

**A CASE STUDY OF A HOMELAND AND A WILDERNESS:
GATES OF THE ARCTIC NATIONAL PARK
AND
THE NUNAMIUT ESKIMOS**

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ESKIMOS

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ABSTRACT

A case study of the relationship between the National Park Service (NPS), Gates of the Arctic National Park and Preserve (GANPP) and an enclave Nunamiut Native village of Anaktuvuk Pass, Alaska in the Central Brooks Range was conducted via intensive interviewing, transient observation, and policy/document analysis. Hostility exists between the NPS and the Nunamiut because of the different definitions of man's role within the natural environment, associated management philosophies and styles, and a history of miscommunication between the NPS and the Nunamiut. Because of the lack of direct communication after park establishment, these differences in viewpoint were not understood or respected. This increased hostility jeopardized the protection of natural resources, the subsistence way of life, and the Nunamiut Native culture. Application of a co-management regime represents a viable alternative to traditional NPS management.

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CHAPTER ONE

Introduction

The Federal government manages large conservation units in Alaska which contain resources vital to Native American communities. This study explores the implications of the relationship of a Native enclave community with the surrounding conservation unit. Concerns of both the Native community and the managing agency are identified and analyzed for their impact on natural resources as well as for their impacts on each other. The basis of this study rests on the hypothesis that the hostility between the Federal land managing agencies and the Native enclave communities comes from the different definitions of human's role within the natural environment and associated differing management philosophies (see page 14 for more details).

Because of the complexity of the relationship between the Native enclave community with the surrounding conservation unit and the variability of Native communities, the case study approach was selected. Site selection was limited to National Park Service (NPS) lands established by the Alaska National Interest Lands Conservation Act of 1980 (ANILCA). (See Appendix A for a list of abbreviations.) This study assumes that sufficient time had elapsed for the

relationship to develop.

The Village of Anaktuvuk Pass within Gates of the Arctic National Park and Preserve (GANPP) was selected as the enclave community. This setting provided a study site with a clear focus on a Native-Federal land interaction where the predominantly Native population depended on the subsistence resources provided by the surrounding federal lands. It is also an area with a history of conflict over the use of those resources.

The Setting

GANPP is located in the Alaska's central Brooks Range, approximately 120 miles northwest of Fairbanks (Bryson 1986, O-8, USDOI/NPS 1988(b))(Figure #1). Nearly 200 miles long and 130 miles wide, the Park and Preserve contain parts of both the north and south slopes of the central Brooks Range. A total of 8,472,517 acres lies within the Park and Preserve, with 948,629 acres in Preserve and 7,263,215 acres designated wilderness (USDOI/NPS 1988b). GANPP represents a NPS unit four times larger than Yellowstone National Park and larger than the states of Maryland and Delaware combined.

The Park and Preserve landscape includes wet tundra in valleys and on slopes, dry alpine tundra at the higher elevations, taiga spruce forests on north slopes,



FIGURE #1. Map of Alaska with Gates of the Arctic National Park & Preserve. Taken from "Alaska Wilderness Review" by the National Park Service, no date

poorly-drained lowlands, and boreal forests of white spruce, aspen, and birch mainly on south facing slopes. Habitats used by the Western Arctic caribou herd, grizzly and black bear, wolf, Dall sheep, moose, fox, and wolverine are in the Park and Preserve.

The name "Gates of the Arctic" was originally used in the writings of the famous Arctic wilderness writer, Robert Marshall. The place is so named for a pair of peaks, Frigid Crags and Boreal Mountain, which line the broad valley of the North Fork of the Koyukuk River (USDOI/NPS 1982). GANPP represents America's premier wilderness (USDOI/NPS 1986(b), 127) and receives, on the average, 2,300 visitors annually (USDOI/NPS 1986(b), 80; 1988, 59).

The following villages abut the Park and Preserve starting on the eastern boundary and traveling counter clockwise: Wiseman, Coldfoot, Prospect Creek, Bettles/Evansville, Allakaket, Kobuk, Shungnak, and on the far north, Umiat. Also, three Native regional corporation boundaries established with the passage of the Alaska Native Claims Settlement Act of 1971 (ANCSA) meet in GANPP: Arctic Slope Regional Corporation, NANA Regional Corporation, and Doyon Limited.

The Native village of Anaktuvuk Pass is completely within GANPP boundaries. Anaktuvuk Pass, meaning

literally "place of caribou feces" (Cline 1975, 20) is an easily traversed pass through the central Brooks Range. The village is located approximately 300 miles from Fairbanks and Barrow, and about 120 miles north of the Arctic Circle. The U-shaped pass was cut by Pleistocene glaciers which resulted in a twelve-mile-long pass averaging two to four miles wide. Serrated walls composed of limestone strata rise in excess of 2,500 feet above the pass's floor (Spearman 1979, 14).

The Anaktuvuk Pass area contains some of the highest peaks within the Brooks Range, several reach altitudes of 6,000 feet. The large mountains of Soakpuk (5,882 ft.), Kollutuk (6302 ft.), and Napaktualuit (5835 ft.) flank the pass at the village of Anaktuvuk Pass. The village rests in the pass at the 2,200-foot level surrounded by the treeless dry alpine tundra. The nearest stand of spruce lies fifteen miles southeast of the village. The nearest spruce stand capable of producing timber is 28 miles south near Hunt Fork Creek (Porter 1966, 16). Exposure, drainage, permafrost conditions, soil type, and a history of fires created diverse plant communities in the area (North Slope Borough Contract Staff 1979, 122). Each biotic community provides different resources for harvest: the forested areas black bears, moose and wolf; wet tundra

areas, berries; and alpine tundra areas caribou, grizzly, Dall sheep, wolverine, and ptarmigan.

Short cool summers, long cold winters, low annual precipitation, a mean annual temperature below freezing, and persistent winds characterize the climate of Anaktuvuk Pass. Temperature variations range from 90 degrees Fahrenheit in summer to below -50 degrees Fahrenheit in winter with 286 days of daily minimum average below 32 degrees Fahrenheit (North Slope Borough Contract Staff 1979, 122; Hall, Gerlach, and Blackman 1985, 3). Anaktuvuk Pass's annual precipitation is ten plus inches with approximately 57 plus inches of snow (Alaska Consultants 1983; State of Alaska 1975; Hall, Gerlach, and Blackman 1985). The wettest months are June through September.

Archeological inventory work shows a long history of humans utilizing the area's natural resources at least 11,000 years (Park Superintendent 1986(b), 6; North Slope Contract Staff 1979, 122). Inupiat Eskimos call this northern section of Alaska home. The Inupiat (a name which means "the people"), are comprised of four main units - the Bering Straits people, the Kotzebue Sound people, the Tareumiut (people of the sea), and the Nunamiut (Langdon 1987, 24).

The Nunamiut, (translated "people of the land") (¹)

and their ancestors have been nomadic caribou hunters of the Brooks Range for 4,000 years (Hall, Gerlach, and Blackman 1985, 4; Rausch 1951, 155; Gubser 1961, 337; Langdon 1987, 24). A permanent school for their children and access to commercial supplies in the Anaktuvuk Pass area brought an end to the nomadic lifestyle of the Nunamiut.

The village population of 238 residents is predominantly Nunamiut (Alaska Almanac 1988). The village has a modern school, health center, fire station, public works building, laundromat, along with a cooperative store, public safety office, post office, and museum. Most of the Anaktuvuk Pass villagers occupy comfortable oil-heated homes complete with electricity and running water. Due to the permafrost underlying the

(¹ The name, Nunamiut, is confusing because it defines a geographic location of a group of people and not a distinct cultural group. According to Burch (1976) the term Nunamiut is similar to the name Easterner. Easterner can mean a Cleveland resident to a person in Chicago while a New Yorker is an Easterner to the Cleveland resident, but all three are Easterners to some one in Seattle. Many anthropologists are calling the Natives that lived and are living in the Brooks Range, Interior Eskimos, specifically the Natives at Anaktuvuk Pass, Mountain Eskimos (Hall 1984, 338). This study will continue to use the term Nunamiut because of its common usage between all the parties investigated and to avoid confusion. Nunamiut will mean the Native American population residing at the Village of Anaktuvuk Pass, and any past and present relatives of that population. The term, Nunamiut Corporation, will identify the Native Village Corporation of Anaktuvuk Pass.)

homes, water is delivered from the village well to holding tanks. Sewage is deposited in plastic bags, picked up, and buried in the village dump. Four or more daily commercial flights serve the village year-round with increased flights during the summer months.

The Nunamiut of Anaktuvuk Pass have historically depended on resources from the land. That dependency continues today as a major portion of their diet is obtained by subsistence activities. Subsistence hunting, fishing, and gathering, especially caribou hunting, constitute the very heartbeat of the Nunamiut people of Anaktuvuk Pass (Caldwell 1986).

GANPP and private lands contained within its borders represent a premier wilderness to some and a homeland to others (Brown 1982, 4). The homeland concept embodies the desire by the Natives for the privacy to live their own lives and follow their notion of a man-land relationship (Weaver 1984, 15). On the other hand, the wilderness concept defines the area as a place, "where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.... [having] outstanding opportunities for solitude or a primitive and unconfined type of recreation" (Public Law 88-577 September 3, 1964). A homeland and a wilderness do not have to be mutually

exclusive. Coexistence depends on the parties involved, their definitions of key terms, and the level of communication between the parties. This study focuses on the relationship between the Nunamiut people and the NPS.

Situation Overview

This study focuses on these two parties because of their direct involvement, responsibilities, and commitment to the area and its resources. Other groups/individuals and their roles were included in this study because of their influence on the relationship.

The Nunamiut and the NPS have been interacting with each other for the past 20 years. Robert Marshall's well publicized adventures in the Brooks Range during the decade of 1929 -1939 were the beginnings of a movement to preserve the area as a National Park. During the 1950's and 1960's studies of Alaska's natural and cultural landscapes were conducted by the NPS to inventory the "nation's premier recreational, scenic, scientific, and cultural resources" (Brown and Kunz 1986, 77).

The Alaska Native Claims Settlement Act of 1971 (ANCSA) represented a milestone for the Nunamiut and the NPS. ANCSA settled the question of the aboriginal title of Native Alaskans with a settlement of fee simple title

to 44 million acres of land and \$962.5 million for extinguishment of all aboriginal titles or claims of title to lands (about \$3 per acre for the land released from aboriginal title). The act created Native corporations, both village and regional, and allowed the village corporation of Anaktuvuk Pass, the Nunamiut Corporation, and the Arctic Slope Regional Corporation to select land around the village. The Act also provided capital to run both profit and non-profit corporations for the benefit of their shareholders.

ANCSA also contained conservation lands provisions in sections 17(d)(1) and 17(d)(2). The (d)(1) provision allowed the Secretary of the Interior to review all of Alaska's public lands to ensure that the public interest in these lands was properly protected. The (d)(2) provision directed the Secretary of the Interior to withdraw from State and Native land selections up to eighty million acres of unreserved public lands in Alaska which were suitable for addition to, or creation of units of the National Park, Forest, Wildlife Refuge, and Wild and Scenic River Systems. Bob Marshall's dream of a premier wilderness park in the Brooks Range was on its way to becoming a reality because of ANCSA.

ANCSA was called a huge social experiment by Senator Jackson, one of the main forces behind the Act

(Arnold 1976). This experiment headed divergent homeland and wilderness values on a collision course. GANPP had its beginnings in the (d)(1) and (d)(2) provisions, which also set up and thrust the western corporate economic model upon Alaskan Natives. One of the objectives of the Act was to help Alaskan Natives modernize and become 'economically' self sufficient (Federal Field Committee for Development 1968). Ideals of wilderness preservation and economic development pushed the two parties in opposite directions. One ideal reached for a piece of the remaining frontier landscape to preserve it against modernization and exploitation, while the other reached for a piece of the expanding Alaskan economy. Reality for the Nunamiut and NPS lie somewhere between these two extremes. ANCSA provided no answer to the problem of subsistence use of natural resources in Alaska other than the paragraph in a Conference Committee report stating:

...all Native interests in subsistence resource lands can and will be protected by the Secretary [Interior] through the exercise of his existing withdrawal authority [and] by closing appropriate lands to entry by non-residents when the subsistence resources are in short supply or otherwise threatened. (U.S. Congress. House and Senate. Conference Committee. Report No.92-581. 1971, 37)

Titles I and VIII of ANILCA addressed the concerns for protection of the subsistence lifestyle on the

conservation units created by the Act nine years after the passage of ANCSA. Title II established new NPS units in Alaska with section 201 (4)(a) establishing GANPP. It stated:

The park and preserve shall be managed for the following purposes, among others: To maintain the wild and undeveloped character of the area, including opportunities for visitors to experience solitude, and the natural environmental integrity and scenic beauty of the mountains, forelands, rivers, lakes, and other natural features; to provide continued opportunities, including, reasonable access, for mountain climbing, mountaineering, and other wilderness recreational activities; and to protect habitat for and the populations of fish and wildlife, including, but not limited to, caribou, grizzly bears, Dall sheep, moose, wolves, and raptorial birds. Subsistence uses by local residents shall be permitted in the park, where such uses are traditional, in accordance with the provisions of title VIII."

Creating a new National Park in remote Alaska normally would provide a multitude of challenges without the additional factor of resident human use as a natural part of the environment (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413. 1979, 233). The Native village of Anaktuvuk Pass depends on the natural resources of the park and is contained within its borders. Thus, this unique situation provided an excellent opportunity to investigate the relationship of a Homeland and a Wilderness.

No longer could the Nunamiut of Anaktuvuk Pass

merely relate to and live off of the land. They had become part of a modern wilderness management regime complete with its attendant values, boundaries, and rules. The park superintendent no longer had only to grapple with the difficulty of balancing preservation and visitor use, he now had to deal with the "three headed dragon of preservation, visitor use, and subsistence" (Siglin Interview 11-25-87). In this relationship, GANPP and the Nunamiut appeared to share common, compatible, and cooperative goals, but this appearance covered festering misunderstandings, miscommunications, and mistrust (Behnkes and Haynes 1986, 146). The Nunamiut face a major threat to their traditional lifestyle, while the NPS personnel attempt to adapt their traditions of stewardship to new flexible modes of management created by law. The NPS has to deal with neighbors as much as with natural landscapes (Brown and Kunz 1986, 98).

The fate of subsistence and wilderness, and the community--individual values and experiences--were to be determined to an extraordinary degree on decisions made in Washington (U.S. Congress. House Committee on Interior and Insular Affairs. 1977, 157; Brown and Kunz 1986, 1). The relationship that started with a feeling of mutual cooperation more than twenty years ago has

changed to one of conflict. The sources of the conflict appear to come from the differing views about natural resources, their use and management, e.g., definitions of key terms of wilderness and subsistence (homeland), and the history of mis-communication between the parties.

Hypothesis

Balancing the national goals of wilderness preservation with the protection of a traditional subsistence lifestyle rests upon the relationship between the enclave Native community of Anaktuvuk Pass and the NPS (Schneider 1982, 176-177). Historically, the remote and isolated Nunamiut village of Anaktuvuk Pass governed its own relationship with the surrounding natural environment with little involvement from outside forces. The Native culture, organizations, and leaders determined what behavior and practices were appropriate (Burch 1981, Langdon 1984).

The NPS rarely dealt with the Native communities dependent on NPS managed resources for their cultural identity and survival. The agency represented outside (non-Native) interests and the management style made the bureaucrats outsiders to everyday village life. ANILCA attempted to provide a means for balancing the interests of the local communities, Native and non-Native, with

the national interests. With ANILCA, subsistence became a national interest issue because of its "unique significance to the Nation" (Congressional Record November 12, 1980, 29, 274). Interpretations of ANILCA determined how the parties related to each other. The core of the conflict between the Nunamiut and the NPS went deeper than the interpretations. The conflict had more to do with how the parties valued, related to, and viewed the natural environment and the resources it provided.

The specific hypothesis of this study based on preliminary observations is:

H₀ - There is a hostile relationship between the National Park Service, Gates of the Arctic National Park and Preserve, and the enclave Native community of Anaktuvuk Pass because of: (1) differing definitions of human's role within the natural environment in the key areas of wilderness and subsistence and associated different management philosophies and styles; and (2) the resulting history of mis-communication.

By addressing the areas of concern above, this study intends to develop a clearer understanding of the relationship's troubled history which could lead to a more cooperative relationship in the future.

Methodology

The case study methodology was selected. This common field of observation reconstructs an event, group or social process through extensive interviews and other

sources of data (Robertson 1981, 41). The case study approach provides a theoretical advantage because it allows for a wider and greater depth of understanding of the study area and how the units in the study area function (Gopal 1970). Also, the researcher has the advantage of "getting close to the data," thereby developing the analytical, conceptual, and categorical components of explanation from the data itself rather than from rigidly structured and quantified techniques (Filstead 1970, 6-7). This approach produces qualitative data instead of, or as well as, quantitative data.

This study uses the three main components of a case study (Murphy 1980): intensive interviewing, transient observation, and policy/document analysis. Transient observation, visits of short duration, provide further clues of attitudes, interests, and orientation of the people involved. Interviewing was selected over questionnaires or surveys because information obtained by surveys tends to be minimal, often inaccurate and sometimes given under duress. Interviews allow for mutual accommodation through the transfer of information and for a situation conducive to relations of trust and frank exchange (Vansina 1985, 63). Interviewing was used to obtain the history, impacts on the parties and

natural resources, values, attitudes, and alternatives present to the situation. Interviews also provided: (1) an understanding of the institutional roles of the relationship; (2) the type of decision making processes involved and their effect on the relationship; (3) what institutions and/or individuals played a major role in defining the situation; and (4) a map of the communication network between the parties involved.

Transient observation corroborated the interview data and developed additional information for investigation. Document analysis provided credibility and background information. The testing of the hypotheses was based on the preponderance of evidence uncovered and not on traditional quantitative analysis.

Analysis of the formal and informal interactions between the parties of the relationship were critical to the study. Formal evidence existed in the form of comprehensive plans, federal legal documents, correspondence, land use plans; wildlife management plans, natural and cultural resources plans, subsistence advisory board meeting minutes, oral histories and traditions; past research papers, judicial cases, media coverage, and other documents.

Analysis of the informal interactions depended on interviews and discussions with individuals directly

involved in the relationship, generally in a position of authority. The study does not limit itself to those in formal authority positions because of the desire to obtain a more complete picture of the relationship than just the official account. This study strives to capture the informal realities that exist in relationships between agencies and communities.

The documents, policies, and official actions represent the formal interactions. What the parties actually did and what individuals or groups of individuals felt about the situation represent the informal interactions. This study attempts to reach this informal level through careful interviewing and developing a trust between the interviewer and the respondent (Vansina 1985). The informal component also includes interviewing lower staff members and individuals with little authority but who have a high stake in the relationship. Analysis of the informal and formal components test the accuracy, quality, and success of both components (Hastings 1979).

The interview style used is a combined structured and an unstructured style (Babbie 1983, 252). Selection of this style evolved over the course of the study because of the situation's complexity, the need to prod the respondent to go over past history and painful

times, and to reach for the respondent's inner feelings beyond the official rhetoric and overwhelming details.

Interview questions were based on Suetopka-Duerre's five categories of questions:

- 1) organizational and political setting within the institutions and the situation (history, tradition, and structure of both parties)
- 2) fundamental relationship characteristics, how the relationship works, available resources, practices and procedures between the Native community and the federal agency
- 3) the function of the key individuals and institutions responsible for policy implementation and how they exert influence
- 4) how the relationship's impact, environment, and participants have changed over time, highlighting continuing issues and problems
- 5) how well the relationship is operating (1982, 20)

A combination of exactly worded questions or statements and general topic discussions were employed. The questions concerned legal matters and their interpretation. A list of questions and topic areas was used during all interviews because of the hesitancy of the respondents to discuss their feelings about the situation due to misrepresentations by past researchers and reporters, pending negotiations, and a strong desire to put confrontation behind them.

Every attempt was applied to develop a free-flowing conversation in a relaxed atmosphere. The order of

topics discussed was determined by the respondent. All discussions on the part of the interviewer were conducted with personal emotions and beliefs suppressed so as not to encourage the respondent to dwell on topics or embellish the discussion to please the interviewer, a serious problem with a Native culture that wants to please a guest. Encouragement was done indirectly by simply restating what the respondent said. Interviews strictly avoided comparing and/or sharing information from other interviews of the other parties involved to prevent biasing the data and damaging the study's relationship with the individual. Confidentiality of the respondents was strictly followed.

Multiple interviews of the same individuals with several months in between interviews were conducted in order to obtain as much information as possible, clarify previous information shared, narrow discussions to unclear areas, and test for the accuracy of information. Multiple interviews allowed for a higher degree of trust to develop and showed a commitment to learn each respondent's side of the relationship. Two major sessions resulting in 34 interviews were completed.

CHAPTER TWO

A History of a Homeland Becoming a Wilderness

Introduction

This chapter describes the history of the Nunamiut in the Brooks Range and the history of the transformation of their homeland into a national wilderness when Gates of the Arctic National Park and Preserve was created on December 2, 1980. The chapter concludes with a discussion of GANPP wilderness, Nunamiut subsistence use patterns, and potential conflicts.

Though northern Alaska was occupied for thousands of years, the people who became known as Nunamiut moved into the Brooks Range some time after 1400 A.D. (Hall 1984, 339). The era from approximately 1400 A.D. until 1890 defines the Nomadic period. Nunamiut history in the twentieth century is divided into four basic time periods, the Nomadic (before 1920), the Coastal (1920-1934), Returning inland (1934-1949), and the Settlement periods (1949 - present).

Periods of History

Nomadic Period: Before 1920. Northern Alaska was not a trackless wilderness. Humans have continuously lived in and utilized its resources for more than 12,500 years (USDOI/NPS 1986(b), 64). The Anaktuvuk Pass area

has seen human activity for the last 10,000 years (Park Superintendent 1986(b), 6). Archeological evidence documents 4,000 years of Inupiat presence in northern interior Alaska (Hall, Gerlach, and Blackman 1985, 4).

The dispersed Nunamiut families spent most of the year living along the willow-cloaked valleys of the major rivers on the north side of the Brooks Range (Hall 1984, 338). Extended families formed bands under the leadership of an umialik, or leader, for spring caribou drives. Gubser estimated between 50 to 150 people comprised a stable band (1965, 167).

A typical yearly subsistence cycle (Gubser 1965; Hall 1984; and Spearman 1979) began with the spring caribou drive, driving the caribou into a corral made of rock or stick cairns. Caribou were also funnelled into a lake for easy harvest from kayaks. Once the caribou were dried and cached, some families would travel north by dog team to the Colville River where large skin boats were cached. After the river ice went out, they journeyed downstream to the coast for the trading fairs with coastal Inupiat. In early fall, the Nunamiut would travel back to the Colville River to wait for the first major snow when they would dog-team back to the mountains for winter. The small extended families scattered across the Brooks Range lived in a winter

shelter which consisted of a ground level, willow-frame, skin-covered oval or round tent.

The caribou migrated north in spring to their summer coastal breeding grounds and south in the fall to their winter range on the southern mountain slopes. The Nunamiut's survival depended on successful hunters who understood the caribou's habits, their changing migration routes and times. Hunting success determined the umialik.

Stone tools and dogs were used to harvest and transport meat and supplies during the Nomadic Period. Without dogs, families would have been forced to split up or move out of the Brooks Range completely (Gubser 1965, 293-294). Hunts of two- or three-day walks radiated from a central base camp. When the caribou were not plentiful or willows for fuel depleted, the Nunamiut moved on.

From 1870 to 1890 virtually every valley in the Endicott Mountains, from the headwaters of the Noatak River to the headwaters of the Sagavanirktok River (Figure #1), contained Nunamiut bands (Burch 1976, 66). Campbell estimates that in 1870 there were "no more than 20 bands, each of which contained from 25 to 100 individuals... the total population was no greater than 1,400" (1976, 1). Gubser (1965, 52) determined "just

over a thousand Nunamiut were living in the northern Brooks Range" while Spearman (1982, 4) believed "that there were almost 1,500 Nunamiut". The Nunamiut population for this period then was estimated to be between 1,000 and 1,500. (Appendix B, detailed population estimates from 1400-1979).

Contacts with exploring whites began during the late 1800's (Gubser 1965, 14). Most contact occurred on the coast at trading fairs where the Nunamiut obtained white-man goods from Eskimo trading partners of whites (Gubser 1961, 37-38). Contact with whites increased in the 1900s with the expansion of the whaling industry, military and geological exploration, prospecting, and missionary activity.

The Nunamiut population declined around 1850 (Hall 1984, 344). Diseases such as influenza and measles spread rapidly because of the annual travel from the mountains to the coast, and contact with white men. Nunamiut shamans encouraged people to recuperate in the mountains with family members who did not travel to the coast (Gubser 1961, 16). Rapid decline in the caribou herd due to over-harvesting by whalers also figured critically in the Nunamiut depopulations (Wickersham and Flavin 1983, 138). The main impact of the caribou decline was felt between 1890 and 1905

(Gubser 1965, 53) when whalers over-wintered in the area. According to whaling industry reports:

...the crews... in 1890 consumed 40,000 pounds of caribou [with] ship dogs... reported to have eaten more than 400 caribou carcasses alone during the year.... The commercial whalers also preferred the females and fawns for their meat and skins which imposed an additional pressure on the caribou herds... (North Slope Borough Contract Staff 1979, 18)

Gubser reported in 1961:

The main impact of the whaling industry... was felt between 1890 and 1905 when, in one year, as many as twenty ships wintered along the coast... Many of the remaining Nunamiut flocked to the coast to trade their furs directly to the White men and to hire out as hunters. In exchange for caribou meat and skins, hunters were given large quantities of rifles, ammunition, knives, tobacco, flour, tea, coffee, sugar, butter, molasses, and whiskey... Hunters were encouraged to kill all the caribou they could... Hunting patterns were changed with the introduction of a large number of guns and the encouragement for massive kills. (98-99)

The caribou decline resulted in a Nunamiut emigration to the coast but the coastal villages were attractive to the Nunamiut before the caribou decline because they provided access to new technology and food supplies. The whaling industry needed workers, guides, and hunters (Stern, et al. 1980, 21) to supply them with food and manpower. In exchange the whalers provided a variety of trade goods that the Natives expected would always be available (Hall, Gerlach, and Blackman 1985, 63).

The whaling industry came to an end around 1910

(North Slope Borough Contract Staff 1979, 124) and the Nunamiut switched to trapping Arctic fox to meet the high demand for the furs (Alaska Geographic 1978, 22). The Nunamiut shifted further away from an economy based on hunting for food toward one based on trade (Lopez 1986, 194).

Schools and missionaries soon followed the whalers bringing their Western world views. With more and more Nunamiut families on the coast, the few remaining families in the mountains became more isolated and had difficulty surviving. Wanting schools for their children, many moved to the coast (North Slope Borough Contract Staff 1979, 125). Amsden (1977, 290) and Gubser (1965, 55) believe that after the turn of the century, there were between 150 and 200 Nunamiut left in the mountains. By 1920 the Nunamiut abandoned the mountains; the last family left the Killik River valley and moved to the coast (Hall, Gerlach, and Blackman 1985, 63; Amsden 1977, 300).

Coastal Period 1920 - 1934. During the Coastal Period, Nunamiuts depended almost exclusively on coastal resources. Nunamiut families were scattered along the coastal trading posts and villages. The families who would play a role in repopulating the interior were found either in the general area of the Colville River

delta or settled along the coast to the east of the Colville River delta (Hall, Gerlach, and Blackman 1985, 64).

With the collapse of the whaling industry, coastal Nunamiut became dependent on arctic fox trapping to obtain desired Western goods. Some Nunamiut watched for the return of the caribou to the North Slope. With the Great Depression in 1929 the fur market collapsed. The closing of coastal trading posts ended a relatively affluent time for the Nunamiut (Gubser 1965, 23-24). Those who had been patiently watching the caribou herd increase began the movement to resettle in the Brooks Range.

Returning Inland 1934 - 1949. The year 1934 marks the journey back to the mountains, with several families spending the summer months near the Colville River delta and the winter months in the foothills (Hall, Gerlach, and Blackman 1985, 65). This allowed for access to both marine resources and to the expanding caribou herds.

At least four families returned inland on a permanent basis in 1939 to form the nucleus of the present population of Anaktuvuk Pass (North Slope Borough Contract Staff 1979, 128; Hall, Gerlach, and Blackman 1985, 64-66). The families created three bands led by elders who knew the country well from their

youth: the Kitlikmiut, people living near the Killik River; the Narvakpuiluk, people living around Chandler Lake; and the Ulumiut, people living in the Ulu Valley (Spearman 1982, 11). Before World War II, fewer than 50 Nunamiut were living in the Brooks Range (Gubser 1965, 20).

The Nunamiut became nomadic again and caribou regained their importance as primary prey. Sheep, moose and smaller mammals became secondary prey. Wolves became increasingly important because the United States Territory officials paid a bounty on wolves starting in the late 1930s (Hall, Gerlach, and Blackman 1985, 66). Until 1967, the bounties provided an important cash income for the Nunamiut (Stephenson 1982, 434; Rausch 1951, 159). In spring the Nunamiut sought out wolf dens for the bounties on pups (Hall, Gerlach, and Blackman 1985, 66; North Slope Borough Contract Staff 1979, 128).

Trading for western goods required trips to trading posts at Beechey Point, Bettles, and Kobuk each spring and fall (Hall, Gerlach, and Blackman 1985, 66). The long trips to trading posts were replaced by air freight and the increasing dependency on aircraft for supplies led to settling at Anaktuvuk Pass. In 1943 Sig Wien, pilot-guide-businessman, landed at Chandler Lake and met Nunamiut leader Simon Paneak (Joling 1988, H-9). This

meeting was important in the settlement of Anaktuvuk Pass. Wien ushered in the era of remote wilderness adventures when he flew Robert Marshall to Wiseman in 1929.

In 1947, Wien convinced the Chandler Lake band to relocate to the Anaktuvuk Valley where air access would be easier, the caribou travel through on their annual migration, and the area had plenty of willow for fuel (Brown and Kunz 1986, 20; Spearman 1982, 12). He also promised schooling and regular mail service. The Chandler band had Wien air drop a message to the Killik River band to join them. By 1949, both bands joined together at Tulugak Lake and formed one band of 65 people (Amsden 1977; Gubser 1965; Spearman 1979, 1982).

Settlement Period 1949 - Present. On July 19, 1949, the Killik River Band and the Chandler Lake Band joined together in Anaktuvuk Pass and began a sedentary lifestyle for the Nunamiut people (Hall, Gerlach, and Blackman 1985, 67). They came together in hopes of a better life through improved trade and schooling for their children (Rausch 1951, 155).

