

THAT'S THE WAY WE LIVE
Subsistence in the Wrangell-St. Elias
National Park and Preserve



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Anthropology and Historic Preservation
Cooperative Park Studies Unit
University of Alaska, Fairbanks

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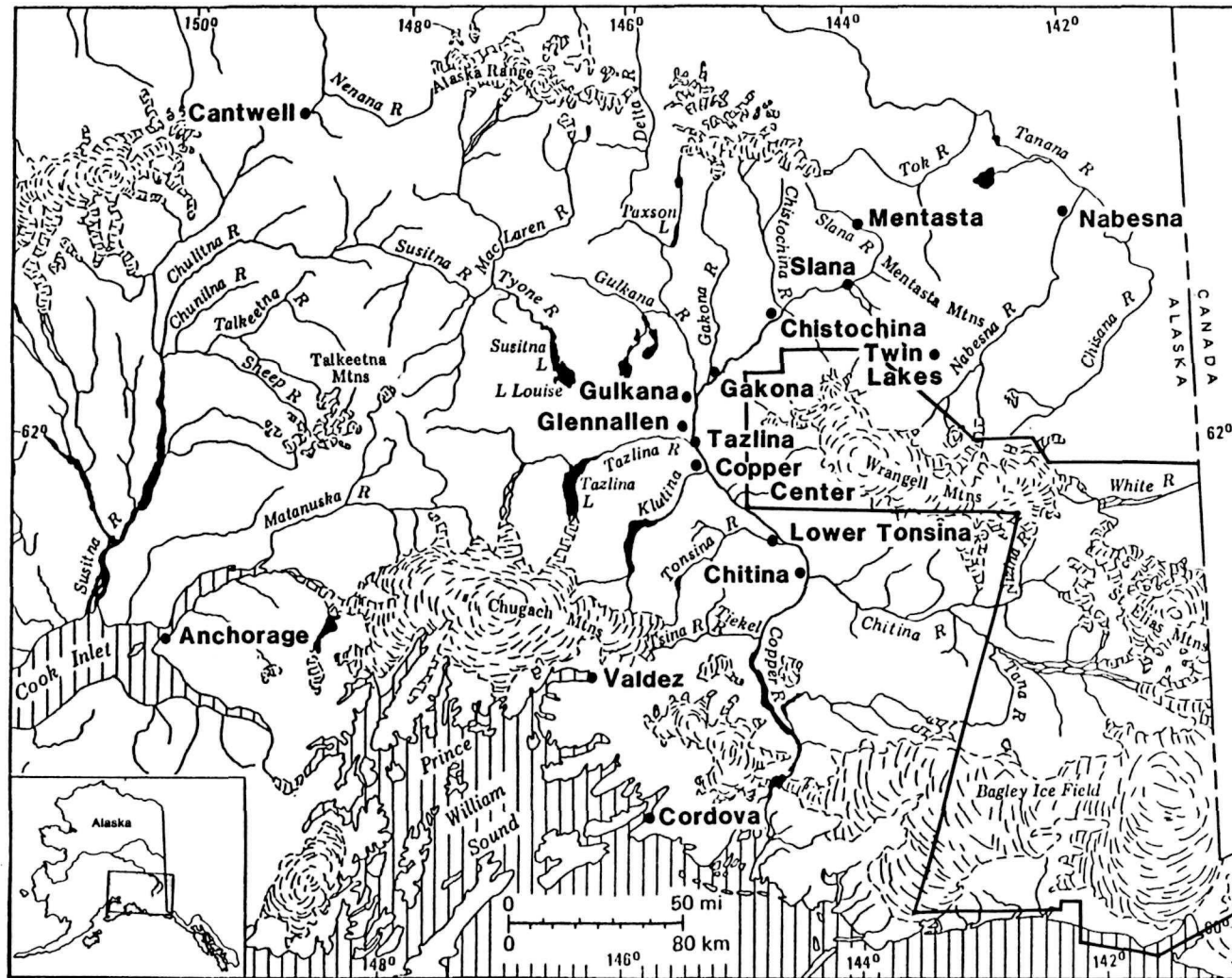
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THAT'S THE WAY WE LIVE



The study area. The solid line represents the approximate boundary of the Wrangell-St. Elias National Park and Preserve. (Base map by Karen Pearson.)

1

INTRODUCTION

Approach

The main focus of this study is the people who live around the proposed Wrangell National Park¹ and use the resources in and around the proposed parklands. The study both outlines the history of subsistence from the aboriginal past to the present day and describes Native and white modes of modern subsistence. Through the use of a historical perspective, the study shows that the use of subsistence resources during the past 150 years has changed in an adaptive way. Subsistence has responded to economic, technological, demographic and social changes which either have been introduced from outside the region or have occurred within the region itself.

In 1800, the Native residents of the Wrangell region looked to the land to provide all their needs: clothes, weapons, ornamentation, housing, and food. Today Natives and Whites alike travel to local stores where they purchase necessary supplies. The dependence of most people within the region on the American economy is almost total, yet there is a small but significant minority which depends greatly on resources from the land. These people serve wild foods on their tables almost every day, heat with and build their homes from local wood, and trap furbearers to add a substantial portion to their cash income. In short, they pursue a way of life that has been typical in the past, combining subsistence and cash-oriented economic activities. This strategy, initiated with the first Native trading party to travel down the river ice to the Russian community of Nuchek, was also followed by the early American settlers and continues today.

¹Wrangell-St. Elias National Park and Preserve was established by an act of Congress on 2 December 1980.--Ed.

Methodology

The researcher generally used an open-ended interview technique, although in the summer of 1977 an interview outline was also used to guide the work. The use of two techniques revealed differences in interviewee responses. Whites usually appeared most comfortable in the interview situation when the survey sheet was followed or at least shown and used during the interview. Natives generally showed discomfort when the survey sheet appeared and seemed to be more comfortable in an interview situation in which the only props were notebook and pencil.

The researcher first visited and worked in the area as a student in the summer of 1971 on an ethnological study, headed by Dr. John M. Campbell of the University of New Mexico, which focused on aboriginal subsistence and territoriality. She then returned for two years in 1973 to do research for her Ph.D. dissertation from the same university on the topic of modern social organization and lived in the Native village of Copper Center. In 1975 she was hired by the University of Alaska Cooperative Park Studies Unit to inventory the historical and grave sites for Ahtna Inc. as part of the Alaska Native Land Claims Settlement Act and in 1977 she transferred to the subsistence studies being done by the same office at the university. Since 1975, she has done extensive research in the region and has spent probably half of her time living in the region and half in Fairbanks at the university.

During the past six years, the researcher has gained a great familiarity with the people and the region. She has visited the communities and villages, fished in the streams, snared rabbits along the trails, hiked, rafted, and ridden horseback in the wilderness, and come to know many of the residents, both Native and white. During the summer season of 1977 she took the opportunity to visit some of the remote communities snuggled against the Wrangell Mountains and to talk with people living on isolated and inaccessible homesteads in the bush. Since the researcher's previous research had focused on Native subjects, she tried during the summer season to interview as many Whites as possible, including as diverse a sample as possible. Miners, business owners, homesteaders,

guides, summer residents and visitors to the region were consulted.

Although the issues surrounding the (d)(2) lands and the establishment of a national park in the area are controversial, the researcher was usually received hospitably, perhaps because she was a familiar face. The researcher can claim to have been a "participant-observer" only in the sense that she supped on the local fare many times. Nevertheless, as a resident in the Copper River Valley, the researcher has a first-hand knowledge of the job situation, the cost of living, and the problems of transportation in the Wrangell area.

There is little documentation of subsistence in the Wrangell region outside of the Alaska Department of Fish and Game publications. These publications are helpful to some extent, but they do not focus on subsistence. Here, more than in many other regions in Alaska, Fish and Game tends to view the hunting in the Wrangells as sport hunting, and for this reason the statistics are of limited use in this study. Because of their role as game managers, Alaska Fish and Game researchers deal almost exclusively with studies of game populations and resource management. This approach contrasts with that of the researcher, which concentrates on the use of game and other subsistence resources by local residents.

An interim report, entitled That's the Way We Live: A Preliminary Report on Subsistence in the Proposed Wrangell National Park, was submitted to the National Park Service contractors. The researcher also carried copies around during the fieldwork season, and encouraged local residents to review what was written. Although it was difficult to find people with enough time and the inclination to read a 25-page report, around ten people generously read it and made comments to the researcher. Although there were some small corrections concerning the specific utilization of a few species, the readers generally felt that the report fairly presented the subsistence situation in the area today.

Limitations

The researcher sees several kinds of limitations which affect the quality of data collection on the subject of subsistence in the area. The Wrangells offer comparatively easy access due to a good road system, and for this reason the region has been settled extensively during the last 70 years. In fact, from 1913 to 1919 McCarthy was the second largest city in Alaska and Chitina was a bustling little town beside a railroad which brought many Fairbanks-bound travelers to the region. Although these particular towns are almost ghost towns today, especially when compared to their past importance, the population of the region is varied, and people pursue many diverse strategies in order to continue living here. The heterogeneous nature of the population makes it difficult to generalize. Even within the Native community, variation in subsistence approaches occurs. In the course of this study the researcher tries to explain the differences found in subsistence approaches by clarifying the variables which affect a subsistence life style.

Another limitation of the study arises from the resentments and suspicions many residents direct toward any government-funded undertaking. Many of the local residents are understandably anxious about the future of the lands which surround them and, at the same time, they feel at odds with "government," any government. Residents also believe that past studies have been superficial and not in their best interests. Some informants answered questions circumspectly, as if they always kept in mind the thought, "How will I sound best to those people who make decisions in Juneau and Washington?" Yet, overall, most informants appeared honest and helpful, and it was generally easy to tell which informants were stretching the facts a bit.

The study is also limited by the nature of the data and of the subject matter itself. In the long run, subsistence is a process which changes with time, depending on the nature of game population, the economic opportunities in the region, and other factors. Time depth is needed to analyze trends in subsistence and to understand the specific changes which occur from year to year. It is hoped that the historical approach will mitigate the problem to some extent.

Finally, the present fish and game laws rigidly define what is legally permissible. Thus, in some cases people may procure what is legal but not what is necessary. Furthermore, poaching is not reported, and the researcher has reason to believe that a few species are systematically poached every year and that other species are sporadically poached. Thus, the present management policy of the Alaska Department of Fish and Game influences strongly the system of subsistence in and around the Wrangells.

2

ENVIRONMENT FOR SUBSISTENCE AND POPULATION

The Climate

In the lower elevations surrounding the Wrangell Mountains, the winter temperatures fall as low as anywhere in North America. Northway and Gulkana sometimes report temperatures as low as -60°F , although Chitina and McCarthy enjoy a slightly more temperate climate. Summer temperatures sometimes hit 85° and 90°F with little precipitation. Gulkana reports between 11 and 14 inches of rain per year, about the same amount as Phoenix and Albuquerque receive. The region sometimes has poor runoff and little evaporation. Although technically a desert, it does not give the impression of being arid. Snow accumulates and drifts to 3- and 4-foot depths during the winter, and melting glaciers make stream beds overrun their banks. Muskeg forms soggy bogs during the summer.

The climate is one of contrasts and extremes. The extraordinary seasonal variations greatly affect subsistence activities. Most economic activity as well as subsistence activity occurs of necessity during late spring, summer, and fall. Winter is the restful time of year when visiting occurs and the pace of life slows down. Seasonal employment declines also. Some people take long vacations. Extreme seasonal variation is a fact of life in the region and the successful subsistence user must time his activities in accordance with nature's clock.

To those who live outside Alaska the climate is viewed as harsh and bitter, but to the residents of the Wrangell region, each successive season is welcomed. Each new season offers new possibilities of sustenance to the subsister, for whom variety as well as volume are necessities. From the first fish caught in spring, through the game hunted in the fall and the furbearers trapped in the winter, the seasonal calendar defines the subsister's activity. Even the cold of

winter aids him in storing the summer catch. Thus, what might appear to outsiders to be an extreme climate is viewed as a generous one by those who live there and know how to utilize its gifts to full advantage. Such views of the world are always relative, and one woman who has spent all of her 78 years in the area said that if she could have been born anywhere in the world, she would have chosen the Copper River valley because it was the "prettiest and best land in the world."

Physiography

The spectacular Wrangell Mountains dominate the surrounding region. This is the most massive mountain range in North America and has the largest concentration on the continent of peaks over 12,000 feet in elevation. The changes in the glaciers, ice fields, and rocks determine much of the physical structure of the surrounding lands. Each summer, the melting snows and ice rush down the riverbeds and carve their mark on the land below. Four peaks named Blackburn, Sanford, Drum, and Wrangell loom on the horizon from almost any vantage point in the surrounding countryside.

Despite the overwhelming presence of the high mountains, few if any subsistence resources outside of a few sheep, goats, and mountain ground squirrels are obtained in elevations above 4,000 feet. Although reluctant to discuss traditional views of death, a few older Natives say that Mt. Wrangell, which is an active volcano, traditionally housed the souls of the dead, and few people dared climb into the Wrangells for fear of angering spirits (ghosts) of the dead.

The glaciers and the winter runoff feed a number of small streams which enter the Copper and Chitina rivers and then empty into Prince William Sound to the south. In the north the Nabesna, Chisana and White rivers convey the summer runoff into the Tanana and Yukon drainage. The waterways reticulate the region and are central in defining subsistence usage because they provide clearcut access to the wilderness, especially when frozen, and are attractive locales for game animals and subsistence plants. These rivers are dangerous because they are fast running

(between 7 and 11 mph) and silt laden. Very few boats are used on the river during the summer.

In a few areas, such as that around Northway and that due north of the Glenn Highway between Glennallen and Mendeltna, drainage is not particularly good and this gives rise to a swampy environment. In general, however, these areas are remote to the proposed parklands. Nevertheless they are utilized by the same people who use the proposed parklands. The variety of the environment enriches the opportunities open to the subsistence user.

The Boreal Forest Environment

The Wrangell region displays a northern boreal forest environment, typified by spruce-poplar vegetation cover and a fauna specific to the northern forests. The extreme variations and cycles in the distribution of animal populations within boreal forests have many implications for the subsistence user.

Simple seasonal fluctuations define the subsistence cycle. Some mammals hibernate; fish, such as grayling and salmon, run; and waterfowl migrate. Some primary subsistence species are subject to marked shifts in overall population levels. The entire area, for example, is just pulling out of a slump in the hare population's natural cycle, a change obvious to even the most casual observer of nature. Six years ago, one drove the area's highways literally dodging hares scampering across the road, and many people ate "rabbit" two or even three times a week. Last winter it was rare even to sight a hare much less to prepare a simmering "rabbit" stew for one's family. The other species in the ecological system must adapt to the absence of the hare while it is at the bottom of its cycle. Those species which directly depend on hare, such as lynx, wolf, and hawks, must find other foods or move to areas where the hare cycle is high. Just exactly how such changes affect the entire ecological system of the boreal forest is not completely understood. Caribou, salmon and porcupine are other species with populations which display marked cycles, and the relationship of these

species to their sister species of the boreal forest is not understood either. The aboriginal inhabitants of the region knew well the facts of cycling, and they believed and still hold that the failure of the salmon to run was the single most disastrous event that could happen to a subsistence group. It is said that when the other animals cycled and disappeared one would get hungry, but when the salmon failed to run, one starved. Tradition also tells that when the salmon fail, most other species also become scarce and then there is nothing to eat.

Animal populations also show marked shifts in spatial distribution. Some species such as caribou and moose winter within the proposed park on the slopes of Mt. Drum and Mt. Wrangell during one year and then do not return there for several years. The members of a caribou herd, such as the Mentasta herd, sometimes combine for one season and then, inexplicably, two units separate and go in opposite directions for several years thereafter.

The spatial and temporal fluctuations which are characteristic of boreal forest populations greatly affect the subsistence user's ability to harvest subsistence resources. Taking into account these fluctuations, as well as the stipulations of the game laws, the subsistence user must formulate a subsistence strategy. In general, people utilize the species when they are abundant and often substitute abundant (high cycle, spatially and legally accessible) species for non-abundant (low cycle, spatially and legally inaccessible) ones. Six years ago when the hare cycle was "up" people used hare in place of salmon, which was "down." Informants often express a similar relationship between caribou and moose. One man said, "If I don't get a moose, I need three caribou." This statement was repeated almost word for word by most of the heavy resource users.

A Working Definition of Subsistence

In this study subsistence merely refers to those activities which harvest from the land resources which are used by the individual harvester and his or her family. A broad definition of subsistence is

employed, and trapping and craft activity are also included in the study. Sometimes subsistence harvests are traded for other subsistence species and also for store-bought goods and services (such as a ride in a car). Most subsistence species are highly valued and so are only reluctantly used in trade.

"Subsistence" in this study does not indicate the race or cultural affiliation of the users, their place of residence, their economic condition or the percentage of their diet which is made up of wild foods. Yet it must be stressed that all these variables are central in understanding the role and importance of subsistence in the Wrangell region, and they must be discussed. Undoubtedly, such factors will underlie the ultimate legal definition of subsistence in the area.

An Overview of the Subsistence Population Today

The 1970 census reports that there are 2,365 residents living in the interior communities located around the proposed Wrangell Mountain National Park. The recent economic boom induced by the building of the Alaska oil pipeline through the region brought many new people, and the present population could be as high as double the 1970 census figures (Logsdon et al. 1977:1-4).

Many of the region's residents rarely, if ever, rely upon food or other resources taken from the land. However, most residents perform various subsistence activities so that they can raise their standard of living or supplement their larders with high-quality local foods. A significant minority of residents, usually isolated or living on low incomes, depend greatly on fish, game, vegetable foods, and wood from public lands for their survival.

The Communities

Most of the people in the region live in the small communities placed along the highways paralleling the west bank of the Copper River.

Table 1. A listing of subsistence species.

<u>Game Animals:</u>	<u>Small Mammals:</u>	<u>Mushrooms:</u>
Moose	Porcupine	Orange Delicious
Caribou	Arctic Ground Squirrel	Shaggy Mane
Black Bear	Red Squirrel	Orange Boletas
Brown Bear	Lynx	Meadow Mushroom
Dall Sheep	Hare	Morels
Goat	Beaver	Puff-balls
Bison	Coyote	
	Arctic Fox	<u>Wild Vegetables:</u>
<u>Fish:</u>	Cross Fox	Sourdock
Salmon	Marten	Fireweed
Grayling	Mink	Watercress
Whitefish	Muskrat	Lambsquarter
Pike	Weasel	Chickweed
Sucker	Wolverine	Wild Chive
Sheefish	Wolf	Indian Potato
Trout		Sweet Vetch
Lingcod	<u>Berries:</u>	Green Willow Shoots
Blackfish	Blueberries	Catkin
Burbot	Highbush Cranberries	Rose Hips
	Lowbush Cranberries	
<u>Wildfowl:</u>	Crowberries	<u>Trees:</u>
Ptarmigan	Red Currants	Spruce
Spruce Grouse	Black Currants	Willow
Ducks	Raspberries	Poplar
Geese	Nagoon Berries	Birch Bark
Swan		Alder
Eggs		
		<u>Minerals:</u>
		Cobbles
		Sweat-bath Rocks
		Drinking Water
		Ice
		Gravel

Every few miles along the Richardson Highway, the Edgerton Cutoff and the Tok Cutoff, a cluster of buildings marks another small, highway-oriented community. Glennallen, with a 1970 population of 363 (Logsdon et al. 1977:1-4), is the pivotal economic community of the region, although most Native activities are administered from Copper Center.

Following is a chart of the major communities in the area and their population statistics drawn from the 1970 census.

Table 2. Populations of major communities in study area, 1970.

Chistochina	33
Chitina	38
Copper Center	206
Gakona	88
Glennallen	363
Gulkana	53
Mentasta Lake	68
Nabesna	4
Northway	40
Tetlin	114
Tok	214
Residual	1144
Total	2365

The source of the 1970 census is the Bureau of Population. Even studying the figures in a superficial manner, the researcher is struck by significant changes that have taken place in the population during the last seven years. For example, Northway's population must be well over 200 residents, Native and white, while Nabesna is home to at least 10 people (Naylor et al. 1976:11). Copper Center's population burgeoned with the pipeline construction, but it has maintained much of its growth and probably has a population of over 300 permanent residents. Immediately to the north of the community, subdivisions have developed and new people are moving in. Glennallen has also grown and could have a population as high as 500.

Today, the proposed parkland is not immediately accessible to the residents of most of these communities on the Copper's west bank; the

river forms an effective barrier during the summer months, and only after freeze-up is it easily crossed by trappers and others using snow-machines and dog teams. Light airplanes and rafts are needed to cross at other times, including hunting season. The proposed park boundaries come closest to the main Copper River communities at Lower Tonsina, where the boundaries actually reach the riverbank, thereby encompassing the main bison range. About 15 people, the majority Native, live in the community of Lower Tonsina.

A modern bridge hurdles the Copper River at Chitina where an "unmaintained" gravel road begins and permits most cars passage to McCarthy on the very edge of the proposed parklands. Another, similar lowgrade road, the Nabesna road, skirts the northern edge of the proposal area. The population along these roads has been slowly growing during the last decade. One local resident estimated that 30 to 40 families lived along the McCarthy road. Most live on small isolated homesteads which seem to cluster at creek crossings, such as Long Lake, Chokosna, and Strelina. An estimated 12 to 15 families live permanently or seasonally along the Nabesna road on small homesteads and homesites which seem to cluster around Twin Lakes and Nabesna. In several cases, on both the Nabesna and McCarthy roads, the growth has been caused by the maturing of families in which offspring have married and established their own families on land beside their parents.

A very few families live permanently on extremely isolated homesteads in the Chisana, White, Nizina, and upper Chitina river valleys. These people usually use airplanes to get to their homes, but during the winter, they can bring supplies in with snowmobiles or, rarely, by small caterpillar tractors. Probably not more than ten households fall into this category, and most are childless. The population in the isolated bush of the region appears mobile, and every winter a few people, usually young, live in empty cabins just to have a unique bush experience.

The old town of McCarthy and the copper mine of Kennicott are both undergoing rapid changes now. The old mine buildings and lots in Kennicott have been subdivided and are being sold to speculators and people who want to live either permanently or seasonally in the town. A new lodge has opened there too. Although McCarthy also seems to be

undergoing a mini-boom of sorts with the population at least doubling during the past three years, only three people stayed through the 1976-77 winter season. McCarthy appears, in general, to be developing in a recreational direction, though some of the new residents are oriented toward the subsistence and bush life style.

Most of the people living close to the bush in more isolated circumstances are white, but a few Native families and racially mixed families are found. Natives are usually attracted to the traditional village situation; however, younger, more affluent Native families are establishing residences on private tracts around Copper Center, Tazlina, and other communities in the area.

Native Community

Most of the Native population of the region lives in villages located along the highways. The original inhabitants of the region were Na-Dene' speakers who depended exclusively on the bounty of the wilds for their support. They spoke two basic languages, Ahtna and Upper Tanana, and the two groups had friendly relations in the past. Natives from other parts of Alaska have moved or married into the region since then.

There is some disagreement as to the percentage of the population in the region which is Native, but this is to be expected considering the nature of the statistics available in the 1970 census. Logsdon et al. (1977:1-3) report that 20 per cent of the region's total population is Native, but this is less than that given for the Ahtna Corporation's regional study, which excludes the Alaska Highway communities and includes Cantwell. The Ahtna regional study states that 25.8 per cent of the region is made up of Natives (Ahtna Inc. and AEIDC 1973:85). The author can only estimate that somewhere around a quarter of the population is Native.

Following is a chart showing the population of Native villages of the area. The data are necessarily drawn from several different sources.

Table 3. Populations of Native villages in study area.

	1970 census	Demographic survey ¹
THE AHTNA REGION		
Chitina	6 ² (13)	
Copper Center	93 ₃	
Tazlina	--	
(Glennallen)	37	
Gulkana	52	
Gakona	23	
Chistochina	17	
Mentasta	64	
Total	292	
THE DOYON REGION		
Northway	40 ⁴ (?)	215 ¹
RESERVATION		
Tetlin	114	112 ¹

¹Naylor et al. 1976.

²According to Ahtna Inc. (1973) this figure was contested by residents who reported 13 residents in Chitina. Their figure was supported by BIA realty specialist Delbert H. Bruce, 10 August 1973.

³Tazlina was included in Glennallen in the 1970 census.

⁴This figure is inexplicably low and might refer solely to the white community.

The 1970 census reported that approximately 455 Natives lived in the Ahtna region. When this number is added to the 327 Natives reported to be living in Northway and Tetlin in 1976, the number of Natives' living in the area of environmental concern surrounding the proposed park reaches 782. Most of the Natives belong to either the Ahtna or Doyon regional corporation, both of which were set up by the Alaska Native Claims Settlement Act.

Although the general trend in the area over the last 20 years has been one of population growth, many of the younger Natives have migrated to urban areas, particularly Anchorage, leaving behind the old and infirm (Ahtna Inc. and AEIDC 1973:85). Roughly half of the members of the Ahtna regional corporation live in Anchorage. Although incomplete, the statistics available generally support the claim that many Ahtna of the Copper River drainage leave the region in search of work.

During the pipeline boom, however, some younger Ahtna returned and found work in the region with the pipeline. In addition, the Ahtna regional corporation and its nonprofit arm have many jobs for Natives available. At one point during the summer of 1977, the Native organizations in the Ahtna region employed 56 people. Even in the Tanana drainage, where the communities in the Doyon region are reported to have stable populations, employment is obviously a problem, and few jobs are available at this time (Naylor et al. 1976:47 and Naylor, personal communication, September 1977).

It appears that the trend for Natives to emigrate from the region is decreasing as more jobs become available. In the Ahtna region, the central communities with easier access to jobs (Copper Center, Tazlina, Glennallen) seem to be popular places to relocate, although most people prefer to live in or near their family villages.

Nonlocal Users

Because the region is crisscrossed by the Alaska highway system, Alaskans from all over the state regularly visit the region to hunt, fish, and collect berries. The camper is a familiar sight along the roads of

the Copper River region during the salmon runs and hunting season. While some of these visitors are seeking recreation alone, the great majority sincerely feel they are subsistence users for whom recreation is a secondary consideration. The cost of equipment and transportation often argues against declarations of need. Other visitors are Natives from other parts of Alaska, many of whom live in Anchorage. Some say they seek local foods because such foods are culturally important to their families.

Hunters and fishermen from outside the Wrangell region probably take more fish and game than do local users. The local people feel that they are in direct competition for subsistence resources with people from outside the region. Some resentment is often expressed toward visitors, especially those from the military services (a highly visible group) whose residency and need, both economic and cultural, is questioned.

Although the researcher talked with non-local hunters and fishermen during the seasons when they visit the area, they are not an important focus of the study. In fact, they are for all intents and purposes ignored. A few people who were interviewed said they were presently unemployed or living on low, fixed incomes and that fish were important to maintain their standard of living. Many others, although classified as "subsistence" users by the Alaska Department of Fish and Game, obviously had high incomes which allowed them to invest in expensive equipment, including campers, trucks, and trailers. They were fishing for reasons other than economic need. Perhaps they fished out of a desire to eat salmon, or just for pleasure and family entertainment.

Nonresident sport hunters flock to the Wrangells every fall in quest of the dall sheep and other trophy animals such as goat and grizzly bear. Caribou and moose are not immune to such pursuit either and are sometimes taken by sport hunters. In the past much of the meat from sport hunting ended up on the tables of local residents who acted as guides. This was especially true in the communities located close to the proposed park which are used as staging areas for the hunts. Recently more and more trophy hunters have been taking their meat with them, citing the cost of meat as a determining factor, although ethical considerations could also be important.

Spatial Variables

In general, the more isolated one is from the main areas of population, the more one depends on subsistence resources. The isolation of the 50 to 100 families who live full- or part-time in the bush makes them dependent on wild foods, and they are greatly concerned about their hunting rights on the proposed park lands and in the surrounding areas. At the same time, the Native villages and communities which are more isolated from the main population centers are also more oriented toward subsistence than their sister villages. In particular Mentasta, Chistochina, Tetlin, and probably Northway and Chitina consume more wild foods, have lower incomes, and spend more time undertaking subsistence activities than do the residents of the central villages. It appears then that the facts of location and the degree of isolation are important variables in gaining an understanding of subsistence in the Wrangell area.

The communities along the Alaska Highway, including Tok, Tetlin, Northway, and Border City, are not particularly oriented toward the Wrangells due to the distance and the expense of getting to them, but Northway in particular does act as a staging area for guided hunts to the Chisana and Nabesna river valleys. Local hunters are attracted to more accessible areas. It is very dangerous to take boats (jet boats) up the Nabesna River, and the cost prohibits many local residents from traveling to the Wrangells. This fact does not in any way reflect on the overall subsistence life style of the communities, however, for it is apparent to even a visitor that subsistence activities are important to local residents.

Economic Variables

The 1970 census showed the median family income for the region was 12,167 dollars, just under the state average. The per capita income of the region was 4,254 dollars, which compares favorably with the state per capita income of 3,765 dollars (Logsdon et al. 1977:3-23). Undoubtedly the pipeline construction boom greatly inflated the wages of the

area, especially for those who found employment on the pipeline or in a related industry.

Seasonal employment with the state highway system and other sources has been common in the past. Often heads of households seasonally migrated to construction jobs in other parts of the state during the summer months and then returned during the winter. Tourism causes a seasonal economic boom during the summer months and many women can find employment in restaurants and hotels during the summer.

In the past the economic situation for the Native population has not been as prosperous as it has been for Whites in the area. The per capita income of the Native population in 1970 was only 1,455 dollars, less than one-third of the per capita income for the region as a whole (Logsdon et al. 1977). Public assistance is also an important source of cash income to the Native community. In 1970, 37 per cent of the Native families in the region were classified as having incomes below the poverty level of 3,270 dollars.

The economic situation for many in the Native community has improved in recent years. With the Native claims settlement, organizations have been set in motion to create jobs, skills, and opportunities for the Natives. Many of these programs have been at least partially successful. Nevertheless a significant number of people, especially those who are older, young and unskilled, or living in isolated villages, continue to have low incomes.

3

A HISTORY OF NATIVE SUBSISTENCE IN THE WRANGELLS AREA

Aboriginal Subsistence

Two hundred years ago the Wrangell Mountains and the surrounding landscape were a pristine wilderness, uncluttered by gasoline drums, rusted tin cans, or sagging log cabins. Today, these material remains of man's history in the area are found even in the most remote areas of the bush. It is modern man's tendency to view such old garbage as intrusive and detracting from the scenic and natural significance of the wilderness. Modern man defines wilderness as "manless." Somehow man is outside of nature; we have removed ourselves from nature's realm.

Two hundred years ago, the Athabaskan inhabitants of the Wrangell region could not so easily erase themselves from nature's domain. They made their mark on the land. Their footsteps traced paths through the forests for decades until the paths became deep permanent ruts in the groundcover. They constructed homes and caches; yet nature remained superior and starvation occasionally struck the people. They held their position in the ecological scheme, but it was one of participant rather than manager, and their entire world view reflected this outlook.

Everything the Indians used came from the land, and normally from within the boundaries of their territory. Houses were built of wood, stone, and bark from the forests and rivers. Clothing was sewn from the hides of the animals. Ornaments were fashioned from the copper in the creeks, and from bones and quills. Fuel was rendered from animal fat or wood. Food was prepared and stored from the fish and game or was gathered in the fields, along gravel bars, or on mountain slopes. As a result, all aspects of aboriginal life intimately focused on subsisting.

The Aboriginal Population

The Native people of the Copper River drainage are usually called the Ahtna. Their language belongs to the Na-Dene' language family, and their culture, material culture, and social organization are similar to those of other northern Athabaskan societies. Intermarriage often occurred among the various Athabaskan peoples, and on the borderlands around Chitina, Mentasta, or Mendeltna, documented cases are reported between Ahtna people and Eyak, Upper Tanana, and Dena'ina peoples respectively.

The people of the Nabesna and Chisana river valleys are usually classified with Upper Tanana peoples, a group of northern Athabaskans having many similarities to the Ahtna. There are some differences between the two groups, most likely arising from slight differences in their respective environments and distances from trading centers on the coast. Nevertheless, relations between the two groups for the past 100 years have been so close that differences often appear obscure and unimportant from the modern perspective.

The people of the White River are considered to be Tutchone.¹ Today they rarely, if ever, use the American lands in the proposed park. They subsist on lands around Kluane Lake and to the east. Their traditional relations with the Ahtna and Upper Tanana were never friendly and most Ahtna stories about the Tutchone reflect hostile attitudes. McClellan reports that a silent barter between the Ahtna and Tutchone took place in the vicinity of Skolai Pass, but that the two groups never met in person, further indicating strained relations.

It is hard to estimate what the Native population of the area around the Wrangells must have been before western diseases decimated their numbers. In fact, western disease often arrived before the explorer even set foot in the area, as it was carried by Native people themselves traveling and trading from place to place. Most scholars seem to agree

¹McClellan points out that the cultural affiliations of the White River people are not fully understood. They could have been Upper Tanana (McClellan 1975:30).

that the population of the Ahtna probably reached somewhere around 2,000 individuals (J. Campbell, personal communication). The population on the Nabesna and Chisana, however, could not have reached more than 100, while in the one village on the White River, the Tutchone inhabitants could not have numbered over 50 (McClellan 1975:30). Most Natives claim that the population of Native people was much higher in past centuries, but exactly how much higher than at present is impossible to determine.

Settlement Pattern

Before the roads, the rivers were not only an important source of sustenance as the carrier of the salmon, but they were also the important route of travel throughout the winter when the ice allowed fairly easy access for man and packdog and, later, sleddog. It is therefore not surprising that the permanent winter villages would be found on the major rivers, usually at a point where a large tributary from the glacial uplands entered the major stream. At these junctures the Ahtna traveler had access via secondary streams to the upland areas which were the main hunting areas during the fall and where caches of meat and berries were maintained. These river junctures also afforded easy access to all the major settlements up and down the main Copper River and to the nearby fish camps where huge supplies of salmon were stored.

From each permanent winter village, a particular kin-related group projected its inherent rights over a specific territory. Each Ahtna territory had to include certain types and combinations of land and resources to give the residents of the winter village a good living. Thus a fish camp, usually identified with the village women, was closely placed near the winter village, often only a mile or two away. A hunting territory spread to the nearby uplands and was normally identified with the village men, giving them access to moose, sheep, or caribou lands. Although the territories were not exclusively owned by the group in the winter village, permission was generally obtained before people from any other place utilized the resources.

During the last century, the lower part of the Copper River had the

densest population. Native informants report a very large village of 500 people was found at Tarał, across from the present location of Chitina. The availability of salmon at this location probably accounts for the dense population. Although documentary evidence does not support the claims of a population as high as 500, the physical remains are elaborate. Populations did become sparser as one traveled north, and Native informants estimate that only 25 to 30 people lived in the northern villages of Mentasta, Nabesna, and Chisana.

The locations of all types of settlements (winter villages, fish camps, hunting camps, and overnight camps) were determined by the availability of resources and the corresponding needs of a local group. The richness of each group's territory determined the group's place in Ahtna society and its size and strength.

Technology

The technology of the Ahtna living around the proposed parklands was designed for a hunting and fishing society. Almost all of the necessary materials came from the surrounding territory: bone, rock, obsidian, wood, skins, and copper. The existence of large deposits of copper in the area of the Chitistone canyon attracted the Native people from Tarał (near Chitina) who scoured the creek bed, gravel bars, and surrounding cliffs for the precious metal in "float" or nugget form.

The copper quest is one of the most important traditions of the Ahtna people and is remembered today, as are the copper chiefs. Unfortunately, no one living retains the traditional knowledge for working the copper, but artifacts found in archeological excavations support the contention that some sort of heat treatment was used. Some living Ahtna remember watching their fathers work the metal in a fire, but it was probably last worked in 1920.

According to oral tradition, the copper quest started each year soon after fishing season ended. Skin boats, filled with supplies but still sitting high in the water, were pulled by a husband and wife team up the Chitina and Nizina to the headwaters. Here the search for copper began.

It was during these copper quests that even a poor orphan boy could strike it rich and raise his position in the world. When the boats were filled with copper nuggets and a load of game meat from the area, the dangerous trip down the river was undertaken. Arriving safely home, the husband and wife had the copper worked (probably by expert smiths) and traded it throughout the area and Alaska. Raw copper was also available in the Chisana and White rivers, but it is unclear whether this copper was traded over the high mountains from the Nizina source or actually obtained in those areas.

Spears and points of many descriptions were manufactured from the copper. Several types of knives were also made, and the presence of copper knives is important in understanding how the Ahtna could cut up to 500 or 1,000 salmon per day. Without this particular technological aid the great dependency of the Ahtna on salmon would have been impossible. Undoubtedly, the sophisticated copper points added to the efficiency of other aspects of Ahtna subsistence.

Dogs were an important part of the aboriginal technology but were not used to pull sleds. Dogs were outfitted with back packs and most could carry about 25 pounds along a one-day haul of 10 or 12 miles. Sleds and toboggans were used and pulled by men or women using a head strap. Snowshoes were another important component of the transportation technology. Skin boats and canoes were employed mostly on lakes, but sometimes on the rivers as well.

Many traps and snares were designed for all types of animals. Snares made out of eagle feathers, babiche, and sinew were set for small animals such as mountain ground squirrels and for large animals such as moose. Deadfalls were set for lynx. Traps were placed in the streams to catch fish. Fences as long as 5 or 10 miles were constructed to guide caribou and moose into corrals and snares, respectively. Fences and weirs also directed fish into the waiting nets fashioned from spruce roots. Fish were also speared and harpooned in clear waters. Porcupine and baby animals were simply clubbed.

Several types of houses were constructed depending on the permanency desired and the materials available. The permanent winter house was semisubterranean in design, about 8 feet by 10 feet in dimensions, built

of pieces of rough-hewn spruce lumber set next to one another like posts, made firm with rocks, and insulated with moss. The roof was made of spruce bark laid flat. Inside bunks were constructed along the side walls, and the fire was usually placed in the middle. In the back of the house a door led to a sweatbath which, in a rich man's house, might be equipped with a large carved-out log for a bath tub. The floors were usually dirt but birch bark was sometimes put down "like linoleum" and could be changed when soiled.

The Ahtna's storage technology is complex and obviously important to a society living in so seasonally varied an environment. Underground caches were built in hidden or secluded locations within a mile or so of the house. A log ladder led to the inside of the cache, which usually measured about 5 feet square. Along the inside of the cache dried fish and berries were stored. Other caches were dug about 3 feet into the ground and lined with birch bark; fish were stored directly in the bark containers. Apparently the contents of most caches were carefully segregated. Some tried to plant wild rose around caches in the belief that the "prickers" on the rose bushes would discourage mice.

Hunting lean-tos and less permanent shelters were made from skins stretched over poles. In the north a beehive-shaped enclosure was made from a frame skeleton of sticks. The skins were then placed over the frame and a fire was made in front of the door. Emergency lean-tos could be set up in a matter of minutes, using skins and a large spruce tree.

Clothing was sewn from skins. Moccasins, leggings, and fringed tunics which came to a point in the front typified Ahtna dress as well as most Athabaskan dress in Alaska. Large fur-lined mitts and close-fitting hats completed the winter garb. Before the white man, all clothes were made from skins and decorated with dentalium shells (a trade item) and porcupine quills. Soft furry skins such as hare were used as socks and undergarments.

This description of Ahtna technology has been necessarily brief. Good and complete descriptions of the northern Athabaskan material culture are available in a number of traditional ethnographies both for this region and for other northern Athabaskan groups. The point that must be made in this context is merely that the Athabaskan people who once

exclusively inhabited the lands around the proposed Wrangell park looked to the land in their immediate territory for the materials needed to pursue their aboriginal life style.

The Annual Cycle

The tempo of aboriginal life was directed by the availability of subsistence resources. Each season brought new species within the boundaries of a group's territory or put highly valued fat on the flanks of the game animals. The goal of the aboriginal people was to be in the right place at the right time so that they would have as good a chance as possible of harvesting the needed food resources.

Spring was traditionally the leanest time of year. If the caches ran low from the previous year's supply and supplementary animals such as porcupine, lynx, beaver, or whitefish were not immediately available to the residents of the permanent winter village, the hunters were forced to search for game animals in the cold. If they did not return with new supplies, the entire household usually sought emergency rations from neighbors. Often, neighbors were in a similar situation and migrations to reported food sources, sometimes hundreds of miles away, were forced on the people.

As late as 1897, spring starvation occurred in the Copper River area. Fish reserves were lower than normal, and game animals such as sheep or moose seemed to have disappeared. The last option available to these people was to migrate to a region up the Gulkana River where wintering caribou were reported. Some traveled from as far away as Taral, crossing 150 to 200 miles of terrain. Entire families made the trip and some did not survive. A few of the more vigorous young men went ahead and killed some game which they brought back to their starving relatives on the trail. For some of the older men, the journey was too harsh and they died.

Whitefish and other fish that can be caught through the winter ice are also good starvation-time foods. Tanada Lake, which had fish "swimming under the ice during the winter," and the surrounding area, which

had sheep, a resource also valued in starvation periods, were sometimes visited during "hard times." Grayling and hares were taken occasionally during the lean months, but without "fat" they were considered fairly useless in staving off starvation. It was said, "You starve on a full stomach, but you still die." Dire starvation happened every 40 or 50 years, or once every generation, according to one well-informed Native source.

One of the problems that spring presented to the aboriginal subsister was "breakup." When the snows melted and the ice broke into pieces and floated down the Copper River, the season of easy travel ended. The ice-paved highways disappeared, and a mud surface became dominant, as it does today. Through late April and into May, mobility was greatly hampered and the subsister found it difficult to travel to where the animals might congregate or even to reach caches where meat and fish were stored.

The first salmon brought the end to anxious waiting, and the coming was celebrated by the local residents with a ceremony around the first fish that was caught. Lt. Henry Allen (1900) documents the relief of the local people at Batzulnetas, near Slana, at the arrival of the salmon. The fishing season brought hard long hours of work for the people, especially to the women under whose direction the entire salmon endeavor began. But by the end of July the salmon runs began to diminish, and the people made their annual preparations to move out for the hunt, usually to upland areas. During June, waterfowl were also important where they were abundant, as, for example, in the Upper Tanana area, west of Gulkana, and at Kenney Lake or any other lake area where fowl were captured during the molt.

In August, the main party of hunters left for the hunting grounds, usually leaving behind the old and the infirm to watch the smaller children and to guard the caches from marauding animals or enemies such as the Chugach Eskimo. In the higher elevations, game animals such as moose, caribou, sheep, and goat were sought. Generally the women made a base camp near a fish lake and a good berry-picking location while the men ranged more widely in search of meat. When a kill was reported the fleshed meat was brought to the base camp; the women prepared the catch and worked with the meat, allowing the men to continue hunting. Some-

times a very large moose was killed and the base camp moved to the kill-site.

Often the move to the lake coincided with the arrival of the salmon at the upland lakes so that some fishing was done. Such "ripe" spawning salmon was considered special fare and was usually cooked by men.

Whitefish, lake trout, steelheads, silver salmon and lingcod were trapped in the lakes or speared or harpooned if the water was clear. Older women seemed to spend much time during the fall snaring mountain ground squirrels above the tree line on the nearby hills. They dried the meat for soups and dog food and saved the pelts for parkas.

Finally, before the snow fell, the group usually returned to the permanent winter camps, collecting cranberries, rose hips, and other berries. Sometimes groups of hunters remained in the mountains until freeze-up. After freeze-up, when the ice was safe for travel, the meat stored from the upland hunts was packed down to the permanent river villages. Usually several trips were needed to get all of the meat in one location. Some people, such as those at Mentasta and Slana, used skin boats to transport their dried meat to the main villages.

Throughout the winter subsistence activity continued. Of particular importance was the snaring of furbearers for clothing and for food. Lynx, beaver, rabbit and porcupine were eaten through the winter and were savored by the people because they were fresh. In March, muskrats were snared on small lakes throughout the region and they, too, were eaten. Generally, however, the winter months were spent at home, sewing, making tools, and learning by telling traditional stories. For at least one Ahtna dialect, Mentasta, the word for January, c'enen ghatggexe, translates as "the riddle month."

Regional Variation

Regional variations in social organization, culture, settlement pattern, and technology arose from the slight variations in environmental variables with which each group had to cope. Above all else the Athabaskan culture before the white man appeared to be flexible and adaptive.

In the southern parts of the Ahtna territory, high population densities as well as increased social stratification characterized the southern society and distinguished it from those sister societies to the north. Perhaps the presence of copper, great numbers of salmon, and an advantageous position on traditional trading routes gave the southern Ahtna living around Taral (Chitina) a base from which to develop a more complex social order.

Those Ahtna living in the middle part of the territory, such as Mendeltna Creek and Tyone Lake, had a more meager resource base which depended on game animals. In addition, their lineal systems were not as important as among their southern cousins. During the late winter months of starvation, these Ahtna separated into smaller groups, the male hunting party assuming an importance over the female-oriented fishing group.

In the north, population densities became increasingly thin, and the informants say that the families were constantly on the move from one camp to the next. They could not afford the luxury of the southerners who spent most months in their permanent winter villages, and they were forced to change locations constantly in search of food. Nabesna and Chisana were particularly characterized by constant movement.

It is clear that variation in subsistence strategy is not a new phenomenon in the region. Subsistence strategies have always been selective and made in accordance with pressures exerted on each group from its environment, location, social organization, and economic position within the larger group. Change is a part of culture, and the changes which occurred during the last 100 years in the society of the Wrangell region residents are understandable.

Kinship and Social Organization

The Ahtna society was characterized by matrilineal exogamous phratries. Each child was born to a clan, the same as that of his mother and his mother's mother. During childhood the child was raised in his mother's household and his entire upbringing was supervised by his older

clanmates, such as his mother's brothers and sisters. Finally when he reached a time to marry, the young person was required to marry a person belonging to a clan other than his own. Preferably he married into his father's clan.

Like so many aspects of Ahtna society, the clan system took its cues from the surrounding environment. Animals, plants and minerals gave the clans their names--caribou, fireweed cotton, red ochre, snowbird, and fox. Other clans were named canyon, sky, and water clan. Certain personality characteristics were sometimes given to the members of a clan because of their special relationship with their "totem." The caribou for example are said to be a graceful people, and the water clan are said to have beautiful black hair like a sea otter.

Relationships defined through kinship and clan affiliation were extremely important in organizing the people of Ahtna society into groups which functioned as subsistence task forces. Relationships, from those within a large, 25-person household to those formed between hunting partners, were often explained on the principles of matrilineal kinship and clan associations.

Certain parcels of land or natural landmarks or subsistence zones were associated with specific clans and were usually inherited through the generations from one clanmate to another. Thus villages can be identified with particular clans. People still say, "That was an udzisyu (caribou) village." The relationship between land ownership and clan is a very complicated one and is predicated on the customs of marriage.

According to custom, the best marriages were made with one's "father's people," or in other words with the people of one's father's clan. If this rule were to be carried out from generation to generation, the marriage system could be defined as one in which clans exchanged brides and grooms regularly. Since the preferred marriage was to marry one's cross-cousin (a custom which is often denied today) or at least one's classificatory cross-cousin, marriages set up alliances between two clans which were strong and hard to break. The knots of marriage between clans knit a strong pattern into Ahtna social life.

After marriage, a young groom moved to his bride's village, where he joined a group of in-married men of his clan (or of a closely related

clan) which might include those he felt close to and who in turn felt a deep responsibility to educate the young man. His wife remained throughout her life in her natal home, if she were lucky, and with those to whom she felt close personal ties, such as her sisters, her mother, and her mother's sisters.

It is important to understand how the social structure of the village and the relationship of social structure and land and resource ownership were related if one is to understand to what extent subsistence needs exerted a formative pressure on Ahtna and Upper Tanana societies. Not only did the kinship and social order support the subsistence way of life, but the subsistence way of life continually reinforced the structure of the society. Potlatches held during times of plenty commemorated the ties between clans, times when one clan had helped another, and occasions when death had been averted by the acts of one clan for another. Even though the commemorated event might have involved only an individual's actions (for example the saving of a drowning man), his entire clan is honored through the giving of gifts, songs, and food.

One of the most interesting aspects of this particular social system is the way task groups are formed, particularly same-sex task groups. During the course of fieldwork, the researcher was impressed with the extent to which subsistence behavior was defined by the sex of participants. Women did certain tasks and men other tasks. Groups were easily defined by sex and also by clan affiliation. All those belonging to a particular clan, such as caribou, and living in a particular village were most likely of the same sex. Thus, while the caribou might be mostly women, the naltsiine, their husbands and in-laws, would be men. This fact had implications for behavior and inheritance.

Fish camps were usually associated with a winter village and also with the women's clan of that village. Women did most of the fishing as well as the cutting of the fish. They stored, cooked, and dispensed it to their relatives. In general fish was not considered to be communally owned or shared after it had been cut. Each woman had her own cache, which she guarded.

Hunting territories, on the other hand, were also associated with winter villages but with the men's clan of that village. Men did most

of the hunting in small groups, usually with men of the same clan in territories traditionally hunted. At the upland hunting camps it is interesting to note that men did most of the cooking for themselves and even cooked the spawning salmon taken at the lakes. Women did participate in the smoking and storing of food. Game was treated communally and distributed by the chief or the leader of the hunt. For this reason game is considered to be more of a status food than others, and particular parts were distributed according to the social status of the recipients and their relationship with the hunters.

The curtailment of the hunting way of life may deeply affect the traditional social system of the Native people. Hunting has continued to be more regulated than fishing, a trend which, in the present day, poses a significant problem for Native male hunters. Although a traditionally oriented Ahtna woman can continue to gain self respect and status, and to feed her family by providing salmon for the table, men find it increasingly difficult to play their traditional subsistence role as the hunter. Undoubtedly, this factor continues to affect the entire process of acculturation.

Aboriginal Leadership

Leadership in aboriginal society, like so many other things, was based almost completely on one's ability to take advantage of the surrounding environment and to lead others on the subsistence quest, whether searching for copper, hunting for moose, or organizing trading parties to places outside of the traditional territory. A denae, or big-man, was fully recognized as such if he had young unmarried men who worked for him. These men brought him all their furs, copper, and other valuable items in exchange for food. The denae told the working men where to go hunting and exactly what to do. They returned with the catch, and gave it over to the denae to be redistributed among all the villagers.

A second type of leader, a kaskae, was more of a political leader rather than an economic organizer. A kaskae led the clan in matters of political consequence. His main attribute was wisdom. He settled

disputes and was both judge and jury. He need not have been rich, but he was taken care of and respected for his intellect. Even beyond his hunting years, and sometimes as an invalid, he was maintained by the villagers.

The Value System

The value system of the Ahtna reflected the natural environment and the great dependence of the people upon it. One of the underlying tenets of their value system and religion was to respect the animals from which sustenance was drawn. Many of the cultural customs are explained as necessary to remain in the good graces of the animals' spirits. One must avoid offending them by laughing at, making fun of, or speaking lightly of them. The researcher will never forget how offended one traditionally oriented woman was by the American custom of Halloween. As the local children came to her door dressed as the animals of the forest, she became furious and chased them away with a broom. She came over to our house incensed by the entire American custom, shaking her head and saying that Natives never play they are animals, or make toys of animals, or pretend they are animals. This was engii or "dangerous" (taboo) and was believed to adversely affect one's hunting luck.

Many other small customs reflect the respect generated toward animals. After supper or any meal, "grandma" swept all of the crumbs or small pieces of food from the floor. This custom is rued by archeologists of the Ahtna, who know the sites they are studying have been swept clean by countless "grandmas." According to custom, to step on the food or to wantonly malign it would offend the spirit of the animals and others of its species. The treatment of many foods was surrounded with a complex system of rules which a housewife had to obey. If she ignored such customs, it was believed that the luck of her husband would be adversely affected. Frederica de Laguna (1969/70) has published a fascinating paper on many of the customs surrounding the treatment of animal bones and carcasses. Each animal had special names which were used so as not to offend it, and bones of animals had to be disposed of in a manner

which would not offend the species. Beaver bones, for example, were placed in the pond. Dogs were only allowed to chew on specific bones.

Much of human sexual behavior having to do with menstruation and births was considered to be very dangerous. Any infraction of custom could affect the hunt. It was believed that a man who was a bad hunter probably had a wife at home who often disobeyed the laws. The epithet of "engii woman" was translated for the researcher as "no luck woman"; it referred to those women who had offended the game. In aboriginal times, being known as an "engii woman" was grounds for divorce.

Thus in everyday life the Ahtna people maintained a closeness to their environment, and many of their customs were aimed at making themselves a more acceptable part of it. In the first 10 days of life, a mother would carry her new baby boy through the woods, holding him in front of her and allowing the leaves and spruce needles to brush his face gently. The woman who told me of this custom explained that he would walk quietly as a good hunter when he became an adult if this ceremony were correctly executed. Even as a tiny infant he was attuned to nature and the natural environment of his homeland.

Modern Ahtna emphasize the importance their ancestors placed on subsistence activity as a way of maintaining a healthy life. A recent study was undertaken by the Copper River Native Corporation in an attempt to evaluate health needs among the Ahtna people. In a village-by-village survey, people were asked what their ancestors had done to remain in good health. The overwhelming response was that they worked hard and that they worked outside. A subsistence diet was also frequently stressed. For example, people said, "They lived pretty active lives, ate fish and picked berries." Another person said, "They worked hard by cutting wood, hunting and trapping, and packing water. They were busy just surviving." The theme of subsistence work as maintaining good health for aboriginal ancestors is repeated in every village. Subsistence foods were also cited, "Eating natural foods (berries, fish, and wild game)" and "eating fish oil." These attitudes toward health maintenance remain strong today. The Ahtna, past and present, believed that the subsistence way of life was and remains a healthy way to live.

