ARCHAEOLOGY and HISTORY ALONG ALASKAN NATURAL GAS ROUTES

VOLUME TWO



A Study of Archaeological and Historic Potential Along the Trans-Alaskan via Natural Gas Pipeline Routes

Related To An Application Filed In Docket Number CP 75-96, et al. March 21, 1974



Volume Two by

and

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17 November 1975

Federal Power Commission Office of Energy Systems 825 North Capitol Street, N.E. Washington, D. C. 20426

Gentlemen:

We are pleased to submit herewith the report requested in your contract number FP-1780. This document is, in effect, Volume Two related to archaeological and historical potential on or along natural gas pipeline routes in Alaska proposed by Alaskan Arctic Gas Pipeline Company. Volume One, dated 14 March 1975, evaluated the same potential for routes proposed by the El Paso Alaska Company.

This report has also been assigned Catalog Number 75-8279 by the Library of Congress.

The "Afterword" in Volume Two contains data and conclusions attributable to the projects of both applicants, El Paso and Arctic Gas. In addition, the section on "Mitigating Procedures" contains a set of <u>Iroquois Archaeological</u> and <u>Historic Field Procedures</u>. All scientists engaged on this project and interviewed on this subject in Alaska and elsewhere encouraged their disclosure. We give to the Federal Power Commission and to the Department of the Interior a royalty-free license to reproduce this document in whole or in part and to allow third parties the right to reproduce freely the whole or portions of this document, including our field procedures cited above.

We compliment the Government for having commissioned this extensive, two volume survey of cultural resources affected by the proposed project. We are indeed grateful and proud of the confidence extended to us for both volumes of work, the first of its kind in the United States.

With kindest regards, we remain

Respectfully, IROOUOIS_RESEABO INSTITUTE Bernard W. Poirier

Director

AN OPERATING UNIT OF THE ARCTIC COMPANY, LTD.

THIS IS RECYCLED PAPER

A STUDY OF ARCHAEOLOGICAL AND HISTORIC POTENTIAL ALONG THE TRANS-ALASKAN NATURAL GAS PIPELINE ROUTES

This report was sponsored by the Department of the Interior and the Federal Power Commission under FPC contract: FP - 1780 of 10 October 1975.

The contents of this report reflect only the views of the contractor, IROQUOIS RESEARCH INSTITUTE, who is responsible for the facts, accuracy, analysis, evaluations and the recommendations presented herein and do not reflect the official views or policy of the Department of the Interior nor of the Federal Power Commission.

Volume Two
17 November 1975

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INTRODUCTION

PROLOGUE

Volume Two intends to evaluate the cultural potential along the natural gas pipeline routes proposed by the Alaskan Arctic Gas Pipeline Company on March 21, 1974; and to do so, fairly and equitably as compared to the evaluation in Volume One for the routes proposed by El Paso Alaska Company in its formal application of September 24, 1974.

For a work of this kind, the principal factors for evaluation are in the National Register criteria pursuant to the National Historic Preservation Act of 1966 and Chapter VIII, Advisory Council on Historic Preservation (Part 800), et al., and Executive Order 11593. This criteria establishes an arbitrary cut-off of fifty years [before the present] for a resource to be eligible for inclusion on the National Register. A "resource" must be associated with an event that has made a "significant contribution to the broad patterns of our history; ...or yielded, or may be likely to yield, information important in prehistory or history." However, the Federal Register also allows inclusion of property which has achieved significance within the past fifty years "if it is of exceptional importance."

Therefore, in this work the pre-history spans the earliest time through 1741, the time of the first European contact with Alaskan Natives, and the history spans from 1741 to fifty years ago - 1925, just a few years after the completion of the Alaska Railroad [1923].

It is our view and intent that both volumes constitute a single work and every reasonable attempt was made to update Volume One where needed and to avoid duplications in this volume. <u>However, general conclusions and those</u> recommendations in Volume Two apply to the proposals of both competing applicants, unless specifically stated otherwise.

The methodology employed and described in Volume One [pp. 33-42] has been used herein with only a few modifications. The Segments, or distinct portions of alternative routes, differ in this volume and the segments are shown on the map following this page.

Returning for a moment to the National Criteria associated with cultural resources, it must be noted that Alaska is quite unique among the fifty states, and that even a conservative interpretation of Federal regulations allows inclusion on the Register of most sites and buildings inventoried in the assessment. Archaeologically and historically, Alaska holds impressive credentials as the repository of Early Man's evidence in North America and of early American development in the north, and whatever Alaska has as cultural resources may well be threatened without carefully determining the mitigating procedures to be adopted to avoid destroying Alaska's cultural resources along any authorized gas pipeline route. Each segment is evaluated separately and in numerical sequence. The assessment procedure is tied to the <u>Alaska Heritage Resource Survey Index</u> [Anchorage] and for location to the quadrangle maps [scale 1: 250,000] of the United States Geological Survey. The map on the next page and the map's legend provide the keys to reconcile the Survey Index's alphabetical coding with the appropriate U.S.G.S. map's numerical coding.

Each site in the Survey Index has a six character identification used as an address code for electronic retrieval in a computer storage system. A three letter prefix gives the geographical location as keyed to a U.S.G.S. quadrangle map and the three number suffix designates a specific site within the area of that map.

For example: Survey Index Code <u>PSM 003</u> designates a specific site in the Phillip Smith Mountains quadrangle map, which is U.S.G.S. map number 135 in the Alaska series of 1: 250,000. The "003" also indicates that at least two other sites have been either identified or reserved within this quadrangle area. This computer entry is supported by a Record Card on which more detailed information has been provided. Both the Record Card and the computer entry provide location by longitude and latitude usually.

The information from both sources does not always reconcile with the site description of terrain and topography, and the coordinates are sometimes inconsistent with the descriptive location, or differ between the Record Card and the computer listing. This may be due to the reluctance of the field investigator to disclose the locality exactly to avoid a competing scientist from finding the spot or to minimize the chance of a "pot hunter" or potential scavanger of ursurping the resources.

This particular problem should be cleared up in Mitigating Procedures since it can be prejudicial to an applicant or prejudicial to the public. In the first case, an applicant may face a false routing problem and in the other case, the public may unwittingly lose a valuable site because of blameless misrouting by an applicant. Since the archaeological investigation is often the most demanding of all the "cultural resources' field work", it appears that in this case in Alaska, due to the magnitude of the project, both negative field data must be accounted for as well as the traditional positive data. This, too, must be included in the Mitigating Procedures.

This volume does contain a special section on "Mitigating Procedures" and also contains separate paleoenvironmental descriptions for each segment. While it is unfortunate that the same was not provided in Volume One, the paleoenvironmental settings for the El Paso segments can be easily extrapolated from the descriptions provided in this volume.



The paleoenvironmental settings describe the environment as Early Man would have found it some 25,000 or 40,000 years ago. Plants, animals and man who relied on them were subject to, in popular terminology, the ICE AGE. Actually there were different periods of glaciation and during each period the extent of ice caused sea level to lower. The relatively shallow seabed between Alaska and Siberia became exposed as the continental ice masses withheld water from the sea and the lowering sea level drained the water from what became a land bridge between North America and Asia. This connection between the continents is what scientists call the Bering Land Bridge or Beringia.

It is believed by a sizeable majority of the scientific community that the first man, Early Man, arrived in North America from Eurasia over this land bridge. Virtually all scholars in the field accept that man did enter North America over the land bridge, and that there was a bridge.

The conclusive answer is locked somewhere in Alaska or on the continental shelf between North America and Eurasia. The population origins of peoples throughout South America and North America may be determined from archaeological evidence being collected in Alaska now or in the near future.

This work accepts the thesis that Early Man arrived over the land bridge and via Alaska. The archaeological evidence contained in both volumes does support this thesis, and consequently the paleontologic record and the present variety of bioclimatological settings in Alaska provide the picture and the basis to better evaluate Alaska's cultural resources.

Since Volume Two follows the first volume by almost eight months, some new data affecting the first volume has come to light. Some of the new data comes from the Survey Index, other from reviews of unpublished manuscripts, or from the reviews of <u>American Antiquity</u>, <u>Arctic</u>, <u>Arctic Anthropology</u>, <u>American Anthropologist</u>, <u>Science</u>, and <u>Scientific American</u>. This volume also benefits from original work done by this organization in the interim and some of those results are incorporated in the evaluations or in the section on Mitigating Procedures, pp. 207-223.

A search of contractual records was made in order to establish a baseline of the contractual state-of-the-art upon which reasonable mitigating procedures can evolve. This state-of-the-art is contained in actual contracts issued by public bodies to conduct cultural resources investigations, particularly the field archaeological surveys. Appendix 2 contains copies of these contracts, excluding the private, confidential, proprietary or cost elements. Not all contracts received have been included. Generally these contracts, including the administrative or legal "boilerplate" fall into similar categories. The most representative of these categories are included, plus what appear to be the best and the worst. Also included are the most recent contracts issued by Alyeska Pipeline Service Company in Anchorage.

INDEX CROSS REFERENCES



ALASKA SERIES

USGS	1:250,000 Scale	Heritage Survey	USGS 1:250,000 Scale		Survey USGS 1:250,000 Scale Heritage Su		Heritage Survey
Map Number and Name		Index Code	Map Number and Name		Index Code		
84	Nabesna	NAB	121	Coleen	COL		
85	Tanacross	TNX	122	Christian	CRS		
86	Mt. Hayes	XMH	123	Chandalar	CHR		
100	Fairbanks	FAI	124	Wiseman	WIS		
101	Big Delta	XBD	135	Philip Smith Mts.	PSM		
102	Eagle	EAG	136	Arctic	ARC		
103	Charley River	CHR	137	Table Mountain	TAB		
104	Circle	CIR	138	Demarcation Pt.	XDP ·		
105	Livengood	LIV	139	Mt. Michelson	XMM		
106	Tanana	TAN	140	Sagavanirktok	SAG		
117	Bettles	BET	150	Barter Island	BRL		
118	Beaver	BVR	151	Flaxman Island	XFI		
119	Fort Yukon	FYU	152	Beechy Point	XBP		
120	Black River	BLR					

In the eight months prior to the commissioning of Volume Two by the Federal Power Commission and the Department of the Interior, we had ample opportunity to review the first work and had the advantage of criticizing our own results before they were released to the public. We felt that the first work was too clinical and empirical and not geared in language which the general public could easily understand, as is its right. And the Government felt that Significance to Native Groups had not been addressed directly enough, and that the translations and illustrations needed attribution.

Therefore the readers of Volume One will find that the overviews of pre-history and of history are now more meaningful and that there should be no doubt over our assessment of impact on those Native groups living in Alaska's bush. Readers unfamiliar with Alaska might suppose a derogatory sense to the word "bush" and should not. It is an accepted term in Alaska and refers to the areas or villages found many air and ground miles from the few urban centers of that great and immense state.

A special section discusses separately the Significance to Native Groups, and we have attempted to describe the illustrations more fully and to provide the translations with the original Russian or French texts.

During the last eight months great changes have been occurring in Alaska. The crude oil pipeline has been under construction and long portions have been completed. During the same period we had the opportunity to see the construction work and to conduct field investigations from the Bering Sea to the Yukon border.

Following the section on Mitigating Procedures are included a series of stipulations and procedures, developed independently, which include the accountable state-of-the-art in protection of cultural resources today if the natural gas pipeline project is authorized in Alaska. We include those "compliance procedures" (p. 215) since no other suitable example was found.

Appendix 1 contains copies of official correspondence related to our search for expert opinion. We thank all of those who took the time to respond.

This volume, Volume Two, was produced in six weeks. Anyone experienced in producing a comprehensive report such as this will appreciate the effort and the difficulties. Special recognition goes to anthropologists and expert archaeologists, Robert Humphrey and Beth Chambers for skill, thoroughness and professional balance, to Cecil Brooks for considerable original application on paleoenvironment, to Kira Bowman for endless hours in Russian language archives, to George Walker for tedious exactitude on location criteria of cultural resources in Alaska, to Juanita Tucker whose writing skills flexed at the <u>News-Miner</u> were exploited here, and to Camilla Luckey, an expert researcher, clear writer and very able editor.

> Bernard W. Poirier Director Iroquois Research Institute

CULTURAL CHRONOLOGY FOR THE ARCTIC AREA



PALEOENVIRONMENT

More so than for most of the land areas of the world the great continental glaciations of Pleistocene and Recent times have shaped the course of pre-history in Alaska and at similar latitudes in Canada, Asia and Europe. For the purposes of this study we have accepted the generally held view that the glaciations and accompanying changes in environment have been crucial factors in shaping the face of the land and determining the biota, including Man, which it presently contains or could have contained in the past. We also accept the corollary view that today's Alaskan glaciers represent a portion of a glacial cycle not yet ended and that the portion of the cycle we now observe in Alaska is a useful point of departure for extrapolating to past settings.



In terms of human history the most significant result of massive glaciations was the original peopling of the western hemisphere by the population spread across the Bering Land Bridge from Asia into Alaska. It is now accepted as fact that during periods of maximum glaciations a broad land corridor was opened between Alaska and Siberia because of falls in sea levels. The Bering Land Bridge (often called Beringia) occupied variable portions of the continental shelf now covered by the Bering and Chukchi Seas, the extent of the land varying with the fluctuations in the amount of water existing as glacial ice at any one time.