Activity by outsiders increased with the establishment of the Arctic Research Laboratory in Barrow after the World War II. Scientific parties began to visit the Brooks Range and discover the Nunamiut's

rich store of knowledge about natural history. The Nunamiut were employed as guides and research assistants (Hall, Gerlach, and Blackman 1985, 67). During the winter of 1949-1950 Helge Ingstad, a Norwegian, spent a year living with the Nunamiut (Spearman 1982, 13) and his book Nunamiut brought worldwide attention to the Nunamiut people.

These new opportunities enticed the remaining families to settle at Anaktuvuk Pass. The village location provided access to the outside world, the necessary subsistence resources, and allowed for the traditional means of transportation to continue. Caribou still remained the principal food resource followed by mountain sheep. Furbearers remained important especially red fox and wolves, the latter for the \$50 bounty (Spearman 1979, 69-71). Village-based living placed great pressure on local resources, especially the mountain sheep populations which were hunted out soon after the village was established (Spearman 1979, 69). Instead of moving the village to more promising areas for subsistence resources, the Nunamiut traveled greater distances to obtain the game. Their subsistence hunting territories shrank in comparison to the Nomadic Period because of the limited distance they could travel with their dog teams

from a permanent village site.

In the spring of 1951, the village of Anaktuvuk Pass was officially established. A tent beside Contact Creek was designated as a permanent U.S. Post Office and provided weekly air mail service (Rausch 1951, 157; Hall, Gerlach, and Blackman 1985, 67). The post office represented the first official government connection with the outside world.

The settlement, so dependent on caribou, was subject to dramatic swings in the caribou population. In 1953, caribou movements were erratic and the herds failed to migrate through the central Brooks Range. The Nunamiut turned to mountain sheep for survival which resulted in the depletion of the sheep. The sheep depletion and the unpredictable caribou stimulated construction of ice cellars in 1956 (Hall, Gerlach, and Blackman 1985, 69). This allowed for the spring harvested caribou meat to last the lean summer months. In 1956, the first caribou skin masks were made which years later became popular tourist items throughout the state (Nunamiut School 1981-82, 3).

The years living on the coast exposed the Nunamiut to Presbyterian missionaries and conversion to Christianity. In 1958, on the advice a Presbyterian missionary from Barrow, the people of Anaktuvuk Pass

built a log church (Cline 1975, 39; Spearman 1982, 14; Gubser 1965, 19; Brown and Kunz 1986, 21). Logs for the church were dragged up from the John River, between 20 and 30 miles south of the village. The church was used for school classes until 1960 when a permanent school was built (Spearman 1982, 15; North Slope Borough Contract Staff 1979, 129; Hall, Gerlach, and Blackman 1985, 69; Nunamiut School 1981-82, 3).

Anaktuvuk Pass incorporated as a fourth class Alaskan city in 1957. In 1963, a young couple came to teach in the village, bringing the first snow machine which was soon sold to a villager (Cline 1975, 88; Hanson 1973, 60). The teachers also introduced telescopic sights for rifles which the Nunamiut hunters ordered to increase their accuracy (Cline 1975, 88).

Feeding the growing Nunamiut population became unwieldy even with ice cellars, more accurate rifles, and snowmobiles. According to Gubser (1965, 187), "People began to feel the pinch in their stomachs, households became receptive to following the leading members of a faction, sparked by an umialik (Nunamiut elder), to a new location.... [t]he only alternative was increasing hunger leading eventually to forced emigration or starvation." By 1960-61 willow for heating and cooking became critically scarce (Hickok 1974, 122).

Severe depletion of the local willow stands caused many Nunamiut to want to move to Umiat, 100 miles to the north, for a steady supply of fuel (Hall, Gerlach, and Blackman 1985, 6; Hickok 1974, 122; Cline 1975, 74). The villagers made 35-to-40 mile round trips every other day for their supply of willow. This prevented them from making hunting trips longer than one day and limited their ability to obtain food (Tundra Times 1967, 6).

Factional leaders contacted the Bureau of Indian Affairs (BIA) and other state agencies for assistance with the move to Umiat. In 1967, the government officials decided to propose the alternative of a three-year supply of fuel oil, stoves, insulation and plywood for those who stayed and nothing for those who moved. Finally, the factional group decided to stay when no assurances were made by BIA for a school in Umiat (Cline 1975, 74; Hickok 1974, 122; Spearman 1982, 17). BIA supplies arrived in 1968, and according to Hickok, "The people stayed and in the process became dependent upon governmental assistance and upon the acquisition of cash income sufficient to purchase fuel needs" (1974, 122). A cooperative store was established during this time (Hall, Gerlach, and Blackman 1985, 6).

Rapid change followed with the construction of the

"Hickel Highway," an ice road from Fairbanks to the potentially rich oil fields of Prudhoe Bay in 1968. In 1974, U.S. Public Health Service had a water well drilled in the village (Hall, Gerlach, and Blackman 1985, 69). Electric power from diesel generators was brought on line in 1975. Soon after television was introduced into the community (Spearman 1982, 18). The Nunamiut dependency on subsistence resources, especially the caribou, did not change.

Increasing air access to the Brooks Range in the 1950's encouraged more guided hunting into areas known only to the Nunamiut and a few explorers (Brown and Kunz 1986, 3). In 1968, the NPS studied the Brooks Range for recreation potential because of the oil discoveries and the growing tourist invasion (Brown and Kunz 1986, 9). Another federal study saw the possibility of a recreational complex possible in the Anaktuvuk Pass region, but was "dependent upon transportation development....Road or railroad development for support to oil and mineral extraction could aid access" (Federal Field Committee for Development Planning in Alaska 1968, 370).

In 1961, the U.S. Atomic Energy Commission planned to set off a nuclear device near Cape Thompson to create a harbor (Arnold 1976, 94). Project Chariot, as it was

called, galvanized the Native communities statewide to fight its completion. Scientific studies began on the levels of radioactivity in Natives. In 1973 Hanson published his dissertation, "The Fallout of Strontium-90 and Cesium-137 in Northern Alaskan Ecosystems During 1959-1970." Anaktuvuk Pass was one of his study sites. He discovered that Cesium-137 body burdens of Anaktuvuk Pass residents were about 100-200 times those of people in the coterminous United States (Hanson 1973, 163). These high levels were due to the atmospheric testing of nuclear weapons throughout the world (McBeath and Morehouse 1980, 43). Alaskan Natives' strong protest of the Chariot project, combined with environmental objections, resulted in its cancellation.

The 1968 discovery of oil in Prudhoe Bay set in motion a series of events which directly affected the Nunamiut. The first of these was the Hickel Highway, a winter road from Bettles up the John River valley, through the village to Prudhoe Bay. For three seasons the road was used for three seasons to transport the heavy equipment and materials needed to construct a permanent road for the Trans-Alaska Pipeline project (Wickersham and Flavin 1983, 443). For the first time, the people of Anaktuvuk Pass were connected to the rest of the world by road and this had a tremendous economic

effect on them.

Cline (1969, 397) reported that over \$12,000 came into villagers' hands during the month and one half the road was open that year. Villagers became concerned about the negative impacts associated with the road such as increased availability of alcohol and dependence on whites (Cline 1969, 398). After discovering dead animals with only the head or hide removed and the meat wasted villagers also became concerned about the hunting practices of outside hunters who came to their homeland because of the oil developments (Hickok 1974, 123-124). Concerns were raised about the effects the road would have on the winter wildlife movements in the valley. In order to protect their way of life and the natural subsistence values of the John River valley the people of Anaktuvuk Pass brought suit against the State of Alaska for building the highway (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413. 1979, 146). The State of Alaska agreed to a court order to close the "Hickel Highway" in 1974.

Alaskan oil development not only catapulted the Nunamiut into modern times and its attendant problems, but it also pressured the settlement of aboriginal title in Alaska with the passage of Alaska Native Claims Settlement Act of 1971 (ANCSA). In the late 1960's, the

Arctic Slope Native Association filed a protest against state land selection of the state's 104,000,000 acre allotment of statehood in 1959. The Native association claimed 58,017,300 acres of land north of the 68 degree parallel based on aboriginal title. The village of Anaktuvuk Pass filed its protest of 422,500 acres of land immediately around the village. These were two of the most important Native protests statewide (State of Alaska 1975, 159; Federal Field Committee for Development 1968, 456; Hickok 1974, 123).

Never before had the Nunamiut been concerned with ownership of land. Now with the passage of ANCSA, they had to select lands to protect their subsistence lifestyle. Anaktuvuk Pass's enrollment of 132 Natives entitled them to four townships of land or 92,160 acres of land near the village. The law required that the land selected by a village enclose all or part of the Native village; that additional lands selected be contiguous to, or corner on, the township that encompassed all or part of the village; and that lands in the National Park System and lands withdrawn or reserved for national defense purposes be excluded from selection (Public Law 92-203 Sec.11).

The Arctic Slope Native Association and the village of Anaktuvuk Pass planned for land selection months

before ANCSA's passage. At passage, regional and village planning teams were quickly set up with village land chiefs to help with land selection. The chief helped the village people to develop maps and "paper" answers to questions like how much, and what lands do we now use for our livelihood and for what specific purposes. Mapping included marking hunting areas for different game species, travel routes, areas for wood harvest and berry picking (Hickok 1974, 124). The newly established Arctic Slope Regional Corporation and the Anaktuvuk Pass Village Corporation, the Nunamiut Corporation, developed a joint strategy for land selection with the first priority being to retain the subsistence way of life, and secondly, to maximize potential opportunity for economic reward and progress (Hickok 1974, 125). The two corporations agreed that for regional corporation land selection top priority be given to the subsistence needs of the Nunamiut people of Anaktuvuk Pass (Hickok 1974, 125). The Arctic Slope Regional Corporation received almost 4,000,000 acres of land.

On November 14, 1973 the Nunamiut became the first village in Alaska to file for their village land selections (Hickok 1974, 128; Brown and Kunz 1986, 62). The two Native corporation selections in the Anaktuvuk Pass area were limited by the Secretary of the

Interior's withdrawal of areas of mutual interest for future National Park status. The Nunamiut Corporation wanted the Secretary to exclude lands south of the village along the John River and in the Hunt's Forks area from National Park selection in order to protect their subsistence use. The ancestral lands along the Killik River represented another area of concern to both ASRC and the Nunamiut Corporation. Hickok (1974), in his presentation before the Federal-State Land Use Planning Commission for Alaska summarized these negotiations:

...land withdrawals which involved their "subsistence patterns", the full gamut of priorities for specific hunting and fishing areas were discussed. Both sides, in order to "get a little had to give a little". The quid pro quo for selection rights on the John and Hunts Fork and dual status on the Killik was the relinquishment of lands east of Ernie Pass and along the North Fork of the Koyukuk in favor of future park status." (9)

The regional corporation selected approximately 206,358 acres around the village of Anaktuvuk Pass (State of Alaska 1975, 181).

ANCSA, a legislative landmark, was, according to Willis, an experiment which "attempted to employ a purely capitalistic invention --the corporation --to protect what is essentially a non-capitalistic, predominantly subsistence lifestyle" (1985, 89). The

establishment of for-profit village and regional corporations in 1971 created a problem between Natives and was critical in the evolving relationship between the Nunamiut and the NPS. In letters to the editor of the "Tundra Times," a statewide Native newspaper, Bigjim and Ito-Adler explained the problem:

We just want a chance to develop our traditional values into a satisfying way of life that we can understand.... As I see it, AN ACT, [ANCSA] could split the Native peoples even more, set region against region, village against village....set brother against brother....AN ACT is based on competition; the Native way is based on cooperation. (1974, 82)

The oil money, land ownership, and cash settlement changed the Nunamiut village of Anaktuvuk Pass. Lael Morgan lived in Anaktuvuk Pass in 1972 when two-thirds of the people lived in sod houses. Two years later she reported "all but one holdout had moved to modern houses" (1979, 11). Cline, a former teacher at Anaktuvuk Pass, remarked about the changes as the Nunamiut became more assimilated into modern society:

...they [became] more dependent upon the Tannik's [White man] goods and services. The vast majority of things the family wants are now associated with the whiteman; indeed, with the exception of meat, nearly all of their food is imported and the snow machine has replaced the dog team... (1975, 71)

The 1971 passage of ANCSA stands as a crucial turning point in the lives of the Nunamiut and for the NPS wilderness interests in Alaska.

The mid-1970's brought a maze of legal inquiry into land settlement and a second decline in the western Arctic caribou herd. Reasons for the decline are still debatable; some believe that the decline was caused by snowmobile use and high-powered rifles. Others believe that the Alaska Department of Fish and Game did not count the herds creating accurately. Discrepancies in their counts ranged from nearly 250,000 counted in 1970, to less than 100,000 in late 1975 (Rearden, 1977, 4). Such discrepancies in caribou counts led some to question the accuracy of ADF&G findings. Furthermore, many felt that the building of the pipeline disrupted caribou migration and calving, although scientists claim that this herd rarely went so far east. More recently some noted that the caribou populations are cyclical and the 1975 decline represents a low point. Whatever the reasons, the effects on the Nunamiut were immediate.

In 1976, Alaska's joint Board of Fish and Game established a hunting permit system for 3,000 bull caribou in the central and western Brooks Range. Representatives of NANA (Northwest Alaska Native Association) and ASRC allocated the permits based on need, availability of other food and opportunity for employment. Village councils selected their successful hunters and how many caribou an individual hunter might

get. The selection hunters increased the likelihood of successful caribou harvest. The village of Anaktuvuk Pass received permits for 340 bull caribou (Mitchell 1977, 10). Native hunters share their harvest and provide the entire village with their subsistence needs. The joint Board of Fish and Game established other requirements: caribou could not be taken by a person who has been airborne until after midnight of the day in which the flying occurred, a caribou must be removed from the field as soon as it is harvested (stopping the tradition of caching a kill in winter), and caribou meat could only be used for human consumption and cannot be fed to dogs (Rearden 1977, 76).

Nunamiut now were economically, socially, and physically attached to the village which prevented emigration as they had undertaken with the turn-of-the-century caribou crash. The need for supplemental, store-bought food increased the need for wage labor which in turn reduced time spent on subsistence activities (Hall, Gerlach, and Blackman 1985, 75). Yet, the Nunamiut prefer traditional wild foods. Caldwell (1985, 4) records the Nunamiut's preference for subsistence food in his comments about the Draft Management Plan for Gates of the Arctic:

...subsistence hunting is basic to our health. It gives us the real 'soul food' that not only feeds

our bodies, but nourishes the feelings we have of our meaning as Inupiat people.

Issues such as Native and non-Native subsistence uses, how to protect and manage subsistence resources and lifestyles, and who was responsible for subsistence management, were not resolved with the passage of ANCSA. The oil-thirsty economy provided the drive to resolve the land claims, but not the Native subsistence issue. ANCSA did not mention subsistence. The only reference to subsistence in ANCSA is in the Conference Committee Report:

The Senate amendment to the House bill provided for the protection of the Native peoples' interest in and use of subsistence resources on the public lands [(d)(1) and (d)(2) lands]. The Conference Committee, after careful consideration, believes that all Native interests in subsistence resource lands can and will be protected by the Secretary through the exercise of his existing withdrawal authority... The Conference Committee expects both the Secretary and the State to take any action necessary to protect the subsistence needs of the Natives. (U.S. Congress. House and Senate. Conference Committee 1971, 37) (emphasis added)

It was hoped that the Secretary and the State would protect the Natives' subsistence interests, but the lack of statutory guarantees protecting subsistence resources and activities prevented them from doing so (Tanana Chiefs Conference 1983, volume 2, section VIII, 12). This legislative void and the (d)(1) and (d)(2)

conservation provisions of ANCSA led to the enactment of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA).

ANCSA and ANILCA dramatically changed the land ownership pattern of Alaska. ANCSA cut out 44 million acres for the settlement of Native claims. ANILCA cut a total of more than 100 million acres, 28% of the state, for conservation units including 43.6 million acres of new National Parks, 53.8 million acres of new National Wildlife Refuges, 1.2 million acres for the National Wild and Scenic Rivers System, with 56.7 million acres in different conservation units declared as wilderness (Runte 1987, 255). Alaska's economic development was important in the determining conservation units' boundaries. Boundaries were drawn allowing for 95% of all Alaska lands with proven or possible oil and gas reserves to remain available for development. Further, 64% of Alaska's lands with hardrock mineral potential would be outside of any conservation system and 91% of the state would be open to sport hunting (Swem and Cahn 1982, 518). At the close of 1980, 13% of Alaskan land was in private individual ownership (12% Native Corporations, 1% private); 28% State ownership; 20% National Wildlife Refuges; 19% Bureau of Land Management; 14% NPS and 6% National Forest for a total

of 59% Federal ownership (Wuerthner 1988).

In the Arctic Slope and Central Brooks Range consultation and cooperation with Native corporations, villages, and governments took place with the writing of the legislation to establish conservation units. Conservationists, environmentalists, and the federal government worked closely with Native leaders to gain political support for ANILCA's passage. North Slope Natives first considered drafting their own (d)(2) bill but joined the environmentalists and supported legislation that protected national interest lands while preserving their subsistence interests (Cahn 1982, 23). Dave Cline, Alaska regional representative of the National Audubon Society discussed this coalition of Native and environmental groups:

We shared with most rural Natives the desire to preserve the wildlife habitat and landscapes within and around their lands. We helped them get the legislation amended to assure continued opportunities for subsistence on federal lands....[a]nd they helped us in getting improved parks and wildlife refuges. (Cahn 1982, 24)

The Nunamiut of Anaktuvuk Pass played a role in the layout of GANPP as seen in this paragraph from the House of Representatives report:

Early in its studies for a Gates of the Arctic National Park, the National Park Service considered several alternatives including the possibility of national preserve units. After

consultation with the people of Anaktuvuk Pass, careful analysis of the resources, present and potential uses, and a balancing of the proposed with other land uses ...the Department of the Interior recommended a single, unified National Park System unit in the Central Brooks Range." (U.S. Congress. House. Committee on Merchant Marine and Fisheries. Report No. 96-97, 1979, 408)

As early as 1966, the NPS studied the possibility of preserving the Anaktuvuk Pass area as a significant cultural, geological, and wildlife corridor (Brown and Kunz 1986, 6-7). Many other studies, proposals, and plans followed with some degree of Nunamiut consultation. The Nunamiut wanted to have control over outside hunters coming into their homeland, but their main concern was voiced by Anaktuvuk Pass resident Riley Morry, present mayor of Anaktuvuk Pass. Mayor Morry's testimony to the U.S. Congress, House Committee on Interior and Insular Affairs, Anaktuvuk Pass hearing in August of 1977, emphasized that "most people I have talked to, their main concern is subsistence within the park. They would like to see that they be allowed subsistence in and around the park..." (147).

Negotiations and discussions between the NPS and the Nunamiut led to innovative ideas such as a Nunamiut National Wildlands Park or a Nunamiut National Park. The discussions helped foster a better understanding of the Nunamiut's dependency on caribou which resulted in a special provision in ANILCA allowing for the use of

aircraft for subsistence purposes in times of need, with the park superintendent's permission. The only other village included in this provision was Yakutat in the Wrangell-St. Elias National Park.

All parties involved in drafting ANILCA and with carving a national park wilderness out of the Central Brooks Range believed that setting land aside for wilderness "would preserve for the Nation the region's recreation and esthetic values, and at the same time protect the homelands of traditional people" (Brown and Kunz 1986, 55). Many feel that the subsistence activities of the Nunamiut threaten the wilderness character of GANPP around Anaktuvuk Pass, while others feel that the management practices and policies of the NPS threaten the survival the Nunamiut culture.

The 1980 U.S. Census (U.S. Department of Commerce 1980) determined the population of Anaktuvuk Pass to be 238 residents (Alaska Almanac 1988). Seventy-five percent of the Native heads of households had lived in the village before 1960 (Alaska Consultants 1983, 19). This reflects the stability of the community's population and the strong influence of family ties (Alaska Consultants 1983, 19). The annual increase in population between 1970 and 1980 was around seven percent due to heavy in-migration of construction

workers (Hall, Gerlach and Blackman 1985, 6). The 1987 population of Anaktuvuk Pass was 260 (Alaska Northwest Publishing Company 1987, 313). Table 1 contains population changes since 1910 according to Kruse (1981).

Table 1. North Slope Eskimos and Non-Eskimos Populations 1910 - 1979

	Year: 1950	1960	1970	1979
Anaktuvuk Pass	66	35	99	173

In 1982 Alaska Consultants conducted a survey of employment in Anaktuvuk Pass. The survey identified 77 annual full-time jobs, 56 of them directly funded by the North Slope Borough. Almost three-quarters (73.8 %) of all village employment was with or funded by the Borough government (Alaska Consultants 1983, 10). The Alaska Consultants note: "The total number of workers available at a given time is conditioned by the individual worker's perception of the need to spend that particular period in subsistence related activities (10)".

The median Alaskan household income in 1980 was \$25,421 according to U.S. Census of 1980, with the median household income for Anaktuvuk Pass household based on a North Slope Borough survey at \$25,455 (Alaska Consultants 1983, 14). However, food prices at Anaktuvuk Pass are at least double those in Anchorage. Services and fuel are also much higher. The Nunamiut

subsistence activities offset the high costs and are important to Nunamiut economic and cultural survival. A 1977 survey of the North Slope Borough Inupiat indicated that 71 percent of the Anaktuvuk Pass adults hunted caribou and 89 percent of the households had at least some significant part of their diet from subsistence activities (Kruse 1981, 63). More recent data on the importance of subsistence foods to the Nunamiuts' diet comes from a 1984 statement of the City of Anaktuvuk Pass stating: "caribou, Dall sheep, moose, and fish made up approximately 70 percent of the diet of the people of Anaktuvuk Pass" (1).

The City of Anaktuvuk Pass was incorporated as a fourth class city in 1957 and reclassified as a second class city on September 10, 1972 (Dupere & Associates 1973, 74). As a second class city, Anaktuvuk Pass is a general law city and may exercise all municipal powers authorized by statute except those granted to the Borough such as tax assessment and collection, education, planning, zoning and platting. Anaktuvuk Pass has a seven-member city council elected by the voters at large, with a mayor elected by the council.

By the end of 1980, the Nunamiut of Anaktuvuk Pass had survived the "rapid succession [of] oil discovery and development, the conservation movement, and the

Settlement Act " (Brown and Kunz 1986, 56). This resulted in more pressure on the Nunamiut through increased visitation from tourists, hikers, floaters, and government officials.

Becoming an Arctic Wilderness National Park.

"On July 22, 1929, Noel Wien set a seven-passenger Hamilton on the dirt strip at Wiseman, Alaska, and a new era in Alaska tourism began" (Nash 1981, 15). The expanding use of aircraft in the United States opened up remote and isolated areas. This isolation protected the natural resources and the people living in Anaktuvuk Pass from the changing and modernizing world.

Robert Marshall's trips from 1929 through 1939 ended the isolation of Arctic Alaska through his writings and actions. He changed the way Americans viewed the Arctic. In 1928, Marshall became impatient with the shrinking opportunities to experience wilderness in the lower forty-eight states and looked for unexplored blank spaces on the world atlas (Nash 1982, 287). Marshall focused on the Central Brooks Range for his adventure. The community of Wiseman, his point of entry, was "two hundred miles beyond the edge of the twentieth century" (Nash 1982, 287). His exhilaration over discovering and experiencing areas untouched by man comes through in Alaska Wilderness,

where Robert Marshall further clarifies his deep feelings for adventure by saying:

But no man by high-powered instruments and machines can ever get the thrill which we got with our pocket compass and our field glasses as we made the first rough map of an unknown empire. (1970, 94)

Marshall's writings and his philosophy helped lay the foundation for future wilderness followers. His words opened the world to the joys and rewards of Arctic wilderness. He also exposed million of readers to land he believed was untouched by humans. He left a lasting mark on the Central Brooks Range by adding 167 place names to different valleys, mountain peaks, and other geographical features (Marshall, G. 1970, 30). In 1929, Robert Marshall named a precipitous pair of mountains lining the sides of the North Fork of the Koyukuk River, "Gates of the Arctic." In his words, "I bestow the name of Gates of the Arctic on them, christening the east portal Boreal Mountain and the west portal Frigid Crags" (Marshall, R. 1970, 12). His influence resulted in the NPS choosing to name the area 'Gates of the Arctic'.

In 1938, a year before his death, Robert Marshall addressed the U.S. National Resources Committee committee preparing a comprehensive plan for the development of the resources of the Territory of Alaska

and recommended preserving much of Alaska north of the Yukon River as a wilderness (U.S. Congress. House. Natural Resources Committee. 1937, 213). His actions and writings were instrumental in inspiring many to preserve Alaska as a wilderness (Duscha 1981, 9).

Marshall's inspiration provided the idea of an Arctic wilderness park preserving entire mountain ranges, watersheds and ecosystems. The idea changed into a law which created a National Park in 1980. An overall picture of the legislative history of GANPP provides a greater understanding of the importance NPS places on GANPP and the resulting impact on the relationship with the Nunamiut of Anaktuvuk Pass.

In 1950, the NPS initiated the Alaska Recreation Survey to develop long-range plans for Alaskan lands that would provide guidance for the protection of recreational resources, the development of park facilities and services, and the development of tourist facilities in Alaska. The survey results gave the NPS a greater understanding and knowledge about Alaska (Willis 1985, 29-30).

In 1964 the NPS Director appointed a special task force to investigate the NPS possibilities in Alaska which produced the Operation Great Land Report, a comprehensive evaluation of potential NPS areas (Willis

1985, 36). The Brooks Range, the Arctic Slope zone, and the Anaktuvuk Pass area were listed as possible sites. A 1966 informal study report recommended preserving certain areas in the central Brooks Range (including Anaktuvuk Pass) as a significant cultural, geological, and wildlife corridor (Brown and Kunz 1986, 77). The first use of "Gates of the Arctic" name in a NPS document was in the 1968 "Special Report on a Reconnaissance of the Upper Kokuk-Koyukuk Region Brooks Range, Northern Alaska" (Willis 1985, 44-45).

In 1968 fifteen National Landmarks were recognized in Alaska including Arrigetch Peaks and Walker Lake (now within GANPP) (Willis 1985, 50). The evaluation for these sites and earlier studies helped to provide the NPS with valuable information for land withdrawals required in (d)(1) and (d)(2) sections of ANCSA.

On December 18, 1971, Public Law 92-203, the Alaska Native Claims Settlement Act passed which set in motion a series of events that lead to the passage of ANILCA. The ANCSA ninety-day period for recommending lands for national interest designation resulted in only cursory on-site analysis. Land recommendations depended mainly on previous studies (Willis 1985, 115). A NPS Alaska Task Force recommended that withdrawals by the Secretary attempt to encompass complete watersheds, intact

habitats, and ecosystems. By 1974, recommendations for national interest land withdrawals from different conservationist groups and agencies ranged from 83 million to 106 million acres.

In 1973 the ARSC presented a unique proposal to the Joint Federal - State Land Use Planning Commission for Alaska for a national park in the central Brooks Range. The proposal offered a cooperative arrangement between the Arctic Slope Regional Corporation, the Nunamiut Village Corporation of Anaktuvuk Pass, and the NPS for the creation of a Nunamiut National Park (USDOI/NPS 1973(b), 38; Hickok 1974, 11; Cahn 1982, 14; Brown and Kunz 1986, 62). The Nunamiut National Park would have surrounded the village of Anaktuvuk Pass and would have been jointly Federal-Native managed. ASRC made this proposal to protect Nunamiut subsistence and provide for exclusive use of the lands required for Nunamiut subsistence (Hickok 1974, 132). The Nunamiut National Park would have consisted of a two million acre Gates of the Arctic Wilderness unit, a 7.6 million acre Arrigetch Peaks Wilderness unit, and a 7.1 million acre Nunamiut Wildlands (Mills, W. 1974, 4). In 1974 Senator Henry Jackson, at the behest of ASRC, introduced a bill in 1974 to establish a Nunamiut National Park.

In late 1973 another proposal was made for a Gates

of the Arctic National Wilderness Park and Nunamiut National Wildlands to preserve and protect an area of the Brooks Range in its pristine character for present and future generations. The Nunamiut National Wildlands proposed to assure that the outstanding cultural, natural, and recreational resources were managed for perpetual public use, to benefit and complement similar values in the adjacent wilderness park (USDOI/NPS 1973(a), 5). Wildlands contained 2,390,000 acres in between the two units of the Gates of the Arctic Wilderness Park (USDOI/NPS 1973(a), 2) (Figure #2).

The national wildlands concept introduced a new type of area in the National Park System with its combination of human, historical, and natural values. The concept represented a dedication to "aboriginal cultural uses and primitive types of low density outdoor recreation" (USDOI/NPS 1973(a), 33). The proposal further explained the uniqueness of the wildlands concept and the importance of the village of Anaktuvuk Pass:

The spacious scenic upland valleys and wildlife - rich riverways complement Ahaktuvuk [sic] Pass, the only Eskimo village in the mountains. Its cultural heritage and the opportunity for its residents to continue their traditional culture comprise a substantial portion of the uniqueness and value of the proposed wildlands. (USDOI/NPS 1973(a), 33)

The national wildlands would have been administered jointly by the NPS and Native corporations. Between 200,000 and 800,000 acres of Native land would have been placed in a management system administered by the NPS as de facto wilderness jointly managed with the Native corporations (USDOI/NPS 1974, 134). The Native representatives of the wildlands management team would have been able to emphasize traditional cultural values and uses during the management of the park-wildlands complex. Also, cooperative management would put Natives in responsible managerial positions earlier than alternative systems would (USDOI/NPS 1974, 137).

The park - wildland concept had the support of many wilderness and environmental organizations. It also had NPS support right up to the last moment when the Office of Management and Budget (OMB) rejected it (USDOI/NPS 1974, 472; Pepper Interview 10-11-88). OMB rejected the proposal because they did not want new area categories created and were concerned about the private role in an area of federal responsibility (Pepper Interview 10-11-88).

Subsistence had an integral part in all of these early proposals. The proposals recognized the importance of subsistence activities to provide food and maintain cultural values. They supported the

continuation of subsistence uses in the park. The writers believed that the protection given to the natural resources would allow for the uninterrupted pursuit of traditional subsistence with a minimum of interference from development and human stress factors (USDOI/NPS 1974, 98-99).

In the mid-1970's Congress drafted several National Interest Lands bills and conducted hearings in Alaska to learn the villagers' feelings about the proposals. ASRC testimony showed their support for a Brooks Range National Park even after the Nunamiut Wildlands concept had died (U.S. Congress. House. Subcommittee on General Oversight. Serial No. 95-16 pt.1. 1977, 532).