The Natives named the geographical locations of their environment

according to the subsistence resources available to them at each location. A few examples can be given, although at least 500 have been recorded. Suslota Creek (Sasluugge' Na') translates "where-pinks-spawn creek," Denali or Valdez Creek was previously called C'ilaan Na' or "plenty-of-game place," and Chititu (Tsedi Tu') means "copper water" in English. Thus the entire region was named and categorized according to its importance in the subsistence rounds.

Subsistence after Contact

The Russian Period

It is difficult to say what aspects of Ahtna life were influenced by the Russians. The nature of Russian contact is vague both because of an absence of good documentary evidence and because of the difficulties informants have remembering what their grandparents and others have told them about the Russian period, an era which ended in Alaska more than 100 years ago. For these reasons any description of truly aboriginal life is related to the Russian experiences, and remembrances are colored by that time in Ahtna history. While many of the customs and situations described in the last section are most likely aboriginal and found in archeological records, just which aspects of Ahtna life developed due to the Russian emphasis on the fur trade cannot adequately be determined. Nevertheless, some understanding of the Russian period is possessed by anthropologists, and during the last few years more information on this interesting period of Ahtna history has come to light through ethnohistorical accounts and documentary evidence.

The Russians first settled in Prince William Sound in the last decade of the eighteenth century. Always low on personnel, the Russians tended to train the local Natives, to organize them into trapping parties, and to encourage the marriages of Russian men and local women. The Russians had a great acculturative influence on the Aleuts and Eskimos in Prince William Sound, and the trading posts there were staffed by Russians and Natives alike. Nuchek is the trading post most often

mentioned by the Ahtna as a focus of trade from the Copper River valley.

The Russians were apparently never very successful in establishing a trading post on the Copper River itself, although the board of the Russian-American Company put a high priority on penetration into the area. Short-lived trading outposts were established at Taral and perhaps at Gulkana, both of which were manned by a single Russian or Russian-American. Unfortunately the documentation on these outposts is extremely poor and conflicting. It is more certain that at least two exploring parties did attempt to follow the Copper River and chart it. The fate of one, Serebrennikov's expedition in 1848, is known. He and his entire party were killed by the Natives at Batzulnetas in retaliation for stealing the village women. This incident cooled the ardor of the Alaska-based Russians for further exploration in the area. Therefore, the actual Russian presence in the Copper River valley and the entire Wrangell region was minimal.

This fact has interesting implications for the nature of Russian contact. The local Natives had to organize themselves so as to efficiently send their furs to market. A greater emphasis must have been placed on snaring and on the fur quest than in aboriginal times. This in turn must have changed the subsistence rounds significantly. The Ahtna social system, technology, and cultural systems must have all been affected by the increased emphasis on trade with those people living outside the region. Trade goods, including iron and some food items, also influenced the aboriginal system. The introduction of iron particularly affected the importance of copper in the economic system. Fur trapping supplanted the copper quest as the traditional path followed to "bigman-ship." Flour, salt, sugar, and tea brought the first relief the Natives had in their overbearing dependency on the land. This freedom was temporary, however, and totally dependent on the fur market. Finally, beads and baubles brought home by the Native traders as payment for the furs could be hoarded for years, thus enabling one to amass some sort of wealth and security against the bad times. It might not be correct, though, to assume that beads could be used to defray the absence of food, which probably was not bought and sold in the way western man thinks of it. Many of the old customs were retained and the Natives built on the

traditions that they had developed in aboriginal times, rather than borrowing Russian traditions or inventing new ones.

The Russian period brought primarily a great change in resource usage; furs assumed an importance beyond what aboriginal demands had been. The Russians had things that the Natives wanted and needed. In particular, the iron implements and guns that the Russians offered changed the Natives' relationship with the subsistence resources around them. A new-found efficiency arose, but the Ahtna and the Upper Tanana Indians paid a price for these articles that is hard to compute, for they lost their parochial independence by tying themselves to the world economic system. In so doing, they tied a knot which could not be undone. The trend of an increasing dependence on western technology continues to this day.

When the Ahtna changed their relationship with their land and with the world outside their territory, the society felt repercussions. Their values, leadership, economic system, and modes of subsistence changed. It is difficult to describe exactly the changes that were made for there is no documentation and few ethnohistorical sources deal with such subjects.

Social Changes During the Russian Period

The introduction of the fur trade brought about a greater stratification in Ahtna society than was previously known. The stratification was demanded by the needs of the trading party. Each party was led by a trading chief who had duties at home as well as during the trading expeditions to Cook Inlet and Nuchek. As a denae, the trading chief organized his "working men" to snare and capture furs, to supply the village with game meat, and to make the needed sleds and equipment for the arduous trip to the coast.

Each spring, while the ice remained hard and easy to walk on, large expeditions, under the leadership of one or a few prominent denaes followed the Copper, Susitna, or Matanuska rivers to their outlets on the coast. These trading parties sometimes included 30 or 40 people and

were often accompanied by women and children. The sleds were pulled by the "working men" and women. Some members carried packs. Dogs carried packs also but did not pull sleds. Those who led the trip held rights to the furs in the expedition, and usually one man spoke for the group once they arrived at the post. As the trip was expensive, and as all those who had trapped during the previous winter could not possibly go to the trading posts, the denae served as an arbitrator and middleman. Those left behind were totally dependent on his integrity, his capacity to organize the men and equipment for the trip, and his ability to strike a bargain with the Russians. When he returned, they took what he brought and paid him with continued loyalty.

It is interesting to note where the famous trading chiefs lived. Although from all over the valley, those who lived at the "exits" seemed to have been most powerful and to have controlled the trade to some extent by dictating the members of the annual trading expedition. Thus Nicolai at Taral and his brothers in the vicinity, as well as the denae at Tyone Lake who controlled the Susitna exit, are said to have been very rich and strong, to have held large potlatches, and to be remembered to this day.

Both men and women snared furs. Women used to trap closer to the winter settlements because they had to return to the children and the duties of the household. Men often went to their hunting territories, which were also the sites of their trapping circuits, for the entire trapping season. From what informants say, women sometimes prepared the furs. Money was not shared between husband and wife, however. Their individual shares of trade goods were dispensed according to their contribution to the fur-trade effort, and they used their riches for potlatching. This custom indicates that the lineage remained strong during this period.

There are other indications also that the matrilineage remained strong and that it served as the medium through which the denae recruited his "working-men." The denae usually supported those young men of his own clan who, without resources of their own, depended on the denae's leadership to convey their furs to market. They formed alliances with the denae, usually a male clanmate, according to favors which were

dispensed along clan lines. A young man who worked hard and proved his economic and hunting worth to the village had the opportunity to marry into the clan of the denae's wife and to remain in the village as a full-fledged male of the village. Throughout his life then, he had repeated opportunities to prove himself as a leader and after years of testing might even rise to a position of leadership or importance in the village.

There were probably between six and eight denaes in the Copper River region, and they were probably the leaders, in an economic sense, of different clans. The denae was both teacher and benefactor to young men, and he organized the clan members for the fur trade. Again, the importance of the denae to his society fell along the lines of traditional modes of organization--the clan and the village.

Perhaps the most important reason for the continuation of the traditional system is the fact that the Russians did not actively enter and live in the region. The Natives themselves mediated the contact and its terms to some extent. The results were not always pleasing to the Russian administrators in Alaska and in Russia. There is some correspondence that illustrates the Russian disappointment with the level of fur production in the Ahtna region and their suspicions that the Hudson's Bay Company was funneling the furs to the north. Informants say that British guns were preferred but difficult to obtain and that most of the trade was with the Russians.

For whatever reason, fur production in the area was never as high as the authorities thought it should be. Perhaps too this was due to the continuous demands of the subsistence life style on the society. Much time and effort was needed to carry 50 pounds of flour up the Copper River ice, and it is doubtful that very much imported food actually reached the Copper River. One traditional story is told of the upriver chief who only carried back a huge load of tea. Those who lived closer to the trading post thought him foolish, yet it is easy to see that tea would go a lot further than any other type of food staple. Undoubtedly, the trade goods were status foods and were not available to everyone in the society. The importance of subsistence was only slightly diminished by the Russian fur trade.

Technological Changes During the Russian Period

The importation of iron implements and guns was of great importance and initiated an irreversible change in the Native life style. The significance of the introduction of iron from the white man was recognized clearly by the Natives; in fact, their name for white man, c'etsitnaey, literally translates to "iron or steel man." Although iron supplanted copper as the preferred metal, the copper quest continued in part.

Ahtna informants say that even before the Russian period, iron had been found along the beaches of the island in the Gulf of Alaska in the form of nails in crates or barrel hoops that had been washed along by the Japanese currents and deposited there. The Ahtna traded for this iron from the inhabitants of the gulf, but the substance was so rare that very little ever found its way to the Copper River valley. The usefulness of saw blades, knives, and axes was immediately obvious to the Indians. They brought these implements home and fashioned them into the forms that were most useful to them, forms which mimicked the traditional blades of the copper industry.

Guns introduced by the Russians also helped to transform the Native life style. The possession of weapons like guns completely changed the hunt and made the Native more efficient. The introduction of the gun did not, however, replace traditional weapons, and the Ahtna hunter continued to use many of the traditional methods. Snares and fences were constructed as before, and caribou were still killed with spears from skin boats, as the backfire of a gun would send the hunter into the water. The traditional knowledge of the environment underlay the implementation of the new technology.

The most significant problem concerning the incorporation of guns into the Native material inventory was the continual need for bullets. The Natives partially solved this supply problem by manufacturing their own bullets out of copper and, some say, gold. Then it was only necessary to obtain powder from the trading centers.

Most other trade goods were used to reinforce the status distinctions of the Native society. Beads are probably the most well known of

the ornamentation goods that became popular, but other items such as tailored shirts and other Russian clothes, pins, hats, glasses and china tableware also became status indicators. Traditional stories relate that the wife of the denae at Taral served tea in china cups and that the people at Tyone Lake drank their tea in glasses with silver holders as was common in Russia.

In summary, the technology, like the social system, did not change radically during the Russian period. The Natives built on the traditional society and technology, incorporating what they found to be most useful, emphasizing those aspects which best allowed them to incorporate the Russian fur trade into their way of life. The introduction of technological innovations was softened by the great distances and expense of getting the trade goods to Alaska from Europe and up the Copper and Susitna rivers from the Russian trading posts on the coasts. Subsistence remained the primary focus of Native life, for without food, the trading and status-seeking life style would be useless. Iron and guns obviously made the hunters more efficient and left them more time to go after the furs. As trapping is a winter activity, it probably did not cut into the traditional annual cycle to a great extent; winter was traditionally the slow period of the year. No doubt, the overall standard of living much improved for many of the Natives during the Russian period, but at the same time the social distinctions of status and class were probably increased by the ability of one class to monopolize and control the fur trade.

Changes of Values during the Russian Period

It is probably hardest to describe the changes that took place in the value system of the Native people during the Russian period. One obvious development was the introduction of Christianity in the form of the Russian Orthodox religion. The religion had very little effect at the time of its introduction, probably because the priests made little effort to proselytize the mass of people living in the Wrangell region, and the Ahtna and Upper Tanana remained classified as barbarian (non-Christian)

throughout the Russian period.

Nevertheless, the people who did go on trading parties to the Russian posts were introduced to the religion by priests who routinely baptized the visiting Ahtna and also gave them elementary instruction. In addition, lay priests belonging to other tribes tried to convert those Ahtna who came within their territory. Thus, the religious influence spread slowly into the valley. Traditional tales relate how returning converts baptized their relatives, performing close approximations of their own baptisms. This practice seems to have been important to the people around Tyone Lake and Tazlina Lake who were oriented more toward Cook Inlet than Prince William Sound. The Tanaina were the only Athabascan tribe in Russian America to obtain Christian standing with the priests and they apparently converted many Ahtna.

Unfortunately, it is impossible to say what the Russian Orthodox religion must have meant to the Natives. Many questions arise, such as whether the Christian religion supplanted other beliefs or whether the religion was significantly changed by the new converts, but the answers cannot be known.

The Gold Rush and American Contact

Although the Americans replaced the Russians in the 1860s, the American influence on the Ahtna and in the Wrangell region was only superficial until the gold rush in 1898. Lt. Henry Allen traversed the Copper River valley in 1885, following the Chitina River to the Nizina area. Throughout his visit, he reported on the Native life style. Subsistence remained the central factor of life for the Natives, and Allen also reported that his team was forced to live off the land. He felt that the Native diet was meager, but the reader should keep in mind that he visited the area during the spring, traditionally the leanest time of the year.

Even after the Americans had established their presence in Prince William Sound and Cook Inlet trading centers, the changes in Ahtna life were imperceptible. The Ahtna continued to take trading parties to the

trading posts just as they had in the past. The Natives maintained control of the land of their forefathers, and the few prospectors who wandered around the area made little impact on the Native society or way of life. A few marriages could have been formed, but the creole offspring of these unions were not the first creole born to the Ahtna, some of whom claim Russian parentage from Serebrennikov's crew or liaisons formed at trading centers.

During the first 35 years of American control of Alaska the Natives used their subsistence skills to participate in the American rather than the Russian economy. From the Ahtna perspective, this meant there were few changes. It is the gold rush which brought the onslaught of change to the Native people living around the Wrangell Mountains.

The gold rush brought the physical presence of the white man to the region. These Whites settled, stayed, and changed the entire environment in which the Natives had lived for centuries. They built trading posts, roads, homesteads, mines, and trails, not only where few had been before, but also where Natives had had their camps and villages. The extent of the influx is illustrated by the huge numbers of stampedeers who wintered at Klutina Lake during the winter of 1898. An estimated 3,000 people tried to winter on the lake shores, almost half of them dying of scurvy. It is reported that there was no game, but obviously the unprecedented number of mouths to be fed increased the pressure on the game population and might be responsible for the reported decline in game populations.

Other stampedeers bent on finding their fortunes in the Klondike swarmed over the Wrangell Mountains after penetrating the Chugach. Many of them dragged outfits which only weighed them down and hindered their progress, but if they carried flour and sugar they probably survived the starvation months. The mineral potential of the region brought many to the Wrangells, and by the winter of 1899, trading posts had been established in many parts of the Copper River valley. It was, however, the completion of the Chitina-Fairbanks road link and the connection of the railroad of the Copper River with Cordova which transformed the economic life of the valley. Every 10 miles or so a watering station was built, where the sled and stage line could change horses, and where passengers

could find amenities. Trading posts and stores were built, especially where hotels were also found, so that central villages sprang up.

The establishment of trading posts within the valley heralded a major change in the subsistence life style. The transportation network which the white man built further encouraged rapid changes in the subsistence way of life. For the first time, the Natives could move quickly around the region, trading furs, and finding cash employment. Many Natives, especially around Chitina, took advantage of the new introductions in technology and combined them with trapping, wage labor, and subsistence in a compound economic approach. One Chitina man said that several Native men worked part of each year on the railroad, and then quit in the fall to ride the train up the Chitina River to good hunting grounds between Chitina and McCarthy.

Market hunting kept some of the smaller mines, such as Chisana, Nabesna, and Dan Creek supplied with meat. There were no game laws at that time, so wild meat could be bought and sold. Natives hunted sheep, caribou, and goat and sold them to the trading posts, which in turn sold the meat by the pound to customers, both Native and white. Here again, the traditional knowledge of the Natives was put to work to bring money into their economy.

Fishing remained important although a change in technology was brought about with the introduction of the fishwheel. Market fishing also took place, and many older women mention that they made and sold "dog food" to local people and to Fairbanks where it further encouraged white expansion into the interior.

Once trading posts had been established in the region, a new period of subsistence began. These changes had repercussions in the Native society, economy, and culture which were unprecedented. The undermining of the traditional subsistence system was rapid, as new skills and an understanding of the American way of life were gained. Those further from the white population centers, such as in Mentasta, continued hunting extensively while others became more and more involved with cash employment and American society and culture. Yet even with these changes subsistence activities and local food remained central fare on Native as well as white tables.

Social Changes During the Early American Period

It was during the gold rush that the Native people of the region lost control of the land and the resources. Americans came to the area and took over many of the economic and social roles that had once belonged to the Natives. Federal marshals, teachers, nurses, traders, and employers took over the various roles of denae, kaskae, shaman, and others. It was a very difficult time for the Natives, as their entire society was under attack from outside forces. Disease was rampant, and many Natives died of tuberculosis and influenza during the first 20 years following the gold rush. Alcohol was introduced and incapacitated some of the people even though it was illegal to sell liquor to Natives. Many younger men found that by earning cash or directly dealing with the trader, they could circumvent the authority of the traditional elders who had organized the hunt, led the trading party, and commanded the social order only 10 years before. Women trapped too and sold craft pieces at the local trading posts. Cash brought them a security unknown previously and the ties to the traditional society were weakened at all points.

Changes were made in the society and perhaps most strongly in the family. For the first time the large house in which up to 25 people might live was abandoned in favor of smaller, nuclear or extended family units. Smaller houses were built, often near a trading post. Much of the winter was spent at the upland hunting and trapping camps in single-family residences. Whereas once many of the furs ended up in the hands of the denae, now each man controlled his furs; the Ahtna hunter visited his local trader and dealt directly with him. Little if any money, however, was exchanged between trader and trapper. Instead, the trapper and his family retained rights to goods at the store throughout the year. Thus a system of credit developed which tightly tied the trapper to the individual trader. The economic role of the denae was made obsolete and was assumed by the trader.

It is often told that two or three brothers trapped together, each owning and setting his own traps, even though their lines might parallel each other. While brothers had always been important in Ahtna society,

this relationship seems to have been emphasized during the trapping period before the crash of 1930. Women continued to fish as they had always done, but the presence of cash and credit made obsolete many of the traditional alliances and interdependencies in Ahtna society.

The nature of the village also changed. It became larger and oriented around the trading post; in many cases, several villages amalgamated. At Chitina for example, people from south of Taral all the way up to the Lower Tonsina formed a single village. Several villages within a 7-mile radius of Copper Center combined at Copper Center. Gulkana drew people from the central region. Before the gold rush, the village had often consisted of a single large semisubterranean house. After the gold rush, the villagers duplicated the log construction of the Whites, and made small log residences which often housed a nuclear family or only the closest of relatives.

Changes in the Value System During the Early American Period

The Americans brought with them the Protestant religion of the frontier, but the Natives remained allied to the Russian Orthodox religion. This was due in part to the better transportation system which allowed unprecedented communication between the Natives of the Copper River and those living on the coast. Lay preachers could easily circulate among the villages. Young men who were so inclined could gain religious instruction during trips to Cordova and return to baptize and serve the Orthodox congregation.

Perhaps more importantly for this period, the Americans brought with them the individualism and entrepreneurial spirit which has been the hallmark of the frontier ethic in America. Just the presence of many people pursuing their fortunes in the mineral or fur resources of the Alaskan interior must have changed the Native's image of himself and his culture. The researcher has often asked Natives to tell her about their first recollections of the white man and what they thought of him. The overwhelming response dwells on the things that the white man brought and not what he did. He brought light bulbs, music halls, and movies to

Chitina. He brought recent innovations such as automobiles, telephones, and trains, and delicacies such as sugar, candy, tea, and coffee. The once-isolated Native who depended on others of his society suddenly found that the things he most wanted had to be obtained from the alien white man, and that to get them his only recourse was either to work for wages or to supply the white man with resources from the surrounding lands which would be useful to him. So, he went after the furs the white man wanted, the meats and fish the white man favored, and built and made crafts the white man could use. He guided and ferried him across the raging rivers. Each person became more of an individual like the individuals he sought to supply and serve for wages.

One cannot deny that the Natives valued the white man's goods and substituted blankets and cloth for skins, lumber for logs, and flour and sugar for subsistence foods. The Natives wished to participate in the new economy which had reached into the region. The only problem was to learn the skills needed to participate.

The annual cycle was greatly modified as the Native people became oriented toward the acquisition of western goods. Either work for cash was undertaken or the resources from the land which brought in money (furs, market meat and fish) were emphasized. Although cash brought security and removed the possibility of starvation from the minds of the people, subsistence remained an important pursuit. Game was hunted and fish were dried and smoked and stored in caches for the winter months. A strategy which combined the possibilities of subsistence and participation in the western economy was pursued. The problems of the future arose when the American economy began to crack, and the Native commitment to the new economic order no longer brought reward. The American economy very soon proved undependable, like the cycling populations of caribou and the rabbits of the surrounding landscape.

The Years 1919 through 1929

In 1919 the Spanish influenza broke out in the Ahtna region and entire villages were depopulated, especially in more isolated areas,

such as in Mentasta, Suslota, Nabesna and Chisana, where medical attention was absent. It was at this time that many of the older leaders died, and with them the knowledge of the traditional Ahtna life. The younger people who were left had to depend on a new life style to get through each year.

Trapping became an extremely important activity for most of the Ahtna during this period. As one woman said, "You got to be living by the fur, they got to be trapping." The initial boom of the first decade of this century had slowed down because the transportation system and communication system had been built. Many of the stampeders had given up and gone home. Labor problems in the Kennicott mine prevented the Natives from being hired there except to work odd jobs in the nearby town of McCarthy. Some jobs were available to the Chitina people on the railroads, and a few Natives performed odd jobs around the trading posts located sparsely along the roads. A few delivered the mail. Generally, however, few jobs were available during the twenties.

Inflation and the fashions of the 1920s had raised the price of furs, and the trapper could earn a fairly good living. Small family groups of brothers and their nuclear families spent most of each winter on their traplines, and the traditional winter period of togetherness in the permanent winter house and village had for the most part disappeared. The population was smaller, and the people started to dispense with the traditional ceremonies that had previously marked the yearly rounds. Potlatching became an infrequent occurrence, and many who died during this period have only been potlatched recently during the cultural renaissance of the area.

In 1927 came the first attempt of the federal government to regulate subsistence usage. Game laws, imposed by the federal marshal, were legislated. A few people were arrested for game law violations during the last few years of the 1920s, but generally it was almost impossible to impose the laws on such a widespread population. During this period virtually all the meat eaten by the local people was game food, although canned goods had been introduced and were sometimes used. Slab bacon, corned beef, and ham are often mentioned, as is fruit and bannock. Use of such foods depended on how near one was to a store or trading post

and the amount of cash available to the family.

The history of Chitina exemplifies the relationship between a growing cash economy imposed externally upon an undeveloped area and the irreversible downward course which subsistence usually follows. In Chitina, the impact of the copper industry and attendant businesses was mammoth and rapid. The effect this had on subsistence usage by Native people is seen in the paragraph quoted below:

Another difficulty with externally imposed regulations is their inflexibility. In the Chitina area from 1910 to the 1930s, strict limitations had to be placed on hunting and fishing because of a great increase in white workers in connection with the copper mine. When the mine was closed and the railroad taken up, the original need for regulations was eased; only the original inhabitants and a few others remained. However, they still could not fish and hunt as needed--and the Native's need for meat and fish was great. Now they had neither the jobs and access to cash, nor did they have access to subsistence. "We were starving there in the village, and the sheep were right up there on the mountain and we couldn't hunt them" (Davis 1976:56).

The instituting of game laws interfered not only in the Natives' relationship with their land, but also with other aspects of their society. The ritual enacted at the taking of the first salmon had always been an important annual ceremony. Nancy Davis points out that the timing of game laws in respect to salmon on the Copper River obstructed Native tradition:

...the deleterious effect of changing the timing of access is reflected in the Copper River area where one Indian reported to me that the best fish always came at the end of May, but regulations disallowed taking any fish at that prime time. People had to wait for the seemingly arbitrary date of June 1 before catching the first precious salmon. What the persons who make the regulations do not know was that traditionally a very important ceremony was performed when the first salmon was caught. How can that traditional respect to the return of the salmon be given when all the "first salmon" must be allowed to run by (Davis 1976:56)?

The crash of the New York stock market and the resulting depression brought great hardship to the people of the Wrangell region. In 1929 one informant said that red fox brought 75 dollars per pelt. Such prices spurred the Natives to return the following winter to trap with the

expectations that they would reap fantastic rewards for their work. Of course, when they returned from the isolation of the 1929-30 trapping season, they found that their pelts brought virtually nothing and that an entire winter's work had been useless. A high-quality fox pelt then brought 19 dollars at best prices.

Although the depression discouraged some people from trapping, others continued to trap through the 1930s because they did not have the skills to do another type of work, and little work was available in the region. Some gold mining provided seasonal employment, and the train continued to run, but generally the region could not escape the world-wide depression. It is at this time that some people actually migrated from the region for the first time. They searched for work in the new railroad towns of Anchorage and Cantwell.

It can be seen how tightly connected the Natives had become to the western economic system by the 1920s. Their dependence on a wealthy American economy for jobs within the region became especially evident when employment was scarce. At the same time they retained a close relationship to the subsistence way of life and often utilized their knowledge of the region to gain cash. It is not surprising to find that during the next decade, when the effects of the depression proliferated, the Ahtna returned to the land which had always provided them with sustenance in the past.

The 1930s

The 1930s found small groups of Ahtna going to the mountains and fish lakes for winter trapping, fishing, and hunting. For example, a couple of families lived at Tanada Lake every winter during the 1930s. They fished and hunted dall sheep in the nearby mountains, trapped a little, and sold what they did not need to the mine at Nabesna. They fed their dogs with mountain ground squirrel and ate much caribou. The trader came to them. Following his rounds, he would visit the families scattered widely throughout the entire northern edge of the Wrangell range at Tanada, Twin Lakes, Nabesna, Chisana, and elsewhere, bringing

special things and supplies by dog sled. Sometimes he set up camp beside the Native families and fished for himself.

In 1938 the Copper River Northwestern Railroad closed down, as did the Kennicott. This had a disastrous effect on the railroad town of Chitina. While most of the Natives continued to live there, some felt they had to leave to find employment and they went off to the Alaska Railroad system, or found jobs on the highway, clearing brush or working in other seasonal jobs.

Most of the jobs available to the Natives were seasonal or part time. Due to the nature of the Alaskan environment, many of the outside jobs had to be done during the summer months. This was acceptable to the Native man as he could work to clear brush or help run sluice boxes while the women in his family caught fish. Then the winter could be spent trapping or hunting and living on one's savings.

The War Period of the 1940s

The war brought a boom to the region and drew the Native people to jobs building roads. Many people moved from Chitina at this time to Glennallen or Anchorage. The Chitina population had been much more dependent on store-bought goods than other people in the area, and they had been more affected by the white men who lived in fair numbers at Chitina and McCarthy and who regularly traveled through Chitina on their way to Fairbanks. It is not surprising then that they would migrate to jobs earlier than other people in the area.

The war boom did not raise the standard of living of the Native people as much as one might believe because much of the building was done by army troops. The FAA airfields at Gulkana, Northway, and Nabesna were built by the army. The Native people, in some cases, were asked or forced to leave their traditional homes. Apparently no compensation was made.

With the completion of the road system to Anchorage, a new era in the region's history began. Instead of being oriented toward Fairbanks and Valdez and Cordova, the people increasingly turned to Anchorage as

an economic center and a place to find employment. The road system meant that people from Anchorage could drive into the Wrangell Mountain region, making it one of the most accessible regions in the Interior. The Alcan highway brought stateside travelers who could then easily travel to Valdez and Fairbanks. The road system meant also that more and more white people would come and settle in the area.

World War II to the Present

The period covering World War II to the present is one of the least discussed periods in the Native history of the region. The reason may be that many of the people have seen few changes during this time, a period which is distinguished by a few seminal events such as the prosecution for school truancy during the 1950s, the Statehood Act during the early 1960s, the Alaska Native Claims Settlement Act (ANCSA) during the early 1970s, and the building of the trans-Alaska oil pipeline during the last few years. Throughout this period the growth of the Protestant mission, its influence on the Native people, and the continual rise in the white population have been general trends which have influenced the course of Native history.

The emphasis which was placed on Native education during the 1950s changed drastically the Native life style. Subsistence and trapping were both greatly curtailed by truancy laws requiring children's presence in the village schools at Gulkana, Glennallen, and Copper Center (and at Chitina until that school closed in 1954). The Native family, which had previously spent most of each winter in isolation near trapping areas, had several choices open to it if its children were of school age. First, the family could move into a village with a school. This decision obviously meant that the trapping life style would be curtailed or that the family would be separated through parts of the winter. This was, however, the choice made by most people who had traditionally claimed fish camps or were connected by family alliances to the winter villages where schools were found. Thus Gulkana drew families from throughout the Tyone Lake, Paxson, Sourdough, and Gulkana region. Copper Center

attracted families from as far away as Tazlina Lake, and Chitina brought people together from throughout the southern region. Another choice open to the Native family was that of sending one's children to boarding schools. Many families living in the northern villages of Chistochina, Mentasta, and Northway chose this alternative. The decision necessitated a complete division of family life, and, ironically, for those people who were most closely associated with the subsistence life style (as the northerners had to be), this choice was the only one available. Truancy laws and other regulations were beginning to circumscribe and define the kind of life that Native people could lead.

The Statehood Act signaled the end of the rather ineffective frontier law of the federal government. State officials such as police, Fish and Game officers, and social workers became more visible. The state became the employer of many of the Natives who worked seasonally on the road commission. Game laws were increasingly enforced.

During the 1940s and 1950s a new generation of Natives had been raised to read and write and to understand the laws of the United States. They participated in the Alaskan Native Brotherhood, and some of the leaders active in the passage of ANCSA came from the region. Along with the enactment of ANCSA came a new understanding of Native culture and a realization that a cultural tradition of some worth had been lost when the Natives had turned toward the American economy and culture. The young people began listening again to the elders in hopes of learning about the Native culture of the past. A conscious effort was made to renew some of the old ceremonies, and by far the most popular has been the potlatch, which had lain dormant for several decades during the 1930s and 1940s. Dancing and singing have become popular, and there is a renewed interest in "Native foods." Once, salmon had drawn derogatory remarks from young people trying desperately to fit into a white world. Now, smoked salmon is a source of pride in Native culture.

The building of the trans-Alaska oil pipeline from 1973 to 1977 caused a great boom in the local economy. The strong political and economic organization of the local Natives provided them with many opportunities to participate in and benefit from this project. Yet working on the pipeline was demanding: many had to work "seven 10s or seven 12s,"

which meant working seven days a week for 10 or 12 hours a day. Often the worker found it too physically exhausting to return home at night and preferred to stay overnight in the camps provided. The grueling work paid well but left little time for any other activity such as hunting, fishing, or family life. Those interested in such activities had to quit work periodically to take a "breather" and participate in village and family life. The boom was fairly short lived and while many Natives work now at maintenance projects near their villages, others in the north, from Mentasta and Northway, must leave home to take jobs on the pipeline. Some of the younger families have moved to Copper Center from other villages or from Anchorage in order to be closer to their work. It is interesting to note that they generally buy land outside of the village and place trailers or build homes on private lots rather than moving into the village itself, where they have no strong traditional ties.

The Native Claims Settlement Act has brought to the surface many of the contradictions with which the Native Alaskan must live today. While wishing to participate in the economy of America as a full and equal member, Natives also feel the influence of their ancestors and of the unique Native values instilled during childhood. Native definitions of the good life, and of the roles they are expected to play, include an orientation to the land and its resources which often conflicts with their desire to participate in the American economy. The demands of a full-time, year-round maintenance job on the pipeline or as a secretary for the Native corporation often inhibit participation in traditional Native life, particularly in subsistence. But some Natives exert great effort. A young man who rises every morning during hunting season to drive around the roads and "car-hunt" before he leaves for his job with the Alaska Highway Department must be committed to some portion of his diet being traditional. In particular, he said he wished to provide his grandmother with moose. Other young people build fishwheels, drive berry-picking expeditions or chink the sides of relatives' cabins during those hours not at work. Yet full participation in subsistence is impossible for those who are employed full time; they must make a choice.

ANCSA, it has been pointed out many times, is an organization of Native people which is designed as a white organization, an economic

corporation in a legal sense. Even the corporation will compete with the subsistence-oriented Native for use of certain parts of the region. The corporation must make money if it is to survive. It must develop an economic base within the region so that money can be made on the great amount of land it owns and on which it must pay taxes. The choice between trapping and tourism for example will probably be made according to economic considerations. Cultural considerations will become secondary. Any other choice is impossible if the corporation is to survive. Thus the ultimate step into total commitment to the American economy is nearing in the region.

The problems of the past still echo in the minds and thoughts of the Native people. Some depend greatly on subsistence resources, in particular fish, berries, and some game. These people are often unemployable for various reasons, such as their age, a lack of proficiency in reading or speaking English, ill health, alcoholism or the isolation of their home village. The continued dependence of some people on subsistence resources should not be underestimated, and any decisions made about subsistence should make provisions for these people, whose only choice outside of subsistence would be welfare.

4

NATIVE SUBSISTENCE TODAY

From the last chapter it is clear that the combination of available cash employment with the use of subsistence resources has often been an unreliable strategy which can upset even careful planning. This is due to the nature of Alaska's economic relationship with the American economy. While general overall growth has been the rule, a more specific analysis shows that a continual boom and bust pattern of growth has characterized the economic situation in the Copper River region and the Wrangell Mountains. Policy decisions made in Washington have had wide-reaching repercussions for the people of Alaska. For example, the influence of environmentalists in closing the Bering River coal fields stymied quick development of the railroad system connecting the Alaskan interior with the Gulf of Alaska via the Copper River valley. The ban on gold mining in World War II removed a common form of cash employment for those men and women who had run sluices or worked at odd jobs in the gold camps. Other events, such as war and fluctuations in the world economic market, or even changes in the fashion-dictated fur market have had important consequences for the people who must supply the raw materials.

The nature of the Natives' participation in the economic system has helped to formulate a cynical type of attitude. Cash labor is a tricky business unless one acquires state employment. One of the few predictable sources of cash is welfare; many Native people draw welfare, almost three times the number of Whites who do so. Many Ahtna claim that they gave up trapping completely because it was too risky and often did not "pay."

Presently, and for the first time, the economy is beginning to stabilize and permanent employment is being created specifically for Natives within the region. Government employment was previously the only stable employment available in the valley. Few Natives were employed by the state, with the exception of the road crews, because they did

not meet the educational requirements of the state jobs, many of which are professional positions, such as that of teacher, game biologist, or engineer.

The Native corporation as well as the many government-sponsored programs aimed at training Natives for jobs within the region are responsible for the changing situation. At one point during the summer, the profit and nonprofit arm of the Native corporation employed 56 individuals, most of whom were Natives. They have jobs at all levels of the business and social welfare programs, and in this way many learn on the job. Young people are moving back to the region for the first time, and it is hoped that the trend to emigrate to Anchorage has been curtailed.

The availability of permanent, well-paying jobs will undoubtedly change the nature of the region and the expectations and behavior of the people. The younger people who are filling these jobs will be oriented toward the subsistence life in a way that is different from their parents. They will spend less time performing subsistence activities than their parents did, and subsistence will not be as important to their own self-image as it is to the elders.

Thus we find two generations of Natives, living side by side, whose attitudes toward and use of subsistence resources is quite different. At the same time the common heritage of subsistence provides an idiom in which communication between the generations often takes place. The young office worker who spends the weekend with older relatives on a berry-picking expedition and the young man who hunts for his grandmother because she needs the moose are common illustrations of the intergenerational use of subsistence to restore communication between people who have been split by rapid changes in their culture.

Any single description of the subsistence life style for the Natives would be useless in understanding what subsistence really means to all the Natives of the Wrangell region. There is great variation, and there are also points of common understanding that hark back to the common cultural heritage of the people. Important to keep in mind are the economic and cultural trends which have affected people differently depending on their opportunities and the life they have led.

Technology

Sometimes when the researcher has seen a Native woman preparing a moose or caribou hide, she has been startled to see a split cobble tool being used to scrape the fat from the skin. Another time she visited a man who used eagle feather snares in front of ground squirrel burrows. One is jarred into remembering that the aboriginal technology was totally dependent on the materials of the local landscape to provide the tools and equipment necessary to survive. Today, even the oldest people using subsistence resources rely on the technology introduced by the Whites. Iron and steel, internal combustion engines, guns, and all sorts of other materials are integral parts of the subsistence way of life in the Wrangell region.

The Technology of Fishing

One of the most important changes in technology came with the introduction of the fishwheel, the most popular fishing device used in the area. Several species of fish are caught in the main Copper River, including salmon, grayling, and suckers. Unpalatable eels are also taken but are not used. The wheels are homemade by men and consist of a raft usually made buoyant by four oil drums. The four arms of the fishwheel protrude from the axle as spokes on a wheel and alternate between a basket shape and a flat paddle shape. The river pushes the paddle and thus the force of the current itself runs the wheel. The baskets dip into the river, scooping up any spawning salmon or other fish. A slide in the basket guides the slippery fish into a box beside the wheel on the raft. The person retrieving the fish takes them from the box. On hot days and during high points in the spawning period the box must be checked several times to prevent spoilage or overflow.

Other types of fishing are not as universally popular among the Native people. Dip netting, the traditional mode of fishing, is undertaken at Chitina to some extent, and especially by those people who do not have access to fishwheels or own property on legal fishing sites

where the wheels can be placed in the river. In the summer of 1977, several young couples traveled to Chitina where they set up camp and dip-netted. Anchorage migrants also return during the fishing season and set up dip-netting camps at Chitina. The dip nets are purchased commercially, and are made of aluminum and heavy-duty nylon string. The opening extends 2 feet in diameter and the net is 2 feet deep. The long handle is held in both hands as a farmer would hold a pitchfork. The net end is "dipped" into the fast-flowing river and allowed to flow slowly downstream. The tug of a fish caught within the net signals the netter to pull in the fish. This can be a difficult task, however, when a 40-pound king salmon is caught. The netter, standing in hip boots on the shore, must be careful not to be pulled into the swift and silty river. Sometimes he ties himself to a rock, and usually a buddy system is used. Dipping is usually done by men. Women cut the fish and prepare the fish in traditional and non-traditional ways.

Another alternative for people who want to fish but do not own a fishwheel or fish camp location is to "rent a wheel." This means that some sort of payment in cash or kind is made to the fishwheel owners for the use of their wheel during a specified period of time. People who rent their wheels strongly object to the implication that they are "selling" fish. The owners point out that they will be paid no matter what the catch is and that the renter is buying time and assuming the risks involved in the unpredictable running of the wheel.

Spear fishing for whitefish around Mentasta is still a popular pursuit for which young people from Copper Center travel to that northern village. A commercially produced spear is used as well as lights which attract the fish. Although whitefish can be dried, it is usually eaten fresh today.

The laws which regulate fishing for grayling, trout, and other small fish outlaw the use of traps and nets, the traditional modes for taking the smaller species. Some people use rods and reels (spinners), and this sport is especially popular among the children (boys aged 7 to 13) who spend many spring hours after school fishing in the local streams when the grayling are "running." It is fairly easy to get the daily limit during the spring run, and the take of the children undoubtedly

contributes to the tables. But this pursuit is not only enjoyed by children as middle-aged men and women and older people also go fishing during the season. Grayling and trout are popular and are usually eaten fresh, fried with onions and potatoes. They are said not to freeze very well.

Catching fish is easy compared to the amount of work involved in "cutting" them. In fact, people often remove their fishwheels from the water if the catch is too heavy during a short period of time and they cannot keep up with the cutting and preparing. Most cutting is traditionally done by women, although today there is no taboo that prohibits men from helping. The problems of preparation brought some difficulties this last summer when a fast, plentiful run occurred in the beginning of June. Some people had to give fish away when their boxes overflowed because they could not cut all the fish themselves.

Some of the older people continue to cut fish in the traditional manner. In the Native language the product is called ba' and can be described as a very hard smoked (jerked) flat side of fish usually served in a flat square with the dimensions of 3 inches by 3 inches. Fermented fish heads are also a traditional delicacy which is made by the more traditionally oriented Natives. Unfortunately, the substitution of plastic containers for bark containers has meant that botulism can develop in the fermenting process, and in 1976 several people in Copper Center and Tazlina incurred food poisoning from this source.

Middle-aged and younger people also prepare the fish in a variety of nontraditional recipes. Canning is popular. Both cooked fish and soft-smoked fish are canned and put up for the winter. One type of fish preparation which is becoming increasingly popular in the area is locally called "salmon strips." This preparation demands salting and smoking the fish in long licorice-shaped pieces. Salmon strips are a real favorite among both Natives and Whites, who sometimes call it "Indian candy."

Freezers have alleviated the burden of complicated preparation for some people. Most who have access to electricity have freezers. Freezing has meant that the traditional recipes for fresh fish can be eaten all year round. While some broiling and baking take place, salmon is generally stewed or poached, especially by the older people. The broth

is considered to be especially healthful and is given to sick people. Today ba' is eaten cold, although in the past it was reconstituted by boiling in the same way as any dehydrated food. The researcher has never seen or been served boiled ba', but it may sometimes be served in Native households.

Salmon is probably the single most important food resource in the region. Some families during the summer of 1977 took 400 fish, which would weigh cumulatively between 3,000 and 4,000 pounds. Even if one's family is large, and one must feed 10 people, 400 fish provide an overwhelming percentage of protein for the diet. Unfortunately every season is not as good as the 1977 season, and sometimes only 30 to 40 fish are taken. Substitutions have to be made and usually they cannot be as nutritious as salmon. All too often carbohydrates are substituted for protein.

Virtually all modern fishing takes place on the western bank of the Copper River and in streams which are found west of the river. The few exceptions are located along the McCarthy road, especially in the vicinity of Strelna. People say that they sometimes go to the Tebay Lakes and Hanagita Lake in the Chugach Mountains, south of the Chitina River. Grayling are fished in the many small lakes around Twin Lakes. Thirty or more years have passed since Natives visited Copper and Tanada lakes only to fish. A few fish might have been taken while on hunting trips, particularly by the Natives living at Twin Lakes.

The amount of fish taken each year depends greatly on the extent of the run and the fish and game laws. In general, people take as many fish as they can catch legally.

The Technology of Hunting

Modern hunting techniques seem to differ only according to the strategy hunters use to gain access to the game. Thus transportation is one of the main factors in success. Native people generally do not use off-road vehicles, except in a few cases. The people living at Twin Lakes do have horses. Most others hunt from cars and pickups or walk.

Plying the roads, in a custom called "road hunting," is presently the most prevalent hunting strategy in the region among both Natives and Whites.

About a month before the season opens people start watching for moose. Those who sight a moose during the summer try to keep track of its movements so that on the first day of the season they can locate the animal and take it. There is some emphasis on getting an animal early in the season before many of the more accessible ones have been taken.

At least one well-to-do family travels north of the Yukon each year, using river boats or airplanes to gain access to units where more animals may be taken and where the animals are easier to locate. During the last five years, this family has taken one to three moose per season. This case is unusual, however, and reflects a high degree of acculturation.

The preparation of moose and caribou has changed somewhat, especially in respect to what is done with the meat. The meat is hung in screened meat houses in people's yards and cured. Much of it is then frozen. Some people do take their meat to commercial butchers in Anchorage or Fairbanks, but again this choice reflects a certain amount of acculturation. Very little of the meat is jerked today. People prefer to freeze it. The meat can also be frozen in an outdoor cache so a freezer is often not required. An entire hindquarter is often maintained intact throughout the winter in this way. It is not unusual to come across someone sawing off pieces of meat as if they were sawing a log, cutting through a solidly frozen mass of meat and bone. Meat is also canned on occasion.

The Technology of Trapping

The actual technology of trapping is not a subject in which this writer is well informed. It is a complicated business which requires a precise understanding of the behavior of animals by the trapper. It is an occupation in which most Native men over the age of 35 have some sort of knowledge and experience, although in the last few years trapping has declined as a means of support because more lucrative jobs have been

available in the area. A few people seem to enjoy trapping and to pursue it with the seriousness and interest of a devotee. Others just set traps on short traplines hoping to earn a few extra dollars, or take advantage of unusually high fur prices or unusual situations, such as the one which occurred this spring when muskrat pelts brought five dollars at the local traders and muskrats were abundant.

Commercial traps are used, often in combination with the traditional knowledge of animal behavior. Some types of trapping are more popular than others because of the work involved and its subsequent rewards. Beaver trapping is an example of a very difficult activity involving the chopping of a 4-foot-square hole in the ice. This is both dangerous, because of the danger inherent in working around water in such a cold climate, and exhausting, as anyone who has ever tried to cut a hole through 4 or 5 feet of ice will confirm. Lynx traps are often associated with brush lean-tos of some sort, and the construction of such a trap has been profitable since the price of lynx has been high in recent years. Bait is usually used to attract these animals.

A serious trapper knows that it is important to check traps regularly or as often as possible so that other carnivores do not eat the catch, and also so that the animal will not escape. Small boys and others who set a few traps near villages and homes often earn the epithet of "Saturday Trapper" and they are blamed for shoddy trapping, wasting furbearers, and trapping pet dogs who might get loose from their chains at home.

Traplines are circular and can be as long as 30 or 50 miles and take several days to complete. Small cabins are placed along the line, and sometimes a man will spend several days a week in the wilderness. Most women who trap set much shorter traplines which can be followed in a single day so that they can return to their homes at night. Unfortunately they are not as successful as the man with a longer trapline. One woman told me that she and her husband had widely varying luck two winters ago. Her husband trapped across the river from Copper Center and laid a trapline up into the foothills of the Wrangells (on (d)(2) lands). She drove south on the Richardson Highway and laid a trapline near Willow Mountain. He made almost 6,000 dollars that season and said

that it was due to the high prices for lynx. She got a single pelt worth 50 dollars. She eventually quit trapping and took a job as a maid on the pipeline, although she prefers the outdoor life and felt the pipeline took too much time away from her family. One or two people in each village are serious trappers. They are easily identified by the time spent in the wilderness and the local recognition of trapping rights to their line.

Transportation

Transportation is one of the most important factors influencing the nature of subsistence activities in the region today. Due to high prices, most Natives cannot take advantage of the increasingly mechanized modes of transportation used off the roads in the region. Many people have snowmobiles today, but the researcher does not know of any people who have track vehicles locally called "weasels."

The most pervasive form of transportation is a pickup truck or an automobile. Six out of twenty-five households in Copper Center did not have a family member who owned or operated an automobile, and most households without cars did not have a driver in the family because of old age or an infirmity of some sort. In many cases a younger person living in the home of a parent owns and operates an automobile. An automobile adds substantially to the area covered in subsistence pursuits. This capability allows a person who lives and works in Copper Center or Glennallen to run a fishwheel in Chitina. It means also that one can cut wood near Tazlina Hill and burn it in Copper Center.

Berry picking, fishing, hunting, and many other subsistence activities are done by driving first in a car, and then sometimes walking to the harvest site. People without cars often pay for the ride by giving "gas money" or payment in kind (fish) to the driver. A few drivers seem to serve regular customers and often receive some subsistence resources or even services in return. Payment in kind (meals especially) is given in a different way than money. This particular relationship reflects the mutual agreement between client and patron. At the same time the

relationship is often explained as arising from kinship. Whatever the reason, it is obvious that both parties in these relationships have needs. One might need the ride, while the other gladly takes the money, payment in kind, or services offered.

A few people still run dog teams rather than snowmachines. One resident of Copper Center uses his team to trap across the Copper River from Copper Center. A family in Chistochina races its dogs and also uses them to trap and undertake subsistence activities. Both of these families can afford to run dogs because they fish and collect dog food from other sources (a restaurant's scraps, for example). Much effort is involved in running dogs, and most people who can afford it run snowmachines instead. People who run dogs often also run snowmachines and generally display an orientation to the out-of-doors and the subsistence life style which is more serious than that of their neighbors. It is interesting to note that both of these families also partake in a fair amount of wage labor, thus illustrating that for middle-aged people, hard work in one sector such as the subsistence sector predicts hard work in the wage labor sector also. The reasons for this will be discussed later in this report.

Airplanes are used rarely to gain access to remote lakes and hunting areas. Most of the cases involving Native use of airplanes is done on a neighborly basis, that is, for free and in friendship. A few Native people, however, take an interest in flying and one man at Gulkana has been taking lessons. Perhaps as the standard of living for the Native people rises, more Natives will fly their own airplanes. At present though, it is rare for Natives to fly in to hunt and fish.

A few people run river boats but this also is rare. There is an attitude of healthy respect for the forces of the river, and many of the older people, who have seen a number of lives lost in the water, shake their heads in disbelief that one would raft the waters for sport, even though their ancestors did use rafts and boats during the subsistence quest. One inhabitant of Chitina is the descendant of Doc Billum, the ferryman at Lower Tonsina crossing in the early days of this century. Like his ancestor, this man continues the tradition of running a river boat on the Copper and Chitina rivers. He can be hired at reasonable

rates by both Natives and Whites if he wants to go and feels that the waters are safe. He often uses his boat for family subsistence purposes. Probably only 5 to 10 families own boats and use them frequently. None use the boats on proposed parklands.

Horses are kept by a family at Twin Lakes which runs a guiding business in the Nabesna area. There are about 20 animals in the herd, which winters in the Nabesna River valley and in recent years has done well and increased in number. While the Nabesna people have maintained a close relationship with horses since the goldrush days, when the Natives of Cooper Creek village on the Nabesna River ran a packhorse outfit over Cooper Creek pass, the nurturing and use of the horses appears to be done by the young people in their teens and twenties who are related to the daughter of the Twin Lakes family and who live either at Twin Lakes or Mentasta.

Although the horses are used in a business, they are also used extensively by the young people to ride into the wilderness and hunt. Trails to the Tanada Lake area near Nabesna carry the riders into the proposed parklands. Thus in this particular instance the use of horses is integral to subsistence activities that are undertaken on the northern slope of the Wrangells. As far as the writer could ascertain, no other Natives use horses to gain wilderness access.

Overall, the Native use of transportation for subsistence activities varies but, in general, does not include off-road vehicles except for the snowmachine. In comparison, automobiles are universally used on the roads to road-hunt and carry the hunter or fisherman into areas outside his immediate territory. This dependence on the automobile means also a reliance on the roads whose presence affects the areas where hunting is done. The river protects the land on the east side of the Copper River from access by many hunters. Moose and caribou crossing the roads during hunting season are the most frequent prey. Trapping takes place on both sides of the river because it is undertaken during the winter when the river is frozen and access to the eastern bank is fairly easy to a man driving a snowmachine or running a dog team.

Social Aspects of Subsistence in Modern Native Society

Even though subsistence is fading as the central activity of most Ahtna today, it remains an important basis for interaction. The social and cultural functions of subsistence cannot be ignored. The importance of subsistence, the time spent undertaking subsistence activities, and the type and extent of subsistence use depend on and can be predicted by certain social variables such as age, household type and form, and type of employment and income.

In order to understand the social workings of subsistence, an intensive look at one particular village will be helpful. The village of Copper Center is located in the central part of the Ahtna region on the west bank of the Copper River and to the east of the Wrangell Mountains. Most subsistence activity is undertaken on the east bank of the Copper River, with the exception of trapping.

A household survey taken in the summer of 1977 revealed an unexpected positive correlation between salaried high-paying employment and the pursuit of varied subsistence activities among young and middle-aged Natives. On the other hand, people over the age of 60 who live in multiple-person households (not single-person households) focus almost exclusively on the running of fishwheels as a subsistence pursuit. No persons over the age of 60 and living in a single-person household ran a fishwheel, but they do hunt. These statements need further explanation.

First we must look at the behavior of older people with low incomes in regard to subsistence. It is this part of the population which appears to depend most heavily on subsistence resources. Fishing, using fishwheels, is extremely important to older people who live with others, often as the heads of extended or joint families. The following data drawn from surveys of 25 households (out of 30) relate to this assertion.

Table 4. Fishing activity of low-income households.

	Income	Status of Wheel	Average Age of Female Household Head	No. of Households
Not Single	Low	Run wheel	63	7
	Low	Do not run wheel	36	5
Single	Low	Run wheel	---	0
	Low	Do not run wheel	75 (5 men, 1 woman)	4
Total Number of Low-Income Households				16

The above statistics show a strong division between the old and the young of low income as far as subsistence orientation is concerned. The exception proves the rule: the only household with a female head over 55 which did not run a fishwheel consisted of a single woman who is blind and unable to fish. Every other household in the village, eligible for subsistence permits to take 400 fish, with a woman head of household over 55 ran a fishwheel. None of these were single-person households.

The obvious question is, "Why don't young people with families with low incomes take advantage of fishwheels and the large amount of free protein available to them?" Most of the older people are aware that young people do not fish; they usually explain this negligence by saying that the young people are lazy or stupid or point to some similar fault. Perhaps there is an element of truth in this answer. The lack of success these young people have had in the economic sphere is also evident in the subsistence sphere. Both activities demand much work and labor, a vision of a life style, and life goals.

Is there a rational economic strategy operating in these families which is not immediately apparent? The availability of food stamps to these younger families might have some effect on their decision not to invest any of their meager funds into subsistence, which can be expensive. In the case of salmon fishing, money must be spent to construct a wheel and repair it every year, to buy gas for the pickup so that

regular visits to the fishwheel site can be made, and to buy salt and canning equipment or invest in a freezer. If food stamps take care of a family's food, perhaps these people feel it is better to use what little money they have for other purposes. Unfortunately, drinking causes problems in three out of five of these households. This fact returns us to the realization that success both in subsistence and in the western world economy is determined by the same or at least similar attributes, including a positive self image and good health.

