Bancroft, in his *History of Alaska*, 357, indicates that the vessel was wrecked on her way from Yakutat to Kodiak, but if Tikhmeneff's work is correctly translated in the version available, the event seems to have occurred as above described.

19 Tikhmeneff, *op. cit.*, II, appendix [b], 320.

It seems clear, therefore, that by 1798 the Shelikhov firm was operating as far north as the Iliamna region. The rival Lebedef traders also had a post there. It was attacked by rebellious Kenai natives during that year.[20]

Throughout the period from about 1794 to 1800 this pacification and occupation of the peninsula and mainland coast from Katmai northward was one of Baranov's principal concerns. But it was only one of the problems he had to solve, although most of his troubles were interrelated.

For example, the struggles with rival Russian traders in the Cook Inlet-Prince William Sound area resulted in abuse of the natives. The latter, in turn, conspired to destroy all the Europeans in the region, "receiving also encouragement from the treacherous tribes on the other side of the inlet, from Katmai northward, who had successfully opposed all attempts to form Russian settlements in their midst."[21] By firm and ruthless measures, Baranov gradually drove his competitors from the field, and with the formation in 1799 of the Russian American Company, with its right of exclusive trade, his victory was complete.

With his rivals eliminated, and with a resultant tighter control over his own employees, Baranov was able to improve relations with the natives and to push ahead with the conquest of the peninsula. But progress was by no means steady. During July, 1800, he mentioned in a letter that news had been received of the murder of three of "our" men at Lake Iliamna by the rebel tribes after Lebedef's employees had left the area.[22]

Another of Baranov's problems was the progressive exhaustion of the fur resources not only on the Aleutian Islands and on the peninsula but also in the rich Cook Inlet-Prince William Sound region. To remedy this situation, Baranov was forced to keep expanding his operations eastward and southward, first to the Yakutat Bay vicinity and then down to the future site of Sitka and beyond.

This search for new sea otter hunting grounds also had its effects upon the development of the northern peninsula. In 1795, for example, Baranov had hoped to send his English shipbuilder, James Shields, to explore the Bering Sea coast north of the point reached by Bocharov four years earlier, a development which almost inevitably would have resulted in a greater interest in trans-

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20 Tikhmeneff, *op. cit.*, I, 71; II, appendix [b], 273-274.

21 Bancroft, *History of Alaska*, 343.

22 Tikhmeneff, *op. cit.*, II, appendix [b], 318.

peninsula routes of travel. But the exigencies of the quest for otters, as well as orders from Shelikhov, caused him to send Shields southward from Lituya Bay.[23]

By 1795 about 700 bidarkas, containing from 700 to 1,400 natives, were being sent annually on the long "sea" expeditions eastward and southward after otter pelts. Because of this drain of manpower, added to the more local employment of about 1,000 men, Baranov reported that the native settlements in the pacified regions remained "almost empty in summer."[24] It is easy to understand why the residents of the northern peninsula did not eagerly come forward to embrace Russian rule.

Beginning in 1794 another force was operating to bring the natives of the peninsula into the Russian orbit. As the result of a petition by Shelikhov and Golikov, Catherine II in 1793 agreed to permit Orthodox clergymen to work as missionaries in the Aleutians; and during the next summer ten clergymen and lay servitors arrived at Kodiak under the leadership of Archimandrite Ioassaf.

Their presence seems to have been somewhat of an embarassment to Baranov, who was having enough troubles without having more mouths to feed and who did not welcome a staff of outsiders who would observe and report upon his methods of operation. He lost no time, therefore, in suggesting to Ioassaf that missionaries be sent out as quickly as possible to the hostile inhabitants of the mainland.[25]

Unfortunately for his plans, winter was at hand, and the manager had to put up with his unwelcome guests until the next spring. Archimandrite Ioassaf improved the long, cold months by baptising "no small number" of natives, including some "Alaskans," who had come to Kodiak Island voluntarily for that purpose.[26]

With the coming of warmer weather in 1795, all of the missionaries except one went to the mainland, there, in the words of Bancroft, "to labor with but indifferent success among the native tribes not previously approached by the pioneers of Muscovite civilization."[27] If any of these clergymen established themselves in

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23 Tikhmeneff, *op. cit.*, II, appendix [b], 192-193.

24 *Ibid.*, 210-211.

25 Bancroft, *History of Alaska*, 352, 360. Bancroft says there were 18 churchmen, but the correct number seems to have been ten. Tikhmeneff, *op. cit.*, I, 52; Hector Chevigny, *Russian America* (New York, 1965), 65.

26 Tikhmeneff, *op. cit.*, 234.

27 Bancroft, *History of Alaska*, 364.

the Katmai area the record still remains hidden. It is known, however, that one of them, Archmonk Juvenal, was sent to Lake Iliamna and perhaps descended the Kvichak River to Bristol Bay before he was murdered by the natives during that same year.[28]

Whatever progress the missionaries made in their first efforts was soon arrested. On the one hand they were faced by a lack of support and even outright hostility from Baranov and many of his employees; on the other they met growing resentment on the part of the natives, largely a reaction to the narrow and intransigent attitude of the priests towards plural marriages. After Archimandrite Ioassaf was called back to Irkutsk in 1798 to be ordained Bishop of Russian America, there was an almost complete breakdown of religious activity in the colony for a number of years. This avenue toward Russianization had temporarily failed.

For fully a decade and a half after 1798, Baranov's energies were largely absorbed by the effort to establish Sitka and then to re-establish it after the settlement was completely wiped out by the Tlingit Indians. During this same period he struggled with the problem of finding a source of food for his growing colony, a campaign which involved founding a post in California and a diplomatic and commercial venture in the Hawaiian Islands that got out of hand. And all the while, by expanding fur-gathering operations even as far south as Lower California, the governor was able to meet the constant demands placed upon him to produce profits.

The inevitable result was a slackening in the effort to occupy the northern Alaska Peninsula. In the words of Lieutenant L.A. Zagoskin, a naval officer who entered the service of the Russian American Company in 1838, "Baranov, left to his own devices, did not have enough men to function at the same time in the west, the south, and the north."[29]

By 1817 the manager was at last in a position to renew his push northward. Some sources claim that the order to establish a trading post on the Nushagak River and to explore the mainland beyond Bristol Bay originated with the central administration of the company; others believe that Baranov probably was responsible.[30]

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28 Tikhmeneff, *op. cit.*, I, 73; II, appendix [b], 320-321. Bancroft, who quotes extensively from Juvenal's "diary," dates the missionary's death in September, 1796, but most scholars today believe that the journal, reportedly "found" by Ivan Petroff, "is almost certainly a fraud." Morgan B. Sherwood, *Exploration of Alaska, 1865-1900* (New Haven, 1965), 68.

29 Zagoskin, *op. cit.*, 79.

30 Tikhmeneff, *op. cit.*, I, 320; Bancroft, *History of Alaska*, 520-521.

At any rate, the instructions were issued and preparations began. But before the expedition could get under way, Baranov's long reign as general manager was abruptly terminated, and he was succeeded by a naval officer.

The exploring party seems to have been under the command of Petr Korsakovski, a company employee who "had some knowledge of surveying and of trade relations with the natives who lived there."[31] Leaving Kodiak in the spring of 1818, the expedition crossed to Cook Inlet and then traversed the base of the peninsula by the familiar route over Iliamna Lake and down the Kvichak River to Bristol Bay. Making their way along the coast to the mouth of the Nushagak River, the explorers divided their forces at the latter place. One group under Fedor Kolmakov was left to construct the proposed station on the Nushagak. The other, under Korsakovski, continued westward and northward along the coast toward the mouth of the Kuskokwim.

Due to the lateness of the season, this party failed to reach its goal and returned to the Nushagak. Korsakovski found the new redoubt essentially completed, and he named it Alexandrovski, probably in honor of the Czar.[32]

It had been Korsakovski's intention to recross the peninsula to the "Katmai Party," but his men objected. They were tired of traveling and wanted to return "straight" to Kodiak by way of Kamishak Bay.[33] Thus by the fall of 1818 the expedition was once more back at district headquarters, but behind them at Nushagak they evidently had left three men and two women to operate the Russian American Company's first Bering Sea trading station.[34]

The establishment of Alexandrovski Redoubt was an event of major importance in the development of Katmai and the adjoining portions of the peninsula. In essence, the frontier of settlement toward northern Bristol Bay had been moved far beyond Katmai, and

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31 VanStone, *Eskimos of the Nushagak River*, 5.

32 *Ibid.*, 5-6; Bancroft, *History of Alaska*, 521-522.

33 Documents Relative to the History of Alaska, MS, III, 258. Korsakovski's journal, April 27-October 4, 1818, is available in manuscript copy in Russia. Zagoskin, *op. cit.*, 10, 30n.

34 VanStone, *op. cit.*, 7; Bancroft, *History of Alaska*, 522. The Russian American Company census giving the population of the colonies on January 1, 1819, lists 3 male Russians and 3 female Russians at Nushagak. It seems reasonable to suppose these people were left there by Korsakovski rather than shipped in after his return to Kodiak, but no definite information seems to be available. Tikhmeneff, *op. cit.*, I, 325.

the Russianization of the peoples in between these two outposts became merely a matter of "filling in," although even this process was not without its setbacks and discouragements. Nushagak became a center from which the cultural, economic, and religious penetration of the northern peninsula's western slope, at least in part, was conducted.

One early result of the founding of a trading center on the Nushagak was the focusing of attention upon transport routes across the peninsula. Evidently the first shipment of supplies to the new post, after the initial stocking by Korsakovski's party, was by ship from Kodiak or Sitka. But Lieutenant Semyon Yanovski, a successor of Baranov as governor, was not pleased with the results. The extensive shoals in the bay in front of Alexandrovski made landing difficult. In the spring of 1820 he recemmended to the company's directors that the settlement be moved to the Kuskokwim River.[35]

The directors in St. Petersburg were not particularly impressed by this suggestion. In a letter dated March 15, 1821, and addressed to Yanovski's successor as general manager, they pointed out that since the redoubt had already been supplied by sea, it would not be necessary to replenish the stores by ship every year. The lighter trade goods could be brought in from Cook Inlet by way of Iliamna Lake, and the fur returns could be sent out by the same route. For this reason and several others, the directors ordered a delay in the proposed transfer until the Kuskokwim could be explored in detail.[36]

From such evidence as Yanovski's remarks in his diary that he hoped to cross the peninsula to the "Katmai Party," it seems clear that by 1818 the Russians had learned of the portage routes so long used by the natives in traveling back and forth between the Katmai neighborhood on Shelikof Strait and the shores of Bristol Bay. It is equally evident, however, that the route best known to the Russians and most favored by them was that lying to the north and utilizing Iliamna Lake.

The effect of Alexandrovski Redoubt upon the use of the trans-peninsula portages was heightened in 1832 by the establishment of a subordinate station still farther to the north on the central Kuskokwim River. After two changes of site, the new post was finally located at the junction of the Kuskokwim and Kwick Rivers in 1841

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35 VanStone, *op. cit.*, 7. Bancroft mentions Yanovski's recommendation but seems to imply that it was made in late 1818. *History of Alaska*, 522.

36 VanStone, *op. cit.*, 7; Documents Relative to the History of Alaska, MS, IV, 243.

and was named Kolmakovski Redoubt. It continued to be a center for inland trade north of the peninsula until the Russian American Company abandoned it in 1866.[37]

From the date of its establishment until at least 1845 Kolmakovski Redoubt was supplied from Nushagak.[38] Trade goods were taken north by sled or skin boat depending on the time of year, and furs were brought out from the Kuskokwim by the same means.[39] This extension of its operating territory increased the flow of supplies and trade returns moving through Alexandrovski Redoubt and made the matter of communication with the district depot and headquarters more acute.

Little is known concerning the method by which supplies were carried from district headquarters to Alexandrovski during this period, but evidently the bulk was brought in by sailing ship despite the inconvenience of the landing place.[40] The furs probably were shipped by the same method. It can be assumed, however, that land routes across the northern peninsula continued to be used for the lighter items as had been advised by the company's directors in 1821.

Despite its heavy use, the inland route north from Alexandrovski proved to be an unsatisfactory means of supplying Kolmakovski Redoubt. During the early 1840's Lieutenant L.A. Zagoskin, while exploring the Kuskokwim region, noted that the road was difficult and that fully one half the trade goods shipped from Nushagak post for use at Kolmakovski were given out to the natives in payment for their assistance with the transportation or in exchange for supplies used by guides and by the staff on the Kuskokwim.[41]

The continued expansion of Russian trading operations northward along the shores of the Bering Sea made it possible to remedy this situation. In 1833 a post later known as St. Michael was established on Norton Sound, 60 miles north of the mouth of the Yukon. The next year a creole named Andrei Glazunov explored a route southward from

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37 VanStone, *op. cit.*, 11.

38 *Ibid.*

39 Zagoskin, *op. cit.*, 253-254.

40 VanStone, *op. cit.*, 26.

41 Zagoskin, *op. cit.*, 253-254, 261-262.

St. Michael across the Yukon to Kolmakovski Redoubt, and by 1841 a permanent post -- a dependency of St. Michael -- had been established at Nulato on the Yukon.[42] It was soon evident that it would be more practicable to supply the Kuskokwim post from St. Michael than from Nushagak.

When the brilliant and humane Captain Adolf Etolin became colonial governor in 1840, one of his first moves was to curb the Russian American Company's vast expenses by consolidating posts. In 1844 he announced a plan to eliminate Alexandrovski Redoubt and to replace it by a small station manned only by a bidarka leader (*baidarshchik*) and several "Aleuts." The reduced post, or *odinochka*, was to be subordinate to Nikolaevski Redoubt, an old establishment of emerging importance situated across the peninsula on Cook Inlet in the Kodiak district.[43] Supplies were to be sent from Nikolaevski by the Lake Iliamna route, and thus sea communication with Nushagak would no longer be required. Also, Kolmakovski Redoubt was to be removed from Nushagak control and attached to St. Michael for supervision and supply. Henceforth goods for Kolmakovski would be sent in by the lower Yukon River and not up the Nushagak.[44]

In 1846 these proposals were put into effect. From then until Russian rule ended twenty-one years later, the overland trails from Shelikof Strait and Cook Inlet appear to have carried the chief burden of the reduced commercial traffic from the Kodiak district headquarters to the posts on the Bristol Bay slope.[45]

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42 Clarence C. Hulley, *Alaska, 1741-1953* (Portland, Oregon, 1953), 155-156; VanStone, *op. cit.*, 12.

43 Lieutenant Zagoskin, who visited Alexandrovski in the early 1840's, said that after the death of Fedor Kolmakov, which occurred in 1839, the post and its region were "added to the Kadyak division," seeming to imply that before about 1840 the station had not been in the Kodiak district but in another, probably the Unalaska district. Zagoskin, *op. cit.*, 252; VanStone, *op. cit.*, 11.

44 VanStone, *op. cit.*, 26, 52; William Healey Dall, *Alaska and Its Resources* (Boston, 1870), 275.

45 The linkage of Nushagak (or "Alexandrovski Redoubt" as the post there unofficially continued to be termed) with St. Michael and Kolmakovski Redoubt was not entirely terminated in 1846. During the last few years of Russian rule records indicate that winter mails were transported overland both north and south through Nushagak and Kolmakovski. Those going to Sitka were said to have been carried from Nushagak to their destination by ship. VanStone, *op. cit.*, 12; Dall, *Alaska and Its Resources*, 274. Since ships probably did not visit ice-bound Bristol Bay in winter, one wonders from whence the ships departed. Could the mails have been carried overland to open water at Cook Inlet or even at Katmai?

According to recently translated Russian American Company documents, the establishment of Alexandrovski Redoubt at Nushagak in 1818 had additional far-reaching effects upon the northern peninsula. By taking under their protection the Aglegmiut who were then living along the Bristol Bay coast near the mouth of the Nushagak River, the Russians enabled those people to expand still farther southward along the coast, perhaps as far as the mouth of the Naknek River and beyond.[46]

Since the Russians at Nushagak are said to have supported the Aglegmiut in their trading and hunting into adjacent territory, it is possible that within a few years they took steps to capitalize upon the advance of their wards by founding a subpost in the Naknek River drainage.[47] At any rate, by 1828 a station, named "Fort Suvarov," apparently had been established on the north bank of that stream near its mouth. It must be admitted, however, that data presently available do not indicate whether this post, if indeed it existed at all, was subordinate to Alexandrovski or to Katmai, or if it was independent of both.[48] "Taugwik," the native settlement at the river mouth, reportedly was destroyed in 1839, and there seems to be no further mention of a Russian post in the Naknek vicinity.[49]

Company records further indicate that by 1832 the southward advancing Aglegmiut had pushed their predecessors along the Bristol Bay shore back "onto the Alaska Peninsula," presumably into the interior. "Here the latter people, not more precisely identifiable," says the scholar who uncovered the sources, "were Russianized and subordinated to the Katmai station of the Russians."[50]

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46 Oswalt, *Alaskan Eskimos*, p. 4 and map 2.

47 *Ibid.*, 4.

48 The known evidence concerning "Fort Suvarov" is highly unsatisfactory. Orth, *op. cit.*, 935, states that Cape Suworof was named in 1828 "probably after nearby Russian Fort Suvarof," but on p. 671 he states that the Russians at an unspecified date established "Fort Suvarov," named "after the nearby point of land"!

49 Petroff, *Population and Resources of Alaska*, 45. No "Fort Suvarov" appears on any of the early Russian maps thus far examined by the present writer. The earliest representation known to the present writer of "Suworoff" as a settlement (as distinct from the cape) is on the U.S. Coast Survey map, "North Western America . . . 1867."

50 Oswalt, *op. cit.*, 4.

Admittedly there is a great lack of information about occupation and trade patterns on the northern peninsula during the Russian period, but if this theory of very rapid Aglegmiut expansion is correct, much is explained about conditions which apparently persisted long after the change of flags. For instance, in 1880 Ivan Petroff noted that the residents of the Naknek Lake region almost universally carried on their trading operations with the agents at Katmai village on Shelikof Strait, though to do so meant a grueling trip across the mountains and a visit among people of a different cultural group. Commercial relations with the settlements on Bristol Bay were far fewer despite the easy water communication to those points and the closer linguistic and cultural ties with the natives there.[51]

It would appear that a system of trade become so firmly established among the inland people during the period when they were controlled from Katmai that the pattern continued even though they were soon overrun and perhaps assimilated by the ever-advancing Aglegmiut. As early as 1839 the very knowledgeable Father Veniaminov indicated that, except for the Aleut areas, the north slope of the peninsula was inhabited by the latter people.[52]

From the meager data available, then, a hypothetical picture of the Russian American Company's administrative and economic organization of the northern peninsula from the 1820's to 1867 begins to emerge. Immediately along the shore of Bristol Bay and for varying distances inland, the Aglegmiut of the first wave and their descendants held sway. These people were attached for purposes of trade to the Nushagak post. After the abolition of Alexandrovski Redoubt in 1846, the business of the Nushagak station declined, mainly, said one company official, because the natives along the coast showed little enthusiasm for fur gathering and because the posts on Cook Inlet assumed a larger share of the trade.[53]

Inland as far east as the summit of the Aleutian Range and south of the Iliamna and Kvichak drainages, the Eskimos displaced by the Aglegmiut and probably still earlier inhabitants now known as Peninsula Eskimos lived until they were overcome by still further advancing Aglegmiut invaders. The residents of this region, which seems to have extended southward to the Unalaska district, were attached to the Katmai post.

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51 Petroff, *Population and Resources of Alaska*, 44; Petroff, "Report," *Tenth Census*, 25.

52 Oswalt, *op. cit.*, 5. As has been seen in Chapter III, however, certain vestigal differences between the inland and coastal Aglegmiut in the Naknek region have persisted even to the present day.

53 Tikhmeneff, *op. cit.*, II, 496.

The Pacific slope of the Aleutian Range was also under the immediate jurisdiction of Katmai. The trading territory of this important station extended northward along Shelikof Strait to Cape Douglas and the entrance to Cook Inlet and southward to the Shumagin Islands.[54]

The importance of Katmai as a trading center is adequately attested by even the few Russian records available. About 1860 the historian Tikhmeneff gave a description of the company's operations on the peninsula. The only Russian settlement south of Iliamna which he mentioned was Katmai.[55] As early as 1830 the station was being supplied from Kodiak by ship, and in 1845 Katmai was one of the five posts in the Kodiak district designated as depots where supplies were to be accumulated for hunting parties and trading.[56]

From Katmai traders carried their goods overland to the native villages on the Bristol Bay slope, or the Eskimos of that region crossed the range to Katmai with their furs for barter. Ivan Petroff seems to have originated the oft-repeated statement that during the Russian period three important trans-peninsula routes converged at Katmai.[57] There seems no reason to doubt that statement, but only two routes were actually identified by him: the steep trail over the ridge to Naknek Lake and Naknek River later called the Katmai Pass route, and the portage south of Katmai by way of Becharof Lake.[58] Even Petroff admitted that the latter road was easier for parties with heavy loads, and it was often preferred, particularly in summer.

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54 Petroff, *Population and Resources of Alaska,* 32-33.

55 Tikhmeneff, *op. cit.*, II, 475.

56 *Ibid.*, I, 411; II, appendix [a], 116. Among the stores to be accumulated were seal skins, sea lion and seal guts, marmot parkas, and "deer" [caribou] skins. Whalebone for baidarka frames and sea lion throats for making shoes were also sent to depots for use in villages where such items were scarce. *Ibid.*, II, 345.

57 Petroff, "Report," *Tenth Census,* 24-25.

58 Petroff, *Population and Resources of Alaska,* 33. Evidently trying to complete Petroff's statement, W.C. Mendenhall later said that two of the three trails "long in use by Russian traders and Indians" used the Naknek River and Naknek Lake route and one the Becharof Lake route. W.C. Mendenhall, "The Alaska Peninsula and the Aleutian Islands," in U.S. Geological Survey, *Maps and Descriptions of Routes of Exploration in Alaska in 1898 . . .* (Washington, D.C., 1899), 117.

But the "Naknek portage" was certainly well known. It was favored by traders for return trips from Bristol Bay when packs were light, and it was the one principally used during the winter.[59] It was the only trail leading westward from Katmai to be shown on the Russian Hydrographic Department's 1844 and 1847 charts of the Cook Inlet region.[60]

One other old native trail in the Katmai vicinity apparently was used by the Russians. This was the ancient portage from Naknek Lake eastward up the Savonoski River to its headwaters and through a relatively low gap in the Aleutian Range to Hallo Bay, on Shelikof Strait about 50 airline miles northeast of Katmai village.[61]

No Russian American Company records have yet been found, however, to support a statement made by Petroff in 1881 that the portages from Katmai were the principal routes by which the Russians transported supplies for Nushagak and for Kolmakovski Redoubt farther to the north.[62] It may have been true, as he said in a later statement, that the company long preferred the tedious and expensive method of transporting merchandise overland to the risky course of sending sailing craft around the peninsula and through the shallow and stormy Bering Sea, but, as we have seen, records prove that Nushagak continued to receive shipments of heavy goods by sea until about 1846, and after that date Kolmakovski seems to have received its supplies from the north.[63] And for the goods which were shipped across the peninsula, the Iliamna route was favored!

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59 Petroff, *Population and Resources of Alaska*, 33; Spurr, "A Reconnaissance in Southwestern Alaska in 1898," 100. Spurr was not able to identify Petroff's third portage.

60 Orth, *op. cit.*, 30; United States, *Alaskan Boundary Tribunal*, atlas, map 22.

61 This route is shown on the Russian Hydrographic charts of 1844 and 1847 and on an official U.S. Government map drawn in 1869 and presumably based largely on Russian sources. "Alaska and Adjoining Territory, 1869," map 20 in U.S. Coast Survey, *Report of the Superintendent . . . 1867*, 40 Cong., 2 Sess., House, Ex. Doc. 275 (Ser. 1344).

62 "Alaska's Census: Conclusion of Mr. Petroff's Enumerating Journey . . . ," in *New York Herald*, January 11, 1881. Three years later, in his official U.S. Census report, Petroff was more moderate in his statements concerning the Katmai trail and indicated that "several easy portage routes" were used to carry supplies to Nushagak and then on to the Kuskokwim, the Yukon, and St. Michael! Petroff, "Report," *Tenth Census*, 24.

63 Petroff, "Report," *Tenth Census*, 24. It should be noted, however, that winter mails between Kodiak and Nushagak and St. Michael may have been carried over the Katmai route even as they later were for a time in the early twentieth century. No firm data on this point has yet come to light.

From at least 1791, when the "Katmai Crew" first appears in the record as an operating entity, until the end of Russian rule in Alaska, the station at Katmai and the region it controlled were supervised from Kodiak. Thus all of the present Katmai National Monument was in the Kodiak district except possibly for the area at the western end of Naknek Lake which perhaps was in the Unalaska district from about 1818 to the 1840's. In order to understand the process by which the Katmai country was Russianized, it is necessary to know something of the Russian American Company's changing pattern of district organization.

In 1803, when the situation is first made clear in available sources, the far-flung trading stations in the North Pacific area were divided into two districts, one managed from Unalaska and the other from Kodiak.[64] At that time the company's American headquarters and main supply depot were at Kodiak, but during his visit to the colonies in 1805-1806, Grand Chamberlain Rezanov, the dominant figure in the home organization of the firm, ordered the seat of colonial government shifted to Sitka. It seems to have been about 1808 before this move was completed.[65]

Most probably the Kodiak district continued in existence after 1808, but undoubtedly its size was soon reduced to permit the creation of a new district administered from Sitka. When the organization is next described in the records, in 1818, the "colonial offices" -- presumably the seats of district management -- were at Sitka, Kodiak, Unalaska, and Ross (the settlement in California).[66]

In 1820 an able naval officer, Captain Matvei Muraviev, arrived in Sitka as governor. After a tour of the colonies he ordered an administrative reorganization.[67] The number of districts which resulted and their boundaries are not clear from available materials. But some years later, after St. Michael had been established in 1833, there were six districts: Sitka, Kodiak, Mikhailof (St. Michael),

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64 Tikhmeneff, *op. cit.*, I, 158.

65 *Ibid.*, 194, 295. In a letter dated in October, 1816, Baranov said, "I have lived in New Archangel now nine years, without intermission, ever since I have left Kodiak." These words would indicate that the change of headquarters took place in 1807. Alexander Andreevich Baranov to Abram Johns, New Archangel, October 4/16, 1816, MS, in Beinecke Rare Book and Manuscript Library, Yale University.

66 Tikhmeneff, *op. cit.*, I, 318.

67 Chevigny, *Russian America*, 174.

Unalaska, Atka, and Kuril. Following the assignment of the Nushagak post and its area to Nikolaevski on Cook Inlet between 1840 and 1846, the Kodiak district included, among other places, Cook Inlet, the Alaska Peninsula as far south as the Shumagin Islands, the shores of Bristol Bay, and the coast between the mouths of the Nushagak and Kuskokwim Rivers.[68] Thus all the present Katmai National Monument was within the area supervised from Kodiak.

By the early 1860's the Russian possessions in the North Pacific were once more divided into two main districts: Sitka and Kodiak. The area supervised from Kodiak included the Alaska Peninsula north of the Shumagin Islands, the Cook Inlet-Prince William Sound region, the Kodiak Archipelago, the coast of Bristol Bay, the Nushagak River area, and some territory adjoining the Kuskokwim River.

In addition to the two main districts, there were ten subdistricts, all under the direct jurisdiction of Sitka. One of these included Kolmakovski Redoubt. Thus goods for the posts north of Nushagak continued to flow in by the Yukon, and the trans-peninsula portages did not assume importance as major supply lines for the posts in the far north.[69]

The manager of a fur district such as Kodiak exercised a large degree of control over the natives who lived within the area under his jurisdiction. In addition to such normal business functions as requisitioning and storing trade goods and supplies from the Sitka depot and then shipping them to the scattered stations as required; receiving, cleaning, and shipping furs and other products of trade; and supervising the conduct of the operations and the keeping of accounts, the manager rather directly regulated the daily activities of the people under him, particularly the Russianized or "settled" natives who were rather generally classed as "Aleuts" regardless of their tribal origins.[70]

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68 Zagoskin, *op. cit.*, 252; V. Golovnin, "Review of the Russian Colonies in North America," in Material for the History of the Russian Settlements on the Shores of the Eastern Ocean, MS, 52-53. Bancroft, *History of Alaska*, 536, appears to indicate that five named districts were organized soon after 1820, but one of the districts he names is Mikhailoff, which could not have been established until after the founding of St. Michael.

69 Tikhmeneff, *op. cit.*, II, 422-423.

70 S.B. Okun, *The Russian-American Company* (Cambridge, Mass., 1951), 193.

For instance, the manager selected from among the local "chiefs" or leaders the persons to be approved as elders by the governor. As shall be detailed in a later section, these elders were important village officials, responsible for maintaining hunting skills, keeping professed Christians to their religious duties, assigning individuals to hunting parties, maintaining health and sanitation, burying the dead, and a host of other functions.

The manager also gave the orders determining the size and destination of each hunting party. He provided the needed supplies and equipment for the expeditions and maintained stores of food for use in times of famine. On Kodiak Island salmon were both salted and dried at Karluk for distribution to "Aleuts" throughout the district. He was responsible for the conduct of all those living in his district and for the improvement of living conditions.

The Kodiak manager maintained a sailboat for his annual inspections of the stations. Foremen of hunting parties were required to report to him at frequent intervals and to bring their record books to headquarters for scrutiny three times a year. Regardless of the distances involved, each party had to turn in its furs at Kodiak at the end of the hunt, and all hunters' accounts were settled at headquarters. In short, there was scarcely a phase of native life that was not strongly influenced by the district manager.[71]

Almost as important as the fur trade in the spread of Russian influence on the Alaska Peninsula was the revival of missionary effort which gathered momentum by the late 1820's. Baranov had thwarted the first wave of clergymen to work on the mainland, but about 1813 he underwent a change of heart toward the Russian Orthodox Greek Catholic Church. A series of rather shocking personal experiences had turned his mind to religion, and for the first time he requested that a priest be sent to his headquarters settlement at Sitka.[72]

When the Russian American Company's license was renewed in 1821 several priests were sent to the colonies from Irkutsk in Russian Asia. By 1827 there were four churches in Alaska, each the center of a parish. These were at Kodiak, Unalaska, Sitka, and Atka.

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71 This account of the functions of the Kodiak office is based on Tikhmeneff, *op. cit.*, II, 467-468; appendix [a], 114-137.

72 Chevigny, *op. cit.*, 150.

At that time the area within the present Katmai National Monument perhaps was divided between the Kodiak parish and the Unalaska parish, although the situation is not entirely clear. The Kodiak church controlled religious affairs on Kodiak and its neighboring islands, on Cook Inlet and Prince William Sound, and "also on the Alaska Peninsula."[73] Thus, as one noted Russian historian stated, the Kodiak priest "would naturally" have had control over Alexandrovski Redoubt on Bristol Bay and over Fort Saint Michael when it was established in 1833, because the languages of the Eskimos there were closer to those spoken on the northern peninsula than to the tongue of the Unalaska Aleuts.[74]

However, due to the vastness of his parish the Kodiak priest was never able to visit the villages in those remote regions.[75] It can be assumed, therefore, that the effective jurisdiction of the Kodiak parish on the peninsula at this early period probably was confined to the area southeast of the Aleutian Range summit.

The matter becomes confused when the same Russian historian states in one place that the priest at Unalaska had charge of the Fox and Pribilof Islands as well as "Alexandrovsky and Mikhailovsky [St. Michael] Forts," while a few pages later he says that the natives at "Fort Alexander and St. Michael and vicinity did not form a separate parish, nor belong to any of the churches in America."![76] The latter condition was due, he added, to the fact that the Kodiak priest could not visit these distant places at all, while the Unalaska priest could do so only at great intervals. Such religious activity as was carried on in the Nushagak region during the two decades following the founding of Alexandrovski in 1818 was largely the work of Fedor Kolmakov, the post commander. It is not known, however, that his efforts extended as far south as the Naknek drainage.

In 1823 the vigorous, intelligent, and compassionate young priest, Father Ivan Veniaminov, was assigned to Unalaska, and before long he requested permission of the bishop in Irkutsk to preach on the northern shores about Nushagak.[77] The fact that it was necessary to obtain approval may indicate that the Bristol Bay area was technically within the Kodiak parish even as it was in later years.

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73 Tikhmeneff, *op. cit.*, I, 374.

74 *Ibid.*, 382.

75 *Ibid.*

76 *Ibid.*, 374, 382.

77 *Ibid.*, 383; VanStone, *op. cit.*, 21.

Veniaminov visited Nushagak in 1829 and again in 1832. In the latter year the colonial governor ordered the construction of a chapel at Alexandrovski, and six years later another Unalaska clergyman, Father Gregory Golovin, visited the settlement.[78] It is apparent that, regardless of which parish had formal jurisdiction, it was Unalaska that provided such religious supervision as was given.

The Alaskan churches and their subordinate chapels were constructed and kept in repair by the Russian American Company. The firm also paid the salaries and lodging expenses of the priests and church servitors. Other operating expenses were met by the sale of candles and by voluntary gifts. Parish priests were required to visit the settlements in their territories at least once a year, and the transportation for these journeys -- bidarkas, crews, tents, and other necessities -- was also furnished by the company. The outlying chapels served as places to administer sacraments and perform ceremonies during the annual visits. At other times during the year the chapels were used by the local inhabitants for assembly and prayer on holy days.[79]

In 1840 Veniaminov reported that Nushagak and Saint Michael were still without clergymen, "since the priest at Kadiak, to whom the former properly belongs, finds it impossible to visit it, and the Oonalashka priest can do so but rarely." He foresaw that a mission would soon be established at Alexandrovski.[80]

Not unpredictably, when Father Veniaminov was named bishop of a new diocese covering the North Pacific colonies, one of his first acts was to ask permission to found a mission on the lower Nushagak. Deacon Ilia Petelin, accompanied by his song leader, Vasili Shishkin, reached Alexandrovski Redoubt on July 19, 1842, and the work of proselyting the natives was pushed with vigor. During the following three years about 400 Eskimos were baptized.

Although there seems to be no record among the sources available for this study that Father Petelin extended his activities into the Naknek basin, such a development is probable.[81] In 1849 it was

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78 Tikhmeneff, *op. cit.*, I, 383-384; VanStone, *op. cit.*, 22-24. The priest's name also appears as "Golovnin."

79 Tikhmeneff, *op. cit.*, I, 375.

80 Petroff, "Report," *Tenth Census*, 157.

81 Dr. Donald E. Dumond of the University of Oregon, who has had information translated from the Orthodox Church records in the Library of Congress, states that he believes he has seen items indicating that baptisms began in the Savonoski region bordering Naknek Lake during the 1840's. Telephone conversation between Dr. Dumond and J.A. Hussey, February 5, 1971.

reported that of all the native groups within the orbit of the Nushagak mission, the Aglegmiut were the most friendly.[82] These people were also described as being the best in observing church rules. "Their very habitations," wrote a missionary, "contrary to general custom, are very clean, and they are very polite and kindly."[83] The Aglegmiut, it will be remembered, by that time ranged from the Nushagak vicinity southward to beyond the Naknek area.

Meanwhile, in consequence of his plan to reduce Alexandrovski Redoubt to the status of a simple trading outpost subordinate to Nikolaevski Redoubt on Cook Inlet, General Manager A.K. Etolin suggested to the Bishop, Veniaminov, late in 1844 that the work of the Nushagak mission should be assumed by a new mission church to be founded at Nikolaevski during the next year. At the same time the converted natives on the Kuskokwim River would be removed from the jurisdiction of Nushagak and placed under the mission at St. Michael.

Veniaminov delayed a decision, saying he would have to obtain the consent of the Holy Synod to the discontinuance of the Nushagak mission. He did, however, send Hieromonk Nikolai to establish the Nikolaevski church, and he directed the St. Michael mission to take under its wing the converts on the Kuskokwim and at other places north of Nushagak. He also instructed the missionary at Nushagak to explore the route to Iliamna Lake, and he directed Hieromonk Nikolai at Cook Inlet to examine the portage to the mouth of the Naknek River.[84]

The priest at Nushagak departed in 1846, and the next year Hieromonk Nikolai started his visits to the Bristol Bay region. Thus Nushagak definitely came under the jurisdiction of the Kenai church on Cook Inlet which, in turn, was part of the Kodiak parish. But the Nushagak mission was not abandoned. Vasili Shishkin remained there to maintain the church and hold services between visits by the Kenai priest, and Hieromonk Nikolai took up residence at Nushagak for about a year in 1850-1851, during which time he visited all the villages under the influence of the mission. Unfortunately, the church records presently available in translation do not give a clue as to how far the missionary work was carried southward into the Katmai region.[85]

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82 VanStone, *op. cit.*, 24-29.

83 Tikhmeneff, *op. cit.*, II, 381.

84 VanStone, *op. cit.*, 26-28.

85 *Ibid.*, 28-29.

In 1853 a resident priest, Hieromonk Theophil, was sent to Nushagak, and by 1861 that point was listed as being one of seven missionary districts in Alaska. Evidently carrying out instructions from Veniaminov to be flexible with the Eskimos in enforcing church rules, the Nushagak priest achieved signal success. By 1864 it was reported that "all the Eskimos in all the villages which the missionary was able to visit had been baptised."[86]

It can be assumed that, in accordance with the usual practice, chapels were erected at the settlements brought within the Orthodox fold. Sometimes these structures were constructed entirely at the cost of the Russian American Company, and sometimes the expense was shared with the communities. But here again, available records do not reveal how far this work extended into the Katmai region. It seems reasonable to assume that the Nushagak parish during the Russian regime included the villages in the upper Naknek drainage as was the case during the suceeding American period.[87]

Hieromonk Theophil remained at Nushagak until June, 1868. By that time the sale of Alaska to the United States during the previous year had caused a retrenchment in the activities of the Orthodox Church in the territory, and he was withdrawn. But the mission long continued under a lay reader to exert its influence over the Bristol Bay slope.[88]

The natives who lived on the shores of Naknek Lake within the present Katmai National Monument must have found the Russian system somewhat confusing. For purposes of trade their lives centered on Katmai over the range to the southeast; their religous activities were focused in Nushagak, a long and troublesome journey away to the northwest.

As the Russians extended their control over the northern peninsula, the lives of the native inhabitants were radically changed. In general, the expansion was accompanied by an amelioration of the harsh exploitation of the *promishlenik* days. This improvement was brought about only in small part by humanitarian Imperial decrees and by the first charter of the Russian American Company in 1799 which prohibited the collection of tribute. The simple truth is that by the end of Baranov's regime in 1818 the Aleuts of the outer peninsula and the Aleutian Islands, and the Koniag of the Kodiak

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86 VanStone, *op. cit.*, 29-33.

87 See Chapter VII *infra.*

88 VanStone, *op. cit.*, 33. How sincerely the Aglegmiut embraced Christianity during the Russian period is open to debate. As late as 1880 Ivan Petroff found that these Eskimos, while professing the Orthodox faith, "retain all their former [pagan] customs and superstitions." Petroff, "Report," *Tenth Census*, 136.

Islands and the southern slope of the peninsula had been so decimated and cowed by massacre, disease, and abuse that harsh repressive measures were seldom required.

The continued existence of these peoples was essential for the business of the Russian American Company, and the firm became more solicitous for their welfare. But basically they were and they remained slaves.[89]

Not until Captain Vasilii Golovnin inspected the colony for the Russian government in 1818 and 1819 and reported on the maltreatment of the natives were steps taken to define their status and to set out specific regulations for their governance. The new charter granted to the Russian American Company in 1821 for a period of twenty years and the succeeding charter of 1844 (which despite expiration in 1862 continued in force until the transfer of Alaska to the United States) treated these matters in detail. Their provisions had the force of law, and partly for that reason a "general improvement in the condition of [the] natives was noticeable" after 1821 and especially by the end of the first charter's term.[90]

On the whole these regulations merely formalized a system of practices that had evolved over a long period of time. And the rules were not always obeyed. For instance, the 1844 charter specified that the "first duty" of the colonial authorities was to keep in each family during the hunting season enough men to provide for the women, children, and the disabled.[91] But a government official toward the end of the Russian period learned that the company was still sending almost all the able-bodied males off to chase otters during the summers, leaving the dependents without means to gather fish for their immediate use and, worse yet, for the winter.[92]

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89 For a prejudiced but still largely accurate summary of early Russian control methods, see Okun, *op. cit.*, 193-197. See also Vladimir Gsovski, *Russian Administration of Alaska and the Status of the Alaskan Natives*, 81 Cong., 2 Sess., Senate, Doc. No. 152 (Ser. 11401), 4-5. As Russian officials were fond of pointing out, however, the so-called "Aleuts" or dependent natives were not the property of the company or of individuals and thus were not slaves in the technical sense, but it was admitted that these people were slaves of "circumstances." Okun, *op. cit.*, 200.

90 Gsovski, *op. cit.*, 7, 10.

91 *Ibid.*, 51.

92 Okun, *op. cit.*, 200.

The charter of 1821 divided the full-blood natives into two classes: (a) those "inhabiting places administered by the Company" or "Islanders" ["Aleuts"]; and (b) those "inhabiting the coast of America where the Company has its colonies." The 1844 document refined these catagories by splitting the second class into two groups, the three resulting divisions being (a) the "settled" or "dependent" tribes ["Aleuts"], (b) the "not wholly dependent" or "semi-dependent" tribes, and (c) the "independent" tribes.

This classification was of basic importance in the Russian colonial system. The dependent natives, generally termed "Aleuts" but including other peoples, were, along with the Russians themselves and the half-breeds (Creoles), recognized as "Russian subjects." As such they were required to conform to the general laws of the Empire, and they also enjoyed the protection of those laws. Neither charter mentioned whether the other natives were considered Russian subjects. The implication is that they were not.

The identification of those groups of people or "tribes" which were classed as dependent was never too precise in the charters. The document of 1844 declared the "settled tribes" to include "the inhabitants of the Kuril Islands, the Aleutian Islands, Kodiak, and the adjacent islands, and the Alaska peninsula; as also, the natives living on the shores of America, such as the Kenai natives, the Chugachs, etc." Other Russian testimony, however, makes clear that not all the inhabitants of the Alaska Peninsula were universally considered to be fully dependent.[93]

Certain Russian officials, and American jurists who later had to deal with the problem of native citizenship, were inclined to consider the acceptance of Christianity as a prerequisite to classification of a group as settled.[94] The charters, however, clearly contemplated the existence of pagans among the dependent peoples. In fact, the right of settled groups to practice native religions was expressly guaranteed, although by 1867 all the dependent tribes were actually Christian. Moreover, there were a number of groups professing Christianity that never achieved the status of settled tribes.

In actuality, groups became dependent when they were willing to submit themselves completely to Russian control. The process was a gradual one in some instances. It began with the Aleuts. When they were conquered they were scattered about among the Kodiak Eskimos to help pacify those people. Then, in turn, both Aleuts and Koniags were distributed along the mainland coast and adjacent

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93 Gsovski, *op. cit.*, 20, 57, 58, 60.

94 *Ibid.*, 12, 55, 59.

islands to promote Russianization there and to make sure the natives concentrated their energies on collecting furs.

As these colonizers did their work, it became customary to describe all of the pacified groups in general as "Aleuts."[95] Then, beginning in 1841, when their task was largely accomplished and when the fur-bearing animals had begun to decline in numbers, the colonizing "Aleuts" were rather generally concentrated in seven settlements. But the process of expanding Russian control continued. During the early 1860's a committee of the Russian American Company's Board of Directors indicated that the Aglegmiut and the Copper River Indians had not yet reached dependent status but probably would do so "soon."[96]

In point of fact, residents of certain Aglegmiut villages, such as those immediately around Alexandrovski Redoubt at Nushagak, probably were already classified as "settled." But as far as the present Katmai National Monument is concerned, the only natives who can surely be assigned to this category were those inhabiting the Shelikof Strait slope of the Aleutian Range.

The entire system of relationships with the dependent peoples was justified upon the premise that while the company required the services of the natives in order to carry out its principal business of fur trading, the likable but irresponsible "Aleuts" needed regulation by the Russians to protect them from harming themselves through laziness, improvidence, warfare, over-hunting, and other hazards of primitive life. "The degree of dependence," said one Russian official, "is conditioned on the mutual needs and relations between the company on the one hand and various native tribes on the other." The more demands the firm made on the natives, the more duties it had. Conversely, the more duties a native tribe had towards the company, the more rights it acquired in compensation.[97] The validity of this assertion was probably more apparent to the Russians than to the hard-pressed "Aleuts."

A summary of the provisions of the two charters gives a general view of the conditions under which the "settled" Koniag of the Katmai coast lived. The dependent natives were directly governed by their own *"toyons"* or "chiefs" who were appointed by the colonial

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95 Dumond, *Reconstruction of An Aboriginal Dwelling*, 38.

96 Gsovski, *op. cit.*, 58; Okun, *op. cit.*, 202.

97 Gsovski, *op. cit.*, 14, 57; Okun, *op. cit.*, 202.

governor.[98] These official, however, were supervised by elders (also called *"toyons"* in some accounts), foremen (reliable company employees), and supervisors of stations or islands (also company employees), as well as by the district managers. "The toyon," said one student of the Russian colonial system, "was nothing but a company clerk."[99] The chiefs had authority in matters of public peace and public welfare, but they had no control over private property. They were expected to set a good example in obeying church precepts and in improving domestic living conditions.

Dependent natives were not allowed to "visit the neighboring shores" without permission of the colonial authorities, though they were permitted to fish and hunt near their homes when not employed on company business. The governor or general administrator was directed "to exterminate such articles of luxury which might harm them or are beyond their means."

The settled tribes were exempt from taxes, military service, or tribute. On the other hand, they were obliged to serve the company as hunters. For this purpose half the male population between the ages of 18 and 50 could be called up for service, but the men were not to be separated from their families for more than two years. Those who served for three years were to be replaced by others if they so requested.

The company was required to furnish the hunters with proper clothes, food, and boats, and to pay for the animals caught according to an established rate. The natives were not allowed to sell or give furs to anyone but the company, except pelts donated to the Church. The firm could employ the native women, but only with their consent and for remuneration.

The property rights of the natives were to be respected. Any "fortune" acquired through work, purchase, exchange, or inheritence was the Aleut's "full property," and anyone who attempted to take it away was to be punished.[100]

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98 For a general description and copy of an elaborately decorated patent appointing a toyon on Attu Island in 1851, see Theodore C. and Caryl Hinckley, eds., "Ivan Petroff's Journal," in *Journal of the West*, V (January, 1966), 55.

99 Okun, *op. cit.*, 200.

100 This summary of the regulations covering relations with dependent tribes is based, except where otherwise indicated, upon the charters of 1821 and 1844, the pertinent provisions of which are translated in Gsovski, *op. cit.*, 43-52.

The all-pervasiveness of Russian control over the dependent peoples is further illustrated by the "Rules for *Toyons* Elected as Elders" issued for the Kodiak district in 1845. The overall function of these minor officials, who were paid 500 rubles a year, was to direct the chiefs and "tribesmen" under them in improving their way of living, so that the objectives of the colonial authorities in concentrating the "Aleuts" in common villages -- to end their "former disorderly life" -- might be attained. To this end they were at all times to serve as good examples.

The elders had certain police functions. They were to see that all Christianized natives strictly complied with their religous duties and the teachings of the priest, and they were required to make every effort to build chapels. They promoted public health by seeing that the people maintained the bath houses, removed "offal," and buried the dead in deep graves in the cemeteries, marking each with a cross. They shipped the sick to Kodiak for treatment. They were responsible for seeing that no Aleut absented himself from his village without permission, and each was to "see to it that no Aleut under his authority is idling away his time."

The elders were also key figures in the conduct of the fur trade. In accordance with guidelines from the Kodiak office, the elders selected men for the hunting parties and assigned them their tasks and to specific hunting or trapping grounds. This authority extended over the sea otter expeditions in the summer and over the trapping and hunting of land animals in the winter, as well as over the hunts for whales, birds, sea lions, seals, and other animals conducted by the people for the supplies needed by the company and for community sustenance.

The elders obtained the necessary supplies, traps, guns, and other equipment for hunting from the local foremen and distributed them to the hunters. They collected these items again at the end of the hunt. Above all, they were admonished to see that the people hunted "with zeal."

Each elder was required to keep a list of the natives under his supervision. He had to bring this with him to Kodiak when assignments to hunting parties were made.

Elders were supervised by the district manager, by "gang foremen," and by the foreman or supervisor of the local trading posts. These superiors, however, while responsible for the failure of elders to obey instructions, were not allowed to interfere with the latter in the execution of their duties. They were limited to reporting any derelictions to the Kodiak office.[101]

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101 Tikhmeneff, *op. cit.*, II, appendix [a], 114-137; Okun, *op. cit.*, 199-200.

Russian policy toward the independent and semi-independent native groups was quite different from that toward the dependent peoples. Unfortunately, the charters of 1821 and 1844 make no attempt to identify the "tribes" in these groups. It is not possible, therefore, to know exactly which "tribes" or parts of "tribes" in the northern peninsula area fell into these two catagories.

Within the confines of the present Katmai National Monument, only the Aglegmiut and their immediate predecessors, the Peninsular Eskimos, who occupied the Bristol Bay slope can be considered as possibly being semi-independent or independent. The Koniags south of the Aleutian Range definitely were dependent.

A Russian government official writing in the early 1860's seems to indicate that the Aglegmiut could be classed among the settled or dependent peoples. "Nearly all of them are Christians," he said; "they are of a rather gentle disposition, and lived in good understanding and constant intercourse with the Russians."[102] He did admit, however, that they were "not involved in any dependent relationship with the company" and had no compulsory duties, though they entered into the firm's employ "for the hunting of river and forest game."[103]

Another official writing about the same time considered the Aglegmiut to be independent though Christian.[104] The company's Board of Directors in the early 1860's considered these people to be semi-independent but "in a stage of transition" to dependency.[105] And one government officer writing at about the same time stated: "The Agliagmute relationship with the Company consists of their shipping mail in the pay of the Company."[106]

In weighing this testimony, one must also bear in mind that the inland Aglegmiut were said to be under the jurisdiction of the Katmai station and that they had almost certainly been converted by the Orthodox missionaries from Nushagak. All in all, one must conclude that the residents of the upper Naknek drainage should be classed as "semi-dependent."[107]

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102 Gsovski, *op. cit.*, 55.

103 *Ibid.*, 57-58.

104 *Ibid.*, 57.

105 *Ibid.*, 58.

106 *Ibid.*, 60.

107 For a similar conclusion see *ibid.*, 20.

The charters of 1821 and 1844 clearly outlined general Russian policy toward the "tribes not wholly dependent on the colonial authority, but living in the colonial possessions." Such semi-dependent peoples were to "enjoy" the protection of the administration only when they requested it, and the colonial authorities were prohibited from extending the possessions of the company into the territories of those tribes by force.

However, should the authorities consider it useful for the safety of the trade to open factories, redoubts, or "so-called single posts" among those tribes, it could do so with the consent of the natives. All possible means were to be taken to avoid "anything which might arouse their suspicion of any intention to infringe upon their independence."

The company was not permitted to extract any tribute or tax from the semi-dependent natives, nor could it remove any of them by force, except for "hostages given under the usage heretofore existing." Should any of those people wish to move among the settled tribes and if they were given permission to do so, they were to be intitled to the "rights and immunities" of dependent natives.[108]

With these types of controls, the Russians very quickly drew the Koniag of the Katmai coast from their sea mammal-hunting and fishing economy into what was essentially a trapping-trading economy, though in their case the "trapping" consisted largely of gathering sea otter pelts. The same type of change came to the Aglegmiut of the Bristol Bay slope, but the process was much more gradual and the emphasis was on the collection of land mammals.

The great impact of the new system on Koniag life can be understood only by a knowledge of how the Russians made hunting the determining factor in the native life pattern. All else was subordinate to the chase of the sleek and playful sea otter.

During the early decades of the nineteenth century, before any dimunition in the number of sea otters was noticeable, the Russian American Company sent out at least four large hunting parties from Kodiak each summer. The main group numbered about 500 bidarkas and operated eastward and southward along the mainland shore. "Only the youngest Eskimos were selected for this party," said one student of the firm's history, "since during the

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108 Gsovski, *op. cit.*, 16, 52.

hunting season it was often necessary to put up a defense against attacking Tlinkets."[109]

Another party, of about 200 canoes, was sent to the islands "north of Kodiak," while a third group of 40 boats hunted in the same general area and also carried supplies "from one island to the next." The fourth flotilla of 50 bidarkas was dispatched westward along the peninsula and among the appended islands. To supply, equip, and man these expeditions required the periodic services of "the whole able-bodied population."[110]

Preparations for one of these annual hunts began during the late summer of the preceding year upon the return to Kodiak of that season's expeditions. After consulting with the chiefs or elders from all the "Aleut" settlements in the district, the manager assigned the hunting grounds and the times of departure for the next year's parties. At the same time the formen and elders presented the names of the men selected for the hunt, indicating how many of them could supply their own bidarka covers, equipment, and *kamleas* (sets of waterproof clothing). Those natives in need of skins for boat covers or sea mammal intestines for *kamleas* were given them by the manager. Then all were sent home to get ready for the next season's hunt, all that is but those retained in Kodiak to man the parties sent out to trap foxes and other land animals during the autumn.

At the home villages the fall was largely spent fishing and hunting for the winter's food. Generally by the time the men had returned from Kodiak the migratory fish had left the streams and gone out to sea, and thus the families often suffered a shortage of provisions.[111]

With the first signs of spring the best hunters departed to take sea lions and seals for future use in covering bidarkas. The older men and boys spent this time fishing or repairing and making boats. The boys joined in this latter task by helping to cut "bars and beams," tearing whale bone, painting the seal skin coverings and frames with oil, and performing similar tasks. No small investment of time and materials was required, as only new boats could be used for the annual hunts.

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109 Okun, *op. cit.*, 201.

110 *Ibid.*

111 *Ibid.*, 200.

To the old men also fell the skilled work of shaping stone, slate and bone for arrow and spear heads; and making paddles, wooden headgear, and bidarka frames. Many of the implements were carefully carved, painted with mineral paints, and decorated with sea lion whiskers, feathers, and beads. The women kept busy sewing *kamleas*, parkas, footgear, and covers for the boats.

With the arrival of April the hunters assembled at Kodiak or at another appointed place.[112] There the parties were made up, each under an overseer. One of the principal functions of this official was to supervise the issue of provisions, which were supplied at the company's expense. The overseer received for each man 7 1/2 pounds of flour, 1 1/2 pounds of Russian tobacco, and a "certain amount" of tea and sugar or alcohol according to the desire of the natives. Each party also was given dried fish, whale meat, and oil for food during the journey; and the company supplied fishing gear for use during stopovers and several shotguns and rifles for killing sea lions and seals for fresh meat.

When a party was up to full strength and when the manager had ascertained that all the equipment was in good order, the overseer received his final instructions. Among numerous other orders, he was directed to keep a journal recording where his group operated each day, the weather, the number of good hunting days, and the number of otter taken daily. Then, depending on the weather, the exact day of departure was announced.

On the morning of the appointed day the entire party, often in from 80 to 110 bidarkas, lined up along the beach at Kodiak with the bows of their boats touching shore. The priest offered a prayer for their success and blessed the waters beneath the bidarkas. Then each Eskimo kissed the cross and was sprinkled with holy water. This ceremony over, the party paddled off at once, its guns firing a salute to the company's flag. A return salvo of three cannon shots from the harbor battery sped the hunters on their way.

When the assigned hunting grounds were reached, the natives formed a base camp, erecting temporary huts of driftwood and making their provisions secure. Then the expedition was divided into subparties of from 20 to 30 bidarkas, and each was placed under a leader and given a designated area of operations.

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112 There were other otter-hunting parties than those which left Kodiak. See Tikhmeneff, *op. cit.*, II, 553-554. However, since it seems most likely that the natives of the Katmai coast were assigned to the Kodiak expeditions, only those have been mentioned in this study.

The actual hunting was conducted in much the same manner as it had been during aboriginal times. When each subgroup reached the place where it hoped to find otter, the canoes were spread out in a single line across a broad front. Then the bidarkas were paddled forward silently until an otter was sighted, when the canoes were formed into a circle about the hapless animal. Few succeeded in escaping once enclosed in the trap.

The killing was still performed by the spear hurled from a throwing stick. The Russians did not use guns for this purpose, and the firing of such weapons near the haunts of the otter was strictly prohibited.[113] Experience had proved that the sound of gunfire soon caused the shy otter to leave his accustomed habitat for other and unknown climes.

The detachable head of each spear was marked with the device of its owner, and thus it was possible to tell which hunters had struck the animal. Some Russian writers say that the pelt belonged to the native whose spear was found closest to the head.[114] Other authorities assert that the man who first wounded the animal could claim it.[115]

The furs collected by the subparties were taken periodically to the base camp, where a number of men were stationed to process the pelts. After about four months the hunt was over, and the main party reassembled and headed for Kodiak.

The homecoming in mid-August was an occasion of both rejoicing and ceremony. Word of the approaching hunters was sent ahead to headquarters, and the populace ran to the bluffs overlooking the harbor to greet them. Then around the point came the long column of bidarkas and larger skin boats. Paddles flashed in time to a native song. As the boats came near the onlookers could see the spears lashed to the sides of each bidarka and in the bow the two images of fur seals carved from walrus tusk, which served as talismans of good fortune.

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113 W.A. Howard (Captain, U.S. Revenue Marine) to Hugh McCullock (Secretary of the Treasury), U.S. Revenue Steamer *Lincoln*, [San Francisco, c. Nov. 18, 1867], in U.S., President, *Russian America*, 40 Cong., 2 Sess., House, Ex. Doc. No. 177 [Part I] (Ser. 1339), 213 (hereafter cited as *Russian America*).

114 Tikhmeneff, *op. cit.*, II, 558; Charles Bryant and H.H. McIntyre, *Letter of the Secretary of the Treasury Communicating . . . the Reports of . . .*, 41 Cong., 2 Sess., Senate, Ex. Doc. No. 32 (Ser. 1405), 21.

115 [W.T. Wythe], "Kodiak and Southern Alaska," in *Overland Monthly*, VIII (July, 1872), 507.

As soon as shore was touched, the overseer hurried to the district office to report the number of skins collected, but the pelts were left for a couple of days with the hunters for drying. Then the furs were turned in at the company warehouse where the district manager personally recorded the name of each hunter and the number of skins to his credit. The furs were listed by type -- male and female adult, *koshlak* (from two to three years old), yearling, cub and "cutout" (unborn). The skins were delivered whole, that is "not ripped on the belly."

The manager settled the account of each hunter on the spot, paying according to a fixed price list for each type of pelt. The average payment for an otter skin seems to have varied over the years -- 10 rubles in 1804, 20 rubles in 1827, 30 rubles in 1838, and 50 rubles in 1852. Due to the different types of Russian currency it is difficult to convert these amounts into dollars, but toward the end of the colonial period it is said that the Aleuts and Kodiaks were receiving the equivalent of ten dollars for furs that brought the company one hundred dollars each on the European market.

The native hunters were not paid in cash. They received colonial script or tokens made of hexagonal pieces of leather stamped as being worth a certain number of kopeks or rubles. This script could for all practical purposes be redeemed only at company stores for merchandise at company prices.*116* Not until the very end of the Russian regime was it possible to turn in the script for United States silver dollars.

Every year there were some hunters who were so unfortunate as not to be credited with a single otter during the entire season. Thus the only payment they received for the four-month hunt -- and actually for the entire year -- was the company's allowance for the use of their bidarkas, and even that amount was payable only if the hunter had not been supplied with skin boat covers or other equipment by the company.*117* Generally these unlucky hunters were given

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116 A company official stated about 1860 that the goods in its shops were generally priced at 77% above the cost at the source in Europe or elsewhere. Necessities, such as flour, were sometimes sold below cost, while the prices of luxury items might be above the general level. Tikhmeneff, *op. cit.*, II, 350.

117 During the early 1860's the payment for the use of a bidarka during the hunt was 10 rubles for a two-hole boat and 15 rubles for a three-hole. Tikhmeneff, *op. cit.*, II, 359.

the skin of a cub or even a grown otter by their more successful companions. By the early 1860's it was estimated that the average income of each participant in the hunt was "up to" 40 silver rubles.

With their leather tokens in hand, the hunters made their way to the company's sales shop. There they were met by a bewildering array of trade goods -- cotton print cloth, gray and blue calico, blue Chinese cloth, frieze blankets mainly white in color, cotton kerchiefs, cork or paper snuff boxes, cheap earrings, metal crosses, rings, Russian tobacco, gunpowder, and lead for ammunition.

Ordinarily each hunter debated with himself for a long time before making his selections. His first concern was usually to meet the needs of his family, and however small his earnings he bought either prints for his wife's dresses or kerchiefs. Then came presents for his children, and then tea, sugar, and other commodities. A part of his returns was set aside for a gift to the church, particularly if a baptism, marriage, or other special ceremony was in the offing.[118]

At length his hard-earned tokens were exhausted, and the hunter was ready for the long voyage home. But he had to wait while the chiefs and elders were feted by the company and while arrangements were made for the next year's hunt. And some hunters could not leave at all. If their earnings had been low, they found it expedient to volunteer to join the trapping parties sent out after fox, land otter, and beaver pelts during the autumn.

Finally all was ready, and the boats from each settlement started out under the guidance of the local elder. That official was charged with seeing that the hunters went "straight home" so that they would lose no time "necessary for work at the settlements for the benefit of both the company and themselves."

Meanwhile, after the able-bodied men had gone off in April to hunt sea otters, the women, children, and old men who remained behind in the villages had also been set to work. In the early decades of the company's rule, large parties of old men and children were sent out in the firm's boats to hunt birds, the skins being necessary for making parkas. The work of catching birds with nooses was arduous and frequently dangerous. In later years, after epidemics had reduced the population and after the use of European

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118 It was also reported, however, that the company had to limit the amounts of tea and sugar sold to the hunters; otherwise they would spend all their credits for luxuries before providing necessities for their families.

clothing had increased, there was not such a demand for bird skins, and only a few men, mainly of advanced age and incapable of other domestic summer work, were assigned to this task from each village.

The women's summer labor was quite as difficult. They were required to dig a certain quantity of edible wild lilly roots and to pick berries for the company's store of provisions. They also cleaned fish, made parkas, and performed other tasks for the firm's benefit.[119]

When the hunters returned home in late August there was a brief time of reunion and of celebration to enjoy the paltry fruits of the season's toil. Then the annual cycle once more commenced its inevitable course.[120]

This emphasis on sea otter hunting was bound, sooner or later, to result in a diminished source of supply. Before 1799, during the era of unbridled competition between rival fur trading companies, the annual harvest of skins shipped into Russia through Okhotsk was reportedly valued at about two million rubles.[121] By the time the Russian American Company obtained its monopoly the number of otter in the Aleutians and along the shores of the Alaska Peninsula had been noticeably reduced, but for a number of years the firm was able to keep its yield up by expanding its hunting territory southward along the Pacific coast.

After about 1821, however, the facts had to be faced: the supply of otters was visibly declining. Unless precautions were taken not only the otters but the fur seals of the Pribilof Islands would be extinct.

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119 For men, the pay for assisting in laying in the local provisions was 12 paper rubles a month; for women, 10 paper rubles. This scale prevailed during the early 1860's. Tikhmeneff, *op. cit.*, II, 359. In the early years, prior to 1821, the company evidently made no payment for this type of service. Okun, *op. cit.*, 201-202.

120 This account of sea otter hunting and its effect on native life is based largely on Tikhmeneff, *op. cit.*, I, 169-170, 292; II, 549-565; II, appendix [a], 133. Also used and sometimes quoted are Okun, *op. cit.*, 198, 200-203; U.S. Census Office, *Eleventh Census*, 202; Wythe, "Kodiak and Southern Alaska," 507-508.

121 U.S. Census Office, *Eleventh Census*, 202.

Little is known at present about the conservation measures which were inaugurated. The killing of seals on St. Paul Island was discontinued for a time with gratifying results. The harvesting was renewed in 1841. Seemingly the first experiments in protecting the sea otters were not so successful. Orders were issued to prevent the taking of young animals, and furs were strictly classified. But the yields still fell off. Finally, on Kodiak Island, a "vacation" from all types of hunting had to be declared.[122]

Better results attended a plan to shift operations from one area to another, allowing certain hunting grounds to rest for a time. Evidently inaugurated shortly after the 1844 charter was granted, this system is said to have "greatly" increased the number of animals, particularly in the Aleutians. By 1863 it was possible to discontinue the rotation hunting everywhere except in the Kodiak district.

The region administered from Kodiak was divided into three sections. One of these areas was hunted thoroughly for two successive seasons and then permitted to lie undisturbed for the following three. The coast of the Alaska Peninsula formed one of these sections.[123]

Due to such measures, the Russian American Company seems to have placed the annual fur harvest in a sustained yield basis. For years, from about 1817 to 1867, the number of skins sold each year ranged between 2,000 and 3,000 according to informed estimates. The official figures released by the company were more conservative. A statement published in 1863 gave the average annual production for the preceding 20 years as 1,295 pelts.[124] The efficacy of the Russian conservation effort is demonstrated by the fact that the sea otters of Southeastern Alaska, where the Indians ruthlessly slaughtered the animals to sell to competing foreign traders, were rapidly exterminated, whereas to the west where the Russians held a monopoly, otters were plentiful for the Americans who flocked in after the transfer of sovereignty.[125]

The Aglegmiut culture on the Bristol Bay slope was also influenced by contact with the Russians, but at present very little is known of the trading operations and the religious contacts which produced the changes. Since these natives were classified as semi-dependent

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122 Tikhmeneff, *op. cit.*, I, 402-406.

123 *Ibid.*, II, 324-325; U.S., Census Office, *Eleventh Census*, 202.

124 U.S., Census Office, *Eleventh Census*, 203.

125 Bancroft, *History of Alaska*, 246.

people, however, they were not subject to the company's labor draft as were the Shelikof Strait Eskimos, and hence the impact upon their lives was much less drastic. In essence, the relationships of the Russians to the upper Naknek drainage Aglegmiut were those of traders and missionaries among an independent people.

Commerce with the Aglegmiut on the western slope of today's Katmai National Monument evidently was conducted mainly from Katmai. No evidence that the Russians maintained an outpost or *odinochka* in the vicinity of Naknek Lake has yet been found. Details of trading methods are also lacking, but undoubtedly the natives were encouraged to bring their furs to the central station as was the usual practice in the Nushagak region.[126] And perhaps the Russians at intervals went out to the Aglegmiut villages with a cargo of trade goods as they occasionally did from St. Michael and along the Kuskokwim.[127]

It can be assumed that the station supervisor at Katmai established and maintained friendly contact with the Aglegmiut by the tried and true methods generally employed with the semi-dependent and independent natives. Certain carefully selected community leaders in the villages were recognized by the company as persons of authority, and their good will was obtained by presents and other favors. Each was given a silver "United Russia" medal and a certificate attesting to the firm's esteem.

These influential persons, or *toyons* as the Russians termed them, "were supposed to be individuals who were respected by the people and whose friendly relations . . . would be a definite benefit to the Company." One scholar who has studied the firm's records summarizes the function and effectiveness of these *toyons* as follows:

> They encouraged their fellow villagers to hunt and bring their furs to the redoubt . . . Probably the *toyons* never wielded as much power and authority in their communities as the Company's officials thought they did. Nevertheless, in one way or another, a faithful *toyon* could often encourage hunters in his village to expend more energy in the Company's behalf than they might otherwise have been inclined to do.[128]

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126 VanStone, *op. cit.*, 54.

127 Zagoskin, *op. cit.*, 161-162, 281.

128 VanStone, *op. cit.*, 54-55.

It is also probable that the Russians enticed the natives to trade on credit and run up debts. Aglegmiut so ensnared were more likely to bring in their furs and to work for the company. During the early 1840's the manager of the Kodiak district received permission to raise the prices he paid for skins when his payments were to be made in "blankets, heavy cloth, canvas tent cloth, and other materials that could be used for garments," since if the Eskimos dressed themselves with such fabrics they would no longer need furs for that purpose and would be more inclined to sell them to the Russians.[129]

During the early decades of the fur trade beads were among the articles most desired by the Eskimos, but by the early 1860's the demand had fallen off, and only limited quantities of large red, black, and white beads could be bartered. At that time the best-selling items were tobacco, textiles, and one-gallon and one-and-a-half-gallon cast iron kettles.[130]

The range of goods offered to the Eskimos is illustrated by an inventory of the cargo carried by a trading expedition in northwestern Alaska during the 1840's. The list included tobacco; white, red, and black glass beads; strings of steel-blue beads; bronze earrings; earrings with enamel-covered glass pendants; copper bracelets; iron bracelets; Yakut *gamzas* (long-stemmed pipes); copper tinker bells; small bells; horn combs; flints; small mirrors; Aleut knives; scrapers; Aleut hatchets; needles; copper rings; tin pipes; *Dentalium* shells; hollow buttons; and naval uniform buttons.[131]

Through such enticements non-dependent Eskimos were gradually induced to give up some of their traditional subsistence pursuits and to rely more heavily upon the traders for utensils, weapons, and supplies. Anthropologist James W. VanStone has pointed out that by the end of the Russian period "many aboriginal hunting techniques began to be forgotten."[132]

This point is well illustrated by a couple of examples. Before the advent of Europeans, the Eskimos killed beaver by shooting with bows and arrows, by clubbing, by placing nets and traps over beaver house exits and airholes through the ice in winter, or by plugging the exits and then opening the house from above. The Russians in-

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129 VanStone, *op. cit.*, 53, 56.

130 Tikhmeneff, *op. cit.*, II, 496.

131 Zagoskin, *op. cit.*, 161-162.

132 VanStone, *op. cit.*, 56.

troduced a very destructive improvement on the last method. After breaking into the house, they would probe deep down into it with a heavy iron hook hafted to a handle. In this manner the animals were caught and dragged out "to the very last one." Because even the youngest beaver were not spared by this process, the species was brought close to extinction in many districts, even at Katmai where beaver were said to be numerous. By the 1860's this method had been banned in the interests of conservation.

Beaver were also shot with guns during the Russian period. But this practice was not widespread since the noise tended to drive the animals away.[133]

In aboriginal times foxes were generally captured by snares, deadfalls, or the wicked device known as a "spring bait" which was swallowed by the animal and caused internal hemorrhaging.[134] The Russian traders believed these techniques could be improved upon. They supplied the natives with metal traps for catching foxes during the late autumn when pelts were in good condition. After the trapping season had ended, the station supervisor or local foreman issued guns for an additional period of fox hunting.[135]

But the changes wrought by the Russians upon the cultures of both the Aglegmiut and the Koniag were by no means limited to alterations in hunting methods. Nearly every aspect of life was affected.

By the beginning of the American period the clothing of the Katmai natives, particularly those along the coast, must have reflected European influence to a marked degree. Trade goods had for many decades included cloth, buttons, bracelets, earrings, and great quantities of glass beads.

But from the mentions in contemporary accounts of the manufacture of hunting garments by the women, it seems evident that clothing made from animal and bird skins as well as the "curious primitive garments made from the intestines of sea-going animals" had by no means disappeared. In fact the Aglegmiut of the Bristol Bay slope continued to wear their skin parkas and trousers long after

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133 Tikhmeneff, *op. cit.*, I, 170; II, 476; Zagoskin, *op. cit.*, 220-221.

134 Oswalt, *Alaskan Eskimos*, 120.

135 Tikhmeneff, *op. cit.*, II, appendix [a], 115. In some areas there was considerable reluctance on the part of the Eskimos to use steel traps, which were converted into knives and other articles. VanStone, *op. cit.*, 123.

the territory passed to American hands.[136] Even there, however, in the immediate vicinity of trading posts, conditions must have been similar to those Lieutenant Zagoskin encountered at Kolmakovski Redoubt in 1842. At that place he noted in his diary, the natives wore clothes of Russian materials "even in winter."[137]

During the pre-contact period the Koniag ornamented the lips and ears with small pieces of polished bone which were generally pierced and strung on threads to form pendants. These decorations were replaced by glass beads after the arrival of the Russians.[138]

As with most aspects of native life during the Russian regime, little is known of the domestic arrangements of either the Aglegmiut or the Koniag. Houses continued to be the semi-subterranean barabaras of aboriginal times, but on the basis of rather limited excavations conducted at Katmai National Monument in 1953, Wilbur A. Davis believed that certain changes took place during the post-contact period. He found that dwellings associated with European artifacts at sites near Naknek Lake were one-roomed and were accompanied by wooden storage houses elevated on pilings, whereas earlier structures in the same places followed what appeared to be "an old inland" pattern of multiple-roomed houses. Post-contact houses along Shelikof Strait, on the other hand, usually contained two rooms.[139]

Petroff in 1880 found the Aleuts "as a rule" using the "old Russian 'petchka'" or stove for fire in their homes.[140] It seems reasonable to assume that at least some of these conveniences were adopted by the settled Koniags of the Katmai coast. Probably the old stone lamps continued to be used for illumination in native dwellings throughout the Katmai area, but undoubtedly the walls were decorated with the "richly colored and striking" pictures of church saints which the priests early distributed among their converts.[141]

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136 Petroff, *Population and Resources of Alaska,* 10, 41.

137 Zagoskin, *op. cit.*, 207.

138 Petroff, "Report," *Tenth Census,* 138.

139 Davis, *Archaeological Investigations of Inland and Coastal Sites,* 91.

140 Petroff, *Population and Resources of Alaska,* 11, 12.

141 *Ibid.*, 12.

When Lieutenant Zagoskin visited St. Michael in 1842 he found that even in that remote region the coastal Eskimos no longer made pottery, since they had already adopted such iron and copper kitchen utensils as kettles, pitchers, and ladles.[142] It is known that by the end of the first decade of American rule the Aglegmiut of Bristol Bay were using copper and iron kettles for cooking, and undoubtedly such items were employed almost universally throughout the Katmai area during the Russian period. Metal knives and axes early replaced the corresponding aboriginal stone artifacts.

The earliest Russians to visit the Aleutians are said to have brought with them a home-brewed beer known as *"kvass,"* which was reputed to have had antiscorbutic properties. The art of making this beverage from rye meal was soon transmitted to the Aleuts and gradually spread far and wide in Alaska despite the frowns of the company upon anything that would keep the natives from work. It is probable that the Koniag of the Shelikof Strait coast brewed *kvass* as enthusiastically as did their brothers on Kodiak Island, but the practice did not penetrate to the Aglegmiut of the northern peninsula during Russian times.[143]

Tea and tobacco were other luxuries introduced by the Russians. Not all natives could afford tea, and only a very few settled about the trading posts could boast of a samovar. The Eskimo women who lived with Russian men quickly picked up the little ceremonies and niceties connected with serving tea, and these were repeated on a somewhat diminished scale in native homes. One visitor at a somewhat later time described how the Kodiak Eskimos would sit with a hard piece of brown sugar in one hand and a teacup in the other, alternately sucking on the sweet and sipping the tea. "They made a lot of noise about it," he discovered.[144]

The impact of the Orthodox Church upon the native religion during the Russian period is difficult to judge. Conversion was nearly universal, particularly among the settled peoples, but often the acceptance of Christianity was more a matter of outward form

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142 Zagoskin, *op. cit.*, 116.

143 Petroff, *Population and Resources of Alaska,* 13, 44. Charles Bryant in 1869 noted that most of the Eskimos near Nushagak still remained "in blissful ignorance of the taste of whisky," Bryant and McIntyre, *Letter of the Secretary of the Treasury,* 23.

144 Martha Ferguson McKeown, ed., *The Trail Led North: Mont Hawthorne's Story* (New York, 1948), 54-55.

than inner conviction. Even as late as 1862 and 1863 Hieromonk Theophil at Nushagak mission could find few traces of basic Christian customs or morality among the inhabitants of the distant villages, which may have included those of the Naknek Lake region.

"I still have patience," he confided to his journal, "but I do not have any consolation of hope that the seeds of God's Word will bear fruit in their hearts or even sprout."[145]

Well into the American period the Koniag and the Aglegmiut continued to hold their dances and aboriginal ceremonies in the community houses or *kashims*. As anthropologists have pointed out, these festivals may have had a secular purpose, such as to help pass the long winters or to foster friendly relations with nearby villages, but they also expressed basic religious beliefs which had never really been supplanted.[146]

The influence of the shamans declined as Christianity was accepted more widely and deeply, but they continued their religious and medical functions among many Eskimo groups all during the Russian period. In fact, even the Russians occasionally adopted the shamans' cures for various ailments.[147]

Along with their faith, the Russians introduced their manners and customs. It was somewhat startling to visitors in native villages to hear, as did Lieutenant Zagoskin near St. Michael in 1842, an Eskimo singing in correct Russian such songs as "I Was Walking under the Arbor," "In a Dark Wood," or "On Kadyak Island in Eighteen-Three," the last composed by the "old-time hunters" about Baranov's return from Sitka after the massacre of the preceding year. Some of the natives were even adept at the difficult Cossack jumping dance, the *kazachka*.[148]

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145 VanStone, *op. cit.*, 30-31.

146 *Ibid.*, 126.

147 Zagoskin, *op. cit.*, 110.

148 *Ibid.*, 118-119.

Habitation Sites, 1786-1867

Russian American Company and Orthodox Church records thus far available in translation tell relatively little about native and Russian settlements within the present Katmai National Monument prior to the change of flags in 1867. What information can be assembled from documentary materials, printed accounts, maps, and reports of archeological excavations presents a sketchy picture indeed.

Katmai. The village of Katmai was by far the most populous and important settlement in the monument area. The native village there was mentioned in Russian documents as early as 1786, and the place was included in a census taken in 1792. As has been seen, a trading post -- as distinct from a hunting party operating there -- definitely existed at this locality by May, 1795. It probably had been established before 1791, the year in which, apparently, the "Katmai crew" was plundered by the peninsula natives.

A Russian American Company census giving the population of the colonies on January 1, 1819, stated that four Russian men were living at "Katmai Station" or "Katmai crew" -- depending on which translation is followed -- at that time. There were no Russian women or creoles (persons descended from Russian fathers and native mothers). The number of natives was not given.[149]

When the population of Katmai is next mentioned in available Russian records, about 1863, there were 457 men and women living at the place. The trading post was still active at that time, but no separate enumeration of Russian or creole inhabitants was indicated. Katmai and Iliamna Lake (where there were 140 inhabitants) were the only places on the northern peninsula then mentioned as be being company posts.[150]

It is probable that there were fewer Russians living at Katmai in 1863 than there had been in 1819. There may have been none at all, as the company made a consistent effort to reduce the number

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149 Tikhmeneff, *op. cit.*, I, 325; Tikhmenev, *op. cit.*, I, 306. Katmai and Nushagak are the only places on the northern peninsula or immediately adjoining it listed in this census. The inference is that no other posts with Russian inhabitants existed in the general Katmai region.

150 Tikhmeneff, *op. cit.*, II, 475; Tikhmenev, *op. cit.*, II, 376-377. Alexandrovski Redoubt, at Nushagak, was still active as a reduced trading post, but it was considered to be north of the peninsula.

of employees who had to be supplied with bread and other expensive European rations. When a settlement had been firmly established and the surrounding country explored, qualified local residents and creoles were promoted to positions of responsibility. In the words of one company officer, "the natives themselves are not averse to working for us when they have had a chance to watch our way of life and to see its advantages."[151]

The name of the village and its trading post was recorded in a number of ways by the Russians during their rule. Among the earliest versions were "Yukutmak" and "Katman" (believed by Petroff "probably" to refer to Katmai), which were employed by the merchant Shelikhov in his writings upon his return to Russia from Kodiak.[152] Other variants found in early records and on maps include "Katmak," "Yakatmak," "Katmaiski," "Katmay," "Selo Katmay," "Seleniye Katmayskoe," "Village Katmay," "Katmai Station," and "Katmai Crew." Still other spellings are not difficult to find.[153]

No description of Katmai village during the Russian period has been found, but undoubtedly the place presented much the same picture as it did following the transfer of Alaska to the United States. Several descriptions during the American period are given in later chapters.

Neither are there any accounts of the lives of the traders who dwelt at this isolated, wind-swept settlement. Undoubtedly Lieutenant L.A. Zagoskin said everything needful, however, when he noted in his journal during the early 1840's of the company's traders in general, "a Russian is everywhere the same. Whatever spot he chooses, whether it be on the Arctic Circle or in a blessed California valley, he establishes his characteristic Russian-type cabin, his cooking-place, his bath, and he provides himself with a housekeeper."[154]

Still less is known about the other inhabited places along the Pacific shoreline of Katmai National Monument during the decades of Russian occupation. Almost the only available documentary evidence indicating the existence of active settlements on the coast of Shelikof Strait consists of place names on Russian charts and a few brief mentions in travelers' accounts. Archeological surveys

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151 Zagoskin, *op. cit.*, 184.

152 Petroff, "Report," *Tenth Census*, 145.

153 Orth, *op. cit.*, 502; Tikhmeneff, *op. cit.*, II, 116.

154 Zagoskin, *op. cit.*, 185.

and excavations throw additional light upon the subject, although sites in this region dating from 1500 to 1900 have as yet not been adequately tested.[155]

Locations along the coast, other than Katmai, known to have been inhabited during the Russian period may be listed, from north to south, as follows:

1. Swikshak Bay. Captain Lütke published the name of this broad indentation as "Svikhchak golfe" in 1836; and according to Donald J. Orth this feature was marked "Z[aliv] Svikhshak" (Svikhshak Bay), on map 22 of Captain Tebenkov's 1852 atlas.[156] An examination of Tebenkov's original chart, which was dated 1849, reveals that he also noted the location of a settlement on the bay directly west of the entrance to today's Swikshak Lagoon.[157] To the present writer the name of this village appears to be "C. Kanak" on Tebenkov's map, but a scholar, a native Russian, read the identification in translation as "Village Kaiank."[158]

Archeological testing in 1964 revealed evidence of post-contact occupation at a site on the south bank of Swikshak Lagoon about one-half mile east of the entrance. Whether this settlement was the "Village Kaiank" noted on the 1849 chart is not known. No artifacts linking this site to Russian trading or otter hunting activities were uncovered. However, an abundance of natural resources in the vicinity and the existence nearby of rich sea otter grounds make such an association likely.[159]

The continous though perhaps seasonal occupation of one or more sites at Swikshak Lagoon during the Russian period appears to be suggested by one of the earliest maps of Alaska to be issued by the United States Government after the transfer. The Coast Survey chart

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155 Dumond, *Prehistory of the Northern Alaska Peninsula*, 22, 36.

156 Orth, *op. cit.*, 938.

157 M. Tebenkov, *Gidrograficeskia zamecania k atlasu severozapadnykh beregov Ameriki* . . . (1 vol. and atlas, St. Petersburg, 1852), atlas, map 22.

158 Interview with Dr. Helen A. Shenitz, Juneau, Alaska, June 29, 1953. Other scholars have interpreted the name on Tebenkov's chart to be "Seleniye Kayayak" (Kayayak Village) or "Kaiaiak." Davis, *op. cit.*, 46-47; Orth, *op. cit.*, 484.

159 Davis, *Archaeological Investigations of Inland and Coastal Sites*, 56; Dumond, *Archaeological Survey . . . 1964*, 8-9. This site is identified as SK-1 on the "Archeological Base Map . . . Katmai National Monument." It is about 22 miles southwest of Cape Douglas.

of 1869 indicates that a settlement called "Kayayak" was situated on the north shore of the lagoon opposite its mouth.[160] Although the map is of small scale, it clearly shows that this village was not at the site about five miles southwest which later became known as "Kaguyak."