The hearings and bill amendments increased, but with strong opposition from the Alaska Congressional delegation critical time slipped away, forcing a show down of President Carter's administration to make good on a campaign promise to support an Alaska lands bill. Within days of the ANCSA (d)(2) deadline President Jimmy Carter, with a sweeping application of the Antiquities Act, designated seventeen national monuments in Alaska totaling nearly 56,000,000 acres. This sweeping application created an 8,220,000 acre Gates of the Arctic National Monument.

This in turn, forced Congress to act, and on

December 2, 1980, President Carter, as one of his last acts as President, signed the Alaska National Interest Lands Conservation Act into law. The new law more than doubled the size of NPS lands and tripled the size of the National Wilderness Preservation system. The new law created Gates of the Arctic National Park and Preserve (Title II, Section 201 4(a)), a 7,052,000-acre national park with a 900,000 acre national preserve.

The Alaska National Interest Lands Conservation Act (ANILCA) represented how the U.S. Congress confronted the long standing, unresolved issues of national land preservation in Alaska, Native land claims, the subsistence lifestyle, energy development, economic growth, transportation planning, and sport hunting by enacting legislative solutions intended to be compatible with each other (Cahn 1982, 31). From the start, concern about long-term subsistence, cultural survival, Native land ownership, the protection of wildlife and ecosystems, and of wilderness recreation were woven into the legislation through compromise (Swem and Cahn 1982, 518). Alaska and its people were changed forever by this sweeping legislation.

As complex as the Act was, ANILCA's success depended on the manner in which responsible federal agencies implemented it. Brown and Kunz summarized the

problems of implementing ANILCA this way,

The bugs and contradictions in a law as lengthy and broad of scope as ANILCA -- product of nine years of heated debate and political compromise, pioneering the principle that parks and traditional people dependent on park landscapes can survive together-- were to be expected. The fact that all of this is occurring in a larger context of change besetting Alaska could only contribute to stress and turbulence. In this light, for most of the immediately affected people, the transition from an unfenced local commons to a partially fenced national commons shared by local people is progressing remarkably well (1986, 100).

Subsistence use in a National Park wilderness area represented an exception to the provisions of the 1964 Wilderness Act (Swem and Cahn 1982, 522). The Wilderness Act (P.L. 88-577) defines wilderness as:

(c) A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, education, scenic, or historical value.

The Wilderness Act (Section 4), addresses the

prohibition of certain uses. Summarizing the Special Provisions section, the Wilderness Act provides for: (1) the use of aircraft or motorboats, where these uses have already become established, may be permitted to continue; (2) mineral prospecting except in Refuges and formerly established parks; (3) commercial services necessary for realizing the recreational or other wilderness purposes of the area may occur; and (4) continued State jurisdiction and responsibility with respect to wildlife and fish.

Section 701 of ANILCA designates Gates of the Arctic Wilderness, approximately 7,052,000 acres. Section 1315 of ANILCA establishes special provisions for wilderness management in Alaska. The section's provisions pertain to aquaculture, existing cabins (permits continued use and replacement subject to restrictions by the Secretary), new cabins (for public health and safety), timber contracts, and beach log salvage. However, agencies were left to interpret ANILCA and the Wilderness Act based on their policy mandates, budgetary limitations, and political factors. Consequently, wilderness management varies across Alaska due to the many variables and pressures placed on the individual unit managers.

Subsistence concerns were addressed in ANILCA

beginning in the Act's stated purpose (section 101(b)), "to protect the resources related to subsistence needs" and (section 101(c)) to be "consistent with management of fish and wildlife.... [is] to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so" (P.L. 96-487).

Congress expressly includes subsistence in section 203, General Administration (National Parks), saying that the new areas shall be managed under the provisions of the NPS Organic Act of 1916 but, "Subsistence uses by local residents shall be allowed in national preserves and, where specifically permitted by this Act, in national monuments and parks."

Title VIII, Subsistence Management and Use, contains the bulk of Congressional thinking on subsistence in the Act (Appendix C). The intent of Congress is best expressed in the Senate Report No. 96-413 (U.S. Congress. Senate. Committee on Energy and Natural Resources. 1979. Report No. 96-413), Report of the Committee on Energy and Natural Resources. The determination of Congressional intent bears directly on how the two parties interact with each other in the course of managing natural resources in GANPP.

A nation grappling with ANILCA legislation and the resulting creation of a premier Arctic wilderness

focused attention on the unique situation at Anaktuvuk Pass where the remnant population of a once nomadic aboriginal culture resided in the middle of a proposed wilderness. Anaktuvuk Pass experienced new pressures and changes beyond those already experienced from oil development. New pressures came from new divisions in land tenure and jurisdiction, increased local tourist traffic, and the real and imagined threats to their subsistence interests which wilderness designation and management might cause. All the different interests, at once, converged on "one geography comprising both a homeland and a wilderness park" (Brown and Kunz 1986, 63).

The dreams for a central Brooks Range National Park had become a reality. The baton passed from the planners and authors of the 1970's to the managers of the 1980's. The managers had to interpret the law, establish more substantial operations than they had during the national monument times of 1978 -1980, prescribe management plans, and blend subsistence with the already confounding NPS mandates of preservation and use. The traditional NPS management style faced the dual challenges prescribed by ANILCA and the traditions of a Native culture in Alaska. Willis (1985) described the challenge facing the NPS in this way:

In ANILCA, Congress mandated preservation of traditional national park values along with preservation of the lifestyle of the people who live there. Protecting resources in those magnificent parklands while preserving traditional consumptive uses immediately presented daily challenges to the new superintendents, and the Park Service as a whole. Whether it would prove able to evolve new management strategies appropriate to conditions imposed by ANILCA, or whether it would attempt to retreat to traditional management practice will be, for the Park Service, one of the major challenges of ANILCA (1985, 289).

Patterns of Use. Wilderness management and Nunamiut subsistence use can have profound effects on each other's activity and/or resource values present in GANPP. What follows is a discussion of wilderness use since the establishment of GANPP, and Nunamiut subsistence use as far back as written records exist. This discussion is not a complete picture of the use patterns. The hostility between the parties has prevented accurate collection of subsistence use data, and visitor surveys are made difficult by the lack of defined entry points into GANPP. Wilderness users can enter and leave the park without ever seeing NPS personnel or other wilderness users which makes it difficult to draw an accurate picture of wilderness use. Even with these limitations, general patterns of use can be drawn highlighting potential areas and times of conflict between the uses.

Recreation. GANPP's recreational use continues to

increase as it becomes known. Low-cost access from the Haul Road and commercial flights to Anaktuvuk Pass also contribute to the increase in recreational use. In 1974 the Alaska Planning Group determined a quota of 4,000 visitors annually as an estimated optimum carrying capacity for the park and predicted visitation would not exceed the quota in ten years (USDOI/NPS 1974, 100, 146).

The NPS set maximum group sizes at seven for backpacking and ten for river running or winter use, with a provision for up to two to three extra people for large immediate families, handicapped groups, or other groups with permission (USDOI/NPS 1986(b), 18). The heavy use areas are around Walker Lake and Anaktuvuk Pass (Ibid., 83).

The GANPP GMP (1986) places yearly recreational visitation for 1983 and 1984 at 2,500 visits. The average group size from 1981-83 was 5.3 people per group, the average number of groups was 470 per year, with 10.1 days for average trip length. The Plan notes, "the group sizes and trip lengths are some of the largest recorded for any area in the national park system" (USDOI/NPS 1986(b), 80). Recreational visitors for 1987 numbered over 2,100 (USDOI/NPS 1988(b), 59). The GANPP Draft Environmental Impact Statement

Wilderness Recommendation (1988(b)) projects visitor trends in the next thirty years to increase to 18,000 visitors per year with an increase of 1,000 to 2,000 visitors per year in the Anaktuvuk Pass area (USDOI/NPS 1988(b), 68).

Anaktuvuk Pass has experienced increased day use visitation. According to Anaktuvuk Pass Public Safety Officer Wiess, for every one backpacker, twenty middle-aged visitors come to spend a maximum of four hours in the village before flying out (Wiess Interview 11-19-87).

Subsistence. Nunamiut numbers in the Brooks Range during the 1800's varied from 1,000 to 1,600 inhabitants (Gubser 1965; Amsden 1977; Spearman 1979; and USDOI/NPS 1988(b)). Fifteen hundred inhabitants living totally off the land and feeding their dog teams, would harvest many more caribou than the present population of 260 inhabitants. Historical harvest levels vary from "around 30 animals per family... depending upon the size of the hunter's family, how many dogs he has to feed as well as his desire and hunting skill" (Cline 1969, 20) to an estimated 50 to 70 caribou per family (Nelson, Mautner, and Bane 1982, 98). U.S. Department of the Interior estimated that the Nunamiut harvested 2,000 caribou in 1970.

The caribou harvest figure for the entire Game Management Unit 26A including seven other villages, according to the 1986 ADF&G game reports was 1,202, or 4.6 caribou per hunter for the unit. The NPS estimate of 550 for the park and preserve probably breaks down to 400 to 450 caribou harvested by the Nunamiut, well within the historic high of 2,000 per year two decades earlier. The caribou harvest decline was a result of the transition from dog teams to snowmobiles, from pack dogs to ATVs, and decreased subsistence dependency.

Recent Nunamiut subsistence use data of GANPP is limited because of the historic mistrust of NPS. Native Alaskans felt that state and federal game management policies were irrelevant (Lonner 1981, 6). The ADF&G Caribou Survey-Inventory Reports acknowledge the lack of village support for reporting of game harvested and the 1986 report explains how this lack of compliance is compensated for with caribou management regulations:

Two basic assumptions are made: 1) The number of hunters is equal to the number of housing units as determined by the 1980 census, and 2) Each caribou hunter killed the mean number of caribou reported taken by hunters from his game management unit (GMU) or village... The number of housing units in GMU's 26A [Anaktuvuk Pass is included in 26A] [is] 1,202... Reported kill for GMU's 26A was 4.6 caribou per hunter. [GMU 26A harvest would be $1,202 \times 4.6 = 5529.2$] (Anderson and James 1986, 40).

The 1988 report listed the 1986-87 Western Arctic caribou herd harvest at 3,398 caribou noting: "We believe that the reported harvest is only a fraction of the actual harvest... the actual harvest is approximately 6,000 - 15,000 caribou" (James and Larsen 1988, 64) which represented a 176 to 440 percent difference between reported and projected harvests.

More accurate Nunamiut wolf harvest data exists because the wolf researcher lived in the village, and because wolf hides must be taken to a government officer for sealing. The 1976 draft state wildlife management plan lists 50 to 150 wolves annually harvested by the Nunamiut during the 1940's, including wolf pups (Alaska Department of Fish and Game 1976, 37). The 1985-86 wolf harvest report for Anaktuvuk Pass' management unit lists 13 wolves, all taken by one hunter. Adams and Stephenson found that 57 wolves were harvested by Anaktuvuk Pass residents during the winter of 1985-86 (Alaska Department of Fish and Game 1988(b), 55).

The Dall sheep represents the only Central Brooks Range game species almost destroyed by the Nunamiut's subsistence activities. In 1950, five years after the Nunamiut settled permanently in the pass, hunters reduced the local sheep population to a level where the sheep were considered virtually hunted out (Hall,

Gerlach, and Blackman 1985, 70, 77; Amsden 1977). Dall sheep do not migrate and live in small territories. This makes them more susceptible to over-harvest. The Nunamiut were tied to a permanent settlement. The use of pack dogs limited the range hunting trips (Hall, Gerlach, and Blackman 1985, 69) which in turn intensified the harvest pressure on the local Dall sheep population. According to Hall, Gerlach, and Blackman (1985, 70) Dall Sheep appear to have replenished themselves because harvest areas have enlarged with snowmachine use and the incorporation of ATVs. Mechanized transportation allowed the Nunamiut to expand their hunting range while still living in a permanent settlement.

Detailed Dall sheep harvest data for Anaktuvuk Pass are not available. The Draft Resources Management Plan (USDOI/NPS 1986(a)) notes any-sex sheep hunt within the park is limited to 50 permits. According to the Park Superintendent, "Little reliable harvest information is received, but usually 30-35 sheep are taken in the Anaktuvuk Pass area" (Park Superintendent 1986(a), 37-38).

During the Wilderness Review process the NPS recorded an ATV use of 30 to 50 trips per year. ATV use is forecasted to double by 2020 (based on the doubling

of the village population) (USDOI/NPS 1988(b), 68). The draft Wilderness Review expresses concern that increase in visitors means an increase in litter as well as an increase in conflicts among users of primitive summer recreation opportunities - all of which affect the area's wilderness character (USDOI/NPS 1988(b), 68).

The ATV impact studies concluded that there exists over 160 km (100 miles) of ATV routes, used over the past ten years reaching at least seven U-shaped glacial valleys or tributaries to the John and Anaktuvuk Pass Rivers (Racine and Johnson 1988, 3). The study recorded 50 ATVs owned by the 200-250 residents of Anaktuvuk Pass (Ibid., 4).

GANPP's annual subsistence use data is based on Ranger Bane's use estimate of 1983 (Table 2).

TABLE 2. Annual Subsistence Use Figures Estimate (1983)
By Ray Bane, Park Service Subsistence Coordinator

<u>Month</u>	<u>Number of Users</u>	<u>X</u>	<u>Number of Days</u>	<u>= User Days</u>
June	25		2	50
July	30		5	150
August	30		5	150
September	40		4	160
October	10		2	20
November	30		9	270
December	20		9	180
January	15		9	135
February	30		9	270
March	40		5	200
April	20		5	100
May	10		3	30

To calculate user days, the assumption was made that 50% of subsistence use involved overnight stay within park and/or preserve boundaries. Then to calculate user days

multiply people times days times 24 hours which resulted in too high figures. To compensate for this, the number of users was halved, times days times 24 hours plus half the number of users times days times 12 hours to provide the total number of visitor hours (GANPP Memo 12-24-87 A2615, Fairbanks: GANPP files).

Example: August listed 30 users for 5 days each, resulting in 15 day users entering the park 5 times each for a total of 75 entries and 15 are those who enter once and stay continuously for 5 days for a total of 15 entries. Therefore: 75 entries of day users

+15 entries of overnight 5 days
continuous stay
_ 90 entries or visits

Therefore, the number of visits for each month of the year is:

June	39	July	90	August	90
September	100	October	15	November	150
December	100	January	80	February	150

Potential Resource Use Conflict. NPS Superintendent Shaver (1984, 15) reflected on the effects of recreational activities on subsistence use:

There are many subsistence activities that are critical enough that recreationists blundering through or a research helicopter flying over could easily disrupt the activity and possibly result in a serious reduction of winter's food supply for a village.

The limited studies on wilderness recreation effects on wildlife point to impacts on wildlife. Hammit and Cole (1987, 99), discovered, "...recreational activities in an area result in an overall decrease in species diversity". The major source being from innocent or

uninformed harassment of wildlife by recreationists (Hammit and Cole, 1987, 77; Ream 1979, 153). The studies question whether wilderness recreation is a 'non-consumptive' use and wilderness recreation may be unintentionally consuming wildlife resources needed for Native cultural survival. There are specific times and locations where recreational activity can have a dramatic effect on wildlife resources.

The recreationists' presence at key locations along migration routes and mineral salt licks can potentially change the caribou migration patterns of caribou (Ream 1979, 155). The 1981 Draft Visitor Easement Agreement mentioned the possible problems of frightening away game, disturbing camps, and adversely impacting Native owned land (USDOI/NPS 1981). GANPP's Draft Statement for Management (USDOI/NPS 1982) explained how the uses could conflict:

On the one hand subsistence users may impair the wilderness experience sought by recreationists. On the other hand, recreationists may interfere with subsistence hunters by frightening and dispersing game being sought... (29)

To date there is only one case incident report of conflict between the subsistence use and the wilderness recreational use (Case Incident Report 6-10-83).

Personal discussions with returning GANPP wilderness users revealed an uneasiness of crossing Nunamiut Native

corporation lands to reach GANPP wilderness, seeing ATV tracks, and the possibly of crossing paths with armed subsistence hunters (Kohany Interview 8-8-88).

The NPS planning documents and agreements acknowledge concerns about Anaktuvuk Pass being a wilderness access point because of daily commercial flights and its central location in the park. The Draft Visitor Easement Agreement (USDOI/NPS 1981) expresses the NPS' concern for the Nunamiut:

The community of Anaktuvuk Pass is unable to absorb the impact of increasing numbers of park visitors that pass through the village. Such visitors often have little understanding of or sensitivity for the cultural needs of local residents... (USDOI/NPS 1981).

The Draft Agreement defines geographic locations where conflict may occur,

The Ernie Creek Pass - Anaktuvuk River Valley is an area of prime conflict. It provides access to the North Fork of the Koyukuk; the Itkillik River and Ulu Valley to the east; and park areas to the northwest of the village.... as this area includes both summer and winter village use areas for fish and sheep/caribou harvest, the potential for conflict is enormous (Ibid.).

Gerlach and Hall's BIA report (1985) lists the river drainages by season and intensity of ATV use:

Contact Creek. Intensive use by some individuals in June and July.

Kongumavik/Akmagolik/Tiglikpuk Creeks. Intensive use from June through September... used for recreation, caribou and sheep hunting, and berry

picking....

Anaktiktok to Ernie Pass. Intensive use extends from late July through September and primarily involves caribou and sheep hunting...

Giant Creek. This drainage is most often used from August through September for hunting...

Kollutarak. People travel to Chandler Lake in early summer, before break-up, to fish. After high water subsides, in late June, use for hunting begins and intensifies in late July when the caribou come down from the mountains. When sheep season begins in August, use of the area increases even more and stays at a high level through the main caribou migration almost into October.

Masu/Ekokpuk Creeks. These drainages are very important for fishing, berry picking and sheep hunting. Furthermore, the people of Anaktuvuk Pass have important cultural/spiritual associations with the land [there].

These same drainages were noted as having similar ATV use in Racine and Johnson's report (1988, 11).

These drainages are used by recreationists to reach Gates of the Arctic to the east, Chandler Lake to the northwest, and to float the John River. The peak wilderness visitation time coincides with the beginning of caribou hunting season in July. GANPP's yearly pattern of recreational use is characterized by a sharp July and August peak when approximately 64 percent of recreational visits occur (USDOI/NPS 1986(b), 80) (Figure #3). From July on the Nunamiut go in their ATVs to find caribou near valley streams (Gerlach and Hall 1985, 5).

A comparison of the NPS' Monthly Recreational Visitation Chart (Figure #3) with both Spearman's Anaktuvuk Pass Yearly Subsistence Cycle (Figure #4) and Bane and Nelson's Generalized Annual Cycle of Activities for Gates of the Arctic Region (Figure #5) shows the subsistence-wilderness conflict potential in July and August. The GANPP's GMP in Appendix F addresses how the NPS would deal with the potential conflict:

...the National Park Service would manage recreational uses by placing limitations on group sizes and on length of stay and number of groups... Visitors and commercial guides would be provided information on subsistence activities including locations and seasons, and National Park Service personnel would monitor sensitive subsistence use areas (USDOI/NPS 1986(b), 253).

The NPS presently attempts to minimize conflicts through park visitor handouts. The park brochure discusses subsistence as being protected and with a precautionary statement:

Local native and non-native residents use park and preserve resources to support their subsistence way of life. You may encounter subsistence activities in the park. Camps, fish nets, traps, and equipment are private property. Both small and large tracts of privately owned lands are located in and next to parklands. These are not open to public use or travel without owner permission. Please observe common courtesies and respect privacy and property.

The visitor handout entitled, Welcome to Anaktuvuk Pass! discusses the possible visitor impacts may have on

subsistence and ways to prevent them:

...your physical presence can influence game population movements, and as result, disrupt subsistence uses. You may need to modify your trip route to avoid interference with the practice of subsistence activities (USDOI/NPS 1984, 1).

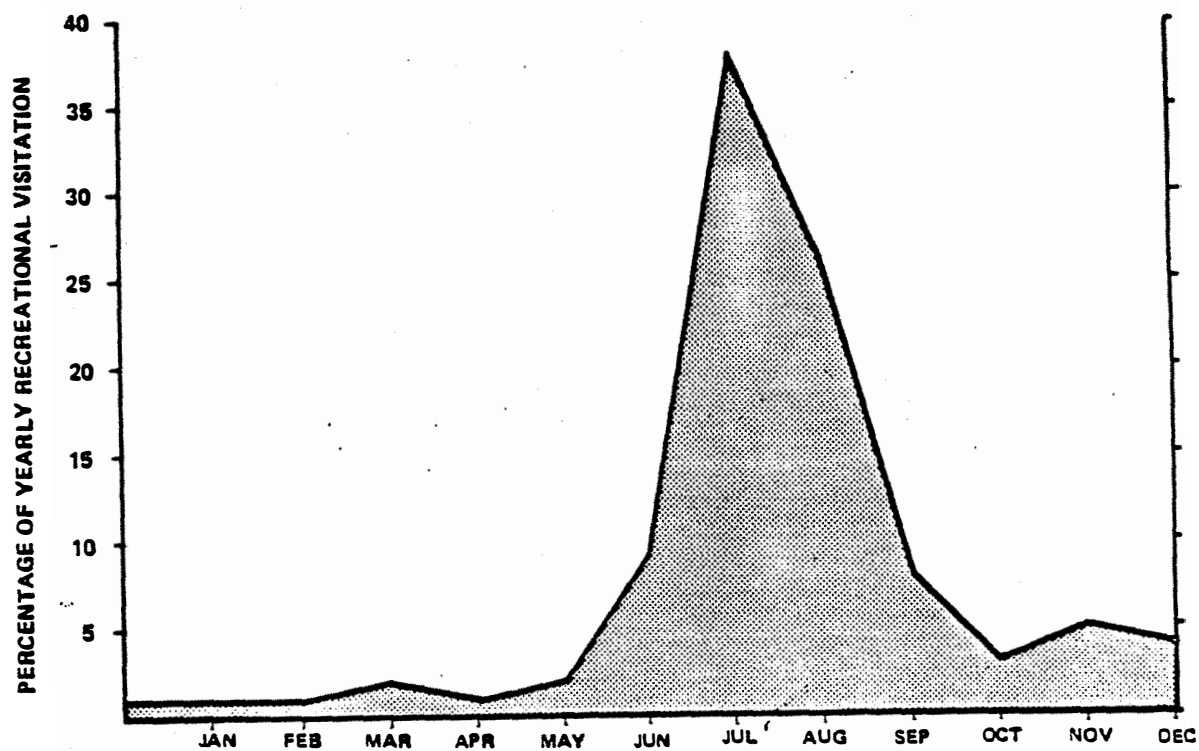


FIGURE #3. Monthly Recreational Visitation. Data Source: NPS Monthly Use Reports. Taken from "Gates of the Arctic National Park and Preserve General Management Plan 1986" page 81

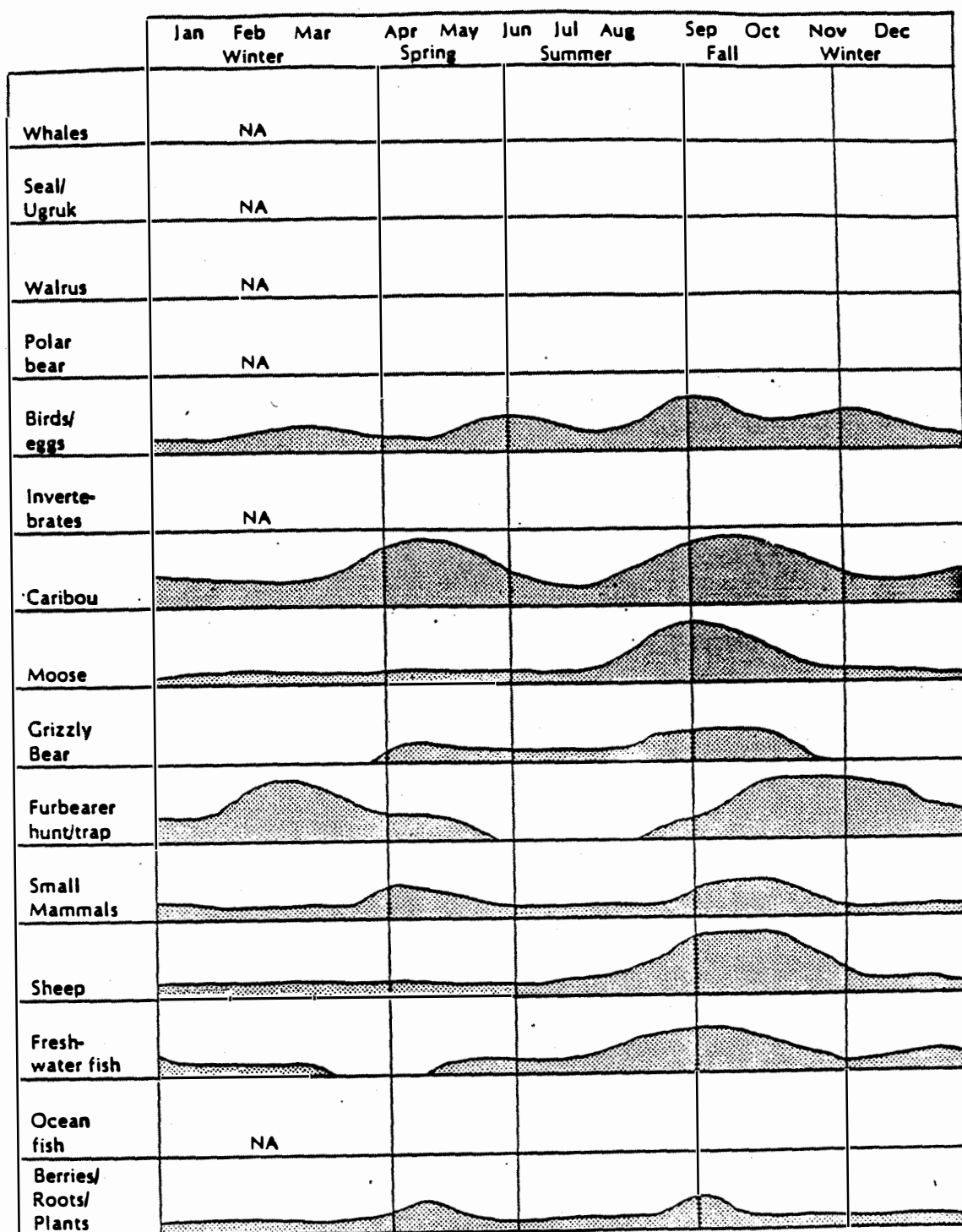


FIGURE #4. Anaktuvuk Pass Yearly Cycle. Patterns indicate desired periods for pursuit of each species based upon the relationship of abundance, hunter access, seasonal needs, and desirability. Taken from "Land Use Values Through Time in the Anaktuvuk Pass Area" by Spearman 1979, page 133

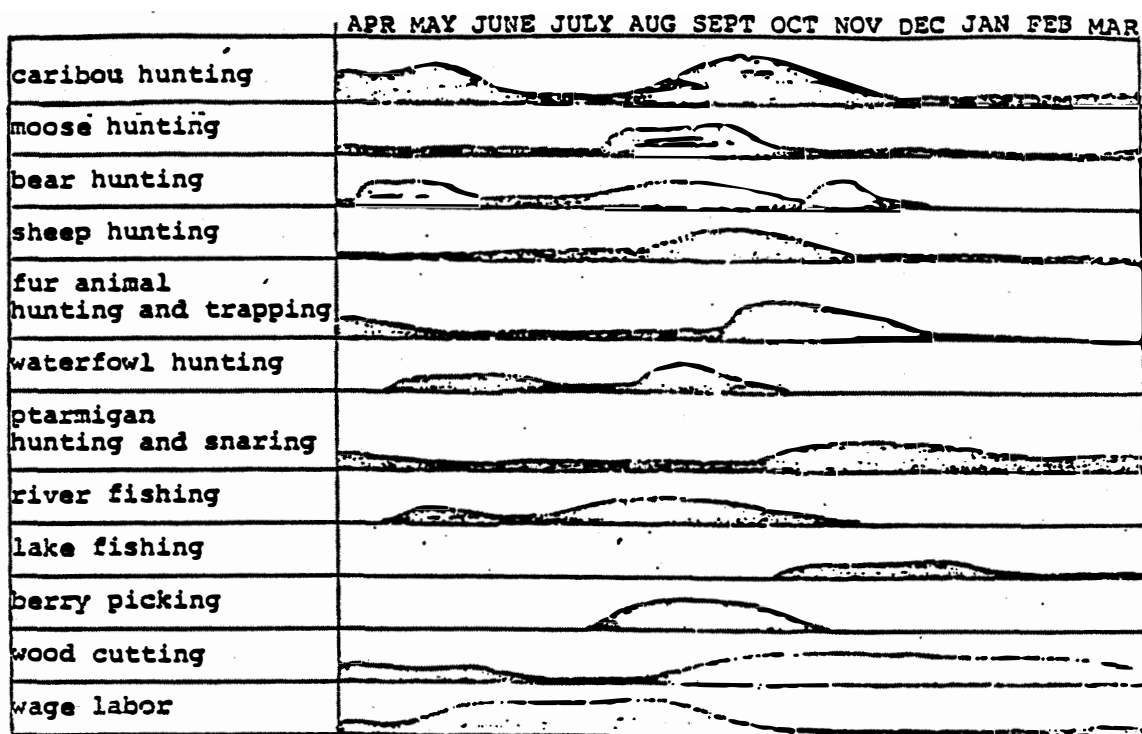


FIGURE #5. Generalized Annual Cycle of Activities for Gates of the Arctic Region. Taken from "Preliminary Report Subsistence Activities, Proposed Gates of the Arctic National Park" by Bane and Nelson 1977, page 4

CHAPTER THREE

Wilderness & Subsistence: Differing World Views of Human Relationships to the Natural Environment

Describing the legal framework alone does not explain the cooperative relationship between the NPS and the Nunamiut. Both desired a national park, which within a few years led to confrontation. Each side views the world in a different light. Their different world views manifest in management philosophies and styles, and in definitions of key terms created by ANILCA (wilderness, subsistence, and others).

The root of the conflict between the NPS and the Nunamiut stems from the different views of the human role in the natural environment. The NPS views natural resources as something to be managed for individual recreational needs, yet does not consider humans to part of the management equation. The Nunamiut view the same resources as providers of community survival needs. Humans are considered integral and equal with the wildlife as a component of the natural environment. The natural environment is something to be adapted to rather than managed.