Older people who live on low incomes include many who have worked through careers and now "pull" social security. They have worked hard throughout their lives and do not retire from the subsistence life style when they retire from the western economic sphere. Throughout their lives, fish have supplied a major portion of their diets. The older people are not choosing between one source of food (food stamps) and another (fishing), but rather may supplement their cash incomes from social security and the Alaska old-age bonus by using fish. The more fish they can catch and store, the more money they will have for purchases other than food. They also receive a predictable amount of cash each month which they can budget to buy subsistence supplies, and they are able to buy certain items such as automobiles and freezers on credit.

Thus among those in Copper Center whose incomes are low, two factions arise which are following very different kinds of economic strategies. Perhaps the difference arises in part from the source and nature of their incomes. Food stamps, welfare, and odd jobs (mostly available during summer months) unpredictably maintain younger people of low income from month to month. Compounded with problems of alcoholism, these families never seem able or motivated to undertake the enormous task of running a fishwheel, even though the salmon supplied in this activity would improve the quality of their family's diet. Social security and retirement benefits arrive predictably each month for the older people, and some with grandchildren also receive food stamps or welfare benefits to cover the costs of raising them. The older couples work hard and long hours during the summer to store salmon for the winter, and they spend time as well as money on the subsistence quest. Thus an obvious difference exists in the importance of subsistence fishing to the old and

young of low income in Copper Center.

In contrast, young people who are successful in the American economy also take an interest in subsistence activities. As one well-to-do young Native said, "Sure, we're the ones who can afford it." The following table illustrates this point.

Table 5. Fishing activity of middle-to high-income households.

	Income	Status of Wheel	Average Age of Female Household Head	No. of Households
Not Single	Middle-High	Run fishwheel	44	4
	Middle-High	Do not run fishwheel	42	3
Single	Middle-High	Run fishwheel	---	0
	Middle-High	Do not run fishwheel	44 (both male)	2
Total Number of Middle-High Income Households				9

From the above statistics it appears that age is not an important variable in determining fishing activity among those families with middle and high incomes. Of course those earning middle and higher salaries and having families are generally middle-aged. Again we find that single-person households do not participate in running their own fishwheels. The statistics are inconclusive as to why some people would run wheels and others would not. It was hypothesized that the type of employment might affect the ability to participate in subsistence activities. Wage labor, such as in road construction, which usually requires long shifts with only brief periods of leave in the summer, would compete with the fishing. On the other hand, salaried, year-round employment with a Native organization would allow time after work to check fishwheels and would also be more generous with annual leave being taken during summer months. The statistics, however, did not bear out this contention.

Perhaps the sample was too small to support this hypothesis but salary and wage employment did not predict use or non-use of fishwheels.

It is clear that those families which run fishwheels and are middle-aged do have higher incomes than those who do not operate them. The expense of running a fishwheel is difficult to determine but can easily amount to several hundred dollars. In addition, when one considers that those families in the middle-to high-income bracket may legally take only 30 to 40 fish per family, it is obvious that the cost of their salmon per pound is much greater than that for poor families who may take 400 fish in their wheels. Factors outside of economic gain are motivating these well-off families to take fish. Perhaps it is an interest, family entertainment, a search for cultural identification, a commitment to the use of "Native foods," or just enjoyment. Some say that the quality of salmon as a protein food is important and that store-bought meat is not as nourishing.

Another factor motivating the middle-to high-income families to run fishwheels might stem from the nature of their relationship with other households in Copper Center. Three of the four well-off families running wheels are outsiders to the village in some way. One represents a racially mixed family from outside the region; another represents a family from another village which has been attracted to the village by work with the Native corporation; and the third has lived in the village for a long time, but the husband and wife (part white) were both originally from villages in other parts of the Ahtna region. These families do not have any ties to older, more established families from which they can procure fish, or which they can help fish in return for some of the take. In particular they have no ties through the matriline which connects them to the village kinship network. The one family of high income which runs a wheel but possesses close ties to the village is in fact an older leading family in the village political and kin network. Although the male family head is retired, he and his wife both have paying positions with Native organizations. They took leaves of absence during the fishing season.

The families of high income that do not run wheels, on the other hand, are all closely tied to the kinship network of the village through

a matrilineal connection. They are closely related to older women who do run fishwheels. One of the most important aspects of subsistence fishing is that a person need not run a wheel in order to have access to some salmon in his or her home. Mutual help and sharing is an integral part of the fishing process in Copper Center.

Single people do not run fishwheels. Probably one of the major impediments in this respect is the division of labor by sex, a traditional distinction which predominates in the entire region as far as salmon fishing is concerned. Men construct fishwheels, sometimes empty the fishwheels, cut fish, and haul it in trucks, but women are undoubtedly in charge of the operation. A woman does most of the cutting and supervises any helpers. Of paramount importance is the fact that she theoretically owns the land, the fishwheel site. One hears of "Ruth's" or "Maggie's" wheels. They are conceived of as belonging to the female head of a family. The camp and her rights to that location are guarded carefully from year to year, and it is harder to gain access to a woman's fish camp than to her home. This traditional orientation to the fish camp stems from the aboriginal and early contact social system in which the women from one matriline were associated with a single fish camp and held exclusive rights to that particular site.

The matriline continues to be important today in respect to the fishwheel and ownership of the salmon caught at a particular site. A woman's daughters (both single and married) often help around the fish camp. They use the wheel. Today, single sons also help, especially by providing cars or trucks to haul fish or firewood used in the smoking process. If these sons no longer live at home they are fed when they visit, and sometimes this means almost every day. The continuing importance of family ties within the village is well illustrated during the fishing season.

The young, well-to-do families which run their own fishwheels are in many aspects more acculturated than any other Native group living in or near the village of Copper Center. Analyzing the subsistence activity of this group and also of people from other villages who fall into this same category, it is interesting to note that almost all of the men from

such families hunt seriously during the season and are often successful. Berry-picking, other types of "introduced" fishing, rabbit hunting, and other subsistence activities often become family activities. These people have the money to spend on transportation, they are healthy, most do not have drinking problems, and most have a knowledge of the out-of-doors gained from their childhoods in Alaska. Apparently, those characteristics which stimulate individual family participation in subsistence activities also encourage success in the American labor force. These families undertake a variety of subsistence activities. They have more control over their work hours and the leave available to them so that they can go hunting and fishing throughout the year.

The pattern of subsistence for older people is different. Probably due to lower incomes, decreased mobility, and poor health, they cannot undertake a large variety of subsistence activities and tend to concentrate on only one. In other words they focus almost exclusively on the running of fishwheels and the taking of spawning salmon. The number of subsistence activities might be curtailed, but the actual time spent subsisting might be greater, as is also the amount of food protein actually gained through subsistence.

The laws encourage the development of these differences between old and young and rich and poor in obvious ways. A well-to-do family cannot take more than 40 fish in its wheel, thus it would be illegal for them to follow the pattern of the older people. If that path were open to them, undoubtedly they would take more fish. The question is then whether they would continue to hunt.

The association between hunting and certain social characteristics of the hunter is also predictable. The type of household inhabited by the hunter, his age, his access to an automobile, as well as his sex can be used to predict how serious a hunter will be. Economic factors such as income are also important. The following statistics are useful in understanding the relationship between hunting and fishing.

Table 6. Relationship between hunting and fishing.

Income	Status of Fishwheel	Automobile Present	Hunter Present	Average Age of Hunter	No. of Households in Sample
Low	Run wheel	71%	29%	32	7
	Do not run wheel	44%	45%	65	9
Medium/High	Run wheel	100%	100%	46	4
	Do not run wheel	80%	40%	44	5
Total Number of Households					25

The higher age of those hunters who do not run their own wheels is fairly easy to explain when the data are analyzed. All of the single-person householders who are men (five in all) hunt or try to hunt to some extent although they are hindered by failing vision, lack of transportation, and declining health. Nevertheless, they discuss hunting, where they will hunt, and related topics. They hire people to take them car hunting, and they carry along rifles on car trips during the season. Generally, they are not successful but they do view themselves as hunters.

The reason for the younger age of those hunters who live in low-income households and who run fishwheels becomes obvious under scrutiny. Generally, the hunter or hunters are grown children still living in their mother's home. Even more interesting is the 29 per cent of these low-income families who run wheels and also have hunters present in the household. This statistic further supports the opinion that people with low incomes focus on one subsistence activity--in this case the fishwheel, which apparently is less risky, more successful, and probably more efficient in the long run. Since they may take up to 400 fish, the high investment in this activity usually pays off unless the year is very bad.

Among the high-income households, those which run fishwheels also have a hunter. This supports the notion that middle-class households can afford to undertake more diverse forms of subsistence activities and

are able to take the risks of investing in both fishing (when they may take only 40 fish) and hunting (in which they may take equally with those of low income). In fact, for this category of households, it would seem to prove more productive to participate in hunting. This is because whether they are successful in every species or get only one moose they would still have more than enough wild meat for the winter for their entire family.

While most men have hunted in the past, and many still continue to do so, women also hunt but not as frequently. The older women who are active in the fishing season only rarely participate in hunting, although there are exceptions.

It is clear that income, age, sex, and the type of household in which a person lives are important variables which can predict to some extent the type of subsistence behavior undertaken by individual Natives living in Copper Center. The question is to what extent do the relationships found between socio-economic variables and subsistence in Copper Center relate to other Natives in the Wrangell region?

If Copper Center is unique in any way it is in its higher percentage of middle- and high-income families, some of whom have been attracted by the employment opportunities in the village. Yet, a strong, indigenous population typifies Native life throughout the valley. They might participate less in the subsistence life style than those people living in more isolated communities, and the productive nature of fishing activities will certainly distinguish Copper Center from the northern villages of Mentasta and Northway where salmon are not present, but in general, the writer feels that Copper Center can be used to understand the Native life style in the region as a whole.

Village Social Organization and Subsistence

In the previous section the subsistence behavior of individuals and households was examined. But among Native people in the Wrangell region, we must also consider the larger units, particularly the village. The form of village organization as it pertains to subsistence activities is

important to understand because even today the Native people relate to the environment at the village level. This continues in spite of the many attributes of American life which they have adopted since contact.

The village is made up of about 30 households, most of which share food resources (many of them subsistence resources) with other households to which they are related by a series of kin ties. The matriline remains the most important idiom of interaction as far as sharing is concerned. Mothers and daughter share many of the responsibilities of fishing, while unmarried sons drive trucks or hunt for their mother's household. While husbands and fathers hold responsibilities for their families just as in white homes, they also share resources with their matrilineal relatives. Individuals and households might specialize in particular subsistence activities such as hunting, driving, or running fishwheels but in the end, subsistence products of all kinds are available in most households within the village.

Only the most acculturated families have cut village ties (often by moving away from their home villages) to a point where the constant sharing of resources and services does not characterize their life style. Perhaps their very ability to cut the traditional ties underlies their desire to participate in varied aspects of subsistence and to avoid specialization. At the price of cutting themselves off from the other villagers, they are able to earn enough money to invest not only in houses, cars, clothes and an improved material existence, but also in subsistence activities.

When the more acculturated Native families take a moose, they send it to Anchorage to the commercial butcher, who makes it into pre-packaged grocery store cuts such as sausage, steaks, and hamburger. The family places the meat in a freezer where it might last two winters if supplemented with other types of meat. This handling of the meat contrasts with the behavior of less acculturated and less well-off Natives who generally butcher the animal at home and then distribute it among relatives. Moose do not last a year or two when shared and redistributed in this traditional manner.

At least one law mentioned earlier reinforces the differences of behavior among rich and poor Natives. This law, which restricts the

take of subsistence users according to their annual income, limits the number of fish the richer families can share. Although we have seen that in hunting there is no distinction made between high- and low-income families, the steady decline of the take probably makes meat increasingly valuable.

It has been noted in many Native societies that the change from an orientation which encourages sharing to one which encourages the accumulation of resources often accompanies acculturation to the American life style. For the Ahtna this change is easily identified when a young Native couple moves outside of the village. They buy their own land, build their own house, and, while they continue to identify strongly with Native culture and society, they have removed themselves from the constant sharing required in village life. The overwhelming majority of Natives who live in the villages themselves continue to share and reciprocate in traditional kin-based ways.

The statistics presented in the previous section support the belief that specialization exists. Younger men as well as single men living in single-person households were more likely to hunt than other groups, and older women were likely to run fishwheels. Other factors can be added. One is that younger women of both middle and lower incomes have access to fishwheels or to fish from their mothers. The only exceptions seem to be women who have severe drinking problems and who cannot reciprocate through sharing.

Many young men hunt in the region, although a scarcity of game during the last few years has produced poor hunting seasons. Nevertheless, the hunters experience great pride in taking game. A number of young men will spend the hunting season at Twin Lakes where they are likely to gain access to game of some sort, caribou, sheep, or moose. Game is freely shared when it is taken, and its hunters receive the approval of the older people. The taking of resources from the land is a common ground for understanding between the old and the young even though their subsistence tasks and responsibilities differ.

There is some reason to believe that in the northern villages, hunting allows young men to stay in the village more than they might otherwise. A continual coming and going typifies Mentasta, Chistochina,

Twin Lakes, and Northway, as young people leave home to find jobs or attend training sessions. There are few jobs in the villages or within commuting distance. This situation differs significantly from the southern villages where people can either find jobs in their home villages or commute. It is generally believed among the Natives that the northern villages do take more meat than the southern villages.

The taking of meat, combined with the income of seasonal migratory labor or welfare payments, might allow more time to be spent in the northern regions, especially for men who are discriminated against in welfare systems. The very survival of some of the northern villages might depend to some extent on the continued position of hunter. The only remedy seems to be the supplying of jobs in the local community, such as in Copper Center.

It seems obvious that any drastic changes in the subsistence laws and behavior will have repercussions not only on family life but also on the life and culture of the Native village. The kin ties that continue to bind the villagers together in the face of modernization are constantly reinforced by the sharing of subsistence resources. These ties support the society at other times, as during deaths, when the potlatch formalizes kin ties in an elaborate ceremony of gifting. When a crisis occurs, the strength of everyday ties is summoned to deal with unusual situations.

Two women in Copper Center, for example, are related through the matriline in a fairly remote way. Yet for the past 20 to 25 years they have lived close to one another and shared almost continually. They eat together almost once a day. They call each other "mother's sister" and "mother's daughter," although their exact relationship is not that close and these terms are classificatory. In the years that they have shared, such strong ties have developed between these two women that in times of crisis they take responsibility for one another.

Any attack on the village social organization in the form of changes in subsistence policy should be considered carefully. Already the lack of game makes it difficult for many men to participate in the sharing of resources, and they are hard pressed to find substitutes which they can share. The pressures which some of the older men feel even when their health warrants otherwise probably stem from the desire to retain their

social position. How fortunate are the women who seem to be able to continue in their traditional role at the fishwheel until they are very old and then hand over the job to their daughters.

The close relationships among villages are often difficult for white people to understand and fully appreciate, especially those who were raised in urban settings or far from kin. These relationships are not often appreciated even by the Whites who work with Natives. But then how many Whites have had the opportunity to spend their entire lives in a small community of 100 people, many of whom are related? It is obvious that the kinds of relationships which grow and are nurtured in the village differ from those that most Americans experience in our industrialized, mobile, and factionalized communities. Although the types of relationships found in Native villages around the Wrangells should not be romanticized, the choice to continue living in an environment which fosters Native culture, namely the village, should be available to those who want it. The Natives who acculturate today may sacrifice many of the close relationships of their youth. Others feel the price is too high to pay or are simply comfortable with the familiar life of the village.

Native Values and Subsistence

References have already been made to the cultural revival which has grown in the region due to the Alaska Native Claims Settlement Act. This revival has had several effects, including a changing relationship between Natives and Whites, a rewritten self image for many Native young people, and an increase in community activities emphasizing the Indian heritage. Potlatching seems to become more abundant every year and as the Natives become more economically successful, they direct their new-found wealth into some traditional outlets.

Potlatching, ceremonial gifting, and Native arts, represent ways in which the Ahtna people are coping with change. In an attempt to resolve stress on their social institutions, more and more potlatches are being given. Since the pipeline inflated the salaries of some of the people, especially in the central part of the region, cash has entered the village,

and there has been a decided increase in the number and size of potlatches.

Potlatches are a forum in which many things are accomplished. Most obviously gifts are exchanged in a prescribed and traditional manner. The gifts symbolize that a relationship of mutual help exists between the giver and the receiver. The gifts symbolize that the relationship has been active and respected. Individuals who have lived up to the expectations of a relationship are honored. Thus one woman said she had been given blankets during a potlatch because she had helped the giver's mother before her death. A gun is given to a deceased person's best friend by the deceased's father in order to honor their relationship. Clan links are strongly reaffirmed, and the overall pattern of gifting indicates that one clan gives and the "opposite" clan receives. The rules are complicated and dictated by the elders. Sometimes an elder thinks a mistake has been made in the gifting, particularly when the clan rules are violated, and the elder will mourn the forgotten rules.

Cash is only rarely given or received in a potlatch, although the gifts can be sold by those who receive them. The clan leader takes money donated by the clan members in order to buy the gifts and some of the food. Food and gifts are also donated directly. People prefer to eat "Native foods" during a potlatch, but this is often impossible today and foods such as sandwiches and potato salad are eaten during the day. Usually one banquet takes place toward evening, and at this time, stews, pots of beans, and hot dishes are served. Those who are to be most honored are served large platters of the most highly valued foods, which are subsistence foods, such as moose, salmon, and sheep. They can then redistribute these foods to those each feels should receive them.

The potlatch not only reaffirms kin and clan affiliations, but also reaffirms the tribal affiliation. Songs are sung which are also gifted in honor of people. Dancers rhythmically sway to the songs and the beat of the traditional drum to honor the deceased or the person and clan being honored that day. The dancing together reaffirms that the people in the room are members of a unique tribe with a distinct cultural tradition. For most people in attendance, strong feelings of community arise.

Thus potlatching supports the traditional status quo. Those people who are most active in potlatching are the older and middle-aged people,

many of whom are locked out of the new cash-oriented economy and the Native corporation by lack of skills and old age. Perhaps the rise in potlatching has occurred because the traditional means of supporting the society through subsistence sharing has begun to break down.

We have already seen that in the village of Copper Center subsistence activity is one of the outlets in which affluent Native families invest. In some ways this choice marks an affirmation of the Indian identity. Many of these people are educated and politicized. They enjoy the out-of-doors, and point to subsistence activities as proof of their Indian identity, especially since some might say "they act like white men."

Many younger people feel more strongly about subsistence practices. They feel that hunting is a right passed on to them from their ancestors, that the white man has overhunted in the past, and that his laws are ineffectual and unfair in the present. If the Indians were in charge, the past abundance of game would return. Many of these young people are infuriated by stories of starvation in the past and refuse to believe them, preferring to write new myths about the past. Nevertheless, since there has been a steady decrease in the game populations over the last 50 years, their accusations are difficult to refute. Many Natives of this group feel that the land claims did not invalidate their right to subsistence resources and would like to see this issue reopened and Natives given priority rights.

Whites have always identified Natives with hunting and fishing. These activities were acceptable to the migrating Americans and probably encouraged. Other aspects of Native culture were not as immune to criticism. Their educational system, language, society and even their health has been replaced by the white culture in many ways. Subsistence is one aspect of their culture which went uncriticized, and in fact many Whites came to the Natives to learn about subsistence in the region. It is not surprising then that many people, both Native and white, define Native culture by its relationship to the land. For many Whites, "real Indians" live off the land, and the more they live off the land, the more "Indian" they are. Perhaps as a reaction to this attitude, a faint echo of this opinion is sometimes heard from Indian mouths.

Survival of traditional culture might well depend on the importance of subsistence activities, the importance of the land in providing a living for the people, and the past dependency on subsistence resources. Old stories include as characters the animals found in the Wrangell region. The deference and respect which was once mandatory toward the animals often continues today. People will not tell you where they will fish because they are afraid of warning the fish. One woman was so afraid of crab shells after a special dinner that she made the giver remove the shells to the dump immediately after dinner. Grizzly bears are virtually never discussed. Such strong feelings continue in the present and the traditions are passed to members of the new generation, who seem to want to understand and become more like their ancestors. These feelings are new for many of them.

It is important, then, to understand the Native culture in terms of a system. Each part contributes to the maintenance of the whole society. If subsistence is eliminated, repercussions will be felt throughout society. People will behave and think differently. When policy decisions are made having to do with subsistence, this fact should be kept in mind.

5

A SUBSISTENCE INVENTORY OF NATIVE COMMUNITIES

In this chapter, a survey of Native and predominantly white communities with a substantial Native population will describe the subsistence pattern found in each location. Also, regional variation will be more clearly defined by a community inventory. Some of the communities are more closely tied to a subsistence way of life and will be more affected by the changes in policy on the proposed parklands. Others have unique characteristics of location, economy, or society which might be relevant to subsistence activity.

The inventory begins with the southern community of Chitina and proceeds north around the mountains. Since the Native people generally live inhomogeneous communities (usually referred to as villages) rather than on isolated homesteads, it is community life on which the study will focus. Although the villages incorporated under ANCSA are the focus of Native life, a few small communities, which have been organized under the rubric "groups" by ANCSA, are also included in the study. Some Native people live in predominantly white communities and their orientation toward subsistence will also be discussed.

Chitina

Located on a bluff overlooking the confluence of the Chitina and Copper rivers, the town of Chitina was built as a midpoint on the Copper River Northwestern Railroad at the turn of the century. Several prehistoric sites of Native villages can be found in the immediate vicinity, and the historic Native village is located just south of town. Old lumber buildings and cabins testify that the town was once a busy economic center in the Copper River region, but today it appears to be almost a ghost town to the tourist.

The town has few facilities. A grocery store, a cafe, and a couple

of bars are run by Whites and cater to tourists who visit mostly during the summer months. The nearest hospital facility is in Glennallen and the nearest school is located in Kenney Lake. A State of Alaska highway road camp is located 6 miles north of town and employs a couple of people, some seasonally. Overall, the employment opportunities in Chitina are almost nonexistent, outside of small self-run businesses. This factor is the one most often cited by Natives as the reason they do not live year round in the town. While the Chitina Village Corporation has a comparatively large enrollment, very few Native people live permanently in the village or nearby.

Although many Natives may identify with Chitina to the point of enrolling in the village corporation, only 10 to 12 people live there throughout the year. When Chitina was established in the beginning of the century, Natives from all over the southern Ahtna territory were drawn there to work for the railroad and to take advantage of the modern facilities once found there. By 1954 most Natives had left in search of employment in other parts of the region or in Anchorage.

A community of Chitina people lives in Glennallen, and they return annually to fish and hunt. Along with a number of Anchorage residents, they view Chitina as their "home" even when living and working somewhere else. Until recently they maintained cabins in the historic village just south of town, but tourists vandalized the cabins when the owners were absent. They used the logs for firewood, stole the guns and household goods which were sometimes valued as antiques and curiosities, and generally damaged the village. The people say that without seasonal homes, it became increasingly difficult to use the old village as a staging area for subsistence activities. Nevertheless, a few families maintain seasonal homes in the town proper and often visit them during the fishing and hunting seasons.

The identification with the Chitina area is strong even among those who have not lived in the village or town for two decades. Even their children identify with the area, and they return to the traditional hunting and fishing sites of their ancestors. They prefer these sites to ones in other parts of the Ahtna region. This characteristic favoritism toward an ancestral area typifies the attitude of most of the Ahtna

people. The Chitina people generally do not hunt in the Nabesna area and the converse is also true.

The small permanent Native population consists of one extended family group. This is the core of the Native community. The head of the family is a retired state employee; his wife, some children, grandchildren, and his brother compose the remainder of the family. They live in town. Until last year three elderly people lived in a small cluster of cabins just south of town and beside the old railroad grade. But the woman died, and the two remaining men have started to spend some of each year elsewhere. So far, they have returned in the summer to undertake fishing and hunting activities.

Subsistence

Fishing emerges as the most important subsistence activity in Chitina. All of the salmon entering the Copper River valley must pass this point on their journey upstream. This fact makes Chitina an extremely fertile fishing site. Moose and sheep hunting are also popular undertakings and the permanent residents are usually successful during the fall hunt. Various other resources are also utilized by the local residents as well as by Natives from other communities. Wood, arctic hare, berries, birch bark and lake fish are often taken. Trapping is done by a couple of the permanent residents.

Fishing. Fishwheels are set up at a couple of locations, but are found generally on the west side of the river. A fish camp located below the airport is used by the local residents and Glennallen and Anchorage people who belong to the Chitina corporation but do not live in Chitina. Another site is located about 2 miles south of the Copper River bridge and is also on the west bank. This site is used by the elderly residents who live in the small cluster of cabins south of town. A third site is located on the east bank of the Copper River on either side of the Copper River bridge, but this site is not popular among the Chitina Natives.

Fishwheels are the most common and productive fishing technique and

the one used by the most serious subsistence resource users. Fishwheels are shared among Chitina people so that while 10 wheels might be running at the fish camps, many more families are sharing its harvest of red and king salmon.

Some Ahtna do visit Chitina to go dip-netting. During the summer of 1977, the researcher met two young couples from Mentasta (whose traditional fish camp at Batzulnetas has been closed by the Department of Fish and Game) dip-netting at Chitina. It is one of the ironies of subsistence practices in the region that the traditional form of fishing, dip-netting, is usually undertaken by the more acculturated among the Ahtna. Those well-to-do younger families often undertake dip-netting as a sport and combine it with a family weekend outing. Dip-netting requires that the fisherman be strong and able, a fact which probably discourages many people.

The researcher obtained the list of subsistence license applications in Chitina for the season up until 21 June 1977. At that time 1,738 people had obtained subsistence fishing licenses. Of those, an estimated 50 were Ahtna people. There could well have been more people but the researcher had to rely merely on a recognition of names.

Hunting. Moose are hunted on both sides of the river. In the season of 1976, one of the older residents obtained a moose in the lake immediately east of his house. He had been monitoring the moose's movements, and on opening day he shot the moose at sunrise on the lake where it had habitually fed and watered during the summer. Despite his advanced years, this particular hunter is often successful because his knowledge of the Chitina environs is available only to one who lives there year round. Those who must visit from Glennallen and Anchorage are not as successful.

Hunters with access to automobiles often follow the McCarthy road to traditionally favored moose hunting areas, including those at Moose Lake, Long Lake, and other lakes found between Chitina and McCarthy. Almost any lake in this area is likely to have moose feeding on the grasses growing along the lake bottom. Another important hunting area for moose is along the old railroad right-of-way to the south of Chitina. This road is very rough and impassable most of the time, compelling the hunter to walk along the road.

In the past, Chitina residents depended heavily on sheep, but today they are hunted only rarely. The upper Kotsina is the most popular spot for sheep hunting. The mountains immediately to the west of Chitina are also hunted for sheep. The short mid-summer season probably contributes to the reluctance of people to hunt sheep because it is difficult to transport the meat back to Chitina before it spoils. The game laws that allow only one animal (with a large rack) to be taken also discourage the subsistence usage of sheep. Much effort would have to be invested in the hunt and the rewards would be too small to make sheep hunting a worthwhile subsistence endeavor. The game laws regarding sheep, more than any other species, discourage subsistence use of the species.

Black bear are hunted along the Copper River. This species is not very popular today, although it is sometimes taken if it is bothering a camp.

Smaller animals are often taken. Porcupines are clubbed or shot and hares are shot. When hares are abundant they are an important food source, especially to those who live year round in Chitina. In an hour six or eight can be shot and brought home for the table. Hare totally disappears from the diet when the species hits the bottom of its cycle. Women sometimes use simple snares made of thin picture-framing wire for catching hares.

Gathering. Berries are the most important vegetable food gathered today. Berrying is undertaken in the late summer and early fall by family groups consisting mostly of women. The most popular areas are near the old village site, in man-made clearings which are now overgrown, and along the roads. Rose hips are also collected at this time.

Wood for houses and for stoves is an important resource for the Chitina people, especially for the older people who live south of town and who depend on wood-burning stoves for heat. Wood is often obtained from the Strelna area 6 miles up the McCarthy road from Chitina.

Trapping. Though none of the permanent Native residents depend on trapping as their sole source of livelihood, they do undertake some trapping to supplement the income. At least one family from Glennallen

maintains a house in the town of Chitina, using it as a base for some trapping activity. The favorable employment picture in the Copper River valley during the last two years has greatly reduced trapping by Natives over this period. Some Natives feel that trapping continues to be an option which they can enlist when employment falls off in the future. The favored trapping areas are Kuskulana Creek^{*} for lynx, fox, coyote, marten and mink; Taral for wolves, mink and marten; and along the trails to the south of Chitina and along Uratania Creek^{**} for beaver, muskrat, marten, and mink.

Transportation

The Native people who use the Chitina area and identify with the village depend greatly on the use of automobiles and pickups during the hunting and fishing season. Automobiles transport the people from their homes in Chitina and Glennallen to their fishwheels on the Copper River. They also transport people up the McCarthy road, which is an important subsistence locale to the Chitina people.

A rather unusual mode of transportation is used in Chitina by one family which owns and operates a small river boat and uses it during the fishing and hunting seasons. For a small fee they will transport others up the Chitina River and to other places inaccessible to any other form of transportation when the rivers are open. Yet, the boat is not available for all who might wish to rent it, and the dangerous nature of river travel makes the owner wary of taking people with him unless the weather and river conditions are optimal. During some years, the boat is hardly used because the water is too shallow or the current too strong.

A couple of snowmachines are available to Chitina residents, and they are used to travel to trapping areas or up the McCarthy road in the winter. No one runs a dog team, and horses are not used.

* Kuskulana River?--Ed.

** Uranatina River?--Ed.

The (d)(2) Lands and General Comments on Subsistence

During the researcher's visits to the permanent Native residents of Chitina, she was usually given gifts of subsistence resources to take as presents to relatives in Copper Center. Hare and fish, as well as berries, were generously sent to older people in Copper Center in the traditional way of exchange which is still important to many of the elderly. In the last two years the older people in Chitina have spent less time in subsistence activities.

The (d)(2) lands most important to the Chitina people are those closest to the McCarthy road and at the headwaters of the Kuskulana River. The Chitina Natives have expressed individually and as a group a desire to develop a village at Strelna, 6 miles up the McCarthy road from Chitina. If this plan becomes fact in the future, the (d)(2) areas will be closer to the Native residential area. Furthermore, many people presently living in Anchorage and Glennallen say that they will return to Strelna if rebuilding occurs. Thus there is a possibility that the Native population there could increase in the future. Many people who express an interest in moving back into the area say they will return after retirement in order to take up hunting and fishing activities which they have not been able to pursue while living away from Chitina. In this event, conflict between Native subsistence users and the administration of the (d)(2) lands could be exacerbated as the long-absent Native returns to his ancestral lands for subsistence activities which are now highly regulated.

A few sectors of subsistence use are more affected than others by the (d)(2) land question. Sheep and goat hunting would be affected more than any other subsistence activity because most of the hunting of these species in the Wrangells takes place on (d)(2) lands. It is obvious that increased hunting pressures would be placed on the animals found in the Chugach Range to the south. With the increased competition for these species, those with less sophisticated modes of transportation would find themselves at a disadvantage in comparison to the affluent fly-in hunter. On the other hand, a traditional knowledge of the terrain and the species might give the Native hunter an advantage over the hunter who is new to

the area. At this time, sheep and goat are of minimal importance to the diet of the Native hunter.

The converse may be said for fishing, which is extremely important not only to the local permanent Native residents of Chitina but also to other Natives. This last group includes "Chitina people," those Ahtna Natives who belong to the village corporation of Chitina, as well as people from Native communities without access to salmon-fishing sites. Since it is unlikely that the (d)(2) land question will change the laws presently governing fishing on the Copper and Chitina rivers, the most important subsistence resource for Chitina people, salmon, will not be affected.

Salmon is by far the most important subsistence resource used by the Natives of Chitina today. Other species such as moose and hare are also important during some years, but their absence does not signal economic hardship as does the absence of salmon. For the Native people of Chitina, subsistence is not so much an economic question as it is a cultural one. A decided preference for wild foods is expressed not only by permanent Chitina residents but by others who trace their roots to this region. Any negative effect of subsistence policy on the Natives in this town would affect their cultural identity rather than their financial security. Nevertheless, salmon does defray the cost of food and provides an important nutritional source in the diet.

Lower Tonsina

On both sides of the Tonsina River, where the Edgerton Cutoff crosses the river, are the houses and cabins that make up the small community called "Lower Tonsina" by local people. Many of the cabins are extremely old and date back to the 1920s when more families lived at this location. Today an estimated 14 to 18 Natives live here year round. Three elderly people with traditional ties to the area live in several of the oldest cabins. One extended family lives in a mobile home, which they have recently expanded using funds earned on pipeline jobs. They used to run a small restaurant and store but it has been closed for about a year.

A third family is racially mixed; the wife is an Ahtna Native and the husband is white. They live in a cabin on the north side of the Tonsina River crossing.

The situation at Lower Tonsina is strikingly similar to the situation at Chitina. The children attend school in Kenney Lake. Only a few jobs are available, outside of state (road commission) or federal (BLM firefighting) employment. The store and gas station, which are owned by a Native family, are presently closed. The people must travel to other places to obtain work, and recently the pipeline drew some of the permanent Native residents of Lower Tonsina to Glennallen.

The increasingly difficult economic and subsistence situation of the older people at Chitina is similar to that of the older residents of Lower Tonsina. Lack of transportation and money and the absence of the kind of village life found in Copper Center make it difficult for the elderly to undertake any but the simplest of subsistence activities. Poverty and ill health combine to circumscribe the subsistence choices available to the older Natives. In Lower Tonsina, as in Chitina, the younger and more affluent residents take advantage of the subsistence resources to the greatest extent.

The Natives at Lower Tonsina belong to the Chitina Village Corporation, and they visit Chitina regularly for a variety of reasons including subsistence. They must travel to Copper Center for the amenities of a fully stocked grocery store. At least one family picks up its mail at Copper Center even though mail is also distributed at Chitina.

Subsistence

Fishing and wood gathering are probably the most important subsistence activities undertaken by the Lower Tonsina Ahtna. Bison have been imported to a range directly across the Copper River from Lower Tonsina, but they are not presently utilized by the Lower Tonsina Natives. Moose as well as smaller species are also sought.

Fishing. Fishwheels are placed in the Tonsina and Copper rivers. Sometimes only one wheel is run as a cooperative effort organized by an

elderly woman who lives on the south side of the Tonsina River crossing. Since she does not have an automobile or any extra money, the investment put into a fishwheel is a substantial gamble. During the summer of 1976, this investment did not reward her because fishing was unsuccessful that season. She had invested between 100 and 200 dollars in buying materials (wood, chickenwire, and nails) and supporting the labor of two younger men. She had constantly checked the wheel only to find the boxes empty. The wheel finally tore loose from its moorings and was lost in the river. Had her gamble proved successful and her fishwheel boxes been filled each morning, she would have had a commodity which would have enabled her to bring others into indebtedness to her. As it was, she lost 200 badly needed dollars.

In the summer, the Lower Tonsina Natives sometimes drive down to Chitina to fish for grayling and lake trout in the lakes beside the road. One older woman uses a safety pin tied to a piece of string and baited with salmon eggs to catch the fish.

Hunting. Moose are hunted along the roads and in the lowlands near the river during the fall. The success rate has not been high in recent years, but the more vigorous residents continue to hunt moose.

Traditionally, black bear was the species most often associated with Lower Tonsina. Each spring the hungry black bears left their winter dens to sun themselves on top of the bluffs overlooking the river and eat the tender young roots and grasses. Today bears are rarely taken, and they are viewed as a common nuisance at the dump and around the homes.

Bison, as noted earlier, are not taken by the Native residents. One must buy a ticket and enter a lottery in order to win a limited ticket to hunt bison. Generally Natives do not seem to participate in the lottery. In six years, the researcher has never talked with an Ahtna who has eaten bison.

Sheep can be obtained in the mountains to the south, but they are not hunted today by anyone in Lower Tonsina.

Gathering. Berries and rose hips are picked during the summer in the immediate vicinity of the community, especially in man-made clearings. Indian potato and wild chives are also used to add a little variety to the diet or to stretch the food budget.

Wood gathering is an important subsistence activity in this particular community. Everyone uses some wood to heat his home, and logs are employed for construction of the homes themselves. One man sometimes runs a small sawmill. At the present time, none of the wood is gathered from the proposed parklands.

Trapping. While trapping was important in the past, especially up the Tonsina River, and across the Copper River along the Kuskulina^{*} and Chesina^{**} streams, only one man traps sporadically at present. Lynx, coyote, mink, marten and fox are the predominant species taken.

Transportation

As in other Ahtna communities, cars and pickups are the most important form of transportation for the community of Lower Tonsina, although one family does have snowmachines. A small group of three elderly residents has the most trouble with transportation. Once they are home, they become virtual prisoners of the small community without access to stores or other amenities. They must depend on riding with friends and relatives for supply errands or visits to the post office. They must also depend on others to drive them to Chitina for fishing in the lakes and to berry-picking sites further north.

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At present the population of Lower Tonsina does not use the (d)(2) lands for subsistence purposes. Only trapping is undertaken on those lands, and very little trapping is done by the Natives. Any repercussions of the new land policies would be secondary and caused by increased pressures on subsistence resources (such as wood) when the population increases or when those who normally used (d)(2) lands in the past must

* Kuskulana River?--Ed.

** Cheshnina River?--Ed.

turn to other sources in the future.

Kenney Lake

Kenney Lake is a farming community stretched out along the Edgerton Cutoff and the Old Edgerton Cutoff. Kenney Lake is generally thought of as a small homesteading community of Whites, but a few Native families also live there on homesteads or Native allotments. Several Native women who are married to white men live with their families in this community.

The social position of the Kenney Lake Natives differs from that of most other Native residents in the valley because they do not participate daily in an active village life. The Natives are usually associated with the village corporations of Copper Center or Chitina. This is also true for a couple of Natives who do not trace their ancestry to the Copper River valley because they are from other parts of Alaska. Two families of Ahtna heritage visit Copper Center often to pick up mail, attend church and social functions, make visits to family and friends, and shop at the store. The two Ahtna families are descendants of the original inhabitants of the Kenney Lake-Willow Creek-Tonsina band of aboriginal people.

While there is no commerce in Kenney Lake, there is a school, a church, a small community library, and a community center. Community activities are similar to ones conducted in small rural communities throughout the United States and have virtually no Native Alaskan flavor to them. The events include a fair in the fall, a historical society, and a book-mobile. To partake of Native activities the Kenney Lake Natives must drive to Copper Center, about a 30-minute drive north.

Subsistence

While Kenney Lake was originally opened to homesteading in an effort to expand farming in Alaska, not all of the residents, particularly the

Native residents, are interested in this activity. In fact, Kenney Lake has not become a farming community for any number of reasons which have made farming economically unprofitable. The Native families show a great interest in trapping, and almost all of the Native families trap seriously. One white man married to a Native woman is a fur trader. Nevertheless, no Native family depends solely on trapping for its survival. Since many of the men are young to middle-aged and of good health, they have taken jobs in recent years with the pipeline or the Alaska Highway Commission or other organizations within commuting distance from their homes. One older couple lives on social security and retirement, and does not trap. For the majority of the Native families, trapping adds to the family income. While Kenney Lake residents are known for their trapping interest, there are other subsistence activities which also are important, including fishing, hunting, and wood collection.

Fishing. It is difficult to reach the Copper River in the Kenney Lake area because of the high bluffs that must be climbed to get to the river bank. This means that a truck cannot transport to or from the river either the materials needed to construct and run a fishwheel or the fish taken. For this reason most of the Kenney Lake residents set up fishwheels at Chitina or Copper Center. Lower Tonsina is sometimes used but is not very popular.

The Kenney Lake people must maintain a family or friendly connection with someone who owns a favorable fish site. In at least one instance friendly relations are maintained between a Kenney Lake family and the husband's mother in Copper Center, and they run a fishwheel there. In other cases, wheels are set up at the airport in Chitina or at other Chitina sites. At Chitina wheels are sometimes "rented." Thus fish is obtainable by the Kenney Lake Natives, and most of them store large amounts for the winter months by smoking or canning, depending on personal tastes. Many of the incomes of the Kenney Lake families surpass 5,000 dollars per year, which is the cutoff point for subsistence fishing, so they can take only 30 to 40 salmon.

Hunting. As recently as 10 years ago, the large amounts of cleared land made Kenney Lake a good area to hunt moose. Most of the time, it is said, moose were fairly easy to obtain on one's own land. Today, one

rarely finds a moose in the Kenney Lake area because they have been over-hunted. The easy access brought by the highway virtually brought the demise of the moose there.

People continue to hunt actively in the area and though they are sometimes successful, game is harder to obtain with each passing year. Serious hunters must hunt along the banks of the Copper and Tonsina rivers, and some even cross the river where moose are more plentiful. Of course, by crossing the river the hunters come very close to the proposed park boundaries. The area around Willow Mountain is also an important moose-hunting location.

Sheep are hunted in the high mountains to the south of the Tonsina River. Hare and porcupine in contrast are easily obtained on one's own property during the high points in their cycles. They can also be found in the road cut, where they often feed.

Black bears are not very popular but they are easy to get in this area, especially along the rivers. Bears are fairly abundant in the Kenney Lake area, and are generally shot when they become a nuisance to human beings. They are not usually eaten, nor are the skins used for any purpose. Grizzly bears are never used for subsistence purposes.

Gathering. Wood stoves are used by several of the Kenney Lake Natives as the primary or a supplementary source of heat. The value placed on clearing the land in this community has made wood fairly easy to obtain until recently. Ahtna Incorporated has selected much of the unclaimed land in Kenney Lake, and they are trying to monitor the taking of trees from their lands as well as from Native allotments claimed by people living elsewhere. People from other parts of the Copper River valley used to come to Kenney Lake to take wood, but this has stopped. The residents of Kenney Lake themselves find that the BLM sends them 50 miles away to cut wood. The inhabitants have three options: they can cut wood on their own land, travel long distances for wood, or switch to oil.

Berrying is probably the most important subsistence activity regarding the collection of edible plants. The cleared land also provides many berries on one's private allotment or homestead. In addition, family excursions are made to pick blueberries and cranberries which are

not abundant locally. Jams and jellies are made from some berries, and others are frozen whole.

Craftwork. At least three women undertake beading seriously and gain a little extra income in this way. Fur for trims must be bought or trapped. Beads must be bought. Raw moose hides can often be gotten free from Native or white hunters. The women must then tan the hide according to the traditional methods of curing and smoking because it is only onto traditionally tanned hides that beads can be sewn easily. Commercially tanned hides are very difficult to work with because the needle cannot penetrate them. It is not unusual to see moccasins fashioned from commercially tanned hides but with traditionally tanned and beaded "uppers" (the part of the moccasin that rests on top of the foot).

Transportation

Kenney Lake residents live on isolated allotments and homesteads and not in a village, and for this reason, efficient transportation is essential to their way of life. Pickups and automobiles are the most important form of transportation for the Natives living there. Not only are these vehicles used to transport people to fishing sites, berry-picking spots, and hunting areas, but they also take people to the post office at Copper Center almost daily.

Snowmobiles are also used by the Kenney Lake Natives. Snowmobiles are very important in respect to trapping activity, because the modern-day trapper is very dependent on the snowmobile to check the traplines. It enables the trapper to run traplines which are far afield and to spend most if not all of his nights at home rather than on the trapline.

One family runs a dog team and uses it during the winter trapping season. They trap across the Copper River up the Nadina River. Since the river is solidly frozen throughout the winter (November through March), snowmobiles as well as dog teams can cross the river to land which is close to the proposed parklands. The trapper rarely crosses the proposed parkland area at present because most of it is too high in

elevation to be inhabited by fur-bearing animals.

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The Natives who live at Kenney Lake use the subsistence resources in their immediate vicinity as well as in the more distant areas of Chitina and Copper Center. Most inhabitants are middle-aged, have an income derived from some sort of employment, and participate extensively in subsistence activities. They fit into the category of subsistence resource users whose members are young, healthy, and well trained. They seem equipped to deal effectively with the western economy and also have the money and inclination to undertake a variety of subsistence activities. Only two out of the estimated seven Native families depend on trapping to any extent.

The relationship of the Kenney Lake Natives with the (d)(2) lands is not close at present. Except for moose hunting and some trapping, they rarely, if ever, encroach on the proposed parklands. Yet the headwaters of the Chesina,* the Dadina, and the Nadina are viewed as their traditional hunting grounds. As more and more land comes into private ownership, the Kenney Lake people will have to turn increasingly to the lands across the river, or they must cut back significantly on subsistence activities. Most say they would cross the river to continue hunting, rather than decrease hunting activity.

The Natives at Kenney Lake live among neighbors who are homesteaders and whose seriousness in this endeavor varies. Some maintain livestock, plant their fields with oats, and change the landscape drastically by constructing ponds and clearing the land. Others build cabins but do little else. The Natives use the land differently. They build houses, but often prefer to maintain the land in its natural state and then utilize the resources that they find there: berries, rabbits, moose, and wood. The difference in value systems between the groups has sometimes been a point of contention. Some of the Kenney Lake people have felt

* Cheshnina?--Ed.

that it was difficult for them to qualify for their allotments at Kenney Lake because the inspectors expect that they will approach the development of their lands in the same way that their homesteading neighbors have. At the same time they do not understand why the homesteaders should be awarded more acreage than they receive for Native allotments. At Kenney Lake the conflicting values regarding land use are sharply focused because people from two cultures live side by side.

Copper Center

A description of Copper Center's subsistence usage has already been presented in chapter 4, but for the sake of continuity, a short report will also be presented here. Copper Center is located on the Richardson Highway, 103 miles north of Valdez. The Native population was once about 125 permanent residents, but it has recently boomed as a result of the pipeline construction. Village life is strong in Copper Center, and the community serves as the center of Ahtna social life; the corporation's headquarters are also found here.

On the other hand, there are few facilities located in the town. A grocery store, a post office, a restaurant and lodge, and two gas stations provide services. An elementary school located in the village proper provides formal education for children living within a 10-mile radius. For many needs, however, the local people must turn to Glennallen or Anchorage. The Native village and the business community are separate. The businesses are owned entirely by Whites and cluster around mile 101 on the Richardson Highway. The village houses are strung along the road between mile 102 and mile 103.5. This type of segregation is typical of the highway communities in which both Natives and Whites live.

Subsistence

Fishing. Fishing is the most important subsistence activity in

Copper Center. The village is located within easy access to good fishing sites, and most people can walk to their fish camps from their homes, although pickups are used to carry the loads of fish caught in a good season.

Most of the female family heads are identified with a particular stretch of riverfront which is their fish camp. Only one elderly woman actually moves to a seasonal residence at her fish camp. In her case, the fish camp is only one-half mile from her winter residence along the highway. Most of the others prefer to remain in their permanent residences and visit the fish camp every day. A problem arises when they try to dry their fish at the fish camp, because wild animals and loose dogs often raid unguarded fish racks. Thus most women must take their fish to their homes where they can be dried. Many of the traditional materials needed for drying the fish, however, such as small alders which are best for producing the smoke to ward off flies, and the sand and river current needed to remove the scales, are located only along the river's edge. In compromise, many choose to leave some dogs tied up at their camp and take the chance of leaving their fish unattended. Alternate ways of preparing the fish are used today, canning and freezing representing the most important modern innovations in fish preparation.

Fishwheels are used exclusively in subsistence fishing. They can be seen turning through the summer months along the west bank of the river, directly parallel to the road. Sometimes a few wheels are placed in a cluster at an especially good spot, but generally the wheels are placed one-eighth or one-quarter mile apart. One must own land along the river or receive permission from an owner to place a wheel in the river. The rights are well guarded and strangers as well as "people without any business being there" are discouraged from going anywhere near the fishwheels while they are running. Stories often circulate that fish have been stolen from wheels. In past years the Klutina River was open to snagging but it has been closed for several years. When it was open, as many as a thousand people were attracted to the area to fish. At that time much theft occurred. Theft has decreased in recent years.

Grayling are also caught in the immediate vicinity of Copper Center. The favorite location is in Yetna Creek which runs into the Copper River

behind the Copper River Cash Store and crosses the Richardson Highway at about mile 102.5. Grayling fishing is the favorite subsistence activity of children, in particular of small boys up to the age of 13 or 14. They use poles and hooks with salmon eggs as bait. Most have fishing rods, but a few just use a stick. When the grayling are running in May they are easy to catch, and the children can be seen almost every day from the road as they fish in the creek. Traditionally, grayling was important because it came at the lean time of year. People continue to feel that grayling provide fresh fish before the salmon season starts.

Hunting. Moose is the favored species among the Copper Center Natives, although it is believed that the success rate has greatly decreased in recent years. Most people hunt from their automobiles but others walk into favored hunting sites and a few even set up hunting camps. The Klutina Lake area, the traditional hunting territory of the Copper Center people, is popular. The several Native allotments around Klutina Lake and Hudson Lake are used also primarily for hunting purposes. The Natives rarely cross the river along Klutina Road.

Even with the decline of successful moose hunting, this food does appear on the Native table. Often moose is given to the older people by younger relatives, but more frequently it is brought as a gift from smaller, more remote villages whose areas are less affected by hunters. Those who are serious about hunting, who have the money to buy good rifles and transportation, and who have good health and the time to hunt, are most successful on the moose hunt. Others who cannot gather the resources needed to compete with modern well-equipped hunters are less effective.

Sheep are said to be hunted on Stuck Mountain to the south of the village and in the Wrangells immediately east of the village and above 3,000 feet. The sheep sometimes come to lower elevations by following the creek beds down the mountain sides. The Klawasi River and the Nadina River are good sheep hunting locations. In general, sheep are not hunted regularly and are rarely obtained; however, sheep inexplicably visit Copper Center on extremely rare occasions. In the winter of 1974 a ewe, out of season at the time, was sighted near the river but was not taken as it would have been illegal to do so. When sheep is eaten in

Copper Center, most likely it was brought as a gift from the Nabesna area or some other area where trophy hunting is occurring. Sheep are not an important subsistence resource at this time.

Black bears are sometimes taken if they are bothering a fish camp, home, or cache. They are generally not eaten and are also not an important subsistence resource today.

On the other hand, "rabbits" (hares) are a primary subsistence species in Copper Center. Everybody eats rabbit regularly when they are on a high peak in their cycle. Generally, women snare rabbits and men use shotguns, although many younger women are using shotguns.

Gathering. Berry-picking is the most important subsistence activity involving vegetable products in Copper Center. Many kinds of berries are available within walking distance of the village. Serious harvesters often drive to places where the favored species is abundant. Red and black currants, highbush cranberries, raspberries, and rose hips are found near the riverbanks, along roads, and in clearings.

Blueberries are found in abundance near Paxson, Tangle Lakes, and Hogan Hill. Most families have a favorite location where they return each year to pick berries. People sometimes spend several days camping along the Denali Highway during August or September when the berries are out. Blueberries are the most highly valued of all the berries among the Ahtna people. They are frozen or stored in caches for use in the winter.

Cranberries are also picked. Highbush cranberries are the preferred species and may be found growing along the bluffs near Tazlina Hill or the Klutina road. Like blueberries, cranberries are easy to store and use and have maintained their popularity over the years.

Raspberries and red and black currants are not as popular because they are harder to keep. Usually the people who use them make jams and sauces which are canned for later usage.

Berries are not the only vegetable foods used, but they are certainly more prevalent than other traditional vegetable resources such as wild chives, Indian potato, and fireweed greens. These vegetables are only gathered sporadically, but even children carry some knowledge of the species and their uses.

Some of the people, particularly women, collect wild herbs for medicinal purposes. A number of species are used but only rarely. Occasionally, people even travel to Valdez to get special herbs. Although over-the-counter medicines are usually substituted, many of the older people hold that the Native medicine is more effective.

Wood is still used by some people for heating their homes despite the difficulties involved in obtaining it and the high price demanded by wood suppliers. The cost of oil stoves and of oil itself is prohibitive to the very poor in the community, but residents say they prefer wood-burning stoves because the quality of the heat surpasses that produced by an oil stove. Wood-burning stoves provide a moist heat which more evenly heats a room from floor to ceiling. Heat from an oil stove is dry and tends to rise to the ceiling, leaving the floor extremely cold, especially in the older homes with poor floor insulation. On the other hand, wood use does have some disadvantages, particularly because one must constantly tend the fire and thus become tied to the home.

Wood is also used for house construction, although recently, plywood sheets have taken precedence. Log houses are preferred because of their good insulation properties in both summer and winter, endurance, and pleasing appearance. Logs are not, however, easy to obtain at this time. Even if logs were available on one's private property the time, effort and cost of preparing them further prohibits their use. During the past few years, the nearest sawmill has been in Tok so that the user would probably have to prepare the logs himself.

Wood is also used for a variety of jobs. In the fish camps, for example, it is used to make drying racks and wheels, to send up a smoke screen against insects, and to stretch and hold the fish itself. Wood is necessary to the sweat bath as well. Spruce logs are used to heat the igneous rocks which provide the constant high heat inside the sweat-house. Small willow switches are used to beat the body and enhance the circulation. These willow switches, called beniic in Ahtna, are collected in traditional places, to which people return annually. Most people in Copper Center go to Willow Mountain about 10 miles south of the community where many willows grow within easy access of the highway. Recent pipeline construction destroyed much of the willow patch used by people

for the past seven years, but it appears to be renewing itself.

One woman in Copper Center makes baskets out of birch bark and spruce root. She has been doing this less in recent years. She obtains the birch bark near the McCarthy road and the spruce root from the sides of riverbanks where the roots of spruce trees have been exposed during the spring thaw.

Diamond willow is whittled by a few men, but not seriously. One man has collected good examples of diamond willow from which he has only removed the bark. He sells these pieces to people, usually tourists, who will whittle and shellac them.

