

Our mission is to identify, evaluate and preserve the cultural resources of the park areas and to bring an understanding of these resources to the public. Congress has mandated that we preserve these resources because they are important components of our national and personal identity.

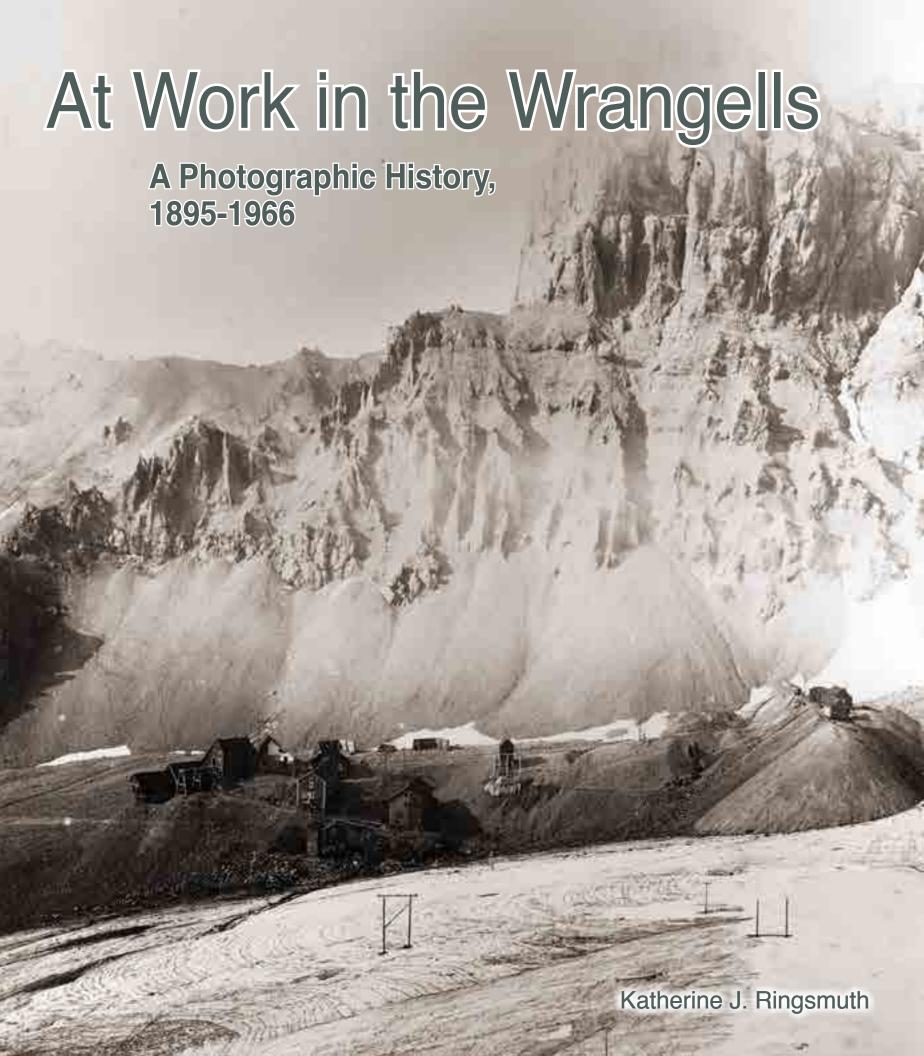
Published by the United States Department of the Interior through the Government Printing Office National Park Service



Wrangell-St. Elias National Park and Preserve

At Work in the Wrangells: A Photographic History, 1895-1966 Library of Congress Control Number: ISBN-10: 0-9907252-6-X ISBN-13: 978-0-9907252-6-8

2016

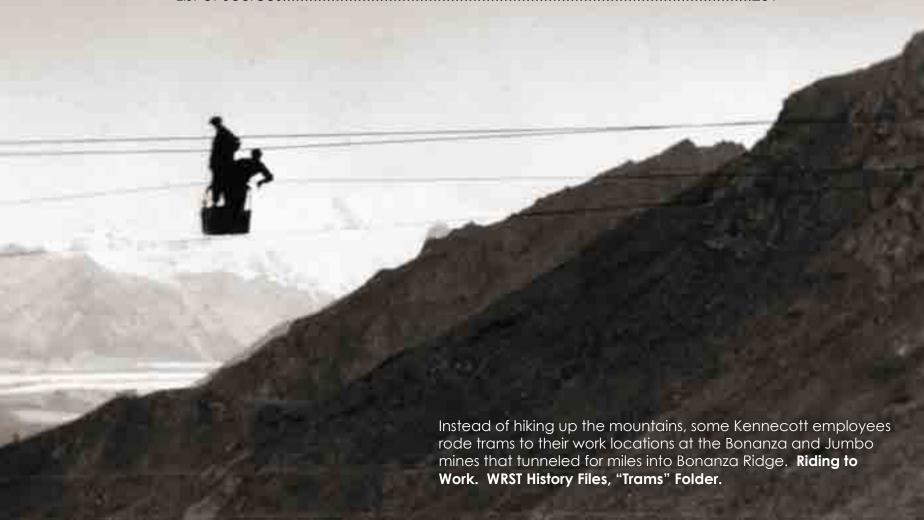


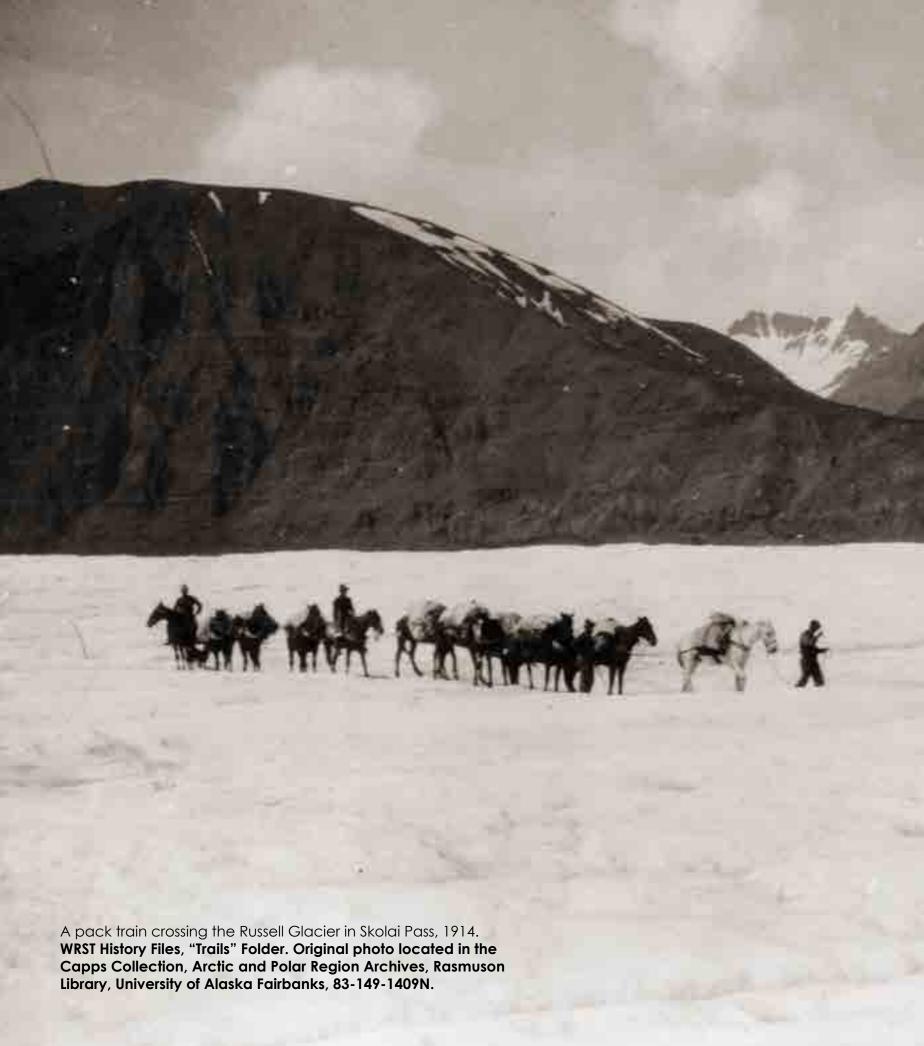


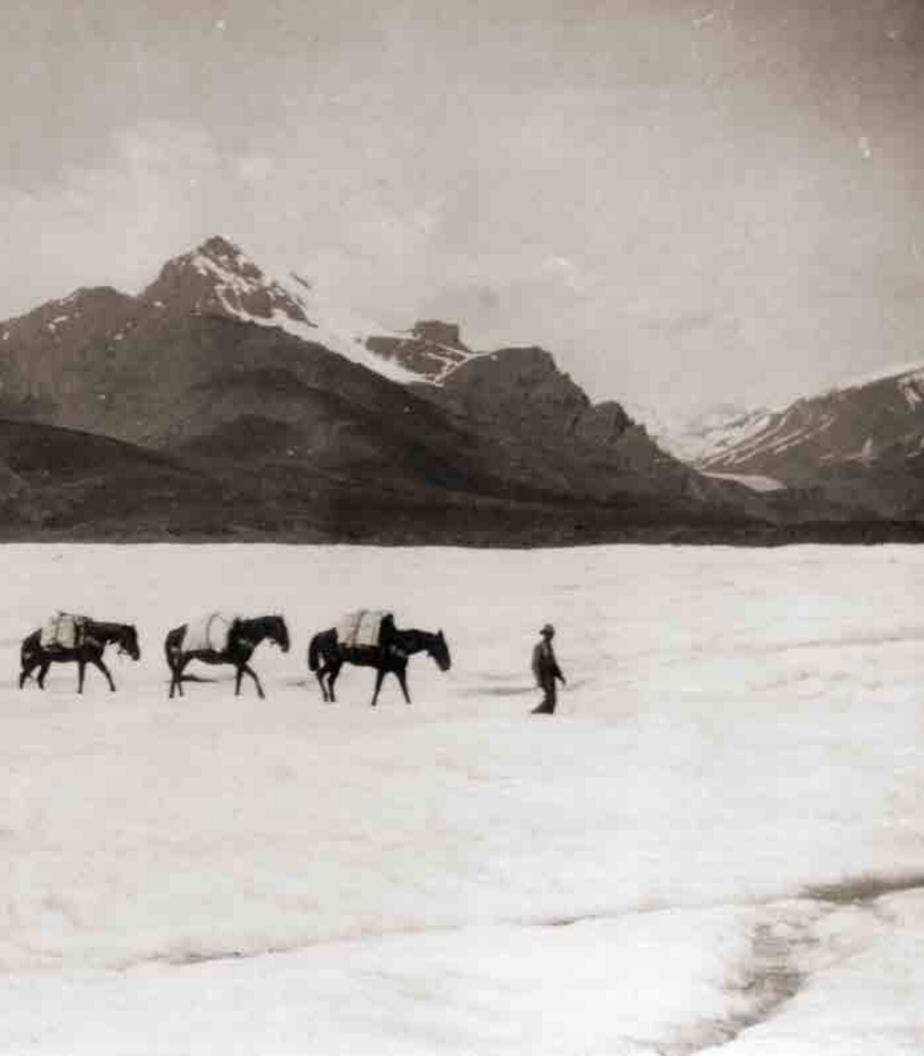
Horse Creek Mary. WRST History Files, "Ahtna" Folder.

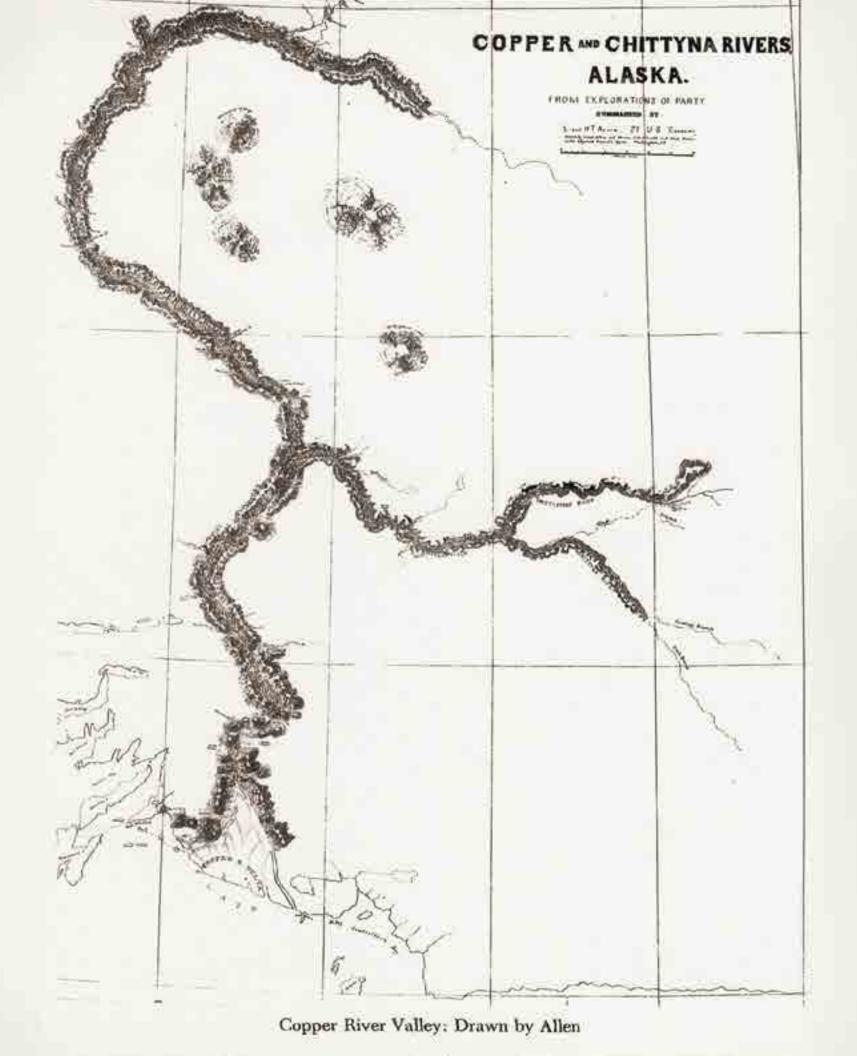
Table of Contents

Foreword	vii
Acknowledgments	xi
Introduction: The Nature of Work	1
Chapter One: Subsistence Lifeways	19
Chapter Two: Mining	43
Chapter Three: Transportation	61
Chapter Four: Commerce and Government Services	79
Chapter Five: "Women's Work"	99
Chapter Six: Aviation	119
Chapter Seven: Sport Hunting	135
Chapter Eight: Mountaineering	153
Chapter Nine: Science and Exploration	175
Chapter Ten: Tourism	199
Epilogue: Play	211
List of Courses	221









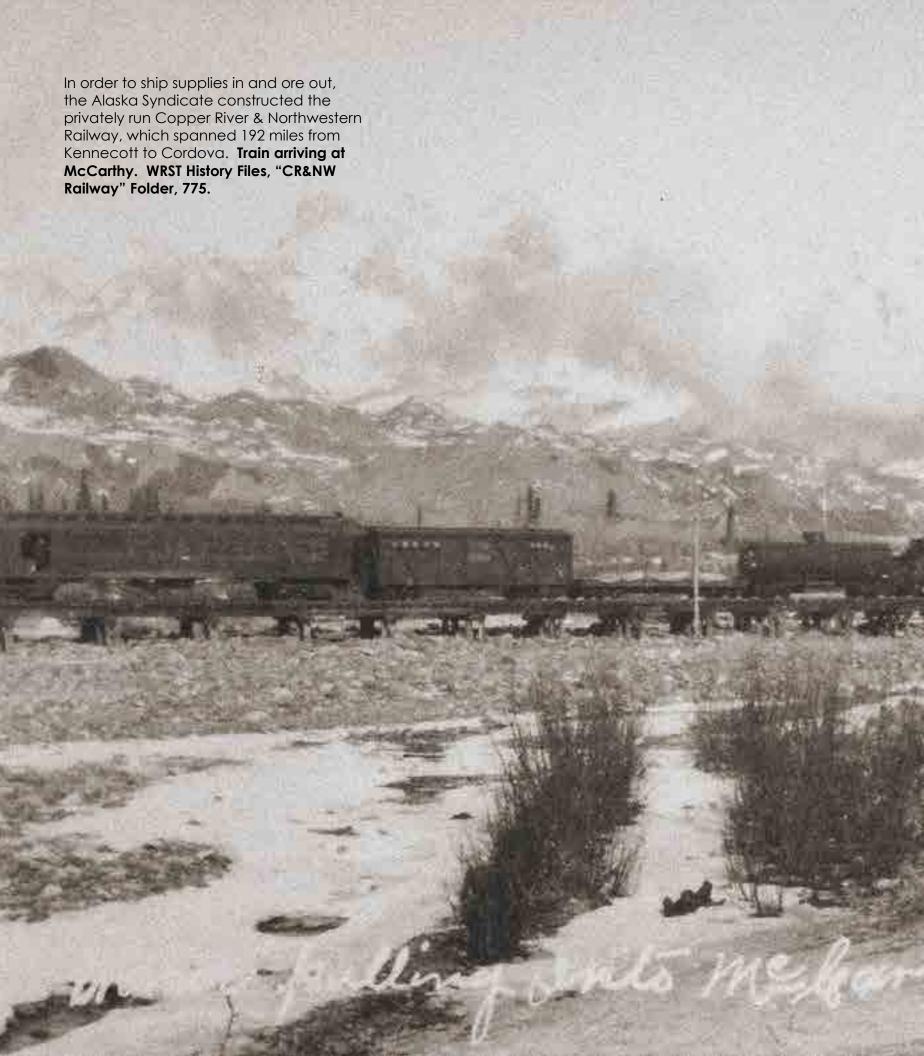
Foreword

It is exciting to see *At Work in the Wrangells: A Photographic History 1895-1966* come to fruition during a year that commemorates both the National Park Service's Centennial birthday and the 50th anniversary of the National Historic Preservation Act. Just as these anniversaries provide opportunities to pause and reflect on what has gone on in the past to help inform the future, this publication provides a look back in time at the human activity that has taken place within Wrangell-St. Elias National Park and Preserve through a series of evocative and representational images.

The vision and impetus for this photographic journey came from former Park Historian Geoff Bleakley, with continued support through its implementation by Greg Biddle, the Park's Cultural Resources Manager. Geoff recognized the value of an all-encompassing history to be told primarily through photographs as a resource for management and interpretation/education staff, as well as for sharing with local communities and the broader public.

A cornerstone of National Park Service management is having baseline documentation of a park's resources. Historic contexts, such as this study, are a valuable piece of the process of helping a park to identify and thereby to better understand and manage its cultural resources. With author Dr. Katherine Ringsmuth's experience as both an historian and interpreter, *At Work in the Wrangells* is the successful culmination of the Park's project goals in a visually engaging history of the people who lived and worked in the Wrangells.

Janet Clemens Historian National Park Service - Alaska Region







A midwinter scene showing the conglomerate milltown of Kennecott in operation in 1937, the year before it was shut down permanently. Kennecott's closure adversely affected the region's mining economy, which never fully recovered. **WRST History Files**, "Ethel Lecount Album-Kennecott" Folder.

Acknowledgments

This book could not have been possible if not for the many people who assisted with the project. Thanks must go to Barbara Bundy for creating the maps and Frank Broderick for the book's layout design. Additionally, Janet Clemens and Eric Ringsmuth should be recognized for making important editorial catches and critiques that strengthened the text's overall continuity and accuracy. My gratitude also goes to Greg Biddle and the park's staff at Copper Center for giving me space to curate the park's photograph collection, as well as providing their time and expertise to review the final photo selection. Their collective contribution added significantly to the final work. Still, any opinions, findings, and conclusions expressed in this document are mine alone—including the errors—and do not necessarily reflect the views of the Department of Interior.

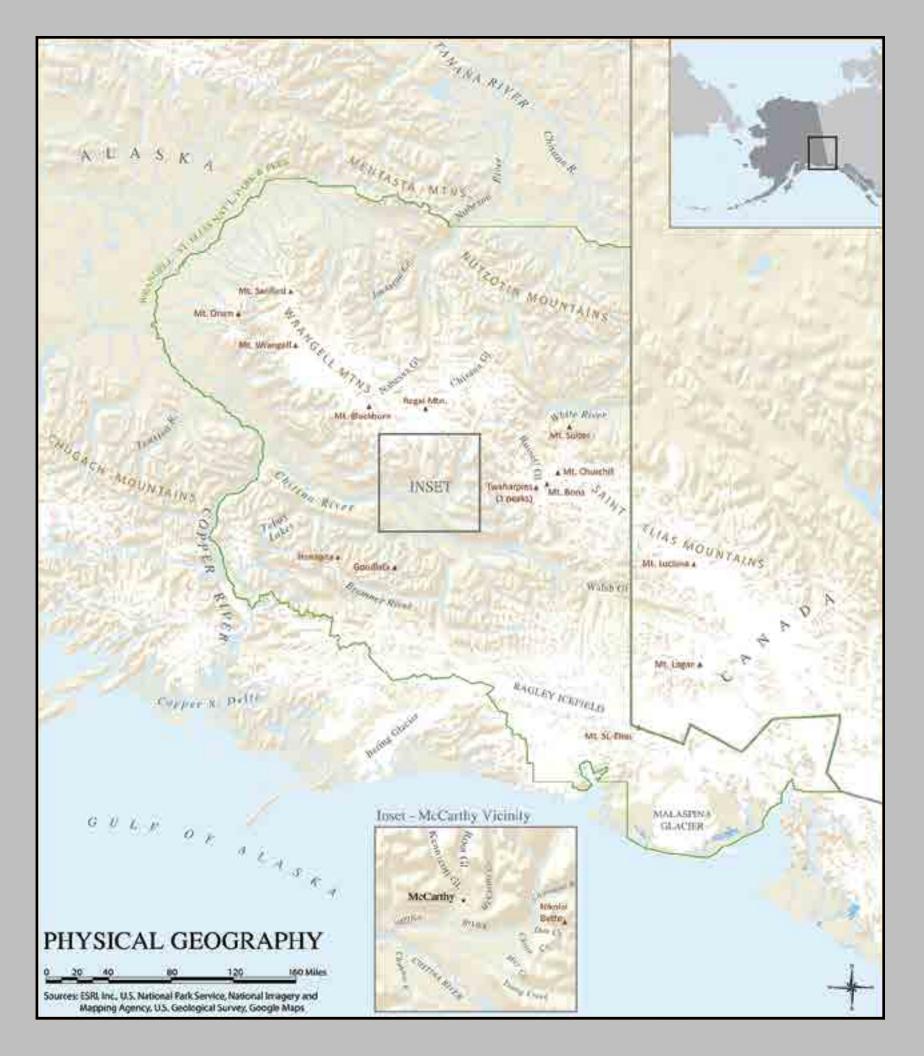
Not all the images appearing in *At Work in the Wrangells* came from the park's files. Several historically relevant images came from both public and private collections, including the Alaska and Polar Regions Collections and Archives at the University of Alaska Fairbanks, the Cordova Historical Museum, the Alaska State Library in Juneau, the Valdez Museum & Historical Archives, the Alaska Aviation Heritage Museum in Anchorage, the Archives and Special Collections at the University of Alaska Anchorage, the McCarthy-Kennicott Historical Museum, Alaska Airlines' Merle Smith Collection in Seattle, Federal Aviation Administration files in Anchorage, Charles "Buck" Wilson of Fairbanks, Gary Green of McCarthy, Charles "Bob" Leitzell of Mokelumne Hill, California, Martin Radovan Collection in Chico, California, Samme Gallaher Darnall of Thousand Oaks, California, Geoffrey Bleakley of Maui, Hawaii, Kenny Smith of McCarthy and Johanna Bouker of Dillingham.

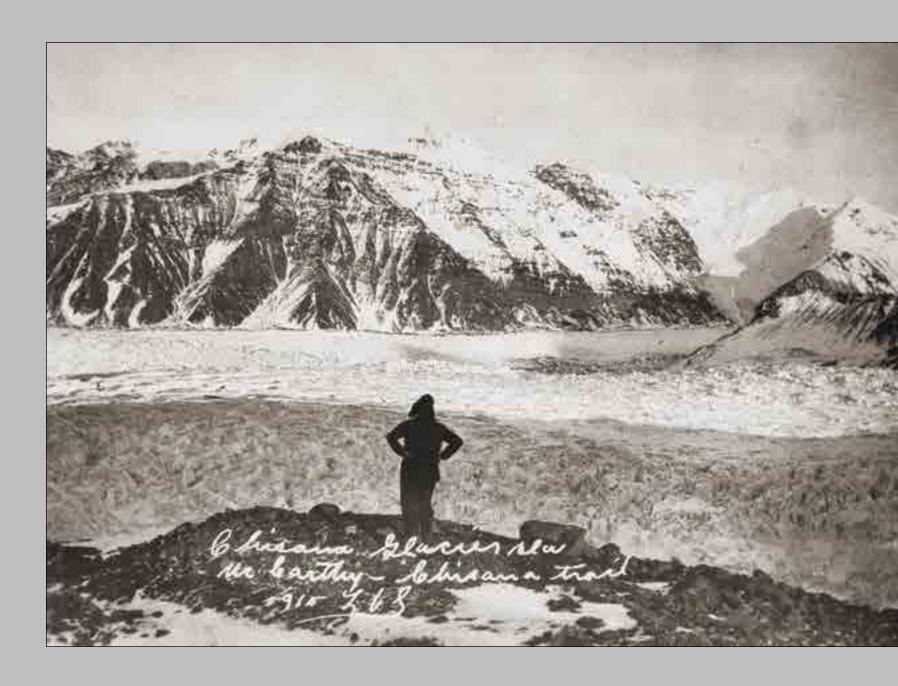
Many of the Dora Keen images were provided by Dora's descendants, including Jenny Kays and Matthew Freeman. Accompanying the images was a correspondence filled with family memories. In one email exchange Abigail Karin recalled, "I met Dora Keen when I was a young girl (six years old). She and I walked down the hill to mail a letter. She was remarkably short. Certainly less than 5 feet tall. She wore a longish skirt and sturdy boot like shoes. Her personality to me was big, sparkling and sturdy like her boots. Up to this time I only knew "mom" type of women. She seemed to live in a large world." I am particularly grateful to Walter J. Freeman M.D., Dora Keen's great grandnephew, who passed away in the spring of 2016. Before he passed, Dr. Freeman was kind enough to share a few stories about "Aunt Dodie," but most significantly, ensured that her papers and photographs would be available to future researchers.

Sadly, McCarthy lost in May 2016 an advocate for history and photo contributor to this project, James "Jim" Edwards. Few had as much reverence for and knowledge of the history of the Wrangell region. Jim refused to waste anything, and thus, became an expert in historic collecting. It was in our shared belief in the power of the past that Jim and I found mutual understanding and respect.

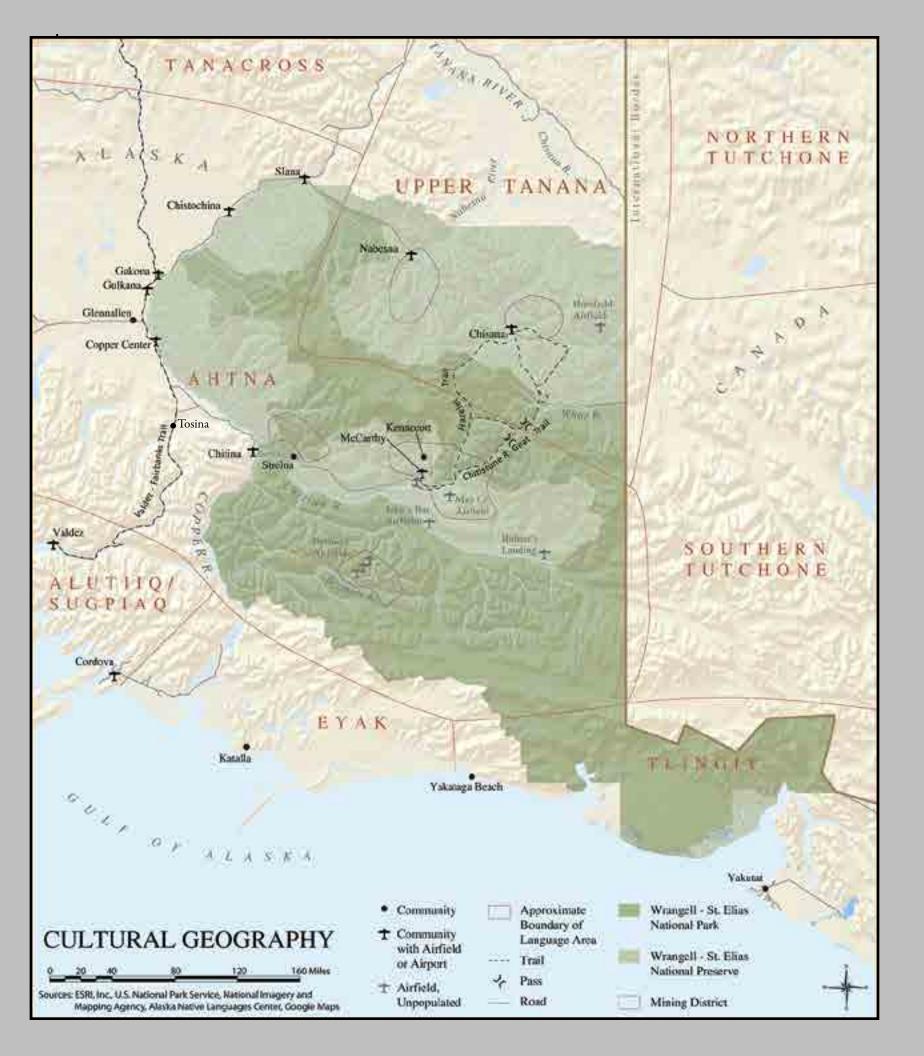
Finally, to the reader, I hope that you, too, come to appreciate the faces that appear in the following pages. For even those whose names *Time* and *History* forgot, they all, nevertheless, seem to live in a large world—a world that they engaged, transformed and connected through work.

At Work in the Wrangells Dr. Katherine Ringsmuth June 2016





The stark divide between the wet-cold climate of the coast and a dry-cold of the interior combined with the high mountain environment to create enormous snow accumulations from which drain some of the longest temperate glaciers in the world. "Chisana Glacier, McCarthy-Chisana Trail, 1915." Lewis Stanley. WRST History Files, "Trails" Folder, 902.

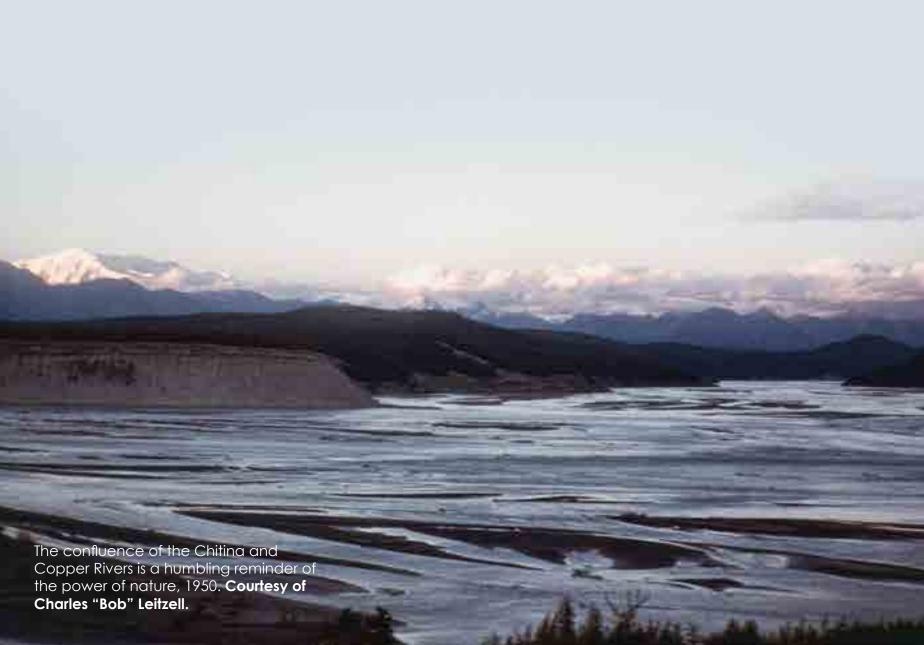




The Chisana gold strike represented the last of Alaska's famed gold rushes that occurred between 1897 and 1914. Although miners dismantled the surrounding ecosystems to find gold, they were nevertheless, embedded in that natural system. "Hamshaw's Camp," ca. 1914. WRST History Files, "Chisana Bonanza Creek" Folder, 260.

"When Nature has work to be done, she creates a genius to do it."

—Ralph Waldo Emerson, Method of Nature, 1841



The Nature of Work

As the National Park Service marks its centennial in 2016, most visitors to our wilderness places understand that their presence is fleeting, they've come only to visit and not to stay or live; they leave no trace. A tenet driving modern environmentalism is that nature should be explored—both physically and internally—rather than exploited. To them, magnificent parks such as Wrangell-St. Elias National Park and Preserve were established to prevent the type of commodification and use of nature that once connected

the Wrangells region, but left it permanently changed. Contemporary visitors tend to value the virtues of contemplative recreation that leave the Wrangells unharmed and undisturbed.1

Since the Alaska National Interest Lands Conservation Act established Wrangell-St. Elias National Park and Preserve in 1980, the visiting public has come to know the mountainous terrain as a sanctuary that contains vast picturesque vistas, snow-clad volcanic peaks, massive glacial rivers and ecologically diverse wilderness. These protected places provide worldclass opportunities for meditation and reflection, unconfined recreation and adventure in a remote setting that seems to exist outside of time itself. In fact, the purpose of Wrangell-St. Elias National Park and Preserve is:

"To maintain the natural scenic beauty of the diverse geologic, glacial, and riparian dominated landscapes, and to protect the attendant wildlife populations and their habitats; to ensure continued access for a wide range of wilderness-based recreational opportunities; [and] to provide continued opportunities for subsistence use."2

Passive musing and leisure activities are important ways to both engage oneself with and to contemplate the importance of the natural world that Wrangell-St. Elias National Park and Preserve was founded to preserve for future generations. But work and nature are also deeply connected in the Wrangells' past, as underscored by the park's recognition that the region's cultural

heritage also reflects fundamental economic values. According to the park's Foundation Statement:

"Preserved within Wrangell-St. Elias National Park and Preserve is abundant evidence of more than 3000 years of cultural and technological development. This long history reveals a range of human adaptation to changing climates, environments, and economic circumstances."3

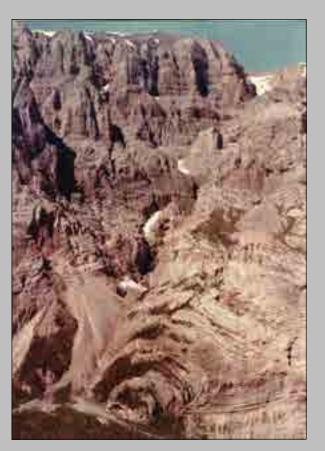
Those "economic circumstances" are significant because they explain the Wrangells as an "inhabited wilderness," where cultural

> encounters and economic exchanges took place over three millennium. At first these interactions occurred among the various indigenous communities

that occupied areas surrounding the Wrangells and clustered around exploitable natural resources. Everything that the original inhabitants needed or traded came from their traditional homelands. Then, Russians fur traders colonizing coastal areas introduced foreign "economic circumstances" that extended the transactions of natural resources beyond Alaska. Finally, additional economic strategies and relationships developed between Alaska Natives, a few remaining Russians, and an array of ethnically diverse Americans and other immigrants, as the Wrangells became an area of interest to an industrializing

As interactions and exchanges between culturally diverse groups increased throughout the Wrangell region, their varying, and often times, competing "economic circumstances" served as their primary purpose for being there—their raison d'être. Moreover, those circumstances ascribed different values to the Wrangell's natural resource wealth. How each group

valued nature, dictated their actions, attitudes, and relationships within shared spaces. The disparate values of nature, therefore, created a variety of lifeways in the Wrangells—or, to put it another way, ways in which different people worked to live. It is only through reminders of such "economic circumstances" that we can begin to understand work's historic and cultural values in the Wrangells as well as its environmental costs.



The merging geological deposits of Nikolai Butte at Dan Creek represent terranes that, through the forces of plate tectonics, migrated from other parts of the globe. Courtesy of the Radovan Family.



Native children were expected to work hard. Parents and elders instructed their youth so that they developed the skills essential for survival. Boys played with small bows and arrows, learned to make tools and weapons, and at a young age accompanied their fathers on hunting trips. Girls learned to tan skins, sew, and cook, played with dolls, and were expected to look after smaller children. Laziness was unacceptable and children underwent rigorous physical training. Storytelling during the long winter months taught children the traditions and taboos and provided essential information about the environment (Haynes and Simeone, 114). Alaska E.A. Hegg, Photographer. WRST History Files, "Ahtna" Folder, 199.

Work in the Wrangells, then, provides a common thread that connects human populations and their changing "economic circumstances" through time and place. As a conceptual framework, work informs us as to how Alaska Natives came to know the transforming land and dealt with the transition to the fur trade and later, a cash economy; how humans created innovative and technologically impressive transportation and communications networks in order to adapt to and overcome natural barriers; how newcomers built a recognizable society in a completely foreign environment; and how Thomas Edison's invention of the incandescent light bulb, and the subsequent development of electrical power, sparked a global demand for copper, which

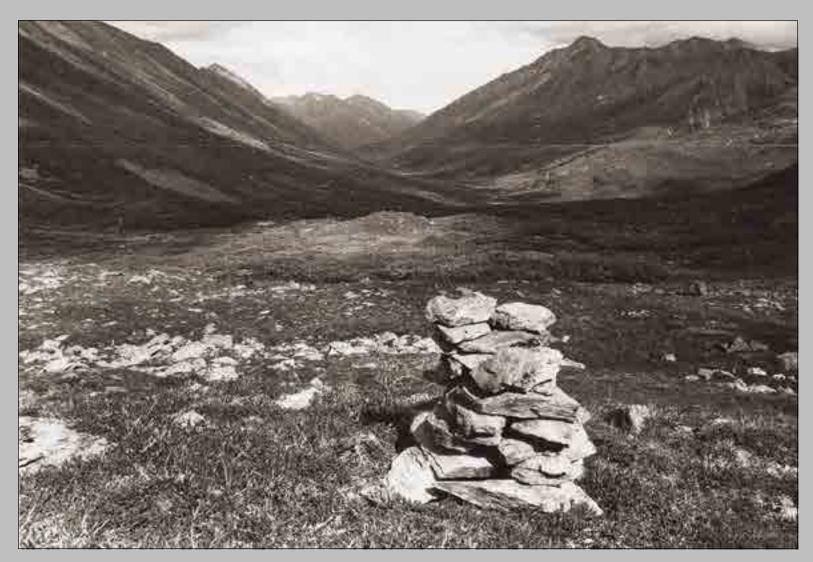
linked two names synonymous with Gilded Aged capitalism to the Wrangells—Morgan and Guggenheim.

Even the Wrangell's dynamic landscape and its interconnected natural systems are actively at work. Plant life coverts sunlight into energy. Glaciers move earth like bulldozers while the region's massive rivers flood, erode, and ultimately rearrange the topography. Pacific salmon returning to Copper River tributaries transport caloric energy from the ocean, which fuels multiple, working components of the biome. Wildlife migrates, salmon spawn, plants bloom, ice reflects, climate shifts, seasons change, rivers converge, glaciers carve, volcanoes erupt, tides ebb and flow; even the land itself is on the move.

The powerful Wrangell Mountains landscape formed millions of years ago when northward drifting tectonic plates containing alien rock collided and, slowly and incrementally, extended the ancient North American continental margin.⁴ Such geological forces built a mountain chain and, in the process, brought molten rock magma containing copper closer to the surface. Besides being a source of wealth for Ahtna traders and American miners, copper is a basic building block of the universe, one of the ninety-two atomic elements which occur naturally on earth and from which all other substances are made. Copper was slowly fused in "supergiants," the biggest stars in the cosmos.⁵ Thus, over the course of millions of years, massive interstellar furnaces forged the Bonanza Ridge copper deposits that drove Native trade and American capitalism in the Wrangells. From this standpoint, work is where we should begin.⁶ The problem with using work as a conceptual framework for interpreting history—especially history that occurred within national parks and wilderness areas—is that the activity of work

has often been dismissed, disparaged or confused with the modern notion of "conquering" nature. But according to environmental historian Richard White, "we have obscured and are only slowly recovering [understanding] that labor rather than 'conquering' nature involves human beings with the world so thoroughly that they can never be disentangled." Therefore, instead of controlling the Wrangells' natural landscape, human beings were utterly immersed within it.

People came to know the commanding Wrangell landscape through back-breaking, and at times, deadly labor the that rivers, glaciers, and mountains demanded of them. They caught and killed salmon, harvested timber and harnessed the power of animals and water. They endured the relentless heat in summer and the frigid cold in winter. They labored against the deceptive flow of braided river currents and navigated the dangers of glacier crevasses and mountain trails. They read the landscape to find water, food and shelter. They



A rock cairn marks the head of Golconda Creek Valley, situated in the Bremner Mining District. **Sylvia Baldwin Collection. Courtesy of Paul White.**



Pilot Harold Gillam flew the C2B biplane NC 5415, owned at the time by the Wien brothers, on the international search for missing pilot Carl Ben Eielson and his mechanic Earl Borland. Wein later sold the plane to Merritt "Kirk" Kirkpatrick, who used it to fly the Copper Belt Line for Cordova Air Service. To pilot the plane, Kirk hired Merle Smith, who was stationed in those early years at McCarthy. C2B Biplane tied down at the McCarthy airstrip, ca. 1937. Archives and Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0138-28d.

told time by changing tides. They hauled, pulled, and carried their bodies and few worldly possessions through snow, ice, mud, muck, and mosquitoes. They dug deep into the earth—ground they called "pay dirt." They pitted themselves against the elements, and eventually overcame nature's obstacles. They used industrialized technology to span rivers, dismantle entire ecosystems and domesticate the most distant and wild landscapes. They connected the Wrangells to a network of global markets and economies. Through these laborious interactions, humans created knowledge of the Wrangells' world and forged a deep connection to it. As White writes, "It is our work that ultimately links us, for better or worse, to nature."

CREATING CONTEXT

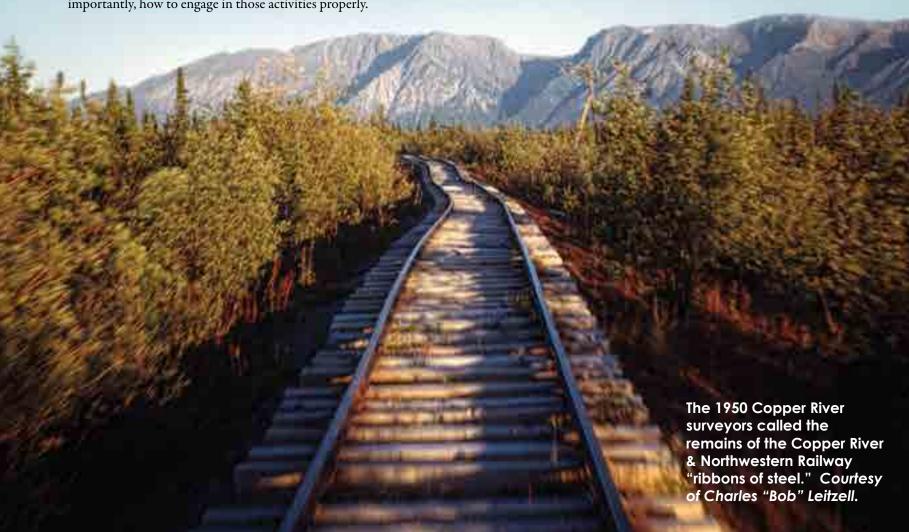
At Work in the Wrangells: A Photographic History, 1895-1966 aims to illustrate the interconnected work of humans and nature, that together made history in Wrangell-St. Elias National Park and Preserve. Rather than chronological, the book's ten chapters are thematically arranged. The selected photographs exhibit various aspects—or contexts—of human work in the Wrangells: subsistence lifeways, mining, transportation, commerce and government services, "women's work," aviation, sport hunting, mountaineering, science and exploration and tourism. The epilogue recognizes the importance of play that gave those who labored within the Wrangells

brief moments of reprieve from their incessant working lives. Like nature's workshop, these historic categories constitute a network of interrelated, moving parts that contribute to a broader, more encompassing interpretation of 20th century life in the Wrangells.