Management Philosophy and Style: The National Park Service

The NPS Organic Act of 1916 established a mandate

for the conservation and use of National Parks. This obligated NPS to take actions necessary to prevent the loss or permanent deterioration of park resources, yet offer visitors a reasonable opportunity to experience their natural and cultural resources (USDOI/NPS 1982, 7). The conventional national park conserved a natural area, usually containing great scenic beauty, through government ownership, and banned human residency and resource extraction within it (Harmon 1987, 148).

The following long-range objectives from the NPS Department Manual explains NPS' purpose in greater detail:

- (1) To conserve and manage for their highest purpose the natural, historical, and recreational resources of the National Park Service.
- (2) To provide for the highest quality of use and enjoyment of the National Parks by increased millions of visitors in the years to come.
- (3) To develop the National Park System through inclusion of additional areas of scenic, scientific, historical, and recreational value to the nation.
- (4) To communicate the cultural, natural, inspirational, and recreational significance of the American heritage as represented to the National Park Service.
- (5) To cooperate with others to protect and perpetuate natural, cultural, and recreational resources of local, state, regional, and international importance for the benefit of humankind (Foresta 1984, 289-290).

National parks have represented many different things to different people. Freeman Tilden, the father of NPS interpretation, defined national parks as:

...national museums.... [with] their purpose to preserve, in a condition as unaltered as is humanly possible, the wilderness that greeted the eyes of the first white men who challenged and conquered it. (1963, 16-17)

Bratton summarized the changes in types of areas managed by the NPS, as going from a few large and spectacular natural areas to later inclusions of smaller scenic landscapes and unique biological areas. Parks first concentrated on the protection of unique species often large ones like the Sequoia trees and bison and expanded to the present day of preserving representative ecosystems (Bratton 1985, 121). In the beginning, the emphasis was on pristine landscapes, but later included partially disturbed landscapes and remnants of disappearing ecosystems. NPS management policies have also changed, which instilled different management philosophies and styles in Park managers.

The following overview of NPS policy history will demonstrate that: (1) the concept of what a park should be influences how one should manage a park, (2) the concept of how one manages a park has changed as much as what deserves being called a park, and (3) developments in philosophy and science have influenced park management and initiated changes in methods and goals (Bratton 1985, 122). There are four main eras in NPS history. The first era, the "paradise garden mode"

(Bratton 1985, 123) viewed a park as a place with no past and no future, an art piece that needed only boundaries and patrolling to protect it. The second era, beginning with the Civilian Conservation Corps of the 1930's, called the "succession and restoration era", provided a more dynamic view of nature and increased involvement of managers in the manipulation of natural resources to restore biotic communities (Bratton 1985, 125). The next era developed a visitor support base after World War II and was coupled with extensive park development with Mission 66 (Ibid.). The final era, the "pre-Columbian state" discussed in Starker Leopold's "Wildlife Management in the National Parks" recommended:

...the biotic associations within each park be maintained, or where necessary recreated, as nearly as possible in the condition that prevailed when the area was first visited by the white man. A national park should represent a vignette of primitive America. (Bratton 1985, 127)

Each of these eras influenced how the NPS and its managers viewed the resources placed in their trust.

Past policies form a yardstick by which to measure change, especially in times of stress and with a mandate which was as inherently contradictory as the NPS' was (Foresta 1984, 6, 100). Traditional responsibilities represent the core of the NPS' self image. To know and understand the NPS one must know "what baggage was

carried from former eras" (Foresta 1984, 6). As a public agency the NPS, is tradition-bound services exercise a strong influence on NPS spending.

When reviewing NPS' history and management philosophy one ideal comes through, a strong commitment by the Service, in Tilden's words of "striving even if it falls below the ideal, to maintain a complete haven for all the kinds of life known to belong there and to exclude those which do not belong there..." (1963, 9) (emphasis added).

The environmental movement of the 1960's put forth the philosophy (that influenced the NPS) that human beings were disruptive and therefore an unnatural presence in wilderness parks and that they should be controlled and excluded from living in wilderness areas (Runte 1987, 199). This belief influenced the NPS. Many NPS employees were active members of environmental organizations and by Foresta's account "the flow of personnel from the leadership ranks of the environmental groups into administrative positions within the National Park Service had always been a strong one" (1984, 88).

Wilderness parks, by their very definition as areas "untrammelled by man, where man himself is a visitor" exclude man from living there. The basis of this philosophy comes from the belief that:

since nature is good and civilization corrupt, the natural world can only be kept pristine by protecting it from society.... [t]he best way to protect nature is to build a wall between it and society... (Chase 1988, 36)

The result of this philosophy translates into the preservation of natural systems by isolating the systems from the impacts of civilization which then resulted in the ranger's job being principally resource protection. The wisest management would be a passive one, allowing nature to take its course (Chase 1988, 36). This represents the philosophy that has been brought to Alaska park wilderness management.

This management philosophy represents a romantic view of nature with man not part of the natural world. This ignores the thousands of years of aboriginal Native cultures' interaction and influence on the environment. Native cultures and human beings in general were part of nature and a key link in the chain of natural processes (Runte 1987, 239). If the NPS viewed Native cultures as having no biological significance in the ecosystem, then wilderness conditions would be defined as "man had never counted in the ecosystem.... and the way to preserve the park would be to keep man and nature apart" (Chase 1986, 114). This view determined in the NPS' eye more what happened in their wilderness parks than what was functioning in present and former days (Bratton 1985,

128).

If the NPS viewed Native cultures as part of the ecosystem they were influenced by Western society's romantic view of Natives, their lifestyles, their landscapes, and its view of the frontier. One of the first park planners, George Catlin, envisioned a place for American Natives in national parks where "the world could see for ages to come, the native Indian in his classic attire, galloping his wild horse, with sinewy bow, and shield and lance amid the fleeting herds of elks and buffaloes" (Bratton 1985, 131). This romantic view of Natives caused a dilemma for preservationists and the NPS who wanted to include Natives in Alaska's national parks. The remaining Alaska Native cultures were no longer the romantic image of Natives because they were changing and taking advantage of modern medicine, attire, tools, and homes.

The NPS' view of nature is manifested in its wildlife management philosophy which comes from Western wildlife management. Western wildlife management's view of nature is based partly on the lay Christian view of the natural world. The popular notion of the Christian view held that God invested in man the power and dominion over the beasts of the field and the birds in the air. This perceived power over the world and its

living things translated into the authority to conquer the continents and seek a manifest destiny. Man had dominion over nature and set out to turn the natural world into his personal garden, the world being there only to provide for his needs. Western wildlife management relies heavily upon the idea of stewardship, the wise use and management of resources entrusted to one's dominion, as the justification for management actions (Lyman 1988, 29). This dominion view of the natural world contrasts with the Native world view.

Western wildlife management is characterized by a hierarchical, bureaucratic method of decision-making and enforcement in the short run (Usher 1986(a), 79). Furthermore, science has tended to reinforce this by generalizing about how nature works based on short range, limited data (Stephenson 1982, 438). Managers are distinct from harvesters, with their centralized authority which flows from the top down with separate units or divisions (fish, game, land), designated to manage individual components of the environment (Usher 1986(a), 2). Usher further defines Western wildlife management as a :

...system rest[ing] on a common property management in which the [government agency] assumes exclusive responsibility and capability for managing a resource equally accessible to all citizens. The [government] manages for certain levels of abundance on a technical basis, and then allocates

shares of this abundance to users on an economic and political basis. The system of knowledge is based on a scientific accumulation, organization, and interpretation of data, and management problems are resolved in a technical, ahistorical, and "value-free" framework. (1986(a), 2)

NPS management of wilderness areas does not follow exactly this model of wildlife management because wilderness designation limits manipulation of the environment for the benefit of a single species. The history of the NPS belief that human actions and direct involvement with nature can lead to the destruction of nature, distances the NPS from an active role in managing nature for a desired end. A non-active role does not divorce the NPS completely from the model because the resource still is viewed as being there to benefit humans. Choosing not to act is one choice of action.

The attitude "let the wilderness be as wild as it may," coupled with the NPS' mandate to make it available for people to enjoy, but not so much as to cause loss of wilderness value, causes internal tension within the NPS. Because of this internal tension, the NPS' most urgent mission, according to Despain, Houston, Meacher, and Schullery, "is to know as much as possible about the natural setting, past and present, so that managers can make their decisions about human use and wilderness processes as intelligently as possible" (1986, 9).

Humans are left out of the wilderness equation, even aboriginal man. But the history of resources management in the NPS has been one of trial and error where success was due more to individuals or chance than sound guidelines and a good database (Waur 1979, 22). The desire to know as much as possible came with the new staff members of the Alaskan National Parks. Difficulties obtaining funding, the vastness of the areas, and the attempt to lay the Lower 48 model of NPS wildlife management on Alaska have limited the amount and quality of data obtained. Without an adequate database and means to get one, NPS managers are in a difficult position when it comes to managing the resources in their trust.

According to GANPP Superintendent Siglin, "Managing in a National Park in the Lower 48, is like managing a two headed dragon, one head being 'use' and the other being 'preservation', which can be difficult, but managing in Alaska is even more difficult because ANILCA added a third head called 'subsistence', making the park manager's job extremely difficult" (Siglin Interview 11-25-87). Without an adequate database the manager is also left to contend with the three headed dragon blindfolded.

Maintenance of subsistence lifestyles in Alaska

conservation units was authorized by Congress in ANILCA, but its beginnings can be traced to the Historic Preservation Act of 1966 (P.L. 89-665). The Historic Preservation Act supports the protection of a subsistence lifestyle when it declares:

...the spirit and direction of the Nation are founded upon and reflected in its historic past; that the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people; (P.L. 89-665) (Underlining added for emphasis).

In 1976, Alaska NPS planner Belous, author of the "white paper" on subsistence in Alaska's National Parks, used the Historic Preservation Act to support allowing subsistence in Alaska's parks stating that, "such harvest of wild food and other biological resources from the lands proposed as additions to the National Park System... is an important opportunity for retaining an unbroken link with the nation's cultural past" (Belous and Newman 1976, 2).

Alaska NPS planners and the environmental community broke from the NPS tradition of viewing man as only a visitor and not as a part of the natural environment. According to Smith, president of the National Parks and Conservation Association:

...the practice of subsistence hunting, as understood by the Native cultures, can well be

looked upon as part of a natural ecosystem which has sustained itself in Alaska for something like 10,000 years and which has proved itself compatible with the stability and diversity of both wildlife and human population. (U.S. Congress. House. Subcommittee on General Oversight. Report No. 95-16. 1977, 635)

The Alaska Coalition, an umbrella organization of environmental groups, argued that the cultural "values inherent in Native lifestyles are as important to parks as some of the physical features that need to be protected" (Shively 1981, 18).

An argument can be made that Alaska national interests lands generated a fifth era in NPS management. This new era could be titled cultural preservation, built on the established special privileges for the Miccosukee and Seminole Tribes to continue their use and occupancy including hunting, fishing, and trapping within the Big Cypress National Preserve, and the Hualapai Indians' rights to hunting and fishing privileges on Lake Mead National Recreational Area (U.S. Congress. House. Subcommittee on General Oversight and Alaska Lands. Report No. 95-16. 1977). In this new era, according to Dasmann:

We are now attempting... to integrate the conservation of human cultures with the conservation of the natural world. We do this in part to encourage those who have cared for the land in the past to continue to do so, and in part to encourage those who have not cared to begin to take an interest in conservation of nature, to

realize that their future is tied in with the future of the natural environment. (1984, 668)

Alaska offered unique opportunities for integrating the management of natural and cultural assets (Gidlund 1981, 22). This era of cultural preservation in many ways flourished with the drafting and passage of ANILCA but ended shortly afterwards because of conflict with traditional NPS management.

Congress addressed traditional NPS management values by stating that the historical consumptive use of wildlife resources within National Parks has been prohibited, however Congress has the practice of reviewing those values in new units if they might result in substantial hardships to local residents (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413. 1979, 168). Congress authorized subsistence uses within National Parks with the intent that the traditional NPS management values of natural abundance, behavior, diversity, and ecological integrity of ecosystems be maintained. Congress did not expect the NPS to engage in habitat or species manipulation for the purpose of maintaining subsistence uses within the NPS units (Ibid., 171).

Congress, however, did not recognize the depth of traditional management values of the NPS. Recognizing NPS' "natural and healthy" management strategy does not

address the issue of consumptive uses of those resources. Most of the NPS managers assigned to Alaska had never worked in an area where hunting, fishing, trapping, and timber harvest were allowed (Shaver 1984, 10). These new Alaska managers met a new challenge. Mack Shaver, one of the first Alaskan NPS managers, stated the challenge to:

...preserve the land and its resources while allowing resource harvest and use, which will in turn preserve the cultural values of the people using the land. Treat man and his activities as part of the ecosystem. (1984, 3)

Shaver's later statement addressed the depth of NPS traditional management values: "Consumptive resource use and natural healthy populations seem almost mutually exclusive but ANILCA's authors presumed that it was possible..." (1984, 13).

Sharing power came along with ANILCA's subsistence provisions, subsistence resource commissions, local advisory councils, and the State of Alaska management of fish and game populations. An internal review of a draft general management plan for Gates of the Arctic in 1985 by Special Assistant for Policy Development in the Department of the Interior, Dwight Rettie, mentioned this fear of allowing subsistence and shared power:

Our actions to permit continued 'subsistence' activities is grudgingly given because we are by

law compelled to. But we will monitor it, regulate it, and look carefully for its impacts. We acknowledge that Man has been a part of this landscape for a dozen millennia - long predating the building of the pyramids-- but will not invite the successor residents to share in the goals and management of the area. They are incapable of self-regulation (or did we ever ask?). (Rettie 1985)

ANILCA, with its subsistence provisions and new management units, national preserves, which allowed sport hunting, became a two-way street of acculturation where the local people faced changes threatening their traditional ways while at the same time the NPS personnel were required to adapt "their own venerable traditions of stewardship to new modes of management flexibility under a law that deals as much with neighbors as with natural landscapes" (Brown and Kunz 1986, 27).

Flexibility toward change when it comes to traditions, especially agency traditions, does not happen quickly. Uniforms represented one tradition. Planners (usually outside the NPS rank and file) had the freedom to plan the future and to plan different ways of dealing with the Alaskan "neighbors". Planners traveling in Alaska established a policy of no uniforms, to help create a more relaxed atmosphere, especially with Native Alaskans villagers. When the rank and file Park rangers came to Alaska, uniforms were important and

the policy changed. In 1984, according to Pepper (Interview 10-11-88), when a previous deputy director returned to Alaska and saw that the NPS had decided to put on uniforms again, he expressed concern saying, "Don't you realize we used to say we are the guests and we are going to try to do things their way and we are going to try to adapt as much as we can to the local people." A ranger near the deputy director overheard his comments, according to Pepper, and said to him "but the Park Service has its culture too, and our culture is to wear uniforms."

The NPS wanted some changes in traditional park management in Alaska to prevent the degradation of park resources due to visitor over use. It was feared that the slow deterioration which affected Yellowstone would happen in Alaska if strict measures were not enforced to hold the line against degradation. Yellowstone, the flagship park of the NPS, had slowly deteriorated over time. The fear was that within 50 to 100 later "you would never recognize them [Alaska wilderness parks]" (Pepper Interview 10-11-88). GANPP staff adopted a hardline management stance for any activity they felt threatened GANPP's wilderness and park values (Alderson Interview 5-12-88).

NPS personnel viewed subsistence as a threat to

wilderness. Confronted with the fear of slow deterioration of resources, the NPS' response was to restrain subsistence (Pepper Interview 10-11-88). GANPP staff desired to hold that line against degradation because of the park's status as a premier wilderness national park.

Fears of managing activities like sport hunting and subsistence, which in Alaska are difficult to monitor and control, fears of not maintaining the NPS Organic Act mandate, and fears of performing duties in a social and political climate of Alaska hostile to outside interests, may have pushed NPS personnel to the limit. Pepper reflected on the problem:

Fear is the worst way to create policy because then you are always thinking about the worst case alternative.... Everybody was thinking the most weird, furthest out possibilities when in the vast middle the ecosystems were not collapsing, why was the Park Service concerned? (Interview 10-11-88)

Fears park degradation still have a strong grip on the NPS personnel in Alaska. Boyd Evison, NPS Alaska Regional Director responded to questions about issue resolution, "The process of resolving the issues is an adversarial one. Is there any way around that?" His response was "It is the nature of the beast (Alaska Interagency Wildlands Management Workshop, Fairbanks. University of Alaska Fairbanks. 15 March 1989)." An

adversarial view may see no way of working things out and may end up focusing on areas of disagreement rather than on developing areas of agreement.

Alaska may be the last chance in many ways 'to do things right.' In a memorandum, Comments on Indigenous People, June 30, 1988, Bryan Harry of the Pacific Area Region (NPS) addressed the problem and possible solution for dealing with indigenous people in a National Park situation:

Sometimes we advocate or allow new parks to be established with substantial 'compromises' to local native concerns merely to get the park. Then we work diligently to erase these concessions so as to assure a park as pure as Yellowstone. Example -- look at a map with Noatak, Kubuk, Kruzenstern, and Gates of the Arctic superimposed. That is an enormous contiguous area that encompasses many native peoples' traditional subsistence areas. Our choice then was to accept this traditional subsistence in the new parks, or to settle for tiny parks.... I believe our choice was wise. But I think it is extraordinarily dishonest if the National Park Service attempts to zap or restrict the subsistence now.... If subsistence there rubs us raw, we should advocate removing these entire subsistence zones from these parks. There are many examples where we got our foot in the door dealing with native populations, and then changed the rules of the game. (Harry 1988, 1)

GANPP Superintendent, when asked about the challenge facing the NPS in Alaska to be innovative in its management strategy or fall back to its "traditional" management strategy replied, "I think we started with (pause) we wished this park could be managed like a

traditional park in terms of wilderness values and at the same time we recognized the best of ANILCA requires compromises of those values" (Siglin Interview 5-11-88).

Management Philosophy and Style: Native

Few have looked at Native natural resource management philosophy and style until recently. This section draws a general picture of Native management philosophy and style before and after ANCSA with specific Nunamiut references highlighted for these two periods.

In both pre-ANCSA and post-ANCSA times, land supported the Native's way of life (Wright 1973, 1; U.S. Congress. House. Subcommittee on Fisheries and Wildlife Conservation. Report No. 95-23. 1978). Natives, conceptualized land in a very different way than die Westerners. Weeden addressed the difference this way, "Land is home to some Natives in a much more intensely personal and even mystical way than for most non-Natives" (1978, 34). Land represented physical survival, but also provided cultural identity and the basis for religious beliefs.

Individual land ownership did not exist with Natives. Land was communal territory that manifested Native cultural beliefs and values. The communal territory system stressed the survival of the community

as a means of protecting and preserving the individual. The boundaries of communal territory were known to the members of the community and neighbors, and use without permission was considered trespass. The community had mutual agreements with neighbors requiring adherence to rules of conservation and against waste (Usher 1987, 6).

The Native management system relied on, and was directly linked to, its values, ethics, and world view which were based on an integrated, non-compartmentalized view of the natural world (Usher 1987, 7). The traditional Eskimo world view accepted the natural environment as it existed and had little concern for managing the environment in a Western sense (Noland and Gallagher 1989, 19). There was no division between managers and harvesters as there is with the Western wildlife management by agencies like Division of Fisheries, Wildlife, Game, etc.. The Native system of management relied on extensive historical knowledge of natural history of the area many generations old and from extensive direct personal knowledge. Knowledge came from every aspect of harvesting, travelling, searching, hunting, skinning, butchering, and eating (Usher 1986(a), 3). Every individual added to the reservoir of knowledge by sharing constantly with each other all aspects of the harvest, preparation, storage, and

consumption.

The regulations of the system were expressed through a collection of unwritten rules governing Native hunting, fishing, and trapping. Compliance was based on cultural values, ethics, and taboos (Osherenko 1988(a), 93). These beliefs and values linked the participants with the natural order of the resources that the harvesters depended on. The Native system did not dichotomize between the human world and the living natural world, rather it linked them together into a religion.

Traditional Eskimo culture revolves around the hunt, the family, the community, and the survival of the Native society -- all of which depends on the success of the hunters (Gallagher 1974, 29). According to Burch, a successful caribou hunt requires: "(1) a thorough knowledge of the habits of the prey species, (2) an accurate assessment of the current situation with respect to both the prey species and current climatic conditions, and (3) the ability to get to the target area at the right time" (1972, 346). The hunt itself was only one part of the entire Native subsistence lifestyle and successful hunts largely depended on the cultural rules organizing production, distribution, and consumption of the resources.

The Native subsistence system operated according to complex codes of participation, partnership, and obligation (Berger 1985, 56). The subsistence activities created a complex network of associations, rights and obligations. According to Berger, "This network both reflects and recreates the social order and gives meaning and value to each person's contributions and rewards... " (1985, 52). Native leaders were the "good hunters" who shared their harvest (Ibid.). Leadership depended on earned respect and consensus, not on authority and coercion. Natives living in harsh environments had to work together and share their efforts (Nelson 1969, 378), or else starvation and death would result.

Leaders in the Eskimo culture were called Umialiks, headmen or wise men (Spearman 1979, 5). Leadership and its authority within the group were based on the greatest acquisition of knowledge and the ability to use it effectively (Usher 1987, 7). Each band had at least one Umialik who directed the communal hunt, served as political and legal authority, and was also charged with defense against outside enemies (Pospisil 1964, 397). The umialik's position of power was held in a "subtle, almost imperceptible way and exerted his influence in organizing and informally controlling activities such as

the large [Nunamiut] caribou drives, trading expeditions, and extraband relationships" (Hall 1984, 341). His continuing power depended on the acquiescence and support of the rest of the band (Gubser 1965, 180).

Eskimo society was built without formal laws or punishment, without courts and prisons (Gallagher 1974, 38). Control within Eskimo society was enforced generally by non-violent means. If an individual committed a crime against the band, the group would ignore him or shun him. Eskimo settlements were isolated and individual Eskimo needed the support of family members and fellow Eskimos to survive in the Arctic. With the Nunamiut, the umialik would try to settle the incident before the extreme penalty of shunning by appealing to the wisdom of past settlements and by appealing to the individual's sense of shame and moral principle (Gubser 1961).

Harmony between Nunamiut bands and other North Slope bands was maintained through intermarriage, partnerships between leaders, and verbal admonishment or mild advice (Angell 1983, 12). Nunamiut, and Eskimos in general, do not disagree with one another openly, or issue orders, qualities helpful in avoiding conflict (Nelson 1969, 380). In Nunamiut society the extended family functioned as the basic unit of economic

production and consumption; the planning process for hunts, moving, and other major events were made in common, with the decisive role being played by the head of the group (Pospisil 1964, 412).

Nunamiut' actions and beliefs formed the core of their relationship with the natural resources surrounding them. Their harvesting activities were both intensive and extensive, and highly variable, shifting from one area to another according to resource availability and abundance. According to Lopez, the pre-ANCSA Eskimo hunter focused not on killing animals "but [attended] to the myriad relationships he understood bound him into the world he occupied with them. He tended to those duties carefully because he perceived in them everything he understood about survival" (1986, 200). The Nunamiut maintained a relationship with the land based on the concepts of freedom and equality:

...unrestrained by foreign laws, unaffected by decisions of distant governments. Ethics and rules derived from their own culture and economic system, and they prove most viable in a world remote from the distant Outside. Perhaps nothing is more valued by the Native villagers that their identity as Eskimos and their inviolate freedoms on land they assum[ed]... under their guardianship (Anderson 1977, 633).

The Nunamiut believed animals had the ability to reason and talk and if not treated with proper respect would not allow themselves to be harvested, a tenet of

Native religion (Hall 1984, 343). Great respect was given to wildlife and its habitat. Because of their religious beliefs the Nunamiut did not enjoy killing something just to show marksmanship or to gain a feeling of power (Gubser 1961, 374). Any activity which resulted in waste or limited availability of resources was strictly avoided.

The Nunamiut claimed no dominion over the natural world or its creatures. There was no need to have formal management plans for wildlife and its habitat because wildlife and the environment would take care of itself. Wildlife was provided for those who showed proper respect and honored the established taboos. Traditional Eskimos believed that the abundance and availability of wildlife was a result of the individual animals killed being treated with respect (Noland and Gallagher 1989, 19). Proper respect and taboos allowed for regeneration of wildlife populations. Usher summarized the Native traditions of wildlife management philosophy and style as an, "indigenous tradition [which] emphasizes consensus on the basis of pooled knowledge, flexibility in response to immediate conditions, management practices such as land rotation or sanctuary, and enforcement by means of gossip, ridicule, and avoidance" (1986(a), 108).

ANCSA's passage did change some of the Nunamiut's relationships with the land. ANCSA changed the unfenced local commons into a maze of different property ownerships, one being Nunamiut. The Nunamiut received surface title to some of the land immediately surrounding the village with the subsurface title going to the parent Arctic Slope Regional Corporation. The Regional Corporation also gained surface and sub-surface title to additional surrounding lands. The Nunamiut used the remaining land for subsistence; it was being reviewed for inclusion into National Park status. The change of land ownership brought new institutions the Native corporations - the village Nunamiut Corporation and the Arctic Slope Regional Corporation (ASRC) and the NPS - to manage land the Nunamiut had used for thousands of years. The Native Corporations, based on the Western corporation model, looked to resource development to satisfy corporate goals and strongly contrasted with the Native tradition of resource protection (Gallagher 1974, 9). The village and regional corporations and their not-for-profit corporations' need for leaders stretched thin the Native leaders available.

Subsistence was still important, especially to villagers far from Prudhoe Bay and Barrow, the centers of oil development, new borough government, and

headquarters of the regional corporation. Village shareholders expected the regional corporations to continue to protect the traditional ways of subsistence and the ancestral lands (Berger 1985, 37). However, subsistence soon conflicted with the resource exploitation of Western-style Native Regional Corporations.

An individual Native village represented a minority in the overall regional voting process of a stockholder corporation and had little power to use against development that might be harmful to his way of life or resources. Besides, small-village residents following the Native tradition of controlling inter-band violence through consensus, avoided open disagreements. And if disagreement was strong enough, the one disagreeing would be speaking against uncles or cousins, another taboo of Eskimo society. It was very difficult for Natives to separate business dealings from the individual's status within an extended family.

Two examples of this conflict between corporation profits and protection of subsistence happened between the Nunamiut and ASRC with oil exploration. The first example occurred in 1979 when ASRC did exploratory drilling for oil in lands north of the village. In the minds of Nunamiut this affected the critical caribou

migration through the pass (Hench, Stenmark, and Tuck 1979, 36; U.S. Congress. House. Subcommittee on Fisheries and Wildlife Conservation and the Environment. Report No. 96-4. 1979, 188). If the drilling produced a productive oil field and development of the field ensued, direct conflicts with subsistence protection would have happened because of the access/utility corridors necessary for development (Spearman 1979, 136).

The second conflict came about with the 1983 land exchange between the Department of the Interior and ASRC. ASRC exchanged lands it owned around Anaktuvuk Pass to protect Nunamiut subsistence, for land and the resource development rights in the potentially oil rich lands in the Arctic National Wildlife Refuge coastal plain. The exchange resulted in placing the protection of subsistence resources near the village in the hands of the NPS.

Many in the village knew nothing of the exchange. Harry Hugo, past mayor of Anaktuvuk Pass expressed his disappointment about the land exchange and ASRC in a newspaper article by saying, "My feelings is that ASRC's sense of values is in money and wealth. My sense of values is in the land; we need the land for our subsistence" (Hess 1987, 11).

Soon after the passage of ANCSA the North Slope Borough (NSB) was established. The NSB became the largest regional municipality in the United States with a land base covering approximately 88,000 square miles, and encompassing eight villages, the Prudhoe Bay oil complex, and other major potential energy sources (Wickersham and Flavin 1983, 500).

With more than half of the lands within the Borough owned by the Federal government in portions of two national parks, a national wildlife refuge, and the National Petroleum Reserve, the NSB written policies concerning these Federal lands represent a carry-over from the traditional way of viewing the natural world. The NSB Comprehensive plan states:

Conservation designations, such as refuges or ranges, may be positive with regard to subsistence to the extent that they preserve habitat. But to the extent that they encourage tourist and sport hunting and fishing uses, they can create only negative effects on the subsistence resource base (Wickersham and Flavin 1983, 193).

The NSB plan also has a goal concerning the competing policies and priorities of Federal, State, local, and private interests: "To preserve opportunities for traditional activities and the Inupiaq character of life in the North Slope Borough regardless of ownership and jurisdictional boundaries" (Ibid., 5). The recreation and tourism policies of the plan established subsistence

as a first priority and discouraged any growth in recreational or tourism activities which would undermine subsistence (Wickersham and Flavin 1983 , 25).

The continued importance of subsistence with the NSB is evident by the objectives, goals, and policies in the Borough's New Comprehensive Plan (Wickersham and Flavin 1983, 29):

- To give subsistence use first consideration in evaluating use development
- To afford subsistence use priority over commercial, sport or recreational use.

The plan plainly stated the specific concerns of its residents, "Because of their dependence upon subsistence resources, North Slope residents are concerned with development impacts such as: Impacts on caribou migration, habitat, and calving grounds; Disruption of subsistence activities; and Competition for subsistence resources" (Ibid., 5). In 1985, North Slope Borough Mayor George Ahmaogak testified before the Subsistence Resource Commission of Gates of the Arctic National Park the commitment of the Borough and his office to protect subsistence rights in Gates of Arctic: "We will not, I assure you, stand by and allow subsistence rights of any [of] our residents be diminished by bureaucratic misinterpretation of law or by their studied indifference to our rights" (Ahmaogak 1985, 4).

The passage of ANCSA and ANILCA changed the map of the Arctic slope to a patchwork quilt of different land owners, each with its own agendas and missions. The addition of Native corporations and a borough government created more layers of bureaucracy for the North Slope residents to live with. On top of this were overlaid the missions and goals of the NPS and U.S. Fish and Wildlife Service, the increased visits of tourists, and increased drive by international oil companies to find and extract the oil found under the frozen arctic tundra.

New laws and rules covering all of their activities especially subsistence were now being enforced despite the conflicts with their traditional way of doing things. Anaktuvuk Pass did not appreciate the new laws and increased enforcement but "they do reluctantly live by them, despite the fact that it would be virtually impossible for anyone from outside the community to come into this rugged country and enforce anything on them" (Hess 1984, 11). New governments, laws, and Federal land managing agencies and their changes alone were massive enough to cause tremendous anxiety and fear among a people who, less than forty years earlier, were nomadic and living off the land. These changes came as a package including new technology which linked them to the rest of world by satellite with television and

telephone communication. The flood of oil money into the village economy purchased new, modern, oil-heated, ranch styled homes, and other items like snowmobiles, three-wheelers, ATVs, and rifles. Some predicted that the influx of massive amounts of money and employment on the North Slope would spell the doom of Native subsistence there. The prediction has not yet come true. The increase in cash was used to increase the efficiency in subsistence which allowed the user to maintain his traditional cultural ties to the land, and at the same time to participate in the modern world through cash employment.