Map makers, both Russian and American, could easily have become confused as to the exact locations of small native villages on such a remote and seldom-visited shore, and perhaps the "Kaiank" and "Kayayak" placed at Swikshak Lagoon really referred to the settlement at the later "Kaguyak." But the meager archeological evidence now available and the natural advantages of the Swikshak Lagoon anchorage suggest that a more extensive search in that vicinity for remains of post-contact occupation might prove fruitful.[161]

2. Kaguyak. An official Russian map published in St. Petersburgh in 1802 showed a settlement on the coast of Shelikof Strait at about the location of the present-day Kaguyak, some 28 airline miles southwest of Cape Douglas, five miles southwest of Swikshak Lagoon, and four miles north of Cape Chiniak. The name on the chart is difficult to read, but it seems, after transliteration, to be "Kuiak" (admittedly a wild guess).[162]

According to Donald J. Orth, Captain Lütke published the village name as "Kaiayakak" in 1835, describing it as being on "Swikhchak golfe" and as being wrongly called "Naouchkak" by the Russians.[163] It already has been seen that the name "Kayayak Village," "Kaiaiak," or "Kaiank," as it has been variously rendered, appeared on Tibenkov's 1849 map and that the name "Kayayak" was still being used to indicate a settlement in this general area on a United States Coast

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160 "Alaska and Adjoining Territory, 1869," map 20 in U.S. Coast Survey, *Report . . . 1867*.

161 An observer in 1953 noted that Swikshak Lagoon was deep enough to furnish anchorage for fishing boats and cannery tenders; an auxiliary canning plant and wharf were situated there. Davis, *op. cit.*, 56.

162 United States, *Alaskan Boundary Tribunal*, atlas, map 6. A more precise description of the location of this site might be: about one half mile south of the promontory forming the southern limit of "Big Bay" (the bay at the mouth of the stream known as Big River). Dumond, *Archaeological Survey . . . 1964*, 11. This site is numbered CK-2 on the "Archeological Base Map . . . Katmai National Monument."

163 Orth, *op. cit.*, 484. See also Davis, *op. cit.*, 46.

Survey map of 1869. However, the village identified as "Kayayak" on the 1849 and 1869 charts was not situated at today's Kaguyak but some five miles to the northeast at Swikshak Lagoon. In fact, no map published between 1802 and 1869 yet seen by the present writer shows any settlement at the site of the present Kaguyak.[164]

Nevertheless, it seems reasonable to assume that there was continued occupation of this village after 1802. Rather limited archeological testing at this quite extensive site in 1953 led to the conclusion that the locality had been inhabited "the year around by native people during historical times, for not much more than an estimated one hundred years, if that long," though the discovery of a fire lens beneath a sterile sand layer underlying the main artifact-bearing stratum suggested still earlier occupation.[165] It may be significant, however, that no artifacts clearly identifiable as Russian were uncovered.[166]

One argument which might be advanced to support the thesis that Kaguyak was an active settlement in Russian times is that the village was already a place of modest importance when it first clearly enters the historical record, in the 1880's and 1890's. Even until 1912, when the village was abandoned due to ash from the Katmai eruption, the physical structures were those of a fairly sizable settlement. Wilbur A. Davis counted about 40 house pits or remains of houses in 1953. The Orthodox chapel showed some evidence of antiquity, being built of hand-hewn timbers, while "hand-formed nails apparently were originally used throughout the building."[167] But a pre-1867 dating for this structure still must await confirmation from documentary sources.

In view of the dearth of knowledge concerning the process by which the "Kuiak" of 1802 and the "Kaiayakak" of 1835 evolved into the "Kaguyak" of the American period, it would seem unwise to conclude positively that the site was continuously occupied during Russian times. On the one hand, it is quite possible that the map makers who placed "Kaiank" or "Kayayak" at Swikshak Lagoon were simply mistaken and that the settlement so marked was at the present

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164 When attempting to gather information concerning the Kaguyak in the present Katmai National Monument it is necessary to remember that there is another old native settlement bearing the same name on the southeast coast of Kodiak Island. This duplication of names can be the cause of much confusion and uncertainty when references to "Kaguyak" are found in source materials, since it generally is not clear which village is meant.

165 Davis, *op. cit.*, 52-55.

166 Dumond, *Archaeological Survey . . . 1964*, 13.

167 Davis, *op. cit.*, 49-50, and map 3 ff. p. 44.

Kaguyak all along. On the other, it is not unreasonable to speculate that "Kayayak," which became associated with an American trading post called "Douglas," may have been moved from Swikshak Lagoon to the present Kaguyak during the late 1880's or very early 1890's.[168] Additional historical and archeological research will undoubtedly produce the answer to this puzzle.[169]

3. Kukak. Archeological surveys in recent years have revealed three occupation sites on the north shore of Kukak Bay.[170] One of these, known as "Old Kukak," is situated on the east shore of Kukak Point, about 3/4 mile northwest of its tip. The settlement, as far as was determined, consisted of several "recent dirt-floored cabins." Recovered artifacts consisted of tin cans, wire, and bottle glass, none seeming to be older than about 1910. There was evidence that the structures were built prior to the Katmai eruption of 1912. The archeologists were unable to determine whether the site represented an aboriginal settlement or "camps of fishermen or clam diggers." No sign of occupation during the Russian period was found.[171]

A second site, on the north shore of Devil's Cove about 2 1/2 miles northwest of the tip of Kukak Point, was extensively tested in 1964. One piece of iron was recovered, pointing toward post-contact occupation, but the house remains were so few and the deposits so shallow that settlement probably was short-lived and of modest significance.[172]

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168 It may be significant that to the present time the only post-contact evidences found at this site date from "the period of U.S. occupation of the area." D.E. Dumond, Progress Report, Archaeological Survey of Katmai National Monument . . . August 15, 1964, MS, [1]. No traces of prehistoric occupation were found in 1964.

169 According to Marcus Baker, the pioneer student of Alaskan place names, the name "Kaguyak" first appeared on Coast Survey charts in place of "Kayayak" in 1884. "The change," he wrote, "appears to have been accidental and unfortunate." Davis, *op. cit.*, 46.

170 Dr. Donald E. Dumond of the University of Oregon in 1967, after the reports concerning the three sites mentioned here had been published, discovered a fourth site at the first beach on the north as one enters Kukak Bay proper. This find has not yet been described in published form. Telephone conversation with J.A. Hussey, February 5, 1971.

171 Davis, *op. cit.*, 13; Dumond, *Archaeological Survey . . . 1963*, 51. Because of the uncertainty concerning its date, this site has not been given an identifying number on the park "Archeological Base Map."

172 Dumond, *Archaeological Survey . . . 1964*, 15-17. This site is identified as KK-2 on the "Archeological Base Map . . . Katmai National Monument."

The third site seems by far the most important. Situated directly east of Devil's Cove on the shore of Kukak Bay, it lies about 1 1/4 miles northwest of the tip of Kukak Point. At least 88 dwelling depressions are visible on the surface, and the extensive cultural deposits produced evidence indicating reasonably continuous habitation from about A.D. 500 to approximately 1500. In addition to the prehistoric occupation, excavations showed that this native village was inhabited during historic times.[173]

Unfortunately, no reports covering the archeological evidences of post-contact occupation have been issued.[174] The gap can be partially filled from historic sources, however, since no other large habitation site was found during the archeological survey of the Kukak Bay vicinity, and thus references in narratives and on maps during the Russian period to the native village at Kukak almost certainly apply to the settlement in question.[175]

Late in July, 1806, the young German naturalist and physician, Dr. Georg Heinrich von Langsdorff, was homeward bound from Kodiak after an extensive tour of the Russian colonies and a visit to California. The sailing vessel on which he was passenger made a stop at Kukak Bay, being the "first ship ever to visit here," according to Langsdorff. Guided by friendly natives, the vessel entered the "inner" harbor and dropped anchor.

After climbing a nearby small island and sketching the bay, Langsdorff and one or more companions decided to use the bidarkas aboard to visit "Toujajak," an assemblage of "summer-huts of the

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173 Davis, *op. cit.*, 13-36; Dumond, *Archaeological Survey . . . 1963*, 31-35; Dumond, *Archaeological Survey . . . 1964*, 14-15; Dumond, *Report to the Secretary, Smithsonian Institution, on Archaeological Research in Katmai National Monument . . . 1965*, 7-8. This site is numbered KK-1 on the "Archeological Base Map . . . Katmai National Monument."

174 From such information as is available, it would appear that the post-contact evidence found dates from the American period. Dumond, Progress Report . . . August 15, 1964, p. 2. A very brief listing of some of the items recovered is to be found in Harvey S. Rice, *Prehistory of Shelikof Strait, I* (dittoed, [n.p.], May, 1966), 3.

175 Dr. Donald E. Dumond of the University of Oregon, who has studied this site and its history intensively, says he is "99 per cent sure" that site KK-1 is the historic Kukak mentioned by Langsdorff, Petroff, and other sources. Telephone conversation with J.A. Hussey, February 5, 1971.

natives on the north-east shore of the bay, not far from the promontory of Amawack, at the distance of about a sea-mile."[176] They received a warm welcome, and were invited into a home which was of the usual Eskimo construction, "small and covered with earth grown over with grass."

The physician, who had already formed a prejudice against the Russian American Company, was shocked by what the natives told him:

> In our conversation we learnt that the place had been much more populous, but that the population had decreased in the last ten years, most of the young people having been carried away to Sitcha [Sitka] to hunt sea-otters: indeed, we observed that here, as at Kodiak, we saw chiefly old men, women, and children. Of a thousand men who formerly lived in this spot, scarcely more than forty remained, and the whole peninsula of Alaksa they said was depopulated in the same proportion. In the village of Toujajak, where we were, there were now only four two-seated baidarkas, and one baidara, belonging to the community.

Langsdorff found the Eskimos at Kukak much like those on Kodiak Island in customs, language, and clothing, although he noted that the peninsula natives more extensively utilized such land animals as "rein-deer" (caribou) and "wild sheep" in diet and dress. The visitors evidently felt called upon to forward the process of acculturation which obviously had already begun. Langsdorff reported that the native men "seem as little jealous of their wives, as the young girls are backward in bestowing their favours. A handful of beads, some leaves of tobacco, or other European trifles, above all, half a dozen fine sewing needles, were sufficient to remove all difficulties."[177]

The continued existence of this settlement throughout the Russian period seems well attested by the regularity with which a "Village Kukak" is indicated at this location on Russian charts. Ensign Vasilief is said to have reported this name in 1831.[178] "Selenie Kukak," clearly situated at Kukak Point, appears on the Russian Hydrographic Department chart of 1847 and on Tebenkov's

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176 If Langsdorff meant that the village was a "sea-mile" from the ship the anchorage must have been in Devil's Cove near the present Tiny Island. If he meant that the settlement was a "sea-mile" from the promontory (perhaps the present Kukak Point), the anchorage could have been off the south shore of the true inner harbor of Kukak Bay, perhaps near the present cannery.

177 This account of Langsdorff's visit is drawn from Langsdorff, *Voyages and Travels*, II, 233-237.

178 Orth, *op. cit.*, 549.

splendid map engraved two years later and published in 1852.[179]

It must be admitted, however, that "Kukak" as the name of a settlement (as distinct from "Kukak Bay" which appears on many maps) does not seem to be shown again on a chart until 1881, when Petroff showed a native village at or near the present Kukak Point.[180] But in view of all the evidence, a continued if perhaps intermittent and seasonal occupation of this site under Russian rule seems indicated.

4. Miscellaneous Coastal Sites. Archeological surveys and excavations from 1953 to 1965 revealed a number of additional native habitation sites along the Pacific coast of Katmai National Monument. Those at Kaflia Bay, Dakavak Bay, and Takli Island are sufficiently extensive to hold out the possibility of at least intermittent occupation during the Russian period, though no artifacts definitely assignable to that era have been found. Remains of post-contact dwellings were discovered at Kaflia and at Dakavak Bay, but they seem to have been inhabited after the transfer to the United States. The Russian maps and records thus far seen by the present writer do not indicate settlement at these points.[181]

One anthropologist who made an aerial survey of the entire shoreline from Cape Douglas to Cape Kubugakli was impressed by the sparseness of archeological sites. "It seems probable," he wrote, "that the Monument coastline was inhabited by relatively few people at any one time."[182] In view of the evidence concerning the depopulation of the Shelikof Strait villages to serve the ends of the Russian American Company, this observation seems particularly valid for the period from about 1786 to 1867.

There is good reason to believe that there were other native settlements within the present Katmai National Monument during the Russian period than those along the Pacific coast. Archeological

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179 Orth, *op. cit.*, 30, 549; Tebenkov, *op. cit.*, atlas, map 22.

180 "Sketch Map of Alaska . . . 1881," in Petroff, *Population and Resources*, ff. p. 2.

181 Dumond, *Archaeological Survey . . . 1963*, 36-41; Dumond, *Archaeological Survey . . . 1964*, 17-29; Dumond, *Report to the Secretary, Smithsonian Institute . . . 1965*, 9-12; Wendell Oswalt, *Prehistoric Sea Mammal Hunters at Kaflia*, 6.

182 Oswalt, *Prehistoric Sea Mammal Hunters*, appendix I, 3.

and historical evidence points strongly toward the existence of permanent villages on the slopes draining north and west toward Bristol Bay, although the data are not yet as precise as could be desired. The most probable locations of such settlements are as follows:

1. Savonoski. No map dating from the Russian period yet seen by the present writer indicates a settlement at the head of Naknek Lake.[183] But the existence of a village at that point prior to 1867 can logically be assumed from the fact that an inhabited location called "Ukak" at the head of "Illiuk L.," the southeastern arm of "Naknek L.," is clearly shown on one of the earliest American period maps of Alaska, an 1867 chart undoubtedly based on Russian sources.[184]

Dr. Donald E. Dumond, who has consulted materials translated from the Orthodox Church records preserved in the Library of Congress, indicates that there is evidence of missionary work among the natives of the upper Naknek drainage beginning during the 1840's.[185] This fact would tend to support the view that there was at least one permanent village in the region.

Archeological evidence strongly reinforces this conclusion. A survey in 1953 revealed an extensive occupation site on the left, or south bank of the Savonoski River a short distance above its former mouth in Iliuk Arm of Naknek Lake. Prior to the 1912 eruption the Ukak River entered the same body of water about one mile south of the mouth of the Savonoski, and the settlement was situated on the point of land between the two inlets. Since the eruption, however, sand and pumice have choked the lower channels of both streams and caused them to intermingle over a large delta built out into the lake. The site is now about two miles inland.

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183 Since the number of Russian maps seen by the present writer has been quite limited, this statement by no means implies that there are not Russian charts showing a settlement at the head of Naknek Lake.

184 "Alaska and Adjoining Territory, 1869," map 20 in United States Coast Survey, *Report . . . 1867*.

185 Telephone conversation with J. A. Hussey, February 5, 1971. There was an active Orthodox chapel at Savonoski from at least 1880 until June, 1912. Probably there was a chapel at the settlement from about the 1840's, but the records which could document the history of the structure have not been available to the present writer.

As shown by depressions remaining from now vanished semi-subterranean houses, the area of occupation extended from the delta upstream for more than one-half mile in a narrow belt, from 10 to 150 yards wide, along a low terrace paralleling the Savonoski River. At the up-river or eastern end of the inhabited zone is the site of Savonoski, a native village occupied until the Katmai eruption of 1912.[186]

Archeologists have tested this inhabited strip both in 1953 and in 1963, but admittedly the area has not been "excavated seriously."[187] Work thus far has revealed no evidence of occupation prior to about 500 years ago. At the western or down-river end of the site the cultural deposits were covered by a layer of volcanic ash believed to have been erupted in 1778. Therefore that section was probably occupied from about 1500 to 1778, prior to the Russian penetration of the peninsula. The eastern portion is known to have been inhabited until 1912, but if artifacts definitely assignable to the Russian period have been recovered, they have not yet been reported.[188]

According to Dr. Donald E. Dumond, the University of Oregon archeologist who has worked extensively in the monument, the occupation area on the point between the Savonoski and Ukak Rivers was actually composed of "two year-round settlements of the same period, known together as Ikkaghmiut, Seviernovsk, or Savonoski and with a combined population of about 150." By "of the same period," Dr. Dumond means of the same age as a site on the lower Naknek River dating from about 1820 to about 1900.[189]

Dr. Dumond thus is stating in essence that Savonoski was occupied during the greater part of the Russian period of influence on the upper Naknek. He is undoubtedly correct, and probably he has been able to reinforce the archeological evidence for this conclusion by references obtained from Russian documents.

As shall be seen in the next chapter, however, nearly all of the information provided in Dr. Dumond's statement quoted above can be found in American period historical sources referring to Savonoski as it was from 1867 to 1912. As far as the present writer

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186 Davis, *op. cit.*, 57-71.

187 Dumond, *Prehistory of the Northern Alaska Peninsula*, 20.

188 Dumond, *Archaeological Survey . . . 1963*, 17-18; Dumond, *Archaeological Survey . . . 1964*, 7.

189 Dumond, *Prehistory of the Northern Alaska Peninsula*, 20.

is aware, the specifically Russian evidence, archeological and historical, which would demonstrate that Savonoski was permanently occupied during the Russian period has not yet been described in print or otherwise made available to the general public. For the time being, therefore, it seems safest to conclude that Savonoski almost certainly was occupied continuously during the period from about 1820 to 1867 but to admit that there may have been periods of only seasonal habitation.[190]

2. Savonoski River. On a grassy knoll on the north bank of the Savonoski River about 10 1/2 miles above Savonoski Village and about 3/4 mile below the mouth of Grosvenor River is an archeological site designated as SR-4 on the Archeological Base Map of Katmai National Monument. Test excavations here have uncovered artifacts believed to date from about 1850 to about 1912. According to information obtained in 1961 from a former native resident, this settlement probably was occupied seasonally by the people of Savonoski until shortly before the Katmai eruption.[191] No artifacts definitely ascribable to the Russian period have been reported.

3. Grosvenor Lake. Fewer than ten surface depressions mark the site of a native village on the north bank of the lagoon connecting Lake Coville and Lake Grosvenor. Archeological evidence dates this settlement at "between A.D. 1500 and 1912; probably after A.D. 1750."[192]

4. Brooks River. Extensive archeological investigations have revealed that the one-and-one-half mile length of Brooks River, joining Lake Brooks and Naknek Lake, has been the scene of human habitation for about 4,500 years. On the basis of artifacts recovered and the relationship of cultural deposits to datable layers of volcanic ash, the archeologists have concluded that the people associated with the latest cultural phase found at this site lived here from about 1500 to about 1820. The habitations of these people

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190 The Savonoski site or sites are numbered SR-1 on the "Archeological Base Map . . . Katmai National Monument."

191 Dumond, *Archaeological Survey . . . 1963,* 22-23.

192 *Ibid.,* 23. This site is identified as GL-1 on the "Archeological Base Map . . . Katmai National Monument."

who occupied the vicinity when the Russians penetrated the Naknek drainage reveal that their settlements were chiefly seasonal salmon-fishing or caribou-hunting camps, though at least one house excavated was judged "probably suitable for winter habitation."[193]

A traveler in the fall of 1880 found a "numerous" party of natives fishing for salmon on the banks of Brooks River directly below the falls. He noted that a village had "formerly" been situated at this spot.[194] If this location was occupied seasonally to about 1820 and was being used in the same way in 1880, it seems almost certain that this type of usage also characterized the intervening years. Thus, despite a lack of direct physical or historical evidence, it can be concluded with reasonable assurance that the Brooks River region was inhabited by natives at least seasonally during the Russian period.

Although they lie outside the boundaries of the present Katmai National Monument and thus are not of immediate concern for the present study, the native villages along the lower Naknek River, from Naknek Lake to Bristol Bay, were associated with the human activity in the upstream drainage basin. Undoubtedly their inhabitants were among the people who gathered seasonally on Brooks River and at camps up the Savonoski River to fish and hunt.

What little is known about Russian trading activities at these down-river villages has already been mentioned. There would seem to be some value, however, in discussing briefly the name of the principal native settlement at the mouth of the Naknek River as revealed by a sampling of Russian source materials.

From available maps, it appears that the principal down-stream village was situated on the north bank of the Naknek River near its mouth. Apparently this settlement was reported by Vasilief about 1821 under the name "Naugeik." It appears in Sarichev's atlas of 1826 as "Naugvik."[195]

A French map published by Brué in 1833, probably based on Russian information, clearly labels the settlement on the north

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193 Dumond, *Prehistory of the Northern Alaska Peninsula,* 6-19.

194 "Alaska's Census," in *New York Herald,* January 11, 1881.

195 Orth, *op. cit.,* 671.

side of the river's mouth as "Vge. d'Ouglaghmoutes," which can be translated as "Village of the Aglegmiut."[196] An 1849 chart in Tebenkov's great atlas names the same place "Village Naknek," but underneath that name on the south bank of the river and in parentheses, but with no dot to indicate another settlement, appears the word "(Paugvik)."[197]

From this partial survey, two conclusions can be drawn. First, the Aglegmiut Eskimo apparently were well established at the mouth of the Naknek River by 1833. Second, the name "Naknek" as the name of a village was rather generally applied to the settlement at the mouth of the Naknek River during the Russian period. The importance of this latter fact will become apparent in a later discussion concerning the location of an American trading post at a place called "Naknek."

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196 United States, *Alaskan Boundary Tribunal*, atlas, map 13.

197 Tebenkov, *Gidrograficeskia*, atlas, map 4.

CHAPTER VII

Lo, the Poor Sea Otter!

The transfer of Alaska from the administration of the Russian American Company to that of the United States Government officially took place at an emotion-packed ceremony in Sitka on October 18, 1867. In many parts of the territory, in the Eskimo-inhabited far north and in the interior where the Russians had never or seldom penetrated, the change of flags had little immediate effect. Indeed, many natives were entirely unaware of it.

But at the Russian settlements and wherever the fur trade was an important factor in the lives of the inhabitants, it soon became apparent that new masters were at the helm. In many areas where the Russian American Company had firmly controlled the economic, social, and spiritual lives of the people, the central authority of the district manager simply evaporated. The place of the station agent was taken by representatives of competing merchants who drove up the price of pelts and encouraged the wholesale slaughter of fur-bearing animals.

When these practices brought the sea otter to the brink of extinction, many disillusioned natives found themselves in reduced circumstances. Only the rise of the fish canning industry saved the day for a number who had become dependent on European foodstuffs, tobacco, ammunition, and other material conveniences.

Meanwhile, the Orthodox Church had recovered from the first shock of separation from Mother Russia and was continuing and even expanding its ministrations to the natives. And the Alaska Commercial Company had succeeded temporarily in eliminating most of its would-be rivals from western Alaska and dominated the economy in that region and in the central interior. The inhabitants of a vast portion of the territory came to realize that for them the more things changed the more they remained the same. One monopoly had replaced another.

Despite a considerable body of secondary writings and an immense bulk of original source materials -- including many of the firm's business papers, the minutes of its directors' meetings, and abundant testimony at government hearings -- there is much concerning the origin and operations of the Alaska Commercial Company that remains obscure. And, as one student of the concern's

records has recently pointed out, the potential for learning a great deal more about these matters is not promising.[1] Too much was either not put on paper at all or apparently has not survived.

The prime mover in the ogranization of the Alaska Commercial Company appears to have been Hayward M. Hutchinson, a prosperous merchant and Civil War contractor from Baltimore. Perhaps primarily for social reasons but also seeking wider economic opportunities, he came West in 1867 and learned that the Russian American Company's warehouses were bulging with marketable supplies and trade goods which were to be disposed of when the territory was turned over to the United States. Hutchinson went to Sitka about two months after the transfer ceremony and quickly and quietly arranged with the former governor, Prince Dmitri Maksoutoff, to buy the bulk of the Russian firm's Alaska properties, including stores, station buildings, and ships.

"I did myself, and in my own name" make the purchase, Hutchinson later testified.[2] Be this as it may, very shortly afterwards he joined Louis Sloss of San Francisco and Sacramento, Captain William Kohl of Victoria, B.C., and several other merchants in forming Hutchinson, Kohl & Company to exploit his properties in Alaska. This step probably was taken during the period from January to March, 1868.[3] At about the same time Captain Gustave Niebaum, a veteran Russian American Company shipmaster, was brought into the

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1 Wendell H. Oswalt, *Alaska Commercial Company Records: 1868-1911: Register* (College, Alaska, 1967), iv.

2 U.S. House of Representatives, Committee on Ways and Means, *The Alaska Commercial Company*, 44 Cong., 1 Sess., House, Committee Report No. 623 (Ser. 1712), 118. Hutchinson said he bought "everything" belonging to the Russian firm which was not turned over to the United States as public property, but apparently he erred. Bancroft mentions certain assets purchased by other parties. Bancroft, *History of Alaska*, 636.

3 Gerstle Mack, *Lewis and Hannah Gerstle* (New York, 1953), 32. Alaska Commerical Company histories generally state that Hutchinson formed the nucleus of Hutchinson, Kohl & Company before he went to Sitka, but Hutchinson later testified he had not met Kohl before he purchased the Russian properties. *Ibid.* This testimony has recently been confirmed by an important study of the formation of Hutchinson, Kohl & Company: Frank H. Sloss and Richard A. Pierce, "The Hutchinson, Kohl Story: A Fresh Look," in *Pacific Northwest Quarterly*, vol. 62 (January, 1971), 1-6.

firm because of his familiarity with the treacherous waters of the North Pacific and Bering Sea and, more importantly, because he had already obtained, through Prince Maksoutoff, a cargo of Russian American Company sealskins from the Pribilof Islands. By April, 1868, there were six major shareholders, and Niebaum made the seventh.[4]

Now having the necessary capital, equipment, and experienced management, Hutchinson, Kohl & Company lost no time in taking up where the Russian American Company had left off. The balance of the winter was spent in freighting surplus trade goods to San Francisco and Portland. If Hutchinson purchased the Russian posts in southeastern Alaska, they must have been disposed of quickly, for as Captain Niebaum said some years later, the Alaska Commercial Company "never had anything to do with Sitka at all."[5]

Instead, Hutchinson, Kohl & Company concentrated on the region from Prince William Sound west -- Cook Inlet, the Alaska Peninsula, the Kodiak group of islands, the Aleutians, the Bering Sea coast from Nushagak around to St. Michael, and the Yukon-Kuskokwim area. Activating the numerous stations scattered over this vast expanse of land and sea was no small feat, but it was accomplished, at least in part, during the first season.

Captain J. W. White of the United States Revenue Marine met a Hutchinson, Kohl & Company party of 180 men in 80 "canoes" hunting otter south of Kodiak Island during the summer of 1868.

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4 H. H. Haight to William Seward, April 13, 1868, as quoted in Ernest Gruening, *The State of Alaska* (New York, 1954), 510-511, note 54. Governor Haight said that Hutchinson, Kohl & Company was "composed of six highly respectable merchants." See also Sloss and Pierce, *op. cit.*, 5-6.

5 Gustave Niebaum, Statement, MS, 70. Hutchinson, however, is known to have purchased the Russian stock-in-trade in Sitka, and Hutchinson, Kohl & Company had a resident agent in Sitka in May, 1868. Emil Teichmann, *A Journey to Alaska in the Year 1868* (New York, 1963), 189. At least some of the Russian goods at Sitka were taken over by the Alaska Commercial Company upon its formation late in 1868. L. D. Kitchener, *Flag over the North* (Seattle, Washington, 1954), 34-35. For various reasons, however, the firm found Sitka "untenable as a place of residence or business." Frank H. Sloss, Of Shoes and Ships and Sealing, MS, 7.

At that time, he reported, the firm was operating a trading post at Unalaska and was maintaining the old Russian "Fort Alexander" at Nushagak.[6]

But Hutchinson and his companions had an even more urgent objective during the summer of 1868. Prince Maksoutoff had promised to sell 60,000 or more seal skins stored in warehouses on the Pribilof Islands for a mere $1.00 each, and the new company was determined to collect them and all the additional pelts that could be harvested during that season. But when Hutchinson, Kohl, and Niebaum reached the islands they encountered rival concerns equally determined to slaughter the seals. Some of these groups had to be admitted to the firm to avoid physical confrontations, but the company's haul of 300,000 skins for the season demonstrated the advantages of joining forces with experienced hunters and traders.[7]

Hutchinson and Sloss, buoyed by this heady success, set their sights on obtaining a government lease for the sealing rights on the Pribilofs. They also decided to go into the mercantile trade in addition to the fur business. For these purposes additional resources were needed, and thus the combination was further enlarged. In September, 1868, the proprietors filed articles of incorporation for a second concern to be known as the Alaska Commercial Company. Headquarters were to be in San Francisco.

A month later the new firm purchased all the assets of Hutchinson, Kohl & Company for $1,729,000, paying in promissory notes which were to be redeemed within 30 months. Hutchinson, Kohl & Company remained in existence and was to serve as agent in operating the properties

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6 J. W. White, *A Cruise in Alaska,* 40 Cong., 3 Sess., Senate, Ex. Doc. No. 8 (Ser. 1360), 5-6.

7 This figure, given by Kitchener, *op. cit.*, 34, may be somewhat too generous, even though it included the pelts bought from Maksoutoff. According to the best counts available, only 274,052 skins were taken by all vessels trading at the Pribilof Islands between October, 1867 and the spring of 1869. Benjamin Franklin Gilbert, "Economic Developments in Alaska, 1867-1910," in *Journal of the West,* IV (October, 1965), 506.

for two years and until the debt was paid in full. Among the assets thus transferred but remaining outwardly under the old name were the buildings and stock-in-trade of about 20 stations in Alaska.[8]

Little is known of the operation of the fur trade in Western Alaska under the agency of Hutchinson, Kohl & Company beyond the fact that the business was pushed with vigor. According to L. D. Kitchener, writing nearly a century later but having access to the firm's records, the agents "searched the coast diligently for qualified traders known to have the acumen and dependability they required of their employees."[9] In this quest the Russian and

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8 It is not a purpose of this study to unravel the tangled and obscure story of the origins of the Alaska Commercial Company beyond what is necessary to an understanding of early American fur-trading activities in the Katmai region. The account presented above represents the writer's conclusions based upon a perusal of a number of contradictory and sometimes confusing sources. The work necessarily used most extensively, because it is the most detailed, is L. D. Kitchener, *Flag Over the North: the Story of the Northern Commercial Company* (Seattle, Washington, 1954). Although undocumented, it shows evidence of being partly based on original materials not generally available to the public.

In places, however, the writer has felt compelled to accept a somewhat different view presented by one or more other accounts. However, since these accounts themselves are often undocumented or at least not subject to being checked against original sources, it must be admitted that making a choice sometimes boils down to a matter of logic or "hunch." Among these other works, in addition to those already cited in this chapter, are Gilbert, "Economic Developments in Alaska, 1867-1910," in *Journal of the West*, IV (October, 1965), 504-521; Samuel P. Johnston, *Alaska Commercial Company, 1868-1940* [San Francisco, 1940]; John Franklin Miller, Statement, MS; and Frederic Gordon O'Neill, *Ernest Ruben Lilienthal and His Family* (Stanford, 1949).

9 Kitchener, *op. cit.*, 36.

creole former managers and foremen of the Russian American Company were not overlooked.[10] Soon men of a variety of nationalities were signing agreements to serve in the scattered northern posts.

The texts of some of these contracts have survived. One example tells much about the company and its business methods. At Kuskokwim, on June 10, 1869, the firm engaged R. Separe as a trader at a monthly salary of $100, "U.S. gold coin," plus lodging, board, and a free passage to San Francisco. In return, said the company, Separe was to "devote his whole time and energy to foster our interests and shall not be allowed to do business on his own account as long as he is in our service." He was to obey all orders directed "by and t[h]rough our St. Michaels office or by one of the members of our firm at the Territory."[11]

It is also evident that Hutchinson, Kohl & Company had from the beginning to battle competitors to maintain its place as the chief successor to the Russian American Company. As early as 1868 a rival establishment was standing near the firm's post at Unalaska.[12] The same situation undoubtedly prevailed at other points.

Hutchinson, Kohl & Company operated a trading post at "Katmy" by October, 1868. According to a list of the firm's stations dated on the twenty-first of that month, this post was the only one then maintained by the company within the present Katmai National Monument.[13] The firm also had a post at Kodiak, and probably from there it supervised the establishments on the peninsula as the Russians had done previously and as the Alaska Commercial Company was to do later.

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10 In 1871 a creole named "Nikiforoff" (?) was in charge of the Hutchinson, Kohl & Company store at Nushagak (?). A. Pinart, Correspondence, MS, III, [1]. See also Bryant and McIntyre, *Letter of the Secretary of the Treasury*, 8, which details how Hutchinson, Kohl & Company, "composed in part of officers of the late Russian Company," retained "as far as practicable" the former Russian agents, foremen, and native workers on St. Paul Island.

11 Kitchener, *op. cit.*, illus. opp. p. 36.

12 White, *A Cruise in Alaska*, 5.

13 Alaska Commercial Company, Trustees, Minutes of Meetings, MS, I, 2.

The Alaska Commercial Company was awarded the lease of an annual harvest of 100,000 seal skins from the Pribilof Islands on August 3, 1870. The proprietors could plainly see that only meager returns could be expected during the short time remaining in that year's season. Evidently they decided that the sealing business would absorb the greater part of their energies and capital, because by September 28 they had returned to Hutchinson, Kohl & Company all the property previously sold to them by that firm. They also had recovered and cancelled the promissory notes they had given for the Hutchinson and Kohl assets. Therefore Hutchinson, Kohl & Company once more owned as well as managed the Alaska properties except those on the Pribilofs.[14]

By early 1872 it was possible to foresee that the sealing contract would prove comfortably profitable, and the thoughts of the Alaska Commercial Company's shareholders seem once again to have turned to the idea of conducting an extensive trade in land furs and merchandise throughout western and northern Alaska. On March 28 they arranged to purchase once more all of Hutchinson, Kohl & Company's stations, vessels, and stock-in-trade in Alaska, this time for an amount to be established by two agents who were to visit all the posts and set a value on the assets. From the date of arrival of the agents at each post the personnel were to be considered employees of the Alaska Commercial Company.

By November 18, 1872, evidently, the agents had returned to San Francisco with their inventories, and shortly thereafter the Alaska Commercial Company gave its notes, totaling $845,658.28, to complete the sale. The stockholders were told on December 11 that the company was then in possession of all Hutchinson, Kohl & Company's Alaska properties and that "the business of said firm is now being conducted by the [Alaska Commercial] Company."[15]

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14 Alaska Commercial Company, Trustees, Minutes of Meetings, MS, I, 19. The Alaska Commercial Company purchased Hutchinson, Kohl & Company's buildings and other property on the Pribilofs early in 1871. *Ibid.*, 28.

15 *Ibid.*, I, 42-47, 54-55, 59. In considering these transfers of assets it should be remembered that the principal stockholders of the two companies involved were to a considerable degree the same persons. It will be noted that the above account, based on original sources, differs considerably from that given in all existing secondary accounts known to the writer.

Far away in western Alaska the company's red flag bearing the white letters "A.C. Co." flew over half a hundred stations, and in many places it was to become an emblem better known than the Stars and Stripes itself.[16]

With the advent of the Alaska Commercial Company, developments on the northern Alaska Peninsula become somewhat less obscure than during the Russian period. Two large collections of the firm's business papers dealing principally with the Kodiak district are preserved in university libraries.[17] The conditions under which the present study was made permitted only a cursory examination of one of these accumulations of ledgers; the second had to be consulted through an inventory.[18] Unsatisfactory as this research was and as incomplete as the surviving records are, the general scope of the Company's operations in the Katmai area can be discerned.

Probably from the time the Alaska Commercial Company assumed operating control in 1872 and surely by the 1880's its posts were organized into four large trading districts: The Unalaska District,

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16 Kitchener, *op. cit.*, 35, says there were 50 posts at the time of the Alaska Commercial Company's first purchase in 1868. No such detailed inventory was available to the present writer, and he preferred to use a more modest figure for that sale based upon information in the firm's minutes of meetings. However, the latter list may not have included all subposts, and undoubtedly Hutchinson, Kohl & Company expanded operations. Therefore, Kitchener's figure has been accepted as applying to the 1872 sale, but it must be considered only as an approximation until the inventories become available.

17 Alaska Commercial Company, Papers, in the Jackson Library, Graduate School of Business, Stanford University; Alaska Commercial Company, Records: 1868-1911, in University of Alaska Library.

18 Wendell H. Oswalt, *Alaska Commercial Company Records: 1868-1911: Register* (College, Alaska, 1967).

the Kodiak District, the St. Michael District, and the Pribilof Islands.[19] The region that is now Katmai National Monument fell within the sphere of two of these divisions, the "Oonalaska District," as the name was long spelled, and the Kodiak District.

The "Oonalaska District" covered not only the Aleutians but also the Kuskokwim River Posts and the Nushagak region.[20] Information presently at hand does not permit an exact definition of the boundaries of this district, but it seems clear that the trade conducted from old Fort Alexander at Nushagak did not extend as far southeast as the upper Naknek drainage. In 1880, it will be remembered, Ivan Petroff observed that the Eskimos about Naknek Lake conducted their barter with Katmai, which was in the Kodiak District.

On the other hand, it is known that the trade from Nushagak did reach out to Cook Inlet and Kamishak Bay and thus touched the extreme northern part of the present Katmai National Monument along Shelikof Strait. As early as the summer of 1868 parties of natives were traveling, presumably for barter, between Cook Inlet and Nushagak by way of Lake Iliamna and the Kvichak River.[21]

When John W. Clark became the Alaska Commercial Company's agent at Nushagak about 1880 this traffic with the Pacific coast received increased emphasis. A man of "more than usual energy and ability," Clark persuaded not only the Aglegmiut living on the shores of Bristol Bay but also the Kiatagmiut and the Togiagamiut, who lived farther north and west, to undertake annual migrations to Cook Inlet to hunt sea otter.[22]

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19 Oswalt, *Alaska Commercial Company Records*, v; VanStone, *op. cit.*, 59. In 1883 there seems to have been a district known as "Fishery District," which may have been the firm's term for the Pribilof Islands. On the other hand, the meaning of the source is not entirely clear, and "Fishery District" may have been an organizational unit of the Western Fur and Trading Company. Alaska Commercial Company, Trustees, Minutes of Meetings, MS, I, 113-117.

20 Kitchener, *op. cit.*, 123.

21 White, *A Cruise in Alaska*, 6.

22 U.S., Census Office, *Eleventh Census*, 72, 253; VanStone, *op. cit.*, 59-60.

Each spring before the snow melted these Eskimos loaded their household goods and their bidarkas on sleds and embarked on the "long, tedious" journey eastward "over tundra, rivers, lakes, and mountain ranges" to the rocky shores of Kamishak Bay. There they spread out, and by 1890 their "numerous camps" could be found scattered along the shore from Augustine Island south to Cape Douglas. Only when the first storms of autumn made sledding possible did they turn homeward, bearing a "fine lot" of seal and otter skins for the company warehouse at Fort Alexander. By 1890 the annual number of sea otter pelts received in this manner at Nushagak ran between 50 and 100. Each skin was valued at from $200 to $600.[23]

Except for these summer operations from Nushagak, the Alaska Commercial Company's trade within today's Katmai National Monument was under the direction of the firm's Kodiak District. This veritable empire included the Alaska Peninsula, the Kodiak Archipelago, and the Cook Inlet and Prince William Sound regions.

As had been the case under the Russians, the principal post within the present monument, at least during the first few years of Alaska Commercial control, apparently was Katmai. By 1878 or earlier, however, the firm had opened another post farther north near Cape Douglas, and when Ivan Petroff crossed the peninsula in 1880 he observed that the bulk of the fur trade had gravitated in that direction. "Katmai's glory has departed," he announced to the world in the report of the Tenth Census.[24]

Katmai and Douglas, as the new station was usually called, both remained active for many years; and for considerable periods they appear to have been the only posts operated by the company along the Katmai coast.[25] But apparently the Kodiak district also maintained at least one other post of shorter duration within the monument. The division inventories included a place called

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23 U.S., Census Office, *Eleventh Census*, 72, 93, 95-96, 155, 170, 253. These values must have represented prime London prices.

24 Oswalt, *Alaska Commercial Company Records*, 1-2; Petroff *Population and Resources of Alaska*, 33.

25 When Heywood W. Seton-Karr coasted the southeast shore of the peninsula in 1886 he encountered only two posts within the present monument, Douglas and Katmai. Heywood W. Seton-Karr, *Shores and Alps of Alaska* (London, 1887), 241.

"Kugak Bay," which probably was Kukak Bay.[26] The district also had a station at "Naknek," but whether this post was at the head of Naknek Lake within the present monument or outside at the mouth of Naknek River is not clear from the information thus far available.[27]

In many ways the Kodiak office fulfilled the same function it had under the Russian American Company. It even occupied the same structures. Here the annual requisitions of the individual stations for trade goods and equipment were received and consolidated into district requisitions sent to the San Francisco headquarters. When the requested goods arrived at Kodiak they were stored in the district warehouse or distributed to the scattered posts. A cooper shop, a blacksmith shop, a carpenter shop, and a "powder house" were maintained for the manufacture, repair, and supply of certain articles needed at the stations.[28]

The fur returns of the posts were sent to Kodiak for transshipment to San Francisco. Here also were kept the accounts of the individual posts, the district, the sea otter hunting parties

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26 Kitchener, *op. cit.*, 138. "Kaguiak" is also listed as a post by this source, but there is no indication whether this post was at the Kaguyak on Shelikof Strait or at the better-known Kaguyak on Kodiak Island.

27 *Ibid.* It has already been seen that during the Russian period "Naknek" was an established name for the native settlement on the north shore of the Naknek River at its mouth. During the early American period this village was more frequently known as "Souworoff" or "Pagouik," although by 1898 a settlement on the south bank of the river at its mouth was known as "Naknik." Spurr and Post, "Report of the Kuskokwim Expedition," map 4. However, Pinart's map prepared in 1873 shows a village named "Haknik" (Naknik) situated at the upper end of Naknek Lake and a short distance south of another settlement, "Ikak." Pinart, *Voyage a la côte nord-ouest d'Amérique d'Ounalashka a Kodiak*, map ff. p. 24.

28 Ledger, 1908-1911, MS, 168, in Alaska Commerical Company, Papers, MS.

which long sailed from Kodiak as they had under the Russians, the shipping, and the individual employees.[29]

The district manager had no easy task. L. D. Kitchener describes a few of the routine duties which were taken in stride by M. L. Washburn, in charge from the late 1870's until 1901:

> Scattered across islands and along inlets difficult to navigate, Kodiak's substations were difficult to reach and administer but by Company sailing ship, naptha launch or native boat, Washburn traveled them regularly, inspecting, delivering mail, taking in supplies, closing unlikely locations, opening new stores. Many of the half-breeds in his territory were surly, almost impossible to deal with but Washburn's insistent friendliness won furs and customers.[30]

But in one very important aspect the Alaska Commerical Company's district offices differed from their Russian counterparts: they had no governmental functions. With the ceremony of transfer in 1867 the old laws which required the settled or dependent natives to render service to the Russian American Company and which permitted that firm's officers to appoint local chiefs to maintain public order and health were completely terminated. It was decades before the United States provided any effective government for the Alaska natives.

In this vacuum, it is probable that most of the "settled" villagers, including those on the Katmai coast, followed the lead of the Aleuts at Unalaska who voluntarily continued to support the office of the local "elected" *toyon*, elder, or foreman for the performance of community work and for the promotion

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29 The scope of the activities of the Kodiak office is evident from an examination of the inventory of one collection of its records. Oswalt, *Alaska Commercial Company Records*, *passim*. For corroborative contemporary testimony that Kodiak was the headquarters and depot for the company's peninsular stations in 1880 see Petroff's "Report," *Tenth Census*, 24. For a similar statement in 1898 see W. C. Mendenhall, "The Kodiak Islands," in United States Geological Survey, *Maps and Descriptions of Routes of Exploration in Alaska in 1898* (Washington, 1898), 113-114.

30 Kitchener, *op. cit.*, 138-139.

of the public welfare. This local rule, noted one observer at Unalaska in 1869, "is the only government recognized, nor do they require other."[31]

But according to William H. Dall of the Coast Survey, who was no particular friend of the Alaska Commercial Company, that firm was not always content to leave the natives without some form of exterior control. Writing in 1874, Dall said, "Now, the toyone is the creature of the company, paid by them; if there are opposition traders there are two toyones, and it is evident how impartial must be their arbitration, and what is the character of the protection they afford." Dall was careful to state that he had no grounds for believing that the firm had abused its position "more than any other would do in the same case," but he decried a situation in which "tyranny" might be possible.[32]

Despite a vast amount of charge and counter-charge it is difficult to judge the extent of company influence over native affairs. As shall be seen, only at certain times and in certain places was the firm able to achieve a monopoly. But the company's opponents were probably correct when they ascribed this failure to no lack of desire on the part of the firm's management.[33]

As matters worked out, an observer of 1873 was undoubtedly correct when he said of Unalaska, "the priest is really our mighty man, his position and influence enabling him to decide

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31 Bryant and McIntyre, *Letter of the Secretary of the Treasury*, 21. A customs inspector at Unalaska in 1869 found the "Tajon" still organizing the labor force and directing local affairs. "In fact," he said, "there does not appear to be any other authority on the island." *Alaska Herald* (San Francisco), September 15, 1869, p. 2; November 19, 1870, p. 4.

32 Henry W. Elliott, *A Report upon the Condition of Affairs in the Territory of Alaska* (Washington, D.C., 1875), 234.

33 Enemies of the Alaska Commercial Company claimed that by "some hocus pocus arrangement" the natives were made to believe that Hutchinson, Kohl & Company had inherited all the monopoly rights of the Russian American Company. It was even said that Prince Maksoutoff, when each main post was turned over to the new owners, warned the natives that they would be punished if they dealt with rival traders. *Alaska Herald* (San Francisco), August 15, 1868, p. 5; September 1, 1869, p. 2.

most questions in dispute satisfactorily or at least finally." Even in remote villages like Katmai and Douglas which were visited by priests only twice a year at most, the clergy must have been a strong agent of control since, as the same reporter noted, the Orthodox Church had "always" represented to the natives "their Government and laws."[34]

No longer able to command labor, the Kodiak district manager had to rely upon volunteers who worked for wages or were paid by the piece for delivered skins. By 1868, however, the settled natives were so dependent upon a trading economy that obtaining willing laborers and hunters does not appear to have been much of a problem in most areas. The extension of credit was another means employed to interest the natives in continued effort, but the Alaska Commercial Company was by no means as liberal in permitting debt as its predecessor except where competition required the practice.[35]

Under true monopoly conditions the company might, through the ordinary processes of a trade which required a high degree of community participation, have been able to exert a stabilizing influence over the villages and to protect the animal resources upon which the continued well-being of the people depended. But the Alaska Commercial Company was never able to control all the trade of the Kodiak District for any appreciable period of time. Even in 1890, after its larger rivals had been eliminated, the firm found the struggle to maintain a monopoly "hopeless." One observer described the condition of trade in the district as "everybody for himself."[36] Thus the manager of the company's Kodiak office could not maintain the type of control over the people and the resources of his district that had been exercised by his Russian counterpart.

Nevertheless, the company did perform many functions ordinarily assumed by governmental agencies. It forwarded mail; it provided hospitality and assistance to travelers, scientists, and Government officials; and by 1890 it had advanced more than $100,000 in provisions and other necessities to "indigent" natives

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34 *Alaska Herald* (San Francisco), September 15, 1869, p. 2.

35 U.S., Census Office, *Eleventh Census*, 251; VanStone, *op. cit.*, 57-58.

36 U.S., Census Office, *Eleventh Census*, 251.

of the Kodiak district. And by that time, said a Government report, the company had "employed, directly or indirectly, a majority of the people living within the vast field of their operations."[37]

A company official clearly exaggerated when he said, years later, that "in fact, though not in theory, there were a good many years in which San Francisco could more truly be called the seat of Alaska's government than Sitka, Juneau, or Washington, for the decisions most vital to the well-being of the territory were being made . . . at . . . [the] home office of the Alaska Commercial Company."[38] Yet there can be no doubt that the firm was long a major factor in the lives of all persons living in the firm's Kodiak District.

The Alaska Commercial Company received a stunning blow in 1890 when it lost the profitable Pribilof Islands sealing contract. The firm was left with only its Alaska fur trade and mercantile business, and faint-hearted stockholders hastened to unload. But just ahead lay the great gold rushes to Circle City, the Klondike, and Nome. Furs suddenly became secondary, as the company transported miners and their supplies to the gold fields and set up stores to provide their outfits.

Such a lucrative business was sure to attract competitors. Soon the Yukon River swarmed with the steamboats of rival shipping firms, and numerous supply stores sprang up at every mining camp. The competition quickly turned prosperity to ruin. By 1901 every transportation company in the North was operating at a deficit.[39]

The Alaska Commercial Company met this situation by merging during that year with two of its competitors to form two new corporations, the Northern Navigation Company and the Northern Commercial Company. To the former it soon sold all its river-

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37 U.S., Census Office, *Eleventh Census*, 75.

38 Sloss, *op. cit.*, 1.

39 Kitchener, *op. cit.*, 46. After the loss of the contract the company did not pay dividends for 16 years. Sloss, *op. cit.*, 17.

boats, barges, and other floating property except ocean steamers. To the latter it transferred most of its mercantile assets.[40]

But the Alaska Commercial Company by no means went out of business in 1901. Among other interests, it retained the few remaining Unalaska District posts in the Aleutians and on the neighboring islands and mainland. It also continued to hold and operate under its own name the Kodiak store and the trading stations of the Kodiak District.[41]

Why the company decided to stay in the fur and mercantile business at Kodiak is not obvious today. Fifteen years earlier the fur trade had been at its height and was highly lucrative for the firm. It has been said that in 1885, "75 per cent of the world's supply of fur seal skins and 90 per cent of the world's supply of sea otter went through the company's books."[42]

But the loss of the fur seal contract and the rapid decline in the number of sea otter after 1885 ended all that. Even though fashions continued to demand more and more land furs, the business in these pelts did not provide long-range prosperity for the firm. With the advent of canneries, gold rushes, and better travel facilities, the competitors poured in, and all sorts of persons began to buy pelts. As one company official later ruefully admitted, "very few skins now come into our hands."[43]

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40 Mack, *op. cit.*, 61; Kitchener, *op. cit.*, 111. The agreement to sell the bulk of the company's assets was made on April 16, 1901, but the ultimate price was to be subject to a field appraisal of the properties involved. It seems to have been 1902 before the final details were concluded. Mack, *op. cit.*, 61.

41 Alaska Commercial Company, Trustees, Minutes of Meetings, MS, I, 239-241. Perhaps the situation was so obvious to the authors that they felt it unnecessary to make a specific explanation, but no history of the Alaska Commercial Company yet seen by the writer makes it entirely clear that the firm reserved its Kodiak District assets from the sale to the Northern Commercial Company.

42 Kitchener, *op. cit.*, 42.

43 [Louis C. Greene], *310 Sansome Street* (mimeographed, [San Francisco, n.d.]), 8.

By 1891 the decline of trade at the old posts along the Pacific shores of Alaska was obvious, and thereafter they further "dwindled."[44] The company turned its attention more and more to the northward where successive mining discoveries were opening new opportunities in transportation and merchandising. In 1897 the firm amended its charter to reflect its new interests in real estate, public utility services, land and water transportation, money lending, fish canning, manufacturing, and merchandising. The fur trade was not even mentioned among its specific purposes.[45]

Perhaps the new partners in the Northern Commercial Company were not interested in the "dwindled" stations of the Kodiak District, although nearly five decades later, under different management, that firm attempted to buy the Kodiak store.[46] As matters stand at present, unless new evidence comes to light the reasons for the Alaska Commercial Company's continued presence on the peninsula after 1901 must remain a mystery.

Evidently the firm's trustees at 310 Sansome Street in San Francisco soon had doubts as to the wisdom of their actions, for in September, 1906, they consummated negotiations with Omar J. Humphrey by agreeing to sell him the "plants and goods belonging to the Alaska Commercial Company in [the] Kodiak and Unalaska Districts." The extent of the decline of the once-flourishing company stations within the present Katmai National Monument is shown by the fact that only two posts remained there, one at Douglas with a building valued at $25, and the other at Katmai with a structure assessed at $150.[47]

After a series of complicated transactions, during which Humphrey joined with W. J. Erskine of Seattle in attempting to purchase the properties, the Alaska Commercial Company canceled

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44 Kitchener, *op. cit.*, 139.

45 Alaska Commercial Company, Trustees, Minutes of Meetings, MS, I, 213-215.

46 Yule Chaffin, *Alaska's Southwest: Koniag to King Crab* ([n.p.]: Chaffin Incorporated, 1967), 144.

47 Alaska Commercial Company, Trustees, Minutes of Meetings, MS, II, 23-24.

the sale during the spring of 1907.[48] Erskine, an old and valued company employee, operated a shipping line in Alaska waters and was interested in entering the general merchandise and fur trading business at Kodiak. He finally succeeded on April 15, 1911, when the Alaska Commercial Company sold to him and Charles A. Fletcher the entire stock, except for furs and coal, at the Kodiak station and agreed to rent them the land and buildings for one dollar a year.[49]

Contrary to what is frequently stated, this sale to Erskine did not include all the Kodiak District properties.[50] But the Alaska Commercial Company was then looking forward to eventual liquidation, and it rapidly disposed of its remaining stations, merchandise, and vessels as opportunity offered. The Afognak station, for example, was sold to Emelian Petellin during November, 1911, and George Roll bought the buildings at Sunrise, in Cook Inlet, during the next April.[51]

No record has been found of the sale of the stations at Katmai and Douglas. Probably they had already been abandoned by the time of the disposal of the Kodiak store, the old district

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48 Alaska Commercial Company, Trustees, Minutes of Meetings, MS, II, 25-39; Alaska Commercial Company, File Box, Documents 176-271, MS, doc. 263, in Alaska Commercial Company, Papers.

49 Alaska Commercial Company, Trustees, Minutes of Meetings, MS, II, 77.

50 For example, see Kitchener, *op. cit.*, 47.

51 Alaska Commercial Company, Trustees, Minutes of Meetings, MS, II, 89, 91. By 1922 when the Northern Commerical Company, which was controlled by essentially the same persons as was the Alaska Commercial Company, sold its assets to a group of employees, the Alaska Commercial Company operated only two properties in Alaska, its stations at Unalaska and Dutch Harbor (although it still retained property interests at Kodiak and perhaps elsewhere). The company continued to operate these two stations in its own name, "partly, perhaps for sentimental reasons and partly to give the home office enough to do to justify the retention of three faithful employees," until they were finally sold to the Northern Commercial Company in 1940. With the disposal of these properties, the Alaska Commerical Company was soon liquidated. Kitchener, *op. cit.*, 129; Mack, *op. cit.*, 61; Sloss, *op. cit.*, 18.

headquarters. If perchance part-time agents continued to watch out for the firm's interests at these lonely places, their duties ended abruptly with the earthquakes preceding the Katmai eruption in early June, 1912. Both settlements were hurriedly deserted and have not been reoccupied to the present day. One way or another, the red flag of the Alaska Commercial Company had disappeared from the Katmai region by the date of the 1912 catastrophe.

Although the Alaska Commercial Company "by virtue of greater resources and greater energy" as well as, in the words of its good friend Henry W. Elliott, by "the sagacity of its traders, and the kindness with which they treat the natives" was always the dominant firm in the fur trade which centered at Kodiak, there were numerous rivals in the field. In 1874 David Shirpser was the chief competitor at Kodiak, but even by that early year of the American trade the sea otter traffic up the coast of southeastern Alaska as far as Cook Inlet and Katmai was "mostly engrossed by trading-schooners plying between those places and Puget Sound."[52]

Ivan Petroff noted in 1880 that Kodiak served as the central depot for several firms operating in the district.[53] The Alaska Commercial Company for years contested with its rivals, sometimes "with great vigor and vituperation," and one after another they were forced to give up the struggle.[54]

The most powerful of these competitors was the Western Fur and Trading Company, which had established a post at Kodiak as early as 1875.[55] The struggle between the two giants was fierce. Wherever one firm had a station, the other would set up a post. Natives were permitted to run up extravagant debts, and the scattered white hunters were "lavishly supplied with 'outfits,' comfortable homes, and native hunting parties, all on long credit, in order to secure their trade and custom."[56]

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52 Elliott, *op. cit.*, 39, 50.

53 Petroff, "Report," *Tenth Census*, 24.

54 U.S., Census Office, *Eleventh Census*, 75.

55 Oswalt, *Alaska Commercial Company Records*, 30.

56 U.S., Census Office, *Eleventh Census*, 251-252.

These practices extended to the Katmai shore. It is known that the Western Fur and Trading Company had a post at Douglas in 1882, and undoubtedly it maintained stations there, at Katmai, and possibly at other points during the long contest.[57] Almost certainly other traders also set up posts from time to time within the monument, but information concerning them is lacking.

In 1883 the Western Fur and Trading Company retired from the field, and for a short period the Alaska Commercial Company enjoyed a near monopoly of the fur trade. A system of more economical management was introduced, with an attendant reduction in the prices paid for furs, a restriction of credit, and an attempt to collect old debts.[58] These measures aroused a good deal of resentment in certain quarters, particularly among the natives who could not understand why furs were worth a certain sum on one day and only a fraction of that amount on the next.

But the interval of supremacy was of short duration. New competitors continually appeared on the scene, hampering the company in its effort to put the trade on a business-like basis. At first many of these newcomers were attached to canneries; later they were miners, merchants, and transportation company employees. The needs of these independents for capital were small; they made no long-term investments in the territory; and they "refused to share in the burden of assisting improvident natives in seasons of scarcity."[59] Shortly after 1890 it was recognized that there was "but little order and system" in the trade of the Kodiak District, and the Alaska Commercial Company all but abandoned its attempt to maintain a monopoly.[60]

As conducted by the Alaska Commercial Company and its competitors, the fur trade was quite a different operation than it had been under Russian control. Almost immediately after the

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57 Oswalt, *Alaska Commercial Company Records*, 30. It was said that by 1880 the Western Fur and Trading Company of San Francisco maintained "some 30 trading posts" in Alaska. United States, Senate, Committee on Territories, *Civil Government for Southeastern Alaska*, 47 Cong., 1 Sess., Senate, Report No. 457 (Ser. 2006), 13.

58 U.S., Census Office, *Eleventh Census*, 251.

59 *Ibid.*, 251-252.

60 *Ibid.*

change of flags new policies and techniques were introduced with two major objectives in mind: first, to stimulate the native hunters and trappers to greater exertions and to win their loyalty in trade; and second, to increase efficiency in the slaughter of fur-bearing animals, particularly the sea otter.

One immediate and obvious innovation was an increase in the prices paid for skins. Under the Russians the average payment for a sea otter pelt during the later years was about $10 in tokens which could be redeemed only for goods at the company posts. There was no bargaining or departure from the fixed schedule. By 1880 American traders were paying from $30 to $50 for each prime otter skin, according to quality, and the hunters could receive goods or cash as they chose. When competition between buyers was particularly keen, the natives sometimes commanded as much as $80 a pelt.[61] In 1873, in what appears to have been an extreme instance, the local price for good otter skins at Belkofski was between $100 and $110.[62]

Price increases for other furs sometimes were even more spectacular. In 1850 the Russians paid 20 cents each for marten skins, 10 cents for mink, $2 for black fox, and 60 cents for red fox. Comparable American prices in 1874 were $1.50 to $3.00 for marten, 50 cents to $1.50 for mink, $40 to $100 for black fox, and $1 to $1.50 for red fox.[63]

There were some observers, however, who believed that, except for the Aleuts, prospects of greater material rewards alone were not highly effective in arousing the natives to strain every nerve and exhaust the last drop of energy in the chase.[64] But the resourceful traders had at hand variations on the theme which could be trotted out when necessary in order to keep the hunters interested in their work.

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61 Petroff, *Population and Resources,* 66. It is worth noting that the value of otter skins in the London market at that time was only $80 to $100.

62 *Alaska Herald* (San Francisco), May 9, 1873, p. 5

63 Elliott, *op. cit.*, 259.

64 *Ibid.*, 40-41.

It has already been mentioned that the Alaska Commercial Company whenever possible attempted to end the former Russian practice of granting extended credit to native hunters. Much of the time competition not only demanded a continuation of the system but even a vast enlargement of it. During the battle between the Alaska Commercial Company and the Western Fur and Trading Company, for instance, it is said that the indebtedness of the natives in the Kodiak District exceeded $100,000, or more than $500 for every hunter or family head.[65]

Particularly effective was the clever device of interesting the Eskimo women in the success of their husbands' labors. While the otter hunters were absent during the summers, generally for from one to five months at a time, their families were usually allowed to run up bills at the local trading post for "those supplies of sugar, tea, and cloth goods which they have come to regard as indispensable to their existence." If the husbands returned with a good haul of furs, the debts were paid off and credit was granted for another season. The traders found this system the "happiest" way to maintain their influence over the hunters; and on their part, the wiser natives soon discovered it was prudent to limit the amounts their wives could draw upon for their "little luxuries."[66]

From time to time vicious stories circulated concerning measures taken by the larger companies to force the natives to deal with them and them only. It was said, for example, that the Alaska Commercial Company controlled the supply of sea lion skins, indispensable to the Aleuts and Koniag for making the boats on which their livelihoods depended, and would release them only to natives who brought all their pelts to the firm's stations.[67] Such assertions were vigorously denied, and the company's enemies failed to sustain them during government investigations.[68]

Even the friends of the Alaska Commercial Company, however, did not deny that one aspect of competition in the American fur

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65 U.S., Census Office, *Eleventh Census*, 251.

66 Petroff, *Population and Resources*, 14.

67 Elliott, *op. cit.*, 232,237.

68 Kitchener, *op. cit.*, 67-70.

trade in Alaska was an increased emphasis on liquor to gain the loyalty and cooperation of the natives. The supplying of spirits to the Alaskan natives was prohibited by the Government, and undoubtedly most of the established traders with substantial investments in property would have been willing to cooperate in this well-meant effort to save these people from "debauchery." But there were always unscrupulous independents, mainly operating clandestinely from small vessels, who risked seizure by the Revenue Marine to barter liquor for furs at isolated villages.[69]

There was no law, however, against selling flour, sugar, and molasses even though it was known that these articles were the basic ingredients of the powerful *kvass*. The Russians had been able to ration such supplies in a manner which kept abuse to a minimum, but such controls were not so easy to impose after 1867 as the Alaska Commercial Company's agent at St. Paul Island learned to his sorrow. Importuned by a Treasury agent, he decided in 1878 to place a restriction on the amount of *kvass* "makings" each native could buy. This action soon resulted in complaints that "the limitation of sales of sugar and molasses make it impossible for the natives to brew any intoxicating beverage and they are thus restricted in the hereditary right of every free-born citizen -- to get drunk whenever he pleases."[70] Clearly, this was not the way to win customers for the trading store!

It was obvious that when competition became keen, the trader who furnished the natives with the greatest amount of materials for the manufacture of *kvass* was sure to capture most of the traffic. Thus there was little restraint exercised over the sale of the items that brought misery to the natives and destruction to the fur-bearers they hunted with an added incentive.[71]

But simply increasing the motivation of the hunters was not enough for the American traders. They were not content with the relatively small and stable returns that had marked the last years

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69 For a description of how one such vessel operated in 1878, see Hinckley, "Ivan Petroff's Journal," 49.

70 *Ibid.*, 54.

71 Elliott, *op. cit.*, 35, 233, 237. Petroff pointed out, however, that over-indulgence in *kvass* resulted in the eventual deterioration of the native as a hunter. Petroff, *Population and Resources*, 13.

of the Russian trade, particularly when to their eyes the fur-bearers seemed to show no signs of diminished numbers.[72] They wanted increased yields, and they introduced new techniques and revised old methods in order to get them. Nowhere were the innovations more noticeable than in the pursuit of the sea otter.

Henry W. Elliott, a young scientist who had been with the Western Union Telegraph Expedition, was sent to the Pribilofs in 1872 as United States Treasury Agent, and during a relatively short stay he made a study of the entire fur trade in Alaska. His report, written in 1874, contains a description of sea otter hunting as it was conducted under the American traders shortly after the transfer. Unfortunately, as his enemies later pointed out with delight, "Fur Seal" Elliott actually had observed very little of the territory, particularly the mainland.[73] Thus his account must be accepted with some caution.

Nevertheless, Elliott's overall view is probably the best available for the earliest years of the business. There were, he said, four principal methods of taking sea otters: by nets, by clubbing, by surf shooting, and by "spearing-surrounds."

The use of nets was an ancient technique employed by the Aleuts living on Atka and Attu Islands in the outer Aleutians, but apparently in pre-contact times and during the Russian period this method was never used on Unalaska or anywhere to the eastward, including the peninsula. In 1874 Elliott reported that the use of nets was still restricted to the far western end of the Aleutian chain. At that time the only concession to European technology was the use of twine to form the coarse meshes instead of the former sinew.[74]

Sixteen years later, however, agents of the United States Census Office stated that white men were spending the winters on the low, desolate islands at the southern end of Kamishak

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72 Elliott, *op. cit.*, 55-56; Hinckley, "Ivan Petroff's Journal," 62.

73 Morgan B. Sherwood, *Exploration of Alaska, 1865-1900* (Yale Western Americana Series, 7, New Haven and London: Yale University Press, 1965), 49.

74 Elliott, *op. cit.*, 62.

Bay near Cape Douglas hunting sea otters with nets and by shooting from boats.[75] No description was given of the nets or the methods of handling them, but if Aleut precedents were followed the deadly devices were from 16 to 18 feet long and 6 to 10 feet wide. They were spread out on the kelp beds where the otters habitually slept or rested. When the animals crossed over the nets they became entangled in the meshes and, seemingly paralyzed by fear, made only feeble efforts to escape. Nets were also spread across the entrances to small coves or "surf-holes" frequented by the playful animals.[76]

There seems to be no definite record of hunting sea otters with clubs along the Katmai coast, but undoubtedly if pelts could be procured by this method there were men to employ it. "The clubbing," wrote Elliott, "is only done in the winter-season, and then at infrequent intervals, which occur when tremendous gales of wind from the northward . . . have about blown themselves out. The natives, the very boldest of them, set out . . . and scud down on the tail of the gale to the far outlying rocks, just sticking out above the surf-wash, where they creep up from the leeward to the sea-otters found there at such times, with their heads stuck into the beds of kelp to avoid the wind. The noise of the gale is greater than that made by the stealthy movements of the hunters, who, armed each with a short, heavy, wooden club, dispatch the animals, one after another, without alarming the whole body, and in this way two Aleuts, brothers, were known to have slain seventy-eight in less than an hour and a half."[77]

Surf-shooting was perhaps the most radical innovation made by the Americans during their first decade in Alaska. By 1874 Elliott said it was the "common method" of hunting sea otters despite having "only been in vogue among the natives a short time." His description of the process seems to be the only one available:

> The young men have nearly all been supplied with rifles, with which they patrol the shores of the island and inlets, and whenever a sea-otter's head is seen in

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75 U.S., Census Office, *Eleventh Census*, 72.

76 Elliott, *op. cit.*, 62.

77 *Ibid.*, 61-62.

> the surf, a thousand yards out even, they fire, the great distance and the noise of the surf preventing the sea-otter from taking alarm until it is hit; and, in nine times out of ten, when it is hit, in the head, which is all that is exposed, the shot is fatal, and the hunter waits until the surf brings his quarry in, if it is too rough for him to venture out in his "bidarkie." This shooting is kept up now the whole year round.[78]

The use of rifles "of the best make," placed in the hands of the young and most ambitious natives by the traders, was a decided departure from Russian practice. Even the greedy *promishleniks* had learned that gunfire would scare the timid otter from their accustomed haunts. The older men among the natives warned against the use of rifles and against the unceasing harassment of the otters, pointing out that extermination would surely result. Some traders also could see the danger even at that early date, but there was no holding back the tide. The old men themselves at last dropped their spears and darts and took up firearms in order to remain in the competition.[79]

Elliott may have been correct when he said that surf-shooting was the principal method of taking otters in 1874, but if so it evidently did not remain in that position very long. Later descriptions of the sea otter trade either do not mention this technique at all or they give it only passing attention.

From aboriginal times until the legal taking of sea otter ceased in 1911 the favorite means of hunting these animals by the Aleuts and Eskimos of Alaska's entire Pacific coast, except for the outer Aleutian Islands, was the "spearing-surround." This "orthodox native system," as Elliott termed it, has been discussed at some length in the chapters on the Eskimos and the Russians, and therefore a complete description will not be repeated here. But the evolution of this institution under the sponsorship of the American traders is an interesting example of adaptation to a changing environment.

With the end of Russian rule the organization of the annual hunts on a district-wide basis was of course no longer possible. The establishment of rival stations and the visits by trading

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78 Elliott, *op. cit.*, 60.

79 *Ibid.*, 56-57.

vessels fractured the loyalties of the natives, who seem to have made engagements with whichever trader took their fancy. Certain villagers, however, seem to have formed parties under their local elected *toyons* without trader sponsorship and to have sold the furs to the highest bidder on their return.[80] Most groups, however, evidently were organized, equipped, and sometimes transported by the traders, who naturally expected to take in all the pelts harvested. At any rate, an observer in 1880 said, "sea-otter parties are fitted out in nearly every village."[81]

Occasionally the hunting expedition consisted of as few as four boats, sometimes considered the minimum number required for a "surround." More often a fleet of six "canoes" was the smallest employed for hunting. Most frequently parties contained 15 or 20 two-hatch bidarkas, but large fleets in the old Russian style continued for a number of years under the sponsorship of the Alaska Commercial Company and perhaps other major traders. By 1880, however, the expeditions were frequently taken to the distant hunting grounds in sloops or schooners.[82] A decade later it was said that "of late years" it had been the practice of the trading firms to assemble "many" parties, numbering 40 to 60 boats each, and carry them in sailing or steam vessels to the isolated haunts of the sea otter.[83]

When organizing the hunting parties, the traders often continued to negotiate for workers through the native *toyons*, some of whom, as has been seen, were actually paid employees of the trading establishments. Another link with the past carefully maintained by the traders was the blessing of the hunters and the waters over which they were to travel by the Orthodox clergy. In 1868 the Hutchinson, Kohl & Company agent at Kodiak, "one of the Children of Israel," called on the local priest to conduct the traditional prayers and ceremonies upon the departure of that year's expedition. "For the

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80 *Alaska Herald* (San Francisco), October 1, 1870, p. 5.

81 Petroff, "Report," *Tenth Census*, 25.

82 *Alaska Herald* (San Francisco), November 19, 1870, p. 4; Petroff, "Report," *Tenth Census*, 25, 52.

83 U.S., Census Office, *Eleventh Census*, 203.

moderate sum of $20 in gold," wrote an irreverent observer, "this functionary goes through the . . . blessings, etc., to the infinite satisfaction of the deluded people."[84] The same practice still prevailed in 1870.[85]

In aboriginal times and even under the Russians, natives approached sea otter hunting with a good deal of ceremonialism. Since the animal was believed to have an aversion to the female sex, all things connected with women were banned from the expeditions. By 1880, however, these beliefs had largely faded under the impact of the Orthodox religion, and a few women generally accompanied each party to perform the housekeeping chores at the base camps set up near the otter grounds.

Another ancient custom carried over into American times was the taking along of a weatherwise individual, called an "astronome" by the Russians, to signal the approach of weather suitable for venturing from shore. As late as 1890 it was reported that there were few Aleuts brave enough to begin the chase without the approval of one of these seers.[86]

The actual hunting, with the circling of the quarry and exhausting him by forcing repeated dives, was conducted much as before, except that the weapons gradually changed. In 1870 one writer said that the use of firearms was still prohibited on the otter grounds.[87] Four years later rifles were in use by some of the young natives, and even a few of the older men were abandoning their spears and darts for the new weapons.[88] But as late as 1880 Ivan Petroff reported that "the great body of the Aleutian hunters still retain the spear and in a few instances the bow and arrow."[89]

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84 *Alaska Herald* (San Francisco), August 15, 1868, p. 5.

85 *Ibid.*, October 1, 1870, p. 5.

86 Petroff, "Report," *Tenth Census*, 52.

87 *Alaska Herald* (San Francisco), October 1, 1870, p. 5.

88 Elliott, *op. cit.*, 57.

89 Petroff, "Report," *Tenth Census*, 52.

Apparently the great alteration came in the next decade. A writer for the report of the Eleventh Census in 1890 said, "the mode of hunting the animal did not essentially change among the natives from the earliest times until within a few years past."

"The universal use of firearms in killing sea otters," he continued with monumental ambiguity, "is of comparatively recent origin, and even now a large proportion of the native hunters prefer the spear and bow and arrows." A page later, however, he appears to clarify the situation by saying that the "primitive and conservative processes" of the surround were rapidly becoming a thing of the past. "Even the native hunter neglects his bow and spear," he added, "relying chiefly on his breech-loading rifle or shotgun."[90]

As during the Russian period, there seem to have been different customs governing which hunter owned an otter killed during the surround. An account of 1870 says that a slain animal was at once examined by two of the oldest men in the party and was awarded to the hunter whose spearhead was found nearest the eye.[91] Twenty years later another writer said that each dead otter was inspected by the party leader upon return to the base camp and that the skin went to the man whose weapon had struck the mortal wound. The lucky owner was expected to give from $2 to $10 to the hunter who first hit the animal.[92]

When a trader or agent of a trading firm accompanied the party, he collected the pelts at the base camp, labeled them, classified them, and stored them for shipment. The Russian practice was generally followed in at least one other important part of the fur-collecting process -- the hunter received no pay until the entire party returned to the trading station.[93] But during periods of

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90 U.S., Census Office, *Eleventh Census*, 203-204.

91 *Alaska Herald* (San Francisco), October 1, 1870, p. 5.

92 U.S., Census Office, *Eleventh Census*, 204.

93 *Ibid.*

competition the trading companies were forced to send agents with small assortments of goods to all the hunting grounds "as an inducement to the members of the parties to squander some of their earnings in advance."[94]

Upon their return from their long voyages, the successful otter hunters' first move usually was to proceed to the trading store. It was not difficult to identify those upon whom fortune had smiled. A witness in 1870 described the scene after a small party of Aleuts had impatiently hauled their boats on to the beach before their village amidst the greeting of families and friends. The lucky ones, he said, "moved about with a peculiar air of self-satisfaction, and would haul out from the holds of their *baydarkas* the rich peltries, tossing them, with a gesture of independence, to their wives and children, who conveyed them to their cabins, where every thing seemed full of joy and welcome."[95]

At the trading station the hunters generally settled their accounts in short order. The usual procedure was described by an observer who was on hand about 1880 when a party of 22 natives paddled into port at Unalaska after an absence of five months:

> The agent of one of the companies received them and went with them to his warehouse, where in one hour and a half he had appraised their skins, settling the different values upon them, according to their grade and quality, informing each hunter what he was to have and how much he still owed him; the whole purchase and settlement covering a sum of $5,200. In this short time each native was aware exactly of what was due him, and went away entirely satisfied. This is a business transaction as brisk and emphatic as can well be imagined.[96]

While paying past debts, the hunters also met some obligations imposed by customs of long standing. During the hunt, the *toyon* saw to it that a portion of the harvest was set aside for the

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94 Petroff, "Report," *Tenth Census*, 53.

95 *Alaska Herald* (San Francisco), November 19, 1870, p. 4.

96 Petroff, *Population and Resources*, 69.

church and for the church schools where such existed. These skins were sold to the trading stores, where the cash value was credited to the priest.[97] The fortunate natives also, after disposing of their furs, gave "something of value" to their less successful hunting partners and to the old people and widows of the village.[98]

It sometimes happened that a hunter returned from one of the arduous hunting expeditions without having been credited with a single skin. In such cases the home-coming was bleak indeed. He landed in silence and hesitantly, "as if pondering in despair," pulled his few personal belongings instead of furs from his bidarka. Uncomforted by the consolations of his wife, he trudged in silence to his barabara and disappeared in its cheerless interior. Not until seeing an example of such despair, said a witness in 1870, "did we fully appreciate the benevolent practice among those honest islanders, of giving to those in need."[99]

Once all obligations had been met, the successful hunters almost universally went on spending sprees which effectively reduced any remaining surplus returns from the summer's work. Music boxes selling for $200 and elaborate clocks were among the many items much in demand upon such occasions. Almost universally along the Pacific shore sugar and flour were eagerly purchased and transferred to the *kvass* barrel. Soon invitations for parties and dances were sent out to friends and neighbors "though in many instances the odor arising from the fermenting contents in question is sufficient to gather them all in."[100]

Under the Russians, the actual hunting of the sea otter had been conducted exclusively by the natives. But after 1867 there were a number of Americans and Europeans who believed themselves quite capable of killing these animals, and they began to do so despite the fact that Treasury Department regulations prohibited

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97 Petroff, "Report," *Tenth Census*, 53.

98 *Alaska Herald* (San Francisco), October 1, 1870, p. 5.

99 *Ibid.*, November 19, 1870, p. 4.

100 Petroff, *Population and Resources*, 14-15.

any persons but natives from taking sea otter.[101] There was small chance of being caught, since the few Revenue Marine cutters could not be everywhere along the lengthy coastline at once and since Eskimos and Aleuts could be bullied into silence concerning illegal activities.[102]

As early as 1872 it was reported that a number of "white men" planned to remain at various points along the "Aliaskan Peninsula" during the winter. The newspaper correspondent transmitting this news pretended great concern over the fact that these "little colonies" might find some difficulty obtaining "'spiritual' comfort" in such an isolated region, but he carefully refrained from speculating as to their business.[103] Their purpose, however, could scarcely have been anything but otter hunting.

Six years later Ivan Petroff noted in his diary that since the transfer ten or twelve white man had settled on Unga Island, off the southern coast of the peninsula. They had "taken up" native and half-breed women and formed the disturbing element in the community. "They hunt sea otters with guns," wrote Petroff, "frightening the animals away and in trading with the natives they often use force and threats of violence."[104]

The taking of otter by non-natives was still illegal as far as anyone at Unga then knew, but these same troublesome whites had petitioned the Treasury Department to grant to Europeans married to native women "all the rights preserved by the natives with regard to hunting and trapping fur-bearing animals." This permission was granted, and the news reached Alaska during the

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101 By an Act approved July 27, 1868, Congress declared it unlawful to kill any fur-bearing animal in Alaska except as permitted under regulations prescribed by the Secretary of the Treasury. On August 26, 1868, the Secretary authorized the taking of all fur-bearers except fur seals "to the same extent as was done formerly under Russian law." *Alaska Herald* (San Francisco), February 1, 1871, p. 6.

102 For testimony concerning the use of threats by "lawless whites" to prevent "people on shore" from reporting illegal liquor sales, see Hinckley, "Ivan Petroff's Journal," 49.

103 *Alaska Herald* (San Francisco), November 19, 1870, p. 4.

104 Hinckley, "Ivan Petroff's Journal," 48-49.

summer of 1878.[105] The results were momentous, the more so because the Treasury Department, "with the lapse of time," ceased to enforce even the remaining limitations, and hunting in effect was opened to all.[106]

Sea otter hunting in 1878 was still a highly profitable enterprise. During that year the hunters at Belkofski alone received from the Alaska Commercial Company and its principal rival, Faulkner, Bell & Company, from $30,000 to $40,000.[107] As might have been expected, therefore, the most obvious effect of the change of regulations was a vastly increased demand for wives. Petroff says that when the prople of Unga heard the report, "a white man who had arrived a week before from California immediately got married in the Greek Church to a native woman, neither of the party being able to speak one word to the other."[108]

But it was the less obvious effects that had the most impact in the long run. These white man, who were largely Swedes and Norwegians, were a hardy lot, but they were not ones to hunt with spears from frail bidarkas. They killed their quarry with rifles and shotguns, generally from small boats.

During the early years when otters were numerous, these white hunters prospered. Assisted by the trading companies, they often bought one or more small schooners each. By 1890 this "mosquito fleet" numbered between 20 and 30 craft, which ranged in capacity from 7 to 40 tons. "As a rule," wrote an observer about that time, "these hunters obtain their summer's outfit from the traders on credit, and are furnished with native hunters and canoes. The accounts are settled at the end of a cruise if it has been a successful one, but if it is otherwise the account is allowed to stand over, and the hunter is fitted out again in the hope of better luck next time."[109]

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105 Hinckley, "Ivan Petroff's Journal," 58.

106 U.S., Census Office, *Eleventh Census*, 79.

107 Hinckley, "Ivan Petroff's Journal," 49.

108 *Ibid.*, 58. As editor Hinckley points out, however, the two probably understood each other despite the language difference.

109 U.S., Census Office, *Eleventh Census*, 79-80.

With their greatly increased firepower and mobility, the white hunters made fearful inroads on the otter population. But even more damaging was the fact that with their "staunch little schooners," provided with boats and crews of white men, they could maintain the chase far into the winter, giving the otters no time to recuperate.[110]

It is obvious that by 1890 otter hunting was a far different business than it had been in 1874. Elliott's four classic methods for taking these coveted animals had either largely been superseded by new practices or greatly altered. The decade between 1880 and 1890 had been a period of rapid change, but still greater "advances" were on the horizon.

Shortly before 1890 -- one or several years before according to the conflicting testimony available -- one of the large trading companies experimented by equipping its hunting schooners with steam launches and "all the latest inventions for the destruction of marine animal life." The trial was successful, and other firms followed suit. A Government report published in 1893 stated: "The puffing and churning of these miniature steam craft can now be heard on the waters of all the most valuable hunting grounds, sounding the death knell of the highly prized mammals, the skins of which heretofore furnished the native hunter with necessaries, as well as the simple luxuries, essential to his domestic economy."[111]

While the taking of sea otter pelts was the most spectacular branch of the fur trade in the Katmai region, the quest for land mammal skins was by no means neglected. In this field, however, there were no startling innovations.

On the coast, while the hunters were away on the summer expeditions after sea otters, the old men and youths remained at home as they had under Russian rule, spearing bears, shooting or clubbing beaver, and trapping foxes.[112] Undoubtedly the otter hunters joined in these pursuits during the fall as they had in times past.

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110 U.S., Census Office, *Eleventh Census*, 203, 204.

111 *Ibid.*

112 Petroff, "Report," *Tenth Census*, 25.

In the Kodiak District as a whole, the skins of the marten were generally the most significant land mammal furs in the aggregate. By 1880 the pelts of the marten brought the natives from two dollars to three dollars each. Fox skins of different types were next in number. Beaver, said to be abundant near Katmai, were also profitable, as were mink. The skins of black bear were in some demand, but those of the more common brown bear, being "patched and harsh," were not of value. As an illustration, the shipment of land furs from the Kodiak region for the season 1879-1880 was: marten, 2,900; fox, 1,800; beaver, 1,500; mink, 1,200; bear, 220.[113]

If the experience in the Katmai vicinity was similar to that at the neighboring Nushagak post, the yield of land furs by 1874 was at least four times as great as it had been under the Russians. Such results, said Elliott, were due to the "greater activity and energy of our traders."[114] The fact that the native hunters received "three, four, and five times" as much as they were paid by the Russian American Company may also have had something to do with the increased harvests.[115]

Among most groups of natives, trade was conducted on a barter basis, but with the "Christian natives" -- the Aleuts and presumably the so-called "Aleuts" of Kodiak Island and the opposite peninsular shore -- credit was given, and cash was paid for furs received. This procedure required the keeping of accounts and sometimes the issuance of "passbooks" for the recording of debits and credits. The natives became adept at keeping track of their accounts and are said to have seldom made mistakes.[116]

Whenever possible, the traders encouraged the natives to bring their furs to the established stations, but to obtain the maximum possible returns more energetic measures were required. While the "chief traders" or men in charge of large fur districts were able to remain comfortably at headquarters, the "deputy traders" either at the central depot or at the subposts were obliged

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113 Petroff, *Population and Resources*, 67, 69.

114 Elliott, *op. cit.*, 48-49.

115 *Ibid.*, 51.