The uses of wood are varied and range from the use of small twigs for preparing dried salmon to the construction and heating of homes. At present the use of wood is dwindling as it becomes increasingly difficult to obtain. Wood is collected from the west bank of the Copper River where the BLM designates areas that can be used by permit. These areas are located beside the highways and often are found far from Copper Center. Some people scavenge along the highway and utility rights-of-way to find dead but useable wood. One man provides a significant portion of his family's income by cutting firewood and scavenging logs. He is the main provider of firewood to several of the older people who would have difficulty obtaining wood themselves.

Trapping. Only a couple of people trap seriously in Copper Center at present. Trapping activities have declined in the last seven years due mostly to the employment opportunities offered by the construction of the Alaska pipeline. It cannot be determined at present if this decline in trapping is a permanent or temporary phenomenon.

One couple particularly associated with trapping traps every season. The husband runs a trapline across the Copper River up into the foothills of the Wrangell Mountains, and would be affected by any curtailment of trapping on these lands. He traps wolves, lynx, and some smaller animals. His wife says that in recent years she has not been as successful trapping along the highway, perhaps because the environment where she trapped (south of Copper Center along the highway) has been disturbed by the pipeline and the presence of more people than previously. She does admit, however, to working on the pipeline herself and not

spending as much time and effort on her trapping as before. Her husband uses a snowmobile to travel to his trapline.

Some of the younger men, in their twenties, trap sporadically. If a price for a fur rises on the market, the choice to trap becomes more attractive. During the spring of 1977 when the price of muskrat jumped, people who had not trapped or shot muskrat for several years went after them. Similarly beaver hunting has remained unpopular because the difficulty of breaking through the ice does not justify the price gained.

A few people continue to trap while most have deleted it as a subsistence activity. It appears that a serious trapper must make a substantial investment in equipment, must have good health, and, finally, must have an interest and zest for the endeavor. Others, generally younger men, trap from time to time according to the price of the furs and a need for cash. Without a doubt, the most fertile trapping areas are across the Copper River.

Craftwork. Many of the middle-aged and older women do beadwork on moose and caribou hides to sell to tourists or Native people. Almost everyone has a pair of moccasins or mukluks. They are very warm and their utility cannot be matched by most footwear and mittens found in stores.

Obtaining the tanned hides is becoming increasingly difficult. Often the craftsperson must buy small pieces from Tok or even Canada, and even when a raw hide is available, tanning it is a long and involved job that most people no longer undertake. Hand-tanned hide is almost essential for fine beadwork because commercially tanned hides are so tough that the thin beading needle cannot penetrate easily. To conserve the hand-tanned hides, people often just bead the uppers and construct the remainder of the shoe (or mit) from commercial cowhide or deerskin. Sometimes moosehides or caribou hides are also prepared commercially and used.

The shoes and mittens are displayed in the Copper Center Cash Store. The better-made specimens sell quickly during the tourist season. No commission is taken by the store owner. For the four or five women who consistently do beadwork, it must provide a supplement of several hundred dollars per year to their incomes.

Other types of craftwork are also sold in this store. Baskets are sold, but they are made by people in the Kenney Lake area or further north. Diamond willow lamps and canes are sometimes available, but they too are made by people from other villages. A small art store was open during the summer of 1977 in the old post office building, next to the cash store. The finer pieces of craftsmanship are displayed there as well as crafts from other regions in Alaska and serious artwork.

Transportation

The community of Copper Center takes its geographical form from the road along which it was built. The houses are strung along the highway and face the tarmac. It is surprising when one considers the importance of the road to find that not everyone has access to an automobile. The older people especially have a difficult time obtaining transportation to stores and other places. In general though, people have automobiles and pickups which are the main form of transportation and nearly essential for subsistence pursuits.

Snowmobiles are also popular forms of transportation, especially among the young men. Snowmobiles are useful to those who want to get off the road during the winter and for trapping. Some people use snowmobiles for sport or to travel around the community during the winter.

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Trapping appears to be the subsistence activity most directly affected by the establishment of a park across the Copper River from Copper Center. At least one Copper Center Native consistently uses the area for trapping. Moose and sheep hunting could also be affected, but only rarely do the Native people cross the river today. Nevertheless, in their view the lands across the river are traditional hunting lands and any restrictions will be viewed by the local people as infringements on their traditional hunting territories and rights.

Tazlina

The small incorporated village of Tazlina is a comparatively prosperous community. The population is young and well educated, and the people have a high employment rate, especially during the last few years when the pipeline construction employed many men and women from the community. The population lives along both banks of the Tazlina River. A grocery store and gas station are found on the north side of the bridge, and on the south side of the river is a pipeline maintenance camp, called Glennallen Camp. The state highway department also has a maintenance camp on the south side of the river. All of these establishments employ Natives and the white spouses of Tazlina Natives. The high employment rate in recent years has brought a high standard of living to this Ahtna community. The homes are modern and well constructed, and virtually every family owns an automobile or pickup.

Perhaps because of their prosperity, their positive self image, and overall attitudes toward their lives, the people of Tazlina undertake many subsistence activities. These residents generally have good health as well as the money to invest in a diverse number of subsistence activities. Some residents even travel to areas outside of the Ahtna region to hunt and fish. Hunting, fishing, trapping, snaring, berrying, and craftwork are all activities undertaken by the residents of Tazlina. The older people are retired and spend many hours doing subsistence-oriented chores. The younger people living in the village often undertake as many subsistence activities as they can after their salaried work is finished. Younger relatives from Anchorage visit during the hunting and fishing seasons, and Tazlina couples living in Anchorage sometimes send their children on summer vacation to grandparents living in Tazlina.

The residents of the village are usually the descendants of the Tazlina River and Dry Creek bands of Ahtna Indians. In addition, one couple traces its ancestors to Paxson Lake while others have married into the community and trace their ancestry to Lower Tonsina. The traditional ties continue to work during the hunting and fishing seasons when people often return to those territories where their ancestors hunted

and fished.

Subsistence

Fishing is by far the most important subsistence-type activity undertaken by Native residents of Tazlina. Hunting and trapping are also important endeavors for certain residents. Most of the families also pick berries, and many can jams and jellies in the summer.

Fishing. Fishwheels are set up along the Copper River and the Tazlina River each summer; depending on the size of the run, varying numbers of fish are taken. Many of the residents of the community earn over 5,000 dollars per year, but even with the legal restrictions on the take, much cooperative work and sharing goes on in this community. Fishwheels and their catch are shared. Those who must work daily, especially during the heavy employment months of May, June, and July, are often given fish by members of the Tazlina community who are retired or unemployed and are actively fishing.

The fish are prepared in a variety of ways. Freezing, canning, and smoking are all ways that the Tazlina people employ to prepare their salmon. A few of the older people continue to hard-smoke or jerk the salmon in the traditional Ahtna manner. Other traditional modes of preparation are used such as the controlled aging and pickling of the fish. This last form of preparation has been greatly discouraged by the State of Alaska agricultural programs because it is viewed by the agricultural agents as a dangerous source of botulism. The young people seem to prefer soft-smoked and canned "salmon fingers" and frozen preparations. The younger Natives with white spouses lean toward these preparations, which are preferred by Whites.

No fish camps are found on the east side of the Copper River. It is doubtful that the establishment of a park in the Wrangells would affect the present orientation and use of salmon by the Tazlina people.

Non-salmon fishing is also undertaken by the Tazlina people. Grayling and various kinds of lake fish are taken with hooks in lakes which are accessible by car. At least one couple owns a boat which they

use on Klutina Lake. Generally, the freshwater fish are eaten fresh. The attitude of the young people toward the taking of these species appears to differ from the attitudes displayed toward the taking of salmon, and can be described as a sport orientation. Of course, the older people might view the importance of freshwater fish in a different fashion.

Hunting. Moose hunting is an important activity in the late summer and early fall. The favored locations for hunting are traditional hunting grounds on both sides of the Copper River, including the area found between Hudson Lake and the Tazlina River, the area between the Nadina and Klawasi rivers, and the area between the Klawasi and Sanford rivers. Some of the residents with ancestral ties to Dry Creek also cite the territory north of the Glenn Highway and up Moose Creek and Dry Creek. This last area is also a good place to hunt caribou.

The meat is hung and home cured in most cases, although some of the more acculturated families have the animal butchered commercially in Anchorage or Fairbanks. The meat is often shared, but due to its scarcity, it is not as widely shared as is salmon. Moose meat is greatly treasured. Unfortunately, over the past few years, it has become increasingly difficult to get a moose. The prosperity and high education of the younger Tazlina residents have turned them toward hunting methods more usually associated with non-Native hunters, namely higher powered rifles and fly-in hunting. One couple even leaves the region to hunt north of the Yukon River where the allowable takes are higher and the animals more easily obtained. The justification of these changes is easily rationalized by the younger people who point out that game laws have so circumscribed the traditional strategies of subsistence that the only way they can provide their families with traditional Native foods and also work at wage and salaried employment is to adopt more modern ways. Dorothy Shinn writes:

The people still depend on fishing and hunting as part of their subsistence, but since there are new game laws and limits to the amount of fish, moose, and caribou to be taken, the people work when employment is available (Ahtna Inc. and AEIDC 1973: 227).

Small species are also taken. Hares are important during certain seasons when the hare population is high. Other species such as porcupine and lynx are eaten only when they are found, usually while trapping.

Gathering. Berrying is the most popular gathering activity among the Tazlina people. Many different varieties can be obtained in the immediate vicinity of the village. Traditionally, Tazlina Hill is an important place to gather highbush cranberries. In addition to collecting berries near the village, families often travel to other parts of the Ahtna region to collect blueberries, raspberries, and red and black currants. It is important to note again that the people return to those areas where their ancestors gathered berries. Thus, people from Mendeltna Creek village on Tazlina Lake travel to locations nearest that village which are accessible by car (where Mendeltna Creek crosses the Glenn Highway). People from Paxson travel in that direction to gather berries. Each family returns every year to the same location to gather "their berries."

Rose hips can be gathered along the roads and in man-made clearings. Rose hips are not particularly popular among Natives, although children often nibble on them when they are ripe.

Wild chives and Indian potatoes are sometimes gathered in several locations on the flats near the Tazlina River, including the flats near the river's mouth on the south banks. Wild chives can be frozen, dried, or are sometimes used as an ingredient in fish soup. None of the vegetable foods are as important as they once were in the Native diet. While berries have maintained their popularity, the use of other vegetable foods has dropped greatly in competition with commercially used vegetables such as potatoes, onions, and canned fruits. It appears that many Native cooks feel that store-bought vegetables can be substituted successfully for wild vegetables.

In many cases, the taste of the domesticated variety is preferred. Rhubarb and celery, both popular foods, are examples. In a few places around Tazlina, rhubarb grows without cultivation in old overgrown gardens and is gathered and used. What is locally called "wild celery" and "wild rhubarb" is also found, especially in the southern parts of the region near Chitina and along the highway near Valdez. It is very rare for women to collect this wild plant today because it is bitter tasting

and difficult to prepare. Throughout the region the use of traditional vegetable foods has been dropped and forgotten. The high value placed on wild meat does not carry over to wild vegetable foods. It could be that wild meats have always been what anthropologists call "status foods," and they have remained a favorite food with a higher value placed on them than on wild vegetable foods.

Wood is difficult to get in Tazlina, and most of the residents use oil heat. A few of the houses are made of logs, but in the past few years, the residents have been forced to turn to lumber, plywood, and prefabricated structures.

Trapping. At least two families in Tazlina depend heavily on trapping as a main source of income. Before work on the pipeline began, more people trapped seriously. Many factors affect the numbers of people who rely on trapping, including the price of furs, employment available, and the abundance of fur-bearing animals.

The important trapping areas are found on both sides of the Copper River. Of particular significance are locations on both sides of the Tazlina River, Hudson Lake, and along Moose Creek. One family traps extensively on the east bank of the Copper River and follows the tributary stream beds up the flanks and foothills of the Wrangell Mountains.

Craftwork. For most of the young people living in Tazlina, craftwork is not an important supplementary economic activity. The older people, on the other hand, do make many craft items. The women do beadwork. The men do woodworking, in particular diamond willow work. One man is an extremely talented woodworker and makes violins and other stringed instruments out of local birch which he cures and prepares himself.

Transportation

As in every village, automobiles and pickups are the most important form of transportation used by the residents of Tazlina village. Yet, other forms of transportation are also available to gain access to trapping, hunting, and fishing areas which are not easily approached by road.

Snowmobiles are important for those people who cross the river during the winter months, usually for trapping purposes. One family has a dog team and when the husband does not work he runs the team to Hudson Lake several times a week. A couple of families also own boats which they use during the hunting season.

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Outside of some trapping and hunting, the people of Tazlina do not use the proposed parklands to any great extent. Major moose hunting locations are found in the headwaters of the Klawasi River, but the proposed park boundaries do not infringe on this area. Any impacts on subsistence would be secondary ones, such as would follow from a depletion of game which might occur if more hunters travel into the area.

Mendeltna

The community of Mendeltna, located where Mendeltna Creek crosses the Glenn Highway (40 miles west of Glennallen), is closely associated with Tazlina village through kin ties and historical associations. Three related elderly people live at Mendeltna. In the past, several families lived here, but they moved to Anchorage and other villages where schools and other amenities were available. The remaining residents of Mendeltna depend heavily on subsistence resources obtained by hunting, trapping, and fishing, and they continue to do so despite advanced age and health problems.

The Mendeltna people generally hunt and trap to the north of Mendeltna, and for this reason, they will not be affected by the proposed park except in cases where the sharing with relatives living in Tazlina is curtailed.

Glennallen

Glennallen was established during the Second World War when the Glenn Highway was completed. During and after the war years, Natives were attracted to the community because employment as well as schools, stores, and other amenities were located there. It has been stated previously that Natives from Chitina moved to Glennallen around 1950. For this reason, many of the Native residents of Glennallen belong to a kin-based aggregation of people with long-standing ties to Chitina. The association with Chitina continues to the present. Most Ahtna Natives in Glennallen belong to the Chitina Village Corporation and they often return to Chitina for subsistence purposes.

Glennallen is not a Native village. It is a modern rural community which draws its population from places outside of Alaska, from other regions in Alaska, and from the communities in the Copper River basin. Natives from outside the region also live in Glennallen, and they are attracted by the availability of employment in the many government agencies located there. The Bureau of Land Management (BLM), the Federal Aviation Administration (FAA), the State Troopers, the Alaska Department of Fish and Game, and other governmental establishments are located in Glennallen. The regional high school can also be found in the town. The large Central Alaskan Mission, Hospital and Bible College are located in the center of the community. The mission also runs the only radio station in the valley. All of these organizations give the town of Glennallen a unique position in the region. Glennallen is the unofficial capital of the Copper River basin.

Subsistence

Grayling fishing, hunting, and berry-picking are important subsistence activities undertaken in the environs of Glennallen. Trapping is often fruitful in the flat, boggy areas to the north of the Glenn Highway. Most Natives must travel to one of the villages on the Copper River in order to run fishwheels during the salmon run.

Fishing. Grayling fishing is a popular subsistence activity in the spring in Glennallen. The grayling run in Moose Creek, and people from Glennallen as well as from other villages fish for them at a few popular locations which are easily approached by road. Two such places are found where bridges cross the stream and dams are produced: the lower side of these bridges appears to be a congregating area for the grayling. Grayling are usually eaten fresh because they are not easily stored. Some people do freeze them, however, for up to three months.

In order to run a fishwheel, Glennallen residents must travel to a location on the Copper River. Most of the Ahtna people return to the villages where they are enrolled or where they have close relatives living and running wheels. A large number of Glennallen Ahtna, because of their historical association with Chitina, run wheels there. A few Glennallen people maintain residences in that town; others camp in the Chitina area.

It is significant that people would travel over 80 miles to set out fishwheels when closer areas seem available. The aspects of ownership which once governed the salmon fishing of the past continue to affect the modern subsistence behavior of the Native residents of the valley. This is so even when much of the technology of fishing has changed. In short, it is not considered correct to fish in "other people's" waters.

The Glennallen people with ties to Chitina have other reasons for emphasizing that strong association. During the establishment of villages under ANCSA, Chitina was challenged as a bona fide village. The population was said to be too low to justify incorporation according to the regulations of the act. The irony was that Chitina had the largest enrollment in the region, but a very small population of year-round residents. From the viewpoint of the Chitina people, the denial of Chitina's incorporation was unthinkable, tragic, and ludicrous. The minutes of the Chitina hearing contain much testimony from Chitina people about the importance of the village to them. Almost universally people refer to the village as a focus of subsistence. The result of the hearing did establish Chitina's right to incorporate and so the village was "saved" by the annual return of people to run fishwheels.

When the people from Glennallen (or Anchorage) return to Chitina

each year, they are making a statement about their commitment to that particular region. Through subsistence activity they reinforce their rights to that land, in their own minds. During the last ten years when the idea of ANCSA has become a reality, subsistence activity has become a political statement to most Native people. The Glennallen residents with ties to Chitina are not alone in this viewpoint, yet for no other group of people in the valley has this factor been as strongly highlighted by historical events.

Fishing is also something more than a political statement by the people. While many of the residents of Glennallen have found regular employment, not all have been able to work consistently. It is especially difficult for elderly women to attain economic stability and the fishing provides an important contribution to their economic well-being. Many of the Glennallen Ahtna earn under 5,000 dollars per year and therefore qualify for high takes of fish. A substantial amount of sharing and cooperative work is required among the Glennallen people to maintain fishwheels at substantial distances from their homes. Traditional family groups organize the fishing enterprise and in this way the Glennallen Ahtna have been able to continue to fish for salmon each year.

Hunting. The flat, boggy region north of the Glenn Highway has always been an attractive hunting area for moose and caribou. Many of the Glennallen Natives hunt in this area as well as near Chitina. Car hunting in the early morning hours and twilight evening hours is popular among people who work during the day.

The meat is usually hung and cured at home, although relatives visiting from Anchorage might take the meat to town and have it butchered commercially. Meat is widely shared among relatives. As in the villages discussed already, those people who are most apt to be regularly or seasonally employed, who are of good health and in many ways appear to be very effective in coping with the changing socio-economic environment, are also the most successful hunters.

Small game is hunted, especially when the populations are high. Arctic hare, porcupine, and muskrat are probably the most popular species of small game. They are shot, snared, or clubbed depending on the individual characteristics of the hunter and the quarry. Trappers

sometimes bring home lynx quarters which are eaten only rarely.

Gathering. Berry-picking is undertaken around Glennallen, particularly in man-made clearings where many of the wild berries thrive. Families sometimes take excursions to other parts of the region to collect berries, especially blueberries.

Wood-gathering is diminishing in importance as more and more people turn to oil for heating their homes. This development is possible because many of the people who are employed or retired can afford the expense of oil more than the time to collect wood. Nevertheless, some of the older people continue to use wood in preference to oil, and they would continue to use wood as long as it can be procured.

Trapping. A few of the Native people continue to trap either around Glennallen or in Chitina (if they are unemployed). Teen-age boys often set short traplines within easy walking distance from their homes. Snowmobiles are also used to travel to traplines. Although only one family traps regularly and depends somewhat on trapping for part of its income, other families continue to view trapping as "something to fall back on." One man, who has been constantly employed over the last three years, maintains trapping cabins near Chitina and traps on his vacations or whenever he has the opportunity. He is able to maintain certain proprietary rights over trapping ground in this way.

As the population in and around Glennallen increases, there is some pressure placed on trappers to curtail trapping close to the community as it can be very dangerous for children and pets who walk through the outlying area. While there are no laws prohibiting trapping in the peripheral environs, social pressure tends to push trapping farther from the community each year. This trend will tend to discourage what is often called "Saturday trapping," which is trapping undertaken by people employed through the week and by school boys who set traps near the community and harvest their takes after school.

Craftwork. Some of the older women do beadwork and work skins which they sell in local stores or to Natives and non-Natives in the community. One man, an extremely talented craftsman, harvests and carves diamond willow which he then fashions into furniture, lamps, and other items. This same man works ivory which, of course, cannot be obtained in the local

region. His work is in demand locally, and he very likely supplements his income substantially. Diamond willow can be found around Glennallen, but the location of the best patches is a well-kept secret.

Transportation

Pickups and automobiles are the most important forms of transportation used in subsistence. It is obvious that without some form of transportation, the Glennallen Natives with ties to Chitina would be unable to return to that village for subsistence purposes. The older people often must rely on younger relatives to drive them to the Chitina area, but they repay the costs for transportation by providing subsistence foods in return. The interdependence of relatives in respect to subsistence chores is an important factor binding the different generations in the Glennallen community, and other communities as well. The laws regarding subsistence fishing on the Copper River, at present, tend to reinforce the interdependencies: an affluent family can profit by helping a poorer relative who is entitled to comparatively high takes of fish. Any attempt to curtail this sharing could only result in impeding those who require both transportation to fish camps and the use of the affluent family's fishwheels. Thus the poor would probably obtain fewer fish than at present.

Snowmobiles are used extensively by Glennallen Natives, many of whom can afford their maintenance and upkeep. They provide good access to the area north of the Glenn Highway. At least one family owns an ATV (all-terrain vehicle) which they use during the hunting season.

Campers are used by several families at Glennallen. They provide shelter while on hunting and fishing trips, as well as transportation to and from the subsistence site. Campers are gaining in popularity throughout the region among Native families.

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The establishment of a national park in the Wrangell Mountains will not immediately affect subsistence activities around the Glennallen area. Secondary effects could result if the park should attract more people to the area. Since Glennallen is the unofficial "capital" of the Copper River basin, the community could grow and "prosper" in western economic terms. The impact on hunting would be substantial.

In general, the Glennallen members of the Ahtna corporation would probably be affected according to the village with which they are identified and to which they are drawn for fishing, trapping, and other subsistence activities. Those who travel to Chitina would be subject to the park policies which directly affect Chitina. Those who travel to Gulkana or Copper Center would be influenced by park policies which directly affect those communities. Thus the effects on the main villages cannot be measured by that on the permanent village residents alone. To understand subsistence in this region fully, one must consider the people who visit the villages seasonally for subsistence endeavors. The Glennallen Natives with historical ties to Chitina are perhaps the best example of this factor of subsistence in the Copper River area.

Gulkana

Located on the north bank of the Gulkana River where the Richardson Highway crosses that stream, the Native village of Gulkana is home to approximately 60 people. Virtually all of the residents can claim historical roots in the Gulkana drainage. For the past 50 years, this village has drawn its people from places such as Paxson Lake, Sourdough, Valdez Creek, Lake Tyone, Lake Louise, and other places in the northwestern part of the Ahtna region. Originally the historical village was located on the south bank of the river, but when this village was bisected by the building of the Richardson Highway, the villagers moved to the present location.

The contact experience for the people presently living in Gulkana

differs significantly from that of their cousins to the south in Copper Center and Chitina. The number of white people who came to settle in the immediate vicinity was comparatively small. No railroad or large settlement was established and made a focus of western culture. As a result few opportunities for wage labor and other types of wage employment were available in the area near Gulkana. Schools and amenities developed slowly in this area of the Ahtna region, and, in general, the people of Gulkana entered and participated in the western economy primarily through trapping. Only after 1950 did people begin to spend most winters living in Gulkana and to send their children to school. Previously, most summers had been spent at fish camps around Gulkana and much of each winter was spent on the trapline. Often families accompanied the trappers into the isolated trapping areas. Even today, for many of the middle-aged and elderly residents of Gulkana, trapping formed the major acculturative experience of their lives. Only the younger people have participated in wage labor. This fact of their history is reflected in the relationship the Gulkana people have toward subsistence and subsistence resources today.

A strong village social life based on kin associations continues today in Gulkana village. Cooperation and sharing continue among relatives. Generation seems to be a strong factor not only for association but also in one's orientation toward subsistence. People over 40 are more interested in subsistence activities than the younger residents. Subsistence users traditionally hunt, fish, and trap in those locations to which they are most closely tied through family and history. For example, the people whose parents lived and trapped on Ewan Lake now return to Ewan Lake regularly and even maintain a cabin there.

Subsistence

The primary subsistence activity in Gulkana is salmon fishing during the summer, although hunting, trapping, gathering wood, and fishing for lake fish are also important activities. Several women do beadwork and tan hides which are sold in the Native-owned store in the village.

Fishing. Salmon fishing is conducted from late May through August in the Gulkana and Copper rivers. Fishwheels are used to catch red as well as king salmon. The organization of salmon fishing is virtually identical to that described for Copper Center. Older women oversee the salmon fishing activity, younger relatives help and are given a share of the take, and men usually help build the fishwheel and transport the fish. The fish are smoked in the traditional way to make ba', or they are prepared using modern methods of canning and freezing. Younger people, especially the more acculturated families, prefer to implement the most modern methods while older people prefer the traditional modes of preparation.

Dip-netting is popular on the south bank of the Gulkana's mouth because king salmon run up the Gulkana River in mid-summer; however, only rarely do Natives undertake this form of fishing. Most Natives who fish seriously are not physically able to use a dip net. It is more efficient and less exhausting for the older people to use fishwheels.

Fish species other than salmon are also popular among the Gulkana people. Grayling are caught in streams such as Dry Creek near the highway. Lake trout, suckers, pickerel, pike, whitefish and grayling are taken in lakes, such as the Tangle Lakes, to the northwest of the village or within access of automobiles. Lake fishing takes place in the summer season or through the ice during the winter. The fish species found in lakes are generally more popular among the northern Ahtna people than among those living in the southern part of the region.

Even though salmon and other species of fish are used by the people of Gulkana, virtually all fishing takes place on the west bank of the Copper River and will not be affected directly by the establishment of the Wrangell National Park.

Hunting. The regions around Gulkana on both the east and west banks of the Copper River have always been a favorite hunting territory for people from all parts of the Ahtna region, but particularly for the people living in Gulkana. Caribou roam in large numbers between the foothills of Mt. Wrangell and Mt. Sanford and the high upland areas along the Denali Highway and Lake Louise. Moose also congregate during certain seasons on the flanks of Mt. Wrangell in the headwaters of the Sanford

River and in the Tyone region. All of these areas are viewed as the traditional hunting territories of the Gulkana band of Ahtna.

Moose hunting is an important activity in Gulkana during late summer and early fall. The favorite locations for moose hunting include the land between the Copper River and the tree line across the river from the village, and most land within a 50-mile radius of the village, particularly toward the north around Ewan Lake and Hogan Hill. Caribou hunting is also carried out during the late summer and early fall. Most caribou are hunted in the areas to the north and west of the village although some people drive to the Nabesna road. Caribou are not as popular a food source as moose, but they are generally more abundant and easier to take. In the past few years the population of caribou appears to have been declining and less wild meat has been seen on Native tables.

The meat is hung at home in most cases, although the most acculturated families might take the meat to Anchorage to be butchered and packed commercially. In Gulkana and the other northern villages, the methods of hunting remain fairly "traditional," which in this case would mean that a comparatively low-powered rifle is used, the hunters often stalking the game on foot, and spending the entire hunting season in "the bush." Nevertheless, moose or caribou kills are usually transported by float-plane or other mechanical means, such as ATV. While both men and women hunt, men are more likely to spend an extended period of time away from home during the hunting season. Young people with full-time employment must turn to hunting on weekends and from their automobiles before and after work. Those who can take vacation time during hunting season are often successful.

Small game, such as porcupine and hare, is used when it is available. Women snare and shoot hares; men generally shoot them. Porcupines are clubbed or shot. During years when the hare population is abundant, hares provide an important source of food.

Gathering. The people of Gulkana pick berries every season in traditional places up the Richardson Highway to the north and around the Gulkana area. Blueberries are picked along the roads north of Sourdough. Other berries and rose hips are found within walking distance of the village, especially in man-made clearings. The use of berries by the

people at Gulkana is typical of berry usage in the other Ahtna villages to the south.

Although most of the houses at Gulkana rely on oil heat, people often supplement their oil burners with a wood stove. Twelve of the houses are Bureau of Indian Affairs (BIA) units built in 1969, and most of the other homes are either of log construction or mobile homes. All of these structures profit by supplemental wood heat, but the scarcity of wood encourages the use of oil.

Trapping. Several people in Gulkana continue to trap either across the river or to the northwest and west of the village. Pelts that have been trapped by Gulkana residents can be seen hanging in the village store. In recent years the importance of trapping has declined significantly, and few if any of the young people trap at all. Animals that are trapped in the area include lynx, mink, marten, wolverine, coyote, fox, and beaver. Many of the pelts can be sold to villages for use in craft items such as mukluks and mitts. No one in the village depends on trapping for his livelihood, although it is always viewed by many Native residents, especially those who are older than 40, as something on which one could rely if the various sources of income were to fail.

Craftwork. A few of the older women prepare skins and sew beads on handmade moccasins and mitts. Birchbark baskets are also made in the form of utility baskets and ts'aatl', or baby carriers. The skin materials for women's craftwork are often bought or traded from a few women who specialize in skin preparation. A couple of skin specialists live in Gulkana, and others live to the north in Twin Lakes. Other sources of traditionally prepared skin live outside the region in Northway, Tetlin, and even Canada. Beads are bought in the local stores or Anchorage. When skin is scarce, jewelry is fashioned using dental floss, rather than split babiche, as the string which holds the piece together. Porcupine quills are sometimes incorporated into the design. Raw porcupine quills are easy to obtain from a carcass spotted along the highway, but the people think they are fairly dangerous to handle due to the possibility of infection.

Store-bought dentalia are also incorporated into motifs, especially on sashes and belts worn by men during the potlatch. Dentalium sashes

were the traditional mark of status among the nineteenth century Ahtna. Over the last seven years, the use of store-bought beads and dentalia in designs and items without skins has increased, reflecting the unavailability of traditionally prepared skins in the area. At the same time the popularity of Native craft items has risen among both Native and non-Native people. The greater demand for traditional clothing and jewelry among the Native population can be related to an increased cultural identity and awareness encouraged by the Native Claims Settlement Act as well as by cultural programs designed to instill cultural pride.

The increased demand and the inability of the Native craftsmen to meet the demand has had certain repercussions on the Ahtna craft industry in general. Besides an increase in the manufacture of items which do not require skins, the quality has sometimes suffered when the Native craftsmen simplify motifs, substitute inferior and manufactured materials for traditional materials, and decrease the amount of time spent on the manufacture of an item. Since many tourists do not have the ability to judge the quality of craftwork in the area, poorly made items sell. Native people and others who can judge workmanship usually contract with a particular person for a specific piece, and poorer quality goods are left in stores around the area on consignment and are sold generally to tourists. It often pays to make poorer-quality goods because they can sell for the same prices as the higher-quality ones. This was especially true during the pipeline period when many people came to the Copper River to work and purchased Native craftwork.

Men also undertake craftwork. Usually they do some form of wood-working such as carving diamond willow and wooden bowls and spoons. The wooden utensils are of traditional design and are only found in Gulkana where they are made by a resident. The spoons are wooden copies of the traditional sheep horn spoons which are no longer made today because the knowledge has been lost. Athabaskan dance drums are also made by men. Untanned skin is stretched over a round wooden frame. A stick with a tanned skin knob tied to one end serves as a beater. Traditional geometric designs, usually in red and black, are painted on the drum's head. Feathers are tied around the sides of the head for decoration.

At least two elderly women work hard on craft items which they sell.

They very likely supplement their income substantially by this work, although if one were to calculate the amount of money earned for each hour of work, the hourly wages would be meager. Others do craftwork when they have the time. The presence of a Native-owned store appears to encourage people in Gulkana to do craftwork, although no direct questions were asked on this topic.

Transportation

Automobiles are the main form of transportation used during the harvest of subsistence resources by people in Gulkana. They are used to get to fish camp and to go hunting and collecting. Other forms of transportation are found in the village. In particular a couple of families have boats on lakes west of the village, and they use them during the hunting season and for lake fishing. Snowmobiles are also used during the winter.

The (d)(2) Lands and General Comments on Subsistence

The importance of subsistence has gradually decreased over the past decades. In a village profile on Gulkana Nicolas Jackson writes:

In the olden days, people of Gulkana subsisted mostly by food gathering, hunting, fishing, and berry picking. The present-day residents of the Gulkana Village abandoned the local self-sufficient economy for an exchange economy. For the most part, they found for themselves jobs in the various agencies. Most of them still gather food by hunting, fishing, and berry picking but are not totally dependent on the old ways of subsisting (Ahtna Inc. and AEIDC 1973:206).

A closer look at the subsistence situation in the village reveals that age is the most important factor in determining how an individual perceives the importance of subsistence. Among the older people, subsistence resources are viewed as a necessity. Even if old-age pensions and retirement are collected, the elderly feel that the definition of a good

life means that Native foods are present in the diet. Middle-aged women also gain satisfaction and are able to maintain an important social position in the village through the running of fishwheels. Younger, employed people enjoy subsistence activities because they can supply Native foods for their tables and can keep in touch with Native values and social life by gathering and redistributing such foods.

The relationship of Gulkana to the (d)(2) lands is not immediate, although good and traditional hunting territories are located next to these lands at the head of the Sanford River. Any changes in subsistence policy brought about across the Copper River would affect the people in Gulkana who trap and hunt there and who feel they have traditional familial rights to this area.

The presence of the Native-owned E and E Store has encouraged a discussion of Native craftwork which extends to all Ahtna villages where craftwork is done. The establishment of a national park in the Wrangells most likely would bring tourists to the Copper River region. Many visitors would probably be interested in purchasing crafts made in the local region, thus increasing the demand for craftwork. From observations made during the pipeline period, it is doubtful that the supply could be increased, unless the quality were to be reduced significantly. There would probably be a rise in those craft items which do not require natural and animal materials from the land but are "borrowed" from other Native-American cultures. On the other hand, for those craftsmen who feel quality must be maintained, increased demand on traditionally tanned skins, birch bark, spruce root, and other materials would make them even more difficult and expensive to obtain than at present. It would be ironic if well-made mukluks, moccasins, and mitts were to become so expensive that most Natives could no longer afford to use them. While the establishment of a national park in the region would probably affect craftwork, craftwork does not affect the proposed park's environment in any way.

Gakona

Located on the banks of the Copper River, just north of the mouth of the Gakona, the small village of Gakona claims a population of about 40 people, most of whom are members of one extended family. The average resident is young, unemployment is high, and the people depend significantly on hunting, fishing, and trapping to survive. The Ahtna villages to the north, including Gakona, Chitina, Mentasta Lake, and Twin Lakes, depend more on subsistence resources than do those villages to the south. This is in part due to the absence of wage labor along the Tok Cutoff. If the utilization of subsistence resources were significantly restricted, the people say they would suffer greatly. Along with welfare, subsistence is one of the few ways whereby people can continue to live in the isolated northern Ahtna villages; this fact is exemplified by a greater incidence of illegal hunting and fishing practices in the area. The people, especially young and middle-aged men who do not qualify for welfare, feel that they must hunt during off season because of their need. This is not to say that the people in the northern part of the Ahtna region flagrantly ignore the game laws, but reported cases of poaching occur along the Tok Cutoff more often than in other villages.

Subsistence

Hunting and fishing are both important activities in Gakona. Caribou annually migrate across the Copper River during the spring and fall. Moose are found across the Copper River in the headwaters of the Sanford River as well as north of the village. Black bear and smaller mammals are also taken. Fishwheels are run on the Copper River. Trapping is undertaken on both sides of the river and provides an important part of the cash income in the village.

Hunting. Moose and caribou hunting is executed in the fall, either from automobiles or on foot. Favored hunting locations are those used traditionally by the ancestors of the Gakona people, who moved to this location about 1880 or 1890 because of the abundant supply of wood and

the fishing resources available at the Gakona site (Ahtna Inc. and AEIDC 1973:193). The hunting sites include most of the area on the east bank of the Copper River between the Gulkana and Chistochina rivers. Hunters sometimes follow the Sanford River up to the 3,000-foot elevation. Both moose and caribou sometimes converge on this area, especially during the winter months, but current hunting laws prohibit the taking of animals at this time. Moose and caribou are also abundant up the Gakona River and are hunted here during the fall. People say that one has to leave the highway by 20 miles in order to find game at present.

Small game is also hunted. Hare, porcupine, lynx and beaver are sometimes eaten. Hare, of course, is most popular and used when its cycle is high. Since the people in Gakona do much trapping, the opportunity for them to eat these animals is greater than for Natives in other villages.

Fishing. The running of fishwheels is an important activity in Gakona, and every summer fishwheels are placed in the Copper River. The fishing industry in Gakona, like that in Copper Center, is organized by women with duties allotted according to age and sex; it is familially based and is a major source of food for some families. There are technological similarities, too, between these villages: fishwheels are used, and fish are dried and smoked, then stored through the winter.

Besides salmon, other kinds of fish are also taken. Grayling are sought in streams and various kinds of lake fish are caught. In comparison to salmon, however, takes of these species are small. They do not have the keeping properties that oil-rich salmon has and are not valued as highly by the Ahtna people in general.

Gathering. Berries are gathered during the fall months. They are gathered around the village and in clearings, but one-day trips are sometimes taken to collect special berries such as blueberries.

Trapping. From the perspective of the residents of Gakona, trapping is an important subsistence activity. Lynx is the preferred species, but this choice might reflect the recent high prices this animal has brought at auction. Fox is also found in this area, especially up the Gakona River. At one time, in fact, a small group of lakes about 6 to 10 miles up the Sanford River was the site of a small fox farm. No such

industry exists today, but trapping in the same location continues at present. The overall take of pelts in Gakona is probably low and indicates the small number of persons who live in the village year round and are not attending school. Since many homesteaders live in the Gakona area, some conflict has been evident between Natives and non-Natives over trapping rights.

Transportation

There are several cars or pickups available to people living in Gakona, but some people do not own a car and experience problems of mobility. There is at least one snowmobile in the village.

The (d)(2) Lands and General Comments on Subsistence

The small village of Gakona is typical of the other Ahtna villages along the Tok Cutoff. Its small size and familial base often prompt residents to visit people in Gulkana and Chistochina, where they might spend several days. The isolation of Gakona has many repercussions in the behavior of the people who find it difficult to find employment locally. In the past, the Alaska Department of Highways was the primary, and often the only, permanent employer of Gakona people. Residents now will sometimes commute to Copper Center to take jobs in one of the Native institutions located there. The availability of jobs has alleviated some of the pressures the residents have felt to use subsistence resources. As the young people at Gakona graduate from school, they will probably leave the village to take jobs elsewhere or commute to jobs in the region. The character of subsistence should change when this happens. But, until these changes occur, the availability of subsistence resources remains a major factor which allows people to remain in the village. As one travels north in the Ahtna region the subsistence life style becomes an increasingly important component allowing young men to remain in the more isolated villages.

Chistochina

Chistochina is located beside Sinona Creek near the Copper River. In this village, as in the other northern Ahtna settlements, subsistence is an important part of the economic setting and is a central factor in any economic strategy an individual living in Chistochina might choose to follow. Virtually all of the people in this village of 50 or 60 persons utilize subsistence resources to some extent and most depend heavily on them. Hunting, fishing, gathering, trapping, and craftwork are all activities in which Chistochina residents participate.

In the late 1960s a new village was relocated near the highway, lodge, and school on the Glenn Highway. Two parallel lines of BIA houses form the center of the village in a physical sense, but a closer inspection discloses the fact that several strong and important families in the village do not live in the main BIA-constructed village. These families live rather in log houses along the roadway. The significance of the physical distance between the core BIA village and outlying allotments and homesteads should not be underestimated. The distribution is predictable and can be traced to characteristics attached to each family. Those families living outside the village appear to be more stable economically and in other social and psychological ways. The relationship between subsistence, jobs and family life is touched upon in the recently published Tribal Health Plan.

Subsistence is an important factor in Chistochina because there are few jobs available. Subsistence hunting, fishing, trapping, and gathering are the basis of the village's economy. Most of the men and women who are employed work in construction or on the pipeline and are away from home six to ten months of the year. These absences have a sustaining negative effect on the family life in the village (Copper River Native Assn. 1977:37).

The Tribal Health Plan indicated that certain social problems exist in Chistochina, and indeed social problems can be found in most Native villages in Alaska. Chistochina is not unique. It often appears that those people who are economically successful in a village are trying to extricate themselves from the most binding ties of village social life. Traditional sharing can only work in a situation in which everyone has

something to share, or the promise to share in the future. In almost every village there are those people who are chronically unable to become successful in the modern world. As is the case for Copper Center, those who are able to succeed in jobs in the modern economic arena are also those who show a consuming interest in a variety of subsistence activities. The people whose physical, emotional, and social attributes lead them to failure in the modern economic world are often the ones who fail in the subsistence world. The traditional needs and systems in which sharing was a useful custom no longer work when some always "have" and others always "have not." The successful residents often segregate themselves on their own allotments. This has happened in Copper Center, in Gulkana, in Chistochina, and villages throughout Alaska and northern Canada. It is a common process of acculturation in these small villages, and Chistochina is a prime example of this process.

Subsistence laws tend to aggravate the rift among villagers because as game becomes scarce, each individual must bring home food for his own family and cannot harvest food for the entire village even when he is able to do so. Lillian Boston writes of this problem in the Chistochina village profile: "The many laws and restrictions set by the State sometimes causes hardship in the village if every family in the village does not get enough meat for the winter" (Ahtna Inc. and AEIDC 1973:154).

Nevertheless, Chistochina displays a strong village social life and traditional values remain strong. The subsistence life style continues and virtually every household depends on subsistence resources for a large part of its diet. Moose soup, hare stews, and wild jams and jellies are common fare on Chistochina tables.

All of the people in the village live off the land, which is inhabited by Dall sheep; moose; caribou; black, grizzly, and cinnamon bear; wolves; wolverine; mink; marten; lynx; fox; beaver; porcupine; ptarmigan; snowshoe hare; ducks; geese; swan; land otter; weasel, and other species of wildlife. The fur-bearing animals are trapped and the furs sold, bringing in a small income. We rely on fishing, which is done by using the fish wheel. In years back, they used fish traps for grayling and other types of fish. ...We also subsist on roots, berries, and mushrooms. Indian rhubarbs are easily accessible and are used for sauce or dessert. Subsistence is an important factor in Chistochina...(Ahtna Inc. and AEIDC 1973:154).

Chistochina is an incorporated village in the Ahtna region. The residents are related through kinship and marriage and are the descendants of people who once lived in Gakona, Slana, and Chistochina. The traditional ties are well remembered and the people feel it is their inherited right to hunt and fish in the vicinity surrounding Chistochina village.

Subsistence

Subsistence activities are undertaken in the vicinity of Chistochina on both sides of the Copper River and west of the village up the Chistochina River and other creeks (such as Tulsona Creek) which cross the highway and empty in to the Copper River. The residents often travel to other parts of the region, especially Mentasta and Twin Lakes (where one couple keeps a summer house) and to other Athabaskan villages in the Doyon region further north.

Fishing. A traditional fish camp overlooking the Copper River is located about 2.5 miles north of the modern village and across the Chistochina River. Fishwheels are placed along the bank to scoop up the spawning salmon on their journey upstream. Chistochina is a center of salmon fishing for the northern Ahtna, and people from Twin Lakes, Mentasta, and even Tetlin and Tanacross converge on the village during the peak of the season. This was true for the 1977 fishing season when the salmon run was unusually good and the takes were high. In other years, when the run yields fewer salmon and families have trouble meeting their own limits, the villagers do not welcome visitors so enthusiastically.

Virtually every family in Chistochina runs a fishwheel. The only people who do not run them are single middle-aged men and the very old and infirm. Nevertheless, even single men and the old try to help in some way a family with whom they have traditional ties. These people often do much hauling and cutting during the season and then eat with the family they have helped throughout the year. In this respect and others, the social organization of fishing in Chistochina is virtually

identical to that described for Copper Center.

The head woman in a family household is the chief organizer of the fishing endeavor. This fact was apparent last summer in Chistochina when one of the most enthusiastic subsistence fishermen, a woman of about 65, fell ill and spent the fishing season in the hospital in Anchorage. Her family, including her daughter, the daughter's husband, her single brother, and husband, were able to set the wheel in the water and took turns checking the wheel. The run started and overnight an abundant number of fish were caught. The family started cutting, but was unable to cut all of the fish. Eventually, many fish were given away so that they would not be wasted. The woman's son-in-law said without qualification that all of the fish could not be cut without the assistance of his mother-in-law. Obviously, this woman's skill, knowledge, and organizational abilities cannot be duplicated by other members of the family. The status and position these female family heads acquire from subsistence fishing are spread throughout the year and give a cohesion and strength to their families.

Young people with ties to Chistochina congregate there during the summer fishing season. They are often responsible for checking the wheels and emptying the boxes. A couple of female family heads work during the summer months when seasonal jobs are available on the highway or in the tourist industry. The competition between working and subsistence can sometimes be resolved if a woman works close enough to home to return to the village each evening, and if her children are old enough to check and empty the boxes themselves. Finding the time to cut the fish is another problem for the working woman, but by sharing with relatives, such as one's sister, goods and services can often be traded so that each person feels that the cooperation is worthwhile.

Two families, headed by two sisters, spend the summers in Twin Lakes about 23 miles up the Nabesna road, where they work preparing for the guided hunting season. During late summer, one of the families runs fishwheels at Chistochina, and therefore someone from the summer camp must travel to Chistochina each day to collect the salmon and bring them to Twin Lakes where they are cut, smoked, and also salted. Young people living through the summer in Chistochina often check the wheels to make

sure that the fish do not remain all day in the boxes and spoil. A third sister and her family are serious dog-mushers; they participate in various sled races throughout the state as well as use the dogs for mobility on the trapline and other subsistence activities. Thus the fish not used for human consumption are saved for dog food.

Other strategies are also followed. A retired couple moves from their home in Chistochina to their one-room cabin at the fish camp. They find this relocation convenient because they do not have any means of transportation. They also prefer moving because they find it peaceful and private after struggling with the constant social interaction of the village. It is also the way they have fished throughout their long lives (the husband is about 90 years old). This couple also serves an important function for everyone in the village with a fishwheel. They guard the wheel from marauding animals and people and report any suspicious behavior.

Other families who depend on food stamps also fish, and while they might not be as serious as those mentioned above, salmon is an important supplement to their diets. Food stamps buy a subsistence bag of groceries. This means that little meat or foods with high protein content are included. The quality of the diet is greatly enhanced by fishing and by any other kind of subsistence activity. People should not be penalized for undertaking subsistence activity while on welfare; unfortunately, the result of such penalties would probably be for subsistence to be dropped in favor of monthly food stamp stipends.

Thus in Chistochina virtually every permanent resident who is able to do so participates in fishing for salmon. It is central to the village economy. In years when the run is light, villagers suffer hardship. In years when the run is heavy, potlatches are held, gifts are given, and a feeling of well-being is obvious in the village.

Other species of fish are also caught by the Chistochina people. Grayling are caught on rod and reel during the late spring in creeks which can usually be approached by automobile. One elderly retired couple moves to a cabin along the highway, about 13 miles south of Chistochina. Here they stay and catch grayling "running" in the stream. Other streams are fished where they cross the roads. Lake trout and

other lake-dwelling fish are caught at Twin Lakes, Jack Lake, and other lakes near traplines or in hunting territory. This type of fishing provides variety to the diet, but it is not undertaken as a principal subsistence activity like salmon fishing. Nevertheless, its importance should not be minimized because these species can be obtained at times when other wild foods are scarce or out of season, such as in the late spring, just before hunting season in the highland hunting camps, or in mid-winter when they are caught through the ice. Both Tanada Lake and Copper Lake are prime fishing sites year round, especially for trout and grayling.

Hunting. Hunting is an important late summer activity in this village. People value wild meats, and sometimes seasonal jobs have been quit so that a man or woman can participate in the hunt. Moose is the favored wild meat, but caribou, sheep and black bear are also taken by people living in Chistochina. The northern Ahtna are more likely to pursue caribou than the southern Ahtna, who place a comparatively low value on caribou meat. Chistochina's association with guided trophy hunts conducted in the Wrangells and the ownership of summer houses up the Nabesna road provide the residents with more sheep meat than is usually found on the table in other Native communities.

Moose are hunted in the late summer along the Copper River where they often feed along the banks. Other hunting locations include the territory up the Chistochina River. During the season, hunters always carry a gun along in their automobiles in case a moose should be spotted along the highway. Young men are most likely to hunt moose. Just as in Copper Center, young men who are associated with a fishwheel family seriously hunt for that family. In Chistochina the success rate in the past few years has been fairly good, and most of the families have had at least some meat which they have taken themselves or which has been given to them. In the past, and as recently as seven years ago, each Chistochina family needed a moose for the winter, but the reality of the hunting situation today has meant that people have had to settle for less and less moose meat.

The number of caribou taken varies from year to year because of the vagaries of the caribou herd's movements. At one time Chistochina was an important caribou center, but they rarely visit here in modern times.

Caribou are hunted traditionally in the upland regions along the Nabesna road and west of the village, but since the movements and numbers of the herd are not always predictable, people tend to go to those places where caribou are reported present. Sometimes this means that several caribou can be taken along the Nabesna Highway, and other times it means that hunters must fly in to Chisana (where one young man has ancestral ties and an allotment) or walk or ride on horseback (close relatives own a number of horses in the Nabesna valley and Twin Lakes) to Nabesna or the north face of the Wrangells.

Sheep are hunted by young men and women, usually from a relative's place at Twin Lakes or from one of their hunting camps in the Mentasta Mountains. Sheep are also hunted around Copper Lake and along the northern face of the Wrangells. Usually only certain choice pieces are brought to the village, often kidneys, liver, and other organs which are distributed among the Native households because they do not store very well and are considered delicious by the local people. These parts are not popular among the many white hunters who are usually fed with the wild meat taken during the hunt.

Black bears are sometimes taken around dumps or human communities but also along the Copper River. The bear season is long, in fact in most of the Copper River region there is no closed season, and up to three bears may be taken (Alaska Department of Fish and Game 1977-1978: 58-59). Despite this advantage, bear meat is fading in popularity among most Native people. Perhaps this reflects a certain degree of acculturation, but bear meat has always been considered "strong" in taste. People say that pork has been substituted for bear meat. This refers to the similar qualities in the two meats and in particular their lard content, which in the past was valued highly and used for many purposes from greasing leather door hinges to storing blueberries.

Small mammals are also hunted. Hares are an especially important component in the diet, but during the 1977 season, hares were extremely low in their cycle and virtually none were used. Porcupines are also taken.

Trapping. Trapping is an important winter activity for most of the families living in Chistochina. Both men and women trap seriously

throughout the winter on traditional traplines which follow the frozen streams into the Copper River between Gakona and Slana. The lines typically loop in a 40-mile dog or snowmobile trail which must be maintained throughout the winter months. Furs that are taken in the trapping territories surrounding Chistochina include fox, marten, wolf, wolverine, coyote, mink, muskrat, and lynx. The furs are usually sold to the local trading post on Sinona Creek. In recent years a trappers' association has been established and the members are dealing directly with traders in Canada. Nevertheless, many trappers continue to deal directly with the local trader so that groceries and credit can be maintained at the trading post.

Most trappers point out that the fur-bearing species cycle together. In some way the population cycles overlap so that when "rabbits are high, everything is high." The Native trappers do not feel that their trapping particularly affects the populations of furbearers because if the animals are not taken by trappers, the populations will eclipse and reach extreme lows anyway. In addition, the numbers of fur-bearing animals taken each year will fluctuate greatly because of the gross variation in these populations. One trapper reports he might take between 6 and 50 marten in one year, or between 5 and 20 foxes. Thus the success or failure of trapping as an economic endeavor depends greatly on the availability of fur-bearing species from year to year.

The vagaries of the fur market compound the problem. It is a commonly voiced frustration among Native trappers that when an animal is taken in large quantities, the price is low. As soon as that same animal becomes rare, the price increases. Perhaps these changes are a function of simple supply and demand. On the other hand there is some evidence to suggest that Native trappers (as well as white trappers) often intensify their search for the high-priced pelts, and do in fact affect the populations of furbearers.

Musk rats are particularly vulnerable to overtrapping, and muskrat communities can be "trapped out." Historically, muskrat communities inhabiting small lakes along the Richardson Highway north of Sourdough were trapped out during the twenties. One man said that they used to live on a muskrat lake for a couple of years and then move on to the

next lake. In the last 20 years, muskrats have not brought in enough money to justify taking them. But in the spring of 1977, muskrat pelts of highest quality netted the trapper 5 dollars apiece in the local trading post at the beginning of the season. According to the trader, Natives will flood the market if fur starts out high and is plentiful. For this reason the price of the highest quality pelts fell to 4 dollars and finally to 3 dollars. After buying a reported 600 muskrat skins, the trader stopped buying the pelts altogether. She felt that there was too much risk involved in having invested so much in a single species.

Muskrats live in colonies on the many small lakes found throughout the northern Ahtna region. Before 1963, it is said that muskrats were much more abundant than at present. Many contend that the earthquake of that year destroyed most of the muskrat populations. They explain this by saying that the water levels in many of the lakes rose and that the earth was pushed up. When this happened, the muskrats in their homes drowned and the population has never recovered.

Nevertheless, some muskrat colonies continued to flourish in the area as evidenced by the 1977 take. When the price went up, muskrats were "harvested." The trapper visits the small pond or lake where muskrats are known to dwell in the spring. If the snow is not deep, the dens are easy to spot, their houses dispersed around the frozen lake. In the past, "rat" camps were set up along the lake shore and family groups spent a couple of months harvesting muskrat, waterfowl, and lake fish. Usually the muskrats were shot, but this is no longer legal. Trapping is a more complicated process but can be equally productive. As the lake ice melts, the muskrats move to the shore where they are also trapped until their pelts go bad.