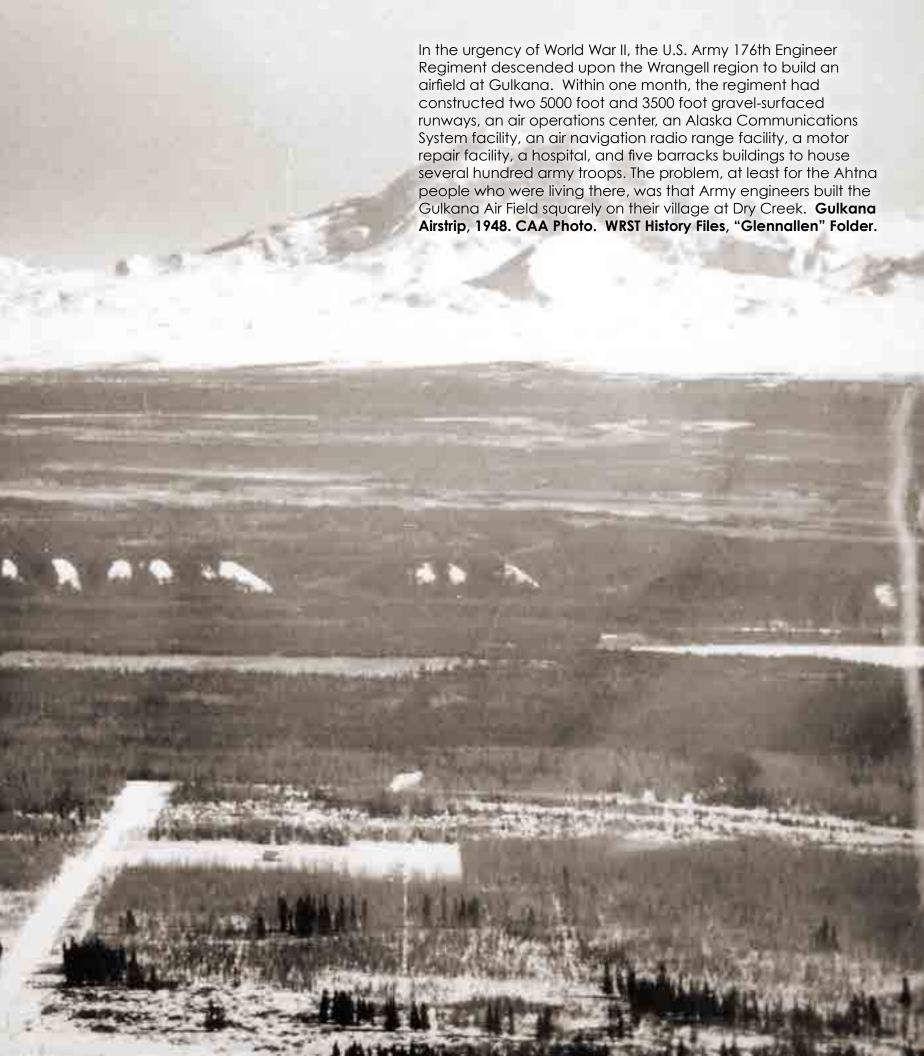
The Wrangells' Native subsistence cultures innately understood the importance of work, an ethos that persisted throughout the 20th century and into modern times (see chapter 1). Work meant life. Period. To early Ahtna, Upper Tanana, Southern Tuchone, Yakutat Tlingit and Eyak, no luxurious choice existed between work and play. If Native people were prevented from laboring, severe consequences resulted. Through work and labor, they gained a highly, sophisticated understanding of the Wrangells' riverine and coastal environments and the mobile prey that dwelled within those places. Their adaptive skills and technology perfectly embodied such knowledge. Competent fishermen and hunters provided for the village, but it was the wisdom of women, who developed ways to preserve and store fish and other foodstuff, that kept the village fed and clothed well into the winter. Native place names and oral testimony reveal keen awareness of seasonal rhythms and a deep geographic familiarity with the Wrangell landscape. Such knowledge served as a kind of instruction manual, informing future generations of Native and later, non-native subsistence users as to the best places to hunt animals, catch fish, pick berries—and, most importantly, how to engage in those activities properly.

By the early twentieth century mining had become the nucleus of working life in the Wrangells (see chapter 2). Although both gold and copper miners left a record of unrestrained and often destructive exploitation of rivers and streams, they were nevertheless imbedded within the Wrangells' natural world through their work. Miners hauled hundreds of pounds of gear over and across the rugged topography using nothing but their own strength, will, and luck. They crossed passes, endured bitter cold, and learned to maneuver melting ice. Miners came to know the soil, sand, rock, gravel, permafrost, ice, water, vegetation, forests, salmon, bears, moose mosquitoes, caribou, and all the other organisms that made up the Wrangell ecosystem. Although miners saw themselves on a journey away from civilization, they remained creatures of an industrialized economy and transported American capitalism to Alaska. Their mining activities opened up the territory—physically, economically, politically—and placed the Wrangell Mountains into the American consciousness.9

The Wrangell's remoteness and inaccessibility shaped and organized its work culture. It took the titanic wealth of American corporations to develop the rich copper deposits at Bonanza Ridge, and hundreds of workers to reach them. The powerful Alaska Syndicate financed the construction of the conglomerated mill town of Kennecott,







which perched upon a lateral moraine carved by the converged Kennicott and Root Glaciers. Although a technological marvel, the nearby peaks of Mount Blackburn, Mount Atna, and Regal Mountain, each bulging with ice, dwarfed Kennecott's industrial landscape. Employees rode trams to their work locations at the Bonanza and Jumbo mines that tunneled for miles into Bonanza Ridge. Miners lived in bunkhouses built high above this extraordinary scene, sculpted by both people and nature.

At first humans utilized the energy of both dogs and horses to carry provisions along well-traveled foot trails, across rivers and glaciers, and through the Wrangells' mountain passes. But the discovery of copper at Kennecott stimulated the rise of "modern distancediminishing technologies," which brought advanced transportation networks that granted access to valuable mineral deposits and gave mine owners the means to ship supplies in and ore out (see chapter 3). The center of the transportation grid was the Copper River & Northwestern Railway, which spanned 192 miles from Kennecott to the coastal town of Cordova. Thanks to the expertise of highly trained engineers, the railway overcame nearly impossible obstacles: swamps of the Copper River delta, coastal glaciers, and the rocky cliffs of the Copper River canyon. In four years, railway workers chiseled roadbed from sheer rock, laid track on a moving glacier, and bridged the immense Copper River. After completion, nature continued to pose significant barriers, for winter's snow drifts,

ice dams and floods of spring break-up forced the building and rebuilding of bridges and trestles almost annually.

The combination of railway construction and new mineral discoveries attracted hundreds of stampeders to the Wrangells. Settlements such as Chisana and Nabesna grew, while miners, spilling into transportation hubs like Chitina and McCarthy to purchase goods and supplies, perhaps even to eat a hot meal and sleep in a warm bed, transformed those places into commercially prospering towns (see chapter 4). The Copper River & Northwestern Railway reduced exponentially what was once an unthinkable expense for local businesses to transport manufacturing materials, processed canned foods and other consumer merchandise into the Wrangells. As demand—especially from Kennecott employees—increased, commercialization linked the Wrangells to American industry and markets, which allowed residents to mirror the consumer culture being embraced by the rest of the United States.¹¹

Besides dogged miners, corporate industrialists, and local entrepreneurs, another agent integrating the Wrangells through transportation and communication linkages was the federal government (see chapter 4). Rather than financial, the government's interest was to increase services that facilitated permanent settlement in the region. The federal government shipped the mail to Cordova, and then, authorized Star Route contractors to carry first class mail



by dog teams to destination throughout the Wrangell region. Routes radiated from populations hubs such as Chitina and McCarthy to connect the most isolated individuals. Sprouting up around the dog team mail carriers was an elaborate business system, from sled makers to sellers of dried salmon to feed the dogs. ¹² Along the trails, roadhouses catered to the teams, supplying overnight lodging, food, and dog care. Other federal projects involved the U.S. Army Signal Corps, which began laying a system of cables and telegraph lines, known as the Washington-Alaska Military Cable and Telegraph System (WAMCATS). In 1903, the Signal Corps began construction of a WAMCATS line along the Valdez-to-Eagle trail. This made the Valdez trail one of the most important access routes to the Alaska Interior.

By extension, government services also supported the dissemination of mining throughout the Wrangells. Prospectors worked the gold streams at Dan Creek and the surrounding copper belt of the Nizina Mining District. From Dan Creek, prospectors could search for minerals up the Chitistone River and Glacier Creek, over Skolai Pass, and into the White River and Nutzotin Mountains or down towards May, Chititu and Young Creeks, and into the Bremner River region. In order for prospectors to move supplies into those rich areas from the Copper River & Northwestern Railway, the Army's Alaska Road Commission built hundreds of miles of trails, wagon roads, and winter sled roads. Most significantly, the Alaska Road Commission constructed a ten mile wagon road from McCarthy and a sturdy bridge across the Nizina River that supported the network of roadhouses and the other cottage industries that materialized along the routes.¹³

The surging mining industry, as well as the ancillary businesses, attracted a mix of people to the Wrangells: Americans, Europeans, Asians, Alaska Natives, and, contrary to popular belief, women, too. Indeed, an assortment of the Wrangells' workmen were women (see chapter 5). Women came to the Wrangells as the wives or partners of male miners. But others arrived on their own initiative and supported themselves through the work available to them. Women mined alongside men. They served as cooks at mining camps. Others found employment as secretaries, teachers, and nurses. Women served as missionaries, activists, and prostitutes. They also climbed mountains, grew gardens, patronized business and conducted ambitious scientific and archeological fieldwork. These women worked in a culture that expected them to bear and care for children. Their presence transformed mining camps into communities, but they were hardly passive. Women brought beauty to an industrialized landscape, shaped social systems, and provided a necessary and important work force. The distinctions among women, particularly differences in race and class, show that many narratives still wait to be written about women workers in the Wrangells. The lens of work, then, exposes a richer, more multidimensional perspective of women that can better explain how



The Army's Alaska Road Commission built hundreds of miles of trails, wagon roads, and winter sled roads to encourage settlement, which also supported mining throughout the Wrangells. "Chitina River." WRST History Files, "Alaska Road Commission" Folder, 1076.

gender and diversity fit into the economic structure in the Wrangells through labor.

While mining stimulated transportation, commercialization, and incorporation in the Wrangells, and brought an influx of newcomers into the region, it also lifted aviation off the ground (see chapter 6). Thanks to New Deal legislation that doubled the price of gold, air transportation became increasingly affordable to the lode mining industry. But when Kennecott closed and abandoned the railway, aviation had to diversify or face permanent grounding. As aviation became more commercialized, mechanical flight replaced



The majority of women who worked at Kennecott were either teachers or nurses. These women arrived at the milltown single, but, according to witnesses, they didn't stay single for long. Because management prohibited married women to teach school, Kennecott kids recall that this led to the trend of a new teacher for practically every new school year. Al Nikolaus and unidentified nurse near the Staff House. WRST History Files, "Ethel Lecount Album-Kennecott" Folder.

mining as the region's economic engine. Pilots found their niche hauling freight, people, and the mail to the hundreds of roadless communities that dotted the region.

When the federal government deemed gold mining nonessential to the war effort, Wrangell Mountain flyers provided vital air support for the construction of the Lend-Lease airfield at Northway. Aviation took off as wartime engineers assembled an aviation infrastructure while American industry produced modern aircraft for the jet age. After the war, aviation created new economic prospects by carrying Boone and Crockett trophy hunters and elite mountaineers to new heights. Pilots aided exploration by transporting scientists to unknown regions and supported geologists, tasked with mapping the region, with aerial reconnaissance. Over the decades, Wrangell Mountain flyers provided isolated communities access to economic systems, commodities and medical care, while allowing residents to maintain a wilderness lifestyle.

Environmentalists, however, increasingly began to view aviation as a symbol of mechanization and development that threatened the Wrangell's natural world. Pilots, on the other hand, made a living soaring over a natural world that posed relentless threats to them. Sharp winds from the coast swept inland, tumbled across mountains and created downdrafts as rough as waterfalls. Shifting fog from the sea shrouded planes in blankets of mist. Wings encrusted with frost prevented aircraft from taking off. Temperature inversions made it colder at ground level, raising havoc on landing planes. Whiteouts, blizzards and brilliant, blinding light were commonplace hazards. Wrangell Mountain pilots flew in an environment where temperature variations ranged from 80 degrees above to 80 below zero, light conditions varied from continuous daylight in summer to near continuous darkness of midwinter. The pilots' work required expertise equal to that of climatologists, biologists and glaciologists. To be successful, they had to become students of their environment. As Wrangell Mountains flyer Jack Wilson recalled, "I spent every minute memorizing my route."14

Where work starts to take on attributes of adventurous recreation is in the affluent pursuits of sport hunting and mountaineering (see chapters 7 and 8). Hunting and trapping began as crucial subsistence activities that extended to trade during the Russian period. ¹⁵ In the early American period, hunting expeditions to the northern flanks of the Wrangell Mountains supplied zoological specimens for the United States Biological Survey and Smithsonian habitat displays. The gold fields became game fields, as trophy hunters replaced disappointed gold prospectors along the Wrangells' northern slope. Although Progressive era, upper-class sportsmen promoted fair-chase etiquette, intensive and highly competitive sport hunting after World War II caused significant drops in sheep populations in hunting grounds throughout the Wrangells. ¹⁶

Likewise, mountaineering often crossed into areas of mapping and surveying, prospecting, geological reconnaissance, and scientific exploration, but for peak-baggers belonging to Ivy League 'clubs' and who executed climbs in 'parties,' there was nothing blue-collar about their mountaineering endeavors. Their primary purpose was to make history by becoming the first to ascend unclimbed peaks.¹⁷ Thus, it is difficult to make the argument that trophy hunting and mountain



Kennecott youngsters associated their childhood with their parents' workplace. But unlike their parents, kids used their imagination and not their work to transform the surrounding environment. Perhaps that is why children of miners were best able to embrace the wonder of the Wrangells—a fascination that drew them back as adults. "Mother with 2 young children." WRST History Files, "Friends of Kennecott Collection" Folder.

climbing are economic necessities, and instead, are luxurious expression of play. As mountaineer Dora Keen observed, "No one in Alaska climbs mountains except for gold." Not surprisingly, both activities would later provide figurative evidence for the modern notion of 'conquering' nature.

Still, sport hunting and mountaineering provided work to guides, outfitters, horse trainers, packers, and later, aviators. Technology also shaped both activities, as breakthroughs in outdoor equipment, initially intended for the U.S. fighting soldier, supplied hunters and mountaineers with lightweight backpacks, insulated clothing, durable tents, and freeze-dried foods.¹⁹ Enthusiasts would argue that instead of prevailing over nature, trophy hunters and mountaineers often failed, and whether reaching their goal or not, they developed deep respect for the animals and mountains of the Wrangells through their pursuits. As trophy hunter George O. Young recounted,

"I trust that I may be able always to retain in my mind the picture of that wilderness. The majestic mountains and valleys; the yawning chasms; the great rivers and the monstrous glaciers which feed them; that I will always keep fresh the memory of the Northern Lights, the azure skies, the glorious sunsets, and the beautiful mountain sheep as they grazed so peacefully on plots of green, or wound their way over lofty crests." ²⁰

Outdoorsmen considered sheep hunting and mountain climbing admirable sports because both require specific knowledge of the environment, enormous physical strength, and the courage to risk bodily harm or even death. Simply put, trophy hunting and mountaineering demanded hard work.²¹

But unlike the sport hunters and mountaineers, or, for that matter, the miners, railroad engineers, and aviators whose laborious relationship to nature was a bi-product of their work, it was the professional assignment of scientists and explorers to study the Wrangells' natural world (see chapter 9). Knowing nature in its multiple dimensions and interconnected working parts, was, in essence, their livelihood. The intersect of work and nature even produced a special occupation that became integral to the National Park Service; for specialists who spread knowledge of the laws and forces of nature were called naturalists.

The U.S. Army sent exploration teams into the Wrangells' uncharted terrain with orders to inventory newly acquired natural assets, to map potential access routes, and to assess risk—which included the Native people they encountered. Early explorers made observations of the animals, volcanic activity, glaciers, the weather, and even speculated on the Asiatic origins of Alaska Natives. Trailing the Army explorers were federal geologists, who were sent to determine the economic potential of the region's mineral prospects. The



The photographs assembled throughout these pages offer a glimpse into this world of work. Many of the photographers who captured these moments in time were doing so as an expression of their own work. Filming at Jumbo Mine. Jean Jirard Collection. WRST History Files, "Kennecott-Jumbo Mine" Folder.

U.S. Geological Survey explorations produced reports that contained 'useful information' in 'untechnical language' that informed prospectors and business entrepreneurs alike. The federal government's relationship with private investors cultivated the new field of 'economic geology,' which linked the Wrangells to the nation's growing industrial and electrical markets.

Other experts quickly followed. Geologists employed by oil companies scoured the coastal areas for potential fossil fuel sources, volcanologists came to study the region's active volcanoes, and the world's largest non-polar icefield drew glaciologists. The Wrangells became a learning laboratory for scientists studying the theory of plate tectonics. Archeologists helped to shed light on the region's

ancient ethnographic history. The unique bird species, spectacular mega fauna and massive fish runs brought fisheries and wildlife biologists to regulate the Wrangell's creatures for conservation and commercial purposes.

Escalating tension with the Soviets and the alarming possibility of turning the Cold War "hot," prompted the 1950 Copper River Survey to begin mapping a route that would convert the old Copper River & Northwestern Railway into a road. The road, although never built, was meant to facilitate the exploration of strategic minerals that powered the nation's nuclear industrial complex. To prepare for an enemy invasion of Alaska, military defense strategy directed physiologists with the U.S. Air Force to conduct tests



Today, visitors to Wrangell-St. Elias National Park and Preserve feel connected to nature through recreation and play rather than work. But as Richard White has pointed out, play in nature often "mimics work," and in the case of the Wrangells, our recreation mimics history, too. On the trail to Bonanza Mine. WRST History Files, "People" Folder, 862.

that would determine the effects of cold weather on the human body. The ability to work in high altitudes—at the top of Mount Wrangell—also allowed scientists to study cosmic rays, particles from space that connect Earth—the Wrangells—with the edge of the known universe.²²

But despite the intellectual bond, scientists and explorers came to know the Wrangells' natural world equally through the physical

hardships their work required. Henry Allen and his men nearly perished on several occasions, as they explored and mapped the Copper River. Every movement into the wilderness demanded brainpower, while simultaneously, drained muscle power. Omitted from USGS reports are accounts of the sweat, exhaustion, and energy the geologists expended in order to reach and then evaluate remote mining sites. To obtain and interpret meaning from oral testimony, archeologists had to match the agility of the Native people and their ability to move through the natural landscape.

Although scientists at work atop Mount Wrangell utilized aviation, they still had to ski down to the drop site and haul supplies and equipment back to camp with sleds. Each day they endured the physiological effects of working at high altitudes, which could impair vision, memory and attention and cause dehydration, nausea, and lack of energy. Copper River surveyors encountered equally significant obstacles. They compared the Copper Canyon to "a monster wind tunnel" and noted the chunks of ice on the river that made boat use too dangerous. In his report, project director Jack Nimmemen described the Wrangells' as a competitive foe, writing that the surveyors were "in a race with the weather."²³

The postwar years brought significant change to working life in the Wrangells. The 1950s witnessed the near collapse of the Wrangells mining industry, but the massive build-up of aviation opened new doors for the fledgling tourist industry²⁴ (see chapter 10). In a report entitled Alaska's Recreational Riches, economic planners for the Alaska Development Board declared that "Alaska is one of the great tourist areas of the world, and so far its recreational resources have barely been tapped."25 Not only would air carriers replace miners with tourists as their major clientele in the postwar era, but some, like Merle Smith's Cordova Air Service, would promote the sagging mining industry as a source of nostalgia to attract curious visitors to the ghost towns of the mythic "Last Frontier." 26 Smith wagered that the mystique and novelty generated by pioneer life on the edge of civilization would fascinate tourists. It turns out that Smith's bet paid off. Although his tours replicated an idealized past, Alaska sourdoughs and the Wrangell wilderness itself would become marketable commodities that has shaped work in the Wrangells ever since.27

Finally, play coincided with work, albeit briefly, on the Wrangells economic landscape (see epilogue). Holidays were particularly significant because, at least in part, they gave Wrangell workers time-off from hard work. And during this precious time, especially on breaks like the Fourth of July, these workmen played. Workers throughout the region converged enthusiastically in camps, settlements and towns, where they held parades, ran foot races, and engaged in other spirited rivalries. Holidays, although fun, served several other purposes as well. Celebrations created a sense of the familiar for miners and their families living far from home. The gathering of communities helped individuals cope with the pressures of working in isolation. Whether



Cosmic Ray physicist Charles "Buck" Wilson takes a break from his work to soak in the view from the Mount Wrangell Observatory in 1952. **Courtesy of Charles "Buck" Wilson.**

it was baseball on Independence Day or ice skating at Christmas, managers at Kennecott used game playing and revelries as a way to address conflict and build camaraderie among employees. Perhaps most significantly, national holidays promoted Americanization, as flag-waving, pilgrim-honoring, pageant-performing traditions made their way north. Celebration and play helped cultivate isolated work camps into integrated communities that replicated the social and economic values of American culture.

With the likely exception of Native youth, one of the few groups who did not work in the Wrangells were children. The young used their imagination and not their work to transform the environment. Perhaps that is why children of miners were best able to embrace the wonder of the Wrangells—a fascination that drew them back as adults. Kennecott kids recognized that growing up in such an astonishing place made their lives special.²⁸ And while 20th century

society considered play virtually synonymous with childhood, these Wrangell youngsters associated their childhood with their parents' workplace. Children of Kennecott employees understood why they were there, and when they abruptly departed with the mine's closure, the Kennecott kids left behind more than their personal items. As Jean Elizabeth (McGavock) Lamb recalled:

"In early June of 1937, Mother and Jim and I boarded the train for our last trip to Cordova and "Outside," leaving the Kennecott scene of our childhoods behind....My father followed us in the fall of the year, thus ending our life in Kennecott. Mother and Dad were never able to return, even in late years, to visit what has become a national relic [landmark]. But Jim and I are drawn by that powerful call of the North Country, to return again and again to visit that site of our childhoods where, for us, something seems still unfinished." ²⁹

HISTORY EXPOSED

Even the photographers who captured these moments were doing so as an expression of their own work. Although Henry T. Allen brought along a camera, and made numerous glass-plate photographs at considerable effort, they were later lost by a messenger. Today, the only images representing the work from that expedition are the sketch drawings and maps, which were included in his important "Report of An Expedition to the Copper, Tanana, and Koyukuk River, in the Territory of Alaska, in the Year 1885."30 Unlike most of the Wrangell photographers, P.S. Hunt was a professional, who took some of the most evocative early images the Copper Basin. His shots the Copper River & Northwestern Railway gained the attention of the Alaska Engineering Commission, which made Hunt the official photographer of the Alaska Railroad.³¹ Other early images come from U.S.G.S. geologist Stephen Capps, who snapped photos while assisting Fred H. Moffit survey the Nizina District. He returned to lead the survey of the Chisana-White River country in time to capture photographs of the Chisana gold rush. Thanks to Dora Keen's descendent, Jenny Kays, several photographs documenting the first attempted ascent of Mount Blackburn are presented in the following pages for the first time since Scribner's Magazine published them in 1912.32

Russell Dow studied engineering and aerial photography at the Institute of Geographical exploration at Harvard University. Dow participated in Bradford Washburn's famed expedition into the Wrangells, and although Washburn drew world-fame for his photographs, it was Dow behind the lens snapping pilot Bob Reeve's mudflat takeoffs and record-breaking landing on Walsh Glacier. Other photographs detailing work in the Wrangells include those taken by anthropologist Frederica de Laguna. These images documenting the working life of Yakutat Tlingit were selected from a few hundred images gathered by De Laguna for her groundbreaking ethnographic study, Under Mount Saint Elias: The History and Culture of the Yakutak Tlingit. Additional images capturing subsistence life and economic and cultural change in Yakutat Bay were taken by Japanese photographer Shoki Kayamori. Kayamori came to Yakutat to work at the local cannery. In an atmosphere of wartime hysteria, the Japanese photographer committed suicide after being accused of spying. Though determination of his guilt or innocence remains inconclusive, his photographic legacy is clear: Kayamori's photographs show how American economic systems eclipsed local custom; how commercialization, socialization and racism spread across Alaska; and how compared to the power of nature we humans are at its mercy.

Many of the postwar photographs were also taken by scientists who worked in the Wrangells. Charles "Bob" Leitzell, who was a surveyor on the 1950 Copper River Survey, captured numerous images dating from 1950 to 1954. His photos depict an array of activities in the Wrangells, including the survey work between Chitina and the

Million Dollar Bridge on the old Copper River & Northwestern Railway alignment, retro-tram crossings of the Copper River, early fly-in tours to McCarthy and Kennecott—even the haunting of Chitina's ghosts. Charles "Buck" Wilson was a physicist assigned to the 1953 Wrangell Expedition.³⁴ In 1952, the University of Alaska established a high-altitude research laboratory on the Summit of Mountain Wrangell. Wilson's photographs illustrate the researchers' scientific undertakings, including an Air Force C-124 cargo plane air dropping two Jamesway huts and equipment onto the mountaintop.³⁵ The images show the assembled two huts on the exposed rim of the north crater, known as Hut Ridge, and the cosmic ray researchers at work atop Mount Wrangell.

The photographs assembled throughout these pages offer a glimpse into this world of work. A majority of these images came from the park's "History Files," located at Wrangell-St. Elias National Park and Preserve headquarters in Copper Center, Alaska. It should be noted, however, that many of these images are copies that were gathered years ago from collections housed at institutions such as the University of Alaska Fairbanks, the University of Washington, the Valdez Museum & Historical Archive, the Anchorage Museum, the National Archives, and the Washington State Historical Society and the Tacoma Public Library in Washington state. It should be the practice of users of these park files to seek permission from the original sources. Readers familiar with the park's core history studies, authored by historians such as William Hunt and Geoffrey Bleakley, will find many of these photographs iconic and instantly recognizable. But also included are numerous images that reflect the park's more recent historical research and associated themes. These photographs, many of which are published here for the first time, came from numerous repositories, including private collections, and introduce readers to a variety of new faces that formed the Wrangells' historic landscape.

Moreover, it is important to note that At Work in the Wrangells: A Photographic History, 1895-1966 is not a comprehensive history. It is intended to point to potential research rather than to provide it. The year 2016 is the publication date for At Work in the Wrangells, and it also commemorates the passage of the National Historic Preservation Act of 1966. Thus, besides framing the book's timeline, the selected dates, 1895 to 1966, mark the introduction of photographic technology into the region and the Act's 50 year anniversary. Because properties are typically at least 50 years old to be eligible for listing in the National Register of Historic Places, then properties identified in this study that meet the national register criteria may potentially become nominations for future listing. Additionally, the ten identified themes may provide new contexts for historical significance, as well as contribute fresh content for park tours, exhibits, and visitor programs.

Today, visitors to Wrangell-St. Elias National Park and Preserve feel connected to nature through recreation and play rather than

work. But as Richard White has pointed out, play in nature often "mimics work," and in the case of the Wrangells, recreation mimics history too. Our hikes follow the footsteps of ancient Ahtna traders. Back-packers labor across the land for solitude rather than mineral wealth. Scenic flights carry passengers over glacier routes once used by pack trains. RVs now travel along the old railway bed, and curious campers can wander through the abandoned relics of an aged industrial landscape and imagine what life was like back then. The most satisfying moments often come when we overcome nature's barriers through hard work: reaching the ridgeline sweaty and out of breath, skiing down the face of a razor-sharp peak, and traversing a blindingly blue glacier on crampons.

Broken machinery, rusted tools, and skeletal remains of mines and technology are enduring reminders of the past that still give voice to those who worked in the Wrangells. Besides connecting the region to the larger world, these voices connect the past to the present. These voices tell us, through their words and photographs, that they valued the wonders of the Wrangells' natural world beyond a monetary wealth. But work mattered to them, and through their laborious activities they came to know and respect the power of that natural world. These voices remind us that instead of ignoring or erasing the human marks on the land, we should interpret them so that future visitors can understand just how tangled the natural and human story of the Wrangells truly is. According to White, "We cannot understand human history without natural history and we cannot understand natural history without human history. The two have been entwined for millennial." Indeed, as historian William Cronon confirms, "Nature alone cannot explain landscape. You need history too." 36

"We cannot understand human history without natural history and we cannot understand natural history without human history. The two have been entwined for millennial."

-Richard White

These structures, positioned atop the shield volcano Mount Wrangell to study cosmic rays, represent the start of the Wrangell Mountain Observatory, which became the impetus for the Geophysical Institute at the University of Alaska Fairbanks. The camp on Mt. Wrangell at 14,000 ft. with Mt. Blackburn in the distance, 1952. Courtesy of Charles "Buck" Wilson.

Endnotes

- ¹ Donald C. Defenderfer and Robert B. Walkinshaw, *One Long Summer Day in Alaska: A Documentation of Perspectives in the Wrangell Mountains* (Santa Cruz: University of California, 1981).
- ² Wrangell-St. Elias National Park and Preserve Foundation Statement. (National Park Service, 2010), 7.
- ³ Foundation Statement, 14.
- ⁴ Gary Walker, et al., "A Geological Guide to Wrangell Saint Elias National Park and Preserve, Alaska: A Tectonic Collage of Northbound Terrance," Professional Papers 1616. (Washington DC: U.S. Geological Survey, 2000).
- ⁵ Timothy J. LeCain, Mass Destruction: The Men and Giant Mines That Wired America and Scarred the Planet (New Brunswick: Rutgers University Press, 2009), 32-33.
- 6 'Work'—and by extension, economic modes and circumstances—have been used as an interpretive framework for explaining human activity and relation to the land by many of the nation's leading environmental historians, including Richard White, see Organic Machine: The Remaking of the Columbia River (New York: Hill and Wang, 1995); Donald Worster, see Nature's Economy: A History of Ecological Ideas (Cambridge University Press, 1994) and Under Western Skies: Nature and History in the American West (Oxford University Press, 1992); William Cronon, see Nature's Metropolis: Chicago and the Great West (New York: WW Norton & Co, 1991); William G. Robbins, see Colony & Empire: the Capitalist Transformation of the American West (University Press of Kansas, 1994) and "In Pursuit of Historical Explanation: Capitalism as a Conceptual Too for Knowing the American West." Western Historical Quarterly, Vol 30. No. 3 (autumn, 1999); Stephen Haycox, see Frigid Embrace: Politics, Economics and Environment in Alaska (Oregon State University Press, 2002); Kathryn Morse, see The Nature of Gold: An Environmental History of the Klondike Gold Rush (University of Washington Press, 2003; and David Arnold, see The Fishermen's Frontier: People and Salmon in Southeast Alaska (University of Washington Press, 2008).
- ⁷ Richard White, Organic Machine,), 7.
- ⁸ Richard White, x.
- ⁹ A 1909 article in *Colliers Magazine* charged that Taft's Secretary of Interior, Richard Ballinger improperly used his office to help the Guggenheims and other powerful interests illegally gain access to Alaskan coal fields. Although subsequent scholarship has shown that the charges were unjustified, at the time, Chief Forester Gifford Pinchot began to criticize openly both Ballinger and Taft, claiming they were violating the fundamental principles of both conservation and democracy. Taft immediately fired Pinchot, inspiring yet another round of scandalous headlines.
- ¹⁰ According to former park historian Geoffrey Bleakley, the spelling of Kennecott varies according to author, subject, and context. USGS geologist Oscar Rohn named the Kennicott Glacier in 1899 for Smithsonian naturalists Robert Kennicott, who died while working in Alaska in 1866. Local residents later applied that name to the Kennicott River. Both the river and glacier are spelled with an "i." The Kennecott Mines Company and Kennecott Copper Corporation took the name from the glacier as well, but spelled it with an "e." Although the USGS chose to spell the site's name with an "I" on its topographical maps, the National Park Service adopted the opposite standard, choosing to recognize Kennecott's rich human history by restoring the company's spelling. Wrangell-St. Elias National Park and Preserve therefore, spells the site's name with an "e." Geoffrey Bleakley, *Contested Ground: An Administrative History of Wrangell-St. Elias National Park and Preserve, Alaska, 1978-2001* (Anchorage: Alaska Regional Office, 2002), 10.
- ¹¹ See Kathryn Morse, *The Nature of Gold: An Environmental History of the Klondike Gold Rush* (Seattle: University of Washington Press, 2003). She discusses the role of modern distance-diminishing technologies in the Alaska rush.
- ¹² Jim Rearden, *Alaska's First Bush Pilots*, 1923-30 (Missoula, Montana: Pictorial Histories Publishing Company Inc., 2009), 10-11. "Del. Dimond Fighting for Airmail Service in Alaska," *Cordova Daily Times*, February 12, 1934.
- 13 Board of Road Commissioners for Alaska, "Annual Report of the Alaska Road Commission, Fiscal Year 1923, Part II," Juneau, Alaska, 1923.
- ¹⁴ "Jack Wilson—Glennallen," H95-71-10, Project Jukebox, University of Alaska Fairbanks.
- 15 Hunting and trapping remain critical activities to this day for those residents living in or near Wrangell-St. Elias National Park and Preserve.
- ¹⁶ Edward C. Murphy and Frederick C. Dean, *Hunting Activity and Harvest in the Wrangell-St. Elias Region, Alaska, 1973-1977*, Final Report for National Park Service, CX-9000-6-0154 (Fairbanks: University of Alaska, 1978), 27-34.
- ¹⁷ Robert Bates, *The Love of Mountains is Best* (Portsmouth: Peter E. Randall Publisher, 1994), 71.
- "Walter Wood's First Ascent of Mount Steele," *Life Magazine* (November 30, 1936). Stan Cohen, *Flying Beats Work: The Story of Reeve Aleutian Airways*, (Missoula: Pictorial Histories Publishing Company, 1988), 30.
- ¹⁸ Dora Keen, "Arctic Mountaineer by a Woman: Mount Blackburn." Scribner's Magazine, July-December 1912.
- ¹⁹ Roderick Nash, Wilderness and the American Mind (New Haven: Yale University Press, 1982), 276.
- ²⁰ George O. Young, *Alaskan-Yukon Trophies Won and Lost* (Huntington, W.V.: Standard Publications, 1947), 273.
- ²¹ Jim Rearden, *Hunting Alaska's Far Places* (Missoula: Pictorial Histories Publishing Company, 2008), 131.
- ²² In 1952, University of Alaska Fairbanks president Terrence Moore, along with his friend and colleague, Bradford Washburn, established a high-altitude research laboratory on the summit of Mount Wrangells to study everything from cosmic rays to the interactions of glaciers and active volcanoes. The Wrangell Mountain Observatory became the impetus for UAF's Geophysical Institution, which helped secure the one-time mining college as a world-class research facility. For a concise history see Daniel Solie, "Icing on the Fire: A Season on the Summit of Mount Wrangell." Alaska Journal (Autumn 1984).

 ²³ Virgil Kauffman, "It's Rugged In Alaska!" Aero Service Corp Newsletter, December, 1950.

- ²⁴The introduction of the helicopter and a few minor interests in Kennecott copper revitalized mining on a small scale until the 1970s.
- ²⁵ "Alaska's Recreational Riches," Alaska Development Board, Juneau Alaska, July 1946.
- ²⁶ Lone E. Janson, *Mudhole Smith: Alaska Flier* (Anchorage: Alaska Northwest Publishing Company, 1981), 115-116.
- ²⁷ Roderick Nash, "Tourism, Parks and the Wilderness Idea in the History of Alaska," *Alaska in Perspective*, Volume IV, Number 1 (1981):1-27.
- ²⁸ In June 1990, the National Park Service hosted the Kennecott Kids Reunion, which brought together many of the people who were school-age children when the mines and mill operated in the 1920s and 1930s. The attendees shared their memories stories and experiences and twelve of the twenty one who attended the reunion expressed their views in formal interviews, in which the transcripts were published the Kennecott Kids Oral History Project.
- ²⁹Ann Kain (ed), Kennecott Kids Oral History Project: Jean Elizabeth (McGavock) Lamb. Alaska Regional Office: National Park Service, 1991), 9.
- ³⁰ Robert E. King, "Alaska's Lewis and Clark Expedition." Alaska Frontiers, Bureau of Land Management, summer 2004.
- ³¹Geoff Bleakley, Selected Residents of and Visitors to the Wrangell-St. Elias Mountain Region, 1796-1950. (Wrangell St. Elias National Park and Preserve, National Park Service, 2006.
- 32 Keen 1912
- ³³ Margaret Thomas, *Picture Man: The Legacy of Southeast Alaska photographer Shoki Kayamori*. (Fairbanks: University of Alaska Press, 2015).
- ³⁴Carl S. Benson and Roman J. Motyka, "Glacier-Volcano Interactions on Mt. Wrangell, Alaska," Geophysical Institute, University of Alaska Fairbanks (1978): 8.
- 35 Daniel Solie, "Icing on the Fire; A Season on the Summit of Mount Wrangell" The Alaska Journal (autumn, 1984): 12.
- ³⁶White, ix; William Cronon, "The Riddle of the Apostle Islands," *Orion* (May/June 2003).

SUBSISTENCE LIFEWAYS

GHAPTER 1

Five distinct cultural groups traditionally inhabited different areas of the Wrangell-St. Elias region. The Ahtna controlled the upper Copper River and its tributaries; the Upper Tanana held the Nabesna and Chisana River Valleys; the Southern Tuchone occupied the White River drainage; and the Yakutat Tlingit and Eyak dwelled along the coast. Everything that these original inhabitants needed or traded came from their traditional homelands.

As newcomers filtered into the Wrangell region, they brought with them new technologies, which Alaska Native people adopted and absorbed into their own work activities. Likewise, some of the newcomers—who may have originally come to the region to prospect, fish, or work on the railroad—incorporated elements of subsistence into their daily routine, and ultimately made the Wrangells their home. Today, Native and non-Native residents living in and around Wrangell-St. Elias National Park & Preserve continue to embrace a subsistence lifeway.







Game in the Wrangell-St. Elias region was never plentiful enough to support large concentrations of people, so Ahtna populations remained small and scattered. Villages, usually located where a major tributary entered the Copper River, rarely contained more than twenty to thirty members of a familial clan. A denae, who headed each village, was the principal hunter, trapper and trader (Bleakley, 2006). Permanent houses were constructed with poles, bark, and skins. Builders used moss to fill chinks between poles and keep the home warm during the winter. Ahtna homes maintained storage space and provided specific areas for women, children and dogs. Good-La-Taw family at Kotsina, 1904. WRST History Files, "Ahtna" Folder, 219.

Subarctic Athabascans recognized the importance of protecting and conserving natural resources, and relied on the accumulated experience of their own lifetimes and the lessons passed along from earlier generations to maintain healthy animal populations (Nelson 1986: 212). Copper River, 1903. WRST History Files, "Ahtna" Folder.



Ahtna people were highly mobile and made temporary shelters for use on seasonal excursions. The Ahtna hunted, fished and gathered berries seasonally and at discrete places. For an oral based culture, conveying the intimate knowledge contained in these places was reflected in the names themselves. The Ahtna say: *Nts'e ye hwdi'aandze' hw'el ts'etnes*, meaning that a specific or important site is remembered "by how it was named" (Kari 2010, ix). **A Siwash Camp on the Kotsina River. WRST History Files, "Ahtna" Folder, 190.**

Born in the Copper Basin about 1844, Doc Billum (second from left, in tophat) was an Ahtna "sleep doctor" or shaman who lived near the mouth of the Tonsina River (Bleakley, 2006). The Ahtna considered the shaman a powerful leader because he was tasked with conducting hunting and other traditional ceremonies and healing the sick. "Doc Billum and two Klutches. Copper River Native," 1906. Tiekel Roadhouse. P.S. Hunt, Photographer. WRST History Files, "Ahtna" Folder, 25.



Born around 1840, Chief Nicolai (second from left) was the lower Ahtna's leading denae from 1884 until his death about 1900. Nicolai is noted for having assisted several early exploring parties, including Henry T. Allen in 1885 and Frederick Schwatka in 1891. Local prospectors named several important geographical features in his honor, including Nikolai Creek and Nikolai Butte (Bleakley 2006). Chief Nicolai, Mrs. Chief, Mrs. Chief, "Woodland." **WRST History Files**, "Ahtna" Folder. The



original image is located in the Francis A. Pope Collection, Archives, Alaska and Polar Regions, Rasmuson Library, University of Alaska Fairbanks.

The Ahtna say: Nts'e ye hwdi'aandze' hw'el ts'etnes, meaning that a specific or important site is remembered "by how it was named"

—Linguist James Kari

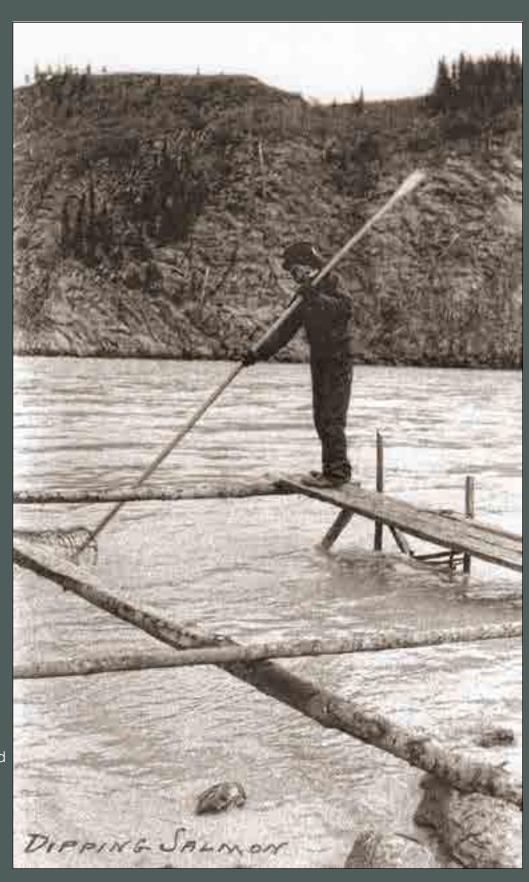
Hanagita became the head of the Lower Ahtna following the death of his brother, Chief Nicolai about 1900. He is remembered as one of the Ahtna's most important 20th century chiefs. The United States Geological Survey named Hanagita Peak in his honor (Bleakley 2006). "Natives at Hanagita House at Taral near mouth of the Chitina." WRST History Files, "Ahtna" Folder. Original image is located at the Anchorage Museum, 23.1.152.