The glaciers themselves, while causing regressions of sea level, were also effective barriers to human occupancy or passage across vast areas of the North American continent. Thus, in both a time and space framework, both ice-covered and ice-free areas are predictors of past environments.

We accept as a working hypothesis that Early Man came to Alaska from Asia via a land route produced by an "ice age" and that glaciers in North America continued after his arrival to affect his dispersal over, and occupancy of large portions of the continent.

The continental interchange of flora and fauna which accompanied Early Man's arrival, together with prior interchanges spanning millions of years, were perhaps nearly as important as glaciers in determining the paleoenvironmental settings and ecosystems necessary for his survival. Because pre-historic man in Alaska lived by hunting, fishing and gathering; the probable existence of significant food sources at a particular time and place is emphasized in the Paleoenvironmental Zones into which we have divided the state of Alaska. Although these zones are generally defined by the maximum limits of major glaciations, mere proximity to a glacier does not by itself determine the environmental setting. For places equally near glaciers the modifying environmental influences are latitude, altitude, distance from the sea, isolation from maritime moisture sources by high mountains, and the velocity and persistence of winds.

Our sole and simple purpose for dividing Alaska into the following described Paleoenvironmental Zones is to evaluate the potential of these zones for containing archaeological sites dating from specific periods of the past.

ARCTIC COASTAL PLAIN PALEOENVIRONMENTAL ZONE

This zone on the Arctic Coastal Plain north of the Brooks Range has had a continuously arctic climate for the last 40,000 years but has not been glaciated. In this zone we also include a portion of the Continental Shelf of the Beaufort Sea, since the minimum sea level during the Wisconsin Glaciation would have produced a glacier-free land corridor almost twice the width of the present coastal plain. However, the once wider coastal plain only widens the geographical area which man could have inhabited, and does not make human habitation in this zone more likely for the period of minimum sea level. The contrary is probably true, as the environment was likely very inhospitable here when the zone lay between the glacier covered mountain range to the south and a sea even more constantly frozen than today to the north.

Prior to the classical Wisconsin Glaciation maximum about 20,000 years ago the setting here was likely more hospitable than later, and more like the present bioclimatic setting. From the time of the last glaciation maximum until the present the climate alternated between cool-dry warm-moist, with a cooling trend inferred for the past several thousand years from the formation of soil upheavals or "pingos" in this part of the Arctic.

Although many archaeologists have proposed the Arctic Coastal Plain as a major diffusion corridor for several cultural groups dating from as early as 35,000 years ago, there is no direct archaeologic evidence from this area for human occupation of this Paleoenvironmental Zone for this early a date. However, the oldest tentatively dated archaeological site in North America (about 27,000 years old) is nearby at Old Crow in Canada. Assuming an original Asian origin and a net eastward diffusion through Alaska for Early Man, the age of the Old Crow site together with the Paleoenvironmental Settings indicates that sites as old as, or older than 27,000 years, might be found in the Arctic Coastal Plain or Intermontane Zones. These zones merge east of the Brooks Range and were simultaneously unglaciated.

On Paleoenvironmental grounds alone, the Arctic Coastal Plain Zone has good possibilities for containing archaeological sites dating from any period during the last 28,000 years. However, the probability of actually finding an archaeological site on the Arctic Coastal Plain is low for two reasons: (1) the ecosystems of this zone have probably never supported but a sparse and mostly transitory population without long sedentary occupation of a particular site; (2) the Arctic Coastal Plain terrain itself greatly reduces the discovery of archaeological features and artifacts; as Solecki, Salwen and Jacobson (1973) have said of this zone: "Unfortunately there is no forseeable possibility of finding offshore archaeological remains. Indeed, even on the present coastal plain, the search for materials of Early Man age presents serious problems, forcing us to seek evidence on higher ground.... The tundra cover makes observation of the ground surface practically impossible in most of the coastal province."

THE BROOKS RANGE PALEOENVIRONMENTAL ZONE

This zone, the Brooks Range, is essentially defined by the known and inferred maximum extent of the Classical Wisconsin Glaciation. Included in the zone are all the higher mountains and most of foothills on both sides of the range. During the time span we consider, the climate in this zone has varied from arctic to continental and both of these sub-divisions from colder and drier to warmer and wetter than presently. Some of the higher mountain valleys presently contain glaciers which may have had an uninterrupted existence for the entire time span considered.

The most significant effect of this zone is that it barred northsouth movements of flora and fauna, including man, for long periods of time. The Brooks Range, as a meterological barrier has, in the past as it does now, affected the climatic settings of zones to the north and south. During short warm intervals the tree line probably advanced northward and to higher elevations; but this zone has not had a complete forest cover and ecosystems have remained predominantly Moist Tundra and Alpine Tundra.

During ice-free periods the Alpine Tundra ecosystem would have reformed in the mountains and been capable of supporting a sparse game and human population. Conditions for human subsistence in the Brooks Range are probably now slightly better than the average for the last 40,000 years. In the lower mountain passes especially, subsistence game populations are concentrated, creating micro-environments more suitable for human habitation. Although it may be expected that archaeological sites in this zone are concentrated in major valleys, sites of as great antiquity as may be expected in the Arctic Coastal Plain or Intermontane Zones are not expected. This conclusion does not preclude human occupation of the zone prior to the Wisconsin Glaciation. It says simply that earlier sites were most likely swept away by the glaciation.

INTERMONTANE PALEOENVIRONMENTAL ZONE

As the paleoenvironmental zones are delineated principally on the basis of the maximum extent of the Wisconsin Glaciation, the Arctic Coastal Plain and Intermontane Zones merge both east and west of the Brooks Range. Bioclimatologically these are transition areas, but are distinct from one another in that the western portion is and has been more like the Arctic Coastal Plain Zone and the eastern portion more like the Intermontane Zone. However, the portions of the two zones crossed by proposed pipeline corridors have had significantly dissimilar paleoenvironmental settings. The Intermontane Paleoenvironmental Zone lies between the Brooks Range and the Alaska Range and includes portions of interior, western and southwestern Alaska. As is the case today, environmental settings in the past have varied considerably in both north-south and east-west directions across this broad zone. For this project the north-south variations are of most importance.

As compared with all other zones, the Intermontane Zone has experienced more fluctuations in climate and ecosystems. In particular the advances and retreats of forest ecosystems have been marked in this zone because of variations in both temperature and precipitation. Today and during interglacial periods in general, forest cover is limited mostly by temperature. During the Wisconsin Glaciation maximum the paleontological record for this zone shows a large xeric plant component consisting of species adapted to a periglacial steppe setting where forest cover was limited by lack of moisture. During this period forests in the zone retreated to lower and more moist areas along the Yukon, Porcupine and Tanana Rivers.

Paleoenvironmentally this zone has been open to human use and occupancy for all of the last 40,000 years, but has during this time presented a variety of settings ranging from Arctic Tundra to Alpine Tundra, steppe and boreal forest.

Depending on the particular time period, this zone has presented a nearly complete range of prehistoric Alaskan human habitats. All cultural adaptations except coastal marine mammal hunters could be present within or near the proposed pipeline corridors through this zone.

THE SOUTHERN MOUNTAINS PALEOENVIRONMENTAL ZONE

Pipeline corridors considered in this study pass near but not through this zone. Nevertheless, the environmental settings which have occurred here have affected bioclimatological conditions in the Intermontane Zone. The high mountains of the Alaska Range and coast mountains have profoundly affected the climate of the Intermontane Zone and served as a physical barrier to migrations of man, plants and animals. In this zone glacial cover has been extensive and long-lasting, and at the time of glaciation maxima would have most affected the paleoenvironmental settings of pipeline segment corridors forty-two and forty-four.

The climates of the Southern Mountains Paleoenvironmental Zone have been, as they are now, modified by proximity of the mountains to warmer maritime moisture sources. Although climates have varied from the present maritime and transitional climate, the variations have tended mostly to colder and wetter than today.

ARCHAEOLOGY

This summary of the prehistory of Northeastern Alaska supplements the archaeological description presented in Volume One, pages 39-40. Attention will focus upon regions which may be impacted by natural gas pipeline construction and which may have critical significance for the understanding of ancient population spread and developmental processes in the formation of distinctive Eskimo and Indian cultures in Alaska.

An examination of the archaeological literature on research and discovery in this region has revealed a considerable paucity of information concerning its prehistory. The few studies which have been conducted, however, present a clear indication of the potential importance of the Northeastern Alaskan sequence to our understanding of Arctic prehistory. Sites discovered in the Atigun Valley by Alexander (1967), the Shubelik/Sadlerochit Mountains (Solecki, 1973), the Sacavanirktok River region (Alexander, 1971) and the Peters Lake and Franklin Bluffs regions (Solecki, 1973) all contain materials which seem to relate to the earliest inhabitants of North America, and all are within or adjacent to the proposed pipeline alignments. Sites discovered by Hall and McKennan (1973) in the vicinity of Old John Lake and the Healy Lake sites (Cook and McKennan, 1971) appear to date from a somewhat later time period and suggest that the region has great promise in explicating our very incomplete knowledge of Athapaskan Indian prehistory and the relationships between Indian and Eskimo cultures in Alaska. Although there are very few sites known on the Arctic coast, the Jenness and Matthiassen excavations on Barter Island early in this century are currently being analyzed by Dr. Edwin Hall. (personal communication). Our knowledge of adjacent Alaskan and Canadian Eskimo sites indicate that the Beaufort Sea coast is a critical region for understanding the spread and development of Dorset and Thule Eskimo culture.



Polar bear swimming. Dorset III, Melville Peninsula 500 A.D.

To address the potential of the impacted region from the point of view of the initial peopling of North America, several concepts require further discussion. First, it is well-known that Homo Sapiens did not evolve in this hemisphere but that the human species originated and evolved in some part or parts of the old world and spread eastward into North America during the last glacial advance of the Pleistocene epoch. It is also nearly axiomatic that the original point of entry for early man into the North American continent was at Bering Strait where a land bridge of continental proportions existed for several thousands of years during the last glacial advance of the Pleistocene epoch. The land bridge supported a Tundra ecosystem which was a part of a continuous ecological zone extending from Northern Europe to Greenland. Upper Paleolithic hunters living on the arctic steppes and tundra of Siberia as early as twenty-five thousand years ago would have found no major environmental barriers to eastward movement nor would their expansion have been limited by severe climatic conditions. Rather, movement across the area is actually facilitated when ground and sea water is frozen solid.

The Arctic Coastal Plain of North Alaska was never covered by glacial ice during the Pleistocene, and it apparently supported vast herds (Stefansson, 1953) of the herbivorous big game animals that served as a primary food source for these early hunters. Of equal importance in assessing the potential archaeological resources of the region is the fact that big game hunting is more productive in an open tundra environment than in the closed spaces of the boreal forest which intruded into parts of the Yukon Valley to the south. Thus the Arctic Slope forms an ecological continuum with adequate subsistence resources and no glacial barriers all the way from Northern Russia to the unglaciated MacKenzie River Valley which offered access to the North American interior during much of the Pleistocene period, as shown on map "Possible Migration Routes from Eurasia to North America."

Archaeological evidence in Alaska for the initial entry of the Paleoindian is sketchy. Estimates of the earliest date of this occurrence vary from sixty thousand to about twelve thousand years ago. The evidence available strongly suggests that the region to be impacted may contain sites critical to the solution of this problem, but it should be understood that the phenomenon under discussion is much better understood as "population spread" than as "migration". (Giddings, 1950). The cultural and linguistic diversity of Aboriginal North America dramatically demonstrates that the continent must have been gradually populated by numerous isolated hunting bands moving across Beringia for thousands of years, and not in a single purposeful migration.



R. L. Humphrey [1962], Revised 1975.

These were, in all probability, bands of twenty-five to thirty individuals whose settlement patterns gradually changed as the ranging and foraging zones of the animals they hunted were expanded. The small groups that moved across Bering Strait could not have known they were "migrating" from one continent to another. We should expect early sites from the region under discussion to help explain this movement and to provide information on the relationships between ancient Eurasian and American cultures.

The map showing possible migration routes from Eurasia very clearly demonstrates the strategic geographical position of Northeast Alaska for the peopling of North America. Many of the important known archaeological sites lie along these possible migration routes in Alaska. The locations of these sites are shown on the following map. The region which might be impacted lies on a direct west to east line between the earliest sites of Western Alaska such as the Palisades I Complex at Cape Krusensterm (Giddings, 1960), the Driftwood Creek Complex at Utokok River (Humphrey, 1970), the Kogruk and Kayuk Complexes of Anaktuvuk Pass (Campbell, 1962), the Putu Site and Gallagher flint station of North Central Alaska (Alexander, 1972; Dixon, 1972) and the most ancient sites in the Canadian Arctic, including Engigsticiak on the Firth River and the fossil beds of Old Crow flats where modified bone tools have produced one of the earliest authenticated radiocarbon dates in the hemisphere (ca. 27,000 B.C.) (Irving and Harrington, 1973). It seems very likely that glaciation on the Northwestern Seward Peninsula and Capes Chukchi and Chaplin may have funneled both man and animals northward along the open tundra corridor between the Brooks Range and the Beaufort Sea. The discovery of further evidence of Paleoindian occupation in the area thus seems highly probable and may explicate the dating and association of the arctic fluted point sites to the Clovis complex widespread in interior North America by 11,500 B.P. (Jennings, 1974).