Cash employment became necessary to survive in a village setting. In order to maintain Native cultural identity and status, anything that would increase hunting effectiveness within the limited time available with full-time employment was sought out and utilized, a continuation of the Native tradition of adapting to new technology. Changes tend to be accepted into a culture when they are compatible with existing norms and values. Changes in material or technological items are usually more readily accepted than changes in norms and values (Robertson 1981, 76).

The Nunamiut of Anaktuvuk Pass were no longer guided by Native management philosophy and style alone.

They were also guided by land management plans, Borough and NPS plans and policies, and external pressures for exploiting the resources there for energy development and premier wilderness quality (North Slope Borough Contract Staff 1979, 17; Gallagher 1988). Thus, Natives needed to be able to influence agency managers and planners in order to protect their subsistence lifestyle for future generations (Noland and Gallagher 1989, 18).

The Native cultures of Alaska and the Nunamiut of the Brooks Range have historically shown that subsistence activities and pristine lands can co-exist. The fact that pristine lands exist today is "testimony to the respect with which Alaska Natives and other rural residents have treated them" (Shively 1981, 21). The Nunamiut, like the Koyukon Athabaskan, have created no monuments, they "have left something that may be greater and more significant as a human achievement. This legacy is the vast land itself, enduring and essentially unchanged despite having supported human life for countless centuries" (Nelson 1983, 246). Nelson, in his earlier writing of Tracks in the Wildland, A Portrayal of Koyukon and Nunamiut Subsistence, explained how the Natives of Alaska were able to leave this land legacy, "Only because these Native inhabitants nurtured it so well do we have this great legacy of land to preserve

today" (Nelson, Mautner, and Bane 1982, 199).

Definitions of Wilderness and Subsistence

The natural world is not perceived directly by the senses but:

...is perceived by the mind through the medium of the senses. Thus reality in nature is not just what we see, but what we have learned to see (Nelson 1983, 239).

Both parties during early park planning thought they had agreed over the definitions of wilderness, subsistence, and national parks.

Wilderness.

1. Western View.

Wilderness is about as hard to define as ecosystem, virtue, or progress. What is meant depends on who is talking (Schoenfeld and Hendee 1978, 82).

Defining wilderness requires understanding the American habit of romanticizing the environment and man's interaction with it. Romanticizing aboriginal and frontier lifestyles and landscapes often influences what Western society believes "wildlands should have been like (in the mind's eye) more than it values what was actually present and functioning in former days" (Bratton 1985, 128). Wilderness is "a feeling about a place, part of the geography of the mind.... a state of mind evoked by a state of nature (Nash 1979, 39) (emphasis added). Wilderness provides:

...an opportunity for detachment from the submissiveness, conformity, and mass behavior that dog us in our daily lives; it offers a chance to express distinctiveness and to explore our deeper longings (Sax 1980, 42).

In the 1900s wilderness was equated with a new religion, a church of nature because "nature embodies moral law and spiritual truth, then wild nature provides the most direct link to the deity" (Nash 1982, 268).

"Wilderness was the last refuge of religion and humanities against dread positivism and technology" (Chase 1986, 324). As Brower states wilderness to many represents a refuge against dehumanizing Western technology:

Those of us who love the wild regard it as sacred - nothing poses a more blasphemous threat than a new road, an oil rig, a snowmobile, or even the possibility that somebody else might go where we have been. (1971, 148)

Wilderness was the baseline used to judge man's effects on the environment, a primeval starting point where civilization had not changed and destroyed the natural settings which afforded an important opportunity to witness ecosystems as they evolved outside man's influence (Hendee, Stankey, and Lucas 1978, 11, 14; Nash 1982, 257). Hartzog, former NPS director, lists the benefits of wilderness:

In our rootless, restless society, huddled together

amidst the sterile plastic and concrete environment of congested urban centers, we need a sense of place in which to discover Who am I; a special place that is as constant as love as never - changing as the cycle of the seasons... as exhilarating and re-creating as freedom (1988, XV).

Wilderness benefits come from the feelings of solitude, freedom, discovery, adventure, challenge, and self-reliance, essential products of the wilderness experience (USDOI/NPS 1988(b)). Experiencing wilderness has more to do with the "attitude of the visitor than the realities of history and geography" (Nash 1982, 16). It has more to do with the user's attitudes than either the activity itself or its setting (Sax 1980, 33).

The environmental movement influenced preservationists with the "opinion that human beings were disruptive and therefore were an 'unnatural' presence in wilderness areas" (Runte 1987, 199). Mills, a NPS subsistence researcher, discovered managers had the same opinion when he found, "Questions exist among managers whether human predation of park wildlife by local residents should be considered a natural part of the park ecosystem" (Mills, D. 1987, 2). Portman draws a similar conclusion after reviewing draft GMPs for Alaskan national parks:

...the Park Service appears to adopt the absolutist wilderness - naturalist philosophy that is based upon the assumption that whatever is touched by the hand of man is a blight upon the natural order

(1985, 11).

This bias against humans exists despite Congressional understanding that "subsistence uses by local rural residents have been, and are now, a natural part of the ecosystem serving as a primary consumer in the natural food chain" (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413. 1979, 171).

The prevailing NPS philosophy of "nature is good and civilization corrupt" (Chase 1986, 36) has caused serious problems for NPS managers. Following this philosophy caused a split between the NPS missions of natural ecosystem preservation and cultural preservation. This split was noted during the change from the planning to the management phase in Alaska:

...found principally in the Alaska Planning Group and the Task Force -- who were sympathetic with the belief that lifestyles based substantially on hunting and gathering did not have to die. They felt the cultural mission of the Service conflicted with management systems that favored acculturation instead of the opportunity for the continuation of traditional values. They believed that parks and traditional subsistence might co-exist since parks and refuges could protect large blocks of habitat... (Pepper 1986, 1).

Alaskan national parks were established to preserve both their natural integrity and cultural diversity. NPS policies and actions were to be innovative, building on the best of the traditions of the NPS and on the traditions of Alaskan Natives (Willis 1985). Because of

the prevailing wilderness definitions which excluded humans from the management equation, and the traditional NPS philosophy against the harvest of game within parks, a bias against the consumptive aspects of subsistence resulted despite subsistence's long history in these untrammelled wilderness areas.

2. Native View. To Native cultures, wilderness was an alien concept, a white man's term to Chief Luther Standing Bear of the Oglala Band of Sioux:

Only to the white man was nature a "wilderness" and only to him was the land "infested" with "wild" animals and "savage" people. To us it was tame (McLuhan 1971, 45).

The concept of wilderness in Alaska was, "ethnocentric to the point of being insulting" (Brown in Nash 1982, 277). An ethnocentric example comes from Robert Marshall's description of the Gates of the Arctic, "There were no musty signs of human occupation.... an unbeaten path" (1970, 49). This description ignores the long history of aboriginal use. According to Nelson, Mautner, and Bane wilderness exists because:

The fact that we identify Alaska's remote country as wilderness derives from our inability to conceive of occupying and utilizing land without altering or completely eliminating its natural state. But the Indians and Eskimos have been living this way for thousands of years (1982, 296).

Kassi's statement at the Alaska Environmental

Assembly Conference, Fairbanks (3-14-89) states the Native's place with wilderness, "We are part of the wilderness, the indigenous [people] are part of the wilderness." Natives learned to survive from nature's bounty without destroying wilderness qualities. The North American conservation movement began after the great flocks of passenger pigeon disappeared and the vast numbers of Great Plains bison were reduced. Usher claims that in no case did indigenous societies' subsistence lifestyle cause this scale of destruction (1986(a), 5). Natives commend American society and the NPS' concern to save wilderness for its beauty, wildlife, and outdoor adventure, but "Natives have held that concern to their hearts for centuries... they have done so because that concern was essential to their survival" (Zilys 1985, 2).

Wilderness has been described as an empty landscape, providing beauty and excitement for the user because it is devoid of man's influences. Beauty for the Eskimo comes from the land's promise of "richness and activity, its ability to reward the quest for food" (Anderson 1977, 65). Land is not an abstract thing but a place to live and harvest nature's bounty. The NPS handout on Anaktuvuk Pass addresses the different way the Nunamiut see the land:

Local residents may not understand the wilderness values and recreational pursuits that may have motivated your visit. The concepts of seeking out an opportunity for backpacking or 'roughing it' for pleasure may be quite foreign. To them, these experiences are a part of everyday life with which they must deal (USDOI/NPS 1984, 2).

Nash lists Native cultures as one of Alaska's eight wilderness appeal components (1981, 2) but Native cultural appeal is based on a romantic view of Native cultures, which severely limits the definition of "traditional" as perceived by outsiders who do not want cultural evolution and change. An example of this view appears in Nash's criteria for allowing subsistence in wilderness areas:

- One. If they want to be subsistence, they should be subsistence, not be working for an oil company
- Two. Damn it, if you want to be traditional, do it with traditional means, no rifles, no snowmobiles!
- Three. It must be generational... (8th Annual Alaska Environmental Assembly Conference, Fairbanks. 1989).

Nash's subsistence criteria, according to Nelson (personal communication) represents the feelings of eighty percent of American users. A Native leader shared his feelings about Nash's subsistence criteria: "They just don't understand what subsistence is all about. They don't understand Natives."

The basic difference between Native and non-Native wilderness definitions comes from who benefits. In

wilderness the individual's experience is paramount, "an opportunity for detachment from the submissiveness, conformity, and mass behavior that dog us in our daily lives; [wilderness] offers a chance to express distinctiveness and to explore our deeper longings" (Sax 1980, 42) (emphasis added).

Wilderness land benefits the Nunamiut community, not the individual. Personal reward is looked down upon in Nunamiut society because it does not make for the harmony and consensus necessary for survival in a hunting and gathering society. Nunamiut leadership depends on who provides successfully for the community, not on personal wealth. Submissiveness, conformity, and community (mass) behavior are the corner-stones of a hunting and gathering Native society.

Both Nunamiut and wilderness users need the same resource but the Nunamiut need those resources to survive physically, socially, and culturally. The Nunamiut's deep attachment to the land is evoked in Anaktuvuk Pass eighth grader, Cheryl Kaigelak's statement: "[You] can't take us out of the land" (Interview 2-23-88).

Subsistence. Subsistence definitions come in three basic forms: economic, legal/political, and cultural (Langdon 1984, 97). Popular subsistence definitions

include the extreme one of poverty-level existence, one which rejects any use of cash and would limit subsistence harvesting to "primitive" methods such as spears, bows and arrows, and handmade nets (Fall 1987, 3-4; Kelso 1976, 631). The definition problem relates to the cultural differences between the definers and users of subsistence. Bane pointed out the Native's subsistence definition problem: "I have yet to hear a Native word for subsistence" (Alaska Interagency Wildlands Management Workshop, University of Alaska Fairbanks. 1989).

During the darkest days of their relationship with the Nunamiut the NPS (1985) realized that subsistence meant something different to the Nunamiut. Pepper asked one of them what subsistence meant and was perturbed by the reply: "Everything I do is subsistence" (Pepper Interview 10-11-88). Kelso, testifying before Congress, explained the Native user's meaning of subsistence:

...[Natives] opt for a subsistence livelihood, not just because it gives them the food they most desire or allows them to live where they most prefer, but also because it permits them to be what they value most as human beings. Their sense of identity as Eskimos is fundamentally dependent upon living as hunters and gathers. If they lose their subsistence lifestyle they are no longer "real Eskimos" (U.S. Congress. House. Subcommittee on General Oversight. Report No. 95-16, 1977, 284).

Subsistence is a new word for an old worldwide

activity referring to:

...those economic activities (hunting, fishing, gathering, farming, herding, crafting, trading, and so on) which are relatively self-contained within a community or region which are conducted primarily for present consumption and which are governed by traditional patterns rather than market conditions or immediate needs (Lonner 1984, 43).

Subsistence links and holds Natives together in a complex network of associations, rights, and obligations. It gives social order and value to each individual's contribution (Berger 1985, 52). The Eskimo value system determines behavior and meanings based on the utilization of natural resources provided by the land and a deep attachment to the land (Wickersham and Flavin 1983, 143). Brown and Kunz recognized the Nunamiut's close relationship to the land:

...as [a] source and sustainer of their lives. Land is the heritage, and what they do on that land --as communities, families, and individuals -- is their culture. (1986, 14)

Closeness to the land according to Langdon comes from:

capturing, processing, distributing, celebrating, and consuming naturally occurring fish and animal populations that subsistence societies define the nutritional, physical health, economic, social, cultural, and religious components of their way of life. (1984, 3)

The Nunamiut meaning and cultural significance of subsistence was affirmed during the 1981 CFR process:

...subsistence hunting is basic to our health. It

gives us the real "soul food" that not only feeds our bodies, but nourishes the feelings we have of our meaning as Inupiat people (Caldwell 1985, 4).

Subsistence remains important to the Nunamiut because of its value as a cultural consonance (Weeden 1985, 120) which makes the other stresses of life far more tolerable.

Subsistence might be defined as "...the art of integrating human life with living wilderness... a rare example of the integration of economic and cultural life with environmental ethics" (Meeker 1986, 30). Nelson reveals the basic difference between Western and Native relationships with wilderness land:

[Subsistence activities] are a means of acquiring food, of going about the serious business of life, not a source of recreation... The difference between Inupiat and Euro-American values relating to these pursuits [wilderness and subsistence] was expressed by a Native Alaskan... 'For us this land is the supermarket; for them it's the playground'. (North Slope Borough Contract Staff 1979, 35)

Management Implications. Congress establishes a wilderness, and definitions of the resource values unique to the wilderness area help focus attention to these values, but resource management determines what will be protected. GANPP's wilderness and subsistence management is influenced by management staff's definitions, NPS mandate, policies, and by other key word definitions like "natural and healthy" and

"traditional and customary."

1. Wilderness. Wilderness management is essentially the management of human use and influence to preserve the inherent wilderness criteria of solitude, self-reliance, independence, and naturalness (Hendee, Stankey, and Lucas 1978, 6; Kaye 1985, 1). The central wilderness management ideal is "not to mold nature but to manage direct and indirect human influences so as to minimize their impact on natural processes in wilderness" (Schoenfeld and Hendee 1978, 96). The desirable goals of wilderness are to "preserve the level of naturalness in each area; to seek restoration of wilderness values where necessary, and to protect the degree of solitude offered visitors" (Schoenfeld and Hendee 1978, 42). NPS wilderness management challenges are to preserve the natural processes and:

...should intervene only to the extent necessary to counteract the unavoidable effects of past mistakes, the impacts of currently accepted human use, beyond those that primitive man might have exerted... Most of our management must be of people, and their effects on Park ecosystems (Ibid., 106).

This wilderness management equation includes primitive man in shaping wilderness landscapes.

Wildlife is a measure of wilderness quality, an inseparable part of the composite wilderness resource, an environmental baseline, and one of the lures of

wilderness. The overall objective of wildlife management in GANPP is to "maintain natural and wilderness conditions, environmental integrity, and the dynamics of natural processes operating within the park and preserve" (USDOI/NPS 1986(b), 98). ANILCA and other laws (16 USC 1) mandate that the NPS maintain the natural abundance, behavior, diversity, and ecological integrity of native animals through baseline research and management of "human uses and activities that affect such populations and their habitat, rather than the direct management of resources" (USDOI/NPS 1986(b) 98-99). The wilderness management operative phrases are "natural and healthy."

A concise definition of "natural and healthy" does not exist. Nevertheless GANPP's wilderness management which includes subsistence management (Section 815), must maintain "natural and healthy" standards. The GMP describes natural and healthy as encompassing:

...the natural abundance, behavior, diversity, and ecological integrity of native animals as part of their ecosystem, but it is difficult to measure and apply. The development of criteria for maintaining natural and healthy populations will depend on gathering more information. (USDOI/NPS 1986(b), 101)

ANILCA's Congressional deliberations addressed natural and healthy by stating:

The National Park Service recognizes, and the

Committee agrees, that subsistence uses by local rural residents have been, and are now, a natural part of the ecosystem serving as a primary consumer in the natural food chain. The Committee expects the National Park Service to take appropriate steps when necessary to insure that consumptive uses... within National Park Service units not be allowed to adversely disrupt the natural balance which has been maintained for thousands of years. Accordingly, the Committee does not expect the National Park Service to engage in habitat manipulation or control of other species for the purpose of maintaining subsistence uses within National Park Service units. (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413. 1979, 171)

GANPP staff were asked to define "natural and healthy." Both the Superintendent and the Resource Management Specialist replied that there was no definition. The Superintendent related,

There is no good definition of natural and healthy. The only thing that relates to it is Congress did say we will not manipulate the habitat, we will not manipulate one specie to benefit another. (Siglin Interview 5-11-88)

The Resource Management Specialist related NPS' internal concern about defining the terms:

There's lots of talk going on in the Park Service, in the region and nationwide... as to whether we should try to define it. Should we put in writing or should we leave it to be a more subjective kind of thing... Do you define it as what it is not, or do you define what it is? (Alderson Interview 5-12-88)

The definitions of "natural and healthy" play are critical to GANPP management and to the future of

subsistence. NPS' subjective definitions, resistance to consumptive uses, and overall management philosophy may place subsistence at risk with changing park staffs. The risk becomes apparent with the following management team member's logic:

The way we have looked at them [Nunamiut] is as a part of the legal system. That they are granted the opportunity for subsistence by law but it is couched in the terms it not affect the natural and healthy populations. If you look at it that way they can be regulated, so they can't be considered totally a natural part of the ecosystem. (Alderson interview 5-12-88)

During the GMP process and ATV discussions others have requested that "natural and healthy" be defined. Even as early as 1981 Jeffery of the Alaska Legal Services asked:

It would be helpful if definitions of "healthy populations" and "natural and healthy populations" of fish and wildlife were included in the regulations. It should be made clear that such determinations should only be made after close consultation with local and regional advisory committees... (Jeffery 1981, 4)

The State's Citizens' Advisory Commission on Federal Areas draft GMP review addresses the NPS' dilemma regarding what is "natural:"

If "natural", in the GAAR [GANPP], includes a human population that has hunted and moved freely for 10,000 years... then the "natural" animal behavior and abundance become altered when those activities are limited or foreclosed. It could be argued that the concept of the park itself, with its regulatory requirements for subsistence users, that pose

limits on their freedom and ease with which they have traditionally hunted and moved is the "unnatural" element and thus contrary to National Park Service maintenance of its own concept. (Leaphart 1985)

NPS' "natural and healthy" standard appears to ignore Alaskan Natives' long history as a part of the natural ecosystem that maintained the "natural and healthy" balance and focuses on the means of harvest. It reflects the preservationists' naivete:

...that native cultures, like park environments, could be maintained at a fixed approximation of their appearance at some earlier and more ideal period of history. (Runte 1987, 239) (emphasis added)

Hall, Gerlach, and Blackman summarize the Nunamiut defense of being part of the natural and healthy equation:

Despite... intense predation, natural and healthy populations of wildlife have persisted, or else humans would have abandoned the area long ago, and they continue to exist, or Inupiat would not be living in Anaktuvuk Pass today. (1985, 12)

To meet the "natural and healthy" standard requires that the GANPP staff acquire a firm database to develop subsistence policies (Park Superintendent 1986(b), 15). Obtaining reliable, quantifiable harvest data continues to be difficult because:

...the efforts by the National Park Service to promulgate restrictive regulations have resulted in a deterioration in relations between resource

management agencies and rural residents around the parks (especially Gates of the Arctic National Park) which is jeopardizing their ability to carry out Section 806 mandates for collecting subsistence information. Rural residents increasingly hesitate to cooperate with subsistence studies, and to provide information voluntarily on their customary and traditional subsistence uses, because of a growing distrust toward National Park Service intentions. (USDOI 1985, VIII-13)

GANPP Resource Management Specialist comments show the "catch 22" of the subsistence data:

...not knowing [harvest levels] forces us, the Park Service, into a position of being far more restrictive because of our mandates to protect, than if we have data... If we cannot get those numbers then the unknown is more frightening, more frightening to us. It is hard [to manage], but that's where you draw on the management expertise and the background of people who have been around parks who understand what parks are and what they should be. They can make fairly good decisions based on those 'gut' reactions. (Alderson interview 5-12-88)

Alderson's response points out clearly how NPS' inconsistent and subjective wilderness management may possibly risk resource management and subsistence over the long run. Also, the inconsistency may not be conducive to subsistence users' cooperating with resource management. Management without reliable data can result in blind management with costly consequences. The Alaska Department of Fish and Game, Division of Subsistence collects subsistence data upon request but has not been asked to collect Nunamiut subsistence data.

If requested they might well refuse because the Nunamiut hostility would taint the data's validity (Personal communication with Terry Haynes of State Subsistence Division).

Many authors have commented (Usher, Dasmann, Bane, Nelson, Brown and Kunz, Caulfield, Chase, Davidson, Feit, Berger, and Hall-Gerlach-Blackman) that Alaska's conservation lands are too remote and large for conventional enforcement to be effective and require a "basic level of local support" (Kelso 1976, 368) for effective management. The NPS' "restrict now, study later" (Caldwell 1986) approach needs to change to achieve the flexibility needed to manage the GANPP. The present superintendent's open approach with the Nunamiut is a step towards developing a cooperative relationship based on trust.

2. Subsistence. Wilderness quality standards directly influence subsistence by controlling access, impacts, and maintaining NPS' "natural and healthy" mandate. The Alaskan wilderness support groups are sympathetic to subsistence needs in wilderness areas and supported ANILCA's subsistence section. Rogers, director of Northern Alaska Environmental Center, reflects the Alaskan wilderness support groups' view on subsistence:

We concur with the [GANPP Subsistence Resource] Commission's view that subsistence hunting is 'a natural part of the ecosystem' but only to the extent that subsistence hunting is continued in a traditional manner at historic levels. If there are significant changes in access methods and patterns or numbers of subsistence users, subsistence use will go beyond what can be considered a "natural part of the ecosystem." While undue restrictions on subsistence users may undermine the long-term viability of the way of life, inadequate restriction and overuse will destroy it. (Rogers 1986)

The basic fear that wilderness supporters and NPS have of subsistence in wilderness areas rests with their worldview of nature in which man, even aboriginal man, does not fit. This fear manifests itself with their principal dissatisfactions with ANILCA permitting:

...noncompatible activities in protected lands.... concern over the use of legal and defacto wilderness in the national interest lands for subsistence hunting, fishing, and gathering... the use of snowmobiles, motorboats, and complex rifles by modern-day hunters and gathers. (Nash 1982, 302)

The wilderness supporters' cautious comments show an inherent lack of trust of the ability of Native people equipped with modern technology to protect the natural environment from destruction despite the long history of successful Native stewardship. The concern for wilderness protection, like wilderness itself is "ethnocentric to the point of being insulting" (Nash 1982, 277).

The ANILCA deliberations grappled with the issues

of wilderness, subsistence, Native cultures, and Alaska's economic development. The different legislative bills had different purposes for GANPP with local communities, Native groups, and corporations.

These groups supported an early House bill which included the purposes of subsistence as well as the purpose of maintaining wild and undeveloped character, solitude, etc. (Barber 1985(b)). The Senate version which passed into law deleted subsistence as a GANPP purpose but included subsistence as a purpose of Kobuk Valley National Park, Cape Krusenstern National Monument, and Bering Land Bridge National Preserve with the phrase "to protect the viability of subsistence resources" (P.L. 96-487; Caulfield 1988, 57).

Representative Morris Udall, drafter of ANILCA legislation, requested that subsistence be a purpose for all parks:

I would strongly suggest that in establishing regulations for the management of each of these areas, the Secretary of the Interior designate subsistence uses by local residents as a specific purpose of each park and park preserve. To do any less would be inconsistent with the longstanding representations which the Secretary, the National Park Service, and the House Interior Committee, have made to the Alaska Native residents of areas within or adjacent to these new areas.
(Congressional Record 11-12-80 H10547)

Caulfield postulates, "Political compromises with environmental advocates led to simply 'permitting'

subsistence uses" (Caulfield 1988, 57) in GANPP. The justification for subsistence as a purpose in certain areas rested on the basic mission of the national park. Belous, a NPS planner during the drafting of ANILCA explains the justification process:

First of all, subsistence is not pervasive throughout all units and all acres in individual units... a good deal of consideration being given to just how the existing degrees of subsistence within Park Service units would be accommodated without changing the basic mission of management. You see if you were to direct that subsistence through legislation be a purpose of the park, that gives it far different weight in a National Park system where consumptive uses by tradition and history are not part of the management of resources... number one, it would drastically change the mission, the basic operating mission of the managing agency... (Phone interview 11-28-88)

Belous went on to explain the degree of protection afforded conservation units with protection of subsistence resources and those without:

...the difference would be in times of shortage, the human need being more intense with fewer resources to depend upon in places like Kobuk, more intensively used, smaller in scope, that the purpose of subsistence management would include such things as... allowing access to subsistence users and denying access if the need arised for non-subsistence users so you limit competition... wildlife management would extend, would be more elastic toward the subsistence needs. That is we might be able to absorb a greater impact or be able to absorb a greater impact when needs are most intense... (Ibid.)

Congress suggested the use of subsistence zones in GANPP wilderness to protect wilderness qualities and

because they believed that the subsistence patterns of GANPP were well known but:

It is not the intent of the Committee that these drainages be considered the only places where subsistence hunting in the park to [be] traditional use areas. A park subsistence resource commission established by this Act will help further determine or modify these areas. (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report 96-413. 1979, 147)

During the final days of ANILCA's passage Representative Udall requested:

...the Senate bill intends to permit subsistence hunting only within certain subsistence zones within the park. I have reservations about this concept because I am uncertain if data presently exists which is definitive enough to enable the National Park Service to say with any degree of confidence that subsistence hunting has or has not traditionally taken place within a certain area. Consequently, if the subsistence zone concept is to be applied to any park areas, fundamental fairness seems to require that the designation and boundaries of those zones be made by the subsistence resource commissions... rather than by park planners and researchers, and that if there is any doubt as to whether subsistence hunting should be permitted within a particular area, that the decision be made on the basis subsistence hunting should be permitted rather than restricted. (Congressional Record 11-12-80 H10547)

Subsistence zoning depends on the definitions of "customary and traditional" ANILCA terms. ANILCA does not define "customary and traditional" but legislative history addressed these terms as:

..."customary and traditional" is intended to place particular emphasis on the protection and continuation of the taking of fish, wildlife, and

other renewable resources in areas of, and by persons (both Native and non-Native) resident in, areas of Alaska in which such uses have played a long established and important role in the economy and culture of the community and in which such uses incorporate beliefs and customs which have been handed down by word of mouth or example from generation to generation (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413. 1979, 269).

Simple definitions of customary and traditional do not exist. ANILCA's Title VIII was "enacted primarily to protect the lifeways of indigenous cultures with which the lawmakers had little familiarity and which they understood even less" (Alaska Legal Services Corporation 1985, 16-17). Willis predicted the park manager's problems with ANILCA's:

Provisions protecting customary uses on conservation lands -- access, cabins, subsistence -- all seemed to hold promise of future difficulties for managers from all agencies who were given too few, unclear, or contradictory directions for dealing with them (1985, 238).

ANILCA did two things: (1) it recognized indigenous peoples worldwide and their right to remain in the parks, and (2) it recognized that including subsistence in parks was a major philosophical shift from the Lower 48 parks (Brown Interview 11-9-88). Congress determined that subsistence dependent cultures, Native and non-Native, were worthy of protection as were the geological and archeological resources (Shively 1981, 21). Congress

realized the cultural importance of subsistence and also believed that the local rural residents "should have the opportunity to decide for themselves the course, pace, and extent, if any, of their own lifestyle and community evolution" (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413. 1979, 169).

Congress stressed that the Act itself should protect "the opportunity for subsistence uses by rural residents of Alaska, including both Natives and non-Natives" (P.L. 96-487). The protection of "opportunity" becomes a sticky point when it is defined within NPS' definitions of "customary and traditional" especially with access rights in Section 811:

...the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation. (P.L. 96-487) (emphasis added)

Senate Report 96-413 explains congressional intent with Section 811 with the term "traditional:"

...reference to means "traditionally employed" for subsistence purposes is not intended to foreclose the use of new, as yet unidentified means of surface transportation, so long as such means are subject to reasonable regulation necessary to prevent waste or damage to fish, wildlife or terrain (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413. 1979, 275; USDOJ/NPS 1986(b), 124).

The phrase "reasonable regulation necessary to prevent

waste or damage" subjects subsistence to the wilderness quality standards as well as customary and traditional standards. Because of definition problems and NPS traditional management GANPP staff focused on the resources instead of on the resource users, and included them as active resource management players. The staff believed if the resources were protected, then the opportunity for subsistence would also be protected (Alderson, Collins, Pepper, and Siglin interviews). But defining traditional subsistence and acceptable subsistence access became the NPS' nemesis.

Some may read the NPS' "customary and traditional" standards as locking the Nunamiut into a living history museum where their subsistence on park land must be performed according to NPS standards of customary and traditional. Others realized the dynamics of subsistence urged "Congress to encourage Federal and State entities to approach subsistence as a highly variable and rapidly evolving pattern of land use, not as an outdoor anthropologic[al] exhibition" (Statement of Dr. Weeden U.S. Congress. House. Subcommittee on General Oversight. Report No. 95-16. 1977, 181).

Subsistence today is:

...inextricably intertwined with that of the past, woven from the threads of antiquity which both fashioned and constrained a worldview that derives from a holistic understanding of the Arctic

environment and encompasses a wide range of alternative strategies focussed on survival in the most comfortable and rewarding fashion possible. Still, the present Anaktuvuk Pass Inupiat subsistence quest is a unique response to the circumstances of the present. (Brown and Kunz 1986, 66)

GANPP's GMP Appendix N contains NPS definitions of traditional:

...definitions of "tradition(al)" from Webster's Third New International Dictionary of the English Language (unabridged) 1976:

2. The process of handing down information, opinions, beliefs, and customs by word of mouth or by example: transmission of knowledge and institution through successive generations without written instruction...
3. An inherited or established way of thinking, feeling or doing; a cultural feature (as an attitude, belief, custom, institution) preserved or evolved from the past; usage or custom rooted in the past (as of a family or nation); as a (1): a doctrine or practice or a body of doctrine and practice preserved by oral transmission...
- 5.a. Cultural continuity embodied in a massive complex of evolving social attitudes, beliefs, conventions, and institutions rooted in the experience of the past and exerting an orienting and normative influence on the present... (USDOI/NPS 1986(b))

Park managers believe that NPS definitions of traditional and customary provide the criteria to control subsistence access through the identification of traditional users, harvest means, areas used, species harvested, and quantities harvested at traditional

levels (Mills, D. 1987 1). The definitions set subsistence limits at some unstated time in the past to protect the ANILCA prescribed park purposes (Hall, Gerlach, and Blackman 1985, 9). Since ANILCA did not define the terms:

...a national park superintendent, can define "customary and traditional." His interpretation determines who is allowed to subsist in that particular park, unless his opinion is overturned on appeal (Barber 1985(a), 70).