116 *Ibid.*, 43; Petroff, *Population and Resources*, 68.

at certain seasons to scour the hinterlands for pelts in the hands of the native trappers. Henry W. Elliott in 1874 described these journeys, which must have been the routine lot of the trader at Katmai when collecting the fur harvests from the villages of the Naknek drainage:

> These men start out from the post alone, perhaps accompanied by an Indian [Elliott's general term for an Alaskan native], with a dog-team and sled, which is loaded with several hundred-weight of goods, such as are likely to be most prized by the tribes they intend to visit for the purposes of trade, usually tobacco, calico, beads, and powder and ball, caps, &c.; but the great bulk is generally tobacco. These men start in the dead of winter, provided with nothing but a blanket, a tent, a few pounds of dried meat or fish, and tea, and go in this way from tribe to tribe, from settlement to settlement, until the intended circuit is made or the goods disposed of.
>
> When the trader reaches a settlement he inquires if the Indians there have any furs; if so, he pitches his tent and unpacks his goods under it, seats himself in the middle, near an aperture in the tent, so that the natives may approach and look in upon his assortment. Their skins are then passed through the opening with an intimation of what is desired from the trader's stock in exchange. The trader examines the skins, tosses them over into a common heap, and tears off the cloth or passes out the tobacco as the Indians require; and this continues till the business is concluded.
>
> If the trader finds at the close of his trading at any one or more settlements that the bulk or weight of his furs is too great for removal on his sled, he gives the surplus into the care of some one of the people, counting over to him in the presence of the whole village all the skins. This man takes charge and honestly guards them until the trader comes in person or sends for them, and the whole community seems to feel as if their reputation were at stake, for they will neither molest the trader's *cache* nor permit others to do so.[117]

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117 Elliott, *op. cit.*, 41-42.

Nearly two decades later traders in Alaska were still making long journeys to conduct their business at isolated settlements. Ivan Petroff witnessed the arrival of a trading party, this time transported by boat, at an Eskimo village north of the Alaska Peninsula. Although not applying directly to the Katmai area, his description of the event pictures elements similar to those encountered by other travelers on the shores of Bristol Bay and at Katmai itself.

As the trading vessel approached the landing place, said Petroff, the roofs of the barabaras and the tops of the raised storehouses were lined with people, chattering and jabbering. The excitement culminated in a fusillade of blank fire from guns, which was answered from the boat. As soon as the newcomers landed and heaped up their goods they were invited to enter the *kashga*, or assembly hall, for a steam bath. "They were not 'wined and dined,' but roasted, parboiled, and feasted by the whole populace. From every tunnel-like house-door came scuttling boys and girls laden with trays heaped with the choicest delicacies: fish-heads, disinterred after being buried in the wet ground for a month; sea-weed and various green plants swimming in oil; . . . long strips of gull's breasts, air dried, from which the maggots had been brushed off hurriedly in an airy and nonchalant manner; trays heaped with bright red fish-roe, glistening with viscid oil and sending forth a perfume which would wake the dead."[118]

The Alaskan fur traffic, whether carried on by parties sent out to seek the wily otter or by individual traders trekking to native villages, was largely based on land trading stations as had been the general case under the Russians. In fact the great bulk of the barter took place across the counters of the trading stores scattered throughout the settlements.[119]

But the Americans brought back to south central and southwestern Alaska the earliest technique of the Pacific Northwest fur trade, trafficking from vessels. As has been seen, one observer claimed in 1874 that the Cook Inlet and Katmai trade was "mostly engrossed by trading-schooners plying between those

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118 Ivan Petroff, "Census-Taking in Alaska," in *Frank Leslie's Illustrated Weekly*, LXXIV (May 5, 1892), 229.

119 Petroff, *Population and Resources*, 68.

places and Puget Sound."[120] This statement may have been somewhat of an exaggeration in view of the known operations of the Alaska Commercial Company along the Katmai coast at least, but six years later a Government official declared that there still was "much individual trading done on the decks of the little vessels which are fitted up either at San Francisco or the Sandwich Islands for the purpose of hovering about where the sea-otter hunters and others in the Territory are known to live, and are supposed to have peltries."[121]

In 1874 it was reported that there were at least eight or ten of these small sailing vessels monopolizing the coastal trade. They would cruise along the shore until they came to a suitable inhabited harbor. The anchor was then dropped, and they waited for the natives to come out to them in boats "laden with whatever they may possess fit for barter." The process of trade was described by one observer as follows:

> The natives will sit in their canoes around the vessel for hours before showing the least attention or desire for business; then when it does begin the haggling baffles description; each Indian after the other trying to get a little more than his predecessor, no matter how slight or insignificant it may be. The traders of course dare not, even to gain precious time, deviate from an invariable rule or tariff in barter, and so the slow exchange goes on. The Indians throughout this whole sector are shrewd and artful traders . . . so that it is unfortunately a case of diamond cut diamond whenever traders meet the natives of the northwest coast to-day.[122]

With the bitter competition that marked the American fur trade in Alaska from the very date of the transfer and with the general neglect with which the territory was treated by Congress and the administrative departments there was no chance that the conservation measures instituted by the Russian American Company could be continued. Exploitation was the order of the day. Government officials, merchants, visiting journalists, and even

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120 Elliott, *op. cit.*, 50.

121 Petroff, *Population and Resources*, 68.

122 Elliott, *op. cit.*, 43.

historians almost universally pointed with pride to the increased harvests of pelts brought about by American enterprise.

Henry W. Elliott, who recognized the need to protect the fur seals and the sea otters, was not so worried about the future of the other fur-bearers. "The annual yield," he wrote in 1874, "can be and will be greatly augmented by the exertions of our energetic and industrious traders who are now scattered in keen rivalry over the ground."[123]

Indeed, the figures are impressive, though the available statistics largely relate to sea otter pelts. Under Russian rule the officially announced shipments of otter skins from the central depot at Sitka during the two decades before 1863 averaged 1,295 per year.[124] Another estimate placed the annual average catch of sea otters during the last 25 years of the Russian regime at 1,481.[125]

In contrast, for the first 23 years of American administration, from 1867 to 1890, the average annual harvest in Alaska was 4,362 sea otter skins.[126] American traders in 1879 shipped 5,750 pelts from the territory, 900 of them from the Kodiak district.[127] The yield "approached 6,000" in 1880, which seems to have been the peak year for Alaska as a whole.[128] The high point for the Kodiak district was in 1885, when 1,508 pelts were collected in the Kodiak warehouses.[129]

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123 Elliott, *op. cit.*, 41. For other examples of writings in which increased yields seemingly are viewed with favor, see Bancroft, *History of Alaska*, 658-659; Petroff, "Report," *Tenth Census*, 54.

124 Petroff, "Report," *Tenth Census*, 54, based on Tibenkheff.

125 Chaffin, *op. cit.*, 43.

126 *Ibid.*

127 Bancroft, *History of Alaska*, 659.

128 U.S., Census Office, *Eleventh Census*, 203.

129 Chaffin, *op. cit.*, 43.

There were a number of far-sighted persons who very early recognized the potential danger in this accelerated slaughter. Congress certainly anticipated the need for some sort of control when in 1868 it authorized the Secretary of the Treasury to regulate the taking of all fur-bearing animals in Alaska. Early in the next year the San Francisco Chamber of Commerce proposed a bill making it unlawful to kill any sea otter in Alaska with firearms; and in 1871 the *Alaska Herald*, no disinterested onlooker, decried the "speculators, capitalists, traders and adventurers" who had "skinned the fur-bearing animals and natives indiscriminately, until both natives and animals have commenced to show signs of extermination."*130*

Henry Elliott found that by 1874 "all" the traders having any real interest in the perpetuation of their calling desired some sort of check upon the taking of sea otters. "To the credit of these traders," he wrote, "let it be said, that while they cannot desist, for if they do others will step in and profit at their expense, yet they are anxious that some prohibition should be laid upon the business."*131*

One reason for the failure to obtain effective regulation may be found in the fact that as late as 1878 a keen and idealistic observer, Ivan Petroff, could write in his diary at Unalaska that though for four years the shipment of sea otter skins from the territory had been nearly 6,000 per annum, "the animals do not seem to be decreasing at present."*132* Even more important, undoubtedly, were the general public indifference to affairs in Alaska and the influence of those traders whose sole desire was to make the largest possible profit in the shortest possible time, and the devil take the hindmost.

In any event, the early warnings were not heeded, and the predicted decline in yields began to be obvious after about 1885. And when the drop came it hit with fearsome rapidity and an awful finality. By 1890 the sea otter catch for Alaska was down to about 1,800 to 2,000 a year. The returns at Kodiak that season

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130 *Alaska Herald* (San Francisco), April 1, 1869, p. 2; February 1, 1871, p. 3.

131 Elliott, *op. cit.*, 56, 57.

132 Hinckley, "Ivan Petroff's Journal," 62.

amounted to 666 skins; by 1896 they were down to only 322. Trading stations that once shipped several hundred pelts a year were by the early 1890's producing from four to ten.[133]

By 1890 the inhabitants of Katmai village, still dependent on sea otter hunting for most of their livelihood, were forced to travel far from home to find their quarry. "The number of skins brought home grows smaller and smaller every year," reported an agent of the Eleventh Census. The same situation prevailed farther north along the Katmai coast at Kukak and near Cape Douglas. The otter trade at the latter station was then described as "insignificant." [134]

As late as the five-year period immediately prior to 1902 parties of otter hunters reported "considerable success" from operations in Kamishak Bay, in and beyond the northern tip of the monument; but the results could only have been judged successful in relation to those being obtained elsewhere in Alaska at the same time. In comparison with yields received in the same region prior to 1885, the results must have been disappointing indeed. The sad decline of the sea otter elsewhere on the peninsula shore by 1902 is illustrated by the fact that the shooting of an otter from a bluff at Puale Bay, a few miles south of the monument, during the winter of 1901-1902 was considered an event worthy of note.[135]

A geologist who traversed a significant portion of the Alaska Peninsula's Pacific Coast during the summer of 1908 saw only three sea otter skins in the hands of the natives.[136] In 1910 a mere 29 sea otter pelts were taken in Alaskan waters.[137] Long before then sea otter hunting as an economic basis of life along the shores of the future Katmai National Monument had definitely ended.

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133 Chaffin, *op. cit.*, 43; U.S., Census Office, *Eleventh Census*, 203.

134 U.S., Census Office, *Eleventh Census*, 72.

135 Cahalane, *A Biological Survey of Katmai National Monument*, 224.

136 Atwood, *Geology and Mineral Resources*, 21.

137 Clarence L. Andrews, *The Story of Alaska* (Caldwell, Idaho, 1953), 150.

The selfish, short-sighted near extinction of the sea otter inevitably had its predicted results upon the lives of the natives who did most of the hunting. By 1880 it was not unusual for Eskimos and Aleuts to earn as much as $800 each during even brief expeditions.[138] Such an amount was ample to keep a native family in staples, with a good stock of luxuries thrown in, for an entire year. Six years later an annual income of $2,000 seems to have been reached by at least some of the hunters.[139]

As a visitor to Kodiak noted in 1916, none of the natives had thought of saving anything during the period of prosperity, and thus when the sea otters were killed off the transition from prosperity to poverty was abrupt. "All of them are poor," Mrs. Robert F. Griggs noted in her diary. The natives could not understand why they were no longer granted credit at the trading stores; wives and daughters of once-swaggering hunters were reduced to washing clothes for a living.[140]

Of course, natural food supplies were still abundant throughout the former sea otter range, and so there was little question of actual starvation. But the Aleuts and Koniag, for the most part, had lost their skill and taste for making such implements as spears, bows and arrows, and clay pots. They had come to depend on such European goods as guns, ammunition, metal pots and pans, axes, knives, and dozens of other items they now considered essential to life itself. And quite as necessary in their eyes were such luxuries as tobacco, sugar, flour, and molasses. For all of these articles the traders required payment in cash or some acceptable equivalent.

A good many natives turned to an intensified search for land furs to raise the needed cash, but the returns of such furs were seldom sufficient to meet all requirements. By 1890 the agents of the Eleventh Census found that "pauperism" was an existing threat for a large percentage of the former otter hunters.[141]

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138 Petroff, "Report," *Tenth Census*, 53.

139 Robert Fiske Griggs, *We Two Together* ([n.p.]: The Boxwood Press, 1961), 199.

140 *Ibid.*

141 U.S., Census Office, *Eleventh Census*, 252.

Fortunately, a new industry appeared on the scene at the very moment otter hunting began its noticeable period of decline. Before long it started to take up the slack in employment among the former otter hunters.

The curing of salmon by salting, smoking, or drying to feed needy natives during periods of low fish runs had been inaugurated by the Russians and was carried on by the Alaska Commercial Company. In 1880 two "fishing establishments" on the Karluk River, on the west side of Kodiak Island, turned out between 1,600 and 1,800 barrels of salted salmon. Even this rather limited production is said to have provided summer employment for "the whole native population" of the vicinity, so that hunting was confined to the winters. Some of the more prosperous natives had been able to give up their bidarkas entirely and now used "sloops and plungers" for catching fish. Salmon fishing, reported Census Agent Petroff in that year, "is increasing in volume with astonishing rapidity," and he predicted that it would provide openings for many hands.[142]

The canning of salmon was first attempted in Alaska in 1878 at Old Sitka and at Klawak, but these efforts and other early starts in southeastern Alaska were not outstandingly successful. Better luck attended canneries opened west of Sitka. The first of these was established on Cook Inlet in 1882, and others on Kodiak Island and elsewhere rapidly followed.[143]

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142 Petroff, "Report," *Tenth Census*, 25, 71.

143 Jefferson F. Moser, *The Salmon and Salmon Fisheries of Alaska: Report of the Alaskan Salmon Investigations of the United States Fish Commission Steamer Albatross in 1900 and 1901* (Extracted from U.S. Fish Commission Bulletin for 1901, Washington, D.C., 1902), tables 1 and 2 facing p. 312; U.S., Census Office, *Eleventh Census*, 217. Another source, however, says that "canneries" were established on Kodiak Island and on Cook Inlet in 1882. Van Stone, *op. cit.*, 67. Interesting and important as it is, the story of the commercial fishing and canning industry in southwestern Alaska is too complex to be treated with any hope of completeness or accuracy in the present study. Several highly significant questions bearing directly upon the inhabitants of the Katmai coast must remain for future investigation. One of these, for instance, is: Exactly how many native fishermen and other laborers were employed by canneries operating within practicable boating distance of the Katmai coast, and what percentage of salmon was purchased from independent native fishermen?

These canneries became greedy consumers of salmon, and there was a steady demand for fishermen to fill the maws and for laborers to dress and pack the fish. Very soon, however, if experience elsewhere in southwestern Alaska was reflected at the canneries on Kodiak Island and elsewhere within boating distance of the Katmai coast, operators began showing a preference for European fishermen and for Chinese cannery laborers.

Opportunities for native employment were thus reduced, but they were not shut off altogether. The report of the Eleventh Census noted that on Kodiak Island by 1890 the canneries furnished the "principal barrier" between the natives and "threatening pauperism."[144] George C. Martin, a government geologist, observed in 1912 that along the entire coast of the Alaska Peninsula the natives who had formerly achieved prosperity through sea otter hunting now looked to the salmon as "the chief means of support."[145]

Employment opportunities for the Katmai coast Eskimos resulted largely from the canneries on Kodiak Island, although in 1900 there were three operating canneries far to the south along the peninsula shore at Chignik. Even had it not been for the great distance, it is doubtful that the Chignik plants would have proved much of an attraction for the Katmai natives. In 1900 the three Chignik canneries employed 215 whites, 208 Chinese, and only 12 natives.

The Kodiak Island canneries, on the other hand, seem to have used Eskimo laborers more extensively. Several of the Kodiak plants obtained their fish from distant sources instead of almost at the cannery dock as was the usual custom. In 1900, for instance, the two packing plants at Uyak, on the west coast of the island nearly opposite Katmai Village, fished in 10 different localities, one of which was Kukak within the present National Monument. One of the Uyak canneries bought fish from 26 natives during that season, paying from $30 to $35 per thousand.[146] In 1912 a fishing station was being maintained at Kaflia on the Katmai coast, though the location of the sponsoring cannery has not yet been determined.

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144 U.S., Census Office, *Eleventh Census*, 252.

145 George C. Martin, "The Recent Eruption of Katmai Volcano in Alaska," in *The National Geographic Magazine*, XXIV (February, 1913), 139.

146 Moser, *op. cit.*, 218-220, 238.

Little is known about the effects of this new source of income upon the natives of the Katmai coast. Evidently the impact was considerable, resulting in a pattern of economic life quite as rigid as that imposed earlier by the sea otter trade. In a later chapter, when the Katmai eruption is described, it will be noted that by early June, 1912, many of the residents of the permanently inhabited villages -- Katmai, Kukak, and Douglas (Kaguyak) -- had already left their homes to go to the seasonal stations where fish were caught for the canneries or salteries.

By that time, then, a definite way of life had already been established in relation to the new industry, but it was a pattern which remains largely hidden. Only occasionally does a scattered bit of evidence give a clue as to how the natives of the Katmai coast must have regulated their annual living cycle.

In the early summer they scattered to the canneries and fishing camps. For this purpose some of them may even have crossed the peninsula to Bristol Bay, where there also were numerous canneries. The "most feasible" route for this purpose and the one evidently most favored by all the Pacific Eskimos lay south of the present monument, crossing from Portage Bay by way of Becharof Lake.[147]

The average family income from the canneries, while not approaching the heights of sea otter days, was usually ample to purchase the year's supply of staples and other necessities. Wages for men were usually between $2 and $3 per day, while boys between 12 and 14 received $1, and children from 6 to 12 years of age were paid 50 cents a day for piling cans. At the end of the short season each reliable worker had generally accumulated from $100 to $125, since the cannery had provided board during the working period. Fishermen, of course, were paid in proportion to the number of salmon turned over to the cannery agents.[148]

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147 Wilson Fiske Erskine, *White Water; An Alaskan Adventure* (London, New York: Abelard-Schuman, [1960]), 171.

148 Moser, *op. cit.*, 186-187; VanStone, *op. cit.*, 75.

At the close of the canning season the natives headed once more for their home villages. If the testimony of a Government employee was accurate, the natives about the turn of the century were in quite as much haste to spend their earnings as they had been during sea otter days, and they often purchased the same types of luxuries -- cuckoo clocks, watches, and perfume -- before settling down to the more necessary articles.[149] Sometimes the buying seems to have been done in shops at the canneries. Undoubtedly it was also carried on at the trading stations in the home villages. And it also apparently was customary for the natives of Kodiak Island and the surrounding region to "cash in their season's fishing checks" and do the bulk of their annual purchasing at the stores in Kodiak. These stations did a good business until merchants in Seattle began sending trading vessels to intercept the natives at the canneries or at their villages.[150]

The natives on the Bristol Bay slope of the monument were also affected by the canneries, although to what extent is not known. Salmon canning on Bristol Bay began in 1884 when a plant near Nushagak commenced operations.[151] Canneries proliferated rapidly in the vicinity, and by 1890 two salteries had been erected at the mouth of the Naknek River.[152] These were succeeded by two canneries which made their first packs in 1895.[153]

The cannery operators on Bristol Bay made very little effort to employ the local natives either as fishermen or as laborers. Nevertheless, in 1894 almost one-fourth of the workers at three Nushagak canneries were natives, and a higher percentage of Eskimos

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149 VanStone, *op. cit.*, 75.

150 Erskine, *White Water*, 147-149. The natives generally demanded and received payment in cash, each day, at the canneries. Whether the word "checks" in the above quotation is intended to be taken literally, or whether it refers to tokens, or whether it applies to a period several decades later than 1912, the writer is unable to determine.

151 VanStone, *op. cit.*, 67.

152 U.S., Census Office, *Eleventh Census*, 169.

153 Moser, *op. cit.*, 209-211.

found employment in the small salteries in the area.[154] After the turn of the century the number of native employees increased considerably for a variety of reasons, not the least of which was the Chinese Exclusion Act of 1904.[155]

What is known specifically about the situation at the mouth of the Naknek River seems, in general, to support these broad conclusions. Managers of the two canneries at that location told a government investigator in 1900 that they "gladly" employed every native who was willing to work and that they even sought out laborers in the villages and offered "every inducement for them to work." Experience had shown, however, that natives who eagerly sought employment after the long, hard winters quickly lost interest as soon as their stomachs were full and their wages had permitted them to buy a few "luxuries."

Thus while each cannery might employ as many as 40 natives one day, only 10 might be working a short time later. The highest average number for "a short period" was from 25 to 30.[156]

To what extent the inhabitants of Savonoski Village were lured by the canneries of Bristol Bay, particularly at Paugvik or Naknek, is rather unclear. Undoubtedly an observation that "for the Nushagak River region the salmon canning and fishing industry has been the principal source of employment and income since the turn of the century" must have been equally applicable to the Naknek River area.[157] Such, certainly, is the impression given by a former Savonoski resident who said in 1961 that during the summers before the eruption the families of that settlement went to Naknek, where the men were employed as fishermen and the women worked in the canneries. By June 6, 1912, said

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154 VanStone, *op. cit.*, 73-74.

155 *Ibid.*, 78, 81.

156 Moser, *op. cit.*, 185-186.

157 VanStone, *op. cit.*, 81.

another witness, only two families remained behind in the home village.[158] Other accounts, however, give the impression that a fairly large number of natives "fled from the mountains and flocked to the cannery stations" after the start of the eruption in early June, 1912.[159]

In addition to the fur trade and the fishing industry, the forces which exerted a major influence on native life and culture during the American period in the Katmai region included the Russian Orthodox Greek Catholic Church. Immediately after the change of flags in 1867 there was a period of hesitation and some confusion among the Orthodox clergy in Alaska, and a number of the priests followed the bulk of their Russian parishioners back to the homeland.

It was soon made clear, however, that the Czar, as head of the Church, intended to assume the responsibility, formerly assigned to the Russian American Company, for providing the larger part of the financial support required by the clergy and the principal churches and missions. The subordinate chapels, served by readers, were to be erected and maintained by their members. At least twice a year the resident priests at the churches and missions attempted to visit the outlying chapels to conduct services, baptize the children, perform marriages, and commend to God those who had died. The expenses of these trips, which often necessitated long journeys by dog sled in winter and by bidarka in summer, were to be met by the sale of candles and saints' pictures.[160]

Once the continuity and the financial stability of the Church in Alaska were assured, there was a revival of morale among the clergy. Many devoted priests decided to remain in order to serve

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158 Report to National Park Service, Region Four, on Tape Recording of Eyewitness Accounts of Mt. Katmai Eruption of June 6, 1912 (typewritten, University of Oregon, Department of Anthropology, January 5, 1962), MS, 7, 15.

159 *Cordova Daily Alaskan* (Cordova, Alaska), June 17, 1912, p. 1; Martin, "The Recent Eruption of Katmai Volcano," 147.

160 U.S., Census Office, *Eleventh Census*, 96, 182, 185. In actual practice, however, it was frequently difficult for the priests in many parishes to visit the outlying chapels as often as once a year. VanStone, *op. cit.*, 35-36.

their congregations, now made up largely of natives and creoles. Experience had also shown that the Alaska Commercial Company and other American trading firms were willing to cooperate in transporting church supplies and personnel to the distant parishes in the Aleutians and the northwest.[161]

Some American observers tended to deprecate the role of the Orthodox Church. One government official writing about 1880 described the institution as "somnolent." The native and creole readers, he said, "drone through the exercises of the church as appointed, preside at its calendar days of festivity, and then retire seemingly exhausted and desirous of repose."[162] Others maintained that the clergy preached loyalty to Russia and were thus responsible for the fact that as late as 1890 many natives were not even aware that the United States owned Alaska.[163]

While appearances gave some grounds for such accusations, an unbiased view might have resulted in different conclusions. A recent writer has summed up the matter as follows: "Americans actually owe a deep debt of gratitude to the Russian priests who stayed behind after the majority of their own countrymen had fled, in a land thrown into chaos by United States rule -- or perhaps, lack of rule, would be a more apt term."[164] As has already been seen, the Orthodox priests tended to replace the former Russian American Company district managers as the stabilizing forces in the native communities.

In the region which later became Katmai National Monument, this influence, as during Russian times, was exerted from two centers. Both were located outside the monument boundaries. West of the Aleutian Range religious affairs continued to be directed from the Nushagak Mission as had been the case before 1867. Along the coast of Shelikof Strait, however, Orthodox

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161 VanStone, *op. cit.*, 35.

162 Petroff, "Report," *Tenth Census*, 42.

163 U.S., Census Office, *Eleventh Census*, 96.

164 Chaffin, *op. cit.*, 153.

activities no longer were controlled by the Kenai Mission. After the transfer this area fell within the parish of the Church of the Resurrection at Kodiak.[165]

Strange to say, more seems to be known concerning church affairs on the then remote shores of Naknek Lake than about religious matters on the more populous and accessible coast of Shelikof Strait. On June 16, 1868, the clergyman at Nushagak, Hieromonk Theophil, took his departure evidently as a result of the contraction in church affairs that followed the transfer. The mission was left in the charge of Vasili E. Orlov, who seems to have been a lay reader. Under the leadership of this devout creole the membership of the parish expanded to about 2,400 persons by the time a former priest, Vasili Shishkin, somewhat mysteriously reappeared in the Nushagak records during 1878.[166]

By that time there were six chapels in the Nushagak parish.[167] Although they were not named, it is a reasonable assumption that one of them was at the present site of Savonoski, at the upper end of Iliuk Arm of Naknek Lake. Two years later Ivan Petroff visited "Severnosky Village," then better known as "Ikkhagmute," where he found a chapel. The door needed fastening, so the keeper proposed to accompany Petroff across the Aleutian Range to Katmai to purchase a few nails.[168] Petroff was not one to hesitate to express an opinion simply because the subject did not concern him, so in his official report for the Tenth Census he remarked that the people of two villages on Naknek Lake were assigned to the care of the Russian missionary at Nushagak "without regard to locality or convenience."[169]

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165 U.S., Census Office, *Eleventh Census*, 185.

166 VanStone, *op. cit.*, 33-34. VanStone points out that Shishkin, who had last been mentioned as being at Nushagak in 1853, may have actually continued in residence at the mission between that date and 1878. Strangely, the report of the Tenth Census of 1880 gives the name of the missionary at Nushagak as "Rev. Peter Shiskin." Petroff, "Report," *Tenth Census*, vi.

167 VanStone, *op. cit.*, 34.

168 Petroff, *Population and Resources*, 44.

169 Petroff, "Report," *Tenth Census*, 25.

In January, 1883, Father Vasili Shishkin traveled -- obviously by dog sled -- up the Naknek River from Paugvik, where there also was a chapel, across Naknek Lake to "Ikkhagamut," where he spent about a week preaching and officiating among the "Aleuts" as he called the natives. During the late summer of the same year he may have again visited Naknek Lake, as it is recorded that he returned to Nushagak from Kenai by way of Kodiak and Katmai.[170]

Father Shishkin died in 1893-1894, and he was succeeded at Nushagak by Father Vladimir V. Modestov, who left about 1897 or 1898. The mission remained in the charge of Deacon Vasili P. Kashevarov, who in turn seems to have been replaced by his brother Nicholas in 1900. Vasili resumed his post in 1906 and remained until his death in 1916.[171]

Under these successive priests the chapel at Savonoski -- variously known as "Ighiak" and "Semenovsky" in official and Orthodox Church records of the time -- continued to exist.[172] Only when the inhabitants were forced to flee before the advancing sand flows and the descending ash falls of the Katmai eruption of June, 1912, were the village and its chapel deserted forever.

On the Pacific slope of the future monument the story of the Russian Orthodox chapels is more complex but far fewer details are presently available. When the picture first becomes clear, in 1880, there were two chapels along the Shelikof Strait coast of the peninsula, one at Katmai and the other at Douglas, a place of uncertain location near Cape Douglas.[173]

If a general description of the outlying chapels in the Kodiak parish applies equally to them, they were served by lay readers and

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170 Documents Relative to the History of Alaska, MS, II, 145-147.

171 VanStone, *op. cit.*, 42, 44, 48.

172 U.S., Census Office, *Eleventh Census*, 183, 185; VanStone, *op. cit.*, 48.

173 Petroff, *Population and Resources*, 32-33. Petroff is positive in stating that Kukak did not have a chapel in 1880. The location of Douglas will be discussed at length later in the present chapter.

and usually built of logs. "In outward appearance these chapels are not attractive," wrote a government official, "but many of them are quite tastefully decorated in the interior, and in all of them the greatest neatness is preserved."[174]

Ten years later, if census information is correctly interpreted, there were still only the chapels at Katmai and "Cape Douglas."[175] Both of these institutions remained active and occupied buildings until the disaster of June, 1912, when their existence abruptly terminated. It seems clear that by 1905 the Douglas chapel was located at the settlement four miles north of Cape Chiniak which was then sometimes still called Douglas but which was becoming better known by its present name, Kaguyak.[176]

Between 1890 and 1905 a third chapel seems to have been built along the coast at Kukak, between Katmai and Douglas. Little is known of this structure, which appears to offer a fruitful field for future investigation.

Apparently there are no ethnological studies of the Eskimos of the Katmai region during the American period, and thus there remains no clear picture of the cultural changes brought about by intensified sea otter hunting, by the canneries, and by the continued ministrations of the Orthodox Church, among other agents of contact. From the few shreds of information available, however,

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174 U.S., Census Office, *Eleventh Census*, 182.

175 *Ibid.*, 182, 185. A chapel at "Kaguyak" was also listed as being a part of the Kodiak Parish, but almost certainly this Kaguyak was the settlement of that name on Kodiak Island.

176 For use of the name "Douglas" for this settlement, see George C. Martin, "The Recent Eruption of Katmai Volcano in Alaska," 142-145. Somewhat confusing is the fact that Martin's map shows Douglas to be farther north than the present Kaguyak, but a comparison of his photographs of "Douglas" with those taken at the present Kaguyak by archeologists 40 years later leaves no doubt that the places are one and the same. See Davis, *op. cit.*, photo 9 opp. p. 46, p. 50. To confuse matters still more, the same chapel site now seems generally known to park personnel as "Swikshak."

it can be concluded that, as in the Nushagak River area which has been more intensively studied, cultural change between 1867 and 1912 progressed "very slowly."[177]

No attempt is made here to give any systematic description of the native cultures during the period under discussion. What follows is a loosely organized collection of random observations made by travelers at different times which may serve in a small way to indicate the direction and extent of changes which were occurring in the living habits of the Katmai natives.

In the coastal villages, the homes of the natives, and those of the creoles and Aleuts who lived with them, changed very little between 1867 and 1912. Basically they were the semi-subterranean barabaras of the pre-contact Koniags. But archeological evidence shows that American conveniences had made a certain impact well before these settlements were abandoned.

Probably the changes were not as early or as extensive as they were among the neighboring Aleuts, but the general direction was the same. By 1870 some of the turf-covered dwellings in the Aleutians had begun to sport glass windows of "half a dozen seven-by-nine panes" and wooden doors. Inside, the plank walls were sometimes covered with paper, and the floors were strewn with a "sort of thatch" of dried grass. Many homes were equipped with small stoves, "since their occupants have become a mite Americanized."

Cooking utensils included a kettle or two, a frying pan, and a samovar. Crockery, said an observer, "abounds," while some barabaras could even boast of "ordinary beds, tables, chairs, and, in some instances, a bureau and mirror; almost invariably each dwelling is decorated with Connecticut clocks, some having two or three by way of variety, their time-keeping being of secondary importance."[178]

The Pacific natives continued to have a keen appreciation of European music, and undoubtedly they still sang many of the old Russian songs. But visitors among them noted that wherever contact with Americans had been extensive, as it was during the hunting

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177 VanStone, *op. cit.*, 97.

178 *Alaska Herald* (San Francisco), November 19, 1870, p. 4.

voyages, new tunes had infiltrated. Petroff observed in 1880 that the tunes of "John Brown," "Marching through Georgia," and entire strains of "Pinafore" were "hummed among the earthen barabaras, from Attoo clear to the eastward."[179]

Other changes in local mores since Russian times were evident at the periodic *kvass* or beer-drinking parties which had become a part of the local culture on the coast. The early stages of such gatherings were generally marked by dancing. "It is only then," said Petroff after visits to the Aleutians and the peninsula in the late 1870's and in 1880, "that the old people can ever be induced to waltz or shake out the figures of the old Russian quadrille which they have learned in days long ago." The music for these affairs was generally provided by an accordian or concertina played by a woman, though occasionally by a man.[180]

As was the case during the Russian period, the Eskimos on the Bristol Bay slope of the monument were not nearly so much influenced by outside cultural impulses as were their neighbors south of the Aleutian Range. Even as late as 1880 travelers found them "as a rule" dressed in "the primitive garments of their ancestors," although European-style clothing must have been in evidence in areas near trading posts as it was under the previous regime.[181]

The Aglegmiut continued to place their chief reliance upon natural food supplies -- salmon, caribou, moose, bear, waterfowl, berries, and the other items available in abundance. But travelers during the early American period found them supplementing their diet with items purchased from traders -- "a modicum of small supplies of tea and sugar, the course Graham flour, and a few crackers." The natives used the flour to make pancakes, which were fried in oil, and to form a "thin hasty-pudding or mush, using no salt whatsoever in anything they eat."[182]

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179 Petroff, *Population and Resources*, 15.

180 *Ibid.*

181 *Ibid.*, 41.

182 *Ibid.*, 42.

Hunting techniques had also changed, more so than most other aspects of Aglegmiut culture. By 1880 these people were using firearms "of the modern patterns" for taking most game animals, though the spear continued in use for fishing and for killing certain species of game.[183]

Petroff in 1880 found the Aglegmiut using iron and copper kettles for cooking. In fact, he said, "they boil or stew almost everything." He believed the use of imported utensils to be even more prevalent than in Russian times. "In those houses wherever they can afford to use tea, a small supply of earthenware cups and saucers in a little cupboard will be found; but they make no pretenses toward setting a table, save those few who live about missions and trading posts . . ., where they do boil the 'Samovar' (tea-urn) and spread a cloth over the top of a large box, or rude table, perhaps, on which to set their tea cups."[184]

A visitor in 1900 noted that many houses on the Bristol Bay coast by then had "side openings for a small window." He further observed that entrance tunnels were still in use and that frequently several dwellings were linked by tunnels, "all having one common entrance."[185]

Unlike the Koniag on the coast, the Eskimos in the interior of the peninsula seem to have had little use for American music or musical instruments. Little or nothing in the way of accordian or concertina playing was found in the Bristol Bay country said Ivan Petroff after his visit during 1880.[186] And at that time the Aglegmiut were still largely free of another importation -- the use of *kvass* and whiskey.

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183 Petroff, *Population and Resources*, 43.

184 *Ibid.*

185 Moser, *op. cit.*, 178.

186 Petroff, *Population and Resources*, 44.

Habitation Sites, 1867-1912

A somewhat different view of the present Katmai National Monument during the years from 1867 to 1912 may be derived from examining what is known concerning the individual settlements in the area. The sections that follow deal first with Katmai Village itself, then with the other coastal places of habitation, and finally with the settlements on the western slope.

Katmai. Under the conservative and conservation-minded Russian monopoly, Katmai had been a place of some importance as the chief trading station for a long stretch of the coast and for a section of the Bristol Bay slope also. In addition it was a center for a certain amount of communication with Bristol Bay.

After the change of flags, Katmai entered a period of decline. When Alphonse Pinart visited the settlement in October, 1871, he found the residents still doing "quite a large business in furs" with villages in the interior and on Bristol Bay.[187] But by the time Ivan Petroff arrived almost exactly nine years later he noted that "the transit business has long been a thing of the past" and that Katmai had "been superseded by a rival in the north at Cape Douglass, as far as trade and traffic in furs is concerned." Of Katmai as a whole he could only say, "Its former glory has departed."[188]

Undoubtedly this assessment was basically correct, but Katmai had by no means given up the ghost, as a glance at the few available population statistics will show. In 1871 Pinart estimated that there were 150 "Kaniagmioutes" and one white man living in the village.[189] In 1880 Petroff carefully counted a total of 218 inhabitants, consisting of 181 "Kodiak Innuits" and 37 creoles, all living in 20 barabaras.[190]

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187 Pinart, *Voyage*, 24.

188 "Alaska's Census," in *New York Herald*, January 11, 1881, p. 5.

189 Pinart, *Voyage*, 24.

190 Petroff, *Population and Resources*, 32-33.

A decade later, in 1890, the agents of the Eleventh Census found 132 persons living at Katmai, making up 37 families and occupying 17 houses. At one place the census report says that the inhabitants were all "Kodiak Eskimo," but a more detailed breakdown elsewhere shows that one white man was living among 131 natives. It is interesting to note that 81 of the residents had been born in Katmai while 51 came from elsewhere.[191]

Katmai was the largest settlement on the peninsular shore of Shelikof Strait in 1880, and it still held that position in 1890.[192] Although no further population figures seem to be available, it undoubtedly maintained the lead until it was abandoned in 1912.

As has been seen, Hutchinson, Kohl & Company had taken over the old Russian American Company trading station at Katmai as early as October, 1868, and the post undoubtedly was among the properties purchased by the Alaska Commercial Company during the summer of 1872. The latter firm continued to operate the Katmai station for many years, evidently at least until 1906, at which time the building was offered to Omar J. Humphrey for $150. The sale was not consummated, but available records do not show if the post was active beyond that time or, indeed, if it was active in 1906.

It is possible that the station was not operated continuously from 1868 to its final closing date. When a whaleman named George Fred Tilton reached Katmai in March, 1898, he found, according to his later recollection of the event, that "the Alaska Commercial Company's station had been moved from there eighteen months before."[193] Tilton's memory may have been quite correct.

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191 U.S., Census Office, *Eleventh Census*, 4, 72, 163.

192 Petroff, *Population and Resources*, 33; U.S., Census Office, *Eleventh Census*, 72.

193 George Fred Tilton, *"Cap'n George Fred" Himself* (Garden City, New York, 1928), 214.

Almost certainly there was no agent at Katmai when he arrived. But account books and inventories for the Katmai station exist for the years 1897, 1898, and 1899, and until they are examined it perhaps would be best to reserve judgment on this point.[194]

Katmai received a fair scattering of visitors -- government officers, scientists, and other travelers -- during the years from 1867 to 1912. A number of them left descriptions which tell a good deal about the village and the lives led by its inhabitants. Several of these accounts appear in the next two chapters; others are grouped here.

When Ivan Petroff dropped down to Katmai after traversing the Aleutian Range in October, 1880, he was glad to find himself once more in the midst of a "Christian Russian-speaking population."[195] He was particularly impressed by the abundant natural resources of the neighborhood. "The Katmai people," he wrote, "have timber at their command, such as poplar and birch, which grows in fair abundance along the Katmai River, reaching up a little way on the hill sides. They have an abundance of fish, plenty of water fowl, and in the mountains, which rise abruptly around them, bear, deer, land-otter, among the animals, and the ptarmigan (*S. albus*) and ruffled grouse (*Bonasa sabinii*) are found. At this point excellent cranberries are gathered abundantly by the people."[196]

Despite the plentiful game and the numerous fox and marten which would yield rich harvests of land furs, Petroff found the inhabitants of Katmai "all" engaged, "as a rule," in sea otter hunting. "The attention of the people," he said, "is mainly directed to the more profitable pursuit of the sea otter to which end they undertake long and dangerous journeys up and down the coast of the peninsula and across the straits. Reindeer [caribou] cover the slopes of the mountains, but nobody thinks it worth while to spend a day or two hunting for the sake of a supply of venison. They sell the sea otter at good prices and live upon

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194 Oswalt, *Alaska Commercial Company Records*, 5. There was a trader, a Russian, in residence at Katmai during October, 1898. Spurr, "A Reconnaissance in Southwestern Alaska," 58-60, 91-92, 146-147.

195 "Alaska's Census," in *New York Herald*, January 11, 1881, p. 5.

196 Petroff, *Population and Resources*, 53.

luxuries from the store and on fish caught at their very doors."[197] In another version of his account, Petroff specified that the "luxuries" which caused the Eskimos to leave the caribou undisturbed on the snow-topped peaks were largely canned meats and canned fruit.[198]

Ten years later an agent of the Eleventh Census found the villagers still chiefly dependent on sea otter hunting "as a source of revenue," but the journeys grew longer and the returns were smaller with each passing year. Some evidence of a shift in economic patterns seems discernable in the description of Katmai which appeared in the report of that census in 1893:

> The village, consisting of sod huts surrounding the "store" and a small log chapel, was built upon a swampy flat along the banks of a salmon stream, and owing to the scarcity of dry ground about them their dead have been buried indiscriminately among the dwellings until the whole settlement presents the appearance of a graveyard. The summer visitor is impressed with an idea of what winter must mean in this desolate spot when he notices the heavy chains and ropes which are laid over the roof of the trading store and securely anchored in the ground as protection against the furious gales that sweep down the steep mountain sides but a few miles beyond.
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> The river, small as it is, furnishes the Katmai people an abundance of salmon, the valleys and swamps abound in berries, oil is obtained from seals and occasionally from a stranded whale, and the more enterprising hunters kill cariboo in the mountains, while their traps yield them skins of foxes and land otters.[199]

A reasonably good idea of Katmai's appearance is given by two photographs taken by D. B. Church in 1916. Although the ground was deeply covered by the ash from the Katmai eruption four years earlier, the barabaras of the native

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197 "Alaska's Census," in *New York Herald*, January 11, 1881, p. 5.

198 Petroff, "Report," *Tenth Census*, 25.

199 U.S., Census Office, *Eleventh Census*, 72.

inhabitants were still largely intact. One picture quite clearly shows the Orthodox chapel, then seemingly little damaged despite having been moved by a flood. The gable-roofed center portion apparently had a hip-roofed appendage at each end. An octagonal cupola, surmounted by a cross, crowned the roof. The exterior was covered with vertical boards, and a paneled double door gave entry into the vestibule. The bell was mounted on a timber frame near the front entrance.[200]

In 1953, when archeologists from the University of Oregon surveyed the site of Katmai, they found the scene quite different from that described by the writers of the Eleventh Census report about 1890. Indeed, even the structures and terrain shown in photographs taken by George C. Martin in 1912 after the eruption were "unrecognizable" 41 years later. Nevertheless, Wilbur A. Davis and his companions were able to record a modest amount of information which throws light upon Katmai as it stood at the moment of its abandonment.

For instance, the search in 1953 revealed a graveyard -- a definite one seems to have been established since 1890 -- containing 16 graves with crosses still standing. As Davis noted, additional, unmarked, graves undoubtedly existed. One grave was surrounded by a wrought-iron fence and was further distinguished by a marble tombstone bearing, in Russian, the words "Martha Fomina, died December 24th, 1887, 29 years (summers) old, Peace to Thine Ashes."[201]

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200 Robert F. Griggs, "The Valley of Ten Thousand Smokes: National Geographic Society Explorations in the Katmai District of Alaska," in *The National Geographic Magazine*, XXXI (January, 1917), 25.

201 Davis, *Archaeological Investigations*, 38-39. In this connection, it might be of interest to list here the few names of Katmai residents that are available. In February, 1891, the trader at Katmai was named Smith. E. H. Wells, "Our Alaska Expedition," in *Frank Leslie's Illustrated Newspaper*, LXXIII (September 19, 1891), 106. In February, 1901, he was a "globular, crosseyed" creole named Petellin. Rex Beach, *Personal Exposures* (New York, London, [1941]), 63-65. In 1904 Nikolai Kalmakof was "chief at Katmai." Orth, *op. cit.*, 255.

For the most part, however, little could be made of the remaining structures. The village site was covered with ash and pumice from the 1912 eruption to a depth of from 2-1/2 to 5 feet, and the debris-choked beds of nearby streams had raised the water table so that the former settlement was "a series of grass-covered hummocks separated by pumice flats" under which the water rose to within a few inches of the surface. Excavating in such terrain proved impossibly difficult.

A "cupola-like structure" was all that remained of the chapel. The trading post, buried to its eaves in ash and pumice, could be identified, but excavations could not be carried deep enough to determine the height of the walls.[202]

Topographical conditions are continually changing in the Katmai region, and the time may come when the prospects for excavation will be more favorable than they were in 1953. It is to be hoped that additional studies will be made there, for it is difficult to disagree with Mr. Davis when he wrote, "It is of the utmost importance to science that thorough archaeological research be done in this area."[203]

The other places known to have been inhabited along the Shelikof Strait coast of the present monument between 1867 and 1912 are as follows:

Kamishak Bay. The use of the southern coast of Kamishak Bay in the vicinity of Cape Douglas and the offshore islands in that vicinity by sea otter hunters has already been treated at some length. These hunts were largely conducted during the summer, and most of the Eskimos appear to have returned to their permanent villages elsewhere for the winter. But by 1890 a new breed of otter slayer had appeared on the scene, and his presence resulted in a certain amount of year-round occupation on the islands. The report of the Eleventh Census graphically portrays the lives of these hardy souls:

> But though the native hunter glady turns his face homeward on the approach of the dismal season, a few white men can be found to brave it. Small camps of otter hunters exist on the low, barren

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202 Davis, *Archaeological Investigations*, 37-44.

203 *Ibid.*, 43.

> islands near the southern shore. Low structures of rocks, canvas, and drift logs are anchored with chains and cables to the rocky surface, to prevent them from being swept away before the constant gales; and here the hunter watches for weeks and months, bereft of all comforts, unable to stand erect within his lowly dwelling, while the force of the wind prevents him from doing so outside, waiting for a day's or even a few hours' lull between storms to visit his nets or to shoot sea otter from his boat.[204]

While speaking of the offshore islands in the very northern section of the monument it seems a convenient time to mention that a few islands scattered along the entire length of the Katmai coast may have been used as fox ranches prior to 1912. It has been claimed that "the world's first fox farm" was established on Long Island near Kodiak by M. L. Washburn, who from the 1870's to 1891 was manager of the Alaska Commercial Company's Kodiak District.[205] The date of this event is not given, but his Semidi Propagating Company was in operation at least as early as July, 1893.[206]

Evidently the project was successful enough to attract imitators. A Government study published in 1908 noted that some of the smaller islands "south of the Peninsula" were then used as fox ranches.[207] It is not known for certain that any of these were off the Katmai coast, but in view of the later existence of fox farms on offshore monument islands such early use is not unlikely.[208]

On the large general map of Alaska which accompanied the final report of the Tenth Census (1880), a settlement named Ashivak is shown on the southern shore of Kamishak Bay, about 12 or 13

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204 U.S., Census Office, *Eleventh Census*, 72.

205 Kitchener, *op. cit.*, 138-139.

206 Oswalt, *Alaska Commercial Company Records*, 30.

207 Wallace W. Atwood, *Geology and Mineral Resources of Parts of the Alaska Peninsula* (U.S. Geological Survey Bulletin 467, Washington, D.C., 1911), 21.

208 Cahalane, *op. cit.*, 190-191. Cahalane describes a ranch that operated on Kiukpalik Island during the 1920's.

miles northwest of the tip of Cape Douglas. According to Ivan Petroff who prepared both the map and the text of the report but who seems not to have visited this location personally, the village or camp of Ashivak had a population of 46, of whom 6 were creoles and 40 Eskimos. The text gives the location of Ashivak as "Cape Douglas," while on the map a settlement called Douglas is shown immediately at the rear of Cape Douglas proper.[209]

So far, so good; but confusion quickly enters the picture. In the preliminary report of the Tenth Census no place named Ashivak is mentioned, and the northernmost settlement listed on the Katmai coast is a village called Douglas. It also had 46 inhabitants, 6 creoles and 40 Eskimos. But its location is described as being within the shelter of Cape Douglas, "and on the north side of a little bay." It possessed a chapel, seven barabaras, and two trading stores, and it was the terminus of a portage to Bristol Bay. "The Cape Douglas people are sea-otter hunters," said agent Petroff, "with the same natural advantages as those enjoyed by the people of Katmai."[210]

The population statistics make it almost certain that the Ashivak of the final report was the same village as the Douglas of the preliminary document. But clearly Douglas was no unimportant camp on the shore of Kamishak Bay. It was the major otter-hunting center which had replaced Katmai as the most prosperous trading point on the peninsular shore of Shelikof Strait.

It must be concluded, therefore, that Petroff had gathered some faulty data concerning the location of Ashivak or that there was an error in drawing his map. He evidently intended to place Ashivak south or "within the shelter of" Cape Douglas and on the north side of a little bay (the present Swikshak Lagoon?) where Douglas is shown on several early maps. This conclusion may be supported by the fact that in 1904 the natives along the coast still used the name "Aievak" for a settlement 18 miles southwest of Cape Douglas which was called "Douglas Village" by the

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209 Petroff, "Report," *Tenth Census*, p. 28 and Map I, "Map of Alaska and Adjoining Regions . . . 1880"; U.S., Census Office, *Compendium of the Tenth Census* (2 parts, Washington, D.C., 1883), part II, p. 1427.

210 Petroff, *Population and Resources*, 33.

Americans.[211] In short, there probably were no important permanent settlements on the shores of Kamishak Bay within the present monument during the American period.

Swikshak. The possibility that the immediate vicinity of Swikshak Lagoon may have been the location of a native village and trading center known as Kayayak, Kaguyak, Douglas, and a number of variations of those names during the later Russian period and during the American era down to about the 1890's is discussed at length in following sections of this chapter. The fact that no large archeological site has yet been found in this neighborhood, however, would seem to indicate that the most important settlement on the northern Katmai coast may have been elsewhere.

The single "thin midden" thus far tested by archeologists at Swikshak is situated on the south bank of the lagoon. No artifacts were recovered, but from the relationship of the occupation deposits to the volcanic ash layers it is believed the site belongs to the post-contact period.[212]

The paucity of cultural remains at this site tends to confirm the hints given by the historical record that despite the seemingly favorable living conditions and the abundant food resources at Swikshak Lagoon, the vicinity was very little used by the natives, at least during the two decades immediately preceding the Katmai eruption. Roy Fure, who seems to have visited the northern coast of the present monument in 1914, said he saw only a few trappers' camps at Swikshak.[213] Presumably these had been in use prior to the summer of 1912, since the ashfall temporarily played havoc with the fur-bearing mammals.[214]

At a much later period, probably beginning in the 1920's or 1930's, the cannery at Kukak Bay maintained an auxiliary plant at

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211 Orth, *op. cit.*, 54, 89.

212 Dumond, *Archaeological Survey . . . 1964*, 8-9. This site is identified as SK-1 on the Archeological Base Map of Katmai National Monument.

213 Davis, *op. cit.*, 56, 69.

214 Martin, "The Recent Eruption," [131]-181.

the entrance to Swikshak Lagoon, with a substantial dock and other facilities.[215] During the early 1960's the Alaska Packers used this cannery building as quarters for its crews of clam diggers who operated each summer on the nearby mud flats.[216]

Kaguyak. In the previous chapter it has been noted that Russian maps showed a village known as Kayayak, or one of its many variants, sometimes at the present Swikshak Lagoon and at other times on the coast four miles north of Cape Chiniak at the site of today's Kaguyak. It might have been expected that under the United States, with the advent of more precise coastal charting, this uncertainty as to the location of Kayayak would have been ended. Instead, the confusion was only compounded.

Two of the earliest American-period maps of Alaska, both dated in 1869 and obviously related and based partly on Russian sources, show a settlement called Kayayak clearly situated at the present Swikshak Lagoon.[217] According to Wilbur A. Davis, who studied the history of the present Kaguyak in 1953, the name "Kayayak" continued to appear on United States Coast Survey charts -- presumably at the Swikshak Lagoon location (the limits of the present study have not permitted a recheck of the original maps) -- until 1884. Since that time the name has been printed "Kaguyak" on the Coast Survey charts, although the form "Kayayak" continued to be used on certain maps until recent years.[218]

The change to "Kaguyak" was probably accidental. Certainly it was unfortunate, since there already was a long-established village of Kaguyak on the southeastern shore of Kodiak Island. After 1884 when the name "Kaguyak" is encountered in census reports, fur trade ledgers, and other written sources it is often impossible to be sure which Kaguyak is meant.

As one studies the history and geography of the Katmai coast after 1867 a major fact begins to emerge: regardless of whether

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215 Davis, *op. cit.*, 56.

216 Dumond, *Archaeological Survey . . . 1964*, 9.

217 William Healey Dall, "Alaska and Adjoining Territory, 1869" (map) [n.p., n.d.]; U.S. Coast Survey, "Alaska and Adjoining Territory, 1869" (map).

218 Davis, *op. cit.*, 46-47.

the name was Kayayak or Kaguyak or whether the location was near Cape Chiniak or at Swikshak Lagoon, the village in question was one and the same as another settlement of similarly uncertain location known as Douglas, Douglass, or Cape Douglas.

To prove this proposition on paper is tedious and perhaps unnecessary, yet at least the key points of the reasoning should be outlined. We have already seen that at the time of the 1880 census there was only one settlement of any significance north of Kukak along the Katmai coast. This was a village of 46 persons called variously in the different versions of the Tenth Census report Ashivak, Kamieshkh (?), and Douglas. This place had two trading stores and a chapel. It and Katmai were the only two settlements on the peninsular shore of Shelikof Strait to have chapels and trading posts at that time. Douglas was then the primary sea-otter-hunting center on the Katmai coast.

At the time of the next census, 1890, all of the coastal settlements at the northern end of the present monument, including Kukak, were lumped together under the name "Cape Douglas." The combined population was 85. Except for Kukak, the only village of any note was an unnamed place consisting "of a small trading post, with a few native houses." The vicinity had "formerly" been considered "one of the most important sea-otter hunting grounds," continued the Eleventh Census report, but "of late years the trade in these valuable skins at Douglas station has become insignificant." In short, the other village, with the trading post, was Douglas. The only villages on the monument coast definitely known to have possessed chapels in 1890 were still Katmai and "Cape Douglas."[219]

Our argument thus far has brought us to the point where it is possible to state with reasonable confidence that there was only one settlement of consequence on the Katmai coast north

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219 U.S., Census Office, *Eleventh Census*, 4, 72, 163, 182. The report of this census gives statistics for a Kaguyak, but almost certainly the village of that name on Kodiak Island was the one meant. The maps in the Eleventh Census report do not show a Kaguyak on the Katmai coast. The "Map of Alaska" accompanying this report shows "Douglass" as being located at the present Swikshak Lagoon.

of Kukak. Furthermore, this village was known most often, to the Americans at least, as Douglas. Now all that remains is to link the name "Kaguyak" to the settlement of Douglas.

In 1899 Sheldon Jackson, general agent of education in Alaska, prepared a map to accompany his report on the importation of reindeer as a food supply for the territory's natives. Along the Katmai coast he showed two, and only two, villages possessing chapels -- Katmai and Kaguyak. No Douglas was indicated, but his Kaguyak was situated in the same general area in which other maps of the time showed Douglas.[220] Since it is known that Douglas then had a chapel and since it seems particularly improbable that there were two significant villages, each with a chapel, north of Kukak, it becomes almost certain that Jackson's Kaguyak was the place also known as Douglas.

Evidence of a more positive nature also is found -- but rarely. In 1905, for instance, a survey clearly located Douglas at today's Kaguyak. In 1912 Charles C. Martin visited the deserted village of Douglas only a few weeks after the eruption. Since he was aboard a Revenue Marine Cutter, presumably with the most accurate charts available at hand, it may be assumed that his name for the place represented the usage of the time. He took an excellent photograph of the church and graveyard at Douglas which was later printed in the *National Geographic Magazine*.[221] Forty-one years later archeologists from the University of Oregon surveyed the remains of the settlement known today as Kaguyak and had no trouble identifying the landmarks in Martin's picture of Douglas Village.[222]

Hence one can say with confidence that the Douglas of 1905 and 1912 was today's Kaguyak, four miles north of Cape Chiniak.[223]

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220 Sheldon Jackson, "General Chart of Alaska . . . 1899," in Chaffin, *op. cit.*, 244-245.

221 Martin, "The Recent Eruption of Katmai Volcano," 142.

222 Davis, *op. cit.*, 50. A map of 1903 apparently shows Douglas at the site of today's Kaguyak. Alfred Hulse Brooks, *The Geography and Geology of Alaska* (U.S. Geological Survey, Professional Paper No. 45, Washington, D.C., 1906), "Map of Alaska . . . 1903," in folder at rear.

223 Site CK-2 on the Archeological Base Map of Katmai National Monument.

As shall be seen, where Douglas and Kaguyak were located before 1905 is not always clear, but almost certainly wherever they were, they were together. Therefore, no further attempt will be made to describe Kaguyak separately. For the purposes of this study, it and Douglas are considered one.

Douglas. During the greater part of the span between 1867 and 1912 the most important settlement on the northern coast of the present monument was a village generally known as Douglas. The name obviously came from the most prominent landmark in its vicinity, Cape Douglas. It was applied, undoubtedly by American traders, to a village or villages known previously as Ashivak, Kamieshkh (?), Kayayak, Kaguyak, and several variations of these names. At least one of these designations, Kaguyak, is still in use today. The name "Douglas," although appearing on a few later maps, for all practical purposes ceased to be employed after the eruption of 1912.[224]

The earliest use of the name "Douglas" which has come to the attention of the present writer is found in the records of the Alaska Commercial Company. The Day Book of the Douglas Station, also known as Cape Douglas and Douglass, for 1878 is still in existence.[225]

Probably the most critical question awaiting solution concerning Douglas is its location. We have seen that beyond reasonable doubt Douglas in 1905, and probably for a number of years previously, was at the location known today as Kaguyak, four miles north of Cape Chiniak. We have also seen that as far back as 1802 a native village with a name that might be tortured into a forerunner of Kayayak was situated at or about this same location.

It might be logical to conclude, therefore, that this place had continued to be occupied from 1802 until the change of flags and that the American traders had simply moved in shortly

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224 For an example of such later use, see National Geographic Society, "The National Geographic Magazine Map of Alaska" (Washington, D.C., 1914). This map shows Douglas on the north shore of Swikshak Lagoon, opposite its mouth, exactly where the U.S. Coast Survey chart of 1869 showed Kayayak!

225 Oswalt, *Alaska Commercial Company Records*, 1-2.

thereafter, established a station named Douglas there, and continued to occupy the place in conjunction with the natives until the fur traffic become unprofitable, the Eskimos meanwhile carrying on their lives as best they could in the face of the disruptions brought by the Europeans. And this may be exactly what happened.

Yet, as we have further seen, later Russian maps and some of the earliest American charts very clearly place Kayayak on Swikshak Lagoon, some six miles northeast of the present Kaguyak. In fact, a good number of maps right up to at least 1914 continued to show Kayayak, Kaguyak, or Douglas at Swikshak Lagoon. Still different locations for the same settlement (for we now assume that all are one and the same) are shown on other maps. Indeed, one comes to doubt his faith in map makers, or else Douglas was one of the most moved villages in history.

The map which accompanies Petroff's preliminary report of the Tenth Census, published in 1881, does not show an Ashivak or a Douglas, but it does bear a symbol for a trading post right at Cape Douglas proper. A legend, "Kamieshkh" (?), may refer to this symbol or it may not.[226] The text of this same report mentions the "settlement of Cape Douglas" or "Douglas" within the shelter of Cape Douglas and on the north side of a little bay.[227]

The map in Petroff's final report (1884) shows Douglas on the coast immediately south of Cape Douglas proper. This chart also depicts Ashivak on the coast of Kamishak Bay about 12 or 13 miles northwest of Cape Douglas.[228] Yet the texts of the preliminary and final reports and of the *Compendium of the Tenth Census* quite clearly show, by a comparison of population statistics, that Ashivak and Douglas were the same place![229] As far as the 1880 census is concerned, therefore, it seems best to assume that the compilers really did not know where Douglas actually was.

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226 Petroff, *Population and Resources*, map ff. p. 2.

227 *Ibid.*, 33.

228 Petroff, "Report," *Tenth Census*, map I.

229 *Ibid.*, 28; Petroff, *Population and Resources*, 33; U.S., Census Office, *Compendium of Tenth Census*, 1427.

The map accompanying the Eleventh Census was at least definite. It shows "Douglass" directly to the east, perhaps on the east shore, of Swikshak Lagoon, some 22 miles southwest of Cape Douglas.[230] In this connection, it is worth noting that the maps illustrating the census reports for Alaska published in 1881, 1884, and 1890 do not show any settlement at the present location of Kaguyak.

It would seem, therefore, that at some time during the Russian regime the old settlement of Kayayak, at the present Kaguyak, may have shifted to Swikshak Lagoon, where it was situated in 1867. There the American traders moved in and called the place Douglas. Then, in the 1890's, perhaps, the settlement was moved once again, back to its original location at today's Kaguyak.

This theory is pure speculation, based solely on a very incomplete series of maps. And as we have seen, charts of the Alaska coast during this period are, at best, subject to correcton.

This hypothesis could be checked in two ways. First, a complete series of U.S. Coast Survey and Coast and Geodetic Survey charts for this section of the shoreline should be obtained and carefully correlated for any changes of location or name of Kayayak, Kaguyak, and Douglas.[231]

Second, an additional archeological survey might be made, particularly at Swikshak Lagoon and vicinity. If Douglas was located in that vicinity for half a century or so there should be more evidence of historic occupation than has been found there to date. It might also be well to search other localities occasionally identified as Douglas or Kaguyak on maps. George C. Martin's 1912 map of the Katmai area, for instance, locates Douglas as lying between Swikshak Lagoon and the present Kaguyak, about 7 miles north of Cape Chiniak and about 4-1/2 miles west of the entrance to the lagoon.[232]

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230 U.S., Census Office, *Eleventh Census* "Map of Alaska" in rear pocket.

231 Such a series was not available for use in the present study. The earliest chart seen by the present writer placing Kaguyak beyond question at today's location is dated 1930. U.S. Coast and Geodetic Survey, "Alaska-South Coast," map 8502.

232 Martin, "The Recent Eruption of Katmai Volcano," 132.

With the question of its pre-1905 location still unsettled, there is relatively little of a definite nature that can be said concerning the early appearance and history of Douglas. It has already been seen that the Alaska Commercial Company opened a post there as early as 1878. In 1880 the village was inhabited by 6 creoles and 40 Eskimos, a grand total of 46. The place consisted of 7 barabaras, 2 trading posts, and a chapel. A portage trail led westward to Bristol Bay, but it was much longer than the Katmai routes and was "not favored." By that time Douglas had supplanted Katmai as the center of the sea otter trade along the northern shores of the peninsula, and its people largely devoted themselves to that strenuous calling.[233]

In 1882 one of the trading posts at "Cape Douglas" was maintained by the Western Fur and Trading Company.[234] Undoubtedly the second was that of Western Fur's arch rival, the Alaska Commercial Company.

By 1890 the decline in the otter traffic had affected Douglas. The agents of the Eleventh Census found that the business in otter pelts at the village had become "insignificant." There was only one trading post left, a chapel, and "a few native houses." The inhabitants who, together with those of Kukak, numbered 85, consisted of 2 white males, a creole female, and 82 Eskimos. The native hunters were forced to seek the assistance of the traders in making the long journeys by then necessary in order to find sea otter. But starvation was not one of their problems. Codfish and halibut were abundant in the sea, while the streams teemed with salmon. Hair seals were plentiful along the shore during winter. Trapping fox and land otter provided a certain income.[235]

How long an active trading post remained at Douglas is not evident. The surviving account books and inventories of the Alaska Commercial Company's Douglas Station extend to 1900, and the firm

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233 "Alaska's Census," in *New York Herald* January 11, 1881, p. 5; Petroff, *Population and Resources*, 33; Petroff, "Report," *Tenth Census*, 28.

234 Oswalt, *Alaska Commercial Company Records*, 30.

235 U.S., Census Office, *Eleventh Census*, 4, 72, 161, 163, 182.

attempted to dispose of the post, unsuccessfully, for $25 in 1906.[236] Perhaps the clergy, at least, were not too sorry to see the firm leave. In 1899 the Orthodox priest at Kodiak had written to his bishop complaining that Douglas was among several settlements where people were starving, "being empoverished by the Alaska and North Companies which pay a pound of tea and a sack of flour for a beaver skin."[237]

Douglas or Kaguyak continued to be occupied until the earthquakes of early June, 1912, which presaged the violent explosions in the vicinity of Mount Katmai. Apparently all or most of the inhabitants fled to Kaflia Bay, where they were rescued by the Revenue-Cutter Service.[238]

On July 14, 1912, only a little more than five weeks after the main eruption, geologist George C. Martin landed at Douglas on behalf of the National Geographic Society. He did not provide much description of the village, but he took several photographs which do more than words to picture the native barabaras and the small wooden church. At least 38 to 40 graves can be counted in one of his views, each marked by a wooden Greek cross. Two were surrounded by fences.[239]

When the University of Oregon archeological team visited the site of Douglas, at the present Kaguyak, in 1953, they found the village remains remarkably well preserved in view of the 41 years which had passed since the inhabitants departed in haste during the Katmai eruption. On the lower sand-dune terrace

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236 Oswalt, *Alaska Commercial Company Records*, 2; Alaska Commercial Company, Trustees, Minutes of Meetings, MS, II, 77.

237 Documents Relative to the History of Alaska, MS, II, 186-189.

238 United States Revenue-Cutter Service, *Annual Report . . . 1912* (Treasury Department, Document No. 2669, Washington, 1913), 125. Roy Fure, an old resident within the monument but who seems to have been living outside the present boundaries in 1912, said in 1953 that Kaguyak was inhabited up to June, 1912, and that the inhabitants went to Chignik and Kodiak upon leaving their homes. Davis, *op. cit.*, 69.

239 Martin, "The Recent Eruption of Katmai Volcano," 142.

facing Shelikof Strait were the wood and earth ruins of four post-contact Eskomo dwellings and 16 depressions which Wilbur A. Davis interpreted as representing former habitations. The site of the *kashim* or community house could also be identified. A short distance inland, on a second terrace, were the remains of 8 Eskimo homes and 13 depressions from "former" houses. Here also were the church and 13 identifiable graves.

The Russian Orthodox chapel measured 25.75 feet long and 19.5 feet wide, the length of the structure running east and west. At the west end there was a door and a vestibule measuring 11.15 feet by 6.88 feet. The walls of the main structure, built of "20 mm square, hand-hewn, dove-tailed timbers," were 7.05 feet high, covered on the exterior with horizontal cedar siding. Sod was heaped against the outside walls to a height of about three feet. The north wall contained one window, the south and east walls had two windows each. The rafters and sheathing of the hip roof were made of "rough fir lumber," covered on the exterior with shingles. Above all was an Orthodox cross but no belfry. The vestibule consisted of a rough timber frame covered with cedar siding. It had a shed roof.[240]

Wilbur A. Davis describes the inside of this structure as follows: "The interior of the church is divided into two rooms by the iconostasis. The floors are of 1x6 dressed lumber, the walls have been sealed with tongue-and-groove ceiling [*sic*], and the ceiling is of rough, random width fir lumber. Hand-forged nails apparently were originally used throughout the building."[241]

When the site of Douglas was next visited by archeologists in 1964, time and vandalism had exacted a heavy toll. The church had been burned, and the charred remains of the walls stood only about three feet above the ground surface.[242]

Hallo Bay. Roy Fure said that he saw 8 or 10 houses at Hallo Bay in 1914.[243] Occupation at this point certainly is probable, since it was the terminus of a route which crossed the peninsula

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240 Davis, *op. cit.*, 48-50; figure 3.

241 *Ibid.*, 50.

242 Dumond, *Archaeological Survey . . . 1964*, 13.

243 Davis, *op. cit.*, 69.

via the Savonoski River valley and Lake Naknek both in Russian and early American times.[244] Thus far, however, archeologists have not located a habitation site in this vicinity which would indicate extensive or long-enduring occupation.

Old Kukak. It was brought out in the previous chapter that three occupation sites have been found on the north shore of Kukak Bay. One of these, known as "Old Kukak," was a settlement or camp behind a small beach between Yugnat Rocks and Kukak Point. The remains of several "recent dirt-floored cabins" and a very recent "shack" make up the surface evidence of past occupation, and excavations in 1963 uncovered artifacts dating back 30 or 40 years. The archeologists judged, from the position of the Katmai ash layer, that the cabins were standing when the eruption occurred. It was not possible to determine whether the settlement was made by natives or by fishermen or clam diggers.[245]

Kukak. This native village on the north side of Kukak Bay near the present Kukak Point continued to exist, probably most of the time as a seasonal camp, from the days of Russian rule until shortly before the Katmai eruption. George Davidson, in his 1869 edition of the *Alaska Coast Pilot*, noted this settlement on the north shore of Kukak Bay, although his information was based more on Tebenkov's *Atlas* than on personal observation.[246]

The first known description of Kukak during the American period comes from the pen of Ivan Petroff, that diligent agent of the Tenth Census of 1880. Kukak, he said, "was a small settlement of 37 souls, living in 4 barrabaras, without a church." The residents, all Eskimos, were "sea-otter adjuncts and contingents of the Katmai people." From these words one judges that the village was largely or even entirely

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244 See Russian Hydrographic charts of 1844 and 1847 reproduced in Orth, *op. cit.*, 30; United States, *Alaskan Boundary Tribunal*, atlas, map 22. See also "Alaska Peninsula and Part of the Aleutian Islands," map 17 in U.S. Coast Survey, *Report of the Superintendent . . . 1872*, 42 Cong., 3 Sess., House, Ex. Doc. 240 (Ser. 1570).

245 Dumond, *Archaeological Survey . . . 1963*, 31. This site is not identified by number on the Archeological Base Map of Katmai National Monument.

246 George Davidson, *Coast Pilot of Alaska, (First Part,) from Southern Boundary to Cook's Inlet* (Washington, D.C.: U.S. Coast Survey, 1869), 208. This site is identified as KK-1 on the Archeological Base Map of Katmai National Monument.

seasonal in nature, although it is difficult to be sure. With a consistency refreshing in maps of the Alaska Peninsula, the charts in the various versions of the Tenth Census report all continue to show Kukak as being located on the north shore of Kukak Bay.[247]

Unfortunately, at the time of the Eleventh Census in 1890 the populations of Kukak and Cape Douglas were combined for statistical purposes. The total of 85 consisted of 82 "Kodiak Eskimo," 1 creole female, and 2 white males, but how many of these lived at Kukak is unknown. The rapid decline in the number of sea otter must have been felt as much at Kukak as at Douglas, and undoubtedly the natives were beginning to fall back on hunting and fishing for a larger proportion of their food supply. At that time the canneries at Karluk, on Kodiak Island, were sending their steam tenders for an "occasional haul" of salmon at Kukak Bay, but there seems to be no indication that the Kukak residents were as yet obtaining employment in this growing new industry.[248]

As late as 1890 Kukak seems to have been without an Orthodox chapel.[249] Possibly it still did not have one by 1899.[250] Sometime prior to 1905, however, Kukak certainly acquired a chapel.[251] If its remains have been noted by archeologists they do not seem to have been reported.

A Government map compiled in 1909 continued to show Kukak as a settlement on the north shore of Kukak Bay, but the village probably

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247 Petroff, *Population and Resources*, p. 33, map ff. p. 2; Petroff, "Report," *Tenth Census*, p. 28, map I.

248 U.S., Census Office, *Eleventh Census*, 4, 72, 161, 163. The 85 people made up 24 families who lived in 15 houses.

249 *Ibid.*, 182.

250 No chapel at Kukak is shown on Sheldon Jackson, "General Chart of Alaska . . . 1899," in Chaffin, *op. cit.*, 244-245. However, Jackson overlooks other chapels, at Savonoski for instance, which are known to have existed in 1899, so absence from his chart cannot be considered proof of non-existence.

251 By that date the chapel was called the "old church," the implication perhaps being that it had already been abandoned.

was not very active by that time.[252] In 1953 Roy Fure told Wendell Oswalt that the village at Kukak had been abandoned prior to the catastrophe of 1912. No one was living at Kukak at the time of the eruption, he said, "except for a few trappers."[253]

Extensive archeological excavation has been conducted at Kukak, but the scientists who carried out the work were more interested in the evidence of prehistoric occupation than in the remains left by the post-contact inhabitants. However, the second of four low beach ridges at the site produced historical materials including "a collapsed structure made of boards," as well as bricks, bottle glass, and a gun barrel.[254] A new study, with emphasis on the years since 1805, undoubtedly would tell much about the history of Kukak.

Kukak (KK-2). This small site on the north shore of Devil's Cove about 2-1/2 miles northwest of the tip of Kukak Point (identified as site KK-2 on the Archeological Base Map of Katmai National Monument) is believed to have been occupied in post-contact times. Although extensively tested in 1964, the evidence recovered did not permit exact dating, but the archeologists concluded from the thinness of the cultural deposits and the paucity of house remains that settlement probably was of short duration.[255]

Kaflia Bay. This occupation site, situated on the peninsula which juts out from the south shore and separates the inner and middle sections of Kaflia Bay, is identified as KA-1 on the Archeological Base Map of Katmai National Monument. When the site was surveyed by Wendell Oswalt in 1954, the remains of four semi-subterranean houses were visible from the air. On testing, all of them seemed to be post-contact dwellings, some with and some without tunnel entrances.

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252 Atwood, *Geology and Mineral Resources*, plate VI.

253 Davis, *op. cit.*, 13, 69.

254 Rice, *Prehistory of Shelikof Strait, I*, 3. The archeological evidence relating to the occupation of this site between about A.D. 500 and 1500 has been studied at length, but no analysis has been made of the artifacts from post-contact times which also were recovered. Apparently much of this later evidence dates from the American period. Dumond, Progress Report . . . August 15, 1964, MS, 2.

255 Dumond, *Archaeological Survey . . . 1964*, 15-17.

The "tunnel floors were at the same level as the floors of the small, square to rectangular dwelling rooms."

"These houses," said Oswalt, "had sections of planks still visible, and round-headed nails were noted in some of the boards." From the latter circumstance, he concluded that the structures were very recent. In fact, they showed every appearance of having been occupied at the time of the Katmai eruption.[256] Oswalt excavated a large prehistoric housepit at the site, but evidently no attempt was made to analyze the historic dwellings in detail.

A clue concerning the possible occupants of these structures may be found in the fact that by the early summer of 1912 -- and perhaps during previous seasons as well -- there was a salmon fishery at Kaflia Bay. At the time of the eruption on June 6, 1912, it had at least five natives in its employ. During the earthquakes preceding the volcanic outburst practically all the natives between Cape Douglas and Katmai sought refuge at Kaflia Bay, where they were rescued by the tug *Redondo* on June 12.[257]

Amalik Bay. A number of occupation sites have been found on the shores of this harbor, particularly on Takli Island at its mouth. Recovered artifacts thus far analyzed and reported upon largely cover the period 4,000 B.C. to "some time after 1,000 B.C."[258] As is discussed elsewhere in this report, however, Takli Island was the customary takeoff point for native boats crossing Shelikof Strait from the mainland to Kodiak Island. This use continued well into the American period. Since there were frequently delays of days or even weeks while the boatmen waited for favorable weather, the remains of post-contact camps certainly will be uncovered during future archeological excavations.

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256 Oswalt, *Prehistoric Sea Mammal Hunters at Kaflia*, 5-6, 19.

257 United States Revenue-Cutter Service, *Annual Report . . . 1912*, 125. Griggs, *The Valley of Ten Thousand Smokes*, 17, says that all the inhabitants of Katmai except six had been away fishing at Kaflia for some time before the eruption. In view of the detailed report made by Lieut. W. K. Thompson of the *Redondo* on the day of the rescue, however, his version of the arrival of the Katmai coast people at Kaflia has been used here.

258 Gerald H. Clark, *Prehistory of Shelikof Strait, II* (dittoed, [n.p.], May 1966), 5.

Dakavak Bay. This large harbor, only between 7 and 10 miles east of Katmai Bay, was surveyed by archeologists in 1964. Only one occupation site was found, at the easternmost meander of Dakavak River about one-quarter mile inland. Most of the 13 house depressions appeared to be quite old, probably about 1,000 years in age, but one was "obviously" post-contact and seemed to have been occupied up to 1912.[259]

It is possible that this dwelling was the one reported to have been used by a family that "habitually" lived on Dakavak Bay during the summers prior to the eruption. In the early summer of 1912 this family was outfitting at Cold Bay (the present Puale Bay) preparatory to making their usual visit to Dakavak, but presumably the quakes and rumblings from the direction of Mount Katmai caused them to alter their plans.[260]

Across the Aleutian Range on the Bristol Bay slope there were several settlements and seasonal camps which survived until the eruption of 1912. Some of them had been occupied, perhaps with occasional breaks, for thousands of years. Although the list probably is not complete, the places known to have been occupied during the American period include the following:

Savonoski. This village, whose native name may have been "Chikmalok," continued to thrive at the head of Iliuk Arm of Naknek Lake after the change of flags in 1867.[261] If several of the earliest American maps of the peninsula are any indication of the true state of affairs, the settlement was best known by the name "Ukak" for a few years after the transfer. At least that is the only name designated for the single village shown at the head of Naknek Lake.[262]

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259 Dumond, *Archaeological Survey . . . 1964*, 25-29.

260 U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 123.

261 Davis, *op. cit.*, 68. The report on the original name was received by Davis in 1953 from informants in New Savonoski, where many of the natives who fled from Savonoski in 1912 established new homes. There were few survivors in 1953, however, and memories may have been dimmed by time.

262 For examples see U.S. Coast Survey, "Alaska and Adjoining Territory, 1869" (map); Dall, "Alaska and Adjoining Territory, 1869" (map); "Alaska Peninsula and Part of the Aleutian Islands," map 17 in U.S. Coast Survey, *Report of the Superintendent . . . 1872*.

The first complication of a long series comes with the map prepared by the French scientist and traveler, Alphonse Pinart, in 1872. He showed two settlements at the head of Iliuk Arm, one called Haknik and the other, a short distance to the north and at the end of the trail from Katmai, termed Ikak. "Haknik," transliterated from Russian into English, appears to emerge close to "Naknek." "Ikak" seems to be a variant of "Ukak."[263]

When Ivan Petroff crossed the peninsula counting heads for the Tenth Census in the fall of 1880 he found the settlement at the head of Iliuk Arm called by its inhabitants Ikkhagmute or Severnovski Village.[264] The map which accompanied the preliminary version of his report showed only this one settlement, with the name spelled "Ikkhagamute," at the upper end of the lake.[265] When the final report was issued in 1884 its map depicted the same Ikkhagmute, but placed it near the mouth of the present Ukak River (unnamed on the map) in Iliuk Arm. The text of the final report in one place mentions the existence of "two villages" in the vicinity of Naknek Lake, but the second is not named nor is its population given.[266]

Petroff found Ikkhagmute to be "a little village" of 162 "Bristol Bay Inniuts," by which he seems to have meant Aglegmiut Eskimos. The population was divided into 90 males and 72 females.[267] Thus, of all the settlements within the present monument, it was second in size only to Katmai.

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263 Pinart, *Voyage*, map ff. p. 24.

264 Petroff, *Population and Resources*, 44.

265 *Ibid.*, map ff. p. 2.

266 Petroff, "Report," *Tenth Census*, p. 25, map I. This map also shows a second settlement in the Naknek Lake vicinity. The unidentified mark appears to be on the south shore of what might be the present Brooks Lake. Petroff said Ikkhagmute was on a stream called the Mukshat River which emptied into Naknek Lake. Whether he meant the Ukak or the Savonoski is not entirely clear, but from the context he probably meant the former. Petroff, *Population and Resources*, 44. The text of the final report spells the name of the village as "Ik-khagmute." Petroff, "Report," *Tenth Census*, 17.

267 Petroff, *Population and Resources*, 50.

The village possessed an Orthodox chapel which was supervised by the Nushagak mission. According to Petroff the natives at Ikkhagmute seldom visited Nushagak. Only at long intervals, said the census agent, would a small party go there to see the priests, "to whose spiritual care they have been assigned without regard to locality or convenience." On the whole they preferred to wait for the missionary to make his semi-annual visits to their settlement. On the other hand, the people had little hesitation about making the difficult journey across the range to Katmai, where they did their shopping and traded their furs.[268]

Petroff makes no attempt to explain the apparent reluctance to make the relatively easy trip by boat to the settlements and trading stations on Bristol Bay. If the people living at the mouth of the Naknek River and the residents of Ikkhagmute were all Aglegmiut as Petroff implies, the Naknek Lake residents should have found it easier to communicate with the natives of Bristol Bay than with those on Shelikof Strait, though the latter spoke a closely related dialect of the western Eskimo tongue.

The answer may lie in the fact that in 1953 University of Oregon archeologists, when talking to former residents and descendants of former residents of Savonoski, found that the Naknek Lake people still thought of themselves as a different group from the inhabitants of the Bristol Bay coast. They called themselves "Nonamiut" and recognized a difference in language.[269] Probably these inland people represented the Peninsular Eskimos whose territory had been infiltrated by the Aglegmiut during Russian times. Perhaps some Aglegmiut had moved in among them, but they still maintained old differences through the American period. It is also possible that old trading patterns built up under Russian rule, when Katmai controlled the trade of the upper Naknek area, persisted after 1867.

In 1883 Father Vasili Shishkin, the missionary at Nushagak, visited the native village at the head of Naknek Lake, and in his report he called it Ikkhagamut.[270] But just as it appeared that

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268 Petroff, "Report," *Tenth Census*, 25.

269 Davis, *op. cit.*, 68-69.

270 Documents Relative to the History of Alaska, MS, II, 145.

this name had achieved precedence, the next recorded traveler to pass through the settlement, Lord Lonsdale in 1889, understood the place to be called "Sevenofski."[271]

The Eleventh Census of 1890 did nothing to clarify the nomenclature at the upper end of Naknek Lake. For statistical purposes "the native village" on that body of water was included under the heading "Kinuyak." However, since Kinuyak had a total population of only 51 people, divided into 14 families living in 6 houses, it certainly could not have encompassed much beyond the settlement on Iliuk Arm.[272]

This conclusion seems supported by the narrative text of the report which states: "The only inland settlement of the Aglemiut is the village of Ighiak, on Lake Walker or Naknek." The list of chapels subordinate to Nushagak Mission also includes one at Ighiak, a name which stands in the list at the place where Ikkhagmute might be expected.[273] To cap all the confusion, the map which illustrates the report shows only a settlement named "Ukak" at the head of Iliuk Arm, and it is placed a short distance up the south bank of the unnamed Savonoski River.[274]

Although the agents of the Eleventh Census were not as helpful as they might have been in providing information concerning the name and location of the settlement on Naknek Lake, they did make one observation of considerable interest. Ighiak, they noted, was "within reach" of the spruce timber which covered parts of the Aleutian Range, and therefore its inhabitants had better houses than did the people living on the treeless shores of Bristol Bay. "We find them in dwellings much more comfortable and rising higher from the ground, with wooden floor and platforms for sleeping," the agents wrote. "In this village," they added, "a dwelling is rarely occupied by more than one family."[275]

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271 *The Daily Examiner* (San Francisco), April 24, 1889.

272 U.S., Census Office, *Eleventh Census*, 162, 164.

273 *Ibid.*, 169, 185.

274 *Ibid.*, "Map of Alaska," in rear pocket.

275 *Ibid.*, 169.