In the past, muskrat was an important food resource for some Ahtna people, especially those living in the northern limits of the region. Despite the small size of the muskrat, many of them could be taken, and when trapping was concluded several hundred pounds of meat were accumulated. This meat is eaten fresh or is sometimes dried and saved to be boiled and made into soup. It is an important source of dog food.

The serious trapper in Chistochina spends most of the winter on the trapline. Three or four families trap seriously, and often, both

husband and wife run traplines, together or separately. A 40-mile trapline is typical, and a cabin is usually located a little more than half-way around the line. At the cabin, the trapper can either eat lunch, if he is traveling fast, or spend the night if the trail is slow. Recently, the trapper has come into direct conflict with the Bureau of Land Management which is attempting to destroy any man-made cabin or camp located without permission on federal lands. Many trappers' cabins are included in this classification, and trappers say they worry that they will find their cabins burned to the ground during the next rounds of their lines. Many feel that this new practice is grossly unfair and add that cabins in the north have traditionally been viewed as life-saving stations in the dangerous wilderness. Many stories are recounted of lives saved because a wanderer stumbled onto a trapper's cabin during a severe cold spell or after falling sick. The battle against the trapper's cabin presently being waged by the BLM in Alaska is extremely unpopular among the local people. The situation gives perhaps a preview of situations that could evolve when new regulations concerning the Wrangell National Park encroach on a traditional way of life.

Sometimes trappers share responsibility for parts of trails that are used in common. For example, a main trail which runs up the Chistochina River for about 20 miles is maintained by snowmobile although dogs are also used on the trail. At various points along the main trail, feeder trails branch off along small drainages. These feeder lines are associated with an individual trapper, while the main trail is maintained by several trappers from the Chistochina area. The traditional type of looping traplines are also run, in particular across the Copper River, and feeder lines sometimes branch from these as well. Lines are also run near the village or from the road and are maintained by people who cannot spend nights away from home because of housekeeping responsibilities, or by elderly people who no longer have the strength needed to run a full-fledged trapping operation.

Gathering. Berries are the most important vegetable food gathered by the Chistochina people. Lowbush cranberries are collected, cleaned, and stored without preparation in outdoor caches to be used in relishes during the winter. Blueberries are collected south of the village.

Other berries, such as currants, highbush cranberries, and raspberries are not abundant in the area but can be found in man-made clearings. As one travels north through the Ahtna region the variety of berries declines.

Different kinds of greens, roots and rhubarbs are collected near Chistochina. If a population's knowledge of edible plants reflects the quantity of their use, then the residents of Chistochina, Twin Lakes, and Mentasta Lake use greens more than people living in the southern villages. The middle-aged and older women in the northern villages are very knowledgeable about plants and their uses.

Wood is still used to heat some homes in Chistochina, although oil is becoming increasingly popular as wood becomes scarcer. In the past, wood was harvested on public lands across the Copper River or on lands bordering the river so that when the river froze the logs could be dragged across the ice using dog teams or snowmobiles. During clearing projects, logs have been collected from highway and utility rights-of-way and from Native allotments located along the highway. The logs are transported in 8-foot lengths in the backs of pickup trucks. They are then stored near the house and cut into stove lengths as they are needed.

It is rare for Native people to cut their logs into useable lengths for storage. In this respect Natives and Whites seem to differ, and many Whites profess an inability to understand why the Native woodsman does not cut his logs into stove lengths until the need arises. Whites interpret this behavior as a sign of "laziness" and an inability to "plan ahead." In fact, most Native woodsmen say they enjoy cutting wood, and that woodcutting is a healthful and invigorating activity during the cramped and inactive winter months. To the Native, cutting wood throughout the winter is an opportunity for physical exercise and not an excuse to avoid work.

Many of the residents of Chistochina depend on the subsistence life style more than their southern cousins. As a result, they do not have enough money to purchase western goods such as oil, and thus the use of oil is often not an alternative. The people are well aware that the use of wood stoves gives them a certain amount of "freedom" from a cash dependency on fuel oil needs. These feelings were reinforced during the "energy crisis" in the winter of 1973-74.

Craftwork. Both men and women in Chistochina undertake craftwork which is placed in the local store to be sold on consignment, or given or sold to local people. Birchbark baskets, beadwork and skin work, miniatures, and drums are some of the items manufactured locally. Some of the items are of high quality. An Ahtna doll dressed in aboriginal costume complete with dentalium belts, leggings, and skin clothes was fashioned by one resident of Chistochina and is on permanent display in the Anchorage Historical and Fine Arts Museum.

One woman advertises informally that she seeks any untreated skins so she can tan them by hand. White hunters sometimes give her unwanted skins, usually caribou, but also some moose. Nevertheless, hand-tanned moose skins are in demand in Chistochina, and not enough can be obtained for the people's needs. Apparently not many women today want to devote a week to the tanning of a skin. The job is difficult and unattractive. They prefer to buy skins, and one Chistochina woman makes several trips to Scotty Creek and Burwash Landing in Canada to obtain her skins. A complete moose hide sells for between 150 and 250 dollars today. Many of the craft items are kept by the local people. One family has a Native costume for every member, and these are worn during important potlatches or at Native cultural events held throughout the state.

One man in the village makes traditional drums that are used for Native dancing during the potlatch and at other times. He even makes small drums that young boys can use to learn Native songs. Another man makes miniature fishwheels, sleds and caches out of wood. They are well made and sell to tourists exclusively.

The more usual craft items, including beaded moccasins and birchbark baskets, are made in the village. The quality varies widely, and the lack of genuine materials sometimes detracts from the overall worth and appeal of some items on display in the local stores.

Transportation

Most families in Chistochina have an automobile. Only the old and infirm do not have access to some form of transportation. The service

provided by the Copper Valley Program on Aging over the past three years has enabled the older people to travel to Glennallen and Copper Center where they can buy groceries and supplies, but the relationship to the local trading post operator remains fairly strong despite the comparatively high prices.

Snowmobiles are also used especially by trappers, but dog mushing seems to distinguish Chistochina from the other Ahtna villages. It appears to be the dogsled capital of the Copper River valley. Although the people participate in sport racing in Anchorage, Tok, Copper Center, and other places in Alaska, the teams are used principally during the winter trapping season.

At least four families run dog teams. The use of a dog team necessitates a strong orientation toward the use of local resources for dog food or enough cash income to support a team on expensive brands of commercial dog feed. The Chistochina people opt for the first alternative and prepare dog food from fish and animal scraps during the summer and fall. They often combine the scraps with corn meal or cheap commercial dog food and stew the concoction on the stove, making a week's supply at a time. One family owns over 20 dogs, and their maintenance demands a lot of work and some money. Prizes earned in sport racing events cannot fully support the team; trapping and wage labor must also contribute to its maintenance. Without access to certain subsistence resources, particularly salmon, the team would not be economical.

Other issues present themselves in any discussion of dog teams in Chistochina. Certain people choose to live more traditionally than those who have left the village for employment in Anchorage or other places. These people are expert dog mushers, a fact which brings them honor and a positive self-image. They are recognized in both Native and white society for their special skills. They were raised mushing dogs on the trapline and have virtually no other skills or education. In their view, dog mushing is part of a way of life. If the use of subsistence resources were controlled so that dog teams could no longer be fed with subsistence resources (generally those parts not used by humans), the economic viability of trapping would be imperiled. Yet, the importance of the cultural, sociological, and psychological advantages of dog

mushing might actually outweigh the economic factors when determining the profitability of dog teams at Chistochina.

Other forms of transportation are sometimes used by the Chistochina people. Some residents have access to horses at Twin Lakes. The horses can take the hunter deep into the wilderness during the hunting season when the ground is often soggy and travel becomes difficult. The horses are maintained for the guided game hunts. Airplanes are rarely used for access to isolated places such as Tanada Lake, Chisana, and Copper Lake. Natives sometimes profit from the presence of ATVs in a community. The ATV in Chistochina, owned by Whites, helps to maintain trails, drag equipment to the trapper's camp, and is sometimes loaned.

The (d)(2) Lands and General Comments on Subsistence

The effects of the (d)(2) lands bill on Chistochina residents will be felt directly by those people with traditional ties to places along the Nabesna road at Twin Lakes. Hunting for sheep and caribou sometimes takes place due south of the communities on the Nabesna road in the Wrangell Mountains around Tanada and Copper lakes. One member of the Chistochina village corporation has family ties to Chisana, near the Canadian border. He and his adopted Ahtna family in Chistochina sometimes hunt in the Chisana valley for sheep and caribou. This hunting territory would be partially included in the (d)(2) land area and would be directly affected by the establishment of a new Wrangell National Park. While trapping and hunting do occur across the Copper River from Chistochina, the proposed park boundary is approximately 20 miles from Chistochina and cuts around Mt. Sanford at an elevation above where traplines are generally set by Chistochina residents. Trapping would not, therefore, be influenced.

Secondary effects could be felt, however, if present policy were changed and sheep hunting were restricted or significantly curtailed in the Wrangells and hunters from outside the area turned to the Mentasta Range in the north to hunt trophy sheep. Sheep are taken north of Twin Lakes by Chistochina residents, and any decrease in takes, contraction

in the length of the hunting season, or other changes in the game laws might affect the use of sheep for subsistence purposes in this area. Such changes could produce increased hunting pressures on sheep-hunting areas outside the park. Of course the subsistence issue is complicated in Chistochina by the fact that some people work as guides and guides' assistants during the hunting season. At least one man stopped guiding when the person for whom he worked said he could no longer take home meat given to him by the hunters. This man believed that the pay did not fully reimburse him for the work done and that, in addition, the subsistence use of sheep should have priority. On the other hand, others work as guides or in businesses associated with guiding and do not want to see the trophy-hunting industry endangered in any way. Thus the Native interests in Chistochina are split on this issue.

While half of the people enrolled in Chistochina no longer live there, having moved elsewhere to find work, the ten or so remaining families support their life style with subsistence resource use. Hunting, fishing, trapping, and other subsistence activities underlie the traditional orientation of the Chistochina people. While some residents can be characterized as welfare recipients who do not participate during the subsistence seasons, others successfully combine a subsistence orientation with a wage-labor orientation (including retirement) so they can remain living in Chistochina.

It has been illustrated how the game laws have already changed the social organization of the village and that these changes are reflected in the movement of some families to individual allotments along the highway. For those successful "partial subsisters" who do not have many choices open to them because of an absence of skills and education, success in the subsistence realm brings a self-confidence that cannot be duplicated in other ways. These sociological factors should not be ignored or subjugated to economic factors. Subsistence is not just the underlying feature in the village economy; it is sometimes the underlying feature in individual identity.

Slana

Slana qualifies as a group under the Alaska Native Claims Settlement Act. Although no one has lived there year round for the last couple of years, members of the group do return seasonally to hunt and fish. The people associated with Slana live in Anchorage and other Ahtna villages, but in terms of their subsistence, they hunt and fish from Slana. The effect upon Slana of changing land classifications is similar to the effects upon Chistochina. Insofar as the group members are related through kinship ties to Chistochina, they display many of the same characteristics as the Chistochina people, and they often share resources with the residents there.

Twin Lakes

In the discussion of subsistence in Chistochina, Twin Lakes was often mentioned. It, like Slana, is also designated as a group under the Alaska Native Claims Settlement Act. Twin Lakes is a center of subsistence activity for a large family group that is spread throughout the northern Ahtna region and Anchorage. The people in the group are closely tied to trophy hunting since the white husband of one Native woman operates a guiding outfit in the Mentasta Mountains to the north of Twin Lakes. Young people from the northern Ahtna villages come to the tiny community each summer to work as guiding assistants during the late summer hunt. They sometimes spend their entire summer in the area preparing the camps for the hunters, clearing trails, and scouting game.

Despite the primary orientation to the guided hunt, a visit to this community gives one a strong impression that subsistence remains a central feature of life at Twin Lakes. Dogs strain at their tethers when a visitor's car drives up. Meat and skins hang in a smokehouse. The food on the table is wild. Subsistence-related activities fill the hours of each day, and craftwork is produced by many people during their free hours. Trailers and cabins provide temporary quarters for visiting people who are expected to help around the community. Main cabins on

either side of the Nabesna road house the families of two sisters who live in the village each summer and some winters. The sisters' mother spent her last years living in a cabin on Chalk Creek, 4 miles up the road from the present settlement. The people feel close personal kin ties to this area and to the Nabesna River valley. Their reason for leaving was so that their children might attend schools in Anchorage or Chistochina.

Subsistence

Hunting and trapping are the main subsistence activities operating from Twin Lakes. Some grayling are caught in the nearby lakes, but salmon must be taken at Chistochina. Wood is gathered for the stoves and the sweat baths. Skins are tanned and used for beadwork.

Hunting. No moose have been taken in the Twin Lakes area for the past five years. Not only have they been scarce, but this game unit has been closed by the Alaska Department of Fish and Game. Caribou and sheep are the primary animals hunted and people take their limits most years. Since there are at least four hunters in one family and two in another, the number of caribou taken can be quite high. Furthermore, visitors sometimes take game and leave the skins or other parts for the Twin Lakes residents. This writer does not think it would be unusual for the Twin Lakes residents to take between 10 and 15 caribou per season. Caribou are taken generally by gun from horseback in locations within 5 or 10 miles of Twin Lakes. Hunters often ride south toward the Wrangells but rarely go onto the (d)(2) lands themselves.

Sheep are hunted in the Mentasta Mountains, although from time to time sheep are taken in the lower elevations between Twin Lakes and Tanada Lake, or in the Mineral Lakes area where the main guided hunting camp is located. Sheep are also taken from horseback.

Other large game, such as bear and goat, is not reported to be taken. Smaller species, such as porcupine and snowshoe hare, are sometimes taken. Mountain ground squirrels and muskrats are used for dog food. Ptarmigan and grouse are taken along the trapline, near the road,

or wherever they are sighted.

Fishing. Twin Lakes is a good fishing location for small lake fish, but the Native people are not particularly interested in this activity. Sometimes someone develops an "appetite" for fresh fish such as grayling and takes a pole to a local fishing hole or Jack Creek nearby. One woman dries grayling. Throughout the summer, the seasonal residents of Twin Lakes run a fishwheel in Chistochina and must travel daily to the village when the salmon are running. They bring the fish to Twin Lakes where it is cut. (This activity and the sharing of work has been described already in the Chistochina section.) The sharing allows the extended family to maintain residences and show vested interests in diverse ecological zones in the northern Ahtna region. Twin Lakes is a hunting center, Chistochina, a fishing center. The relationship maintained in both locations is complementary.

Gathering. Few vegetable foods are gathered locally because many berries do not grow well in this particular environment. Blueberries are especially scarce in this area. Each family collects about 10 pounds of blueberries, 10 pounds of cranberries and 3 pounds of red currants. They are fried in grease and sweetened with sugar or sometimes made into jam.

Indian sweet potato is used and collected along Trail Creek. One woman said she usually harvests about a 50-pound sack of the wild root. She also uses some wild rhubarb and figures that a harvest of about 10 pounds during a season would be a good amount. A medicinal herb which grows beside the road, tl'oghtsen (some sort of grass), is used in the sweatbath.

Wood is used in Twin Lakes for heating and cooking, but many other uses are made of wood. It is used for various structures, from dog houses to tent frames. The isolation of Twin Lakes obviously encourages an increased dependence on local products. Most of the wood is taken from Native allotments.

Trapping. Some winters, an individual might stay and trap in Twin Lakes. This was the case last winter when one woman and her son stayed in Twin Lakes for this reason. They trapped in the Nabesna River valley and up Chalk Creek.

Transportation

Several forms of transportation, both modern and traditional, are used by the Twin Lakes families. They must have a well-running automobile to travel between Chistochina and Twin Lakes during the fishing season and to pick up groceries and supplies as well. One of the families also uses a snowmobile especially for collecting wood and making good trails.

Dog teams are also run during the winter and a discussion of the teams was presented previously in the Chistochina section. Horses are used at Twin Lakes and are probably one of the main reasons why Twin Lakes is an attractive hunting spot among the northern Ahtna. About 20 horses are kept for the commercial hunters, but they are also used by young people who come to Twin Lakes to hunt. Horses contribute to the success of the hunt in this area because they can take a rider quickly into isolated areas where game can be sighted and then tracked. Unlike mechanical vehicles, they are quiet and do not scare game. Finally, they allow the hunter to carry home a carcass with a minimum of effort, for this is a major problem of hunting for the Native people today.

In the past when a beast was killed, the villagers usually went to the kill site where much of the animal was eaten on the spot and the remainder flayed and dried so that it could be carried home. Now people prefer to freeze the meat and to prolong its use through the winter months and have moose or caribou once or twice a week all year long. The use of horses enables the hunters to transport the meat from a large animal home where it can be butchered and frozen. This solution also protects the meat from other animals such as bears and wolves.

The Twin Lakes people have a historical association with the use of horses. The relatives of these people once lived on the Nabesna River and were involved in the freighting business. During the first decades of this century, they kept horses to pull sleds and wagons over the Copper Creek Pass to Chisana. The inhabitants of Twin Lakes feel they know horses well and that their use of this animal distinguishes them from other Natives in the area.

The (d)(2) Lands and General Comments on Subsistence

The residents of Twin Lakes have a close and constant relationship with the (d)(2) lands in the northern part of the Wrangell Mountains. Although their primary focus of subsistence is spread between fishing at Chistochina and hunting in the Mentasta Mountains and along the Nabesna River, they do ride south occasionally from Twin Lakes and take caribou and sheep in the open hills around Tanada Lake.

The situation at Twin Lakes is in some ways unique among Native people in the Copper River area because they depend on many subsistence resources each year as well as on guided hunts for most of their annual incomes. Subsistence and commercial hunting usage are generally viewed as conflicting and competing orientations toward subsistence resources. The "guides" stereotypically stand at odds with the "Native" subsisters. The residents of Twin Lakes have successfully combined both orientations in a family-based business which utilizes the traditional hunting knowledge of the local Native people and the business knowledge of a white spouse.

It seems valid to ask why more Natives do not operate guiding outfits. When one considers, however, the various skills, beyond hunting and game knowledge, needed to conduct a guiding business, it is clear that most Natives just do not have the required education to run a service-oriented business. Coping with the various rules and regulations, ordering food and supplies, hiring and firing, paying taxes, advertising, and arranging transportation are very complicated matters that demand a certain level of skills which few Natives have at present.

Even with such difficulties, several young Natives who have acted as guides' assistants have told me that the most significant obstacle has been a cultural one: making the hunter happy is something that is difficult for Native people, many of whom have had few contacts with Whites outside the valley. The Native guides discuss the behavior of the hunters at length and often tell of practical tricks they have played on them. The hunters' discomfort in the wilderness is ridiculed also. The relationship is an uneasy one, at least in the Native perception of the situation. All of these problems would tend to discourage a young Native

from entering the guiding business. Finally, the problem of financing for such an expensive endeavor would be a sizeable obstacle before a Native trying to start a business of this kind.

Mentasta Lake

Mentasta Lake is the northernmost of all the Ahtna villages. The approximately one dozen houses sit beside Mentasta Lake in a lovely alpine setting. Steep, scree-covered mountains encircle the lake and village. Sheep can sometimes be spotted on the peaks. Salmon spawn in Mentasta Lake, and bears visit each summer to gorge themselves on their easily won catch. Fishing regulations, of course, prohibit human fishing for the spawning fish, making Mentasta Lake the only incorporated Ahtna village (besides Cantwell) without access to salmon.

Mentasta Lake is also the most isolated of the ten Ahtna villages. Located 7 miles from the main Glenn Highway, and closer to Tok than to Glennallen, the Mentasta people find it difficult to procure food and supplies, take advantage of programs offered by the Copper River Native Corporation, and find employment within commuting distance of the village. Road work has traditionally been the only gainful employment available in the area. The Glenn Highway, built by the army during World War II, was maintained by the local people when the military units were relocated. This employment opportunity is cited as the most important historical factor for changing the total dependence of the Mentasta residents on the harvest of wild foods.

The village still displays a strong familial base. Virtually everyone there is a descendant of two original founders, though some spouses have married into the village. The people are drawn from several old northern Ahtna villages, including Slana, Batzulnetas, Nabesna, and the original Mentasta. In this way, the inhabitants view their roots as deep, and they continue to believe in their rights to the land and its resources despite the persisting encroachment of white settlers and the ever more confining law of the state.

In 1976 a middle-aged male resident of the village was arrested for

killing a moose out of season. The villagers defended this man's right to take the moose. This author notes an increasing militancy among many Natives, especially those living in the most isolated and subsistence-oriented villages, in ignoring game regulations. Of course, they might be expressing emotions which they have had for a long time. A 1976 trial held in Fairbanks in which the state prosecuted a Doyon Native for taking a moose out of season for the purpose of potlatching was watched closely in Mentasta Village. In this case too, the sympathy of the villagers lay with the accused, who lost the case.

The close family ties in this village mean that traditional sharing customs have remained potent. The Mentasta Lake people are known to be generous with their subsistence harvests, and visitors are treated with characteristic hospitality.

There are some things that white people may not know about village life. First of all, almost everyone is related to everyone else. The village is like a large family, where everyone knows from the time they are very small that they should cooperate and share food and other subsistence items so that the village can survive. It is considered bad behavior in the village, for instance, for someone to hog to himself or herself all of the moose meat that he or she may get (Craig 1975:1).

The basic unit of survival is still seen as the village and not the individual family or person. This perception encourages categories of people to undertake particular types of subsistence activities, and the organization in Mentasta duplicates the type described for Copper Center. Young and middle-aged people focus on hunting while older people turn to fishing; young women and small children pick berries and perform other, similar duties. Thus to award one moose per individual, as the law does, rather than to allot a certain number of moose to an entire village, conflicts with the traditional organization of subsistence among the Ahtna.

An illustration of this conflict is evident in the following case. An older woman who has a pacemaker implanted in her chest can no longer shoot a gun, but has lived most of her life on moose. She feels she must have moose meat for her physical and even emotional health. When her son must provide her family as well as his own with moose, he feels

justified in taking two, even though he breaks the law. The game officials say that in such an instance, an exception can be made to provide moose for the older woman or to give the son permission to take a moose for her. But such provisions are rarely made and antagonism grows between the Native hunter and the game official.

It has always been difficult for the Mentasta people to keep supplies, and the closest store is in Tok, 60 miles to the north. In 1971 they established a cooperative store where food as well as some hardware and hunting and fishing supplies were sold. It has been difficult for the villagers to keep the store going on a regular schedule, but it is open most of the time on request and does provide people with a less expensive source of groceries. Originally, the store was intended to earn money for the residents, and it was constructed along the main highway, 7 miles from the main village. A small picnic area with a display of aboriginal houses and structures is located beside the store. Unfortunately, the store has not been a successful business endeavor.

One of the purposes of the co-op has been to reduce the emigration from the village by providing cheaper groceries and thus enabling young people to make their wages, usually earned in seasonal employment in Anchorage or somewhere else, last longer. Subsistence resources also allow people to remain in the village without depending on wage employment. Welfare is another source of income which can enable a family, but not young men, to remain in the village. Thus the strategies young people employ when turning to emigration, wage labor, or subsistence hunting and fishing are sometimes a result of a desire to stay in the home village.

Subsistence

The older people of Mentasta village say that, in the past, their ancestors were moving constantly. They indicate that the Natives of the northern Ahtna region did not maintain as permanent residences as their southern cousins. While the sedentary life of the village is fully established today, the Mentasta people continue to travel long distances

to harvest subsistence resources. Although some species (sheep, moose, and whitefish) may be taken near the village area, the Mentasta people sometimes drive all the way to Chitina to go salmon fishing or to Nabesna to hunt caribou.

Hunting. Hunting is in many ways the most important subsistence activity in Mentasta. Both large and small species are utilized. Moose are highly valued and they are often taken along the roads or near watering places that are traditionally scouted for game. The area between Mentasta and Slana along the highway and into the Mentasta Mountains is considered to be a very good moose-hunting area. From the highway, or most high places, one can view many miles of territory. The rough glacial terrain is covered with a climax spruce forest cover, and lots of small lakes dot the landscape. A large fire in 1968 ravaged much of the forest around Slana and also an area north of Mentasta. A young forest is now becoming established and provides an attractive habitat for moose. These environmental factors combine to make the Mentasta area a popular moose-hunting range for the local people as well as for city dwellers who bring track vehicles and campers into the area during the hunting season. One Native family from Chistochina owns a hunting cabin near Mentasta and uses it during the moose hunting season. Interestingly, it is reported that people from southeastern Alaska often come to this area because it is accessible via the Marine Highway by disembarking at Haines and driving through Canada on the Alaska Highway.

The local people feel they are at a disadvantage when trying to compete with the city hunters and their elaborate equipment. They also feel that hunting is becoming more dangerous during the season because of so many inexperienced hunters who will "shoot at anything that moves." The Natives hunt on foot and carry as light a gun as possible, usually a .30-caliber rifle. While most Native hunters might joke about the noise made by amateur hunters and off-road vehicles, they also resent the disruption of their more traditional modes of hunting. When one is on foot, tracking is difficult and often takes several days. In a vehicle, once a moose is sighted he can be virtually outrun by some machines.

Sheep are hunted in the Mentasta Mountains from Mankomen Lake to the Nabesna River. Some young men are among those who work and visit at

Twin Lakes during the summer, and others hunt on their own out of Mentasta Village. Caribou are hunted throughout the area and especially along the Nabesna Highway.

Smaller species are also utilized. Muskrat, porcupine, and hare are those species most often mentioned. Muskrat and hare are snared, while porcupines are clubbed or shot. Ptarmigan and grouse are also snared and shot. Squirrels are sometimes taken for dog food.

Fishing. Despite the absence of salmon fishing within a short distance of the village, fish provide a significant portion of the residents' diet. In the past the Mentasta people set out fishwheels at Bensaneta (Batzulnetas) on the Copper River, near the mouth of the Slana River. Bensaneta village was, near the turn of the century, the reputed "capital" of the northern Ahtna region, and it was here in 1885 that Lt. Henry Allen and his party ate their first salmon with the local residents. At present the village is deserted, but until 1975 it was used as a traditional fish camp by people from Mentasta, Slana and Twin Lakes. Fishwheels were placed in the river at this point, and a rough road allowed pickups to pass between mile 6 on the Nabesna road and the fish camp. The people hope that the site will someday be open to them again.

For the moment, the Mentasta people must travel to Chitina where they dip-net for salmon. Young married couples, and some others, drive pickups to Chitina and camp on a hillside so that the constant breeze from Wood Canyon will limit the mosquitoes in camp. Salmon are caught and put on ice in styrofoam containers and taken back to Mentasta where they are frozen, or cut and dried. In addition, the Mentasta residents were probably able to obtain some fish from Chistochina during the 1977 season because of the overabundance of the salmon run that year.

Other fish are also caught. Whitefish, attracted by lantern light, are speared in nearby streams at night. The catch is dried or eaten fresh. Visitors come from all over the region to fish for whitefish in the fall. Grayling are taken in the spring and fall using a line and pole.

Gathering. Berries are the most important vegetable food harvested in Mentasta. Cranberries are especially important and are stored in above-ground caches to be used in relishes and jellies throughout the

winter. Blueberries, currants, and some wild roots and rhubarbs are also collected. Most of the collecting is done within walking distance of the village by family groups. Berry picking is a subsistence activity in which even very small children can participate; it is, for this reason, an important social activity.

Of the houses found in Mentasta, about nine are of log construction and seven are made of lumber. The Natives prefer the log houses because of their durability, familiarity, and insulation properties. Over the last decade, the Mentasta residents have started buying "three-sided" logs from a small mill in Tok. Houses using this product have been built with fiberglass insulation placed between the logs. The price of a small one-room cabin in 1971 was about 2,000 dollars (Strong n.d.). Sometimes logs can be harvested from an allotment and are milled into three-sided logs in Tok.

Both wood and oil are used in home heating in Mentasta. Wood is taken from Native allotments and from utility rights-of-way, but it is becoming difficult to find wood legally. The State of Alaska has selected lands around Mentasta Lake and it is not easy, in the view of the Natives, to get permission from the state and from BLM to cut firewood.

Trapping. A few people continue to trap in Mentasta, but during the recent pipeline boom trapping fell off. The principal species taken include wolf, wolverine, mink, marten, lynx, beaver, and fox.

Trapping areas include the Slana River valley, Bartlett and Snowshoe Creek valleys, the Little Tok River, and the area south of the Glenn Highway at the Mentasta Lodge. One family living on the Glenn Highway, north of the turn-off to the village, traps near its allotment. Nearly all of the other local Mentasta people live along the dirt road, usually referred to as the "turn-off," and in the village.

Craftwork. Beaded mitts and moccasins as well as baskets are made in Mentasta. Some specialty beaded items, such as dentalium belts and beaded gun cases, are also made. These articles can be found in the White-owned bar and restaurant located on the highway near the turn-off to Mentasta Village and in other stores and trading posts in the Copper River basin and Tok.

Transportation

Automobiles are virtually the only link a village resident has with the world outside of Mentasta. There are no radio or television stations, and no other form of transportation into and out from the village. Without some form of motor vehicle one person must depend on another to travel to Tok or Anchorage for supplies, to visit the doctor, or to obtain other services. Cars and trucks are also used to visit subsistence sites, particularly those sites along the highway or up the Nabesna road.

During the winter, conventional forms of transportation are used along the road between the Glenn Highway and the village. Automobiles and trucks can continue to pass along this road which must be plowed so that school children can get to the elementary school located in the village. Only a couple of families run dog teams and operate snowmobiles, but they do exist in the village and are useful in reaching the less accessible areas in the village environs.

There are also some small boats at Mentasta Lake. These small wooden boats are used for fishing purposes as well as for sport. Lake fish are caught with a hook and line held over the side.

The (d)(2) Lands and General Comments on Subsistence

The people living in Mentasta do not hunt, fish, or otherwise utilize subsistence resources from (d)(2) lands except when hunting south of Twin Lakes in the Wrangell Mountains around Tanada and Copper lakes. Tanada Lake is, in fact, the birthplace of many Mentasta people born during the depression. At this period of Ahtna history, two Upper Ahtna families living near Tanada Lake trapped, hunted, and fished in the area. Five or six children were born to these families, while others died and are buried there. Sporadically, the Mentasta people return to the lake shores for hunting and fishing purposes. In this area, any change in regulations regarding fishing and hunting could affect the village. Otherwise, effects on the village would be secondary and the result of increased competition for the resources, especially sheep and caribou

which are available in the Mentasta Mountains between Mankomen Lake to the west of the village and the Nabesna River to the east.

Competition is already fierce in the Mentasta Mountains during the fall when hunters from Anchorage, Fairbanks, the Copper River area, southeastern Alaska, the contiguous 48 states, and foreign countries come to hunt dall sheep, caribou, moose, and grizzly bears. Tempers have clashed between those people in the region who view hunting as a subsistence activity and those who view it as a business enterprise. Obvious insecurity is evident within both groups which denounce the various government agencies with which they must play in a game that will determine their future life styles. The Natives view any changes with trepidation, however; they feel there is no alternative to their present life style, and indeed there is little other employment in the area at present. The pressure of change in recent years brought about by the pipeline, ANCSA, and the limbo of the (d)(2) lands has aggravated festering relations between Natives and Whites in the northern Ahtna region. Thus, the changing ties between the people and the land and its resources will not only affect the social relationships of people within the village and of Native life on the village level, but they will also influence the relations various cultural groups in Alaska will have with one another.

The Native Communities Along the Alaska Highway

Three Native or partially Native communities are located along the Alaska Highway between Tok and the Canadian border. Northway, an incorporated village under the Alaska Native Claims Settlement Act with an enrollment of 206 people, is found at the mouth of the Nabesna River. The permanent population can be estimated at between 110 and 140 people; migration to cities and to other parts of Alaska has drained the village of some residents. Northway is a part of the Doyon regional corporation, which includes in its jurisdiction villages from the Yukon drainage. Tok, a community located at the junction of the Glenn and Alaska highways, is a rural community which developed to serve travelers after the

roads were built during World War II. Tok is not an incorporated village, although 34 Doyon Natives are listed as living in Tok. Tetlin is the only Native village in the Wrangell impact area which does not have access by highway. The village and the land surrounding it maintained their reservation status and did not incorporate during the Land Claims Act, a fact which makes this community unique.

For the Natives residing in communities along the Alaska Highway, subsistence remains an important component of their life styles. The hunting for moose and other large game animals; the taking of waterfowl, grouse, and ptarmigan; trapping; the snaring of small animals; fishing; and the harvesting of berries are all activities which are undertaken by a majority of the families living in the area. In respect to the effect of the proposed Wrangell park, however, the people here seem removed and oriented in other directions for hunting and fishing. When questioned about the Wrangells, most residents will say that the Wrangells are a long way off. With a few notable exceptions people remain in the Tanana River valley when undertaking subsistence tasks.

As one drives through Mentasta Pass, the Copper River basin, and into the Tanana River valley, subtle changes in the environment and geography become apparent. Climax spruce forests cover the broad valley which is interrupted by dark sienna-colored lakes. The wide Tanana River is strong and deep at the highway crossing near the Tetlin Indian Reservation, fed by glacial melt and snows of the Wrangells 60 miles to the south, the snows of the Kechumstuk Range to the north, and the Mentasta Mountains, known locally as the Black Hills, on the nearby southern horizon. The Chisana and Nabesna rivers rush through the Alaska Range and into the Tanana valley where their courses seem to meander in confusion, trying to find their way over a land that is suddenly flat.

This area is the coldest in North America according to the guide-books, and the meteorological data from Federal Aviation Administration weather stations tend to confirm this claim. Temperatures usually reach -60°F each winter at the airfield in Northway, and "old-timers" claim that temperatures of -75°F have been recorded.

In the aboriginal period, this land was inhabited by the Upper

Tanana Indians. Speaking an Athabaskan language, they resemble in many ways the Ahtna to the south, and in fact there have been and continue to be many intermarriages between the two groups. The boundaries between the two groups were rather anomalous, and though anthropologists do not know the exact character of the boundaries, it is clear from ethno-historical and documented sources, especially those of Lt. Allen, that interaction was frequent. In some ways, it seems that the political boundaries have become increasingly defined by the administrative activity of regional corporations and government agencies, both of which must funnel funds and administrative programs to geographically bounded groups. This is also true from an international perspective. Natives in this area may freely pass over the U.S.-Canadian border and utilize resources in both the Yukon Territory and Alaska, but they must follow the laws of the country in which they are present.

In aboriginal times the ancestors of the Natives now living in Northway village also inhabited villages along the Nabesna and Chisana rivers. During the gold rush these river valleys experienced many changes and each saw its own gold rush between 1898 and 1930. The Natives actively joined the stampeders by freighting, guiding, working sluice boxes, panning on their own, and supply hunting and fishing. When the mines were closed, however, they moved to villages in the Ahtna region and to Northway where an airfield and trading post were located.

When the Natives lived in the Nabesna and Chisana valleys, they knew the Wrangells well and used them extensively. Caribou were an especially important species to these people, and waterfowl were taken in great numbers. Sheep were hunted in the high mountains using spears and surrounds. As in the south, the people today combine economic with subsistence resources in order to live. Wages, welfare, retirement, as well as cash from trapping and craftwork are all used to purchase necessary groceries.

The villages along the Alaska Highway do not utilize many resources from the Wrangell area, and for this reason, the following overview is brief and discusses only the use of resources in the Wrangell region.

Tok

Tok is basically a rural and white community, servicing tourists as well as Whites and Natives living along the Alaska Highway. Most of the Natives live along the highway in houses of log or lumber construction. Some work is available in the highway department, the BLM, or other institutions found in the community. One grocery store is owned and operated by Natives and sells many craft items including beadwork done on hand-tanned moose and caribou hides, and birchbark baskets. Tok seems to have an abundance of birchbark baskets on sale made by women in Tok, Tetlin, and Northway. Unfortunately, the baskets are sometimes not made well, although one might argue that they are simply meant to recreate rough utility baskets of the past which were used during berry-picking forays and for other work related to subsistence. In fact, the crudeness of the baskets' construction may reflect the effect indiscriminating tourists have had on the quality of craftwork.

The Tok people are closely related to the villagers at Tetlin, Northway, Tanacross, and Dot Lake. They visit often and participate in potlatching and village social events. Some of the Tok residents participate in subsistence activities, but most of these activities are conducted in the Tanana valley. It is a rare occurrence when people drive over Mentasta Pass in search of caribou. During the fabulous fishing season of 1977, the Tok people visited Chistochina and brought back loads of salmon packed between layers of fresh green grass and ice in the trunk of the car.

Northway

Northway is an incorporated village belonging to the Doyon corporation, and is located at the mouth of the Nabesna River, 7 miles from the Alaska Highway, at the end of a gravel road. Like many Alaskan bush communities, Northway is sociologically two communities, one Native and one white. These are sections separated not only by physical distribution (the "two sides of town") but also by the cultural difference, the

absence of social interaction, and the economic divergence. The 100 to 150 permanent residents of Northway live in the village at the end of the road or in a few houses situated along the road. The white community associated with the Federal Aviation Administration and the United States Customs lives in government-built housing which most resembles barracks or "base housing."

The Natives of Northway display many of the characteristics of traditional village life, including a kin-based social system, pot-latching and other forms of sharing, and a traditional identity with the local area. Although supplies are brought in from Tok and even Fairbanks, a small store near the airport is fairly well stocked and many people shop in the village. Subsistence resources remain, however, important to many families, and even a short visit can illustrate this fact to a researcher. In late August, moose meat is everywhere in the village and whitefish, both fresh and dried, is offered. Fresh waterfowl simmers on the stove, berry jams and jellies sit on the table at every meal. Groceries are combined with local Native foods. The foods might vary slightly, but the situation resembles that found in Mentasta or Chistochina of the Copper River basin.

In the winter some Northway residents trap; others set snares for rabbits and ptarmigan. Hunting is done usually near the village, along the highway, and north along the Eagle road, but sometimes boats are used to follow the Nabesna River south. In the past some of the Northway people passed through the "notch" in the Mentasta Mountains to go hunting, but presently people no longer go that far on the hunt. During the winter, trappers also travel up the river, but they too stop short of the notch. The Northway people no longer utilize the Wrangell Mountains. Of all the Native people living along the Alaska Highway, only the Northway people have a great personal interest in the Wrangell area, but because of their long historical separation from the place, their identity with it has become less strong.

Tetlin

Tetlin is unique in many ways among the communities discussed in this study. The village is located on a reservation and cannot be approached by a highway. The people continue to utilize subsistence resources to a large extent and have chosen to remain a reservation partly because of the subsistence life style. The reservation status permits the people to maintain control over subsistence on their land, a contiguous parcel completely governed by the Tetlin people. This situation contrasts with that of the other Native people discussed in this report whose lands are not contiguous, and whose harvest of subsistence resources is regulated by the state government.

The writer has often heard older and more subsistence-oriented Ahtna admire the Tetlin reservation. The Tetlin people do not have to worry about game officials looking over their shoulders. Indeed, the feeling that people are watching and checking up on one's hunting and fishing habits is a topic of constant discussion in some circles and indicates the uneasy feelings Native people have toward government controls. Tetlin also has tribal police, which most corporation Natives would like to see in some form in their area. (There is presently only one "outside" Indian on the 23-member Glennallen trooper station.) The Tetlin people undertake virtually all of their subsistence activities on their own reservation where they can escape the regulations and the white officers who enforce them. They would not be grossly affected by the changing status of lands in the neighboring regions.

In conclusion, the Natives living along the Alaska Highway do not utilize to any great degree the subsistence resources of the Wrangells. On occasion, some might drive to the Nabesna Highway to go hunting, especially when traditional hunting areas along the highway are closed, as was the case during the summer of 1977. In the case of salmon, the people activate social ties of kinship and clan in order to forge alliances with Copper River people who must give salmon in return for gifts or honor. In this way the traditional social framework encourages inter-tribal affiliations so that the sharing of subsistence resources

between regions might take place. Thus, subsistence affects not only social relations among individuals, villages, and races, but also the relationships between regions which are based in part on the sharing and gifting of subsistence resources. The researcher will add at this point that one cannot duplicate this function of sharing by using money. It is not proper to pay someone 15 dollars for visiting from Tok or Tanacross, but by giving them a few salmon, bonds of friendship are made.

Anchorage Natives

Since more than half of the Natives enrolled in the Ahtna regional corporation live outside of the region, some attention must be paid to their subsistence resource use within the Wrangell region. Most of these urban Natives live in Anchorage and visit the region for social and subsistence activities. It is not known exactly how many Anchorage Ahtna return on a seasonal basis to hunt, fish, and pick berries, but those who do return usually visit and utilize the resources found near their ancestral villages. The length of stay, the number of visits per year, and the intensity with which subsistence activities are undertaken varies from family to family and from individual to individual.

Some families and individuals visit predictably every year during the same season. A middle-aged woman and her two small children will return to Copper Center each summer during the fishing season. Her husband, a commercial fisherman, is away from their Anchorage home during the fishing season and she visits her family, helps run the fishwheel, and babysits with the younger children in her mother's household while the fishing season is at its peak. She does not personally need fish because of her husband's employment, and usually brings some with her from her husband's boat. Some of her children who live in her mother's household year round are not supported by her present husband, and it is for them that she participates in the fishing season. Another family with deep ties to Chitina returns each summer during the fishing season and runs a fishwheel.

It would be incorrect to assume that the Ahtna in Anchorage have high-paying jobs and are not economically in need of subsistence foods. Some of the Anchorage people live on incomes below the poverty level, and seasonal subsistence activities contribute to their total economic stability. Similar examples can be found in every village. The diverse economic strategies undertaken by the Ahtna people include permanent residence in Anchorage with seasonal subsistence forays to the home region. Anchorage attracts people because of its employment opportunities as much as for its services of many kinds, including welfare, public housing, Indian Health Service, and special education programs.

Economic need might be one motivation for using subsistence resources, but the emotional need to reassert one's heritage also motivates visits by some Anchorage people. Hunting and fishing, as has been reiterated often in this report, define for some people their identification with Ahtna culture and the Ahtna region itself.

It is important to remember that subsistence activity does more than just feed people. It brings them together in cohesive groups. When the reasons for coming together are taken away from a group, social discord usually follows. Such indicators as alcoholism, divorce, high mortality rates, and violent crimes measure social stress in communities throughout the United States where traditional forces for interaction have been disrupted. Evidence for social disruption already appears in the Wrangell region. Changes in subsistence regulations will exacerbate the disruptions if the needs of those people who depend on subsistence for their well-being are not met. Unfortunately, the author does not know what could substitute for subsistence resources. This is a dilemma.

6

A HISTORY OF WHITE SUBSISTENCE IN THE WRANGELL REGION

Subsistence resources have played a major role in the history of white people in the Copper River valley. From the very first visit of Russian-Aleut explorers in 1848 through the gold rush and mining period at the turn of the century and into the present, subsistence resources have contributed to the diet of the white residents of the valley. At first the use of subsistence resources and local guides was a necessity because it was physically impossible for the hiking explorers to carry enough food on their backs to sustain their parties for more than a few weeks. Later, the use of subsistence foods defrayed the cost of living in isolated areas, and contributed badly needed protein to the unhealthful and monotonous diets of the miners and prospectors. Homesteaders came to depend on subsistence foods as they attempted to develop their lands into productive farming units in an area that has been inhospitable to the farmer's plow and his imported domesticated species.

Over the years, an indigenous white culture developed which highly valued the use of subsistence foods such as moose, caribou, sheep, and fish. At first some of the white settlers learned from the Native people; they were educated by young Natives in the local species and where these species could be taken. Others implemented techniques used on the American frontier. Today, putting up fish and berries, as well as hunting and running fishwheels are common activities conducted each year by the white population. Contrary to the belief of some observers, the use of subsistence resources by white people in the region extends beyond mere recreation. For some white residents, subsistence has become part of a way of life that recalls our nation's frontier history.

The Russian Period

During the Russian period very few documented cases of exploring parties entering the Copper River region are known, but a general reconstruction can be made. While the Russians were interested in bringing the Ahtna into their sphere of influence, they were never very successful in this aim. After the Russian sighting of the Copper River delta, several unsuccessful attempts were made to ascend the river in 1796, 1798, 1803, and 1819. Native hostility was given as the reason for these failures.

Finally, in 1819, it is reported that a Russian-Aleut named Klimovsky reached Taral on the southern Copper River and erected a trading cabin there which is remembered in ethnohistorical as well as historical documents (Dall 1870:331; Sherwood 1965:106). Reports conflict as to the post's exact location, but that of the Russian American Company of 1863 indicates that it was 135 miles from the Copper River's mouth and 120 miles from the nearest location on the seacoast. Apparently, a Russian Orthodox church was built in the area and the Natives say that a priest came for a short time. (Allen reports the existence of church ruins at Taral in 1885.) Klimovsky's length of tenure in the valley is undetermined, although the 1863 report says that the station was destroyed after the murder of Serebrennikov (a later explorer) by the Natives in 1848. This would mean that a trader lived in the valley for about 25 years. Unfortunately the information about this post is both fragmentary and conflicting.

Despite the fact that the trader was the sole representative of the Russians in the region, he had no real governmental functions. The Russians in Alaska represented the trading class of Russia. Many of the traders had to receive permission from the Tsar and Tsarina to move from their natal towns because of the ancient custom of feudalism. When a man gained permission to leave, he emigrated for life, and those who traveled to Alaska settled there, married local Native women, and fathered a new generation of colonial Russians. These people, despite their Russian

ties, lived very close to the land. Russia was many years away, and few trade and food supplies were brought to the colony outside of the simplest groceries such as tea, salt, sugar, and flour. Thus, someone like Klimovsky lived very much like the Native people around him. Once again, almost no particular facts are known about the post at Taral. If the trader was like other Russians, he probably bartered with the Natives to supply him with virtually everything. The trader did everything possible to encourage the harvest of the fur-bearing animals and the export of these furs outside the region. His own house and store was probably a one-room cabin; in fact, it is described as an odinochka, or "one-room cell." His life was simple and difficult.

A little more information is known about the life of the Russian-educated Serebrennikov and his party during the winter of 1847-48. Serebrennikov's journal of his trip to the Copper River is illustrative of the Russian pattern of exploration and colonialization of Alaska. Typically, the Russians used Native guides and hunters to harvest subsistence foods as well as furs from the wilderness. C. L. Andrews, in a personal footnote to a translation of Khlebnikov's Life of Baranov (1835) says

...the Russians in the Russian American Company seldom hunted for animals, they depended on the natives to do the hunting, sometimes forcing them to gather fur by methods more effective than polite (C. L. Andrews Collection, University of Oregon).

It appears that these forceful "methods" were not effective in the case of the Ahtna people.

In 1847 the party of six men ascended the Copper River. While Serebrennikov's father was Russian and his mother Aleut, the other members of the party were probably Aleut who had converted to Orthodoxy and adopted other Russian customs. They virtually lived off the land during the entire journey. The journal entries are unclear as to where the locations discussed in the text are situated, but it appears that Serebrennikov and his party must have wintered somewhere near Klimovsky's trading post. The party arrived there on 4 September 1847. The Natives refused, however, to guide the "Russian" party at this time of year.

because the snow would be too deep and no food would be obtainable. Serebrennikov writes, "I considered it unjustifiable to fight against such difficulties because the advice came from the very people whom I intend to use as guides."

After spending the winter at this post, the party recruited five guides and on 26 May 1848 started up the Copper River. Their list of provisions is given in the journal: 100 dried fish, 4 pounds of crackers, 4 mountain sheep, and a small quantity of tea and sugar. According to the journal, the party soon exhausted the food supply and many of the subsequent journal entries discuss their quest for foods. Although they attempted to hunt for themselves, they were not particularly successful and took only two grouse and one hare, losing a pair of caribou. In general, the explorers continued to press the Natives into service. They traded 2 pounds of tobacco for roots and a preparation of roots and fish bones at a village (possibly Copper Center) with houses on both sides of the Copper River. The party procured a caribou from a hunting group on the Tazlina River and, at Tazlina Lake, they traded beads for fresh meat and fish. This group of men, because of their Aleut cultural roots, was well equipped to live off the land, but they followed the Russian pattern of pressing the local people into service as suppliers of food.

Somewhere near Slana they decided to spend the winter in a village occupied by some Upper Ahtna people. They forced out the men and enslaved the women of the village, again compelling the reluctant Natives to supply them with food and wood. After about a month, the local people, with recruits from a neighboring village, attacked the house and burned it to the ground, killing all of the Russians. This incident cooled the Russian interest in the region and it was not until well into the American period that other explorers came.

American Explorers

America took over the administration of Alaska in 1867, but the new administration was slow in authorizing exploration of the new territory. In 1883 and 1884, Abercrombie and his army party attempted unsuccessfully to ascend the Copper River from the south. One writer indicates that Abercrombie was slow to carry out his assignment because he was afraid of the Natives, whose fierce reputation lingered even after the Russian departure (Sherwood 1965:103). The army assigned Lieutenant Henry Allen, a young, ambitious graduate of West Point, the task of exploring the Alaskan interior via a Copper River route. He successfully traversed the length of the valley and passed into the Yukon drainage at Mentasta Pass in the early spring and summer of 1885.

The success of Lieutenant Allen was in many ways the result of his attitude toward the use of subsistence resources on his trip. He was frustrated initially by many of the U.S. Army regulations, some of which were ludicrous when placed in the Alaskan context. The army required, for example, that two mules per man be included on any expedition and that enough provisions be conveyed to sustain the party for the duration of the trip. This was an impossible regulation to follow in Alaska, especially when attempting to ascend the Copper River. Thus Allen and his party left the army post at the river's mouth and took all the necessities demanded by the regulations, but upon disembarking, Allen left the unneeded paraphernalia with the ship's captain. Allen then told the captain to sail around for three days before returning to the post. In this way Allen hoped to avoid having another party sent after him by his supervisors. This ploy was successful and Allen became the first U.S. Army officer to lead his men into the Copper River region. Like the Russians before them, they would have to depend on the subsistence resources they found on their journey and use Native guides. This approach to exploration proved to be the key to success and Allen's party made history by traveling up the Copper River and down the Yukon.

Allen writes about a trip up the Chitina River in April 1885. The party of five Whites and one Native guide carried 22 pounds of flour,

25 pounds of beans, 3 pounds of bacon, a little tea, and 15 dried salmon. The salmon had been purchased from the Natives at Taral. Allen writes,

From this time we began to realize the true meaning of the much-used expression 'living upon the country.' ...The provisions with which we started could easily have been consumed by us in four days, but they were held as a reserve. Our main dependence was on rabbits, the broth of which was thickened with a handful of flour (Allen 1900:429).

Apparently Allen's party was very hungry because they celebrated his birthday on 13 April by eating the rotten remains of a wolf-kill. By 17 April they were famished, and Frickett, a sergeant on the trip, wrote in his journal "Rotten moose meat would be a delicacy now. So weak from hunger that we had to stop at noon to hunt. All so weak that we were dizzy, and would stagger like drunken men" (Allen 1900:430).

Fortunately, they obtained a small bit of moose from their Native guide's mother. But the time of year was lean and the Natives were also hungry.

The Native stories also tell of Allen's party's hunger. They relate that Allen's group arrived in the region hungry and was eager to buy or obtain food in any way possible. This description of the Allen party corroborates Allen's own report. The Native who told the author this story added that the Natives were puzzled why anyone would choose to go traveling during the late spring without their own food. "Everyone knows that this is the hungry time of year," she added. Allen, on the other hand, was appalled at the lack of food found in the Native communities. Allen writes of a group of Natives somewhere between Gakona and Chistochina:

On the 24th we passed the first natives seen since May 15. They were the thinnest, hungriest people I have ever beheld. The children were slowly wasting away. Their only support had been a few small fish, rabbits, and roots. Their supply of food on our arrival contained roots only, but the men were off for fish...I shudder to think of the subsequent condition of those poor women and children unless the salmon run quickly follows us (Allen 1900:439).

Thus, the Natives and Whites each display puzzlement at the other's lack of provisions. Nevertheless, Allen's insight that successful exploration could be undertaken only if the party traveled quickly,

carried light loads, lived off the land, and utilized Native knowledge of the environment, produced the grand accomplishment of his expedition. His approach differed from that of the Russians by not using coercion. The Native stories say that he approached the political leaders on equal terms and expressed a desire only to "visit" the region.

American Settlers and Prospectors

Although it is likely that many enterprising trappers and traders had lived in or traveled through the Ahtna region, historical documentation names only one American, John Bremner, who predates the Allen expedition. Bremner wintered at Taral during the year 1884-85, and in a state of near starvation, he met Allen's party and accompanied them on the rest of the expedition. Bremner tried to live on arctic hare during that winter and nearly starved to death, a strange development because he had a Native woman (not necessarily Ahtna) with him. According to Allen, Bremner was isolated across the Copper River from the Native community. Bremner says that the Natives stole most of his provisions.

I defy the world to produce a more expert lot of thieves
they have stolen nearly all my grub they broke in to my
cabin while I was away up the river and stole all my tea
and sugar and two sacks of flour and most of all nearly all
my tobacco I have only one sack of flour left no tea or
sugar I have been living on rabbit meat for the last month
(Seton-Karr 1887).

This tale is strange especially in light of Abercrombie's impression of the Natives: "It will be found to be the universal verdict of all who have come in contact with the Copper River Indians that they are honest, inclined to be friendly, and temperate" (Abercrombie 1900:579).