Born about 1875, Goodlataw was Chief Nicolai's maternal nephew. He became the primary leader of the lower Ahtna following the death of Nicolai's youngest brother, Chief Eskilida, in 1918. The U.S. Geological Survey named Goodlata Peak in his honor (Bleakley 2006). Note Goodlataw's use of dogs. Dogs were so important to the Native people of the Wrangells that it was taboo to eat them, even during the "starving times" (Haynes and Simeone 2007:27). "Goodlatau (Goodlataw) of Chitina Alaska--one of the few remaining full-blooding Coper River Indians." WRST History Files, "Ahtna" Folder, 842.

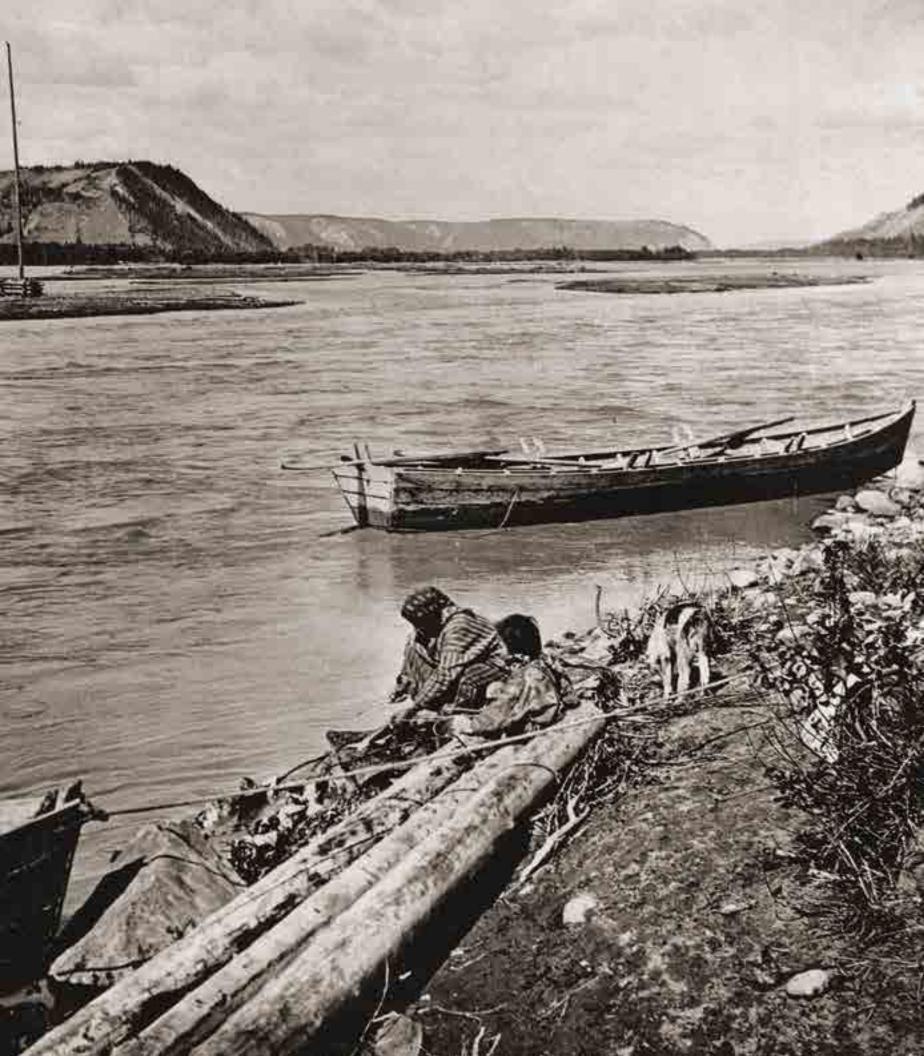


In 1797, Dimitri Tarkhanov was one of the first newcomers to describe the Ahtna's subsistence practices: "The livelihood they have from the Copper River is red fish [salmon] which come from the sea [to spawn] during the month of June, and they catch [them] in nets, a gill net bound with animals sinews, and dry on racks the yukola; fresh fish they sour in pits, heads and intestines they heat with stones in wooden troughs, they dig roots, and hunt rabbits in fall and spring [they catch] squirrels in summer with snares" (Pierce and Donnelly 1979: 54-55). "Dipping Salmon." WRST History Files, "Ahtna" Folder.



The Ahtna adapted new technologies from various groups they encountered. Most notably, the introduction of the fish wheel (seen here tethered to shore), which made gathering great numbers of salmon for preservation easier (Hunt 1996: 18). **Fish Wheel at Chitina. WRST History Files, "Ahtna" Folder.**

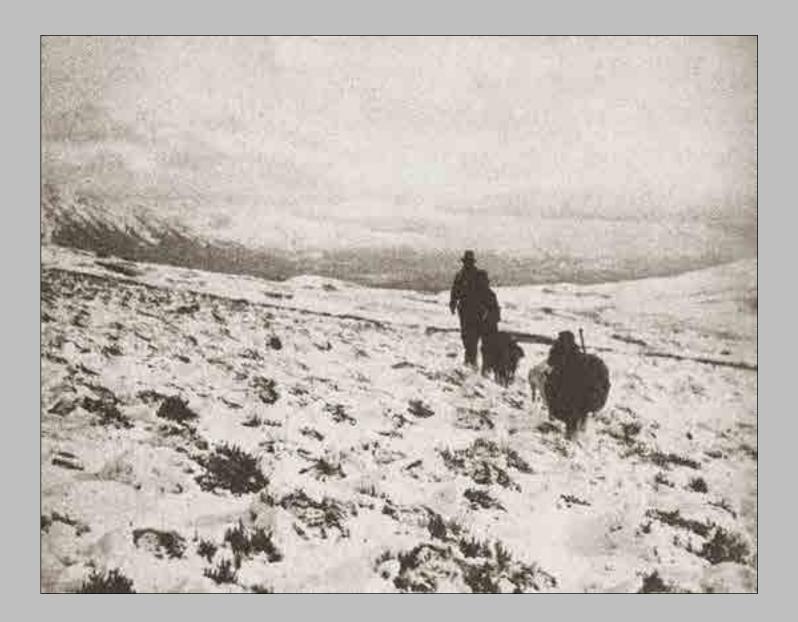
(Following page) In the Ahtna language, the Upper Ahtna are called *Tatl'ahwt'aenn*, the "headwater people" (Kari 1986). Archeologists believe that the Ahtna's dependency on salmon dates back nearly 2,000 years. Overtime, the Ahtna developed a fishing culture predicated upon sophisticated methods for harvesting and processing salmon, rules that governed the treatment and use of salmon, and an oral tradition that explained the origins of Copper River salmon (Simeone, et al. 2011: 2). **Cleaning Fish, WRST History Files, "Ahtna" Folder, 192.**







The Lower Ahtna controlled much of the fur trade. They did some trapping, but mostly traded furs from the upriver Ahtna to take to the coast on winter and spring trips. The regional fur trade introduced western commodities beginning as early as the mid-1800s. According to anthropologist Stephen Strong, the earliest transactions probably involved the exchange of furs for three categories of trade goods: 1) Items of western manufacture that replaced Native aboriginal means of production, such as firearms, gunpowder, and iron or steel tools. 2) Trade goods that were consumed and considered "minor luxuries," including tea, sugar, tobacco, blankets, cloth, and clothing. 3) Goods that became part of the Native "prestige economy" and were used as potlatch gifts, such as dentalium shells and glass beads (Strong 1976: 160-161). The Copper River Trading Post at Lower Tonsina, 1903. Courtesy of the Valdez Museum, P1986.117.52



By the 1920s, a few non-Native individuals had embraced a subsistence lifestyle. Clyde C. "Slim" Williams spent three decades in the Wrangells as a trapper, hunter, and dog breeder. He and his wife Aileen Gallaher made a living operating trap lines along the base of Mount Sanford. Such a life demanded hard work. Knowledge of the land was vital, as was acquiring the skills to build a log cabin or a temporary shelter in bad weather. Also essential was expert marksmanship, the ability to make or adopt proper clothing, and the physical endurance to travel long distances that spanned difficult terrain. Still, the everyday tasks were equally important. There were harnesses to mend, and keep in constant working order. Trees had to be cut, dragged in from the forest, then sawed into stove-length logs and split. According to Gallaher, "Just getting the wood stacked in was a big job" (Gallaher & Gallaher 2004: 41). Slim and Aileen cross Slate Creek Pass, fall 1927. Samme Gallaher Darnall Collection. Courtesy of Geoffrey Bleakley Collection, Makawao, HI.



Non-Native subsistence users also valued the work of dogs. Pack dogs carried supplies in canvas packs that fit over their backs, with big pockets on each side. The packs were tied in such a way that the ropes kept the pack balanced and steady but prevented chafing the animal. Big dogs could carry about fifty pounds each. According to Samme Gallaher, "Dogs covered the trap line, hauled wood, freighted supplies, moved fur and managed to do all the work required of them" (Gallaher & Gallaher 2004: 56). "Samme and Beaver carrying packs." Samme Gallaher Darnall Collection. Courtesy of Geoffrey Bleakley Collection, Makawao, HI.

"I loved the whole atmosphere of Caribou Creek, Mount Sanford, the intense cold, the log cabin, the snow, the dogs, the wolf, and most of all the puppies."





A handful of residents supplemented their subsistence lifeways fox farming. Frenchmen George Bellefontaine owned and operated the Sanford River Fox Farm between 1910 and 1933. The Sanford River Fox Farm was probably no different from the other farms that dotted the Copper River Valley between Chitina and Gulkana. Such farms were situated within close proximity to the Richardson Highway and the Copper River & Northwestern Railway for easy transportation. This allowed for a pelt buyer to come through the Valley to purchase fox furs each season.

The region's short temperate summers and long extremely cold winters provided ideal climate conditions for producing high quality furs. Fashion trends dictated demands from European and American markets, which valued a fox pelt at over \$300 dollars in the 1920s. By 1933, the Great Depression sapped demand and pelt prices plummeted from a peak of \$500 to under just \$20 dollars. Wrangell Mountain fur farmers discontinue their operations, and Bellefontaine abandoned the Sanford River Fox Farm (Bleakley, Sanford River Fox Farm DOE, 2005). "A Fox." Samme Gallaher Darnall Collection. Courtesy of Geoffrey Bleakley Collection, Makawao, HI.

Samme Gallagher visited Clyde and Aileen in 1927, and gained an appreciation for her older sister's new lifeway. During her stay, the three ventured to Slim and Aileen's trapping cabin on Caribou Creek. The cabin was only nine by twelve feet. The bunk alone took up half the floor space. A little Yukon stove kept them warm and one small window provided their only light. "To a fifteen-year-old city girl, it was a glorious camping trip," Samme later recalled. "I loved the whole atmosphere of Caribou Creek, Mount Sanford, the intense cold, the log cabin, the snow, the dogs, the wolf, and most of all the puppies" (Gallaher & Gallaher 2004: 100). "Samme with puppy Paxon." Samme Gallaher Darnall Collection. Courtesy of Geoffrey Bleakley Collection, Makawao, HI.

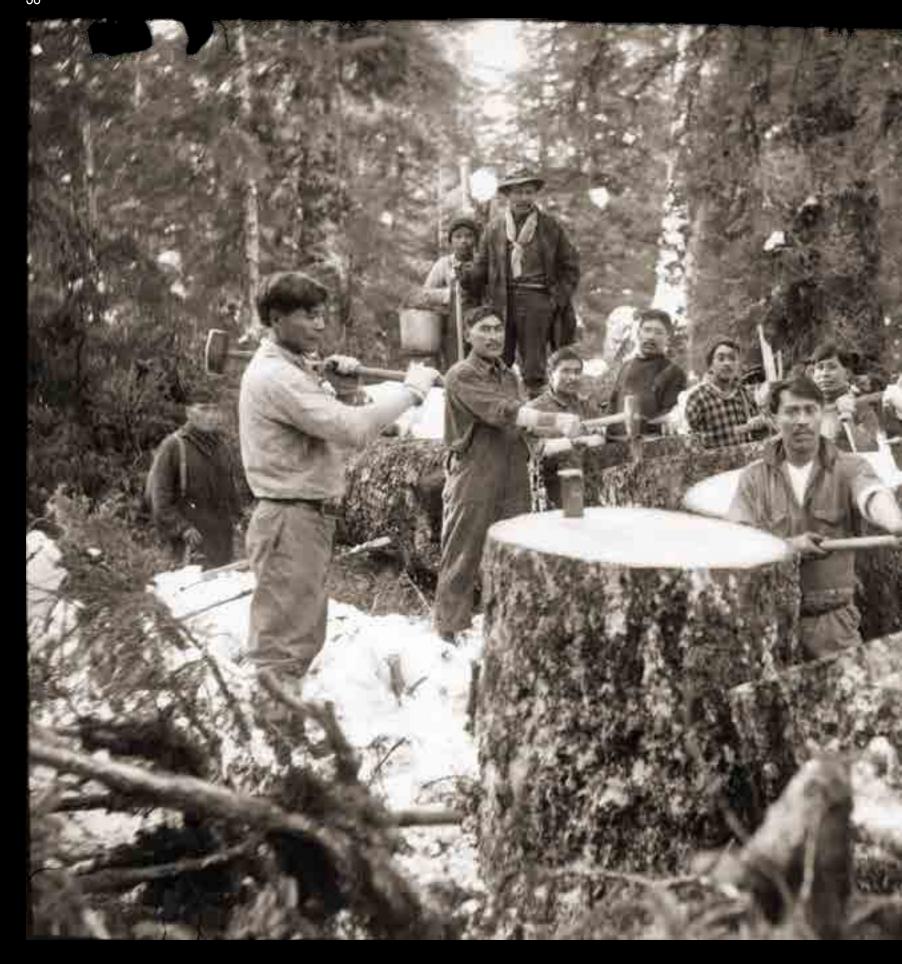
"They had a big war there, down in Germany or somewhere... With the big war came soldiers, to build an airfield. They told us eight families to move. One house was burned down. We moved into a tent for two years and then down to Copper Center."

—Annie Ewen

To construct an airfield at nearby Gulkana in 1942, the U.S. Army appropriated the Ahtna's village at Dry Creek, and ordered people who had lived in the shadow of the Wrangell Mountains since time immemorial to vacate. "They had a big war there, down in Germany or somewhere," recalled Annie Ewen, an Ahtna Athabaskan whose family had lived at Dry Creek Village for generations. "With the big war came soldiers, to build an airfield. They told us eight families to move. One house was burned down. We moved into a tent for two years and then down to Copper Center." After completing the Gulkana Airfield, the Army forbade the Dry Creek Ahtna to return (Haycox 1989:202-226). Indian Village, Gulkana, Alaska. WRST History Files, "Gulkana" Folder.



In Under Mount Saint Elias: the History and Culture of the Yakutat Tlingit, anthropologist Frederica de Laguna writes that "The story of Yakutat is in many respects of the whole Gulf of Alaska from Cross Sound to the edge of Prince William Sound. This is not because the inhabitants of this narrow coastal strip were alike in speech and culture, or had a common origin; indeed, they spoke at least three or four different languages, and traced their origins to different homelands. But they became united through trade, war, potlaches, and intermarriage; and in the last chapters of their history, which is all that we at present can hope to reconstruct, they came to share a common destiny" (De Laguna 1972:17). Joseph Abraham (1867-1917) in his song leader's costume, ca. 1900. Ray W Moss Photograph Collection, 1907-1909. ASL-P11-076.





Spruce and hemlock dominated the local forests along the coast. Yellow and red cedar could be found in the form of drift logs on the ocean beach. Before contact, trees were felled and canoes hollowed out by means of carefully controlled fires which charred the wood so that it could be adzed (or chipped) away. The tools men used to cut down trees were comprised chiefly of greenstone and green chert, especially for adz blades, which were lashed to the handles with sealskin thongs. Rituals were performed to observe the obtaining of these essential rocks, reflecting the vitality of wood to the Yakutat Tlingit. With the increase of American businesses, canneries and towns by the end of the 19th century, Yakutat Tlingit began to harvest trees for the commercial logging industry (De Laguna 1972: 414-415). Logging Crew in Forest near Yakutat, Alaska. Men stand by tree stumps in forest with saws wedges and sledge hammers; Situk Harry, Samson Harry, Dick Harry, Tom Cox, Olaf Abrams, Peter L. Jimmie Jackson, Alex, Dick Nelson, Charlie Gudson, and Bill Miton. Shoki Kayamori Photographs, ca 1912-1941. ASL-P55-125.

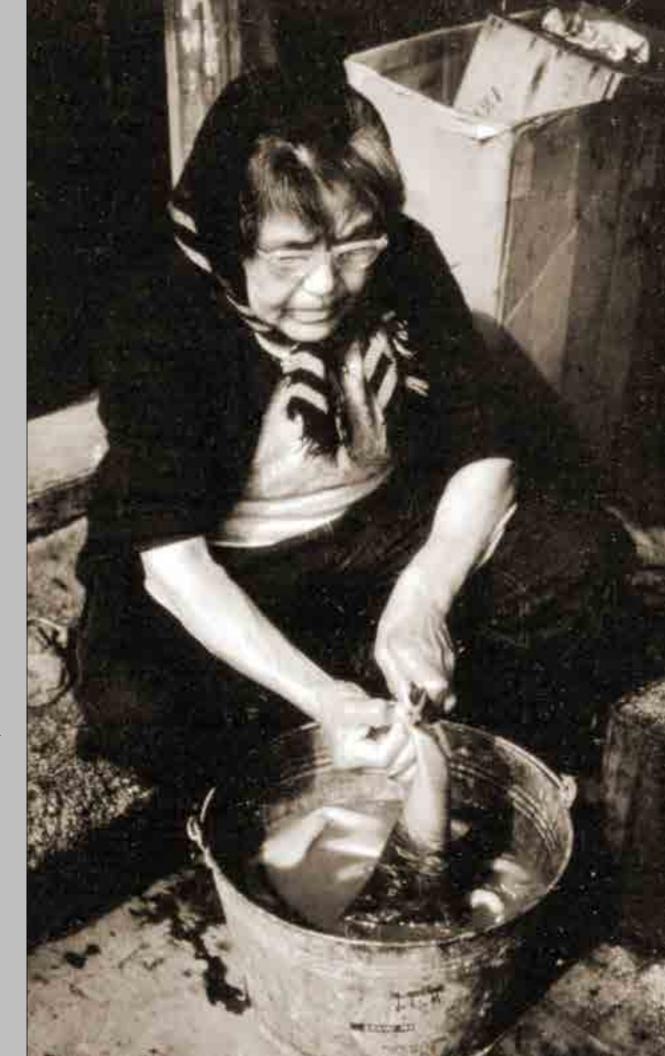


At the end of the 19th century, harbor seal skins and seal oil had a commercial value, which furnished a major source of income to the Yakutat Tlingit. By the 1950s, the harbor seal's nose was also ardently pursued for the bounty, placed by the federal government's Bureau of Fisheries. In early days, seals were harpooned or clubbed. The Yakutat hunter wore sealskin as both disguise and to honor his prey. In 1891, U.S. Army Officer Frederick Schwatka observed a seal hunt, noting that "The Yakutats catch them by shrouding the bows of their craft with white cloth so as to resemble ice. In this way they are able to approach close enough to the seals to harpoon them."... "I was told," continued Schwatka, "that men in a canoe could get close to a seal by imitating its cry" (De Laguna 1972: 375). Seal hunters with a load of seals in a dugout Canoe. Shoki Kayamori Photograph. ca. 1912-1941. ASL-P55-653.

"When the carcass of the animal has been brought to the beach, then the processing of these becomes almost exclusively the task of women."

-Frederica de Laguna

During the Harriman Expedition in 1899, George Bird Grinnell witnessed a seal hunter return, "When the village is reached women help unload the canoe and carry the seals up the beach, while the men take the boat up above high-water mark" (De Laguna 1972: 376). According to De Laguna, "When the carcass of the animal has been brought to the beach, then the processing of these becomes almost exclusively the task of women" (De Laguna 1972: 391). Men might work on the bones or teeth, but women prepare the sinew, and intestines. They prepared the flesh of the creatures for food, and their skins for clothing or other articles. Sea oil was also essential for preserving many kinds of foods and formed an important part of the diet. Seal oil was also used in a number of native medicines and was burned in stone lamps (De Laguna 1972: 398). Minnie Johnson Cutting Holes in raw Sealskin, 1952. McClellan photo. Frederica de Laguna Photograph Collection, ASL-P350-52-41-04.



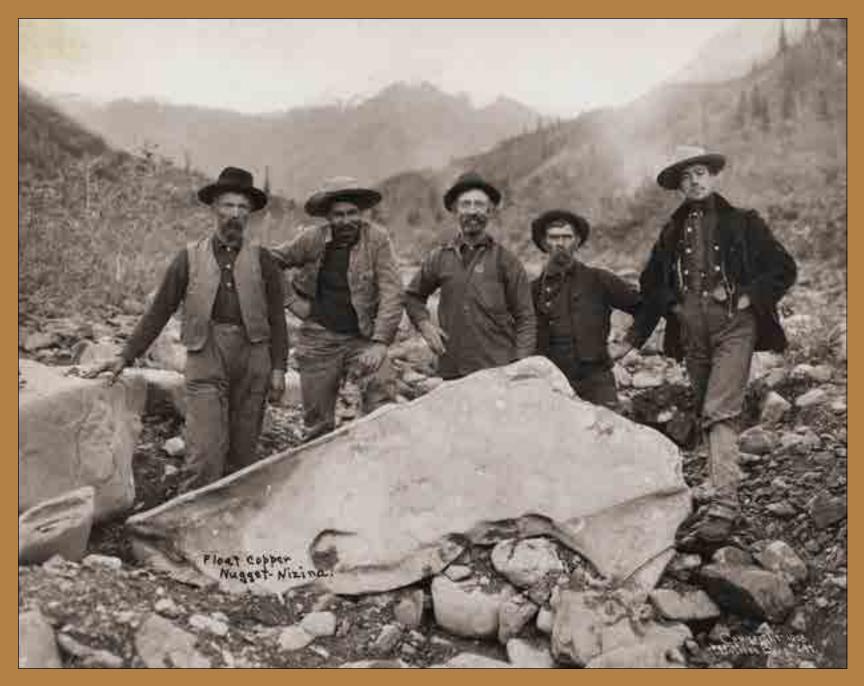


Native people living along the coast enjoyed a rich and varied diet. Often, it was the Native women who prepared a number of native foods and dishes that are still made today. The main staples were meat and fish, richly supplemented by eggs, plants, berries and the "beach food," such as marine invertebrates and seaweed, of low tide. Many foods were subjected to long and complex treatments involving cutting, pulverizing, drying, smoking and fermentation. Procured foods were preserved for later consumption. The abundance of wild foods attracted settlement in the area (De Laguna 1972: 403). Minnie Johnson's preserves including canned salmon, jarred salmon and salmon eggs, seal oil and meat, wild rhubarb, berries, clams, urchins and dried salmon from Yakutat Bay. Frederica de Laguna Photograph Collection. ASL-P350-52-5-20.

MINING

CHAPTER 2

By the turn of the 20th century, miners had come to the Wrangell Mountain region to prospect for gold and copper. Within two decades, the U.S. Geological Survey had established five mining districts, in which the growing industrial and financial sectors of the American economy fueled prospecting and mining activity. The districts included Chitina District, the Nizina District, the Nabesna District, the Chisana District, and the Bremner District.



Long before Euro-American miners arrived to the Wrangells region, local Native groups utilized copper as a significant resource and trade good. In *Under Mount Saint Elias*, anthropologist Frederica de Laguna recounts a story in which the ancestors of the Yakutat Tlingit brought copper with them from the Interior, when they first settled along the Gulf Coast. Trade networks formed with exchanges of copper between Tlingit and Ahtna, possibly moving from the Nabesna via the Southern Tutchone on the headwaters of the Alsek River. Native copper was made into knives, awls, scrapers, small nails, arrowheads and other weapons. Ornaments such as bracelets, necklaces, pendants and rings were also produced from copper. Copper was said to have been beaten into plates and according to tradition, old people were believed to know "how to handle soft native copper to make it as hard as steel," but the knowledge was lost over time. In 1940, a Native informant explained to De Laguna why they valued native copper: "Some places in the mountains you see green spots there; that is a sign of copper. We used to find pieces 3 feet long, and 1 inch think. Old natives dug for it. If you got a foot long piece you are a rich man and can buy 4 or 5 slaves; you don't have to do anything" (De Laguna 1972: 412-413). Ton Nugget of Native Copper on bed of Nugget Creek, 1903. WRST History Files, "Kuskulana Nugget Creek" Folder, 70. Original photo is located in the Miles Brothers Collection, Anchorage Museum.



Some stampeders heading to the Canadian goldfields came by way of an "all-American" route. Hazards such as glaciers, braided rivers, and extreme cold prevented most from getting to their destination. Alternatively, a few prospectors sought paydirt from the Copper and Chitina river tributaries. Working streamside, miners filled wide, shallow pans with sand, gravel and water on their search for gold. Fred Stevenson Panning for Gold, Copper River. WRST History Files, "People" Folder, 858. Original photo is located at Valdez Museum, P1987.132.3.



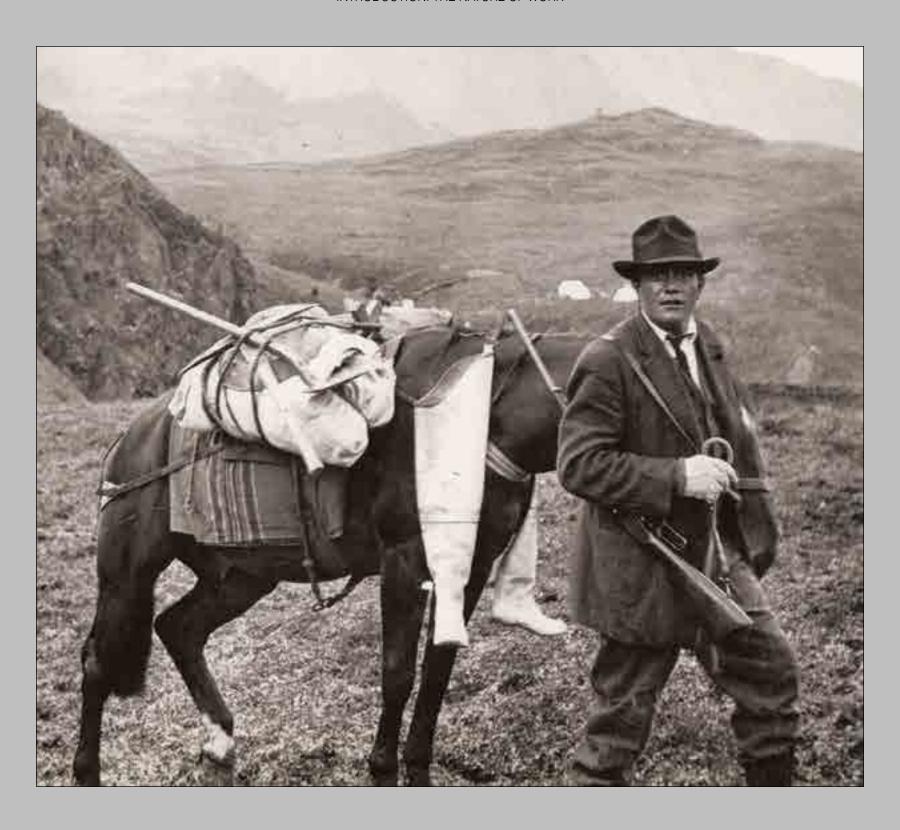
William E. "Billy" James and Nels P. Nelson reached Chathenda Creek on May 13, 1913. Nelson walked about a hundred yards up a nearby stream, and tested the underlying gravel. To his surprise, his first pan yielded a dollar's worth of gold. Staking a discovery claim, Nelson, in the tradition of placer miners everywhere, christened the stream "Bonanza" Creek. James and Nelson began sluicing Little Eldorado No. 1 on July 4. When news of the discovery reached the outside world in 1914, it soon elicited a rush of prospectors to the Chisana District (Bleakley 2005: 11-13). Chisana District, WRST History Files, "Chisana Bonanza Creek" Folder. Original photo is located in the Stephen Capps Collection, U.S. Geological Survey Photographic Library.



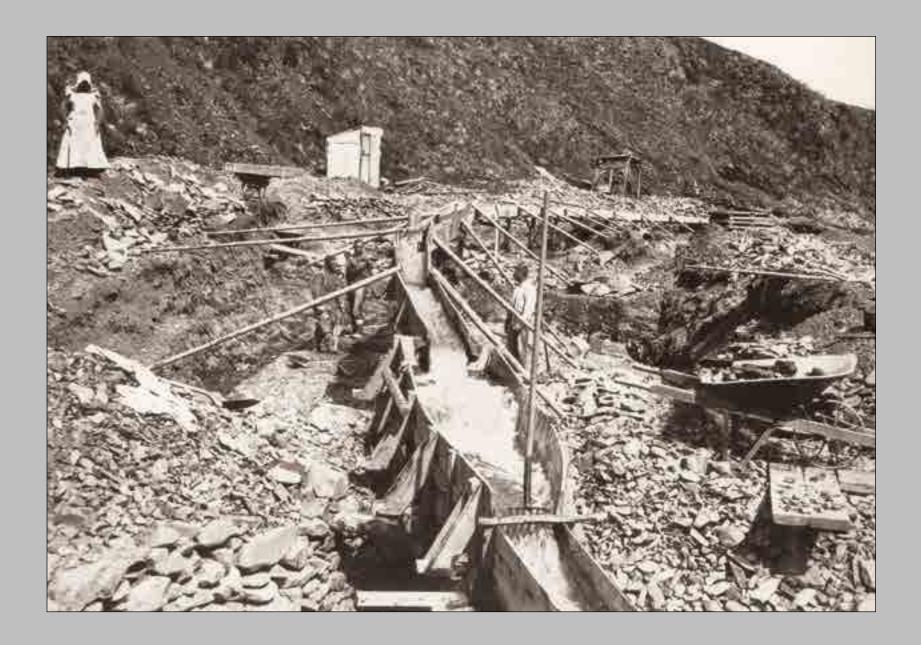
Participants in the Chisana Gold Rush were often aging veterans of the Klondike rush. Some may have seen this stampede as a last grand adventure. Others viewed Chisana as their final opportunity to make a stake. Most stampeders spent the remainder of their lives in the Chisana District, eking out small but consistent incomes while continuously searching for that one last strike (Bleakley 2005: 7). Chisana District Bonanza Creek. Margraff's Camp on Bonanza No. 10, 1914. WRST History Files, "Chisana Bonanza Creek" Folder.



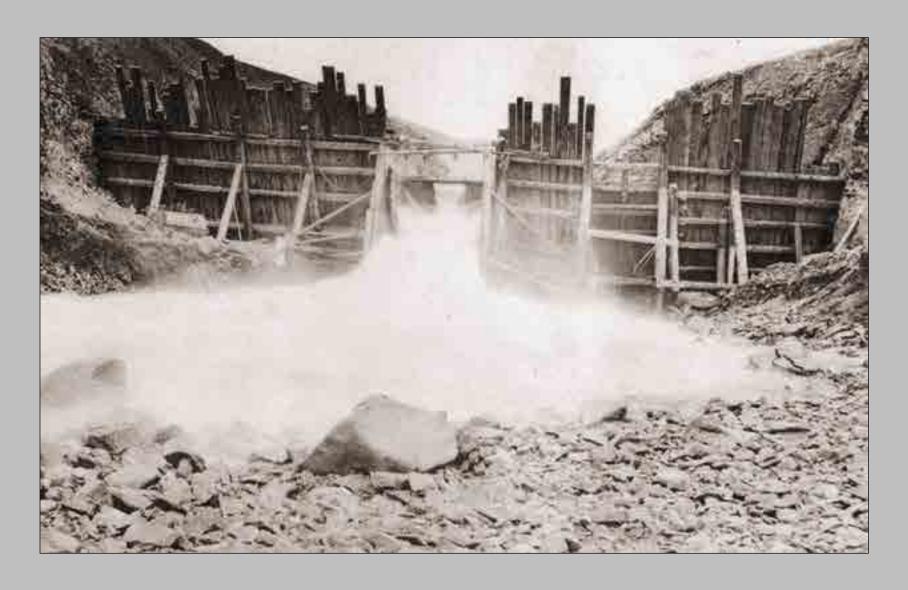
Needing additional gear, Nels P. Nelson's partner, Fred Best, returned to Dawson City from Chisana about the middle of July. While there, he provided the local newspaper with a current description of the strike. Best's account in 1914 of the Chisana Mining District electrified the Yukon, Alaska, and eventually much of the Pacific Northwest (Bleakley 2005: 11-13). The ensuing stampede represented the last wave of Alaska's great Gold Rush. "Chisana Stampeder (unidentified) on Trail, 1914." WRST History Files, "Chisana-Other" Folder, 327. Original image is located in the Stanley-Mason Collection, Tacoma Public Library.



The Cordova Daily Alaskan proclaimed the Chisana strike as the richest since the Klondike, provoking defections which virtually emptied the Nizina gold camps and even briefly jeopardized the operation of Kennecott's copper complex (Cordova Daily Alaskan, July 18, 1913). Prospector off for the Wilds of Alaska," ca. 1914. Outfit includes a rifle, pick, shovel, gold pan, waders.) WRST History Files, "Chisana Bonanza Creek" Folder, 257. Original photo is located in the Stanley-Mason Collection, Tacoma Public Library.



Chisana miners extracted gold from the surrounding sediments by using a sluice box. A sluice box is essentially a man-made river channel with riffles set in the bottom. Miners placed the box in the stream to catch water-flow. When the gold-laden gavels were dumped into the upper end of the sluice, the flow of water carried the material down the length of the box. The lighter gravels or tailings would travel down the entire length of the sluice and then discharge into the river. The heavier gold material would quickly drop to the bottom of the box, where they became entrapped by the riffles. Once the riffles collected a large quantity of concentrated black sand, miners implemented a "cleanup," which meant that the many tons of gravel had to be tediously panned. Gold Run, 1914. Note use of sluice fork (upright pitchfork in sluice box, middle-foreground) to catch larger stones. WRST History Files, "Chisana-Other" Folder, 337. Original photo is located in the Stanley-Mason Collection, Tacoma Public Library.



The sluice box method of separating the gold from the mud and muck required the use of gravity and a constant water flow. Chisana miners dammed nearby streams to contain a usable source of water. When opened, a boomer dam discharged a large volume of water, flushing away surface materials from the flood plain. It was then the back-breaking labor at the sluice box began. Because water was so vital to placer mining, seasonal droughts often had an adverse impact on the Wrangells' gold miners. Boomer Dam Discharging, 1914. WRST History Files, "Chisana Bonanza Creek" Folder.



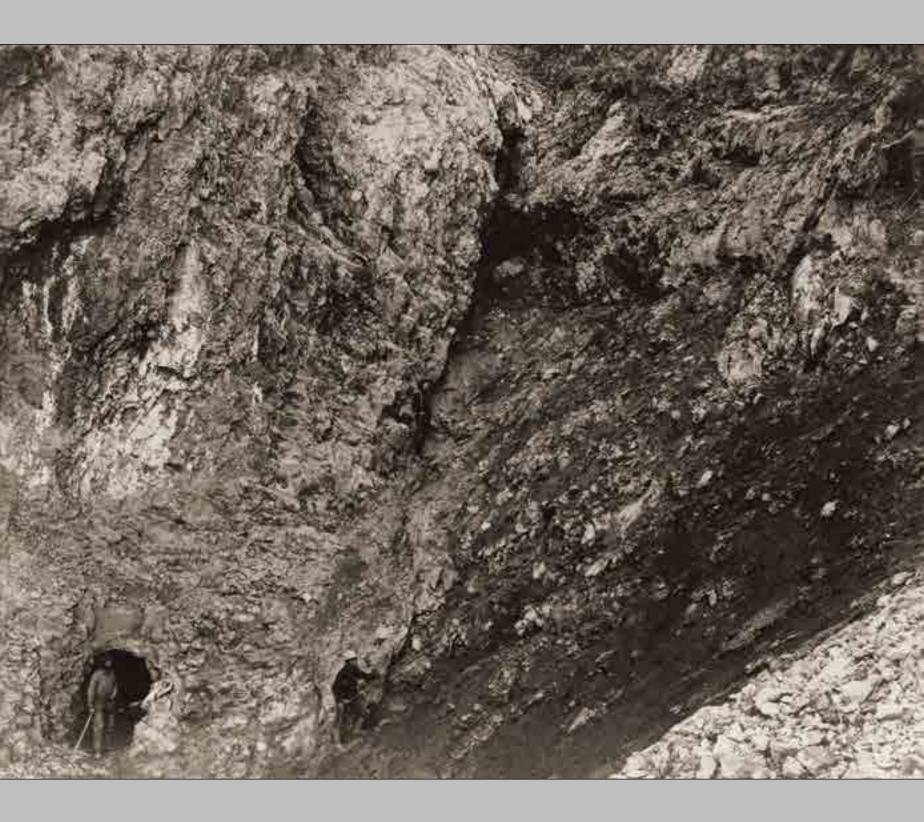


(Previous page, top) Norwegian Ole Berg placer mined at Dan Creek for several seasons before locating property in the Kuskulana drainage in 1907. Although staked as a copper prospect, it was the deposit's high gold and silver content which ultimately drove its development (Bleakley 2006). In winter, hardy miners like Ole Berg thawed shafts through the frozen ground to the lucrative bedrock by building underground fires. Once the upper strata was thawed, it was removed and deeper fires started. This method was called "drift mining" in reference to the mining shafts that extended horizontally (or drifted) from the initial vertical excavation. **Boulder Creek. Ole Berg (right). WRST History Files, "Dan Creek" Folder, 430.**

(Previous page, bottom) Miners, such as those at Chititu Creek, quickly adopted a new technique to find gold, which thawed the permafrost without the need for fires. Hydrauliking used a strong spray of water to loosen and transport gold bearing gravels and soils to a processing facility. Water was redirected into an ever-narrowing channel, through a large canvas hose, then out a giant iron nozzle, called a monitor. The extremely high pressure stream was used to wash entire hillsides through enormous sluices. Hydraulic mining became the largest-scale form of placer mining and had a devastating effect on the Wrangell's riparian environments. The Chititu Development Company worked the site at the confluence Chititu, Rex, and Whites Creeks, but by 1906 production had dropped. Hydraulic Mining on Chititu Creek, 1903. WRST History Files, "Chititu" Folder.



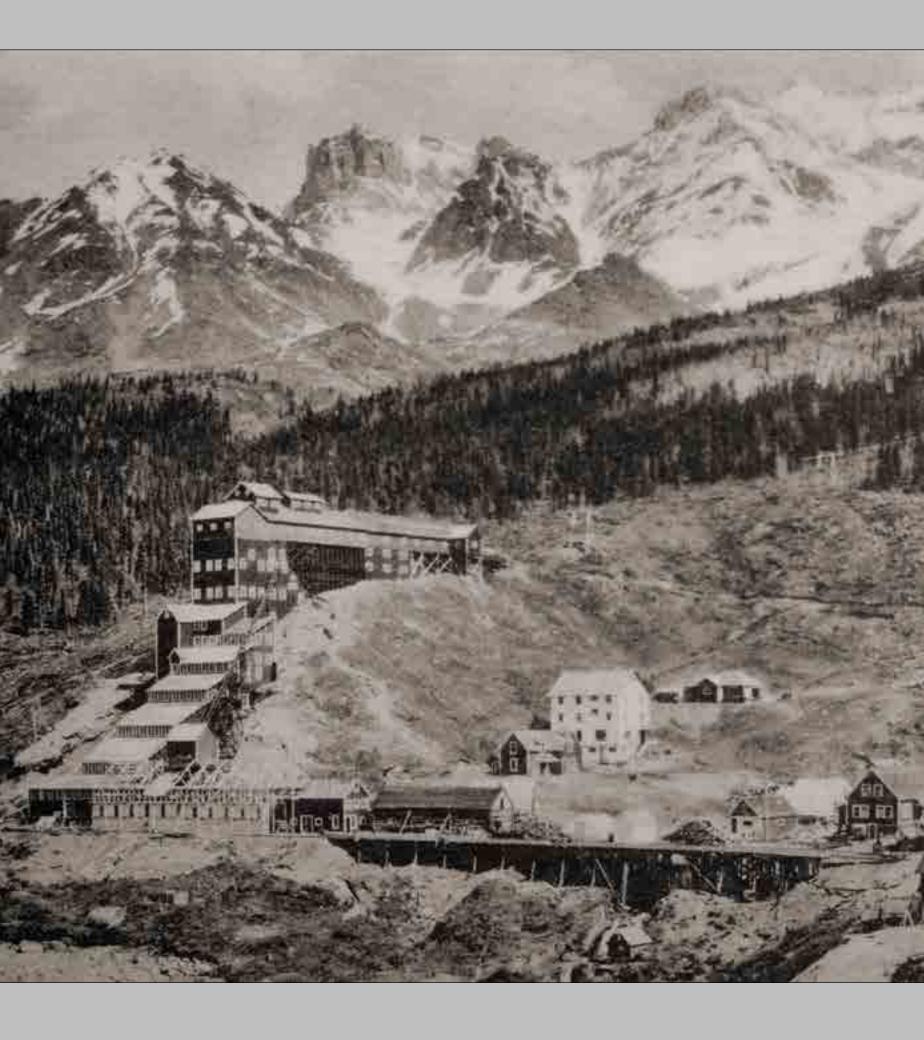
Stories told by coastal Natives of a "copper mountain" located in Alaska's rugged inland region sparked tall-tales among the early traders and pioneers. The rising economic interest in copper by the turn of the century prompted the U.S. Army to send geologist Oscar Rohn up the Chitina River in the summer of 1899. Guided by Rohn's reported findings, prospectors Clarence Warner and Jack Smith discovered Kennecott's world-famous Bonanza copper deposit in 1900 (Kirchhoff 1993: 19-20). Future site of Kennecott Mill. WRST History Files, "Kennecott Millsite pre-1920" Folder, 1144.



In 1899, Clarence Warner and Jack Smith found the purist copper deposit in the world, situated along a depositional contact zone, where the light-gray marine rocks of the Chitistone Limestone cap the distinctive slopes of the Nikolai Greenstone, a formation that dominates much of the visual landscape south of the Wrangell Mountains. By 1902, Stephen Birch, a young mining engineer and future president of Kennecott Copper Company, had invested \$400,000 in development work at Bonanza (Kirchhoff 1993: 23). Adit (mine shaft opening, bottom left), 1902. WRST History Files, "Kennecott—Bonanza Mine" Folder, 517.



By the early twentieth century, copper was the coveted metal made increasingly valuable by America's desire for electric power. With outside interests looming, claim to the Bonanza lode failed to remain in the hands of Warner and Smith. Through the legal "wheeling and dealing" efforts of Stephen Birch, mining claims were consolidated with the formation of the Kennecott Copper Company in 1906 (Graumann 1976: 6-7). Snowslide. WRST History Files, "Kennecott Millsite pre-1920" Folder, 742. Original image is located at the Washington State Historical Society, Tacoma, WA.





In 1902, Stephen Birch built the first structure at the Kennecott Mill site, a log cabin at National Creek, and broke a trail up the mountainside to the green-colored outcropping. Knowing he still needed to raise enormous capital to develop the Bonanza deposit, Birch lobbied two of the biggest players in American business, J. P. Morgan and the Guggenheims. Convincing potential investors, Stephen Birch merged the banking interests of Morgan with the mining and smelting interests of the Guggenheims. Jointly, they formed the Alaska Syndicate, which acquired a 40 percent interest in the Kennecott Copper Mines Company. The company reemerged in 1915 as the Kennecott Copper Corporation with Birch as president (Graumann 1976: 7). Early Kennecott. WRST History Files, "Kennecott Millsite pre-1920" Folder, 1097.