The 1890 edition of the Coast and Geodetic Survey's "General Chart of Alaska" showed Ukak as the only village at the upper end of Naknek Lake.[276] From that date, however, the name "Savonoski" or one of its several variants appears to be the most favored of the terms for this settlement. The very next year, when A. B. Schanz of *Leslie's Magazine* visited the place, he called it "Severnosky village."[277]

In 1898, during the course of a geological reconnaissance in western Alaska, J. E. Spurr crossed the peninsula by the Katmai Pass route. At the head of Naknek Lake, he wrote in his very exact report, "is [the village of] Ikkhagamut, or Savonoski, as it is now commonly called."[278] The map of his route, prepared by his topographer, W. S. Post, is the first which even pretends to depict any part of the upper Naknek drainage in minute detail. It shows only one settlement on Iliuk Arm, "Savanoski," located on the south shore of the Savonoski River near the lake.[279] No place called Ukak is shown on the map or mentioned in the text.[280]

Shortly after the turn of the century evidence begins to appear which seems to indicate that by that time, at least, Savonoski and Ukak were considered to be separate and distinct settlements. A United States Geological Survey map compiled in 1909 depicts Savonoski in its correct position as determined today by extant structural remains, on the south bank of the Savonoski River near its mouth in Iliuk Arm. This map also shows Ukak as a different settlement situated about nine miles south of Savonoski in the valley of the Ukak River. It lies about 1-1/2 miles east of that stream on the south bank of an unnamed tributary.[281] Maps to the present day sometimes continue to show Ukak in that general location, though its site since 1912 has lain abandoned near the foot of the great sandflow that formed the Valley of Ten Thousand Smokes.

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276 U.S. Coast and Geodetic Survey, "General Chart of Alaska . . . 1890."

277 A. B. Schanz, "Our Alaska Expedition . . . VIII," in *Frank Leslie's Illustrated Newspaper,* LXIII (November 28, 1891), 274.

278 Spurr, "A Reconnaissance in Southwestern Alaska," 91.

279 Spurr and Post, "Report of the Kuskokwim Expedition," map 3.

280 The use of the name "Ukak" for the settlement where Savonoski was located persisted, however. For example, see Sheldon Jackson, "General Chart of Alaska . . . 1899," in Chaffin, *op. cit.*, 244-245.

281 Atwood, *Geology and Mineral Resources,* plate VI.

The historical record, at least that portion available for use in this study, reveals little more about the story of Savonoski. A series of descriptions of the village left by travelers over the Katmai Trail is presented in the next two chapters, and from them one can gain some idea of the economic advantages which accrued to the community by virtue of its being the transfer point between water and land transportation.

One thing seems certain. The residents of Savonoski liked their community and its surrounding country. In 1918 P. R. Hagelbarger, a member of a National Geographic Society expedition, interviewed "American Pete," who had been chief of the village until the populace fled in 1912.

"Too bad," said the Eskimo. "Never can go back to Savonoski to libe again. Everything ash. Good place, too, you bet. Fine trees, lots moose, bear and deer. Lots of fish in front of bara-bara. No many mosquitoes. Fine church, fine house."[282]

Perhaps the largest single body of data concerning the history and appearance of Savonoski is the result of an archeological study made by a team from the University of Oregon in 1953. This valuable but all-too-brief collection of information was assembled from an analysis of surviving physical remains and from interviews with former residents and their descendants.

The historic village site is on a terrace on the south bank of the Savonoski River about one-half mile above the large sand and pumice delta at the mouths of the Savonoski and Kukak Rivers. The area of settlement is a grass-covered strip, about 150 yards deep at this point, between the river and a forest of spruce, birch, and cottonwood.

The site contains a number of depressions which seem to mark the locations of multi-roomed, semi-subterranean structures. These are believed to date from prehistoric times; or at least they are thought to be older than the obviously modern dwellings. Remains of fifteen of these later houses are located in a row along the river bank. They are post-contact, single-room, and semi-subterranean. They were in use at the time of the Katmai eruption.

Excavations revealed that one typical modern dwelling was constructed as follows:

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282 Griggs, *The Valley of Ten Thousand Smokes*, 17.

The house is three meters [9.84 ft.] by 3.75 meters [12.3 ft.] in outline. The walls are of split cottonwood logs, 10 to 20 centimeters [3.93 to 7.87 inches] in diameter set vertically, flat side in, around the outside of a log frame. Small logs or poles of spruce, about 15 cm [5.9 inches] in diameter, were used for the framework. Corner posts were used with the plates also resting on the outer wall at each end. The entrance passageway, on the river end, is 71 cm [27.9 inches] wide and 132 cm [51.9 inches] long, built of slabs and poles like the room. In the wall opposite the entrance is a window aperture 71 cm [27.9 inches] square. Additional logs frame the entrance and window, giving greater structural strength to the end walls which must bear the roof load.

Actual height of the walls and entrance passageway was not determined; the present depth of the room is about 1.50 meters [4.9 feet]. Door and window sills are made of lumber from boxes and crates. Four roof stringers were laid the length of the room at about 70 cm [27.5-inch] intervals and rested on the sills of the end walls. The center stringers are about 20 cm [7.87 inches] in diameter, the other two about 15 cm [5.9 inches]. Slabs of cottonwood were laid (as close together as possible) across the stringers. The walls are sodded up to the eaves, and the roof was covered over with a rounded mound of sod, with small poles of spruce, 7 to 10 cm [2.7 to 3.9 inches] in diameter, laid lengthwise to hold the sod in place. The entrance-way was covered across with slabs and also sodded over.[283]

Behind the dwellings is an "uneven row" of storage structures elevated on pilings. These "storage houses," once found throughout the Bristol Bay region, were built by setting spruce logs, about eight to ten inches in diameter, upright in the ground at the corners of a 6 1/2-foot square. About 3 1/4 to 4 feet above the ground stringers were laid on top of the pilings, which were notched to receive them. A floor of roughly squared spruce logs was placed on the stringers in such a manner that it projected about two feet on the front, which was the side facing the river.

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283 Davis, *op. cit.*, 65-66.

The walls, which rested on the floor, were formed of hewn planks about 2 3/4 inches thick and about 7 3/4 or 8 inches wide, "notched and dovetailed together" at the ends. Each wall contained five planks, giving a height of about 3.28 feet. The room enclosed by the walls was about 6 1/2 feet square.

The roof tree or center roof beam was formed of two spruce logs, roughly 10 to 12 inches in diameter, laid side by side and resting on the front and rear walls. The roof sheathing was made of cottonwood slabs which butted together on top of the center beam. Over the slabs was a layer of sod tied down by poles.

The front wall contained a door, about 30 inches square and made of hewn planks. It was hung by either flat strips of leather or pin-and-socket hinges. The door opening was framed with box lumber.[284]

Still farther behind the dwellings, about 65 feet distant, the archeologists in 1953 found the remains of the *kashim* or men's house. Unfortunately, floodwaters had so damaged the site that no structural details could be determined.

The people of Savonoski were much attached to their chapel. It was dedicated to St. Mary, and when the inhabitants deserted their village and moved to New Savonoski after the eruption, they transfered the name to their new chapel.[285]

At Savonoski the church was about 180 feet south of the river at the edge of the forest. From the ruins examined in 1953 it was possible to determine that the chapel was about 32 feet long and 19.7 feet wide, with the longer sides running in an east-west direction.

The walls were constructed of hand-hewn timbers, approximately 4 3/4 inches thick and 7 3/4 inches wide, laid horizontally and notched and dovetailed at the corners. The ceiling beams were spruce logs; the rafters and roof sheathing were cottonwood and spruce poles.

The entrance door was on the east end of the building, and above the entrance on the inside there seems to have been a small loft. The west end formed "a triagonal cove" which was partitioned off by the iconostasis.

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284 Davis., *op. cit.*, 66-67

285 *Ibid.*, 68.

The cemetery was a few feet southeast of the chapel, but no graves could be seen in 1953. There was one grave to the west of the church, but this fenced plot marks the last resting place of a man who died after Savonoski was abandoned and whose body was returned to his old home for burial.[286]

Ukak. What is known about Ukak until it became a settlement clearly distinguishable from Savonoski is treated in the preceding section of this chapter. Thereafter the only information available is that "houses," some of which belonged to the chief at Savonsoki, "American Pete," were situated up the valley of the Ukak River, being collectively known as Ukak.[287] The place evidently was a seasonal camp used by the people of Savonoski for hunting caribou and other animals.

Savonoski River. As was the case from prehistoric times through the Russian period, the banks of the Savonoski River continued to be a desirable location for Eskimo settlements from the time of transfer in 1867 until the Katmai eruption of 1912 covered the entire upper Naknek drainage with a heavy layer of volcanic ash. It has already been observed, during the discussion of the prehistoric inhabitants of this region, that the site known as SR-2, at the junction of the Savonoski and Grosvenor Rivers, may have been occupied seasonally by the people of Savonoski Village as late as 1912.

Similarly, attention has been called to the fact that a site designated as SR-4, on a grassy knoll on the north bank of the Savonoski River about 10 1/2 miles above Savonoski Village and about 3/4 mile below the mouth of Grosvenor River, was occupied during the late Russian period and then on until the time of the Katmai eruption. On the basis of the archeological evidence. D. E. Dumond believes it likely that it was this location, not SR-2, that was seasonally occupied by the Savonoski residents prior to the 1912 ashfall.[288]

In 1953 Roy Fure, who had visited the northern section of the present monument as early as 1914, told University of Oregon archeologists that there was once a native settlement known about 1912 or a few years later as "Old Savonoski" situated about half way down

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286 This description of Savonoski is based upon and closely follows Davis, *op. cit.*, 57-68.

287 Griggs, *The Valley of Ten Thousand Smokes*, 17.

288 Dumond, *Archaeological Survey . . . 1963*, 22-23.

the Savonoski River from the mouth of Grosvenor River. This village, said Fure, had from 12 to 15 barabaras, and its inhabitants moved to Savonoski on Lake Naknek about 1905-1907.[289] Thus far no archaeological site corresponding to this description has been located.

Another site which may have been used by the natives of of Savonoski as a seasonal camp was situated farther upstream, on the left bank of Springwater Creek at the point where it entered Savonoski River. In 1961 Mike Macarlo, an Eskimo who had lived at Savonoski as a young boy before the 1912 eruption, said the site was occupied in this manner until everyone was driven away by the ashfall. Aerial reconnaissance in 1963 failed to reveal any trace of this site, which is designated as SR-3 on the Archeological Base Map of Katmai National Monument.[290]

Perhaps site SR-3 was the settlement called "Naouchlagamut" which J. E. Spurr heard of when he visited Savonoski in 1898. This native village was reported to be on the south side of the Savonoski River about 15 to 17 miles above its mouth.[291]

Grosvenor Lake. Roy Fure said in 1953 that when he visited the northern section of the present monument in 1914 he observed three barabaras on the neck of land separating Grosvenor and Coville Lakes. These structures, according to Fure, were in good condition, indicating the possibility of occupancy up to the time of the eruption.[292]

Fure's observations are supported by archeologists, to whom this site on the lagoon between the two lakes is known as GL-1. Evidence indicates that this locality might have been occupied between A.D. 1500 and 1912, but D. E. Dumond believes it most likely that the site was not inhabited before 1750.[293]

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289 Davis, *op. cit.*, 69.

290 Dumond, *Archaeological Survey . . . 1963*, 24.

291 Spurr and Post, "Report of the Kuskokwim Expedition," map 3.

292 Davis, *op. cit.*, 69.

293 Dumond, *Archaeological Survey . . . 1963*, 23.

Brooks River. Not much is known about native occupation of the Brooks River vicinity between 1867 and 1912. Despite the uncovering by archeologists of the remains of substantial dwellings which could have been used the year round, it is probable that occupation was seasonal in nature during much of this period.

When Ivan Petroff passed this way early in October, 1880, he found "a numerous party" of natives fishing at the base of the present Brooks Falls. "A village was formerly located here," he later wrote, implying that none existed at the time of his visit.[294] In 1961 Mrs. Pelagia Melkanak said that an unspecified number of natives were fishing at Kulik, the Aglegmiut name for Lake Brooks, at the time of the 1912 eruption.[295]

In 1963 archeological testing was conducted at a site known as BR-2, on the shore of Naknek Lake about 500 meters south of the mouth of Brooks River. The recovered artifacts dated from about A.D. 1900. This "post-contact debris" was situated both below and above the volcanic ash layer deposited in 1912. No items attributable to Russian occupation were uncovered.[296]

Naknek Lake. In 1961 Mike Macarlo reported that during the spring of 1916 his people of Savonoski Village had camped at Reindeer Point in the western part of Naknek Lake. Archeologists searched this area in 1963 but could find no trace of occupation.[297]

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294 "Alaska's Census," in *New York Herald*, January 11, 1881, p. 5.

295 Report to National Park Service . . . on Tape Recordings, MS, 7.

296 D. E. Dumond, Archaeological Survey of Katmai National Monument, Alaska . . . Progress Report, September 11, 1963 (typewritten, [n.p.], MS, 1-2.

297 Dumond, *Archaeological Survey . . . 1963*, 24.

CHAPTER VIII

"The Dangerous Katmai Pass"

It is one of history's little ironies that the Katmai Pass route across the Alaska Peninsula did not become well known to the world until the era of its greatest usefulness had passed. For untold centuries this difficult track served the native commerce in walrus tusks and other commodities between Bristol Bay and Shelikof Strait; and during some six decades of Russian rule it apparently saw considerable use by European traders and priests as well as by the Eskimos and introduced Aleuts.

But little word of this activity filtered out to the geographers and other scientists of Europe and America who eagerly sought every shred of available information on Alaska. As for the man in the street, Katmai and Katmai Pass were absolutely beyond ken and even beyond dreaming. Yet in little more than four decades after the American flag was raised over Alaska in 1867, Katmai Pass was, if not exactly a household phrase, a name at least known, generally unfavorably, by thousands of readers of newspapers, magazines, government reports, and novels in the United States, Canada, and much of western Europe. And there were, perhaps, several hundred people who during that period actually traversed the dreaded Katmai trail through the Aleutian Range.

The veil of obscurity which hid the Katmai pass route and, indeed, most of Alaska from the Western world during the Russian period probably was not in the main due to an official policy of secrecy. The Russian government permitted the publication of a number of detailed maps of Alaska, at least two of which showed the Katmai trail; and Peter Tikhmeneff's great Historical Review of the Origin of the Russian American Company, containing a number of references to the Katmai region, was published in 1861 and 1863. Russian officials often seem to have talked freely to seafarers of other nations when they touched Alaskan shores.

Yet the published Russian materials had a rather limited circulation outside their county of origin, and the language barrier confined their use to a narrow circle. The Alaska Peninsula was one region where the Russian American Company had early been able to enforce a monopoly, and foreign trading vessels seldom reached there. The records concerning commercial and religious activities in the region remained inaccessible in scattered archives. Thus, though the coastline was known in some detail through a

number of official explorations and published maps, the interior of the peninsula and the activities that took place there remained a mystery to the greater part of the world.

The transfer of Alaska to the United States changed this situation. There was a sudden demand on the part of Government officials, commercial interests, scientists, prospectors, and even the general public for information about the newly acquired territory. By the end of the century a number of exploring expeditions, missionary and commercial enterprises, and resource surveys, to say nothing of at least two major gold rushes, had fairly well opened up the interior of Alaska, and a flood of publications had revealed its secrets to the world. The Alaska Peninsula and the Katmai region received a share of this attention.

As far as the American public was concerned, one of the first intimations of the existence of the Katmai Pass route came about the time the ink was drying on the treaty of cession. At the request of the State Department, the United States Coast Survey prepared a large map of Alaska. Published early in 1867, this splendid chart showed by dotted line a trail running northwest from "Katmay" on Shelikof Strait to the head of a large unnamed lake drained by the "R. Naknek."[1]

Another map issued by the Survey two years later was even more specific. A dotted line between Katmai and a settlement labelled "Ukak" at the upper end of "Naknek L." was marked "portage."[2] Undoubtedly, however, few persons took particular notice of these indications of the ancient Katmai route.

Perhaps even fewer members of the general public saw the delineation of the trail which appeared in an obscure pamphlet issued in Paris during 1874 and which was a result of a remarkable journey made in the name of science along the southern coast of the Alaska Peninsula during the fall of 1871. Alphonse Louis Pinart, a wealthy young Frenchman with a passionate interest in native

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1 U.S. Coast Survey, "North Western America, Showing the Territory Ceded by Russia to the United States . . . 1867" (map), (2nd ed., [Washington, D.C.], May, 1867).

2 "Alaska and Adjoining Territory, 1869," map 20 in U.S. Coast Survey, *Report of the Superintendent . . . 1867*, 40 Cong., 2 Sess., House, Ex. Doc. 275 (Ser. 1344).

American languages, left Unalaska Island in the Aleutians on September 4. Traveling by bidarka and aided by Aleut crews, Pinart after many adventures reached the "Bay of Poulalouk" on the coast of Shelikof Strait toward the end of October.

This harbor was almost certainly the present Puale Bay, only about twenty miles south of the present Katmai National Monument. There Pinart learned of the portage which led by way of Becharof Lake to Bristol Bay, and on the cape just north of the harbor he collected fossil shells of a mollusk, *Monotis salinaria*. Four years later a scientific analysis of this animal was published under his sponsorship.[3]

Hampered in his observations by foul weather, Pinart decided to end his voyage as quickly as possible. He moved on up the coast to the village of Katmai, where he arrived on October 24. Made welcome by the sole European resident among the population of 150 "Kaniagmioutes," he noted that "quite a large business" in furs was carried on with villages in the interior and on Bristol Bay by way of a portage up the Katmai River, past "Lake Naknik," and down that body of water's outlet to the sea -- a succinct description of the Katmai Pass route.

Leaving Katmai on November 4, 1871, Pinart followed the usual practice of the natives and paddled northeastward to the vicinity of Takli Island before heading across turbulent

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3 Alphonse Louis Pinart, *Voyages à la côte nord-ouest de l' Amérique exécutés durant les années 1870-72* (Paris, 1875), vol. I, part I [all published], pp. 33-34; plate A.

Shelikof Strait.[4] The traverse to Kodiak Island was not actually made until November 8.[5]

Pinart made a subsequent journey to Bristol Bay, Nushagak, and Lake Iliamna, but the map he prepared in 1873 to show the routes of his travels demonstrates that he was able to pick up little in the way of geographical information concerning the upper peninsula that was not already delineated on earlier charts. His contribution to geographical knowledge of the Katmai-Naknek Lake area consisted of recording a few place names and indicating a mountain ridge between Katmai and the lake. He did depict the trail linking these two points, but in this he had been anticipated by the Coast Survey maps of 1867 and 1869. Nevertheless, in 1874, the Société de Géographie awarded Pinart its gold medal for the most important geographical study reported during the previous year.[6]

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4 That this practice was customary is shown, among other evidence, by the following passage from the report of the Eleventh Census: "A few miles to the northward of Katmai a group of small, barren islands forms the point of departure for native parties intending to cross in canoes Shelikhof straits." U.S., Census Office, *Eleventh Census*, 73.

5 This account of Pinart's journey is based largely upon Pinart, *Voyage à la côte nord-ouest d'Amérique d' Ounalashka a Kodiak*, [5]-24, and appended map. A manuscript diary covering most of the journey also exists, but it breaks off before Katmai is reached. Alphonse Louis Pinart, Correspondence and Papers, 1870-1885, MS, vol. 3. For Pinart's life and scientific contributions, see Hubert Howe Bancroft, *Literary Industries* (San Francisco, 1890), 621-623; Ross Parmenter, *Explorer, Linguist and Ethnologist* . . . (Los Angeles, 1966).

6 Parmenter, *op. cit.*, 7. Pinart's map, dated December, 1873, is published in his *Voyage* . . . (1874). It may be compared with such earlier maps as H. J. Holmberg, "*Karte des Russischen Amerika nach den neuesten Quellen, 1854,*" (Helsingfors, 1855); C. S. Bulkley, "Map of Russian America or Alaska Territory Compiled from Russian Charts . . ." (San Francisco, 1867); and the U.S. Coast Survey map of 1867 heretofore cited. Pinart's observations in the Aleutians and outer peninsula evidently were more significant than those in the Katmai area.

Even though Pinart found that a considerable fur trade across the peninsula was conducted from Katmai, he undoubtedly used good judgment in not giving more detailed attention to the route principally employed for this commerce. At that time the Katmai trail was rapidly declining in importance.

The next traveler known to have left a description of the portage made the state of affairs quite clear. Ivan Petroff, special agent of the Tenth Census, reached Katmai during October, 1880, after a journey from Bristol Bay by the Naknek route.

"Katmai," he reported with some exaggeration, "was once the centre of all the peninsula trade, and the point of transit for supplies to Bristol Bay, and on through Nushegak and Kolmakoosky. Its former glory has departed; it has been superseded by a rival in the north at Cape Douglass, as far as trade and traffic in furs is concerned. The transit business has long been a thing of the past."[7]

Strangly enough, Petroff himself seems to have been responsible for a new wave of interest in the Katmai Pass route. At least his description apparently was the first of a series which served to bring the trail to widespread public notice.

Ivan Petroff was a man of mysterious antecedents and erratic character, but he was also a brilliant linguist, an able historian, and a devoted public servant. He had spent some time in Alaska as a United States Army enlisted man and as an agent collecting source materials for the San Francisco historian, Hubert Howe Bancroft.

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7 "Alaska's Census: Conclusion of Mr. Petroff's Enumerating Journey," in *New York Herald*, January 11, 1881. The "Kalmakoosky" mentioned by Petroff was the Russian trading post on the Kuskokwim River, Kolmakovski Redoubt, which in 1841 succeeded earlier posts on the same stream and which was abandoned in 1866. VanStone, *Eskimos of the Nushagak River*, 11-12. As has been seen, the actual importance of the Katmai portages during the Russian period was considerably less than Petroff's words would indicate.

He was also editor of the *Alaska Appeal*, a San Francisco journal supported by the Alaska Commercial Company.[8]

His work for Bancroft took him to Washington, D.C., early in 1880, and there he quickly acquired a reputation as an expert on Alaska. He testified before a Congressional committee and even had a chat with President Rutherford B. Hayes. Behind his rapid rise in the estimation of Government officials probably lay the subtle hand of the powerful firm that backed his newspaper.[9]

Thus it is not surprising that when the President on April 20, 1880, signed an act extending the work of the Census Office to Alaska, Ivan Petroff was appointed on that same day by General Francis A. Walker, Superintendent of the Census, to conduct the enumeration. Although the task was obviously an impossible one in view of the time allowed and the great amount of economic and sociological information desired, Petroff was elated. He left Washington

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8 The latest and most complete account of Petroff's checkered career is Richard A. Pierce, "New Light on Ivan Petroff, Historian of Alaska," in *Pacific Northwest Quarterly*, vol. 59 (January, 1968), 1-10. See also Morgan B. Sherwood, "Ivan Petroff and the Far Northwest," in *Journal of the West*, II (July, 1963), 305-315; Richard A. Pierce, "A Note on 'Ivan Petroff and the Far Northwest,'" in *ibid.*, III (October, 1964), 436-439; Theodore C. Hinckley and Caryl Hinckley, eds., "Ivan Petroff's Journal of a Trip to Alaska in 1878," in *ibid.*, V (January, 1966), 25-70; and Morgan B. Sherwood, *Exploration of Alaska, 1865-1900* (Yale Western Americana Series, 7, New Haven, 1965), 57-69.

9 Pierce, "New Light on Ivan Petroff," 6. The last issue of the *Alaska Appeal* was dated April 15, 1880, five days before Petroff entered Government employment as a census agent. Hinckley, "Ivan Petroff's Journal," 31.

the next day, embarked on what he knew was "more of the nature of an exploring voyage than a detailed investigation."[10]

Traveling from San Francisco by the only steamer of the season for western Alaska, he was at Unalaska three weeks later. After a tour in a small trading vessel of the region from the Shumagin Islands to the extremity of the Aleutian Chain, he sailed northward to the Pribilofs and St. Michael. He next outfitted himself with a bidarka and two native guides and started up the Yukon River, towed by a trading steamer. Near the mouth of the Tanana cold weather warned him that it was time to be heading for Kodiak, his "ultimate destination" and the nearest port at which he could hope to catch a vessel for home so late in the year.[11]

Retracing his route down the Yukon to "Ikogmute," later known as Russian Mission, he crossed southward by stream and land portage to the Kuskokwim River.[12] He descended the Kuskokwim to the Bering Sea and made his way along the shore and by inland waterways to Nushagak on Bristol Bay. There he was warmly welcomed by John W. Clark, the resident Alaska Commercial Company trader.

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10 "Alaska's Census: The Enumerating Journey of Mr. Petroff Through the Territory," in *New York Herald*, January 10, 1881. His proposed route was extremely ambitious. At St. Michael he explained his plans, which even at that date included a portage across the peninsula to Katmai, to Captain Calvin L. Hooper of the Revenue Cutter *Corwin*. "The proposed route of Mr. Petroff has never been travelled by white men, and is both difficult and dangerous," the officer reported to his superiors. "To undertake such a journey requires both energy and courage of no ordinary kind." C. L. Hooper, *Report of the Cruise of the U.S. Revenue-Cutter Corwin . . . November 1, 1880* (Washington, 1881), 19.

11 "Alaska's Census," in *New York Herald*, January 10, 1881; January 11, 1881; Pierce, "New Light on Ivan Petroff," 6.

12 Petroff to his wife, Ikogmute, Yukon River, August 2, 1880, in Ivan Petrov, Correspondence and Papers, 1874-1890, MS.

But winter was fast approaching, and Petroff dared spend no more than four days resting from his strenuous journey. After obtaining provisions and warm clothing he launched his frail bidarka into the teeth of a howling gale on September 22. His goal was the mouth of the Naknek River, "the western terminus of one of the routes across the Alaska Peninsula."

The weather was so stormy that it took seven days to coast Nushagak Bay and cross Kvichak Bay, a distance Petroff estimated at less than fifty miles. Glad to leave the sea for a while, he ascended the Naknek River and at its head floated onto Naknek Lake. This body of water made a great impression on Petroff. Upon his return home he described it for the *New York Herald:*

> The scenery around this inland sea displays to the delighted traveller all variations from rolling moorland to wooded uplands, rocky cliffs, and further on the grandest Alpine scenery -- tremendous glaciers, rushing mountain torrents and waterfalls, black forests, narrow defiles and gorges -- all of which are reflected in the mirror-like surface of the lake. The reindeer [caribou], in large herds, traverse this region and dot the mountain sides high up into the masses of eternal snow, while the forests and thickets hide the prowling bear and occasional wolf and wildcat.

At the present Brooks River, far up the south shore of the main lake, the census agent encountered a "numerous party" of natives fishing below the falls. Never one to spoil a good story by understatement, he later pictured this six-to-eight-foot-high cataract as "a waterfall of considerable height." But he did not exaggerate in describing the beauty of the vivid red humpback salmon or "gorbusha" as they darted about in the clear waters of the broad stream.

Petroff noted that a native village had once been located at Brooks River, and he recorded a current legend that "in times gone by" the settlement had been surprised in the night by a band of marauding Aleuts. The entire population was massacred except for one man who hid under the waterfall and survived to tell the tale.

East of Brooks River Petroff entered the part of the lake known today as Iliuk Arm. In dramatic terms he described this branch as being "almost separated by a dam of mountains, communicating with the main body by a gap of less than half a mile in width," while on all sides "stupendous heights" rose "almost perpendicularly from the surface" and reached "far into the clouds."

"In this funnel-like basin," he reported, "the winds and squalls hold constant carnival, keeping the small sheet of water almost constantly in violent commotion. The waves rise to a surprising height and make travel across it exceedingly dangerous. To this section of the lake the natives have given the very appropriate appellation of Nanevagilnuk (never at rest)."[13]

On several occasions during his career Ivan Petroff showed a proclivity to provide his employers with what he thought they would like to have, regardless of whether or not ethical procedure had to be violated in the process. It was quite in keeping with his character, therefore, for him to decide that the magnificent body of water over which he had been traveling since leaving the Naknek River should be named Lake Walker in honor of the Superintendent of the Census. He so christened it, announcing on his return that the appellation would "cling to it hereafter."[14]

Petroff later claimed he had found the lake to be without a name. The natives who lived near it, he said, merely referred to it in their own tongue as "the lake."[15] It is true that two maps he probably used in his enumeration, the 1867 charts issued by the Coast Survey and by C. S. Bulkley, did not specifically name the body of water drained by the Naknek River, but the Coast Survey's 1869 map, which he definitely did consult before writing his final report, clearly indicated and labeled "Naknek L."[16] And the man who wrote a large part of Bancroft's *History of Alaska* and who was well acquainted with the source materials in Bancroft's library should have known that Feodor P. Lütke recorded the name "Naknek Lake" as early as 1836 and that Alphonse Pinart mentioned the "lac de Naknik" as an accepted geographical designation in 1874.[17]

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13 This account of Petroff's trip from the Kuskokwim to the upper end of Naknek Lake is based upon, and all quotations are from, "Alaska's Census," in *New York Herald*, January 11, 1881.

14 *Ibid.*

15 *Ibid.*

16 Petroff, "Report," *Tenth Census*, 83.

17 Orth, *Dictionary of Alaska Place Names*, 671. Vasiliev, a Russian naval officer, in 1831 reported the name of the lake to be "Akulogak." *Ibid.* Pinart, *Voyage*, 24.

Petroff strove valiantly to gain acceptance for the new name. "Lake Walker" appeared on the map accompanying his own report on the Tenth Census in Alaska and on his map in Bancroft's *History* published in 1886. But the designation did not "take." By 1891 travelers on the Katmai trail were using "Lake Nak Nik" as the routinely accepted name, and this was prior to the painful incident of the falsified translation at the State Department which in 1892 brought Petroff's career of public service to a humiliating conclusion and discredited him with Government officials and the public.[18]

One other place name given by Petroff has had a happier fate. An illustration in his final report depicts the present Iliuk Arm flanked by a jagged mass of peaks identified as "Mt. Kakhtolinat." Evidently a native term first recorded by the census agent, the name, now written "Mount Katolinat," is still applied to a 4,800-foot pinnacled ridge rising out of Naknek Lake.[19]

After a tempestuous passage on Iliuk Arm, Petroff reached the head of the lake on October 3, 1880. There, at a "lonely village," undoubtedly Savonoski or Ikkhagmute as Petroff called the place in his census report, the expedition found itself at the end of water travel. The bidarka that had carried the travelers for more than 2,000 miles by Petroff's estimate was laid up, and preparations were "simply and rapidly" made for a dash on foot over the mountains to Katmai.

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18 A. B. Schanz, "Our Alaska Expedition . . . VIII," in *Frank Leslie's Illustrated Newspaper*, LXIII (November 28, 1891), 274; Pierce, "New Light on Ivan Petroff," 8-10. In fairness to Petroff it should be noted that Francis A. Walker was entirely deserving of the honor his census agent wished to bestow upon him. A brilliant economist with a distinguished Civil War record, Walker left his position as Superintendent of the Census to become president of the Massachusetts Institute of Technology.

19 Petroff, "Report," *Tenth Census*, ff. p. 24; Orth, *op. cit.*, 502.

The next morning the party, now numbering four men, set out on the trail to the south. Each man carried a pack. With them went an elderly villager, the keeper of the local church, who had decided to join for no other reason than to buy fifty cents worth of nails at the Katmai trading store.[20] When later describing his trip for the press, the census agent cited this action as evidence of how little the natives valued time or heeded exertion and hardship. But in his official report he added that the nails were needed to fasten the church door and praised this "shining example of self-denial and self abnegation."[21]

Petroff later recognized that a piece of rare good fortune had favored his party. The four days required for the portage were marked by fine weather. Even so he found the passage tedious and difficult, with progress impeded by the "crossing of eight turbulent mountain streams, each from knee to waist deep and of considerable width."[22]

"The third day of the journey," he recalled during the next January, "was employed entirely in crossing glaciers and passing through rocky defiles at the summit of the range forming the backbone of the peninsula." Only one later traveler seems to have mentioned traversing a glacier while on the Katmai trail, so apparently Petroff exaggerated slightly in speaking of "glaciers."[23] But this was a very minor deviation from the truth on the part of one who could prevaricate in monumental style when he set his mind to it.

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20 It is not clear from Petroff's words whether the party numbered four without the additional man or four including him. Since ordinarily only three men could fit in a single bidarka, the latter alternative seems the more likely; but there is the possibility that Petroff hired an additional member of his party at Savonoski.

21 Petroff, *Population and Resources of Alaska,* 44.

22 In his official report he gave the number of streams as seven, "waist deep every one of them." *Ibid.*

23 A. B. Schanz, "Our Alaska Expedition . . . VIII," in *Frank Leslie's Illustrated Newspaper,* LXXIII (November 28, 1891), 274.

Petroff was in accord with most other west-to-east travelers, however, in reporting that the descent from the summit pass to Shelikof Strait was "exceedingly rapid and precipitous" until the wooded valley of the Katmai River was reached. Then progress was once more slowed by the necessity of fording the "innumerable" branches of that stream and by the difficulty of breaking a path through the intervening thickets.

On this section of the route bear tracks and trails were seen in abundance. These signs indicated to Petroff that "great numbers" of these animals were in the vicinity, feeding on berries and fishing in the water. Since the inhabitants of Katmai were sea otter hunters, he reported, they "pay little or no attention to the bears," who "seem to have it all their own way."

It was with considerable relief, therefore, that the agent and his companions met a Katmai "chief" while descending the river. This man had heard of their approach and was waiting with canoes to conduct the travelers to his village near the coast. The short remaining distance was thus covered in comparative comfort, though the temperature was below freezing.

When the expedition reached Katmai the entire population turned out to greet them. Bells were rung and musketry fired. "It was the first time," claimed Petroff, "that any man had ever arrived there overland from St. Michael and the far off Yukon."

Petroff's "Nushegak oarsmen" wasted little time in Katmai. They quickly set out on their long return journey, and the census agent was left to make his own arrangements for continuing his voyage. He had hoped to meet a trading schooner on the coast, but it had long since departed. There was no help for it but to try to navigate the treacherous Shelikof Strait by bidarka.

A crew was engaged, but so evil was the reputation of the strait for "heavy gales and mountainous sea at the least provocation," that the men insisted on taking two canoes. They also demanded adherence to the customary practive of hiring a weather-wise individual -- dubbed an "astronome" by the Russians -- to counsel parties intending to cross to Kodiak Island.

Bad weather delayed the departure for nearly a week, but at last the wind subsided and the little flotilla left Katmai under a volley of gunfire and the general acclamation of the populace. The frost was so severe that it was necessary to cut through thin ice at the mouth of the river in order to gain the open sea. The first day's run was northward up the coast to the usual point of departure for the channel crossing.

There Petroff learned that the mere presence of the mighty "astronome" was no assurance of good weather. Another period of gales and rain set in, and the voyagers were forced to spend the next six days ashore trying to shelter themselves under a leaky tent.

At last, on October 19, a favorable day dawned, but the "astronome" decreed delay. When noon came and went Petroff gave up all hope of proceeding that day, although a calm still prevailed. Then suddenly his "astronomical highness" issued the order, "Now go; fair weather will attend you."

The two bidarkas put to sea at once, but the oracle was not in them. As Petroff later recounted, the "astronome" remembered that he had urgent business at home and wisely remained behind.

For two hours the frail craft made rapid progress over a glassy sea, but when they were about midway across the strait, which Petroff estimated to be twenty-six miles wide, a puff of wind ruffled the surface. In five minutes a roaring gale had raised a terrifying sea. Huge rollers came "hissing and thundering" down the channel, and the small boats were nearly overwhelmed. For eleven more hours the crew struggled to make headway, and Petroff believed all would have been lost had not the moon come up and enabled the men to see the combers as they approached.

Finally a landing was made through the surf on Kodiak Island. "As if at the word of command," recounted the agent, "the natives went down on their knees, thanking God for their marvellous deliverance." They assured Petroff they had never before made such a crossing.

Once over the strait, it was relatively easy to coast along the shore to the town of Kodiak. As the boats landed at the waterfront, Petroff "with a sigh of relief" stepped onto the beach,

heartily glad in the certainty that his bidarka journey of 2,500 miles was at an end. Within about two weeks he was on a schooner bound for San Francisco.[24]

During January, 1881, the *New York Herald* printed two long articles under the title, "Alaska's Census."[25] They consisted of a detailed and colorful description of Petroff's remarkable journey of the previous year, and the second installment was largely devoted to the trip from Nushagak to Katmai. The scenes and actions were presented so vividly that the account may have been written by Petroff himself; or at least it came from the pen of someone who interviewed the agent with unusual skill and perception.

These articles reached a large audience. With their almost ecstatic word pictures of Petroff's Lake Walker, they must have convinced at least some people that the Naknek region was worth seeing. And undoubtedly they left an impression that the Katmai trail was a practicable route across the base of the Alaska Peninsula.

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24 Petroff to his wife, "Kadiak," October 30, 1880, in Petrov, Correspondence and Papers, MS. Except where otherwise indicated, the account of Petroff's journey fron Naknek Lake to Kodiak is based on "Alaska's Census," in *New York Herald*, January 11, 1881; and all unidentified quotations are from that source.

Due to Petroff's known tendency to fabricate stories about himself as well as to falsify documents, doubts have been expressed as to the authenticity of his claim to have made a journey of 8,700 miles, some 2,500 of which were traveled by canoe, during a relatively few months in 1880. The recent discovery of Petroff's correspondence with his wife, as well as other independent evidence, has placed such questioning at rest. Beyond all doubt he made the trip substantially as claimed.

25 *New York Herald*, January 10, 11, 1881.

Later in 1881 the Government published Petroff's preliminary report on the Tenth Census for Alaska.[26] The complete report -- a large volume with handsome illustrations -- appeared in 1884; it was also issued as a Congressional document.[27] The demand for this work was so great that it was printed again in 1900 as a section in a Senate report entitled *Compilation of Narratives of Explorations in Alaska.*[28]

The format of his report did not allow Petroff much latitude in which to expound upon the beauties of Lake Walker or to describe his journey over the Katmai trail. Yet he managed to give both topics some attention.

In the preliminary version published in 1881 he several times mentioned the portage from Katmai to Bristol Bay by way of Lake Walker, indicating that in former times at least it had been a route well used by traders. The passage, he stated, usually required from three to seven days, depending on the weather and would "give to the traveler a lasting impression and a correct idea of the Alaska Peninsula, seeing as he travels from Katmai to the bay all the phases of the country."[29]

These last words would seem to indicate that the fertile brain of Ivan Petroff had conceived the idea that the "numerous and strikingly beautiful land-locked lakes" and the "Alpine heights" of the Naknek region might be an attraction for visitors to Alaska. That this is exactly what he had in mind seems evident from another remarkable passage. "When we made this

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26 Ivan Petroff, *Population and Resources of Alaska,* 46 Cong., 3d Sess., House Ex. Doc. No. 40 (Ser. 1968) (Washington, D.C., 1881).

27 Ivan Petroff, "Report on the Population, Industries, and Resources of Alaska," in U.S., Census Office, *Tenth Census,* vol. VIII (Washington, D.C., 1884). Also published in 47 Cong., 2 Sess., House Misc. Doc. 42, Part 8 (Ser. 2136).

28 56 Cong., 1 Sess., Senate, Report 1023 (Ser. 3896), 53-281. This edition lacks the illustrations, map, index, and lists.

29 Petroff, *Population and Resources of Alaska,* 44. For other mentions of the route or Petroff's use of it, see *ibid.,* 32-33, 86.

portage last October," he wrote, "we were struck by the fact that the tourist might land at Katmai, and in one day's foot travel stand with us at the summit of a mountain pass, the divide proper of the peninsula, where he would be compassed on every hand by the grandest visions of Alpine scenery, snows, and glaciers."[30] Petroff was indeed a prophet, though far ahead of his time.

The complete document, published in 1884, contained an attractive but highly romantic colored view of Lake Walker.[31] "The settlement of Katmai," Petroff wrote in that version, "was once the central point of transit for travel and traffic across the peninsula." Three different routes converged there, he added, and even yet the natives living near Lake Walker came across the range to Katmai to shop and to dispose of their furs in preference to making the canoe voyage to Bristol Bay.[32]

Petroff's report for the Tenth Census has been described by one authority as one of "the three most influential books on Alaska published in the nineteenth century."[33] Alfred Hulse Brooks, long dean of Alaska geologists, called it "the most notable contribution to the knowledge of the geography and resources of Alaska."[34]

A book of such prestige and such wide distribution must have been read during the next three decades by many persons

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30 Petroff, *Population and Resources of Alaska*, 33.

31 Petroff, "Report," *Tenth Census*, VIII, ff. p. 24. The original watercolor upon which this illustration was based was for a time in the Petroff correspondence in the Bancroft Library. The painting has since been returned, and a photographic negative of it seems to have been misplaced. Petroff was a reasonably good artist, and it is interesting to speculate upon the possibility that he may have made the original drawing.

32 *Ibid.*, 25.

33 Sherwood, *Exploration of Alaska*, 57.

34 Alfred Hulse Brooks, *The Geography and Geology of Alaska* U.S. Geological Survey, Professional Paper No. 45, Washington, 1906), 121.

contemplating travel in Alaska. And tucked away in some of their minds at least must have remained the concept that a well established trail led from Bristol Bay to Katmai through the Naknek drainage.

Despite this publicity little is heard about travel over the Katmai trail during most of the decade following Petroff's exploit. Father Vasili Shishkin, Greek Orthodox priest at Nushagak, is known to have covered part of the route in January, 1883, when he ascended the Naknek River and crossed "Walker Lake" to the village of Ikkhagamut (the later Savonoski) at its upper end. After ministering to the religious needs of his flock there he went on to other sections of his district by way of Iliamna Lake and Cook Inlet. During a separate trip in the late summer of that year he traveled from Kenai to Kodiak on a schooner, then crossed to Katmai and returned to his mission headquarters in Nushagak, presumably by the Katmai trail.[35] Apparently such long trips were annual affairs for the priest, but little word of his travels reached the outside world.[36]

Then, in 1889, the Katmai portage suddenly returned to public attention as the result of its use by an extremely wealthy and somewhat notorious British nobleman. Hugh Cecil Lowther, fifth Earl of Lonsdale, was young, dashing, and a great sportsman. He claimed that he had once defeated John L. Sullivan in a secret boxing match in New York; and he and his beautiful wife, Lady Grace Cecilia Gordon, had spent some time on a Wyoming cattle ranch in the lean days before he succeeded his brother to the title and to the enjoyment of one of the largest incomes in England.

Unfortunately for his reputation in the Victorian era, he also apparently inherited certain predilections of his great uncle, the second Earl, who had died in the arms of a well-known opera singer. Young Hugh fell madly in love with an actress, and his indiscretions were soon made known to the newspapers by the woman's husband. It was at this point that Lord Lonsdale decided to make a long trip to the Arctic regions of North America.

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35 Documents Relative to the History of Alaska, MS, II, 145-146.

36 VanStone, *op. cit.*, 36. Katmai was not in Father Shishkin's district; therefore he probably did not visit there as frequently as he did the settlements in the Naknek drainage.

Various motives for the journey have been given. The earl's authorized biography says only that the Hudson's Bay Company offered its assistance should he want to see this "unknown" part of the world.[37] A less reverent account, however, asserts that Queen Victoria was displeased with Hugh's philandering and dropped a hint that he should go abroad until the scandal blew over. Accordingly, the trustees of Lonsdale's estate brought to his attention the fact that a Scottish naturalist society was looking for someone to collect animal specimens from northern Canada. The earl found it opportune to volunteer for the task.[38]

Whatever the reason, Lonsdale sailed from Liverpool during February, 1888, and upon arrival at Montreal was met by Sir Donald Smith, former chief officer of the Hudson's Bay Company in Canada. Assisted by that great trading concern, he proceeded by various means of transportation, including railroad, horse sleigh, dog sled, boat, and river steamer, to Winnipeg, the Saskatchewan River, Ile à la Crosse, Lake Athabasca, Great Slave Lake, and the Mackenzie River. Descending the latter to the Beaufort Sea and traveling eastward along the Arctic shore, he visited Cape Bathurst and Banks Island.[39]

He then returned part way up the Mackenzie to Peel River. From that stream he packed overland to the Porcupine River, which he followed westward into Alaska to Fort Yukon. According to his authorized biography, Lonsdale there heard of the gold mining then going on in the Klondike area and made a side excursion to Fortymile River to see the operations for himself. From one pannikin of gravel, it is claimed, he extracted enough gold to fill a wine glass. Lonsdale's report to

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37 Lionel Dawson, *Lonsdale: The Authorized Life of Hugh Lowther, Fifth Earl of Lonsdale, K. G., G. C. V. O.* (London, 1946), 60.

38 Douglas Southerland, *The Yellow Earl: The Life of Hugh Lowther, 5th Earl of Lonsdale . . .* (London, 1965), 80-84.

39 The statement that Lord Lonsdale visited Cape Bathurst and "Banks' Land" is based upon information he gave the newspapers upon arrival in San Francisco. *The Daily Examiner* (San Francisco), April 24, 1889. This press report is inaccurate in several other respects.

the governor general of Canada is supposed to have inspired that gentleman to send out an official surveying party to the Yukon and thus to have "set the machinery in motion" for the Klondike Gold Rush.[40]

Be this as it may, when the earl reached San Francisco he told newspaper reporters that he had talked with miners on the Yukon River and had learned that the gold, while rich in spots, was too scattered to prove very profitable. "I would not recommend going up there to hunt gold," he declared with emphasis.[41]

From Fort Yukon Lonsdale descended the Yukon River to Russian Mission, where he once more took to travel by dog team for the long overland march by way of the Kuskokwim River to Nushagak on Bristol Bay. Winter had set in, and on November 24 he recorded a temperature of 62° below zero. Nushagak was reached on December 16, 1888.

Despite the desertion of his companion, a trader named Belkoff who made off with the dog harness, Lonsdale decided to push on with his Eskimo and Indian guides to Kodiak. Little is known at present of his route except that he crossed the mountains to Katmai. Upon his arrival in San Francisco he said he had traveled via "Ilanna river [Kvichak River, outlet to Iliamna Lake ?], Pakwik river [Naknek River, near the mouth of which was Pawik village ?], and Sevenofski [Savonoski]."[42] Although this description leaves much to be desired, it seems clear that the titled adventurer crossed from Savonoski to Shelikof Strait by the well-known trail over Katmai Pass.[43]

A blizzard caught the party as it was crossing the Aleutian Range. Lonsdale continued on through the storm, though doing so cost the lives of most of the dogs and even, it is said, nearly resulted in his own death. When he reached Katmai, his sledge was alone. The rest did not struggle in until two or three days later.

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40 Dawson, *op. cit.*, 83-84.

41 *The Daily Examiner* (San Francisco), April 24, 1889.

42 *Ibid.*

43 An official Government report published in 1893 definitely states that Lonsdale used the Katmai Pass route. U.S., Census Office, *Eleventh Census*, 72.

Available accounts are rather vague and contradictory as to the exact time of Lonsdale's journey across the peninsula. Evidently the trip occurred during late January and early February, 1889. He remained several weeks at Katmai until he was picked up by an Alaska Commercial Company vessel and taken to Kodiak. From there he sailed in the company's steamer *Bertha* to San Francisco, where he arrived on April 23, 1889.[44]

Lord Lonsdale was engagingly modest in summing up the results of his adventure for the San Francisco *Examiner*. It was "virtually a sporting trip," he said, undertaken "merely to obtain specimens, [and] information as to localities, species of birds and varieties of game in the northern latitudes." The reporters, however, did not take him at his word. "His experience," said one, "makes a most valuable addition to the records of Arctic exploration."[45]

Not all observers shared this view. One spoil-sport writer in Winnipeg pointed out that most of the region traversed by Lonsdale was already well known and even "populated." It appears, the unimpressed author continued, that "the gallant Lord has earned notoriety as an Arctic traveler very easily."[46] And it must be admitted that, as far as the general public was concerned at least, Lonsdale's journey provided very little specific information concerning the Katmai Trail.[47] But the newspaper publicity left some people with the impression that traversing this route in winter was a highly unpleasant and dangerous undertaking indeed.[48]

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44 Lord Lonsdale kept a diary of his journey, and this document was still in the possession of his descendants as late as 1946. Hopefully this document would repay study by throwing light upon both the journey and conditions in Savonoski and Katmai in 1889.

45 *The Daily Examiner* (San Francisco), April 24, 1889.

46 *San Francisco Chronicle*, April 11, 1889.

47 In addition to the sources already cited in the footnotes, this account of Lord Lonsdale's journey is based upon *The Times* (London), April 11, 25; May 31, 1889.

48 Schanz, "Our Alaska Expedition . . . VIII," 274.

Scarcely had the stories concerning Lord Lonsdale's exploits disappeared from the columns of the press than a new venture once more placed the Katmai portage in the limelight. Early in 1890 *Frank Leslie's Illustrated Newspaper*, a New York weekly with a national circulation, decided to send an expedition to Alaska. The announced purpose was to gather accurate geographical information concerning the still relatively unknown territory. Sceptics, however, have asserted that the real motive was to obtain "exciting copy" for articles.[49]

In any case, the publishers persuaded the United States Coast and Geodetic Survey to supply scientific instruments so that accurate observations could be made, and on April 10, 1890, the party set sail from San Francisco in a Coast Survey vessel. Upon reaching Alaska, the entire expedition ascended the Chilkat River and crossed over the coastal range into Canada. There, at Lake Kusawa, one group split off and returned to the coast that season by way of the Alsek River.

The main body, numbering only four men, surveyed Arkell Lake and then descended the Yukon to Fortymile River. There Alfred B. Schanz of New York, the expedition's historian and astronomer, fell seriously ill and had to be left at a camp near the Alaska-Canada boundary. The remaining men, headed by E. Hazard Wells of Cincinnati, turned away from the Yukon and ascended Fortymile River.

It was nearly the middle of August before Schanz was able to renew his travels. He and a volunteer companion drifted down the mighty Yukon in a frail miner's boat hoping to reach Saint Michael in time to catch a ship for home. But when they arrived at their destination on September 8, 1890, they found that the cutter *Bear*, the last vessel of that season, had already left. Schanz's companion decided to spend the winter at St. Michael, but the *Frank Leslie's* explorer considered it his duty to move forward.

As chance would have it, William C. Greenfield, enumerator of the Yukon district for the Eleventh Census, was also at St. Michael, and he was anxious to get to Kodiak where transportation to San Francisco was available. Schanz and Greenfield quickly joined forces. They hired two three-hole bidarkas, each manned by two "corpulent, greasy, and tireless" Eskimos; and before the day of Schanz's arrival was out they were on their way via the

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49 Sherwood, *Exploration of Alaska*, 140.

difficult route up the lower Yukon, across to the Kuskokwim, and around by coast and stream to Nushagak on Bristol Bay.[50]

Reaching Nushagak on October 11, the travelers were welcomed by John W. Clark, the same Alaska Commercial Company agent who had been so helpful to Ivan Petroff a decade earlier. Here Schanz changed his plans. Claiming that he could obtain no willing and competent guides, he decided to go into winter quarters at the nearby Moravian mission.

Greenfield was made of sterner stuff. He pushed on by the Katmai Pass route, reached Kodiak, and arrived safely in California. His time of four days from "Pak Wik" at the mouth of the Naknek River to Katmai was considered a record for speed, though Petroff had attested earlier that the trip could be made in three days under ideal weather conditions.[51]

Evidently the census enumerator was not the only person to traverse the Katmai route in the early fall of 1890. Prior to September 21 of that year -- probably several weeks earlier -- a number of miners had left Saint Michael bound for Kodiak by way of the Kuskokwim portage. Several of them were escorting a demented missionary. There seems to be no conclusive evidence that these men crossed Katmai Pass, since there were several possible lines of travel from Nushagak to Kodiak; but chances are that they did, because at that time the portage trail between the Naknek River and Katmai, "though beset with difficulties," was "considered one

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50 This account of the organization of the *Frank Leslie's* expedition and of Schanz's trip to Nushagak is based on "Exploring Alaska," in *Frank Leslie's Illustrated Newspaper*, LXXII (June 20, 1891), 337-340; and A. B. Schanz, "Our Alaska Expedition," in *ibid.*, LXXIII (September 26, 1891), 122. See also Orth, *op. cit.*, 17.

51 Schanz, "Our Alaska Expedition . . . VIII" in *Frank Leslie's Illustrated Newspaper*, LXIII (November 28, 1891), 274; Petroff, *Population and Resources of Alaska*, 44. That Greenfield actually used the Katmai Pass route is seemingly confirmed by the report of the Eleventh Census. U.S., Census Office, *Eleventh Census*, 72-73.

of the most feasible routes across the upper peninsula."[52] Another person reported to have crossed Katmai Pass by 1890 was John W. Clark, the trader at Nushagak.[53] Clearly, the Katmai trail was becoming known.

After the departure of Greenfield, A. B. Schanz settled in at Nushagak. He bought a team of sled dogs and passed the time training them. Given a sled, he devoted his evenings, when not dipping into Clark's library of "ancient and modern masters," to making dog harness, elaborately decorated with red tassels, ground squirrel tails, and bells.

One night Clark happened to mention reports he had received of a large lake north of Lake Iliamna. Schanz's ears perked up since this body of water, though previously visited and even indicated on maps, had not been precisely located or described.[54] The two men were soon happily planning a winter exploring expedition, and preparations were nearly completed when, on December 18, Schanz's superior in the Frank Leslie party, E. H. Wells, unexpectedly appeared at Clark's door.

After leaving Schanz on the Yukon during June, Wells had ascended Fortymile River, explored the country about the Upper Tanana and Tok Rivers, and then made his way down the Tanana and the Yukon to Saint Michael. He arrived there on September 18, ten days after Schanz had left. Receiving the same "disagreeable information" that no boat could be expected for about ten months, he too determined to head for Kodiak by way of the Kuskokwim-Nushagak-Katmai route.

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52 U.S., Census Office, *Eleventh Census*, 72; E. H. Wells, "Our Alaska Expedition . . . VIII," in *Frank Leslie's Illustrated Newspaper*, LXXIII (August 29, 1891), 59.

53 U.S., Census Office, *Eleventh Census*, 72-73.

54 In his newspaper articles Schanz later claimed that he "discovered" Lake Clark. Schanz, "Our Alaska Expedition . . . VII," in *Frank Leslie's Illustrated Newspaper*, LXIII (November 14, 1891), 240. The lake probably had been visited by Charles L. McKay during the early 1880's, however, and undoubtedly by Russians before that. But Schanz named it, and his survey "placed Lake Clark definitely on the maps." Orth, *op. cit.*, 17. For a discussion of earlier knowledge of Lake Clark see VanStone, *op. cit.*, 14.

When Wells reached the west side of Nushagak Bay, he found further progress blocked by floating ice in the channel. For six weeks he remained ice-bound at the Bradford salmon cannery, completely unaware that Schanz was only a few miles away on the opposite shore. He improved the time by arranging with Fred Koltchoff and Fred Anderson, employees of the nearby "Scandinavian cannery," to use their dog teams and sleds for an overland trip south to Katmai station as soon as the rivers were frozen and the snow well packed.

On December 18 Wells crossed over to Clark's store to complete his arrangements and there met Schanz. The two men quickly came to an agreement. Wells and his party would follow the "direct route" to Katmai and wait for Schanz. The latter would make his projected exploration with Clark and then join Wells.

At last, on January 28, 1891, Wells was ready to start. He, as chief of operations and photographer of the Frank Leslie expedition, was in command of the party of seven men. The other members were Franklin B. Price, a "helper" who had been with the explorers since the beginning; Indiank, a Chilkat Indian who had also shared all the toils of the expedition; two native guides, Was-sut-ka and Pete; and two Scandinavian cannery men from Nushagak, Fred Koltchoff and Gus, who were to serve as drivers for the teams and bring them back to Nushagak from Katmai.

The outfit included about 32 dogs of "all sizes, shapes, and degrees of surliness," and three sleds, one of which, a trim, steel-gray craft with red trim, had been built by Wells during the month of waiting at Clark's. The men were equipped with fur "sleeping-sacks," heavy fur clothing, and a large tent. They also carried a coal oil stove and five gallons of fuel. This stove, said Wells, "proved to be a treasure." All the provisions that could possibly be carried, including several hundred dried salmon for the dogs, were lashed on the sleds. The entire load weighed at least 1,200 pounds.

The party got away during the afternoon with the temperature hovering near zero. Wells described the scene: "There was a wild uproar of yelping dogs, a shouting of drivers, a sudden headlong plunge down the trail, and we were off, while the old cannon of the trading-post boomed an echoing farewell."

After a brief stop at the Moravian mission to take leave of Schanz and other friends, the little caravan headed up the frozen Nushagak River, encouraged on their way by another salute, this time from guns and revolvers. Few details of the route are known. Wells later merely recorded that progress was slow "over streams and

tundra, hills and mountains" and across "several lakes of considerable size" until finally the lakes and rivers were left behind and the Aleutian Range entered.

During this part of the journey the party was hampered by heavy falls of snow and rough ice surfaces. Camp was generally made amidst timber, with the snow six or seven feet deep on the ground. Wood fires usually sank far down in the snow, leaving the travelers to freeze on the surface. But the coal-oil stove, Wells's "little iron comforter," kept the tent warm and dried out wet clothes as long as the fuel supply lasted.

The group had a narrow escape while crossing one of the lakes. The ice was ordinarily three of four feet thick and perfectly safe for travel, but at one point, "over a whirlpool," the coating was hardly an inch in thickness.[55] As the sleds passed this spot the surface began to crack. Water gurgled up behind the runners as the dogs pulled the loads at full speed to firmer footing.

Beyond the lakes, the party ascended what almost certainly was the valley of the present Ukak River. Wells described the progress:

> The way at first led up through a dreary, rock-bound cañon, narrow and half-filled with snow and ice. Over the treacherous surface we passed in safety, and curving upward among the peaks, snow-robed and desolate, reached at length a small frozen lake which marked the summit of the "divide."[56] All about us was a wild array of peaks bare of any semblance of vegetation and wearing a wild, Arctic aspect. The roar of water could be heard in several cañons, and in one place the torrent had washed away its heavy coverlet of snow leaving a thirty-foot cliff of that

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55 The ice on the upper reaches of Naknek Lake was considered "very treacherous" by early travelers. "Charlie" Carter, a mail carrier on the Katmai route, told Robert F. Griggs that thawing spots were encountered when the air temperature was not above 15° F., which to his mind indicated the presence of hot springs nearby. Griggs, *The Valley of Ten Thousand Smokes*, 267.

56 J. E. Spurr mentioned seeing a lake "on the northwestern side, near the summit" when he crossed Katmai Pass in 1898. About 20 years later, after the eruption, National Geographic Society explorers said that remains of this lake were still present. *Ibid.*, 271.

material on either bank. In the strata we noticed several red streaks, indicating that at some time or other the red snow of the Arctic regions had fallen upon these mountains.[57]

The descent from the pass to Katmai was both rapid and exciting. At one point Wells's sled was cast free from the dogs and used by the leader and two companions to toboggan down a long slope which appeared safe from the top. As the loaded vehicle hurtled downward at an estimated speed of 60 miles an hour, the men realized that "there seemed to be no bottom to the hill." Only by the narrowest margin did they escape plowing into a clump of trees before finally coming to a halt. Farther down the mountainside the sleds had to be lowered by ropes for about 200 feet down an almost perpendicular cliff.

The journey from the summit to Shelikof Strait was accomplished in one eventful day, and by the evening of February 14, 1891, the party was safely at Katmai village, made welcome by "Trader Smith, the only white man in the place." Wells gained the impression that the settlement was "of good size," inhabited by about 200 persons, "mostly Aleuts, who eked out a living by fishing and hunting the sea-otter."

Wells was fortunate enough to encounter a small sloop near Katmai and hired it to carry him across to Kodiak. The rest of the party remained behind at the trader's house to wait for Schanz.[58]

Meanwhile Schanz, accompanied by John W. Clark, nine Eskimos, and a young Russian volunteer from Nushagak, was engaged in a long and arduous, but geographically productive, exploration of the Lake Iliamna-Lake Clark region, roughly 40 to 120 miles north of Naknek Lake. The party ran out of food and suffered severely from cold and accidents. When Koggiung, a settlement at the mouth of the Kvichak River on Bristol Bay, was safely reached on February 24, only one man was able or willing to stick with Schanz for the overland dash to Katmai.

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57 Wells, "Our Alaska Expedition . . . X," in *Frank Leslie's Illustrated Newspaper*, LXXIII (September 19, 1891), 106.

58 This account of Wells's journey from Saint Michael to Kodiak is based upon "Exploring Alaska," in *Frank Leslie's Illustrated Newspaper*, LXXII (June 20, 1891), 337-340; and E. H. Wells, "Our Alaska Expedition," in *ibid.*, LXXIII (August 29, 1891), 59; (September 5, 1891), 75; (September 19, 1891), 106.

The Frank Leslie expedition's historian and astronomer was thus forced to organize a new party at Koggiung. The nucleus was his loyal Eskimo, Anokhtoknagok, alias Vasutka, who served as "guide, philosopher, friend, cook, and interpreter." He quickly hired an active young native named Ivan Kak Kank-Then, but no more recruits were obtained at Koggiung. He was able to buy a sled, some delapidated harness, and 13 dogs to supplement the 9 animals and the single sled remaining to him from the Lake Clark journey. And he acquired quantities of dried fish and "cleaned out all the rice, butter, bacon, sugar, hard-tack, tea, and beans which the half-breed trader, Mishka, had in his cache."

Thus equipped, the small company pulled out of Koggiung on the morning of February 27. At the last minute the local chief or "tione," Pietr, agreed to go along as far as the next village, "Pak Wik" or Pawik on the north bank of the Naknek River at its mouth. This favor, which Schanz thought was due to a "subsidy" of two dollars he gave the head man, increased the prestige of the party and assured its welcome at Pawik.

Cheered on by the shouts and salutes of the Koggiung populace, Schanz and his companions moved south over the ice on Bristol Bay. The road was smooth and well-beaten, so the 11 or 12 miles were covered rapidly, and soon after three o'clock in the afternoon the transpeninsular expedition pulled into the "important village" of Pawik, now known as Naknek.

The local "tione" and "the aged and honorable" trader, Nicolai, were warm in their greetings. "Everything in the village was offered me most liberally," recalled Schanz, "and my acceptance of a favor seemed to arouse enthusiastic joy. To show my condescending qualities, therefore, I repeatedly patted the chiefs cordially on the back, and slept that night in the great Kassigima [clubhouse] among the fighting-bucks and the fleas."

At Pawik another recruit, an Eskimo named Mathei Chakapan, was added to the company, and the four men of the party took their departure, seemingly on February 28, "an ideal sledding day." Schanz later gave an account of the route:

> The road up the Nak Nik River was simply magnificent -- a perfect avenue over the ice where the tracks had been cut of a dozen or more native sleds. The dogs had recovered from their over-fed condition and were on the jump, the sun shown brightly, the air was brisk enough to be bracing, and the wind was from the southeast and warm. This warm wind, however, was a wolf in sheep's

clothing. It had blown steadily for several days, and eventually succeeded in achieving a small miracle. It was now only the last of February, practically midwinter, yet the Nak Nik River broke up from source to mouth. Of course we were in for it, since no party of mine was ever known to miss any trivial pieces of ill-luck which might be about. We awoke one morning amid a series of explosions resembling the discharge of artillery, and found our camp on the ragged edge of a wild, unhampered torrent, grinding an ice jam into bits and gnawing at the banks for mouthfuls of vegetation.[59]

Forced away from the river by a protruding headland, the party "made an obstinate bee-line" across country to Naknek Lake. Several days of travel up the lake "over a wide, uninteresting expanse of ice, bordered by a gray, indefinite timber-line" brought the company to "Severnosky village," later known as Savonoski, which Schanz described as "an Esquimau hamlet." The arrival and subsequent events are best pictured by Schanz's own words:

> The inhabitants of this village have by a number of travelers been characterized as so brutal and dishonest that nowadays the stranger dislikes to accept Severnosky hospitality. We were not particular about such matters, however, especially because half of my crew and myself had received a cold bath by running in the dark into open water, upon which a flock of ducks, harbingers of a new spring, were quacking in the gloom. We only arrived at Severnosky at ten at night, dripping wet, where we were not frozen stiff, and the natives did everything for us in their power.
>
> We remained there the next day to prepare for the trip over the pass, and the natives nursed us with the greatest hospitality. But eventually when, very early on the morning of March 4th, I had everything ready for a start, my American axe was reported lost. Of course we could not leave without an axe, and the affair caused me to lose my temper without delay. I drew my 45-calibre six-shooter, loaded it slowly and carefully, while the villagers began assuming embarrassed and startled

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59 Schanz, "Our Alaska Expedition . . . VIII," in *Frank Leslie's Illustrated Newspaper*, LXIII (November 28, 1891), 274.

> expressions, and then I announced that unless the axe, or at least an axe, were forthcoming in ten minutes, I would open hostilities by beginning to shoot the village dogs. It was a "bluff," for I don't think I could have found the heart to kill an innocent brute; but the scheme worked like a charm. We left in five minutes with two axes and several fresh substitutes for some of our crippled dogs.

When the party left Savonoski it consisted of six men, two Eskimos -- Stepanka and Vasutka Vassilitch -- having been hired at the village. The next two days were spent climbing "up steep bluffs, across rocky table-lands, through fierce gorges with wild mountain torrents, around the base of an active volcano, whose summit was veiled in clouds, but from whose sides bubbled steaming, sulphurous, malodorous streams; up, up, up, to the very edge of the timber-line."

"There," Schanz later wrote, "within sight of the notorious pass, through which even now a death-dealing black 'purga' was whirling, we camped, three thousand feet high, in the last thin little group of trees." All six members of the group huddled in a little wall-tent for one day and a good part of the next waiting for the blizzard to die out. Finally Schanz grew impatient, believing that the natives were occasionally over-cautious in such matters. He looked out through the falling snow and thought the storm looked less black over the pass. Then he delivered an ultimatum to his men.

"If you are afraid to go with the dogs and sleds," he said, "I will leave one man with the sled-outfit and the rest of us will pack what is left over the mountain. I will give you five minutes to talk it over."

Within about two minutes the natives started to roll up the fur bedding. "Leave one sled; take all the dogs," they announced.

Schanz described the sequal:

> It was a splendid idea. We left everything not absolutely indispensable in the abandoned Esquimau sled on the mountain, hitched the twenty-three dogs to the dainty sled "Cyclone," donned our snow-shoes, and started, at eleven o'clock on the morning of March 7th, on a veritable stampede over the dangerous Katmai pass.

The gap was not as clear as it had looked from a distance, for a violent snow-storm was whirling through it, limiting our field of view to a radius of a few yards.

But we had little time for pondering. The twenty-three dogs had started on the run, and with their light load maintained so great a speed that it was all Stepan and I, who ran ahead, could do to keep out of their way. When we got over the hot sulphur pools on the top of the "divide," and the descent began with a gradual slope over a snow-covered glacier, the dash assumed a semblance of recklessness which shook one's nerves, but there was no stop now. The dogs seemed to feel the need of hurry, and the storm now got in our rear and helped to urge our speed. The descent might eventually have ended disastrously, had not several bald spots of ground, where the Pacific sun had already driven away the snow, intervened and acted as brakes . . . .

We were all now exhilarated by the rapidity of our motion, and as we really in an emergency could have spared the sled, I decided to lose no time in getting down. I had the dogs unhitched from the sled without being taken out of the harness, and then instructed my men to make everything secure on the sled. Then Stepan and I started the grandest coasting experience in the history of sled-traveling. We had four thousand feet to go by stages of several hundred feet at a time.[60] First Stepan and I would coast down a terrace; the dogs, howling, yelping and fighting, the whole twenty-three in a bunch, would roll down in a squirming mass, and then in a cloud of snow-particles, the sled would thunder down a slope with one or two Esquimaux clinging to it, while the rest, like the lamented Jill, came tumbling after.

It was a dangerous sport, but we got down without an accident, and camped at sea-level, about eight miles from Katmai, at half-past four in the afternoon. We had made a trip, which has taken days, in five and a half hours.[61]

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60 The actual elevation of Katmai Pass is about 2,500 feet.

61 Schanz, "Our Alaska Expedition . . . VIII," in *Frank Leslie's Illustrated Newspaper*, LXXIII (November 28, 1891), 274. Paragraphing has been added, and a few obvious typographical errors have been corrected in the above quotation.

The party was in motion early on the morning of the next day, March 8, 1891. Warm weather had opened the streams on the south slope of Aleutian Range, and Wells and his companions had to make 15 fords before finally reaching a smooth ice field extending to Katmai village. Then, said Schanz, "all six of us sat on the sled and sang an Esquimau chanty, while the twenty-three dogs galloped for the fish-caches."[62]

After a few days of rest at Katmai, Schanz's Eskimos collected the dogs and headed northward back over the Katmai Pass. Schanz joined the members of the Wells party and waited for transportation to Kodiak. Before long the Alaska Commercial Company's schooner, *Lydia*, sent at the instance of Wells, appeared off shore, and all the Frank Leslie explorers were carried across Shelikof Strait. From Kodiak a chartered schooner took them to Sitka, where they were able to catch a steamer for Port Townsend, Washington.[63]

The Frank Leslie expedition left one of the most graphic accounts of travel over the Katmai trail, and this widely distributed narrative must have strengthened the impression that this route afforded a feasible track across the Alaska Peninsula, even in winter. And the historian and astronomer of the party, A. B. Schanz, appears to have been the first person to record in print the name "Katmai pass," an honor hitherto assigned to J. E. Spurr and W. S. Post.[64]

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62 Schanz later stated that his party actually traveled for six days between Pawik and Katmai, with two additional days occupied in resting *en route*. This estimate does not appear to agree exactly with the dates he gave for departure and arrival.

63 This account of Schanz's travels from Nushagak to Katmai is based largely on A. B. Schanz, "Our Alaska Expedition," in *Frank Leslie's Illustrated Newspaper*, LXXIII (September 26, 1891), 122; (October 3, 1891), 138-139; (October 10, 1891), 156; (October 24, 1891), 188; (October 31, 1891), 208; (November 7, 1891), 224; (November 14, 1891), 240-241; (November 28, 1891), 268, 274. All unidentified quotations are from the last two articles in the above-described series.

64 Orth, *op. cit.*, 502.

CHAPTER IX

"An Appalling Death-List"

Two years after Wells and Schanz returned from their journey, the United States Census Office issued its *Report on Population and Resources of Alaska at the Eleventh Census: 1890*. This monumental volume, fully as attractive and popular as its predecessor of the Tenth Census, pointed out that the track from Katmai to the Naknek River was one of the most practicable routes across the peninsula and mentioned its use by the Frank Leslie expedition and other travelers.[1]

Despite this authoritative endorsement, there are few surviving records of travel over the Katmai trail during the years between 1891 and 1898. A geologist who crossed the pass during the latter year reported vaguely that the tracks leading west from Katmai had been taken a number of times by Americans, "especially traders and missionaries," and that two prospectors from the Yukon -- "Hawley and Carr" -- had recently made the trip, evidently in 1897.[2] But it was not until 1898 that the Katmai trail came back into widespread public notice. Then it came with a bang.

During March of that year the route figured in one of Alaska's greatest epics of man against Nature. The previous fall nine vessels of the American whaling fleet had been trapped in the ice both east and west of Point Barrow. The crews of several of the ships found refuge at the H. Liebes & Company whaling station at Point Barrow, but an inventory of provisions quickly revealed that even with severe rationing the stores would be exhausted by the first of the following July. It was possible but hardly likely that the next season's fleet would arrive by that date.

Under the circumstances there seemed to be only one course open if many lives were not to be lost. A party would have to be sent southward to a telegraph office to persuade the ship owners or the

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1 U.S., Census Office, *Eleventh Census*, 72-73.

2 Spurr, "A Reconnaissance in Southwest Alaska," 100. Spurr said that Hawley and Carr made their crossing in the same year as "Mr. Tilton," who crossed in the winter of 1897. In actuality, however, Tilton traversed the route early in 1898.

government to send early relief. That meant going to Seattle, San Francisco, or some other port on the West Coast of the United States.

George Fred Tilton, third mate of the steam whaler *Belvedere*, volunteered to attempt the journey. On October 23, 1897, he and two Siberian natives set out by dog sled. Following the coast and meeting frequent delays from storms and open water the party reached Point Hope, where H. Liebes & Company had another station. Here the Siberians refused to go farther, and Tilton recruited two Point Hope Eskimos, Tickey and Canuanar, man and wife. Tilton never regretted the choice. "Tickey was a good man," he said later, "and his wife was twice the man that he was."[3]

Refitted, Tilton and his companions set out from Point Hope on November 29. Fortunately missions and whaling stations were encountered as the party trudged southward, so provisions could be replenished at intervals. But nevertheless there was at least one occasion on which two dogs had to be killed to provide food for the others.

On January 3, 1898, three days north of St. Michael, Tilton was surprised to meet Lieutenant David Henry Jarvis and Dr. S. J. Call of the revenue cutter *Bear*.[4] These men, it developed, were on their way to Port Clarence, where they were to round up a herd of reindeer and then drive the animals to Point Barrow to feed the stranded whalers.

When the whaling fleet had failed to return, the relatives of the crewmen became worried and induced the government to attempt a relief expedition, although it was not known where the ships were or whether the men were alive or dead. Due to the great distance involved, the only practicable method of getting food to the Arctic in the dead of winter seemed to be to move it on the hoof.

Lieutenant Jarvis had doubts that the herd could reach Point Barrow, doubts in which Tilton shared. The whaler saw no valid reason to abandon his own mission, so he continued southward.

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3 George Fred Tilton, *"Cap'n George Fred" Himself* (Garden City, N.Y., 1928), 199.

4 U.S. Revenue Cutter Service, *Report of the Cruise of the U.S. Revenue Cutter Bear . . . from November 27, 1897, to September 13, 1898* (Washington, 1899), 44.

From Fort Saint Michael he headed for the Yukon River with the idea of ascending it to Dawson and then crossing the mountains to Valdez. Hearing from some stranded boatmen that there was starvation in Dawson, he changed his mind. He ascended the Yukon for about seventy miles to Andreafski. Here Tilton found the temperature standing at fifty-seven below zero. "No weather for haying," he remarked. Then he traversed a high range to the Kuskokwim River, crossed to the Nushagak River, and followed that stream down to a cannery at its mouth.

The watchman at the cannery drew a map for Tilton showing, "as well as he knew how," the course of a trail that led through a divide and "beyond to a village called Katmai." Tilton carried a chart which identified Katmai as the location of an Alaska Commercial Company station, so he believed he could find a boat there which would enable him to reach Kodiak.

It took the whaler and his Eskimos twenty-one days of "as hard travelling as we had found anywhere" to go from Nushagak to Katmai. The mountains and frequent blizzards hampered their movement. Some days they could not move for more than an hour. "It was the wind that held us back more than anything," Tilton later recalled. "The dogs couldn't stand it at all."[5]

Once the summit of Katmai Pass was reached, it took three days to lower the dogs and sleds down the steep slope. Then they followed "a big open stream of water" -- certainly Mageik Creek and Katmai River -- for two days to the beach, arriving on March 12. The weather had turned warmer, and the stream was rushing with melted snow. Coming within sight of Katmai village they found that "in accordance with fate's usual plan" they were on the opposite side of the river. Half the camping gear was lost in making the crossing.

Tilton recorded that Katmai Village then consisted of four huts of natives. The Alaska Commercial Company's station had been moved eighteen months earlier. What was worse, there was no food except game and no boat except an old discarded dory that "wouldn't hold pumpkins."

The boat was patched up somehow and caulked with Tilton's only suit of underwear and one of his deerskin suits. Then, at dawn on March 17, 1898, one of the Shelikof Strait's rare calm days, the

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5 Tilton, *op. cit.*, 214.

party launched its frail craft, and Tilton rowed the thirty-seven miles to Kodiak Island.

From Kodiak Tilton made his way by ship to Portland, Oregon, where he delivered the mail he had brought out from the Arctic and wired the owners of the *Belvedere* for funds. The New Bedford proprietors refused to believe that Tilton could have made the 1,500-mile overland journey from Point Barrow and declined to send him a cent. Using his own funds, the whaler went on to San Francisco, where he found agents of several other vessels more reasonable. A merchant ship was loaded with supplies and sent off in short order for the Arctic.

Tilton had the satisfaction of knowing that his great effort was not in vain. The stores shipped from San Francisco enabled the six whaling vessels that survived the winter to work in Arctic waters during the following summer. His journey did not result in any saving of life, however, since Lieutenant Jarvis had reached Point Barrow with a remnant of his reindeer herd on March 29, 1898; and the cutter *Bear* had arrived during July to bring home the sick and the men whose ships had been crushed by ice.[6]

The year 1898 saw another important crossing of Katmai Pass, one made by a scientist whose printed report has been termed "almost the only published source" concerning the condition of the Katmai trail before the eruption of 1912 vastly altered the topography.[7] Certainly the account is the most informative source available. This expedition also resulted in the production of the only detailed map of the route and its surrounding terrain prior to the disaster, and it was responsible for the single known picture of Katmai Pass as it appeared in pre-eruption times.[8]

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6 This account of Tilton's journey is based largely on Tilton, *op. cit.*, 185-224. Also used were William Bixby, *Track of the Bear* (New York, 1965), 154-186; and Joe King, "When Disaster Overtook the Whaling Fleet," in *Alaska-Yukon Magazine*, VII (December, 1908), 189-202.

7 Griggs, *The Valley of Ten Thousand Smokes*, 267.

8 Spurr, "A Reconnaissance in Southwestern Alaska," map no. 12, ff. p. 140; and plate XI, figure B, "Summit of Katmai Pass," opp. p. 60.

The United States Geological Survey sent four parties to Alaska in 1898. The one covering the most ground was headed by Josiah Edward Spurr, a geologist with some literary talent.[9] After going up the Susitna River from the head of Cook Inlet, crossing to the Kuskokwim, ascending the Kanektok and then descending the Togiak to Bristol Bay, the party found itself at Nushagak late in September. The group then consisted of Spurr; William Schuyler Post, topographer; and Oscar Rohn and George Hartman, "camp hands."

Spurr had intended to return to Cook Inlet by way of Iliamna Lake and Lake Clark, but the lateness of the season, with its dangers of ice and heavy winds, caused him to abandon this idea. The group decided instead to cross the peninsula to Katmai by way of Becharof Lake, from which a short, low pass gave access to Shelikof Strait only a short distance south of Katmai Bay.

With this end in view, Spurr set about gathering an outfit. Four three-hole bidarkas were obtained, and eight Nushagak natives were hired to paddle them. A European who was seasonally employed at a local cannery was taken on as guide, and a prospector who had missed the last boat to the States was permitted to join since he had his own bidarka.

At this point the natives balked at going by way of Becharof Lake. They feared being caught in the ice of the lakes and rivers of this route before they could return. They suggested instead the shorter but more difficult path up the Naknek drainage and over Katmai Pass. Spurr yielded to their judgment.

A start was made on October 5, but storms so delayed the boats along the coast that they did not cross Kvichak Bay and reach the mouth of the Naknek River until the tenth. There, at a cannery closed for the season, Spurr obtained an additional bidarka for the guide. The next day, escorted by half a dozen local native craft by way of doing them honor, the travelers began the run up the short Naknek River.

With the eye of a trained geologist, Spurr noted that there were no rock outcrops along the stream. The banks were of stratified clay and sands containing numerous boulders, many of them striated. From both shores the marshy tundra of the western peninsula seemed to stretch away without end.

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9 Sherwood, *Exploration of Alaska*, [illegible], 175.

The going was easy, as the only fast water was on the upper course of the stream, directly below the outlet of Lake Naknek. Even at that point, the leader observed, there was no rock ridge damming the lake, only the same stratified drift seen below. Camp that night was made near the outlet.

The next morning, October 12, the little flotilla started across Lake Naknek. Although the water was perfectly calm, the natives paddled at full speed, fearful of being caught by the sudden gales which often whipped the mountain lakes into fury. When darkness fell a halt was made for supper. Spurr estimated, much too generously, that about 40 miles had been covered to that time. Then, in the night, an estimated 20 additional miles were traveled up Iliuk Arm, "surrounded by especially high and gloomy mountains," to the head of the lake.[10]

Savonoski was reached the next morning. The Nushagak crews lost no time in landing their passengers and then heading for home. The increasing cold warned them that their water pathway might at any moment become a frozen trap.

The Geological Survey party spent the remainder of October 13 at the village preparing for the arduous hike over the Aleutian Range. Equipment and provisions were sorted out, and everything not essential was discarded. Ten natives were employed to help carry the remaining load across in a single trip.

The next day, October 14, the company started southward up the wide and gently ascending valley of the present Ukak River. Progress was difficult because of deep moss and the extensive swamps covered with tufts of grass, the notorious *têtes de femme* of the Canadian *voyageurs*. Drier knolls dotting the damp areas relieved matters somewhat, and soon the trail rose onto the hillside to the east of the stream. Travel was not much better on the slope, however, since "boiling brooks" falling into the Ukak had to be forded at frequent intervals. Also, the climb upwards over a series of "slight benches" only brought the party into a still larger plateau valley which was likewise swampy.

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10 Spurr later said that in his account he had "retained" the name "Naknek Lake" despite the fact that the designation "Lake Walker" appeared on the map in Petroff's Tenth Census report. Spurr, "A Reconnaissance in Southwestern Alaska," 90-91.

Spurr and his companions camped that evening on the banks of a tributary which joins the main stream at about the point where the Ukak River begins to change its course from south to southeast. On the 15th they reached the head of the Ukak drainage, halting on the branch now known as the River Lethe only a short distance northwest of Katmai Pass.

As the party progressed up the valleys of the Ukak and the Lethe, Spurr noted that the mountains on either side became higher until, near the summit, they were revealed as a continuous chain of volcanoes. The natives told him that none was active at that time, although one of them was said to smoke occasionally.

The geologist was particularly impressed by the "large and well-developed" glaciers which streaked the sides of the range. He singled out for special mention the many and distinct ice flows, with "splendid moraines," to be seen on the flanks of "a tall volcano which stands directly at the head of the valley up which the trail runs," the present Mount Mageik.

The mountain slopes themselves, almost as far as the pass, were sharply eroded, with noticeable benches up to at least 1,000 feet, and were formed of horizontal bare strata of dark green granetic arkose. The valley floor, Spurr found, was filled with stratified sand. Its surface, while generally level, was dotted with "many sharp hillocks formed of bunches of huge boulders" and cut by deep stream channels. On the northwestern side of the summit, débris from three volcanoes had formed a dam, impounding a lake half a mile long.

The climax of the journey came on October 16 when "Katmai Pass" was crossed.[11] The Geological Survey personnel may well have approached the summit with some trepidation, since they were told that the Eskimos did not dare traverse it except in perfectly calm and clear weather. "Many natives have perished here by being caught in gales," Spurr later wrote, "for during storms, even in summer, the wind blows with intensity and piercing coldness. At such times stones of considerable size are picked up by the wind and carried through the narrow defile where the traveler must walk, and we found many of these stones lying upon the snow."

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11 Spurr used the name "Katmai Pass" in his report although, contrary to general belief, he was not the first person to record the name.

Indeed, the approach to the pass was not comforting. The country round about impressed Spurr as being "extremely wild and rugged." For several miles on each side of the summit there was no sign of vegetation. The surface of the ground was formed of "huge angular fragments of rock, piled together without even a covering of moss." Through this debris and the underlying lava streams had sliced great gorges. To make matters worse, no defined trail could be found, and "thick" snow covered the upper part of the pass.

The crossing was made without difficulty, however. Spurr had time to notice that the gap lay between two volcanoes, that on the right -- the present Mount Mageik -- "having a cone scarcely modified by erosion," while that on the left -- now called Trident Volcano -- was "somewhat furrowed" but carried no glaciers. His estimate of "nearly 3,000 feet" for the altitude of the trail summit was not far from correct.

Over the pass Spurr noted the "extensive hot springs" or "streams of very hot water" that burst out of the ground and formed a rapid stream draining away toward Katmai. The earth about these springs was colored a "brilliant yellowish red." The geologist interpreted this phenomenon, along with reported frequent earthquakes and "other evidence," as testimony to volcanic activity in the area. In fact just after crossing the summit the travelers themselves felt a slight earthquake.