Bremner exemplifies a type of settler who pioneered the way into the Copper River wilderness. Unfortunately these settlers do not appear in the documentary sources. The secretive prospectors beat the U.S. Army into the region and launched their lonely search for gold and other precious metals. They were poor men for the most part who had few material possessions. Bremner's rough prose indicates his poor

education. They brought flour, sugar, coffee and tried to travel as lightly as possible so that the heavy implements of their vocation could be included in their "outfits." They tried to live off the land as much as possible, and many were not successful in this endeavor. Bremner is an unusual prospector because, at Allen's request, he described the Copper River country and his travels there, an act uncommon to prospectors who prefer to maintain the edge on competitors by hiding any knowledge gained in the field.

After Allen's visit to the valley, prospectors probably entered the region with increasing frequency, either intent on mining in the Wrangell region or passing through on their way to the Yukon. By 1896, when the Copper Center Lodge was founded, the first signs of the coming gold stampede were apparent. Coincidental with the gold rush was a new burst of exploration, due in part to Congressional criticism of the army. The critics were beginning to find fault with the army's Alaskan administration by pointing out that it had done little to expand the amount of information available on the vast territory (Sherwood 1965:167).

Under this pressure, the army initiated new explorations, which included Abercrombie's ascension of the Copper River in 1897. Abercrombie added almost nothing to the information previously obtained by Allen, and reported that everywhere he went it appeared that prospectors had gone before him. In fact, Lowe, a renegade from Abercrombie's party, says that the path over Mentasta Pass was already worn by the prospector traffic. Of course, this was a traditional trail followed for generations by the Ahtna and Upper Tanana people so its degree of wear indicates nothing about the number of prospectors in the area. But Lowe's contention about the presence of prospectors in large numbers was probably correct. In 1898 the Copper River valley was to become one of the main routes to the Yukon.

In the summer of 1898, the inexperienced and unprepared prospectors swarmed over the Valdez Glacier and into the spruce-covered uplands surrounding Klutina Lake. The estimated number of people who lived at Klutina Lake through the tragic winter of 1898 varies from 600 to 3,000

people, many of whom had brought only flour, sugar, fat back, baking powder and coffee. Some of these outfits weighed 1,200 pounds (Steinmetz 22 April 1898). By May the letters of John J. Steinmetz to his family in Pennsylvania indicate that food was already scarce. "Flour brings as high as \$20.00 a CTW, sugar 25¢ a lb., bacon 35¢ a lb...." At this time Steinmetz was on top of the glacier and hungrily looking forward to the wild foods at the end of the glacier trail. "At the lake we will have fish, duck, and other things as we are hard on the flapjacks, biscuits, some soup, oatmeal, rice and beans, all good staple foods with some bacon" (Steinmetz 26 May 1898). Another stamperder, Shad Reid, writes in his diary that "some one had stolen a sack of flour and 50 pounds of bacon may the man who stold it never be prosperous" (Reid 18 April 1898). The prospectors camped in a "tent town" that grew up at the outlet of Klutina Lake. Here people cut the trees down and shaped lumber on makeshift mills so that they could make boats to float down the Klutina and then haul up the Copper River. Many of the prospectors decided to winter at the lake in the community called "Rapids City" and others decided to travel down to Copper Center at the Klutina's mouth.

As winter came, starvation, sickness, and death overwhelmed nearly half of the people. Others, desperate to escape, died trying to negotiate Valdez Glacier in a mid-winter exodus. They had scurvy because of the absence of fresh fruits and greens in their diets. The tragedy lies in the fact that they did not know that the cure to their disease lay all around them. Just a handful of the wild cranberries lying in profusion under the snow, or a little rose-hip tea each day, would have staved off the sickness. The graves are still visible back in the woods behind the lodge in Copper Center, the wooden crosses overgrown with wild currants, an ironic epitaph.

If scurvy was a major problem, then hunger and destitution contributed to it. The few remaining Ahtna who are old enough to remember say that the winter of 1897 was one of "starvation." There were no animals, the fish run had been poor the previous year, and even arctic hare and ptarmigan were scarce. One Native informant told me that his mother and father had traveled over 100 miles from Chitina to Tangle

Lakes to find caribou during the spring of 1897. Some of the elderly died at this time. The stampeders came into this region, probably taking what game was available, but there was not enough. The army in Valdez tried to help as many people as possible but their resources were not large enough to handle the situation. One of Abercrombie's men, Quartermaster Brown, had spent the winter of 1898 in Valdez burying the broken men who limped off the glacier and died (Brown 1900). He reports, "My God, Captain, it has been clear Hell! I tell you the early days of Montana were not a marker to what I have been through this winter! It was awful!"

Thus the problems that overcame the gold rushers stemmed from their ignorance of the land around them and the resources it had to offer. Culturally, they were unequipped to deal with the everyday demands of survival. Usually they came alone, but many joined forces in small groups of two or three to invest in "outfits" which included food, transportation such as sleds or horses, tools, and equipment. A large proportion of men were poor and underfinanced, while others had been financed by families in places such as Pennsylvania and Indiana, or sometimes in flashy promotional campaigns underwritten by the local small-town newspaper. The folks at home waited for letters recounting how their boys had struck it rich or had bravely fought off grizzly bears and found high adventure in the northlands. These letters would be published in the newspapers, many of which were in the height of a sensationalist period of "yellow sheet journalism." Some young men were not only following their own dreams but also were responsible for the dreams of small-town people all across America. Perhaps this explains in a small measure the undeviating course that some of these young men followed right to death.

In Copper Center, "...some men are making out by having eating places, some sell whiskey, some have card tables, others run second-hand stores by buying from those who are going back" (Steinmetz 15 September 1898). The Holman Hotel (Copper Center Lodge) sold dinner for 75 cents. The bill of fare included pea soup, boiled soft side, fried bacon, yeast bread, stewed dried fruit, and tea with sugar (Reid 14 June 1898).

Copper Center had become an instant city.

The society at Klutina Lake and Copper Center is interesting because it was virtually all male. In the face of adversity, people clung to each other in very close groups. In the few available letters and journals written by people living at Klutina Lake during this period, it seems that family groups, often consisting of fathers, sons, uncles, and nephews, had left home to seek gold. These family members set up housekeeping in tents or small cabins, the remains of which can still be seen at the lake's mouth and near the lodge in Copper Center. In most accounts the old or infirm would act as cooks, while the young vigorous men hunted, snared, and gathered wood, efforts which became increasingly difficult as the winter progressed.

People who were not related by real kinship also came together in family-like groups. The basis for association was usually defined by an individual's home town or even home country. In one case, people from a small area in Pennsylvania joined together to build a cabin and spend the winter together. It is also reported by the local white people and recorded in Steinmetz's letter of 26 May that enclaves of Swedes, Irish, Dutch, Jews, Japanese, and other ethnic groups could be found. They say that a small cluster of four or five cabins which were home to the 15 or so Swedes was labeled "Swedetown" and so on. Apparently, from what local people say, each ethnic group built cabins that reflected its ethnic heritage in some way, such as the position of the hearth, or the type of windows built, or small carvings made on the beams. Each household had the responsibilities usually assumed by a family. They ate together, shared chores, supported one another, and finally buried each other. It could be possible, although it cannot be proven conclusively, that despite the possibility of starvation, the order maintained in the community was traceable to the existence of these small family-like units. Control over group members and the sense of community responsibility are qualities certainly capable of the feat. Of course, some problems arose (such as the theft already mentioned), and the federal marshal built a large cabin on the south bank of the Klutina River in 1898. This building became a public

meeting place and welfare center.

Along with their picks and shovels, the prospectors carried a system of values that was typical of middle America at this time. Many of these people were simple, uneducated, and provincial. Others were well educated. It was through both groups that the Indians in the region were introduced to the American value system. At the time two attitudes prevailed about the Indians, with whom the United States had only recently stopped warring. One attitude held that the Indians were "noble red men," whose generosity, gentle nature, and honesty were unparalleled in the other races. The opposite attitude held that the Indians were "savages" barely on the level of dogs. In general, the latter attitude is that expressed by the stampedeers, who were usually representative of the working and farming class. Poets and some politicians held the former view.

In the descriptions by some of the stampedeers, the Native people are portrayed with a lack of respect typical of many people at that time. Copper River Joe's book entitled A Golden Cross (Remington 1939) is a fictionalized account of one man's trek to the gold field via Klutina Lake. His unflattering view of the Native people is similar to a white attitude found even today in the region.

There were some men who did live close to the Indians. A few married Native women. One older Native told me that those few men in Copper Center who married Native wives remained healthy. Obviously, their diets included many local foods that their wives prepared. Those people who were amenable to the knowledge the Native people had of the environment were more likely to succeed. Many others became the victims of their own prejudices.

The whole problem of diet is difficult to reconstruct. Steinmetz notes that disease struck men differently. There is no doubt that among the stampedeers were those men more capable at living in the wilderness. Shad Reid, from somewhere in the central midwest, seems to be one man well equipped for survival. He reports in detail and with some personal delight the many wild foods he harvested. He took ducks, fish, moose, bear, and berries. Apparently, in Copper Center the

Indians were bartering moose meat for store-bought goods, and Shad Reid writes that his partner, "Ickis, traded some rice and coffee to Indians for a piece of fresh moose meat" (Reid 14 August 1898). Reid's party found hunting to be prosperous even without the opportunity for commercial exchange.

13 September 1898	went hunting with 3 other men--camped about 15 miles from here. Just at dusk 4 moose came running out about 75 yards from the campfire. Ickis and Skip commenced shooting at them. Finely succeeded in killing a young bull calf and wounding 2 more.
14 September 1898	Ickis and Skip shot another bull calf this morning
15 September 1898	We returned with one of the moose
16 September 1898	Left Harley to sell the meat and 5 of us return to bring in the other.
17 September 1898	returned today. Harley had sold \$23.00 worth of the meat--price 25cts. per pound (Reid 1898).

One month later on 9 October they shot a large caribou that dressed out to 400 pounds. At least one party was able to feed itself.

The pace of development near the Klutina River trading post was rapid. By 1902, the prospectors in the area no longer had to depend totally on the local subsistence resources to survive. A trail had been made over Thompson Pass from Valdez, and small roadhouses, stocked with groceries and serving warm meals, were sprouting up all along the road at places like Tiekell, Tonsina, and Willow Creek. Developers in New York were already pushing forward the plans of the Kennicott Copper Mine and the Copper River Northwestern Railroad.

Settlement in 1900-1940

With development came some women to cook in the roadhouses, to homestead with their husbands, and even to teach (a school was established in Copper Center in 1905 and later in Chitina and McCarthy). While unmarried men continued to make up the dominant social group, some families and married couples arrived also. Some of these settlers came

to the area with long-term commitments and a new life style began to develop in which subsistence resources played an important role. White men married to Native women remained in the region often as trading post operators or fur dealers. This group used both white techniques for hunting and preparing meat (canning, frying and baking) and many Native traditional foods (boiled fish stews and cranberry relishes). At the same time many store-bought foods were also eaten. Canned fruits and vegetables were shipped to the area through Valdez, and once the railroad was completed in 1911 and the army road improved in the next year, supplies from Seattle and San Francisco became easier to procure.

Homesteaders farmed near the highway right-of-way between Chitina and McCarthy and supplied vegetables, some grains, and chickens to the people in McCarthy, Kennicott, and Chitina. They tried also with much difficulty to provide dairy products, but the grizzly bears attacked the cows grazing beside the salmon-filled creeks in the summer. Unfortunately this researcher has never seen any literature written about the life styles led by the homesteaders living along the railroad. The meager information already given is from stories told by local whites who heard of or saw these farms in operation in the 1920s and 1930s. It is said that these farms were never very successful, due in part to the unsuccessful battle with the wilderness. Not only did bears attack the livestock, but small fur-bearing carnivores attacked the fowl and rabbits, and hare and moose grazed freely in the gardens. Undoubtedly, the farmer tried to get these animals out of his garden and hen house and served them up from time to time as stew on his table or sold them to the local fur trader.

Subsistence resources played an important role in the development of Alaska during the first 40 years of this century. With the exception of Kennicott, it was not until World War II, when large numbers of soldiers were brought into the area to build roads and airports, that the personnel of developmental projects did not depend to some extent on wild foods. Virtually all the people working in the mines at Chisana, Nabesna, Valdez Creek, and the north fork of the Chistochina utilized wild foods. Indians were paid for meat and fish by the pound. Without

market hunting many of the mining companies would have had difficulty maintaining the health of their workers. One Native informant told me that he spent an entire winter supplying meat for the miners at Chisana in about 1923. He said that, with a cousin, he hunted sheep and caribou throughout the winter. They tried to supply five or six sheep or three or four caribou per week to the Chisana store. In this way they made as much if not more money hunting as they would have if they had trapped.

The Whites hired Indians to supply other subsistence resources. Dried fish were packed in "bundles" or packages of 40 and sent to Fairbanks to fuel the dog teams there. The Indians also supplied the trading posts, stores, and lodges with meat which was sold back to the Indians and to travelers and others in need. Thus market hunting was an important occupation for the Native people, but it was also a significant source of protein for the white settlers, developers, and travelers. The use of wood for heating, cooking, and building was virtually universal. Here again many of the lodges and businesses as well as the mines hired the Native people to supply wood. In other cases, settlers, trappers, and homesteaders spent many hours supplying the wood their families needed.

The white settlers depended on the subsistence resources around them to varying extents. Some preferred to bring in as much food from outside of the region as they could afford. Others preferred to depend almost exclusively on local foods. On quarterly visits to the trading post, settlers bought 100 pounds of flour, 50 pounds of sugar, salt, bacon, and some coffee, and harvested the rest of their family's food from the land. This group usually obtained cash by trapping or working seasonally at mines. If one did not own a business or live in Chitina or McCarthy there were few other options open.

Trapping was never a very lucrative vocation. The description given by Addison Powell of one winter of trapping near Paxson is interesting because it shows how many trappers lived (Powell 1910). So many of the adventurers coming to Alaska were single men. Women who did not reside in towns lived in the lodges, trading posts, or homesteads. Powell relates the ways in which he and two friends survived

during their trapping expedition and how adversity kept them together.

The white citizens of Alaska shaped a new culture and society while living on the edge of the frontier. On one side they looked to the Valdez-Fairbanks road and to Chitina, where they could purchase goods from Seattle and San Francisco to line the shelves of the underground cache beneath the cabin's kitchen. On the other side, the harvest from the wilderness gave the settlers a feeling of independence and self-sufficiency. Some chose to live near remote traplines, isolated from the world. Others lived along the highways and served the travelers. Their combination homes and lodges were usually filled with a parade of company. All were proud that they could make it in a land where so many others have failed. They placed a high value on independence and individualism that has carried into the present.

The Alaskan society reflected the individual spirit of its members. Outside of the towns there was little feeling of community; single cabins stood separated from one another by miles of road or trail. The people came from varied backgrounds and did not always get along with one another. There were no schools or other community institutions, such as a grange, that had been important in drawing together the diverse elements on America's nineteenth century frontier. The small nuclear family units became isolated cells with stronger ties to their families outside of Alaska than to neighbors in the bush. It was not until statehood that this situation would change significantly.

Post World War II Settlement

After World War II a different type of settler moved to the region, often bringing his family. These people were interested in employment, not adventure and usually not mineral development. After the Statehood Act was passed in 1958, the state and federal government employed more than one-third of the valley residents in positions with the Alaska State Troopers, the Department of Fish and Game, the state-operated school system, the Bureau of Land Management and the highway department.

Many of these people hunted, fished, and otherwise utilized subsistence resources in their diets, but this was done usually to save money or defray the costs of living rather than out of absolute need.

Nevertheless many of these later inhabitants incorporated the settlers' value system into their own perspectives and goals. Moose hunting and berry picking became important social activities that highlighted relationships within family groups, defined the sexual division of labor, and further designated these settlers "Alaskans." It seems today that there are few places in America where feelings for one's home state run as strongly as they do in Alaska. The recent pipeline boom encouraged many of these feelings, and automobiles and pickups bore cryptic bumper stickers proclaiming such thoughts as "Alaska for Alaskans." For these people, much of Alaska's attraction centers around hunting and other subsistence activities.

The hunting party has become a symbol of maleness in our society among some groups. This appears to be especially true for many Alaskans. Groups of men from the Wrangell region, as well as Anchorage, other parts of Alaska and outside Alaska, migrate to the best hunting areas each fall to undertake the ritual of the hunt. A woman in Chistochina told the author that her husband and son had to hunt because that is how her son would learn to be a man.

Traveling into the northern Wrangells one finds that these feelings about the importance of hunting in defining one's identity are especially strong. A number of residents in this area said that one of the main reasons they moved there was so that they could hunt. Now that the game seems to be getting scarcer, the Department of Fish and Game limits the takes and the seasons. These developments, when coupled with the design to make the Wrangell area into a national park, enrage the residents who suspect they will no longer be able to continue this life style. Living this type of life has given to many people a certain amount of self-esteem, and it is difficult for many to think of living in any other way. Perhaps this is why some inhabitants become so impassioned when discussing the future of subsistence in the Wrangells.

Many of these people do not understand why their life style has suddenly come under attack. After all, when they were in school, the frontier life and the enterprise of the frontiersmen were held up for admiration in textbooks and news accounts. Almost every tourist that comes through the area pats the local person on the back and says "You've got a beautiful place here," or something to that effect. As institutions begin to attack their value system by making it increasingly difficult to utilize subsistence resources in their diet or as fuel or building materials, and when the ideals of "rugged individualism" confront the administration of the Alaskan lands, these people feel that "old-time American values" are under fire. Perhaps this explains in part the turn toward conservative political outlooks taken by a larger number of the homesteaders in the region. The John Birch Society, for example, has a strong following in the area and a voice in many local political decisions. In short, many of the traditional Whites in the region feel that the government has abandoned them.

Perhaps, too, these people are trying to preserve the traditional features of the "old-time" society. They do not like the recent proliferation of government and view the burgeoning institutions as a threat to individual freedom. Hunting and fishing laws represent just one area of conflict. The demands of the educational system, the tax structure, and even FAA regulations are all perceived as threats to personal freedom. Many of the Whites have lived in the region without strong community ties and they resent being restricted by a growing bureaucracy.

Over the last 10 years another reason for immigrating to the Wrangell area has gained some importance and reflects the overall disenchantment many Americans feel toward modern life, especially city life. There is a "back-to-nature" movement in the U.S. and Alaska is an obvious challenge to those people who value an isolated, self-sufficient life style. Many of the young newcomers are social experimenters who want to know if they can survive on their own, or with a minimum of outside assistance. Residing especially in the area around McCarthy and near the Chitina River are people trying to "live

off the land." Their reasons for seeking this type of life style vary from religious conviction to a curiosity about their own physical and psychological limits.

Recently some of these people, who have generally allied with conservationists on many environmental issues, find that their own life styles are questioned by the "Sierra Clubbers from Los Angeles whose brains have gone soft on exhaust fumes." The subsistence "hippies" and self-styled Thoreaus find themselves standing unintentionally beside their traditional enemies, the big-game hunters and developers. The present political alliances in the area are often surprising, but in fact it is not unusual for local residents in an area undergoing impact from outside to find they have more in common than was previously thought.

7

NON-NATIVE SUBSISTENCE TODAY

The white population utilizing subsistence resources in the Wrangell region is extremely varied and includes subsistence homesteaders, people employed seasonally or year round, retired persons, recreational hunters, and big-game hunters and guides. Those with low incomes turn to subsistence resources to supplement their cash resources in an overall strategy that allows them to live in the Wrangells without extensive labor migration. Others, such as big-game guides, base successful businesses on the use of large game species. A very few families follow a way of life in which subsistence resource use is primary: their life style depends on hunting, fishing, and gathering.

This chapter will focus on the non-Native people most intimately bound to the proposed parklands, those actually living, for example, in the upper Nizina, McCarthy, Kennicott, Nabesna, Twin Lakes, Chisana, and the upper White River. About 75 families live in the remote reaches of the Wrangells, and most have moved to Alaska since World War II. Only in recent years has the first generation born and raised in the Wrangells attempted to establish lives similar to their parents'. In voices echoing their Native counterparts, young white people complained that their parents' way of life cannot become their own because of the (d)(2) issue and the "land-freeze" which has closed lands to homesteading. Their response to economic realities has been to migrate to Anchorage in search of employment. Some aspects of the Alaska lands bill and ANCSA have already affected the local population.

On the other hand, older retired people have left Anchorage homes in the hands of grown children and, following their life's dream, have moved to the Wrangells to live in the Alaskan bush. By buying old homesteads at high prices, which few local young people can afford, retired persons have been able to move into the region.

Today, both the retired recent arrivals and the long-time residents have kinship ties extending between the Wrangell bush communities and Alaska's urban areas. Kin links are reinforced during seasonal visits to the family homestead when subsistence hunting and fishing are undertaken and intergenerational sharing occurs. Ten of the researcher's sample of 33 remote Wrangell households had grown children living in Alaskan cities or working on pipeline construction in 1977.

Forty families live in less remote areas such as Chitina, Slana, Mentasta and Tonsina, all located on the highway system. Many people in these places also use subsistence resources from the proposed parklands and live, like their neighbors, in or adjacent to the proposed parklands. During the summer of 1977, the researcher interviewed people from both areas. She traveled by plane, automobile, and foot to talk to people who represented over 70 households. She discussed subsistence resource with non-Natives in small groups having coffee in cafes, and on a one-to-one basis with individuals in their homes. Virtually everyone was hospitable and generous with his time. Extensive interviews about personal subsistence resource usage were collected for 30 separate households. People interviewed often expressed feelings of frustration about the (d)(2) issue and the governmental response to the viewpoints of local people.

The researcher feels that much of the information given is inconclusive. This stems from two factors having to do with the data's validity. First, individuals, with no real malice intended, sometimes gave answers that exaggerated the importance of subsistence resources, while deemphasizing the importance of cash, in their total economic adaptation. The intent was to enhance their basic anti-park position in the on-going (d)(2) argument. They believe that if the government is shown that they have a great dependency on subsistence resources, the proposed park bill will fail. There is also the underlying belief that the Whites must compete as a group with the Natives for the ear of government policy makers. During the interviews many people compared their personal subsistence use with that of the Natives. Thus exaggeration arises because the white residents feel they are waging a

race against the Natives as well as the recreational hunters.

Secondly, the researcher designed the interview assuming that, income and economic activity would strongly predict patterns of subsistence usage. While such patterns do have some relevance, the researcher is increasingly impressed with the predictive quality of information on values and attitudes. Perhaps this is due to the pioneering nature of the people who often follow a predesigned plan for living, one which began in their childhood dreams in other parts of America but was brought to fruition in the Wrangells.

Today cash is a prerequisite of modern life, no matter how oriented one is toward subsistence resource use. Everyone in the Wrangells has some source of income gained from seasonal employment, guiding, mining, retirement, social security, or welfare. The per capita income of individuals living in the Wrangells is sometimes high, especially among guides. One woman claimed that she and her son had made 200,000 dollars in 1976 through an assortment of bush pursuits including trapping, guiding, craftwork, and the writing of magazine articles.

Only two families (7 per cent) of those intensively interviewed received public assistance. Both families combined welfare, short-term employment, and subsistence resource use in an overall economic strategy. Public assistance regulations in 1977 discouraged its full use among bush residents. The two families participating in the food stamp programs said they did not regularly depend on welfare because the cash with which food stamps are purchased would be better spent on items such as guns, gasoline, and snowmobile parts. These purchases would improve the families' ability to subsist in the long term while food stamps provided short-term assistance during hard times.

A very few "old-time" prospectors lived a marginal economic existence. In two cases within the sample, neither subsistence resources nor welfare were utilized by prospectors with low incomes; rather, twice each year a shipment of staples such as flour, sugar, and coffee was flown into remote cabins to provide a meager although traditional diet for them. In 1977, only a few of the "sourdough" prospectors continued to operate in the Wrangells.

Three Types of Subsistence Strategies

Three economic-subsistence orientations or "niches" can be identified for the Wrangell Mountain residents. These three orientations, defined by two variables, "commitment to technology" and "time spent in the Wrangell Mountains," display predictable patterns of subsistence orientation, social organization, and value orientation. "Commitment to technology" is rated by combining several factors including ownership of an airplane and other vehicles, type of home construction, amount of land cleared, presence of electricity, plumbing or other amenities, and type of heating fuel used. "Time spent in the Wrangells" was measured by the months each family professed to have lived in the Wrangells during the previous year.

In formulating this typology, two often-mentioned "folk" criteria were used to determine if they would define population groups displaying similar subsistence-economic strategies. One popular stereotype used by local people as well as by government administrators is that people drawn to elaborate technology are recreational hunters who have different ideals and follow different strategies of subsistence resource use than do those with less elaborate technology. The second variable used to identify categories of subsistence resource users in the Wrangells is one that local people usually indicate: the time spent each year in the Wrangells. The high value placed on year-round residence is quickly communicated to newcomers, some of whom told the researcher they were going to "try to spend the winter" in isolated bush communities, as if wintering were an initiation into the bush life style.

The typology is not clear cut, but some patterns arise, especially when contextual material relating to subsistence use, individual characteristics, social life, and values are related to the three categories. Among those living year round in the Wrangells, a clear distinction arises between those who maximized their investment in lands and businesses, and those who, in order to spend more time in the bush, minimized expensive technology that required continual maintenance. People in the former group (investment maximizers) either came to the

Wrangells with enough capital to make an investment or have worked outside the region accumulating funds so they could eventually establish a year-round business in the mountains. People in the latter group (time maximizers) have refused to leave the region to collect capital because they do not wish to own a business and prefer to work for others in the area, usually for rather low wages and for brief periods. Two strategies could also be distinguished among those people who spent only part of each year in the Wrangells. The first strategy was employed by those who in 1977 were attempting to earn enough capital through seasonal labor migration to initiate a business in the region. The second strategy was employed by people who have retired and now spend their time between one home in the Wrangell Mountain area and another home elsewhere within or outside Alaska. Social variables also predict behavior. Retired couples are more likely than retired single men to own two homes, display an elaborate technology, and spend part of each year away from the Wrangells. Conversely, single retired men are more likely to live year round in the region and not to depend on an elaborate technological inventory.

Three types of socio-economic niches have been defined. Type I includes those people who maximize the material quality of their life style by investing money earned in wage labor, usually undertaken outside of the Wrangell area, in technological improvements of their property. In the case of retired couples, the money has generally been earned at a prior time and is now being invested. These people sometimes own two homes, airplanes and other vehicles, and items related to the hunt. It is the aim of many of these people someday to live year round in the Wrangells and perhaps to open a business such as guiding in the area. But in 1977, they lived part time in the area.

The type II category includes residents who extend their time spent in the Wrangell region by living a technologically limited life style. This approach emphasizes the unselective use of diverse subsistence resources, as the more successful one is at subsistence, the more one will be able to avoid wage labor outside of the Wrangells. Local jobs such as guiding and prospecting are preferred over jobs outside of the

region, despite the great discrepancy in earned wages. Welfare sometimes supplements seasonal low incomes.

Type' III strategists maximize the investment in their lands, usually homesteads or guiding base camps, but sometimes mortgaged or inherited properties. This last group of people includes agriculturally oriented homesteaders as well as guides and service business operators. They live year round in the region and must support themselves and their families through business undertaken within the region itself. Most residents declare that subsistence resources significantly defray the cost of living in the bush and free capital for further business development. In their view subsistence resources underwrite their commitment to the region.

These three groups of people are neighbors in the Wrangells, where, in 1977, factionalism existed in virtually every small community near the proposed parklands. Other writers, both scientific and journalistic, have already noted the existence of factionalism throughout white Alaska (Lantis 1973; Davis 1976; McPhee 1977). Most arguments in the Wrangells revolved around the use of subsistence resources and public lands. Rather than aligning along the type-categories defined above, the researcher found that neighbors within the same category or niche were more often involved in long-term disputes than were neighbors belonging to different social-economic niches. Data on sharing of resources and services among the white residents showed that symbiotic relationships existed between people representing different niches. In contrast, those people sharing social-economic niches and in direct competition for traplines or guided sheep hunting camps, for example, were already involved in long-term disputes over use of subsistence resources and land.

Type I Strategists

Type I strategists, who live part of each year in the Wrangells, must balance the material quality of their life styles with incomes

originating from outside the region, often from retirement pensions. A small sample (eight households) was taken from the previously cited thirty-household survey pool. Seven of these households had incomes over 15,000 dollars per year. Half of the household heads were retired, and half engaged in migratory labor in the skilled trade or professional fields. In general, the part-time residents did not have incomes higher than those of any other category in the Wrangells. Most of the households were in the process of building up and modernizing their homesites. One family hopes eventually to have enough money to open a guiding operation. (The researcher could not elicit a very realistic answer to questions about why one would attempt to build a new business in an already overcrowded profession whose future is so unsure because of pending federal legislation.)

Part-time residents usually own two homes. Two families, living part time in an isolated river valley in the southern Wrangells, made land investments or homesteaded on Knik arm in Upper Cook Inlet after World War II. Today, these land holdings are lucrative real estate in Anchorage. Both of these families fly their own airplanes, and own attractive homes in both Anchorage and the Wrangells. A family residing on the northern flanks of the massif owns a home outside of Alaska and moved to the Wrangells to establish a second career by guiding hunts. Another two families own homes in both the Chitina valley and Cordova and fly between these homes regularly.

Living in less remote areas, such as Chistochina, are retired people who have pursued a life-long dream of moving to the "bush." Having visited the area during fishing and hunting seasons, they have sometimes invested in an increasingly elaborate subsistence technology. These people, because of their previous association with the Wrangells during seasonal hunting and fishing forays, distinguished themselves from other recent migrants, such as "pipeliners."

The importance of retirement and access to capital for type I people is underscored by the almost total absence of young people in the sample of eight families. Only one family in this category had a household head under the age of 50. This young couple worked at

various professional and construction jobs to earn enough money to purchase land near McCarthy (one of the only areas where such land is available). They hope that in the future they will be able to contract their professional skills to park visitors or the Park Service itself. Other young couples had left the region to work for high wages on the pipeline. In 1977, it was still not clear exactly how these people would reinvest their money and whether they would return to the Wrangells. Nevertheless, pipeline money was responsible for improvements in some homes in all three categories. Even year-round residents with established businesses could not resist the temptation to make high wages in pipeline construction. At least three families of the total sample made home improvements using money earned on the pipeline.

Among the people in type I, the reason cited for moving to the Wrangells was the desire to hunt and fish. They stress activities in the wild as opposed to the environment itself. When asked why they live in or have moved to the Wrangells, they responded predictably by what they do: "I like to hunt and fish," or "I like to fly," or "I like to make everything we need." They are interested in taming the wild rather than living within its confines. This attitude differs from those in the type II category who stress the attributes of the wilderness itself, its beauty, quiet, peacefulness, and their ability to cope with the wilderness on its own terms. The activities involved with living in the wild become an end in themselves, an orientation which distinguishes them from type III strategists, the people whose ability to make a living is primary. For type I residents, taming of the wild will generally be effected through the application of modern technology. They haul items for personal use into their homesites with ingenious persistence; generators, freezers, plumbing, lumber, appliances, siding, insulation, smokers, chain saws, lamps, furniture, household furnishings, and off-road vehicles are commonplace. A few of the homes are as comfortable as modern homes anywhere in America despite their isolated locations.

Four (50 per cent) of the sample households take four or fewer subsistence species, while the other four households profess takes of eleven or more species. There is no middle ground. The difference

appears to be partly a function of time; retired people who do not work are able to spend their time hunting. They also have the money needed to support hunting and fishing interests, as well as to prepare and store the foods for future use. Some can afford to range for game and fish throughout the Wrangells and along the Gulf of Alaska coast, thus enabling them to combine takes from several different ecozones. On the other hand, young people who must work are unable to make heavy investments of time and money in subsistence activities.

The people in the type I category display some general patterns in their social lives. Many of these people have ties that bind them to people living outside of the region, to homes and to children living in Anchorage, Cordova, and even other parts of the United States. Seasonal visits by children or other relatives and friends are common during the hunting and fishing seasons. Urban relatives often take most of the meat or fish home to freeze in Anchorage where electricity is less expensive. Retired people, whose children visit several times a year and sometimes even monthly, display less binding ties to their regional neighbors. Perhaps the outward-reaching social ties explain why the type I strategists were not as politically aware as full-time residents. Part-time residents expressed dire concern about the establishment of a national park.

At present, of the eight families who fall into the type I category, half are headed by retired people. The remaining half, three of whom are professional employees and the other a skilled tradesman, all expressed a desire to retire to the Wrangells. This group might not appear at present to be an important component of the Wrangell population, but it is clear that in the future, as more Alaskans reach retirement age, more people will move to the Wrangells. During the field season, the researcher met many people in their late 50s fishing at Chitina who presently live and are employed in Anchorage or Fairbanks. Some expressed the desire to move to a rural area, such as that surrounding the Wrangells, and to undertake a strategy that would fall into the type I category. More and more retired couples will move into the region if

land is made available, a projection supported by the fact that virtually all of the people falling into type I are married couples. Single men, single women, as well as couples with children rarely follow this strategy.

Six out of eight households in the sample consisted of conjugal pairs. It was indicated by several of the couples that the technological emphasis and part-time occupation came from the wife pressuring her husband to supply the amenities she once had in the city. Three couples, well aware of the complexity of their technological inventory, presented the situation as if it were a compromise position reached so that the husband could live in the wilderness while the wife could maintain the comforts she had come to value in modern-day America.

In only one case do type I strategists have children living at home. Usually, their families are grown and on their own, working outside of the Wrangells. It is clear that many residents have delayed making the move to the Wrangells until their children have been educated. In fact, in the case of the one family with children, education of the children was the one reason cited for not relocating full time to the seasonal home in the Wrangells. Only a few people seem willing to isolate their families and teach the children through correspondence, and none of them fall into this particular category.

Type II Strategists

There have probably always been those people who come to the American wilderness not in search of investment but rather to live in the wilderness. They tend to enhance the "quality of their life" by spending as much time as possible in the bush even though their standard of living might remain low. They stress the environment itself and not the goals which might be gained by using the environment's resources. Their homesteads display simplicity and a desire to live close to nature, rather than any wish to tame or change the wilderness. Their cabins,

with few amenities, stand on uncleared land, chosen for scenic value as well as an availability of resources.

The nine households falling into type II category work as little as possible at wage labor and attempt to wring as much of their subsistence from the land as possible. The three households in the type II category which do not fit into this characterization are composed of single retired men who consciously aim toward a minimal dependence on technology and supply their needs by using retirement income. Two families in the sample collected welfare although other families refused to collect welfare because they did not want to link themselves to the powers and institutions of the American society. In the majority of households composing the type II category, the residents are young and represent a recent movement within the country to move back into rural regions and away from the cities where they were raised.

At least half of the households in this category have heads who have university degrees and seem to follow intellectual ideals forged in the university environment. For example, one family living in an isolated area articulately presented their plan to the researcher. They want to reach a point of almost total independence from society. Their only cash will come from the writing of nature articles; subsistence will supply all their physical needs. Although the male household head has worked away from the homestead, including a stint on the Alaska pipeline project, he prefers low-waged employment at a mining operation within walking distance of his homestead. While few families are guided by goals as uncompromising as this particular family's, there are other young families, individuals, or groups (some unrelated people live together) who follow a similar guideline, one which, by minimizing dependency on cash and any other item from the national economy, maximizes time spent in the wilderness.

Two groups living in Kenney Lake profess to be guided by their religious motivations. These religious communes are home to about 175 people, and their aims are to sever dependence on the Western economy and society. Not only do they grow, produce, and harvest their food

with the aim of reaching total self-support, but they also run their own educational, religious, and social institutions. Only a few men leave the communities to work for wages during the summer months so that badly needed supplemental foods and equipment can be purchased. While the harvest of subsistence resources was viewed as an important component of the communes' diets, the residents have not been particularly successful in harvesting some species, such as moose.

After some initial problems, including resentment of the local people, salmon fishing has become important to these communes and wheels are run at Chitina. One commune said that it had not been able to harvest as many animals as it had initially planned due to the ambiguity in the laws pertaining to subsistence. In particular, some local people felt that the commune residents abused the laws that defined takes as "one per family" or in the case of salmon, "400 per family." In general though, the commune residents and the other inhabitants of the area have little interaction. The spokeswoman for the commune felt, however, that increased interaction would probably help dispel the suspicions about the religious communities. Following this suggestion, commune members have started to participate in some community events and welcomed limited and guided visits of their property. The communes are a unique adaptation to the region, and it is still an open question whether or not they will be successful. The addition of 175 people who reside near the proposed parklands and regard subsistence as an important part of their adaptation has produced a significant amount of pressure on the game and fish populations.

In an attempt to limit dependency on cash, few modern conveniences are found at type II homesites. Snowmobiles and other off-road vehicles are not used, although some people have old trucks stored at Chitina or along the roads near small airfields. They must rely on the "mail plane" or chartered flights to get into isolated places because they do not have their own planes. Neighbors give lifts, feeling that the company and safety gained by having another person on a 6-mile snowmachine ride to the mail plane or a short trip to "town" in a plane mitigates the

unevenness of unreciprocated sharing. Interdependencies between the "haves" and the "have-nots" is an important feature overall of the Wrangell bush community.

The unwillingness to invest in modern equipment has many implications for the way in which type II families utilize subsistence resources. Without help from friends with transportation, they cannot travel long distances in order to hunt, fish, or gather food and fuel resources. As a result, a few of the families do not discriminate among the species, but use anything available. One type II family even tried using brown bear, but due to its bad taste from eating salmon--"even the dogs refused to eat it"--they said it was doubtful they would take another bear for subsistence food purposes. Nevertheless, some animals such as caribou, goat, "suckers," porcupine, and ground squirrel, all of which are not highly valued by non-Native resource users due to distasteful features, such as the presence of parasites or bad flavor, are an integral part of most subsistence-oriented type II families' menus. A greater variety and quantity of vegetable foods also characterize this group.

Food preparation is often a difficult process for those who follow a type II strategy because butchering and preparation are done by hand, without the help of commercial butchers, and also without refrigeration. This means that "old-time" modes of food preparation such as salting, jerking, and smoking are common among type II families. The drying of vegetable foods is sometimes undertaken, as is canning.

One of the biggest problems encountered in the subsistence quest is carrying the meat from the kill site to the homesite. It is in fact this problem which brings many type II strategists to the conclusion that the legally defined hunting season in late summer (before the snow falls) is a major block to the poorly equipped and low-income subsistence user. The type II strategist, who relies on sleds, snowshoes, and skis for transportation during the winter months, finds it extremely difficult to travel overland during the soggy months of summer. In his view the timing of the hunting season favors those people with access to

expensive off-road vehicles and discriminates against the poor who are unable, and sometimes unwilling, to invest in the modern technology. Thus access to transportation determines in part subsistence strategies for many of the poorer inhabitants of the region. In McCarthy, for example, type II strategists depend heavily on goat which can be taken after the ground freezes and the snow falls, thus allowing subsistence resource users to carry their take on skis or sleds.

The social lives of the type II families are often characterized by extensive sharing, especially when incomplete families are involved. There is great variety in the types of households in this group, including instances of non-related people living within the same household. Such variety is not found within the other categories and could be a response to the conditions of poverty in which people choose to live together to extend meager resources. The propensity to live in unconventional households might also characterize those people willing to live a less conventional, more idealistic life style. In McCarthy during the summer of 1977, around 20 people occupied seasonal residences. They were generally young, and undertook hunting, fishing, and working collectively on occasion. The society was fluid and membership seemed open to virtually anyone arriving in the community who seemed willing to help in the collective effort. At one point a young woman from California arrived and her motorcycle broke down. She was told where a good camping spot would be, helped to repair her bike, and soon she was seen waiting tables in the lodge and participating in local activities.

Couples with children who permanently reside in the region are less likely to participate in such expansive, fluid, and open social networks. They apparently prefer to establish close, dyadic relationships with one or two type I or type III households with whom they share resources, knowledge, companionship, and help. While the two families might be operating according to different values and plans, it is obvious from interviews that neighbors find it useful to maintain friendly relations in some cases. Thus, when the type I family leaves its homestead for

two months in mid-winter, the type II family will keep an eye on the uninhabited homestead. Throughout the region, pairs of young families with minimal funds and technology are allied with older and richer families who have access to planes and other means of transportation. As a result, even though type II families are dependent on others to gain access to the flying society of the Wrangells, they generally do know people who live in remote cabins throughout the entire region. They often visit many of these friends to keep in touch and share regional gossip even though on an irregular basis.

Families with school-aged children have assumed the added responsibility of educating their offspring. Unlike type I families who rarely bring their children to the wilderness and assume the burden of their educations, the lack of schools is an added incentive for some type II families to live in the bush. For those people following an intellectual ideal which rejects many of the common assumptions about American life, the fact that one can educate one's children without having to "subject" them to public schools is an added attraction of bush life. These people feel that the relationship their children will have to the wilderness is more important than the relationship they might have with other people. The parents have different abilities and backgrounds enabling them to handle their children's educations.

Usually the mother is in charge and several mothers expressed their uneasy feelings about their children's educations. One mother with graduate training, felt that her child had surpassed the development of other children his age, while another woman, with less education, felt very unsure about the instruction her child had received. She had actually left the homesite for six weeks to attend a training conference in Fairbanks for bush parents who wished to better teach their children. This woman said she had never received a good education but felt it was important for her child to be instructed in a way which would allow him to make intelligent choices about his life's work. While many of the feelings expressed by these parents appear ambivalent and do vary depending on the teaching parent's own view of his or her

ability to educate children, it is clear that their very willingness to remove the children from conventional public institutions and attempt to become self-reliant in education distinguishes them from type I families.

Type III Strategists

The most common subsistence-economic strategy in the Wrangells is one in which an individual or family attempts to build an investment in land or in business. Households falling into the third category are typified by guides, homesteaders with agricultural or business interests, and lodge, gas station, and cafe owners. A few other types of businessmen, such as the oil distributor in McCarthy, can also be placed into this category of subsistence resource users. For these people, most of the money earned either outside of the community (on rare occasions) or from their undertakings within the region, is returned to the land or business investment by buying equipment, paying employees, or improving property.

While the technological inventory of many of these people can be sophisticated and includes airplanes, modern amenities and housing, and modern hunting and fishing gear, some acceptable point must be reached between the investment in monetary terms into their property and the return on that investment. These people's main source of income, unlike that of type I strategists, comes from their land or business investment in the Wrangells and not from previous or outside investments. While most utilize subsistence resources as food sources on a daily basis, they also use subsistence resources and the natural environment to underwrite their economic endeavors in the region. This is especially true for the guides, the lodge and cafe owners (most of whom depend on hunters and fishermen), the businessmen whose main clientele are guides and the service industry, the homesteaders who till the land, and the prospectors. This factor is important in understanding the anti-park

attitudes of many people utilizing the type III strategy. It is the unrestricted use of natural resources within park boundaries which allows them not only to eat, but, more importantly in their own view, to live and work in the Wrangells.

Only in the last three years have some newcomers to the area expressed an interest in investing in the proposed park and the possibilities of catering to the park tourists. These people stress the environment and sometimes even deplore the hunting orientation of their new neighbors. At the same time they consciously attempt to establish rights to trails, roads, and other access to the parklands in hope of gaining some sort of priority consideration when the park becomes reality. For these new persons (few of whom live full time in the region yet), the taking of subsistence resources as a food or fuel base is secondary to the use of the same resources to make money and enter into the economic development of the area. Effects of the proposed park are already becoming visible. In fact, one successful guide said that he was already making plans and taking steps to convert his present big-game guiding business to a non-hunting guiding business that would cater to photographers, tourists, and mountain climbers in the future.

Type III strategists are particularly oriented to the taking of large game animals. Certain regulations prohibit guides from hunting in certain situations (a guided hunt); nevertheless, their expertise and modern equipment, including access to airplanes, gives them a natural advantage. Several guides on the northern flank of the Wrangells said they never bought meat. Less fishing was reported because fishing conflicts with the busiest time of year for this group--the time when they must prepare for the upcoming tourist and hunting seasons or mining period. For similar reasons trapping is a favored activity off season, when it does not conflict with other money-making activities.

The homes and business sites of the type III strategists are often modern and usually the primary place of residence for the family. For those who have a long history of residence in the area, structures of all types are often found there, ranging from the first small cabin and

outhouse to the more recent home equipped with electricity and other amenities. The line of increasingly modern structures dotting the property provides a mini-history of the homestead. Off-road vehicles and airplanes are important parts of the technology of the homestead.

Single people, as well as families, are found living in type III situations. Unlike type I strategists, most of the people of this type have made an obvious commitment to the Wrangells by bringing their children and spouses to the homes and by raising their families there. Some guides do own homes in other places including Palmer and Anchorage; many reside year round in the area or in the nearby communities such as Glennallen, Northway, or Chitina, where their children can attend schools and their spouses can find work.

Household data reveal that 6 out of the 13 households placed in this category are conjugal-pair households, 2 are large extended families, 3 are conjugal-pair households with an attached elderly parent, and 2 are single-person households. The high rate of conjugal-pair families resulted when the children in the families moved outside of the region in search of employment or higher education or moved to homesites within the region but in closer proximity to potential employment. In the cases of the two large extended families the children have been retained with their families on the family property and participate in the business. In two out of three cases of a household with a conjugal-pair plus parent, the parent represents a widowed spouse who has retained the children on the homestead and incorporated them into the business. It appears from the meager data in the sample, but in corroboration with other examples of white families throughout the region, that the more successful a business is, and the more dependent it becomes on a number of laborers, the more likely it is that grown children will remain actively involved. Marginal businesses, such as cafes or agricultural homesteads which need few employees, cannot support extended families and the children must look elsewhere for support after reaching majority.

Access via airplane is an extremely important factor which underlies the type III strategy and determines the type of social life led

by many followers of this life style. It is the "casual use" (or so it appears to outsiders) of airplanes which creates the possibility of a regional society, one which contains people from all sides of the mountain massif. In the summer of 1977, a party was held in Chisana and people from Chitina, McCarthy, Nabesna, Northway and throughout the region were invited to attend. It is said that people flew in from all directions, and that such social events are not unusual.

Yet closer inspection of the data shows that type III strategists actually have a lower rate of plane ownership than do type I strategists. Less than 50 per cent of the first group own their own planes, while over 80 per cent of the second group own planes, a comparison suggesting that seasonal residents are much more likely to own planes than permanent residents. The remaining type III year-round residents depend on trucks and cars traveling over sub-standard dirt roads and bridges that often wash out, or on other people who fly. The mail plane hops about the region on a weekly basis and circles the entire Wrangells. In a way, its route defines the bush community of the Wrangells as it circles the mountains dropping into every river drainage to deliver mail and supplies and pick up outgoing mail and sometimes residents. The pilot carries community news from Chitina to Nizina to Nabesna. Planes stop in virtually every community, bringing people to visit and discuss various issues with other residents of the Wrangells. The bush (plane-oriented) society articulates with the larger society of roadside communities such as Chitina, Duffy's Tavern, or Tolsona Lake, where airstrips, lakes for float planes, and friends with an interest in the bush community are found.

The prevailing attitudes of many of the type III strategists stress hard work and self-reliance, in short, the frontier ethic. They are oriented toward a goal of building something, whether it is a farm or a business, rather than simply living an ideal life in an ideal environment. These people expressed repeatedly their frustration at the thought that the fruits of their labors will probably not be passed on in present form to their children if the park is established. While a few people, older or unsuccessful, anticipate the settlement of the

(d)(2) question in the hope that they will be compensated for their life's investment and be able to retire in a more amenable climate outside of the Wrangells, most type III strategists are distressed that any changes might be made in the present use of subsistence resources either by themselves or by recreational hunters who come to use their services.

To gauge the significance of subsistence as an issue determining anti-park attitudes, the author asked people what they thought about regulations which would give priority to permanent residents of the Wrangell area over visitors. I expected to hear many say they would oppose such rights because they feared a loss in business; surprisingly, only a few people put their fears in those terms. Most said they feared that priority regulations would give the advantage to the Native people.

In recent years it has become increasingly apparent to the local non-Native resident that every time the government gives special status to a group of people, the Natives appear to get the advantage. In support of this argument the white residents point to the local hire laws instituted during the pipeline period. They also cite the Alaska Native Claims Settlement Act which: (1) gave Native people the first opportunity to own selected lands in the region and (2) "froze" other lands which the Whites feel would otherwise have been made available to their children or themselves. The resentment has grown in recent years as the outcome of ANCSA has become clearer to the local white residents of the Wrangells. In fact, some statements by local white residents indicate they would rather relinquish all of their existing hunting and fishing rights than retain special rights and also give the Native people special standing in subsistence regulations.

Social Life in the Wrangells

Many references have already been made in this chapter to the social life of people living in the Wrangells and how it affects and reflects the subsistence pattern. The long distances and extremely

sparse population density is a social fact of paramount importance. The population density is so low, it is necessary to stress that a real community exists. One might understandably encounter some difficulty in conceiving of a community composed of people who visit each other, perceive themselves to fall into a common category, and display economic inter-dependencies, within such a large area. This fact is often obscured by the lack of any tangible political organization such as one a borough might possess. Both the sparse population density and the absence of a formal governmental body have determined the nature of social life in the Wrangells to some extent. The response of the inhabitants has often been factionalism, which seems to dissipate overt confrontations that would only be solved through violence, and sharing among people of different strategies who do not directly compete for scarce resources such as game, fish, traplines, or fuel.

Factionalism is pervasive and not a single community in the region seems able to escape the constant bickering between separate (usually two) factions. Often, these arguments stem from disagreements over the use of local subsistence resources. Traplines are often a point of argument, especially when a more recent arrival is accused of infringing on the trapline rights of long-term residents. The cutting of wood in the vicinity of McCarthy illustrates another problem of this type as the recently arrived residents take wood from public lands which have traditionally supplied fuel to a few of the long-term residents. Many long-term year-round residents, usually type III strategists, complain that newcomers do not follow the informal rules of the bush which generally hold that the longest residents in the area have precedent rights to the local resources. When asked to respond to allegations of intruding on another person's territory, one recent resident says that there are no laws being broken (1977 changes in guided hunting rights defined territories). Usually an argument that begins with a disagreement about subsistence resource use extends easily into criticism of another person's entire life style and character, making it difficult for the parties to interact on any level. Friends gather together around two opposite poles and it seems that the Asian adage of "friends of my

friends are enemies of my enemies" holds true in the subarctic.

The white society of the Wrangells is not unique in displaying factionalism, and other writers (Lantis 1973; McPhee 1977; Davis 1976) have all pointed out the prevalence of factions in white communities throughout Alaska. As an organizational feature it does offer a hook on which people can hang their allegiances in an argument. It is rare for people in the region to have the kind of kin connections so prevalent in the Native community. Through factionalism people find a reference group to which they can relate and from which they can elicit support during conflict situations and draw normative values. In an argument one aligns behind a friend or neighbor, someone who has helped in the past. In this way a social investment is made in the future when personal conflicts could erupt.

Many arguments have festered for years, but violence has been avoided by severing interaction between the people in conflict. Many examples of factional disputes can be found in the small, isolated communities, and it is not unusual to find people who live within a mile or two of one another who have not conversed for several years. Rumor and gossip further drive wedges between the disputing parties and maintain the rift so that future conflicts are avoided.

Before visiting the Wrangells, the researcher had assumed that there was very little interaction among people of various economic levels living in the Wrangells. The author was surprised then to find that people from differing economic levels, with dissimilar values, accesses to transportation, and ages, often join together in close and long-lasting relationships. It is clear that their skills and economic resources can be shared for the mutual good of the parties involved. The author has found that companionship can be worth a number of free plane rides, and that watchmen are often repaid with subsistence resources taken from the gulf coast, a place the potential recipient could never afford to visit himself. Apart from a personal value, these one-to-one relationships which cross the factional boundaries do little to fully integrate the community and factionalism remains the strongest

organizational feature of the social life of the Wrangells.

Besides the fact that many arguments delineating the various factions are couched in subsistence terms, what relevance does the social organization of the region have for the future of subsistence in the proposed park? First consider one organizational structure in the region that does overlap the various factions, the school board. Expectedly, the various factions represented on the board are constantly locked in battle. Conflict is so severe, in fact, that the functioning of the school board has been jeopardized in the past. A regulatory board proposed in the context of subsistence resource management in the Wrangells must, like the school board, comprehend the factional nature of social and political organization in the region if it is to function. At present, the organizational structures which encompass the entire population are weak and unstable. Virtually any organizational structure created by the Alaska Lands Act to oversee subsistence resource use will become a target for those wishing a political soapbox. There are few other outlets for political activity. Since subsistence has been a topical political issue for several decades, the researcher predicts that arguments will continue in the future, especially if hunting and fishing rights are further curtailed.

To balance the discussion on factionalism before concluding, the impression should not be left that it is so pervasive that no mutual sharing or interaction takes place. Generosity typifies many interactions. People who have meat and cannot use it all are happy to share it with those who do not have this food source. In communities with a number of guides, wild sheep meat abounds in some seasons, and everyone in the community, even those without any connection to the guiding business, are given free meat. A visitor, such as the author, is always offered food and coffee. The sharing of food is a central feature of social life, as there are few other forms of entertainment open to people in the bush. The concept of factionalism highlights conflict, but sharing among "faction-mates" and friends is an equally important aspect of life in the Wrangell area.

Values in the Wrangells

Most of the Wrangell people told the researcher they felt their life styles were justified by historical precedents. These residents often present themselves as the last true bearers of the American frontier culture. On a recent television show starring John Denver, a former McCarthy resident reiterated this view held by many Wrangell people when she said, "We are your history." She meant that a trip to McCarthy recalls to its visitors an American frontier environment where the people perpetuate the traditions of successive generations of Americans living on the western frontier.