Kennecott's copper deposit was located high in a steepwalled mountain named Bonanza Ridge, which rose about three miles above the glacial moraine. Hard rock miners working at Kennecott's mines—Bonanza, Jumbo, Mother Lode, and Erie had to blast and dig their way deep into the peaks to retrieve thousands of tons of copper ore. (Glacier, an open-pit mine, was an ore extension of Bonanza and worked only in the summer.) The Bonanza, Jumbo, Mother Lode and Erie mines were connected by tunnels. The Erie mine was perched on the northwest end of Bonanza Ridge, overlooking Root Glacier. Erie Mine. WRST History Files, "Kennecott—Erie Mine" Folder, 530.



The core of a mountain can be a very dangerous place to work. Cave-ins, explosions, toxic fumes, and flooding injured and killed hundreds of miners. Once blasted from the mountains depths, miners sent the copper ore to the mill where mill employees separated the copper from other minerals through crushing and pulverizing the rocks, and later leaching. Like any factory worker of the day, Kennecott miners worked as wage laborers, and because hard rock mining took vast capital and heavy equipment, vertically integrated businesses like Kennecott typified the incorporation of the mining industry in Alaska. Sanford Sjogren Drilling, 1937. WRST History Files, "Ethel Lecount Album-Kennecott" Folder.



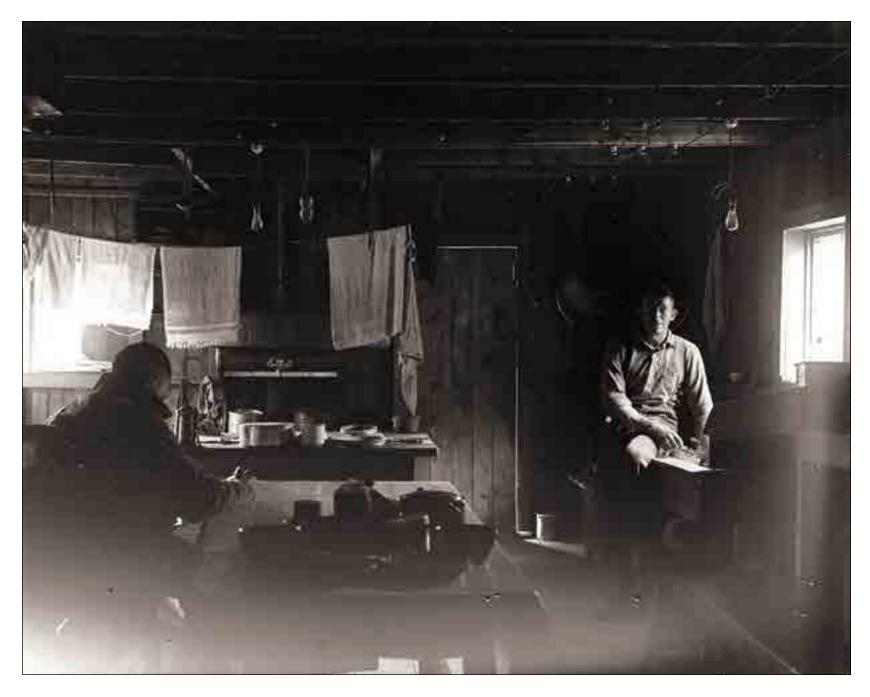
At the foot of Bonanza Ridge sat the conglomerated milltown of Kennicott. Kennicott constituted a cobbled collection of employee cottages, recreational facilities, carpenter shops and power plants resembling a kind of fairytale industrial village. Its stacked, fourteen-story mill building represented a time when Gilded Age businessmen lorded over the land. Midnight looking down the Glacier. J. McGauock WRST History Files, "Kennecott Millsite post-1920" Folder, 740.

(Facing page, bottom) In 1928, three miners—Lee Ramer, his brother Peyton "Pete" Ramer, and Charles Nelson—located the "Grand Prize" vein in the mountains above Golconda Creek in the Bremner Mining District, located in the Chugach Mountains, approximately thirty miles southwest of McCarthy. Encouraged by the discovery, Lee and Pete attracted investors and formed the Bremner Gold Mining Company in 1931. The company benefited from the passage of the Gold Reserve Act in 1934 which set the selling price of gold at \$35 per ounce and created a stable market for mining enterprises. Their claims were ultimately acquired by Asa Baldwin and incorporated into his Yellow Band group (White, 2000: 28-30.) Bremner Crew, 1931. Bertha Ramer Collection, McCarthy-Kennicott Historical Museum, McCarthy, Alaska.



Veteran of the Chisana stampede, Carl Whitham formed the Nabesna Mining Corporation in 1929. Though promising, the location of Whitham's claims—on the north side of the Wrangells, in the foothills of the Mentasta Mountains—made access to the outcroppings difficult. In order to develop his property, Whitham had to ship all necessary milling and mining equipment from Seattle via Alaska Steamship Company to Cordova, and then freight the equipment on the Copper River & Northwestern Railway to Chitina. From there, he and six or seven men hauled loads up to the Richardson Highway to the Gakona Roadhouse. A team of horses and a tractor pulled bobsleds over the Eagle Trail to Slana and then down the Nabesna Trail for nearly one hundred miles. The Alaska Road Commission eventually constructed the 45 mile-long Nabesna Road between 1931 and 1934. By 1940, the mine had shipped 73,000 tons of ore valued at \$1,869,396. The Nabesna mine operated until World War II restrictions shut down Alaska's gold mining industry (Stanley 2002:71). Bill Fancke was the assayer at Nabesna. WRST History Files, "Nabesna Mine" Folder, 1493.





"A miner didn't view his life as somehow extraordinary. He considered his work the normal course of his life."

—Jim Edwards

Life as a prospector in Wrangells was extremely hard work. To the optimistic prospector, the five mining districts represented potential wealth and great adventure. But the region's brutal elements and topography could be a deathtrap for unprepared mineral seekers. Many froze to death, starved or drowned. Copper proved to be the big bonanza, while gold strikes at Chisana never turned into the motherlode prospectors had hoped. Some miners found success in the Nizina, where pockets of gold were discovered. Although finding little in mineral wealth, a few determined prospectors found solace in the unique lifeway they created within the Wrangell's mining landscapes (Ringsmuth 2012: 101). Bert Palmer in Cabin on Kotsina River. WRST History Files, "Kotisina" Folder, 691.

TRANSPORTATION

CHAPTER 3

Integral to profitable economic encounters and exchanges in the Wrangells was the development of a fluid transportation network. First Alaska Native hunters, fishers and traders created a far-reaching trail system that reflected their knowledge of the region's mountains, rivers and glaciers. New arrivals utilized the energy of horses and their own muscle power. Interest in the area's mineral wealth attracted corporate industrialists, whose capacity for innovation and technology produced one of the most advanced transportation systems in Alaska, but was still at times, no match for the Wrangells' natural obstacles.



In 1897-1898 a handful of prospectors remained in Copper Center, making a living by fishing, trapping and trading with the nearby Ahtna natives. They also provided transportation across the Copper River at the point where the '98 stampeders accessed the "all-American" route to the Klondike (Hunt 1996: 153). **Copper Center (river boat) 1898. WRST History Files, "Copper Center" Folder.**





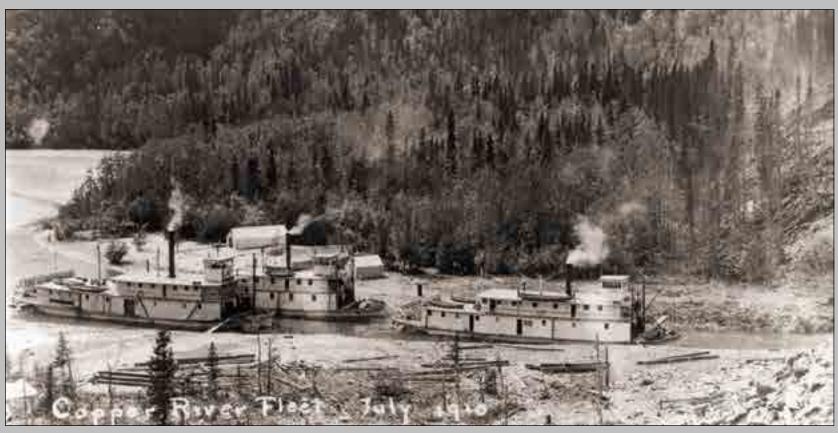
The trail networks that prospectors used to access and traverse the Wrangell Mountains formed originally as Ahtna, Alutiiq, Eyak, and Tlingit subsistence and trade routes that extended from interior sites to coastal areas, such as Cook Inlet, Prince William Sound and the Gulf Coast. After 1910, a new trading pattern developed as a result of the gold rush. Trade stations along the Valdez Trail, like Copper Center, emerged as the mercantile centers for both Natives and non-Natives working in the region (Hunt 1996:23). The Prospector Welcome at Copper River Roadhouse. WRST History Files, "Lower Tonsina" Folder, 28.



Alaska Natives also took advantage of the increasing demand for transportation services. By 1901, Ahtna leader Doc Billum operated the Siwash Ferry that crossed the Lower Tonsina as a successful commercial business. "Copper River, Opposite Mouth of the Tonsina." WRST History Files, "Ahtna" Folder, 731. Original photo located in the Miles Brother Collection, Valdez

Museum, P1986.117.56.





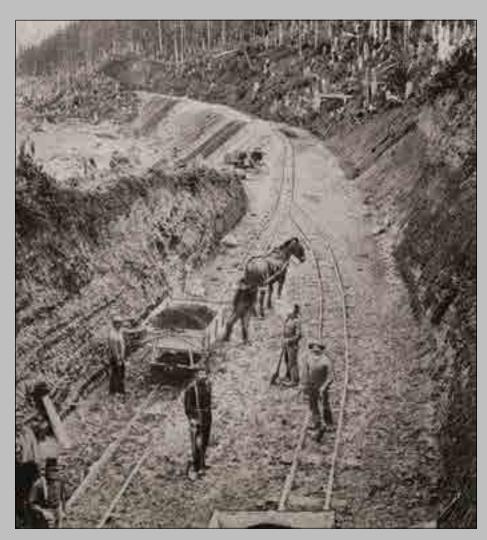
(Preceding page, top) Boosters called the Interior river corridors of the Copper and Tanana "natural highways." In reality, swift currents, deceptively deep channels and ice floes greatly inhibited movement into the Wrangell region, making travel along the rivers not only difficult but dangerous because of the strength of the currents and braided channels. In fact, prospectors who wished to ascend the Copper River had to pull their boats by hand, which by all accounts was a laborious task (Bleakley 2006-Forgotten). Prospectors lining boat up

Prospectors lining boat up Copper River. WRST History Files, "Transportation" Folder, 1237.

(Preceding page, bottom) Between 1907 and 1911, the Copper River & Northwestern Railway (CR&NW) operated a fleet of steamboats on the Copper and Chitina rivers to support railroad construction and mining operations. The Steamboat fleet on the Copper River included the Chitina, the Nizina, and Tonsina. Copper River Fleet, 1910. WRST History Files, "Steamboats" Folder.

"The railway crossed the mossy swamps of the broad [Copper] river delta and passed for miles over the solid ice of the great coastal glaciers, and then carved its way through the rocky cliffs of the lower canyon."

-Martin Radovan



The CR&NW Railway route spanned a distance of 192 miles from the Bonanza deposit in the Wrangell Mountains to the coastal town of Cordova. In order to get the ore to markets, the CR&NW Railway would need to overcome nearly impossible obstacles. Former railway worker and copper prospector Martin Radovan wrote that the railway "crossed the mossy swamps of the broad [Copper] river delta and passed for miles over the solid ice of the great coastal glaciers, and then carved its way through the rocky cliffs of the lower canyon" (Ringsmuth 2012). Railway Construction, 1909. WRST History Files, "CR&NW Railway" Folder, 1226.



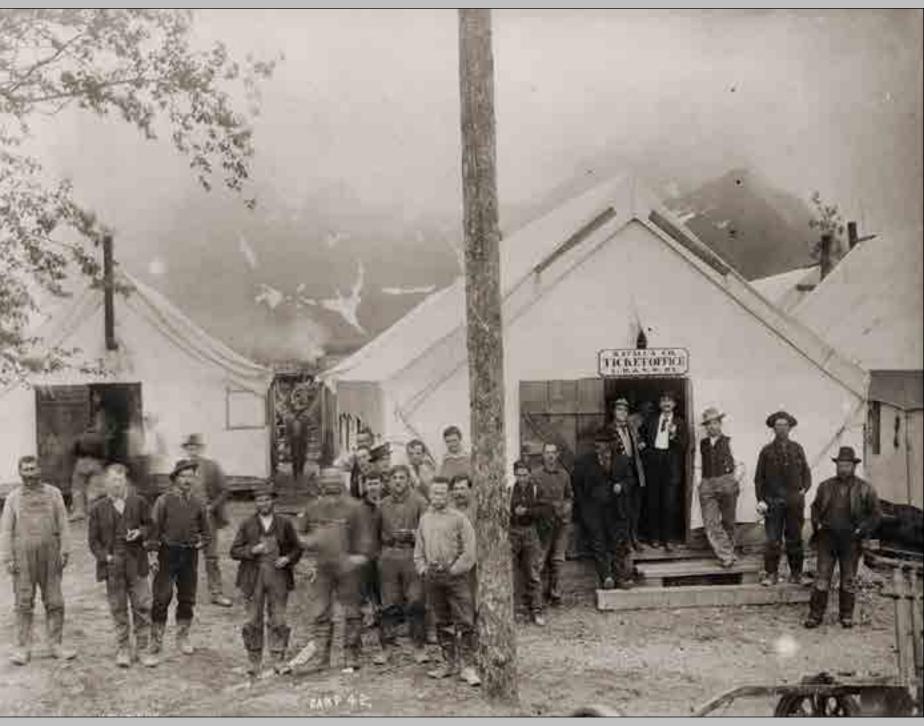
Construction of the CR&NW Railway began in 1907 from the fishing town of Cordova. In four years, railroad crews chiseled roadbed through mountains and bridged numerous rivers. They cut coastal hemlock for rail ties. Seventy-pound steel was used for the Cordova-Chitina line and from Chitina sixty-pound steel was used to reach Kennecott (Hunt 1996: 168). At the peak of the railroad construction 6,000 men labored on the project. On March 12, 1911, the CR&NW Railway joined the copper mines with the coast at the enormous cost of \$23 million. "C.R.&.W.RY. Construction, Mile 134, May 26, 1910." WRST History Files, "CR&NW Railway" Folder, 1248.



"Completion of the CR&NW Railway was "the most important advance made in the history of Alaska transportation since steamboat service was established on the Yukon."

—Alfred H. Brooks

In 1911, Alfred H. Brooks, head of the U.S. Geological Survey in Alaska, called the completion of the CR&NW Railway "the most important advance made in the history of Alaska transportation since steamboat service was established on the Yukon" (Brooks 1911:23). Not surprisingly, engineers consider the CR&NW Railway a modern marvel (Rozell 2012). The great steel Kuskulana Bridge, built in 1910, continues to be traversed by vehicle traffic today. Kuskulana Trestle, 1910. WRST History Files, "CR&NW Railway" Folder.



Outside of those working at Kennecott's railroad camps and mines, Alaska residents resented the level of control the Guggenheims and Morgan wielded over the Territory. The Syndicate's purchase of the Alaska Steamship Company, the Ballinger-Pinchot affair, and the battle for Keystone Canyon between CR&NW Railway and the Valdez-based Home Railway were significant turning points. Alaska leaders, such as Judge James Wickersham, began to rail against the Syndicate's transportation monopoly. In response, the Syndicate pulled funds for schools and roads. Kennecott encouraged its employees to vote in important elections to derail Home Rule legislation—to the extent of transporting them to polling stations from their remote work sites (Hawley 2014:73-74). Alaska's embattled relationship with Kennecott would later serve as a warning to Alaska's future lawmakers. Their desire to prevent "another Kennecott" was, in part, the inspiration of the "Natural Resources" article in Alaska's Constitution (Cole 2004: 73). "Camp 42." WRST History Files, "CR&NW Railway" Folder, 387.



As the CR&NW Railway became a significant transportation corridor it brought to the region new networks of exchange. Inventive adaptations appeared along the railway. Even after the CR&NW Railway pulled out in 1938, residents made use of the rails by modifying automobiles and trucks. Hand-powered Railroad Speeder, 1909. WRST History Files, "CR&NW Railway" Folder, 1213.

(Below) Frank Iverson served as a general foreman during construction of the CR&NW Railway. He homesteaded west of McCarthy about 1917, where he and his wife Anna started the McCarthy Dairy during the 1920s. They were one of five farms that supplied vegetables to Kennecott. Frank Iverson, McCarthy Farmer on Buda Car, 1930s. Bill Herman. WRST History Files, "CR&NW Railway" Folder, 62.





Nature presented constant barriers along the railway route. Heavy snow often delayed transportation between Cordova and Chitina. In 1909, a snowstorm engulfed a work train for 21 days, forcing the 160 men aboard to dig their way from beneath "a mountain of snow" (Hunt 1996:173). "Snowed." WRST History Files, "CR&NW Railway" Folder, 399.

Nature's fury also took the form of huge boulders, torrents of swirling water and treacherous ice floes. Copper River floods took their toll on the CR& NW Railway's trestle that spanned the Copper River near Chitina. Annual floods often washed away the bridge, which had to be rebuilt in the spring. Ice-Damaged Trestle, 1909. WRST History Files, "CR&NW Railway" Folder, 1232.





With the completion of the Railway, the primary distribution center for the Copper Basin shifted from Valdez to Cordova, as an enormous volume of supplies, equipment and workers moved into the Chitina Valley, and copper ore was shipped out to Tacoma, Washington for smelting (White 2000: 26). At the time, pundits expected the mining and transportation industries to attract 5,000 to 10,000 people to the fishing town. Still, Cordova's first mayor George Hazelet, wondered if unrestrained growth was a good thing, confessing to a reporter in 1909, that the

1,500 newcomers were plenty, "No greater misfortunes could befall the town than a large influx of people before it is warranted by the permanent development of the country" (Hunt 1990). "Loading Copper Ore at Cordova, Alaska." WRST History Files, "CR&NW Railway" Folder, 397.

The discovery and success of Kennecott's copper development and the subsequent construction of the Railway reinvigorated interest in the mineral prospects of the Copper Basin. Miners explored many nearby streams, including Chititu Creek. After fits and starts, Chititu yielded profitable quantities of gold, thanks in part to the CR&NW Railway that facilitated the movement of heavy mining equipment and reduced transportation costs for companies working in outlying districts. Horse Drawn Railway Track, 1903. WRST History Files, "Chititu" Folder, 1121.





Competing newspapers published sensational reports about the transportation routes to the Chisana goldfields. According to the Chitina Leader, rushers from Fairbanks could "travel light" over the government trail to Chitina and take the train to McCarthy. Outfits there, then took pack horses over the Skolai Pass to White River. From there the crossing of a "small divide," a little over 20 miles, placed outfits on the Chisana River (Hunt 1996:103). As a consequence of such promotions, far too many prospectors, who approached the goldfields from McCarthy, crossed the Chisana-Nizina Glacier Trail woefully unprepared. Summit Roadhouse, Chisana-Nizina Glacier Trail, 1914. WRST History Files, "Trails" Folder, 889.

At the time of the Chisana stampede in 1914, hopeful prospectors traveled from Cordova, arriving at McCarthy on the northbound train. They then hauled their supplies for over one hundred miles, along the Chitistone River to Skolai Pass, crossing raging streams, glaciers, and a trail so treacherous that one miner called it nothing more than a "goat trail." "On the Scolai [Skolai] and White River trail, Alaska." WRST History Files, "Trails" Folder, 887. Original photo located in the Zacharias Collection, Alaska State Library, PCA 178-2.





Besides horses, dogs provided an important mode of transportation for people who made their living in the Wrangell Mountain region. At that time, acquiring a wolf was believed to be important for breeding, as it eliminated the effects of inbreeding and created more robust and resilient animals. As Aileen Gallaher explained, "a fur trapper needs strong dogs for his team" (Gallaher & Gallaher 2004: 34). In front of the roadhouse at Gakona, Alaska. Al Norwood, Herb Hyland, Tommy Hyke, Eugnia Borwn, Arne Sundt. Samme Gallaher Darnall Collection. Courtesy of Geoffrey Bleakley Collection, Makawao, HI.

(Below) Besides the privately constructed CR&NW Railway, the federally run Alaska Road Commission (ARC) facilitated the movement of people and supplies into the Wrangell region. By 1910, ARC was engrossed with its premier project: construction of a spur trail from Gulkana on the Valdez-Eagle route to the new mining camps of Fairbanks. Calling attention to the ARC early on was the promising mineral regions of the Copper and Nabesna country that lay to the east of the Valdez road (Naske 1986: 1). "Truck." WRST History Files, "Alaska Road Commission" Folder, 1072.





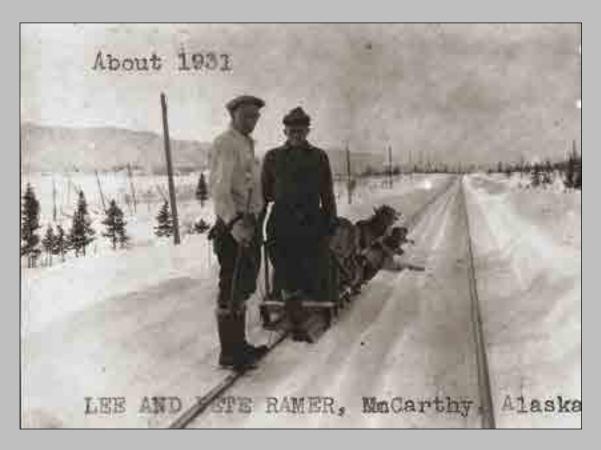
The powerful Nizina River created a significant obstacle to prospectors hoping to access the gold streams at Dan Creek and the surrounding copper belt of the Nizina Mining District. In 1923, renewed speculation and corporate investment in the Nizina Mining District prompted Alaska Road Commission engineers to redesign a permanent bridge, made with a steel and a concrete foundation, which could withstand spring breakup, as well as the Nizina River's notorious shifting channels (Historic Structures Inventory, 1991). Nizina Bridge. Bertha Ramer Collection, McCarthy-Kennicott Historical Museum, McCarthy, Alaska.



The Alaska Road Commission constructed an aviation field and a four mile tractor road to connect mining sites at Bremner Pass in 1938. The ARC also constructed airstrips at McCarthy, Chisana, Nabesna, Copper Center, Chistochina, and on a flat site near the headwaters of the Chitina River. Sylvia Baldwin Collection. Courtesy of Paul White.



Merritt "Kirk" Kirkpatrick, along with several Cordova business leaders with connections to the Bremner Gold Mining Company, started Cordova Air Service in 1934. Kirk's Kinner Bird provided air support to miners transporting construction material from McCarthy into Bremner during the winter of 1934. **Bertha Ramer Collection, McCarthy-Kennicott Historical Museum, McCarthy, Alaska.**



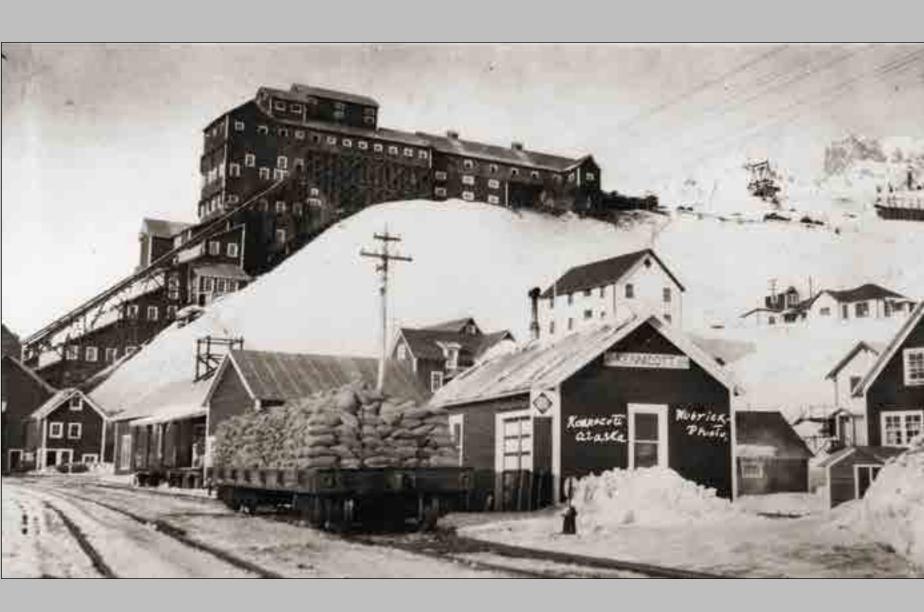
In order to facilitate the transportation of construction material and personnel from the CR&NW Railway terminus to the Bremner mine, the Ramers began buying up real estate in early 1934 from McCarthy homesteader, Alfred Doze, whose land surrounded the McCarthy airstrip. The Bremner Gold Mining Company briefly owned the McCarthy air strip and likely built the airplane hangar near the historic Cordova Air Service cabin. The brothers supported Harold Gillam's early flying career and were early investors in Merritt Kirkpatrick's Cordova Air Service. Lee and Pete Ramer, McCarthy, Alaska, ca. 1931. Bertha Ramer Collection, McCarthy-Kennicott Historical Museum, McCarthy, Alaska.



Kennecott's trams were built to transport copper ore from the mine to the mill. But miners utilized the buckets on occasion, riding up to the mine. Others used dog teams for quick mobility. Prior to air carrier service, dog teams delivered the mail. Routes radiated from population hubs throughout the Wrangells, connecting the most isolated individuals with the rest of the world. Sprouting up around the dog team mail carriers was an elaborate business system from sled makers to sellers of dried salmon to feed the dogs. "Tram and Dog Team near Bonanza Ridge." WRST History Files, "Trams" Folder. Original photo located at the McCarthy-Kennicott Historical Museum.

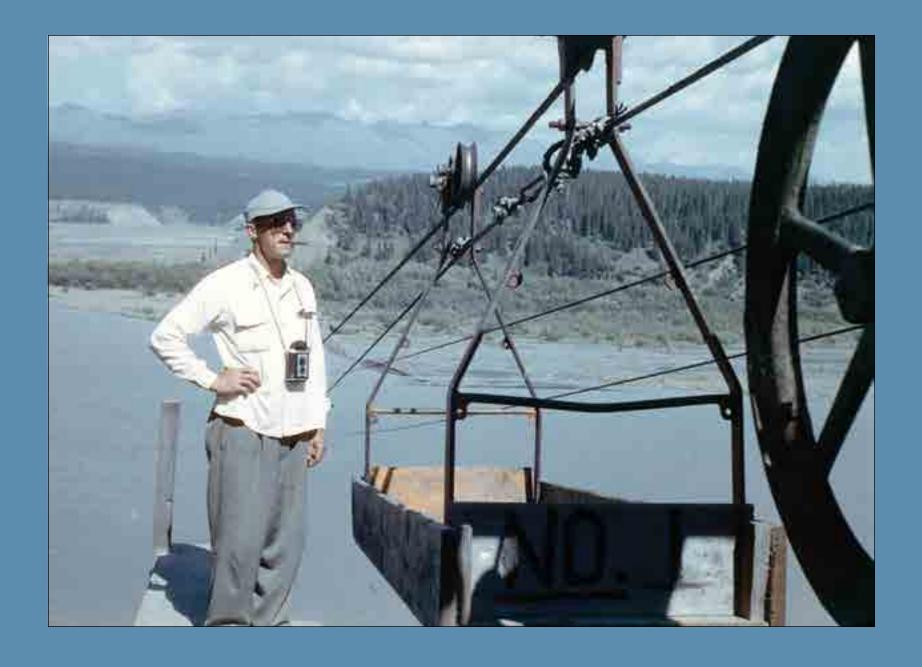


Likely for safety reasons, Kennecott's management restricted dog sleds at the milltown. A sign near the edge of the baseball field announced to new arrivals, "No Dog Sleds Beyond This Point." Still, McCarthyite Oscar Watsjold, who attended school at Kennecott, remembered hitching his dog to a doghouse by the glacier "and when school was out, we'd [he and his dog] go back to McCarthy" (KKOHP 1991-Watsjold: 7). When the railroad closed in 1938, dog teams became an important mode of transportation for local residents. Ramer Dog Team, 1930s. Bertha Ramer Collection, McCarthy-Kennicott Historical Museum, McCarthy, Alaska.



When Kennecott exhausted the high-grade copper sources and abandoned the mill in 1938, the Copper River & Northwestern Railway closed within a few weeks, causing populations in Chitina, Kennecott and McCarthy to dwindle.

From 1907-1911, the Alaska Syndicate invested \$25 million in the development of the Kennecott Mine, and approximately 80 percent of the funds were spent in the construction of the railway. The exorbitant expense, however, was worth it. On April 8, 1911, the first ore train from Kennecott hauled \$250,000 of 70 percent copper ore. In 1916, the peak year for production, the mines produced copper ore valued at \$32.4 million. In less than 30 years, the railway shipped out more than 4.5 million tons of ore. Kennecott produced over \$200 million in copper, with at least half realized in net profits. When Kennecott exhausted the high-grade copper sources and abandoned the mill in 1938, the CR&NW Railway closed within a few weeks, causing populations in Chitina, Kennecott and McCarthy to dwindle (White 2000: 26-29). **Kennecott Millsite, 1920. Hubrick Photo. WRST History Files, "Kennecott Millsite pre-1920" Folder, 570.**

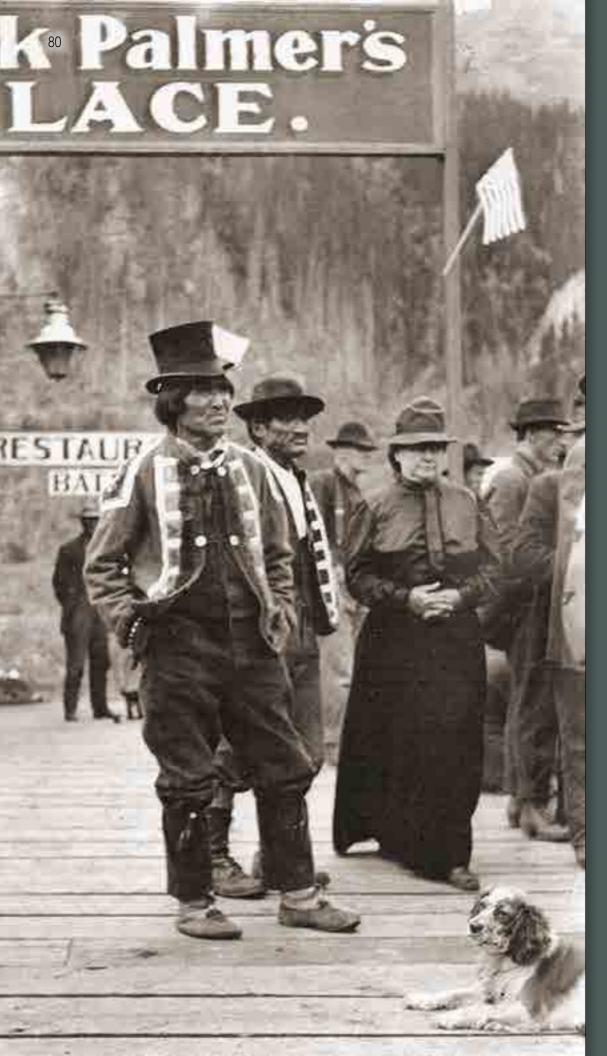


The Copper River trestle at Chitina washed out for the last time in 1939. With Kennecott's closure of the mines, and the pull-out of the CR&NW Railway in 1938, the trestle was not rebuilt. The only way to cross the river was either by small boats, or by cable and "boson's chair" (shown here) until the Copper River Bridge was rebuilt at Chitina in 1971. Stan Bigos at Chitina Tram Car #1. 1950. Courtesy of Charles "Bob" Leitzell.

COMMERCE AND GOVERNMENT SERVICES

CHAPTER 4

The completion of the Copper River & Northwestern Railway, the introduction of communication and legal services, and the discovery of new mining prospects and the establishment of the US Geological Survey stimulated commercial enterprise. As a result, a variety of people with differing pursuits, met and interacted through the Wrangell region. Camps transformed into communities, the mining industry professionalized, residents coveted fashionable commodities, and new businesses materialized, which, together, integrated the Wrangells into a web of American capitalism. Linkages to Western cultures, however, transformed traditional lifeways and brought diseases that changed Native cultures in the Wrangells forever.

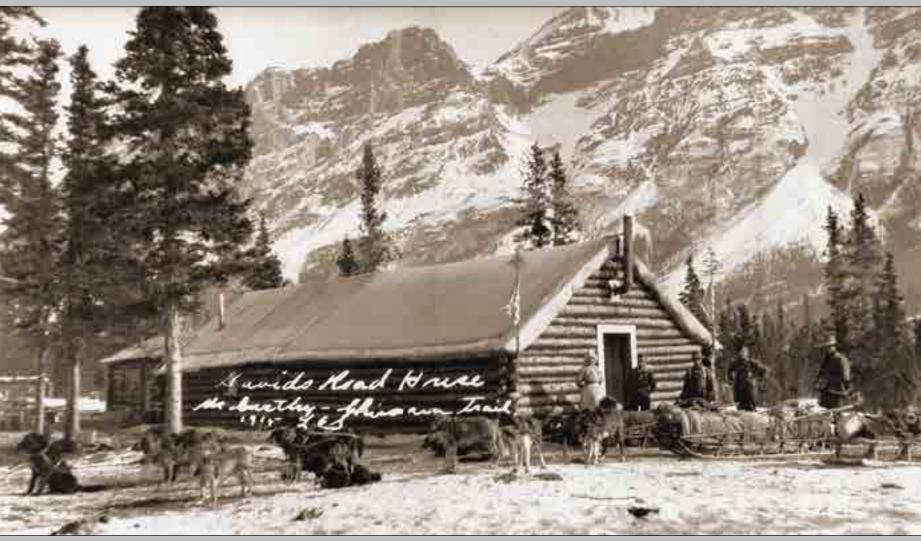


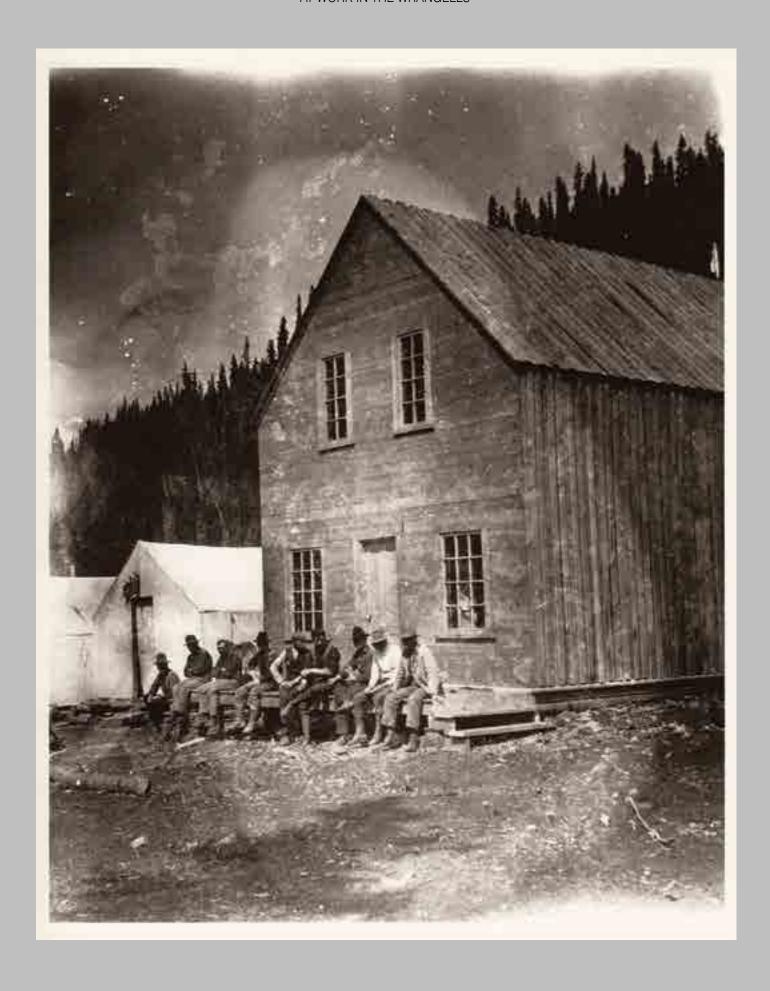
Observing American newcomers, who were celebrating the Fourth of July in downtown Chitina, is Chief Nicolai's youngest brother, Eskilida, who succeeded his brother Hanagita as head of the Lower Ahtna. Eskilida divided his time between his village Tsenghaax on the Copper River opposite the mouth of the Chitina River and subsistence sites at Strelna (Staghael Na') and the mouth of the Tebay River (Naghael Na'). In his lifetime, Eskilida witnessed the growth of urban centers, the rise of industrialization and mechanization, and the commodification of natural resources that his people had subsisted on since time immemorial (Bleakley 2006). Chief Eskilita at Chitina, July 4, 1917. WRST History Files, "Ahtna" Folder.

(Facing page, bottom) The Spruce Point Roadhouse on the Nizina River served as temporary staging areas for portaging supplies along well traveled trails that connected prospectors to potential claims. Spruce Point was a midway point between Dan Creek and Glacier Creek and could be traveled on foot in a day. "Spruce Point" Roadhouse, McCarthy-Chitina Trail, 1915. WRST History Files, "Nizina" Folder, 816. Original photo located in the Stanley Collection, Alaska State Library, PCA 184-118.



In 1900, Congress authorized the U.S. Army Signal Corps to begin laying a system of cables and telegraph lines in Alaska, known as the Washington-Alaska Military Cable and Telegraph System (WAMCATS). For the first time, Alaska was temporally linked to the continental U.S., as well as to the rest of the world. In 1903, the Signal Corps began construction of a WAMCATS line along the Valdez-to-Eagle trail. This made the Valdez trail one of the most important access routes to the Alaska Interior. **WAMCATS Station, 1903. WRST** History Files, "Chistochina" Folder.





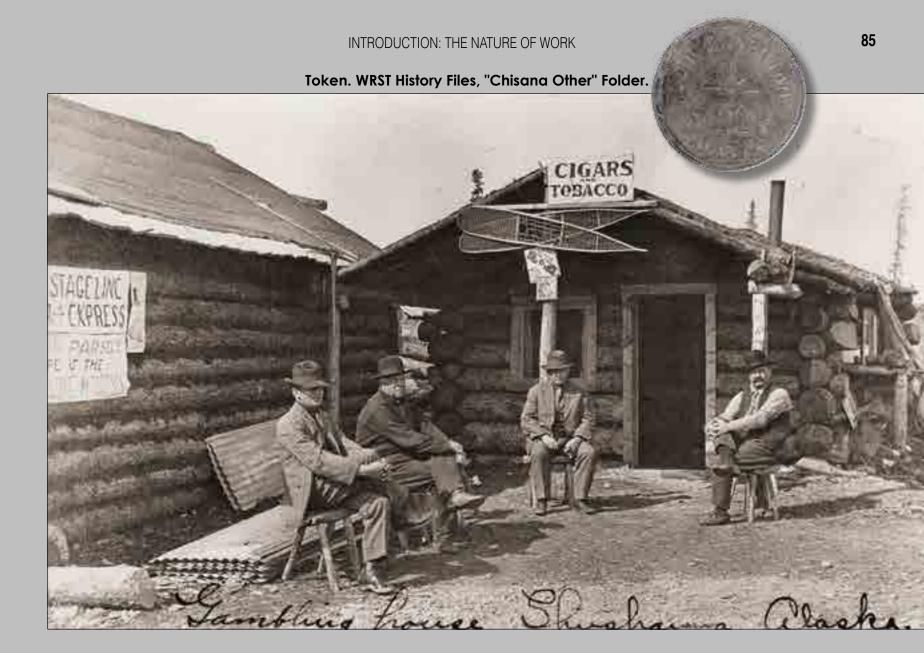


Some of the first businessmen in the area were the Fagerburg brothers, who ran a small store at the mining camp at Nizina. In 1911, the Fagerburg brothers constructed the Blackburn Roadhouse, a two-story structure built with logs and milled wood. At the time, it was considered the "biggest log structure in the district" (*Chitina Leader*, July 15, 1911). When word spread of the Chisana strike in 1914, a rush ensued that drained the Blackburn population. Because the railroad stopped at McCarthy and not Blackburn, stampeders stayed in McCarthy and made nearly all their purchases from McCarthy's merchants. McCarthy, then, survived the Chisana gold rush, while the one-time promising town of Blackburn shriveled (Kirchhoff 1993: 42). **Blackburn City, 1914. John Byram Collection WRST History Files, "Blackburn" Folder.**

(Previous page) To serve prospectors and other business entrepreneurs, the U.S. Geological Survey produced reports that contained "useful information" in "untechnical language." The federal government's relationship with private investors cultivated a new field known as 'economic geology.' Implementing the new role of economic geology were USGS geologists Walter C. Mendenhall and Frank C. Schrader whose brief report on the new Chititu Creek district in 1903 contributed to a small, yet ultimately failed stampede, which historian Geoff Bleakley described as one of the "forgotten mining camps of the Wrangell region" (Mendenhall and Schrader 1903: 59-62; Bleakley-Shadow 2006). "Chititu Camp, 1903." WRST History Files, "Chititu" Folder, 1118.



Boosters, hoping to attract investment in and settlers to the Wrangell region, proclaimed that the area was suitable for agriculture. Although farms such as the Tibb's Farm located along the railway in Chitina were assured easy, inexpensive transit to market, the short growing season and early frosts made farming economically risky, which forced some farmers to double as fur raisers (Hunt 1996: 208). "Tibbs Farm, Chitina Alaska." WRST History Files, "Chitina" Folder, 7354.



For the most part, the wild side of mining communities was absent from Chisana's growing population. Still, aged miners frequented at least one gambling house, and as one stampeder observed, "it is no trick to get all the booze you want" (Hunt 1996: 110-111). The Gambling House in Chisana City. "Cigars and Tobacco." WRST History Files, "Chisana City" Folder, 47. Original photo located in the Zacharias Collection, Alaska State Library, PCA 178-99.



An account from 1914 reported that Chisana maintained all the necessary institutions of small-town America: 350 cabins, two restaurants, two barber shops, one drug store, one Red Cross nurse, one jail, and seven petitions out for saloon licenses (Hunt 1996: 110). "Miner's Home Bar." WRST History Files, "Chisana City" Folder, 115.





Businesses in the Wrangells utilized, almost extensively, the energy of horses. Initially, pack horses and sleds transported the materials and provisions required to equip Kennecott's mill site until the Copper River & Northwestern Railway permitted operation of a supply train (Graumann 1976: 15-16). Horse power was commodified by commercial freighting services for the conveyance of supplies to mining districts such as Chisana. Later, horses facilitated hunting expeditions, as the primary mode for transporting hunt guides and their clients into the Chitina and White River region. Horse on Snowshoes. WRST History Files, "Transportation" Folder, 1044. Original photo located at the McCarthy-Kennicott Historical Museum, B7-32.