Dropping down the steep southern slope of the range, Spurr could find no signs of glaciers or large-scale glacial activity. He did remark upon the "broad benches of great height" which characterized the mountainsides toward the Pacific. These shelves, he discovered, were formed of boulders rolled from the slopes above.

During the rapid descent the party obtained fine views down upon the broad, flat valley of the Katmai River. The floor, several miles wide and "mostly covered with bare gravel," had for Spurr, when seen from a distance, the appearance of "an arm of the sea." Running through this plain could be observed the many channels of the Katmai River, while on both sides high and rugged mountains extended to the shore of Shelikof Strait. Between the ridges at the waterline stretched a long, gently curving sand beach.

The party made camp on the night of the 16th on the floor of the Katmai River valley still several miles short of its goal. A half-day's march on October 17 brought the men to Katmai, which Spurr described as an "Aleut village."

There, wrote the geologist, "we were disappointed to find that the difficulties in getting farther were even greater than they had been in coming so far, for there were no boats at Katmai except a couple of open dories, belonging to the trader, and one skin bidarky." The last steamer of the season was due to leave Kodiak for Seattle in a few days; but there seemed no way to cross the strait since the Russian trader advised Spurr in the most forceful terms not to attempt the dangerous crossing in the open boats.

The problem seemed solved when the only bidarka in the settlement, manned by three expert native paddlers, was sent to Kodiak with a note to the Alaska Commercial Company's agent requesting that a suitable craft be sent to pick up the party in time to catch the steamer. Days went by without news from the messengers, however, and finally the date for the sailing of the ship was passed. All chance of getting home that year appeared lost.

Then, on the morning of October 31, the travelers were awaked in their camp on the beach by the blast of a whistle. Offshore stood the Alaska Commercial Company's steam schooner *Dora*, known far and wide in northern seas as the "Dirty Dora." One government scientist who spoke from experience said, "She has perhaps the record for carrying more passengers with more discomfort than any [other] vessel which ever reached Alaskan waters."[12]

But Spurr and his companions were not particular. They piled aboard, heartily thankful for the delays which had detained the *Dora* until their letter, held up by storms, could reach Kodiak. The party arrived in Seattle in safety if not in comfort on November 11.[13]

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12 Alfred Hulse Brooks, *Blazing Alaska's Trails* (Caldwell, Idaho, 1953), 402.

13 This account of the Geological Survey's 1898 expedition across Katmai Pass is based upon Spurr, "A Reconnaissance in Southwestern Alaska," 41-147, but especially pp. 41, 58-60, 91-92, 146-147. Unless otherwise identified, all quoted passages are from this source. Also used was Spurr and Post, "Report of the Kuskokwim Expedition," 28-39.

The year 1898 also witnessed another event which was to bring the Katmai trail into greater prominence and use. During early August a party of prospectors from Golovnin Bay was driven ashore by a storm at the mouth of Snake River, not far from Cape Nome on the Seward Peninsula. Gold was found nearby, and in September a group returned to follow up the first discovery. Rich placer deposits were located on Anvil Creek, and soon parties from Saint Michael and other settlements were on the ground staking claims along the nearby streams. The Nome Rush was on.[14]

During the winter miners began coming into the Seward Peninsula by dog sled from the Yukon, and by January, 1899, about 500 men had formed the nucleus of a camp.[15] By summer the number had swelled to about 5,000, many of whom were disgruntled and discouraged because the first arrivals had monopolized the best claims.[16] Enthusiasm was revived, however, when the beach sands in front of the new town were found to be heavily gold-bearing. No large claims were allowed, and soon the shore "was literally covered with men and rockers."[17]

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14 L. H. French, *Nome Nuggets: Some of the Experience of a Party of Gold Seekers in Northwestern Alaska in 1900* (New York, 1901), xix-xx; Frank C. Schrader and Alfred H. Brooks, *Preliminary Report on the Cape Nome Gold Region, Alaska* (Washington, D.C., 1900), 31-32. A good account of the Nome gold rush is the essay by Alfred H. Brooks, "The Development of the Mining Industry," in Arthur J. Collier, Frank L. Hess, Philip S. Smith, and Alfred H. Brooks, *The Gold Placers of Parts of Seward Peninsula, Alaska* (U.S. Geological Survey Bulletin 328, Washington, D.C. 1908) 10-39; however, the results of more recent scholarship are reflected in L. H. Carlson, "The Discovery of Gold at Nome, Alaska," in Sherwood, *Alaska and its History*, 353-380.

15 C. Edgar Lewis, "The Cape Nome Gold Fields," in *New Outlook*, vol. 64, no. 14 (April 7, 1900), 786. A more conservative estimate was given by Alfred H. Brooks of the U.S. Geological Survey; he agreed that "many men" flocked to the Seward Peninsula from St. Michael and the Yukon during the winter of 1898-1899 but estimated the population of Anvil City, later called Nome, at 250 by the middle of May, 1899. Collier, Hess, Smith, and Brooks, *op. cit.*, 19.

16 French, *op. cit.*, xx.

17 *Ibid.*, xxi.

By early August, 1899, the town could boast more than fifty wooden buildings in addition to hundreds of tents. Between 1900 and 1905 over $4,000,000 in gold flowed annually from the Seward Peninsula, while Nome grew to a city of 25,000 people.[18]

By far the greater number of the hopefuls flocking to the new bonanza came by steamer or sailing vessel from Seattle, San Francisco, or other "outside" ports or from Alaska's coastal settlements. Because of ice in the Bering sea, however, this "all-ocean route," as it was sometimes called, was available only about five months a year, from early June to early November. The other summer "water" route, that from Skagway over to the Yukon and then by boat down that river to Saint Michael and then by steamer to Nome, was also quite heavily used; but it, too, was open for only a few months each year.[19]

Many of those anxious to reach Nome were not willing to wait for summer, and as the town grew there was a certain amount of traffic with the outside world -- mail for one thing -- which had to continue, ice or not. Thus several overland or winter routes were developed for travel by dog sled.

The most heavily used was simply an offshoot of the already well established route from Skagway down the ice of the Yukon to Saint Michael. During the winter of 1899-1900 the Post Office Department provided service for letter mail to Nome twice a month by a connection branching off the Saint Michael run at a place called Eaton.[20] Deliveries by the same route were increased to four a month during the next winter.[21]

Another route ran north from Valdez to Tanana before turning down the main Yukon drainage. In early 1900 this trail was described as "not yet in practical use," but during the winter

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18 French, *op. cit.*, 44; Gilbert, *Alaska History, 1741-1910*, 88.

19 Schrader and Brooks, *op. cit.*, 34-38.

20 U.S., Post Office Department, *Annual Reports . . . 1900*, 56 Cong., 2 Sess., House, Doc. No. 4 (Ser. 4099), 210.

21 U.S., Post Office Department, *Annual Reports . . . 1901*, 57 Cong., 1 Sess., House Doc. No. 4 (Ser. 4288), 319.

of 1903-1904 the Post Office Department "established" this "all-American route." It proved such a success that the next winter the through mails to the lower Yukon and western Alaska were forwarded from Valdez.[22]

Still another winter route to Nome followed the path blazed by J. E. Spurr from Cook Inlet by way of the Kuskokwim River. In 1900 this trail was listed as "only a proposed route," but it was advocated by several government officials.[23]

At the bottom of the list of possible winter access routes mentioned in a 1900 United States Geological Survey report on the Nome gold fields was one termed the "Bering Sea coast route." This "more or less well-known" track started at Katmai and crossed the base of the Alaska Peninsula to Bristol Bay. There the traveler could follow the Bering Sea coast north to Nome or he could ascend the Kuskokwim and cross to the Yukon. This route, the first part of which utilized the Katmai trail, was characterized by the Survey as being "rather circuitous and long," but it had "the advantage of safety," since native villages and trading posts were scattered along it at convenient intervals.[24]

Despite this somewhat tepid endorsement the Katmai route, as shall be seen, received for several years at least moderate winter use by persons passing to or from Nome. What was more, it seems to have attracted considerable summer use by impatient miners.

In an account published late in 1922, Dr. Robert F. Griggs, who had led several National Geographic Society expeditions into the Katmai region following the 1912 eruption and who had been "at some pains to search out information concerning the former state of the country," wrote that the Nome stampede had revived the importance of the Katmai route. He said that "many" gold

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22 Schrader and Brooks, *op. cit.*, 36; U.S., Post Office Department, *Annual Reports . . . 1905*, 59 Cong., 1 Sess., House Doc. No. 4 (Ser. 4957), 182.

23 *Ibid.*, 37.

24 *Ibid.*, 37-38.

seekers had employed it to shorten the distance to their goal and that to accommodate these travelers the trader at Katmai had built a "Bunk House" near the village.[25]

This information was repeated, with some elaboration, in a United States Geological Survey report issued in 1925. Perhaps the account was based upon Griggs's earlier publication or perhaps it was, at least in part, derived from data gathered during a topographical and geological field survey two years earlier in the region between Puale Bay and the Savonoski River.

At any rate, Walter R. Smith, geologist with the expedition, stated that the Nome gold excitement "again" made Katmai an important point for northbound travel. "Hundreds of prospectors," he wrote, "preferred the rough trail and the fury of the winds in the pass to the long and hazardous ocean trip of 300 miles around the end of the peninsula. A bunk house was constructed at Katmai, and small boats plied Naknek Lake and Naknek River to accommodate the travelers."

Smith also made clear that it was the difficult Katmai Pass route that was used by the prospectors and not the portage through the low divide between Puale Bay and Becharof Lake. The latter path, he said, was never extensively employed, probably because landing at Puale Bay was more vexatious than at Katmai and because the Becharof route was swampy.[26]

Smith's mention of boats makes it clear that the travel he described was conducted during the season of open water on the lakes, from about April to October. But despite the "hundreds" of prospectors said to have used the Katmai trail, very little is known about these summer passages. Robert F. Griggs searched in vain for a good narrative of such a journey.[27] Winter travel during the Nome rush, although perhaps not so heavy, is for some reason better documented.

Dr. Loyal Lincoln Wirt was appointed superintendent of Alaska missions for the Congregational Home Missionary Society early in 1898. The next year found him in Nome establishing

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25 Griggs, *The Valley of Ten Thousand Smokes*, 267.

26 Smith, "The Cold Bay-Katmai District," 192.

27 Griggs, *The Valley of Ten Thousand Smokes*, 267.

"the church farthest north in America." By Christmas it was apparent that the new mining camp was facing a bleak, if not desperate, winter. Sickness was on the increase, and medicines, doctors, nurses, hospital supplies, and food were desperately needed. A delegation of residents met in Dr. Wirt's office and decided that someone should be sent across Alaska to an ice-free port and thence by ship to the "States" to let the outside world know of the situation and to bring back a boatload of supplies as early as possible in the spring. Since Wirt had the best dog team in town he agreed to go.[28]

Evidently there was some debate as to the route he should take. "So far as we knew," he said later, "no one had ever attempted to traverse Alaska from north to south at this time of year."[29] Were the exploits of Lonsdale and Tilton already forgotten? At any rate, the die was cast in favor of the Katmai trail, and on January 9, 1900, the mission superintendent set off with an Eskimo guide, "cracking his whip over seven malemutes."[30]

He traveled much of the way south alone, but when he crossed Katmai Pass about two months later he had two "Indian" boys to help him. Fierce winds were encountered while traversing the summit, and he was forced to lighten his load. After sliding down the southern slope he reached Katmai, "a little group of log cabins" as he recollected many years later. The Russian-Aleut "headman" welcomed the travelers with tea from his wife's samovar.[31]

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28 Hal Johnson, "So We're Told," in *Berkeley Daily Gazette* (Berkeley, California), May 5, 1953. Why the message could not have been sent by the U.S. Mail service then operating by the Yukon route is not apparent.

29 Loyal Lincoln Wirt, *Alaskan Adventures: A Tale of Our Last Frontier and of "Whiskers," the Gallant Leader of the First Dog Team to Cross Alaska* (New York, 1937), 42.

30 Johnson, *op. cit.*

31 *Ibid.*; Wirt, *op. cit.*, 91-102. The exact time of Wirt's trip over the Katmai trail is not apparent from the data given in these sources. Conflicting statements permit one to estimate only that the trip from Nome to Katmai occupied between 40 days and three months.

Like so many earlier users of the trail, Wirt had imagined that Katmai was a year-round port of call for ships. He was disappointed to learn that the next vessel was not expected for four months and was forced to hire two natives and a bidarka to carry him across Shelikof Strait to Kodiak. After visiting Washington, D.C., Wirt returned to Nome with a relief ship seven months and nine days after he set out by starlight in the Arctic winter without compass or map headed for an almost legendary place called Katmai.[32]

As shall be seen, Dr. Wirt's journey may have had important repercussions for the Katmai Pass route, but the trip of another traveler a year later brought the trail much more fame in the long run. Rex Beach was then a very young man who had already spent two years mining in the Klondike and at Nome. During the fall of 1900 he had returned home to Chicago, but having heard a report of a fresh strike on the upper Kuskokwim River, he was determined to try his luck in the new field. By January, 1901, he was on his way back to Alaska.

Traveling to Juneau by ship, he and his friend, Roy Norton, intended to proceed to the Kuskokwim by crossing the Alaska Peninsula. They learned that "a few venturesome dog punchers" had come out from the interior by that route, "volunteer mail carriers principally" who charged a dollar a letter, but as far as they were aware no one had followed this track northward during the winter. "Hence," Beach later recalled, "there was a pleasing element of uncertainty to our enterprise."[33]

The captain of the Dutch Harbor mail boat, the steam schooner *Newport*, offered to put the two adventurers ashore at the starting point of either the Lake Iliamna route or the Katmai route, these being considered the practicable winter paths to Bristol Bay. The latter was chosen, and thus "one raw February morning" Beach and Norton stepped out of a lifeboat onto the sand near the mouth of the Katmai River.

Beach himself best paints the scene: "There was not a house in sight, not a footprint nor any sign of human habitation. The beach itself was black and raw where the surf had washed it,

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32 Johnson, *op. cit.*; Wirt, *op. cit.*, 91-102, 110.

33 Rex Beach, *Personal Exposures* (New York, London, [1941]), 26, 27, 61-62.

elsewhere all was ermine white and as still as death. Hung like a magnificent backdrop to the scene was a stately saw-tooth range which rose cold and stark against the northern sky. The place was as cosey as an ice floe."[34]

The *Newport*'s whistle produced a quick change. "All thirty" of Katmai's residents came hurrying from the nearby village, headed by the trader, "a globular, crosseyed little half-breed Russian" named Petellin.

Beach and Norton had only a partial outfit -- a few provisions, a tent, a stove, two fur robes, and a sled. They needed, above all, from eight to ten dogs, but the inhabitants would sell only five. Petellin told them that more could be obtained at Savonoski, on the far side of the pass!

Beach found Katmai, with its earth- and sod-covered barabaras, an "odd" place. He was particularly intrigued by the trader's log store, the roof of which was anchored by heavy cables that ran over the top and were made fast to deadmen sunk deep in the earth. Only by such means, said Petellin, could the roof be prevented from flying away during the frequent gales.

Petellin admitted that the place was too windy for him. "It would never become popular," he said.

Katmai Pass had a reputation as a "man-killer."[35] About forty lives had been lost on the Katmai trail, the trader said, and at that moment the settlement was in mourning for two natives who about a week earlier had been caught in the open by a storm while crossing from the north. One had died, and the other "never would be much good to his family." Once when he had been overtaken by a storm in the pass, Petellin related, the wind had picked up a heavy cast-iron kettle and whisked it away "with the speed of a cannon ball."[36]

Having obtained a guide, the two prospectors started on their way. The Katmai River was open on the flat, wooded valley floor, and its many branches had to be forded. Each crossing required a

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34 Beach, *op. cit.*, 63.

35 *Ibid.*, 64, 65.

36 *Ibid.*, 64-65.

number of trips back and forth to bring over the outfit bit by bit. After a hard 15 miles, camp was made at the last patch of trees beneath the summit.

The next day dawned calm and clear, but the guide advised Beach and Norton not to move. He pointed to "faint gossamer streamers" that trailed from the peaks above "like thin, white volcanic vapors." The party remained in camp, and sure enough, by noon the higher mountains were hidden by a "peculiar white haze," the unfailing sign of a howling gale at the summit.

On the following day the sky was right, so the upward climb was resumed. There was no evidence of a trail, and the men went ahead of the dogs, packing down the snow. The sled had to be hauled with ropes, and often two trips had to be made over the same ground to carry the luggage. By noon the party was in "Arctic desolation," with "not a tree, not a shrub, not a naked rock" to relieve the montony.

At last the summit was crossed, and darkness began to set in as the party trudged down the barren upper Ukak River drainage. Beach was ill, and his companions pushed ahead to make camp among the uppermost stunted spruce trees. There was a considerable feeling of relief when the entire group was reunited in its tent.

Savonoski was reached the next day. There Beach and Norton bought more dogs; then they pushed westward until they reached a cannery on Bristol Bay. Learning that the reported gold strike on the Kuskokwim was a humbug, they went on to Nome.[37] Beach later said that during the trip from Katmai he slept frequently in native huts, "acquiring as complete a knowledge of the local flora and fauna as any man living -- particularly intimate was my study of the latter."[38]

Beach afterwards turned to writing as a career, and the experiences of his winter journey from Katmai to Nome provided

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37 This account of the journey of Beach and Norton is based upon Beach, *Personal Exposures*, 61-68.

38 Edward Sanford Harrison, *Nome and Seward Peninsula: History, Description, Biographies and Stories* (Souvenir ed., Seattle, 1905), 358.

much of the material for his third novel, the highly popular *The Silver Horde*.[39] In that work one of the climactic episodes is a winter trip over Katmai Pass, this time in a north to south direction.

With all his skill at his craft, Beach depicted the Alaska Range as, "for the most part narrow, unbroken, and cruel," racked by winter gales that sweep over it "in a never-ceasing roar" while "blizzards screech until travellers burrow into drifts to avoid their fury," and "peopled scantily by handfuls of coughing natives." Katmai Pass was pictured as "even balder than the surrounding barrens," as a gap through which "the hibernal gales suck and swirl," a "funnel at each end, confusing the winds and affording them free course." The pass, he said, "had an appalling death-list and was religiously shunned," being used only in the "direst emergency."[40]

This bleak portrayal of the natural features served as background for a harrowing tale of two men and a guide fighting their way across the ridge in a blinding snowstorm. On their way to the summit they were forced to notch footholds in the snow and haul their sled up "hand over hand," only to be met at the top by a wind that "tore through the gap like the torrent below a broken reservoir." The native guide perished before the party reached Katmai and safety.[41]

While all the conditions described by Beach undoubtedly prevailed at times, his dramatized tale certainly did not minimize the hazards and difficulties of the Katmai trail. For the thousands of readers of *The Silver Horde*, this route and, particularly, Katmai Pass must have appeared places to be avoided at all cost. But, even though unfavorably, the name Katmai Pass became current throughout a good portion of the English-speaking world.

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39 Beach, *Personal Exposures*, 68.

40 Rex Beach, *The Silver Horde, A Novel* (New York, 1909), 48, 73-74. Robert F. Griggs believed that Beach's description was based partly on personal experience and partly on Spurr's report. *The Valley of Ten Thousand Smokes*, 273.

41 Beach, *The Silver Horde*, 75-82.

In both his autobiography and in *The Silver Horde*, Beach gives passing mention to the use of the Katmai route by mail carriers, but he provides no dates or other significant details.[42] These references point to one of the most interesting but least-known episodes in the history of Katmai Pass.

When Dr. Loyal Lincoln Wirt reached Washington, D.C., during the spring of 1900 after his trip from Nome by way of Katmai, one of his first actions was to call upon the Postmaster General. "Carefully I traced for him the route I had followed from the Arctic Ocean to the open Pacific," recalled the missionary years later.

"Immediately came the question," continued Wirt, "'If you with one team of dogs, without map or trail, could make that journey, in the dead of winter, why cannot the Post Office Department deliver mail to those isolated camps [in western Alaska] all winter, using relays of dogs between well-established stations?'"

"This, I am glad to say was done the very next winter," Wirt added; "the government established a line of postal stations, stretching across the interior of Alaska from Katmai to Cape Prince of Wales."[43]

Dr. Wirt undoubtedly was correct when he claimed that he had suggested this new service. It is possible, however, that the Post Office Department had already been thinking of such a project before Wirt's arrival. The Postmaster General was under pressure to improve service in Alaska, and he was steadily taking steps to do so.[44]

In any case, during March, 1900, the Department sent an expedition "to determine the feasibility of providing an overland winter service across the western part of Alaska, leaving

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42 *Personal Exposures*, 61-62; *The Silver Horde*, 182.

43 Wirt, *Alaskan Adventures*, 110.

44 U.S., Post Office Department, *Annual Reports . . . 1900*, 210.

the southern coast at the point known as Katmai and running via Nushagak and Bethel to St. Michael, a distance of about 1,000 miles."[45]

The trip was successful, and the agent involved reported that the route was suitable for carrying a limited amount of mail while the streams were frozen. As a result, a service of two round trips a season was authorized for the winter of 1900-1901. It was intended principally to bring letter mail to the "intermediate points."[46] The next fiscal year a contract was made increasing the service to three round trips during the winter of 1901-1902.[47]

The mail carriers on the Katmai run must have had a number of exciting adventures and narrow escapes as they made their lonely journeys, and the letters they carried must have influenced a number of lives along the route; but no word of such matters is known to have survived. The name of only one -- "Charlie" Carter -- is remembered today, and that only because he was interviewed by Dr. Robert F. Griggs years later.

Carter told Griggs that the ice was "very treacherous" on upper Naknek Lake, "sometimes thawing out when the air temperature had not risen above 15° F." He interpreted this phenomenon to mean that there were hot springs nearby. As for the country he traversed, it was so deeply covered with snow that he gained little idea of its character.[48]

Available records do not reveal how long the winter mail service over Katmai Pass was maintained. One knowledgeable writer on the subject said the mail was hauled by dog sled over this route

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45 U.S., Post Office Department, *Annual Reports . . . 1900,* 210-211. Since the date of Wirt's arrival in Washington is not known, it is not possible to say at this time whether the Post Office expedition was dispatched before or after his interview with the Postmaster General.

46 *Ibid.,* 211.

47 U.S., Post Office Department, *Annual Reports . . . 1901,* 319-320.

48 Griggs, *The Valley of Ten Thousand Smokes,* 267. It is possible, of course, that Carter's venture was a private one and not under contract to the Post Office Department.

for "many years."[49] By the winter of 1904-1905 Valdez had become the main starting point for the mails to western Alaska, and this situation prevailed at least through 1908 and probably for long thereafter.[50] But it is not clear that this change supplanted the service via Katmai to Nushagak and other settlements south of the Yukon.[51]

It is certain, however, that as the beach sands at Nome were panned out after about 1900 and as mining in that region ceased to be a little man's game, the northward flow of prospectors gradually pinched out. Few men braved the rigors of the Katmai trail after the first flush of the mining excitement died; and "most of these were natives en route to visit relatives in villages across the Aleutian Range, or trappers with furs to sell at some distant trading post."[52]

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49 Smith, "The Cold Bay-Katmai District," 192.

50 U.S., Post Office Department, *Annual Reports . . . 1908*, 168-169. By 1908 the only routes to Nome considered feasible by the U.S. Geological Survey were the sea route, open from June to November, and the Yukon River route, which could be used all year. The latter was the only winter route to be mentioned in the Survey's detailed report on the Seward Peninsula mines. There was no mention whatsoever of the Katmai route. Collier, Hess, Smith, and Brooks, *op. cit.*, 59-60.

51 The "National Geographic Magazine Map of Alaska," issued in 1914, showed an overland postal route from Cold Bay (the present Puale Bay) south of Katmai across the peninsula south of Becharof Lake to Ugashik and then north up the Bristol Bay shore to Naknek and Nushagak. It would thus appear that the winter mail service across the peninsula continued long after 1904 but that the route was shifted some miles south of Katmai Pass, perhaps after the 1912 eruption closed the Katmai trail. Inquiries at the National Archives produce only the information that the records bearing on the trans-peninsula mail service no longer exist.

52 Cahalane, *A Biological Survey of Katmai National Monument*, 2.

CHAPTER X

Scientists and Prospectors

Knowledge of Russian discoveries of coal and petroleum in the Katmai region remained alive after the sale of Alaska to the United States, and reports of these finds soon came to the attention of American scientists and others who were interested in the resources of the newly acquired territory. About the time the treaty of transfer was ratified, April 9, 1867, it became apparent that forces in Congress might attempt to prevent consummation of the purchase by blocking the necessary appropriations. Secretary of State William H. Seward required reliable facts to counteract the disparaging remarks being circulated concerning the economic value of "Seward's Icebox."

Acting quickly, he consulted with the Secretary of the Treasury, and it was decided to send the Revenue Marine steamer *Lincoln* north with a small party of U.S. Coast Survey scientists. George Davidson headed the group. Although ostensibly the primary purpose of the cruise was to "afford protection to the revenue" until the new territory could be formally occupied, Davidson recalled later that his instructions were to "gather whatever information I could of the resources of that terra incognita."[1] The Smithsonian Institution prepared special directions for the collection of data about meteorology, natural history, and enthnology.[2]

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1 Oscar Lewis, *George Davidson, Pioneer West Coast Scientist* (Berkeley and Los Angeles: University of California Press, 1954), 43. The expedition was actually under the command of the captain of the *Lincoln;* and Davidson's duties were far more numerous than the mere gathering of scientific facts. Among other things, for instance, he was to select sites for lighthouses. See Bancroft, *History of Alaska,* 628-629; *Russian America,* 40 Cong., 2 Sess., House, Ex. Doc. No. 177 [part 1] (Ser. 1339), 189-192.

2 For these "suggestions," see *Russian America,* 192-195. For a general account of the origin of the expedition see Morgan B. Sherwood, "George Davidson and the Acquisition of Alaska," in *Pacific Historical Review,* XXVIII (May, 1959), 141-144.

During the four-month voyage in the summer and early fall of 1867, Davidson met Russian officials who gave him a sample of petroleum picked up two or three years earlier on the southeast shore of the Alaska Peninsula "at or near Katmay bay" by a Russian American Company teacher. The finder had reported that three streams in that vicinity were "covered with petroleum." Davidson speculated that should oil ever be used as fuel for steamships, "there was a prospect of a supply being obtained from the Katmai region.[3]

The expedition's geologist, Theodore A. Blake, heard from Captain Paul Lemascheffsky of the Russian American Company that coal also existed on the coast of the peninsula opposite Kodiak Island. According to this information the firm's steamer, the *Constantine*, had anchored in a bay at latitude 58°10', longitude 154°17' -- perhaps Kuliak Bay -- during 1865, and her commander, Captain Luidfoos, had discovered there "a vein of good coal, two feet in thickness."[4]

Davidson believed this evidence suggested "the strong probability of a large deposit of good coal." He urged the Government to make a thorough examination of the vicinity, preferably with an escort of troops from Sitka under the guidance of "scientific men."[5]

This was exactly the sort of information Seward wanted to hear from the first official United States scientific expedition to Alaska. Both of these finds were mentioned in Davidson's report dated at San Francisco on November 30, 1867, and printed early the next year for the use of Congress during deliberations

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3 *Russian America*, 252; also in George Davidson, *Coast Pilot of Alaska, (First Part), from Southern Boundary to Cook's Inlet* (Washington: U.S. Coast Survey, 1869), 36.

4 *Russian America*, 324.

5 *Ibid.*, 252.

over funds for the Alaska treaty.[6] It is possible that word of the discoveries was also among the matters communicated orally by Davidson to high government officials and before Congressional committees upon his return to Washington. Thus the Katmai area may have played a small part in overcoming opposition to the purchase of Alaska, even though the oil seeps mentioned undoubtedly were those in the Puale Bay (Cold Bay) and Becharof Lake region a short distance south of the present Katmai National Monument.[7]

When Davidson's important *Coast Pilot of Alaska* appeared in print during 1869, it contained further information concerning the presence of oil on the upper Alaska Peninsula. William Healey Dall, veteran of the Western Union Telegraph Expedition to Alaska in 1865-1867, had returned to Washington after an additional year of scientific exploration in the territory, and in an appendix to the *Coast Pilot* he announced that petroleum was to be found floating on the surface of a lake near Katmai Bay. "It is," he reported, "of the specific gravity of 25°, . . . quite odorless, and, in its crude state, an excellent lubricator for machinery of any kind."[8]

Scientific interest in the fossil fuels of the peninsula continued during the next year. The Revenue Marine cutter *Wayanda* spent the summer of 1868 examining the coast of Alaska from the tip of the southeastern "panhandle" to the Bering Sea. Her surgeon, Thomas T. Minor, collected natural history specimens and gathered information on resources for the Smithsonian Institution. Special attention was given to explorations for

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6 George Davidson, "Report of Assistant George Davidson Relative to the Coast, Features, and Resources of Alaska Territory," in *Russian America,* 219-361; also printed in U.S. Coast Survey, *Report of Superintendent . . . 1867,* 40 Cong., 2 Sess., House, Ex. Doc. No. 275 (Ser. 1344), appendix 18, pp. 187-329.

7 The influence of Davidson's information upon the passage of the appropriation bill is difficult to assess. The best discussion of the matter is in Sherwood, "George Davidson and the Acquisition of Alaska," 150-154; see also Lewis, *op. cit.,* 43-44; Sherwood, *Exploration of Alaska,* 32, 39.

8 William H. Dall, "Observations on the Geology of Alaska," in Davidson, *Coast Pilot,* 199.

coal and other minerals.[9] Fog prevented the steamer from making an intended stop at Katmai during the outward voyage, but perhaps the vicinity of the reported oil and coal deposits was visited on the return trip.[10]

"I went to Bristol Bay," Minor testified years later, in 1880, "and from Katway [Katmai] I got specimens of petroleum, which are now in the Smithsonian, or ought to be. The Indians reported that there were two or three lakes of it there. The stuff that they brought in was crude petroleum, which covered the surface of the lakes."[11]

During the summer of 1873 a report of unspecified origin reached San Francisco to the effect that the previous spring "petroleum was running to waste in streams that would, if cared for, yield fortunes at Katmai Bay." The editor of the *Alaska Herald* suggested that ship captains should visit the locality to see if the flow still continued, but if there was any response it did not lead to any immediate recovery activity.[12]

Despite the somewhat optimistic early reports concerning the fossil fuel potentialities of the Katmai area, there seems to have been a general feeling that the time for commercial development had not yet arrived. At least the available record shows little further interest in the subject for more than two decades.

Even the enigmatic Ivan Petroff, when reporting on the resources of the Alaska Peninsula opposite Kodiak Island for the Tenth Census of 1880, could not work up much enthusiasm over the mineral possibilities of the area. He mentioned that coal, together with "many indications of the existence of petroleum," had been found in the region, but he added that "if other mineral deposits are hidden within the recesses of the mountains they

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9 Sherwood, *Exploration of Alaska*, 120.

10 White, *A Cruise in Alaska*, 1-9. White does not provide details of the return trip.

11 U.S., Senate, Committee on Territories, *Civil Government for Southeastern Alaska*, 47 Cong., 1 Sess., Senate, Report No. 457 (Ser. 2006), 32.

12 *Alaska Herald* (San Francisco), August 25, 1873, p. 4.

have thus far escaped the searching eye of the prospector and explorer."[13] Near Katmai, he stated, "both coal and petroleum have been found, but not abundant in quantity or excelling in quality."[14]

A decade later the report of the Eleventh Census reflected even less enthusiasm. It merely repeated with slight change Petroff's remark that the petroleum and coal discovered in the vicinity of Katmai were "not in abundant quantity or excelling in quality."[15]

Except for the sea otter, the caribou, and other fur-bearing animals, apparently the only resource of the Katmai area being commercially exploited in 1890 was the salmon. These fish were then so abundant at Kukak Bay that several of the canneries at Karluk, on Kodiak Island, found it profitable to send their steam tenders across Shelikof Strait for "an occasional haul" during intervals between runs closer to their plants.[16]

Meanwhile, however, general public interest in Alaska's resources, particularly minerals, was on the increase. Even before the transfer of the territory to the United States American explorers had panned small amounts of gold on the Seward Peninsula, and before the end of 1867 a sample of quartz gathered near Kodiak had been sent to San Francisco for assaying.[17]

After the purchase gold discoveries multiplied, particularly along the southeastern coastal strip. Juneau was founded in 1880 as the result of strikes along Gastineau Channel. Two years later a stamp mill was erected at what was to become the famous Alaska Treadwell Mine on Douglas Island. By 1885 reports by

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13 Ivan Petroff, "Report," *Tenth Census*, VIII, 25. Perhaps Petroff had not heard the report afloat early in 1871 that "deposits of rich amber have been discovered near Lake Illook [a contemporary name for Iliuk Arm of Naknek Lake]. *Alaska Herald* (San Francisco), February 18, 1871, p. 3.

14 *Ibid.*, 87.

15 U.S., Census Office, *Eleventh Census*, 14, 72.

16 *Ibid.*, 72.

17 *Russian America*, 321.

prospectors and explorers had started rumors that gold abounded on the Yukon and elsewhere in the interior, and a succession of small rushes was soon under way. In his annual report of October 1, 1886, Governor Alfred P. Swineford boldly declared, "Alaska is the coming great gold and silver mining field of the world."[18]

Optimism, though somewhat more restrained, was also beginning to appear with regard to other minerals, notably coal and oil. During the 1850's the Russian American Company mined coal on Cook Inlet both for use in its own ships and shore installations and for export to San Francisco, but the operation was not a financial success and seemingly ended when the plant burned in 1860.[19]

As early as 1871 a group of San Francisco promoters incorporated to develop known coal fields on Unga Island near the tip of the Alaska Peninsula. Their operations met "but indifferent success."[20] In the 1880's and early 1890's additional companies were organized to utilize these deposits and those on Cook Inlet

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18 Alaska, Governor, *Report of the Governor of Alaska,* October 1, 1886, II, 953. An excellent summary of the development of gold mining in Alaska is in [Benjamin F. Gilbert], *Alaska History, 1741-1910* (National Park Service, National Survey of Historic Sites and Buildings, Theme XXI, Political and Military Affairs, 1865-1910, Special Study; multilithed, [San Francisco], 1961), 78-91.

19 Gilbert, *op. cit.,* 79. Other writers, however, assert that the Russians continued to mine coal for their steamships until about 1867. For example, see Ralph W. Stone, "Coal Resources of Southwestern Alaska," in Alfred H. Brooks and others, *Report on Progress of Investigations of Mineral Resources of Alaska in 1904* (U.S. Geological Survey Bulletin 259, Washington, D.C., 1905), 152. When Captain J. W. White, of the Revenue steamer *Wayanda,* visited the former Russian mine on June 3, 1868, he found the works "long since abandoned, from appearances." White, *op. cit.,* 3.

20 *Alaska Herald* (San Francisco), October 19, 1871, p. 2; September 24, 1873, p. 5. Captain J. W. White examined the coal deposits on Unga Island during the summer of 1868 but was not impressed by their quality. White, *op. cit.,* 5. However, the Alaska Commercial Company evidently soon began to mine the Unga coal and long used it on its ships and at its shore stations. Kitchener, *Flag Over the North,* 124.

and elsewhere. While several of these firms actually commenced operations, their activities were generally unprofitable and of short life. The only consistent use of Alaska's coal resources during this period was by local residents and fish canneries which tapped seams at scattered locations for fuel. But the hope of finding vast deposits of commercial value kept prospectors busily sinking test holes at numerous isolated places.[21]

The first known oil claims in Alaska were staked in 1882 on the west shore of Cook Inlet, but the first real effort at development came in 1892 when claims were marked in the same general area, at Oil Bay and Dry Bay in the Chinitna region, about fifty or sixty miles north of Cape Douglas. No serious attempt was made on either occasion to explore the petroleum resources of the area, and the claims were soon abandoned.[22] But, as with other minerals, surface signs here and elsewhere awakened dreams of a great "strike," and prospectors continued to search.

Evidently this growing public interest in the mineral potentialities of Alaska brought requests for government studies to determine the extent of exploitable deposits, or perhaps federal officials themselves saw the need for such surveys. At any rate, early in 1895 Congress made a modest appropriation of $5,000 for the investigation of the gold and coal resources of the territory. These two minerals at the time seemed to offer the greatest possibilities for large-scale commercial development.

The funds were to be expended under the direction of the United States Geological Survey. George F. Becker was placed in charge of the project, and he selected William H. Dall, who by that time had joined the Geological Survey, to accompany him to examine the coal deposits.

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21 An excellent account of early coal mining in Alaska is to be found in Dall, "Report on Coal and Lignite of Alaska." See also Stone, *op. cit.*, 152.

22 Miller, Payne, and Gryc, *Geology of Possible Petroleum Provinces in Alaska*, 1, 4, 9, 35. For more details on the early development of this field see G. C. Martin, "Petroleum Fields of Alaska and Bering River Coal Fields," in S. F. Emmons and C. W. Hayes, *Contributions to Economic Geology, 1903* (U.S. Geological Survey Bulletin 225, Washington, D.C., 1904), 379.

Thanks to the Navy, the two geologists and Becker's personal assistant, Chester W. Purington, enjoyed "every facility" for reaching points along the coast of southeastern Alaska, but west of Sitka they failed to find "suitable" transportation. They were forced to take the mail steamer to Kodiak, where they were able to hire a small tugboat. In this craft, Becker later recalled, they accomplished a cruise of more than 1,300 miles "with great discomfort and some risk."[23]

After circumnavigating Kodiak Island the party crossed Shelikof Strait to Cape Douglas, where an anchorage was found in a small bight on the north shore -- undoubtedly Dry Bay (the present Sukoi Bay). From here the survey was continued to the northeast in the Cook Inlet and Kenai Peninsula regions before the examination of the Alaska Peninsula was resumed. The geologists coasted the shore of the present Katmai National Monument from near Cape Douglas to the southern boundary. Only one stop, on the shore of Amalik Harbor behind Takli Island, was made before the party continued its way westward to the Aleutians.[24]

Becker found no gold within the present national monument, but he was greatly impressed by the four "superb" glaciers he observed at Cape Douglas. His photograph of the northern glacier at the cape confirms his assertion that these ice flows, "like most Alaskan glaciers, are remarkably free from moraines, and in the clear, dust-free air display their structure in a most diagrammatic fashion."[25]

Dall was more successful in his search for coal. Lignitic deposits were rumored to exist at Cape Douglas, but he could find no seam of any economic value in the vicinity. On the west shore of Amalik Bay opposite Takli Island, on the other hand, Dall observed three seams of "impure coal" near the bottom of a 250-foot-thick series of sandstones. About four inches of this material he described as "pure, glossy coal, having a bituminous aspect." He

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23 George F. Becker, *Reconnaissance of the Gold Fields of Southern Alaska . . .* (Extract from U.S. Geological Survey, *18th Annual Report*, Part III, Washington, D.C., 1898), 7.

24 This description of the route is based on Becker, *op. cit.*, chart following p. 80. See also Dall, "Report on Coal and Lignite of Alaska," 798-799.

25 Becker, *op. cit.*, p. 60 and plate XIV.

judged this deposit to be "a pretty good coal," which according to report was suitable for use in a blacksmith's forge. It contained more fixed carbon and less moisture than any other Alaskan coal of which he had an analysis. But he believed the thinness of the seam would preclude any commercial future for the deposit, though it might serve local needs.

Dall and Becker did not stop at Katmai Village, but they were aware of reports that both coal and petroleum had been found on the portage trail that crossed the peninsula from that point. From the map accompanying their report, it appears that the portage the two geologists had in mind was that utilizing Becharof Lake south of the present monument rather than that traversing Katmai Pass. No definite information concerning the coal deposits could be obtained, but Dall described the petroleum as "a dark lubricating oil, which is said to float on the surface of certain ponds or lakes."[26]

The Becker-Dall expedition of 1895 has been termed "the first attempt at systematic investigation of the mineral resources" of the Alaska Peninsula.[27] It marked the beginning of a coordinated series of Alaskan studies by the Geological Survey which continues to the present day. This program, which for years primarily emphasized economic mineral deposits, was to be of considerable importance in the later history of the Katmai region.[28]

Following Becker and Dall, the next Geological Survey party to visit the Katmai region was that under Josiah Edward Spurr in October, 1898. In addition to recording the best extant description of the scenery along the Naknek River-Katmai route as it existed prior to the eruption of 1912, Spurr later prepared a reconnaissance geologic map of that part of the peninsula based upon observations made during his journey. His topographer, W. S. Post, drew a topographic map of the entire route from Bristol Bay

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26 Dall, "Report on Coal and Lignite of Alaska," 798-799. Dall seems to have been the first person to record the Eskimo name "Amalik Bay." Orth, *Dictionary of Alaska Place Names*, 69.

27 Alfred H. Brooks in Atwood, *Geology and Mineral Resources of Parts of the Alaska Peninsula*, 7.

28 For a discussion of the origins and objectives of the Geological Survey's Alaska program, see Sherwood, *Exploration of Alaska*, 143-144, 171-173; and Orth, *op. cit.*, 39-40.

to Katmai which preserved knowledge of trail location and landscape features before large areas were inundated by the sandflows and ash falls of 1912.[29]

Spurr was not impressed by the mineral values of those portions of the Alaska Peninsula observed during his travels. "From the Lower Kuskokwim to Katmai . . .," he later wrote, "the gravels in general contain no trace of gold, the volcanic region being apparently without much mineralization."[30]

A colleague, summarizing what the Geological Survey had learned of mineral resources on the peninsula from several sources, including Spurr, stated in 1899 that except for deposits in the Shumagin group, there were "no reliable reports of gold" on the peninsula and its appended islands. He noted the three seams of "impure coal" known to exist at Amalik Bay near Katmai but had no comments to offer concerning their possible commercial use.[31]

The next scientific investigations in the present national monument were not sponsored by the government, although several Federal agencies cooperated in the venture. The Harriman Alaska Expedition of 1899 was a combined pleasure cruise and natural history exploration originated and financed by Edward H. Harriman, the railroad magnate. He chartered a steamer and, with a group of twenty-five distinguished scientists, three artists, two photographers, and his family -- 126 persons all told including the crew -- set out to record the natural and scenic wonders of seaboard Alaska.

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29 For details of the Spurr expedition see Chapter IX of the present report. For a brief summary of the geologic work of the reconnaissance, see Atwood, *op. cit.*, 11. Post's map is reproduced as Map 4 of the present study.

30 J. E. Spurr and W. S. Post, "Report of the Kuskokwim Expedition," in U.S. Geological Survey, *Map and Descriptions of Routes of Exploration in Alaska in 1898 . . .* (Washington, D.C., 1899), 37.

31 W. C. Mendenhall, "The Alaska Peninsula and the Aleutian Islands," in *ibid.*, 116.

On June 30, 1899, the expedition's vessel, the *George W. Elder*, steamed down Cook Inlet bound for Kodiak Island. Darkness fell long before the ship reached its destination, and it was late at night when she paused "off against Kukak Bay" to set ashore "five or six men" who planned to spend several days collecting and botanizing on the mainland.

"It looked like a perilous piece of business, the debarkation of these men in the darkness, in an open boat on an unknown coast many miles from shore," wrote the expedition's chronicler. But after a "hard pull" for several hours, the scientists safely landed on the Katmai coast, "and their days spent there were in every way satisfactory."[32]

It is difficult to ascertain the membership of this small party. If collecting records were accurately reported, there must have been more than five or six scientists in the camp at Kukak Bay. It is said, for instance, that plant specimens collected at Kukak by Frederick V. Coville, Thomas H. Kearney, Jr., William Trelease, and "others of the Harriman Expedition" were later deposited in the Smithsonian Institution.[33] Robert Ridgeway gathered a number of birds; and De Alton Saunders collected plant fossils.[34] B. K. Emerson and Charles Palache also gathered fossil plants from rocks of the Eocene Age at nearby Cape Nukshak.[35]

The "extensive collection of beautifully preserved fossil plants" from Kukak Bay constituted one of the principal scientific contributions of the Harriman Alaska Expedition. Descriptions of the specimens were published in 1906.[36]

Before they were picked up by the *George W. Elder* again on July 5, the party had time for a bit of sight-seeing. Walking up the long green slope back of their camp -- evidently at or near

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32 Harriman Alaska Expedition, *Harriman Alaska Series* (13 vols., New and Washington, 1901-1914), I, 77-78.

33 Cahalane, *A Biological Survey of Katmai National Monument*, 15.

34 *Ibid.*, 83; Arthur Hollick, *The Tertiary Floras of Alaska . . .* (U.S. Geological Survey, Professional Paper 182, Washington, 1936), 4.

35 Keller and Reiser, *op. cit.*, 263.

36 Harriman Alaska Expedition, *op. cit.*, IV, 28, 149-162.

the ancient native village site on the north shore -- they found themselves suddenly at the edge of a 2,000-foot precipice which dropped away to a valley. Opposite them a great glacier "swept down from the snow-white peaks beyond," forming a spectacle that "fairly took their breaths away."[37]

When the scientists returned to the *Elder* they were described as "well pleased with their expedition."[38] Apparently they were also among the first recorded boosters for the scenery of the Katmai coast.[39]

Three years later another party of biologists skirted the future Katmai National Monument. Although they did not cross the boundaries of the present park or even closely approach them, their observations on the fauna of the lower peninsula and the information they gleaned from others concerning animals and plants in the Naknek drainage are still of primary importance for students of Katmai's natural history.

This small group was sent out by the Department of Agriculture to make a biological reconnaissance of the base of the Alaska Peninsula, then virtually *terra incognita* to science but reported to be "a meeting ground of some of the life areas of Alaska."[40] The party was headed by Wilfred H. Osgood, an assistant in the Division of Biological Survey.

Leaving Iliamna Bay on Cook Inlet in July, 1902, Osgood and his companions crossed westward by way of Iliamna Lake, Lake Clark, and the Nushagak River to Bristol Bay. Here they abandoned canoe

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37 Harriman Alaska Expedition, *op. cit.*, I, 86-87.

38 *Ibid.*, I, 86.

39 An English adventurer, H. W. Seton-Karr, had coasted the southeastern shore of the peninsula in 1886. As a result of that experience he declared that a cruise in a "bidarky" from Katmai to Unga probably would be unequalled for scenery and sport (hunting). Seton-Karr, *Shores and Alps of Alaska*, 242.

40 Wilfred H. Osgood, *A. Biological Reconnaissance of the Base of the Alaska Peninsula* (U.S. Department of Agriculture, North American Fauna, No. 24 Washington, D.C., 1904), 9.

travel temporarily and engaged passage on a small schooner to Egegik, on the northwest coast of the Alaska Peninsula. From this point they took a well-known portage trail that led across Becharof Lake to Kanatak on Shelikof Strait. Making their way northward along the dangerous coast, they reached Cold Bay (the present Puale Bay) on October 13. Here, about 20 airline miles south of the future Katmai National Monument, they took shelter at the camp of some petroleum prospectors until they were picked up by the mail steamer two weeks later. An assistant on the expedition, Alfred G. Maddren, visited the Becharof Lake region during 1903 and sent additional specimens to Osgood.

Osgood's report, published by the Department of Agriculture in 1904, contained detailed accounts of what he could learn concerning the occurrence and distribution of animals and birds at the base of the Alaska peninsula. In his own estimation, except for some earlier natural history studies conducted by two employees at the Army Signal Service station at Nushagak between 1881 and 1886, "nothing of importance, previous to 1902, was done anywhere in the region."[41]

While government geologists like Becker, Dall, and Spurr were examining the Katmai region and finding little to enthuse over as far as mineral possibilities were concerned, and while scientists of the Harriman Expedition were making a bare beginning at unveiling a few of the area's natural values, the hardy independent prospectors of Alaska kept up their constant probing. Their activities both north and south of the present national monument drew increased attention to the mineral potentialities of the Alaska Peninsula and resulted in renewed government studies of the Katmai region.

In 1896 two men named Pomeroy and Griffen revived interest in the Oil Bay petroleum field only about fifty miles north of Cape Douglas by staking claims. A company was organized, and drilling began two years later. A second well was started at nearby Dry Bay in 1902, and the Cook Inlet Petroleum Field, later known as the Chinitna District, was on its way to enjoying a flurry of excitement. The Alaska oil fever was further increased by the finding of "abundant" seepages at Controller Bay near the mouth of Copper River. The first well was drilled there in 1901.

With this burgeoning interest in Alaskan petroleum, it is not at all surprising that prospectors soon followed up the long-

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41 Osgood, *op. cit.*, 26.

existing reports of oil seepages near Katmai. Almost nothing definite is known of the private explorations in this region, except that by the summer of 1903 passengers, supplies, and drilling outfits had been landed at Cold Bay (the present Puale Bay), only about 20 miles southwest of Cape Kubugakli, on the present southern monument boundary. It is probable, however, that there was drilling activity near Cold Bay as early as 1902.[42]

In any case, before the end of summer in 1903 several miles of wagon road had been constructed from the landing place on Cold Bay toward the so-called "east field," on Becharof Creek, Trail Creek, and Oil Creek, about five miles inland from the coast. Although the available information is somewhat vague and contradictory, it appears that three wells had been started before the winter of 1903, two by the Pacific Oil and Commercial Company and one by J. H. Costello.

Although these wells generally produced "shows" of oil and gas, no flows of commercial quantity were found. Two new wells, one by each driller, were started during 1904 with equally discouraging results. For one reason or another -- lost tools, uncontrollable flow of water, or simply failure to strike oil -- the wells were abandoned.

After 1904 there was very little activity in the Cold Bay Field, and by 1906 matters were at a "virtual standstill." Elsewhere in the territory operations had been little more successful, and the turn-of-the-century oil "boom" quietly fizzled out. In 1910 the federal government withdrew all petroleum-bearing lands in Alaska from entry, putting a temporary damper on oil prospecting in the territory. Some of the operators in the Cold Bay region had already established title to claims, however, and

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42 Miller, Payne, and Gryc, *op. cit.*, 38. In October, 1902, J. H. Lee was at Cold Bay in "charge of a small camp engaged in locating petroleum lands." Osgood, *op. cit.*, 20-21. A recent study definitely states that the Pacific Oil and Commercial Company started a well near Oil Creek in 1902. U.S., Bureau of Mines, Anchorage Office of Mineral Resources, Oil Exploration Areas surrounding Katmai National Monument, MS, 2.

these were kept alive against the day when interest in Alaska's oil resources might be renewed.[43]

Before it died, however, the Alaskan oil "boom" of 1898 to 1904 resulted in further government explorations on the upper peninsula. In response to a "general demand" for information on coal and petroleum resources, the Geological Survey conducted a reconnaissance of known fossil fuel fields at Controller Bay, the Bering River, the west shore of Cook Inlet, and Cold Bay during the period of June through August, 1903. The study was made by George Curtis Martin, a geologist who was to play an important role in the later history of the Katmai area.

During his 1903 trip Martin's only reported stop near the present monument was at the Cold Bay petroleum field a few miles below the present southern boundary. He noted the drilling then in progress and observed: "If petroleum should be discovered in commercial quantities in this region, it can be piped from the wells to Cold Bay by gravity and shipped from there to San Francisco or to Puget Sound ports."[44]

He also reported that oil seepages on some hillsides several miles inland from Cold Bay had "already been of considerable importance in the development of the region." Petroleum from these seeps had impregnated nearby beds of peat with paraffin wax, thus creating a fuel "of greatest value, replacing even coal from the mines of Puget Sound, imported in large amount for use under the boilers in drilling operations."[45]

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43 This account of the 1896-1910 activities concerning oil is based upon the following sources: Capps, "The Cold Bay District," 77-79; Martin, "Petroleum Fields of Alaska and the Bering River Coal Fields," 365-381; George C. Martin, *The Petroleum Fields of the Pacific Coast of Alaska, with an Account of the Bering River Coal Deposits* (U.S. Geological Survey Bulletin 250, Washington, D.C., 1905), 10-55; Miller, Payne, and Gryc, *op. cit.*, 35-38.

44 Martin, "Petroleum Fields of Alaska and the Bering River Coal Fields," 365, 381.

45 *Ibid.*, 381.

Martin continued his geological surveys on the Alaska Peninsula during the summer of 1904. He was assisted by R. W. Stone and had the cooperation of T. W. Stanton, who spent the season collecting fossils and studying stratigraphy. The work was devoted largely to examining the Mesozoic section and to further reconnaissance of coal deposits. Observations were made along the shore in the Katmai area.[46]

R. W. Stone was detailed by Martin to discharge most of the responsibilities of the survey relating to coal deposits. Reaching the vicinity of the present national monument by sloop, he was detained at Cape Douglas during the entire month of July, 1904. This delay gave him ample opportunity to investigate the reports of coal which had enticed Dall to the same area in 1895. Stone found that these rumors probably were based on beds of black shale exposed on the coastal bluff, and he concluded that no coal seam of any value existed at Cape Douglas.

Continuing southward, he did not enter Amalik Bay due to the slowness of his vessel, but he did measure an exposed seam of coal on the shore about one mile southwest of Takli Island at the harbor's entrance, and he noted another deposit about eight feet thick a short distance farther down the beach. "Although the thickness of these seams is several feet," he later reported, "it will be seen readily that because of their small extent and bony character they have no value."[47]

Concerning Katmai, he noted the earlier reports that coal had been found "on one or more" of the trails leading out from that point. No confirmation of these stories could be obtained.[48]

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46 Atwood, *op. cit.*, 11; Brooks and others, *Report . . . Mineral Resources of Alaska in 1904*, 16; Smith, "The Cold Bay-Katmai District," 183-184; Stone, *op. cit.*, 151. During his survey, Martin obtained from the "chief" at Katmai the local names of several geographic features in the vicinity. Those reported by him and appearing on official maps today include Alinchak Bay, Dakavak Bay, and Dakavak Lake. Orth, *op. cit.*, 66, 255.

47 Stone, *op. cit.*, 160-162.

48 *Ibid.*, 162.

Martin revisited the Cold Bay oil field in 1904, and he personally conducted those phases of the survey relating to petroleum resources.[49] As a result, he formed some very definite ideas concerning oil prospects in the Katmai vicinity.

He noted that seepages were reported from the shores of Kamishak Bay, "especially at Douglas River," the lower course of which is only about four miles west of the present monument boundary in the Cape Douglas region. "The rocks are here horizontal or have very gentle dips over large areas, and it would seem to be a promising region to prospect with the drill," he wrote in a report published during the next year. "This is, however, a difficult place to land machinery," he warned, "for the bays are all shallow and filled with rocks, while numerous uncharted reefs extend out many miles from shore into Cook Inlet. The writer is, therefore, not inclined to encourage speculation here, at least until more encouraging news is heard from drills already at work [at other fields]."[50]

"The geology of the coast . . . between Douglas River and Katmai does not warrant in the slightest degree any petroleum prospecting," he further cautioned. "Along much of this coast are only volcanic and other crystalline rocks, in which the occurrence of petroleum is an absolute impossibility."[51]

Alfred Hulse Brooks, long head of the U.S. Geological Survey's operations in Alaska and ardent student of Alaska history, later credited Martin with having made, during his 1903 and 1904 expeditions, "the first examination of petroleum seepages" on the Alaska Peninsula.[52] This statement may have been true if it referred only to Geological Survey studies. But the Coast Survey and the Smithsonian Institution had investigated reports of petroleum from the Katmai area as early as the 1860's, and hard-headed prospectors

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49 Atwood, *op. cit.*, 120; George C. Martin, "Notes on the Petroleum Fields of Alaska," in Brooks and others, *Report on . . . Mineral Resources of Alaska in 1904*, pp. 128, 136; Martin, *The Petroleum Fields of the Pacific Coast of Alaska*,

50 Martin, "Notes on the Petroleum Fields of Alaska," 138.

51 *Ibid.*, 139.

52 Preface to Atwood, *op. cit.*, 7.

by 1903 had already gambled considerable sums in developing the Cold Bay field which they must have discovered as the result of earlier private investigations of surface seepages.

The Geological Survey continued to work away at studies of the Alaska Peninsula during the remainder of the twentieth century's first decade, notably in 1908 when Wallace W. Atwood conducted an extensive reconnaissance. But official interest in the petroleum seepages and other minerals in the Katmai region ebbed away after the wells at Cold Bay were abandoned following the 1904 season and after publication of George C. Martin's discouraging appraisals.

CHAPTER XI

"Look at the Smoke"

Toward the end of May, 1912, human affairs in the Katmai region were in the doldrums. During the previous year sea otter hunting, already ended for all practical purposes by the near extinction of those beautiful animals, had been declared illegal. Salmon fisheries and canneries had taken up some of the economic slack resulting from the decline of the fur trade, but the number of Katmai area natives employed in this industry is difficult to determine. The Katmai trail no longer attracted crowds of miners bound for Nome, and no evidence has been found that any of the trading stations along the monument coast still remained active.

From the meager information available, it would appear that a number of the Eskimos both on the coast and in the Naknek drainage remained in their home villages or in seasonal camps, hunting, fishing, and gathering the abundant local food resources as their ancestors had for untold generations. But by late May those who wished to earn money had largely left for the salmon fisheries and canneries.

The only known fishing station on the coast of the present monument in 1912 was situated at Kaflia Bay, a deep indentation in the shoreline about 30 airline miles northeast of Katmai Village. Despite a later statement by Robert F. Griggs that all but six of Katmai's inhabitants "had been away fishing at Kaflia Bay for some time before the eruption," it appears that the number of people employed there was actually rather small -- five natives to be exact.[1] Undoubtedly, however, additional Eskimos were at Kaflia as independent fishermen who sold their catches to the station.

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1 Griggs, *The Valley of Ten Thousand Smokes*, 17; U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 125. George C. Martin, an early and reliable collector of information about the eruption, also said that most of Katmai's inhabitants were at Kaflia when the volcanic outburst began. Martin, "The Recent Eruption," 141.

Another nearby center of economic activity was located at Cold Bay (the present Puale Bay) about 35 miles southwest of Katmai and outside the monument boundaries. There C. L. Boudry, described as "a cannery representative in charge of a fishing station," also had collected a crew of fishermen. These natives, said a writer many years later, were "all from Katmai village."[2] How nearly all of Katmai's population could have been at Kaflia and at Cold Bay simultaneously is a puzzle which may never be solved.

Another resident of Cold Bay at that time was "the well known Canadian explorer" Jack Lee.[3] His business is not stated in available records, but he probably had some connection with the nearby oil wells, then seemingly abandoned.[4] There also may have been a trading store at Cold Bay, since a native family which habitually fished during the summers at Dakavak Bay was outfitting there early in June.[5]

Across the Aleutian Range on the Bristol Bay slope the natives had also moved for the summer to the canneries and

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2 Erskine, *Katmai*, 56, 61. For the presence of Boudry (but not his occupation), see also Martin, "The Recent Eruption," 147; Griggs, *The Valley of Ten Thousand Smokes*, 17. The *Seward Weekly Gateway* for July 13, 1912 (p. 2), said that the natives at Katmai had gone to "Coal [*sic*] Bay," but it did not specify whether the move was made before or after the earthquakes that marked the start of the eruption.

3 Griggs, *The Valley of Ten Thousand Smokes*, 17; *Seward Weekly Gateway* (Seward, Alaska), July 13, 1912, p. 3.

4 In October, 1902, a J. H. Lee was at Cold Bay in charge of a small party locating petroleum lands. Osgood, *A Biological Reconnaissance of the Base of the Alaska Peninsula*, 20-21. In 1921 it was reported that Mount Lee, 45 miles northeast of Ugashik and not far from Cold Bay, had been named for an oil prospector. Orth, *Dictionary of Alaska Place Names*, 570.

5 U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 123. It is known that the structures erected on the west side of Cold Bay during the oil drilling excitement were "used by traders" for "many years" prior to 1923. Smith, "The Cold Bay-Katmai District," 191.

fishing stations, though as on the Shelikof Strait side, there seems to be conflicting evidence as to the percentage of the population which sought this type of employment. According to one account, by June 6 the salmon packing plant at Naknek was "fully staffed, waiting for the season to begin."[6] A goodly proportion of the working force evidently came from Savonoski on the upper Naknek River drainage.

Thirty-nine years later Mrs. Pelagia Melkanak, a former Savonoski resident, said that during the summer salmon runs the families of that village went to Naknek on the Bristol Bay coast, where the men were employed as fishermen and the women worked in the canneries. She implied that such had been the case in 1912, except that there were some people at a "fishing lodge" on Brooks Lake as late as June 6. Mike McCarlo, an Eskimo resident of South Naknek in 1961, said that by early June two families remained behind at Savonoski to fish and hunt ducks, while all the rest of the inhabitants had left to work at Naknek.[7]

On the other hand, records made at the time of the volcanic eruption which burst forth in the Katmai region on June 6, 1912, while far from specific, give a general impression that a fairly large number of people fled in terror from the upper Naknek drainage basin to the Bristol Bay shore. George C. Martin, who in 1912 gathered all the information he could about the volcanic disturbance, reported that the natives of Savonoski came to Naknek very much excited by the fires and explosions they had witnessed.[8]

"American Pete," the "chief" of Savonoski, said in 1918 that when Katmai Mountain blew up "everybody got in bidarka . . . come Naknek one day."[9] On June 17, 1912, only eleven days after the initial eruption, the *Cordova Daily Alaskan* said that the

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6 Erskine, *Katmai*, 56.

7 Report to the National Park Service . . . on Tape Recordings, MS, 7, 15. One report says that among the persons at Savonoski when the volcanic activity began was Bob Scott, "a prospector," who with the natives fled in boats down the lake. Clarence Norman Fenner, "Earth Movements Accompanying the Katmai Eruption," in *Journal of Geology*, XXXIII (April-May, 1925), 216.

8 Martin, "The Recent Eruption," 147.

9 Griggs, *The Valley of Ten Thousand Smokes*, 17.

natives on the Bristol Bay side of Mount Katmai had fled from the mountains and "flocked to the cannery stations."[10]

It is doubtful that such terms would have been used had only two or three families been involved. On balance, then, one must conclude that the majority of the upper Naknek natives were at Bristol Bay by the beginning of June but that a not insignificant minority remained behind to hunt and fish in the traditional summer pattern.

As might be imagined of a land where prospects for economic gain were momentarily few, where centers of population and routes of commerce were distant, and where a generally dangerous coast and a frequently inhospitable climate discouraged all but the most determined and well-equipped visitors, the Katmai region in 1912 was little known to the world. Evidently vessels of the Alaska Steamship Company still occasionally put in at Katmai Bay to deliver mail and supplies during the lonely run from Kodiak and Karluk to Unalaska, but otherwise the harbors of the Katmai coast saw few craft save those of traders and fishermen.[11]

The shoreline of the present monument had long been charted, but there yet remained undelineated inner harbors and even incorrectly mapped entrances.[12] The Aleutian Range behind the coast was still largely unsurveyed, except where crossed by communication routes such as the Katmai Trail and except for the major peaks and headlands visible from distant triangulation stations.

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10 *Cordova Daily Alaskan* (Cordova, Alaska), June 17, 1912, p. 1. For a similar report see *The Call* (San Francisco, California), June 15, 1912, p. 18. Dated at Naknek, on June 14, this account said the "natives are flocking from the interior," accompanied by their entire families.

11 National Geographic Society, "National Geographic Magazine Map of Alaska . . . [1914]."

12 For examples of such oversights see Griggs, *The Valley of Ten Thousand Smokes*, 325-327.

In the vicinity of Katmai Village, two peaks were particularly conspicuous along the dividing ridge and were named on contemporary charts.[13] These were Mageik Volcano and Katmai Volcano.

The former, though only 7,244 feet high, was in some respects the more prominent of the pair. A handsome, massive pile with a multi-peaked summit, it rose boldly from the head of the Katmai Valley. It was quite the dominant feature of the landscape as one looked northwest from the native settlement, and no matter in which direction one traveled on the Katmai Trail it was Mageik and not Katmai Volcano that attracted the eye.[14]

Katmai Volcano was taller. Coast and Geodetic Survey Chart Number 8555, prepared before the eruption, clearly shows the shape and height of the mountain as observable from a triangulation station placed at Cape Kubugakli, on the coast about 25 miles to the south.[15] Katmai possessed three peaks which measured 7,500 feet, 7,360 feet, and 7,260 feet -- all higher than the summit of Mount Mageik. As Professor Robert F. Griggs later stated, "the original peak was certainly a majestic snow cap."[16]

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13 For example, see National Geographic Society, "National Geographic Magazine Map of Alaska . . . [1914]."

14 Griggs, *The Valley of Ten Thousand Smokes*, 275. Contrary to generally accepted statements (see Orth, *op. cit.*, 614), Mageik Volcano, or Mount Mageik as it is now known, was named long before the National Geographic Society expeditions of 1915 and 1916. The name "Mageik Volcano" was in use at least as early as 1909 and probably much earlier. Atwood, *Geology and Mineral Resources . . . Alaska Peninsula*, plate VI.

15 Professor Robert F. Griggs was later unable to find any record that the survey party at Kubugakli had actually made observations of Katmai Volcano, but he believed the mountain as shown on the chart corresponded well enough with the remnant that remained after the eruption "to inspire some confidence" in the accuracy of the map. Griggs, *The Valley of Ten Thousand Smokes*, 275.

16 *Ibid.*

Unfortunately for its reputation, however, Katmai Volcano was not situated so that its commanding presence could be readily appreciated by many visitors to the area. Although it was the third highest peak at the base of the Alaska Peninsula, it was flanked by lesser summits and foothill ridges and thus from many viewpoints was not particularly outstanding along the 7,000-foot crest of that section of the Aleutian Range which stretches from Cape Kubugakli to Cape Douglas.

For example, from Katmai Village all sight of the mountain, except perhaps for the very top, was cut off by the intervening Barrier Range. Even from the Katmai Trail, which crossed its flank, the peak lay so far to the east that it attracted little attention from travelers whose minds were on the difficult terrain beneath their feet.

Nevertheless, as subsequent events clearly showed, Katmai Volcano was a recognized landmark, well known to the native and European inhabitants of the peninsula and to the navigators who plied the stormy Alaskan seas. It appears that Professor Griggs was correct when he later said, "We may be fairly sure that Katmai was the dominant peak of the district."[17] But it was also true that most people who had not visited Southwestern Alaska and a good number who had, had never heard of Katmai Volcano.

There was no reason why Mount Katmai should have been widely known. As its name on the Coast and Geodetic Survey chart clearly indicated, it was recognized as a volcano, but it had been somnolent for so long that there was no record or even native legend

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17 Griggs, *The Valley of Ten Thousand Smokes*, 275.

of its ever having been in violent eruption.[18] As one among nearly 80 volcanoes in the great arc running from Attu Island in the Aleutian Islands to Mount Spurr near Anchorage, many of which had been spectacularly active during historic times, Katmai was scarcely noticed.[19] In fact, according to one long-time resident of Kodiak, most of the local inhabitants "did not even know it was a volcano."[20]

Yet there were indications that activity might still be expected from Mount Katmai and the other volcanoes in its immediate vicinity. In 1898, for instance, when geologist J. E. Spurr ascended the lush green valley of the Ukak River and traversed Katmai Pass, he recorded that earthquakes and other evidences of volcanic action were "very frequent," and the natives told him that one of the volcanoes -- he did not say which one -- emitted smoke occasionally.[21]

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18 Martin, "The Recent Eruption," 131. Perhaps, however, notice should be made of a report that in 1913 a former "Aleut" resident of Katmai claimed that the volcano had been inactive for 52 years prior to 1912 but that as a child he climbed a ridge back of the village at night "to watch fire issue from Mt. Katmai." Mel A. Horner and Gladys Brain, "First Into Katmai," in *Alaska Life*, vol. 10, no. 1 (January, 1947), 6.

The origin of the many subsequent statements to the effect that the natives had no knowledge of previous volcanic activity at Katmai seems to have been a press dispatch dated at Valdez on June 8, 1912. Its statement that the natives had "no tradition" of former activity was repeated by Martin and later writers almost word for word. *The Call* (San Francisco, California), June 9, 1912, p. 1.

19 Howel Williams, ed., *Landscapes of Alaska: Their Geologic Evolution* (National Park Service, Recreation Survey of Alaska, vol. I of Part Four, Berkeley, California, 1958), 61-75. We have already noticed that there is evidence of a number of pre-1912 ashfalls in the Katmai vicinity, but there is no proof that any of these came from Katmai Volcano.

20 Erskine, *Katmai*, 50.

21 Spurr, "A Reconnaissance in Southwestern Alaska," 92, 232.

Those inhabitants of Katmai Village and Savonoski who had chosen to remain at home rather than go to the fisheries probably were not too alarmed, therefore, when on June 1, and perhaps even a day or two earlier, the earth began to tremble in an ominous manner. But when the quakes continued to gain in intensity during the next few days, consternation became general. The natives at Savonoski later reported hearing a "funny noise," which after the first explosion they learned to identify as a signal that a volcano was "going to blow, or something."[22]

On the fourth and fifth of June the shocks were so severe that they were felt as far away as Kanatak, 65 miles to the southwest, and Nushagak, 130 miles to the northwest.[23] Some sort of volcanic activity probably took place near Mount Katmai on the evening of June 5, since observers at Cold Bay were struck by the fact that the sky in that direction looked "black and storming" despite the unusually clear weather elsewhere along the coast.[24]

By that time, evidently, most of the natives in the coastal villages had decided to seek safety elsewhere. The place most of them turned to was the fishing station at Kaflia Bay. The reason for this decision has not been recorded, but it is possible that the refugees hoped to find a vessel there which would carry them out of the danger zone. At any rate, when Lieutenant W. K. Thompson of the Revenue-Cutter Service reached Kaflia a few days later, on June 12, he found the place "comprised of natives from Cape Douglas to Katmai, seismic disturbances having caused them to abandon their usual camps and seek mutual protection at Kaflia Bay."[25]

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22 Report to the National Park Service . . . on Tape Recordings, MS, 9.

23 Griggs, *The Valley of Ten Thousand Smokes*, 19.

24 Martin, "The Recent Eruption," 143.

25 U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 125. It is probable that Lieutenant Thompson was not correct in stating that nearly all the persons at Kaflia were refugees. Undoubtedly, as other sources have indicated, a high percentage had already assembled there for economic reasons.

The last two families left in Katmai Village took their departure on June 4. Numbering six persons, they embarked in their boats, at least one of which was an open dory, and headed not for Kaflia but southward toward Cold Bay.[26] That evening or perhaps the next they made camp on or near Cape Kubugakli between Kashvik and Alinchak Bays.

They were still there on June sixth when the volcanic outburst they had feared took place. Evidently they were so situated as to have a grandstand seat for the awesome display, but when ash and pumice began to fall around them they made a quick departure for Cold Bay. C. L. Boudry recorded their arrival in his diary under date of June 8:

> Two family arrived from Katmai scared and hungry and reported the volcanoes up 15 mile from Katmai to the left of Toscar trail and that 1/2 the hill blun up and covered up everything as far as they could see also that small rock were falling for 3 or 4 miles at sea but could not say more of it as every thing es closed up with smoke . . . . The rocks an fall in their boat are of the size of coarse rice and of the pumice stone formation. No one es lost as far as they know but all the natives are east of Katmai and the main flow of smoke go there as a strong SW wind blowing so they are in a bad way.

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26 Later reminiscences of Katmai natives who experienced the eruption tend to give the impression that at least two families continued to live at Katmai during the explosive phase and remained until rescued by the cutter *Manning*. As will be shown in the next two chapters, however, the first rescue units to reach Katmai Village after the eruption found no evidence of human occupation during the ashfall. The experiences described probably occurred at Kaflia. Report to the National Park Service . . . on Tape Recordings, MS, 2-4.

Jack Lee also jotted a record of the event in his journal. "They report the top of Katma Mountain blun of," he wrote. "There was a lot of Pummy stone in their dory when they got here and the say Hot Rock was flying all eraund them."[27]

Boudry and Lee did not see the eruption themselves because of intervening mountains, but they did feel unusually hard shocks and heard "terrific explosions" at one o'clock on the afternoon of June 6.[28] In fact it was not until the next day, when they saw a great cloud to the north, that they realized a major volcanic disturbance was under way.[29] Their notes on the quakes, explosions, and rains of ashes and acid which marked the following days, weeks, and months constitute one of the most valuable records of the great Katmai eruption of 1912.

The people at Savonoski, only 21 miles northwest of Katmai Volcano, were also among the few persons to have a close-up view of the outburst, and they would gladly have foregone the experience. "American Pete," the head man of the village, had become alarmed by the shakings and rumblings during the first few days in June, and about the fifth or sixth he decided to rescue some hunting equipment he kept stored in a barabara at Ukak, a seasonal camp about seven to nine miles south of Savonoski along the trail to Katmai Pass.

He was at or near Ukak when the first explosion occurred. Six years later he gave the following graphic account of his subsequent actions:

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27 Griggs, *The Valley of Ten Thousand Smokes*, 17. The basic authority for this account of the two Katmai families is Martin, "The Recent Eruption," 147.

28 Erskine, *Katmai*, 55; Griggs, *The Valley of Ten Thousand Smokes*, 21.

29 Martin, "The Recent Eruption," 147.

> The Katmai Mountain blew up with lots of fire, and fire came down trail from Katmai with lots of smoke. We go fast Savonoski. Everybody get in bidarka. Helluva job. We come Naknek one day, dark, no could see. Hot ash fall. Work like hell.[30]

"American Pete" and his companions could be thankful that the prevailing winds carried most of the ejecta away from them. Even so the 60-mile paddle over Naknek Lake and down the Naknek River to the settlements near Bristol Bay was a severe ordeal. The refugees were reported as being very much excited when they reached Naknek, and they told cannery employees that the entire upper half of Katmai Volcano had been blown "sky high."[31]

One other group of men had a reasonably near view of the eruption. They were the captain and crew of the ubiquitous *Dora*. That infamous little steamer was on her way back from one of her regular voyages to the Aleutians, and early on the morning of June 6 she stopped briefly at Uyak on the west shore of Kodiak Island. The cannery workers and other residents there were feeling some anxiety due to the severe earthquakes which had shaken them during the past few days, but such matters seem not to have caused much concern to Captain C. B. McMullen of the *Dora*. It was an "exceptionally beautiful" day, and the old tub was soon ploughing up Shelikof Strait toward Kodiak, her next port of call.

At one o'clock in the afternoon the vessel turned almost directly eastward into Kupreanof Strait which separates Kodiak and Afognak Islands. Most of the hands were on deck enjoying

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30 Griggs, *The Valley of Ten Thousand Smokes*, 17. It seems clear from this account that "American Pete" was describing the first major outburst in the Mount Katmai vicinity which occurred about one p.m. on June 6. The matter has been somewhat obscured by the insistence in 1961 of Mrs. Pelagia Melkanak, a Savonoski resident who was already at Naknek when the eruption started, that the mountain blew up at night, when "big fires come out all over." Report to the National Park Service . . . on Tape Recordings, MS, 6. It is not clear whether she was referring to the preliminary volcanic activity which appears to have occurred on the evening of the 5th or to the violent explosions which began on the afternoon of the 6th and continued into that evening.

31 Erskine, *Katmai*, 56; Martin, "The Recent Eruption," 147.

the sunshire, the scenery, and their postprandial cigars. Suddenly someone shouted, "Look at the smoke!" Astern an "immense column" of cloud was rising over the Aleutian Range on the peninsula. To the seamen the pillar seemed to be a half mile or a mile in diameter.

Captain McMullen at once took bearings on the column. After consulting his chart, he "pronounced" the smoke to be rising from Katmai Volcano, about 55 miles almost due west.[32]

Soon a dark mass of cloud overtowered the column and obscured it. As the formation broke up and spread out it was carried westward by the wind. At three o'clock the cloud was directly over the *Dora*, and Captain McMullen estimated that the smoke had traveled at 20 miles an hour. As the afternoon wore on the daylight grew dimmer, and from the ever-advancing "black and forbidding" cloud came flash after flash of lightning, an almost unheard of phenomenon in that part of the world.

At 6:30 p.m. the ship was nearly at the entrance leading to Kodiak when ashes began to fall. In a few minutes the vessel was in complete darkness. Not even the water over the

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32 It was later claimed that Captain McMullen said the top half of Mount Katmai was already gone when he saw the peak about 1 p.m. on June 6. He knew it was Katmai, he is reported to have said, because he could see Mageik next to it. Erskine, *Katmai* 172-173. Newspaper accounts issued immediately after the *Dora*'s arrival at Seward on June 9 stated that the passengers could plainly see Katmai when the eruption began and witnessed a "brilliant spectacle," during which "a great mass of rock was thrown into the air." There were also reports of disturbances in the waters of Shelikof Strait due to earthquakes. *The Call* (San Francisco, California), June 10, 1912, p. 1.

It seems significant, however, that neither McMullen's account written at the time nor the narrative written by John E. Thwaites, mail clerk aboard the *Dora*, and published on June 15 mentions part of the peak being missing or witnessing the actual explosion, except for the billowing up of great clouds of smoke. Probably the outpouring of ash, blown eastward by the wind, quickly obscured the view, but this point cannot be settled until all the photographs taken by McMullen and Thwaites have been carefully examined.

side could be seen. "Birds floundered, crying wildly, through space and fell helpless to the deck," later reported Mail Clerk John E. Thwaites.

Captain McMullen did the only thing he could do for the safety of his ship. He set a magnetic course northeast by north and headed for the open Pacific. All sail was set and all steam pressure applied. Still the ash continued to fall. It permeated everything, even down to the engine room. The temperature rose as the particles rained down.

Not until 4:30 the next morning did the *Dora* pull clear of the suffocating cloud. She was surrounded by a "fiery red haze" that gradually turned to yellow. Then, about six a.m., the ashes ceased entirely, and the skies were clear. The crew, Thwaites remembered, drew "long, deep breaths of God's pure ocean air." The sea, driven by a hard gale, assumed "tremendous proportions," but, said Thwaites, "we did not mind."

The *Dora* reached Seldovia on the Kenai Peninsula on the evening of June 7. That same night she set out again for her home port of Seward. All during the seventh and well into the eighth the boiling column of smoke rising from the Katmai volcanoes was in sight, its "enormous cloud spread out like a fan" across the horizon. More ash was encountered before the *Dora* reached her destination, but the worst was over.[33]

Although they were not direct observers of the eruption, their view being cut off by surrounding ridges, the fishermen and refugees at Kaflia vividly experienced the terrors of the outburst. They were about 30 miles west of the active vents, and the winds pushed the ashes and pumice in their general direction. They did not receive the maximum fall along the coast, but they were heavily deluged.

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33 This account of the *Dora*'s sighting of the eruption is based upon the account of Captain McMullen as quoted in Erskine, *Katmai*, 57-58; and Griggs, *The Valley of Ten Thousand Smokes*, 15; and upon the account of Mail Clerk (sometimes called Purser) John E. Thwaites, published in the *Seward Weekly Gateway* (Seward, Alaska), June 15, 1912, p. 3, and in John E. Thwaites, "In the Ashes of an Eruption," in *Outdoor Life*, XXXI (February, 1913), 119-124.

Evidently their condition had become so desperate by June 9 that they decided to risk sending a boat across pumice-covered Shelikof Strait to some settlement on Afognak or Kodiak Islands. One of their number seized the opportunity to dash off a letter to his wife. It tells all we know about the sufferings of the huddled refugees at Kaflia:

Kaflia Bay, June 9, 1912

My dear Wife Tania:

First of all I will let you know of our unlucky voyage. I do not know whether we shall be either alive or well. We are awaiting death at any moment. Of course do not be alarmed. A mountain has burst near here, so that we are covered with ashes, in some places 10 feet and 6 feet deep. All this began on the 6th of June. Night and day we light lamps. We cannot see the daylight. In a word it is terrible, and we are expecting death at any moment, and we have no water. All the rivers are covered with ashes. Just ashes mixed with water. Here are darkness and hell, thunder and noise. I do not know whether it is day or night. Vanka will tell you all about it. So kissing and blessing you both, good-bye. Forgive me. Perhaps we shall see each other again. God is merciful. Pray for us.

Your husband,

Ivan Orloff

The earth is trembling; it lightens every minute. It is terrible. We are praying.[34]

These accounts by persons who actually saw the eruption from relatively close distances or who were otherwise immediately involved in its effects were of much value when scientists, historians, and other writers began to piece together the story of the volcanic outburst. Though almost universally laconic, they made it indisputably clear that Mount Katmai figured large in the disturbance, and they were crucial in fixing the times of the major quakes and explosions.

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34 Griggs, *The Valley of Ten Thousand Smokes,* 19. Orloff was "the creole Tyone of Afognak." Martin, "The Recent Eruption," 148.

Unfortunately, it was days in some instances, weeks in others, and years in still other cases before these reports came the attention of people who could use them. Some, undoubtedly, have still to see the light of day. Meanwhile the geologists, the seismologists, the newsmen, and other interested persons had to do the best they could with observations made from more distant points. Within a few days after June 6, 1912, it was clear to all knowledgeable persons that the Katmai region was the scene of one of the greatest volcanic eruptions of historic times.

The first hint that something unusual was afoot came during the morning of June 6 when several large explosions were heard in Nushagak, 130 miles northwest of Katmai Volcano, and in Seldovia, 150 miles to the northeast. Rather strangely, these reports were not recorded elsewhere.

But the mighty blast that really ushered in the eruption, that noted by C. L. Boudry at Cold Bay and seen by the crew of the *Dora* at 1 p.m. on the 6th, was heard by most of southern Alaska. The sound even carried across the Alaska Range to Fairbanks, 500 miles away, to Chicken, 600 miles distant, and to Dawson, 650 miles to the northeast. To the southeast the report was noticed as far away as Juneau, 750 miles distant. Through some little-understood rule in the laws of physics, however, this booming report did not attract any attention at Afognak or Kodiak which were, relatively speaking, right next to the erupting vents. The column of ash thrown up at that time was observed from as far away as Lake Clark and Cook Inlet.[35]

For the next two and a half days the Katmai vents were in a "state of prodigious activity." Outbursts were almost continuous, but particularly heavy explosions were noted at about 3 p.m. and 11 p.m. on June 6 and at 10:40 p.m. the next day. Observers in Seward on the evening of the 7th reported that the sky to the southwest "took on a kind of copper hue, as though the heavens were lit up by an immense blaze."[36]

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35 Griggs, *The Valley of Ten Thousand Smokes*, 19-21, 23-24; Martin, "The Recent Eruption," 131.

36 *Seward Weekly Gateway* (Seward, Alaska), June 8, 1912, p. 1.

After June 8 the outbursts became less violent, but from the fragmentary evidence available it appears that quite strong eruptions continued for several weeks. Then activity was further reduced, although earthquakes and explosions were noted during the entire summer.[37]

The intensity of the eruption during its initial phase is demonstrated by the fact that at Katalla, 410 miles away, residents reported that for three days the Katmai outbursts sounded "like blastings in quick succession."[38] To other people in the same town the disturbance was "like explosions of dynamite in the near-by hills."[39]

The earthquakes which accompanied the outbreaks were recorded on seismographs at distant points. Some of the shocks noted at Georgetown University in Washington, D.C., on June 7 and 8 were listed as "of extraordinary violence."[40]

For most people, however, perhaps the most conspicuous manifestation of the Katmai eruption was the awesome amount of ash blasted into the air and into the upper atmosphere. The great column of ejecta that boiled up shortly after noon on June 6 quickly spread out to form a dense cloud of ash, dust, and grit that moved eastward with the wind. Fanning out in all directions as it went, it soon showered ashes on the entire eastern portion of the Alaska Peninsula, on all of Afognak Island, on the northern half of Kodiak Island, and on the southern portion of the Kenai Peninsula.

At most places within this range and at some beyond it the ash fall brought midnight darkness even at what ordinarily was the brightest part of the day. At Kodiak, 100 miles from the

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37 Griggs, *The Valley of Ten Thousand Smokes*, 21; Martin, "The Recent Eruption," 131, 147.

38 *Cordova Daily Alaskan* (Cordova, Alaska), June 14, 1912, p. 1.