In fact visitors often find something of their own heritage in the frontier atmosphere. In 1977, a tourist to Chisana whose ancestors had settled the American West told the researcher, "These are my roots." He seemed surprised to discover feelings of historical empathy in a place he had previously thought to be wilderness and therefore without either history or local residents with whom he would strongly identify.

The historical background is often called upon to justify the use of subsistence resources. For most Wrangell residents, it is an inalienable right of Americans to settle frontiers by exploring, developing, or tilling the wilderness. It is a way of life which was glorified in their youths, and they do not understand why their frontier aspirations are not valued by everyone in society.

Rugged individualism could be the password into this part of Alaska. Government institutions and control are viewed as threatening and an abridgement of freedom. One woman living near the Canadian-American border said the issue of subsistence as far as she was concerned was not that she needed the food from the hunt, but rather, that "having the choice [to use or not to use resources] is important." When economic considerations no longer can be summoned to support arguments favoring free access to subsistence resources, frontier ideology is often used. Government officials, local party leaders, and others bemoan the lack of cooperation among residents and sometimes describe

them in private as "anarchists." In fact, the individualism of these people and the ideology surrounding the frontier ethic could be central to their ability to be successful in the wilderness. Six months of temperatures below 0⁰F can be a lonely struggle on an isolated homestead in Alaska. People often refer to their first winters as attempts to overcome the environment and "old-timers" refer to the first winter as a test. They say someone is "going to see if he can make it."

Other residents truthfully admit that they have always had a difficult time with authority and many point to their childhood experiences in school or families. One man told the researcher "I've always been a scrapper, guess that's why I like it here where I can't get into trouble." In fact, many local people in Glennallen and Copper Center hold that the entire region is a kind of "escape" where people can leave their pasts behind them and start again with a clean slate. Until recently there were few laws to break and fewer people to monitor them. On the basis of information collected for this report, it is clear that independence and ingenuity are required to be successful in the more isolated parts of the Wrangells.

Another value is sometimes mentioned. It is held by some residents that wilderness living is a test of "maleness." Several people with sons mentioned that a boy growing up in a hunting atmosphere learns how to be a "man." One woman said, "He learns responsibility, conservation, how to be with other men, and how to be more of a man." The association of manhood with hunting and the wilderness life is traditional on the frontier. None mentioned any advantages in raising a female child in the wilderness.

It is obvious in discussions with most people that their identities are somehow intertwined with their abilities to survive in the wilderness. By living on the frontier, men especially, acquire a large amount of self-esteem in being able to succeed where others have failed. While some men view the test as a physical one, others view it as a psychological or an emotional one.

8

A SUBSISTENCE INVENTORY OF NON-NATIVE COMMUNITIES

In this chapter a survey of the subsistence strategies found in the non-Native communities in the Wrangell region will be made. The varied population in the region follows diverse methods of utilizing the subsistence resources in the surrounding environment. For one family, the entire pace of life is mediated by the subsistence quest, while for another, subsistence activity provides a recreational focus for family outings. Some subsistence strategies found within the region will be more specifically affected by changes in subsistence policies than others. Some identifiable groups of people depend on subsistence resources more than others. Finally, several communities have unique characteristics, such as location, degree of isolation, and available employment, which are relevant to subsistence.

This inventory begins with the community of McCarthy in the Upper Chitina River valley, proceeds west to Chitina and then north on a crescent-shaped course around the Wrangell Mountains. The people who live in this region inhabit small integral communities, as well as isolated homesteads. None of these communities has any formal governmental body. The researcher believes that because there is no recognized voice of the non-Native population, they have had little real political input into the decision-making processes affecting the region.

McCarthy-Kennicott

Eighty miles east of Chitina, at the tip of a giant tongue of glacial ice, sits the Kennicott Mine, a defunct copper mine and processing plant. Between the years 1911 and 1938, the mines were producing copper from the largest vein of copper found in the world. Seven miles from

the mine stands McCarthy, a "ghost" town, which at one time was the second largest city in Alaska. When the mine was running, several thousand people lived here and along the Copper River Northwestern Railroad line which ran between Cordova, Chitina, and McCarthy. During World War II, the railroad tracks were removed and used in the war effort. Later the ties were also taken so that the railroad right-of-way could be traveled by automobile.

McCarthy and Kennicott have reputations as ghost towns, although both presently have a few year-round residents. Only about three elderly families who lived in McCarthy while it was prospering return on a seasonal basis to their old homes which they have maintained for recreational purposes. In the summer of 1977, only one person from these original families returned. The others were too old or in too poor health.

Nevertheless, the population of McCarthy is presently increasing. During last summer, at least 25 people (but probably as many as 30 to 40 people) lived in the town and many passed through it for extended stays. There are many factors contributing to the present rise in population, including the availability of patented land and the subdividing of the Kennicott property. Important also are the bright prospects for the future of the tourist business that will follow the opening of the national park. During the present period, McCarthy and Kennicott seem to be in a transition phase. What was a ghost town in 1971 is quickly turning into a small tourist mecca where people are preparing for the future. Nevertheless, the present conflicts with the past at many points, and a number of the people with old ties to the area resent any intrusion on their present way of life.

The area around McCarthy has been selected by the state, and many of the lots and larger homesteads are in the hands of private owners. Kennicott has been subdivided and lots have been sold at the mine. These lots are advertised over the radio in Anchorage and "free" trips to the townsite and the mine are given to prospective buyers. Many of the lots have been sold, and during the 1977 summer season, some of the new owners had arrived to relocate. Others were fixing their new summer homes.

One group of teachers from Alaska had bought several buildings and had already spent much time and money renovating the structures. They had opened a small lodge and have many plans for the future. Another man had recently retired to the area. An artist had a studio in Kennicott. Thus it appears that suddenly the city and the mine are experiencing a new burst of growth and renovation.

The area offers many amenities that will be attractive to tourists and people who will want to spend the summer near the Wrangells. The climate is comparatively pleasant. The summer breezes that continually blow off the glaciers "air-condition" the town, so that the weather is often pleasant and more temperate than in other parts of the Wrangells. The long-time residents say that McCarthy is usually 20⁰ warmer than other Copper River communities during the winter and has an earlier spring, which makes gardening a profitable venture.

The employment opportunities are virtually nonexistent, unless one runs one's own business or participates in mining or guiding. There are two lodges, a weather station, at least three artists, an oil dealership, and a liquor store. The highest-paying employment stems from prospecting and big-game hunting. Both of these endeavors use McCarthy as a staging area. The airfield is very large and can accomodate large cargo planes which were used in the 1960s to ship out copper ore. Hunters stay in the McCarthy Lodge.

Until now, hunting and prospecting were the main sources of revenue for the community. Tourists who came via the highway were not particularly welcome because so many of them came in campers and brought all the supplies they needed with them. It is a common complaint throughout the valley that the tourists, especially those in campers, do not spend any money. This feeling was supported when the bridge spanning the Kennicott River washed out. Most McCarthy residents felt that the lack of a bridge enhanced their business by making visitors fly in and use the facilities available in the town.

McCarthy is laid out in a grid system of dirt streets. One can see where the old houses stood and much of the local lore recounted for the

tourist highlights the location of the sheriff's house or the "red light district." Most of the antiques have been collected by the local people and some are on display. Seven miles away at Kennicott the mines lean precariously against the steep mountain slopes. They, too, are filled with interesting paraphernalia from the original occupation. As the author returns each year, she finds that more and more of the artifacts are missing, which is unfortunate, because the attrition has detracted from the site's historical importance, especially for the casual visitor. The visitors as well as local people have been unearthing artifacts just as the past miners excavated copper. The railroad spikes are painted and sold at the antique store, and the copper nuggets are fashioned into tourist items, such as paper weights.

Subsistence

Not everyone in McCarthy and Kennicott uses subsistence resources. In fact, probably half of the people with whom the author spoke said they had no interest whatsoever in hunting or fishing. Most women said they gathered berries and greens on occasion. These people were often related to the mining industry and prospecting, although a few were the new summer residents who have high-paying wage employment outside of the area. They visit McCarthy basically for recreational purposes and own second houses here. There was, however, an equal number of residents who use many subsistence resources, and a few depend heavily on these resources so that they can afford to live in this isolated area on little money. Among this group are included the old-time residents of the town, such as the couple who run the weather station, and a visible group of people under age 35 who have recently moved to the area. Few of these people remain during the winter. One informant told me that only three people spent the entire winter in the town but that four or five more spent some of the winter there. In the summer of 1977, people predicted that more and more people would begin to remain through the winter. It

was also predicted that these people would use subsistence foods.

The important subsistence species in the region are salmon and goat. Sheep are difficult to procure but are highly valued. The take for moose has been very low for three years but they too are highly valued. Small mammals, such as hare and porcupine, and birds are taken when they are abundant, but their populations have also been low during the last three or four years. Berries and greens are popular and people trade much information about edible plants. Mushrooms are collected and used throughout the summer by several residents.

Fishing. The main source of salmon is the Copper River. A few people travel to Chitina during the fishing season to run wheels or dip-net. Last year three McCarthy families went to Chitina and fished seriously. They returned with their catch which is usually canned but may also be kept frozen by people who have electrical plants. The road between Chitina and McCarthy was so bad in 1977 that it did not pay for people to travel to Chitina then return in one day. They must also pay between 15 and 30 dollars to fly the short hop across the Kennicott River to the road where their vehicles are parked. Those people who do go fishing, go for several days at a time, return and prepare their catch, and then go back to Chitina for more fishing.

Long Lake, located about 30 miles down the McCarthy road toward Chitina, can be visited on shorter fishing forays. A group of friends can air-hop to their trucks in the early evening, go to Long Lake to fish for salmon, grayling, and suckers, and return later in the evening. With the long days of summer, they are able to fly back over the Kennicott that evening. These fish are usually eaten fresh.

Since many of the people living in McCarthy have access to airplanes, a third alternative is also open. On rare occasions, people fly to the Gulf of Alaska, usually Cordova, where they fish. One family brings back "a barrel" of salted fish to use over the winter.

Overall, fishing is not done in the immediate area of McCarthy or Kennicott. Three families who try to take much of their sustenance from the land do travel annually to Chitina where they take salmon and pre-

pare it for winter usage. Others accept opportunities that are sometimes offered to fish in the lakes along the McCarthy Road.

Hunting. Informants say that goat is the easiest subsistence species to take in the area of Kennicott and McCarthy. Goats are valued more for their accessibility than their good taste, because most people admit that goat meat is tough "to chew." They are also valued for their size. An estimated 150 to 200 pounds of meat can be taken from a single goat.

Goats are easily hunted in the mountains near the glaciers and also in the higher elevations near the mine. One man said, "Just go up to the Eire Mine, camp in the bunkhouse, and shoot 'em off the pool table." Other people said that goat could be taken anywhere around the mines, and people who have recently moved into the old mine buildings say that goats often pass their homes. Another informant said that he took goats across the Kennicott River on the other side of the Kennicott Glacier.

The game laws also encourage the taking of goats for subsistence use. According to the game laws, goats can be taken into December. This means not only that they can be stored easily by freezing, but also that they can be easily transported on skis, snowmobiles, or sleds. Since a resident can take two goats for personal use, a single hunting trip in late November can provide a Kennicott or McCarthy family with 300 or 400 pounds of easily attained meat. As one person pointed out, goats are an assured source of food. Perhaps any other large game species (other than bear) is preferred eating, but goats are always available for hungry people. The game laws also allow young goats to be taken (unlike sheep). The people who responded most favorably in regard to the use of goat were generally those most self-sufficient and those who have the lowest incomes.

Moose is, as usual, the most highly valued subsistence species. People said that a moose had not been taken in the immediate area for three years. One couple who took a moose three years ago obtained 900 pounds of meat from the animal, an amount which has lasted three years. There are many complaints about the period of the hunting season. Many people say that moose disappear from the area around McCarthy during

hunting season and do not return to the area until November and December, after the legal hunting period. People also complained that it was difficult to prepare a moose and keep the meat during August when it is very warm. People used these claims to justify poaching activities and add that poachers generally use all the meat, while many recreational hunters leave much of it to rot.

The problem of storing meat is more visible in the more remote areas of the Wrangells where electrical power is extremely expensive to run. To have electricity one must run a private generator in McCarthy, Kennicott, the upper Nizina, Chisana, Nabesna, and any other place where the cooperative electrical company does not reach. In McCarthy, the oil company delivers petroleum products across the Nizina to mines and private residences, and also around the McCarthy community. Nevertheless, many of the people, especially those who aim toward less dependency on cash, do not run generators and consequently do not own freezers. Sometimes they rent space in another person's freezer, but if the other person should need the space they must relinquish it. Thus, those people who are most dependent on meat often do not have freezers and depend on freezing their meat in outdoor caches. Many suggested that a short subsistence season be opened after the freeze in early October so that more efficient storage methods could be utilized by the people without access to electricity or propane.

Virtually everyone who does hunt in the community (only 10 to 15 people) pursues moose, or would take one if the opportunity were present. Moose are hunted along the roads. Since many people fly, moose can also be sighted from airplanes, and the pilots flying back and forth between Chitina and McCarthy keep tabs on the animals and disseminate the information to their friends. Nevertheless, in recent years, only one or two moose have been taken by McCarthy people, who say that the moose have disappeared from the area.

Surprisingly, most local McCarthy people said that they did not themselves hunt sheep for a variety of reasons. Most often mentioned was the fact that they are inaccessible and do not have much meat on

them. The game laws further discourage subsistence use of sheep by designating young sheep as illegal takes and allowing a short season in which only one animal may be taken. Again, since the season is during summer, it is difficult to keep the meat or even to transport it "off the mountain" without having it spoil. One woman who lives near the airport said that hunters usually bring her a taste, and she estimated that her small family is given a quarter of a sheep each year by generous hunters. One guide told me that very few of the hunters took back the meat and that most of it was left at the kill site or eaten in camp. The hunters from outside of Alaska generally did not want the meat and it is difficult enough carrying the horns and skin of the sheep out of some of the isolated and precipitous places without having to remove all of the meat also.

Black bears are also used rarely as a food source. They are found in the brush near Kennicott and along the road between Kennicott and McCarthy in the spring and in the fall. One man said that about one or two bears were taken each year by the local residents.

Caribou are not found in the Chitina valley. Forty or fifty miles to the north in the Chisana valley (partially on (d)(2) lands) runs a large herd and people sometimes fly there during the fall hunting season to take caribou. One woman who is oriented toward a self-sufficient life style said that she hoped to trade some craftwork (leather goods) for a round trip to the Chisana valley by air. She said that several of the guides fly to Chisana during the hunting season and they might be willing to give her a free lift. Only those with access to air transportation can depend on taking caribou from the Chisana herd. For this reason, caribou are not a particularly important game species in the upper Chitina valley.

Small game is usually taken by people who hunt and use subsistence resources. Hares are hunted and taken regularly when their populations are high. Over the past four years the population has been extremely low and people have taken only five or ten each year. When their populations are high, people eat hare once a week, and the food contributes

a major portion of protein to the diet. Hares are shot along the roads and in the brush and are eaten fresh. Late summer and early fall are the best time of the year to eat hares because they are feeding on greens, while during the winter they feed on spruce needles and do not taste as good.

Other small fur-bearing animals are sometimes eaten when trapped. One woman, whose husband traps, says that she often cans beaver when available. She cans between one and six animals a year. They also eat lynx. A couple of people said that they ate porcupines, which are taken with guns. One man said that porcupine is survival food and said, "I leave him there until I really need him." He estimated that he might take one each year.

Trapping. The few people who stay through the winter in McCarthy do trap. At least two men trap out of McCarthy. One "traps the road," and the other traps May Creek. They take marten, mink, lynx (at present the most important species) and sometimes beaver. One trapper's wife told me that the beaver had moved out of the area and that her husband had not taken a beaver in several years.

Gathering. Almost all of the women appeared to be interested in gathering plant foods. Some were studious and experimented with many plant foods. They shared their information with other people who were interested. Most of the vegetable foods can be collected on walks around town, along the roads, and in fields in the nearby area. People use greens and roots such as watercress, lambsquarter, chickweed, fireweed, and wild chives for salads. Among the white people in the region mushrooms are very popular, and this contrasts with the Natives who did not mention mushrooms. In fact, one Native woman said that they were never eaten and considered to be poisonous. Around McCarthy several mushroom species are available. One woman, who was very interested in the use of vegetable foods, gave me the following list of mushroom species which she said she had gathered around the community: orange delicious, shaggy manes, orange boletas, meadow mushrooms, morels, and puffballs. All of these species are eaten raw or cooked, and she had successfully

dried the orange delicious and the meadow mushrooms.

Berries are the favorite vegetable food. They are collected around the town, along the roads, and in clearings. Several species mentioned by informants include raspberries, highbush cranberries, lowbush cranberries, currants, and rose hips. Blueberries are not available. Jams, jellies, and relishes are made from the berries. One year-round resident said they use over 60 pints of berry products during a year.

In McCarthy, even people who do not hunt collect vegetable foods to some extent. One retired man who does not hunt said that he ate mushrooms virtually every day in July. The isolation of the town means that fresh vegetables are highly valued and people supplement their diets during the summer by collecting greens, mushrooms, and berries. Some of the people (usually summer residents) just use the vegetables as they become ripe, not bothering to keep them through the summer. But two or three families collect seriously and store between 10 and 20 gallons of berries for use during the winter.

One young woman who had lived in Kennicott only six months when the author met her in the summer of 1977 said that her single, most significant problem was the scarcity of wood. This problem arises because of all the private property in the area and the consequent difficulty in obtaining collection permits. The people who own large pieces of land, such as homesteads, do not have problems because they say they can take all the wood they need from their own land. It is the people who live on small city lots in McCarthy or at Kennicott who have this problem. The situation will be aggravated in the future as more people buy the lots at Kennicott and move onto them. Some of the people who have recently bought into Kennicott are interested in utilizing local resources as much as possible. As one flies into the community it is obvious that the area has been virtually deforested. Apparently, there has been some fighting among members of the community over access to wood already. People with cash employment or retirement are able to buy oil. Others who are trying to be as dependent on subsistence resources as possible find that obtaining wood for fuel is their major subsistence problem

at present.

Craftwork. As one would expect, the items manufactured by white craftsmen differ from those made by Natives. Two people mentioned that they work skins. One couple at Kennicott only prepares the skins from bear and goat they have taken themselves; they leave the fur on and use these skins as rugs and throws. Goat skins are valued by some younger Whites for the aesthetic qualities of the long fine goat hair. Another woman at Kennicott plans to create leather items from manufactured leathers and skins she can obtain on her own and from hunters. At present she also makes buttons and other items from moose antlers. She sells most of her items, although she mentioned bartering some of the items for services (airplane rides).

It is interesting to note that at least three artists live in the community. One of the artists, who paints Alaskan scenes, lives in the community full time. Another splits his time between Chitina and McCarthy. Both of these artists have other employment, but both show their work in McCarthy and sell to tourists. Another artist lives in Kennicott, but the researcher was unable to talk with her because she was away from the community working.

The historical sites of McCarthy, Kennicott, and the Copper River Northwestern Railroad provide the raw materials for antique stores in Chitina and McCarthy, as well as the bric-a-brac used to decorate the lodges in historical motifs. One woman collects the spikes from the railroad line and paints them gold with little flowers and Alaskan scenes. They sell for about one dollar to tourists. She also collects copper nuggets from the mine and from the streams, which she sells in her antique store. Most of the antiques in the store are not for sale however. She sells more historical gewgaws and old bottles than antiques.

Transportation

Transportation and access are critical problems for people living in this area. The McCarthy road is not maintained by the state,

although the relationship of the state to the road is ambiguous. When the crossings near Long Lake were washed out last year, the local people expected the state to fix them. In fact, the state did send a small crew and, within five or six days, the crossings had been reestablished. Many people drive pickups to the Kennicott River, where the bridge is washed out, and then hop over to McCarthy by plane. Two years ago, the bridge could handle foot traffic but the spring thaw of 1977 obliterated even that flimsy walkway.

The presence or absence of a bridge is a constant bone of contention among people residing in Kennicott and McCarthy. About half of the people, particularly those without their own airplanes, want the walk-over bridge rebuilt. Most do not want the full highway bridge rebuilt because they feel it will bring too many people and ruin the isolated and unique flavor of the town. They also feel that the historical site would be further jeopardized by looters. The other half of the residents do not want any type of bridge to span the Kennicott River and connect McCarthy with the road to Chitina. Many of these people operate businesses in McCarthy and feel that tourists who drive to McCarthy bring virtually all their needs with them. These tourists do not spend any money, but they do cause problems by dumping trash, hunting game, looting the historical sites, and riding trail bikes everywhere. Furthermore, some of the people with investments in the town were attracted to the area by its isolation and do not want the life style to change in any way. Another person told me that these investors also occupy a monopoly position; they do not want others to gain access to this market or for local people to bring in their own supplies.

The main aim of automobile and truck owners is to have their vehicle on the most advantageous side of the Kennicott River at breakup. Sometimes a vehicle gets "stuck" on the town side, when the owners want to use it to commute to employment and fishing in the Copper River valley during the summer. Another person's vehicle might "get stuck" on the McCarthy road side, when he wishes to use it to shuttle between Kennicott and McCarthy or the airfield during the summer. In town, it is difficult for those without access to transportation to get rides

between McCarthy and Kennicott. A couple of jeeps, a truck, and a ramshackle antique truck, as well as several motorbikes, traveled the roads last summer. The jeep could be hired for about five dollars per person to travel between McCarthy and Kennicott. Most people who undertake subsistence activities during the summer walk and hike to the subsistence sites.

During the hunting season, airplanes are heard constantly around the town bringing in hunters from outside. Some of these hunters stay in the lodge but most continue on to hunting camps in the Wrangells. About four or five of the local people own their own airplanes. The owners of both lodges have airplanes, a couple of the more serious prospectors have planes, and at least two other local people own planes. The Chitina Air Service as well as the Kennicott Lodge airplane can be chartered to go between Chitina and McCarthy and also to any of the small airstrips around the upper Nizina or other areas of the Wrangells.

Air travel makes Kennicott and McCarthy the communities they are, for without airplane access, most of the people would not live in this area. The constant travel to Chitina, the Copper River valley, and Anchorage would not be possible. Groceries, supplies, and people are conveyed on the planes. While airplanes might appear exotic to many, they are a common feature of life here and are often considered to be necessities to the local people. Many people express the opinion that if someone uses a plane to gain access to hunting ground they cannot possibly be subsisters. Yet it is clear from the information collected in McCarthy that some people with very little cash obtain rides to subsistence sites by trade and barter with airplane owners.

Other vehicles are also found around the community. Caterpillar tractors are used for prospecting and mining. The exact number in the area is unknown, but the author heard of three while she was there. One was working near the Chitistone canyon, another on McCarthy Creek, and a third at the Green Butte Mine in the Wrangells.

Snowmobiles are used during the winter. In some ways access to the communities improves in the winter when the rivers freeze and snowmobiles, track vehicles, even pickup trucks can cross the Kennicott

and Nizina rivers. The oil is delivered to the homesteads, allotments, and mines across the Nizina River at this time. Large supplies of lumber, groceries, and other items were brought into McCarthy during the spring of 1977 so that summer building could commence, and the lodges could stock up for summer business.

The (d)(2) Lands and General Problems of Subsistence

During the researcher's visit to McCarthy during the summer of 1977, she found that the communities were already experiencing the effects of ANCSA and the change it provided on the status of lands in Alaska. When the researcher visited McCarthy and Kennicott in 1973, 1975 and 1977, the rise in population had become dramatic. She can only roughly estimate that the summer population has almost tripled. Who are the new residents? In general, they are people who want to buy land in an isolated and beautiful place. They either want to live year round in these homes and undertake the traditional life style of combining wage employment with subsistence utilization, or they merely want a pleasant place in which to spend their summers or to use as recreational homes during vacations.

The first group of traditionalists is extremely worried about the fate of subsistence hunting in the area. Two of the new families "squatted" on federal lands until recently when the Bureau of Land Management increased their surveillance of illegal squatting and started burning unauthorized cabins built in the wilderness around Alaska. This change in federal government policy is, of course, a direct result of the ANCSA. Those families which worked and purchased land near Kennicott now find that they have a hard time harvesting wood and fear that hunting will eventually be closed in the park area. In this case, their chosen life style will probably become untenable.

The latter group of recreational homeowners is not particularly interested in hunting because most of them say they earn a good living anyway and do not "need" the food. In their own minds, they perceive

their use of subsistence resources as recreational. They are attracted to the area by its beauty and their primary fear about the establishment of the park does not pertain to subsistence but rather involves the effect that tourists will have on the quiet and isolated community. Most members of this group feel that their investments will be "made good" by the establishment of the park. The researcher would predict that as long as private land is available in McCarthy and Kennicott, people will continue to come to the communities. Thus the demand for subsistence resources will probably rise as long as some of these new people desire to undertake the traditional bush life style.

Goats, sheep and ptarmigan are the main resources taken from the (d)(2) lands. Caribou are also taken in the Chisana valley to the north. It was surprising for the researcher to find that goat and ptarmigan were both important food resources for the poorer people in the Kennicott-McCarthy area. These people maximize their time in the area and minimize the time spent outside the community on wage labor. They view goats as one of the central components of their diet. One young man told me, "You might even eat Oscar Meyers in between goat and fish but the goat gives you quality." He indicates the importance placed on goat, as well as salmon, which are taken by three to five families who travel to Chitina each year. Bears are also taken from the (d)(2) lands.

The Upper Nizina

Scattered on the creeks and around the spectacular and remote Nizina River valley live about five or six families, most of which are connected in some way to mining or game hunting. One or two of these families leave during the winter months but most remain year round on homesteads. The area has always attracted prospectors and miners so that a number of small cabins dot the landscape. These cabins are sometimes occupied through the winter by individuals or couples who wish to experience an isolated winter in the Alaskan bush. Virtually all of these families live several miles from their nearest neighbors.

In the summer of 1973, the researcher was able to visit three separate families which, because of their isolation, utilize many subsistence resources. They live on (d)(2) lands, and much of what they take comes directly from those lands. Most of them hope they will be allowed to remain at their present location though no one had a patent for his land yet. All three of these families have chosen to live this type of life style because it is healthful, enjoyable, and interesting. One man guides sheep hunters during the fall season. Another man and his wife worked at the Dan Creek Mine, where four miners were also spending the summer. Finally, another man had worked on the pipeline and was investing his money in the building of a beautiful home. He and his wife introduced me to a young man from Michigan who was planning "to try" to spend the winter in a cabin about 2 miles south of their home, where an elderly prospector had been living. The entire spectrum of approaches to the land is represented in this small sample. Similar settlement continues at May Creek and into the Tana and upper Chitina river valleys. But the population is extremely sparse and the author estimates that from 10 to 12 year-round residents live in the area (at most) and another 10 to 12 (maybe more, but miners are notoriously secretive) return annually to mine claims.

Subsistence

Of the three families the writer visited, only one claimed to depend on subsistence resources as its main source of food. This family was attempting to "become more and more self-sufficient" even to the point of using only perennials in their garden so they will not have to purchase seeds. In a way the family members seemed to be testing the limits of subsistence to see to what extent they could manage without spending money on food. They admitted being sometimes very hungry in the past even though they say they will use anything they can get. This family falls into the traditionally oriented category of subsistence users in that it maximizes its use of subsistence resources with the aim

of extending its stay in the bush and avoiding seasonal labor. The other two families are older and have retired from other work with good pensions and are choosing to invest their money in establishing homes in this isolated region. They both fly airplanes and stock their pantries with many store-bought goods. Yet they too use many of the subsistence resources. They have maximized their past earnings so that they can now invest in subsistence and outdoor hunting activities. As might be expected, their homes are more elaborate than that of the traditionally oriented family, and one has electricity for a freezer, as well as more traditional caches.

For the people in this area, the diverse strategies for combining cash with subsistence include obtaining cash from retirement, returns on good investments, guiding, prospecting and gold mining, photography and natural history writing, craftwork, construction and gold panning. Most of these families buy their groceries "by the year" and they seem to assist one another and share when they have too much.

Fishing. Both silver and red salmon are reported to spawn up the Nizina but are rarely taken in the streams that empty into the Nizina. They do not arrive until late August or September and the few reds that do are usually in poor condition; generally they are not taken. In July, however, more fish are frequently taken at Chitina in dip nets or fishwheels. The Nizina residents travel to Chitina to catch enough fish to smoke, can, or pickle for the winter. One woman said that they generally took enough fish to fill a 50- or 60-gallon barrel. The subsistence-oriented family says that it has a transportation problem because it does not have access to an airplane.

Lake fish are also taken in the small streams and lakes nearby. One man mentioned that he often fishes for grayling in the spring in Baltoff Lake. Dolly varden are available in May Creek in the summer, and the residents often go there to fish. Two of the families said they used 10 or 12 fish per week, starting in May or June and continuing through the summer. They are caught on rod and reel.

The number of people having access to airplanes makes it possible for people living in the southern Wrangells to visit the Gulf of Alaska.

One of the Nizina families said that it visits Cordova several times each year to obtain crab, clams, and salmon there. The Wrangell residents can catch the fish themselves, purchase it, or trade sheep meat for gulf items with friends in an informal bartering system. By using an airplane a few of the Chitina valley residents are able to take advantage of the sumptuous seafood available only 90 to 100 miles to the south.

Hunting. The upper Nizina is in the heart of the dall sheep territory. All of the families hunt for sheep each year. While they can fly into nearby places such as MacColl Ridge, most just walk during the season into a place where they know sheep to be. Several places were mentioned including MacColl Ridge to the south, Hawkins Glacier, Williams Peak, Boulder Creek, and Dan Creek canyon. Since sheep are small, one or two people can transport most of the meat from an animal. The meat is regarded highly for its good taste. The hunting guide gets sheep meat from the paying hunters.

The second most prevalent game species in this area is the moose. Everyone contends that the moose disappear right before hunting season. Two families which hunted moose last season took them in the immediate vicinity and on the "Tana River flats." One of these families shared meat with another family that did not take a moose. The meat was jerked, canned, and one family is able to freeze the meat. Another family can take meat into its Anchorage house (where a son lives) and store it until later in the season when outdoor caches can be used. In the recent past there has been a problem with bears taking the meat. This occurred when one family left its cabin to go shopping in Anchorage.

Moose and sheep are the two most important species for people living on the upper Nizina. The two families with airplanes said they do not go after any other large game species if they are able to take one moose and one sheep. Both couples feel this is plenty of meat for their needs and also to share with their children and friends living nearby as well as in Anchorage. Such a take is the ideal and can be supplemented with wildfowl, small game and vegetable foods, as well as fish.

If moose and sheep are not taken, then other species of large game are sought. In contrast to McCarthy-Kennicott, goat is not valued, nor

is it hunted to any great extent. The trophy goats are said to be too tough for eating, but for subsistence purposes, one man said he took a nanny goat and found the meat to be quite delicious. The residents also mentioned that the meat can be taken late in the year and can be frozen and transported with comparative ease. Two locations were mentioned including the Chitistone canyon and the hills around the Tana Glacier. Apparently the Chitistone canyon is a difficult location in which to hunt because of its steep cliffs. Often a goat is easy to shoot but difficult to collect from the location on the canyon floor where it has fallen.

One man won the lottery to hunt bison in the Chitina herd which ranges on the land between the Nizina and Chitina rivers and up the Tana River. He was able to take a bison and found that it was very good to eat. He would like to participate again in a bison hunt.

Only the traditionally oriented family said it took black bear. These people said that they took it in the fall after it had been feeding on spawning salmon, and they found it to taste very "strong." They attempted to sugar-cure it but encountered many problems. They said they would probably not take another bear unless they were very hungry and had been unable to take any other animal during the season. One positive feature of the black bear was its fat which they rendered and used in baking throughout one winter. The cook said it is unequaled as a shortening in pastry dough.

Small animals are also used as food, but during the last three or four years the populations of these animals have been extremely low. Porcupine, lynx, beaver (practically gone), and hare were mentioned by all those people living in the area of the upper Nizina. Most families said that they eat hare about once a week in the winter which means that between 30 and 40 are shot each year per family.

Ptarmigan and spruce grouse are also shot and used through the winter. One man who traps each winter with his wife said that their typical trapper's meal while in the trapping cabin, 6 or 7 miles from their house, is ptarmigan, rice, and beans. He said that they depend on taking a ptarmigan when they are on the trapline which runs into the higher elevations south of the Nizina between May Creek and Dan Creek. Ptarmigan are taken in the higher elevations and not near the

river. Spruce grouse, in contrast, are more likely to be found near the river.

Trapping. The couple that runs a trapline up Young Creek takes wolf, lynx, mink, marten, and beaver. Another man traps to the east of Young Creek, and others trap near May and Dan creeks. While the cash is welcome, both of these people have other sources of stable incomes. Perhaps others living at May Creek depend more on trapping as a way to bring in cash, but the author does not know for sure. The young subsistence-oriented couple do not trap because they would rather photograph the animals and bring in cash by selling their pictures.

Gathering. All of the women gather vegetable foods such as berries, greens, roots, and mushrooms. The women mentioned the following berries: black currant, raspberries, nagoon berries, highbush cranberries, low-bush cranberries, and rose hips. They make juice and teas as well as the more traditional jams, jellies and relishes.

Fireweed, bluebell, and watercress are collected and used in salads or cooked as vegetables. Wild chives are used as an herb in many dishes, and are also dried. Various kinds of mushrooms are used, probably similar to those collected in McCarthy. One woman said she had collected 25 pounds of mushrooms in 1976 and she had dried them to a volume of one gallon.

Vegetable foods are collected around each person's home, but favorite patches of some berries can be a mile or two walk from home. Some of the vegetable foods are taken from (d)(2) lands.

Wood is also collected from places near each home. Most of the people use wood for heating as well as cooking, though propane and fuel oil are used too. The traditionally oriented family said it needs ten cords to heat its cabin each winter. The homes are also constructed of logs, as are many of the outbuildings, drying racks, and other structures. While most of the residents of the Upper Nizina say they use wood from their own property, there is already a scarcity of wood for one family. Harvesting wood for fuel will become increasingly difficult for these families, especially if they are barred from taking windfalls from the banks of the Nizina, because this area falls within (d)(2) boundaries.

Transportation

Airplanes mold the life style of people in this area. With access to a personal airplane, a family obtains a certain degree of freedom to choose where to hunt, how many groceries to use, how often to leave their homes for pleasure trips or to seek wage employment, and many other things about their life. Without a plane, a family is dependent on others to supply groceries, and to provide transportation to and from the hunting or fishing site and in medical and other emergencies. Only during the winter does the river freeze and allow passage by automobile to McCarthy and to those locations otherwise inaccessible by vehicle. The isolation of this area is an important feature which has drawn people to it. Perhaps others are drawn by the minerals or the big game animals, but most of them leave during the winter months, leaving behind those who wish to be isolated.

Large airstrips are found at Dan and May creeks, but most of the people have their own strips or clear a strip on the gravel bars of the river for use during the summer season. During the hunting season, airplanes constantly buzz overhead, and the small planes will sometimes drop down and land on a strip without permission, much to the consternation of the strip's owners. The constant air traffic during the hunting season detracts from the wilderness setting for most visitors as well as the local people.

There were a couple of automobiles across the Nizina in the summer of 1977, and people used them to travel along the rough roads that are usually associated with abandoned mining projects. Such roads criss-cross the landscape of the south bank of the Nizina River and are important for the subsistence resource user who drives or walks along them in search of game, fowl, or vegetables.

Snowmobiles are important and are used in the winter to follow traplines. The people who run a trapline up Young Creek say that they use their snowmobile "like a car." They not only follow their trapline, but also haul water and travel to Chitina and McCarthy to pick up supplies and mail. The author was not told of anyone who ran a dog team.

In fact there were few dogs, which probably reflects the fact that some of the people leave their homes for several months each year.

The (d)(2) Lands and General Comments on Subsistence

The present way of life of the upper Nizina residents will be totally affected by the subsistence policies in the park. These people are presently living on (d)(2) land, and virtually all of the subsistence resources utilized at present, with the exception of Chitina salmon and Gulf of Alaska seafood, are taken from there. If hunting, fishing, and gathering were made illegal on these lands, there seems to be no way for any of these people to continue living in this area, unless they are prepared to curtail subsistence harvesting. At least two of the families have stable incomes which would probably allow them to stay in the area if the opportunity to subsist was eliminated. The third family whose whole life style depends on resource utilization would not be able to support itself in the area unless it could continue using subsistence resources or find employment in the park itself. Since these people are both trained biologists with college degrees, this alternative might be open to them.

It must be said that all three families plan to stay in the area no matter what happens. Whether it is realistic for them to believe that they will be given a patent to their land and will be able to remain, the author does not know. She did not talk with the two or three other families in this area but she was told that they depend on mining to a large extent. The researcher was also informed that one family traps. It would appear that park policies will affect those families also and that the curtailment of not only subsistence but also mining might make their life style untenable.

McCarthy Road

The McCarthy road winds along the northern bank of the Chitina River between Chitina and McCarthy, following the old railroad grade across spectacular bridges. Flying above the road, the author counted, with the assistance of a local pilot, about 50 or 60 residents scattered among approximately 15 family homesteads. An estimated 50 percent have access to their own airplanes. The homesteads sometimes cluster and form small communities such as those found around Long Lake and Strelna. A few of the residents visit only seasonally, but others live there all year round. While the early attraction to this particular part of the Wrangells was the Copper River Northwestern Railroad line and the possibility of supplying fresh meat, poultry, and vegetables to McCarthy, Kennicott and Chitina, none of the present residents are descendants from the original homesteaders.

The residents living along the McCarthy road often are oriented in many ways toward Cordova. Like the residents in the Nizina, many of the residents who have access to planes often visit Cordova, and some even have homes there. Using their planes, they are able to combine the resources of the interior with those of the Cordova marine environment. As a result, the variety and plenty of their subsistence diets is unusual, even by Alaskan standards.

There is virtually no employment in the area. Those without retirement income must seek employment by seasonal emigration. Many go to the Copper River region where they work on the Alaska Highway. Others fish out of Cordova during the summer and return to trap during the winter. Others worked on the pipeline, and several residents are retired. One family runs a guiding business, while another seems to be building a recreational facility at Strelna Lake. At this point, only those who can cater to tourists in some way are able to remain in the area year round. It is the bush life style more than anything else that attracts most of these families to this area, and one of the most important factors of this life style is, of course, the use of subsistence resources.

Subsistence

The environment of this area is similar to that of Chitina. A variety of fauna is available including sheep, goat, bear, moose, hare, ptarmigan, spruce grouse, and various fur-bearing animals. Many different berries are found along the road and in clearings. Several varieties of roots and wild greens are also available. Mushrooms are reported to be more plentiful in this area than in almost any other area in the Wrangells.

The proximity of McCarthy road to Chitina suggests that salmon fishing (using fishwheels) would be a central focus of summer subsistence activity for people living along the highway. In fact, however, for people without airplanes and who have no orientation to Cordova and the McCarthy road area, or who work in Cordova or other Gulf of Alaska communities during the summer, Chitina-based fishing is not important.

Moose and sheep hunting are significant activities that are based in the McCarthy road area. For the people who look toward Cordova, goat hunting as well as deer hunting, seafood collecting, fishing, and waterfowl hunting, are undertaken on the coast. For those without the Cordova orientation, the local resources must be more heavily depended upon for subsistence purposes. This "land-locked" group follows a subsistence cycle more closely allied with those described for McCarthy and the Nizina.

Hunting. Moose are found throughout the McCarthy road area, attracted by the many small lakes in this region. Through the summer months, those people with airplanes usually know where one or two moose are feeding, and it is sometimes easy for them to shoot a moose early in the season. According to some people, most of the families along the road get a moose every year. But on further questioning, the author discovered that the definition of family often incorporates several families; parents and grown children usually share.

Caribou are not available in the immediate area, and those people with access to airplanes usually fly to the White River or the Chisana

area where this species is abundant. Few people go after sheep because the hunting season is "too competitive," and the season itself comes at a time of year when many are employed outside of the area. Arctic hares are taken along the road during the fall months, and those with access to freezers store them during this time for the winter. One family said that it uses two goats each year, but hunts near Cordova. This same family takes deer at Montague and Hinchinbrook islands. Apparently many others living along the road do the same.

Spruce grouse are taken in the Wrangells near the streams which are prime locations for traplines. Ptarmigan are taken also in the higher elevations. One man with a plane said that he often visits the Hanagita Lake region (in the Chugach Mountains, south of the Chitina River) to take ptarmigan, which he brings home and freezes. Ducks and cranes are taken in Cordova.

Fishing. People who fly go to Cordova to fish. Those who drive travel to Chitina. Salmon is important to both groups. Most people freeze and can it, although they usually retain some to smoke into salmon fingers. The McCarthy road area is especially known for the availability of various kinds of small lake fish. Dolly varden, burbot, grayling, and rainbow trout are all found in lakes along the road. The Alaska Department of Fish and Game has stocked some of the larger lakes with sport fish. Many fishermen from Anchorage and other parts of the Wrangell region are attracted to the locale and fish year round. Ice fishing is a popular form of recreation on Strelna Lake. Most of the residents say they utilize the abundant fish resources. Some said they used locally caught fish two or three times a week during the summer. Cordova-based people are able to collect razor and butter clams, which they can, and halibut which is frozen and canned.

Gathering. Berries are the most popular vegetable food available in this area. Lowbush cranberries, raspberries, red and black currants, and rose hips are all used to make jams, jellies, and syrup. Mushrooms are abundant. One woman at Long Lake said she regularly utilized nine different species of mushrooms and that one species was usually available

through the summer months. As soon as one died, another came into season.

Wood is used for heating and building structures. Since many of the people live on large tracts, they are able to get the wood from their own lands. But others near Strelna say they are having trouble finding the wood they need for heating and building. Most of the newer structures are made of plywood, and many of the homes use oil heat. The period of habitation in this area is comparatively long, and the landscape appears to be devoid of large trees in some areas.

Trapping. Most of the residents who live in this area during the winter are involved in trapping. They follow lines either beside the creeks coming out of the Wrangells or on the south bank of the Chitina River. People at Long Lake, Strelna, and at the "end of the road" near McCarthy, all lay extensive traplines into the Wrangells. Some of the animals, such as lynx, are eaten.

Craftwork. One woman at Long Lake paints on shelf fungus and sells her paintings in Cordova for 40 and 50 dollars. Her husband bleaches the skeletons of furbearers given to him by a neighbor who traps and sells them in Cordova.

Transportation

The access a subsistence user has to an airplane greatly determines the type of subsistence strategy he or she will undertake. In this area those with access to private airplanes travel widely in the Chitina valley and the Wrangell Mountains. Places visited by them and not by those without access to private planes include the Hanagita Lake and Tebay Lakes area in the Chugach Mountains, the White River and Chisana areas in the eastern Wrangells, and Cordova.

Others, more oriented to the automobile, are more likely to travel to subsistence sites by the road and usually travel to the Copper River valley or Anchorage to buy supplies. They also apply pressure on the Alaska Highway Department to maintain the highway. This effort produces

arguments between neighbors oriented to planes and those oriented to highways. The people who own planes do not want the roads maintained because they feel that roads only transport more hunters to compete for scarce resources and vandals who destroy and steal property while the seasonal and part-time residents are away.

Snowmobiles and track vehicles are important through the winter, not only to the trappers following lines, but also to people whose automobiles cannot navigate the snow-covered road during the winter. Some winters are worse than others. Sometimes the highway department clears the roads, but their service varies according to the political climate. This unpredictable maintenance of the highway applies also to bridges. In the summer during very warm weather, the runoff often destroys bridges along the road. It sometimes takes a week for the road to be fixed, and tourists, fishermen, and local residents are caught occasionally on the "wrong side" of the washouts.

There are few domesticated animals in this area. It is a major fish-spawning area, particularly around Long Lake. The spawning beds attract grizzly bears, which are reported to attack and kill horses and cattle. The author did not hear of anyone having a large number of horses.

The (d)(2) Lands and General Comments on Subsistence

The McCarthy road people live very close to the (d)(2) lands, and some trapping takes place directly on those grounds. For the people whose life style revolves around their lands along the McCarthy road, the changing administration of the park lands may have grave consequences. Some could be forced to leave, or spend so much time away from their McCarthy road homesteads employed in wage labor that they no longer feel pursuing the bush life style is worthwhile. On the other hand, if the park should bring local employment, they might find that the lack of subsistence usage is compensated by the availability of employment near their homes. In the author's discussions with the local people, they

indicate that hunting, and the use of subsistence resources in general, is a central component in their desire to live in the area, and such changes might eliminate their wish to remain.

Chitina

Located at the confluence of the Copper and Chitina rivers, the town of Chitina is a famous fishing spot. While the population of Chitina fell to almost nothing in the late 1950s and 1960s, in the past five years the small community has seen a sudden rise in population. During the summer of 1977, between 40 and 50 residents were living in Chitina. Various places of employment are located in the town including a post office, several guiding and flying services catering to the Wrangell and Chugach mountains, two stores, a bar, a pool hall, a garage, and a missionary station. Basically, the economy of the town depends on tourists.

Chitina is the premier salmon-fishing location on the Copper River. The nearby lakes are stocked with grayling, dolly varden, and rainbow trout, further enhancing the attraction of the locale to fishermen. During the height of the salmon fishing season (in July), campers fill the campgrounds and overflow onto the gravel river bars. It is probable that 500 people come to fish on a Memorial Day weekend if the season is a good one. Only a few miles south of the town, Woods Canyon funnels the Copper River through the Chugach Mountains to the salt waters of the Gulf of Alaska. Prevailing winds from the coast blow north through the canyon to warm Chitina, keeping the mosquitoes on the bluffs away, and carrying rain into the community and the surrounding area. Perhaps this is why the flora of the Chitina area is more diverse than in the northern parts of the Wrangells, and the prevalence of wild rhubarbs and even some coastal berries makes Chitina's botanical inventory unique in the region.

Fauna also are varied. Sheep stand on the cliffs overlooking the

town. Goats, moose, bear, hare, porcupine, ground squirrel, furbearers, fowl, and bison (introduced) are reported to live in the surrounding hills and the flat river banks between Chitina and Lower Tonsina.

People in this community are extremely antagonistic to government, and while the researcher has visited this community many times, she does not feel completely comfortable with the information collected there. She does believe, though, that generalizations can be made about Chitina and the variety of subsistence strategies followed by the people living there.

Subsistence

Fishing is by far the most important subsistence activity in the area, although moose hunting is also popular among the local residents. Both activities bring an annual inundation of people each year from Anchorage and other parts of the Copper River valley.

Fishing. Many of the local people who cater to fishermen in their businesses said they are usually too busy during the fishing season to undertake much subsistence fishing themselves. Others take as many as is legally possible. These people prepare the fish in a number of ways: smoking, freezing, canning, or eating them fresh. The author was told by different members of the various antagonistic factions of the community that some of the smoked salmon is illegally sold to tourists, although she could not confirm this fact. Other local residents without their own fishwheels say that they obtain their fish from local residents at a rate of one dollar per can. The author can report that tourists from Anchorage and other places often approach local people and offer to buy fish. Thus it appears from rumors that some illegal dealing in fish and fish products does occur, especially during good seasons when some people find they have a surplus.

The main fishing sites are located on the Copper River on both sides of the Copper River bridge. On the east bank, fishwheels and dip nets

are placed north of the bridge on the bar at the mouth of the river. On the west bank, fishwheels are also placed in the river immediately south of the bridge, but most of the dip-netting is also done on the west bank south of the bridge. People with river boats travel downstream to places where fishwheels have been located. Reportedly fishwheels are sometimes placed as far south as Taral.

Grayling are caught in most of the lakes around Chitina and along the road just north of town. Most fishermen from Anchorage and Fairbanks concentrate on getting their daily limit before going to the lakes in the early evening to fish for grayling with rod and reel. Unfortunately, "Town Lake," located beside the railroad grade and old station in town, is believed to be polluted. It is reported that raw sewage is dumped directly into the small stream feeding the lake and running through town. As a result most local residents prefer to fish for grayling in the other lakes, although tourists continue to fish in the "Town Lake." Small boys are often seen fishing from the bridge that crosses the stream's mouth.

The proximity of good, stocked, fishing lakes at Strelna, Tebay Lakes, and Hanagita Lake, attracts some people to the town. A float plane can be chartered into the area; cabins and boats are also available at Tebay Lakes and Strelna Lake. Most local people without access to airplanes drove to the local lakes and those on the McCarthy road. Hanagita Lakes offers steelhead and grayling fishing.

Hunting. One old-time prospector who makes his base in Chitina told me that he travels lightly and eats virtually anything that crosses his path while on the trail. He said he ignored the modern laws and abided by the old-time law that said a hungry man could take what he needed. Others were more selective about the subsistence resources they sought and used during the year.

Moose is the most important subsistence species for the Chitina people. Moose can be taken in the local area as well as in areas for which one needs planes, automobiles, horses, or track vehicles. One man told me he generally hunts up the McCarthy road. Another man said

that he, with a few other Chitina people, travels by air to the western Wrangells between the Dadina River and the mud volcano to hunt for moose as well as caribou. He and his hunting partners keep horses through the winter in this area and drop hay and feed in to the animals after snowstorms and during extreme cold spells. Another man walks up the valley and hunts for moose as well as sheep in that area. His attempt to take sheep seems unusual because nearly everyone else said they were too busy catering to tourists, fishermen, and hunters during the sheep season to participate in the sheep hunt. Goats were not mentioned by many people, although those with planes and an orientation toward Cordova can hunt that species near the town. Almost every year a Chitina person wins a chance to hunt bison. They are sometimes successful.

Smaller mammals are also taken, especially by some of the lower-income residents, one of whom told me he took hares throughout most of the year when they were available. Others take hares in the fall months and store them for winter use.

Ptarmigan and spruce grouse are taken in the higher elevations, especially by those with access to airplanes during the winter months. One man said he flies to Hanagita to check traps and often takes several ptarmigan while there. It might seem difficult to understand why one would check a trapline using an airplane, but often people traveling to Cordova, Chitina, and McCarthy on a weekly or even biweekly basis for business reasons stop in isolated places to check traplines, cabins, and property and to hunt small game and fowl. In this way trapping is undertaken on Hanagita Lake and the Tebay Lakes. Trapping is also reported along the southwestern flanks of the Wrangells, especially along the rivers flowing out of the Wrangells. One trapper listed the following species taken from this area: wolf, wolverine, marten, lynx, beaver, otter, and mink.

Gathering. Berries are the most popular vegetable resource in the area, and people make jams and jellies or eat them fresh. Mushrooms are also mentioned, and they are available in the immediate vicinity. A few people use local greens to improve their summer salads. Most of the women have kitchen gardens. Single men rarely have gardens, although

there are a few exceptions, especially among people in the community who minimize wage labor and maximize time spent in the community by undertaking subsistence activities. Wood is difficult for some people to acquire, and about half of the houses and most of the year-round residents use oil.

Transportation

In previous sections, the importance of access to private airplanes in determining the subsistence strategy for Whites living in the Nizina valley, the Chitina valley, and along the McCarthy road has been discussed. For these people, a tri-community triangle exists between Cordova, Chitina, McCarthy, and all the places between them. The plane seems to have replaced the long-defunct railroad as the primary means of transportation. The existence of the highway is irrelevant for them and to the way they relate to the land.

Virtually all the people with airplanes who have lived in the area for ten years or more tell me they utilize subsistence resources throughout the southern Wrangells and the Chugach Mountains south of the Chitina River, as well as along the gulf coast in such places as Hinchinbrook Island, Katalla, the Copper River Delta, and Montague Island. In this way they are able to combine the offerings of two distinct ecological zones in a subsistence strategy that provides an unusual amount of variety in their diets, as well as security from seasonal and annual fluctuations so characteristic of the Alaskan interior. Yet to undertake this type of strategy one must have a certain amount of cash in order to finance the operation of an airplane and the maintenance of two, or even three, households.

In this most modern of subsistence strategies, one must be willing to be mobile and sometimes to spend days in one cabin or home waiting for the weather to improve. One example is the man who fishes at Chitina and Tebay Lakes, traps at Hanagita where he also ice fishes and shoots small mammals and fowl, gardens at McCarthy, and takes his moose to be

prepared in Anchorage. He works for a charter flying service in Cordova and delivers the mail to Chisana. He is traveling constantly and tailors his subsistence strategy to the demands of the charter flying business. His friends are spread throughout the Wrangells. It is the plane more than anything else that ties the white bush people of the Wrangells together in a community. People flying over a friend's homestead in a remote location sometimes land just to talk, have a cup of coffee, and discuss issues of importance to them as local residents. Sometimes parties are held in remote valleys, and people fly into the area from throughout the region towing sleeping bags and beverages for the occasion.

People with access to automobiles display a totally different type of orientation. Many have never been to Cordova, and when they visit a city, they drive 250 miles to Anchorage. Their subsistence strategy depends totally on the resources within the Wrangell region, and for this reason they do not appear as wealthy in subsistence resources as those people with access to coastal resources. Their situation in the environment is not as secure, and when they are unable to shoot a moose, they cannot turn to deer from Hinchinbrook Island. When the salmon run is poor, they cannot supplement with razor clams and halibut.

Snowmobiles, horses, and track vehicles can greatly expand the areas open to the land-locked hunter or trapper. Many of the people in Chitina and the southern Wrangells take advantage of these sources of transportation to expand their hunting area and secure their position as subsistence users.