Kennecott Copper Corporation represented the rationalization, scientific and managerial professionalization of Alaska's mining industry. The company sought the expertise of universitytrained engineers and geologists to determine where and how to build mines in order to efficiently and profitably extract copper. The practical knowledge of the "old-timers" became outdated, which marginalized the so-called "little-guy" and transformed the way people worked in the Wrangells. Office Force and Engineers, Kennicott Mines Co, Kennicott Alaska. PS Hunt Photo. **WRST History Files, "Kennecott** Millsite pre-1920" Folder, 765.



Tony Dimond (on the far right) mined for gold along Young Creek. Finding none, he joined the Thomas Donohoe law firm in Valdez. After becoming Alaska's non-voting delegate in Congress, Dimond pressed for regular air mail service in Alaska. While arguing before the U.S. House Appropriation Committee, Dimond used his experience as a Wrangell Mountain miner to stress the importance of mail to people living and working in remote areas. "I remember back in 1905, or thereabouts, the great thrill of pleasure we all had in the camp when the first mail came in," recalled Dimond. Dimond assured the committee, "Air transportation, and particularly the transportation of mail by air, is here to stay" (Cordova Daily Times, 1934). Tony Dimond at Mining Camp. WRST History Files, "Young Creek" Folder, 1022. Original photo located at the Valdez Museum, P.1987.132.5.

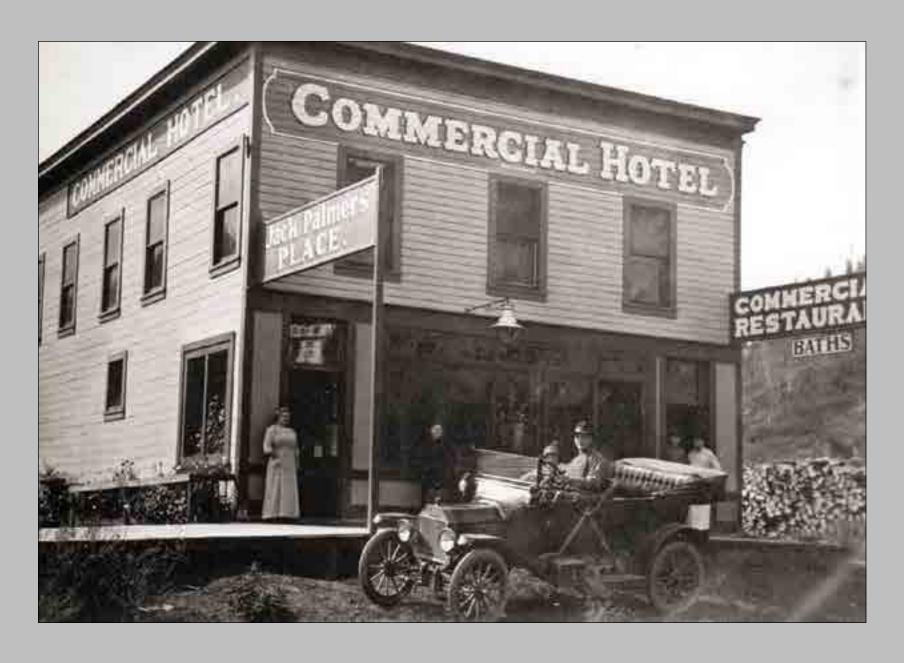






(Above) Chitina served as a regional hub for mining, trading and guiding. Over time, Chitina gained government and business amenities, including a school for local Native children, various mercantile stores, and a hotel—Chitina's Commercial Hotel—operated as Jack Palmer's Place during the community's heyday. As radio reached the region and air travel arrived with Gillam Airways, Chitina became linked to wider commercial networks and systems of communication and exchange. "Main Street, Chitina, Alaska." WRST History Files, "Chitina" Folder, 352.

(Previous spread) Although miners and bush pilots drew public attention as the "face of the Wrangells" working population, from behind the scenes lawyers and other businessmen paved the way for the growth of commercial networks. Such a figure was Cordova attorney Thomas M. Donohoe (likely seated at head of table)—a professional with the means "to facilitate the business side of things" (Griese 2005:176). In 1920, the partnership of Donohoe & Dimond created the foremost law firm in the Alaska's Third Judicial District. Donohoe served as attorney and financial advisor to regional aviators such as Harold Gillam and Bob Reeve. He was the public notary who signed the Nabesna Mining Corporation's incorporation papers in 1929, and by 1937, served on the company's Board of Directors. In addition, Donohoe, along with Peyton Ramer and Lee Ramer, formed the Bremner Gold Mining Company on October 2, 1931 (Ringsmuth 2015:35-36). **Tom Donohoe, Dinner Party, Cordova History Museum, 73-51-292.**



Chitina boomed as the CR&NW Railway arrived in 1910. The onset of the railway attracted entrepreneurs who established commercial businesses. Chitina also served as an important junction between the rail towns like McCarthy and Kennecott and the government constructed Richardson Road, which created efficient movement for services such as mail delivery. A wagon from Valdez met the train in Chitina, picked up mail, and delivered it along the road to Fairbanks. Tourism businesses also benefited from the new linkages, for commercial operators picked up passengers in Chitina in wagons—then cars—for tours that included sightseeing over Thompson Pass. Commercial Hotel, Chitina, Alaska. WRST History Files, "Chitina" Folder, 1088.



(Left) Much of the working life at Kennecott was spent deep in the mines, at the leach plant or the deafening machine shop. Thus, employees and their families often brought with them luxury goods that provided joy and comfort when not working. Although some items were purchased at the Company Store, most goods were ordered from the Outside. Eleanor Tjosevig Eidemiller recalled that when she and her family made trips to Seattle, they returned to Kennecott with "nice things." According to Eidemiller, "We would come home with clothes and books and records and other little things that added to our comfort and enjoyment" (KKOHP 1991-Eidemiller: 11). Similarly, James McGavock recalled that employees ordered items like clothes from a mail order house like Sears Roebuck (KKOHP-Lamb and

McGavock: 18). Messhall at Bonanza. WRST History Files, "Kennecott—Bonanza Mine" Folder, 631.

(Below) McCarthy, in many ways, reflected the social, economic and cultural norms of any small town in rural America. McCarthy supported several newspapers, including the McCarthy Weekly News, published sporadically by different owners from 1917 to 1927. In the 1920s, the town's population peaked at 127. Additionally, a number of commercial establishments also served much of Kennecott's 500 population. Besides stores, saloons, and other prospering businesses, prostitution was also active in McCarthy. Many of the prostitutes who lived on "the Row," an alley near McCarthy Creek, represented some of the most influential business people in the community and supported the flow of commerce with their power to purchase luxury commodities, such as nice dresses (Hunt 1996: 186). Russ Dow papers, Archives and Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0396-14a-230.





The establishment of the salmon canneries in Yakutat and Cordova was part of a larger pattern of commercialized salmon packing that occurred throughout Alaska and the Pacific Slope. By the end of the 19th century, new economic conditions had significantly altered the traditional relationship between human consumers and the salmon in the Wrangells region. The reciprocal relationship between humans and nature in the commercial fishery had faded. Capitalism was now the single most important force driving activities that affected the salmon. Whereas Native fishers had traditionally harvested for local use, limiting takes to moderate catches, the industry fishermen had considerably fewer cultural or economic constraints, and as a result, excessive catches and wastefulness plagued the early years of the

commercial fishery. Men in knee deep water gaffing fish, Yakutat Bay. Shoki Kayamori Photograph. ca. 1912-1941. Alaska State Library, ASL-P55-752.

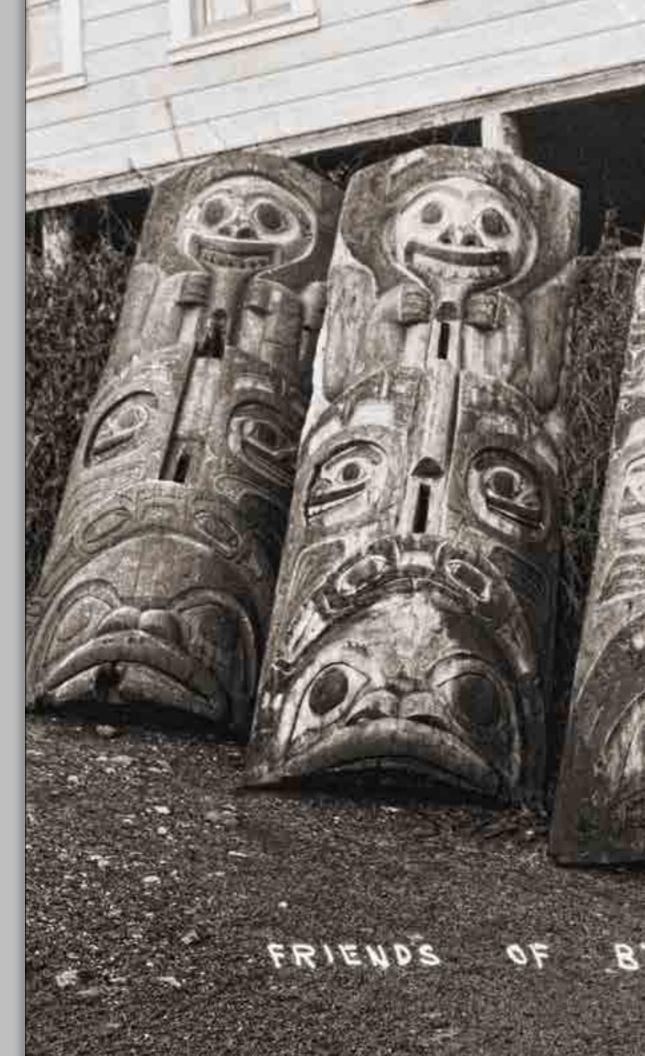


Although salmon fishing remained an important subsistence activity, Yakutat Tlingit gained employment in the salmon canneries as skilled commercial fishermen. In 1949, Icy Bay fishermen Harry Bremner told Frederica de Laguna about how his ancestors had navigated across Mount Saint Elias to the coast. "[The mountain] was a compass for the people so they wouldn't get lost ... Then they finally found Icy Bay, Yahtse," the site of a significant salmon fishery (Cruikshank 2005: 34). Harry Bremner making a net, August 28, 1954. Frederica de Laguna Photograph Collection. ASL-P350-52copy-09-sup.

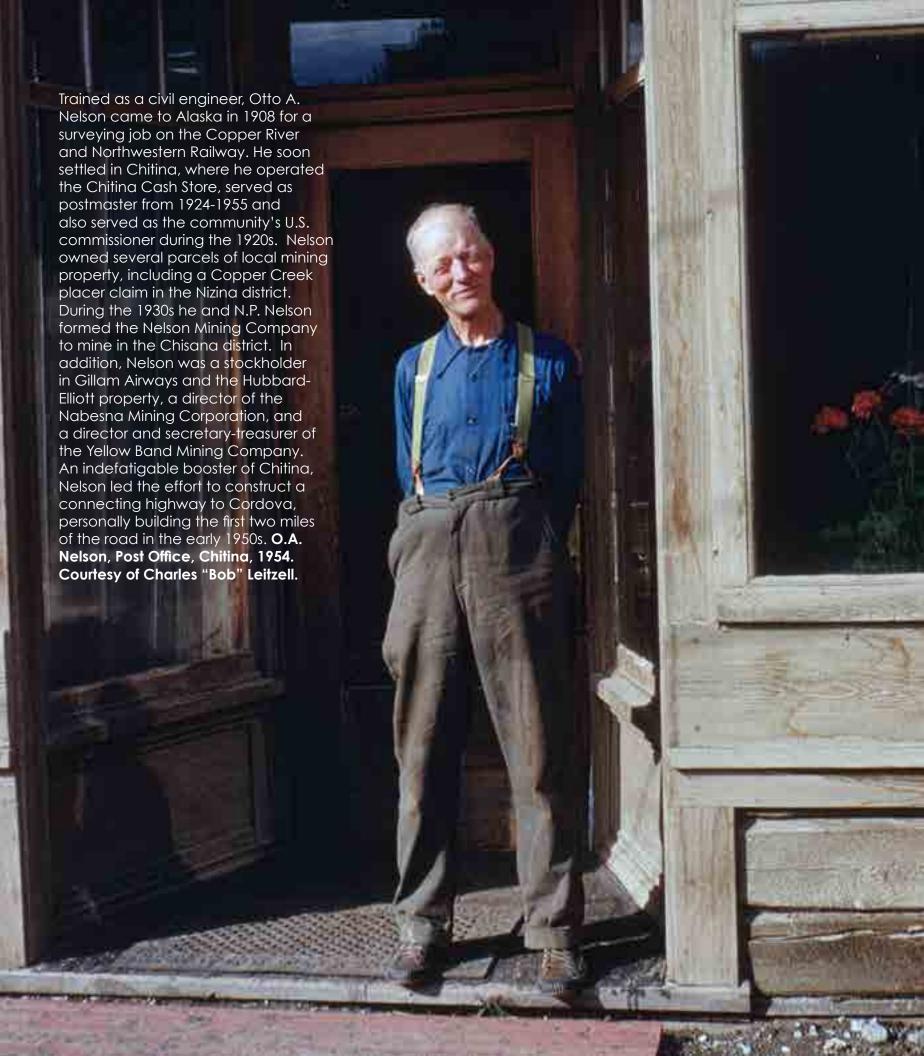


Alaska Natives adapted to American capitalism by responding with their own brand of consumerism. Native people designed objects such as small carvings, cribbage boards, baskets, snowshoes, moccasins, fur hats, boots and gloves for miners, trappers and explorers, who created a market for Native art. Alaska Natives were able to capitalize on traditional commodities as a way to earn money for western goods and supplies in order to care for their families. Still, the sale of cultural items to the encroaching society was often times a reluctance and painful choice.

By 1919 adaptability became even more difficult as Alaska Natives faced challenges caused by the Spanish flu pandemic, carried north by ocean transversing ships. At the time, Alaska Natives faced a stark choice: adapt or perish. Census figures reflect a catastrophic population decline which pushed Tlingit and Eyak to the edge of a demographic cliff. By the 1930s, white Americans constituted the majority of the population. Tlingit leader Ishmael Hope suggests that, instead of straddling two worlds, his people actually lived in two worlds. "It was as if they had two world views at the same time, rather than one pushing out the other to make room," explained Hope (Metcalfe 2014:15). "Friends of Bygone days." Jim Kardeeto in Native costume standing by four carved posts from Shark House. Shoki Kayamori Photograph. ca. 1912-1941. ASL-P55-146.







"WOMEN'S WORK"

GHAPTER 5

Women not only matched the work of men in the Wrangells, but they overcame the demands that nature itself placed upon them. It was the wisdom of Native women who developed ways to preserve and store fish and other foodstuffs that kept the village fed and clothed well into the winter. The influx of "non-Native" or American and immigrant women worked as cooks, secretaries, teachers, nurses, gardeners and caretakers of history. Some even made history through their work. Former prostitute Kate Kennedy became a successful business leader. Mountaineer Dora Keen was the first climber to reach the top of Mount Blackburn. Margaret Keenen Harrais taught school in McCarthy, was a leader in the Woman's Christian Temperance Union, and later became U.S. Commissioner and ex-officio probate judge in Valdez. Anthropologist Frederica de Laguna conducted ambitious fieldwork in the Copper River area and along the coast. Her three volume publication, Under Mount Saint Elias: The History and Culture of the Yakutat Tlingit, has since become the foundation for regional archeology and is still considered the definitive account of the Yakutat Tlingit and Eyak cultures.





A wealthy Native man living in the Wrangell region prior to contact might have had more than one wife. In this instance, it was the job of the eldest wife to supervise the younger wives in ways of childcare, food gathering and processing, and other domestic skills essential for survival (Haynes and Simeone 2007: 60). "Lazy Summer Day in the Copper," ca. 1902. WRST History Files, "Ahtna" Folder, 200.

(Preceding page) The Ahtna social system valued women who worked hard. In order for a young woman to marry, it was important that she was perceived by the family of the prospective spouse as productive and hardworking. At an early age, girls learned to tan skins, sew, and cook. They were expected to look after smaller children and underwent rigorous physical training (Haynes and Simeone 2007: 60). "80 lbs. Packs." WRST History Files, "Ahtna" Folder, 213. Original photo is located in the Miles Brothers Collection, Valdez Museum, 916.



The Ahtna social system valued women who worked hard.

By the beginning of the 20th century, indigenous peoples in the Wrangell Mountain region retained many of their traditional features, but had entered a period of transition. In the new "mixed, subsistence-market economy," households combined jobs with subsistence activities that invested a portion of their income to purchase western goods and clothing (Haynes and Simeone 2007: 46-47). In Alaska, as well as throughout the West, women worked to preserve important elements of traditional lifeways, while at the same time, incorporated useful western goods that made their working lives less arduous (Van Kirk 1983). "Indians Drying Salmon at Chitina." WRST History Files, "Ahtna" Folder.



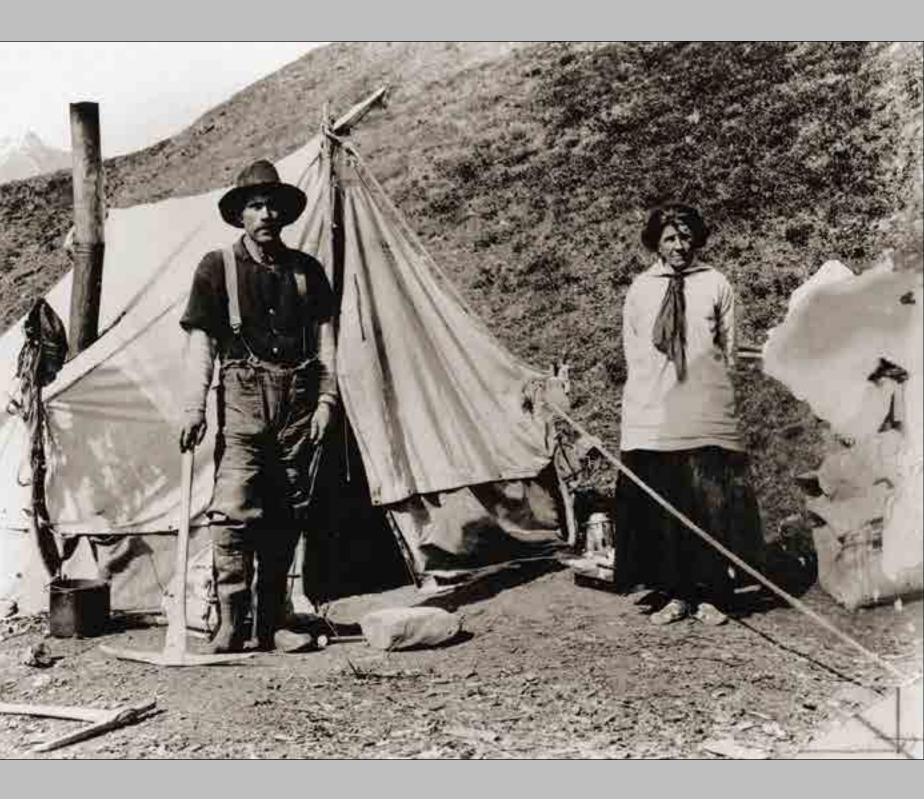
As with many frontier communities, the influx of white American women were instrumental in introducing many core social institutions, such as education, health care, civic beautification projects and missionary work, which helped transform male-dominated mining camps into American towns (Pascoe 1990). One contemporary observer noted a direct influence of women on Chisana miners: "men mostly shave now, where formerly they were rough and bearded" (Hunt 1996:110). **2 women. WRST History Files, "Bonanza City" Folder, 100.**



Loomis Lovelace and his wife, Josephine Swanson ran the Loomis Roadhouse at Upper Tonsina through 1903 (Bleakley 2006). Few gardens were grown for market consumption. Most served individual families or a small local community (Hunt 1996:208). Although some gardens were grown for food, others cultivated flowers grown simply for their beauty. Through gardening and other similar activities, women developed a relationship to the land that often diverged from their mining husbands. Josephine Swanson Loomis Lovelace, Edwin Loomis (4) and Jennie Swans Banta, Tonsina, 1902-1903. WRST History Files, "Upper Tonsina" Folder.

(Facing page) Dora Keen was the first mountaineer to climb Mount Blackburn. After a failed attempt in 1911, she and her party succeeded in 1912. Members of the 1912 expedition had to cross steep and dangerous sections on Mount Blackburn, but the elevation provided tremendous views of the Kennicott Glacier and the surrounding mountainous landscape. "Mountaineer." WRST History Files, "Mountaineering" Folder, 786. Original photo is located in the Dora Keen Collection, University of Washington Library, 16694.





Matilda Wales had joined her long-time companion Billy James, when he and Nels P. Nelson discovered gold on Bonanza Creek in 1913. The couple staked a claim on Little Eldorado Creek in the Chisana district that same year (Bleakley 2005: 11-13). "Billy James and Matilda Wales, Little El Creek, 1913." WRST History Files, "Little El" Folder, 309. Original photo located in the Best Collection, Alaska State Library.



Fletcher Hamshaw was a well-known mineral developer. He leased the James-Nelson holdings in the Chisana district in early 1914. Margaret Hamshaw rushed to the district soon after her husband. Several early claims, including Eldorado Discovery and No. 1, were staked in her name (Bleakley 2006). Couple on right Fletcher and Margaret Hamshaw, 1914. WRST History Files, "Chisana-Other" Folder, 322.







(Above) Some women workers came to the Copper basin with their miner husbands, but others found wage-paying jobs on their own merit. Women taught schools, worked as secretaries, nurses and typists for Kennecott Mines, the Alaska Road Commission, and the Post Office. They fished, baked bread, ran roadhouses, sluiced for gold, washed laundry, cut wood, socialized with neighbors, and had a naturalist's eye for wildlife. They even represented Alaska's first generation of female voters to serve on a jury (Ringsmuth 2012). Mrs. Augusta Radovan and Mrs. J.J. Price, McCarthy. Courtesy of the Wrangell St. Elias News.

(Left) Margaret McGavock worked numerous claims with her husband James McGavock, who worked for the Great Northern Development Company on Clear Creek, for the Hubbard-Elliott Company on Elliott Creek, and for Angus MacDougall on MacDougall Creek, as well as prospecting his own properties, which included a Rex Creek claim (Bleakley 2006). Aunt Margaret McGavock operating a "hydraulic giant" on Dan Creek. Jean McGavock Lamb Collection. WRST History Files, "Dan Creek" Folder, 435.



In her memoir, Sisters: Coming of Age and Living Dangerously in the Wild Copper River Valley, Samme Gallaher confessed, "I was nineteen...and thought I was in love with Gillam" (Gallaher & Gallaher 2004:156). Gillam frequently visited Samme Gallaher's homestead along the Copper River in the early 1930s. Gilliam unloading his Zenith. Samme Gallaher Darnall Collection. Courtesy of Geoffrey Bleakley Collection, Makawao, HI.

In 1925, a young Californian named Aileen Gallaher met Clyde C. "Slim" Williams, a trapper from Alaska. Gallaher had dreamed of an adventurous life, and when Slim asked her to join him in Alaska, she saw the journey North as a means of escape from the humdrum, day-to-day monotony. "I was consumed by a desire for something fresh and new," recalled Gallaher, something completely different" (Gallaher & Gallaher 2004: 20). Aileen at the Copper River Cabin. Samme Gallaher Darnall Collection. **Courtesy of Geoffrey Bleakley** Collection, Makawao, Hl.



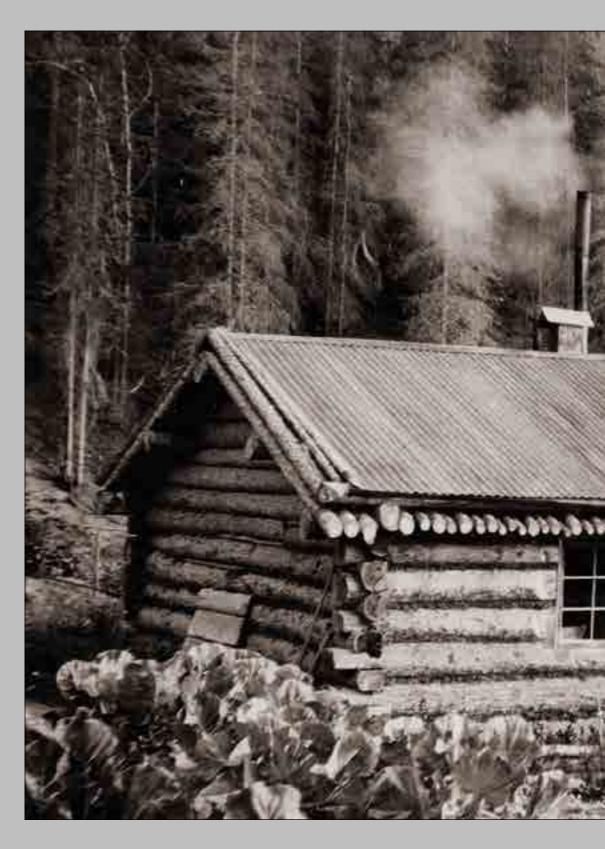


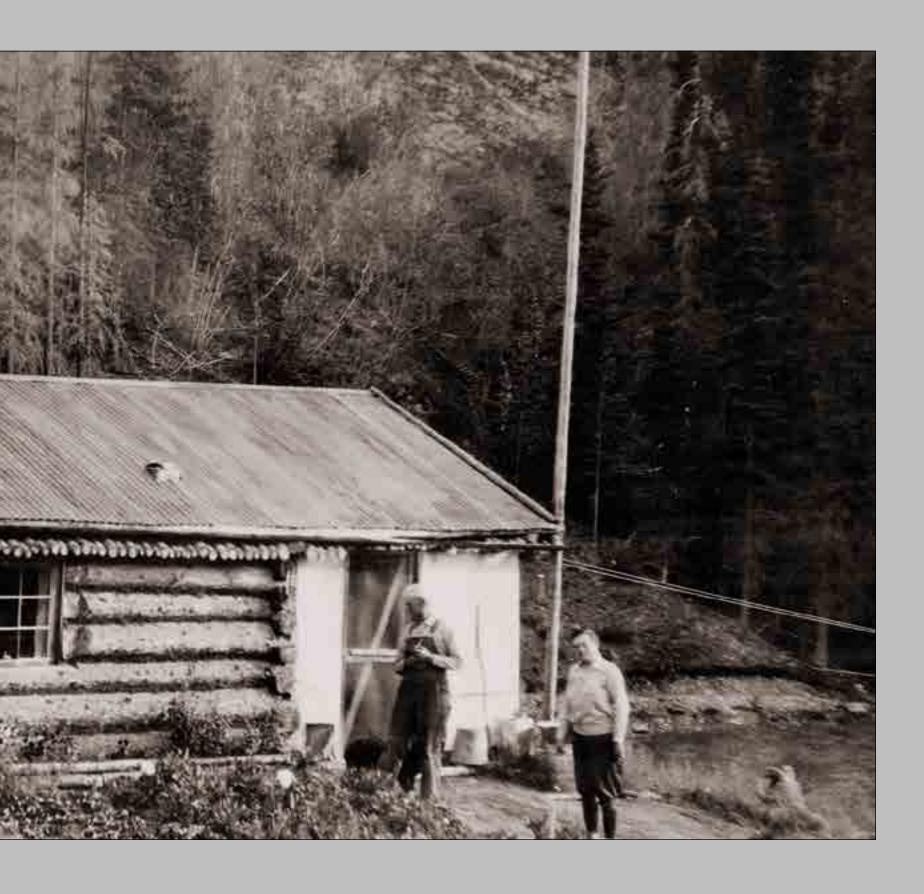
Margaret Keenen Harrais came to Alaska in 1914, where she served as principal of Skagway schools and then Fairbanks schools, and was active in the Alaska Chapter of the Woman's Christian Temperance Union. In 1924, she joined her husband Martin Harrais in McCarthy, where she taught school for eight years, instilling in the children the principles of temperance and frugality (Movius 2009: 79-102). Margaret Harrais with McCarthy School Children. Harrais Family Papers, Box 8, folder 125, Alaska and Polar Regions Collections & Archives, Archives, Rasmuson Library, University of Alaska Fairbanks.

"It was not exactly a restcure sanatorium for a nervous person, so I decided I must not be a nervous person."

--- Margaret Keenen Harrais

Martin and Margaret Harrais shared a mining claim on the Upper Chitina River, and built a nearby camp called Hubert's Landing. While Martin valued the land for its mineral potential, Margaret valued it for other reasons. In 1931, she described her strong connection to the Wrangell Mountains in her journal: "I took a long survey of the mountainous horizon. North, east and south the mountains tower eighteen thousand feet in height, on their crowns and sides glacial snows that are older than history—to the west lay McCarthy, five days distant on horseback and utterly impossible on foot on account of deep water. It was not exactly a restcure sanatorium for a nervous person, so I decided I must not be a nervous person" (Harrais nd). Margaret Keenen Harrais. Martin and Margaret at the Harrais Camp, Upper Chitina region. Harrais Family Papers, Box 8, folder 125, Alaska and Polar Regions Collections & Archives, Archives, Rasmuson Library, University of Alaska Fairbanks.

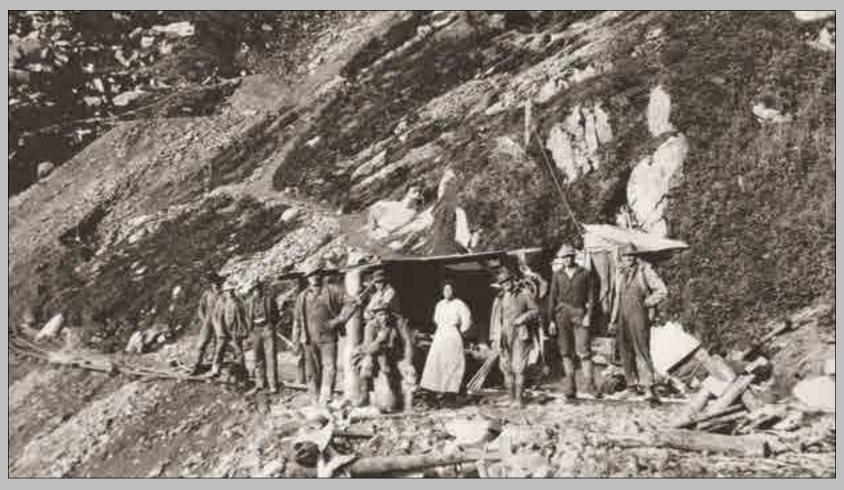






The Kennecott milltown offered intermixed spaces for work, as well as domestic and leisure activities. Employees with small children generally lived in single houses or cottages, away from the industrial activities. Single employees—including two teachers, two nurses, one and sometimes two secretaries—lived in staff housing. The first floor, according to "Kennecott Kid" Mildred Erickson Reis, had a recreation area, the second floor was for men only, and the third floor was only for women, and aptly nicknamed "no man's land" (Kennecott Kids Oral History Project-Ries 1990: 5). 2 women and baby. WRST History Files, "Friends of Kennecott Collection" Folder.





Often perceived as a male-dominated activity, many women worked as miners. If not mining, women served as cooks and laundresses for the mining camps. **On the Trail, 1900s. WRST History Files, "Miscellaneous" Folder, 5.**

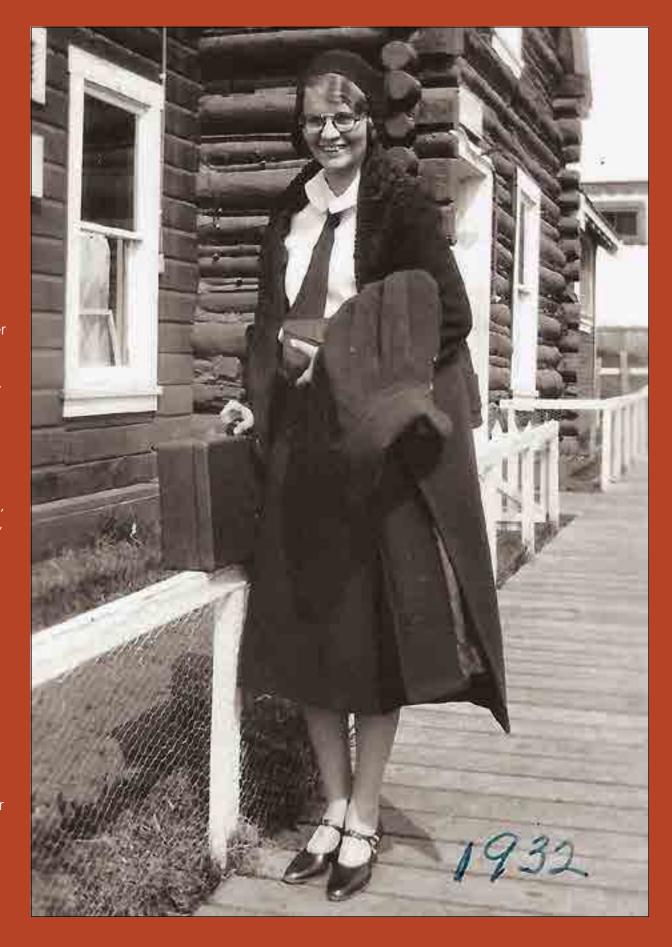
Many of the working women at Kennecott found employment at the hospital. Except for Fairbanks, Kennecott's hospital was the most modern in the territory in the 1930s. Leach plant worker, James Bean Sr., whose son was born at the hospital recalled, "They had a nice hospital here for their employees. They had good doctors and good nurses and everything there" (KKOHP-Bean 1990: 9). "Oscar" the skeleton poses with Mary E. Mulhall and a second unidentified nurse at Kennecott. WRST History Files, "People" Folder, 828.





Women found jobs in the Wrangells because they were willing to work hard. If they chose to marry, they continued to work, often side by side with their husbands. Instead of the stereotypical image of the "reluctant pioneer," women of the Wrangells played active roles in their work, marriages and communities (Armitage and Jameson 1987). "My mother as a prospector's wife, Jean Moore." WRST History Files, "People" Folder, 867.

Bertha Krentz Ramer was one of two female teachers who taught school at Kennecott in the early 1930s. Mary Ellen Duggan Clark, who was six years old when she lived at Kennecott, recalled what it was like to attend school at the milltown: "It was a two room school, one teacher for each room, and on the average I'd say about 20 children overall. We felt that we got a really good education. Each teacher had to teach four grades and she reviewed the lessons of one grade and then give them an assignment, put them to working on it, and then go to the next arade and she had to keep doing that all day long, jumping from one to the other." Kennecott required that only single women teach school. But within a year, many of these single teachers married local miners. This was the case for Bertha, who met and married McCarthy miner Pete Ramer, who later formed the Bremner Gold Mining Company with his brother Lee Ramer (KKOHP-Clark 1990: 4). **Bertha Ramer** Collection, McCarthy-**Kennicott Historical** Museum, McCarthy, Alaska.





While the Ramer brothers worked to develop the gold mine at Bremner, the Ramer family lived in McCarthy. Cordova Air Service often flew the Ramer family between McCarthy and Bremner. In an August rainstorm in 1937, Merle Smith crashed his Stearman C2B biplane after attempting a takeoff from Bremner Mine's muddy strip. The story goes that word spread of Smith's rookie mistake and when running into Bob Reeve days later, the senior pilot gave his new competitor the nickname, "Mudhole." In her scrapbook, Bertha Ramer explains that it was actually Pete Ramer who witnessed the crash and gave Smith his famous nickname, "Mudhole." Bertha Ramer Collection, McCarthy-Kennicott Historical Museum, McCarthy, Alaska.

AVIATION

CHAPTER 6

Aviation in the Wrangells was represented by pilots whose names are recalled today by even the youngest Alaskans: Harold Gillam, Merritt "Kirk" Kirkpatrick, Merle "Mudhole" Smith, and Bob Reeve, "the Glacier Pilot." Their competitive rivalries brought reliable air service to the Wrangells, and eventually formed the primary stops along a regularly scheduled flight route called, "The Copper Belt Line."



In a poem about his favorite person, a third grader from Cordova captured public sentiment for pilot Harold Gillam: "He thrilled em/ Chill em/ Spilled em/ But no kill'em/ Gillam." Not only did Harold Gillam pioneer commercial air service in the Wrangell Mountain region, but he was famous for his pet polar bears, his "cat-like" vision, and his uncanny ability to fly in weather that kept most flyers grounded. To bush pilots like Bob Reeve and the rest of the Wrangell Mountain skyboys, "There was only one Gillam" (Day 1957: 134-135). Gillam preparing to takeoff in his Pilgrim around 1935. Courtesy of the Cordova Historical Museum, 95-46-95.



In 1931, Harold Gillam purchased a Zenith Z-6 biplane to serve the isolated communities and homesteads scattered throughout the Copper Belt. The Zenith's cabin was spacious for carrying heavy freight, but also important to Gillam was that it was enclosed for passenger comfort. Of the six Zenith Z-6 cabin biplane airframes built, two served in Alaska. Bennett-Rhodebaugh had one, and Gillam flew the other. Harold Gillam's Zenith on the hanger ramp in Cordova just before a freak wind destroyed it on Town Lake in Chitina on April 11, 1935. Courtesy of Geoffrey Bleakley Collection, Makawao, HI.



Harold Gillam conducted some of the first reconnaissance flights into the Bremner Mining District in 1930 for the Ramer brothers, owners of the Bremner Gold Mining Company.

Lee Ramer and his dog team and possibly Gillam's Swallow biplane in the saddle of Bremner pass in the early 1930s. Bertha Ramer Collection, McCarthy-Kennicott Historical Museum, McCarthy, Alaska.

To provide air support for the Bremner Mining Company, Peyton and Lee Ramer offered Harold Gillam the opportunity to organize the first flying business in the Wrangells in 1929. The **Bremner Mining Company** purchased Gillam's Swallow biplane, along with the McCarthy hanger and airstrip. But plans for the new aviation business never materialized. That same month, world-famous Alaskan pilot Carl Ben Eielson and his mechanic, Earl Borland, went missing in Siberia and Gillam flew off to join the search. A year later, Gillam returned to the Copper Belt and established



Gillam Airways, Inc., the first air service company in the Wrangell Mountain region. The Ramers sold the hanger and airstrip to the Alaska Road Commission in 1936. Peyton "Pete" Ramer posing in front of Harold Gillam's Swallow, ca. 1931. Bertha Ramer Photo Album, McCarthy-Kennicott Historical Museum, McCarthy, Alaska.



Carl Whitham, the owner of the Nabesna Minina Corporation, contracted Harold Gillam to fly in mining supplies and laborers and ore out of his mining operation. Gold ore was hauled by pack horse six miles down to the landing field near the Nabesna River. From the airfield, Gillam flew the ore 120 miles to Copper Center, so that it could be trucked down to Valdez and shipped outside. Gillam's Pilgrim at Nabesna airstrip. Courtesy of the Alaska Aviation Heritage Museum, Anchorage, Alaska.

Between 1922 and 1938, no regular air mail service existed in Alaska. Dog teams delivered the mail for the federal government. Through the efforts of Alaska leadership, Washington D.C. finally provided a territorial airmail system. In April 1931, Harold Gillam obtained a contract to deliver mail twice monthly to the mining communities of Nabesna and Bremner. In 1934, Kennecott Copper Cooperation contracted him to fly in the mail after the Chitina Bridge went out during spring, preventing mail delivery by rail. By 1935 Gillam Airways had successfully expanded its "Copper Belt" contract to carry mail to Katalla once each month and to Yakataga Beach four times a year. Harold Gillam's Pilgrim refueling at Yakataga Beach during low tide on August 20, 1938. Courtesy of the Cordova Historical Museum, 99-2-20.

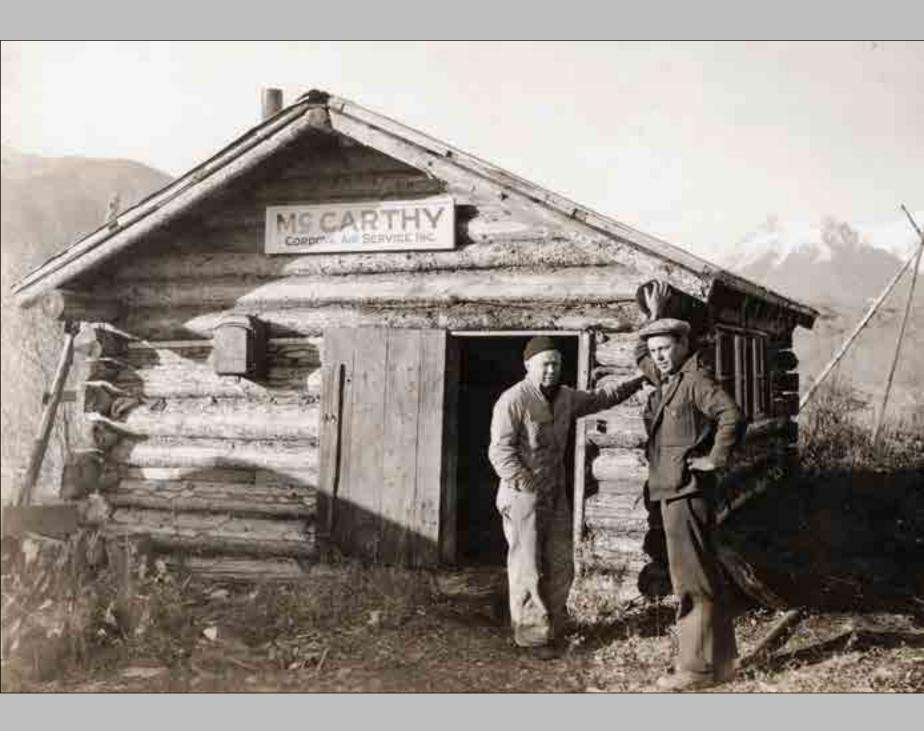




During these early years at McCarthy, Gillam befriended ten-year-old Bud Seltenreich, whose family came to Alaska during the Chisana gold rush and ended up homesteading near the site of the Nizina Bridge. Gillam took the interested grade-schooler under his wing, giving Bud lessons in mechanics at the Anderson Garage in McCarthy. Gillam taught Bud and his brothers to fly, and then, eventually hired Bud as an aviation mechanic for his future flying business, Gillam Airways. It is likely that Bud built the hanger at the McCarthy airfield to keep Gillam's assortment of biplanes' airborne (KKOHP 1991-Seltenriech: 254). Housed in the McCarthy hanger are Harold Gillam's Swallow and what appears to be Merritt Kirkpatrick's Kinner Bird, ca. 1933. Holmes Family Papers, Archives and Special Collections, Consortium Library, University of Alaska Anchorage, Box 1, Series VII, 48b.



To calm investor doubts regarding transportation difficulties, the Bremner Gold Mining Company trumpeted the acquisition of \$2,000 to enlarge and develop the mine's upper airfield in 1936, boasting that "supplies are landed right at the mine" (Valdez Miner, June 18, 1936). Bremner's upper airfield was also the site of Merle "Mudhole" Smith's infamous crash. Pete Ramer and Lee Ramer level Bremner's Upper Airfield, 1936. Bertha Ramer Collection, McCarthy-Kennicott Historical Museum, McCarthy, Alaska.