On the south side of the glaciated Brooks Range lay another possible migration route open to early hunters moving from Eurasia: the Yukon River valley. Although the treeless terrain of the more northerly route would appear to be the most likely region to attract Pleistocene big-game hunters, there is no reason to exclude the possibility that some of these ancient peoples followed the Yukon or Porcupine valleys as they moved toward the MacKenzie corridor. The Yukon valley may be heavily impacted by pipeline activities and should be carefully surveyed for early evidence of this kind.

In addition, it should be possible with the help of a competent Pleistocene geologist to date the association of human remains and glacial debris in the North/South Passes of the Brooks Range. Dates of this kind could provide major breakthroughs in our understanding of the diffusion and expansion of Paleoindian culture and clarify relationships between the Arctic and the interior. LOCATIONS OF IMPORTANT ALASKAN ARCHAEOLOGICAL SITES



Source: R. L. Humphrey (1962), Rev. 1975.

The study area may also provide important information concerning the origin and relationships of later cultures whose adaptation to the Arctic took a somewhat different form. At the present time, archaeologists possess perhaps less in the way of substantive knowledge of the ancestral cultures of the Northern Athapaskan-speaking Indians of Alaska and Canada than of any other Native group in North America, despite the fact that these peoples comprise the largest culture area on the continent. Several segments of the proposed pipeline traverse areas containing known sites relating to this problem in the historic territory of the Han and Kutchin Athapaskan tribes in the Chandalar, Yukon, Tanana, Sheenjak and Porcupine River drainages (Cook, 1970a, 1972a). An alternate pipeline alignment also passes near the village site at Healy Lake (Cook and McKennan, 1971) which provides one of the earliest Radiocarbon dates in the Arctic of 11,000 B.P. on Palaeoarctic materials. This site contains a stratigraphic sequence extending through Tuktu and Denbigh-like materials to historic Nabesna Athapaskan materials.

It further seems likely that sites from the Chandalar River region (Hall & McKennan, 1973) will provide new information relating to the difficult problem of distinguishing between prehistoric interior Eskimo (Nunamiut) and Athapaskan cultures, both of which occupied the area in antiquity. The discovery of more archaeological evidence in this transitional zone could reveal potentially valuable information regarding differing prehistoric socioeconomic adaptive strategies as well.

Finally, the Arctic coastal region from the North Pacific to Greenland contains abundant evidence of at least five thousand years of maritime Eskimo occupation. Although this area has remained almost completely unexplored archaeologically, it seems certain that it was the major route of westward diffusion for the earliest Eskimo cultures of the American Arctic, as represented by the microtool industries of the Arctic Small Tool tradition. The discovery of related sites could be extremely important in understanding the causes of and processes involved in the spread of maritime Eskimo culture to North Central Canada and Greenland. The most ancient Eskimo sites of these areas, of the Dorset and Pre-Dorset cultural traditions, are unquestionably closely related to the Denbigh Flint Complex of Western Alaska and other Arctic Small Tool Tradition sites, but the extent of that relationship is still very imperfectly understood. It is equally certain that the coastal zone was the scene of several major movements of people at later dates. One of the rare examples in the anthropological literature of a genuine and purposeful "migration" of people occurred about 1000 A.D. when a large number of Point Barrow Eskimos of Birnirk cultural affiliation (Stefanson, 1953; Ford, 1959) rapidly moved eastward into Canada and Greenland, engulfing existing Dorset peoples and establishing a distinctive cultural pattern known as Thule (Mathiesson, 1930). Although the impetus for this migration is thought to have resulted from changes in the seasonal migrations of the sea mammals on which the Barrow peoples depended for food, direct proof has been lacking. The discovery of Birnirk/Thule related sites in this intermediate zone could be of great value in clarifying the whole process of migration and diffusion. Discovery of sites related to a later return of Thule-related peoples to Alaska might also be expected in the coastal zone: another complex problem which needs further investigation.

In summarizing the admittedly sparse but extremely provocative evidence available for that portion of Northeastern Alaska which may be impacted by pipeline construction, it is difficult to escape the tentative conclusion that this is potentially one of the most important archaeological zones in North America. The available data strongly suggests the more or less continuous presence of man in this area from the very earliest occupation of North America to the present time. Even more important, it also seems likely that the region was a major corridor of movement for Paleoindian hunters from Eurasia to the interior of North America, as well as for later Eskimo peoples who remained and adapted to sea mammal hunting on the cold Arctic seacoasts. The review of known archaeological resources which follows reinforces the assertion that this is a region of unparalleled archaeological potential, while forcefully demonstrating that it is also among the most poorly known archaeological zones in North America.

HISTORICAL OVERVIEW

[This section focuses on Alaskan history since 1741 in the areas that may be impacted by any of the proposed natural gas pipelines. Specific events in history provide clues for discovering diaries, records, and articles. These, in turn, are valuable to determine more accurately the influences by which Alaskan history evolved.

The movement of men into the interior and to the arctic coast are more important to this discussion than are the political and economic forces which motivated them.

The motivating forces from 1741 to 1925 were furs and baleen, religion and gold. These pages summarize those one hundred and eighty-four years.]

Vitus Bering of Denmark discovered Alaska on behalf of Russia in 1741. The Czar now had a foothold in America as did his rivals in Europe. As fur seal and sea otter pelts were returned by ships' crews, a general interest grew to establish trading posts in the new land. The authority to establish trade and to colonize the area was concentrated formally in the 1799 charter given to the Russian American Company.

Alaska's history at the outset was founded on rivalry. Following the customs of the period, the Czar's court had one religion: Russian Orthodox. Each of the principal European rivals supported only one religion in court. The French and Spanish courts were Roman Catholic and the English espoused only the Church of England. The rivalry of these three religions became as important to the history of interior Alaska and of the arctic coast, as any other single movement by industry or governments.

Therefore, even before the formal entry of the Russian American Company into North America, a valiant vanguard of Russian clergymen had established themselves in Alaska and were anxiously awaiting the protection and support of the Russian traders. [On Christmas day, 1793, eight Russian monks left St. Petersburg and, after 293 days of travel by foot, sled, horse and boat, arrived 7,000 miles away at Kodiak to establish the first permanent church in Alaska, November 21, 1794.]

Volume One

The Russians colonized the Aleutians, the southern coast and the southeastern archipelago. For sixty-eight years, the Russian American Company was the commercial enterprise, governing power, and protector and often agent of the Orthodox religion. [See bigamy investigation, below and next two pages.]

By the nineteenth century, other exploratory pressure on the Russian territory of Alyeska was mounting in the east, from individual agents and voyageurs, and particularly from the Hudson Bay Company. The Russians pushed inland and Lieutenant Zagoskin went up the Yukon as high as Rampart.

HYGHA.16 Ужистый Стырной сухоту Ironeounin, nove Hara comons. Анитенанта Эсеоскина Br. 1842, 849 - 344 2000

Translation: JOURNAL of actual northern land expeditions under the command of Lieutenant Zagoskin. In years 1842, 1843 and 1844. National Archives

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йско-Лмерикан. Кампаніш насо Правленія Апраля 20.дня 1893² года N= 275.[±]

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Курекай Гродской шестичносной душа отношенісив оть 28 прошліого Марта подо №944. убъдошин Главное Колтаніи Правлеріе, тто ненгодащійся об колопіяв се ащвителень Курской Мпсцанинь Ивань Ивановъ Фатъевъ доставших отталь ко 7° ревизи скаоку, об коги показань онг венателия и шистощимо въ колоніяв дотий в то время, коща у него и въ Курског нагодиті и дене и сінь; се им сего и открывается онги Фатъевъ двоезенцень. - Правлеше Колпаніи, сообщая вамя о семя, проенть приказать учиниті тогное чоантдованіе, доиствительно ли фатъевъ донать в холоніяво закониватель ла сфатъевъ донать о семя, проенть приказать учиниті тогное чоRussian American Company Main Office April 20th, 1823 No. 275 To the head administrator in the Russian American Colony, Sir Lt. Commander of the Navy, bearer of the Order, Matvej. Ivanovich Muraviov.

An order to investigate a bigamy case.

The council of the city of Kursk, informs the central office, that it received a memorandum on the 28th of March, refering to the case

under No. 344. The person in question resides in the colony under the name of Ivan Ivanovich Fateyev. He is reported to have a wife and children in the colony and at the same time, a wife and son in Kursk. The central office advises you about him and demands an exact investigation to see if Fateyev is married in the colony in the legal sense of the word and, therefore, a bigamist. When did he enter into marriage, if that is the case, and why did he take this decision, leaving a wife behind? Who married him and have the clergymen taken the necessary precautions which are usually required? We would like a reply as soon as possible and a full report from the administration. Also, be kind to let us know whether he owes any money to the Company. Would he be willing to contribute money to the support of his wife in Kursk, who sincerely is asking him for some?

> Benedict Kramer Andrei Averin

End of translation

(A follow up memo was received, which stated that after a lengthy investigation Fateyev's marriage in the colony was declared unlawful.)

то конда она вотупила во брако? Кака она рениция и на сие, ос Ва на родина предного Законную дения? Кто се ваннала, и вакти на быт со сторона дирадосното надена и тредоотород объекновенно при таковная сидеах во употреблания ?- и о, си сопдения, при первой сказии, доставить во Правление? поли. - При семь блоговолите убадогиять, не состоить ли она какого сущиого добриять каинани, и несопасень будеть на общаху сколаконибуда денего на содерание нагодя изейся во курска сто дения, которая убъединевно сео о та просить.- Following the defeat of Napoleon and the creation of the Holy Alliance, in which Alexander played an important role, the United States worried about Russian intrusion from Alaska into the Pacific Northwest. It was to Russia that President Monroe addressed one of the early statements of his doctrine, when, in July 1823 the Russian Minister in Washington was told that "the American continents are no longer subjects for any new European colonial establishments." Meanwhile, Russia feared an alliance of two maritime powers; England and America, and balanced her landlocked interests with the 1825 agreement on the 54° 40' agreement.

The "no tresspass" policy was fine in the "south" but Russia and England ignored it in the north. Zagoskin penetrated into the interior and Sir John Franklin moved forward with his expedition to find the Northwest Passage in the same year as the agreement - 1825.

Following Zagoskin's explorations along the Yukon, the Russian American Company established a trading post at Nulato in the 1840's. This led to changes in the Natives' lifestyles when trade goods such as axes, guns, and metal containers available for barter stimulated greater fur harvests.

It is generally believed Zagoskin provided the deepest penetration into the Interior. But there is evidence that the Russians went deeper and further north and there may yet be discoveries of Russian movement in the north to be made. Ivan Lukeen did go to Fort Yukon in 1863 under pretense of seeking refuge in his desertion from Nulato, only to return to Nulato after a few weeks at Fort Yukon with details of the village and "fortifications". Russians may have also gone to the North Slope. British explorer F. W. Beechey reported in his 1832 journal: "We were induced to suspect that there are several Esquimaux acting as agents upon the [arctic] coast properly instructed by their employers in Kamschatka..." [Russia].



Franklin sailed westward from the Mackenzie to explore the Arctic coastline. He encountered an Eskimo encampment, Flaxman Island, and named Prudhoe Bay before stopping at Beechey Point, which he named for the British explorer who had entered the Arctic Ocean one year earlier from the opposite direction. P. W. Dease and Thosmas Simpson of the Hudson Bay Company arrived at Demarcation Point in 1837 and continued on to Point Barrow.

The English continued their explorations and Franklin's subsequent disappearance motivated American expeditions to join in searching for him and his crew. As a direct result of these coastal surveys and the expeditions searching for Franklin, scientific journals and popular literature provided impressive evidence of abundant marine life in the north, and in particular, the whales.

Two principal thrusts of exploration, one on the Arctic coast and the second along the Yukon and Porcupine in the interior of Alaska, set the dual stage of historical activity as the second half of the nineteenth century unfolded. Some events outside Alaska and outside of North America cast shadows of influence on Alaskan development.

> The Russian Czar was preoccupied with the intrigue and events in Europe. There were revolutions near Russian borders in Germany, Austria, and Hungary, and Napoleon III came to power following a coup d'état. The Czar had battled Queen Victoria's forces in the Crimea and the Americans had defeated Mexico and obtained California. The United States then became western-minded with the acquisition of Oregon and Washington, and so did England once she settled internal Canadian turbulance along the Saint Lawrence. By 1850, Russians, English, Canadians, and Americans started focusing on Alaska, where it was every man for himself. Even the London principals of the Hudson Bay Company forced a reorganization of the trading company which affected acculturation in Alaska's interior.

The Russian American Company was being pressured by independent and organized entrepreneurs encroaching from Canada and from staging points in Oregon and Washington. The company even appealed for an armed naval cruiser to stop poaching in Alaskan waters - the appeal was denied. In Canada, the French Canadian *coureur de bois* or *voyageur* had been beating the Hudson Bay Company by pushing outward in birch bark canoes to get Indian furs in the villages. Indians no longer had to cross unfriendly territory to trade at Company posts. Under the new policy, these *voyageurs* were hired by the Hudson Bay Company and were soon setting up posts along the Mackenzie. They established the staging point, Pierre's House (*Maison de Pierre*), as the conduit down the Porcupine to Fort Yukon in Alaska. Religion followed the fur traders into the interior; the Russian Orthodox and the Russian traders, the Church of England and the Hudson Bay Company, and the Catholics with the new French Canadian managers. The focal point of the growing rivalry in the interior was the Hudson Bay Company post at Fort Yukon and the Russian trading post downstream at Nulato.