The (d)(2) Lands and General Comments on Subsistence

The people in Chitina do use the (d)(2) lands for hunting purposes. Sheep, moose, and caribou are taken on the western portion of the Wrangells. Fly-in hunting as well as foot and track vehicle hunting methods are employed to gain access to the area. Trapping and the taking of fowl and small mammals along traplines also occur on (d)(2) lands.

The past history of Chitina is important to understand in reference to (d)(2) land use. When Chitina was a main stop on the railroad and a main supply point for the entire Copper River valley (1910-1938), this area acted as a spillway for the flood of prospectors and pioneers entering the region. Many of the long-established trails in the region initiate at Chitina and across the Copper River from Chitina. One old trail followed the east bank of the Copper River to the headwaters, and many other trails followed the streams descending from the high Wrangells and emptying into the Copper River. Trails that were wide enough to accomodate freight wagons and sleds followed many of these streams, so that prospectors and miners could haul their heavy outfits to claims in the headwaters. Today many of these old trails are utilized during the hunt. Track vehicles, horses, and snowmobiles keep the routes passable as does the slow growth of tender subarctic vegetation. Hunters from the local region as well as from Anchorage follow these trails, many of which can be picked up in or near Chitina.

Kenney Lake

Kenney Lake is a homesteading community which was settled intensively in the 1950s and 1960s. While agriculture in Kenney Lake has not exactly flourished, it has not collapsed either. Some serious agricultural activity continues, but most of the residents must depend to some extent on wage and seasonal labor. Farming homesteads line the Edgerton Cutoff and the Old Edgerton Cutoff for 20 miles along the high bluff on

the western side of the Copper River. From the higher elevations of the community, the Wrangells spread out in a panorama of spectacular proportions. If the Kenney Lake residents could harvest the scenery, they would live in one of the richest communities in the United States.

The annual Kenney Lake Fair displays, however, the brutal facts of the agricultural potential of the area. Two cows, a horse, and four chickens sit forlornly in their cages constructed of local spruce poles. A few carrots, beets, and cabbages sit wilting on paper plates in the community hall. Virtually everyone gets a ribbon reward of some kind. In this situation, subsistence resources assume an added importance. While the traditional homestead philosophy of the American West has encouraged the use of wild foods until domesticated varieties can replace them, it appears that most homesteaders in this area have given up that approach and view the use of subsistence resources as a necessary part of their life style. In fact, many say that they could no longer live in Kenney Lake if hunting and fishing were deleted from the overall picture.

About 30 or 40 families live in the community. Fourteen live beside the old unpaved road, and the rest live along the new paved highway. There is a strong sense of community, and the local people have pushed hard for the establishment of various institutions such as the elementary school and new high school, the church, the community hall, and the library bookmobile. The only newsletter published in the region is written and published in Kenney Lake.

People have moved to Kenney Lake for various reasons. Some have retired to the location; others have genuinely tried to make agriculture a successful enterprise on their homesteads, and they continue to farm after they are awarded the deed to their lands. Others try to sell out immediately upon receipt of their deeds, and some of the original homesteads were sold during the pipeline period. Still other residents have maintained a more typical bush orientation including fishing, hunting, and trapping in lieu of agricultural pursuits. Another group, the young married residents who were raised in the community and have built their

own homes (often near their parents), usually works at seasonal employment in the valley.

In the last three years there has been an unexpected development; two religious communes of 100 people each have been established on old homestead lands. These communities, the Church at Sepa and the Living Word Ministry, are offshoots of communes in other parts of the United States. Both are religious in orientation and are associated with the growing community of Christian fundamentalists in this country. Both aim at self sufficiency by relying on agriculture and subsistence resources to feed their members.

The researcher visited the Living Word Ministry where a spokeswoman outlined the community's approach to combining various resources to support the group. They had to send three men away from the community to take jobs on construction during the summer of 1977. Their aim is to eliminate eventually even this small participation in wage labor. They prefer farming to subsistence, and their truck gardens are extensive. They also do some dairy farming and raise goats, cows, and rabbits. Due to their admitted inexperience in the harvest of wild foods, they have not been able to gather many wild foods. In 1976 they obtained two moose, which were not enough to feed the community. When hares are in the high population cycle, they take many of them. They have run several fishwheels at Chitina, but apparently local residents felt they were taking unfair advantage of the regulations. The commune spokeswoman said they had decided to police their own fishing activity and had voluntarily decreased the amount of salmon fishing they were doing so as not to further antagonize their neighbors. They utilize large volumes of wild berries; a contingent of five women, for example, picked 45 gallons of cranberries in 1976.

The communal organization of labor in which large, efficient task groupings harvest fish and vegetable foods works to the community's advantage in respect to certain resources, but to date they have been unable to hunt successfully, and they have a difficult time gaining access to the more isolated areas. In fact, their spokeswoman told the

author that they rarely cross the Copper River or utilize the resources on the east bank. They do have a dog team that they use to haul wood from that area, but wood remains their biggest problem. The community has many structures that must be heated, including the communal dining hall, the church, and many small cabins where families live. The BLM awarded them rights to wood near Thompson Pass, but they must drive 60 miles to collect it.

Subsistence

Although the people at Kenney Lake continue to have a strong reliance on subsistence resources, the availability of wage labor in the area over recent years seems to have injected a new life into the community. Five years ago many of the houses were boarded up. In the past three years new houses have been built, as many young people who often discuss the merits of rural life as opposed to urban life, support their preference by living in the area.

Hunting. Moose has always been an important subsistence resource in the Kenney Lake area. When the settlers first came, land clearance attracted many moose. One pioneering homesteader told me that they "had to shoo them away with a broom" during the first years of residence at Kenney Lake. But the same woman says that at present the numbers have fallen substantially, and she contends that this decline is due to overhunting, especially by people from the urban areas of Alaska.

Bears are also prevalent in the area, but few of the homesteaders use them on an annual basis. To most, bears are seen as a nuisance rather than as a standard subsistence resource. Bison have been introduced immediately across the river and can often be seen standing in herds on the bluffs of the eastern bank of the Copper River. Someone from Kenney Lake often wins a ticket to go after bison, but it cannot be considered a common subsistence species.

Other large game animals are not available in the immediate vicinity

of Kenney Lake. Caribou, sheep and goat hunting demands that the Kenney Lake resident travel fairly long distances, usually by automobile, although two or three families own airplanes. Sheep can be taken south of Kenney Lake in the Chugach Mountains that rise south of the Tonsina River.

Fowl are abundant in the Kenney Lake area on the small lakes and ponds, but most of the waterfowl are not considered in the subsistence cycle due to game laws which prohibit the hunting of waterfowl in the entire Copper River region. Ptarmigan and spruce grouse are taken near homes and along the trapline. Many spruce grouse live in the Kenney Lake area.

Small mammals such as porcupine and arctic hare are taken by homesteaders. When their numbers are high, arctic hare are almost a staple for some of the people. One man told me that he usually clubbed or shot with a shotgun one porcupine each year, and he estimated that most homesteaders in the area probably did the same thing. While this particular man and his family ate the porcupine, he said that others probably did not and merely shot the animal to rid the homestead of a nuisance to animals (dogs), children, or property.

Fishing. Only three or four people run fishwheels at Kenney Lake themselves, but many more go to Chitina. Canning and smoking of fish is an important subsistence activity for the homesteaders of Kenney Lake. In recent years the demands of wage labor have detracted from the time spent on the running of fishwheels. It is difficult to commute 50 or even 100 miles to a seasonal job on the pipeline or with the highway department and then return to drive a 25-mile round trip to Chitina, where a fishwheel is being run. The recent high salaries also lessen the immediate need for fish. But in the future when jobs become less available, the people will probably return to fishing to some extent. Many of the residents of Kenney Lake as well as other parts of the Wrangell region look on the pipeline era of high employment as an unusual "once-in-a-lifetime situation" of which they want to take advantage.

Grayling are taken in small streams that are usually approached by automobile. Rainbow trout are found at Liberty Creek, south of Kenney Lake. Kenney Lake residents fish for these species using rod and reel.

Gathering. During the summer and early fall gathering of all kinds of species of plants is an important subsistence activity. A large part of gathering activities is done by women who, in general, are not as often employed away from home as men. Berries are the primary species harvested. Most of the women homesteaders and their families pick wild berries which they can and freeze for later use. Raspberries, currants, and cranberries are available at Kenney Lake, usually on the homesteads themselves, where cleared land allows many kinds of berries to grow. Rose hips are also abundant. People must drive to other areas in order to harvest blueberries.

Gardens are an important feature of this homestead community, and most of the people have some sort of kitchen garden. The canning and freezing of vegetables is an annual event and an important part of the overall life style of this particular area.

Many of the homes are made of the logs cleared from the homestead. Most people can continue to harvest firewood from their own lands, but as in all of the more densely populated areas around the Wrangells, the procurement of firewood becomes increasingly difficult each season. Many of the people must obtain permits from the BLM and travel up to 50 or 60 miles to take logs that can be used for fuel. During the clearing of the pipeline right-of-way and the widening of the highway south of Copper Center, many fine logs became available and were harvested by Kenney Lake residents and others in the area for use in home construction and as fuels. But as the amount of clearing declines in future years, logs will again become scarce. Most people use oil as their fuel or as a supplementary source of fuel at this time.

Transportation

Kenney Lake residents are oriented toward the highway. In general, they are not like the flying communities previously discussed in other parts of the Wrangells. The residents depend heavily on their automobiles and pickups to travel to the store and post office in Copper Center, to get their children to school, to attend church, to harvest timber and berries, to travel to hunting areas and employment, and to attend community meetings in which Kenney Lake residents generally take a great interest.

They also use other types of transportation. In their agricultural pursuits they use vehicles such as tractors, plows, and wagons. Almost everyone has a snowmobile, and the annual snowmobile races held on Kenney Lake itself are a big attraction during the winter. Snowmobiles are used on the trapline, to harvest wood and to gain access to isolated places. Snowmobiles are the main form of transportation used to travel into the Wrangells and to cross the frozen Copper River during the winter months. There are a few dog teams and ATVs. The absence of monetary wealth may explain why there are few ATVs in this area. For the same reason, only a few people run airplanes. A few boats and rafts are run on the Copper River and Kenney Lake, but at least two youths have drowned over the past two years, and this has discouraged the use of water transportation. One Kenney Lake man runs a boating service on the Copper and Klutina rivers, out of Copper Center. He guides people who want to tour or hunt. Many people just use the service as a ferry across the Copper River during the hunting season.

The (d)(2) Lands and General Comments on Subsistence

The most obvious area of conflict between the Kenney Lake residents' use of the (d)(2) lands and future government administration of them arises over trapping. Virtually every drainage descending from the Wrangells and emptying into the Copper River is used by a trapper, either Native or white. Many of these people combine some sort of seasonal employment with trapping to support their families and to continually invest in the growth of their homesteads.

Another area of conflict is in the use of the Wrangells by hunters from Kenney Lake. Most residents perceive the moose population as having decreased significantly around the homesteads, so people often cross the Copper River in order to hunt on the western flanks of the Wrangells. Moose are considered by local people to be a staple of the Kenney Lake diet.

In the last five years, the opportunities of wage labor on the pipeline have drawn many people away for much of each year. It has also provided the cash for some of the young people to invest in their own homes and families. Now that the opportunities in the valley are decreasing and the economic scene is returning to normal, it is likely that many of the homesteaders will revert to their previous life style of partial dependence on subsistence resources. At the same time, several newly established families will also look to the land for some support. A growing pressure in the area on subsistence resources is predicted, including pressure on the (d)(2) lands opposite the community on the east bank of the Copper River. There are already reports of some altercations about the location of traplines in the Kenney Lake area, and the taking of wood from neighboring lands. The settlement of 150 to 200 people on communal farms in Kenney Lake inflicts even more strain on the already depleted subsistence resources, and on moose in particular.

The Central Copper River (Copper Center-Glennallen-Gulkana)

The central Copper River area from Copper Center to Gulkana is the main locus of population in the Copper River valley and probably for the entire Wrangell region. With the construction of the trans-Alaska pipeline, the population of this area has probably doubled. Although some decline in the new population is likely to occur, the area has grown permanently with respect to its number of residents. Intensive settlement is found along the highways, particularly along the Glenn and Richardson highways where they meet in Glennallen.

The population is varied. People are employed in business, service, professional, and construction pursuits. Many of the professionals are employed by state and federal agencies. The Central Alaskan Mission and Hospital also employs many professionals. As the central place in the region, Glennallen is the location of many amenities, including the high school, post office, airport, several hotels and stores, the utilities, and government offices, such as the state troopers, the Department of Fish and Game, and the Bureau of Land Management fire-fighting station. Glennallen is seen generally as a white community, although it does have a substantial Native community which has been described previously.

Subsistence strategies are as varied as the population. Virtually every strategy found in the region can also be identified for individuals living in the central Copper River valley. Agriculturally oriented homesteaders are found near Copper Center, lodge owners and guides live along the highway, seasonally employed construction workers as well as salaried employees of the government live in subdivisions, and recluses or "back-to-nature" people are found in cabins off the highways. It is difficult to say then that people in this particular part of the region undertake any kind of predictable subsistence activities. With few exceptions, everyone uses subsistence resources to some extent. At the low end of the subsistence use scale are those people who only can a few jars of their favorite berry jam or cook a fresh salmon given to them

by a neighbor. At the other end are those people whose entire lives revolve around the taking of subsistence foods. During the seven-year period in which the researcher was working in the Wrangell area, she cannot think of one person who does not utilize wild foods at some point in the year. It is a fact of life in this part of Alaska.

Subsistence

In this section, only a sketch of subsistence activity will be given as the problem of subsistence is a complicated one in this particular densely populated area. It is hard to make a synopsis, but the author will attempt to give some idea of what areas are utilized in the central Copper River.

Hunting. Moose hunting is good throughout the central Copper River. Tazlina, Klutina, and Tonsina lakes are favorite moose-hunting areas for local people and many old trails lead to the lakes. Some people maintain hunting cabins on the lakes to which they return each year during the hunting season. People also hunt along the rivers, sometimes from rafts or boats, and on lakes Louise and Tyone as well. It is also easy and inexpensive to fly into the Wrangells if one is able to take time off from work during the hunting season. The western flanks of the Wrangells offer especially good hunting. Several individuals own hunting cabins in the Wrangells; these are well stocked and visited annually during the fall and throughout the winter when they can be approached by snowmobiles across the frozen Copper River.

A few people also run horses on the eastern side of the Copper River, which are useful during the hunting season to carry supplies and any meat that might be taken. Horse fodder is dropped from airplanes during the winter by some owners, while others merely gamble that their horses will survive. Boats are used to cross the river, and the availability of sophisticated rubber rafts in recent years has attracted the attention of some local residents. Each year more local residents buy

and use such means of transportation. Other residents travel to parts of Alaska where hunting laws are more lenient and takes may be higher. While a few people might prepare their own meat, it is more often the case that the meat taken by non-Native hunters will be taken into Anchorage where it is commercially prepared and butchered.

Caribou are also taken by the local hunters of the central Copper River who generally combine moose and caribou hunting, particularly if trips to Lake Louise, Lake Tyone, other northern hunting spots, or the higher elevations of the Wrangells are on the hunter's agenda. Caribou are not as popular as moose as a source of meat and are usually only a secondary goal of a hunting party. During some years, they are available in great numbers in easily accessible locales such as along the Denali road, the Nabesna road, the Glenn Highway near Gunsight Mountain, and in the area spotted with many small lakes north of Glennallen and south of the Denali Highway.

Sheep are taken in the Chugach Mountains, particularly around Tazlina Lake and also in the Alaska Range, which can be approached by boat on the Denali lakes. Some people associated with guiding also take sheep in the Wrangells, although most local people who hunt sheep as a food for the table seem to prefer hunting in the Chugach Mountains. Sheep hunting in the Wrangells is, by comparison, very competitive and expensive, and only a few of the most avid hunters hunt sheep in any sort of systematic way.

The Chugach Mountains can be approached along many old trails and wagon tracks found near Tonsina and south of there. This is one of the less expensive approaches a hunter could use to take sheep in the Chugach Mountains. In seven years, the researcher heard of only two cases in which local people intending to take sheep solely as a food source were successful on the hunt. Compared with the many reports of moose and caribou taken, the author would conclude that sheep are generally not thought of as a regular subsistence source among the people living in the central Copper River area.

Many people also hunt small mammals. Hare, porcupine, and lynx are

taken, and various means are used to capture the animals. Hares are snared as well as shot, the latter being more popular among men, and the former sometimes undertaken by women. Porcupines are usually shot, although a few people said they clubbed them. Lynx are taken in traps set for fur-bearing animals but are rarely eaten. Of this particular species people usually mention eating the hindquarters only.

Game laws permit only a few types of fowl to be taken. In particular, ptarmigan are reported taken while trappers are traveling their lines. Grouse are taken anywhere they are found and are abundant during some years in the woods and along the rivers. People drive to a place outside of Glennallen or a place that is uninhabited and leave their car or pickup and walk through the woods. As the grouse fly up, they are shot by shotgun. They are taken home, dressed, and often frozen for the winter months.

Fishing is of central importance to some of the Wrangell communities, particularly Copper Center, Gulkana, and Tazlina. Fishwheels are run in the rivers. Some of the older residents who are living on fixed incomes depend heavily on the annual salmon catch to maintain their standard of living. Women, especially, undertake fishing, and some women reported that each year they can several cases of salmon which they feed to their families as many as four times a week. Others say they do not really like salmon and take only a small amount. For a small number of white people it is the staple of their diets, as it is for the Native people in the same area. Those without access to fish-wheel sites sometimes go dip-netting at Chitina or even set wheels there. Others "rent" wheels from local people for a weekend.

Grayling fishing is a popular activity in the spring and fall. Children, as well as adults, congregate around special fishing holes in each community with rod and reel. Many of the young people take their limits daily through the duration of the "run." This means that in a season an individual might take 100 fish which are frozen or eaten fresh for dinner or breakfast. Seasonal residents are often found fishing with the local people after work and before the sun sets. Those

people staying at the local lodges have the cooks serve them their fish for breakfast the next day. Often the whole crew shares the take.

Other fish are also taken in lakes in the central area. People drive to Lake Louise, Lake Tyone, the Denali lakes, Isabel Pass, and other places that have good fishing, or have been stocked (usually with rainbow trout) by the Department of Fish and Game. Ice-fishing is a popular activity for weekends during the winter months. People usually drive to ice-fishing locations, although snowmobiles are becoming increasingly popular as a mode of transportation. A few hunting and fishing lodges are sprinkled around the region, and one source reported that four were located on the western side of the Wrangells. There could very well be more of these cabins located in the Wrangells.

Gathering. The gathering of vegetable foods is one of the most popular subsistence activities. Just about everyone gathers berries in the summer. Some families gather several gallons of each species which they prepare in a variety of ways to last through the entire winter. Others gather a few to use in jam, or to be eaten fresh, in a pie, or on one's cereal. The author has been told of construction crews taking off through the berry patches at their lunch breaks, collecting blueberries in whatever containers they have at hand. Their harvest is given to someone's girlfriend or a crew member whose culinary skills are well known, and the next day they have pie for lunch. The most popular areas for berry picking are located near settlements and along the highways. Weekend family excursions to the Denali road or Lake Louise are undertaken when the blueberries are ripe.

Trapping. Trapping is conducted throughout the central region. Virtually every creek bed on both sides of the Copper River, the shores of each lake, and even the utility cuts are identified with individual trappers. Some residents trap seriously and supplement seasonal wages during the winter months. They use snowmobiles and travel 20 to 40 miles during the biweekly rounds. Some maintain cabins in the mountains, but others just trap on weekends. Since trapping is a winter activity, it is combined easily with a seasonal work strategy. Across from the communities on the Copper River, the rivers rushing down from the Wrangells

are virtually all trapped by either Natives or Whites.

The Tok Cutoff

The people living along the Tok Cutoff often live several miles from their nearest neighbors. Small settlements are found at Gakona, Chistochina, and Mentasta. The Tok Cutoff people are often oriented to businesses serving the tourists and hunters who regularly travel this route between the Copper River valley and the Alaska Highway. Homesteaders, retired people, and guides are also found living along the road. Some of these residents have lived here for 20 or 30 years and suddenly find the area developing around them. Many talk of the annual inundation of hunters as a problem rather than as a boon to their businesses. The rising use of campers has detracted from some businesses because people carry all their needs with them. Some of the residents were raised along the highway and now combine seasonal employment on construction projects (usually with the Alaska Department of Transportation) with other bush-oriented activities such as prospecting, trapping, guiding, or hunting.

The landscape in this area is impressive. The highway skirts the hills of the Alaska Range and presents magnificent vistas of the Wrangell Mountains; also visible is the Copper River as it arcs around the Wrangells in its path from the headwaters at Tanada and Copper lakes to the sea. Caribou, moose, sheep, and bear are abundant and a great attraction to hunters from the rest of the region as well as other parts of Alaska. Fishing is good also, and salmon are taken in fishwheels at Gakona, Chistochina, and Slana. Lake fish are taken in the larger lakes such as Mankomen in the Alaska Range, or Tanada and Copper in the Wrangells. Grayling run in the streams that periodically cross the roadway, and during summer evenings, while traveling by plane, one often spots people fishing with rod and reel.

Subsistence

Most of the permanent residents along the Tok Cutoff utilize a number of subsistence species each year. Most people are oriented to the highway, although a few, perhaps one in each small community, do own airplanes and use them for subsistence purposes. Perhaps a third to half of the homes are of log construction. Fur trapping is a common winter activity. It is obvious when talking to the Tok Cutoff residents that it is the bush life style that has brought them to this place.

Hunting. In past years, Chistochina was thought of as the caribou capital of the Copper River area. In 1977 people said the caribou had disappeared, and for several years people have not taken a single member of this species. Another woman told me that while most of the people complained about the caribou shortage, few Whites liked to eat the meat because it is "full of parasites." I heard this comment throughout the region and have reason to believe that presence of parasites in caribou meat does deter some local Whites from taking and using it. It becomes a matter of taste.

Moose is the preferred species on everyone's hunting list. According to one knowledgeable informant, virtually every drainage coming into the Copper River on both sides is hunted. The local residents appear to have a fairly high success rate during the moose hunt because moose meat is served regularly on most tables in the area. People say, however, that it is becoming increasingly difficult to obtain a moose each year, and that more and more families are sharing their meat. While most of the families are related (fathers' and sons' families for example), some are not. The people who share moose indicate that this sharing is an investment for a future time when their own family cannot obtain a moose.

Since there is no electricity in this area, many people have a difficult time storing their moose until winter comes and the meat can be kept in above-ground caches. Space is available for rent at the restaurants and lodges with private electrical plants, but the space

available is limited and one must be on good terms with the lodge owner in order to use the facilities. Other people must can their meat or leave it with relatives in Anchorage until winter.

The increasing hunting pressure is reflected in the interviews the researcher conducted with local people. One woman said that she and her family had taken a moose every year for almost 30 years until 1976, when for the first time they were unsuccessful. She said they substituted hamburger for the usual moose, and since her business was good during the pipeline period, her family did not suffer except that they could not have "what we are used to."

Black bears and sheep are species taken by a few people. One woman from Chistochina said that her husband and son fly to Nabesna and Chisana for these animals. Another woman who lived near the Nabesna road said that her husband and sons often fly to Chisana to hunt caribou and sheep. They are usually able to use a friend's horses in the Chisana valley, but it is difficult for them to combine guiding and hunting due to the short seasons. Nevertheless, this woman said that each year they take at least one animal from each of the game species because of their association with guiding and their access to isolated hunting areas.

People living near Mentasta Pass and around the community there also utilize horses and hunt in the surrounding Mentasta Mountains or Black Hills. One woman who had been hunting from horses for several decades and who did some limited guiding said that the use of track vehicles in recent years completely changed the hunting picture in the Mentasta Mountains and Black Hills. The numbers of hunters have increased quickly, and their effects on the environment, in her view, are tragic. Garbage is left behind, the earth is churned up, the noise of the machines reverberates off the mountain walls during the fall hunt, and the animals are becoming scarce. She also mentioned that many of the hunters were inexperienced. The track vehicle allows people to gain access to the remote bush areas, places many of these people would be unable to reach due to their ill health, laziness, or lack of knowledge. Track vehicles are the great levelers in the hunting world.

This woman fears for her life because these inexperienced hunters are said to shoot at anything that moves, and that could be a hunter quietly moving along on horseback.

Most people said hares are taken when they are in a high cycle. The last high cycle in this area was 1971. Hares are shot during the fall and frozen if a freezer is available; they are also shot in the late fall and stored outside. Some residents take hares throughout the winter.

Ptarmigan and pintail grouse are taken by some people, especially along the traplines or when ice-fishing in the Wrangells. One woman told me they took these species whenever possible along their trapline which extends west of Chistochina. Pintail grouse are also taken along the highway.

Fishing. Fishing is an important subsistence activity in the northern Copper River valley, and many of the fish are taken from lakes on the (d)(2) lands. At least one family, and possibly more, takes people on fly-in fishing outings at Copper and Tanada lakes (which are on (d)(2) lands), and Mankomen Lake (which is not).

Salmon are taken in fishwheels in the Copper River at Gakona, Chistochina, and Slana. One long-time Chistochina resident who did not run a wheel because her family did not like the taste of salmon said, "We are the only people who don't put up salmon around here," referring to the Indian River-Chistochina community. Others supported her statement, and in fact everyone else interviewed south of Slana did run a wheel in 1977. People say they generally take their limit; and if they cannot use all the fish, they give it away to someone who can use it, usually a relative or a close friend who is too old to fish strenuously. The catch is canned and frozen if people have a generator or access to an electrical plant. One Chistochina woman estimated that her family ate salmon two times a week.

Other species of fish are also taken, and winter ice-fishing is popular, especially because it does not compete with wage labor or summer subsistence activities. One Mentasta woman flies to Copper Lake to go ice-fishing for grayling and lingcod. Another person reported

they took coho salmon in Copper Lake. One family said it took grayling and lingcod from Tanada Lake. Both Copper and Tanada lakes are located within the (d)(2) lands on the northern side of the Wrangells. These lakes are also the most popular areas of guided fishing. Fishing cabins and lean-tos are available at the lakes, and while the structures there (made of plywood without insulation) are primitive, it is possible to stay several days during a warm spell (-20°F temperatures) and fish. Local people with access to an airplane can fly up to the lakes for a day and most of the Tok Cutoff people who did so have their own airplanes.

Grayling, trout and pike are all available in the creeks that cross the road, and favorite fishing spots are visited in the late evening after work. Mentasta Lake also has several species, and people can drive onto the lake along the Mentasta Village road. Small boats are sometimes used on the lake.

Gathering. Berries are the most popular species of vegetable food in this particular area. Lowbush cranberries are collected and stored in outside caches to be used at later times in relishes, syrups, and for baking. Jam is made from blueberries, red currants, raspberries and rose hips. Wild rhubarb and sourdock are also collected by a few residents.

The use of wood as fuel is decreasing each year as it becomes more difficult to take wood from federal lands. In Chistochina the author discovered that the white people did have a definite pattern of wood usage. While in the bush, on the trapline, or undertaking subsistence activities such as hunting or ice-fishing, people do use wood. They also use wood to keep small outbuildings such as garages or worksheds warm. In the house, however, oil is the standard fuel source. The Chistochina people said that they take wood from snags in the river. Using a snowmachine and chain, the wood is dragged across frozen water and land to their doorsteps.

Trapping. The trading post owner in Chistochina buys furs from people living primarily along the Tok Cutoff. The year 1976 was one of the best years for trapping that she had seen in her 30 years of residency in the area. Furthermore, she said that between Gakona and

Mentasta there were currently "no openings," meaning that every possible trapping line is occupied. This includes the drainages coming down the north and west slopes of the Wrangell Mountains from the Sanford Glacier, as well as lands not classified as (d)(2) on the west bank of the Copper River.

The author spoke to one of the serious trappers in Chistochina who traps up the Chistochina River itself. He withdrew from trapping across the Copper River where he conducted this activity for 25 years on the (d)(2) lands. He feared at the time that when trapping was "closed down" in the proposed park, he would be left without an area. When the Chistochina opened up, he jumped at the chance of establishing trapping rights off the (d)(2) lands. He said that his position across the river was quickly taken over by someone else.

This particular man uses a dog team as well as several snowmobiles and a recently acquired track vehicle for trapping. He prefers to run dogs because they are quiet and do not disturb the game, but he keeps the trail open (jointly with a Native who traps in the same direction) using a snowmobile. He owns a line hut which is also used during the hunting season.

This trapper gave me a detailed rundown of the species and the expectable takes. He said that he took between 5 and 20 fox and between 6 and 50 marten. During his 25 years of trapping he has seen only one high period in the lynx cycle, and he was able to take 40 animals that year. Other years he would be lucky to take even one. In a season, he might take up to three wolves, an average of three wolverines (which he would consider a good take), about two coyotes, and eight mink. Muskrat takes vary significantly, and they are not taken until the price for each pelt is high enough to make the endeavor worthwhile. His wife told the author that trapping "buys the groceries." She has always been an important part of the trapping strategy in their household, often accompanying her husband, and even traveling the rounds on her own.

The interview with this couple reflected the enjoyment gained from this type of life and the zest for outdoor activity that is common of many of the trappers in this area. Most confess that the monetary

rewards are quite small, but that by trapping, their lives become worthwhile, unique and exciting. While this Chistochina woman figures that trapping buys all their groceries in a year, she readily admits that the costs incurred by the modern-day trapping techniques used by her husband, including snowmobiles and dogs, traps, expensive clothing, and maintenance of a line cabin, probably cut deeply into any profits they might make. They do not trap simply to make money; they trap because it is part of their total relationship with the world and with nature. For most people living along the cutoff, trapping is a way of life.

Transportation

Along the Tok Cutoff, the researcher found that people utilized many different modes of transportation. Snowmachines were extremely popular, and one woman living outside of Indian River told me that virtually everyone owned one or two machines which are used along traplines and to drag wood. Snowmachines enable the Tok Cutoff residents to penetrate the wilderness on the eastern bank of the Copper River and thus enter the (d)(2) lands at this point.

Track vehicles are becoming increasingly popular. One environmentally aware resident in Chistochina said she was against track vehicles and hoped they would be banned on state as well as federal lands. But, she added, she did own one and used it during the hunting season. The increased competition and decreasing numbers of animals available were the reasons she cited for usage of this vehicle. The author has this justification of track vehicle use from several other track vehicle owners along the Tok Cutoff and Nabesna road. When it was pointed out that she could buy a large amount of meat for the price of a track vehicle and its maintenance, she said that after a life-long residence in the Copper River valley, taking one and sometimes two moose each year for her family's consumption, she did not like beef anymore. She and her family preferred moose and found it tastier and also believed it to be more healthful.

Another woman in Mentasta agreed that track vehicles should be banned and refused to buy or use one. She felt that track vehicles brought undesirable people into the wilderness. Track vehicle users are also able to circumvent the traditional use of a local guide. She worried that tragic accidents would result from track vehicle use and felt strongly that the land had been dramatically scarred already by hunters who plow through the wilderness unmindful of the destruction they bring to the environment.

Automobiles are also used by local residents to travel to favorite fishing streams, check fishwheels, carry fish, and go "car hunting" up the Nabesna road and elsewhere. But for most of the cutoff residents, the automobile is most important for commuting to work or businesses in Glennallen or Tok. Most of these people located themselves in what they believe to be a good hunting, trapping, and fishing area when they moved to the cutoff, and they generally hunt in the northern Copper River region in the Mentasta Mountains, the Black Hills, and the northwestern part of the Wrangell Mountains.

Some airplanes are owned privately by residents of the cutoff. Airfields are found at Gakona, Chistochina, and Mentasta. A driveway-parking lot doubles for an airfield north of Slana at Duffy's Tavern. A few others have float planes that can be seen in lakes along the road. Most of the airplane owners, although not all, are connected with guiding in some way.

At least one man living about ten miles north of Gakona owns an Avon raft that he uses in the Copper River and other nearby rivers. The researcher is unaware to what extent a raft is used for hunting or for gaining access to the other side of the river, but the quiet nature of a raft does allow one to come close to animals.

Some animals are used as means of transportation. Horses are used in Mentasta, and dogs in Chistochina. The dog team is fed largely on parts of fish that are not generally eaten by humans. Dogs are preferred by at least one trapper because they are quiet. He said that the dogs would be given up if salmon could not be used to feed them. Apparently, people are not willing to pay as much for dog food as for

gasoline. At present, the price of gasoline has not risen so high as to encourage people to return to the use of dog teams.

It appears that along the Tok Cutoff, where competition among local hunters and "outside" hunters is becoming fierce, local people will invest in increasingly expensive modes of transportation to gain access to "further back" hunting locations where they are more likely to find game. While local residents waited longer than many urbanites to invest in track vehicles, during the last two or three years even those people who oppose the use of track vehicles feel forced to use them in order to maintain their life style. Perhaps this trend is also related to the availability of employment in the area as the cutoff was resurfaced recently and pipeline employment was available in Glennallen. This employment allowed people to save the money they often invest in the traditional bush life style.

The (d)(2) Lands and General Comments on Subsistence

Several people declared their intentions to poach in order to maintain their present level of use of subsistence resources. In fact, there are popular rumors as well as indications from the Department of Fish and Game that poaching by local residents is increasing already. At one lunch counter near Slana, local residents who were assembled over morning coffee strongly supported a neighbor who had taken a moose out of season. They said his only mistake had been to let the carcass sit in full view in his back yard overnight.

On another morning in another cafe on the cutoff, a woman referred to those people as, "A bunch of stupid rednecks." She represents another view of the problem, one which thoughtful guides (to whom the maintenance of the species' populations is critical for business) often verbalize. These people are more likely to be active in designing further legislation or participating in an effort to improve game laws for both hunters and the animals they hunt. Many residents worry that the closure of subsistence activity on the (d)(2) lands without more

thoughtful management of the non-(d)(2) lands would be disastrous. Legions of hunters would become confined to a still smaller area than at present; hunting accidents, overhunting, and the demise of the bush life style are all possible results. The residents worry about the economy of the area, which depends heavily on guided hunts and fishing expeditions.

Interestingly, the guides support joint local, state, and federal management schemes. They feel that some sort of limited-use concept would ultimately benefit themselves and the local residents by requiring such regulations as guides accompanying hunters, the building of hunting and fishing lodges, and the barring of non-authorized vehicles. In their view, the state's policy to date has been to give every Alaskan an equal chance at the game. This is not a particularly good policy for aiding businesses, yet it is a good one for the service station owners, the hotel operators, and cafe operators who survive on the money spent by the estimated 800,000 tourists and hunters who travel the highway each year.

People from the Tok Cutoff presently trap, hunt, and fish on the (d)(2) lands. Some areas of intensive use are located around Copper and Tanada lakes, but the drainages from the northwest Wrangells also attract trappers and hunters. The researcher feels it is interesting to review the comments of the Chistochina resident whose trapping strategy is outlined in this section. Five years ago, at the beginning of the (d)(2) planning period, he realized that his traditional trapping area located on the (d)(2) lands would be in jeopardy if the bill were to pass. He took the next opportunity open to him to move his operation to a non-(d)(2) area. This man's behavior illustrates an important point that must be made about the relationship between (d)(2) and non-(d)(2) lands.

When prevented from using traditional (d)(2) lands for subsistence purposes, people will turn to those areas which are open. The competition is already increasing in these areas at a rate which reflects the rising population of Alaska in general, and of Anchorage in particular. Thus there are probably people who traditionally have never used the

(d)(2) lands as hunting, fishing, or trapping areas, but when these areas are closed, their non-(d)(2) lands will become even more crowded than they are at present. As one woman joked, "If things keep up this way, the woods around here are going to look like Grand Central Station."

The Nabesna Road Communities

At Slana, a dirt road parallels the Copper River and its mass of arteries for 40 miles to Devils Mountain and the old Nabesna Mine. At one time heavy trucks bearing ore traveled the road constantly on their trip to Chitina and the railroad, but now as one drives along it, one rarely sees another vehicle. The Wrangell Mountains tower to the south of the road, and to the north stands the Alaska Range, colloquially called the "Black Hills." The two great ranges meet at the end of the Nabesna Road.

The country along the road is high in elevation, and scraggly black spruce struggle to survive in the mucky ground. Willow brush covers the land and makes it difficult to walk cross-country. Surprisingly, there are few blueberries along the highway, although in the mountains, blueberries can be found. Small lakes and streams seem to well out of the earth and spill dark brown water into the tributaries of the Copper River. A few fast-running streams fed by the melting snows of the two mountain ranges run into the Copper River. Between Twin Lakes and Devils Mountain the road crosses the divide between the Copper River and the Tanana drainage.

Approximately 10 to 12 families live along the road. While some are seasonal residents who work at wage labor during the summer, most live in the area year round. At least seven of the families are involved principally in the guiding business. There are one or two seasonal recreational homes used by hunters or families from Anchorage. Three families live at Nabesna or "Devils Mountain," five families live at Twin Lakes, and about three families live at "5-Mile" on the road near Slana. There is also a caretaker for a guiding outfit who lives year

round at Copper Lake, and it is reported that a fishing lodge owned by a group of Anchorage residents is located on Tanada Lake and has a seasonal caretaker. Every year the author has visited this region (about five years in all), there has been at least one or two more people living in the bush. Usually single, these people are generally artists, poets, or (for want of a better word) "hippies."

Subsistence

Even those people who do not own their own guiding businesses often guide others during the summer. Guides are not allowed to hunt for themselves while employed for that purpose, so many of the families must depend on the meat given to them by the hunters. Although the policies of individual businesses pertaining to the acceptance of meat varies, most of the people along the Nabesna road seem to have an ample supply of meat and are even able to give some to their children who have moved to Anchorage.

Fish are also important. While there is no nearby access to salmon and few of the non-Native residents told the author they ran fishwheels on the Copper River, most residents fish at Tanada or Copper lakes as well as in Twin Lakes.

Hunting. For the last few seasons, moose hunting has been closed in the section at the head of the Nabesna road. While people complain, they generally agree that there are hardly any moose left in the section at present, and all blame it on a "cow season" that was open about five years ago. Most of the residents felt that one moose per season per family was enough to supply one family. In fact, because of the good supply of other meat such as sheep and caribou, one moose is probably sufficient to feed two families, and at least three father-and-son teams share.

The Nabesna road is sheep and caribou country. The sheep can be taken sometimes within 3 miles of the road. Caribou numbers vary, depending on the migration habits of that animal. One herd traveled

across the Nabesna road each summer after wintering in the Sanford Mountains. Two men who spotted the herd while driving down the road could easily take four animals. In fact, one man told me he believed caribou are so easy to take that people sometimes shoot them for no reason. Once he found several animals shot and lying by the side of the road where the carcasses had been left to rot. Such waste was blamed on the inexperienced Anchorage hunters who "went joy hunting," simply vandalizing the wilderness. People also fly, ride on horseback, take track vehicles, walk beside old wagon trails to Tanada and Copper lakes or follow the northern slopes of the Wrangells. From the hills, the vistas are open for miles, and caribou can easily be spotted and tracked if one is able to move quickly over the rugged terrain.

Black bears can be taken along the Nabesna River, which in the past was also a good moose hunting area. Few people go after bear as a food source, although people do take them for their hides, which can be used for rugs or wall hangings.

Several people living at Twin Lakes and at Nabesna said they took ptarmigan and pintail grouse while out in the hills during the winter.

Fishing. There are also people in this area who guide fishing parties. One woman and her husband who live at Twin Lakes take people fishing at Copper Lake. She told me, "We live off fish," meaning that wage labor as well as sustenance were provided by fishing activities. This couple is one of the few non-Native families that run a wheel on the Copper River, from which they take red and king salmon. In the winter, they fish through the ice for lake trout at Copper Lake and lingcod at Copper Lake and Twin Lakes. Dolly varden are taken near Nabesna at Rufus Creek, and grayling are taken at Twin Lakes. For this family, most of the fish is frozen, although they also do some canning and smoking. Few other families are as dependent on fish as these two residents. Several people did mention fishing at Copper and Tanada lakes as well as Suslota Lake. Fishing for lingcod and grayling (the more popular species) was conducted also at Twin Lakes.

Gathering. The scarcity of wood in the immediate area is due to the land being wet and at a high altitude. It appears that much of the

wood was taken early in this century when the Nabesna Mine was running, because willow overgrowth surrounds the old mine for several miles. Regardless of the reason, the lack of wood has prompted most people to turn to oil in recent years. One Twin Lakes woman, however, told me that she and her son's family were still able to get all the wood they needed on their own property from deadfalls.

The women at Twin Lakes said there were few berries in their immediate vicinity, and that it was best to drive somewhere else to collect enough to make the activity worthwhile.

Trapping. Most of the drainages around the northern Wrangells are being trapped at present. Several specific areas were mentioned including the Jacksona area, which is in the heart of the proposed parklands. The trapline there is run by a young man who grew up at Devils Mountain and lives in that area today with his wife and child. Another man at Twin Lakes said he trapped from Twin Lakes to Copper Lake, Black Mountain to Lost Lake, along the Chislina to the road, and along the road.

For these people, trapping supplements incomes earned in guiding. One man said that it was an important source of income for him, estimating that an average year would yield the following furs: about 5 wolves, 4 to 6 wolverines, 1 or 2 otters, around 12 foxes, and from 2 to 103 (unusually high) lynx. He said he had never taken muskrat from the area and that beaver, mink, and weasel were scarce.

Transportation

Virtually everyone along the road has an automobile and a snowmobile, but at least eight of the Nabesna road families also have airplanes, which are vitually essential to the modern-day guide. Like their counterparts on the southern side of the massif, the people along the Nabesna road belong to the elite group of bush people who inhabit the Wrangells and form their own small society. They visit one another in their planes, and many know the fliers who live near McCarthy,

Chisana valley, the White River valley, and along the McCarthy road. They also commute constantly to the Tok Cutoff to collect mail and pick up supplies delivered to their contacts and friends living along the cutoff. It is not unusual for these people to incorporate their airplanes into subsistence activities. They can visit the lakes in the Wrangells when they are frozen and can fish or take ptarmigan, as well as visit the caretakers who live there all year round.

A man living at Devils Mountain told me that he was selling his off-road vehicles because he felt that they would soon be outlawed by the state, and he "didn't want to be stuck with them." He owns horses that are used during the guided hunt and an airplane. Track vehicles are used by a few people. One fishing guide has towed several structures, including an abandoned school bus, across miles of terrain and located them on the shores of Copper Lake to be used by fishermen. Plywood sheets have also been dragged to Tanada Lake and Suslota Lake where hunting and fishing cabins are found.

From visits to Tanada and Suslota lakes, the author believes there are many hunting camps dotting the (d)(2) landscape and areas falling outside of the (d)(2) area. Most of these camps are not very attractive by anyone's standards. After a winter, the hungry bears dig into the garbage pits that are usually located about 10 feet from the buildings, and cans and debris lie scattered everywhere. Horses that have been tied to stakes near camp have worn down the ground cover. Caches, sometimes 30 feet high in the trees, hold supplies. Sometimes small animals have broken into the rice or flour and it is spread around the ground amidst torn pieces of paper and other garbage. Wood has been taken from near the camp, and the entire area is dotted with stumps. Apparently, before a new "batch of hunters" comes, the camps are cleaned up and kept neatly "ship shape" until they are abandoned. The elaborate camps would not be possible without some way to drag the supplies to them.

The (d)(2) Lands and General Comments on Subsistence

The relationship between the people living along the Nabesna road and the (d)(2) lands is very close. Most make their living from guiding activity on the (d)(2) lands. They live on these lands and take much of their food from here. Like the people living along the McCarthy road, the people living along the Nabesna road will be directly affected by the new administration of the lands surrounding their homes.

Chisana

The small community of Chisana was once a mining town, but today this beautiful and remote bush community is almost isolated. Only two families claim full-time residence, although a few others visit seasonally or run guiding businesses in late summer. One of the full-time residents, a retired man who occupies a homestead on the south side of Castenda Creek, actually resides within the park's proposed boundaries. He grows oats and vegetables, has cleared much of his homestead, and built a cabin. Another family which lives by guiding resides at the north end of the airplane runway. They have lived at this location for at least 20 years and have built several large log homes and many outbuildings. At the south end of the runway, a grouping of small cabins (the remains of Indian and miner cabins) are presently used by a guide and some seasonal people. A man who currently resides in Fairbanks flies in throughout the year and says that he plans to retire to Chisana with his wife and two children in a few years.

From what the researcher could ascertain, everyone with any resident interest in the Chisana valley lives in the community. Thus, the area is very sparsely populated. Residents reported that usually three or four prospectors search the hills for gold each summer, but in 1977 they preferred to work on the pipeline, pumping black gold instead.

The environment in the Chisana valley appears to be slightly

different from the Copper River environment. It is similar to the Interior near the Yukon River. The Chisana River drains into the Tanana River and eventually into the Yukon. The weather in Chisana is cold, unlike McCarthy, which is considered a neighboring community because, as the single-engine plane flies, it is only about 50 miles due south. The frosts continue all summer, and the single homesteader says he has had great difficulty gardening.

Subsistence

Hunting is the main activity involving subsistence resources in the Chisana River valley. In the fall, scores of fly-in hunters enter the area in search of dall sheep, caribou, and moose. The local residents said that many of the people who come are not Alaskans, although Alaskans do number among the hunters' ranks. Perhaps 40 to 60 hunters from outside of Alaska are taken on guided hunts in the immediate vicinity and pass through the community on their way to the isolated and high hunting camps. Most are after the dall sheep, but many also buy tickets to take moose, caribou and bear.

The author has met some of these hunters, and while in Chisana, she met three autoworkers from Detroit who had saved for several years to hunt sheep in Alaska. Others are more prosperous and return to Alaska year after year to go hunting or fishing. Some are from foreign countries and hunt all over the world. But, as many of the traditional hunting grounds (in Africa for example) are closed due to declining game populations or politics, Alaska has become one of the few places left open. These hunters have a significant impact on the economy of Chisana and are the main source of income for the people living there.

Hunting. Local residents reported that most of their hunting for food and on guided hunts is undertaken on the (d)(2) lands to the southeast and west of the small community. Sheep can be taken in the mountains almost anywhere near the community. Most local residents are given meat by the guided hunters. In fact, every meal the author was

served here was centered around wild meat, and the residents said that this was normal.

Two areas were mentioned as especially good hunting sites. On the west side of Trail Creek (across the Chisana River) an area nicknamed the "moose pasture" is usually abundant with game during the hunting season. Contrary to its nickname, though, one man said it was excellent for caribou and that he once saw 200 head of caribou grazing there. On the east side of Trail Creek, in the rolling hills pressing against the Wrangells, is the area nicknamed the "meat locker." It too is reported to be abundant with caribou.

The seasonal resident from Fairbanks said that in the past five to ten years there has been a gradual depletion of game. He said that they were once accustomed to taking their moose from the river valleys near Chisana, that is, within walking distance. His friend added, "We used to be able to come in here and say, 'We'll get our moose on Thursday,' and it was a sure bet." Perhaps this is sourdough exaggeration, but again, the perceptions of the local residents are that it is increasingly difficult to take the game they believe they need. Most boasted, however, that Chisana remained one of the last truly fine hunting areas in the Wrangells.

Fishing. Fishing is not a centrally important subsistence resource in this particular part of the Wrangells. The absence of salmon is the primary reason, although one man swears he has seen salmon spawning in the upper Chisana. Grayling are reportedly found in a few spots. Beaver Lake was mentioned by several residents as a location for lake trout and "big" grayling. The single homesteader in Chisana went to Chitina in the summer of 1977 to fish for salmon, and he put up 24 pints. He says he used to go to the Gulkana River when it was open to put a boat in at Sourdough and fish for king salmon along the trip to Gulkana.

Gathering. There are not many berries in the immediate vicinity. The closest blueberries are reported to be "six miles away." Crowberries and cranberries are collected and used by the two permanent residents.

The gathering of wood is probably the most important gathering

activity in the community. The lack of large trees speaks of the intensive use the area has seen in the past. All of the people use firewood, and it is collected either on one's own property or homestead, or from federal land with BLM permits. Driftwood can be collected in the fall and spring. The driving thaws of Castenda Creek undercut the larger trees standing on the south bank. These are an excellent source of firewood and house logs. While plywood lean-tos had been constructed by one guide for his hunters, every permanent resident and seasonal resident occupied log structures. Some of these were original miner and Indian cabins, while others are of more recent construction. One resident pointed out that while at present there is no problem getting firewood for everyone who needs it, any more intensive occupation could change the situation.

Craftwork. The young people in their twenties who live at the north end of the airplane runway undertake extensive craftwork that they have been able to market ingeniously. Some of the more profitable crafts include horn buttons and belt buckles which they also engrave, sprucecone flowers that are sold to florists, fur garments and gifts, tooth jewelry, hoof ashtrays, lamp bases, and finally, moss flowers which they sell to florists. They were quick to point out that all of these items were manufactured from the parts of animals that would otherwise not be used.

Trapping. The residents reported that trapping was an important economic activity for two of the year-round residents and only supplementary for one. The places where trapping takes place are Trail, Cross, and Notch creeks. The most prevalent species trapped include beaver, marten, lynx, and mink. Other occasional species include fox, otter, wolf and wolverine.

Transportation

For its small population, Chisana has an impressive array of transportation equipment: one ATV, one caterpillar tractor, one John

Deere tractor, three snowmachines, one jeep, Honda trail bikes, and a number of horses. Obviously, some of these are used to mine ore and drag equipment cross-country. A dog team also ran in the town until 1976. Three or four planes are also used by year-round and seasonal residents who are guides, as well as by other seasonal residents. The retired man on the homestead is virtually the only resident who does not have an airplane. His habits are very different from the other residents, who constantly travel around the northern Wrangells and sometimes over to the White River and Chitina area. He said he only left the homestead once or twice each year.

Without highways, the entire flavor of life differs from most of the Wrangell communities, and particularly from those in the Copper River valley. The mail plane from Cordova brings in many supplies, but people depend a great deal on local subsistence foods. While one resident of the northern Wrangells involved in guiding said to me, "You can't really say we're subsisting if we earned over \$200,000 last year, can you," others living on fixed incomes or doing some gold mining often find that subsistence resources and trapping are important aspects of their total economic strategy. People fitting into both of these categories live in Chisana.

The (d)(2) Lands and General Comments on Subsistence

The people living in Chisana have forged a life style that is particularly intertwined with the fate of the (d)(2) lands. They live on these lands; they run their businesses, take their food, and make money from them. Any change in policy, whether a total reverse of present policy or a small change in procedures for access, will affect the people in the community. Some hope to be able to take advantage of the changed status, perhaps by guiding park visitors. Others would like to be able just to live out their days on their land.

Chisana is a fascinating historical site as well as a tiny, modern bush community. A historical trail via glacier and a panorama of

spectacular scenery can take the robust hiker to McCarthy. Another frequented trail leads to the Nabesna drainage. Many visitors would be attracted to this place because of its historical significance, its beauty, and the animals in the surrounding area. It also has a fine airstrip. Even with continued access to subsistence resources, the lives of the Chisana people would probably change significantly with the establishment of a national park here.

White River

The White River area is virtually the only area within any sort of range of the effects of Wrangell Park that the researcher did not visit. Although this is unfortunate because it is entirely within the park, it is also very sparsely populated from reports given to me by people living in Chisana, Nabesna, Nizina, and McCarthy who often hunt and visit the White River area. The White River area is visited by people from throughout the Wrangell region during the fall hunt. Caribou reportedly are found in large numbers.

The author was told that one family consisting of a father and two grown sons lives in the White River valley and they were all trappers and operators of guided hunts. They own airplanes and have at least two different main residences that are several miles apart. In other words, they do not live as a single household.

It is obvious that if guided hunting is blocked within park boundaries, these people will be affected, but to what extent they depend on subsistence resources and how they will be affected in this respect is unknown at this time. The author feels it is valid to think of them as living a life style similar to the residents at Chisana, using many subsistence resources. In fact, one man in Chisana said they did live like the Chisana people, and so, they too would most likely be affected in some way if the use of subsistence resources were made unavailable to them.

Alaska Highway Communities

The Alaska Highway, running between the Canadian border and Tok, is sparsely settled, especially as one approaches the border. FAA and Customs installations at Northway and the border have a number of residents, roughly 50 to 70 people. A few lodges are found along the road, an Alaska Highway camp is found midway, and a small community called Border City is found a few miles before the border. The author stopped at several businesses and talked to 10 to 15 people along the road, including some Customs and FAA people. Most of them looked at her oddly when she asked if they hunted in the Wrangells or any of the proposed parklands. One woman sarcastically quipped, "That would be quite a walk, wouldn't it?" Virtually everyone without an airplane said that the Wrangells were too distant. They preferred hunting north of the road and near Eagle and the Yukon River, but they did say that when these sections were closed, they might go to the Nabesna road to hunt moose and caribou.

The story was different for the FAA and Customs people, many of whom can afford to fly in to the Nabesna, Chisana and White rivers. Many of these people themselves fly. The local people voiced some resentment about the fact that government people could afford to spend so much money on hunting. They also complained about hunters in the armed services.

Northway is a staging area for hunts in the Nabesna, Chisana and White rivers. Several guides and fliers work out of Northway, which also has scheduled flights from Anchorage and Fairbanks. Jet boats also go up the Nabesna River during hunting season, but they do not penetrate north into the upper Nabesna area.

Thus it appears that income, as well as access to airplanes, determines whether people in this particular area hunt or visit the Wrangells. Government employees, temporarily stationed near the Alaska-Yukon border, and guides utilize hunting regions to the south. Most long-term residents drive north toward the Yukon River.

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