39 Griggs, *The Valley of Ten Thousand Smokes*, 23.

40 *Ibid.*

erupting vents, the unnatural night began about 7 o'clock on the evening of June 6 and it lasted, with a few welcome respites, for 60 hours.[41]

Professor Robert F. Griggs, who later studied the Katmai eruption for the National Geographic society, estimated that an area of 3,000 square miles -- "half again as large as Delaware" -- was covered by ash to the depth of a foot or more. An inch or more of ash fell on an area 30,000 miles in extent, while the region covered by a quarter of an inch or more of ejecta was as large as Tennessee.

Smaller amounts of dust were carried great distances. "Appreciable" quantities were recorded at such places as Fairbanks, 500 miles, Juneau, 750 miles, and Puget Sound, about 1,500 miles. The passengers and crew on board a steamer about 100 miles north of Vancouver, B.C., experienced an ashfall that "obscured the sun and made everything hazy."[42]

When the major explosions ceased on June 8 the ejection of solid matter slacked off considerably, but ashfalls continued to be recorded for some time. What has been described as the "last heavy ash" was noted on June 14.[43]

There were other effects of the eruption, and some of them were felt over greater distances than were covered by the ashfall. Sulphur in the ash combined with moisture in the atmosphere to form sulphuric acid, which fell to earth with destructive results. At many places in Alaska this corrosive rain caused painful burns to skin and eyes before people learned to take proper precautions when out of doors. At Seward on June 11 it was reported that the acid was eating into the metal on buildings. The destruction of tender young plants was widespread.

By June 11 there was enough sulphuric acid in the air at Port Townsend, Washington, to blacken brass. At Vancouver, B.C., linens hung on clothes lines were so weakened by the acid that they fell to pieces when ironed. Indignant housewives accused

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41 Martin, "The Recent Eruption," 131.

42 Griggs, *The Valley of Ten Thousand Smokes*, 25-29, and map opposite p. 1.

43 Erskine, *Katmai*, 61.

merchants of selling inferior merchandise before the source of this catastrophe was ascertained.[44] By August 5, 1912, the sulphur in the air had spread far enough to tarnish the mirrors at the Mount Wilson Observatory in Southern California.[45]

The violent explosions at the Katmai vents hurled fine dust high into the upper atmosphere where it was carried over a substantial portion of the world. A "curious haze" was noted in Wisconsin on June 8. Two days later it appeared in Virginia. Later the haze and reduced atmospheric transparency were reported from California, Europe, and Algeria. Even to non-scientific observers the sunsets during the fall of 1912 in the United States appeared unusually brilliant.

The dust veil produced a marked decrease in solar radiation, and during the latter half of 1912 mean temperatures were lowered throughout the entire northern hemisphere. The maximum drop, 0.9 degrees centigrade, was experienced during September.[46] If for nothing else, the Katmai outbreak was remembered as "being responsible for the notoriously cold, wet summer of that year."[47]

When the inhabitants of such Alaskan cities as Seward, Seldovia, and Kodiak realized that a major volcanic eruption was under way off to the westward, they began to speculate as to the exact location of the disturbance. More than one person must have felt as did the woman at Kodiak who is reported to have said, "Well, if I've got to go, I'd like to know what dirty old volcano killed me!"[48]

But by that time the great dust cloud had made any precise determination by sight impossible, and no word had been received from settlements close to the exploding vents. Such notorious

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44 Griggs, *The Valley of Ten Thousand Smokes*, 25-29.

45 Hubert Harvey Kimball, "The Effect upon Atmospheric Transparency of the Eruption of Katmai Volcano," in *Monthly Weather Review*, vol. 41 (January, 1913), 154.

46 Griggs, *The Valley of Ten Thousand Smokes*, 33-39.

47 *Ibid.*, 13.

48 Hildred D. Erskine, "Katmai's Black-Out," in *Alaska Sportsman*, vol. 6, no. 9 (September, 1940), 16-17.

volcanoes as Iliamna and Redoubt, both of which had been active in historic times, were named in early press dispatches, but such identifications were pure speculation.[49]

Not until June 8, when word of the *Dora*'s experiences reached Seward and other Alaskan cities by wireless, did most territorial residents learn that Katmai Volcano was the scene of the disturbance. The identification was supported by other news received at about the same time, probably from the radio station at Naknek. "Katmai in Eruption," announced the headlines in the *Seward Weekly Gateway;* "Indians report the top of the mountain blown off." [50]

Further confirmation came the next day when the *Dora* puffed into Seward covered with ash from truck to deck. Captain McMullen's circumstantial account of his sightings on the erupting peak was convincing. From that time it was quite generally accepted that Katmai was the center of the disturbance which was causing so much distress and damage throughout much of Alaska.[51]

Human nature being what it is, there were of course some individuals who refused to accept the obvious. One man who had passed a summer prospecting some 50 miles south of Katmai declared that there was no such peak as Katmai Volcano. Other mountains continued to be mentioned.[52]

Yet when geologist George C. Martin visited the Katmai coast only about a month after the outbreak began, there was not the slightest doubt in his mind as to the true site of the eruption. He was prevented by smoke and clouds from seeing the peaks of

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49 For example, see *The Call* (San Francisco, California), June 8, 1912, p. 1.

50 *Seward Weekly Gateway* (Seward, Alaska), June 8, 1912, p. 1; *Cordova Daily Alaskan* (Cordova, Alaska), June 8, 1912, p. 1.

51 *The Call* (San Francisco, California), June 10, 1912, p. 1.

52 Griggs, *The Valley of Ten Thousand Smokes,* 15. For examples of such mentions see *The Call* (San Francisco, California), June 10, 1912, p. 1; June 12, 1912, p. 4.

the Katmai region, but his study of the ejected debris and his interviews with eye-witnesses convinced him that Katmai Volcano was the key element in the disturbance.[53]

In later years Professor Robert F. Griggs liked to fancy that "the identity of the volcano was not established to the satisfaction of the people of Kodiak" until 1915 when the National Geographic Society expedition under his leadership "reached the scene and proved that the ash had come from Katmai and not from some other vent."[54] When it is considered that Martin's conclusions had been fully and widely aired in the *National Geographic Magazine* in February, 1913, and that Martin had personally spent some time on Kodiak Island following his Katmai studies, it is difficult to take Dr. Griggs seriously in this particular regard. On the other hand, after Griggs and his companions climbed Mount Katmai in 1916 and after human eyes then beheld for the first time the immense, still-steaming caldera which had replaced the three-peaked pre-eruption summit, the last sceptic, if there then were any, must have been silenced.

From the time the natives of Katmai and Savonoski announced that the top of Katmai Volcano had "blun up," no one for years seems to have questioned the hypothesis that the summit of the peak had been for the most part violently exploded into the air. Martin, Griggs, and others recognized that additional mountains and vents in the vicinity participated in the eruption, but, at least as far as this investigator has perused the scientific literature, all were convinced that the greatest bulk of the air-borne ejecta came from the top of Mount Katmai. It was acknowledged, however, that the great initial explosion was accompanied

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53 For a detailed treatment of Martin's trip, see Chapter XIII of the present study.

54 Griggs, *The Valley of Ten Thousand Smokes*, 15.

or followed by a considerable collapse of the crater walls into a swirling lava lake which was supposed to have occupied the core of the mountain.[55]

This view of the matter prevailed until 1953 when the National Park Service launched its inter-agency study of Katmai National Monument's resources. Among the participating scientists was Dr. Garniss H. Curtis, a geologist at the University of California at Berkeley. As a result of field studies made during that year and the next, Dr. Curtis became convinced that Katmai Volcano was not the principal vent involved in the 1912 eruption. In fact, he believed that Mount Katmai had discharged comparatively little material into the atmosphere.

According to Dr. Curtis's theory, the sequence of major events in the Katmai region during that fateful summer of 1912 was, in general, as follows: The tremendous explosion and eruption of pumice and rock fragments that occurred about one o'clock on June 6 came not from Mount Katmai but from a small and seemingly new vent -- later called Novarupta -- about six miles due west near the head of the Ukak River valley and Katmai Pass.

This thunderous blast which sent forth a tremendous column of pearly white pumice fragments and ash was followed very shortly by a colossal outwelling of powdery ash, white-hot and flowing like a fiery liquid. "Within a few moments," Curtis wrote, "no less than 2 1/2 cubic miles of ash were expelled, and the incandescent mass . . . swept down the valley with incredible swiftness." Flowing from Novarupta and from nearby fissures, the rushing avalanche poured over lush tundra meadows and green forest. Above the level of the ash a "scorching, tornadic wind" carbonized trees on the valley walls.

When the deadly flow finally halted some 15 miles away, more than 40 square miles of the Ukak River valley were buried to depths

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55 It is not a purpose of this paper to discuss the scientific aspects of the eruption or to review the technical studies concerning it. Griggs gives a good exposition of his own theories and refers to other works on the subject published prior to 1922 in his *The Valley of Ten Thousand Smokes*, especially pp. 287-303.

as great as 700 feet in places, though the average was probably closer to 100 feet.[56] The many sizable streams and springs covered by the ash were not turned off by the flow, and soon hot gases largely derived from these sources began to emerge at the surface through numberless cracks and small holes. The resulting myriads of steam plumes later caused the engulfed region to be named the Valley of Ten Thousand Smokes.

While the fiery ash was pouring from Novarupta or very shortly thereafter, the summit of Katmai Volcano collapsed into the interior of the mountain, creating an awesome caldera or chasm nearly three miles long and two miles wide. Thus, instead of being atomized by a tremendous explosion, the peak simply dropped from sight, though not, one imagines, without some fanfare, since the reaction when millions of tons of cold rock, snow, and ice reached the white-hot interior must have been spectacular to say the least.

Professor Curtis explained the connection between these cataclysmic events: "A column of molten andesite, which had been lying quietly in the conduit beneath Mount Katmai, suddenly found access through newly created fissures to the erupting column of rhyolite beneath Novarupta . . . . And while the molten andesite drained from the conduit under Katmai to be expelled at Novarupta, nearly 5,000 feet lower, the unsupported top of the mountain collapsed into the void."

During about 60 hours of frantic activity, most of it from Novarupta, an incredible mass of more than 7 cubic miles of volcanic ejecta was hurled into the atmosphere and stratosphere. Activity at the new vent then began to wane, and Novarupta was blocked by a plug of viscous rhyolite. Molten andesite, seeking another outlet, rose once more in the conduit of Katmai, "forcing its way through the mass of debris from the former summit to expand its waning energies in a feeble, dying gasp, building a small cone on the caldera floor."

Dr. Curtis believes that Katmai perhaps discharged a small amount of ash while Novarupta was active. Its "main eruption," however, was the later discharge of lava and cinders that produced the cone seen in the caldera by Griggs in 1916 and now "submerged beneath hundreds of feet of beautiful, turquoise-blue water." Curtis also recognizes that nearby Trident, Mageik, and Martin

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56 Griggs, *The Valley of Ten Thousand Smokes*, 285.

Volcanoes began to steam while Katmai was active, but he does not credit them with contributing in any major way to the debris hurled forth during 1912.

Dr. Curtis's explanation has been generally accepted throughout the scientific world. His studies demonstrate that in total volume of material ejected, the Katmai disturbance was "almost equal" to the 1815 explosion of Tamboro, in the East Indies, "the greatest of all historic eruptions."[57]

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57 This summary of Dr. Curtis's findings is based, sometimes nearly verbatim, upon his own words as presented in Howard A. Powers, "Alaska Peninsula-Aleutian Islands," in Williams, *Landscapes of Alaska*, 69-71.

CHAPTER XII

Errands of Mercy

As soon as the people of Alaska realized that a major cataclysm had occurred in the Katmai region, concern began to be expressed for the safety of the inhabitants of that section of the peninsula. C. L. Boudry's fears, expressed in his diary on June 8, that the natives east of Katmai must be "in a bad shape," were widely shared. Even as late as June 22, by which time the fate of the peninsula natives was quite generally known, the *Cordova Daily Alaskan* announced in page-one headlines: "Over 100 Natives Missing at Katmai."[1]

Those best qualified to appreciate the danger faced by the persons near the heart of the disturbance were the inhabitants of Afognak and Kodiak Islands. Though roughly between 50 and 100 miles from the erupting vents, large parts of these islands lay directly to the windward of the volcanoes and were deluged with from a foot to six inches of ash and granulated pumice. The discomfort and even the suffering experienced by most residents in these zones were considerable, and the terror and worry felt by many were very real. The situation is well illustrated by what happened at the town of Kodiak.

Thursday, June 6, 1912, dawned in the old Russian settlement to fair skies. In fact, recalled one resident, it was "as perfect a day as one could wish to see."[2] Several people later claimed to have heard "deep rumblings" in the early afternoon, but most of the inhabitants could remember no unusual sounds at that time. High hills back of the town cut off sight to the westward and probably also blocked sound waves from that direction.

Then, about four o'clock in the afternoon, observers noted a "peculiar looking cloud" rising to the southward and westward.

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1 *Cordova Daily Alaskan* (Cordova, Alaska), June 22, 1912, p. 1, cols. 2-5. For other examples of expressions of concern, see *The Call* (San Francisco, California), June 12, 1912, p. 1; June 13, 1912, p. 1.

2 Erskine, "Katmai's Black-Out," 16.

Captain Kirtland W. Perry of the U.S. Revenue Cutter *Manning* was standing on the dock and remarked that the dark mass looked like snow.[3]

A short time later thunder was heard in the distance, and about five o'clock fine particles of ash began to rain down on the village. The fall increased as the hours went by. The cloud spread past the zenith and was joined by another coming from the north. By seven o'clock it was dark as night, although still two hours before sunset. Thunder and lightning were violent.

The residents were by now aware that a volcanic eruption of great magnitude was in progress, but they had no knowledge of where the activity was centered. The electrical disturbances accompanying the ash fall had put the radios on the *Manning* and at the naval station on nearby Wood Island out of service. Kodiak was completely shut off from the world.

As the choking dust seeped into homes and commercial buildings, some of the villagers remembered the fate of Pompeii and took alarm. By about nine o'clock a few of the town's leading citizens had accepted Captain Perry's invitation to move to safer quarters aboard the 205-foot long *Manning* which was loading coal in the harbor preparatory to a scheduled patrol in the North Pacific.[4]

Early on the morning of June 7 the rain of ash and fine sand slacked off, and by about nine o'clock it stopped entirely, giving rise to the hope that the eruption had ended. By that time the ashes were five inches deep on the ground, and all wells and streams were choked with debris. The town became dependent for water upon the tanks of the *Manning* and the schooner *Metha Nelson*, and the cutter began to operate her evaporators to furnish additional supplies for drinking.

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3 U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 115. Since Captain K. W. Perry, of the *Manning* was a trained observer, his version of the events on June 6 and the several days following is used here. Other witnesses, however, say that the cloud came from the northwest. Griggs, *The Valley of Ten Thousand Smokes*, 7.

4 U.S. Revenue-Cutter Service, *Annual Report . . . 1913* (Treasury Department, Document No. 2684, Washington, 1913), 77, 91-92.

The respite was short-lived. At noon the ashes -- now fine yellowish dust and flakes -- resumed their fall, accompanied by sulphurous fumes. By two o'clock in the afternoon it was completely dark. The night was an anxious one, and when dawn "failed to appear" on the morning of the eighth, it became evident that more active steps should be taken to save the populace. The ashes on the nearby hills were so deep that they formed avalanches which piled debris on the level ground and raised suffocating clouds of dust.

Captain Perry, as the ranking United States officer on the scene, assumed charge of affairs. With the help of some of the prominent citizens, the Orthodox priest, and his own crew, Perry assembled the people of Kodiak, the vessels in the harbor, the nearby salmon cannery, and the naval radio station on Wood Island and sheltered them in the storehouse on the dock and aboard the *Manning*. Some of the residents who answered the call of the church bells and the cutter's whistle were reported to be "almost crazy with fright."[5]

By half past two on the afternoon of the eighth, the ashfall began to moderate. Soon the sky turned a reddish color and objects became "dimly visible." Fearing this was only another temporary respite, Perry called together a committee of citizens to discuss the desperate situation. It was decided that to remain in face of a continued fall of ash might mean death for the entire population and that the best chance for survival was on the open sea.

Everyone in town, except for the United States deputy marshall and three volunteers, was jammed onto the *Manning*, and late in the afternoon the cutter groped her way through the narrow channel in the semi-darkness to the outer harbor, from whence a direct run could be made to sea even if no landmarks were visible. There 103 more refugees from Wood Island were taken aboard. That night 414 persons, besides the cutter's own crew, were sheltered on the *Manning*, and 72 more were lodged on the tug *Printer* which had left Kodiak with the government vessel and was moored alongside. During the night of the eighth a third fall of ashes occurred.

The hours of darkness passed miserably for those aboard the vessels. The constant dust, the crowding, and the inadequate

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5 Erskine, "Katmai's Black-Out," 16-17.

sanitary facilities got on people's nerves. The men who were kept busy shoveling ashes from the decks suffered cruelly. The bandages they wore to protect their eyes were penetrated by the grit, and their eyeballs were painfully cut. Many refugees began to wish they had taken their chances and stayed at home.

By dawn the next morning, June 9, the ashfall had completely ceased. As the day passed without further precipitation, the feeling grew that the eruption was over. Committees sent to Wood Island and Kodiak reported that those settlements could be made habitable, and that same afternoon most of the Wood Island residents returned to their homes.

Still unable to make wireless contact with the outside world, Captain Perry "drafted" the tug *Printer* and dispatched her to Seward with news of the eruption. He also requested further orders from the Treasury Department and a "confirmation" of his emergency relief measures. "I have incurred considerable Government expense," he later reported, and "most of my expenditures have been outside the prescribed methods."[6] He soon succeeded in reaching Cordova by radio and received the approval he was seeking, a circumstance which evidently relieved his mind to a considerable extent.[7]

The only known death directly attributable to the Katmai eruption occurred on board the *Manning* during the evening of June 9. Mrs. Anne Olsen, a refugee suffering from tuberculosis and nephritis, died at 8:05 p.m. "The end doubtless was hastened by the terrible experience through which the poor woman had passed," said Captain Perry.[8]

During the next day, June 10, most of the remaining passengers on the *Manning* were landed to resume life as best they could in their ash-laden homes. Only the sick and the indigent and a few friends of the captain remained on board the cutter.

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6 U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 120.

7 There was good reason for Perry's concern, since Revenue-Marine officers were occasionally required to reimburse the government from their own pockets for food supplied to passengers picked up in distress during North Pacific and Bering Sea patrols.

8 U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 118.

It was also on the tenth that Captain Perry and the people of Kodiak for the first time had an opportunity to wonder what might be happening to other settlements affected by the volcanic explosion. From what had been reported of conditions on Wood Island and other nearby localities, Perry believed at the time "that Kodiak had been in the worst position in the line of disaster."[9] This conviction was partly based upon the fact that "terrible clouds of volcanic debris" sweeping down the adjacent steep slopes had deepened the deposits from the direct ashfall. Nevertheless, it seemed to the people of Kodiak that other places must be suffering, and Captain Perry determined to see what was needed in the way of relief.

Not considering it wise to employ the *Manning* until the grit and sand had been cleaned from her engines, and not being able to locate any other government craft, Perry asked and was granted permission to use the tug *Redondo*, belonging to a local cannery. The small vessel was loaded with 2,000 gallons of fresh water and 200 rations and placed under the command of Second Lieutenant W. K. Thompson of the *Manning*. Early in the afternoon she stood out of Kodiak harbor bound on her errand of mercy.

During the remainder of June 10 and all the next day the *Redondo* visited settlements on Afognak Island and its vicinity. No severe suffering was found, but rations were left at several points and a number of refugees were taken aboard for transport to Afognak. When the tug anchored at the latter port at 8:15 on the evening of the eleventh, Lieutenant Thompson was told by Charles Pajoman, a leading citizen of the place, that word had been received that "great distress" prevailed near Kaflia Bay on the mainland across Shelikof Strait. By 8:35 the *Redondo* was headed in that direction.

Subsequent actions are best told by the report written at Kodiak by Lieutenant Thompson on June 19:

> Wednesday, June 12, 1912. -- Anchored Kaflia Bay 2:30 a.m. Landed and found natives destitute, but apparently in normal health, and very badly frightened. Volcanic ashes had buried village to a depth of three feet on the level, closing all streams and shutting

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9 U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 119.

> off the local water supply. Salmon were dead in the lake, and as it was apparent that the fish would not return for some time, I gathered all natives, with cooking utensils, bedding, and boats, and placed them on the *Redondo*.
>
> The village was comprised of natives from Cape Douglas to Katmai, seismic disturbances having caused them to abandon their usual camps and seek mutual protection at Kaflia Bay. In addition to the refugees, found five natives employed by salmon fishery located at this point. From all information gathered from the head men, I judged that all natives along the coast had been accounted for, and therefore stood out of Kaflia Bay at 10:30 p.m., and shaped a course for Uganik Bay, Kodiak Island, where a fishing camp was reported.[10]

After picking up 17 refugees at Uganik and learning that no other settlements in that vicinity required assistance, Thompson returned to Afognak. All the destitute natives, numbering 114, were landed and quartered in the government schoolhouse. Charles Pajoman was instructed to feed the refugees under promises that his expenses would be paid.

At Afognak Thompson heard a report that the Russian priest of that place and six natives had gone to the vicinity of Katmai Bay before the eruption and were supposed to be proceeding to

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10 U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 125. Paragraphing has been supplied in the above quotation. The time of 10:30 p.m. given for the departure from Kaflia may be a typographical error in the printed report, since the next time reading given by Thompson is 10:30 a.m., when the *Redondo* reached Uganik. According to the dates given in the report, this latter event occurred on June 12, the same day on which the visit to Kaflia was made.

the westward. No word of them had been received. Fuel on the *Redondo* was low, however, and the lieutenant decided to return to Kodiak before going in search of the party.[11]

Upon reporting to Captain Perry, Thompson stated his opinion that the settlement at Kaflia Bay, being without food or water, was untenable. "It is doubtful if any human being can live on the mainland for some time," he wrote, "owing to the lack of water and cessation of fishing. Further, several earthquakes have been felt on the mainland since the eruption, the air is more or less foul with sulphur fumes, and the future action of the volcano a matter of doubt."

"At present," he said in summary, "there are no natives on the mainland between Cape Douglas and Katmai, the region most affected by the eruption, they having been transported to Afognak by the *Redondo*." All the refugees had been concentrated at the latter place, he stated, to facilitate the distribution of rations.[12]

The exact number of natives picked up at Kaflia was not given by Lieutenant Thompson and seems impossible to determine from the data in his report. He did say, however, that 114 of

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11 There is some uncertainty concerning the dates of Thompson's last stop at Afognak and his return to Kodiak. Both Thompson and Perry state that Kodiak was reached about 8 a.m. on the morning of June 13, yet Thompson's report entry for June 12 seems to cover two complete days, if all times given therein are correct. In that case the landing of the refugees at Afognak would have occurred on the evening of the 13th and the return to Kodiak on the morning of the 14th. U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 120, 125. It seems almost indisputable that the *Redondo* returned to Kodiak on the morning of the 13th, however, since she is reported to have sailed again for a visit to Katmai at one a.m. on the morning of the 14th. *Ibid.*, 122.

12 *Ibid.*, 126.

the refugees brought to Afognak were "from a region that is dangerous to human life." Perhaps this figure represents the number from the Katmai coast.[13]

When Lieutenant Thompson told his commanding officer of the possibility that the Afognak priest and his companions were in the Katmai vicinity, Perry decided to send the *Redondo* back to the peninsula. Second Lieutenant William J. Keester was placed in command, with Third Lieutenant of Engineers J. F. Hahn assisting. Leaving Kodiak early on the morning of June 14, the *Redondo* stopped at Afognak, picking up in the process a Katmai native to serve as guide. Another stop that evening was made at the Karluk radio station at Larsens Bay. Messages received there from the Alaska Packers Association station at Naknek carried the information that "many" natives from the mountains had taken refuge at that Bristol Bay settlement.

On the morning of June 15 the tug crossed Shelikof Strait to Cape Kubugakli. The fall of dust appeared light there, and as the vessel cruised north along the shore no houses or boats were seen. The *Redondo* anchored at Katmai Bay at 9:50 a.m., and Lieutenants Keester and Hahn, with five men, set out for the beach in a small boat.

About a half-mile from shore they encountered floating sand and pumice four inches thick. The debris increased in depth as the beach was approached, until close to the shore it was about ten inches in thickness. Being closely packed by the wind, it made rowing difficult.

Land was eventually reached, and the party walked inland about two miles to Katmai Village. The place was completely deserted, with no sign of recent habitation. Dust was everywhere, three or four feet deep on the level but sometimes piled in drifts up to 15 feet high. It was noted that the dust lay in several distinct strata: "fine light gray, light orange, coarse black, and then dark gray." Mixed in with the dust were pieces of pumice from two to ten inches in diameter and weighing up to four pounds.

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13 Perhaps the 17 people taken aboard at Uganik should be subtracted from the number landed at Afognak to give the number rescued from Kaflia, but the matter is unclear due to seeming discrepancies in Lt. Thompson's figures for the total number of refugees transported during the *Redondo's* entire cruise.

The greater part of the day was spent at the village and in searching the area for some distance around. Still no trace of human life was discovered. The time was not without its apprehensive moments, as volcanic rumblings were "incessant," with occasional loud reports. The earth shook frequently, and a large black cloud, "streaked with lightning," cut off the view to the northwest while a grayish cloud obscured the valleys.

The party returned to the *Redondo* late in the afternoon, and the rest of the day was occupied in cruising along the shore to the next bay to the north, looking for a family which habitually lived there during the summers. The house was seen, but no boats or other evidences of recent habitation were observed. "This family," reported Lieutenant Keester, "had been outfitting at Cold Bay and from all indications it appeared that they had not arrived."[14]

That night the *Redondo* recrossed Shelikof Strait, and Kodiak was reached on the afternoon of June 16. Lieutenant Keester told Captain Perry that in his opinion everyone in the vicinity of Katmai "had become frightened by the earthquake and had left the place before the eruption, and that no lives were lost in that locality."[15]

Meanwhile, the messages sent out by Captain Perry concerning the disaster had at last reached higher authority. Senior Captain W. E. Reynolds, commander of the Revenue-Cutter Service's Bering Sea Fleet, was at his headquarters at Unalaska when Perry's radio communication arrived late in the afternoon of June 11. It had been relayed by the cutter *Bear* which was then 90 miles north of St. Paul Island in the Bering Sea.

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14 U.S. Revenue-Cutter Service, *Annual Report . . . 1912*, 123.

15 *Ibid.*, 124. The foregoing account of the ash fall at Kodiak and of the search for Katmai refugees is based, except where otherwise indicated, upon *ibid.*, 115-126.

The missing Orthodox priest, Father A. Petelin, was safe at Kanatak on the peninsula coast south of Katmai. Martin, "The Recent Eruption," 147.

Reynolds at once directed the available cutters to the scene of the eruption in order to provide all possible assistance. The famous *Bear* was perhaps the first vessel to receive these instructions, but being so distant from the danger zone she did not reach Kodiak until June 16. By that time other cutters had the situation well in hand, and she resumed her cruise to Point Barrow.[16]

Another vessel which received Reynolds's order promptly was the cutter *McCulloch*. Her captain, J. L. Sill, was engaged in settling a labor dispute at the Akutan Island whaling station when the radio message arrived on the evening of June 11. Forty minutes later the *McCulloch* was churning toward Kodiak under as much steam as her three operating boilers would provide. When she reached her destination two days later it was determined, after a conference with Captain Perry, that she could be most useful by proceeding to Seward so that Sill could relay dispatches to the Treasury Department. Radio communication from other points had not been satisfactory.

Returning to Kodiak on the 19th of June, the *McCulloch* left again five days later with 500 "haversack rations" to investigate conditions in the devastated district, particularly on the mainland. The rations were left at Afognak and Uganik, but as far as available records show, the *McCulloch* did not visit the Katmai coast before departing for Unalaska and points to the northward.[17]

But not all of Reynolds's orders were received so promptly. The cutter *Thetis* was expected from Honolulu, and starting on the evening of June 11 the Bering Sea Fleet commander tried repeatedly to reach her by radio. No communication was had with the ship, however, until the afternoon of June 15 when she

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16 U.S. Revenue-Cutter Service, *Annual Report . . . 1913*, 103, 115. The *Bear* was instructed to proceed to Kodiak by way of Shelikof Strait and to render assistance to the natives on the west side of Kodiak Island and the peninsula opposite. Rather surprisingly the *Bear* reported "that no apparent damage had been done by volcanic activity to the westward of Kodiak Island." Learning that the *Redondo* had already visited the Katmai coast, the *Bear* presumably did not do so.

17 *Ibid.*, 90-91.

unconcernedly steamed into the harbor at Unalaska. Her radio operator had deserted, and thus no messages had been received. The *Thetis* started for Kodiak the next day, but on the 18th her orders were countermanded and she was sent to Unalaska. She played no part in the relief operations.[18]

The case that really upset Captain Reynolds, however, was that of the *Tahoma*. This excellent steel cutter, commanded by First Lieutenant H. G. Hamlet, was patrolling the Aleutian Islands when the Katmai eruption occurred. Starting on the evening of June 11, Captain Reynolds began calling the vessel to "return to Unalaska at once at full speed." He wanted her to carry him to Kodiak. But the message was not received until the night of the 14th, when the *Tahoma* was only 60 miles from headquarters.

The communication troubles that plagued all Revenue-Cutter Service operations in Alaska during the period of the eruption and the subsequent relief efforts were largely due, said Reynolds, to defective and inefficient equipment. But he believed part of the difficulty resulted from what he at the time believed was the reluctance of the Alaska Packers Association station at Naknek to relay government messages.[19]

Captain Reynolds finally got away in the *Tahoma* on the afternoon of June 16. On board were all the spare stores that could be collected at Unalaska, including some obtained from the Alaska Commercial Company on a "returnable if not used" basis. The cutter reached Kodiak on June 19, and Captain Reynolds, as the senior officer present, assumed charge of relief measures.

After conferring with Captain Perry and "leading men" of Kodiak and after making a visit to Afognak and other hard-hit settlements, Reynolds deemed it "expedient" not to attempt to reestablish the villages of the Katmai coast but to "centralize" the former inhabitants at a new location. The houses of the new settlement would be "built and arranged along sanitary lines from the most improved designs for structures of the kind."

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18 U.S. Revenue-Cutter Service, *Annual Report . . . 1913*, 96-97, 107.

19 *Ibid.*, 98, 108.

Then or later -- the evidence is not clear -- it was also decided to name this new village Perry, in honor of Captain K. W. Perry of the *Manning*.[20]

Reynolds could not implement these decisions on his own authority. Thus he and the *Tahoma* paid a visit to Seward, from whence his "recommendations in regard to the disposition of the Katmai and Cape Douglas natives quartered at Afognak" were transmitted to the Treasury Department. His suggestions were promptly approved, and Reynolds hastily purchased a number of articles he believed would be useful in establishing the new settlement.

Leaving Seward on June 27 "for the proposed site," Reynolds called at a number of villages and towns "on matters connected with the destitute natives." One of the stops was at Seldovia, where the *Tahoma* took on board P. H. Nash of the United States Bureau of Education, who had been assigned to take charge of the new settlement, the site of which, incidentally, had not yet been selected. Nash was landed at Afognak after having been transferred to the *McCulloch*, and Reynolds proceeded once more to Kodiak, where he arrived on July 1.[21]

Once more Reynolds conferred with Captain Perry. Additional supplies for the new village were hurriedly purchased and taken on board, and evidently that same day the *Tahoma* was again under way.[22] A call was made at Afognak, where a seaman was put ashore to assist in making tents to shelter the refugees after their move. Agent Nash and four natives were received on the cutter. Then the *Tahoma* continued her way to the southwest. The objective was to find a suitable location at which to set up the new settlement.

At Chignik on the south coast of the Alaska Peninsula Captain Reynolds met "a Capt. Osmund," who had lived for two years or more at the head of Ivanof Bay, still farther to the southwest. Osmund recommended the latter place as an ideal site for a self-sustaining native village.

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20 U.S. Revenue-Cutter Service, *Annual Report . . . 1913*, 56, 98-99.

21 *Ibid.*, 90, 99.

22 One contemporary account says the *Tahoma* left on July 2. Erskine, *Katmai*, 215.

Perhaps Reynolds should have been suspicious when thick weather and fog prevented the *Tahoma* from reaching the suggested location until July 7. But such conditions were not unusual along the peninsula coast. And the refugee natives aboard the *Tahoma*, after inspecting the site, said they were pleased with it.[23]

Reynolds made a decision on the spot. He sent word to Captain Perry of the *Manning*, in whose hands the actual move to the new settlement had been placed, to come ahead.

On July 6 the *Manning* had moved from Kodiak to Afognak, and on the afternoon of that same day 78 Katmai and Cape Douglas natives, their boats, and other effects were loaded aboard. Some of the peninsula residents were so ill that they had to be left behind.

Tents were set up on deck to shelter the woman and children, and the *Manning* put to sea. Two days later, shortly after noon on July 8, she anchored near the *Tahoma* at the head of Ivanof Bay. The natives and their gear were quickly landed at the selected village site. Soon all were under tents.

The *Tahoma* had brought lumber for a fish-drying shed, and the crews from the two cutters quickly erected the structure. In it were stored seines, barrels, salt, and other supplies provided to enable the settlement to become self-sufficient as quickly as possible. To tide the people over until that time, the sailors caught salmon for the natives and deposited for their use 2,751 haversack rations.

The *Tahoma* sailed for Unalaska on July 9, but the *Manning* remained behind to render all possible assistance until the 12th. On board her when she sailed were two natives each from the villages of Katmai and Douglas, for Captain Perry was under orders to visit those places and recover as many personal belongings of the former residents as possible. The *Manning* put into Katmai Bay the next day, but a high surf prevented a landing. Better fortune attended the visit to Douglas on the 14th. There "considerable miscellaneous property" was recovered.

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23 U.S. Revenue-Cutter Service, *Annual Report . . . 1913*, 99.

After a visit to Kodiak and Seward, the *Manning* resumed her relief duties. She stopped at Afognak on July 30 and picked up additional natives for the new village, and a visit was made to Katmai, where some property was rescued from the ash-laden barabaras. Perry was reached on the morning of August 1.

Here the captain of the *Manning* was faced with an embarassing problem. The natives were not happy with Ivanof Bay. They complained that it was too rainy there and that they had heard unfavorable reports of winter snow and ice conditions. They wanted to leave and relocate elsewhere.

Captain Perry, Bureau of Education representative Nash, and four natives went off to inspect a proposed new site about 13 miles to the east. Captain Perry described the result:

> Several locations were visited, the ship anchoring at three different points, and the best site was found between Three Star Point and Coal Cove to the northward of Chiachi Island. Here is a fine sandy beach suitable for landing in skin boats, abundant in driftwood of excellent quality, and many tracks of bear, caribou, and fox observable. The place for the village selected is high and dry, with sandy knolls and beautiful ponds of fresh water close by . . . . This inspection was made so thoroughly by me in order that I might be able to make some suggestion or recommendation to the commanding officer of the Bering Sea fleet. Agent Nash, First Lieut. Searles, Mr. Brandel [a local resident], and myself are agreed that the natives, if located here, would be self-supporting.[24]

The recommendation was accordingly made. Since an immediate answer scarcely could be expected, the *Manning* departed on August 6 for Unalaska. From there she set out on August 12 for a patrol in the Bering Sea.

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24 U.S. Revenue-Cutter Service, *Annual Report . . . 1913*, 94.

But her cruise was short. On August 15 Captain Reynolds received a radiogram from the Treasury Department authorizing the establishment of a "permanent village" for the Katmai refugees as recommended by Reynolds on the basis of Perry's findings. What was more, the Department was sending "igloos" by a vessel due to arrive at Ivanof on August 22. The *Manning* was to proceed there at once to notify the villagers and to assist in moving the "camp" if such a measure was advisable at that season. Then Perry was to go to Kodiak and land an officer to supervise the distribution of relief supplies.[25]

Advised of these decisions by radio, Captain Perry turned the *Manning* about and soon reached Ivanof. Once more the Katmai coast natives were taken aboard with all their possessions, which now included about 60 barrels of salt salmon and many dried salmon. The entire load was deposited at the new site near Three Star Point. The vessel carrying the "igloos" was intercepted and directed to the new Perry. The crew of the *Manning* helped unload the cargo.

Being of the opinion that the refugees would require no further assistance from the government, Captain Perry continued his way to Kodiak on August 25. The next several weeks were spent on various missions of mercy, largely ferrying from Seward to Kodiak and Afognak the relief supplies which had been sent from the United States.

On September 20 Captain Perry received the welcome message, "Proceed with your command to Seattle." He and his crew had well earned the letter of commendation they received from President William Howard Taft. Captain Reynolds was undoubtedly thinking mainly of the *Manning*'s many services when he wrote in his annual report: "The people in and near the region affected by the volcanic eruption greatly appreciated the promptness with which the Revenue-Cutter Service came to their assistance."[26]

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25 On the recommendation of the President, Congress made an emergency appropriation of $30,000 for the relief of victims of the Katmai eruption. The distribution of supplies purchased with these funds was entrusted to the Revenue-Cutter Service.

26 U.S. Revenue-Cutter Service, *Annual Report . . . 1913*, 107. The foregoing account of the *Manning*'s operations after July 6 is based on *ibid.*, 91-95.

Captain Reynolds paid another visit to the refugee settlement before the winter of 1912 set in. While on his way from Unalaska to Puget Sound in the *Tahoma* early in October, he dropped in at Perry to investigate conditions. He found the natives busily employed erecting "igloos," ten of which were already occupied. The people, he later reported, "seemed well satisfied," but their supply of hard bread had been spoiled by moisture and they needed flour, sugar, and tea. Reynolds sent ashore some flour and sugar before the *Tahoma* steamed off for milder climes.[27]

On his way north to his seasonal headquarters at Unalaska during May, 1913, Captain Reynolds once more stopped at Perry to see how the refugees were faring. Landing from the cutter *Unalga*, he found the village clean and prosperous in appearance. The population had grown to 94, there having been two births during the winter. A number of the men were away from home working in the canneries at Chignik.

The local chief reported that the people were dissatisfied because they had no church and no bell. "Otherwise," Captain Reynolds reported, "everything seems well." He expressed a hope that some means could be found to provide the settlement with the lumber for a small church. Captain Archie McKay later gave Reynolds the bell from his wrecked steamer, the *Yukon*, for use at Perry, and the Bering Sea Fleet commander promised that it would be delivered the next season by the first opportunity.[28]

As the government officials had hoped, the new settlement took root and endured, although to say it prospered would perhaps be an exaggeration. It would appear that the Katmai inhabitants who were at Cold Bay at the time of the eruption may not have rejoined their fellow townsmen who reached Perry by way of Kaflia and Afognak. At least in 1920 the population of Perryville, as

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27 U.S. Revenue-Cutter Service, *Annual Report . . . 1913*, 102.

28 U.S. Revenue-Cutter Service, *Annual Report . . . 1914* (Treasury Department, Document No. 2719, Washington, D.C., 1914), 163.

the new village was by then known, was only 85.[29] However, by that time the Alaska Peninsula had been swept by the great influenza outbreak that accompanied World War I, and thus the population may have been appreciably larger a few years earlier.

By 1930 Perryville had its own post office, a distinct advance, since ten years previously its residents had had to collect their mail at Chignik, some 50 miles distant. And the population had climbed to 93, one less than it had been in 1913.[30] In 1961 there evidently was only one person at Perryville who remembered the eruption of 1912, but the ancient and important village of Katmai continues to live on there -- after a fashion.[31]

The fate of the natives who fled from Savonoski and elsewhere in the upper Naknek drainage to the canneries on Bristol Bay was not much different. These inland people found themselves incompatible with the coastal natives at the mouth of the river, and they soon set up their own village, known as New Savonoski, on the south bank about five miles east south east of Naknek.[32]

But they were not really happy away from the mountains. Some tried to go back to their old homes, but they, like Mrs. Palagia Melkanak who found her store covered with ashes,

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29 U.S., Bureau of the Census, *Fourteenth Census . . . 1920* (11 vols., Washington, D.C., 1921-1922), I, 681. The *Seward Weekly Gateway* on July 13, 1912 (p. 2) reported that the *Manning* would move the Katmai natives at "Coal Bay" [Cold Bay?] to "Cherikoff Bay" and help them establish homes there, but nothing of this sort appears in the official records available for this study.

30 U.S., Bureau of the Census, *Fifteenth Census . . . 1930: Population* (6 vols., Washington, D.C., 1931-1933), I, 1222.

31 Report to the National Park Service . . . on Tape Recordings, MS, 4.

32 Orth, *Dictionary of Alaska Place Names*, 841. This settlement is now known simply as Savonoski.

had to give up such hopes. It is reported that two families, more determined than the rest, remained for a year at Old Savonoski before the dust and heat drove them back to Bristol Bay.[33]

The vegetation and wildlife recovered rapidly in the region of Naknek Lake, except near the immediate scene of the eruption and in the part of the Ukak Valley covered by the great ash flow. By 1918 "American Pete," the former leader at Old Savonoski, was making annual, month-long bear hunts near his one-time home.[34] Other residents of New Savonoski did the same. Eskimos from that settlement and South Naknek hunted bear along the Savonoski River at least as late as 1939, and Brooks River is still a favored spot for taking salmon.[35] But as for returning to Savonoski permanently, "American Pete" described the situation very succinctly when he said in 1918: "Never can go back to Savonoski to libe again. Everything ash."[36]

Fifty-four refugees from the upper Naknek drainage were living at New Savonoski when the 1918 flu epidemic swept across Alaska. The toll was heavy along the Bristol Bay coast. In 1953 only eight former residents of Old Savonoski were still alive, and New Savonoski then had only 19 permanent residents. By 1961 there remained only three persons on the lower Naknek who had lived at the ancient village at the head of Iliuk Arm.[37] If present population trends continue, the name Savonoski may be kept alive in the future only in literature and as a historic site in Katmai National Monument.

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33 Report to the National Park Service . . . on Tape Recordings, MS, 8-9.

34 Griggs, *The Valley of Ten Thousand Smokes*, 17.

35 Cahalane, *A Biological Survey*, 176-177; Davis, *Archaeological Investigations*, 73.

36 Griggs, *The Valley of Ten Thousand Smokes*, 17.

37 Davis, *op. cit.*, 71; Report to the National Park Service . . . on Tape Recordings, MS, 3. A recent article claims that still another survivor of the Katmai eruption, 111-year-old Evon Olympic, lived at South Naknek as late as mid-1971. Said to have been born at Katmai on July 5, 1859, the son of a "reindeer herder," he claims to have himself guarded a herd, which he drove to Bristol Bay through falling ash in 1912. Mary Carey, "Olympic -- Champion of Living," in *Alaska*, vol. 37, no. 8 (August, 1971), 3.

CHAPTER XIII

"A Miracle of Nature"

The first persons to reach the Katmai region after the eruption, the brave men of the *Redondo* and their successors, were bound on errands of mercy, and as far as the record shows they were not particularly curious about the scientific or esthetic aspects of the volcanic phenomena which had occurred. But the casual sightseers, the seekers after sensation and glory, and the serious searchers for knowledge were on the ground in a remarkably short time.

On July 13, 1912, only a little over a month after the eruption, the *Seward Weekly Gateway* carried a story of startling import which appears to have been neglected, probably deservedly, by later historians of the volcanic upheaval. According to the account Jack Lee, who will remembered as the "well known Canadian explorer" who was at Cold Bay early in June, had by July 13 already "visited Katmai in order to make a careful study of the cause and effect of the eruption."

Lee declared that it was not Katmai Mountain that erupted but Mount Sevenosky, about eight miles from Katmai. All the ashes, pumice, and other debris came from Sevenosky, he said, though the hot springs at Katmai [Katmai Pass?] blew up, accounting for the clouds of steam seen in that direction.[1]

The noteworthy feature of this story is the declaration that the main explosive force was not centered at Mount Katmai but at another volcano. Lee apparently anticipated by 40 years the conclusions of present-day geologists. Unfortunately his Mount Sevenosky has not been identified, but it hardly seems possible that Lee could have known anything about Novarupta. Evidence is clear that volcanic activity was then still too violent for anyone to have penetrated far enough into the interior to view that new vent.

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1 *Seward Weekly Gateway* (Seward, Alaska), July 13, 1912, p. 3.

It must be concluded, therefore, that Lee made a lucky guess. As far as can be judged from the available record, his "careful study" was at best a quick and superficial visit to the fringes of the disturbed area.

Lee's companion at Cold Bay, C. L. Boudry, who through distant observation was quite aware by at least July 21 of the "new crater" that had developed on Katmai Volcano, also attempted to reach the scene of the eruption. The dates of his efforts are not known beyond what he wrote in his diary on November 23, 1912:

> The volcano are still raising cane . . . . I will try to go there in winter or spring but can't make it now. I try 3 time. Cannot see notting for smoke and after you are 10 or 12 miles the acid raise hell . . . the acid burne the close you got on and raise blister on your hands.[2]

Surprisingly enough, the first person known to have reached the Katmai region after the eruption with the serious intention of making technical observations came from Washington, D.C. When the violence of the disturbance became evident to scientists in the United States, the need to study this phenomenon was at once recognized. The Research Committee of the National Geographic Society in the nation's capital quickly sprang to action and projected a systematic investigation of Alaskan volcanoes. An immediate expedition to the scene of the Katmai eruption was to be the first step.

The man chosen to conduct this pioneering expedition was George C. Martin, the geologist of the U.S. Geological Survey who eight years before had coasted the southern shore of the peninsula for 300 miles searching for mineral deposits. Making a precipitous departure from Washington, Martin had time for only one busy day of outfitting in Seattle before catching a ship for the north. He was in Kodiak only four weeks after the eruption began.

Finding the *Manning* still in port, Martin learned that the cutter was on the point of leaving to move the refugees rescued from the devastated mainland villages to a new settlement farther

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2 Griggs, *The Valley of Ten Thousand Smokes*, 21.

out on the peninsula. He obtained Captain Perry's permission to go along as a passenger, and for a month he traveled on board the government vessel as she went about her errands of mercy. These cruises gave the geologist an opportunity to record "vivid accounts" by the ship's officers of their experiences during and after the eruption and enabled him to see parts of the coast "which would otherwise have been inaccessible."[3]

One of the points visited from the *Manning* was Douglas Village. Landing there on July 14, Martin obtained excellent photographs of this settlement, showing the church, the graveyard, and the barabaras of the recent inhabitants.[4]

When the *Manning* had to take up other duties, Martin chartered the power schooner *Lina K.* for further explorations. After some days spent in observing the effects of the ash fall on Afognak and Kodiak Islands, conditions seemed favorable for a dash across Shelikof Strait and a closer look at the scene of the disturbance. The dark clouds which had hung about the volcano since June 6 seemed to be breaking up, and the water was calm.

On August 8 the *Lina K.* crossed to Amalik Bay. The next two weeks were spent coasting southward from there to Katmai and on to Puale Bay. Visits ashore were made at Takli Island and the nearby shores of Amalik Bay, at Katmai, and at other points. Journeys inland were blocked by blowing dust, by deposits of ash, and by baffling mud wherever the outfall was wet.

The village of Katmai was found "desolate on the edge of the great gray waste." The only things discovered alive were a few spears of grass and three dogs which somehow had escaped the suffocating clouds. Martin believed a hot blast, a "breath of hell," had swept down the valley from the volcano, bringing death to all in its path.[5]

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3 Martin, "The Recent Eruption," 141.

4 *Ibid.*, 142, 144, 145.

5 *Ibid.*, 174, 179.

At no time during his expedition was Martin able to see Katmai Volcano itself or even to get a clear view of the columns of smoke and steam arising in the vicinity. The clouds were unrelenting. Nevertheless he found it possible to make observations of interest and value. By measuring the depths of ash at widely separated points and by collecting reports of depths from other observers, he was able to draw a map showing the areas covered by various thicknesses ranging from over 50 inches down to 1/4 inch.[6] The greatest depth of undisturbed primary deposit observed by him personally was 55 inches at the head of Amalik Bay, more than 15 miles from the volcano. Though later corrected by others as additional data were collected, his map was of importance in dramatizing the great force of the eruption and in demonstrating the bulk of the ejected material.[7]

He also attempted to correlate three prominent layers of ejected material with the three major outbreaks reported by observers. In his own words, "the bottom layer is of relatively coarse gray material; the middle layer is finer and is brown, and the upper layer is the finest and is light gray or almost white.[8]

While granting that other vents near Mount Katmai probably had been steaming before the eruption and "throughout the summer," and admitting that they "may at times have been in a moderate state of eruption," Martin did not question the local reports and "all the available evidence" that Katmai was the most active of the group. It was, he said, "probably the only one which contributed in any large way to the great volume of solid matter ejected in June."[9]

Another contribution made by Martin was his detailed observation of the effect of the eruption upon plant and animal life. He noted that bushes survived at Amalik Bay where the ash deposits were extremely deep while almost all plants were killed at Katmai where the fall was only half as great. He weighed the significance

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6 Martin, "The Recent Eruption," 132.

7 Griggs, *The Valley of Ten Thousand Smokes*, 29.

8 Martin, "The Recent Eruption," 166.

9 *Ibid.*, 133-135.

of reports that at Iliamna Lake, where the deposits were only from one to four inches thick, most of the small birds died, many rabbits went blind, and the reindeer were injured by dust. The destruction of game, fur-bearing animals, and salmon was a serious injury to man, he found; and he predicted that the silting of streams and lakes, with a possible permanent destruction of salmon spawning grounds, would prove the most costly long-range effect.

Probably most important, however, was Martin's careful gathering of all possible eye-witness accounts of the eruption. He interviewed men at Puale Bay who had received the first reports of refugees fleeing from the Katmai vicinity. He copied diary entries and letters written during the period of most intense activity, and he saved newspaper accounts by the ship's officers who first identified the site of the disturbance. It seems safe to say that without the geologist's keen nose for historical facts much less would be known today of the manner in which the Katmai region's inhabitants met the disaster that destroyed their homes.

When Martin returned to Washington, he wrote a long article on his adventure. He was optimistic concerning the future of the devastated area. "Vegetation will be affected only temporarily," he predicted, "the soil will probably be improved, and people can feel assured that not in many years, and possibly not in centuries, can the volcano accumulate enough force to cause another eruption of this character."[10]

His account was published in *The National Geographic Magazine* for February, 1913. It presented to the general public for the first time an easy-to-understand, well-illustrated description of the magnitude of the Katmai eruption. And his findings suggested to his sponsors a number of interesting fields for further scientific investigation.

Such was the story of Martin's highly productive trip as presented to the public through the National Geographic Society. There exists other evidence, however, which seems to suggest that the geologist and his immediate employer, the United States Geological Survey, had more than pure science in mind when they agreed to participate in this venture.

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10 Martin, "The Recent Eruption," 181. This account of Martin's trip is based on *ibid.*, [131]-181.

In this regard the account of Martin's journey published in the 1912 edition of the Survey's annual publication, *Mineral Resources of Alaska,* is of more than passing interest. The eruption of June 6-8 had interfered with gold mining on Kodiak Island wrote Alfred H. Brooks, the agency's leading expert on Alaska. "Furthermore," he said, "an investigation of this volcanic eruption was desirable, not only for its scientific interest but also because of the bearing it had on the industrial advancement of this part of the territory."

"The Geological Survey had no funds which could be devoted to this purpose," continued Brooks, "but the National Geographic Society made a grant through which it was possible to dispatch George C. Martin to this field. Mr. Martin spent about a month in investigating the distribution of the volcanic tuff and later undertook such observations on the occurrence of metalliferous deposits in the island of Kodiak as circumstances permitted, being occupied from July 4 until September 4 in this investigation."[11]

Evidently upon his return to Washington Martin suggested to Brooks that the ash or tuff ejected by the Katmai vents might have commercial value as an abrasive. "The most accessible deposits," he reported, "are on the shores of Amalik Bay . . . where there are accumulations 20 feet or more thick at the foot of cliffs and mouths of streams in close proximity to deep sheltered water."[12]

Among Alaska residents anxious to explore the scene of the eruption was William A. Hesse of Cordova, who has been described as a "U.S. Deputy Land and Mining Surveyor." His particular objective was to photograph the "great crater." For this purpose he obtained a motion picture camera and found another man, Mel A. Horner of Seward, brave enough to accompany him.

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11 Alfred H. Brooks, *Mineral Resources of Alaska . . . 1912* (U.S. Geological Survey Bulletin 542, Washington, D.C., 1913), 13.

12 *Ibid.*, 50. During 1913 and 1914 it was reported that some of the ejecta had actually been utilized as an abrasive, but the shipments seem to have been made from Kodiak. Brooks, *Mineral Resources of Alaska . . . 1913* (U.S. Geological Survey Bulletin 592, Washington, D.C., 1914), 22; *ibid., 1914* (U.S. Geological Survey Bulletin 622, Washington, D.C., 1915), 47.

Apparently it was during May, 1913, that Hesse and Horner assembled sufficient provisions to last them a month and took off on the *Dora* for Kodiak.[13] They were somewhat discouraged to find the 10-inch covering of ash there so fresh in appearance nearly a year after its fall, but undeterred they procured an old fishing dory at Afognak and arranged to have boat, provisions, and themselves carried across Shelikof Strait in the schooner *Hunter* to Kukak.

Conditions were not propitious when they were set ashore on the peninsula. All around them at Kukak the ground was covered with ash and pumice four to five feet deep. But climbing a nearby hill, they saw in the distance, as Horner later remembered, Mount Katmai and "five other smoking volcanoes in that vicinity." Heartened, they started down the coast. Seemingly they traveled in the dory.

When Katmai Bay was reached they found that their immediate destination, Katmai Village, was at the head of a tidal lagoon which was filled solidly with floating pumice. Observation showed them that incoming tides cleared away this obstacle sufficiently to permit them to take the dory within a half mile of the settlement. Then, after unloading their supplies to lighten the boat and waiting several days for higher tides, they were able to float the craft the remainder of the distance.

Katmai Village was even more "desolate and deserted" than Martin had found it a year earlier. At least Horner did not later mention seeing any dogs. The old trading post, securely anchored by its heavy chains, still stood, but drifts of ash were piled about it to the eaves.

The two explorers set up a base camp in an abandoned bunk house and then spent several days scouting a route up the remnant of Katmai Volcano. After a course had been selected, they set out at four o'clock one morning. Great difficulty was experienced in crossing the braided, silt-laden streams of the Katmai Valley, and their troubles only multiplied when they attempted to ascend the immense accumulations of powdery pumice on the lower slopes of the mountain. The gritty, angular ash penetrated all their clothing and equipment, abrading

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13 It seems to have been July before the pair made their climb of Mount Martin, however. Griggs, *The Valley of Ten Thousand Smokes*, 85.

the skin from their feet and fraying heavy canvas trousers. At each step they seemed to sink back in the yielding mass farther than they advanced.

Finally, after climbing to an estimated height of 3,000 feet, they had to turn back short of their goal. They did not reach their camp until two o'clock the next morning. Too tired to eat, they simply dropped into their beds.

While on the slopes of Mount Katmai, Horner and Hesse had looked across the route of the old Katmai Trail to the spectacular bulk of Mageik Volcano. What they saw intrigued them. There, on the same high ridge as Mageik but somewhat more than four miles to the southwest, was a volcano which showed on the Coast and Geodetic Survey chart as an unnamed 6,000-foot peak. "Vapors" were rising languidly from Mageik and other mountains nearby, but from this unidentified summit fumes "coiled and furled vigorously." Horner later recalled that there "appeared to be bands of gold fumes, some of them six feet in width and on clear days, when there was no wind, these vapor clouds rolled and curled thousands of feet in the air."

A spot of green was observed on the ridge leading to this active vent and to Mount Mageik. The two men interpreted this fact as an indication that they would encounter less pumice in that direction. They decided to shift objectives and head for the unnamed volcano, which not only seemed to be readily accessible but which appeared to be the most lively in the vicinity.

After moving their supplies to the west shore of the lagoon, Hesse and Horner began their assault on the ridge leading northwestward. As they had anticipated, the fierce winds had swept away most of the ashfall, and the crest, though steep and very narrow in places, was passable, particularly where snow and ice offered firm footing. But once again extreme difficulties were encountered, this time from cold and dense fog. Two attempts failed before a successful climb was made from a camp at the base of Mount Mageik.

By mounting one of the glaciers that clothed the side of the unnamed peak, the explorers reached almost the very edge of the new vent about 500 feet below the summit. Without alpine equipment, they could not climb the last few feet over slippery ice to peer into the crater. They could see, however, that the mountain wall opposite them across the opening "was coated with brilliant colorings of red, yellow, indigo and purple, caused by the minerals in the gases in the volcanic fumes."

Hesse and Horner were so struck with their discovery -- no one before, as far as the record shows, had even suspected an active vent in this location -- that they christened it "King of the Volcanoes." But two years later Dr. Robert F. Griggs was also impressed by this "most active volcano of the district" and named it for Dr. George C. Martin, whose account, said Griggs, "will always stand as the first authoritative report of the eruption."[14] Griggs's name prevailed.

The two Alaskans saw something else from near the top of the peak that gave them pause. Where the Ukak River had once run free toward Naknek Lake a most unusual phenomenon presented itself. More than 30 years later Mel Horner told about it. "We had a view," he said, "of what was later named the Valley of 10,000 Smokes. It spread out before us, a long narrow valley where there were thousands of small fumaroles issuing columns of steam and smoke, and the ground was a maze of wide jagged cracks like paths of lightning."

Afterwards Hesse and Horner discussed their exploration with Professor Griggs. As a result, the leader of the National Geographic Society's Katmai expeditions made the following highly significant statement concerning what the Alaskans had observed: "They gave no clear account of what they had seen in the distance, but as a part of the Valley of Ten Thousand Smokes is visible from the summit of Mount Martin I am satisfied that they must have had a glimpse of its fumaroles."[15]

Father Bernard Hubbard, S.J., the famed "Glacier Priest" who made several expeditions into the Katmai region during the 1920's and 1930's, said that he had seen some of Mel Horner's unpublished photographs which showed scenes viewed by the two pioneer explorers. Father Hubbard was "sure" that Hesse and Horner saw the Valley of Ten Thousand Smokes.[16]

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14 Griggs, *The Valley of Ten Thousand Smokes*, 83, 86.

15 *Ibid.*, 71.

16 Father Bernard Rosecrans Hubbard, S. J., interview with J. A. Hussey, Juneau, Alaska, July 1, 1953.

In view of such evidence, there can be little doubt that William A. Hesse and Mel A. Horner were the actual discoverers of the spectacular region which was later to become world-famed.[17] Why then have they not been more widely credited with this distinction?

First, the two Alaskans probably did not appreciate the significance of what they saw. There seems to be no record that upon their return to Seward they announced the discovery of a wonderland of thousands upon thousands of swirling steam plumes. True, Mel Horner many years later mentioned seeing an area "where a mountain had apparently been pulverized into a vast sea of hot sand which had coursed down a valley towards the Bering Sea" and announced that he and Hesse had observed a tree limb blackened by the flowing ash; but his own account of the exploration rules out the possibility that he could have approached the edge of the sand flow at that time. He must have picked up this notion during his later discussions with Griggs or from reading of Griggs's exploits in the *National Geographic*.[18]

Second, a photograph of Mount Martin taken by Horner in 1913 and copyrighted by him, but labeled "Mount Katmai," was widely offered for sale in Alaska for a number of years. Although Horner and Hesse may well have had nothing to do with this deception, its exposure in print by Griggs must not have enhanced the reputations of the true pioneers in the volcanic district.[19]

Third, the claims of Professor Griggs to being the effective discoverer of the Valley of Ten Thousand Smokes in 1916 were so valid and so overwhelming that any previous sightings were certain

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17 It perhaps should be noted here that at least one other person, a hardy sourdough named Malcolm Alexander ("Sandy") Smith, "a spry little guy," also claimed the honor of discovering the Valley of Ten Thousand Smokes, though no details are known. *The Juneau Independent* (Juneau, Alaska), June 18, 1958, p. 1, cols. 1-2.

18 For confirmation of the fact that Hesse and Horner did not reach the valley, see Bernard Rosecrans Hubbard, S. J., *One Hundred Pictures of Little Known Alaska* ([n.p.], 1935), caption for picture 2.

19 Griggs, *The Valley of Ten Thousand Smokes*, 71, 85.

to be overshadowed and obscured. There is no doubt whatsoever that Griggs's published descriptions were the vehicles which brought this "miracle of nature," as he termed the valley, to the attention of the world.

Last, it must be admitted that Professor Griggs, despite the rather restrained credit he gave to Hesse and Horner, did little to minimize his own rôle as the discoverer of the valley. Repeatedly during his published accounts he referred to his "discovery." The night after his first glimpse of the sea of fumaroles he was so excited that he could not sleep. "I kept wondering," he later recalled, "how the discoverer of the Yellowstone felt when he first beheld the spout of Old Faithful . . . . . I did not underestimate the difficulty of the task that had been set me by that day's discovery."[20] One need not be a cynic to suspect that the writer of these words may have been a man who would not cheerfully share this excitement, this glory, and this responsibility with others.[21]

All such matters were far in the future, however, as the two Alaskans climbed down off the mountain and returned to Katmai Bay. It had been nearly a month since they first reached Katmai Village, and they were glad to board a cannery tender for the trip across Shelikof Strait to Uyak. From there they went to Kodiak, where they caught the *Dora* for the voyage to Seward.

It was a bitter blow to find after their return that the volcanic dust which had ruined their clothes had also penetrated their motion picture camera and scratched the film. Their hopes of making "a documentary and interesting account of the

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20 Griggs, *The Valley of Ten Thousand Smokes*, 193-194.

21 Father Bernard Hubbard declared years later that Professor Griggs knew, persumably from discussions with Horner and Hesse, what he was going to see before he crossed Katmai Pass and saw the smokes in 1916. Father Hubbard was convinced that Griggs failed to mention this fact in order to enhance his own "discovery." Father Bernard Rosecrans Hubbard, S.J., interview with J. A. Hussey, Juneau, Alaska, July 1, 1953. However, Father Hubbard presented no evidence to support his statement, and until more is known about Griggs's contacts with Hesse and Horner, it seems best to reserve judgment in this regard.

area" were dashed. All they had left were a number of excellent still photographs taken by Horner -- and the satisfaction of knowing that they were the first persons who could prove they had viewed the very heart of the scene of 1912's disastrous eruption.[22]

During the summer of 1912, while George C. Martin was still in the field making his "reconnaissance of Mt. Katmai and neighboring volcanoes," the readers of *The National Geographic Magazine* were informed of an ambitious scientific program. Martin's studies, said an announcement in the August issue, were "preliminary to an extended investigation of the Alaskan volcanoes, which the National Geographic Society will inaugurate in 1913."[23] It was the Society's intention at the time that this study should be conducted "by some experienced authority on volcanism."[24]

As events developed, the Society did not implement this project in 1913 or in the year following. The reasons are not readily apparent, but the organization was engaged in several other worthwhile endeavors which may have been assigned higher priorities. There was, however, at least one member of the Society's Board of Managers who refused to let the matter drop.

Frederick V. Coville was a distinguished botanist -- he was credited with having introduced the native American blueberry into cultivation -- and curator of the United States National Herbarium. He had examined the country about Crater Lake in Oregon and was interested in knowing more about how humus-bearing soils developed on purely mineral ash. If these processes could be understood, he reasoned, much light would be thrown on the steps by which the earth's surface originally became capable of supporting vegetation. The ashfalls of the Katmai eruption appeared to him an ideal laboratory for such a study.[25]

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22 Except where otherwise indicated this account of Hesse and Horner's expedition is based on Horner, "First Into Katmai," 6-7, 24-26. All unidentified quotations are from this source.

23 "Volcanoes of Alaska," in *The National Geographic Magazine*, XXII (August, 1912), 832.

24 Martin, "The Recent Eruption," 141. Martin himself, it was freely acknowledged, was not an expert in volcanology.

25 Griggs, *We Two*, 73, 188. Coville had visited the Katmai coast with the Harriman Expedition in 1899.

Coville's determination to send an expedition to the volcanic region of Alaska was strengthened early in 1915 when he read an article in the *Bulletin of the American Geographical Society* by a rather obscure member of the faculty at Ohio State University on the effects of the 1912 eruption on the land plants of Kodiak Island.[26] He remembered the author as an undergraduate botany student who had spent some time during 1901-1902 in Washington, D.C., as an employee of the Department of Agriculture, where Coville at that time was "the" botanist. In fact, the two men had been members of the same "Lunch Mess" where some of the department's workers gathered for companionly and reasonable meals.[27]

Coville must have wasted no time in writing to his former Department of Agriculture team member. Would you, he said in effect, return to Alaska and study the revegetation of the country covered by the Katmai ashfall "if I can find the money for the project"?[28]

This completely unexpected letter marked a major turning point in the life of Robert Fiske Griggs. It also signaled the beginning of a new era in the history of the Katmai region. For at least the next three decades Griggs devoted a major portion of his time and energies to exploring, publicizing, and protecting the area which is today Katmai National Monument. It is safe to say that during that period and perhaps even down to the present no other man so greatly influenced the course of events in that vast scenic and scientific wonderland.

Robert Fiske Griggs (1881-1962) received his undergraduate training in botany at Ohio State University. During this period temporary employment with the Department of Agriculture gave him the opportunity to visit Puerto Rico and Guatamala, and he considered making the study of tropical plants his life work. Fate decreed otherwise. He graduated in 1903 and became professor of biology at Fargo College, North Dakota. While working toward his

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26 Robert F. Griggs, "The Effect of the Eruption of Katmai on Land Vegetation," in *Bulletin of the American Geographical Society*, XLVII (March, 1915), 193-203.

27 Griggs, *We Two*, 63, 172, 188.

28 *Ibid.*, 188.

M.S. degree at the University of Minnesota a short time later he spent a summer at that institution's Seaside Station on Vancouver Island. This experience turned his interests in the direction of marine plants, and he worked in that field after being appointed assistant professor of botany at Ohio State University in 1906.

A Ph.D. degree from Harvard and a second season at the Seaside Station resulted in his employment during the summer of 1913 by the Department of Agriculture as part of a team sent to study kelp growth along the coast of Southwest Alaska. The objective was to investigate this plant as a possible source of potash, which Germany was even then cutting off from the rest of the world.

Griggs later wrote that this cruise was "the key to all the rest of our professional life."[29] It brought him to Kodiak Island, where he and other members of the party quickly realized that the effects of the Katmai eruption on vegetation offered unusual opportunities for unofficial research. His paper for the American Geographical Society and the offer from Coville followed almost as inevitably as day follows night.[30]

Griggs was pleased that his paper had attracted Coville's attention, though he would have preferred an opportunity to renew his studies in the tropics. But he could not refuse the proposal. "I'd better take it," he told his wife Laura. "It may be a stepping stone toward a trip to South America."[31]

Upon receiving Griggs's reply, Coville set about trying to obtain financial backing. Evidently he approached one or more possible sources before the National Geographic Society agreed to make a grant of $4,000. Griggs later said that Coville, consistent with a policy he had "developed and tested

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29 Griggs, *We Two*, 169.

30 This account of Griggs's early career is based, except for a bit of supplementary checking in such works as *Who's Who*, upon his own writings in *We Two*, *passim*.

31 Griggs, *We Two*, 188.

through years of experience," arranged to have the funds cover two expeditions in successive years. After all, one could not foresee what an unknown country might bring.[32]

One of the conditions of the grant required Griggs to journey to Washington for an interview with Dr. Gilbert H. Grosvenor, director of the Society and editor of its *National Geographic Magazine*. During the conference Griggs asked Grosvenor how he should keep the expedition's financial reports.

"Oh," replied the director, "we pay you the money and you write us the story."

"This," Griggs wrote years later, "was the first of many evidences that I was dealing with a big man." His government experience had taught him "how much of valuable expedition time has to be wasted in meeting picayune clerical requirements which, moreover, are easily beaten if one is dishonest."[33]

Griggs was careful to point out, however, that he did, in fact, keep detailed accounts of all of his expeditions for the Society. And he went out of his way to make clear that the Society was quite as interested in making serious studies of scientific problems raised by the eruption as in producing popular but authentic articles for the readers of its periodical.[34]

Preparations for the 1915 expedition were somewhat haphazard and amateurish. One suspects that this condition resulted as much from the lean budget as from inexperience. Also, Griggs's instructions were "'not to attempt more than a hasty reconnaissance on the mainland,' for it was believed that the return of plants to the devastated district, which was our sole problem at first, could be studied better at Kodiak than elsewhere."[35] Under such circumstances the need for ropes and other mountain equipment could not well have been anticipated.

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32 Griggs, *We Two*, 188-189.

33 *Ibid.*, 189-190.

34 Robert F. Griggs, *The Recovery of Vegetation at Kodiak* (The National Geographic Society Katmai Expeditions, vol. I, Columbus, Ohio, 1918), 2.

35 Griggs, *The Valley of Ten Thousand Smokes*, 71.

Griggs recruited only one man from the "lower 48" to go with him to Alaska. This assistant was Bently B. Fulton, an entomologist who had accompanied Griggs on field trips in Ohio during 1908. "My primary reason for selecting him," said the botanist, "was that I didn't know anyone else I would rather have as a companion if we should get into a tight place."[36]

When Griggs reached Kodiak during June, 1915, he was amazed at the changes that had taken place since his visit two years earlier. Almost everywhere the blanket of grey ash had been replaced by lush grass, and many plants and trees had recovered. "I had come to study the revegetation," the botanist later wrote, "but I found my problem vanished in an accomplished fact." The main field of investigation, therefore, seemed transferred to the more deeply buried country near the volcano, and the expedition prepared to depart for the peninsula.[37]

While at Kodiak Griggs and Fulton met Lucius G. Folsom, the personable manual training teacher at nearby Wood Island. He knew a good deal about local conditions, and when he volunteered to go along to the mainland his offer was accepted.[38]

The outfitting of the expedition at the Kodiak store must have provided a good deal of amusement for the townspeople. The United States Commissioner insisted on supervising the purchases, and he kept asking questions like "Have you got any bacon?" and "How about sugar and flour?" until Griggs became somewhat irritated. But when the query, "Have you got plenty of matches?" was put, the shame-faced explorers had to admit that these important items had been completely forgotten. In the end Griggs was reasonably well satisfied with himself. "We had," he said, "almost everything the need of which could have been foreseen."[39]

Mr. Albert Johnson of Uyak was hired to carry the party across to Katmai and to take the explorers off again at a designated time. Griggs, though he suffered severely from seasickness

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36 Griggs, *We Two*, 51-52, 190.

37 Griggs, *The Valley of Ten Thousand Smokes*, 45-46.

38 Griggs, *We Two*, 190.

39 *Ibid.*

during the journey, had only admiration for Johnson's skill and good judgment when the shores of Katmai Bay were reached on July 11. A sky hazy with blue volcanic dust obscured the distant volcanoes. The sea was covered with pumice, and all along the beach a continuous line of breakers crashed ominously. Indeed, everything that could be seen was desolate and forbidding.

It was quickly discovered that the lagoon at the mouth of the Katmai River which in 1912 and 1913 had permitted boats to reach the village was now choked with volcanic debris. As Griggs described the stream, it was "five miles wide and five inches deep."[40] The western side of the wide bay looked low and swampy, so Griggs had the men and their supplies put ashore at the eastern extremity, where a white waterfall tumbling over the cliffs promised a supply of drinkable water.

Upon landing, Griggs and his companions noticed everywhere the signs of a recent flood. They waded through mud to establish a base camp on a bed of pumice in a grove of poplars, some of the few trees in the valley that had survived the eruption.

Exploration of the Katmai Village site quickly revealed the tremendous magnitude of the flood. The Orthodox chapel, though reasonably intact, had been swept off its foundations and bore a high water mark of 5 1/2 feet above the ground. Many barabaras were completely filled with water-borne ash, and the heavy roof of one had been floated away. When the explorers realized that the valley was nearly six miles wide at that point, they could appreciate the immense volume of water which must have been involved. And they were heartily glad that they had not been camped on the valley floor a week earlier. Although they speculated much as to the cause of the flood, they were not to discover its real source that year.

After four days of preliminary explorations, one of which was spent breaking a trail northward to Soluka Creek in a suffocating dust storm, the party gathered up its equipment and as much food as the men could carry and on June 16, in Griggs's words, "started up the valley for the volcanoes."[41] After three or

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40 Griggs, "The Valley of Ten Thousand Smokes," in *The National Geographic Magazine*, XXXI (January, 1917), 24.

41 Griggs, *The Valley of Ten Thousand Smokes*, 85.

four miles they obtained a fine view of the mountains off to the northwest. Mount Mageik, snow-capped and brilliant in the sunshine, was easily identified, but to the southwest of it was a smaller volcano which was sending up a mile-high column of smoke. This was Hesse and Horner's King of the Volcanoes. Griggs, as has already been noted, called it Mount Martin.

Since this volcano then appeared to be the most active one in sight, the explorers were not certain that it had not been the chief source of the eruption. This possibility was later discarded when it was observed that the ash deposits became deeper as Mount Katmai was approached but rapidly diminished in the direction of Martin.

Continuing up the east side of the valley, the party reached the point where formidable Soluka Creek barred further progress. Griggs waded out into the quicksand and dead trees for half a mile but could only see deeper and swifter water ahead. He decided that this was no place to make the crossing. He turned back and had camp set up on the south shore.

The next morning Griggs and his companions decided to climb onto the slope of a nearby mountain to obtain a view upstream and select a better site to ford Soluka Creek. They found that clamboring up the great ash fans on the lower slopes was a difficult task, but after wearing their finger tips to the quick attempting to steady themselves in the gritty, yielding mass, they obtained their objective.

As it turned out, the second crossing place was little better than the first. They forded successfully, however, and the next day they climbed onto the ridge between Soluka Creek and Katmai River in hope of seeing Mount Katmai, which thus far had been cut off from their view. This mountain mass which obstructed sight of the volcano from the lower valley was not illogically named Barrier Range by the explorers.

Once more they were balked. After much hard scrambling they discovered that beneath the surface crust of ash were numerous deep caverns formed by the melting of underlying snow packs. It was too dangerous to continue, so the explorers returned to the valley and the next day followed Katmai River into its upper valley. Here Katmai Volcano would have been in sight had not clouds obscured everything above 1,000 feet.

From a camp near the mouth of Katmai Canyon the men attempted to cross the Katmai River to examine a vast mud flow that could be seen on the opposite side. Griggs and Fulton were knocked down by the raging torrent, and since the party had no rope long enough to stretch across and provide a safety line, the effort was abandoned.[42] The expedition of 1915 had reached its farthest point.

For two more days Griggs and his companions waited in the upper valley hoping the weather would clear so that they could at least obtain pictures of Mount Katmai. Their patience was finally rewarded. The clouds rolled away, and an entire row of volcanoes -- Martin, Mageik, another new volcano called Trident, and Katmai -- were visible in all their glory.

The first view of Mount Katmai was an anticlimax. The truncated remnant did not appear to be very high, and its dull grey coat of ash contrasted shabbily with the gleaming snow and ice on Mageik. Closer study showed that Katmai, vast in bulk, only appeared insignificant, and beneath the ash the crevassed forms of glaciers could be seen. Without ropes, however, the explorers were not tempted to make a try for the summit.

Having accomplished as much as possible in view of their limited equipment and supplies, the men made their way back to Katmai Bay. As bleak as the lower valley had seemed when they landed, it was like paradise regained after the utter devastation of the upper portions.

True to his agreement, Albert Johnson arrived off Katmai on July 29 to pick up the weary explorers. Bad weather made it impossible for him to land until the 31st, but before the boat could be loaded one of Katmai's notorious storms blew up, and Johnson had to push off alone to see to the safety of his sloop. Not until three days later was he able to return. A considerable surf was running and, as Griggs said, "we lost no time in getting aboard."[43]

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42 Griggs, *We Two*, 189.

43 This account of the 1915 expedition is based, except where otherwise indicated, on Griggs, "The Valley of Ten Thousand Smokes," 13-45; and Griggs, *The Valley of Ten Thousand Smokes*, 71, 81-105.

Professor Griggs was quite pleased with the results of the 1915 expedition. His brief view of the line of steaming vents above Katmai Valley convinced him that a study of the eruption, including a "thorough exploration of the immediate environs of the volcano," was a valid end in itself, deserving to rank with the revegetation project as a subject for future research. "We felt it imperative," he wrote, "to make a study of the center of the volcanic district and especially to examine the crater the next year."[44]

He also believed that he and his companions had been "the first to see and photograph the stub of the volcano," thus confirming the identification of the seat of the eruption made by Captain McMullen of the *Dora*.[45] Other accomplishments included the visual scouting of routes for an assault upon Mount Katmai the following summer.[46]

The Katmai expedition of 1916, the second led by Griggs and the third sponsored by the National Geographic Society, was almost as modest an affair as its predecessors. The number of men was increased to four, however, since the experience of 1915 had convinced Griggs that a packer would be a necessary addition to the party.

Griggs and L. B. Folsom, the Wood Island manual training teacher, were the holdovers from the previous year. Griggs had decided that the work ahead required the services of an expert photographer, so he chose as his assistant and the third member of the group a "youngster," Donovan B. Church, whom he had singled out from among his students at Ohio State. He had been impressed by the young man's habit "of turning up after a field trip with a set of unusual pictures, which he had snapped surreptitiously en route."[47]

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44 Griggs, *The Valley of Ten Thousand Smokes*, 71.

45 Griggs, *We Two*, 191. Father Hubbard, however, claimed that Hesse and Horner had photographed Mount Katmai in 1913. Father Bernard Hubbard, interview with J. A. Hussey, Juneau, July 1, 1953. C. L. Boudry had seen the "new crater" from a distance as early as July 21, 1912, a fact which Griggs must have known from Martin's article.

46 Griggs, *The Valley of Ten Thousand Smokes*, 99.

47 *Ibid.*, 72; Griggs, *We Two*, 192.

The matter of the packer was not settled so easily. Upon arriving at Kodiak, Griggs found the natives afraid to visit the scene of the recent eruption. "Me no Katmai," said the local chief in no uncertain terms. Happily, Walter Metrokin, "a famous one-handed bear hunter," agreed to go. Griggs never regretted the choice. Not only was Metrokin a hard and resourceful worker, but he lifted spirits by his ample supply of droll stories. One tale of a bear hunt "with two white men and an Englishman" was long remembered by the other party members.[48]

Unofficially, the personnel of the expedition was still further expanded. This year Griggs brought his wife and two young children with him to Kodiak. Still working on the revegetation problem there, he set up his barograph, hydrograph, and other instruments and left them to be watched by Mrs. Griggs while he was away for five weeks at Katmai.[49]

Base camp on the peninsula was established at the same place as that of the previous year. Experience had shown that a location on the western edge of the valley might have been preferable, but no suitable landing place could be found on that side of Katmai Bay. The camp site of 1915 was covered by 20 inches of fresh pumice, and streams in the vicinity had moved their courses. Other evidences of rapid geologic and vegetative change were noted. The mountains near the coast were greener, and seedlings were beginning to spring up on the valley flats. But overall the bleak scene was little altered.

Since their principal objective was to climb Mount Katmai, the explorers moved up the valley and set up a second base camp

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48 Griggs, *The Valley of Ten Thousand Smokes*, 72-73. Metrokin probably was a creole, of mixed native and Russian blood. It is interesting to note that Griggs, probably unconsciously, made a subtle distinction between him and the other members of the party. When writing of the Americans in the group, Griggs usually referred to them by their last names; but Metrokin was called Walter. Thus one notes picture captions reading, for instance, "Griggs and Walter resting on the trail." Though Griggs went out of his way to praise the packer in print, he evidently drew a clear line between the hired hand and the sahibs.

49 Griggs, *We Two*, 194-199.

at the head of the flats. The site, in fact, was on an island in the Katmai River, and it was selected because it afforded a splendid view of the volcanoes all the way from Martin to Katmai.

Griggs and Folsom noted that all the vents seemed to be more active than before. In 1915 they could not be sure that steam was rising from Mount Katmai. Now there was no doubt. What was more, whenever the weather was clear two large clouds of steam could be seen through Katmai Pass. Other signs of activity beyond the ridge connecting Katmai and Trident confirmed sightings made in 1915. To the excited explorers, these distant "smokes" were "very definite indications of more volcanoes on the other side of the range."[50]

It seemed only fitting to call the spot that afforded such a prospect "Grand View Camp." On later maps, however, the more prosaic designation "Island Camp" appears to have been used.[51]

Bright, clear weather on the morning of July 19, the day after Grand View Camp had been established, encouraged the explorers to test the crossing of the Katmai River and to scout about for a suitable route up Mount Katmai's forbidding slopes. As the men worked their way over the mud flow at the base of the slope and then discovered easy going over firm ground to an elevation of about 2,000 feet, they found themselves reluctant to turn back. Why not try for the crater rim?

There were no audible objections, so the four climbers roped themselves together and headed upward. "We were on dangerous ground from the outset," Griggs later wrote. Melting snow under a heavy coat of ash produced fissures and boiling torrents that had to be crossed on snow bridges.

The mountain slopes were covered with mud which, Griggs believed, had been produced during the last stages of the eruption. As the party ascended, this mass became soft and sticky, making the advance extremely laborious. Above 4,000 feet the slope became steeper, and the mud gave way to soft snow.

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50 Griggs, *The Valley of Ten Thousand Smokes*, 49.

51 *Ibid.*, 68.

Church, carrying the heavy photographic equipment, found the climb particularly difficult, but he did not lose his sense of humor. He later told Griggs that he would have stopped except for two facts -- "that he was hitched to a rope and could not get away and the fear that if we turned back today we would have it all to do over again tomorrow."[52]

At 5:05 in the afternoon Griggs and his companions were finally at the rim. By that time clouds and steam were blowing across the crater and out of it, most of the time straight into the eyes of the explorers. Gingerly the men approached the sharp and cracking edge and peered down from their estimated elevation of 5,500 feet into the mist.

For a moment a rift opened. Far below "something blue" dimly appeared and then was once more obscured. After a torturing interval the clouds again drew back. "We were struck speechless by the scene," said Griggs later, "for the whole crater lay below us. It was of immense size and seemed of an infinite depth."

"About half of the bottom was occupied by a wonderful blue and green vitreolic lake, with the crescent-shaped remains of an ash cone near the middle. In the larger end was a circle of lighter-colored water which was in continual ebullition. Around the margin were a thousand jets of steam of all sizes, issuing from every crevice with a roar like a great locomotive when the safety valve lets go."[53]

A few photographs were taken, but after a stay of 50 minutes it became apparent that no further clear intervals would be forthcoming that day. And it may have been on that occasion that Walter Metrokin displayed a trace of nervousness at being so close to the place dreaded by his people. When he thought the party had overstayed its time, he burst out, "Can't make nothing' up here."[54]

Already pinched by cold, the explorers turned to the weary task of descent. They did not reach camp until 10:20 that night.

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52 Griggs, "The Valley of Ten Thousand Smokes," 53.

53 *Ibid.*, 54.

54 Griggs, *The Valley of Ten Thousand Smokes*, 73.

Griggs was anxious to make a second ascent in order to measure the size of the crater, but no opportunity offered until July 30. In the interval the party was at one time pinned down in its tent for 48 hours by one of the fierce gales for which Katmai is famed. This experience and the finding of many tree trunks deeply abraded on their northwest sides quite convinced the men of the authenticity of accounts given by Spurr and other early travelers concerning the storms of wind-driven rock and pumice that plagued Katmai Pass.