French missionary Desjardins wrote, "On February 16, 1851, an Indian massacre of whites by the Koyukuk Indians occurred at Nulato, which then had only two or three buildings within a stockade where four or five Russians lived. Derabin [Russian agent in charge] had a bad reputation. The Natives in the area detested him... because of his injustices and brutalities. Lieutenant Bernard, a British visitor seeking information about Sir John Franklin, was also killed in the early morning attack."

Hudson Bay Company agents fanned out from Fort Yukon and went at least as far north as Anaktuvuk Pass in the Brooks Range. As the English extended their influence among the Natives, the clergy was anxious to move under the company's protection. Without permission, Reverend William Kirby visited Fort Yukon, and a year later was followed by Archdeacon Robert McDonald in 1862. His translations of services, hymns and messages into Native languages survived long after his death.

Father Séquin, a Catholic rival of Kirby, joined Father Grollier on the Porcupine. The latter was anxious to go westward and wrote, "I propose to go myself into the Yukon and as far as Alaska though the forest of Russian America." *

As more and more missionaries entered the interior, schools and education were established by them. This influence still remains in most areas along the Porcupine and the Yukon Rivers. "Before the arrival of the Russians," wrote Father Desjardins, "only shamanism and scorcery ruled in the north." Although the "popes", Russian Orthodox priests as they were called by the French, penetrated the interior, they concentrated on the Bering Sea coast, and the English and French concentrated their early energy in the interior. Each group believed that the way to man's soul was through education. This movement established the first opportunity to the Native to record his history.

While Russian influence was continually eroded for the next decade in the interior, a Parisian fashion excited miladies and the English merchant marine and American adventurers profited by it, at Russia's expense.

 * "Je propose d'aller moi-même au Yukon et jusqu'à l'Alaska, à travers les forêts de l'Amérique russe." Ortolan, O.M.I. <u>Cents ans d'apostolat dans les</u> deux Hémisphères, tome 4, Paris, Lethielleux.





Cability. Medium Siraight From Corset, especially adapt. ed tor stout figures. If you have never word Flexiboue, you have never realized corset comfort, corset cossibilities. The Biraight Front Flexlicone embodies all the features embraced in the soended self reducing corsets and is ancecuriored by bands, have never the succuriored by bands, are made to hold and mode the figure to a degree C you may never have experiensed in any other corset longs. Finished with a substantial silk embroidered edge. Flex Iban e boned throughout

End of century advertisement.

edge. Flexibane boned throughout and provided with the most substantial hand set and evolves that are found on no other make of corset. Besides, the manufacturer's guarantee is atbached to every corset, which have full value for your investment, protecting you against imperfections of workmanship or uniterial. Colors, drah, black or white. Steas, it to be Always give waist measure. Price, each. S1.36

Whale oil became surpassed in value by the baleen bone used in the making of women's corsets. This fashion vogue eventually escalated the value of one whale's baleen to ten thousand dollars.

There was a twenty year period during which arose many reports of overkill of the caribou by the Eskimo in order to supply the whaling ships. The new rifles provided to them permitted the Eskimo to easily harvest game and in greater numbers than ever before.

> "So many [caribou] haunches were offered that a large supply was cached in the ice-house, and that finally they had to refuse any more offers of meat... in 1911-1912 and in 1913-1914, not over a half dozen haunches were produced."

> > Leffingwell: 1919

(Whaling was so profitable that the hazards of the occupation were overlooked. In 1876, thirty-six vessels were caught in the ice and abandoned by their crews. In 1877, seventy-five vessels were whaling in the Beaufort and fifty stayed too long and were reported lost in the ice. [See Volume One, page 55].)

The Russian Czar, more interested in European affairs than those in Alaska, was becoming increasingly irritated by the problems and nuisances generated by reports and complaints from the Russian American Company, and by the rivalry of the English. The Czar had agreed to participate in a Western Union Telegraph Company plan to establish an international telegraph line through Alaska to Siberia and found American dealings interesting. The Russian leader's disposition toward the Americans was more favorable than toward anyone associated with his rivals in Oueen Victoria Court. The Czar lent an encouraging ear to suggestions that he sell Alaska to the United States. During this same era, a father received a letter dated October 2, 1864, from his son at Fort Yukon, and read: "There is a small river not far from here that the minister, Revd. McDonald, saw so much gold on a year or two ago, that he could have gathered it up with a spoon." Even before the Czar decided to sell, a Russian engineer, Peter Doroshin, spent five years prospecting and reported gold traces.

There can be little doubt that the San Francisco based combine which bought the Russian American Company and the purchase of Alaska for \$7,200,000 was an associated move. By treaty of March 30, 1867, the American Territory of Alaska became a reality. In October, the transfer was consummated at Sitka, but even before the official signing and transfer, a passenger on the same vessel bringing the commissioners to make the transfer was a H. M. Hutchinson of Baltimore who bought out the private Russian American Company interests of vessels and trading posts.

Hutchinson, Kohl and Co. sold these holdings in turn to the newly formed Alaska Commercial Company. Within a few years, Congress passed an act permitting the Secretary of the Treasury to give exclusive rights to the company for twenty years for harvesting seal furs on the Pribilof Islands, and in another few years, various Americans and French Canadians joined with the new company and established its foothold in the interior. François Mercier took over the post at Nuklukayet [n. Tanana] and his brother Moïse Mercier did likewise at Fort Yukon. Both were originally from Québec and the former wrote a letter of invitation to French Canadian missionaries to come into the interior, offering them aid and shelter. The American members of the company saw the advantage of offsetting the Church of England's influence among the Natives since it was tied so closely to their trading competitors just over the Yukon border.

in bare, et se jui rescendant la fette disse vertiel indere, et se jui rescendant la fette disse vertiel mis la service l'orc-Ppic stass laquelle nous l'annes pres par les claur le 30 teptimbre, et grand exteris à mouris de ferm. La Rividence mous "

Translation: ... [we]... finally descending the little Bel[1] River then the Porcupine in which we were grasped by the ice on September 30th and seriously exposed to death from hunger..." Describing his [Bishop Clut] and Father Lecorre's trip from Pierre's House to Fort Yukon, 1872.

> Letter, Archives Deschâtelets, Ottawa

The Catholics were protected by the Mercier brothers and other French Canadians in the Alaska Commercial Company, Joe Dufresne and Mr. Robert at Fort Yukon, and at the Bering Sea when F. Mercier became general manager of the Alaska trading post there.

Protestant missionaries were active, such as Bishop Bompas and Reverend A. V. Sim. Church of England missionaries remained after the Alaska Purchase, to be replaced by the Episcopalians into the twentieth century.

Whaling along the arctic coast peaked before the gold rush. The contact caused many inland Eskimos to settle along the coast, to act as meat suppliers, to serve as crew, and to be closer to points of barter for metal goods, whisky, and gunpowder.

The Eskimo nations were greatly influenced by this contact and this in turn affected their relations from time to time with their Indian neighbors to the south.

Monsignor Clut wrote [op. cit.], "This Point Separation was once a theatre of horrible carnage. The poor Eskimos were the victims of an infamous ambush by the Kutchins, who had invited the former to come, unarmed, to partake of the latter's festivities." He added, "The Kutchins, having received arms from the Europeans, had had the upper hand up to now; but we have just learned that the Eskimos, whose coasts are visited by the whalers, have obtained from them superior arms to those of the Kutchins, and are proposing to come to attack them next summer." *

As the missionaries and the Alaska company traders continued to move into the Interior, more schools sprang up and more Native children learned to read and write, and this became the source of considerable pride in the north. Desjardins writes, "In 1893, the hospital at Dawson, founded by the Sisters of Sainte Anne spilled over with patients and the Sisters could not cope. They asked the Sisters of Holy Cross [Alaska] to come to their aid by sending two of their best students."

* Original text, 1873: "Cette pointe Séparation fut autrefois le théâtre d'un horrible carnage. Les pauvres Esquimaux y furent les victimes d'un infâme guet-apens de la part des Loucheux, qui les invitèrent à venir sans armes, prendre part à leurs fêtes...Les Loucheux, ayant obtenu des armes des Européens, ont eu le dessus jusqu'ici; mais nous venons d'apprendre que les Esquimaux, dont les côtes sont fréquentées par les baleiniers, ont obtenu de ceux-ci des armes supérieures à celles des Loucheux, et se proposent de venir les attaquer l'été prochain."

Missions de la Congrégation DES MISSIONNAIRES OBLATS DE MARIE IMMACULEE, Tome 12, Paris,1874.
For the Natives, the late nineteenth century was terrifying. Strangers had arrived, not in small, isolated parties, but in a steady stream, on foot, overland with sleds, up and down river by steamboat, with mules, horses and by every conceivable means. The cultural and lifestyle pressures were difficult to adjust to. In addition, the Yukon breakup had been disastrous for many villages which were destroyed by it in 1873 and 1894.

By the time the gold rush started in earnest at the end of the century, the full weight of the Caucasian presence was felt by Natives with little preparation to cope or resist. Direct and indirect forms of bondage appeared. As late as 1884, the Russian language newspaper <u>Svoboda</u> (Liberty), published in Sitka said: "We Natives petitioned the Government several times. That morally, religiously, socially, and commercially, our destiny is in the hands of the leasees of the Government. We are the slaves of these leasees, and at their mercy... we are often beaten and assaulted...the Aleuts are in a state of bondage even more unbearable than was that of the Southern negroes. They are slaves in their native land."

Such men as Dr. Shelton Jackson, now often credited with bringing religion and education to Native and white settlements long exploited or neglected under U.S. territorial supervision, in the 1880's galvanized the public opinion and national legislation that at least partially ameliorated these conditions. The legislation provided federal funds for the sponsorship of mission schools, and it prohibited the distribution of intoxicating liquor to the Natives. Further legislation, including appointment of a governor and court system and the enactment of land laws, had to await the uproar of the gold rush and its fiery accompanying border disputes.

The gold rush did not begin overnight. Daniel B. Libby, digging a post hole near Nome for the Western Union Telegraph Company, found gold in 1865. George Holt's report from Sitka in 1875 about gold in "paying quantities" appeared on the first page of the <u>Washington Star</u> [next page]. Joe Juneau hit it in 1881, and Forty Mile [Chittondeg] was hit by Howard Franklin in 1886. Joe Ladue and Robert Herserson hit on the Klondike in 1895. But it was when two steamers loaded with two million dollars in gold landed at Seattle and San Francisco in 1897 that the rush was on, first into the Yukon, and then, within two years, into Alaska - to Nome, Fairbanks, Circle, Iditarod and other sites.

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THERE WAS CONSIDERABLE EXCITEMENT in the departments and around lown gener-ally to day, owing to the report that a dis-patch had been received from Cincinnall sayit ; list Allen was elected Governor of oline by at list. Joint mojority. A dispatch of this kind was posted up in the Franklin relegraph office at the Fost Office depart-ment of whom dubited its attitueticity. The operator finally removed the dispatch on which dubited its attitueticity. The operator finally removed the dispatch on which case he might be a ministre, in which case he might be irraciad by in fortated government: circles. Judge Est-monds, accretary of the Union Republican Congrevation little, was he prest de-maid, but altibuty & Rear reportor called at this office three times during the day could not find that genileman in. in the departments and around town gener-

WORKS OF ART, Certain blocks of wool, some with only the design stched upon them. others fully sugraved, importal for the use of the Alline newspaper, the designs being the production of American Mettals, were claimed to be colling to fore energy under the provision of the free list for paintings, statu-ary, foundains and other works of arts, the production of American Artist." The Acc-rentry of the Trensury decides that a proper construction of the lenguage of the provi-cient under the destring of the destina-ations the nature of the works of art literat-ed, and exclusion the works of art litera-d, and exclusion the works of art litera-d, and exclusion the works of art litera-tic construction of the string of the free high must revise guently be held onthe sides, infrom the destring of the string of proceed, and string of the string of the the string of the string of the string of the the string of the others fully sugraved, imported for the use

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More surveyors followed in the earlier footsteps of Western Union Telegraph survey parties led by Robert Kennicott, Frank Ketchum, William Dall, Frederick Whymper and Michel Lebarge, whose lake named after him became a legend when gold was discovered and the rush of men into the Yukon and Alaska exploded in 1896:

> There are strange things done in the midnight sun By the men who moil for gold; The Arctic trails have their secret tales That would make your blood run cold; The Northern Lights have seen queer sights, But the queerest they ever did see Was that night on the marge of Lake Lebarge I cremated Sam McGee.

> > The Cremation of Sam McGee Robert Service

Meantime, the gold brought tens of thousands to Alaska and the Yukon. Many thousands perished from the hardships. Included among those who came and survived are some of the great men of territorial history, among them Judge James Wickersham.

The influx of traders, sailors, trappers, whalers, surveyors, and explorers brought in diseases for which the Natives had no immunity; measles, influenza, venereal disease, and tuberculosis. Entire villages were wiped out. "Formerly, there were many people, many houses in many villages. There were many people. They are all, all dead...a great sickness made them die...they were all sick...no medicine...nothing to eat...no one to care for them...even me, one day, I entered a cabin, the father, the mother, four children, all dead...no one to bury them...it was terrible, the others - those not dead, went to Nulato, Kaltak, and to other villages along the Yukon." [1899-1900] As told by a Tena to Desjardins: 1930. It has been estimated that between 1886 and 1932 some two hundred million dollars in gold was extracted in Alaska.