NPS definitions do mention change and evolution. Traditional and customary according to Hall, Gerlach, and Blackman is "the flexibility to quickly apply and adjust to new subsistence tactics appropriate under the prevailing circumstances" (1985, 10).

Subsistence is dynamic and the Nunamiut place a high value on the "ability to move quickly and efficiently from one place to another while gaining the maximum use of the area traveled" (Nelson, Mautner, and Bane 1982, 83; North Slope Borough Contract Staff 1979, 35). Three factors are "absolutely crucial to a continuation of [Nunamiut] subsistence pursuits: mobility; the ability to find suitable subsistence alternatives when primary resources fail; and free access to necessary subsistence resources" (Hall, Gerlach, and Blackman 1985, 80; Gates of the Arctic Subsistence Resource Commission Meeting 1-29-86).

NPS' concern about the methods and means of subsistence runs contrary to the Native subsistence hunter's cultural identity and "what role [subsistence resources] play in the person's livelihood... the means of procurement is less significant than the fact that the game must be procured" (Anderson 1977, 653).

The Nunamiut have incorporated new technologies in their pursuit of subsistence resources. This readiness to:

...adopt technologically superior tools has characterized the Eskimos culture for thousands of years... The fundamental principle is that technology is only the vehicle for subsistence; it does not itself constitute subsistence. (Anderson 1977, 653 & 655)

The least effort principle is followed by subsistence users to expend "no more effort in obtaining the resources necessary to life than is necessary to insure an acceptable level of security" (Amsden 1977, 339). The continued adaptability of subsistence to new technology and Western culture illustrates how dynamic subsistence is (USDOI 1985, I-2). Rogers explains:

...the cultural bond between the Inupiat people and caribou is very deep rooted, and the incorporation of new technologies in subsistence activities does not necessarily lessen the cultural significance of subsistence to the people. (1987, 3)

Technological change does not necessarily mean cultural change (Lenz 1980, A-4). Usher (1979?, 14)

explains:

Many Native people would argue that their hunting rights are limited by the notions of traditional... Northern faunal resources are their heritage to develop and to benefit from, just as our society would never think to restrict its farmers and loggers to the use of archaic technology. They reject attempts to convert their society into a living museum.

The role technology plays comes through with Wolfe's (Research Director of ADF&G Subsistence Division) answers to Wilderness Magazine's questions about Native subsistence:

Question: We see pictures of Eskimos on snowmobiles, and Indians using outboard motors on fishing boats. Many live in frame houses with some modern conveniences. Is this subsistence?

WOLFE: Yes. Technology is only a very thin veneer overlying the heart of the subsistence way of life. Technology often changes over time - for example, from dogs as pack animals, to dogs linked in teams pulling sleds, to snowmachines. These things change. But the underlying core is subsistence as a way of life. The nutritional dependencies, the social dependencies of family networks, and the values and personal identities remain very traditional. (Magdanz 1986, 43)

At some point the use of new technology may go beyond what is culturally traditional and:

...some sort of limits may have to be set for the kinds of equipment that can be used to take animals for subsistence... At some point a line has been passed where a tradition has been left behind, and the preference should be given to those who will use accepted harvest technologies. (Weeden 1978, 139)

This determination should be based on impacts to the

natural, social, and cultural environment of the affected parties. Impact determination and analysis should be conducted with all affected parties involved, with clear definitions, and open communication based on an understanding each others value systems. According to Nelson, Mautner, and Bane (1982), and supported by Alaska Department of Fish and Game Reports (Alaska Department of Fish and Game 1987 and 1988(a),

...modern subsistence hunters do not appear to be wasting their resources as a result of new technology. The amount of game taken to feed a given number of people today is not greater than in the past. (Nelson, Mautner, and Bane 1982, 285)

Subsistence depends on flexibility and anything that threatens flexibility, threatens the very continuance of subsistence itself (Ibid., 24). Regulatory regimes try to confine subsistence activities within a "steel web of exact definitions, exact locations, and exact numbers" (Berger 1985, 67). Precise definitions cannot respond to subsistence's evolving and changing nature. The attempts to define subsistence by direct or indirect definition of customary and traditional characteristically fail

...to account for the historical record which reflects the important survival values of flexibility, innovation, and change. Survival in a subsistence economy depends upon a blend of traditionally proven patterns and an opportunistic eye for improving chances in the hunt. This has always been the case even though the modern Euro-

American concept of subsistence emphasizes the traditional patterns and fails to appreciate the adaptive dimensions. (Schneider 1982, 169)

Defining subsistence is not an issue for subsistence users. For them the issues are:

1) access to resources, 2) competition for scarce resources, 3) acquiring and maintaining the means with which to participate in subsistence, and 4) maintaining a way of life that is important to them. (Ibid.)

3. Conclusion. The NPS' fear of what might go wrong, their tradition against consumptive uses, and their philosophy against incorporating man into the wilderness equation prevents them from accepting subsistence as part of the natural ecosystem and thus causes them to view subsistence as a problem to be controlled and monitored. The history of mistrust and miscommunication between NPS and the Nunamiut has prevented all but limited sharing of Nunamiut harvest information. Fear on both sides has resulted in the loss of valuable Nunamiut natural history as Nunamiut elders die. Nunamiut natural history, according to the NPS' Cultural Resources Management Plan is:

...preeminent not only for informed future management but also to obtain insights into cultural changes in natural resource utilization patterns, and environmental changes/fluctuations which may have been the paramount factor inducing alterations in prehistoric subsistence activities. (USDOI/NPS 1986(c), 2)

Both parties need subsistence baseline data; the Nunamiut to defend their subsistence right and the NPS to monitor their management and achieve its mission and mandated goals.

History of Communication

Reviewing the history of communication between the two groups revealed several incidents which resulted in hostility. However, these incidents appeared to touch only the surface of misunderstanding and miscommunication. Discovering the root causes required analyzing the events and incidents within each party's world view and analyzing key term definitions that are shaped by those worldviews. The following historical outline of events attempts to apply this analysis.

Early Park Proposals. Communication between the NPS and the Nunamiut began in the late sixties with Alaskan field studies for potential National Parks. With the drive to exploit the North Slope oil and the resulting rush to settle Alaskan Native land claims, came the (d)(2) ANCSA provision to establish conservation units (including national parks) in Alaska. Innovative plans were drafted jointly by the Arctic Slope Regional Corporation (ASRC) and the NPS. Ideas were exchanged and a sense of cooperation between the parties existed as represented by the Draft Environmental Impact

Statement of the Proposed Gates of the Arctic National Wilderness Park and Nunamiut Wildlands in December 1973. As indicated earlier, this plan would have created a 7,130,000 acre Gates of the Arctic National Wilderness Park with a 2,390,000 acre Nunamiut National Wildlands, to be jointly administered by the NPS and Arctic Slope Regional Native corporation (USDOI/NPS 1973(a), 1). The Wildlands were to be dedicated to aboriginal cultural uses and primitive types of low density outdoor recreation (Ibid., 33).

The wildlands were to be managed to maintain a primitive environment, a pre-contact environment, where natural processes regulated the ecosystem. Management was also to insure continued subsistence uses while protecting the resources for future generations. Visitor use management within the wildlands would follow interpretive themes which portrayed the relationship of the physical environment to "the cultural environment of prehistoric Arctic Man and present day man with particular emphasis on Nunamiut history and culture" (USDOI/NPS 1973(a), 13).

Two schools of thought were represented in the reasoning behind the Nunamiut Wildlands concept. The first school believed that in order to protect the wildlands and the wilderness park, the Natives,

especially the Nunamiut, should play an active role in area management because of their long history in the area and because of ASRC's direct involvement in drafting the legislation for a Nunamiut National Park. The other school believed the wildlands concept came about:

...because the Park Service had doubts the areas in the center of the park... were appropriate in national park because of the village presence and the amount of land the Natives could select in the area. (Pepper interview 10-11-88)

Whatever the reasoning behind the wildlands concept, it evoked a feeling of involvement among the Native leaders. The NPS was committed to Native participation and joint management, a partnership based on trust and protection of important values of both groups.

The wildlands concept died in the hands of the Office of Management and Budget (OMB) because of the resistance to creating new land management categories or because of lack of strong support by the Department of the Interior during OMB's review (Personal Communication with Kowalsky 1988).

There was a sense of urgency with this and other early plans because of the (d)(2) provision deadline and the need for the NPS to develop an Alaskan support group favorable to park expansion in Alaska. During the 1970's, few Alaskan organizations supported the

expansion of national parks in Alaska. Congress was hesitant to legislate against the desires of the state and its delegation. If the NPS wanted to expand in Alaska, they needed the support of Native leaders.

Pre-ANILCA Proposals. Following the wildlands concept were a series of plans and impact statements representing the more conventional national park where man is considered an intruder. Still within these plans the NPS' was committed to protecting the Nunamiut culture and subsistence. The realization followed that:

Social impacts... of the proposed park will be significant at the local level, but will depend to a great extent on the manner in which the proposal is implemented, specific management policies and procedures, and sensitivity of personnel to the needs and desires of the local people. (USDOI/NPS 1974, 97)

These early documents were concerned with clear definitions, lines of responsibility, and the role of local residents in making policy before the new park establishment (USDOI/NPS 1974, 221-223).

The Nunamiut supported a national park around their corporation lands to protect the area from sport hunting and to prevent another Hickel Highway. However, they wanted access to lands they had hunted in the past but did not own (Pepper interview 10-11-88). The Nunamiut were not opposed to development or wilderness designation but according to Hickok (1974, 132), "They

do wish to see their life values and future ownership of land and resources considered in balance with national and state purposes." He continued, "To these ends they seek cooperative proprietary jurisdictional controls for protection."

Before congressional committees, ASRC consistently expressed support for the establishment of a Brooks Range National Park. They also expressed Nunamiut willingness to work closely with the NPS in developing cooperative management arrangement (U.S. Congress. House. Committee on Interior and Insular Affairs. Report No. 96-13. 1979, 1052). NPS planning team members, Bane and Nelson, echoed similar concerns, "Cooperative arrangements will certainly be required between the Park Service and subsistence users, to resolve any conflicts" (1977, 27).

Initial Park Management. Kauffmann's statement captures the challenges the GANPP's general management planning team faced with the passage of ANILCA in 1980; "The area is immense and rugged and inadequately explored, the climate severe, ecological relationships delicate and imperfectly known, (and) local cultural patterns [deserve] sensitive understanding" (Brown and Kunz 1986, 87-88) (emphasis added).

ANILCA's passage in 1980 ended the initial planning

and forced both GANPP staff and the Nunamiut to contemplate the full range of problems that might possibly occur. Brown and Kunz described these problems:

The fears of park neighbors over potentially arbitrary and capricious administration has confronted the fear of administrators over potential worst-case violations of law covering a wide range of complex issues -- subsistence, access, cabins, sport hunting -- that distinguish wilderness parklands in Alaska from traditional parklands in the Lower 48 [States]. (1986, 98)

ANILCA's passage changed the NPS in Alaska, "Now the NPS people instead of being the dreamers and planners are now the managers, who make real life decisions where sometimes people get hurt" (Pepper interview 10-11-88). Now a land management plan defined the Nunamiut's relationship with the land (Gallagher 1974, 12). The Nunamiut's relationship with GANPP's staff became critical due to the increasing influx of visitors and the Nunamiut's loss of control over their homeland. According to Sally Weaver (1984, 4), "It follows then that to regain control over their land and resources, they [Natives] must gain control over, or a significant role in, the policy-planning-management spectrum of the park establishment." The eight years since ANILCA's passage represent the Nunamiut struggle to regain control over the resources they have relied on for

survival for millennia. They had to define their own relationship with the NPS because ANILCA had given NPS domain over their homeland.

During this time the NPS struggled to define subsistence and wilderness, and to face the new management challenges of Alaska. GANPP represented the last chance "to do things right the first time" in wilderness management. An earlier planning team member laid out what was needed for a good relationship with the Nunamiut:

1. Park Service representatives should arrange for a series of meetings with community leaders of Anaktuvuk to identify specific concerns and explore ways of cooperateing [sic] in solving problems
2. The possibility of establishing a field station in Anaktuvuk.... would serve to maintain an on-going contact with the Anaktuvuk people.... provide services to park visitors and assist them in avoiding disrupting the local lifestyle.
3. One or more residents of Anaktuvuk should be hired to help staff a park facility.... with the ultimate goal of having such employees take over all local Park Service duties.
4. A multi-discipline study team should be assigned to study visitor use and impacts within the general Anaktuvuk area. The study team would investigate and prepare reports on local land use patterns, plans and goals of the local corporation concerning land and resource development; cultural and social customs subject to disruption by visitor activities; current and projected park visitation passing through Anaktuvuk; archeological, historical, and current use sites subject to disturbance by visitor activities; subsistence activities potentially threatened by visitor use; (Bane 1980)

Only one of Bane's suggestions was followed, a field station in Anaktuvuk Pass, staffed during the summer. That resulted in some calling the NPS, "fair weather friends" (Burrow interview 2-23-88). Interestingly no mention was made of cooperative management of the historic homeland, or of sharing the domain on those lands.

Drafting the Code of Federal Regulations (CFRs) for Alaska's National Parks was NPS' first task. The CFRs heightened Nunamiut fears of arbitrary and capricious NPS administration because they were drafted without any Nunamiut consultation which broke the trust developed earlier with the planners and the village. Jeffery's letter to NPS' Alaska regional office revealed the CFR's break in trust and communication:

...(the village had a) great deal of difficulty in obtaining and understanding these regulations... Unlike the commendable efforts made by the National Park Service during the comment period in the previous national monument regulations, no park service employee held any meetings with the village concerning these proposed regulations. (Jeffery 1981)

The city council comments of September 24, 1979 represent the Nunamiut concerns about the CFR's:

Our village people strongly feel that the traditions and knowledge of our elders, passed down to us, will continue to be enough to protect this precious land and wildlife for centuries to come. The publicity of the National Park has brought daily flights of tourists... and we can see now

that our area is becoming so famous that some kind of regulations... will be necessary... We want to make sure that these rules clearly protect the essential subsistence hunting we must continue in order to survive. Our subsistence hunting is not some village custom that can be phased out over a period of years, as some of these regulations seem to assume. Instead, subsistence hunting is basic to our health. (Jeffery 1981)

Nunamiut concerns about the 1981 CFRs revolved around (1) the standards for temporary and emergency closures of subsistence, (2) including subsistence as a park purpose, (3) definitions of "natural and healthy" wildlife populations, (4) the definition of "transportation traditionally employed" and improved means of transportation, and (5) the reasons for closure (Jeffery 1981). Eligibility for GANPP subsistence was a deep Nunamiut concern in order to prevent outsiders with village addresses from becoming eligible for GANPP subsistence hunting rights.

The Nunamiut's desire for an active or consultant role in park resource management was ignored during the CFR process. Nunamiut interpreted ANILCA's provisions as requiring the expertise of local rural residents as a vital component of any analysis, because of Sections 808 and 810. The NPS, by not consulting the Nunamiut, appeared to be shunning the Nunamiut and taking further control over Nunamiut homeland. Alaska Legal Services Corporation comments on the GANPP general management

plan (GMP) address the CFRs limitations and the need for cooperation:

Even the soundest, most well-intentioned regulations cannot hope to have positive effect if they are misunderstood or perceived by users as just another example of government's arbitrary and unreasonably intrusive heavy hand.... cooperation between managers and users, effectual mutual education, and meaningful involvement of users in the development of regulations, which are indispensable to effective management, cannot be accomplished through such media as the Code of Federal Regulations. (1985, 9)

During 1981 and 1982 the Nunamiut Corporation desired a village meeting with the NPS and ASRC about visitor easements on corporation lands and other issues, but could not get NPS attendance. The Nunamiut Corporation expressed their regrets in a memo to the NPS, thirteen months after park establishment:

...[we] regret that these matters [visitors easements] have not been resolved by now, but this matter is one of keen interest to everyone in the village and we have not felt it right to make agreement with the National Park Service and ASRC outside of a village meeting where everyone might participate. (Morry 1982)

In 1983, the Department of the Interior and ASRC signed the Chandler Lake Exchange agreement (Rogers 1987, 1). Interior Secretary Watt hailed the agreement as a "model for assuring sound use of natural resource lands, protecting critical natural values, and serving the needs of the native populations" (USDOI 1983). The

NPS acquired 102,000 acres of land in the Anaktuvuk Pass vicinity and a recreation easement along the Killik River to its confluence with the Colville River (USDOI/NPS 1986(b), 177). ASRC received title to subsurface interests (oil and gas) to 92,160 acres underlying the village of Kaktovik located along the potentially oil rich Arctic coastal plain. Last minute ATV subsistence use easements were added.

Several forces drove the land exchange, ASRC economic gain, and the government's desire to open the Arctic National Wildlife Refuge coastal plain to oil exploration. The ASRC lands surrounding Anaktuvuk Pass had little economic value and the exchange fit well with the NPS policy to "consolidate [private] ownership patterns within the park and eliminate the majority of private inholdings, all consistent with the predominate wilderness theme..." (Regional Director 1983, 2).

The Nunamiut organizations were not involved with the negotiations nor were they aware of the exchange's consequences to subsistence. The exchange limited Nunamiut ATV use to a 50-foot trail easement along creek beds. An ATV was defined as a six or eight wheeled vehicle with low pressure tires, with a maximum fully loaded weight of 2,000 pounds (ATV Agreement 1988, 17). North Slope Borough Mayor Bower, in a letter to the NPS,

addressed the exchange's lack of consultation:

...the Park Service did not consult us as a people about their [ATV easements] location[s] and that those easements were a last ditch effort by ASRC in order for the sale of the land to go through. (Brower 1984, 3)

GANPP staff were also not informed about the exchange (Collins interview 10-24-88).

Nunamiut leaders first heard about the exchange in a newspaper article several days after the signing of the agreement (Interviews with Hugo, Riley, and Ahgook 1987, 1988). The village expressed their anger in a Statement of Concern to the NPS:

Now we find we can only hunt with our all terrain vehicles where the Park Service... says we may. They did not ask us where our traditional hunting grounds were located. They drew lines on a map and told us that we may use those easements only as access to our hunting areas, and that we will be fined and our ATVs may be taken away from us if we are found outside of the easements with them. (City of Anaktuvuk Pass 1984, 1)

The NPS was shocked by the Nunamiut's lack of easement knowledge or understanding:

In the spring of 1984... it became clear to our park staff that many residents of the village did not understand what easements had been negotiated... When we shared maps and copies of the deed... the general reaction by the community was one of surprise and deep concern. (Contor 1984)

ATV access was not a problem before the exchange according to Chief Ranger Collins (Interview 10-24-88).

The Nunamiut used ATVs on surrounding ASRC lands without restriction. After the exchange the Nunamiut were caught in a moral dilemma between following traditional hunting ways or obeying the law.

The first ATV in Anaktuvuk Pass, a tracked vehicle, came in 1960 (Hall, Gerlach, and Blackman 1985, 72). Hanson's fallout studies of 1959-1970 reported a "larger tracked vehicle and one wheeled all-terrain vehicle" in August of 1972 (1973, 61). ATVs provided the Nunamiut with summer and fall travel prior to ANILCA which made them traditional means of transportation by BLM's definition: "Use (e.g., hunting, ORV use) of an area that has occurred before 1980" (USDOJ 1988(a), Glossary).

NPS' ATV policy was:

...we cannot permit use of ATVs on park lands unless it can be shown that they were traditionally employed for subsistence access. We have no evidence of that in Gates of the Arctic. (Contor 1984)

This policy was based on "traditional" meaning "passed from one generation to another" (USDOJ/NPS 1986(b)) making Nunamiut ATV use untraditional (Interviews with Siglin, Collins, and Pepper 1987, and 1988).

NPS' Associate Regional Director, in a memo to GANPP, explains NPS' legal stand on ATV use:

Executive Order 11644 (February 9, 1972) Section

3(a)(4) specifically states that:

Areas and trails shall be located in areas of the national park system... only if the respective agency head determines that off-road vehicle use in such locations will not adversely affect their natural aesthetic, or scenic values. In other words, closed unless affirmatively and procedurally opened.

Executive Order 119889 (May 24, 1977)... mandates that agency heads close areas to ORV use that experience any adverse impacts, even though the area may have been previously "opened" ...since ATVs have not been shown to be traditional and they are not listed in ANILCA or the CFR as an acceptable means of surface transportation, their restriction is directed by Executive Order 11644, as amended, which means they cannot be utilized until a formal finding is made (consistent with 13.14 and 13.30 (f)) that ORV or ATV use would be compatible with park purposes and values. (Associate Regional Director 1986)

NPS' action restricting ATV use to easement corridors represented a threat to Nunamiut subsistence as expressed in their Statement of Concern:

We the people of Anaktuvuk Pass, Alaska feel that our traditional way of life, our subsistence life style and the future of our children are being threatened by the restrictions placed upon our hunting.

In the past we have hunted where our fathers, grandfathers and their fathers before them hunted. Now we find we can only hunt with our all terrain vehicles where the Park Service of the United States says we may (City of Anaktuvuk Pass 1984, 1).

The Nunamiut have a powerful, culturally-based desire to control their relationship to the land and its resources (Hall, Gerlach, and Blackman 1985, 11). Nunamiut leader, Hugo, during a GANPP Subsistence

Commission meeting, expressed the Nunamiut concerns about ATV restrictions:

As a traditional hunter, as a user of this land, these easements were mine already. I should be the one giving easements, I should be the one drawing lines on the map. Before these easement lines were drawn, I always knew where to go and which lands to step on. But now with these easements, I am uncertain how far can I go without stepping out of easement lines and then charged with misdemeanor offense punishable by fine or possible confiscation of vehicle... (Gates of the Arctic Subsistence Resource Commission Meeting 7-31 & 8-1-85, 5)

The restrictions limited their access to the caribou, the center of their subsistence world, and reduced their flexibility. The Nunamiut did not accept limited ATV access because it "runs completely contrary to the philosophy held by hunting and gathering peoples" based on mobility, flexibility, and adaptability (Hall, Gerlach, and Blackman 1985, 81). The incorporation of new technology helped relieve the local wildlife subsistence pressures because it allowed the Nunamiut access to larger areas which now provided a sufficient resource base for survival (North Slope Borough Contract Staff 1979, 129; Hall, Gerlach, and Blackman 1985, 74). This larger area had been previously accessible to the Nunamiut during their nomadic period.

First government schools and later full time village employment with the Borough and Native Corporations created subsistence problems because it was

simply impossible to reach productive hunting areas on foot and return with the meat within employment constraints. New technologies provided access to productive areas, ability to carry back sufficient quantities of meat, and time to continue full-time employment. Anaktuvuk Pass' geographic location also justified ATV use because it is "located on the divide on the Brooks Range and there are no major rivers which can provide summer access..." (Rogers 1987, 3).

NPS ignored Congress' view that traditional employment "was not intended to foreclose the use of new, as yet unidentified means of surface transportation... subject to reasonable regulation necessary to prevent waste or damage to fish, wildlife or terrain" (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413. 1979, 275). NPS' only control over new surface transportation was within the phrase "subject to reasonable regulation". NPS' Development/Study Package Proposal, Study of Methods for Authorized ORV Access and Use, acknowledged:

In order to formulate and define reasonable regulations the impacts of the various types of vehicle movement must be quantified and qualified. Absent a well documented study any management decisions formulated to protect the scenery, soils, vegetation or water quality will be arbitrary. (Caldwell 1986, 4)

NPS' 36 CFR 13.46(b) further required studies to determine adverse impacts on "public health and safety, resource protection... subsistence uses... or the purpose for which the park area was established" (Federal Register 1981) before restrictions. Based on CFR 13.46 Caldwell then concluded, "So far as we are informed, the Superintendent has not made any of these determinations" (Caldwell 1986, 5). Caldwell went further:

In any event, subsection (c) of the regulation provides: "No restrictions or closures shall be imposed without notice and a public hearing..." To our knowledge, the Park Service has never given the notice or conducted the public hearing required by this regulation. (Ibid.)

During the legal debates and negotiations over ATVs, the Bureau of Indian Affairs, the North Slope Borough, NPS, and ASRC funded and conducted ATV impact studies. Drafts of ATV Agreements with legal description of lands to be exchange and areas of wilderness declassified were written before the completion of ATV impact studies. The studies relieved some of the tension and hostility because they allowed ATV use to continue, opened valleys closed to ATVs, and provided useful information in assessing whether or not the exchange was fair (Siglin interview 5-11-88).

The ATV negotiations brought the NPS full circle

back to 1977 when Bane and Nelson recommended:

Cooperative arrangements will certainly be required between the Park Service and subsistence users, to resolve any conflicts over dependency upon mechanical transportation versus the need for environmental protection. (1977, 27)

Not following Bane and Nelson's recommendation resulted in a hostile relationship and the involvement of the Bureau of Indian Affairs, Alaska Legal Services, North Slope Borough, news media, the Alaska Congressional delegation, and national environmental groups.

The exchange's lack of consultation and restricted ATV use strained Nunamiut-NPS relations. The 1983 land exchange fed the Nunamiut fears of an arbitrary and capricious NPS and heightened NPS' fears of worst-case law violations concerning regulation of ATV access on new NPS land. Battle plans to protect party interests became the main concerns instead of cooperation. The Nunamiut Corporation threatened to fine park visitors who crossed Native corporation land outside the ANCSA 17(b) visitor easements. The Native Corporation started counting the visitors who came and left by plane causing an uncomfortable situation for visitors. The whole idea of a national park protecting the Nunamiut subsistence lifestyle began to be questioned (City of Anaktuvuk Pass 1984; Hess 1987, 8).

With the establishment of GANPP and associated

media coverage, wilderness visitation increased in the Anaktuvuk Pass area which raised concerns about conflict between subsistence and wilderness use. Only one case incident report, the report of 6-10-83, contains any reference to conflicts with the statement, "Several users expressed dissatisfaction over contacts with ATVs near Ernie Pass and in the Upper Anaktuvuk Pass Valley" (Case Incident Report 1983).

The Nunamiut leaders interviewed expressed concern about possible conflicts with the caribou migration in August (Ahgook interview 2-22-88). And when asked if there were incidents of conflicts Ahgook replied, "There are some and the Park Service does not want to admit to it. Some are not reported" (Ahgook Interview 2-22-88). During interviews with the Park Superintendent and Chief Ranger, neither could recall specific cases. The Chief Ranger did say:

They [Nunamiut] have indicated they are concerned about [conflicts] ...it seems to be involved more with the possibility of potential to drive away caribou than any other thing. (Collins Interview 10-24-88)

Discussions with backpackers returning from the Anaktuvuk Pass revealed their uneasiness when on Native Corporation lands, being uncomfortable with ATV tracks, and a fear of crossing paths with an armed subsistence hunter (Kohany interview 8-8-88).

In the summer of 1984, the NPS informed the Nunamiut of severe restrictions on their ATV use and denied access to Kongumavik and Masu Creeks headwaters (Hall, Gerlach, and Blackman 1985, 84). The NPS did not intend to threaten the Nunamiut when they explained the possible penalties from violating the ATV easements (Contor 1984, 3). Intended or not, the explanation represented a threat to the Nunamiut because, in the Nunamiut culture, a threat carries the same impact as a direct mandate. The NPS' action resulted in psychological and physical impediments to the Nunamiut's subsistence activities by causing an:

...uneasy feeling they now had when out subsistence hunting which they summarized as, 'It feels like the Park Service is always watching you'. (Hall, Gerlach, and Blackman 1985, 85)

In April of 1984 the legal case of U.S. vs Fitzwater along with subsequent NPS actions further fed Nunamiut fear that the NPS desired to eliminate subsistence. The Fitzwater case pertained to a recent non-Native Bettles resident who trapped in GANPP. NPS ticketed him for the lack of a permit to trap in the park area northeast of Anaktuvuk Pass. He thought he was in the preserve area where trapping is allowed without a permit. He pleaded guilty but changed his plea when he heard the fine and claimed subsistence

rights because of his residency. NPS agreed with his Bettles subsistence residency rights but he was caught outside the Bettles resident zone. Judge Aschenbrenner ruled in the NPS' favor, fining Mr. Fitzwater, but directed the NPS to map the resident subsistence zones:

Now, I don't necessarily want to have to get into that for defining where traditional use areas [are] on maps and handing them out. A lot of that system, the traditional use and the subsistence user, is going to have to be resolved through cooperation and discussion... it would be worth your [park service] while to check with them [subsistence users and trappers].... [and] that should save everyone a lot of trouble, okay, 'cause you're just going to have to co-exist with one another, otherwise I'm going to go up there and decide where everybody traps. (U.S. vs. Fitzwater P-051043)

After the Fitzwater case, the NPS set out to map the subsistence resident zones and traditional subsistence use areas (Gates of the Arctic Subsistence Resource Commission 7-31 & 8-1-84, 10) to help newcomers with their incomplete understanding of "their community's traditional area of subsistence use" (Contor 1984, 4). In 1984 the NPS published a map with a maze of eleven overlapping, color-coded winter and summer traditional use areas for the resident communities of GANPP (Alaska Legal Services Corporation 1985, 20-21). Residents were given the opportunity to challenge the zones by submitting information.