When a favorable day at last arrived Griggs led another climb to the summit of Katmai. This time the route lay farther to the west, since the botanist was anxious to get a closer view of Trident Volcano and to check on the signs of activity which had been observed beyond the ridge in that direction. The first objective was achieved, but the vent on Trident proved to be a "simple fissure" of no particular immediate interest. The explorers were unable to see any significant signs of volcanic activity over the saddle between Trident and Katmai, so they "quite dismissed the idea of a volcano in that quarter." How much they were in error they discovered the next day.

The ascent to Katmai's summit was troublesome, involving the crossing of many creeks and gullies and the traversing of deeply crevassed snows fields and glaciers, but no major obstacles were encountered. The rim was reached at its lowest notch, at an estimated elevation of 5,200 feet.

This time viewing conditions were good except for a haze of steam which rose from the lake and partially obscured the surface and the opposite wall. Photographs taken on that day were thus less clear than Griggs had desired. Perhaps the chief accomplishment of the second ascent was the revision of the estimated crater depth from 1,500 feet to 2,000 feet. At any rate the day was less strenuous than the previous one. The party was back in camp by 8:30 p.m.

Griggs originally planned to make a two-day trip across Katmai Pass to investigate the steam clouds the party had observed in that direction. But on the morning of July 31, 1916, a glance toward the mountains revealed signs of an impending change in the weather. Fully aware of the pass's ugly reputation and fearing to be caught on the far side without sufficient provisions, Griggs decided to settle for a leisurely one-day reconnaissance.

Griggs, Folsom, and Church skirted Observation Mountain and ascended the upper valley of Mageik Creek to an elevation of 2,500 feet. From there they could see "a long way" through Katmai Pass. No steam could be observed. "Again," said Griggs, "I concluded, as I had the day before, that we had seen nothing more than the ordinary clouds which gather so easily around the summits of all the mountains."[55]

At that point Church, who had overindulged in flapjacks that morning, found it necessary to stop. Griggs and Folsom left their packs with him and pushed ahead a short distance. Still no steam was seen.

Griggs tells what happened next:

> But just as I was about to suggest turning back to Folsom I caught sight of a tiny puff of vapor in the floor of the pass. I rubbed my eyes and looked again. Yes, there it was, a miniature volcano sending up a little jet of steam right in the pass. When I saw this I decided that we must go on to investigate, because the very smallness of this steam jet made it of as much interest as a large volcano.[56]

Advancing still farther, the two men found the floor of the pass "shot through with cracks and small fissures from which issued half a dozen good-sized jets of steam and perhaps a hundred small ones."[57] Such phenomena appeared important to Griggs, because thus far no signs of still active volcanism had been seen except in the vents on the major peaks.

The two explorers examined these fumaroles for a while, warming their hands over the heat and noting the "rotten egg" smell and the colored mineral deposits on the ground nearby. But Griggs was anxious to get back to Church, as he and Folsom had been gone longer than expected. His own words best tell what followed:

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55 Griggs, "The Valley of Ten Thousand Smokes," 63.

56 *Ibid.*

57 Griggs, *The Valley of Ten Thousand Smokes*, 190.

So, starting to return, I had reached a little eminence, for the fumaroles were just over the pass, when, turning around to urge Folsom to hasten, I saw far down the valley, over the top of some rising ground beyond us, a puff of steam. This had not been there when we came over the pass and was evidently considerably larger than the jets we had been examining, and as the obstructing hill was not far away I decided, late as it was, to go forward and have a look.

I can never forget my sensations at the sight which met my eyes as I surmounted the hillock and looked down the valley; for there, stretching as far as the eye could reach, till the valley turned behind a blue mountain in the distance, were hundreds -- no, thousands -- of little volcanoes like those we had just examined. They were not so little, either . . . . Many of them were sending up columns of steam which rose a thousand feet before dissolving. After a careful estimate, we judged there must be a thousand whose columns would exceed 500 feet.[58]

Folsom apparently joined Griggs on the hillock almost at once. Awestruck, the two men stared down on the broad, sterile plain from which thousands upon thousands of steam plumes curled. Immediately they were convinced that they had discovered one of the great wonders of the world.

"The first glance," Griggs later recalled, "was enough to demonstrate that we had found a miracle of nature which, when known, would be ranked with the Yellowstone, the Grand Canyon, and other marvels, each standing without rival in its own class."[59]

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58 Griggs, "The Valley of Ten Thousand Smokes," 64.

59 Robert F. Griggs, "The Valley of Ten Thousand Smokes: An Account of the Discovery and Exploration of the Most Wonderful Volcanic Region in the World," in *The National Geographic Magazine*, XXXIII (February, 1918), 115 (hereafter cited as Griggs, "The Valley of Ten Thousand Smokes [1918]," to distinguish it from the article with almost the same title in the January, 1917, issue of that periodical).

"I tried to keep my head," Griggs remembered; but the lure of further discoveries was too great. The two excited men forgot about returning to Church and hurried down the valley for a closer look at the fumaroles.

They observed that some of the steam jets issued from large holes or were strung out in lines along fissures. Others seemed merely to emerge between the grains of the surface ash. Still others had thrown up small craters and cones about their outlets. The ground was extremely hot in places; in others walking was reasonably comfortable. Pervading all was "a strangely organic smell" which reminded Griggs of "burning wool, the musky smell of a fox den, and the odors of decay."[60]

The two explorers wandered down the valley for what seemed to them to be three or four miles.[61] Passing between the two rather small isolated peaks later known as Cerberus and Falling Mountain, they reached a point where lateral valleys provided views toward Mount Martin to the southwest and toward Mount Katmai to the east. The floors of these branches were also covered with steam jets, but Griggs and Folsom had eyes for little else than two obviously recent volcanic vents which dominated the scene in the direction of Katmai's jagged crater.

The closer vent was throwing up a "prodigious" column of steam, and the men turned in that direction. "As we drew nearer," said Griggs afterwards, "we saw that the main body of this steam was rising from a central mass of rock, surrounded by a comparatively low ring of cinders, the whole extending across the valley and blocking further progress." The botanist at once identified the smoking, cinder-covered hill as "a plug of lava being slowly pushed up through a vent which was formerly rather violently explosive."[62]

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60 Griggs, "The Valley of Ten Thousand Smokes," 66.

61 The actual distance was found later to have been 1 1/2 miles or a little more.

62 Griggs, "The Valley of Ten Thousand Smokes," 66-67; Griggs, *The Valley of Ten Thousand Smokes*, 122.

He was correct as far as the plug went, but "rather violently explosive" was a palid term to apply to what years later was determined to be the probable chief outlet for most of the ejecta hurled forth during the 1912 eruption. This unimpressive mound was the vent later known as Novarupta.

Griggs and Folsom now recalled the lateness of the hour and hurried back across the pass to rejoin Church, who for five hours had been shivering in the wind. The reunited party dragged itself exhausted into Grand View Camp not long after 10 o'clock that evening.

Tired as he was, Griggs could not sleep. "I had seen enough to know that we had accidentally discovered one of the great wonders of the world," he later recalled. "The responsibilities and the opportunities of our position came over me in a flood of problems that I could not drop. Here were we, alone of all the world, possessed of the knowledge of the existence of this marvelous place."[63]

Griggs had no intention of neglecting those responsibilities and opportunities or, apparently, of sharing them with others. A good botanist, he recognized, might have thought, "Oh, how I wish I were a geologist so I could describe this new kind of eruption."

But Griggs said to himself, according to his own account: "I'll try and see what I can do with it."[64]

Thus he went ahead alone to formulate a scientific explanation of the marvel he had found. Based upon observations made during the few hours he and Folsom had spent in the valley and upon certain phenomena seen during the ascents of Mount Katmai, he evolved a hypothesis to account for the myriads of fumaroles concentrated in such a relatively small area.

It was "evident," he wrote shortly afterwards, that a great fissure in the earth's surface ran northwest from Katmai Pass down the Ukak drainage toward Naknek Lake. Branches from this main line extended to Katmai and Martin. From these rifts

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63 Griggs, *The Valley of Ten Thousand Smokes*, 193.

64 Griggs, *We Two*, 173.

steam spread out as it rose through the "accumulations from recent eruptions" and emerged from the scattered fumaroles through a process similar to that producing "the many small leaks one finds on the surface of an old bicycle tire when there is a single puncture of the inner layer of rubber."[65]

So a botanist tidily solved a problem that might have given many a trained geologist pause. In his first *Geographic* article on the valley Griggs even boldly assigned a name to his "newly discovered" Naknek Fissure. As later explorations revealed more about the nature of the incandescent ash flow in the Ukak drainage, however, this interpretation had to be revised.

Professor Griggs also had quite a different type of responsibility in mind as he lay awake at Grand View Camp on the night of July 31, 1916. "I recognized at once," he recalled, "that the Katmai district must be made a great national park accessible to all the people, like the Yellowstone. To make it known, to have it set aside as a National Park, and to secure the means necessary for its development would, I foresaw, require a tremendous amount of effort."[66]

Robert Fiske Griggs was willing to expend that effort. Already in his mind a great campaign was taking shape.

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65 Griggs, "The Valley of Ten Thousand Smokes," 67.

66 Griggs, *The Valley of Ten Thousand Smokes*, 195.

CHAPTER XIV

A Volcanic Wonderland Reserved

Early morning on August 1, 1916, found all astir at Grand View Camp. Griggs had hoped to return to the wonderful valley he had discovered in order to make a more thorough exploration, but the past few days of good weather had started the snow melting on the mountains, and the Katmai River had begun to rise. Afraid of "being caught miserably on the wrong side," the men decided "it was better to get back with what we had than to risk it all for the sake of more."[1] A retreat to Katmai Bay was ordered.

Before leaving camp, Griggs took an opening step in his campaign to establish a national park at Katmai. Among the problems, "real and imaginary," that had tortured him during the previous night was that of how to get the public to this remote region. Certainly large numbers of people could not be landed through the surf at Katmai Bay. Where could a suitable harbor be found?

He pulled out his chart and looked for a likely spot. The result was not encouraging, but now he had one more objective for future explorations.[2]

Another necessary step in the campaign was the selection of an ear-catching name for the great discovery. Perhaps the christening actually took place the day before near the top of Katmai Pass, but Griggs's remarks concerning the event are somewhat vague: "Even from the hasty examination we were able to make on the day of discovery," he wrote about 1921, "we could see that the vents must be counted by the tens of thousands. And from this first impression came the name, The Valley of Ten Thousand Smokes."[3]

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1 Griggs, "The Valley of Ten Thousand Smokes," in *The National Geographic Magazine*, XXXI (January, 1917), 67.

2 Griggs, *The Valley of Ten Thousand Smokes*, 195.

3 *Ibid.*, 192. Actually, the name first selected was "The Valley of the Ten Thousand Smokes," but it was soon shortened. Griggs, "The Valley of Ten Thousand Smokes," 67.

But whether bestowed at Katmai Pass, at Grand View Camp, or upon a later occasion, the name quickly captured the imagination of the world. The campaign was off to a good start.

When the base camp near Katmai Village was reached, the four explorers had to wait ten days for their boat to pick them up. The clouds cleared away only once during that period, so Griggs did not feel that too much had been lost by the retreat.

By then Griggs seems to have been anxious to get home so that he could report his great find to the National Geographic Society. And evidently he had no intention of letting news of the discovery leak out until he and the Society made the announcement. Such is the impression one obtains, at any rate, from the fact that when the little vessel, *Aggie,* deposited the explorers at the Kodiak dock on the evening of August 14, Griggs took care to use a "low tone" while conveying to his wife the news of "his discovery of a great volcanic valley."[4]

From the moment of his discovery, Griggs had been worried that people would not believe the magnitude and wonder of the Valley of Ten Thousand Smokes. He and Folsom had been able to snap only a few pictures of the country beyond Katmai Pass, and Griggs knew that they could convey no adequate impression of the awesome scene.

Much to his relief he found the officers of the National Geographic Society not only willing to credit his report but even eager to give it wider publicity. The president of the Society, said Griggs, "was quick to grasp the significance of our discovery, and did all in his power to assist further exploration and to stimulate interest in the reservation of the district as a part of our great National Park System."[5]

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4 Griggs, *We Two,* 200.

5 Griggs, *The Valley of Ten Thousand Smokes,* 195. Although the president of the Society in 1918, when the park proposal was most actively pushed, was O. H. Tittman, Griggs probably was referring to Gilbert H. Grosvenor, who was the director of the Society at that time and who became its president in 1920. By 1918 Grosvenor and the Society were already seasoned campaigners in the cause of promoting national parks. See Robert Shankland, *Steve Mather of the National Parks* (New York, 1951), 91-92.

The organization's first step in that direction was to publish in the January, 1917, issue of *The National Geographic Magazine* an article by Griggs describing the 1915 and the 1916 expeditions. The remarkable fumaroles beyond Katmai Pass were mentioned on only 5 of 39 pages of text, and they were pictured in but 2 of the 52 illustrations, yet the article was entitled, "The Valley of Ten Thousand Smokes."[6] Clearly, the drums of of publicity had started to sound.

Concurrently with the publication of this article the Society announced that its Board of Managers, "in view of the extraordinary conditions of the Katmai region, unparalleled anywhere in the world," had made a grant of $12,000 for additional explorations in that district during the summer of 1917. The expedition was once more to be in the charge of Robert F. Griggs.[7]

An extended examination of the Valley of Ten Thousand Smokes was a much larger undertaking than the previous expeditions had been. It required a significant portion of Griggs's time over a period of six months to select and order the necessary supplies and equipment and to make sure they would be in Seattle on sailing day. Then, too, the party was to be enlarged, and the leader had to choose the specialists who were to conduct the several phases of the investigation.

As finally organized, the expedition of 1917 consisted of ten men. Four -- Griggs, Folsom, Church, and Metrokin -- were veterans from the previous year. The six new recruits were Clarence F. Maynard, topographer; Professor James S. Hine, zoologist at Ohio State University; Dr. J. W. Shipley, of the University of Manitoba, chemist; Jasper D. Sayre, assistant botanist; Paul R. Hagelbarger, assistant botanist; and Andrean Yagashof, packer.[8]

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6 Robert F. Griggs, "The Valley of Ten Thousand Smokes: National Geographic Society Explorations in the Katmai District of Alaska," in *The National Geographic Magazine*, XXXI (January, 1917), 12-68.

7 *The National Geographic Magazine*, XXXI (January, 1917), 68.

8 Griggs, *The Valley of Ten Thousand Smokes*, 74.

It seems noteworthy that no geologist was included. Griggs evidently still considered himself capable of handling that phase of the work. At least he later commented that the absence of vegetation in the Valley of Ten Thousand Smokes permitted him to spend all his leisure "studying the manifold geological problems of the place, which presents a remarkable and unique exhibition of geological forces."[9] Although Dr. Shipley, the chemist, was assigned important duties such as analyzing the composition of vapors from the fumaroles, Griggs admitted that a chemist had been employed partly for the express purpose of warning the explorers against such possible but hypothetical dangers as carbon monoxide gas in the atmosphere.[10]

The base camp that year was established on the west side of Katmai Bay, on the point just north of Kashvik Bay. Here an offshore reef provided a more sheltered landing spot than the beach near Katmai Village, but nevertheless a dory was nearly swamped while carrying supplies to the ship on the return journey. This site had another advantage in Griggs's estimation. It had been little affected by the 1912 ashfall, and thus the scientists could carry on "important biological studies in the comparison of devastated with undevastated country."[11]

From this point a series of three subsidiary base camps was laid out up the western side of Katmai Valley, and by back packing in relays each was stocked with food and equipment. This procedure made it possible for the packers carrying food over Katmai Pass and to other advanced points to keep to a minimum the portions of the loads required for their own sustenance and shelter.[12]

During the northward trip Griggs sent out a party from the camp near the foot of Martin Creek to explore Mount Martin. "This interesting volcano was discovered by the 1915 expedition of the

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9 Griggs, "The Valley of Ten Thousand Smokes [1918]," in *The National Geographic Magazine*, XXXIII (February, 1918), 130.

10 *Ibid.*, 121.

11 Griggs, "The Valley of Ten Thousand Smokes [1918]," 158.

12 Griggs, *The Valley of Ten Thousand Smokes*, 75.

National Geographic Society," he wrote in his published account of the 1917 exploration.[13] These were strange words from the pen of a man who by at least 1916 knew positively that Mel Horner had seen and photographed the steaming crater of this same peak in 1913![14] Ironically, the well-equipped expedition of 1917 was not even able to equal the achievement of Horner and Hesse, for bad weather prevented an ascent to the crater.

The sallies in the direction of Martin Volcano resulted in the finding of a vast flow of soil and rock which had poured like water down the valley of Martin Creek. Griggs considered this "Great Mageik Boulder Flow" to be "one of the most interesting phenomena of the whole volcanic district . . . almost worthy to be ranked along with the crater of Katmai and the Valley of Ten Thousand Smokes."[15] Here, too, Hesse and Horner had been the true discoverers, though they had believed the mass to be the result of a volcanic explosion rather than an earth slide.[16]

Griggs fretted while the men packed sufficient supplies to a camp at the foot of Observation Mountain to maintain the party while operating across Katmai Pass. He was impatient to see if a year had made any changes in the Valley of Ten Thousand Smokes, for he had been tormented by the thought that the fumaroles were merely "a passing stage in the declining activity." At last he could stand the waiting no longer. He and Walter Metrokin walked out of camp on the morning of July 4, telling no one where they were going. Soon they were at the top of the pass.[17]

"I saw at once," recalled the relieved leader, "that everything was just as it had been the previous year."

As his apprehensions evaporated, Griggs swung to a state of elation. What he saw from the pass and his later observations convinced him -- almost -- that the activity in the valley had reached a stable plateau and would continue without much change

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13 Griggs, "The Valley of Ten Thousand Smokes [1918]," 161.

14 Griggs, "The Valley of Ten Thousand Smokes," 33.

15 Griggs, "The Valley of Ten Thousand Smokes [1918]," 161.

16 Griggs, *The Valley of Ten Thousand Smokes*, 135.

17 *Ibid.*, 197. In an earlier account Griggs said that this visit was made during June. Griggs, "The Valley of Ten Thousand Smokes [1918]," 116.

for years into the future. Generations of tourists would be able to enjoy the wondrous display. What was more, believed the amateur geologist, they would be able to do so without danger. "As long as steam continues to escape in such quantities," he reasoned, "there appears to be little probability of a recurrence of any violent explosions like those of 1912, for the present activity of the region acts as a safety-valve to relieve the pressure from below and prevent its reaching the danger point."[18]

Four days later the bulk of the party crossed Katmai Pass in a driving wind storm and set up a camp on a side slope at the upper end of the valley. Even though a snowdrift was a few feet away, the ground under the tents emitted a moist heat which soon put some of the scientific equipment and cameras out of commission.

Griggs was keenly interested in observing the reactions of the newcomers as they became aware of the grandeur of the scene. He was immensely pleased when one man, who had earlier expressed some scepticism at the leader's descriptions, was heard to repeat over and over again, "Why, you couldn't exaggerate it."[19] Upon the completion of the field work most members of the expedition were asked by Griggs to prepare written statements of their impressions of the valley in order to give "a broader view" than could be conveyed by his reactions alone.[20]

It took the men some time to adjust to the new environment. To Griggs it seemed that the party was overawed by the spectacle all about them -- overawed even to the point of stupefaction. "For a while," he said, "we could neither think nor act in normal fashion." Even Dr. Shipley, the chemist, who kept busy with his scientific sampling, said on the third day that he "did not feel like monkeying with his little bottles of chemicals."[21]

Another problem, frankly admitted by Griggs, was fear. A few walks revealed that many unseen dangers lurked in this strange place. Invisible jets of superheated steam could inflict terrible

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18 Griggs, "The Valley of Ten Thousand Smokes [1918]," 116-117.

19 *Ibid.*, 119.

20 Griggs, *The Valley of Ten Thousand Smokes*, 211-217.

21 *Ibid.*, 201.

burns if touched accidentally. Fissures were often hidden from sight by thin bridges of ash; one step on such a treacherous covering would mean instant parboiling in the abyss beneath. From every fumarole issued strange smelling vapors which might contain poisons. And on all sides the steam jets roared as if "all the steam engines in the world, assembled together, had popped their safety valves at once."[22]

After a few days the explorers learned that some of the perils were nonexistent and that others could be bypassed. They discovered how to cook over the fumaroles and how safely to sample jets of steam. They even found that sleeping in constantly damp and warm blankets seemed more beneficial to health than otherwise.

Soon nearly all were going about their assigned duties. The photographer and other members of the party as well took a large number of superb photographs. The topographer climbed peaks to determine the locations of landscape features. The chemist collected bottle after bottle of vapor and mineral samples. Unfortunately the thermometers which had been brought along would not register high enough to measure the temperatures of the hottest fumaroles. Steam emerging from some of these was so hot that sticks of wood held in it would burst into flame.

As far as can be determined from the map of the expedition's route -- Griggs never did publish a detailed statement of the itinerary and work accomplished -- the explorers descended the former Ukak valley at least as far as the end of the ash flow and even beyond it, nearly to Savonoski.[23] In the article he wrote soon after his return home, Griggs mentioned the bands of "marginal fissures" which were noted around the valley edges. From this and other evidence he deduced that the upper Ukak drainage had been inundated by a "great hot mud flow" at the time of the eruption.[24] For the most part, though, the botanist did not take up the geology of the Katmai region in detail until after

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22 Griggs, *The Valley of Ten Thousand Smokes*, 191.

23 Griggs, "The Valley of Ten Thousand Smokes [1918]," 155.

24 *Ibid.*, 144-147; Robert F. Griggs, *The Great Hot Mud Flow of the Valley of Ten Thousand Smokes* (The National Geographic Society Katmai Expeditions, vol. III, Columbus, Ohio, 1918).

later field investigation. Therefore, it is difficult to judge the extent to which the expedition of 1917 influenced Griggs's theories concerning the origin of the Valley of Ten Thousand Smokes.

During the 1917 trip, however, Griggs gained a much better concept of the size and character of the lava-plugged vent he and Folsom had discovered in 1916. "Though newly formed at the time of the big eruption," he later wrote, "[it] is one of the world's largest volcanoes." Griggs recognized that this new vent, christened Novarupta at the suggestion of L. G. Folsom, had been the source of a violent explosion of great magnitude, though he continued to believe that Katmai was the source of the principal disturbance.[25]

One thing is certain. When the party headed southward over Katmai Pass after having spent about a month in the Ukak drainage, Robert Griggs remained firmly convinced that the Valley of Ten Smokes was "one of the greatest wonders of the world, if not indeed the very greatest of all the wonders on the face of the earth."[26]

Leaving this marvel which he had come to regard as his personal discovery was a traumatic experience for Dr. Griggs. His own words best describe his feelings: "I almost wept as I turned for one last look at the marvelous valley, showing off now as never before, for as we came up to the divide, which we were perhaps never to cross again, a magical curtain was unrolled, as a background for the scene, in the most gorgeous sunset I ever saw."[27]

Saying farewell to the Valley of Ten Thousand Smokes did not mean that the expedition was heading for home. Griggs had additional objectives he intended to accomplish in 1917. The first of these was another ascent of Mount Katmai so that the topographer could survey the crater. Poor weather delayed the climb for a week, and then, when the party reached the summit,

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25 Griggs, "The Valley of Ten Thousand Smokes [1918]," 144-147.

26 *Ibid.*, 119, 174.

27 *Ibid.*, 147.

clouds quickly obscured the view. A second attempt three days later was somewhat more successful, though even then the time vouchsafed for observation was distressingly brief.

Once again Griggs derived immense satisfaction from observing the astonishment and wonder reflected in the faces of those who were seeing for the first time a wonder he had discovered. He was also pleased to learn that his first estimates of the crater's size had fallen far short of actuality. Maynard's measurements showed that the chasm was three miles wide and that the highest point on the rim stood 3,700 feet above the surface of the lake which filled the bottom.

Griggs came down off the mountain convinced not only that Katmai was "the greatest active crater in the world" but that it was "a far grander spectacle to look upon" than the inactive and larger craters of Haleakala and Crater Lake. "Moreover," he was to write in his article describing the expedition, "if one recalls the fact that the beautiful blue of the Katmai lakes and the wonderful canyon of Katmai River, which is almost as deep as the Grand Canyon, lie in full view from the crater rim, he will recognize that for sublimity of scenery this place has no equal in the whole world."[28]

Another goal of the 1917 expedition was the exploration of the upper Katmai Canyon. From the top of Mount Katmai the previous year Griggs had viewed the deep chasm carved by the Katmai River to the southeast and east. The colored rock walls, the waterfalls, and distant lakes reminded him of the Grand Canyon and the Canadian Rockies "all put together."[29] He had to see what wonders this region held for his new park.

Consequently the party of 1917 pushed its way up through Katmai Canyon into an opening called by Griggs the Second Valley. Here and beyond were several bodies of water which were named the Katmai Lakes.[30] The map prepared during the expedition showed

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28 Griggs, "The Valley of Ten Thousand Smokes [1918]," 168-169. This account of the 1917 ascents of Mount Katmai is based on *ibid.*, 162-169; and Griggs, *The Valley of Ten Thousand Smokes*, 174-179.

29 Griggs, "The Valley of Ten Thousand Smokes," 55.

30 Griggs, *The Valley of Ten Thousand Smokes*, 115, 123-131.

three of these lakes; one drawn after explorations in 1919 depicted two; maps of the present day show none.[31]

During this journey Griggs discovered the cause of the great flood which he and Folsom had so narrowly escaped in 1915. A fresh scar on the side of Mount Katmai marked the spot where a huge landslide had slumped into the canyon, probably just before the eruption. The natural dam thus formed had held for three years, impounding a large lake. Then the barrier broke and released the deluge.[32] Possibly the same type of erosion, on a smaller scale, was responsible for the eventual disappearance of the lakes seen by the expedition of 1917.

Still another of Griggs's objectives was to discover a safer entry point into the volcanic district than Katmai Bay. He believed that a pass could be found leading from upper Katmai Canyon to Kinak Bay or some other good harbor on Shelikof Strait. Unfortunately the scouting party led by Griggs took a wrong turn and nearly wound up looking down Soluka Creek toward Katmai Village.[33] No suitable gateway to the proposed park was located that year.

On the whole, though, Griggs and the National Geographic Society were highly pleased with results of the 1917 expedition. In the February, 1918, issue of *The National Geographic Magazine*, the Society summarized its efforts of 30 years in the fields of exploration and conservation. "Now," continued the editor, "come the discovery of the Valley of Ten Thousand Smokes and the survey of Katmai, the world's greatest active volcano -- achievements which will rank with the foremost contributions to world geography in modern times. Each of the 650,000 members of the Society will experience a feeling of pride and satisfaction in this latest accomplishment, for it was their financial

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31 For the 1917 map see Griggs, "The Valley of Ten Thousand Smokes [1918]," 155; the 1919 map is inside the rear cover of Griggs, *The Valley of Ten Thousand Smokes*.

32 Griggs, *The Valley of Ten Thousand Smokes*, 115-117.

33 *Ibid.*, 131-133.

support . . . that made possible the equipment of Robert F. Griggs and his intrepid associates for the task which they have performed with signal distinction and success."[34]

The Society was now confident that it had in hand sufficient data to support its claims that the Katmai region constituted one of the greatest scientific and scenic wonders of the earth. It was ready to continue and expand the campaign for national park status.

The key element in this drive, as far as the public was concerned, was the preparation by Griggs of an elaborately illustrated article describing the 1917 expedition. As the title, "The Valley of Ten Thousand Smokes," indicated, heavy emphasis was laid upon the unique and awe-inspiring qualities of the vale of fumaroles, but the botanist did not spare the superlatives when describing the immense Katmai Crater that would not, as he said, be filled even if all the buildings of Greater New York should be dumped into it.

This article, featured in *The National Geographic Magazine* for February, 1918, made a wide and indelible impression. Decades later, when the name Katmai Volcano had largely been forgotten and when relatively few people even knew there was a Katmai National Monument, the term "Valley of Ten Thousand Smokes" would evoke a response. People remembered those gripping photographs seen years earlier in the *Geographic*.[35]

Griggs characterized this account as "the first adequate description of the Valley of Ten Thousand Smokes." He did not minimize its importance. "As a result of this report," he later wrote, "the Katmai National Monument . . . was created."[36] Undoubtedly it planted in the minds of the American public the idea that Katmai was a land of unique wonders which should be

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34 "National Geographic Society," in *The National Geographic Magazine*, XXXIII (February, 1918), 170.

35 A later article, illustrated in part with colored photographs, undoubtedly was also responsible for this impact. Robert F. Griggs, "Our Greatest National Monument," in *The National Geographic Magazine*, XL (September, 1921), [219]-292.

36 Griggs, *The Valley of Ten Thousand Smokes*, 74.

protected. It is noteworthy, however, that neither in this article nor in his previous one did Griggs specifically mention his idea of preserving the volcanic district by means of a national park.

In after years the expedition's leader may have wished he had been more restrained in his enumeration of Katmai's assets. Not wanting to omit any fact which illustrated the scenic glories of the valley, he described in glowing terms the brilliantly colored mineral deposits which were to be found around many of the vents. "There are some places," he wrote in his article, "where one can gather crystals of sulphur, almost free from impurities, by the bushel."[37] These words were to come back to haunt those who in the future had to defend Katmai National Monument against attempts to open the reserve to mining or to abolish it altogether.

While the publicity in *The National Geographic* was no doubt effective in directing the attention of an influential segment of the population toward Katmai, the article appeared while the country was deeply engaged in the first World War. Evidence thus far perused does not reveal any deep or extensive ground swell of public opinion demanding the protection of the district by the national government. The people had other matters on their minds.

The real campaign for a park was not a public affair at all. It was organized and conducted by several of the leading officers of the National Geographic Society and Dr. Griggs who collectively urged the proposal upon officials of the Department of the Interior. In this connection it is not without significance that Secretary Franklin K. Lane was at the time a member of the Society's Board of Managers. He therefore undoubtedly was well acquainted with the results of the Society's Katmai expeditions.

As might be expected, negotiations of this type apparently have left little trace in official records or in other sources now readily available to historians. Thus there is a certain vagueness concerning the timing and sequence of the events leading to the creation of Katmai National Monument, but the general course of the campaign seems clear.

As Mr. Horace M. Albright, who as assistant to Stephen T. Mather was a key figure in the creation and early administration

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37 Griggs, "The Valley of Ten Thousand Smokes [1918]," 139.

of the National Park Service, now remembers the matter, the reservation of the Katmai district was first broached while the bill to establish Mount McKinley National Park was still being fought through Congress.[38] This testimony would date the beginning of the campaign only a short time after the termination of Griggs's 1916 expedition, since the Mount McKinley act was signed on February 26, 1917.[39]

It is probable, however, that serious urging of the project did not come until after the publication of Griggs's article in the February, 1918, issue of the *Geographic* had established the credentials of the Katmai district as a great laboratory for the study of volcanism. Mr. Albright believes that Dr. Gilbert H. Grosvenor initiated the discussions with Secretary Lane but that the latter quickly steered the talks to the National Park Service. A meeting was arranged at the Cosmos Club in Washington, at which Dr. Grosvenor introduced Professor Griggs to Stephen T. Mather, director of the National Park Service, and to Horace M. Albright, assistant director. This congenial gathering -- for Grosvenor, Mather, and Albright were all personal friends and associates in the conservation movement -- seems to have marked the beginning of concrete negotiations.

Subsequent discussions were largely conducted by Dr. Grosvenor and the energetic and personable Mr. Albright, who for many months had been acting director of the National Park Service during the illness of Director Mather. Mr. Mather was able to retake the helm during the spring of 1918, but Albright still relieved his chief of many duties.[40] On the part of the Government, said Mr. Albright years later, "I am the person who continued the talks and took part in the preparation of the proclamation of 1918."

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38 Horace M. Albright to John A. Hussey, Los Angeles, July 10, 1971, MS, in National Park Service, Western Service Center, General Files. See Appendix.

39 Grant H. Pearson, *A History of Mount McKinley National Park, Alaska* (mimeographed, [Washington, D.C.]: National Park Service, 1953), 27.

40 Donald C. Swain, *Wildernses Defender: Horace M. Albright and Conservation* (Chicago and London: University of Chicago Press, 1970), 85, 91.

As far as he could remember in 1971, these talks were informal, and they were all conducted at the Cosmos Club. "Of course, I kept Secretary Lane advised," Albright recalled.[41]

The National Geographic Society, in keeping with Griggs's original proposal, at first suggested that the Katmai district should be set aside as a national park. This idea did not strike a responsive chord at the National Park Service, which had met strong opposition in Congress during the struggle to establish Mount McKinley National Park and which had other park projects in mind for presentation to a legislature which was proving reluctant to create and fund new reserves.

"I simply had to tell the National Geographic people -- Dr. Grosvenor, Associate Editor and Vice President John Oliver LaGorce, and Dr. Griggs [--] that a national park was out of question, and that a national monument was the only kind of a reservation that would make possible the protection of Katmai," Mr. Albright later recalled.[42] The establishment of a national monument did not require Congressional action but could be accomplished under the authority of the Antiquities Act of 1906 which permitted the President, "in his discretion," to create by proclamation reserves to protect objects of historic or scientific interest on public lands.

The National Geographic Society's representatives at first doubted that the Antiquities Act could be used to establish such a large reserve as the one they had in mind. But Albright pointed out that Grand Canyon National Monument, created by proclamation in 1908, and Mount Olympus National Monument, established in 1909, were both huge tracts of public land. "After much discussion and further examination by Dr. Griggs," said Albright, "the monument idea was agreed to."[43]

Evidently while these discussions were under way, Professor Griggs and his staunch supporters at the National Geographic Society were still disturbed by one persistant, nagging question. Their studies had convinced them that the Valley of Ten Thousand

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41 Albright to Hussey, July 10, 1971, MS.

42 *Ibid.*

43 *Ibid.*

Smokes and the related volcanic features did indeed "stand pre-eminent among the wonders of the world." They were certain that nowhere else on earth was there "anything at all similar to this supreme wonder."[44] But were the steaming vents really evidence of a vast underlying body of molten magma, or did they only indicate the vaporization of surface water by the gradually cooling products of the eruption? In short, were the cauldrons and "smokes" long-lasting phenomena, or would they fade away in a few years or even months?

The sponsors of the national park proposal considered it so important to obtain an answer to this question that they determined to make observations during 1918 even though another and larger Katmai expedition planned for that year had to be deferred because of the war. The National Park Service also believed that further studies would be helpful.[45] Accordingly, Jasper D. Sayre and Paul R. Hagelbarger, both assistant botanists with the 1917 party, volunteered to return alone to the Valley of Ten Thousand Smokes "to keep watch over the fumaroles and to begin a study of the temperatures."[46]

Unlike previous Geographic parties, the expedition of 1918 did not approach the volcanic area by way of Kodiak and Katmai. Rather, Sayre and Hagelbarger went by ship around the Alaska Peninsula and landed at the mouth of the Naknek River. Ascending that stream and traversing Naknek Lake, they pioneered a route into the Valley of Ten Thousand Smokes from its lower end.

When they reached the fumaroles Sayre and Hagelbarger could find no appreciable change in conditions. Except for two new areas of mud pots, which might have been overlooked previously, everything seemed "exactly the same" as in 1917. The two men documented their observations with a number of excellent photographs.

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44 "The Ten Thousand Smokes Now a National Monument," in *The National Geographic Magazine*, XXXV (April, 1919), 361.

45 Albright to Hussey, July 10, 1971, MS.

46 Griggs, *The Valley of Ten Thousand Smokes*, 77. This was the fifth Katmai expedition to be sponsored by the National Geographic Society.

Another important objective of the expedition was the recording of temperatures at many points in the valley so that comparisons could be made in later years. For this purpose the party was equipped with pyrometers supplied by the Geophysical Laboratory of the Carnegie Institution. Vents reaching temperatures of 300°C (572°F) and over were common. The hottest, recording 432°C (810°F), melted zinc "with ease."[47]

Sayre and Hagelbarger were also charged with exploring the country along their inward route, particularly the region about Naknek Lake, and with obtaining data for the topographic map which had been started in 1917. In this process, the Society later claimed, the 1918 party discovered "three good-sized lakes not previously shown on any map, Lake Tom [the present Lake Brooks] and the two Savonoski lakes [subsequently named Lake Coville and Lake Grosvenor].[48]

In the eyes of the National Geographic Society the 1918 expedition produced results of major importance. Sayre and Hagelbarger reported that the Naknek route provided "by far" the most convenient access to the Valley of Ten Thousand Smokes. This information was put to good use during the extensive explorations conducted the next year.

The most significant findings, of course, were these relating to the condition of the fumaroles. "It is clear," the Society was able to state, "that the studies made thus far give no indication of any diminution in the Smokes, much less do they suggest a probable date for their extinction. It may be considered established, therefore, that the Valley of Ten Thousand Smokes is a relatively permanent phenomenon."[49]

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47 "The Ten Thousand Smokes Now a National Monument," in *The National Geographic Magazine,* XXXV (April, 1919), 363.

48 Griggs, *The Valley of Ten Thousand Smokes,* 77; "The Ten Thousand Smokes Now a National Monument," 363. In view of the earlier activities of natives, Russians, and American prospectors in the Naknek drainage, the word "discovered" must be considered an exaggeration. It is probably true, however, that the three lakes mentioned had not appeared on earlier maps, although what may have been intended as a representation of the present Lake Brooks seems to be shown on at least one previous map.

49 "The Ten Thousand Smokes Now a National Monument," 363.

This apparent evidence of stability was the deciding factor in causing Director Mather and Secretary Lane to recommend the National Monument proposal to President Wilson. The Society may have been intimating as much when one of its editors wrote in the April, 1919, issue of the *Geographic* that the President had created Katmai National Monument "as the result" of the five Katmai expeditions sponsored by the organization. Another factor, said the editor, was a realization on the part of the President that the Katmai region, when means of transportation should be improved, would "become the great natural-wonder playground of America."[50] Horace M. Albright went even further. "I don't think we would have gone ahead with the proclamation had the 1918 trip not been made," he stated in later years.[51]

Boundary lines proposed by Dr. Griggs formed the basis of the proclamation which was drawn up in the offices of the National Park Service. Mr. Albright remembers that he took part in the drafting, and the text provides strong internal evidence of the influence of Dr. Grosvenor and Dr. Griggs. The first draft "probably" was prepared by George C. Schweckert, the National Park Service attorney. After review by the Interior Department, the Geological Survey, and the General Land Office, the final version was transmitted to Secretary Lane who, in turn, recommended it to President Wilson.[52]

Final success for the campaign came on September 24, 1918. On that day President Wilson signed Proclamation No. 1487 reserving from all forms of appropriation under the public land laws an area of approximately 1,700 square miles to be known as Katmai National Monument.

The boundary of the new reserve began on Cape Kubugakli, at the triangulation station established by the Coast and Geodetic Survey in 1908. From there it went north 40° west until it

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50 "The Ten Thousand Smokes Now a National Monument," 359.

51 Albright to Hussey, July 10, 1971, MS.

52 *Ibid.* Mr. Albright recalls that the proposal was also referred to Alaska's governor and delegate to Congress, neither of whom objected, before final recommendation to the President. Horace M. Albright, interview with J. A. Hussey, San Francisco, August 9, 1971.

intersected longitude 155°40'; thence it went due north to the intersection with latitude 58°35'. It then ran due east until it intersected a line bearing north 60° west from Cape Gull. Following the latter line to Shelikof Strait, the boundary followed the shore southward to Cape Kubugakli. In short, the Monument stretched along the Shelikof Strait from Cape Kubugakli to Cape Gull, an airline distance of about 40 miles, and inland for a somewhat greater distance to include most of Iliuk Arm of Naknek Lake.

All in all, it was a modest reservation, embracing very little more than the area of active volcanic peaks surrounding Mount Katmai and what was regarded by some as the prime feature, the Valley of Ten Thousand Smokes, together with the most likely routes of access from east and west. The boundaries reflected the purposes of the monument as set forth in the proclamation: to preserve an area "of importance in the study of volcanism" offering a "conspicuous lesson" to visitors interested in the operation of the great forces "which have made and still are making America"; to preserve the Valley of Ten Thousand Smokes, which was believed to be in "a condition of development toward a possible future geyser field, in distinction from the present dying geyser field of the Yellowstone"; and to conserve a region which might become of "popular scenic, as well as scientific, interest for generations to come."[53]

The National Geographic Society was predictably pleased with the results of its campaign. In an article in the April, 1919, issue of the *Geographic* an unidentified editor pointed out that the writings of Robert F. Griggs had revealed to the world "all that is known" concerning the wonders of Katmai and claimed that the Society's expeditions had led directly to the creation of the new monument. "It is a special gratification, therefore, to the members of the National Geographic Society," he continued, "that the President of the United States has made this region an integral part of the great system of American National Parks."[54]

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53 United States, National Park Service, *Report of the Director . . . 1918* (Washington, D.C., 1918), 232-233; also 40 Stat. 1855.

54 "The Ten Thousand Smokes Now a National Monument," 359, 364.

The editor announced that a sixth expedition would be sent to Katmai during the summer of 1919. One of its major objectives would be to explore a route from Shelikof Strait to the volcanic district so that Katmai National Monument could become "available, as it should be, for the perpetual enjoyment and education of the public."[55]

The National Park Service also announced its satisfaction with the new monument. "The American public owes deep gratitude to the National Geographic Society for the discovery and exploration of this unique exhibit," wrote Director Stephen T. Mather in his annual report for 1918.[56]

While Professor Griggs and the National Geographic Society were justifiably congratulating themselves upon their accomplishment and dreaming of the bright future which seemed to be ahead for the new reserve, they probably were unaware of the tiny cloud that was slowly forming over their creation. Or, if they saw it, they do not appear to have recognized the distant threat.

Yet danger there was. It seems to have started, ironically enough, with the Society's own emissary, George C. Martin, who in 1912 saw commercial possibilities in the ash deposits along the Katmai coast. And evidently during that same year two miners, C. H. McNeil and Norman B. Cook, found copper-bearing veins about 17 miles inland on a stream running into a "southwest bight" of Kamishak Bay. Development work continued at the site for a number of years, and a test shipment of ore was made in 1917.[57]

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55 "The Ten Thousand Smokes Now a National Monument," 366.

56 U.S., National Park Service, *Report of the Director . . . 1918*, 32. Although this report was signed by Director Mather, most of it was written by Assistant Director Albright. Horace M. Albright to John A. Hussey, Los Angeles, July 24, 1971, MS, in National Park Service, Western Service Center, General Files.

57 Brooks, *Mineral Resources of Alaska . . . 1912*, 39; George C. Martin, *Mineral Resources of Alaska . . . 1917* (U.S. Geological Survey Bulletin 692, Washington, D.C., 1919), 33; Alfred H. Brooks, *Mineral Resources of Alaska . . . 1919* (U.S. Geological Survey Bulletin 714, Washington, D.C., 1921), 34, 78.

Another mineral strike in the Katmai region was made in 1915 when Fred and Jack Mason discovered placer gold along a small stream which emptied into Shelikof Strait on the south side of Cape Kubugakli. Four claims were staked, and small amounts of the precious metal were recovered annually for some years. By 1923 the total production had reached about 160 ounces. But although the entire vicinity was thoroughly prospected, no further deposits were found near the southeastern corner of the new national monument.[58]

The year 1918, the same one which saw the establishment of the monument, was a busy period for prospectors and miners on the northern peninsula. Although there seems to be no previous record of activity at the site, the Geological Survey reported that in 1918 work "was continued" at the copper prospect of the Shelikof Mining Company near Kukak Bay. By that time no ore had been shipped; and evidently the venture was a failure, since apparently nothing more was heard of it.[59]

And in that same year Alex Grant found placer gold on American Creek, the principal affluent of the mountain tarn later named Lake Coville. This hardy prospector made several attempts to work the gravels of the boisterous stream but finally gave up in the face of the many "adverse conditions."[60]

None of these strikes, apparently, was within the boundaries of Katmai National Monument as defined by President Wilson's proclamation of 1918, but they were indications of a continued and perhaps even increased interest by commercially minded persons in the resources of this portion of the Alaska Peninsula. As the friends of the new reservation would realize in due time, the campaign to preserve the Katmai volcanic district as a great scientific and scenic "wonderland" had not been won. It had, in fact, just begun.

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58 Smith, "The Cold Bay-Katmai District," 206-207. See also Martin, *Mineral Resources of Alaska . . . 1917*, 33.

59 George C. Martin, *Mineral Resources of Alaska . . . 1918* (U.S. Geological Survey Bulletin 712, Washington, D.C., 1920), 35.

60 J. C. Roehm, Summary Report of Mining Investigations in the Kvichak Precinct, Alaska, June 13 to July 6, 1941 (typewritten, Juneau, Office of Alaska Territorial Department of Mines, 1941), 1-2.

EPILOGUE

Conservation Battleground

NOTE: When this history resources study of Katmai National Monument was first planned, it was intended to carry the story nearly to the present day. The press of other work made it necessary to close the main narrative at the establishment of the reserve in 1918.

This abbreviation was unfortunate, because the history of the monument since its founding is a classic and highly instructive case study illustrating the struggle that has been waged almost constantly at various areas of the National Park System between the forces of preservation and the onslaughts of those who would open the parks for various types of private gain or for other utilitarian purposes, private or public. Without an understanding of this later portion of the story, the account of the events leading up to the establishment of the monument loses much of its significance.

In an attempt to remedy this deficiency at least partially, there is appended a very brief summary of the monument's history from 1918 to 1954. The completion of the Katmai Project in the latter year resulted in a more comprehensive definition of area resources and provided a base for a more effective defense of the park values.

The summary is not documented. It was in large part written nearly two decades ago, and the notes upon which it was based have not been found. There has been no opportunity to recheck quotations. Indeed, some of the materials quoted would be difficult to locate today. Therefore the following narrative, while believed to be accurate as far as it goes, should be considered a preliminary sketch, suggestive of what might be revealed by an in-depth study.

Despite the relatively small size of the newly established Katmai National Monument and despite the fact that the land was then largely worthless for commercial purposes -- most of it was covered with thick deposits of ash from the 1912 eruption and, as far as is known, not a single person, native or white, maintained a year-round home within the reservation boundaries -- President Wilson's proclamation aroused opposition in Alaska.

It ran counter to the long-standing territorial aversion to Federal reservations in general. Such withdrawals were regarded as "locking up" resources which otherwise would be available to Alaskan residents, as "frightening away" prospective investors and settlers.

Governor Thomas Riggs, Jr., undoubtedly voiced a widespread sentiment in Alaska when he stated in his annual report for 1918 that to his mind "practically all of the reservations should be eliminated and the laws of the United States made to apply." He may have been thinking of Katmai when he continued: "For the sake of the future of Alaska, let there at least be no more reservations without a thorough investigation on the ground by practical men and not simply on the recommendation of men whose interest in the Territory is merely academic or sentimental."

Stewart Edward White made a remark in later years which aptly describes the reaction of certain groups to the creation of Katmai National Monument. "Nothing is more vociferous," he wrote, "than a private interest that sees something put on a shelf where he cannot reach it."

Complaints reaching Governor Riggs were noted in his report for 1919. "Already," he said, "miners having prospects within the reservation are becoming apprehensive regarding the possibility of not being able to perfect title to their claims." And he noted that "sulphur deposits" in the protected volcanic area "may at some time be in demand." All in all, the attitude of the Governor was summarized by his remark of 1920 that "Katmai Monument serves no purpose and should be abolished."

Thus, almost from the moment of the monument's birth, the principal positions were taken for the campaign which has been waged to the present day. On the one hand stood the persons who believed in the long-exercised right of the American people to set aside certain sections of the public lands -- in this case paid for by all the citizens of the nation -- to be preserved in their natural state as recreational and "re-creational" grounds for the benefit and enjoyment of all. Opposed to them were those who subscribed to the still more time-hallowed principle that the national strength could best be increased by turning the public lands over to the individual citizens as quickly as possible.

However, for several decades after its establishment, Katmai National Monument was still too remote, too unknown, and too unwanted for the controversy over it to generate much heat. At a time when all transportation to the area was by boat, either across the storm-tossed Shelikof Strait or up the troublesome Naknek River,

visits by the casual tourist were out of the question. There being almost no visitors in the ordinary sense, the National Park Service did not feel it justifiable to expend the very considerable funds which would have been required to maintain a protective and interpretive staff in this very isolated region. The monument was placed under the custody of the superintendent of Mount McKinley National Park and was, to all intents and purposes, relegated to reserve status.

As the years went by, nearby residents and commercial interests began to treat the area much as they treated any other section of the public domain. For instance, sometime prior to 1930 a clam-canning firm began taking clams at the head of Kashvik Bay in connection with its cannery which was located farther up the coast. The gathering of the shellfish involved some use of lands within the monument boundaries. Trappers and hunters felt free to extend their operations within the monument, and an occasional prospector wandered over the reserve. But the damage to natural values caused by these invasions was insignificant; and, meeting no opposition, they engendered no conflict. The only noticeable effect of these and earlier activities upon Katmai National Monument was an Executive Order of 1923 eliminating a small section of coastal land to facilitate the granting of a coal mining permit.

Meanwhile, the monument and its surroundings were becoming better known and appreciated. In 1919, Dr. Robert F. Griggs led the largest of the National Geographic Society's expeditions into the Valley of Ten Thousand Smokes. The party devoted considerable time to exploring the country adjoining the monument and came away greatly impressed by such natural features as Brooks Lake, Lake Coville, and Lake Grosvenor. In his widely read reports of the expedition, Griggs enthusiastically described the incredibly large salmon runs in the Naknek River system. His photographs of huge sockeyes leaping the Brooks Falls undoubtedly lighted an anticipatory gleam in the eyes of many a fisherman. Griggs spared no adjectives in picturing the animal resources of the area and for the first time brought to public attention the importance of the Katmai region as a potential refuge for the brown bear, waterfowl, moose, and other forms of wildlife.

As part of its work in exploring the mineral resources of Alaska, the U.S. Geological Survey sent two notable expeditions into the Katmai area in 1923. When published in 1925, the reports of the surveys by Walter R. Smith and Kirtley F. Mather added immeasurably to knowledge of the country from Cape Douglas to Cold Bay. And, incidentally, they tended to indicate that the richest mineral areas lay outside of the immediate monument vicinity.

This publicity apparently had its effects in creating a more friendly public attitude toward the monument in Alaska. Beginning in 1923, and continuing for a good many years thereafter, the reports of the governors generally contained favorable references to the area and recommended the construction of roads to render the district's "magnificent lake and mountain scenery" available to tourists.

In 1930 Dr. Griggs made still another visit to Katmai. On his return to Washington he was asked by the Department of the Interior for a report on conditions within the monument boundaries. Dr. Griggs's reply of November 22, 1930, is a remarkable document and one which had far-reaching effects.

He pointed out that Katmai National Monument was unique among national parks in that it was located in an uninhabited wilderness. "Here," he said, "the big animals are growing up not only without fear of the rifle, but absolutely *without knowledge of man* -- which is a very different and much finer thing."

Griggs stated his belief that the monument was the only place in the world where the great Alaskan brown bear could be preserved for posterity. But he also pointed out that if the surrounding country should ever become settled, the range within the existing boundaries would be altogether too small for the bears and other animals to maintain themselves in a state of nature. He urged that the monument be enlarged accordingly before conflicting interests could develop, and he presented a detailed suggestion for boundary revisions.

Griggs's proposal came at a time when there was a good deal of public discussion and concern over the fate of the Alaskan brown bear. Through a series of articles in the *Saturday Evening Post,* Stewart Edward White was largely responsible for whipping up this interest, though he himself favored Chichagof Island as the place of refuge. What effect White's writings may have had upon the Department of the Interior is not known, but when the enlargement of Katmai National Monument was accomplished, several Alaskan newspapers gave the popular author, rather than Griggs, credit for inspiring the movement which led to the creation of this bear "sanctuary."

At any rate, the enlargement occurred, and the new boundaries were not much different from those suggested by Griggs. By a proclamation dated April 24, 1931, President Herbert Hoover more than doubled the area of Katmai National Monument. Along the coast the boundary was extended northward by about 50 airline

miles to beyond Cape Douglas. Inland the monument was enlarged west and north to include all of the great lakes in the Naknek River drainage area except for the very westernmost section of Naknek Lake itself. The President's action increased the monument area to 4,214 square miles, more than twice that of the State of Delaware. As set forth in the proclamation, the extension was "for the purpose of including within said monument additional lands on which there are located features of historical and scientific interest and for the protection of the brown bear, moose, and other wild animals."

Rather strangely, this drastic increase in the amount of public land withdrawn from private use does not seem to have aroused much open protest, despite the fact that some rather strongly entrenched private interests were adversely affected. In the Kukak-Swikshak Bay areas, for instance, commercial clam-digging and clam-canning operations had been conducted since 1923. The Naknek Lakes region was a rich trapping ground which added considerably to the prosperity of traders in several peninsula settlements.

Undoubtedly the amount of protest was reduced by assurances, made into law by a Presidential proclamation of June 15, 1936, that the reservations set aside in 1918 and 1931 were subject to already existing valid claims under the public lands laws. Also, since no protective personnel were provided for the enlarged monument, trappers and poachers were able to continue their operations unhindered.

By the end of the 1930's reports reaching the National Park Service made it evident that steps would have to be taken to give the area protection. Due to a chronic shortage of funds and personnel, in the 22 years between 1918 and 1940 not a single Service employee had visited Katmai National Monument except the Chief Ranger of Mount McKinley National Park, who flew over the area in an airplane in 1937. Although he was on an official inspection trip, adverse conditions made it impossible for him to do more than "look around for a couple of hours" when the plane landed him at Lake Grosvenor and Naknek Lake.

In 1940 resources were at last available to the Service for a preliminary inspection of the area. Superintendent Frank T. Been of Mount McKinley National Park and Mr. Victor H. Cahalane, of the Biological Survey, spent most of September of that year at Katmai. Their extensive survey of the area by foot, boat, and airplane had important consequences for the cause of conservation in the monument.

First, they discovered signs of poaching and illegal trapping almost everywhere they went. Cabins, scattered animal bones, and cached traps told only too plainly what was happening. They also found, however, that alert and conscientious wildlife agents of the Alaska Game Commission had already made arrests of fish and game law violators operating within the monument. Impressed by the integrity of these agents, Been and Cahalane made informal arrangements for the continuation and extension of this protection. Even before the end of their visit, stripped cabins and abandoned caches revealed that some of the trappers were moving outside the boundaries. Effective protection had begun.

Second, the two men returned filled with enthusiasm for the natural values and park potentialities of the monument. Their observations confirmed reports already received that the thermal activity in the Valley of Ten Thousand Smokes had greatly declined since Griggs wrote his glowing descriptions two decades earlier. In fact, from the air Been and Cahalane could count only ten smokes. "The valley," reported Been, "has almost simmered down to a memory." Nevertheless, the observers were impressed with the importance of both the living volcanoes and the cooling sand valleys as prime exhibits for the study of volcanic forces and phenomena. The splendid scenery, the vegetation, and the wildlife convinced them that Katmai was worthy of retention in the National Park System. These conclusions strengthened the position of the National Park Service in meeting future attacks upon the monument.

These assaults were not long in coming. In 1941 a mining engineer in the service of the Alaska Territorial Department of Mines visited the monument while inspecting mining prospects. Although he did not find any evidences of important strikes within the reservation, he concluded that an "apparently rich mineral area" existed along the coast between Mount Katmai and Kamishak Bay. After observing only eight active steam vents in the Valley of Ten Thousand Smokes, he reported that the area had "lost its great picturesque attraction" and had ceased to be a natural wonder. Therefore, he continued in his official report, the justifications for the monument "no longer hold." Besides, he added, the climate made the entire area unattractive for tourist travel; and the monument restrictions prevented settlers from Bristol Bay "who have a three-month working season, from settling in the Naknek Lake area, where natural opportunities are very favorable for a livelihood by trapping, hunting and prospecting."

The outbreak of World War II brought a temporary end to both the controversy and to the National Park Service's chances of providing better protection for the area. During the period of hostilities several military installations and rest camps were established near the monument. Although no statistics exist, it is known that many plane loads of military personnel came to Katmai's lakes and streams for sport fishing. Without supervision or regulation, these men pulled thousands upon thousands of trout from the water. It is also known that military personnel hunted bear, moose, and other game within the boundaries; and recreation parties left the lake shores strewn with abandoned fuel drums and other debris.

The only forward step made in the protection of Katmai during the war came in 1942, when all islands within five miles of the monument coastline were included within the boundaries. The action was taken "for the proper care, management, and protection of the objects of scientific interest" located within the monument, since it had been found that these islands were key locations for trapping trespass.

Immediately upon the cessation of hostilities in 1945, the National Park Service sent officials to the area to determine development potentialities and protection needs. These men found little evidence of poaching but recommended protective measures. Unfortunately, funds were not made available to the Service for the establishment of ranger positions during the ensuing several years, but arrangements were made with the Fish and Wildlife Service for the enforcement of the hunting and fishing regulations.

The end of the war also brought a renewal of efforts to open Katmai National Monument to commercial uses. The first assault came from the clamming and fishing industries.

Commercial canneries had been operating in the Kukak-Swikshak Bay region as early as 1923. When this section of the coast was incorporated in the monument eight years later, the operations continued intermittently without benefit of permit from anyone. In 1945 a new firm entered this field and took over facilities which had been abandoned by its predecessors for some years. This company requested a permit from the National Park Service to use land on the Katmai shore line for the purpose of canning clams. Permission was granted on the basis that the operation was needed to produce food for the Army and others during the emergency.

In 1946 a successor firm to the one which received the 1945 permit asked for a renewal under terms which would allow the taking of both clams and fish. In reply, the Director of the National Park Service pointed out that such commercial uses were inconsistent with Service regulations and with the type of administration which Congress had authorized for the monument. Since the emergency had ended, he said, such uses could no longer be justified. The renewal was denied.

This action brought down a storm upon the Service. Chambers of Commerce, fishermen's organizations, territorial officials, and influential individuals bombarded the Service and the Department of the Interior with protests. The tenor of most of them was that the Service was restricting food production at a time when the President and nearly every branch of the government were desperately attempting to increase it. In view of these conditions, said one writer, "I think it would be deemed fit and proper that any Federal lands in any reservation should be opened up for those who desire to raise or produce more food for the world."

Evidently as a result of the Service's attitude on this question, a memorial was introduced in the Territorial Legislature requesting Congress to abolish Katmai National Monument. The reasons given ranged from the restrictions on hunting, trapping, mining, and canning to the allegation that the monument had become a breeding place for wolves and coyotes. The principal supporter of this measure stated that in his opinion the monument was "only a barren place, devoid of all interest to tourists."

The National Park Service was able to quiet most of the furor by reminding all interested parties that the boundaries of the monument extended only to mean high tide and that therefore the proposed fishing and clamming operations were outside the area and no permits were required. It was necessary, however, to grant several permits for the erection of structures and facilities for fishing and canning on the monument beaches.

The next attack came as a result of the building boom, particularly in military construction, which occurred in Alaska after the war. Striking about for a convenient supply of suitable and cheap building materials, of which there was a decided shortage in the territory, an Anchorage firm hit upon the abundant pumice deposits lying on the coast of Katmai National Monument as a result of the 1912 ash fall. In 1947 several samples of this material were removed from the monument without permit and barged to Anchorage. Upon testing, the pumice proved to be ideal for the manufacture of building blocks.

Immediately the interested parties, to use the words of one of them, "started the ball rolling" in an attempt to obtain a lease or a use permit to remove pumice from Katmai. These men believed their operations would not be detrimental to the monument. "Enterprise is the stability of the American nation," stated one of them, "and no type of excavation, loading or hauling can in any way disfigure any part of this area."

Because of the urgent need for housing material in Alaska, the matter was carried directly to the Park Service. It was indicated that if favorable action were not forthcoming, the President would be requested to eliminate the pumice deposit area from the monument. The Service pointed out that there was no authority in law for granting permits of the type requested, but it was seen that some sort of an agreement would be necessary if the monument was to be saved.

The attempt to preserve the area inviolate became practically hopeless when a report by the Territorial Department of Mines revealed that the best supply of pumice yet discovered in Alaska, from the standpoint of both quality and accessibility, was at Kukak, on the Katmai coast, within the monument. In addition, the Department of the Interior, of course, had a responsibility and a desire to foster and aid the development of Alaska.

Therefore, the Service reluctantly decided to refrain from actively opposing legislation which would authorize the Secretary of the Interior to grant permits for the removal of pumice from such areas within the monument as he might designate. It was felt that such a law would permit retention of control over monument lands and over the extent of the adverse use; and investigations showed that tidal and weather action eventually would obliterate scars resulting from the excavation of this material from the beach. Bills to this effect were introduced into Congress as early as 1951, but enactment was not accomplished until 1954.

Another problem developed in 1950. For years the residents in the Bristol Bay area about the mouth of Naknek River had made their living by fishing and trapping. When the salmon runs were poor, the economic dependence placed upon fur gathering increased. The fishing season of 1949 can only be described as disastrous, and during the succeeding winter the residents discovered that available trapping grounds did not produce as abundantly as they had hoped. Not unnaturally, they cast longing eyes on the fur-bearing animals protected behind the boundaries of Katmai National Monument; and in the spring an organized campaign was launched to have the area opened for trapping.

"We believe that the land withdrawn from public use and converted into a National Monument would be of greater value to the residents of this district as a trapping ground than as a National Monument," wrote a representative of the Naknek Civic Club.

The Congressional Delegate from Alaska was sympathetic to the plight of the Bristol Bay residents and brought this matter before the Secretary of the Interior. He urged an appraisal of the monument to see if its area could not be "decreased very substantially, indeed." To support his views, he cited the fact that Katmai's "ten thousand" smokes had largely disappeared. He also stressed the point that the federal government had "failed signally" in making the monument available for tourists. "I have every reason to hope," he told the Secretary, "that you will agree with me that the improvement of living conditions for the hard-pressed people of Naknek and that entire area is much more vital than the continuing of Katmai National Monument in its present size."

Fortunately for Katmai National Monument the air age had at long last brought an end to its isolation and made it possible for the National Park Service to provide effective answers to these arguments. Rapid and relatively inexpensive air transport to airfields near Naknek Lake made it economically feasible by 1950 to station a ranger in the area during the summer season. That year a temporary headquarters was established at the mouth of Brooks River, and for the first time a National Park Service employee actually took up residence in the monument.

The advent of commercial flights also made possible the opening of Katmai to tourists as Dr. Griggs had envisioned. In 1950 Northern Consolidated Airlines arranged with the National Park Service for the establishment of two camps on the Naknek Lakes. Admittedly, the visitors attracted to these facilities were primarily sport fishermen for a number of years, but accommodations were now available for the more typical park visitors who have come in increasing numbers as word of Katmai's scenic and scientific wonders spread.

The inauguration of these services enabled the Secretary of the Interior to point out that the economy of the Naknek area would be benefited to a far greater extent by the eventual growth of the monument as a tourist attraction than by abolishing the area or throwing it open to hunting. The residents of Bristol Bay were not entirely content with this reply. "Why not let us people that have our homes here [have] a chance to make a living," three of them petitioned, "as you have already opened the monument for rich people for sport fishing?" But the onset lost its vigor, and not much was heard in subsequent years about permitting trappers to operate at will over the entire monument.

Other attacks followed in rapid succession. Pressures were exerted in attempts to liberalize sport fishing regulations and to obtain permits to float logs down Katmai's rivers. There were instances of flagrant disregard of game laws and park regulations. And a bill was introduced in Congress to open the entire monument to location, entry, and patent under the mining laws.

As matters stood in September, 1954, when the period covered by this summary ends, most of these threats had been repulsed or counteracted. Katmai National Monument today has been once more enlarged and seems to be on the threshold of a new era in its history. After more than half a century it apparently will become for a larger segment of the public the great scientific and scenic wonderland that Dr. Griggs envisioned. But as the history of the monument from 1918 to 1954 and in subsequent years clearly demonstrates, this dream will be realized and sustained only through constant vigilence.

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A. Manuscript materials

1. Correspondence, official documents, reminiscences, etc.

2. Unpublished theses

B. Printed materials

1. Books, pamphlets, documents, etc.

2. Periodical literature

3. Newspapers and newspaper articles

4. Unbound maps

C. Interviews

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Shenitz, Helen A. (Assistant Librarian, Alaska Historical Library and Museum). Interviewed at Juneau, Alaska, June 29, 1953.

APPENDIX

Letter of Horace M. Albright, July 10, 1971

HORACE MARDEN ALBRIGHT
427 LANDFAIR AVENUE
LOS ANGELES, CALIFORNIA 90024
JULY 10, 1971.

Dr. John A. Hussey, Chief
Division of History Studies,
Office of History and Historic Architecture,
Western Service, Nat'l Park Service,
450 Golden Gate Avenue,
San Francisco, Calif. 94102

My dear Dr. Hussey:

Your letter of yesterday, about Katmai National Monument, reached me today, and as I have some time this Saturday afternoon, I'll try and give you such recollected information as I can . . . .

I am not surprised that you are discovering that there is a dearth of data about the creation of Katmai National Monument. The National Park Service was authorized Aug. 25, 1916, but no money was provided for its organization. In January, 1917, Mr. Mather, Asst. to the Secretary, destined to be the first Director of the Service, was stricken by a nervous breakdown which resulted in his confinement to a sanitarium for a long time, and careful convalescence the rest of 1917. Our first money was received for the Service April 17, 1917, and I was appointed Asst. Director and designated Acting Director. A month or more later, Mr. Mather was able to be sworn in at the sanitarium in Pennsylvania, as Director, but he did not actually assume his duties until early 1918, and then only for short periods of time. I was Acting Director all of 1917, and parts of 1918.

Now as to Katmai, it is my clear recollection that the movement to make the region a national park or national monument - but to reserve it under the Park Service - was pretty strictly a National Geographic Society engineered and directed affair. Dr. Grosvenor, who was a very close friend of Secretary Lane, Mr. Mather and myself personally initiated discussions, and introduced Dr. Robert F. Griggs to us at the old Cosmos Club at H Street and Madison Place. I do not remember any talks at the National Geographic Society Building at M

Street and 16th. While I think Dr. Grosvenor initiated the talks with Secretary Lane, he must have promptly referred Dr. Grosvenor to me, for I am the person who continued the talks and took part in the preparation of the proclamation of 1918. Dr. Grosvenor had been a member of the Mather Mountain Party across the Sierra Nevada in July, 1915, and I knew him well. He was midway between Mr. Mather and me in age - 39 when we first knew him.

When the subject to reserving Katmai was first broached, we were in the midst of trying to get Mt. McKinley National Park established, and we were having troubles with that. We got the bill through the Senate, but met strong opposition in the House. The Boone & Crockett Club had its Mt. McKinley expert, Charles Sheldon, in Washington to help. None of us in the Interior Department, except some scientists in the U.S. Geological Survey, knew anything about Katmai except what we read in the National Geographic Magazine or the newspapers, or in talks with Dr. Griggs. We would not have dared to try to get two national parks in Alaska at or near the same time; in fact Congress was very reluctant to create national parks at the time, and always put a "stop order" on appropriations for them when they were created. See the organic acts for Lassen, Hawaii, Rocky Mountain and Mt. McKinley. So much in general leading to the answers to your questions.

Answers as best I can recall the circumstances and conditions of the time:

1. I simply had to tell the National Geographic people-- Dr. Grosvenor, Associate Editor and Vice President John Oliver LaGorce, and Dr. Griggs [--] that a national park was out of the question, and that a national monument was the only kind of reservation that would make possible the protection of the Katmai. The area was so large that our friends doubted that a reservation by proclamation of the President would be feasible. I cited President Theodore Roosevelt's establishment of the Grand Canyon National Monument in 1908 to stop the filing of "phoney" mining claims, and Olympic National Monument in 1909, both immense areas of public land. After much discussion and further examination by Dr. Griggs, the monument idea was agreed to. Of course, I kept Secretary Lane advised of our talks.

2. I broached the national monument to the National Geographic people. All our talks were informal and I think all at the Cosmos Club. Incidentally, I was not a member of the Club until Oct. 6, 1919, when Dr. Grosvenor and Mr. Mather proposed me and I was elected. This needs clarification. They proposed me late in 1918 and I was elected Oct. 6, 1918, almost 53 years ago. I'm one of the oldest members in point of time in the Club. I was 29 when elected and I'm 81 now.

3. Yes. We felt that further studies would be helpful and as I recall the discussions this was partly the reason for Dr. Griggs' 1918 return to Katmai. I dont think we would have gone ahead with the proclamation had the 1918 trip not been made.[1]

4. I cannot recall any general support for the Katmai Nat'l Monument or other type of reservation, nor was there opposition. The movement was quite completely confined to the National Geographic Society and the Department of the Interior.

5. I dont recall any opposition whatever. I thought at the time that the stories of the Katmai eruption and continued strong thermal action made people think the area had no other value than as a reservation something like Yellowstone or perhaps Lassen which had been in the papers often because of its eruptions of that era. The articles in The Geographic made it quite clear that there were no economic features to be seriously considered.

6. We drafted the proclamation in the National Park Service. The man who probably actually drew the first draft was George C. Schweckert, our attorney at the time, [it] was reviewed by W. B. Acker Attorney of the Secretary's Office, and formally submitted by me -- or by Mr. Mather if he happened to be in Washington at the time. I cannot be sure which one of us took it [to] Secretary Lane who sent it to the President with his recommendation that it be signed. I do not recall that the Department made any changes after the proclamation [was] drafted, but I am sure that we submitted Dr. Griggs' proposed lines to the U.S. Geological

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1 The National Geographic Society sent a small expedition to Katmai in 1918, but Dr. Robert F. Griggs did not accompany it. -- J. A. H.

Survey for technical advice and to the old General Land Office (now B.L.M.) which then controlled the lands.

7. I dont think President Wilson did anything but sign the proclamation. He was too deeply involved in the closing days of World War I to give attention to a matter like this. He relied on his Cabinet officer responsible for a matter of this kind.

If I can be of further help, dont hesitate to write me. I have a leather bound book containing Dr. Griggs' articles which was made up and given to me after the Katmai Monument was established . . . . With warm regards, and wishing success in your undertakings - all of them - I am

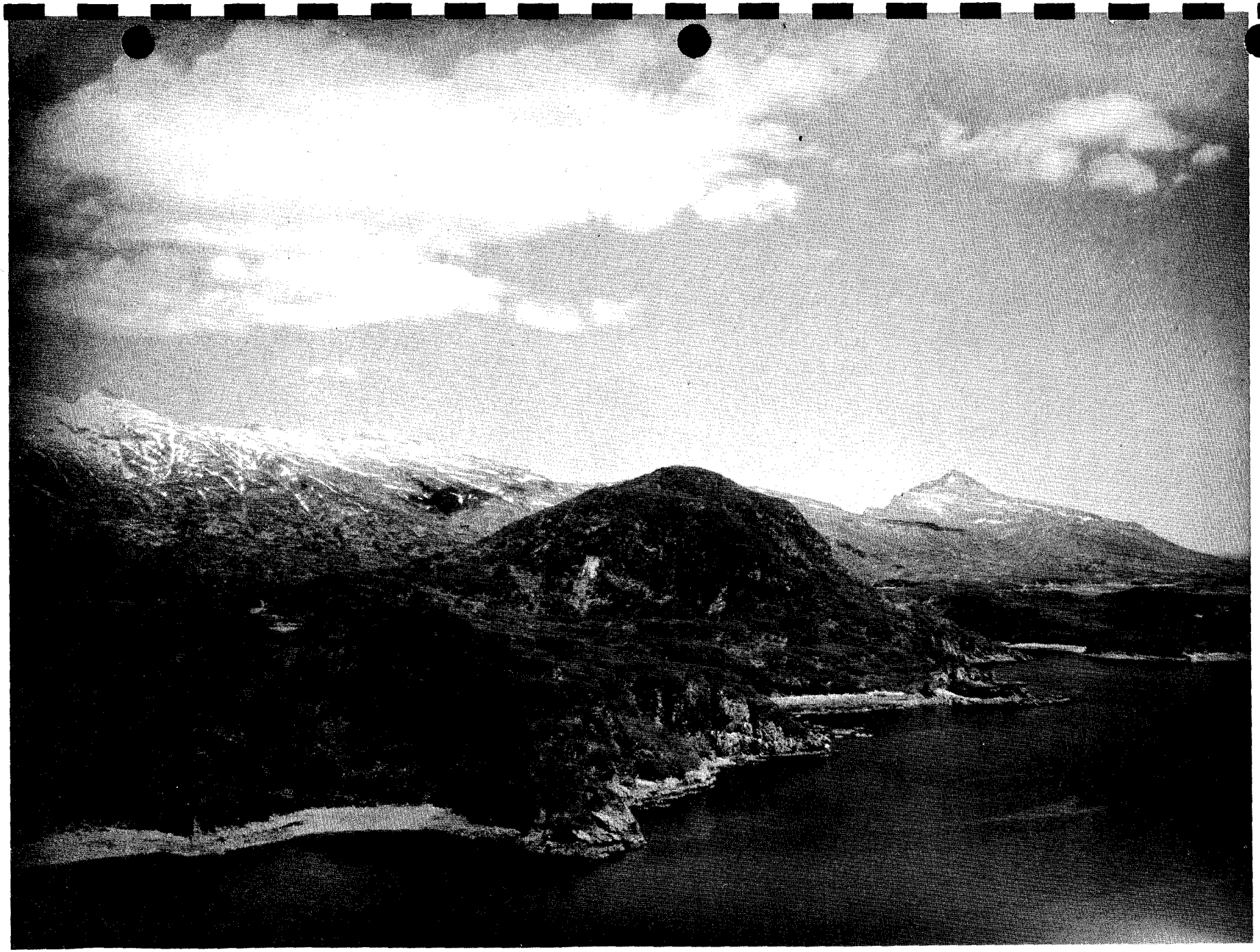
Faithfully yours,

Horace M. Albright

Illustrations

1. Kukak Bay, Katmai National Monument.

From: L. Sumner, *Special Report* (1963).



2. Man from Kodiak Island. Plate 29 in G. A. Sarychev, *Puteshestvie flota kapitana Sarycheva* (1802).

Courtesy, Bancroft Library, University of California.



Гравировано у Г.на Клаубера.

Мущина острова Кедзиги.

3. Woman from Kodiak Island. Plate 30 in G. A. Sarychev, *Puteshestvie flota kapitana Sarycheva* (1802).

Courtesy, Bancroft Library, University of California.

къ Странице 38.

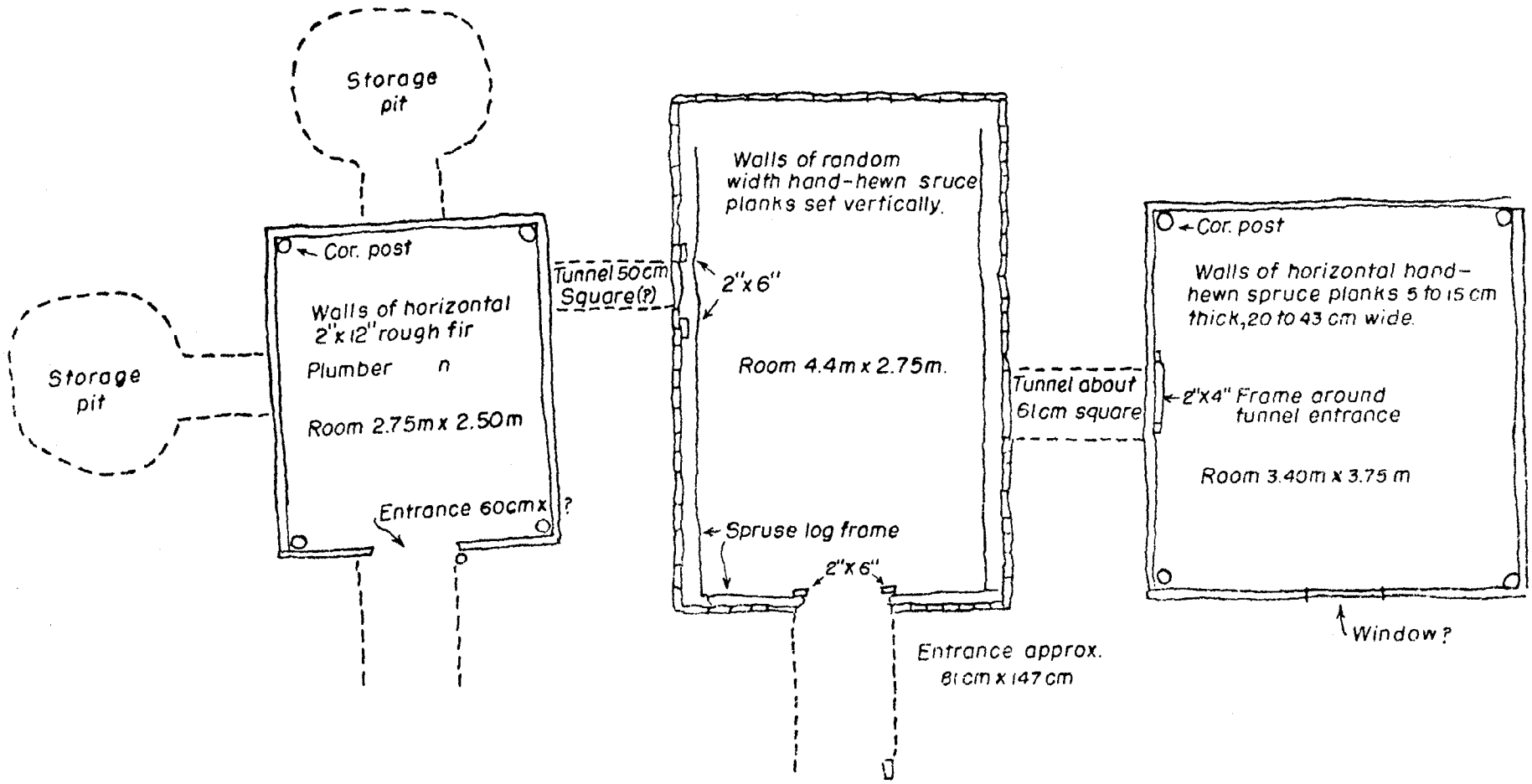


Гравировали Ф. Ив. Толстой.

Женщина острова Нидерлан

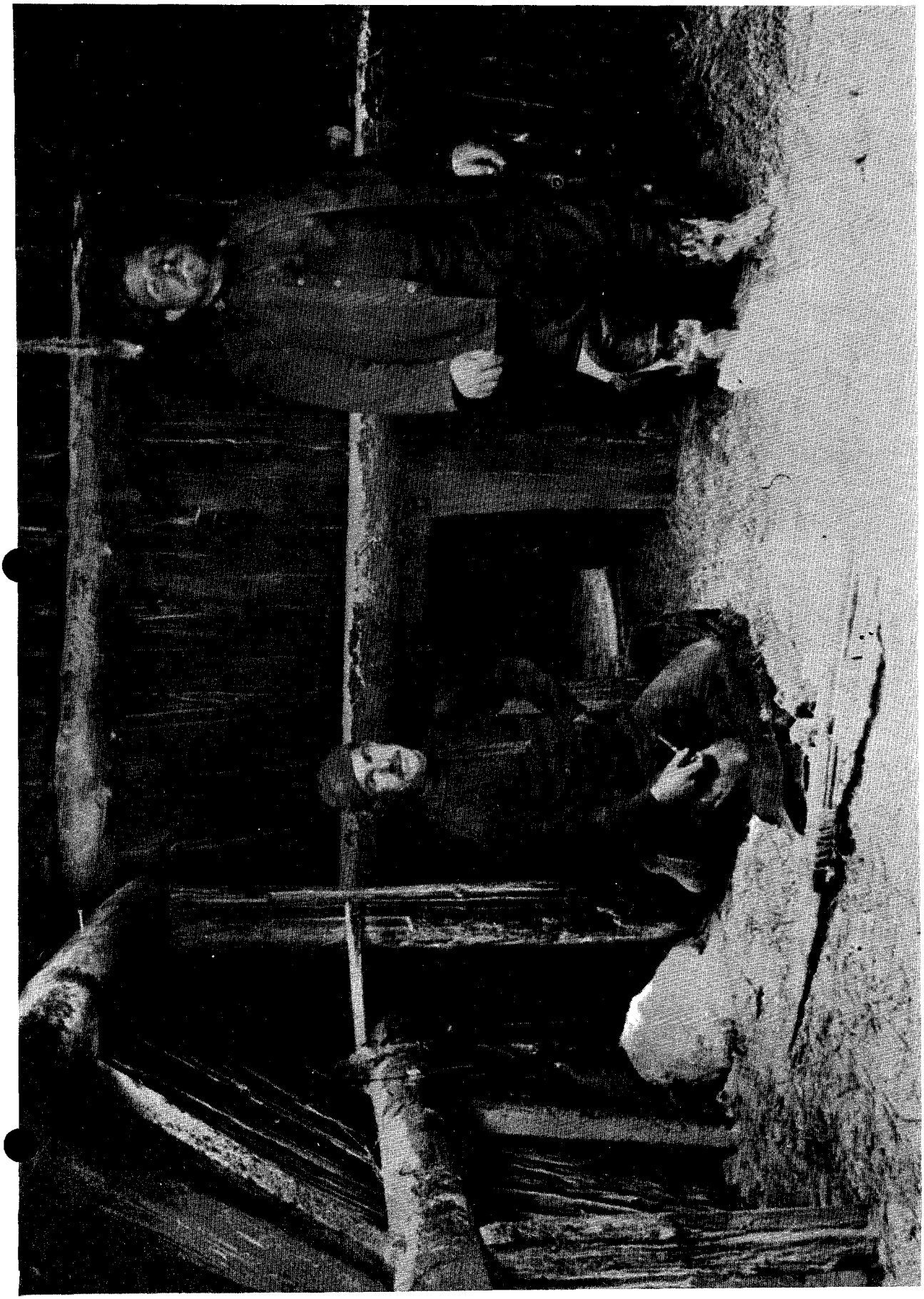
4. Plan View of Remains of Three-Room Native House, Kaguyak. Excavations revealed no sign of roof posts; structural details of storage pits were not visible.

From: W. A. Davis, *Archaeological Investigations* (1954).


Storage pit
Storage pit
Cor. post
Walls of horizontal 2"x12" rough fir
Plumber n
Room 2.75m x 2.50m
Entrance 60cm x ?
Tunnel 50cm Square (?)
Walls of random width hand-hewn sruce planks set vertically.
2"x6"
Room 4.4m x 2.75m.
Spruse log frame
2"x6"
Entrance approx. 81cm x 147cm
Tunnel about 61cm square
Cor. post
Walls of horizontal hand-hewn spruce planks 5 to 15 cm thick, 20 to 43 cm wide.
2"x4" Frame around tunnel entrance
Room 3.40m x 3.75 m
Window?

5. Interior of Main Room of a Barabara, Douglas Village [Kaguyak], 1912.

Copyright photograph, courtesy
National Geographic Society.



6. Aleuts in their Bidarkas. Plate 47 in G. A. Sarychev, *Puteshestvie flota kapitana Sarycheva* (1802).

Courtesy, Bancroft Library, University of California.



Алеуты на своих Байдарах.