The central plateau of the Yukon, the Intermontane area of Alaska, the entire interior felt the impact. It motivated settlements, the talk of a railroad, the eventual building of the Alaska Railroad, court houses, roadhouses, communications. Eagle became Alaska's first incorporated city in 1901, with commercial trading posts, two restaurants, several log cabin saloons, a Catholic church and hospital, and a customs house.

Felix Pedro discovered gold near the Chena River in 1902 and near the spot where he and merchant Barnette thought a trading post might prosper. That spot became Fairbanks where, in less than nine months, there was a newspaper and a population of over a thousand and 387 houses, By 1906, Fairbanks had a population of 8,000, and nine million dollars in gold was brought out of the area in a single year, and the first line of railway was already in place. Other gold strikes were made; at Chandalar, Wiseman, Cleary, Chatanika, Livengood. Sternwheelers, the popular river steamers, plied rivers, sand bars and rapids, and remained the lifeblood of transportation in the interior until the railroad was completed between Fairbanks and a new town called Anchorage.

Countless relics of the gold rush era remain to be protected. The portion of Alaska which is possibly affected by the proposed gas pipelines is the entire eastern half of the state, that portion on which this historical overview has been focused. Remnants of earlier periods may also be discovered - of the Russians, the English and the French Canadians.

There are still bits and pieces of Alaska history to be filled in. For example, a lost Will and Last Testament found at Iditarod in 1971 helps to understand the threats on public officials during the Dome claims scandal near Fairbanks in 1906 [see next page]. So many valuable objects were found at Iditarod in 1971 that the finder petitioned the National Endowment of the Arts for financial aid to recover them for the State Museum and ten thousand dollars were made available to the State Council of the Arts for that purpose in early 1972.

The handwritten letter [1918] from Charles Ross, follows the last will and was also found at Iditarod. It exposes the heretofore unreported scheme to move some of Alaska's gold organizations into Russia just as soon as the Czar put down the Bolsheviks:

"...everybody is talking Siberia and just as soon as conditions get orderly there, there will be a great stampede. Every old Alaskan is figuring on it, and if the thing don't come of[f] before 2 years we may be cleaned up so that we can jump in with our organization and equipment in some lively camp and be ready to do things."

> Original in State Museum Juneau

The How Judgeof the 3rd Division of the District plashof, From the stand which I have tanken, as a Commiss. nes of your division, it has been brought to me by rul flay. In case of my death & want Margaret C. Hulsooney estate, without Bouds, and for her to convert all finy property in alaska, into Cash, as fast as after she has don't so and flaid all my just Id ebte and funeral effenses and has received a fush compensend tion for her time in wind in with my affairs then I which her to divide the cash as follows. Margaret C. Mulrooney to received five thousand (\$ 500.90) Dollars in each from sald estate. Wivian Thomas my willer at Oaborn, Olalaho to require one hundred (\$100,93) Dollars. The four children of my sister Grace Murry, of hitle Rock, arkansas, to receive one hundred (0100,900) Dollars each. The balance of my estate to go to my sister Ella Momak, who is at present in California, to do with as she seen fit. This will be placed in a sealed envelope with matructions on the outside of the envelope for it to be opened and read before tood responsible witnesses so that there will be no question about it being genning, as it is all written in my own hand. Signed. Geo. Thomas

Found cached in an abandoned building at Iditarod by Bernard W. Poirier. The original was given to the State Museum, Juneau.



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D.M. LINNARD, MANAGING DIRECTOR

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SIGNIFICANCE TO NATIVE GROUPS

The range of elements needed to evaluate the cultural impact on Native groups extends beyond the "cultural resource" investigation and framework chartered to us. We doubt that the elements themselves exist in their entirety anywhere at this time.

The assessment of the potential loss of the physical cultural resources is relatively easy as compared with the assessment of the potential affects of a natural gas transportation system on Native culture and lifestyles. The latter effects are often unquantifiable secondary impacts of building and operating a pipeline system, but are nevertheless real impacts to real people. It would be desirable to quantify the cultural effects of a particular pipeline segment in specific ways to reflect probable losses (or gains) in values significant to Native groups. However, the framework does not exist for establishing, for example, that building a pipeline segment would cause a number of Natives to cease using a Native language or to cease hunting and fishing for subsistence and enter the cash economy.

Because there is insufficient basis for establishing these sorts of conclusions the discussion in this section may appear argumentative and inconclusive. This is the only section in the two volume work which defies a clinical approach and an empirical foundation. The conclusions we wish to draw are the kinds usually derived from <u>ex post</u> <u>facto</u> investigations where changes are measured against a previously recorded baseline. For some villages the necessary baseline may still be intact, though unrecorded. For other villages already affected by construction of the crude oil pipeline, it is probably too late to derive separate effects for a natural gas pipeline.

The location of more than forty distinct segments of proposed gas pipeline routes confine the first order cultural impact to Natives in the eastern half of Alaska; the Eskimo of the North Slope, the Chugach, and Prince William Sound area; and the Indian of the Tanana confederation, primarily those speaking Kutchin, Koyukon, Tanana, Han, Tanacross, Upper Tanana; and of the Eyak, Ahtna and Tlingit. Second order impact will cross the entire ethnic spectrum of Alaska and especially the urban mixes at Fairbanks and Anchorage. A thorough and accurate study of socioeconomic impact on Native peoples would require ethnographic field studies in nearly all areas which may be impacted by the pipeline. Very little recent information exists on social anthropology of most of the peoples involved, and it is clear that the changes which have already occurred in the past decade render most earlier work inapplicable to the present case.

It would be an error to address the cultural impact on Natives as singly influenced by the proposed natural gas pipeline. This pipeline is just the last of three traumatic and gigantic influences that, by any measure, exert a cumulative effect on all of Alaska. The least able to cope with or combat the cumulative changes is the Native living in rural Alaska and practicing traditional subsistence lifestyle. His art, his crafts, his daily bread, his values are completely entwined with the environment.

The first of the three current impacts on Alaska Natives is the Alaska Native Claims Settlement Act [Public Law 92-203], previously described in the Background in Volume One. Under this enactment on December 18, 1971, over two hundred Eskimo, Indian and Aleut groups were to select forty million acres of land out of some 375,000,000 acres. But in competition with the Natives are the State of Alaska and the Federal Government.

Suddenly the Native was thrust into a competitive arena in which he had no prior experience. It countered his long tradition of free land use. This was his first exposure to the notion of fee simple, land ownership. He had no criteria for selection, he had no order of priorities, and he had a severe timetable and virtually no means of communicating to facilitate coordinated selection-decisions.

Less than ten years ago it was believed that the Northwest Eskimo needed 8,643 acres for the human carrying capacity of wildlife for <u>one</u> Eskimo. New data shows that it would take 11,000 acres to provide one man one year's subsistence. There are hundreds of villagers. Each village theoretically has only selected an average 69,120 acres contiguous to its village. In some cases the village land area may be sufficient for present subsistence harvests and in most cases villagers now have permission to hunt and fish on public lands outside the village land area. In this context we must therefore evaluate new subsistence harvest data.

The drama of the decision process had a central issue - conflict between subsistence and cash economy. Fundamentally, the rural Native delegated the broad regional selections to a Regional Corporation, established along tribal and ethnic lines by the same law. The real power was concentrated in the Regional Corporation and among those educated Natives with experience in navigating safely within legal regulations and cash oriented land use outlook. Regional land selections were mostly made on a long term, insurance basis, and often cash oriented as protection for future Native generations.

Quiet grumblings are heard in the villages now on the current distribution and control of this newly found wealth and power. Meanwhile, the Regional Corporations exercise newfledging influences in Alaska's banking community and exploitation evolution in the bush. Native executives in the Regional Corporations are absorbed in high level, vital negotiations requiring their complete time and energies. The pool of talent, management talent, within the Native group is small, the problems and responsibilities are broad and numerous enough to absorb every talented Native available - taking him from the village and propelling him into complex, urban and industrial issues, and urbanizing him completely if he is inclined to be. As we will see below, the call of the wild is loud enough the first few years to keep him in contact with the village. What is unknown is how much passage of time will mute this call.

The second current influence is associated with the construction of the crude oil pipeline from Prudhoe Bay to Valdez. The economic and societal impacts arising from this enormous project are reported currently in the daily press and periodicals. Despite the energies expended on planning the mitigation of adverse impacts, it proved [with hindsight] simply impossible. The gigantic transport trucks for hauling pipe have already caused seventy million dollars in actual and predictable damage to Alaska's roads. This had not been foreseen. The soaring divorce rate was not predicted. The clogging of traffic circulation and air pollution in Anchorage had been seriously underestimated, and the same is true of housing shortages and runaway rents. Native hire has been regulated, training programs established, but the implementation is criticized and difficult to execute.

Jobs on the pipeline are there. High salaries are available. There can only be a few villages without at least one villager, or two, or three on the pipeline. The cash earned makes its way into the villages. While he is away, someone else must take his place in repairs, hunting, fishing, and participating communally as in the past.

Had a sociological or anthropological baseline been established or studied five years ago, it might be possible to quantify or evaluate in a meaningful way the impact of the two actions of land ownership and pipeline construction at some point in time, once the dust settles. Our most pretigious institutions did not foresee the need, even when requested by the Natives [i.e. National Science Foundation]. Now we face the almost certain probability that the third influence, the gas pipeline will be authorized on the heels of the crude oil pipeline's near-completion.

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Reasonable men accept the thesis that the immediate and the remote future will initiate changes in the traditional lifeways of Alaska Native groups affected by land selections alone and without the additive influences of pipeline construction. While hunting and fishing may continue to form an important subsistence resource in several regions for some time to come, the Alaska Native now has the cash resources and the registered land values to control the potential oil, gas and mineral resources both in terms of present and of future development. The growth of transportation networks and industry which will accompany these changes will have serious implications for the social and educational life of the Native peoples involved.

In fact, many of the problems faced by Alaska Natives are nearly identical to those felt by developing nations in many parts of the world: exploding populations, conflict between new and traditional value systems, the shift from subsistence to cash economy, and the consequent move from rural to urban patterns, increasing educational needs, and the technological and economic wherewithall to exploit the new lifeway. Some clues as to what will happen in the future may be found in a comparative examination of what has already taken place in Native communities:

"The old Eskimo way of life is no more. It has gone forever, just as have gone for us the days of the ox-cart...and the tallow candle. Civilization has caught both ourselves and the Eskimos in its dragnet, along with a variegated assortment of peoples in undeveloped Africa, Asia and South America. Two hundred, even one hundred years ago the Eskimos could easily have bridged the gap that divided their way of life from our own: but the dawning age of automation has widened the chasm, so that the bridge it now needs must be longer and stronger. Among ourselves the gap between grandparents and grandchildren is still narrow, and most of us can leap over it quite easily; yet it has already become too wide for thousands and tens of thousands of our young people, and many not only fail to cross it but fail even to make the attempt." [Jenness: 1966]

Since some change is inevitable and we cannot freeze Native culture in time, we turn then to the question of what can be done to preserve cultural values significant to Natives? Among the mitigating measures which might be implemented there is a special need for assessment of the issues of acculturation, culture change, and cross-cultural exchanges; and very specifically to be included is the difference between the rural Native and the urbanized Native. Without this, no assessment of significance of impact is possible on Native folklore, tradition, communal and individual values, historic lifestyle, and on reactive or mitigating measures.



A team of trained applied anthropologists knowledgeable in the area of culture contact and change should be available to assess the socioeconomic impact of pipeline operations and to assist in channeling and directing culture change insofar as this is possible. These abrupt changes from subsistence to cash economy; the sudden influx of people, ideas, and goods from the outside world; the growing awareness of the Native that his own culture is unique and also endangered--are familiar elements in acculturation situations and must be dealt with by anthropologists trained in the applied area. The opportunity is available here to direct culture change into positive channels before further social disintegration occurs.

Within this context then let us explore the almost hopeless task of identifying the significance of the cultural impact of the proposed natural gas pipeline on Native groups in Alaska.

The history and culture of the Native has been based on his environment and the patterns of life: wildlife migrations and habits, berry picking, wild vegetable availability, climatic factors, and his own seasonal movements and transportation means. Natives within the educational framework must leave their homes to continue at regional high schools, several hundred miles away, during important formative years. This acclimates him to additive acculturation outside the family shield. The longing of identity will manifest itself nontheless.

Native values and traditions are best felt by him and are largely unwritten, except in modern times by him or by those close to him, with varying degrees of accuracy by the latter and of completeness by the former. Without much doubt, however, aspects of folklore, history, song, lifestyle and tradition survive since contact in 1741 due to writing and to publication. Sometimes the intensity of meaning and value of Native tradition, formerly passed through generations by story telling, can best be guaged through the written record:

1909

Funeral song for Makanadleyometo,
who died in February, 1909:
"My father, my father, hey, hey,
half the land he threw aside* as
he wished; my father, my father,
what will become of the game now?"

[Jette: 1909] [Desjardins, trans.1930] 1975

Family commenting on a funeral at Nulato, October 5th: "[I] espescially want to thank -- of Huslia who composed an Indian song in our son's memory. The words in the song were beautiful...a very special thing ...as this is a thing of the past."