The notion of mapping subsistence implies a static

situation and disregards the flexibility and adaptability critical to subsistence. It also disregards the migration, displacement, and fluctuation of subsistence resources. Subsistence users take advantage of the resources when they make themselves available and abandon areas when the resources are not available. Maps drawn today can be obsolete in months because:

Resources are subject to constant change; and, because of this fact, subsistence ranges can never be stabilized within specified limits. They will always expand, contract, or draw themselves into new shapes as the environment may dictate. (Nelson, Mautner, and Bane 1982, 223)

Collinsworth, Alaska State Fish and Game

Commissioner, voiced additional concerns about the use zones:

...this approach attempts to freeze in time an activity which is necessarily dynamic. Changes in species migration patterns or habitat destruction caused by a forest fire, for example, might cause residents of one or more communities to utilize summer use areas during the winter months or expand into areas assigned to these communities. Thus, by circumscribing use areas for each community based on information from a relatively short period of time, National Park Service is not acknowledging subsistence as a dynamic activity that is necessarily flexible to respond to changing circumstances. (Collinsworth 1985, 4)

The North Slope Borough complained about the NPS' "undue haste and poor judgement by attempting to proscribe the hunting of the residents of Anaktuvuk

Pass... without adequately researching available traditional use data" (Harcharek 1985, 1). Also, the subsistence mapping ignored the NPS' own CFRs requiring local input:

...essential to developing the "subsistence hunting zones"... The local communities, regional councils, and park and monument commissions should facilitate such local input into these designations. (Federal Register 1981, 31840)

North Slope Borough Mayor expressed Nunamiut outrage with the zoning process in a letter to Alaska NPS Regional Director:

Rather than holding public meetings or consulting those most affected, apparently your Park management staff in Fairbanks simply drew lines on a map designating subsistence use areas and access easements... The citizens of Anaktuvuk Pass, the only village in the Park were not asked to participate to any extent, nor were they asked to identify their traditional hunting grounds... In addition, Park officials threatened to confiscate subsistence hunting equipment and levy stiff fines on those who traveled beyond the access easements with All Terrain Vehicles. (Brower 1984)

In addition, the drafting of the zones was based on Nelson, Mautner, and Bane's research (1982) whose data collection methodology was highly questionable because of the limited time frame and respondents' lack of knowledge of data usage (Hall, Gerlach, and Blackman 1985, 47-48; Ahmaogak 1985, 1). Congress designed the GANPP Subsistence Resource Commission to involve local residents in GANPP management. It also charged the

Commission to develop a subsistence hunting program which included subsistence use zones within eighteen months after ANILCA's enactment, 3 1/2 years before the GMP (Caldwell 1985, 2). The first Commission meeting occurred in May 1985, nearly two years after the initial appointment of members (Schwarber 1986). The Commission's late start prevented it from exercising its authority or its mediational role between the Nunamiut and the NPS for the park's first four years.

In Title XIII Congress required: "Within five years from the date of enactment of this Act, the Secretary shall develop and transmit... [to] Congress a conservation and management plan for each of the units of the National Park System established... by this Act" (P.L. 96-487). The drafting of GANPP's GMP was done in 1984 - 1985. The drafting process included public hearings (at affected villages) and other agencies reviews. Rettie, NPS Special Assistant for Policy Development, after reviewing the draft GMP's plans, summarized his feelings:

...it is impossible for me to read these plans without seeing in these documents a Black Hills phenomenon, another White Man's assault on the land of Native Americans, and a very insensitive attempt to overlay a Lower 48 park plan on territory that is not comparable in any meaningful way....[with the] [L]ifestyle and culture of the people living [there]... I do not think our plans credibly account for them or accommodate their perpetuation in a sympathetic and, ultimately, acceptable

manner...

Our actions to permit continued "subsistence" activities is grudgingly given because we are by law compelled to. But we will monitor it, regulate it, and look carefully for its impacts. We acknowledge that Man has been a part of this landscape for a dozen millennia--long predating the building of the pyramids -- but will not invite the successor residents to share in the goals and management of the area. (Rettie 1985, 1) (emphasis added)

The specific GMP items that drew reviewers' fire were subsistence and wilderness management, land protection priorities, and the continued support for subsistence use zoning. The subsistence management section raised deep concern because the plan did not include GANPP's Subsistence Resource Commission's subsistence management program required by ANILCA's Section 808. The draft plan usurped the Subsistence Resource Commission's authority with the statement:

If a designated community no longer appears to meet the criteria [continued resident zone subsistence eligibility].... individuals within the community who can demonstrate an established or historical pattern of park use prior to 1980... will be issued permits to continue to subsistence use. (USDOI/NPS 1985(a), 72)

The statement disregarded the Commission's responsibility and represented another threat to subsistence:

...it would be wrong to adopt the draft's proposed solution of threatening at some unknown future time to roll back the clock to 1980. The future most certainly should be contemplated now, but past and

current uses should not be restricted or disrupted in the absence of some factual justification, and the Park Service has offered none. (Caldwell 1985, 9)

The Tanana Chiefs Conference expressed concern about the lack of a clear policy for conflict resolution between subsistence and other park uses especially with land acquisition because of the plan's statement:

Where acquisition is necessary, every effort will be made to find suitable land for exchange or reach agreement on price if purchase is necessary. Exercise of the power of eminent domain will be considered where necessary to clear title or will be initiated in emergencies to prevent new land use activities that would severely damage the unit's integrity. (USDOI/NPS 1985(a), 178)

The Land Protection Plan section listed all Native allotments, pending or approved, and a column listing the preferred acquisition method of either exchange or agreement.

The listing and prescribing of how to acquire allotments, was taken as a direct threat to Native land ownership and residency within the park. Caldwell commented on the threat and broken promises:

The people of Anaktuvuk Pass were concerned that the plan contained a 'hit list' of allotments which the Park Service intended to acquire. Superintendent Ring assured the village that there was no 'hit list' and that the 'land Protection Plan' would be rewritten make this clear. (Caldwell 1985, 10)

The Land Protection Plan ignored the Nunamiut's reasons

for selecting Native allotments under the 1906 Alaska Native Allotment Act. Allotments were selected for their subsistence potential. The GANPP Subsistence Resource Commission directed the NPS to rewrite their GMP:

WHEREAS: The Land Protection Plan in the draft General Management Plan for Gates of the Arctic National Park appears to threaten the continued subsistence uses of these native allotments and small tract entries because of the desired fee simple acquisition of most of these parcels by the National Park Service.
 BE IT RESOLVED: The Subsistence Resource Commission for Gates of the Arctic National Park recommends that the Land Protection Plan and the General Management Plan be rewritten to protect the subsistence uses of these parcels and that approaches other than the exercise of eminent domain be adapted to protect the other values of these park lands. (Resolution 85-05 Fairbanks: GANPP files)

The Nunamiut felt the NPS' plan's continued insistence on imposing restrictive traditional use zones represented a continuing threat toward subsistence (Caldwell 1985, 7) and were incensed with the plan's picture titled "ATV Tracks" under the heading "Impacts of Human Use." Caldwell explained the Nunamiut concerns:

...this photo was clearly intended to lead the uniformed reader to believe that the ATV tracks in the picture were on park lands, the fact is that this photo was taken near the village, at a heavily traveled major part of ingress and egress. After village people complained to the Park Service about this misrepresentation, the photo's caption was amended by adding... '(private land within

park)'.... This still leaves the false impression that the picture is typical of the impact of ATV use on park lands. (Caldwell 1985)

The Tanana Chiefs Conference GMP draft review concluded:

...[The park was] created by Congress with the idea that local, present indigenous peoples are part of the environment of this park. The NPS research activities do not recognize this and place no emphasis upon this status of people as part of the park. Yet most, if not all of the major park issues or matters are directly and indirectly related to subsistence activities of local residents. (Kowalsky 1985)

The Tanana Chiefs Conference's monthly publication, The Council, summarized Native views about dealing with the NPS, "Negotiations are difficult to arrange when one side enters with a club" (1985, 6).

The hearing held at Bettles, Alaska, May 13, 1985 has been called NPS' darkest day in GANPP (Pepper interview 10-11-88). During the hearing a Bettles resident observed:

The Park Service many years ago came up here... all the planners came up here and told us nothing was going to change. That we will all be able to do what we have done and this park was going to be different so forth. Through the years we have seen every time the park gets to a different planning stage, it becomes more restrictive. (Public Hearings on Draft GMP 5/13/85)

The GANPP superintendent's attitude and response to hearing questions about NPS goals or the plan's effect

on park residents left little room for compromise
(Interviews with Caldwell, Hugo, Riley, and Collins).

A Bettles resident suggested the NPS:

...not to always take the most restrictive attitude
in all these cases, when you have the power to do
otherwise, to work with people. (Public
Hearings on Draft GMP 5/13/85) (emphasis added).

During the Bettles hearing, residents presented a
petition to the superintendent for the Secretary of the
Interior signed by over 85% of the local rural
population requesting that the superintendent resign
(Public Hearings on Draft GMP 5/13/85). Another
petition requesting the superintendent's resignation was
written by Wiseman residents (Caldwell interview
5/4/88). In May of 1986 the superintendent was
transferred to Delaware Water Gap National Recreation
Area (Fairbanks Daily News-Miner 1986).

The Nunamiut did not sign the petitions and the
North Slope Mayor expressed the Nunamiut's feelings, "We
remain hopeful that a useful and open dialogue can be
established with the National Park Service, but we have
seen very little cooperation or openness from the Gates
of the Arctic staff" (Ahmaogak 1985, 2). Bloethe, a
Park staff member in Anaktuvuk Pass, also expressed
concern about the lack of cooperation and communication:

The most common complaint I hear in the village is
that Park Service doesn't listen to us. Before we

hand out a map of areas to be exchanged, perhaps we should hear what the people's concerns are and take them into account in our transactions... I think it in our best interest to make sure the public is adequately informed. (Bloethe 1985)

Due to the public outcry about the draft GMP from Native groups, the general public, and environmental groups the NPS revised the draft plan and released it in December of 1985. The final General Management Plan, Land Protection Plan, and Wilderness Suitability Review was signed on October 7, 1986. The revised draft contained many changes which reflected some Nunamiut concerns.

A rewrite of the subsistence use management section resulted in a change of recommendations and consultation with the Subsistence Resource Commission concerning subsistence management and traditional uses zones:

If any of the accepted [Secretary of the Interior approved Subsistence Hunting Program] recommendations of the subsistence resource commission conflict with components of the general management plan, land protection plan, or other park planning documents, these documents will also be promptly amended or revised to be consistent with the accepted recommendations. (USDOI/NPS 1985(b), 111)

The revised draft plan declared the subsistence resource commission approved hunting program to be "a cornerstone of a subsistence management plan" (Ibid., 111).

The revised plan changed the responsibility for

traditional use areas delineation from the NPS, with recommendations from the Subsistence Resource Commission, directly to the Commission. This change meant that the zones would be determined and drawn by the Commission and then incorporated into the NPS' area designations. This represented a reversal from the NPS' 1984 initiative of mapping and then asking for recommendations. The change allowed the Nunamiut's the opportunity to review traditional use zoning during the Commission's public process.

The Land Protection Section also dealt with Native allotments. The revised draft plan went into detail about compatible and incompatible development on private tracts. An example of a compatible development would be one modest cabin on a small tract within specific siting and design guidelines. Incompatible development would be a cabin built that can be viewed from wild rivers or national landmarks and/or more than one cabin on a tract (USDOI/NPS 1985(b), 169).

The revised Land Protection Plan changed the NPS' minimum interest with Native allotments from fee simple interest, to obtaining necessary easements. The preferred method for obtaining such easements shifted from exchange to purchase. This made the earlier idea of consolidating private land in-holdings around the

village more difficult because of budgetary constraints.

Cooperative relationships between the NPS and the Nunamiut had deteriorated by the close of 1985. The Nunamiut pressed the NPS for ATV use agreements by continuing to threaten to cite park visitors with trespassing, including fly-ins (Morry interview 11-19-87; Hugo interview 2-24-88). In June of 1985, the City of Anaktuvuk Pass, passed a resolution requesting unrestricted ATV use for subsistence in the entire park, not just the former ASRC land exchanged in 1983 (Rogers 1987, 1). They also turned down a proposal for a million dollar NPS office and housing complex in Anaktuvuk Pass (Hugo interview 2-24-88).

'New' Park Management. The replacement of the former superintendent with the present one relieved much of tension between the Nunamiut and the NPS. According to village residents' accounts, the former superintendent's personality and demeanor were offensive, some said he must be a top graduate from an NPS school, "he was too much by the book" (Morry interview 11-19-87). Personality and demeanor have worked to the benefit of the parties. "The new guy is pretty good. He comes to Anaktuvuk Pass just to talk to people. Before that we didn't talk; we yelled" (Hugo interview 2-24-88). Twenty years earlier Gubser

explained the importance of personal trust to the Nunamiut: "Eskimos are very impressed by honesty, successful prediction, concrete results or benefits, and a man's personality" (1965, 37). Bill Brown summarized the problems: "The village is organized with direct communication over time and not official visits at crisis or emergency times. Business as usual does not work, you need to go the extra mile" (Brown Interview 12-3-87). According to Vaudrin, rural Natives tend to:

...regard and interact with each other more as persons rather than as objects than do their urban-non-Native counterparts. Purposiveness in visiting may be construed by the former as insulting. (1982, 74)

During the 1985 and 1986 summers, a research project on the effects of ATV use was initiated with funding and support from the NPS, North Slope Borough, Bureau of Indian Affairs. The U.S. Army Cold Regions Research and Engineering Laboratory conducted the research. The study first involved an aerial reconnaissance of the valleys to determine general trail visibility and to locate sample sites (Racine and Johnson 1988, 4) (see Figure #6 for ATV travel routes). The project was divided into three related projects: (a) a study of the effects of repetitive ATV use on established trails, recovery, and new segments of trails; (b) a multi-year program of aerial photography

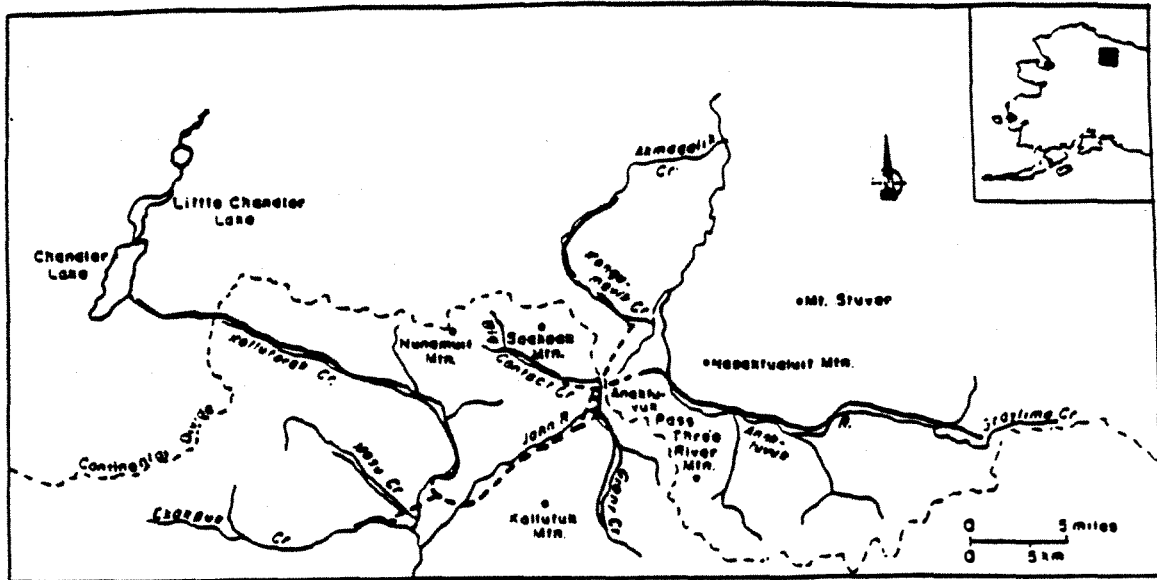


FIGURE #6. Map of the Anaktuvuk Pass, Alaska, area showing the ATV travel routes. The dashed lines are access trails from the village to the valley. Taken from "Effects of All-terrain Vehicle Traffic on Tundra Terrain Near Anaktuvuk Pass, Alaska" by Racine and Johnson 1988, page 2

for documenting the extent of ATV trails in the area; and (c) a study undertaken by GANPP personnel to document the effects of dispersed ATV use in places where it is known to have occurred (Ahlstrand, Cantor, and Racine 1988, 2). ATV users were asked to use certain trails and avoid other trails to determine whether repeated and random ATV use damaged the environment (Berri 1986, D-2). Village residents were asked to fill out forms describing where they went with their ATVs, trip length, and how much they carried.

The ATV research benefited the village through employment opportunities, access to restricted valleys,

and continued ATV use. But the research also was another example of the NPS "looking over their shoulders" because of forms and the use of remote time-lapse cameras on ATV trails. Several villagers wanted to shoot the cameras. Ahgook shared the villagers' frustrations: "They (the researchers) start getting so deep into the really private areas of our lives. If I went to Fairbanks, how would you like me to ask you always how much you carried in the back of your truck and where you went" (Berri 1986(a), D-2). Nevertheless, the village agreed to the study to prove that they could work with the NPS (Ahgook interview 2-22-88).

The ATV Impact Studies concluded:

Permafrost damage by off-road vehicles is expected to be less in the Anaktuvuk Pass area because of the low occurrence of ground ice and the more stable permafrost conditions... [and] the trails in the Anaktuvuk Pass are used mainly by one type of vehicle (Argos) with low surface pressure... the ATV trails described here have natural analogs (Walker et. al. 1987) in the form of linear trails resulting from the concentrated movement of caribou through the area... Caribou trails tend to be diffuse and spread out in many parallel tracks about 1m apart and can be confused with ATV trails, particularly from the air... The similarity of caribou trails to those produced by ATVs suggests that this type of disturbance is not new to the tundra ecosystems of this area. (Racine and Johnson 1988, 11)

During the ATV studies, negotiations were taking place to settle the ATV controversy with the NPS, the ASRC, and the Nunamiut Village Corporation through a

land exchange. The Corporations wanted guarantees of ATV use rights and the expansion of ATV use areas while the NPS wanted protection of the park's wilderness values. The NPS still contended that ATVs were not a 'traditional means of transportation' allowed by ANILCA. The Nunamiut contended that they were.

Negotiations resulted in a draft agreement between the parties in August 1987. The unratified agreement would allow ATVs on 59,520 acres of designated wilderness near the village and on an additional 88,312 acres of non-wilderness park land near the village (Quinley 1987, 1). In exchange, the NPS would receive conservation easements prohibiting permanent buildings, roads, and the development of subsurface minerals on 92,800 acres north and east of the village (Ibid., 1). Also the NPS would receive 39,000 acres of the 92,800 acres for future wilderness designation. The agreement would require Congress to deauthorize approximately 75,000 acres of existing wilderness to allow for ATV use, "the largest deletion in the history of the national wilderness preservation system" (Foster 1989, C-1).

Settling ATV access without a lawsuit was the main goal of the proposed agreement. The agreement intended to reach several goals according to a Nunamiut

Corporation handout:

- (1) Obtain off-trail ATV access for summertime subsistence on Park Lands.
- (2) Protect subsistence rights for past and present Anaktuvuk Pass residents and their descendants.
- (3) Restrict recreational use of Nunamiut land.
- (4) Reduce conflicts between subsistence and recreational uses (Nunamiut Village Corporation 1988, 2).

The NPS had other goals:

- (1) Keep present limits of ATV use on Park lands.
- (2) Limit growth of subsistence use to present levels.
- (3) Provide easier public access across Native lands to Park lands.
- (4) Limit development on Native Lands to protect nearby Park lands (Ibid., 2-3).

The agreement, if approved, would limit ATV use to designated areas and would prevent any future ATV litigation. It would protect Nunamiut subsistence rights by eliminating Anaktuvuk Pass as an ANILCA resident zone, which would allow anyone who moves into the village to be eligible for subsistence rights automatically. Under the agreement the Nunamiut Corporation board of directors would determine who is eligible to use the agreement's easements (Nunamiut Village Corporation 1988, 3).

The agreement also addressed public access by allowing visitors to stay only one night in any one spot on Native corporation lands. Furthermore, visitors must stay at least a half mile from an active subsistence

campsite and public access can only be by foot or dog sled. According to the agreement subsistence and recreational conflicts on Native lands were to be resolved by giving the Park Superintendent the authority to restrict public access on Native lands and to restrict subsistence use on Park lands. During the negotiations the NPS offered to control illegal sport hunting on Native lands (Nunamiut Village Corporation 1988, 4).

The draft ATV agreement represents the willingness of both parties to compromise, but the agreement requires Congressional action. Congressional action will draw in other groups with their own views of wilderness and ATVs. Both parties believe Congressional approval can be obtained, but environmental groups do not agree with exchanging "rocks and ice" (the 39,000 acres of Native land) for declared wilderness (the approximately 70,000 acres requiring Congressional deauthorization) (Blazer interview 5-5-88). These groups possess the power to destroy the agreement.

Conclusion

Most people agree that the relationship between the NPS and the Nunamiut will continue to be difficult because of cross-cultural differences. According to Superintendent Siglin:

...the park is a better deal than not having a park. Beyond that, it is always going to be a difficult relationship because we are always going to have the responsibility of keeping track of what they are doing... not just them but everybody. They are always going to feel we are looking over their shoulders in particularly when it comes to hunting violations. There will always be frictions, frictions when we decide to restrict some resources that are being over-harvested. (Siglin interview 11-25-87)

The resource management specialist echoes Siglin's feelings:

...the perception on both sides [is] that the other group is wanting or doing things that are not in concert or in line with the objectives of the other group. I think the Nunamiut will always view us as the ones who have restricted them, who have taken away their land, who have impacted their life so they can't have the life they would have had.... I think it [the park] has soured on them a little now but I guess maybe it depends on how sour their children will feel.... (Alderson interview 5-12-88) (emphasis added)

During the second visit to Anaktuvuk Pass, interviews with eighth grade school students were conducted to learn their feelings about the NPS and wilderness. Their future actions will figure significantly in the future of the Nunamiut culture and the NPS. Student Cheryl Kaigelak characterized the feelings of the students:

Natives were here before the Park Service. They [NPS] can't take us out of the land! We want access to the lands that the elders used and Natives have as much rights as the National Park Service and environmentalists do and we can fight as hard as they do. Subsistence will be here in

the 21st century because we will fight for it!
(Kaigelak interview 2-23-88)

Kaigelak's comment showed the depth of resentment between the Nunamiut, the outside environmental concerns (including wilderness users), and the NPS.

The NPS' historic reluctance to share decision-making and perceptions of protecting a broader "national interest" against "narrower" local community interests (Collins interview 10-24-88), and the community's mistrust of NPS management, threaten to undermine any cooperative efforts (Caulfield 1988, 55). Rettie addressed the short falls of the NPS in Alaska:

National Park Service policies toward indigenous peoples have so far failed to recognize the need for new approaches toward such people-approaches which extend to them and their cultures the substance of the conservation ethic historically applied to land, wildlife, and cultural objects. (1987, 39)

The actions of the NPS in Alaska fit closely to Chase's explanation of the NPS' view of Natives and neighbors when managing natural resources:

The park is run by managers who do not understand the role Natives play in the region's ecology, and it is policed by rangers who perceive neighbors as a threat. Rather than supporting the park, therefore, the local population quickly becomes antagonistic toward it. They see park managers as agents of a large bureaucracy directed from a distant capital with little concern for their own fate. Having long lived in the area they do not understand what is special about it, and thus do not understand or share the preservationist's

ideals. (Chase 1988, 37)

The history of communication between the NPS and the Nunamiut can be best described by Behnke's and Haynes' (1986, 146) general statement about resource management as "Relationships between those who harvest and those who manage sometimes are strained by miscommunication and misunderstanding." The wisest GANPP resource management will depend on a good working relationship between them. The communication channels between the two parties during the past nine years have not been effective. Much of the Nunamiut hostility was the result of the lack of direct communication. Once the NPS realized the need for regular direct communication the hostility lessened and open dialogue started again.

Other communication channels existed but with little success, like the Subsistence Resource Commission because of its late arrival in 1984. Also, the Commission represented GANPP's subsistence users and the Nunamiut felt the other villages' Commission members would not understand their unique situation. The North Slope Borough with its close ties to the Federal Congressional delegation provided an excellent means for Nunamiut concerns to be addressed. The ASRC, because of its 1983 land exchange and its emphasis on corporate economic development, could not act as a productive

communication channel for social issues, being trusted neither by Anaktuvuk Pass Nunamiut nor NPS.

The Advisory Councils and Regional Fish and Game Boards are also communication channels but historic Native lack of trust of state game management and the issues between the parties did not allow the councils and boards to be a means of effective communication (Kelso 1982, Langdon 1984). The news media have been used by the Nunamiut to keep their concerns known to the outside world and politically powerful allies (Carroll, 1987; Hess 1987) but their involvement results in going outside the two parties and evokes a cautious and cool response from the NPS.

In sum, the best communication channel with the potential to control the hostility between the parties is direct communication on a regular basis. To be successful this type of communication to be successful needs to be culturally sensitive. It requires trust between the party leaders which allows concerns to be raised before drawing in other organizations. It would allow open discussions of issues before any hostility. With direct communication, two-way acculturation may break the stereotypes each party has and may result in a better understanding of each party's concerns. Direct communication requires a commitment by both parties to

**maintain communication regardless of change of leaders
and staff.**

CHAPTER FOUR

Conclusions and Recommendations

Man's Role with the Natural Environment

NPS follows the Western model of management which parallels the Christian view of nature where man has dominion over, and stewardship responsibilities for, nature. The Nunamiut world view accepts nature as it is with little concern for managing it for their benefit. The Nunamiut see themselves as part of nature and subject to its laws, claiming no dominion over it. Traditional Eskimos like the Nunamiut, believe that the abundance and presence of wildlife is a result of the respect shown to the animals killed (Noland and Gallagher 1989, 19). According to the Nunamiut wildlife regeneration requires no habitat manipulation or enhancement, an area of agreement with NPS management.

The NPS has a management structure characterized by hierarchical, bureaucratic methods of decision-making and enforcement (Usher 1986(a), 79). Managers are distinct from harvesters. Centralized authority flows from the top down, with separate units or divisions designated to manage individual components of the environment (Ibid., 2). The management system rests on:

...common property management... for certain levels of abundance on a technical basis and then allocates shares of this abundance on an economic

and political basis. The system of knowledge is based on a scientific accumulation, organization, and interpretation of data, and management problems are resolved in a technical ahistorical, and 'value-free' framework. (Usher 1986(a), 2)

NPS management attempts a veneer of value-free framework over a value-laden management process. Man, even aboriginal man, is left out of the management equation.

The Native management structure has no division between managers and harvesters and relies on 'Native natural history' which comes from the extensive direct personal knowledge and lore of many generations. Knowledge comes from every aspect of harvesting, traveling, searching, hunting, skinning, butchering, and eating (Usher 1986(a), 3). Unwritten rules govern Nunamiut hunting, fishing, and trapping. Compliance is based on cultural values, ethics, and taboos (Osherenko 1988(a), 93) which links the participants to the Nunamiut community and to the natural order on which the Nunamiut culture is dependent. The Nunamiut system does not separate humans and the natural world, rather it links them together into an analogous religious whole.

NPS runs on written rules and regulations enforced by persuasion and the threat of punishment. Nunamiut enforce harvest rules by consensus, with physical punishment as a last resort only after shunning the individual if s/he does not admit guilt and make amends.

Nunamiut leadership is maintained by the greatest knowledge and the effective use of it. Leaders lead not only with the harvest, but also with other family or community concerns which link all together into a web of relationships unlike individual Western leaders and experts. Leadership power can only be acquired from the community through consensus, sharing, and not by coercion as with Western culture.

Nunamiut management is based on the fear of breaking the reciprocal relationship with nature which could result in starvation and death. NPS management is based on the fear that humans in a natural setting will destroy the wildness. This belief re-enforces the split between the parties about man's role in the natural environment, whether man is part of the natural environment or not.

The differing beliefs about humans role in the natural environment have precipitated and intensified the hostility between the Nunamiut and NPS. A comparison of NPS' Monthly Recreational Visitation Chart (Table #3) with the two yearly Subsistence Cycles of Spearman and Bane and Nelson's Generalized Annual Cycle of Activities for Gates of the Arctic Region (Table #4 & #5) shows the future potential for conflict between resource uses. Understanding differing worldviews of

wilderness and subsistence, with an attitude toward building a cooperative relationship based on areas of agreement, would lessen the existing hostility and may prevent future conflict.

The popular definitions of wilderness and subsistence are not flexible enough for cultural evolution and lock the resources and users into an inaccurate romantic perception about the past. Wilderness with NPS and wilderness users means a state of mind defined by human perception, based on a feeling about a place, "part of the geography of the mind" (Nash 1979, 39). Wilderness provides an opportunity for detachment from the "urban-modern" aspects of society and "the submissiveness, conformity, and mass behavior" of daily Western life (Sax 1980, 42); wilderness is a refuge away from the dehumanizing aspects of the advancing technologies which destroy individual uniqueness. A wilderness area, by law, requires "outstanding opportunities for solitude or a primitive and unconfined type of recreation" (P.L. 88-577). Wilderness at times is a romantic window on nature and aboriginal man, instead of a realistic window on nature and its past treatment (Bratton 1985, 128).

The wilderness concept of nature is alien to Native aboriginal cultures:

Only to the white man was nature a "wilderness" and only to him was the land "infested" with "wild" animals and "savage" people. To us it was tame. Earth was bountiful and we were surrounded with the blessings of the Great Mystery. (McLuhan 1971, 45)

Robert Marshall's 1930s descriptions of the GANPP as an area with "no musty signs of human occupation.... an unbeaten path" (1970, 49) and present day descriptions of GANPP leave out any reference to the Nunamiut who lived there long before the white man's visit.

GANPP's wilderness classification reflects the Nunamiut's close relationship with nature and according to Nelson, Mautner, and Bane:

The fact that we identify Alaska's remote country as wilderness derives from our inability to conceive of occupying and utilizing land without altering or completely eliminating its natural state. But the Indians and Eskimos have been living this way for thousands of years (1982, 296).

Recreational use of land is foreign to the Nunamiut because they do not separate hunting, fishing, and camping as a recreational escape from daily life (Wickersham and Flavin 1983, 274); it is daily life. Land surrounding the Nunamiut is their homeland, their garden, supermarket, and church wrapped together in a "kind of intimacy [that] lies beyond the experience of most Euro-Americans (North Slope Borough Contract Staff 1979, 28, 35). The Nunamiut have been, and today continue to be, part of the natural ecosystem.

With ANILCA Congress decided to break from the traditional wilderness view and include humans in wilderness equation if they followed a traditional subsistence lifestyle. Congress clearly said "subsistence uses by local rural residents have been, and are now, part of the ecosystem serving as a primary consumer in the natural food chain" (U.S. Congress. Senate. Committee on Energy and Natural Resources. Report No. 96-413 1979, 171). The acceptance of humans in the wilderness continues to be a stumbling block between the NPS and Native cultures:

Questions exist among managers whether human predation of park wildlife by local residents should be considered a natural part of the park ecosystem. (Mills, D. 1987, 2)

Traditional NPS management is based on "natural and healthy" wildlife populations. Definitions of "natural and healthy," like wilderness, do not include humans as integral parts of the natural environment. The subjectivity of wilderness management which results from the lack of clear definitions of natural and healthy, NPS' resistance to the consumptive aspects of hunting, and traditional NPS management philosophy places subsistence and all the natural resources at risk to changing administrations.