Cordova Air Service manager, Kirk Kirkpatrick, started a subsidiary, Airways, Inc., from McCarthy, to serve mining operations throughout the Wrangell Mountains. The planes that flew the Copper Belt Line featured a large green belt painted around the fuselage, acknowledging the region's affinity for the mineral, copper. Kirk hired a young Merle Smith to manage the route in 1937. Kirkpatrick died in a plane crash ferrying passengers from McCarthy to Cordova in a spring blizzard in 1939. **Merle Smith Collection, Alaska Airlines, Seattle Washington.**

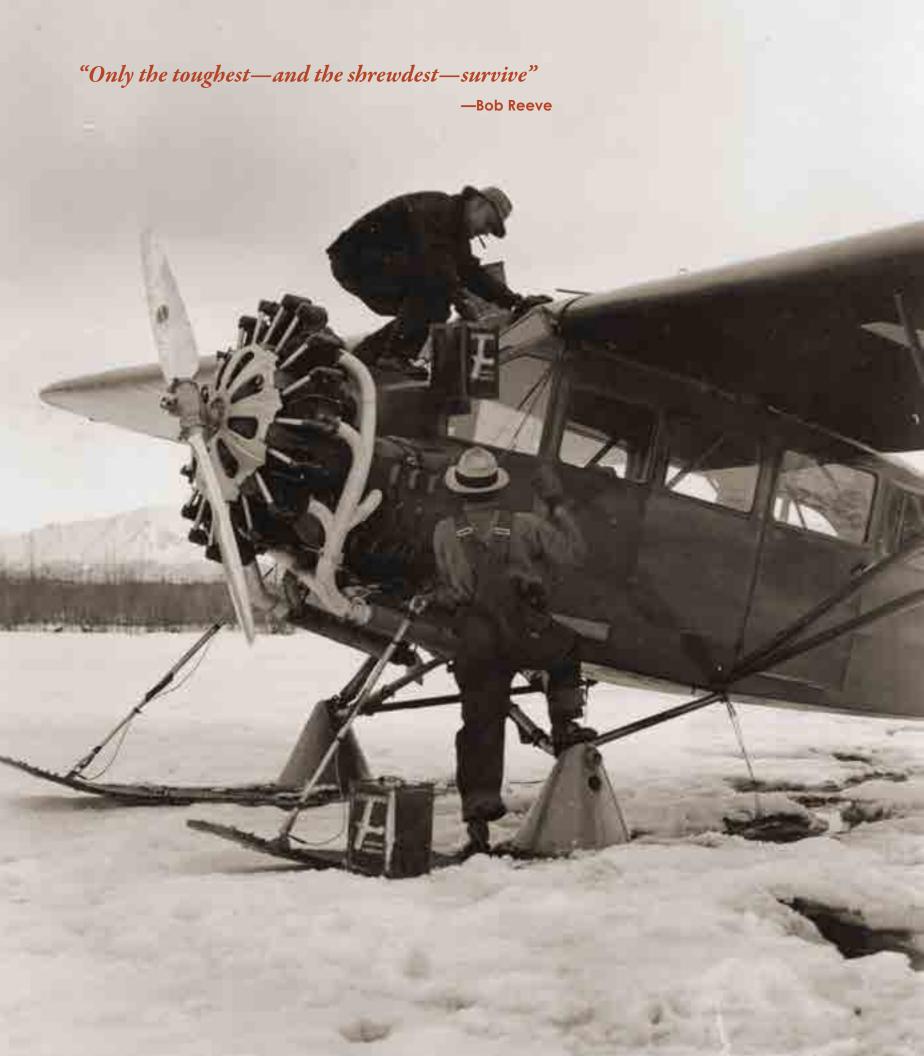


Merle Smith spent several years as a working-stiff, flying scheduled flights for Cordova Air Service (CAS) to mines around the Copper Belt. But attitudes regarding Alaska's environment and identity have changed since the 1930s. Today, Wrangell residents find value in isolation, choosing to live independent from the Outside world. While bush pilots continue to provide these disconnected communities and individuals access to economic systems, commodities, and medical care, such connections allow residents to maintain a frontier ethos and wilderness lifestyle. Merle Smith posing in front of his Stearman C2B biplane in McCarthy in 1937, his first year flying the Copper Belt Route. Courtesy of the Cordova Historical Museum, 95-46-45.





McCarthy was the Wrangell region's aviation hub throughout the 1930s. Aviation made public services, such as mail delivery, medical aid, and speedy transportation available to isolated residents. After World War II, aviation gave a boost to both tourism and sport hunting. In 1965, revitalized mining activities at Kennecott prompted the construction of a larger airfield at McCarthy (McCarthy airstrip #2), after which the State of Alaska classified the old McCarthy airstrip as "abandoned." Aerial view of the McCarthy airstrip #1, with the Cordova Air Service cabin and hangar. The McCarthy townsite lies to the north. 1957. History Files, Federal Aviation Administration, Anchorage, Alaska.





The unmistakable sentinels of the Wrangells include Mount Blackburn rising 16,390 feet; Mount Sanford rising 16,237 feet; Mount Drum rising 12,010 feet; and Mount Zanetti, rising to 13,009 feet. Mount Wrangell, for which the range is named, is one of the largest andesite shield volcanoes in the world, rising to 14,163 feet. This skyscape commanded Bob Reeve's view as he flew between Copper Center, Chistochina, and the Nabesna and Chisana mining districts, ca. 1937. Russ Dow Papers, Archives and Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0396-14b-24.

(Preceding page) Pilot Bob Reeve drifted into the coastal town of Valdez during the spring of 1932. Called by his clients a "scout of the sky," Reeve used his modified Fairchild 51 to prospect for undeveloped mineral deposits throughout the Chugach and Wrangell Mountains. A self-proclaimed maverick of the Wrangell's aviation scene, Reeve embraced an old Frontier style. Reeve felt that in the dog-eat-dog competition for Alaska aviation business, "Only the toughest—and the shrewdest—survive" (Reeve 1939). Bob Reeve refueling his plane while smoking a cigarette. uaa-hmc-0396-14b-122.



Because work kept him mired in a muddy mess that smelled of rotting salmon and decaying seaweed, Reeve was known as a fairly filthy flyer. Not everyone was impressed with Reeve's dirty flying, however. Reeve's major rival, the meticulously clean Harold Gillam, once remarked, "Reeve can have it!" (Day 1957: 113). Russ Dow Papers, Archives and Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0396-14a-50.



In 1938, Smith flew Ernest Gruening on an aerial tour of the Chitina Valley. Alaska's future Governor was the Director of Department of Interior's Division of Territories. Gruening rightfully worried that the ensuing pullout of Kennecott and its Railway would negatively affect the region's economy. That September, Gruening recommended that the Chitina Valley be added to the National Park Service system, as the Kennicott National Monument. The threat of war, however, put any discussion of a national park on the back burner, but nevertheless, Gruening did set the precedent for fly-in tourism becoming the region's new

economic engine (Janson 1981: 69). Gruening's federal entourage in front of CAS's Stinson Standard on a stopover at McCarthy. Courtesy of Geoffrey Bleakley Collection, Makawao, HI.



Although both Gillam and Reeve flew into areas served by Cordova Air Service, Kirk set his company apart from his rivals simply by his company's name: Gillam Airways and Reeve Airways implied that those businesses were essentially "one man shows," whereas Kirkpatrick's company reflected the interests of the larger geographical region, indicating that Kirk's goal as a bush pilot was building clientele rather than cultivating a legendary selfimage. Cordova Air

Service plane on a beach loading passengers and luggage illustrates the company's position as a true regional carrier. Courtesy of the Cordova Historical Museum, 95-46-1.



The Civil Aeronautics Authority (CAA)-predecessor to the Federal Aviation Administration (FAA)granted the contract for constructing the Northway airport in the spring 1941, just a few months before Germany invaded the Soviet Union and Japan's attack on Pearl Harbor. Before construction could begin at Northway, engineers first had to improve and enlarge the Nabesna "bush" strip. With Bob Reeve's guidance, M-K built a 6,000 foot main runway and two 2,000 foot crossrunways near the Nabesna River. By summer, the Nabesna Landing Field had become one of the biggest in Alaska, shorter only than the Elmendorf and Ladd Army airfields. After Reeve left to assist the military in the Aleutians, Gillam replaced him as head pilot for M-K, while bush pilots from across Alaska flew the "Nabesna-Northway airlift" in 1942. Thanks to their wartime service, Northway became an important link in the Lend-Lease operation,

which sent thousands of fighter planes to Russia, where pilots engaged the Nazis in the skies over Moscow (Rearden 1992). Merle Smith (Smitty) Rudy Billberg, John Walatka, Frank Barr, Don Emmons, Jack Scavenius, Frank Kammer, Herman Lerdahl. Courtesy of Johanna Bouker.



Starting from Cordova, Jack Wilson flew the mail up the Copper River, stopping at Chitina, McCarthy, May Creek, Glacier Creek, up to Chisana, and sometimes beyond to either Northway or Nabesna. Then he backtracked, stopping at each place again to pick up returning passengers or mail. "I liked the run and the people I met on it," recalled Wilson. Recognizing the importance of aviation to the outlying communities, Wilson echoed the sentiments expressed by Bob Reeve a generation ago: "They [the prospectors] looked forward to the weekly mail plane which brought all their mail, groceries, clothing, new people, other freight when there was space available, and sometimes, even a bottle of rum to make the long, dark evenings a bit more enjoyable" (Wilson 1988: 39). Merle Smith Collection, Alaska Airlines, Seattle Washington.

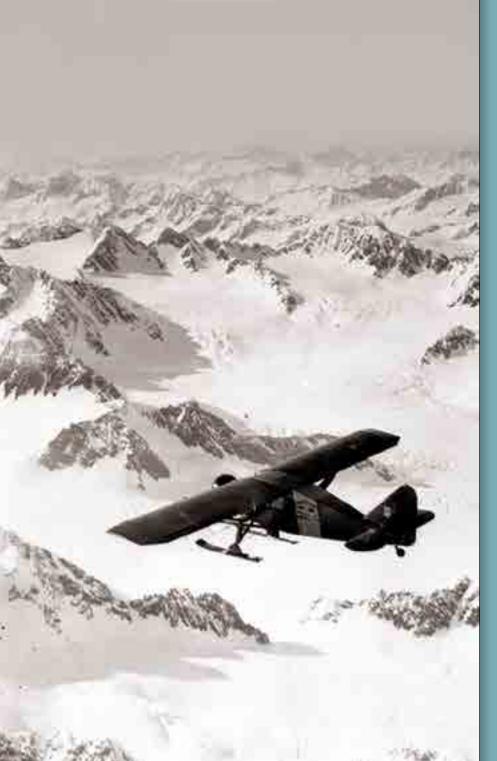
(Facing page) When Cordova Air Service stockholders asked Merle Smith to return to the failing company near the war's end in July 1944, Smith returned with a plan. First, he bought out all stockholders, then, he expanded his fleet. In 1945, Smith acquired a Lockheed L-10E Electra from M-K for \$25,000. It was the first all-weather, twin-engine airplane to fly between Anchorage and Cordova. The Electra was kept for a year then replaced with an even more passenger-friendly DC-3 (Janson 1981: 198). The St. Elias, Merle Smith's Lockheed Electra, in 1945. Merle Smith Collection, Alaska Airlines, Seattle, Washington.





"These glacierized high-mountain ranges were by their very nature unsympathetic to human invasion"

-Walter A. Wood





Cordova Airlines supplied air service to the Wrangell Mountain Observatory in 1953. Pilots Herb Haley and Jack Wilson flew the support flights. In the 1960s, Wilson alone made a record 69 landings on top of Mount Wrangell. High altitude landings were always dangerous, but most remained uneventful. Occasionally, pilots like Herb Haley, were reminded that landing on a live volcano was anything but routine (Benson and Motyka 1979: 8). "Pulling out Cordova Airlines plane." Courtesy of Charles "Buck" Wilson.

(Left) Cordova Air Service plane flies over a boundless sea of mountain and ice. Walter A. Wood, a geologist who utilized aviation to conduct scientific fieldwork in the Saint Elias range once noted, "These glacierized high-mountain ranges were by their very nature unsympathetic to human invasion" (Wood 1963). Merle Smith Collection, Alaska Airlines, Seattle, Washington.

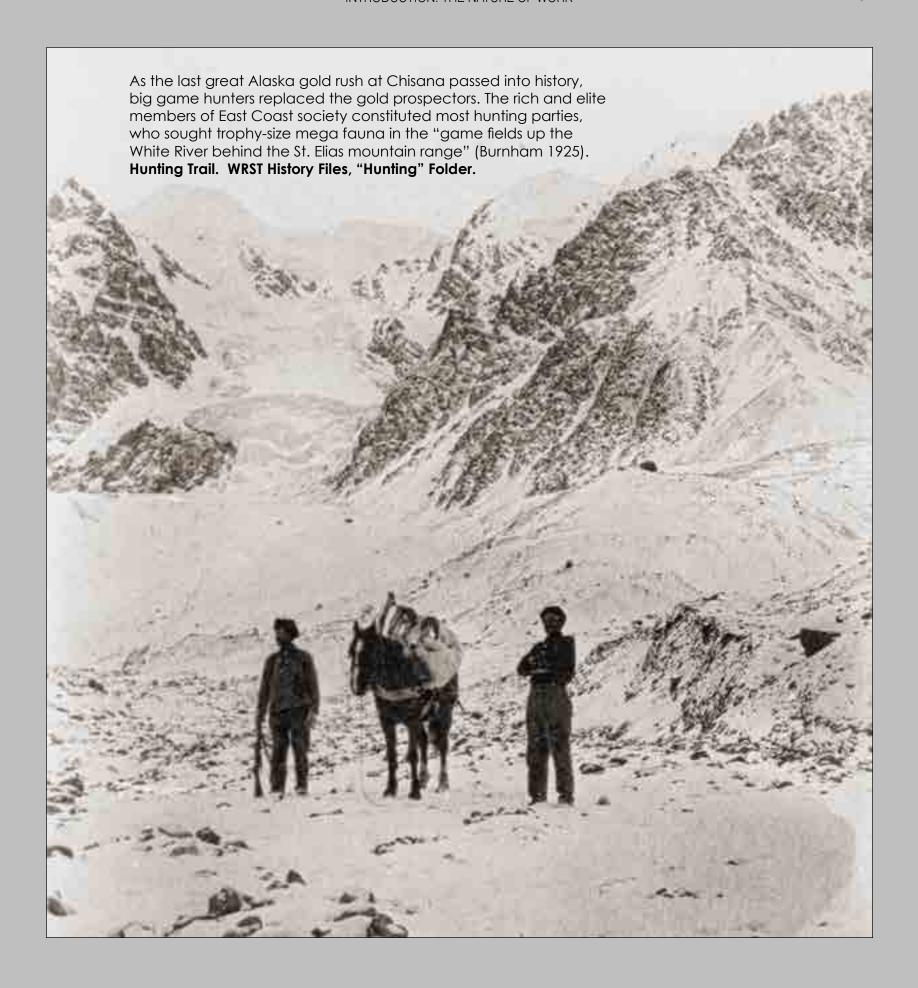
SPORT HUNTING

GHAPTER 7

For thousands of years, people living in the Wrangells engaged in hunting and trapping activities, which also facilitated trade among various groups. In the 20th century, people began to hunt for sport in the Wrangells. Although big game hunting was never considered an economic necessity, affluent expeditions did produce work for residents. Despite fair-chase principles upheld by most early 20th century hunters, postwar competition among guides caused significant drops in the Wrangells' sheep populations. Still, hunting and trapping—both for sport and subsistence—remain important economic activities for Wrangell residents.



Chisana resident Con Miller, hunted the open country for caribou, Dall sheep, moose, and bear. He was a well-known guide and led several hunting expeditions from McCarthy into the Nabesna and White River areas (Bleakley 2006). Miller later died on a flight from McCarthy to Cordova with Merritt Kirkpatrick in 1939 (Cordova Daily Times, April 1939). Con Miller with Sheep on Nabesna. Ethel Lecount Album. WRST History Files, "Hunting" Folder.



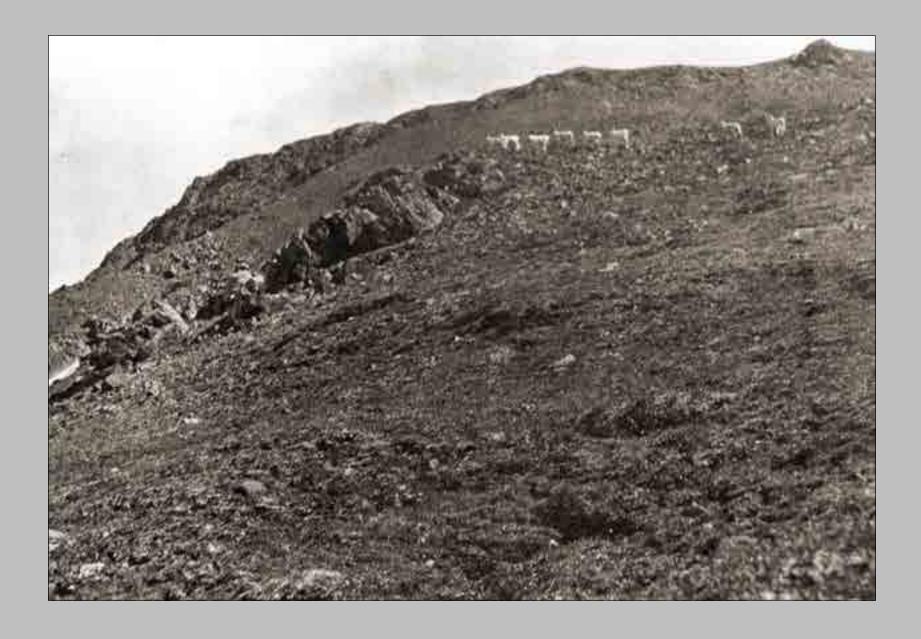


William H. Slimpert started his career as a hunting guide in 1919, when he was hired as a wrangler by Morley Bones, a famous outfitter headquartered on Kluane Lake. Slimpert made most of his income guiding sportsmen during the 1920s and 1930s, but drowned tragically in 1942 while attempting to ford the Nabesna River. He is buried on the Nabesna Bar (Bleakley 2006). W.H. Billy Slimpert. McCarthy Guide. Evonne Sullivan Collection. WRST History Files, "Hunting" Folder 496. Original photo at the Miles Sullivan Collection, Valdez Museum.

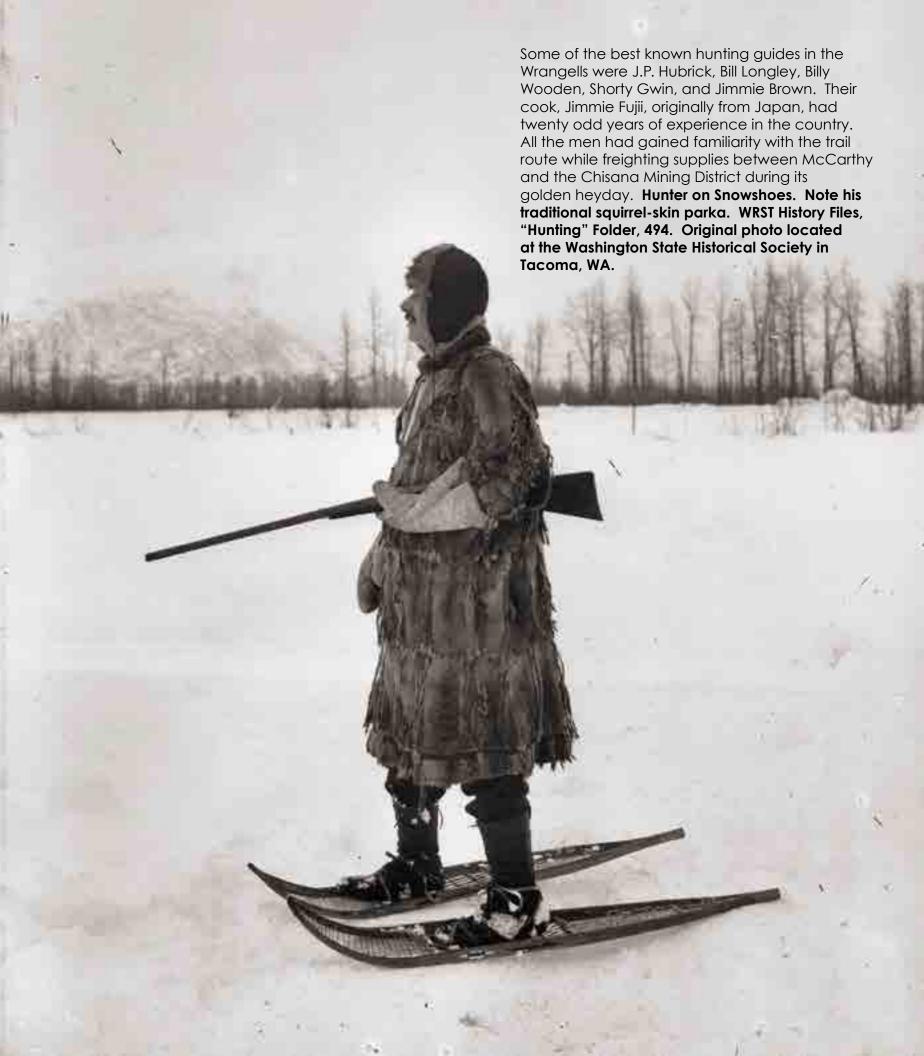




Sport hunting in the Wrangell-St. Elias region mostly went unnoticed until two publications caught the attention of American sportsmen. George O. Young published an account of his 1919 expedition in *Alaska Yukon Trophies Won and Lost* and James A. McGuire published In the *Alaska-Yukon Gamelands* in 1921. **Upper Chitina Valley, likely Gibraltar Hill. WRST History Files, "Hunting" Folder.**



In the 1920s, trophy hunters were lured by the magnificent wide-horned sheep found in such large numbers that enthusiasts considered the Wrangells "the last big-game hunting ground of North America" (McGuire 1921: 11). Dall Sheep, Chitina Glacier. WRST History Files, "Hunting" Folder 1396.





Hunting over the planned route required a small caravan of packhorses and several men, including experienced Natives and ancillary guides, to manage the animals and to assemble camps. Hells Half Acre Camp, Chitina Valley, Alaska. WRST History Files, "Hunting" Folder, 500.

(Below) With the increasing attention of wealthy hunting groups, the Alaska Road Commission, in 1921, began to maintain the trail route between McCarthy and the White River area, naming it route-54. The ARC route, also known as the Nizina-Chisana trail, "branches from the McCarthy-Dan Creek road at Mile 18 and extends up the Nizina and Chisana rivers over Scolai [Skolai] Pass to the head of the White River" (Naske 1983: 67). Freighting on White River Trail. WRST History Files, "White River" Folder, 1010.



"The successful sheep hunter must, perforce, have the game vision developed to the very highest order of perfection. He should be a good climber, strong of heart and limb...The prime requisites are a cool head, ordinary ability to judge distances quickly, and good marksmanship qualities."

—Hunter James McGuire



Sheep hunters considered their particular brand of hunting special, primarily because of the physical demands it placed on the hunter. Only the best sheep hunters were successful. Outdoorsmen everywhere viewed sheep hunting an art, which required specific knowledge of "woods lore," a sense of tracking, strong legs, and for the hunter to be a good shot. In 1921, James McGuire wrote, "The successful sheep hunter must, perforce, have the game vision developed to the very highest order of perfection. He should be a good climber, strong of heart and limb...The prime requisites are a cool head, ordinary ability to judge distances quickly, and good marksmanship qualities" (McGuire 1921: 88, 90-91). Hunter with sheep. WRST History Files, "Hunting" Folder, 1393.



After most of the prospectors gave up mining in Chisana, the old gold town became a base for hunting-related activities. Lou Anderton established himself as a guide and storekeeper at Chisana in 1925. When air service became available in the 1930s, hunting along the north slope of the Wrangells became the primary way to make a living. **Unidentified** trapper holding a Lynx pelt. WRST History Files, "Hunting" Folder, 493.



Some of the first newcomers to settle in the Wrangell-St. Elias region were intrigued by Native life, customs and languages and impressed by Native peoples' ingenuity and efficiency. Although few lived entirely off the country, many took advantage of trapping, hunting and fishing (Hunt 1996). Furs taken near McCarthy. WRST History Files, "Hunting" Folder, 501.



Samme Gallaher, whose sister Aileen and her husband Slim Williams trapped along the Sanford River, recalled shooting her first caribou in the summer of 1927. Likely shot for meat rather than sport, the caribou was Samme's first hunting experience (Gallaher & Gallaher, 2004: 81). "Samme's first Caribou, Sanford River, 1927." Samme Gallaher Darnall Collection. Courtesy of Geoffrey Bleakley Collection, Makawao, HI.

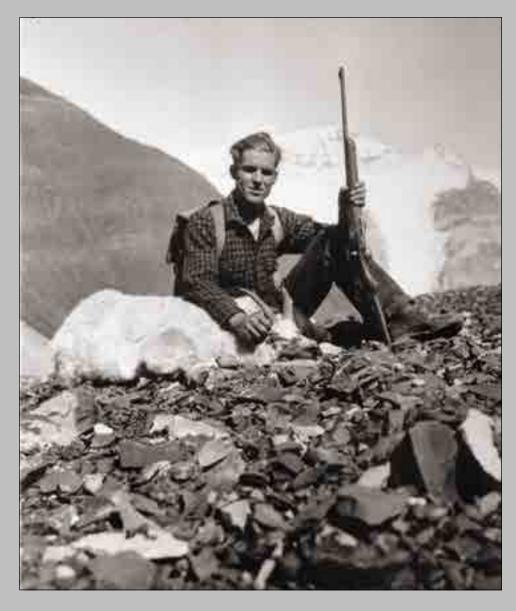
"It was my first hunting experience, and I felt a sense of pride... We took pictures of me with my first caribou, and you could see how delighted I was with my accomplishment."

—Samme Gallaher

Increased hunting and trapping activities combined with gold rushes and access to aviation in the 1930s sparked the implementation of a territorial game management program (Sherwood 1981: 1). The young game warden, Clarence Rhode, chartered Merle Smith to fly him over the Wrangell St. Elias Mountains to patrol for fur smugglers near the Canadian border. Rhodes later became well-known for his work at the U.S. Fish & Wildlife Service (Janson 1981:69). Courtesy of the National Park Service, Alaska Regional Office, Anchorage, Alaska.



The purpose for some of the big game expeditions was to gather important zoological specimens for East Coast museums. In institutions such as the Smithsonian, the Wrangells' big-game served as center pieces in exhibits known as "habitat groups," in which specimens were displayed in cases surrounded by natural or artificial trees, plants, flowers, rocks, land and water, made to represent the natural haunts of the beasts (McGuire 1921: 11). Al Nikolaus with Goat on Donoho Peak. WRST History Files, "Ethel Lecount Album-Kennecott" Folder.

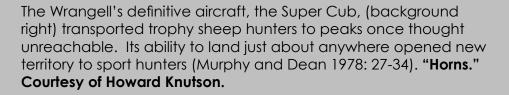




The increase in the number of hunters in the postwar years coincided with the arrival of small aircraft, which reduced the cost of hunting in remote regions such as the Wrangell-St. Elias range. According to historian William Hunt, "What had been an expensive, elitist venture became a sporting exercise available to almost anyone" (Hunt 1996: 207). Group of mountain climbers and sheep hunters leaving May Creek, 1959. Courtesy of the Cordova Historical Museum, 90-86-3.



Jack Wilson started the first fly-in hunting trips in the Wrangells in the early 1960s. His former employer and now rival, Cordova Airlines, also began to fly in hunters on trips guided by Howard Knutson (Wilson 1997). **Courtesy of Howard Knutson.**









Cordova Airlines filled its DC-3 with hunters from the Lower 48. The airline ferried the hunting parties between its headquarters in Anchorage and the airstrip at May Creek. Loading sheep and horns aboard a Cordova Airlines plane at May Creek. Courtesy of the Cordova Historical Museum, 90-86-4.



By the mid-1970s, approximately 250 guides from both sides of the US-Canadian border flew into the Wrangell Mountains to hunt the famous Dall sheep. Most resident guides belonged to the group that established themselves in the region and maintained the sportsman's fair-chase ethic, but a minority group indiscriminately targeted wildlife without regard for fellow guides or the future of their business (Lappen 1984: 114-115). **Hunters display trophies on Cordova Airlines plane.** Merle Smith Collection, Alaska Airlines, Seattle, Washington.



"In the Old West men had exploited the riches of the new country with a will, and we were no different."

—Jack Wilson

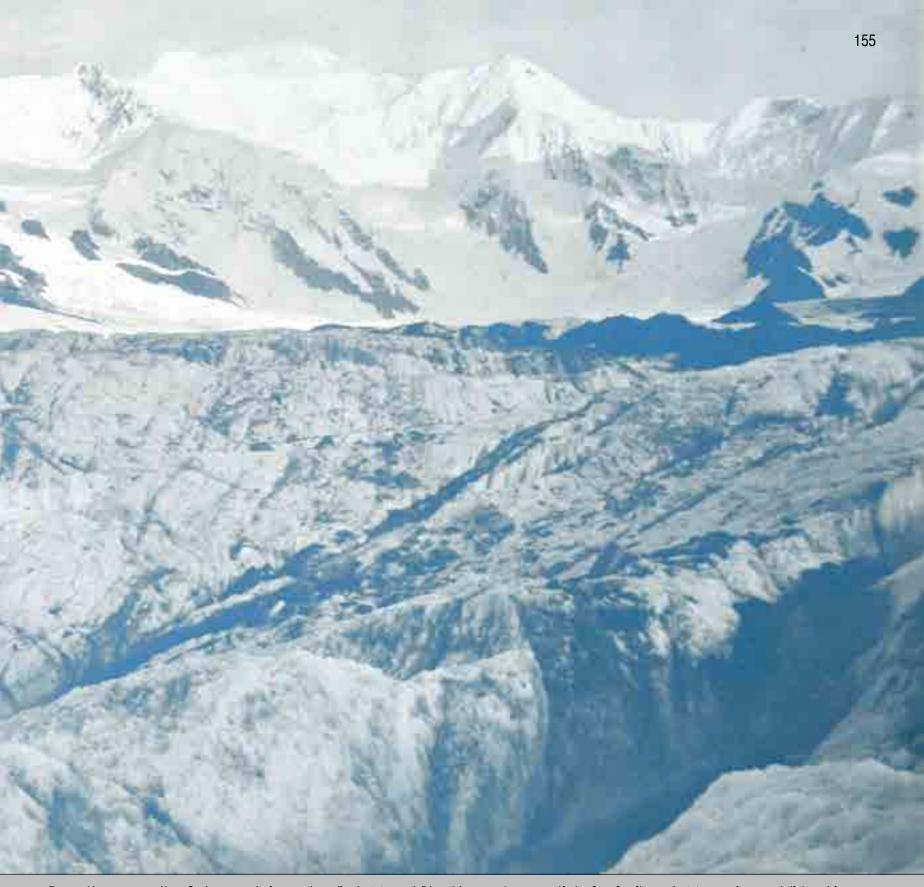
Pilot and hunting guide Jack Wilson later lamented the "quick-get-a-trophy-and-get-out" mentality of the more aggressive guides. "In the Old West men had exploited the riches of the new country with a will, and we were no different" (Wilson 1988). Pilot and Hunting Guide, Howard Knutson, displays his clients' trophies during a fly-in hunt in 1976. Courtesy of Gary Green.

MOUNTAINEERING

GHAPTER 8

Mountaineering in the Wrangells often crossed into the areas of mapping and surveying, geological reconnaissance, and scientific exploration. Like big game hunting, the pursuit spawned work for guides, outfitters, packer and aviators. Probably the most famous example of the intersect of science, climbing and aviation was the Lucania expedition, in which "Glacier Pilot" Bob Reeve landed Bradford Washburn and Robert Bates on the Walsh Glacier in 1937. Thanks, in part, to an account of the ascent authored by Washburn and published in Life Magazine, the Wrangells would become an international attraction for elite mountaineers worldwide.





Dora Keen was the first mountaineer to climb Mount Blackburn. In an article for *Scribner's Magazine* published in 1912, she explained why she chose the mountain. "No one had ever been even to its base, for no one in Alaska climbs mountains except for gold... Yet I had selected Mount Blackburn because the completion of the railway in April, made it the most accessible of Alaska's dozen great snow peaks." She and her party failed to the reach the summit in 1911, but her second attempt in 1912 was successful (Keen 1912). "12,000 Feet of Ice Yet to Climb," 1911. Courtesy of Jenny Kays. (Blue colorization in this and associated photos true to scans of published article.)



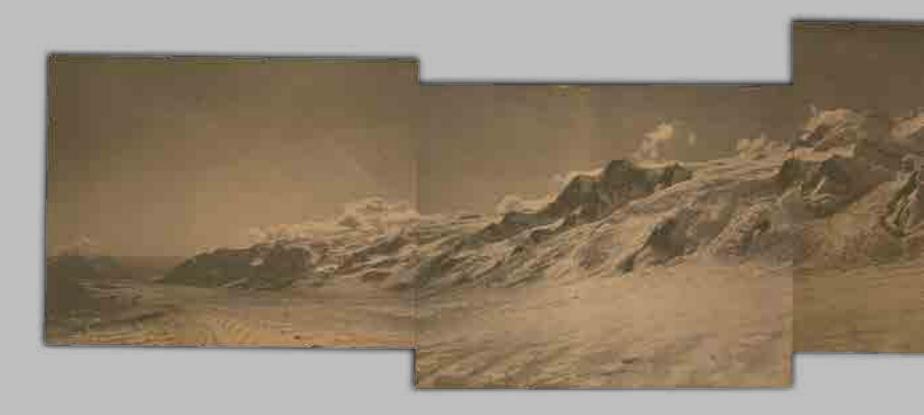
R.F. McClellan led Keen's Blackburn expedition in 1911. John E. Barrett, Frank Buell, Ralph Felterolf, and Walter Wolf rounded out the team. According to Keen, the climbers' biggest obstacle was the countless crevasses. "Crevasses presented real problems," wrote Keen. "We roped. Over or around them, down, up and on we went—we were rising, but so was the sun, and our only hope was to get to a safe altitude before the sun should start the avalanches" (Keen 1912). "Crossing a Crevasse," 1911. Courtesy of Jenny Kays.



Although the Blackburn expedition proved daunting, the glaciated landscape offered moments of grandeur. "From such contemplation there was only an occasional sound as of thunder to arouse me," wrote Keen. "Mount Blackburn at the left, Mount Reynolds at the right, below me the Kennicott Glacier hemmed in by the lower slopes of the great mountains, half way between Mount Reynolds and the distant mine, Mount Regal, 13,000 feet—such was the view unfolded to me. Now and again a mighty roar led my eye to the cliffs across the Reynolds Glacier. Great ice masses crowned them. Loosened by the sun they were breaking off and pouring like gentle waterfalls down the gullies all the way to the glaciers fifteen hundred feet below" (Keen 1912). "Mt. Regal: 9000 feet above us," 1911. Courtesy of Jenny Kays.



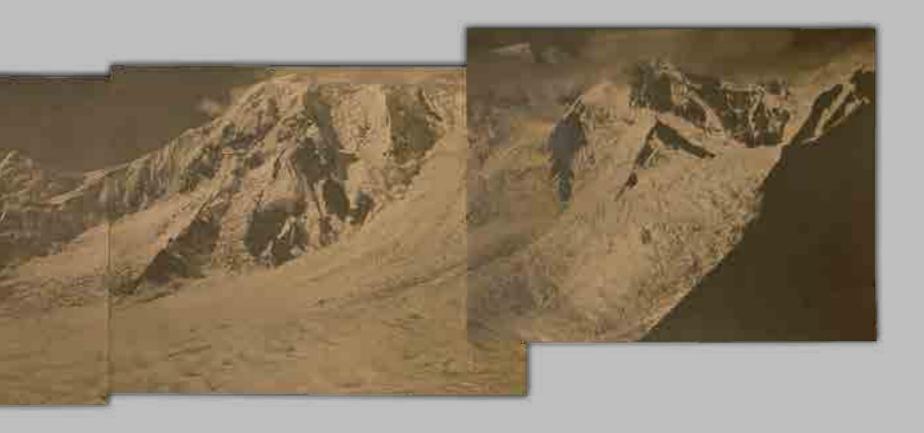
Recalling Mount Blackburn, Dora Keen wrote, "A panorama secured, I sat down to drink in forever the glory and beauty about me. Already I was repaid for coming. A world without limitations was unfolded to me, a world in which I felt as if the bonds that held me to earth were loosened, a world of purity the sight of which ennobled a world of power, of majesty, a vision to inspire, to uplift, to give peace and strength, to beget reverence and humility" (Keen 1912). "Dora Keen Leading the Way to Mt. Blackburn," 1911. Courtesy of Jenny Kays.



After her successful second attempt, Keen telegraphed from Kennecott, Alaska on May 25, 1912: "After thirteen days' snow-storm, spent in caves, made the summit of Mount Blackburn on May 19. Mt. Blackburn, Alaska 16,140'." 1st Ascent, May 19, 1912. Dora Keen and George W. Handy. Courtesy of Matthew Freeman.

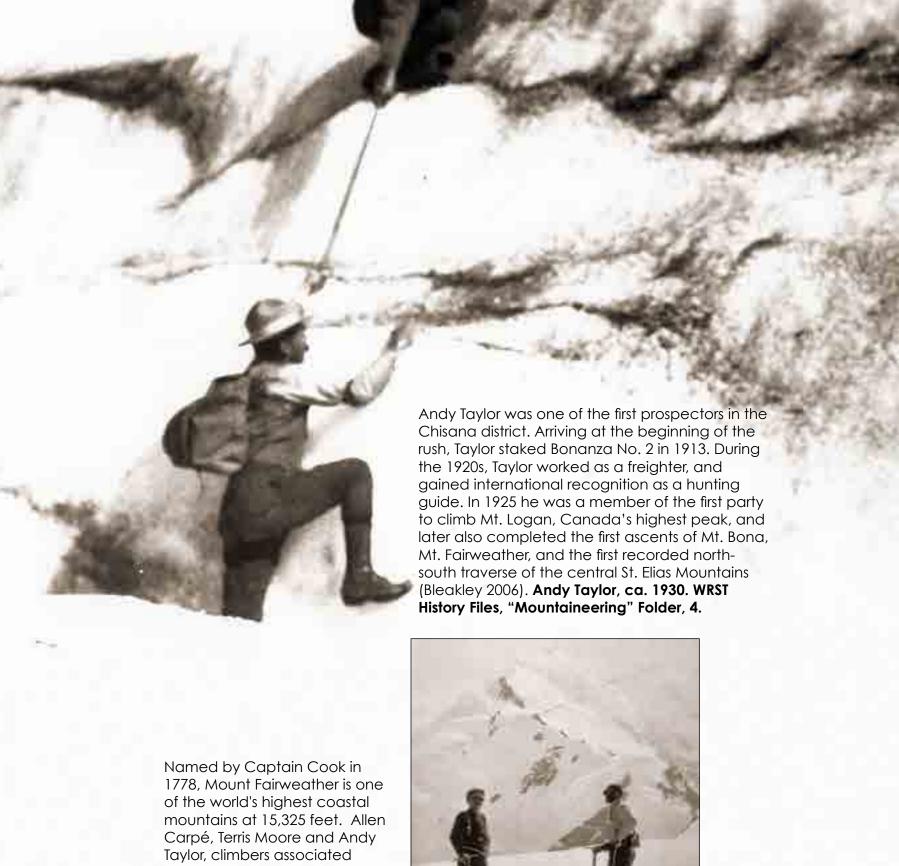
"A world without limitations was unfolded to me, a world in which I felt as if the bonds that held me to earth were loosened, a world of purity the sight of which ennobled a world of power, of majesty, a vision to inspire, to uplift, to give peace and strength, to beget reverence and humility."

—Dora Keen



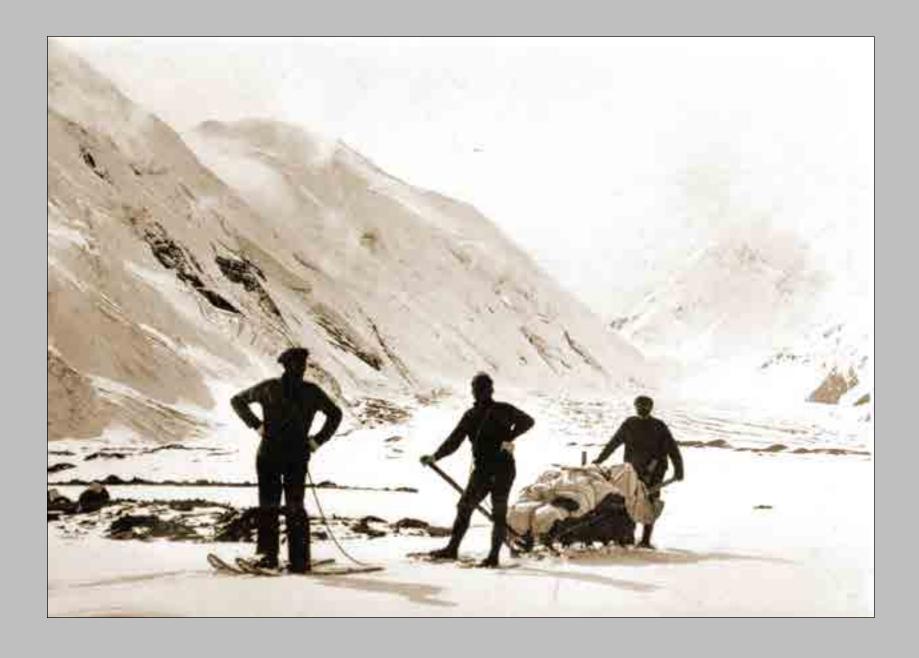


In early May 1925, Albert H. MacCarthy, H.F. Lambart, Allen Carpe, Andy Taylor, N. Read and W.W. Foster began the first ascent of Mount Logan, located on the Canadian side of the Canadian-Alaska border. The international climbing team, which commenced from McCarthy, stood on top of the mountain for the first time on June 23, 1925. It took 65 days total to approach the mountain from McCarthy, summit and return (Bleakley 2006). **Mount Logan Expedition, 1925. Girard Collections, WRST History Files, "Mountaineering" Folder, 789.**



with the Wrangells, were the first mountaineers to ascend Mount Fairweather in 1931.

Andy Taylor and Carpe, 1st assent Mt. Fairweather." Crowe Collection, WRST History Files, "Mountaineering" Folder, 1158.



Similar to today, part of the job of a mountaineer is to save lives. But it also meant volunteering to ascend into dangerous locations to retrieve those that did not survive. "Andy Taylor, Merle LaVoy, and Grant Pearson pull the sled with Koven's body, 1932." WRST History Files, "Mountaineering" Folder, 1166.



Mountaineering formed a significant part of Wrangell-St. Elias region history. Today's climbers maintain a sense of those who have gone before them. Whether the activity was considered work or recreation is hard to say. But few will disagree that mountaineering exploration in the Wrangell-St. Elias region was a difficult and dangerous pursuit. "Pulling Out." Molly O'Neill Collection, WRST History Files, "Mountaineering" Folder, 794.