[Tundra Times, 22 Oct., editorial]

^{*} In Tena (Tinneh), a metaphoric idiom meaning: to take game in large quantities. Makanadleyometo was a respected hunter among his peers.

The written record evolved from contact, and its first introduction to the Native was during the missionary activity following the contact with the white man.

Contact took several forms and the results have been mixed. The major contact "invasions" tend to overlap. The first was through the mercantile motives in early fur trading, gold seeking, fishing and whaling exploitation, and more recently, oil and gas exploration. The second was the missionary activity of the Russian Orthodox, the Church of England, and the French Canadian Catholics, followed by Italians and Americans. And lastly, the more subtle influence of political boundaries arbitrarily decided in London, Moscow and Washington, which cut across geopolitical and ethnic boundaries of the Alaska tribes.

The first "Native writings" resulted from religious intrusions on the bush villages. Religious competition was keen and intense. Education of the Native was encouraged, and reduction of religious teachings into the written Native language or any vehicle language was pivotal to the missionaries. Religious instruction was the first education. The Russian Orthodox were protected by the Czar and by charter to the Russian American Company. The Church of England missionaries were protected by the Hudson Bay Company, and the French Canadian Catholics were protected by the French Canadian managers of early Alaska American trading posts, but earlier they just went where they were safe from their competition. Therefore the early diaries of all these missionaries and later of their students produce the earliest records of Native traditions and habits.

The earliest writings have abundant examples of the Native's reliance on his environment. Isolated cemeteries, far from any village, are examples of historic places - so created to bury individuals who died during annual hunts or fishing expeditions far from the then permanent village. Even the permanency of these villages was in fact temporary since their locations change often to be closer to food sources whenever their patterns changed, or for other natural reasons.

Wickersham [1938] and other authorities have well documented and described the pressures on the Native from quasi-slavery, to vigilante justice, the introduction of gunpowder, intermarriage, gold rush meat hunting, the near destruction of salmon, the depletion of whales and other marine mammals, the slaughter of caribou; and Campbell [1968] and Foote and Williamson [1966] and others have documented the dependence of the Native on the shifting nature of wildlife migrations and the territorial range required to support Native hunting and life. Because of the migratory range of much of Alaskan game a pipeline need not come within lands owned by Natives to effect changes in the social and economic values associated with subsistence game harvests.

A forceful example of the conflict between Law and fact is keyed to territorial range and to the newly found reality of land ownership. The Tuluaqmiut Eskimo of Anaktuvuk Pass, for example, has traditionally required twice as much land to support one hundred individuals than the land to which it qualified for selection. Given the shifting wildlife patterns which occur from time to time, will the lands they selected suffice? Will at some time they be denied the right to range outside the village boundaries? Did their region pick contiguous lands to accomodate their subsistence needs?

During the last five years the Joint Federal State Land Use Planning Commission for Alaska performed some remarkable studies under the handicap of limited time and limited funding. The commission collected data of subsistence harvests in individual villages. The data collected for the twelve rural villages closest to any Alaskan Arctic Gas pipeline route show an annual per capita flesh harvest which averages 1,067 pounds per Native.

Individual village averages range from a low of 547 pounds per capita annually to a high of 1,729 pounds per Native.

While it would be useful to know the geographical distribution of the harvests for each village, this is somewhat immaterial if a pipeline in the vicinity of a village might affect the hunting and fishing lifestyle by physically reducing the harvestable game or inducing Native villagers to permanently enter the cash economy.

The Commission provides the only data of its kind. On the positive side it can be said that the data is vital, it is the only data, and in some instances, it was collected house-to-house in the bush by trained interviewers. On the negative side, portions of the data collection were not controlled, there was ample room and incentive to introduce biases. Variables affecting the quality of the data are numerous. Even if all the biases are compensating, also an unknown, the individual protein needs and the wide fluctuation of village averages does raise questions.

As good as the Commission's data may be, other similar data categories do not exist for sports hunting, unlicensed hunting, and possibly pipeline hunting. Some sports hunting data, derived from tags and bag reports when filed, exist, but not for all game. Unlicensed and meat hunting exists but is obviously at best estimated or guessed at. In any case effects on subsistence hunting are more complex than simple loss of game displaced by pipeline construction. And wildlife management in Alaska was one of the first problems recognized and continues to be difficult. The first editorial ever published north of the Alaska Range addressed this same point:

"The game law of Alaska ought to be more strictly enforced. Its liberal provisions permit travelers and prospectors to kill game needed for their own use, but this will not justify the promiscuous killing of moose for sale. Nor will it make it less brutal for men to run poor heavily laden moose cows down in the deep snow and slaughter them and their unborn young for dog feed as is too often done. Do not forget that there will be travelers and prospectors in the Tanana valley next winter."

[The Fairbanks Miner, May, 1903]

If projections of maximum Native population are correct, there will be 83,000 by 1980 and 141,000 for the year 2000. Population increases for Native Alaskans is 29 per 1000 annually - a rate nearly twice that of the United States as a whole. If subsistence requirements increased linearly, the wildlife of Alaska would become a long list of endangered species. Coupled to this is the normal sports hunting pressure on wildlife. It follows in part that either the Native learns to like ground beef or the wildlife balance will become untenable. Since it takes cash to buy ground beef, Native land use selections predicated on long term cash returns seems to follow sound logic.

It would appear that the first two influences, the land claims settlement and the crude oil line construction, provide ample causes and effects that will be argued for years to come.

Adaptation to pressure has been a way of life for Alaska Natives. Migratory patterns of fish and game dominated his lifestyle and mores since Early Man's arrival. He managed to harvest adequate game and fish and he was limited in harvest largely by the energies demanded by the chase and by limitations of transporting his harvest great distances. This reliance on mobile food sources explains the distant hunting grounds and temporary hunting and fishing camps, and isolated cemeteries, and abandoned villages - all part of history, song, and story, passed on and on. Prior to gunpowder it can be argued that the Native was a natural conservationist. [An example of lifestyle preservation is provided by the Whalers' Rules of Barrow, a rare copy of which is in Appendix 1. This copy contains slight modifications to the rules written a few years earlier for the first time in history - after several days of closed debate.]

Nature determined the Native's movements. The spring break-ups have destroyed villages for thousands of years and into the 1970's. A riverine location in a good hunting area is ideal for fishing and hunting, but it is arctic roulette when the bulging spring rivers carry one hundred million tons of ice and rip into their banks as they surge toward the sea.

It has been suggested that a chilled pipeline anchored to a streambed may cause artificially created ice dams on a seasonal basis. But the cumulative ice volumes may be very insignificant, say 80 tons, or less than .000001% of the total. How often is an eighty ton block of ice catapulted on top of a village?

Ice tonnages here are illustrative only, annual natural formations may be hundreds of millions; artificially created pipeline ice may be only thirty tons, or a thousand tons. The question revolves around the issue of additive impact, accountability of impact, and if artificially created ice is the last to break up and is hurled by a faster current through a village, can one simply accept this as a natural phenomena. The Natives themselves may accept this added risk in arctic roulette as well worth the price of progress. There is spotty evidence that this may not be acceptable since a villager's ties to the village theme is strong.

[It is common practice to hire a knowledgable Native for field work near his village. The demand today for educated Natives far exceeds the supply. A short time ago, a special assignment was offered to a qualified Native for an important six week assignment. He was offered \$3,000, then \$5,000. But price, any price proved unattractive. He wanted to join the villagers in the annual fishing activity and just couldn't wait to return 400 miles on his own to do so and to be on time to help repair the boats. (Pers. recollection. 1974)]

In such a circumstance, is it reasonable for a claim of first order effect to be made against one of the gas pipeline applicants, the State of Alaska, or against the United States Government? Some may argue that the answer is yes, that the gas pipeline's cumulative effect is the straw breaking the camel's back and that a village today would not move because of its vested interest in the infrastructure of health clinic, school, community center, electric generator, and village store,...and trap lines and already established village boundaries, according to Law.

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On the other hand, a village may well move. Kivalina, for example, is contemplating a complete move, despite fixed infrastructure and assets, because the Bering Sea is eroding the village barriers. It has been within memory that Holikachuk was abandoned and Grayling populated by the families which left Holikachuk a ghost town, still standing proud on the banks of the Innoko. This year the population of Chalkyitsik is 53. In 1973, it was over 130. The first group of families left two years ago because "the drunks were taking over." Then "a drunk shot a sleeping woman" and local leaders applied enough village pressure on the drinking class to force another group on. The community is neat, clean, hospitable and bent on a campaign to reattract its former villagers during 1976. Today, there are various pressures on villages, pressure rarely considered in world capitals.

Therefore, if a village moves, is it, or would it be because of the pipeline? Does a village have to move for its character to be irretrievably changed?

What happens if a group of villagers want to maintain their lifestyle, follow their folkloric ways, rely on subsistence, make artifacts from caribou hide and moose hide and ivory as they have for centuries? Is it possible with a new pipeline project on top of other recent developments?

In terms of history and archaeology, it seems essential that the Native peoples be directly involved with the analysis and preservation of their own past. Small local and regional museums are already in existence in several villages, and funds should be made available for building, processing artifact materials and training local staff in the techniques of conservation, preservation and exhibiting in areas to be impacted. The National Museum Act should provide funding in some cases, but much of the responsibility is shared by the permittee, the State, and the Federal Government. [See Section 2.4.3, page 221].

In many ways, the Native lifestyle of 1820 was irrevocably changed by 1850; the lifestyle of 1895 was irretrievably lost by 1910; and the lifestyle of 1965 has been changed by events in 1969, in 1970, in 1971, and...

"In Canada there is the same kind of country, the same kind of Native people. They are our brothers over there. I see the rich get richer, and the poor get poorer. I see the Native people having more money in their pockets to buy booze because they have nothing else to do because all the animals have split for higher ground because of construction and because of more people. It seems like all the things going on in this country that a pipeline coming through the North American continent is going to destroy the whole American Country."

> Claude Dementieff of the Tanana Chiefs Conference, the parent organization of the Indian regional corporation, DOYON. quoted in the <u>Tundra Times</u>, Oct. 29, 1975, Fairbanks, Alaska.

TECHNICAL SECTION

THE INVENTORY AND EVALUATION OF CULTURAL RESOURCES FOR EACH CORRIDOR SEGMENT, STARTING WITH SEGMENT TWENTY-NINE.



ESKIMO IDEOGRAPH Hand drawn on mammoth ivory. Note the three white men partaking of "forbidden" beverage made by the Eskimos. In the early territorial years the cat and mouse game between the revenue cutters and the alcohol runners was a popular topic. Note also the one different caribou, above and to right of white men, who is scratching his left ear with his hind foot.

Wickersham collection



DESCRIPTION

Segment Twenty-Nine is the off-shore alternate route which is approximately 204 miles long in Alaska and within Alaskan waters. The first sixty-four miles, from Prudhoe Bay (70°15'N, 148°25'W) to just south of Flaxman Island, is terrestrial. It continues eastward from Flaxman Island to the Canadian Boundary; the remaining 149 miles being marine, along the Beaufort coastal sea bed.

MODERN ENVIRONMENTAL SETTING

Terrestrial portions of this segment cross level to gently sloping portions of the Arctic Coastal Plain. It crosses the broad delta and flood plain of the Sagavanirktok River, the Kadleroshilik and the Shaviovik Rivers and several minor streams. Although the area has had an arctic climate at least since the beginning of the Pleistocene, it has not been glaciated. The recorded extent of the Pleistocene glaciations were, however, only a few miles to the south in the foothills, and much of the alluvial and eolian sediment covering the area has been derived from glacial deposits in the foothills and the Brooks Range. This segment has an arctic climate with mean annual precipitation which varies from six to twelve inches and mean annual temperature of ten degrees. Most precipitation falls as snow which usually is transformed into a hard-packed condition by persistent strong winds.

The dominant factor affecting the off-shore portion of the segment is sea ice covering the sea from nine to eleven months a year and close to shore during the short summer season. Ice cover in the summer varies with the wind. During offshore winds the coastal area is clear, but onshore winds force the reverse, resulting in ice pileups along some beach areas occasionally reaching a depth of sixty feet. Off-shore, on the gently sloping continental shelf, scouring of the sea bed by rafted and pressure-pack ice is common out to a water depth of sixty feet. Since the proposed pipeline alignment generally follows the thirty-foot sea depth contour, all the marine portions of the segment are within the ice scour zone.

Both the marine and terrestial portions of the segment corridor are recognized as important wildlife habitat. The proposed alignment of the terrestial portion is through an "area of ecological concern," and the marine portion is within or near the proposed three-mile wide coastal strip addition to the Arctic National Wildlife Range. Both on-shore wetlands and off-shore tidal flats and barrier islands are important migratory waterfowl habitat. Terrestial portions of the corridor are within the range of the internationally-migrating Porcupine Caribou Herd.

The resident Natives of the village of Kaktovik (Barter Island), about one mile from the proposed alignment, rely on subsistence, principally caribou from the land and seals from the sea.

PALEOENVIRONMENTAL SETTINGS

Paleoentological and geologic evidence indicate that throughout Pleistocene and recent time this area has had a continuously arctic climate with fluctuations to both slightly warmer and much colder than at present. An east-west, ice-free land corridor has always remained open for human migration and occupation in this area, and there are known archaeological sites in the area.