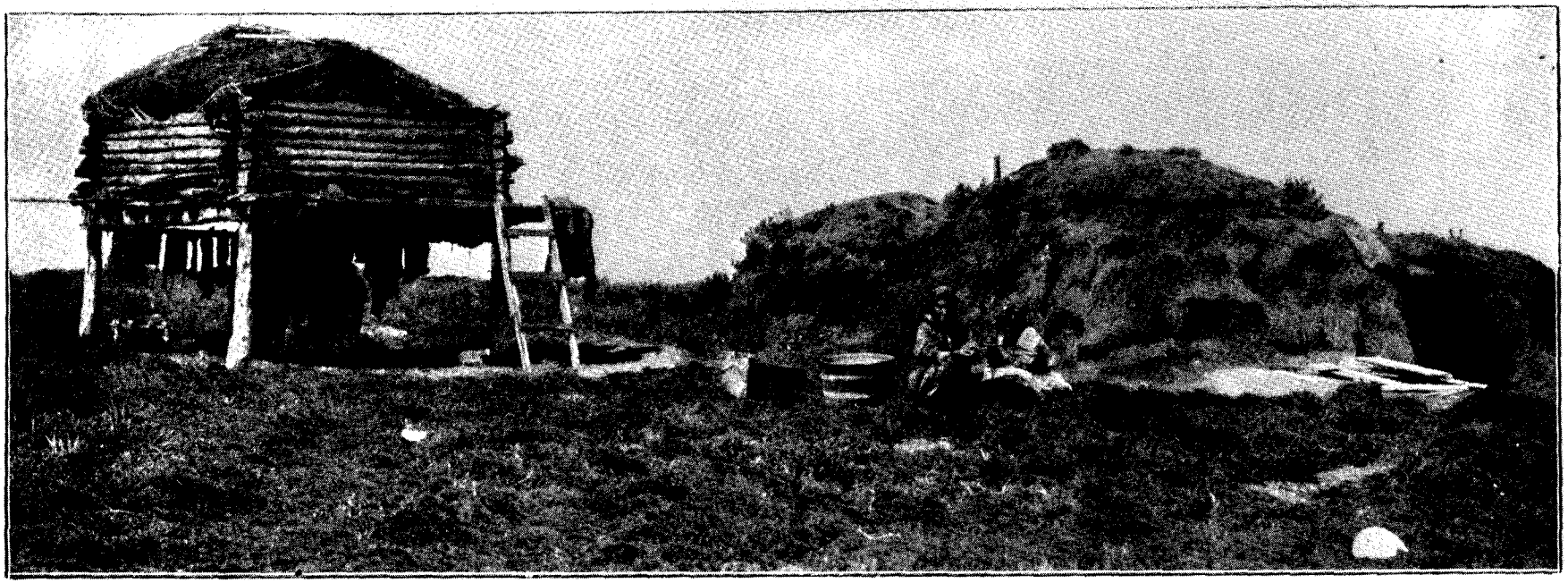
7. Three-hatch Bidarka on Iliamna Bay, c. 1908-1912.

Copyright photograph, courtesy National Geographic Society.

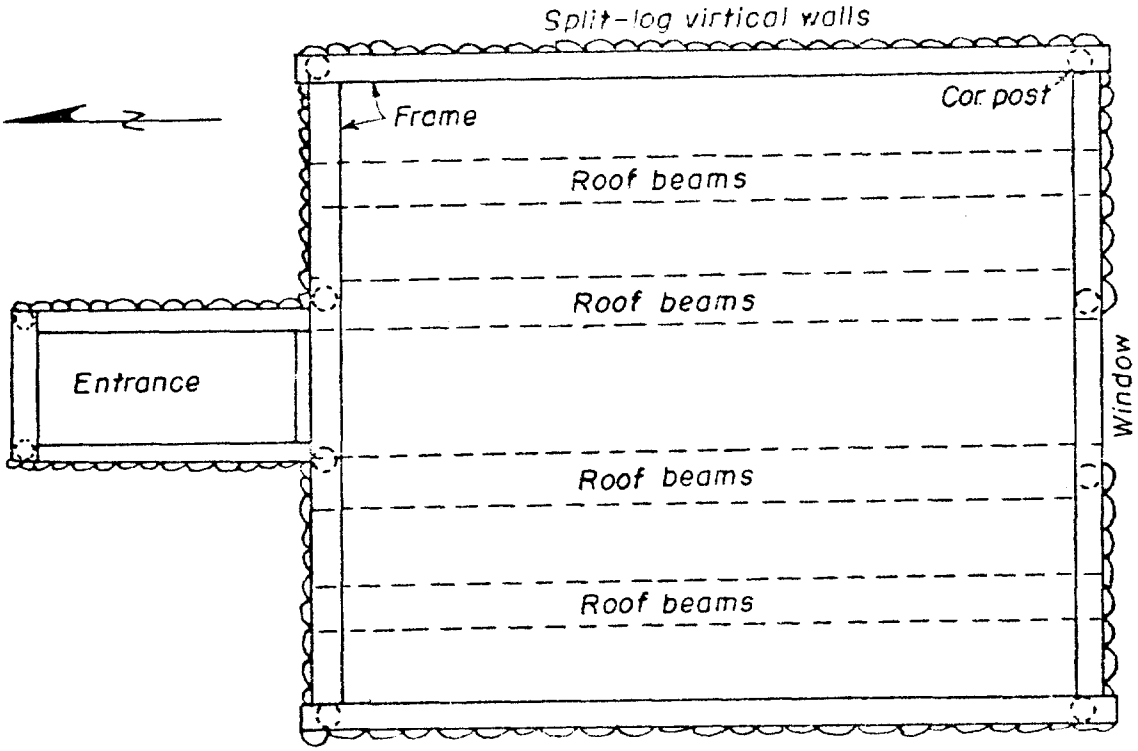


8. Native Barabara and Storehouse near Naknek River.

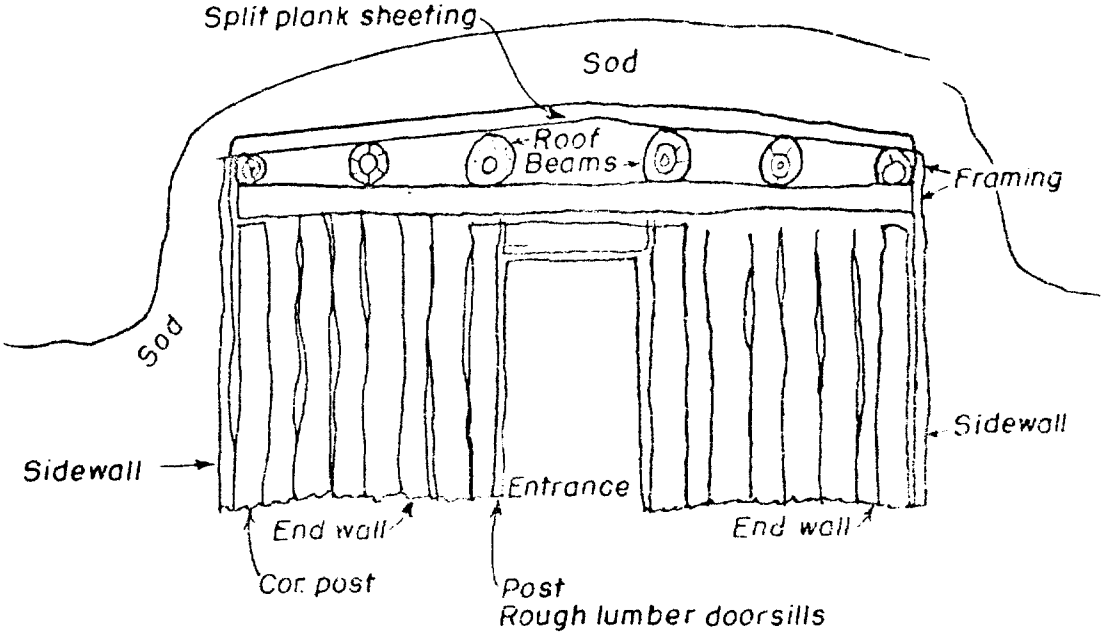
From: J. F. Moser, *The Salmon and Salmon Fisheries of Alaska . . . 1900 and 1901*, Plate III.



NATIVE BARABARA (SOD HOUSE) AND STORE HOUSE, NEAR NAKNEK RIVER.

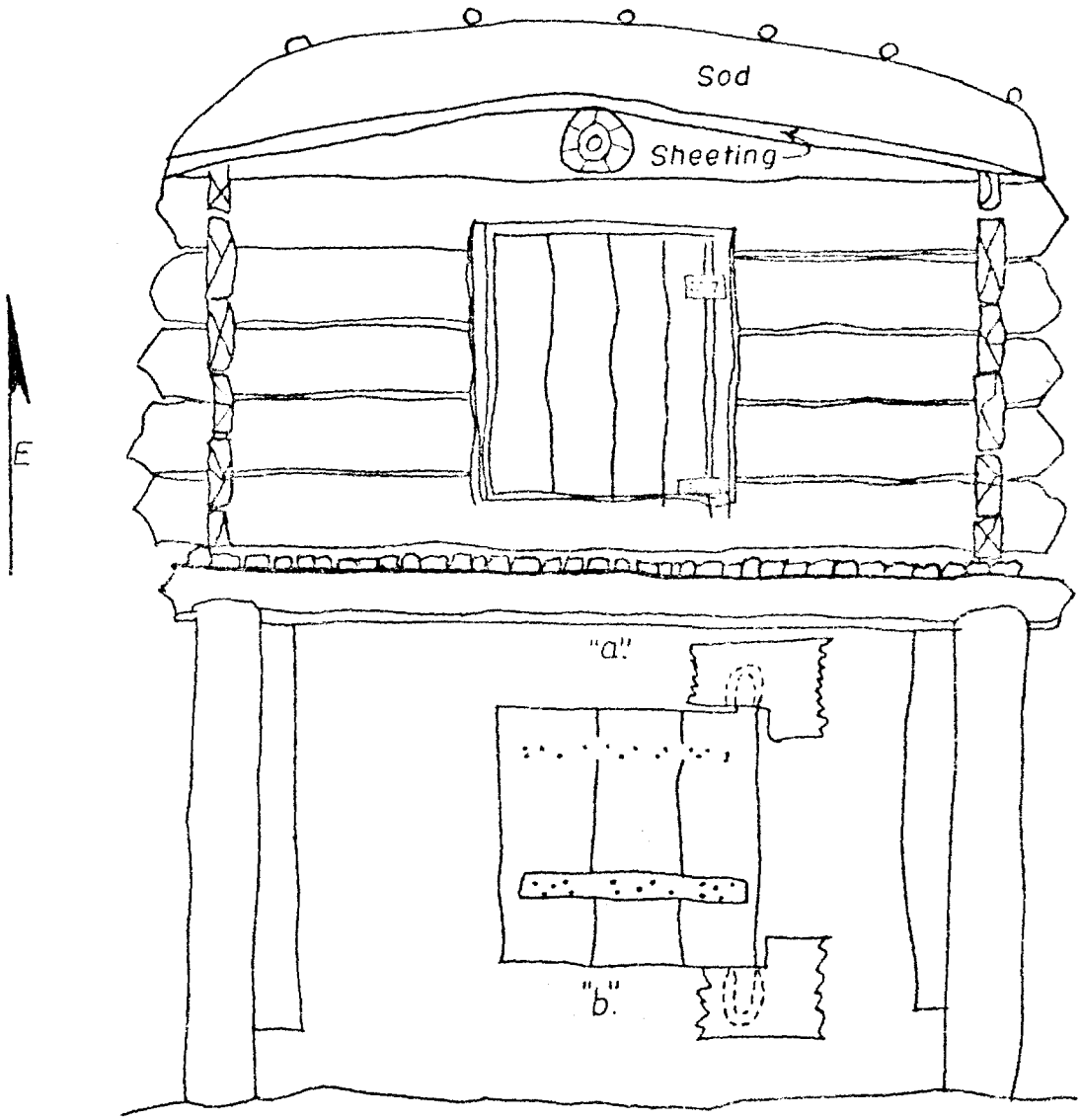


a. Plan View.



b. Side View of North Wall from Interior.

9. Modern Semi-Subterranean House Structure, Savonoski.
From: W. A. Davis, *Archaeological Investigations* (1954).

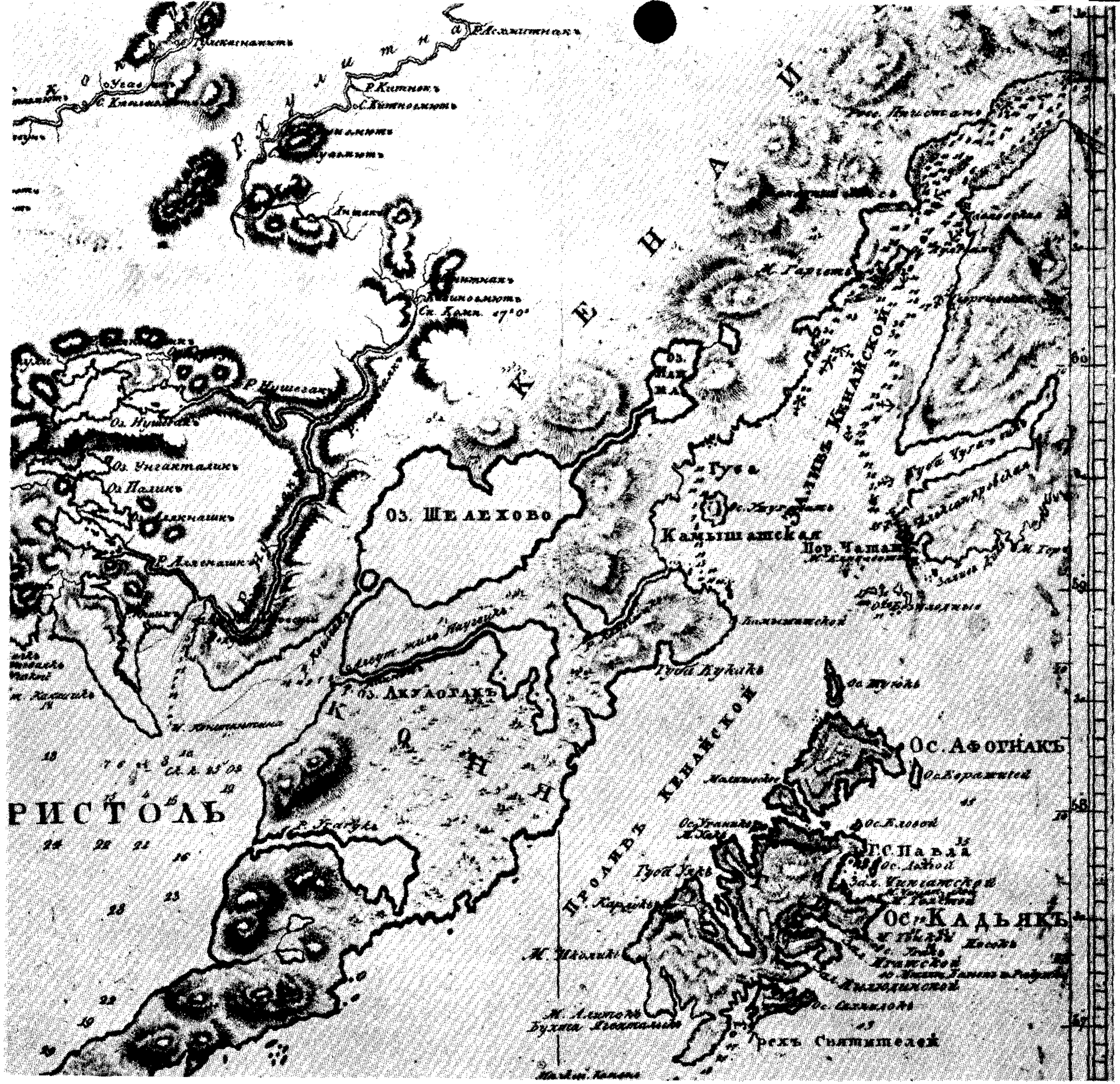


10. Storage House or "Kuggat," Savonoski.
    a. Front View.
    b. Door with Pin-and-Socket Hinge.

From: W. A. Davis, *Archaeological Investigations* (1954).

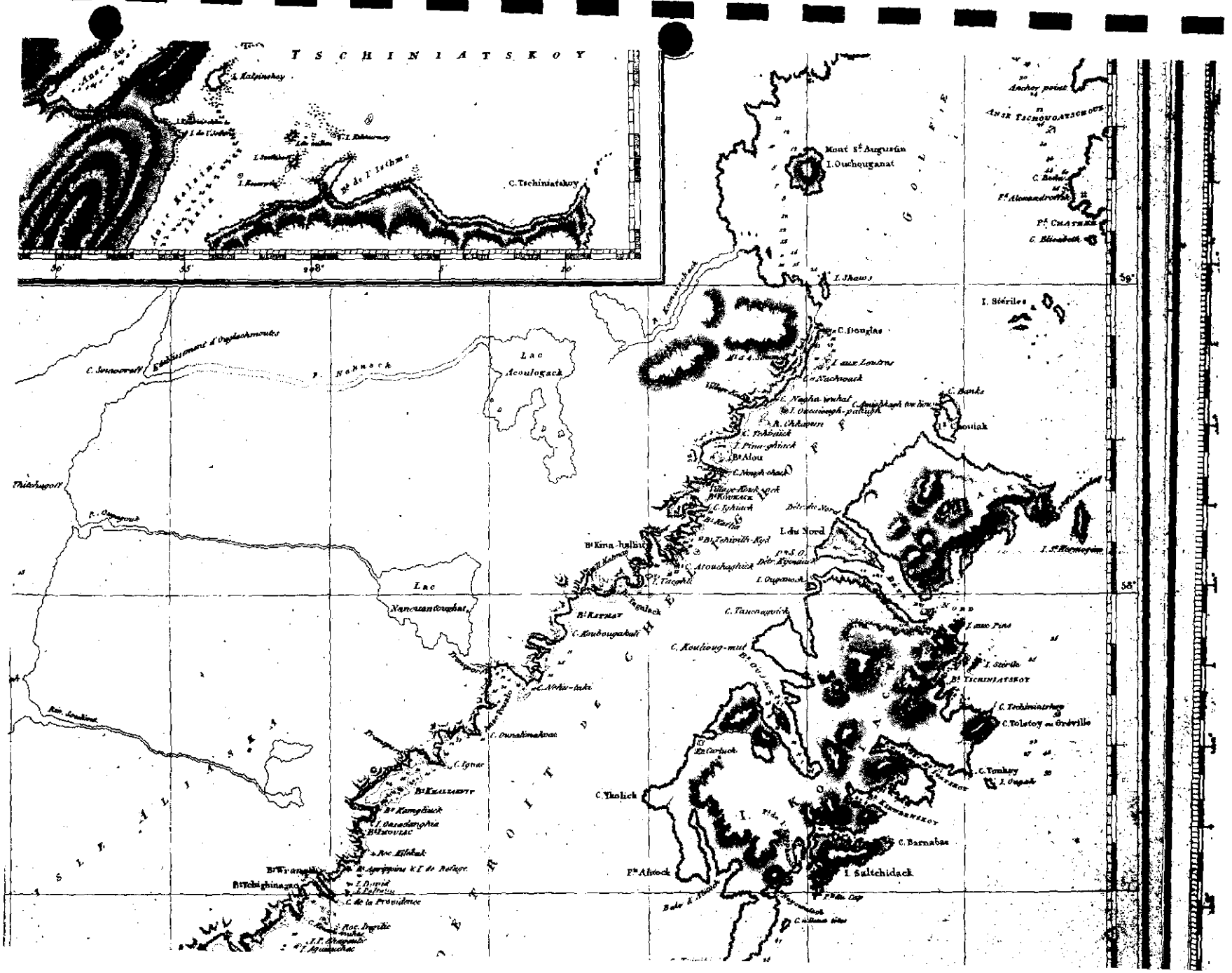
11. Portion of Plate III, "Merkatorska karta Vostochnago Okeana s Aleutskimi ostrovami," in Gavriil Andreevich Sarychev, *Atlas severnoi chasti Vostochnago Okeana . . .* ([Moskva?], 1826).

Courtesy, Library of Congress.


Оз. Шелехово
Ос. Афогнакъ
Ос. Кадьякъ
Пролив Кенайской
Заливъ Кенайской
Камышацкая
Пор. Чатам
Губа Кукакъ
Губа Угакъ
Ристоль
Р. Нушегакъ
Р. Китнекъ
Гуса
Оз. Акулогакъ
Оз. Нушгакъ
Оз. Унгакталикъ
Оз. Паликъ
Р. Алягнашикъ
Трехъ Святителей
М. Алитокъ
М. Шелихъ
Ос. Павла

12. Portion of Plate 17, "Carte de l'archipel des isles Kodiack et du détroit de Chélighoff . . .," in Ivan Fedorovich Kruzenshtern, *Atlas de l'océan Pacifique dressé par m. de Krusenstern* . . . (St. Pétersbourg, 1827 [1838?]).

Courtesy, Library of Congress.


TSCHINIATSKOY
C. Tschiniatskoy
Mont St Augustin
I. Ouchouganat
I. Shaws
I. Stériles
C. Douglas
I. aux Lentres
C. Banks
I. Oumnaugh-pallugh
C. Foktonick
I. Pine-shtuck
Bt Alou
I. du Nord
Bt Kina-hallut
C. Atouchaghtick
C. Tanonagwick
I. aux Pins
C. Aouliouq-mut
Bt TSCHINIATSKOY
C. Tschiniatskoy
C. Tolstoy ou Greville
C. Tonkery
C. Barnabas
I. Saltchidack
C. Ykolick
Pte Alnock
Lac Aeoulogack
Lac Nancantoughat
Thlahugoff
C. Douglas
Anchor point
Anse Tschougatschoux
Pte Chatham
C. Elizabeth
59°
58°

13. Certificate of Incorporation of the Alaska Commercial Company. September 16, 1868.

From the certified copy in the California State Archives; courtesy Dr. W. N. Davis, Jr., State Archivist.

Int. Rev. Stamps Cancelled a. C. Co. Sept 16/68

Certificate of Incorporation

OF THE

Alaska Commercial Company

Know all Men by these Presents, That we, the undersigned, have this day associated ourselves together for the purpose of incorporating---under the laws of the State of California — ---a **Corporation,** to be known by the Corporate Name of Alaska Commercial Company

And We Hereby Certify, That the objects for which this Corporation is formed, are: for carrying on the business of hunting and fishing in the department or territory of Alaska and for dealing in general merchandize, furs, fish, exchange and shipping.

That the Capital Stock of this Corporation shall be two millions dollars divided into twenty thousand Shares of the par value of One hundred dollars each.

That the Time of its Existence shall be fifty years **from and after the Date of this Certificate.**

That the number of its Trustees shall be five and that the **Names** of those who shall be Trustees, and manage its affairs during the first **Three Months,** and until their successors are elected, are:---

Louis Sloss, Louis Gerstle, A. Waasserman, William Kohl, and Leopold Boskowitz

That its Principal Place of Business shall be in San Francisco California

In Witness Whereof, We have hereunto set our hands and seals, this Sixteenth day of September A. D. 1868

Signed, ~~Sealed and Delivered~~ in Presence of

Paul Neumann

Louis Sloss (seal)

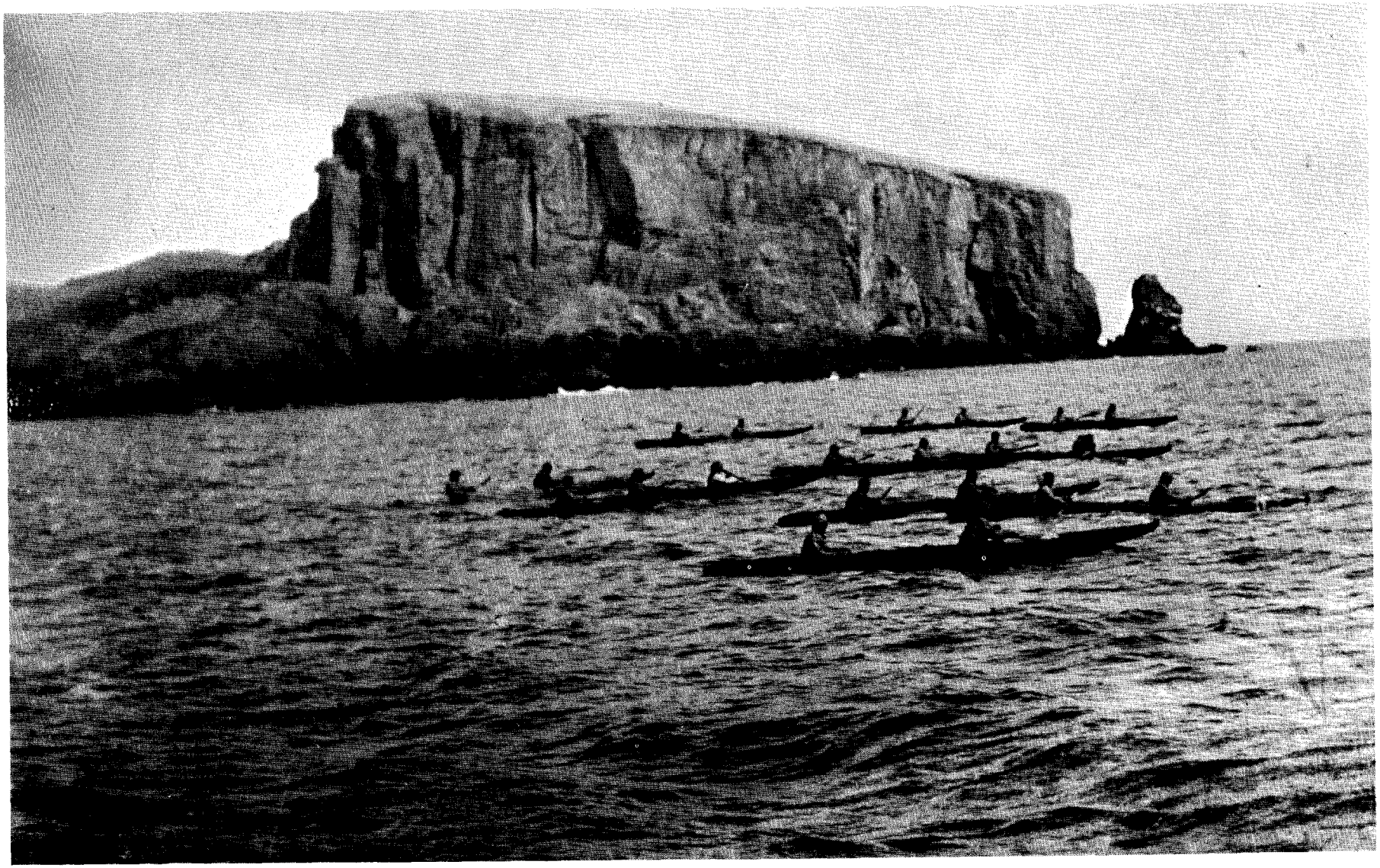
Lewis Gerstle (seal)

A. Waasserman (seal)

Printed and sold by Wm. B. Cox & Co., 604 Montgomery St. San Francisco.

14. The Last Sea Otter Hunt, Unga, c. 1908.

Copyright photograph, courtesy National Geographic Society.



15. Orthodox Chapel at Katmai, 1915, Showing Effects of Flood. Photographed by B. B. Fulton.

Copyright photograph, courtesy National Geographic Society.



16. Chapel and Graveyard at Douglas Village [Kaguyak], July 14, 1912. Photographed by G. C. Martin.

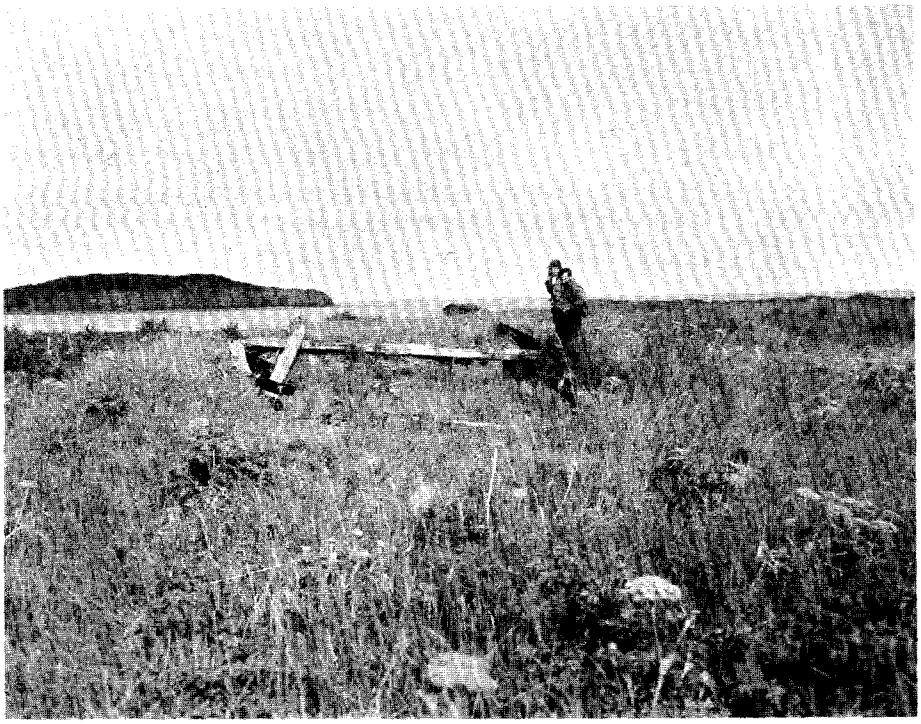
Copyright photograph, courtesy National Geographic Society.



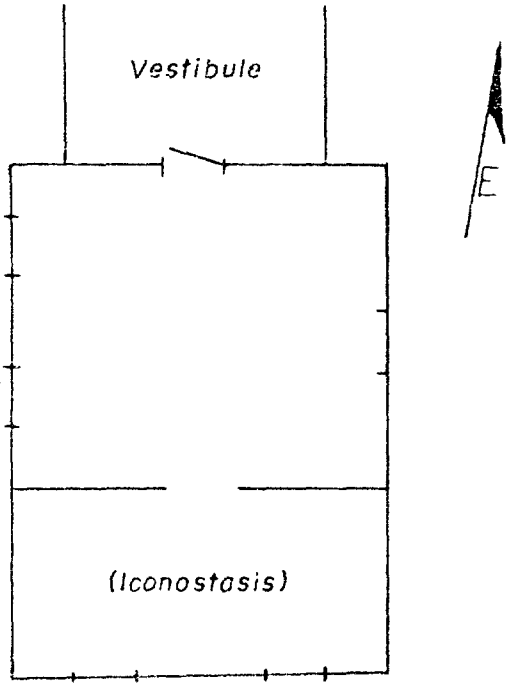
17. Old Orthodox Chapel at Kaguyak, 1952.

From: L. Sumner, *Special Report* (1963).



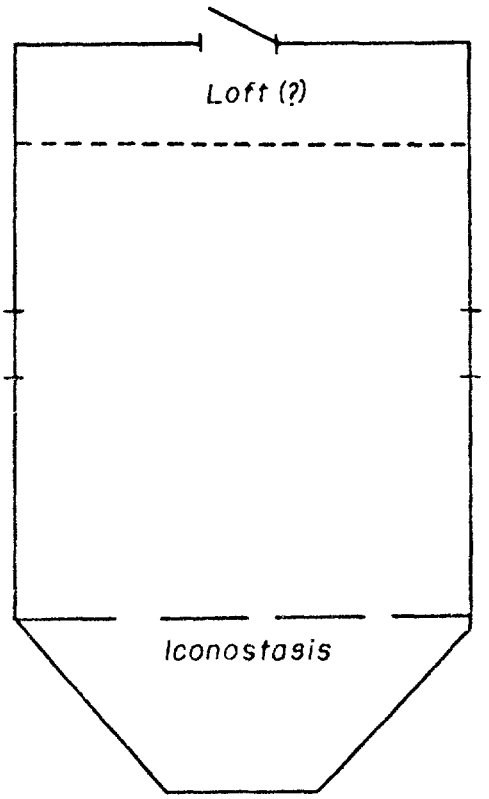


18. Orthodox Chapel Ruins, Kaguyak, 1965.
NPS Photo: P. J. F. Schumacher.

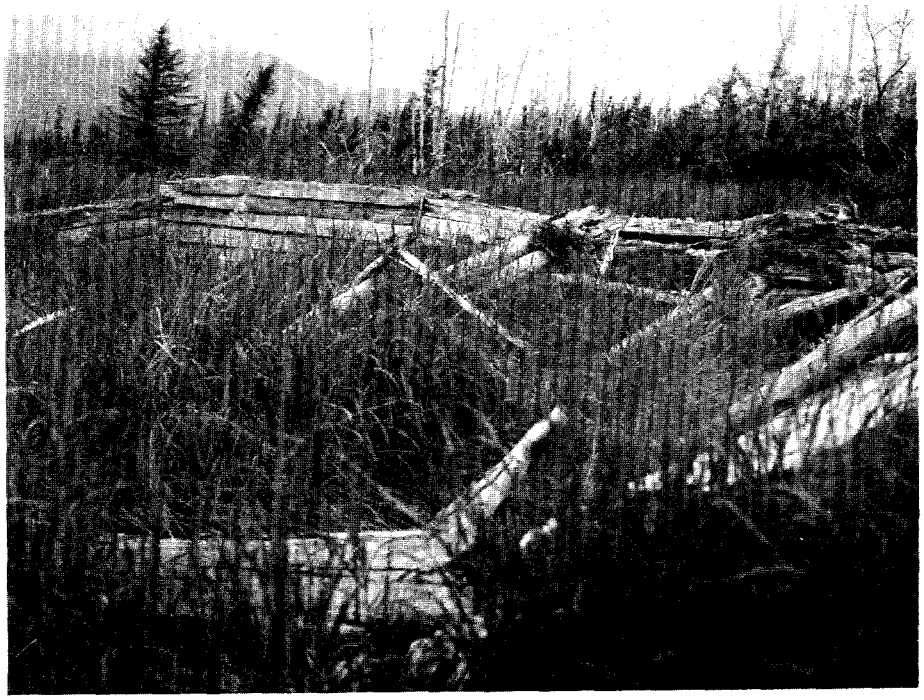


19. Plan, Orthodox Chapel at Kaguyak.
Scale: 1 cm. = 1 m.

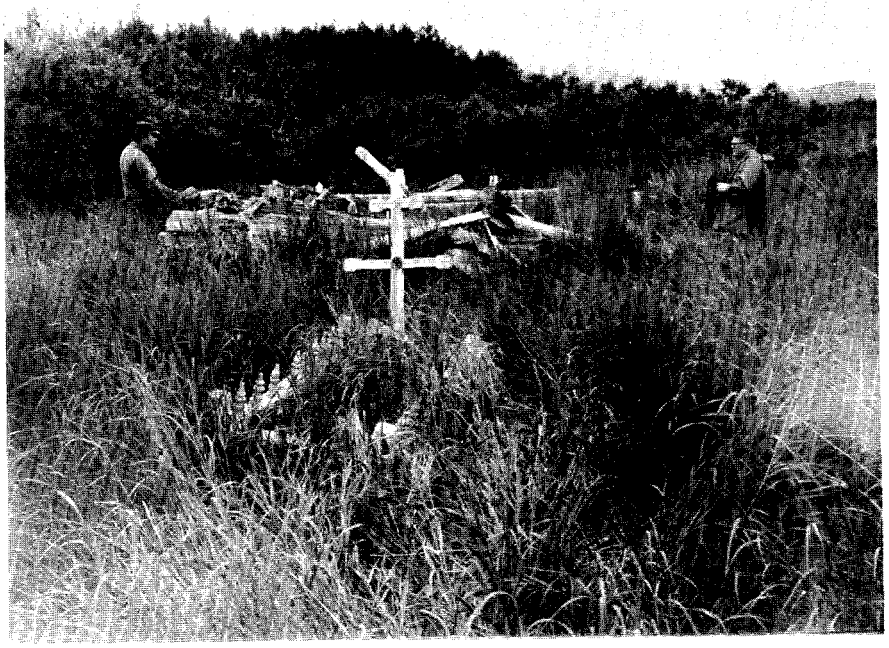
From: W. A. Davis, *Archaeological Investigations* (1954).



20. Plan, Chapel of St. Mary, Savonoski.
Scale: 1 cm. - 1 m.
From: W. A. Davis, *Archaeological Investigations* (1954).



21. Orthodox Chapel Ruins, Savonoski, 1965.
NPS Photo: P. J. F. Schumacher.



22. Orthodox Chapel Ruins and Cemetery, Savonoski, July 1965.
NPS Photo: P. J. F. Schumacher



23. Remains of Storage or Cache Houses, Savonoski, July 1965.
NPS Photo: P. J. F. Schumacher

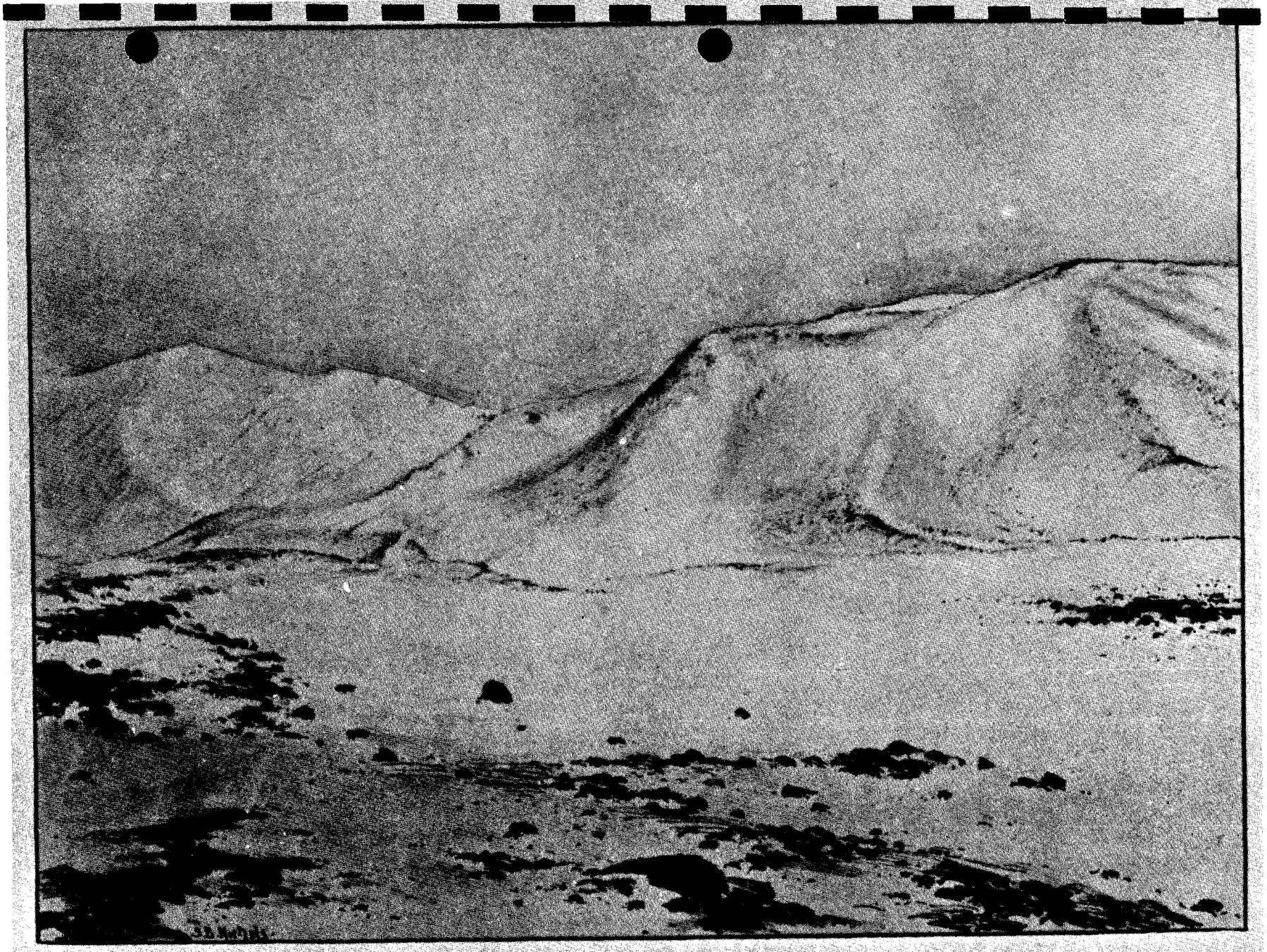
24. Ivan Petroff, Early "Booster" of Katmai's Scenery.

From: R. A. Pierce, "New Light on Ivan Petroff," in *Pacific Northwest Quarterly*, vol. 59, no. 1.



25. Summit of Katmai Pass, October 1898; the only known picture of the pass prior to the 1912 eruption.

From: J. E. Spurr, "A Reconnaissance in Southwestern Alaska in 1898," in U.S.G.S., *Twentieth Annual Report*, Part VII, plate XI.



B. SUMMIT OF KATMAI PASS.

26. Refugees from Kodiak on Board the *Manning*, June, 1912.
Photographed by Lieut. J. F. Hahn, U.S.R.S.

Copyright photograph, courtesy National Geographic Society.



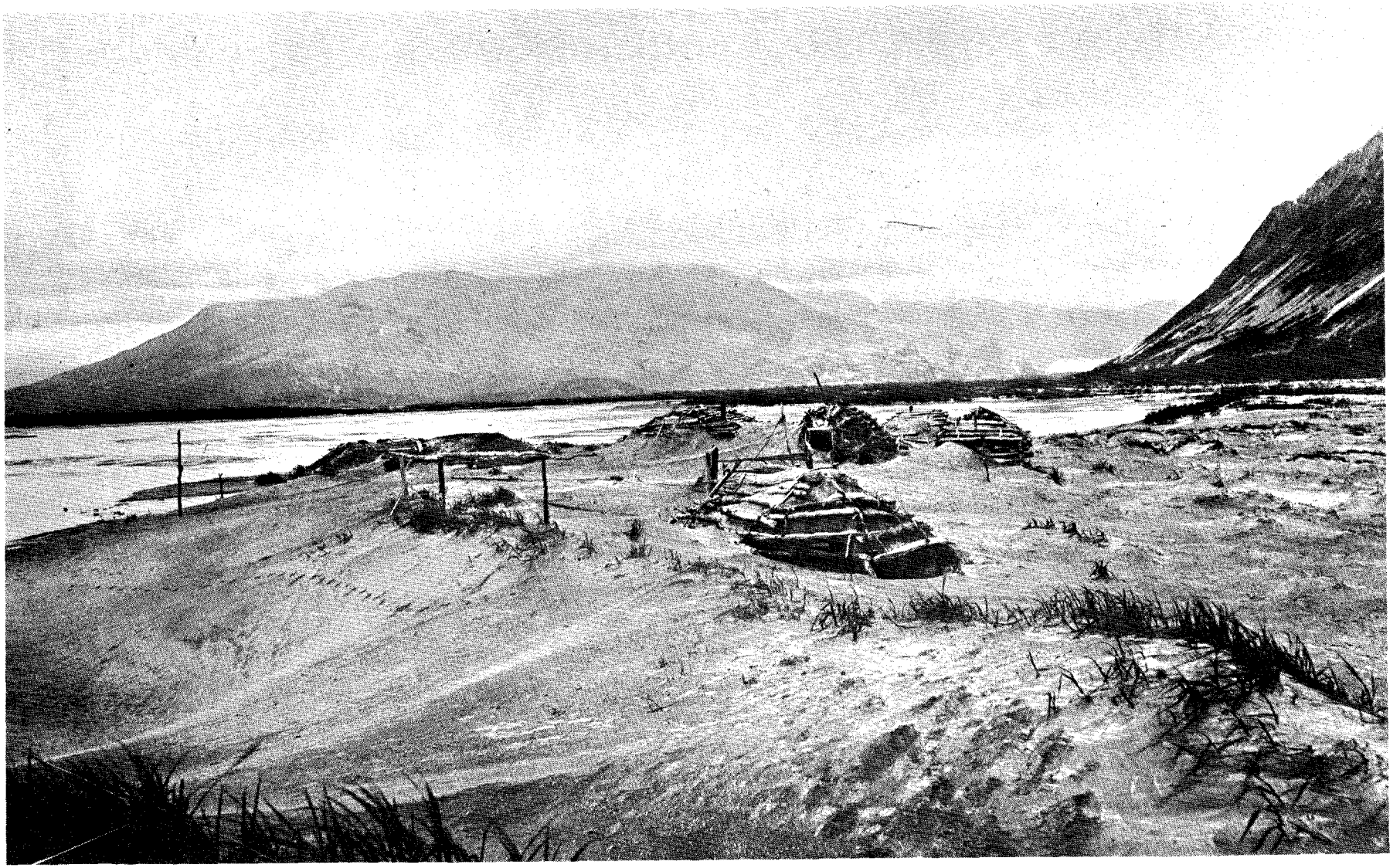
27. Barabaras at Douglas Village [Kaguyak], July 14, 1912.
Photographed by G. C. Martin.

Copyright photograph, courtesy National Geographic Society.



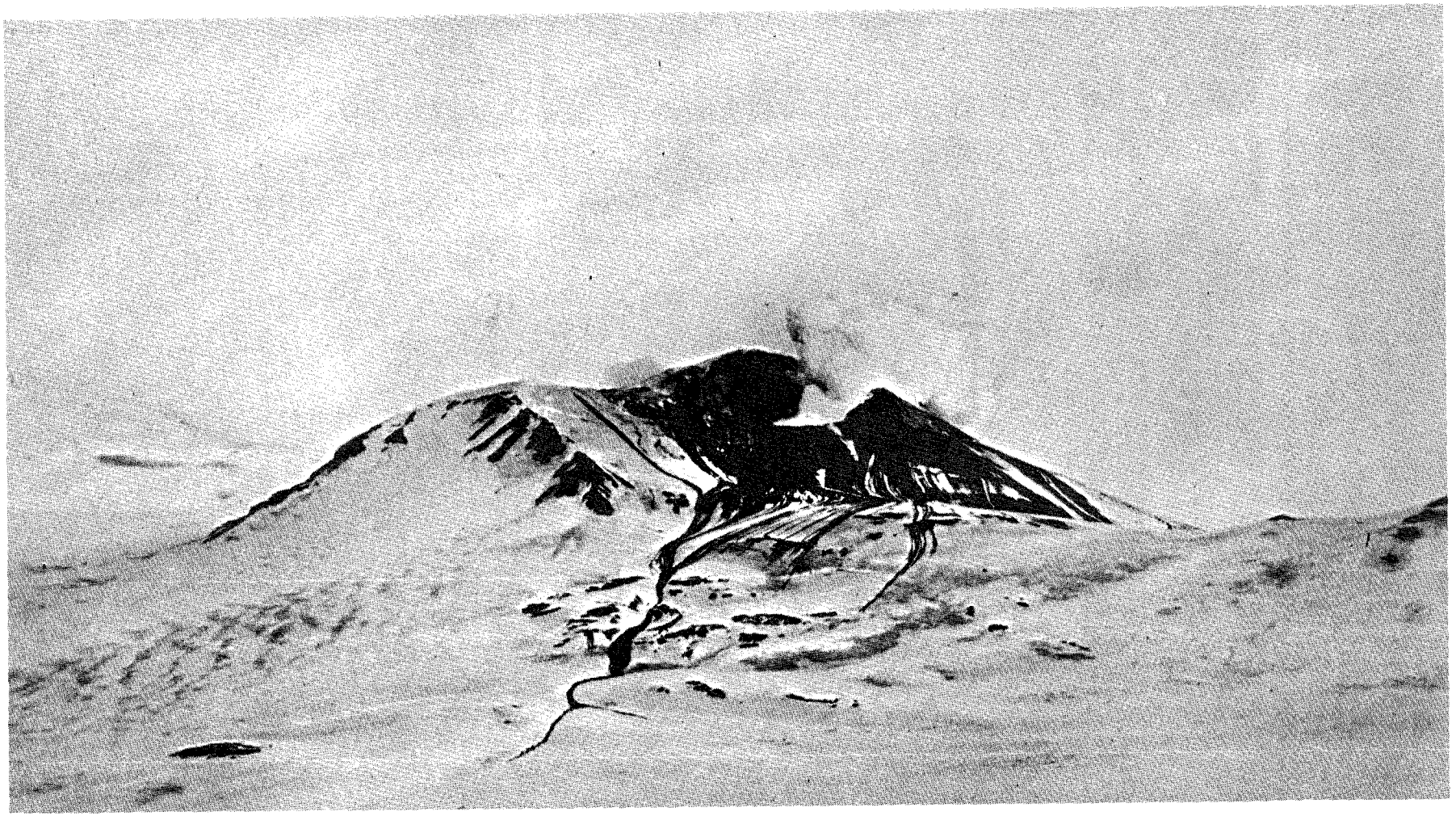
28. Katmai Village after the Eruption, Looking North toward Katmai Volcano, August 13, 1912. Photographed by G. C. Martin.

Copyright photograph, courtesy National Geographic Society.



29. M. A. Horner's Photograph of Mount Martin, 1913.

Copyright photograph, courtesy National Geographic Society.



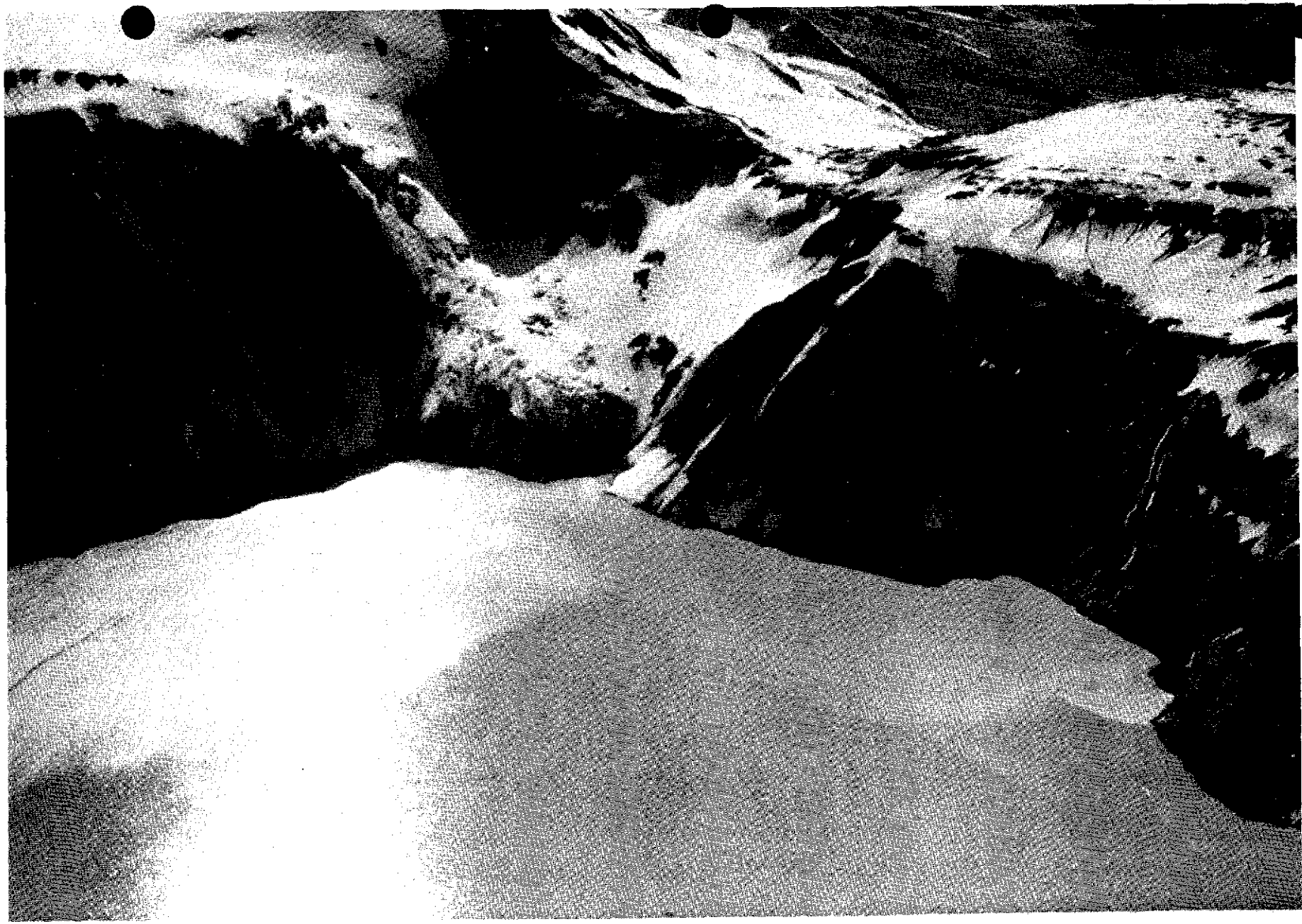
30. A Native Barabara in Deserted Katmai Village, 1916.
Photographed by D. B. Church.

Copyright photograph, courtesy National Geographic Society.



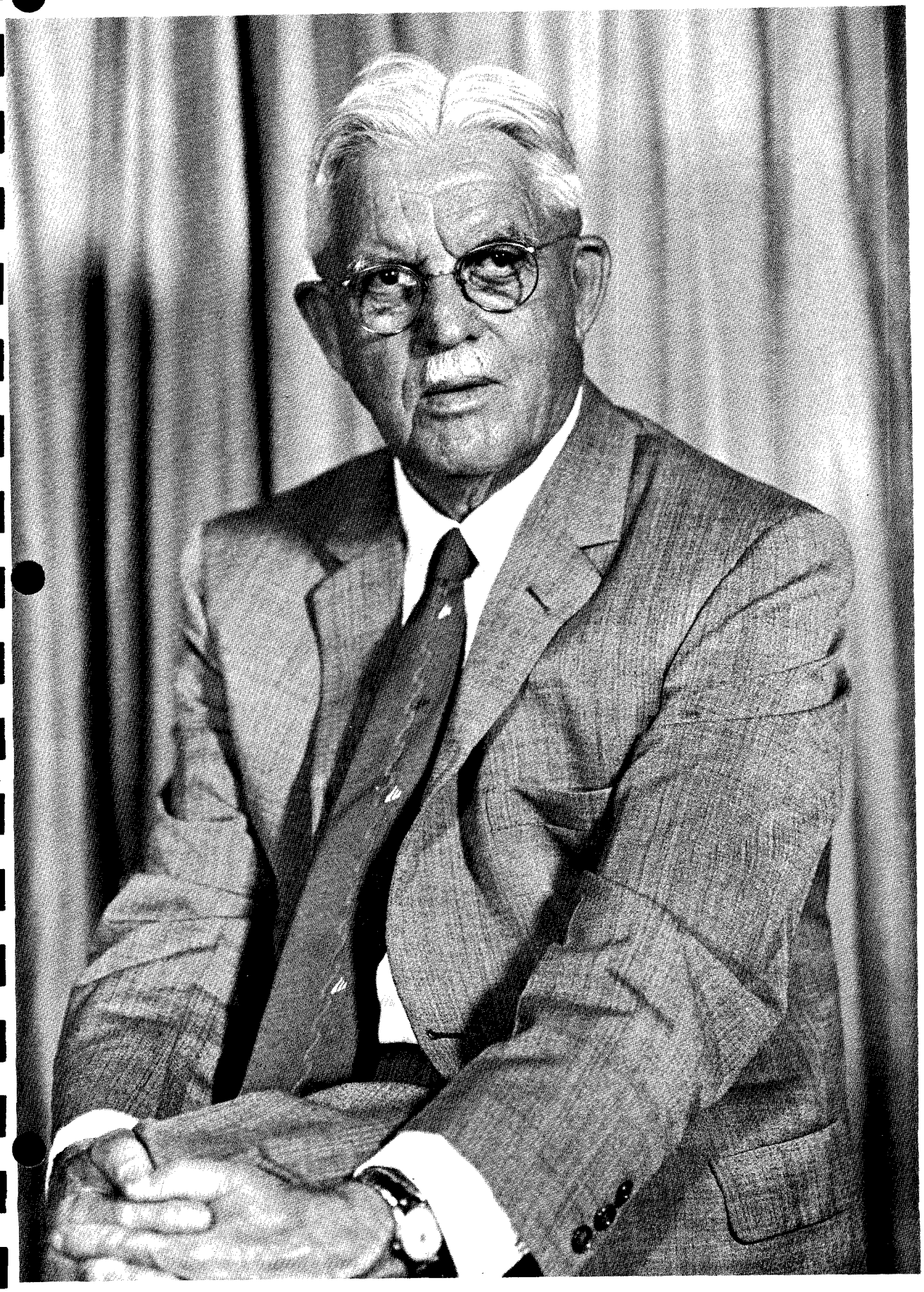
31. Katmai Crater, 1951.

NPS photo: L. Sumner.



32. Dr. Robert Fiske Griggs, Explorer of the Katmai Region and Chief Proponent of Katmai National Monument.

Copyright photograph, courtesy National Geographic Society



33. Dr. Gilbert H. Grosvenor, Director of the National Geographic Society and Ardent Supporter of Katmai National Monument.

Copyright photograph, courtesy National Geographic Society.

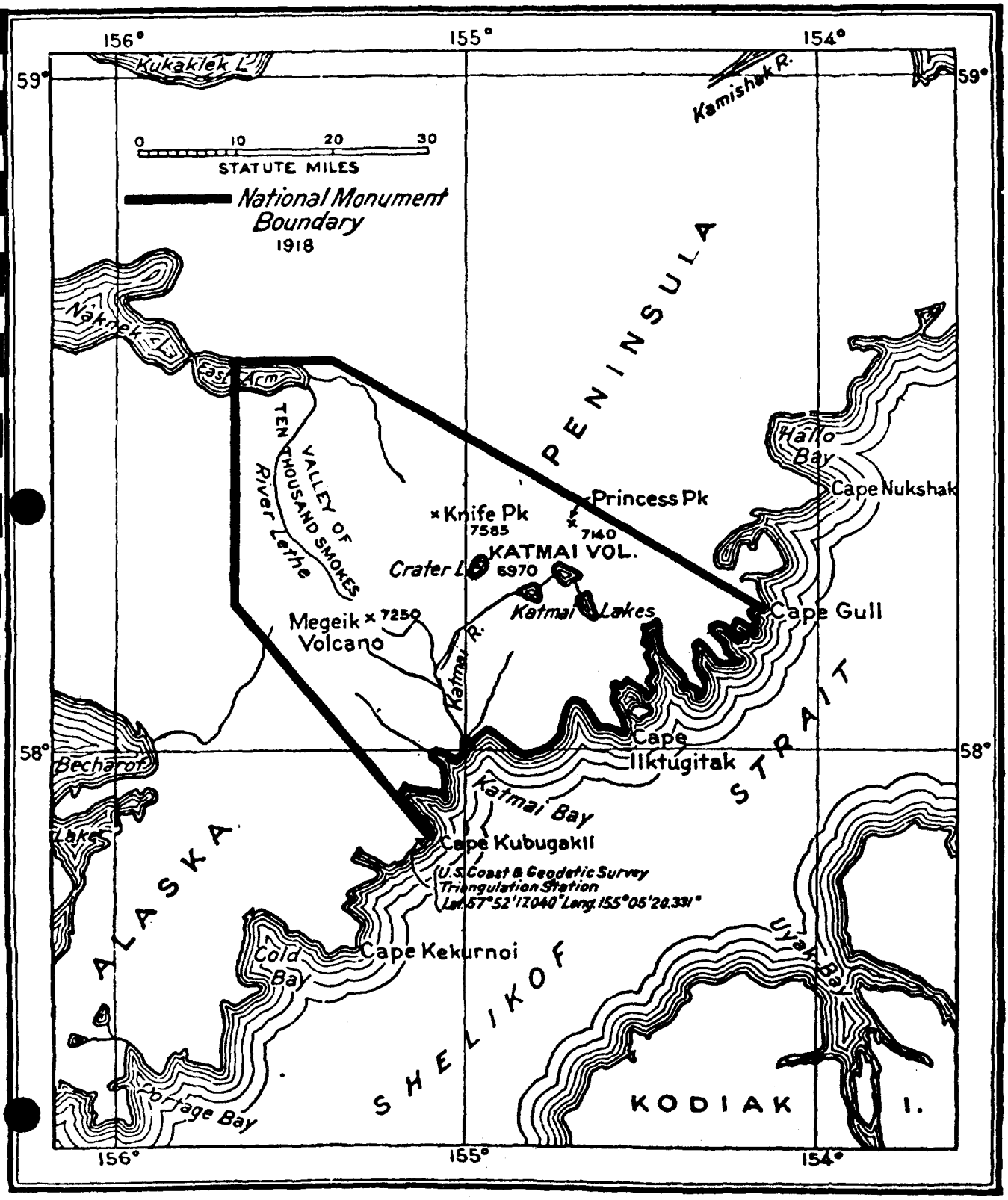


34. Boundaries of Katmai National Monument As Established by the Proclamation of September 24, 1918.

From: National Park Service, *Report of Director . . . 1918.*

DEPARTMENT OF THE INTERIOR
FRANKLIN K. LANE, SECRETARY
NATIONAL PARK SERVICE
STEPHEN T. MATHER, DIRECTOR

ALASKA



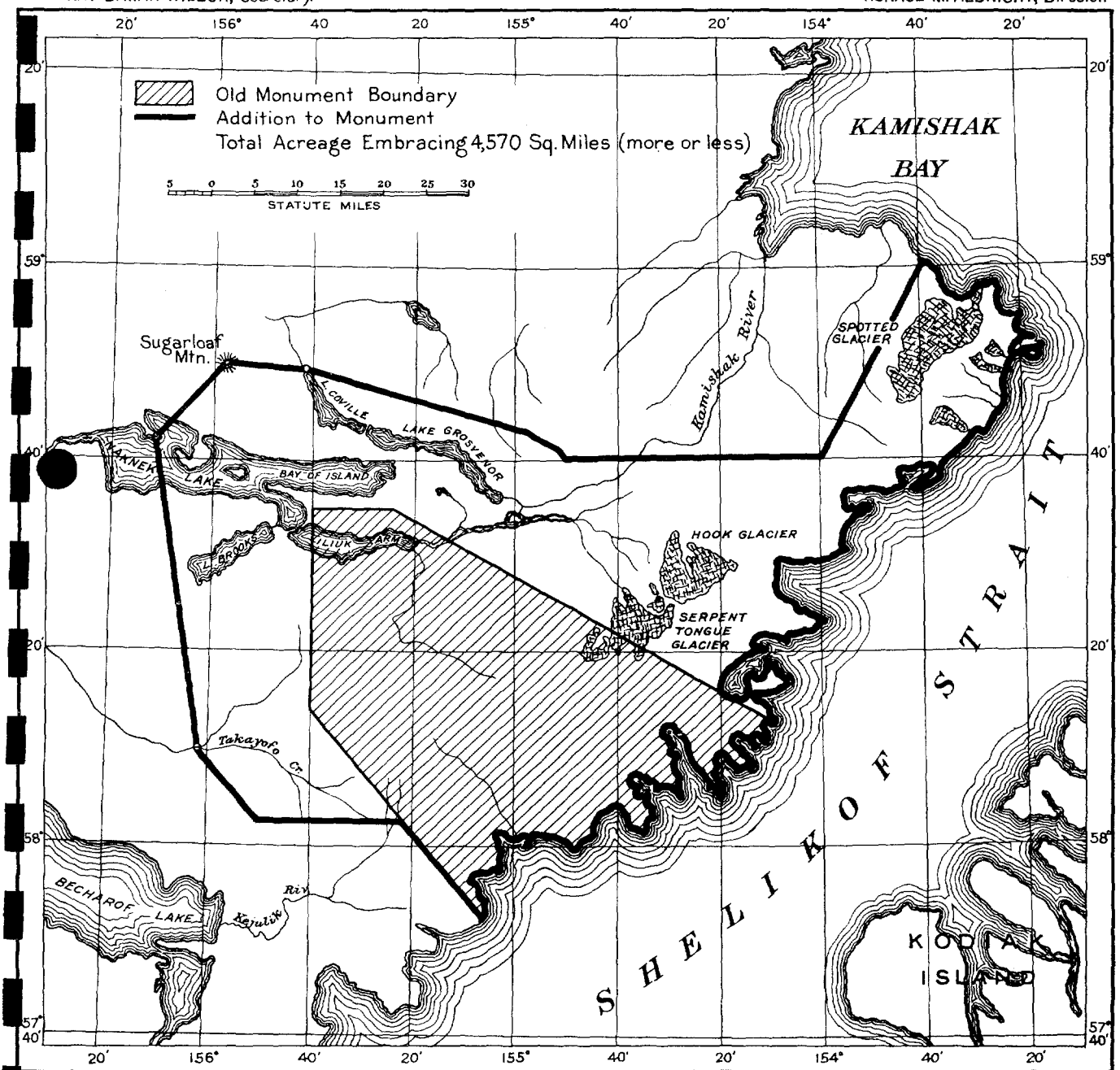
KATMAI NATIONAL MONUMENT

35. Katmai National Monument as Enlarged by President Hoover's Proclamation of April 24, 1931.

DEPARTMENT OF THE INTERIOR
RAY LYMAN WILBUR, Secretary.

ALASKA

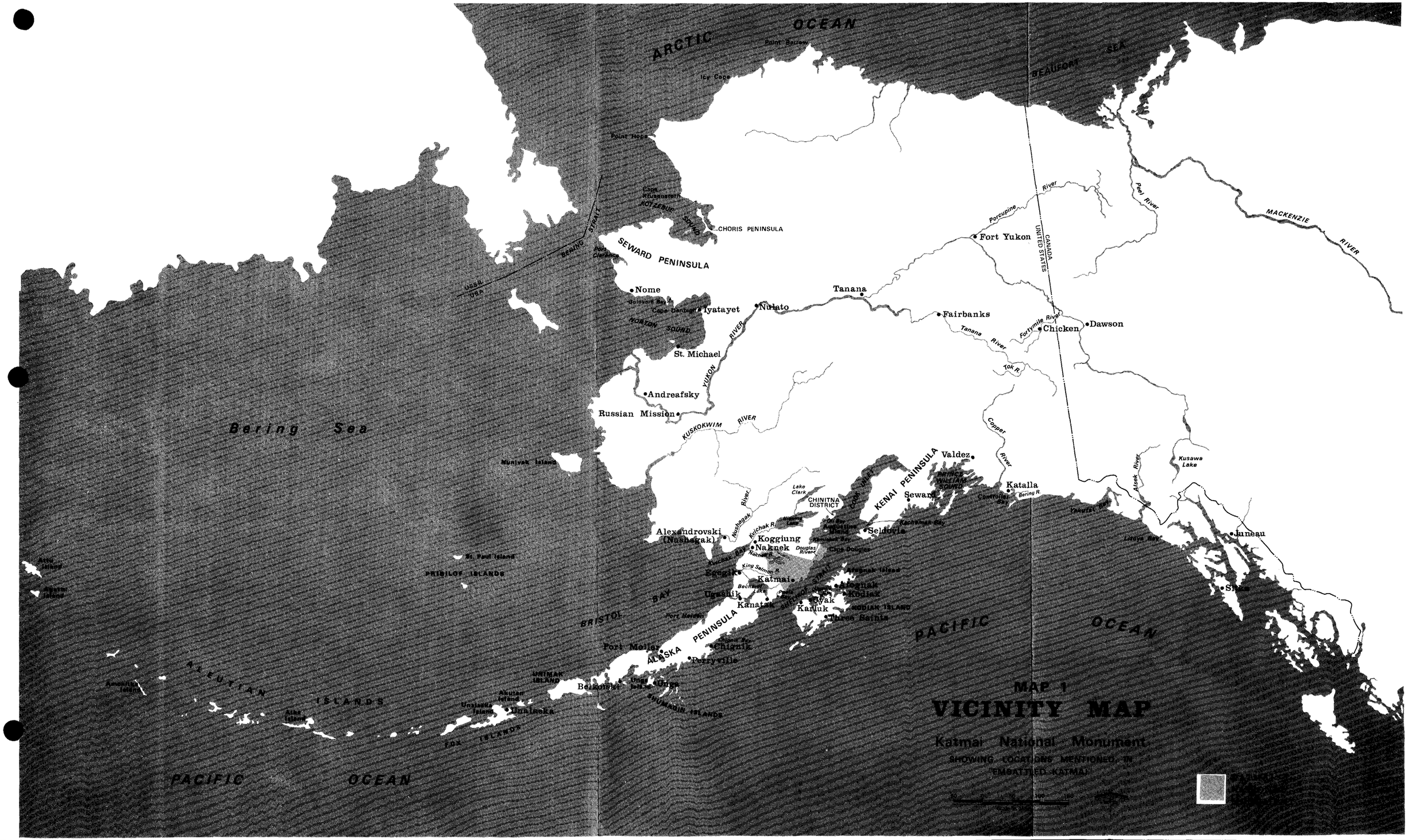
NATIONAL PARK SERVICE
HORACE M. ALBRIGHT, Director.



KATMAI NATIONAL MONUMENT

36. Swikshak Lagoon, Showing Cannery Structures, 1963.

From: L. Sumner, *Special Report* (1963).

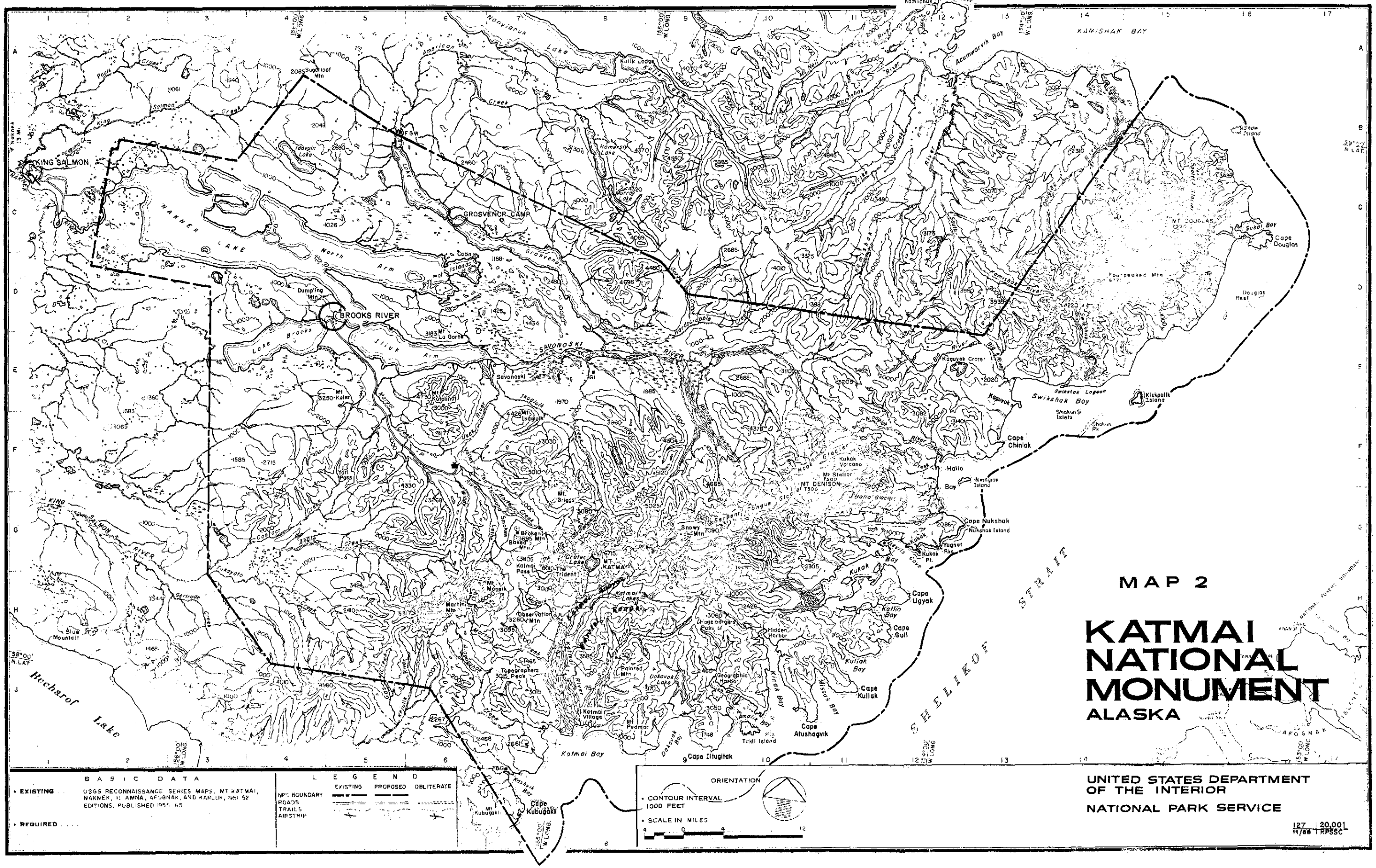


MAP 1

VICINITY MAP

Katmai National Monument

SHOWING LOCATIONS MENTIONED IN "EMBATTLED KATMAI"



MAP 2

KATMAI NATIONAL MONUMENT

ALASKA

BASIC DATA

- EXISTING — USGS RECONNAISSANCE SERIES MAPS, MT KATMAI, NAKNEK, ILIAMNA, SEDGWAK, AND KARLUK, 1951 52 EDITIONS, PUBLISHED 1955 65
- REQUIRED ....

LEGEND

	EXISTING	PROPOSED	OBLITERATE
NPS BOUNDARY			
ROADS			
TRAILS			
AIRSTRIP			

ORIENTATION

- CONTOUR INTERVAL 1000 FEET
- SCALE IN MILES

4 0 4 12

UNITED STATES DEPARTMENT OF THE INTERIOR

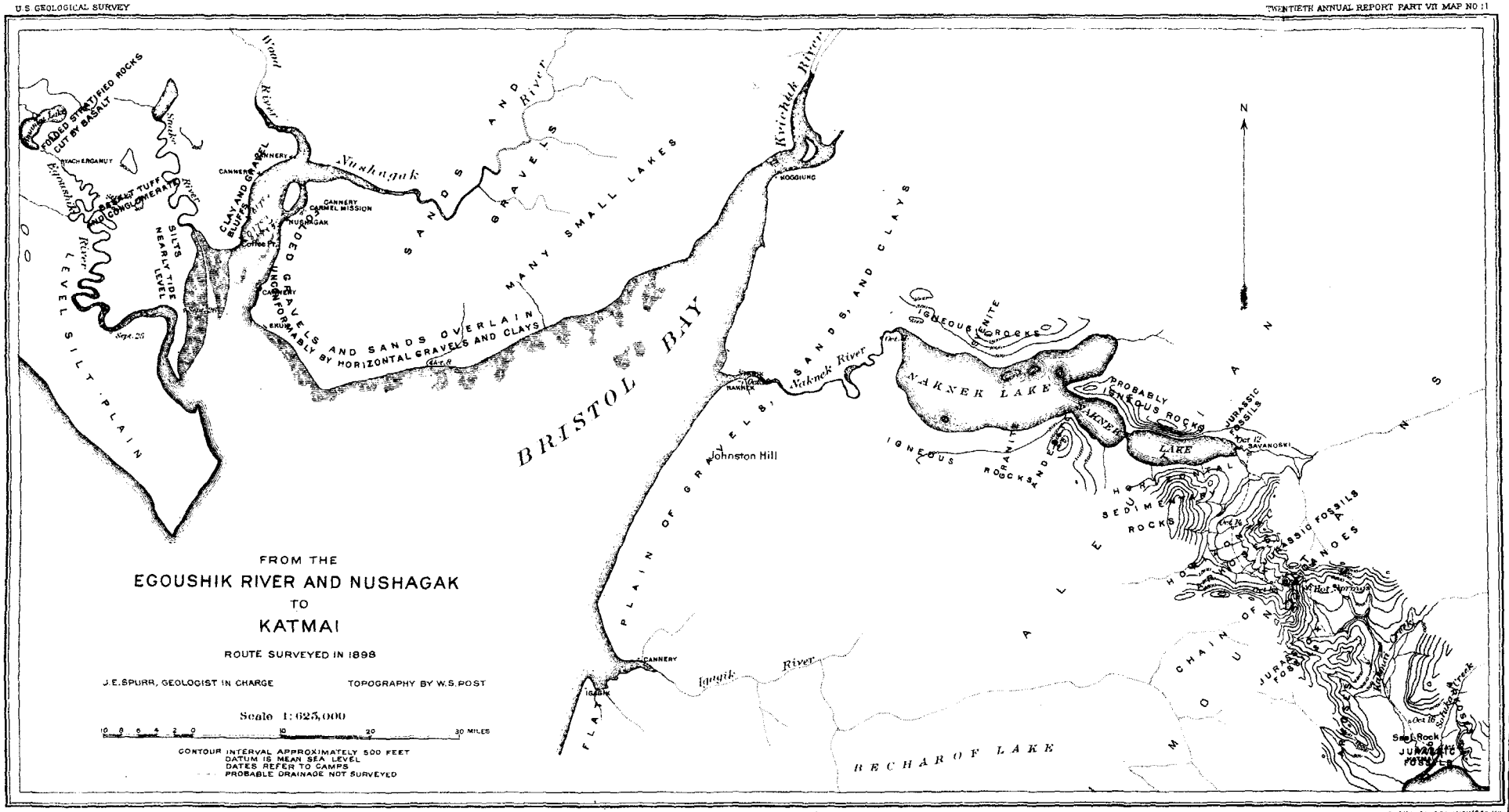
NATIONAL PARK SERVICE

127 | 20,001
11/66 | RPSSC

Map 3. Archeological Base Map,
Katmai National Monument

(This map was too large to be assembled with the rest of the book, and it has been placed in a envelope inside the back cover).

GPO 929-021


FROM THE
EGOUSHIK RIVER AND NUSHAGAK
TO
KATMAI
ROUTE SURVEYED IN 1898
J.E. SPURR, GEOLOGIST IN CHARGE
TOPOGRAPHY BY W.S. POST
Scale 1:625,000
10 0 5 0 10 20 30 MILES
CONTOUR INTERVAL APPROXIMATELY 500 FEET
DATUM IS MEAN SEA LEVEL
DATES REFER TO CAMPS
PROBABLE DRAINAGE NOT SURVEYED
BRISTOL BAY
Wood River
Nushagak River
Kvichkak River
Nakneck River
Egoushik River
Snake River
Igushik River
Johnston Hill
NARNER LAKE
BECHAROF LAKE
MANY SMALL LAKES
SANDS AND GRAVELS
CLAY AND GRAVEL BLUFFS
SILTS NEARLY TIDE LEVEL
LEVEL SILT PLAIN
BASALT TUFF AND CONGLOMERATE
FOLDED STRATIFIED ROCKS CUT BY BASALT
UNCONFORMABLY BY HORIZONTAL GRAVELS AND CLAYS
PROBABLY IGNEOUS ROCKS
JURASSIC FOSSILS
IGNEOUS ROCKS AND GRANITE
SEDIMENTARY ROCKS
CHAIN OF VOLCANOES
Hot Springs
Steep Rock
JURASSIC FOSSILS
CANNERY
MISSION
N

Map 4

NAKNEK 7 MILES
SITES NK-1-6

SC-1
SC-2
N.P.S. HEADQUARTERS
KSC-1
NAKNEK AIR BASE
KING SALMON
WAREHOUSE AREA
N.P.S.
ARMY RECREATION CAMP
NW-3
NW-1
NW-2
Naknek River
Naknek Lake
Bay of Islands
Reindeer Point
Lake Coleville
SUGARLOAF MTN.
Savon Lake
GROSVENOR CAMP
GL-1
GL-2
Lake Grosvenor
Hammersly Lake
Murray Lake
Lynx Creek
Hardscrabble Creek
Shaw Island
Douglas River
SPOTTED GLACIER
MT. DOUGLAS
Sukia Bay
DS-1
DOUGLAS REEF
FOUR PEAKED MT.
S. Fork Kamishak R.
DUMPLING MTN.
Lake Naknek
BROOKS RIVER AREA
SITES BR1-22
MT. LA GORCE
Lake Brooks
Tliuk Arm
BROOKS RIVER
WINDY CREEK
FOOT TRAIL
SR-1
SAVONOSKI
Savonoski
SR-2
SR-3
SR-4
Reinhow
A G L E M I U T
MT. KAGLUK
FOOT BRIDGE
VALLEY OF TEN THOUSAND SMOKES
VIEWPOINT
KNIFE PEAK VOLCANO
BAKED MTN.
BROKEN MTN.
NOVARUPTA VOLCANO
Crater Lake
MT. CERBERUS
KATMAI
TRIDENT VOLCANO
Katmai Lake
MT. JAGEIK
MARTIN MT.
OBSERVATION MTN.
Martin Creek
TOPOGRAPHERS PEAK
PAINTED MTN.
Dakavak Lake
Kaflia Bay
KA-1
Kuliak Bay
MK-1
Missak Bay
Kinak Bay
Amalik Bay
DK-1
AMALIK BAY AREA
SITES AK-1-14
KATMAI VILLAGE
KI-1
MT. PEDMAR
Katmai Bay
Dakavak Bay
KI-2
Kashvik Bay
SHELIKOF STRAIT
SK-1
Swikshak Bay
KUIKPALIK ISLAND
CK-2
CK-1
SHAKUN ISLANDS
CK-3
HOOK GLACIER
Hallo Bay
NINAGIAK ISLAND
KK-2
KK-1
NUKSHAK ISLAND
Kukak Bay

BROOKS RIVER AREA
SITES BR-1-22

BROOKS FALLS
BR1
BR2
BR3
BR4
BR5
BR6
BR7
BR8
BR9
BR10
BR11
BR12
BR13
BR14
BR15
BR16
BR17
BR18
BR19
BR20
BR21
BR22
BR23
BR24
F.W.S. WEIR
BROOKS LAKE
FOSSIL CLIFF SHORE SPIT
NAKNEK LAKE
NYSTROM LAKE
TO VALLEY OF 10,000 SMOKES
TO KATMAI NAT. MON. N.C.A. CAMP
Takayoto Creek
Comact Creek
Eagle Creek
Kaflia Creek
Kaflia Bay
Kukak Bay

ALASKA PENINSULA

AMALIK BAY
AK-3-EXCAVATED
EXCAVATED AK-1
AK-1-ISLAND COMPONENT
TAKLI ISLAND
AK-5
AK-7
AK-6
AK-2
AK-9
TESTED
AK-11
AK-10
AK-14
AK-13
AK-12
AK-4
SHELIKOF STRAIT

AMALIK BAY AREA
SITES AK-1-14

MAP 3

BASIC DATA

U.S.G.S. MAPS 1951 AND 1952 - SCALE 1:250,000

Wendell Oswalt, "Prehistoric Sea Mammal Hunters at Kaflia, Alaska", Dec. 1954;
L.S. Cressman and Don E. Dumond, "Archaeological Investigations in Katmai National Monument", 1960-1961;
Wilbur A. Davis, "Archaeological Investigations of Inland and Coastal Sites of the Katmai N.M. Alaska", S.A.A., Archives of Archaeology No. 4;
D.E. Dumond, "Archaeological Survey in Katmai Nat. Mon." 1963 & 1964;
D.E. Dumond, "Archaeological Research in Katmai Nat. Mon., Alaska" Report to Secretary of Smithsonian Institution - 1965

LEGEND

	EXCAVATED	TESTED UNEXCAVATED	
CAMP SITE	▲	△	TERRACE
VILLAGE SITE	▲▲▲	△△△	SWALE
HOUSE SITE	◉	◎	BOUNDARY
AREA OF EXCAVATION	■		GLACIERS
SITES BR1-22			SWAMP AREA
LINGUISTIC DIVISION			

ORIENTATION

- CONTOUR INTERVAL 1,000 FEET
- SCALE IN MILES 0 5 10 15

REVISED			PREPARED
SUFFIX	DATE	APPROVAL	DESIGNED BY
	1-65	R.A.P.	P.J.F. Schumacher
	11-65	D.S.M.	DRAWN BY
			MORTIMORE CHILDLAW
			Schumacher

CERTIFIED CORRECT /S/ OSCAR T. DICK 9-3-65
SUPERINTENDENT DATE

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WESTERN OFFICE DIVISION OF DESIGN & CONSTRUCTION

ARCHEOLOGICAL BASE MAP
PART OF THE MASTER PLAN
KATMAI NATIONAL MONUMENT
ALASKA

REGION	
WESTERN	
1	1
NM-KAT	
3010-A	
PAGE	22