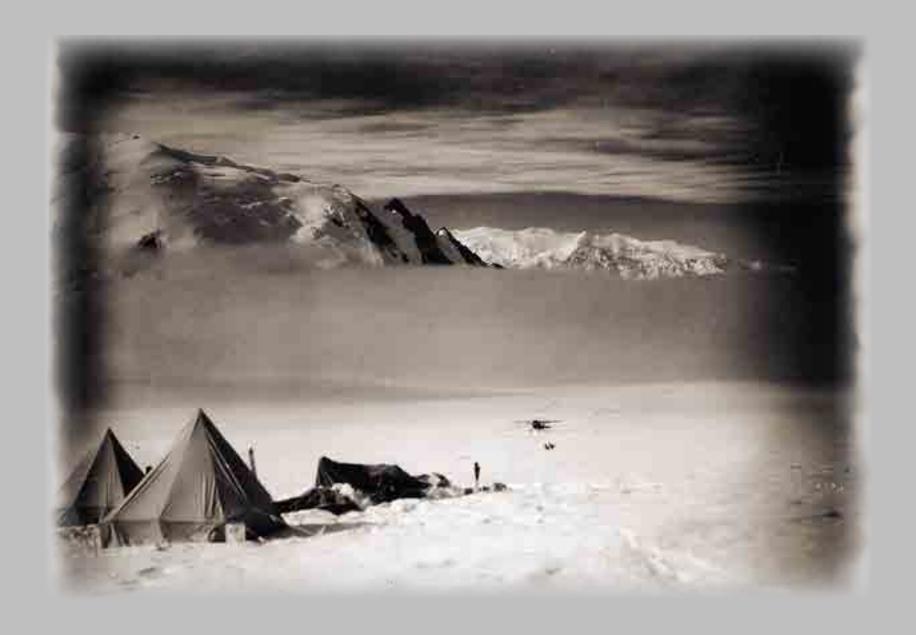




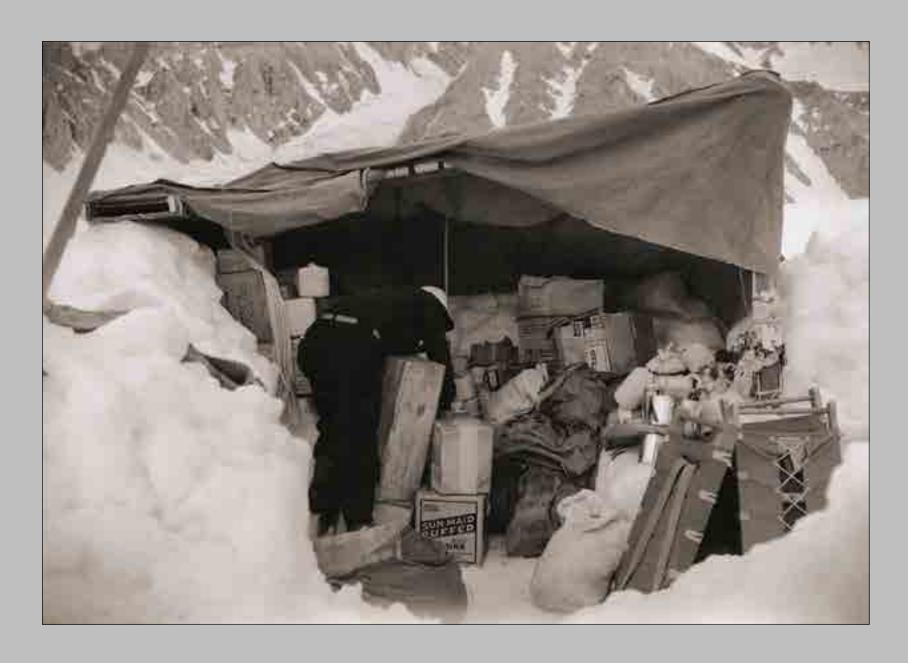
"Anywhere you'll ride, I'll fly."

-Bob Reeve

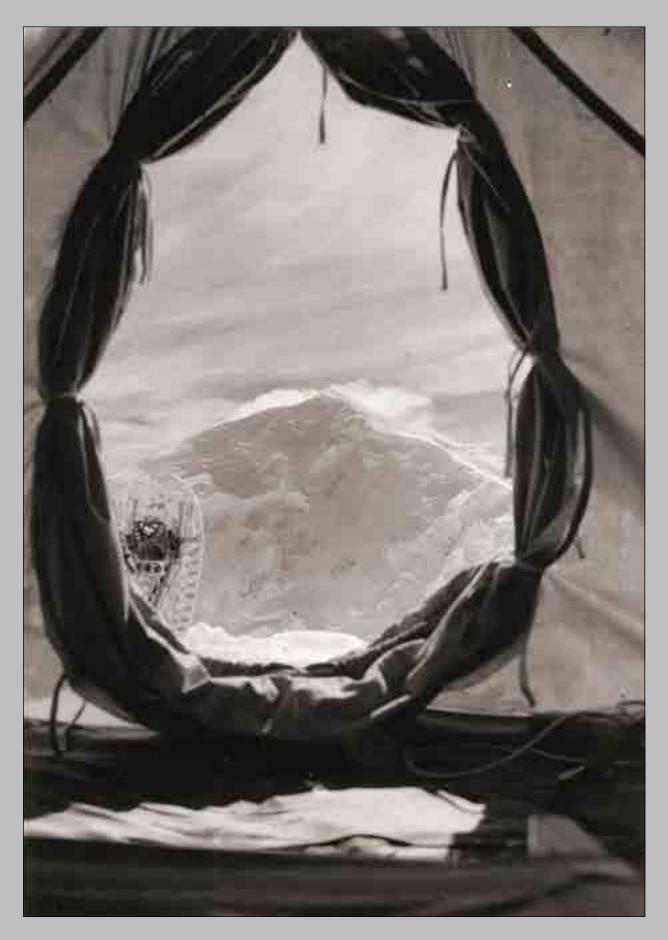
In 1937, Bradford Washburn sought a pilot to fly his Harvard climbing party and gear to the Walsh Glacier at the base of Mount Lucania in the St. Elias Range. Reeve replied to Washburn's request in typical Reeve fashion: "Anywhere you'll ride, I'll fly" (Bates 1994). On June 18, they took off from mudflats in Bob Reeve's plane, refueled in McCarthy, then landed on the Walsh Glacier, which straddles the Alaska-Canadian border. (Valdez Miner, June 25, 1937). Pictured are Russ Dow, Bob Reeve, and Bradford Washburn. Russ Dow Papers, Archives and Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0396-14e-a39.



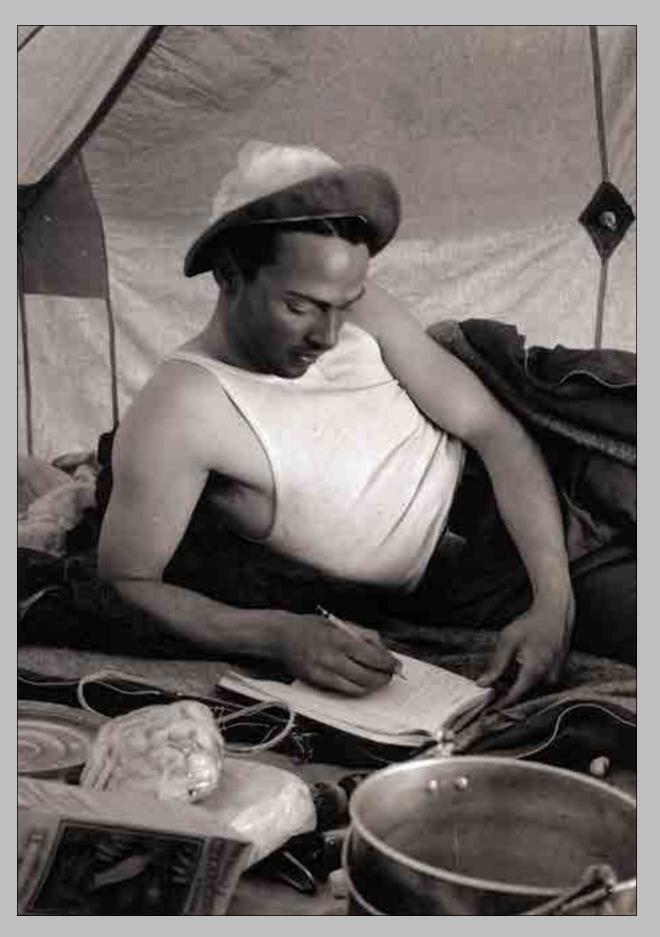
On landing at Walsh Glacier, Reeve broke the world's record for the highest landing at 8,500 feet on skis. After this picture was taken the pilot tried for five days before he lifted his plane from the glacier's slushy ice. **Bob Reeve's Fairchild 51 stuck in several feet of slush is pictured on the Walsh Glacier in 1937.** Russ Dow Papers, Archives and Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0396-14a-75.



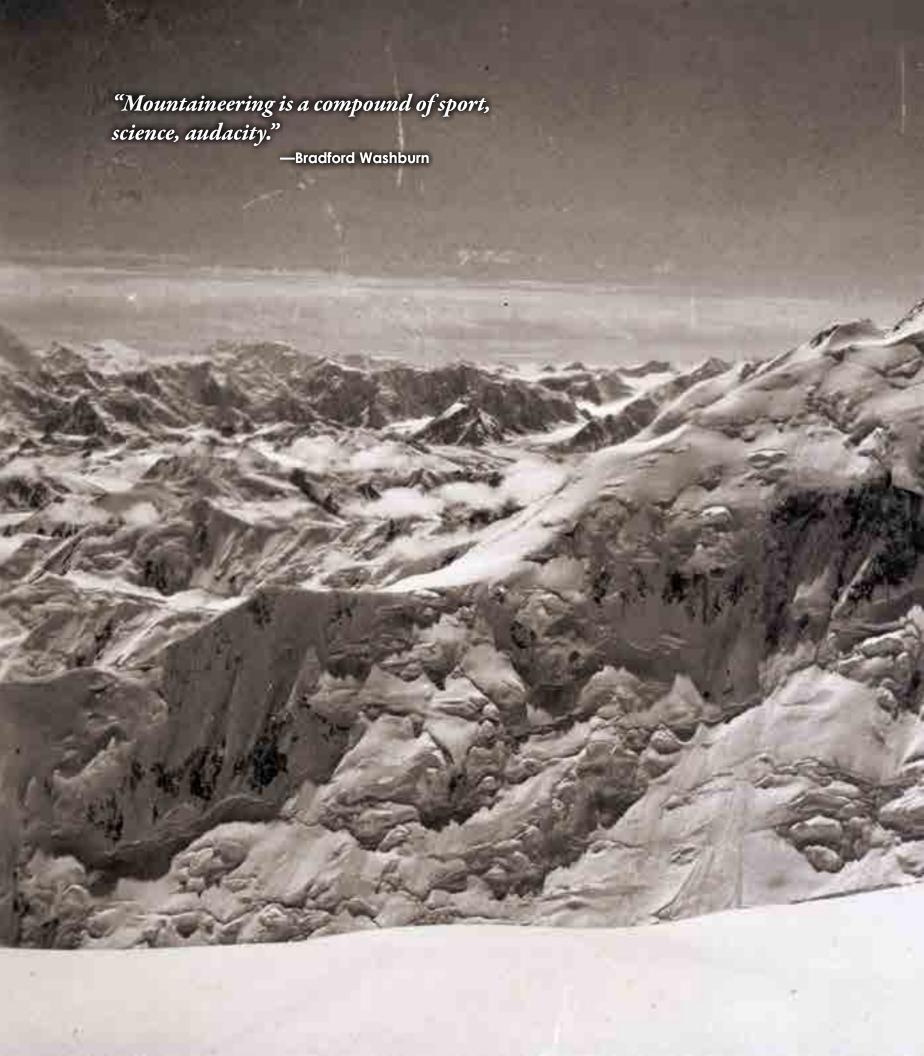
Using McCarthy as a base, Russ Down and Bob Reeve had cached supplies on the Walsh Glacier previously in May 1937. On arrival with Reeve in June, fellow climber Robert "Bob" Bates and Washburn had to excavate the supply site. Russ Dow Papers, Archives and Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0396-14a-79.

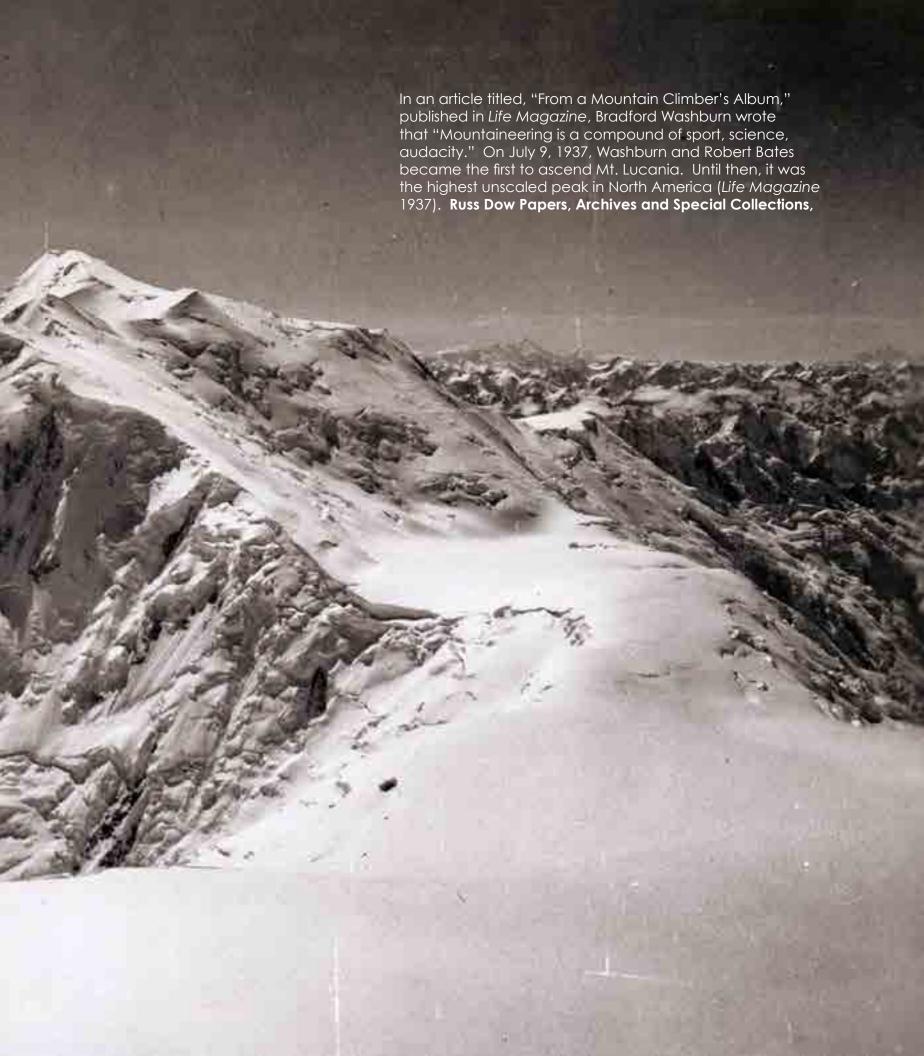


Before Washburn and
Bates caught this glimpse
of Mt. Lucania framed
by their tent opening,
they had climbed over
6,000 feet through fog
and snowstorms to a
wind-swept pass above
the Walsh Glacier (Life
Magazine 1937). Russ
Dow Papers, Archives
and Special Collections,
Consortium Library,
University of Alaska
Anchorage, uaa-hmc0396-14a-159.



Robert H. "Bob" Bates was a fellow classmate and member of the Harvard Mountaineering Club. Although four mountaineers were originally set to participate in the Lucania Expedition, freakish weather conditions, which turned the glacier ice to slush, limited the climbing party to only Washburn and Bates. Russ Dow Papers, **Archives and Special** Collections, Consortium Library, University of Alaska Anchorage, uaahmc-0396-14a-117.





One of the most publicized climbing expeditions in the Wrangells was AJJEX-67, a joint American and Japanese effort to ascend a remote part of the Mount Bona area in the mid-1960s. The climbers' primary objective was the ascent of the chief peak in the Twaharpies at the time, the highest unclimbed and unnamed mountain in North America. Approaching the summit of West Bona. American **Japanese Joint Expedition** (AJJEX), 1967. Alaska and **Polar Regions Collections** & Archives, Archives, Rasmuson Library, University of Alaska Fairbanks, UAF-2006-131-137.





In spite of some bad weather, a few medical emergencies, communication obstacles, and ultimately, the unsuccessful naming of Mount Kobe, the AJJEX-67 Expedition was nonetheless a great achievement for all who participated. As one climber recalled, "The feeling of friendship and mutual understanding was ever present." Mountaineer Norman Benton later wrote:

"The success of the group's effort proved to us that with determination and a desire to show respect and understanding, two peoples of different cultural and linguistic backgrounds can live together and share common interests. The leaders of this expedition and all of the team members learned that with mountaineering as a mutual endeavor that two nations which had faced each other in a life and death struggle a few years earlier could live and work together as a team and build toward a lasting friendship" (Benton 2003).

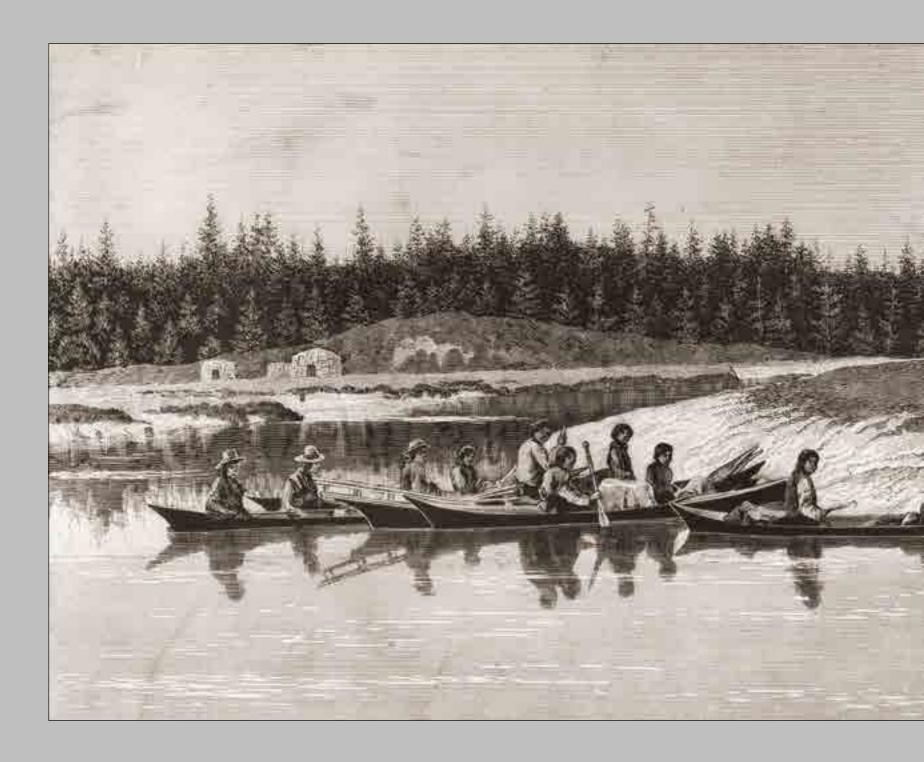
Camp #1 at Night on Mount Bona. American Japanese Joint Expedition (AJJEX), 1967. Alaska and Polar Regions Collections & Archives, Archives, Rasmuson Library, University of Alaska Fairbanks, UAF-2006-131-102.



SCIENCE

GHAPIER 9

Since the first explorers made their way up the Copper River, scientists and explorers have been assigned the task to study, and later, to protect and manage the unique natural resources found within the Wrangell region. Today the park and preserve continues to ensure the opportunity to explore, learn from, and add to the body of scientific research in regards to the processes of biodiversity and wildlife ecology, as well as the dynamic forces of weather, water, glaciers, plate tectonics and volcanism.

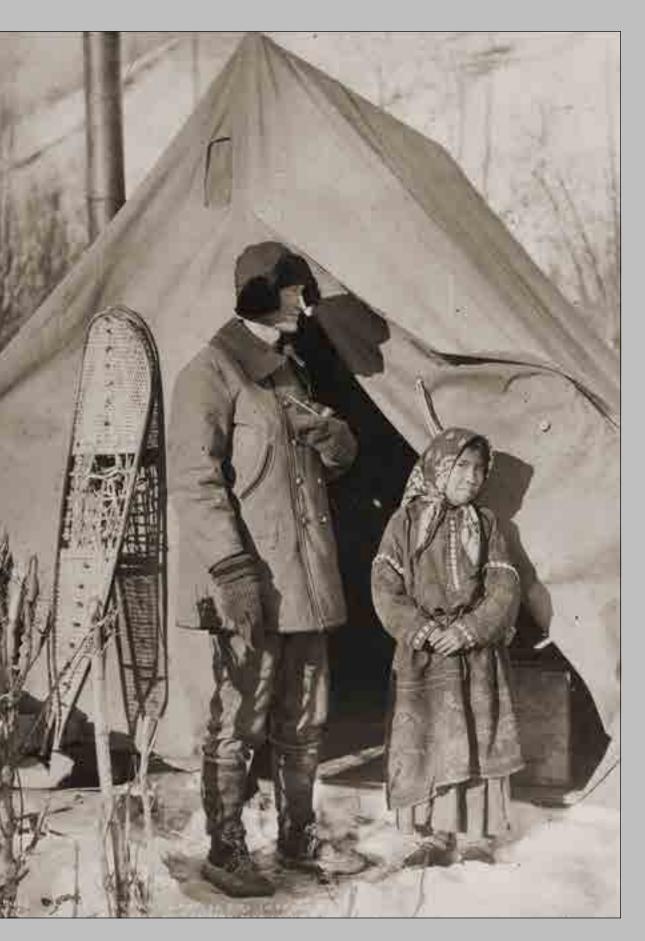


Lt. Henry T. Allen led a successful second military reconnaissance of central Alaska after the first expedition failed. Allen's three-man party—which besides Allen included Cavalry Sgt. Cady Robertson and Pvt. Frederick W. Pickett—ascended the Copper River in 1885. Allen's invaluable report, published on his return in 1897, included important observations on animals, geology, volcanic activity, glaciers, minerals, and even the weather. Besides recounting an epic journey, Allen's report represented a significant contribution to the scientific, cultural, and economic knowledge of the region. The start of the Henry T. Allen Expedition from Alaganik at Mouth of Copper River, in March 1885. Henry T. Allen. Report of the Expedition to Copper, Tanana and Koyukuk Rivers in the Territory of Alaska, in the Year 1885. Washington DC, 1887.





At the time of Allen's expedition, the Ahtna Natives of the Copper River were known to be fiercely territorial. Yet, had it not been for the Alaska Natives they encountered, Allen and his men on several occasions would have perished. Allen's account of copper implements and "Nicolai's Copper Mountain" inspired later searches for the mineral, leading to the discovery of the Kennecott Copper Mines, one of the richest deposits of high grade copper ever found in North America. Allen's close encounters with Alaska Natives caused him to speculate about the ancient connections between various peoples of Alaska and early Asiatic migrations based on "general appearance and manner." Wahnie and his Mother Nikolai and his Wives, 1885. Nikolai Chief of the Copper-Chitina River Indians. Henry Allen. "Taral at the Junction of the Copper and Chitina Rivers in April 1885. A House of the Athena Indians." Henry T. Allen. Report of the Expedition to Copper, Tanana and Koyukuk Rivers in the Territory of Alaska, in the Year 1885. Washington DC, 1887.



Early exploration of the Copper basin was conducted by the U.S. Army. By 1900, scientists with the newly formed U.S. Geological Survey conducted most of the regional reconnaissance work. "Lt." Sharp and Native girl in front of his camp at Tonsia," March 15, 1906. P.S. Hunt Photographer. WRST History Files, "Ahtna" Folder. Original photo located in the Zug Album, Alaska and **Polar Regions Collections &** Archives, Rasmuson Library Archives, University of Alaska Fairbanks, 80-68-27.



Doc Billum provided prospectors with some of their earliest accurate information about copper deposits in the Kotsina-Kuskulana district. One such property was the so-called Billum lode, which was probably the Copper Creek deposit later known as the Mullen Load (Bleakley 2006). "Ahtna—Possibly Doc Billum (second from right) at Lower Tonsina looking at photographs with local Ahtna and surveyors." WRST History Files, "Ahtna" Folder.



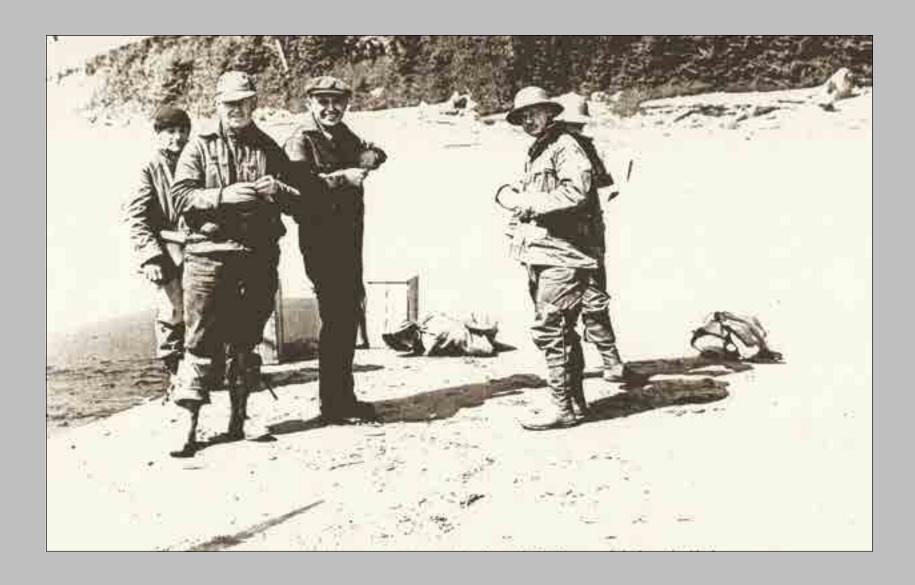


"On Wrangell alone, outside of the Antarctica, can you study the relation of an active cone to a great ice cap."

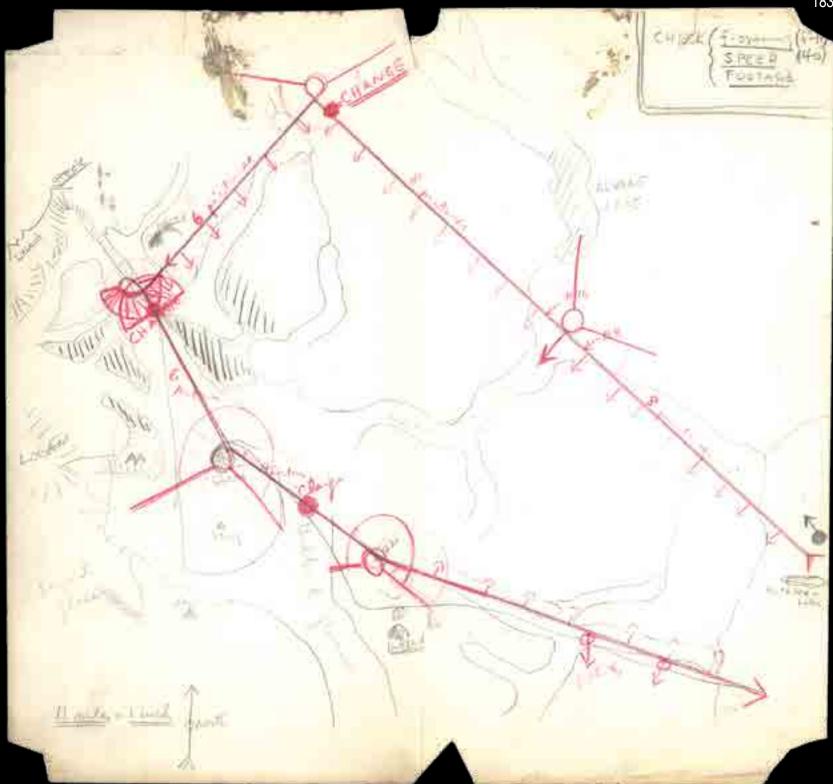
-Robert Dunn

Mount Wrangell has been the site of several scientific research projects in the past. Volcanicglacial interactions on Mount Wrangell were noted more than 100 years ago by explorer Robert Dunn, when he made the first recorded ascent of Mount Wrangell in 1908. At the time, Dunn claimed that climbing Mount Wrangell was of more scientific value than exploration on taller Alaskan peaks such as McKinley (now Denali) or St. Elias, because "on Wrangell alone, outside of the Antarctica, can you study the relation of an active cone to a greatice cap" (Solie 1984:12). Mount Wrangell in eruption, 1902. U.S. Geological Survey. WRST

Geology Folder, 1138.



Merritt Kirkpatrick once flew down to the isolated and glacier-bound Yakataga Beach in response to a distress call sent by way of the U.S. Army Signal Corps. Kirk was more than surprised to find the president of the Standard Oil Company of California, who was there scouting for oil with his geologists, waiting patiently for a plane. "Kirk and Geologists at Yakutaga," Courtesy of the Cordova Historical Museum, 99-2-4.



The Canadian-Alaska boundary survey work conducted from 1907 to 1913, added greatly to the geographic and scientific knowledge of the region, as close attention was given to glaciers and other prominent physical features. Two decades later, instead of mapping on foot, surveyors would utilize the airplane for mapping and geological reconnaissance. According to Bradford Washburn, the purpose of the aerial expedition was twofold: The first was to obtain material for mapping unexplored regions of Alaska. The second was to secure as complete as possible a series of aerial photographs, illustrating the fundamental principle of glaciation (Washburn 1941). This sketch map drawn by Bradford Washburn pinpoints locations for taking aerial photographs. Russ Dow Papers, Archives and Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0396-12-1.





Bradford Washburn chartered a flight with Kirkpatrick in 1938 to study Alaska's geological features. Kirk took Washburn on a circuit of the Prince William Sound shoreline and then flew the geologist up to McCarthy. Bradford Washburn, Kirkpatrick, and Dr. Walter Clark pose behind equipment for testing ultra-red film plus oxygen containers. Courtesy of the Cordova Historical Museum, 99-2-9.



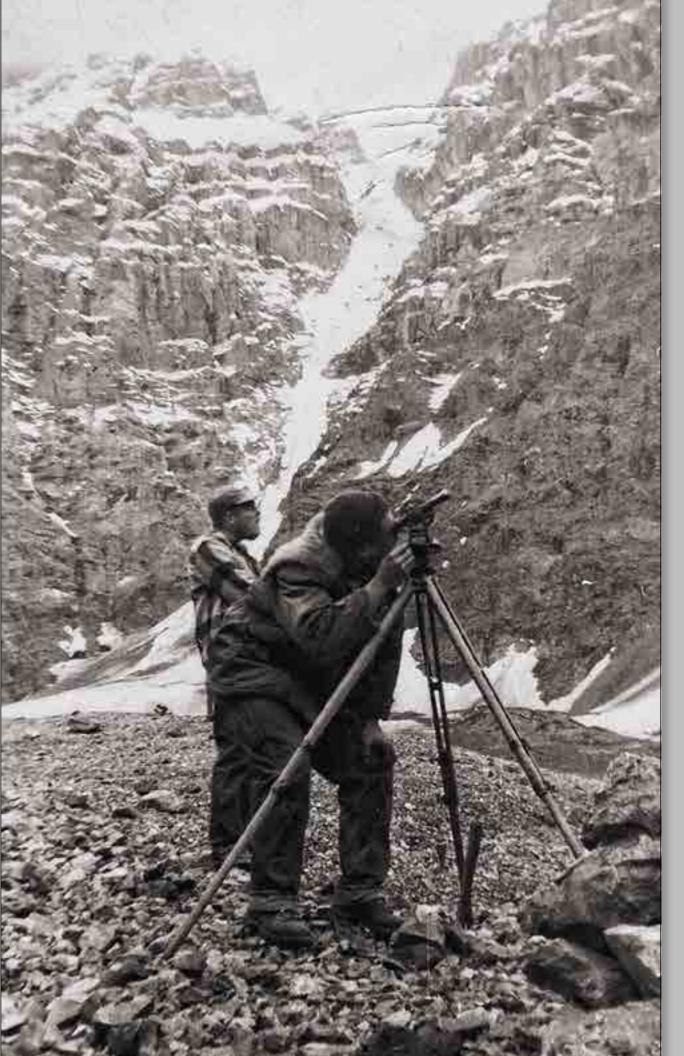
From McCarthy, Merle Smith flew Washburn out past the north side of Mount Logan between the peak and Mount Walsh and around Mount Lucania. The team returned to McCarthy by way of the Donjek, Klutlan and White rivers and Skolai Pass. Washburn left Cordova in October 1938, remarking that he had never worked in any area where he had received more whole-hearted and sincere cooperation. He especially noted "the efficient and splendid service of the Cordova Air Service and Pilots Kirkpatrick and Smith" (Cordova Daily Times, October 3, 1938). Mudhole and Bradford Washburn at Cordova Air Service cabin in McCarthy. Merle Smith Collection, Alaska Airlines, Seattle Washington.



In 1949, anthropologist Frederica de Laguna began a lifetime's work on Yakutat Tlingit culture and history that culminated in her magnum opus, Under Mount Saint Elias—a three-volume set that embodied most of her own research, while also summarizing and integrating most of the relevant accounts of explorers, historians, and anthropologists that had preceded her (Deur, et al. 2015: 11-12). De Laguna's interviewees were particularly significant. Minnie Johnson, for example, explained how to process sealskins (tsa dugu). According to De Laguna, "Although skins may be kept in the frames for 2 to 3 days, MJ was anxious to finish one small skin for moccasin trims" (De Laguna 1972: 395-397). Frederica de Laguna & Minnie Johnson seal skinning, Yakutat, 1953. McClellan photo. Frederica de Laguna Photograph Collection, ASL-P350-52-copy-39-sup.



By the early 1950s the transpolar air routes and close proximity to the Soviet Union had transformed Alaska from a bridge to the East into America's "northernmost sentry" and guardian of the West. Eastern Alaska's mineral potential to support the nation's growing nuclear industrial complex quickly gained the attention of federal agencies such as the U.S. Geological Survey and the U.S. Atomic Energy Commission, which targeted an array of geological minerals crucial to Cold War defense. Reports of nickel, chromium, silver, lead, tungsten, zinc, platinum, tin, mercury, arsenic, and the atomic element antimony were said to be "hidden in stores of commercial-sized quantities" throughout the old Copper Belt (Hillyer 1943: 23; USGS 1952). Territorial geologists sent to assess mineral prospects in the Wrangell Mountains in 1955. Courtesy of Jim Edwards.



The 1950s saw the first 1:63,360-scale standard quadrangle mapping projects initiated in the Wrangell Mountain region, thanks to newly acquired vertical photography. With the addition of the helicopter, such technological tools revolutionized geological surveying and topographic mapping in Alaska (Foley 1987:4). Surveyors, ca. 1950s. Courtesy of Jim Edwards.



During the 1950 Copper River Survey, surveyors used aerial photographs to establish set points along the old Copper River & Northwestern Railway line to determine a pathway for a new road. Despite cold and stormy weather, the survey team in 1950 had accomplished in about two months what it took surveyors four decades earlier to accomplish in three years. Survey crew (Brown and Smith) 1950. Courtesy of Charles "Bob" Leitzell.





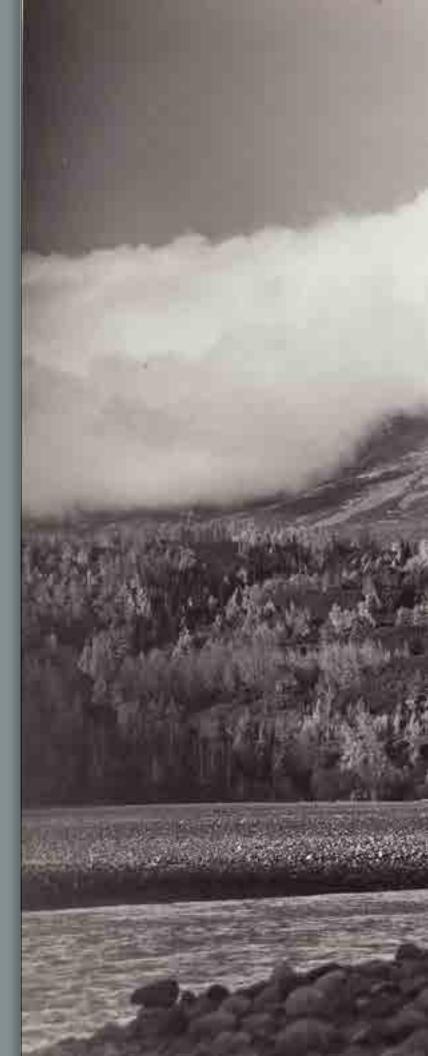
Air transportation had replaced horses and hard foot travel, but above all, noted one surveyor, "the aerial photography has resulted in an overall economy of mapping effort." CAS pilot Herb Haley transported survey crews at the beginning and end of each work day between the base stations and their survey sites. This was accomplished by a Piper Cub equipped with tandem landing wheels that took off and landed from, as one surveyor declared, "the most unbelievable places—sandbars" (Kauffman 1950). "Our CAS Pilot" (Herb Haley) 1950. Courtesy of Charles "Bob" Leitzell.

"Job number 10591 (mapping the Copper River Canyon for the ARC) is not an ordinary topo job even in AERO's wide-flying global operations. Job 10591 is an invasion of the last frontier, Alaska; it is a contest against cold, wind, snow, dust and mountains in a setting of breathtaking scenery and rich Alaska history."

—Virgil Kauffman
Aero Service Corporation

One surveyor reported a typical fall day in the canyon: "Today we fought high winds, sand blowing so one could not face it. Winds increased hourly—pilot got report of impeding 80 m.p.h. gale" (Kauffman 1950). Damage caused by the 1964 earthquake eventually halted construction, but the Copper River Survey was, nevertheless, a significant undertaking.

Quinn looking through lens on tripod. Courtesy of the Cordova Historical Museum, 02-40-30.



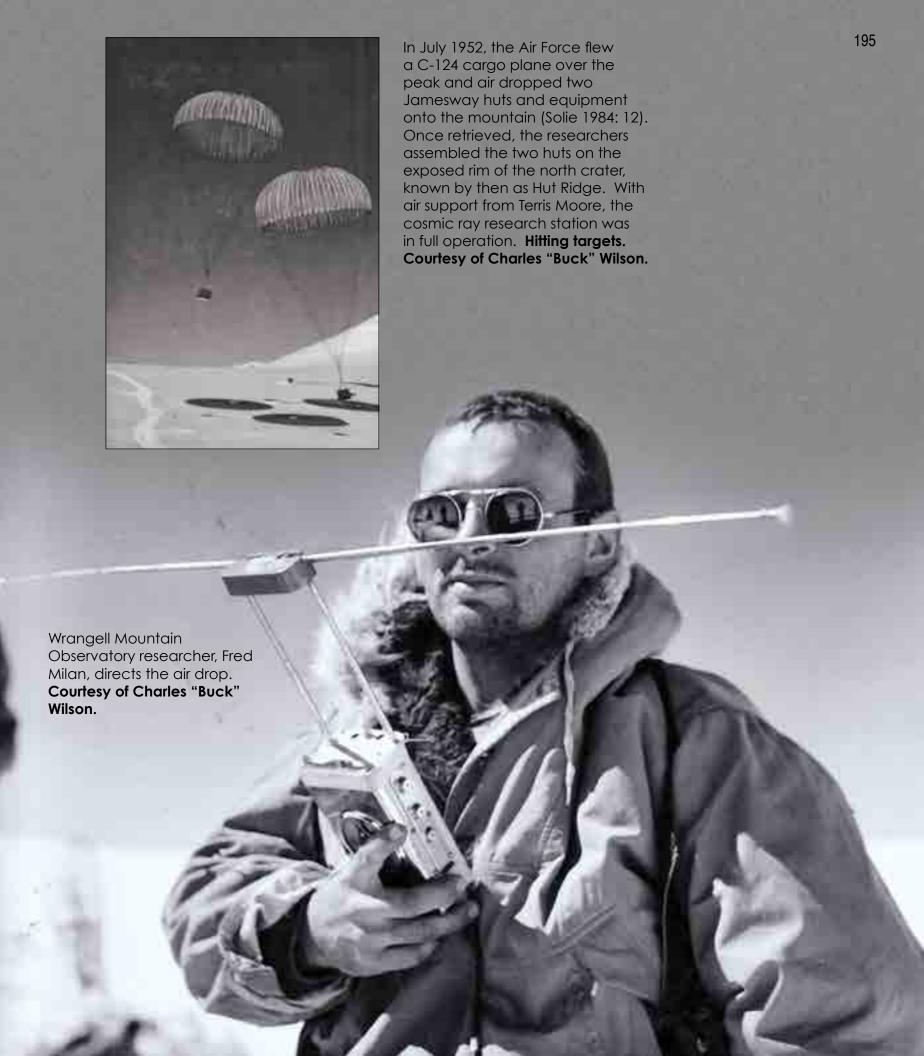


(Right) Scientists working on Mount Wrangell would meet the supply plane at a lower elevation. According to physicist Charles "Buck" Wilson, "Fred, Bob and G.I. skied down from 14,000 to 7000 ft. for pick up by wheel plane on a strip in the woods far below" (Benson and Motyka 1978). Courtesy of Charles "Buck" Wilson.

(Below) Terris Moore, the University of Alaska's "Flying President," established a research laboratory on the summit of Mount Wrangell in 1952. Such scientific activity, supported entirely by aviation, was the impetus for the University of Alaska's Geophysical Institute, which transformed the one-time mining college into a world-class research facility (Davis 1992; Rozell 2004). Camp at Mount Wrangell. Courtesy of Charles "Buck" Wilson.











The environment surrounding the Wrangell Mountain Observatory has "the most magnificent and extensive array of mountain glaciers outside of the polar regions."

-Glaciologist Carl Benson

The scientists atop Mount Wrangell were primarily interested in studying cosmic rays and the interaction of geological features such as glaciers and volcanoes. But physiologists with the U.S. Air Force Arctic Aeromedical Laboratory—Robert Elsner and Frederick Milan—studied the Wrangell Mountain scientists. The military was interested in how high altitudes and frigid temperatures physiologically affected human beings living in such environments. As relations between the U.S. and the U.S.S.R. worsened, and a "Hot War" between the two enemies became a distant possibility, such cold weather science took on new relevance in terms of national defense (Solie 1984). "Physiological research on Wrangell." Courtesy of Charles "Buck" Wilson.



The International Geophysical Year (1957-1958) was a public relations effort designed to bring the earth, atmospheric, and ocean sciences into the classrooms and living rooms of the lay public in order to attract more students into scientific careers. U.S. participation in international science opened the gates to glaciological opportunities. The new enthusiasm for the discipline also gave the Wrangell Mountain Observatory a purpose beyond military interests. As glaciologist Carl Benson put it, the environment surrounding the Wrangell Mountain Observatory has "the most magnificent and extensive array of mountain glaciers outside of the polar regions" (Solie 1984). Soaking in the view. Courtesy of Charles "Buck" Wilson.

TOURISM

GAPTER 10

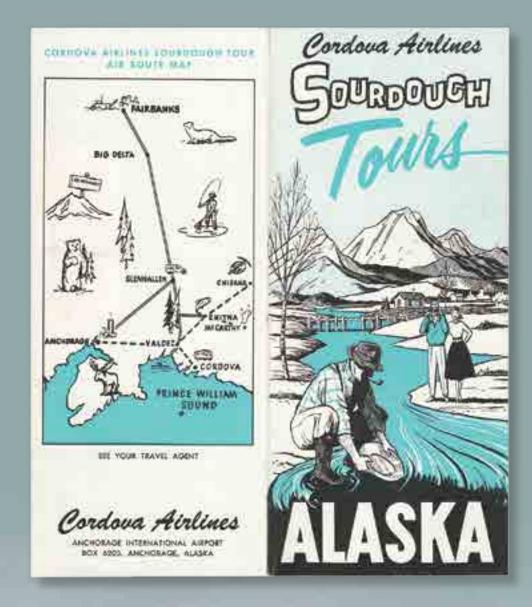
Hoping to corner the tourism market in the Wrangells, Cordova Airlines president Merle Smith purchased a DC-3 airliner to transport tourists to mining ghost towns. Smith's fly-in Sourdough Tours tapped America's nostalgic perceptions of the Old Frontier. He promised visitors encounters with Alaska's quirky miners and cowboy-pilots, and the chance to uncover their own golden dreams.