Within the marine sector of the segment, such archaeological sites as may exist in the shallow waters on the continental shelf have had significant chance of having been disturbed or obliterated by ice scour and gouging since having been covered by the sea. The same fate may have been suffered by some sites on present day beaches which are subject to periodic scour from grounding sea ice. Climatic factors have probably limited the density of human occupations and greatly diminished the probability of their evidence being discovered intact. Nevertheless, because of the strategic location of this unglaciated coastal plain corridor a real possibility exists that few but significant archaeological sites could be discovered.



The Beaufort Sea bed on which the marine portion of the pipeline would be placed is a gently sloping continuation of the Arctic Coastal Plain. Although the continental shelf is more narrow here than elsewhere in Alaskan waters, portions were undoubtedly above sea level during Pleistocene glaciations. Underwater archaeological sites [which date from ten thousand to twenty thousand years ago] may be expected to exist in the marine corridor.

ARCHAEOLOGICAL SUMMARY

A series of sites of late prehistoric and contact age from the coast of Beaufort Sea have been reported by the staff of the Arctic National Wildlife Range. The Elupak site on Barter Island (BRL 001) may have affinities with late-prehistoric villages on the island and adjacent sand spits excavated by Jenness and Matthiassen.

ARCHAEOLOGICAL EVALUATION

The offshore route traverses a zone of some potential significance for archaeological research. Eustatic lowering of sea levels during the Wisconsin glacial epoch expanded the Arctic Plain to a minimum width of eighty miles, thus exposing the offshore edge of the submerged continental shelf to potential occupation by man; underwater exploration of this zone may locate sites pertaining to Paleoindian adaptations.

A partial survey of the offshore region by Dr. John Bockstoce located a site on Hersehel Island [Edwin Hall, personal communication], thus reinforcing larger islands lying within this corridor.

HISTORIC SUMMARY

Ten sites of historic interest are recorded as existing within this segment. The sites XBP 001-004 and XDP 001 are historic Eskimo. Leffingwell Camp, XFI 002, is listed on the National Register of Historic Places. The Leffingwell site and Gordon, XBP 002, are the two former settlements of white inhabitants. For practical purposes and due to the proximity of Segments Twenty-nine, Twenty-nine(A) and Thirty, the historical aspects of the three segments are largely contained in this section.

HISTORIC EVALUATION

The history of this corridor is primarily that of exploration, first to discover the Northwest Passage and later to discover and develop the fur and whaling resources in coastal waters and the immediate inland areas.



British explorations in the coastal area began with John Franklin, who started to explore the Arctic shore westward from the Mackenzie during the latter part of June, 1826. Franklin, with a party of fifteen men in two open boats, reached Point Demarcation on July 31. The point was so named "from being situated near longitude 141°W, the boundary between the British and Russian dominions." The party proceeded by water and portage, stopping at a bay which they named Beaufort Lagoon and at other landmarks which they named Point Humphreys, Point Griffin and Point Martin. Soon after this, on a low island, they encountered their first Eskimo encampment. Five miles later the group landed on Barter Island, proceeding next across the bay which they named Camden after Marquess Camden. Continuing, they passed, discovered, and named Boulder Island. They camped at Flaxman Island, named after the sculptor, and again at Foggy Island where they were delayed for eight days because of fog. Point Anxiety was so named during the foggy days they had repeatedly attempted to reach it. Landing attempts at Heald Point and Prudhoe Bay were both unsuccessful. They continued and named Back Island before finally terminating their trip at Beechey Point, a hummock which they named for Captain Beechey, a British explorer who the previous year had entered the Arctic Ocean through the Bering Straits. He had terminated his voyage at Point Barrow.

The next British exploration of the coastal area was organized for a dual purpose. It was desired to obtain information about the unexplored areas between the two termination points, Beechey Point and Point Barrow. Also desired was information concerning the fate of Franklin and his crew, who had disappeared on a later expedition similar to the earlier one just described. Thus, in 1837 Messrs. P. W. Dease and Thomas Simpson of the Hudson's Bay Company arrived from the east at Demarcation Point on They reached Flaxman Island on July 20, having camped on-shore July 15. most nights. They noticed, while in Foggy Island Bay, that the Rocky Mountains did not terminate with the Romanzof Chain, but that another, less lofty chain extended westward. These mountains they named the Franklin Range. The group continued to Point Barrow, arriving in early August. On their return trip eastward they discovered fresh water at the two mile wide mouth of a large river, a river they presumed might be the Yukon; it was actually the Colville. They continued eastward, landing at many of Franklin's and their own camping sites on their return to the Mackenzie.

Various other Hudson's Bay Company expeditions traversed the route in immediately succeeding years. They were in search of the "Lost Franklin Expeditions" and the whales and seals which both Franklin and Simpson had reported. The voyageurs included Lieutenant W. J. Pullen (1849), Lieutenant W. H. Hooper (1849), Commander Moore (1850), Captain Robert McClure (1850), Captain Collinson (1851), and Commander Maguire (1852-1854). Lieutenant P. H. Ray, United States Army, was the first American sent to officially explore the area. This was in 1883.

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Collinson's reports signalled the beginning of whaling in the Arctic beyond Point Barrow. Each summer after 1854 the whalers advanced further eastward, increasing in number annually until the decline of whaling at the turn of this century. The low price of whalebone by that time caused traders and trappers to become more interested in fur-bearing animals. Most valuable among these was the white fox, of which an average of two thousand skins were taken annually. Other furs of value were red fox, blue fox, silver fox, and polar bear.

Settlement along the coast and on coastal islands has been slight. An occasional Eskimo encampment was encountered by the various Hudson Bay Company voyageurs, but these were seasonal camps of transient groups utilizing fish and game resources. The number of Eskimo encampments increased as the whaling and fur industries in the area proliferated. Wasteful use of fish and game resources by white men and also by natives, when the latter were made aware of their trading value, quickly depleted their richest inland sources. The natives were then forced, for reasons of subsistence and trade sources, to rely on coastal and island areas. By 1910 most Eskimo had moved to either the Mackenzie delta, in Canada or Point Barrow.

White men did not settle the area except for an occasional season of trapping; they were content to exploit both natives and wildlife. A trading post established in 1881 by Thomas Gordon, a Scotsman, at Point Demarcation was short-lived.

The first white man to remain in the area for a longer duration than a season or two of hunting or trading was Ernest de Koven Leffingwell, whose original intention was to explore areas further north than the Arctic coast. It had been suggested that some irregularity of the tides was caused by land masses to the north of the arctic coast. Leffingwell's vessel proved unseaworthy, so he established camp on Flaxman Island. He headquartered here between 1908 and 1914, establishing a permanent camp of which there are still some remains. The site is now on the Federal Register.

Leffingwell's contributory studies of the arctic coast were invaluable. In order to study the geology and natural history of the area he travelled, by foot and dogsled, over twenty-five hundred miles. He pitched camp almost four hundred times. He expended more than thirty thousand dollars of his personal money on the venture, although it was originally under the sponsorship of both American and British geographic societies. A definitive report of his studies of the Canning River Region was published by the U. S. Geological Survey in 1919. White men who lived for a short time in the area include: Ejnar Mikkelsen, who spent one season with Leffingwell, Vilhjamur Stefansson, who focused his 1912 investigations on Native history at Point Barrow and discovered and excavated many ancient Native houses along the coast; Diamond Jeness, a member of the 1914 Thule expeditions which examined two large village sites near Barter Island; and Charles D. Brower, who spent fifty-seven years there, most at Barrow. The Thule expeditions, of which there were five, counted between thirty and forty old house sites on the spit running east from Barter Island. The nearby islands of Arey and Leavitt also contain old house sites. These sites are considered archaeological and are discussed in more detail in archaeological sections.

HISTORIC TRAILS

BEECHY POINT (Quad #150)

Trail 26. This winter trail which runs south from Foggy Island Bay to the Arctic Foothills is crossed at the Kadleroshilik River.

FLAXMAN ISLAND (Quad #151)

Trail 25G. This tractor trail and its coastal alternate are each crossed by this segment just south of Flaxman Island.

BARTER ISLAND (Quad #152) and DEMARCATION POINT (Quad #138).

Segment Twenty-nine is wholly marine through these two quadrangles.

HISTORIC AND ARCHAEOLOGICAL LOCALES

HAL #92

XBP 001, XBP 002, XBP 003 and XBP 004. HISTORIC. These coastal sites are known to have been inhabited by family groups during the 1930's. Their locations range from eight miles (001 to twenty-five miles (003) from the beginning of the segment at Prudhoe Bay. (Derry, 1971)

XBP 005 and XBP 006. HISTORIC. Prudhoe Bay #1. These Eskimo dwelling sites were occupied until the late 1930's or early 1940's. Cabins, caches and information from informants have enabled cultural reconstruction. Site XBP 005 has been excavated. (Derry, 1971)

HAL #93

XFI 001. HISTORIC. This Eskimo campsite at Bullen is shown on a 1902 manuscript map by S. J. Marsh. (Orth, 1967)

XFI 002. HISTORIC. Leffingwell Camp. This ten-acre site on Flaxman Island was the residence of geologist Ernest de K. Leffingwell from 1906 to 1914 during which time he studied and mapped much of Alaska's Arctic Coast. Portions of structures were built from the ship Duchess of Bedford and include much tongue and groove woodwork and brass ship fittings. Structures included a cabin, storage shed, ice cellar and two large iron ship tanks. Leffingwell Camp is on the National Register of Historic Places. (Leffingwell, U.S.G.S., 1919)

HAL #94

BRL 001. ARCHAEOLOGICAL. Elupak Archaeological Site. This site dates from about 1400 A.D. Other sites in the area are known to have been inhabited since white exploration began. (Giddings, 1957)

BRL R1. ARCHAEOLOGICAL. Barter Island. Early excavations by Matthiassen and Jenness here have proved invaluable, as the island margins are sinking at a rapid rate. The Jenness excavations of 1914 recovered three groups of clustered habitations. At the west end fifteen houses and other features were located and an additional seventy-seven dwellings, graves, ice cellars, and related features. Forty-three houses and features on Arey Island sand bar were excavated. The oldest site dates to <u>ca</u>. 1200 A.D.; the remainder date to the fifteenth-seventeenth centuries. The collection is currently under study by Dr. Edward Hall for the Museum of Man, Ottawa.

Hal #95

XDP 001. HISTORIC. This native site, on the Beaufort Sea coast at Angun Point, was a willage of several igloos when Archdeacon Stuck spent several nights there in 1918. (Orth, 1967)

XDP 004. ARCHAEOLOGICAL. Several ruins of dwellings and graves along the coast extending into the Barter Island quadrangle which were reported by the staff of the Arctic National Wildlife Range are probably recent or protohistoric.

HAL #96

XDP 002. HISTORIC. Gordon. This location, on the northeast shore of Demarcation Bay, is the site of a trading post named for Thomas Gordon who came from Scotland and established a trading post there in 1888. (Orth, 1967) XDP 003. ARCHAEOLOGICAL. This site, or more properly district, consists of "ancient ruins of dwellings and graves along the coast of the Beaufort Sea" reported by the staff of the Arctic National Wildlife Range. These ruins and gravesites are probably protohistoric.

Sites XFI 002, BRL 001, XDP 001-004 are also within the corridor of Segment Twenty-nine(A).



"I am leaving," I told Ataataruryg. "Maybe you won't be back."

"I'll be back, but I don't know when."

"Many tanniks [whitemen] come here. They stay for a little while, and then go home. We get a few letters and a Christmas card or two. Then we don't hear from them any more. Maybe you are like the others."

> The Eskimo of North Alaska Norman A. Chance: 1966



DESCRIPTION

Segment Twenty-nine(A) is the overland coastal alternate route. It begins south of Flaxman Island where it branches from Segment Twenty-nine (70°10'N, 146°08'W), and generally parallels the coast at an inland distance of approximately one mile. It joins Segment Thirty south of Demarcation Point at Putugook Creek (69°36'N, 141°15'W), approximately seven miles west of the Canadian border.

MODERN ENVIRONMENTAL SETTING

Segment Twenty-nine(A) occupies nearly level terrain on the Arctic Coastal Plain which has surficial deposits of alluvium and loess. It crosses numerous rivers and streams near their termini at the Beaufort Sea.

The segment has an arctic climate with a mean annual temperature of approximately 10°F. The mean annual precipitation, falling primarily as snow, varies from approximately seven inches in the west to twelve inches in the east.

The predominant vegetative ecosystem for the segment is Wet Tundra. The coastal marshes and numerous thaw lakes and ponds are summer breeding grounds for many species of waterfowl. The year-round wildlife population and total biomass produced is relatively low. This low productivity supports wildlife populations, including migratory caribou, only on a seasonally peak basis.

The village of Kaktovik on Barter Island is approximately four miles from the proposed alignment.

PALEOENVIRONMENTAL SETTINGS

The paleoenvironmental setting for this segment is that of the Arctic Coastal Plain, which, throughout the time span under consideration, has always had an arctic climate and a tundra ecosystem. The corridor of the segment is entirely within the Arctic Coastal Plain Paleoenvironmental Zone which is described in Segment Twenty-nine. Because of the absence of glaciation there is some probability of finding, within this corridor, archaeological sites dating from any and all likely periods of human occupation of Alaska.



The archaeological record for the area, the past environmental setting, and the present setting combine to predict that sites occur with low density and that sites which do exist, but which are not known, will be discovered with a likely low frequency because of terrain factors. Along the immediate coast especially, even relatively young sites have a high probability of having been destroyed or obscured by beach erosion, rapid stream course changes and development of thaw lakes.