Plenty of common ground exists between the NPS and

the Nunamiut concerning man's role with the natural environment. The Nunamiut management philosophy supports the NPS' wilderness management ideal of "not to mold nature but to manage direct and indirect human influences so as to minimize their impact on natural processes in Wilderness" (Schoenfeld and Hendee 1978, 96). Nunamiut have historically controlled their actions, blending their activities to nature's rhythm instead of manipulating the environment.

Defining subsistence in a wilderness area continues to be a schism between the Nunamiut and the NPS with both placing great emphasis on drawing the line on each other's actions; the NPS within the definitions of "natural and healthy" and "traditional," and the Nunamiut on their long cultural relationship with the land. The main contention points are subsistence's consumptive impact on game populations (Harmon 1987, 148) and the use of mechanized transportation.

The problem of defining subsistence relates to the cultural differences between the definers and the users. Government regulatory regimes try to confine subsistence activities within a "Steel web of exact definitions, exact locations, and exact numbers" (Berger 1985, 67). Such precise definitions, using the catch words of "customary and traditional" in ANILCA, according to

Schneider:

...characteristically fail to account for the historical record which reflects the important survival values of flexibility, innovation, and change. (1982, 169)

For the Nunamiut, subsistence definition is not the issue. The issues are:

1) access to resources, 2) competition for scarce resources, 3) acquiring and maintaining the means with which to participate in subsistence, and 4) maintaining a way of life that is important to them. (Harry 1988, 2)

All of ANILCA's fine print, the Superintendent's centralized power, no precise definitions of key terms, and cultural differences threaten the critical factors to the continuation of Nunamiut subsistence. The critical factors are "mobility; the ability to find suitable subsistence alternatives when primary resources fail; and free access to necessary subsistence resources" (Gates of the Arctic Subsistence Resource Commission Meeting 1-29-86). In sum, the NPS needs to understand and appreciate what a homeland is and the Nunamiut need to appreciate and understand the national and world significance of GANPP. Successful, appropriate, and long lasting natural resource management in Alaska must "involve managers and researchers working in concert with local residents, communities and organizations" (Behnke and Haynes 1986,

149) (emphasis added).

History of Communication

The history of communication, or miscommunication has fed the fears of both parties. Communication during the implementation phase was poor which created an antagonistic relationship. The Nunamiut fears of an arbitrary and capricious NPS management style became a reality with the deterioration of communication over time. The planners and Congressional panels of the 1970s left an impression that NPS wanted meaningful Native involvement with resource management. ASRC' Nunamiut National Park and NPS' Nunamiut National Wildlands proposals represented the "new management strategies appropriate to conditions imposed by ANILCA" (Willis 1985, 289). Neither proposal succeeded but they established the relationship's "dreamers" phase where plans incorporated Nunamiut ideas and protection of Nunamiut subsistence. OMB's proposals' rejections warned planners that innovative, cooperatively managed land classifications were not welcome and GANPP should be "envisioned as a park that would serve the more traditional purposes... of the National Park System especially where wilderness is concerned" (Belous interview 11-28-88).

The dreamer's phase ended when NPS drafted the

park's Code of Federal Regulations (CFRs) which do not require hearings or consultation with affected parties. Alaska Legal Services spoke of NPS' 1981 CFRs process change:

Unlike the commendable efforts made by the National Park Service during the comment period on the previous national monument regulations, no park service employee held any meetings with the village concerning these proposed regulations. (Jeffery 1981, 1)

The CFR incident and NPS' inholdings property policy of consolidating or eliminating inholdings to control impacts fed the Nunamiut's fear of outsiders controlling their actions and subsistence. NPS' "business as usual" approach did not work because of the unique Alaskan conditions (Brown Interview 12-3-87).

Communication continued to deteriorate with the recreational easements negotiations across Native lands because of the lack of face to face meetings (Morry 1982). The lack of face to face meetings with the Nunamiut or their leaders, may have been taken as shunning, a severe form of Nunamiut punishment.

Following the easements in 1983, ASRC and the Department of the Interior exchanged ASRC land around the village of Anaktuvuk Pass for potential oil rich land on the Arctic National Wildlife Refuge's coastal plain. The exchange negotiations did not include

consultation with Nunamiut leadership. Last minute ATV use easements were added to gain village support for the exchange.

The exchange placed the GANPP staff in a dubious position of possessing desirable inholding property without involvement by those closely concerned with the exchange, painting NPS as the heavy-handed agency threatening Nunamiut subsistence without direct negotiations. The GANPP staff took tremendous heat after the exchange because of the lack of Nunamiut consultation even though there was Nunamiut representation during negotiations (Collins interview 10-24-88). By now miscommunication had destroyed open communication.

The Fitzwater Case and the resulting traditional use zoning to designate traditional subsistence use areas represented another threat to Nunamiut subsistence. By now the Nunamiut felt NPS was planning to phase out subsistence through regulations (CFR), land grabs, and constricting subsistence use zones - without even consulting the Nunamiut.

Congressional documents supported subsistence use zones to protect GANPP's wilderness and authorized GANPP's Subsistence Resource Commission to determine the zones and a subsistence hunting program. NPS drew its

own zones and then asked for comments, a process which ignored the Nunamiut's desire for an active role in subsistence management. During the zoning controversy came the threat of fines, equipment confiscation, and incarceration if the Nunamiut left the ATV easement corridors (Brower 1984, 1).

Miscommunication continued with the first Draft GMP. The prioritization of inholdings, restriction of inholding access, support of subsistence zoning, use of misleading ATV photographs, and an overall restrictive tone toward subsistence further fueled Nunamiut fears of an arbitrary and capricious NPS management style (Kakaruk 1985, 10). The GMP process and zone mapping ended up being reactive instead of pro-active toward Nunamiut involvement.

The NPS miscommunication through 1985 and the resulting hostility of rural residents of GANPP forced the resignation of the Superintendent. The new Superintendent's style of seeking out the Nunamiut on a more personal basis has improved the relationship with the Nunamiut; "He comes... just to talk to people" (Hugo Interview 2-24-88).

The pending ATV Agreement is an example of the improved relationship. The agreement gives the Nunamiut Corporation the authority to determine ATV easements

eligibility. Also it, would reopen 1983 land exchange areas to unrestricted ATV access. The agreement offers NPS' enforcement protection against illegal hunting on Native lands and provided additional protection for Nunamiut subsistence.

Recommendations

This study has explored the history of communication, the different management styles and philosophies, and the differing definitions of man's role with the natural environment in the key areas of wilderness and subsistence for the NPS and the Nunamiut. Each of these issues contributed to the poor relationship between the Nunamiut and the NPS. GANPP offers one of the last chances to do things right. The survival of subsistence in GANPP is as important to the long-term health of the park as it is to the long-term health of the Nunamiut.

To know where one stands in relation to... resources, to know what cultural and natural conditions define that relationship and might allow or force its change in the future, and to be able to distinguish actions that overshoot from actions that sustain a balance between humanity and nature is to increase community security and self-sufficiency in a world that daily has less of both. (Weeden 1985, 116)

Wilderness users, the NPS, and the Nunamiut all feel a connection with the land, a strong attachment to the land. These common points of agreement have not

been seriously explored and developed between the parties because the hostility remains. Exploring these common points and the definitions of wilderness and subsistence in a non-confrontational and open forum with the emphasis on points of agreement would be a step in the direction of ending negative assumptions on the part of the parties involved.

Both the NPS and the Nunamiut will need to understand the cultural and natural conditions defining their relationship and the balance between protecting cultural diversity and protecting wilderness. Their different management styles probably have contributed to the hostility, but the underlying appreciation and concerns of both parties for GANPP's natural environment represent a strong foundation on which to build a cooperative relationship.

An Alternative: Co-Management. Alaska represents one of the last wilderness settings (in the orthodox Western sense of vast acres untrammelled by Western civilization) which is also a setting for Native subsistence. The situation in Alaska offers the unique opportunity to blend the rapidly disappearing assets of wilderness with the Native subsistence way of life into a long lasting, rich, and rewarding partnership.

This blending will require an innovative resource

management style which incorporates the strong points of the Western and indigenous management systems. The new way must be a concerted effort of local residents, communities, organizations, and the NPS, working to overcome their fears. It will require the NPS to be dedicated to two principles:

First, holism, that there is no seam between culture and nature; Second, localism, that no park can survive without the enthusiastic support of the surrounding population. (Chase 1988, 37)

What is needed is a comprehensive, holistic view of the resource, where the indigenous people are an integral part of the park, as much as the forests, waters, wildlife, and endangered species. Management needs to think more "carrots" or incentives than "sticks" or punishment because the very existence of management agencies instinctively implies the stick. Few people outside of the agencies doubt the agencies' enforcement authority when the goals and objectives are in harmony with society's values.

In order to be effective, the new system of management must be a sensitive program of mutual education in which each party seeks to "understand the orientation of the other for their common benefit" (Kelso 1982, 637). Written regulations and laws, the cornerstones of Western culture and management, do not

have to end to accommodate the unwritten or uncoded norms of the Natives. But to be meaningful to all regulations must:

...truly balance protection of the resource with needs of the people, if the rural people understand the regulations, if the regulations are not handed down in a condescending manner - then people in the villages may [will] become the strongest supporters of the regulations and management policies. There is no group which has a greater interest in protecting fish and game resources than village people who depend upon them for subsistence. But unless management agencies make significant changes in their relationship with the rural subsistence users, these people who should be the most ardent advocates of fish and wildlife management will become ever more bitter and aggressive in their struggle against management agencies and their policies. (Davidson 1974, 40)

Based on the belief resource that management has to do with people management and understanding their makeup and perceptions, co-management in GANPP shows the most promise. Osherenko defines co-management as:

...an institutional arrangement in which government agencies with jurisdiction over resources and user groups enter into an agreement covering a specific geographic region and make explicit:

- 1) a system of rights and obligations for those interested in the resource,
 - 2) a collection of rules indicating actions that subjects are expected to take under various circumstances, and
 - 3) procedures for making collective decisions affecting the interests of government actors, user organizations, and individual users...
- (1988(a), 94)

Co-management regimes can employ different organizational structures though successful co-

management regimes "always give the indigenous users a sense of ownership in the system" (Osherenko 1988(a), 95), have adequate funding, and have cultural and linguistic barriers removed (Ibid., 103). The Nunamiut National Park concept developed by ASRC (1973) and the Nunamiut Wildlands developed by NPS (1974) represent co-management regimes because they call for establishing joint administration.

There are several examples of successful co-management in Alaska. The caribou permit system associated with the 1970s caribou crash which allowed villages to distribute the caribou permits is one. North Slope subsistence whale hunting management represents another successful co-management regime where Inupiat whalers convinced the International Whaling Commission (IWC) that subsistence whaling was essential to their cultural survival. The Inupiat whaling organization, the Alaska Eskimo Whaling Commission (AEWC), regulates its own hunt which is monitored by the National Oceanic and Atmospheric Administration (Osherenko 1988(b), 10). Both examples represent successful co-management regimes because the determination of who hunts and how many animals are harvested rests with the Native community and their traditional way of providing for the community.

The co-management regime recommended for GANPP and the Nunamiut would bridge some of the gaps between the government and indigenous systems of natural resources management (Osherenko 1988(b), 11; Usher 1986(a) & 1986(b)). The regime would allow the Nunamiut a more effective voice in the management of critical subsistence resources through research, enforcement, and rule-making. The regime would result in more effective NPS nature resources management because critical baseline subsistence harvest data would be made available and a relationship based on mutual trust and respect would develop. This new relationship would lessen the need for heavy handed enforcement practices and threats of legal actions by both parties.

The co-management regime would deal with the overall Nunamiut concerns about the protection of subsistence rights on NPS land for past and present Anaktuvuk Pass residents and their descendents. A co-management regime would also deal with reducing conflicts between subsistence and recreational uses on NPS, ASRC, and Nunamiut Corporation lands. It regime would deal with the NPS concerns of keeping the present limits of ATV use on park lands, of limiting the growth of subsistence use to present levels, of providing easier public access across Native lands to park lands,

and of limiting the development of Native lands to protect nearby park lands. The geographic region covered by the co-management regime would be ASRC and Nunamiut corporation lands within and contiguous to GANPP, and NPS lands.

The co-management regime would involve creating the Nunamiut Co-Management Committee to represent the Nunamiut residents, the Nunamiut Corporation, and the City of Anaktuvuk Pass. Actual title of the co-management committee would probably be different but its duties and responsibilities would remain the same. The committee's possible membership composition could consist of the Anaktuvuk Pass mayor and the IRA president, the Nunamiut Corporation president, the local community advisory council chairman, and an active subsistence harvester.

A co-management agreement which defined the management and fiscal responsibilities of the parties involved would have to be signed by the Nunamiut Co-management Committee and the NPS. Drafting the co-management agreement would require following the ground rules followed after the 1974 "Bolt Decision," (United States vs. Washington 1974) to develop cooperative natural resource management practices to meet the needs of the timber industry and tribal fisheries. The key

ground rules would help both parties understand each other's different definition of man's role with the natural environment and work toward a more cooperative relationship between the NPS and the Nunamiut. The key ground rules are:

- *Negotiators are required to leave their weapons at the door. This means leaving their positions at the door, in order to listen to the other side with an open mind and to work at solving others' problems instead of just their own.

- * Negotiators must truly listen, in order to find a solution to the problems instead of trying to prove points. They must ask questions in order to understand and make statements to explain or educate.

- * Negotiators are free to walk away from the table at any time, but must state their positions as to why they are leaving. That gives another chance to see if they can resolve the issue in a satisfactory way.

- * Commitment must be made to attempt to reach a consensus [sic]. (Frank, Jr. 1989/1990, 6-7)

During the drafting of the co-management agreement consultation and support would be sought from the ASRC, the North Slope Borough, the GANPP Subsistence Resource Commission, the Regional Advisory Council, and the ADF&G. The Nunamiut Co-management Committee would meet at least annually with the park superintendent at the village in late spring before the bulk of park visitors arrive and before summer subsistence activities.

The recommended Nunamiut Co-management Committee

responsibilities would be in the areas of research, eligibility, monitoring, and conflict prevention. One of the committee's first tasks would be to research the methods, the means, and the amounts of subsistence harvest for past and present Nunamiut in the Central Brooks Range. Funding for the study would be sought from the NPS, the GANPP Subsistence Resource Commission, the North Slope Borough, the ASRC, the ADF&G, BIA, and other government agencies. The study could be done by the committee or contracted with another agency like the North Slope Borough or the ADF&G, Division of Subsistence, or a university. The study would provide the baseline harvest data critical to effective NPS resource management and more representative of Nunamiut traditional harvest areas. The traditional harvest areas would be incorporated into the GANPP Subsistence Resource Commission subsistence hunting program required by ANILCA.

The Nunamiut Co-management Committee would be responsible to determine who is eligible to subsistence hunt on Nunamiut and ASRC land as well as on nearby NPS land. Subsistence eligibility determination by the committee would be limited to Anaktuvuk Pass residents on an annual basis. The eligibility determination would maintain a reasonable ceiling on the number of

subsistence harvesters and would reflect past and present harvest levels in conjunction with present and future resource potential. The committee's subsistence eligibility responsibility would relieve the NPS from the thorny problem of determining who qualifies for subsistence on an individual basis whenever it became necessary to restrict the subsistence harvest in order to "protect the continued viability" or "to continue such uses" (ANILCA Section 804).

The Nunamiut Co-management Committee, through its subsistence harvest studies and eligibility determinations, would be monitoring subsistence activities over time and would make recommendations to protect the subsistence resources. Monitoring would include annual subsistence harvest reports to the NPS, the North Slope Borough, and the ADF&G. The Committee, through its eligibility requirement, would have the authority to deny eligibility to individual subsistence harvesters whose activities threatened the future of subsistence.

The Nunamiut Co-management Committee subsistence studies and monitoring would be important in that they could reduce existing and future potential conflicts between subsistence and recreational uses. The committee's data would provide the necessary information

to develop plans to avoid conflicting resource uses. The committee would draft plans shifting subsistence use to areas and/or times of less potential conflict with recreational use. The committee, if needed, could go as far as determining where, when, and what species subsistence harvesters would take in order to protect game stocks, lessen resource impacts, increase hunting success, and lessen conflict with other resource uses. The committee would be applying the traditional Native resource management practice of area and/or specie rotation.

In order for this co-management regime to become an effective reality both the NPS and the Nunamiut would be required to give up something (authority, rights, property). The NPS would have to share its decision-making authority with the Nunamiut and provide guarantees that the NPS will protect the subsistence rights of the Nunamiut and their descendants. The Nunamiut, on the other hand, would have to limit their ATV use on park lands, limit the growth of subsistence use, and limit development of Native lands (ASRC and Nunamiut Corporation lands).

A successful co-management regime would also require the exchange of expertise between the parties involved. The NPS would provide better enforcement of

illegal hunting on Native lands by enforcing its own regulations against sport hunting on Native corporation lands. The NPS could assist with future development of a Nunamiut wilderness tourist industry in Anaktuvuk Pass by sharing NPS knowledge of the needs and desires of the wilderness users. The Nunamiut would share their Native natural history, generations old, of the Central Brooks Range. The Nunamiut would be the eyes and ears of the NPS management because of their intimate relationship with the land.

The development of a co-management approach meets NPS' challenge to develop new management strategies for the unique settings and requirements in Alaska. Co-management represents a step toward solving many of GANPP's natural resource management problems because it would combine NPS resource management expertise with Nunamiut natural history and land ethic, and would result in a strong management which would protect GANPP's natural and cultural integrity.

Future Studies. A follow-up study would concentrate on the transient wilderness users with an investigation of their feelings about ATV use, subsistence, and village life. The study would determine the wilderness users' expectations before experiencing Anaktuvuk Pass and surrounding wilderness

and which expectations were met or not and why. The study would discover the standards of acceptance and/or rejection of ATV use and subsistence in GANPP. Coupled with this would be a study of the Nunamiut expectations and realizations in the area's wilderness use, airplane traffic, and invasion of privacy.

With the drafting of ANILCA some parks were designed to protect subsistence resources as a purpose of the park. Has including subsistence as a purpose decreased the conflict with traditional NPS management, increased subsistence protection, and provided an active subsistence users' role in resource management? This study would discover what new management strategies managers follow, if any, to meet the subsistence purpose of the park unit.

Finally, a comparison study needs to be conducted with a Native village surrounded by a U.S. Fish and Wildlife Refuge in Alaska with wilderness designation to see if the same types of conflicts occur. A study of this type would test if the consumptive issue surrounding subsistence is NPS' main problem with subsistence and find out if there are other factors of the subsistence controversy in Alaska.

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APPENDIX A

ACRONYMS

ADF&G	Alaska Department of Fish and Game
ANCSA	Alaska Native Claims Settlement Act of 1971
ANILCA	Alaska National Interest Lands Conservation Act of 1980
ASRC	Arctic Slope Regional Corporation
ATV	All Terrain Vehicle
BIA	Bureau of Indian Affairs, U.S. Department of the Interior
BLM	Bureau of Land Management, U.S. Department of the Interior
GANPP	Gates of the Arctic National Park and Preserve
GATES OF THE ARCTIC	Gates of the Arctic National Park and Preserve
NPS	National Park Service, U.S. Department of the Interior
NSB	North Slope Borough
UAF	University of Alaska Fairbanks
USDOI	United States Department of the Interior
USDOI/NPS	United States Department of the Interior/ National Park Service

APPENDIX B

Nunamiut Population Estimates 1400 - 1979 from "In the National Interest: A Geographically Based Study of Anaktuvuk Pass Inupiat Subsistence Through Time" by Hall, Gerlach, and Blackman 1985 page 340.

Number	Date	Area	Sources
0	before A.D. 1400	Interior Eskimos as defined here	Hall 1976
few	A.D. 1400-1600	Interior Eskimos as defined here	Hall 1976
fewer than 1,500	A.D. 1600-1800	Interior Eskimos as defined here	Hall 1976
1,050	1842	Utukok River (250), Colville River (500), Arctic coastal plain (300)	Burch 1980
1,400	1870	Upper Noatak, Brooks Range, Colville River (300-400), Anaktuvuk Pass (100), Chandler Lake (150), Killik River (100-150)	Campbell 1962:387-394, 1968:1
300	1875	Upper Noatak River, Colville River	Collins 1954:123-124
1,000+	1880	Brooks Range, Colville River basin, Sagavanirktok River	Gubser 1965:52
42	1890	Upper Noatak River, Colville River	Collins 1954:123-124
500	early 1900s*	Colville River basin	Rasmussen 1927:317
300	1900	Brooks Range, Colville River basin	Gubser 1965:20
800	1900	Noatak River to Mackenzie delta	Ingstad 1954:29-30
3,000	1895-1905	Kobuk River, Selawik River, Brooks Range, Colville basin, rivers flowing into Arctic Ocean	Larsen and Rainey 1948:31; Spencer 1959:21
150-200	1905	Brooks Range, Colville basin, Sagavanirktok River	Gubser 1965:55
few families	1913-1914	Colville Basin, Sagavanirktok River (one family)	Leffingwell 1919:67
20+	1920	Brooks Range, Colville basin, Sagavanirktok River	Gubser 1965:55
0	shortly after 1920	Brooks Range, Colville basin, Sagavanirktok River	Gubser 1965:55
3 families	1938	Brooks Range, Colville basin, Sagavanirktok River	Gubser 1965:55
less than 50	1939-1941	Brooks Range, Colville basin, Sagavanirktok River	Gubser 1965:55
65	1949	Vicinity of Anaktuvuk Pass	Ingstad 1954:26; Larsen 1958:574
71	1951	Vicinity of Anaktuvuk Pass	Rausch 1951:154
48	prior to 1954	Vicinity of Anaktuvuk Pass	Collins 1954:123-124
78	1955	Vicinity of Anaktuvuk Pass	Laughlin 1957:7
85	1957	Vicinity of Anaktuvuk Pass	Pospisil and Laughlin 1963:180
96	1960	Vicinity of Anaktuvuk Pass	Gubser 1965:96
133	1969	Vicinity of Anaktuvuk Pass	Hanson 1969
180	1979	Anaktuvuk Pass	Spearman 1979

* Based on number at Colville mouth in spring; probably not 1924 as suggested by Larsen and Rainey 1948:31.

APPENDIX C:

Title VIII of ANILCA

Sec. 801. The Congress finds and declares that -

(1) the continuation of the opportunity for subsistence uses by rural residents of Alaska, including both Natives and non-Natives, on the public lands and by Alaska Native on Native lands is essential to Native physical, economic, traditional, and cultural existence and to non-Native physical, economic, traditional, and social existence;

(2) the situation in Alaska is unique in that, in most cases, no practical alternative means are available to replace the food supplies and other items gathered from fish and wildlife which supply rural residents dependent on subsistence uses;

(3) continuation of the opportunity for subsistence use of resources on public and other lands in Alaska is threatened by the increasing population of Alaska, with resultant pressure on subsistence resources, by sudden decline in the populations of some wildlife species which are crucial subsistence resources, by increased accessibility of remote areas containing subsistence resources, and by taking of fish and wildlife in a manner inconsistent with recognized principles of fish and wildlife management;

(4) in order to fulfill the policies and purposes of the Alaska Native Claims Settlement Act and as a matter of equity, it is necessary for the Congress to invoke its constitutional authority over Native affairs and its constitutional authority under the property clause and the commerce clause to protect and provide the opportunity for continued subsistence uses on public lands by Native and non-Native rural residents; and

(5) the national interest in the proper regulation, protection, and conservation of fish and wildlife on the public lands in Alaska and the continuation of the opportunity for a subsistence way of life by residents of rural Alaska require that an administrative structure be established for the purpose of enabling rural residents who have personal knowledge of local conditions and requirements to have a meaningful role in the management of fish and wildlife and of subsistence uses on the public lands in Alaska.

POLICY

Sec. 802. It is hereby declared to be the policy of Congress that -

(1) consistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands; consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for each unit established, designated, or expanded by or pursuant to titles II through VII of this Act, the purpose of this title is to provide the opportunity of rural residents engaged in a subsistence way of life to do so;

(2) nonwasteful subsistence uses of fish and wildlife and other renewable resources shall be the priority consumptive uses of all such resources on the public lands of Alaska when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population, the taking of such population for nonwasteful subsistence uses shall be given preference on the public lands over other consumptive uses; and

(3) except as otherwise provided by this Act or other Federal laws, Federal land managing agencies, in managing subsistence activities on the public lands and in protecting the continued viability of all wild renewable resources in Alaska, shall cooperate with adjacent landowners and land managers, including Native Corporations, appropriate State and Federal agencies, and other nations.

DEFINITIONS

Sec. 803. As used in this Act, the term "subsistence uses means the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; and for customary trade. For the purposes of this section, the term -

(1) "family" means all persons related by blood, marriage, or adoption, or any person living within the household on a permanent basis; and

- (2) "barter" means the exchange of fish or wildlife or their parts, taken for subsistence uses -
- (A) for other fish or game or their parts; or
 - (B) for other food or for nonedible items other than money if the exchange is of a limited and noncommercial nature.

PREFERENCE FOR SUBSISTENCE USES

Sec. 804. Except as otherwise provided in this Act and other Federal laws, the taking on public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes. Whenever it is necessary to restrict the taking of populations of fish and wildlife on such lands for subsistence uses in order to protect the continued viability of such populations, or to continue such uses, such priority shall be implemented through appropriate limitations based on the application of the following criteria:

- (1) customary and direct dependence upon the populations as the mainstay of livelihood;
- (2) local residency; and
- (3) the availability of alternative resources.

LOCAL AND REGIONAL PARTICIPATION

Sec. 805. ...the Secretary in consultation with the State shall establish -

- (1) at least six Alaska subsistence resource regions which, taken together, include all public lands....
- (2) such local advisory committees within each region as he finds necessary....
- (3) a regional advisory council in each subsistence region.

Each regional advisory council shall be composed of residents of the region and shall have the following authority:

- (A) the review and evaluation of proposals for regulations, policies, management plans, and other matters relating to subsistence uses of fish and wildlife within the region;
- (B) the provision of a forum for the expression of opinions and recommendations by persons interested in any matter related to the subsistence uses of fish and wildlife within the region;
- (C) the encouragement of local and regional participation pursuant to the provisions of this

title in the decisionmaking process affecting the taking of fish and wildlife on the public lands within the region for subsistence uses;

(D) the preparation of an annual report to the Secretary....

.....

(c) The Secretary... shall consider the report and recommendations of the regional advisory councils concerning the taking of fish and wildlife on the public lands.... The Secretary may choose not to follow any recommendations which he determines is not supported by substantial evidence, violates recognized principles of fish and wildlife conservation, or would be detrimental to the satisfaction of subsistence needs....

(d) ...The regional councils may present recommendation, and the evidence upon which such recommendations are based, to the State rulemaking authority The State rulemaking authority may choose not to follow any recommendation which it determines is not supported by substantial evidence... violates recognized principles of fish and wildlife conservation or would be detrimental to the satisfaction of rural subsistence needs.

.....

PARK AND PARK MONUMENT SUBSISTENCE RESOURCE COMMISSIONS

Sec.808. (a) Within one year from the date of enactment of this Act, the Secretary and the Governor shall each appoint three members to a subsistence resources commission for each national park or park monument within which subsistence uses are permitted by this Act. The regional advisory council established pursuant section 805 which has jurisdiction within the area in which the park or park monument is located shall appoint three members to the commission each of whom is a member of either the regional advisory council or a local advisory committee within the region and also engages in subsistence uses within the park or park monument. Within eighteen months from the date of enactment of this Act, each commission shall devise and recommend to the Secretary and the Governor a program for subsistence hunting within the park or park monument. Such program shall be prepared using technical information and other pertinent data assembled or produced by necessary field studies or investigations conducted jointly or separately by the technical and administrative personnel of the State and the Department

of the Interior, information submitted by, and after consultation with the appropriate local advisory committees and regional advisory committees and regional advisory councils, and any testimony received in a public hearing or hearings held by the commission prior to preparation of the plan at a convenient location or locations in the vicinity of the park or park monument. Each year thereafter, the commission, after consultation with the appropriate local committees and regional councils, considering all relevant data and holding one or more additional hearings in the vicinity of the park or park monument, shall make recommendations to the Secretary and the Governor for any changes in the program or its implementation which the commission deems necessary.

(b) The Secretary shall promptly implement the program and recommendations submitted to him by each commission unless he finds in writing that such program or recommendations violates recognized principles of wildlife conservation, threatens the conservation of healthy populations of wildlife in the park or park monument, is contrary to the purpose for which the park or park monument is established, or would be detrimental to the satisfaction of subsistence needs of local residents. Upon notification by the Governor, the Secretary shall take no action on a submission of a commission for sixty days during which period he shall consider any proposed changes in the program or recommendations submitted by the commission which the Governor provides him.

(c) Pending the implementation of a program under subsection

(a) of this section, the Secretary shall permit subsistence uses by local residents in accordance with the provisions of this title and other applicable Federal and State law.

COOPERATIVE AGREEMENTS

Sec.810.(a) In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No

such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency -

- (1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805;
- (2) gives notice of, and holds, a hearing in the vicinity of the area involved;

.....

ACCESS

Sec.811. (a) The Secretary shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.

(b) Notwithstanding any other provision of this Act or other law, the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation.

RESEARCH

Sec.812. The Secretary, in cooperation with the State and other appropriate Federal agencies, shall undertake research on fish and wildlife and subsistence uses on the public lands; seek data from, consult with and make use of, the special knowledge of local residents engaged in subsistence uses; and make the results of such research available to the State, the local and regional councils established by the Secretary or State pursuant section 805, and other appropriate persons and organizations.

PERIODIC REPORTS

Sec.813. Within four years after the date of enactment of this Act, and within every three-year period thereafter, the Secretary ... shall prepare and submit a report to the President of the Senate and the Speaker of the House... on the implementation of this title....

.....

LIMITATIONS, SAVINGS CLAUSES

Sec.815. Nothing in this title shall be construed as -
(1) granting any property right in any fish or
wildlife or other resource of the public lands or as
permitting the level of subsistence uses of fish and
wildlife within a conservation system unit to be
inconsistent with the conservation of healthy
populations, and within a national park or monument to
be inconsistent with the conservation of natural and
healthy populations, of fish and wildlife. No privilege
which may be granted by the State to any individual
with respect to subsistence uses may be assigned to any
other individual;

.....