With business expanding, Smith reincorporated his air carrier service in 1953. The new name, Cordova Airlines, matched the postwar air industry's modern image and expectations. **An early promotional photo for Cordova Airlines Sourdough Tours. Wrangell Mountain pilot Merle Merle Smith Collection, Alaska Airlines, Seattle, Washington.**

Soon after Smith reincorporated Cordova Airlines, he launched the Sourdough Tours, which used frontier imagery in its advertisements to entice postwar tourists to mining ghost towns such as McCarthy and Kennecott. Courtesy of the Cordova Historical Museum, 92-107-32 A.

(Below) Merle Smith added a DC-3 to his fleet and moved Cordova Airlines' headquarters to Merrill Field in Anchorage. After the war Smith returned aviation to the Copper Belt, but instead of miners he carried tourists. Cordova Airlines DC-3 at May Creek, 1958. Merle Smith Collection, Alaska Airlines, Seattle, Washington.







The Alaska Road Commission built the May Creek airstrip in 1935, and extended it in 1947. The only structure at May Creek available to shelter guests was a small mail cabin built by Chititu miners in 1936 (Bleakley nd). Cordova Airlines DC-3 at May Creek. Howard Knutson (in red hat and "Alaskan Tuxedo") and two CA pilots assist passengers into cars (note the 1919 Dodge) to transport them to McCarthy, 1954. Courtesy of Charles "Bob" Leitzell.

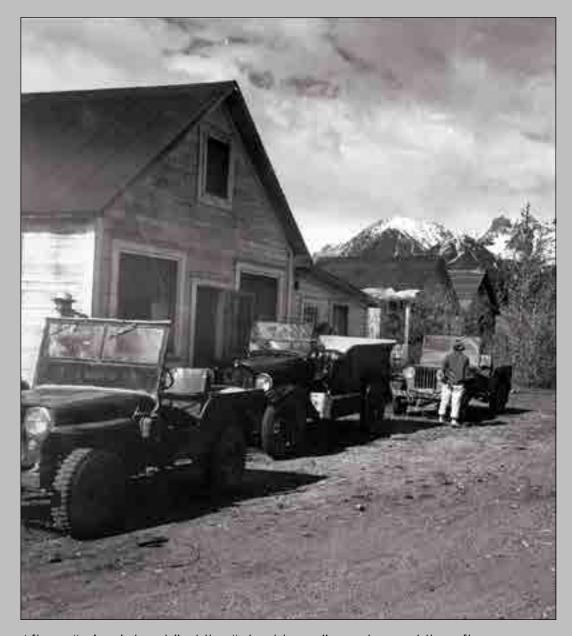




The Sourdough Tours took off from Merrill Field in Anchorage, where passengers were loaded onto a DC-3 airliner. The DC-3 flew over the Chugach Mountains to May Creek, which maintained the only strip long enough to accommodate such a big aircraft. **Unloading tourists at May Creek. Cordova Airlines Collection, Cordova Historical Museum, 90-86-1.**



The Sourdough Tours entourage consisted of Model T trucks and Willies Jeeps that hauled tourists twenty miles to McCarthy along the ARC built May Creek Road. "Cavalcade of Tourists, May Creek airfield." Robert and Wilma Knox, Papers, 1949-2001, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0461-series 15-1-1.



After a "miner's lunch" at the "ghost town," guests spent the afternoon panning for gold in a nearby stream. Tours of the McCarthy townsite were also provided. The tour promised to transport the visitor back in time, boasting that the McCarthy trip was "Alaska's most exciting weekend tour" (Cordova Airlines 1955). (Harding's 1923 Dodge is the middle car.) Arriving at the McCarthy Ghost Town. Robert and Wilma Knox, Papers, 1949-2001, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0461-series15-1-3.





The Sourdough Tours' 1923 Dodge was originally brought to Alaska to transport President Warren G. Harding when he visited Valdez in 1923. Howard Knudson filling radiator, 1923 Dodge, May Creek. May Creek Road Dodge, May 30, 1950. Courtesy of Charles "Bob" Leitzell.



A Cordova Airlines brochure from 1955 provided the McCarthy tour highlights:

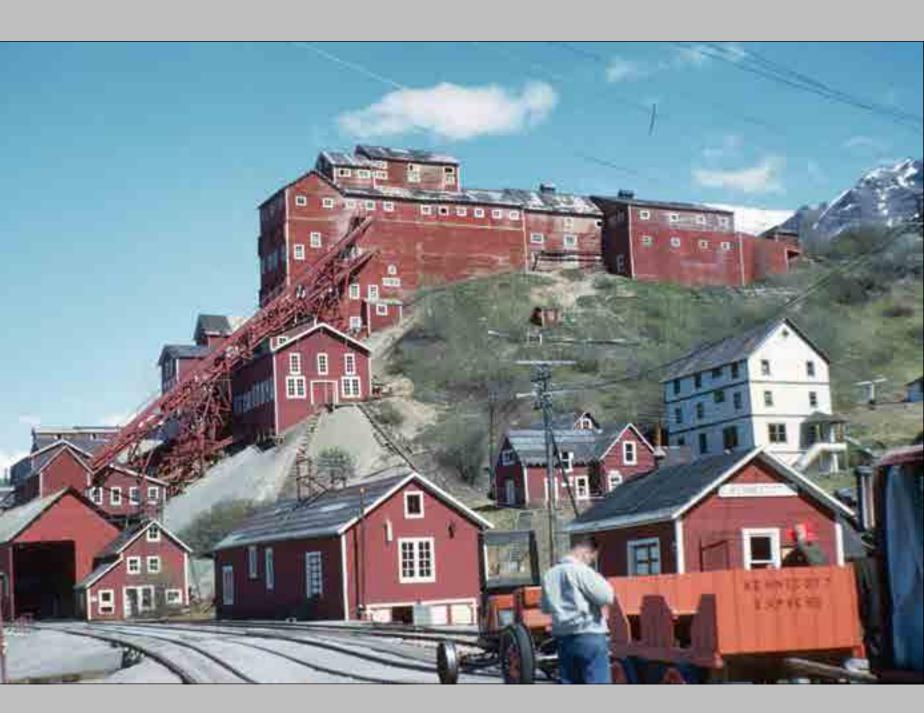
"When the sun is high, it's cocktail time at the lodge, and one takes on the gold baring nuggets and notes. Then, after a fine dinner served family style, join us at the fabulous Golden Saloon where you find yourself in another era. With the playing of 1920s vintage records, your lodge hosts improvising on the violin and mandolin, you're in for an evening of solid music, tasty drinks and interesting chats with the McCarthy Sourdoughs."

Robert and Wilma Knox, Papers, 1949-2001, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0461-series15-1-4.

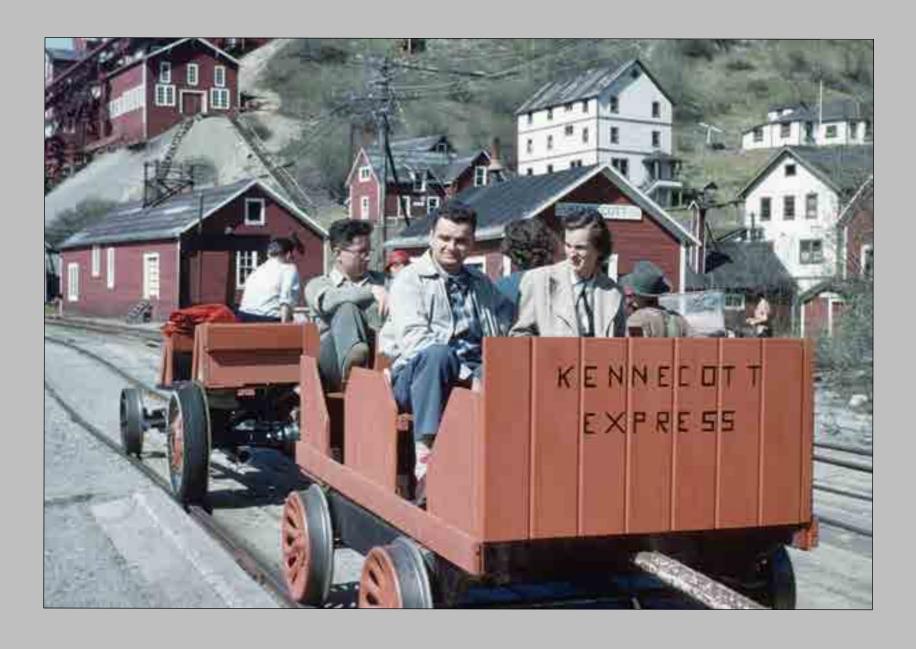




On the second day of the Sourdough Tour, visitors made the six mile trip to Kennecott for a picnic and to hike around. Travel between McCarthy and Kennecott took place on The "Kennecott Express," a Model T automobile mounted on railroad wheels that pulled tourists riding in wooden rail carts around the deserted structures. Cordova Airlines pilot Howard Knutson preparing tourists for the featured ride on the "Kennecott Express." Courtesy of Charles "Bob" Leitzell.



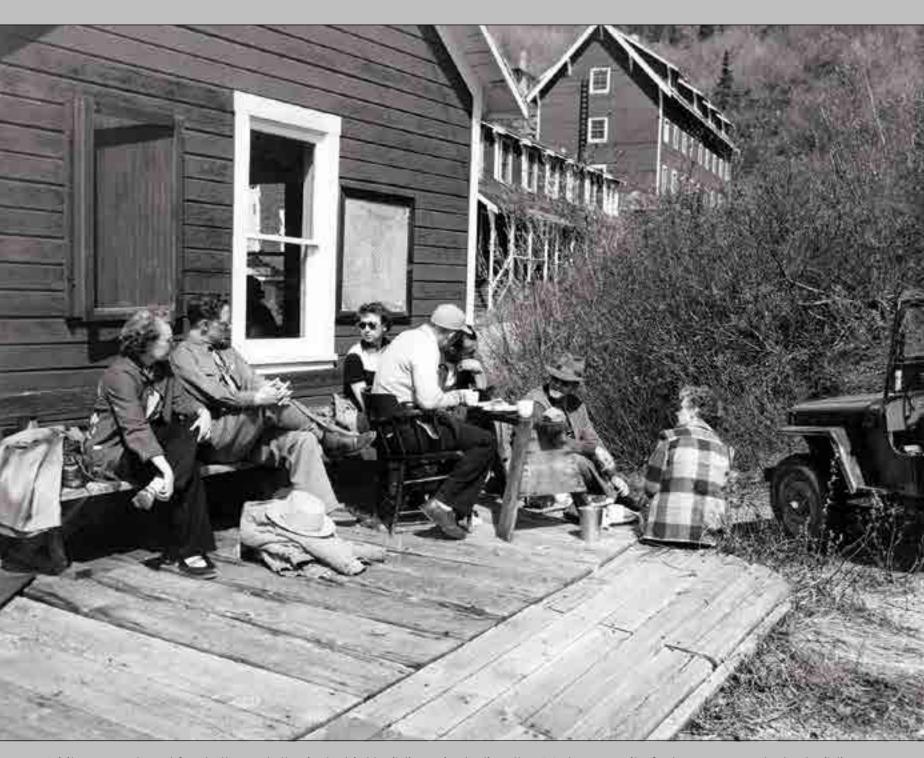
Travel writer Kathryn Winslow wrote that, during the Sourdough Tour, the ghost town evoked "an appealing eeriness. In some of the homes the curtains still hang in the windows. In the community building, which housed the school and library, the books and periodicals date back over thirty years. The railroad station, jail and general store are ready-made for your camera" (Winslow 1957: 108). **Kennecott Express at Kennecott, 1954. Courtesy of Charles "Bob" Leitzell.**



"The railroad station, jail and general store are ready-made for your camera."

-Kathryn Winslow

Merle Smith conceived the idea for the Sourdough Tours after a visit to Knott's Berry Farm amusement park in California. The first year running the Sourdough Tours, Smith and his airline hauled over 900 passengers into the Copper Belt, most of them visiting McCarthy and Kennecott (Janson 1981). **Courtesy of Charles "Bob" Leitzell.**



Visitors wandered freely through the industrial buildings, including the 14-story gravity-fed ore concentrator building that dominated the skyline above Kennecott; the leaching plant where the Syndicate pioneered the use of sulfur ammonia in processing copper tailings; the power plant, with its four huge smokestacks resembling a steamship; the hospital, which saved numerous patients flown into McCarthy by Harold Gillam; the superintendent's office, the only log-cabin on site and the oldest building in Kennecott; the multi-story bunkhouses; the general store; the two room school house; the community center that functioned as a theatre and indoor gymnasium; and the several private residences for families of the teachers, medical staff, and upper management (Ringer, 1993:33). Robert and Wilma Knox, Papers, 1949-2001, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, uaa-hmc-0461-series15-1-12.

PLAY

Residents of the Wrangell Landscape engaged in play in numerous ways. Holidays and American celebrations were important for they gave miners and other laborers time-off from hard work and connected them to their far-off homes. Some played games to come together, while others recreated for solitude. Adults used play to cope with reality, while children used it to create a world of imagination. Today, as hikers traverse mining trails and campers wander among prospectors' ruins, recreational activities and play tend to re-create or mimic the Wrangell working past.



The centerpiece of American holidays in Alaska was the Fourth of July. Independence Day festivities offered miners a break from their grueling work and re-created traditions from home. **July 4, 1914. WRST History Files, "Chisana Bonanza Creek" Folder, 276.**





The Fourth of July celebration often centered on competition and games. Game-playing gave miners working in isolation a sense of community. Swimming race, at the Mouth of Little El, July 4, 1914. WRST History Files, "Chisana Bonanza Creek" Folder, 289.



A thrilling foot race at Hamshaw's camp formed a sense of camaraderie among miners, many of whom came from different places and represented diverse backgrounds. "4th of July race, Mouth of Little El," 1914. WRST History Files, "Chisana Bonanza Creek" Folder, 276. Original photo in the Stanley-Mason Collection at the Tacoma Public Library.



Although Franklin D. Roosevelt had not yet proclaimed Thanksgiving a federal holiday, it was still considered the nation's day to give thanks. Fletcher Hamshaw and his wife hosted a Thanksgiving gathering of Chisana miners in 1914. Because the ratio of men to women remained heavily in favor of men, according to one account of the Thanksgiving Day dance, "it was not amiss to see many of the men dancing together" (Hunt 1996: 110). **WRST History Files, "Chisana-Other" Folder, 326.**





Although the Kennecott Copper Corporation ran year-round, employees still made time to celebrate Christmas. Kennecott Kid Mary Ellen Duggan Clark remembered that school children put on a Christmas pageant for their families at the Recreation Hall where a big Christmas tree was displayed. "And after the program was finished," explained Clark, "Santa Claus would come through the [artificial] fireplace, come out and he'd have a gift for each child and a stocking with some fruit and some candy in it" (KKOHP 1991-Clark: 7-8). Christmas at Bonanza Mine Bunk House. WRST History Files, "People" Folder, 863.



"There were summertime tea parties outside on the grass where my little tea table was set with refreshments for my toys: various dolls, toy dogs, bunnies and bears."

—Jean Elizabeth McGavock Lamb

"There were summertime tea parties outside on the grass where my little tea table was set with refreshments for my toys," recalled Kennecott Kid Jean Elizabeth McGavock Lamb. Playmates included "various dolls, toy dogs, bunnies and bears" and her brother James (KKOHP 1991-Lamb: 2). Most of the children at Kennecott belonged to the managers. Most the ordinary miners did not bring families to their worksites. Tea party. WRST History Files, "Kennecott Millsite" Folder.



George Flower was one of the few African Americans in McCarthy in the 1920s. Oscar Watsjold's family came from Norway to open a hardware store in McCarthy in 1929. As a child, Oscar recalled that George was the first black person he had ever seen. He and his friends would visit George at his cabin near Long Lake (KKOHP 1991-Watsjold: 10). "Jevene, George, Ringer." WRST History Files, "People" Folder.



Few Kennecott employees "hiked" for fun. Some of the Kennecott Kids recall that they "liked hiking," but admitted that they rarely took long hikes. Children tended to stay close to home. "We'd just go out in the woods and play and build brush houses and things like that" (KKOHP 1991-Clark: 13). Bob Sullivan and son. WRST History Files, "People" Folder, 864.



When asked what people did for fun at Kennecott, Mary Ellen Duggan Clark recalled that in winter "It was skiing, skating, sliding—things like that" (KKOHP 1991-Clark: 12).

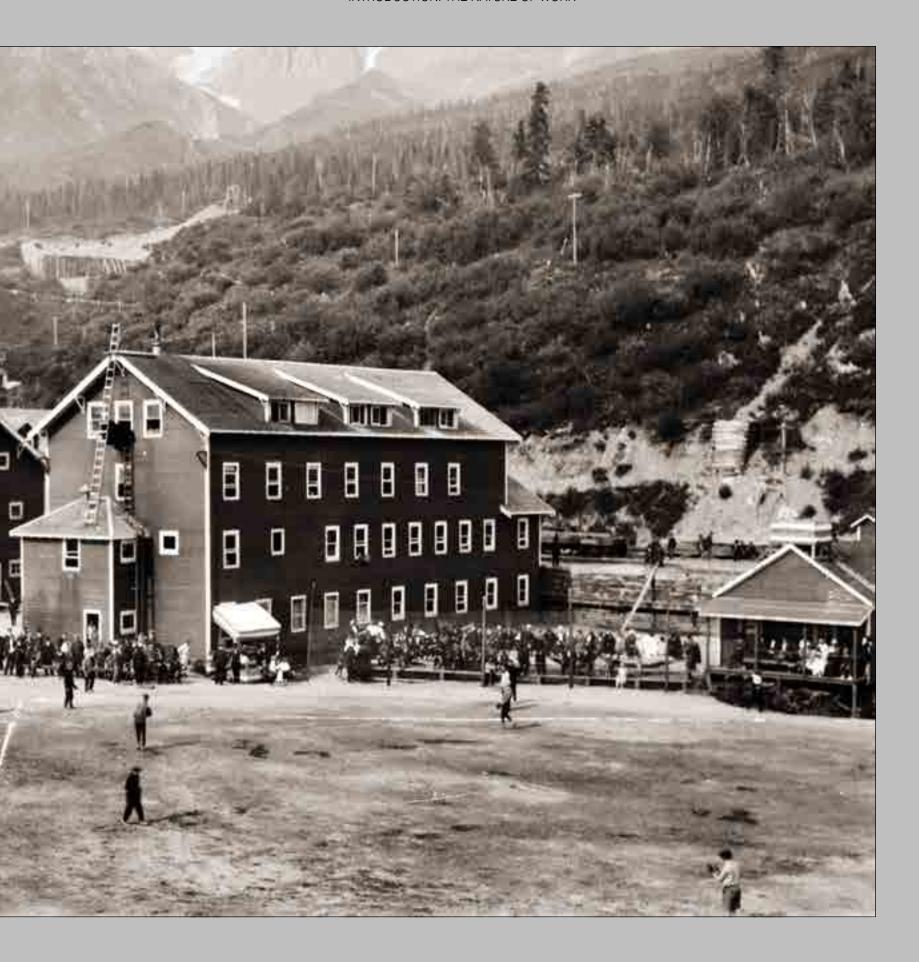
Snowbunnies. WRST History Files, "Ethel Lecount Album-Kennecott" Folder.



During the winter, the baseball field was boarded and flooded with both water and lights for wintertime skating (KKOHP 1991-Lamb: 5). Kennecott Kid Mildred Erickson Reis recollected a beautiful pair of skates her mother used that her father had made out of a round saw blade that attached to her boots (KKOHP 1991-Reis: 16). "Once a year they had a carnival. Everybody dressed in costumes...They brought the piano in from the hall and the orchestra would play" (KKPHP 1991-Reis: 22). Night Scene, Ice Carnival, Kennecott Alaska. WRST History Files, "Friends of Kennecott Collection" Folder.

On the Fourth of July at Kennecott the big event was the baseball game against McCarthy. To give the older McCarthy residents an advantage over the young bucks of Kennecott, the McCarthy team imported a so-called "ringer," a pitcher from another town (KKOHP 1991-O Watsjold: 21). Tournaments alternated between the Kennecott and McCarthy fields. When the rival teams met at Kennecott's millsite, they played on a diamond built on the most rugged and unlikely location: atop of the Kennicott Glacier! Alaska State Library, asl_p425_12_146.









Kennecott Kids Jean McGavock Lamb and her brother James McGavock recall day trips when the family would go "picnicking" and "fishing" (KKOHP 1991-Lamb and Mcgavock: 6). Fisherman. WRST History Files, "Hunting" Folder, 492.



Alaska's gold rush attracted people from all over the world. The thousands of prospectors who came to seek their fortunes wanted a drink, whether they hit pay dirt or not. By 1899, Congress finally realized that it was impossible to keep liquor out of Alaska. Nizina Mines, 1903. WRST History Files, "Chititu" Folder, 1678.

(Below) The local watering hole often times doubled as community centers. According to author Doug Vandergraft, "The remoteness of Alaska, seasonal darkness, isolation, and loneliness created a need to socialize, which provided a unique niche for bars" (Vandergraft 2014: 15). This photo was taken one year before Congress repealed Alaska's first prohibition laws on liquor (1868-1899). The Opera House Saloon in 1898. WRST History Files, "Copper Center" Folder.



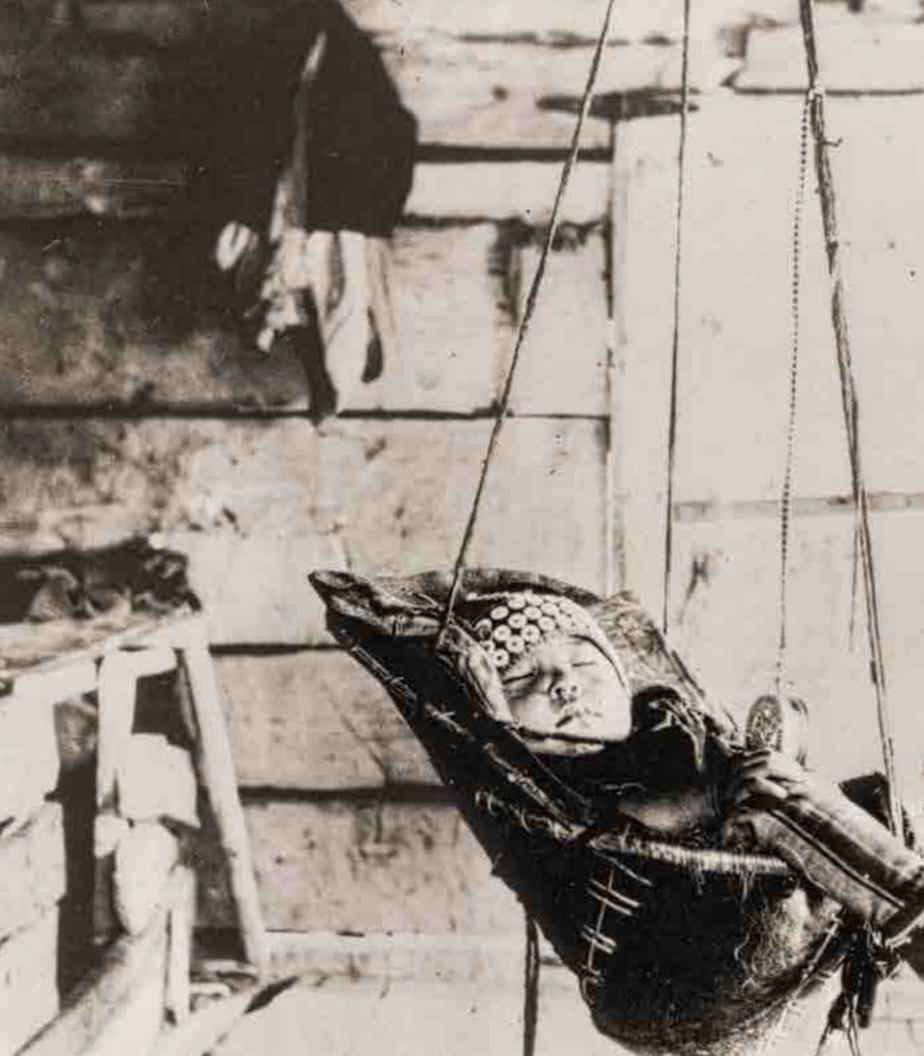


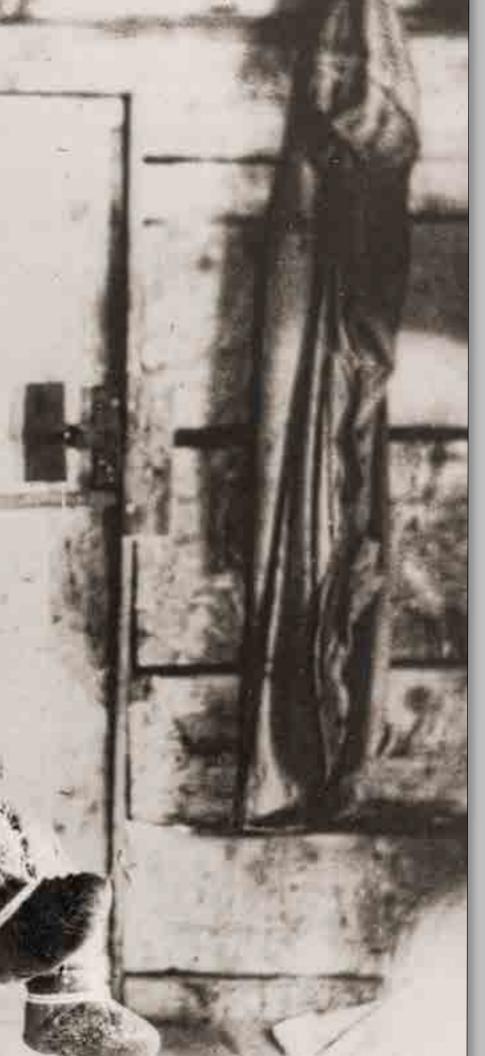
With the rise of the Woman's Christian Temperance Union and the newly acquired power of the vote, female Alaskans pressured the territorial legislature to once again ban alcohol. Although "Bone dry" laws prohibited liquor between 1918 and 1933, McCarthy had become a hotbed of moonshining (Vandergraft 1914: 18). Men who worked up at the mines rarely came down to the Kennecott millsite to recreate with employees. "They, as a rule," recalled James McGavock, "passed right through and made a beeline for McCarthy" (KKOHP 1991-Lamb and McGavock: 25). Happy Hour. WRST History Files, "Miscellaneous" Folder, 1602.





O.A. Nelson had a surprising wit, which would later be expressed by Chitina's haunting ghosts. Survey crew and skeleton at Chitina, 1950. Courtesy of Charles "Bob" Leitzell.





Like anywhere, in the Wrangells there was a time to work and a time to rest. The next generation of Wrangell "workers." Stephen R Capps, WRST History Files, "Ahtna" Folder, 204.



List of Sources

Books, Reports and Articles

"Alaska's Recreational Riches," Alaska Development Board, Juneau Alaska. July 1946.

Allen, Henry T. Report of the Expedition to Copper, Tanana and Koyukuk Rivers in the Territory of Alaska, in the Year 1885. Washington DC, 1887.

Armitage, Susan and Elizabeth Jameson (eds). The Women's West. Norman: University of Oklahoma Press, 1987.

David Arnold, see The Fishermen's Frontier: People and Salmon in Southeast Alaska. University of Washington Press, 2008.

Bates 1994 Robert Bates. The Love of Mountains is Best. Portsmouth: Peter E. Randall Publisher, 1994.

Benson, Carl S. and Roman J. Motyka, "Glacier-Volcano Interactions on Mt. Wrangell, Alaska," Geophysical Institute, University of Alaska Fairbanks, 1978.

Benton, Norman. "AJJEX 67 American-Japanese Joint Expedition of 1967," http://www.datacove.com/Benton/1967AJJEX.htm, 2003.

Bleakley, Geoffrey. Contested Ground: An Administrative History of Wrangell-St. Elias National Park and Preserve, Alaska, 1978-2001. National Park Service, 2002.

_____. Selected Residents of and Visitors to the Wrangell-St. Elias Mountain Region, 1796-1950. National Park Service, May 2006.

____. In the Shadow of Kennecott: The Forgotten Mining Camps of the Wrangell Mountain Region. National Park Service, ca. 2006.

. A History of the Chisana Mining District, Alaska 1890-1990. National Park Service, 2005.

. Sanford River Fox Farm, Determination of Eligibility. National Park Service, 2005.

Board of Road Commissioners for Alaska, "Annual Report of the Alaska Road Commission, Fiscal Year 1923, Part II," Juneau, Alaska, 1923.

Brooks, Alfred. "The Mining Industry in 1910," U.S. Geological Survey, Bulletin 480. Washington, D.C., 1911.

Burnham 1925 John B. Burnham, "Hunting in the Nutzotins," *Hunting and Conservation: The Book of the Boone and Crockett Club*, eds George Bird Grinnell and Charles Sheldon. New Haven: Yale University Press, 1925.

Cohen, Stan. Flying Beats Work: The Story of Reeve Aleutian Airways. Missoula: Pictorial Histories Publishing Company, 1988.

Cole, Terrence. Blinded by Riches: the Permanent Funding Problem and the Prudhoe Bay Effect. Institute of Social and Economic Research, University of Alaska Anchorage, January 2004.

"Cordova Airlines Sourdough Tours brochure, ca, 1955." Cordova Air Service folder, Aviation Files, Cordova Historical Museum, Cordova, Alaska.

Cronon, William. "The Riddle of the Apostle Islands," Orion (May/June 2003).

. Nature's Metropolis: Chicago and the Great West. New York: WW Norton & Co, 1991.

Cruikshank, Julie. Do Glaciers Listen? Local Knowledge, Colonial Encounters, & Social Imagination. Vancouver B.C.: University of British Columbia Press, 2005.

- Davis, Neil. The College Hill Chronicles: How the University of Alaska Came of Age (Fairbanks: University of Alaska Foundation, 1992), 195.
- Day, Beth. Glacier Pilot: The Story of Bob Reeve and the Flyers Who Pushed Back Alaska's Air Frontiers. New York: Henry Holt and Co., 1957.
- Defenderfer, Donald C. and Robert B. Walkinshaw, *One Long Summer Day in Alaska: A Documentation of Perspectives in the Wrangell Mountains*. Santa Cruz: University of California, 1981.
- De Laguna, Frederica. *Under Mount Saint Elias: The history and culture of the Yakutat Tlingit.* Smithsonian Contributions to Anthropology, Volume 7. Parts 1, 2, and 3. Washington, DC: Smithsonian Institution Press, 1972.
- De Laguna. "Ahtna". In Handbook of North American Indians, Vol. 6: Subarctic. Washington, DC: Smithsonian Institution, 1981.
- Deur, Douglas, et al. Yakutat Tlingit and Wrangell-St. Elias National Park and Preserve: An Ethnographic Overview and Assessment. National Park Service, 2015.
- Foley, Robert C. Field Surveying and Topographic Mapping in Alaska: 1947-83, Survey Circular 991. U.S. Geological, 1987.
- Gallaher, Samme and Aileen Gallaher. Sisters: Coming of Age and Living Dangerously in the Wild Copper River Valley. Kenmore, WA: Epicenter Press, 2004.
- Graumann, Melody Webb. Big Business in Alaska: The Kennecott Mines, 1898-1939. National Park Service, 1976.
- Griese, Arnold. Bush Pilot: Early Alaska Aviator Harold Gillam, Sr. Lucky or Legend? Anchorage: Publication Consultants, 2005.
- Harrais, Margaret Keenan. "Alaska Periscope" (unpublished manuscript). Copy located at Alaska Regional Office, Anchorage, Alaska.
- Hawley, Charles Caldwell. A Kennecott Story: Three Mines, Four Men, and One Hundred Years, 1897-1997. Salt Lake City: University of Utah Press, 2014:
- Haycox, Stephen. "Strengthening the Indian Voice: U.S. Military Relations with Natives at Two Sites in Alaska, 1942-44, and 1987-89." In *Borderlands: 1989 Heritage Conference, June 2nd 4th 1989*, Yukon Historical and Museums Association, Yukon College, Alaska Historical Society and the University of Victoria, 1989.
- . Frigid Embrace: Politics, Economics and Environment in Alaska. Oregon State University Press, 2002.
- Haynes, Terry L., and William E. Simeone. *Upper Tanana Ethnographic Overview and Assessment, Wrangell St. Elias National Park and Preserve,* Technical Paper No. 325. Alaska Department of Fish and Game, July 2007.
- Hillyer, William Hurd. "Alaska as a New Frontier: Wartime Road and Skyways May Implement Post-War Boom," *Barron's National Business and Financial Weekly*, December 6, 1943.
- Hunt, William. Mountain Wilderness: An Illustrated History of Wrangell-St. Elias National Park and Preserve, Alaska. Anchorage: Alaska Natural History Association, 1996.
- _____ Alaska Golden Places. Anchorage: Nation Park Service, 1990.
- Janson, Lone E. Mudhole Smith: Alaska Flier. Anchorage: Alaska Northwest Publishing Company, 1981.
- Kain, Ann (ed). Kennecott Kids Oral History Project. National Park Service, June 1991.
- Kari, James (Transcriber and Editor), et al. *Ahtna travel Narratives: A Demonstration of Shared Geographic Knowledge among Alaska Athabascans*. Alaska Native Language Center, University of Alaska Fairbanks, 2010.

Kari, James. (Transcriber and Editor). *Tatl'ahwt'aenn Nenn': The headwaters people's country, Narratives of Upper Ahtna Athabaskans*. Alaska Native Language Center, University of Alaska Fairbanks, 1986.

Kauffman, Virgil. "It's Rugged In Alaska!" Aero Service Corp Newsletter, December, 1950.

Keen, Dora. "Arctic Mountaineer by a Woman: Mount Blackburn." Scribner's Magazine, July-December 1912.

King, Robert E. "Alaska's Lewis and Clark Expedition." Alaska Frontiers, Bureau of Land Management, summer 2004.

Kirchhoff M.J. Historic McCarthy: The Town that Copper Built. Juneau: Alaska Cedar Press, 1993.

LeCain, Timothy J. Mass Destruction: The Men and Giant Mines That Wired America and Scarred the Planet. New Brunswick: Rutgers University Press, 2009.

Lappen, Michael. "Whose Promised Land? A History of Conservation and Development Management Plans for the Wrangell and Saint Elias Mountain Region, Alaska, 1938-1980." 1984.

McGuire, James A. In the Alaska-Yukon Gamelands. Cincinnati: Stewart Kidd Company, 1921.

Mendenhall, Walter C. and Frank C. Schrader. *Mineral Resources of the Mount Wrangell District, Alaska*, USGS Professional Paper No. 15 (Washington, D.C.: GPO, 1903).

Metcalfe, Peter. A Dangerous Idea: The Alaska Native Brotherhood and the Struggle for Indigenous Rights. Fairbanks: University of Alaska Press, 2014.

Morse, Kathryn. *The Nature of Gold: An Environmental History of the Klondike Gold Rush*. Seattle: University of Washington Press, 2003.

Movius, Phyllis Demuth. A Place of Belonging: Five Founding women of Fairbanks, Alaska. Fairbanks: University of Alaska Press, 2009.

Murphy Edward C. and Frederick C. Dean. *Hunting Activity and Harvest in the Wrangell-St. Elias Region, Alaska, 1973-1977*, Final Report for National Park Service, CX-9000-6-0154. Fairbanks: University of Alaska, 1978.

Nash, Roderick. Wilderness and the American Mind. New Haven: Yale University Press, 1982.

_____. Roderick Nash, "Tourism, Parks and the Wilderness Idea in the History of Alaska," *Alaska in Perspective*, Volume IV, Number 1 (1981): 1-27.

Naske, Claus-M. Paving Alaska's Trails: The Work of the Alaska Road Commission. Alaska Historical Commission Studies in History No. 152, 1986.

"Nizina Bridge," Historic Structures Inventory, WRST, Alaska Regional Office, Anchorage, Alaska, 1991.

Nelson, Richard K. Raven's People: Athabaskan Traditions in the Modern World. In Interior Alaska: A Journey Through Time. Anchorage: Alaska Geographic Society. 1986.

Parker, Walter B., Patricia I. Parker and G, Michael Harmon. "Air Service to Rural Alaska: A Study in Inadequacy," Division of Legislative Finance for the House Finance Committee. October 20, 1979.

Pascoe, Peggy. Relations of Rescue: The Search for Female Moral Authority in the American West, 1974-1939. Oxford: Oxford University Press, 1990.

Pierce, Richard A. and Alton S. Donnelly (eds). A History of the Russian American Company by P.A Tikhmenev, vol. 2. Kingston, Ontario: Limestone Press, 1979.

Rearden, Jim. In the Shadow of Eagles, Rudy Billberg's Story. Anchorage: Alaska Northwest Books, 1992.

Alaska's First Bush Pilots, 1923-30. Missoula, Montana: Pictorial Histories Publishing Company Inc., 2009.
Hunting Alaska's Far Places. Missoula: Pictorial Histories Publishing Company, 2008.
Reckord, Holly. Where Raven Stood: Cultural Resources of the Ahtna Region, Anthropology and Historic Preservation and Historic Preservation, Cooperative Park Studies Unit, Occasional paper No. 35. University of Alaska Fairbanks.
That's the way we live: Subsistence in the Wrangell-St. Elias National Park and Preserve. Anthropology and Historic Preservation, Cooperativ Park Studies Unit, Occasional Paper No. 34. University of Alaska, Fairbanks. 1983.
Reeve, R.C. "Statement Before the Civil Aeronautics Board, In the Matter of the Application of Reeve Airways, Valdez, Alaska, for a Certificate of Public Convenience and Necessity, Exceptions to Examiners Reports, Docket No. 340," August, 1939.
"Reconnaissance for Radioactive Deposits in Eastern Alaska," Circular 348, U.S. Geological Society, 1952.
Ringer, Gregory D. The Wilderness Begins at McCarthy: Perceptual Impacts of Tourism on Communities. McCarthy-Kennicott Museum, June 1993.
Ringsmuth, Katherine. Tundra Vision: Life of a Copper Prospector in the Nizina River Country. National Park Service, 2012.
Alaska's Skyboys: Cowboy Pilots and the Myth of the Last Frontier. Seattle: University of Washington Press, 2015.
Roberts, David. Escape from Lucania: An Epic Story of Survival. New York: Simon & Schuster, 2002.
Robbins, William G., Colony & Empire: the Capitalist Transformation of the American West. University Press of Kansas, 1994.
In Pursuit of Historical Explanation: Capitalism as a Conceptual Too for Knowing the American West. Western Historical Quarterly, Vol 3 No. 3 (autumn, 1999).
Ross, LeahDean Kirkpatrick. Some of My Experiences in Alaska. Newton, Kansas: Mennonite Press, 1998.
Rozell, Ned. "Forty Years and Counting on Mount Wrangell." Alaska Science Forum, Article #1711. August 12, 2004.
Alaska Engineering Marvel: Copper River Railroad and Million Dollar Bridge, Alaska Dispatch News, January 15, 2012.
Simeone, et al. Cultural Models of Copper River Salmon Fisheries, Technical Paper No. 351. Alaska Department of Fish and Game. October 2011.
Sherwood, Morgan. Big Game In Alaska: A History of Wildlife and People. Yale University Press, 1981.
Solie, Daniel. "Icing on the Fire: A Season on the Summit of Mount Wrangell," Alaska Journal, (autumn) 1984.
Spude, Robert L.S. and Sandra McDermott Faulkner. Cordova to Kennecott, Alaska. Cordova: Cordova Historical Society, 1988.
Stanley, Kirk. Nabesna Gold and the Making of the Historic Nabesna Gold Mine and Town on the Frontier of Alaska Territory. Anchorage: Todd Communications, 2005.

Thomas, Margaret. Picture Man: The Legacy of Southeast Alaska photographer Shoki Kayamori. Fairbanks, University of Alaska Press, 2015.

Strong, B. S. Historical sequence of the patterns of production of the Ahtna Athabascan Indians of the Upper Copper Valley, Alaska: the development of

Thornton, Thomas F. Being and Place Among the Tlingit. Seattle: University of Washington Press, 2008.

capitalism in Alaska. Ph.D. Dissertation in Anthropology, McGill University, Montreal, Quebec, 1976.

Vandergraft, Doug. A Guide to the Notorious Bars of Alaska. Kenmore, WA: Epicenter Press, 2014.

Van Kirk, Sylva. Many tender Ties: Women in Fur Trade Society, 1670-1870. Norman: University of Oklahoma Press, 1983.

Walker, Gary, et al. A Geological Guide to Wrangell Saint Elias National Park and Preserve, Alaska: A Tectonic Collage of Northbound Terrance. Professional Papers 1616. Washington DC: U.S. Geological Survey, 2000.

Washburn Bradford. "Aerial Exploration of the Great Glaciers of the Alaskan Coast and Interior (abstract)," *American Geological Society Bulletin*, vol. 52, no. 12. December 1, 1941.

_____. "From a Mountain Climber's Album: Bradford Washburn is First to Scale Mt. Lucania," *Life Magazine*, September 27, 1937.

White, Paul, J. Bremner Historic District, Cultural Landscape Report, Wrangell-St. Elias National Park and Preserve, Alaska. Michigan Technological University, National Park Service, 2000.

White, Richard, "Are you an Environmentalist or Do You Work for a Living: Work and Nature." In *Uncommon Ground: Rethinking the Human Pace in Nature*, edited by William Cronon. New York: W.W.Norton & Company, 1996.

_____. Organic Machine: The Remaking of the Columbia River. New York: Hill and Wang, 1995.

Wilson, Jack. The Quest for Dall Sheep. Wasilla, AK: Northern Publishing, 1997.

____. Glacier Wings. Anchorage: Great Northwest Publishing and Distributing Company, Inc., 1988.

Winslow, Kathryn. Alaska Bound. New York: Dodd, Mead & Company, 1960.

Wood, Walter A. "The Icefield Ranges Research Project," Geographical Review, vol. 53, No 2. 1963.

"Walter Wood's First Ascent of Mount Steele," Life Magazine. November 30, 1936.

Worster, Donald. Nature's Economy: A History of Ecological Ideas. Cambridge University Press, 1994.

_____. Under Western Skies: Nature and History in the American West. Oxford University Press, 1992.

Wrangell-St. Elias National Park and Preserve Foundation Statement. National Park Service, 2010.

Young, George O. Alaskan-Yukon Trophies Won and Lost. Huntington, W.V.: Standard Publications, 1947.

Newspapers

Cordova Daily Times, February 12, 1934

Cordova Daily Times, October 3, 1938

Cordova Daily Times, April 1939

Cordova Daily Alaskan, July 18, 1913

Chitina Leader July 15 1911

Valdez Miner, June 18, 1936

Valdez Miner, June 25, 1937

Interviews

Walter J. Freeman, January 29, 2016. Conducted by author.

"Jack Wilson—Glennallen," H95-71-10, Project Jukebox, University of Alaska Fairbanks.



At Work in the Wrangells

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental

and cultural values of our national parks and historical places, and providing for enjoyment of life through outdoor recreation.

The Cultural Resource Programs of the National Park Service have responsibilities that include stewardship of historic buildings, museum collections, archeological sites, cultural landscapes, oral and written histories, and ethnographic resources.