ARCHAEOLOGICAL SUMMARY

One site on Camden Bay relating to Thule manifestations at Point Barrow and the Ekseavik site (occupied around 1400, according to Bandi 1964:127) on the Kobuk River have been recorded for this segment.

ARCHAEOLOGICAL EVALUATION

The paucity of archaeological data from the eastern coastal region of Alaska has severely hampered analysis of the role of early Denbigh and Dorset traditions in the development of specialized Eskimo maritime adaptations. It is highly likely that sites relating to the early and rapid diffusion of microblade technologies from the Pacific to Greenland may be encountered here, as well as evidence of pan-Arctic Dorset and Thule migrations, suggested by XMM 001. Sites relating to the development of western Thule culture should be expected in this segment as well. The potential for discovery of sites of great antiquity, particularly where low and dry ridges lie adjacent to north-flowing rivers, is demonstrated by early material recovered from the Gallagher Flint Station and the Walakpa site near Barrow. (Stanford)



HISTORIC SUMMARY

No additional sites of historic interest are recorded for Segment Twenty-nine(A). Leffingwell Camp (XFI 002), Gordon (XBP 002), and the Native site at Angun Point (XDP 001) are within both Segment Twenty-nine and Twenty-nine(A). They have been discussed in Segment Twenty-Nine.

HISTORIC EVALUATION

The general significance of this segment coincides with that described in Segment Twenty-nine. The eastern extremity reaches the British Mountains. The story of the origin of the names of these mountains is repeated today along the Porcupine: "Portion of a British whaling crew was shanghied in London and southern England during the late nineteenth century. Some of the kidnapped crew escaped over the ice and into these mountains, pursued by British officers who shot and captured some of them. One escapee made his way to Old Crow, intermarried, settled eventually at Fort Yukon, and was lost on a fishing trip. His Native son still lives in the area. The British Mountains were given this name because of the incident." (Pers. Comm., 1975)

ARCHAEOLOGICAL AND HISTORIC TRAILS

FLAXMAN ISLAND (Quad #151)

Trail 25G. This trail is followed for about three miles across Staines River.

Trail 25F. This trail is followed for about eight miles from the Tamayarik River to beyond Konganovik Point.

MT. MICHELSON (Quad #139)

Trail 25F. This is a continuation of the trail from Flaxman Island quadrangle. It is followed for about six miles to Simpson Cove.

BARTER ISLAND (Quad #152)

Trail 25D. This tractor trail to the village of Kaktovik on Barter Island is crossed twice south of Kaktovik Lagoon.

DEMARCATION POINT (Quad #138)

No trails are intersected by the alignment in this quadrangle.

ARCHAEOLOGICAL AND HISTORIC LOCALES

HAL #94

XMM 001. ARCHAEOLOGICAL. This site is located on a high beach in a sheltered part of Camden Bay and is barely prehistoric in age. The site is related to Ekseavik on the Kobuk River and the Birnirk site at Pt. Barrow. It appears to predate Ekseavik. (Giddings, 1957) The sites, XFI 002, BRL 001, XDP 001-004, are discussed in Segment Twenty-nine under HAL #'s 93, 94, and 95.



DESCRIPTION

Segment Thirty is the 195 mile Prime Route proposed by Alaskan Arctic Gas Pipeline Company. It follows the inner edge of the Arctic Coastal Plain from Prudhoe Bay eastward to the Canadian border, approximately seven miles south of Demarcation Point.

MODERN ENVIRONMENTAL SETTING

The terrain crossed by this segment varies from generally level near the coast to rolling near the Arctic Foothills. The boundary between the Arctic Coastal Plain and the Arctic Foothills approximates the maximum limit of Pleistocene glaciations. Therefore, surficial geological deposits range from older coastal deposits of inter-stratified alluvial and marine sediments near the coast to mixed alluvial and glacial deposits near the foothills. The segment crosses numerous streams and rivers, among which are the Sagavanirktok, Kadleroshlik, Canning, Hulahula, and Jago Rivers.

The segment has an arctic climate with a mean annual temperature of 10°F and mean annual precipitation ranging from six to twelve inches.
The primary vegetative ecosystems crossed by the segment are Wet Tundra and Moist Tundra, but inland riverine areas have locally significant areas of High Brush. The area supports a significant, but seasonal, wildlife population of caribou, and numerous species of migratory birds, including the only significant breeding colony of snow geese in Alaska, and some moose, bear, and musk ox.

Except for the development of the Prudhoe Bay oilfield, present economic exploitation of the resources in the corridor is light. The nearest permanent habitation is Kaktovik on Barter Island.

PALEOENVIRONMENTAL SETTINGS

This segment corridor crosses the Arctic Coastal Plain Paleoenvironmental Zone and passes near a portion of the Brooks Range Paleoenvironmental Zone. During the time span considered, the climate here has always been arctic with the period of greater cold much exceeding the short periods of warmer temperatures. Although the Coastal Plain land area was significantly wider during glacial maxima when sea level was lowered, this area undoubtedly had a more impoverished ecosystem then than now, as it was between the ice-covered glacier area and a sea more constantly frozen than is presently the case.



In spite of the always harsh climatic setting, the productivity of this corridor has always been capable of supporting some human occupation. Much of the corridor is covered with alluvial and aeolian sediments deposited during the last ten thousand years. Consequently, archaeological sites pre-dating the glacial maximum have a high probability for having been destroyed or obscured by these environmental forces.

ARCHAEOLOGICAL SUMMARY

Sites discovered in the Solecki survey (1973) on the upper Katakturuk River and on Itkilyariak Creek (XMM R-1, XMM R-2) produced diagnostic artifacts of Denbigh and early Eskimo technological traditions. The survey parties located a number of sites in the region with comparable inventories, two of which, XMM R-3 and XMM R-4, are discussed in Segment Thirty-one. This series of sites constitute the sole data base for this portion of the Arctic Slope and inner coastal plain and document a small percentage of the total area to be impacted.

ARCHAEOLOGICAL EVALUATION

Because the Arctic coastal plain province has remained virtually unknown archaeologically, the Solecki investigations in the foothills of the Sadlerochit and Shublik Mountains and adjacent coastal plain have been seminal for interpreting the cultural chronology of this region and assessing patterns of east-west movement through the northern corridor between the mountains and the sea. Although no deeply stratified sites were found, the discovery of a series of game observation and hunting encampments oriented to caribou migration routes and river and stream drainages suggest that the points where the pipeline route crosses major arteries and tributary creeks are critical for survey work, particularly on exposed bluff and terrace edges and eroded hillocks adjacent to waterways.

HISTORIC SUMMARY

There are no recorded sites of historic interest within the corridor of Segment Thirty. Gordon (XDP 002), on the northeast shore of Demarcation Bay, is located six miles north of the route. It is discussed in Segment Twenty-nine.

HISTORIC EVALUATION

The corridor of Segment Thirty is so close in location and history to Segments Twenty-nine and Twenty-nine(A) that the three have been evaluated together in Segment Twenty-nine.

The only distinction to be made between this segment and the purview of the region is that this segment traverses those inland river valleys populated by Eskimo before their migration first to coastal areas and then to the Mackenzie Delta and Point Barrow.

HISTORIC TRAILS

BEECHY POINT (Quad #150)

Trail 26. This winter trail which runs south from Foggy Island Bay to the Arctic Foothills is crossed by the pipeline alignment about one mile east of the Kadleroshilik River in T9N, R18E.

SAGANIRKTOK (Quad #140)

No trails are crossed by the segment in this quadrangle.

MT. MICHELSON (Quad #139)

No trails are crossed by the segment in this quadrangle.

DEMARCATION POINT (Quad #138)

Trail 211. This north-south trail connects Rampart House, Canada with the Beaufort Sea near the international boundary, criss-crossing the boundary many times. The trail is crossed by the pipeline alignment about four miles south of the Beaufort sea coast.

ARCHAEOLOGICAL AND HISTORIC LOCALES

HAL #98

XMM R-1. ARCHAEOLOGICAL. Early Eskimo or Denbigh occupation is indicated by artifacts recovered from this site. The archaeological finds consist of a surface collection of tools for working wood or skins, suggesting the site may have been a hunting encampment oriented to the Katakturuk River caribou migration route. (Solecki <u>et al</u>, 1973, Site Four.) HAL #99

<u>XMM R-2</u>. ARCHAEOLOGICAL. Situated on the north side of an eastern tributary of the Itkilyariak Creek at an elevation of 172 feet above the stream, this partially excavated and tested site appears to be a small habitation and tool manufacturing station. The most diagnostic artifacts relate to the Denbigh Complex. Specimens include one microburin, flakes probably utilized as borers, notched flakes, burins, and a nosed scraper. (Solecki <u>et al</u>, 1973, Site Two.)

NATIVE EXPRESSION

This pen and pencil drawing was made at a Religious school in Alaska by a young Native adult between 1889 and 1904. Only the perspective is missing as the artist captures the humor and bête noir of dogsledding. The Native in the background is chasing off a weasel, another brakes the loaded sled, and a third runs to help the fourth who is being dragged along by the foolish dogs. Many diaries describe the dread of meeting another team on a narrow trail or coming upon an animal which the dogs would chase: "The other driver is alone, he tries like me to stop his dogs, fruitlessly. He orders his lead dog into the snow. I do likewise without better luck. They are earless and dominated by passion. They are all set to throw themselves on the others: a general turmoil: cries, howls, snapping of teeth, they leap toward the throat, crush those that fall and try to rip each other apart. Many whip lashes reestablish order. Finally the adversaries are separated. What a state the harnesses are in! ...in Alaska, a dog driver who does not curse is considered a phenomenon!" [Transl.]

> En Alaska, Deux Mois sous la Tente Father J-A Desjardins, S.J.: 1930

SITE AREA LOCATION



DESCRIPTION

This segment is the northern 107 miles of the interior alternate route which extends from Prudhoe Bay to the confluence of the Marsh Fork and the Main Fork of the Canning River (69°12'N, 145°53'W).

MODERN ENVIRONMENTAL SETTING

The variable terrain crossed by this segment includes Arctic Coastal Plain, Arctic Foothills, and a northern portion of the Brooks Range. Surficial geologic deposits are principally alluvial, but some glacial moraines and outwash are included in and near the Brooks Range. Soils range from deep to very shallow, but continuous permafrost produces only a shallow active layer throughout the corridor.

Major streams draining the segment corridor are the Sagavanirktok, Kadleroshilik, and Canning Rivers, all of which are crossed, except the Canning which is paralleled for a considerable distance.

Although arctic throughout, both mean annual precipitation and temperature increase southward from the coast, from six inches and 8°F at Prudhoe to thirty inches and 12°F at the southeast end of the segment in the Franklin Mountains. Vegetative ecosystems in the corridor are principally Wet Tundra and Moist Tundra, but stream borders away from the coast have locally significant areas of High Brush. Small areas of bare rock occur in the mountainous portion of the corridor. The corridor supports seasonally high populations of migratory birds and caribou of the Porcupine Herd. Birds are concentrated in the coastal plain wetlands. That portion of the Arctic Coastal Plain east of the Canning River is a principal caribou calving ground.

Except for the ongoing development of the Prudhoe Bay oilfield, present economic exploitation of the resources of the corridor is light. The residents of the Native village of Kaktovik, about one hundred miles from the corridor, may occasionally range this far for subsistence harvests.

PALEOENVIRONMENTAL SETTINGS

This segment includes portions of the Arctic Coastal Plain and Brooks Range Paleoenvironmental Zones.

During the forty thousand year time span being considered the corridor has always had an arctic climate and either a tundra ecosystem or none (glacier covered). At the height of the Wisconsin glaciation, seventeen thousand to twenty thousand years ago, the northern unglaciated portion of the segment had a periglacial setting which was colder and probably drier than at present. During all of this time period the Arctic Coast Plain Zone would have had an ecosystem similar to the present vegetation but at times having a mammalian fauna with more species of the steppe and tundra forms (as caribou) than presently. Several mammal species of this form have become extinct since the first probable time of arrival of Early Man in Alaska.



Thus, for a considerable time period, this zone has had an ecosystem that would have supported a big game hunting culture, which would have, however, fluctuated considerably with rapid oscillations of climate during Late Pleistocene and Recent time. In contrast to the Coastal Plain Zone, portions of the segment in the Brooks Range have a very low probability of containing archaeological sites dating from a several thousand year expanse around the twenty thousand year B.P. mark. On a paleoenvironmental basis the mountainous portions of the segment are unlikely to contain archaeological sites older than ten thousand years.

ARCHAEOLOGICAL SUMMARY

There are no recorded sites within the ten-mile wide corridor. XMM R-3 and XMM R-4, approximately fifteen miles to the east in the Ignek Valley, are included because of their significance for assessing the archaeological potential of this route. A series of large, crude percussion-flaked implements from XMM R-3 have the appearance of considerable antiquity. Discovery of a similar complex in the region could assist in placing these unusual artifacts in a chronological framework.

ARCHAEOLOGICAL EVALUATION .

Although considerable antiquity for human occupation of the area is suggested by the presence of limited British Mountains components in the unglaciated valleys of the Sadlerochitl Shublik Mountains, sites of postglacial age may be encountered on the corridor. Solecki (1973) suggests that similarities in Denbigh and Eskimo patterns of occupation at Katakturuk Lookout Station and related sites may represent common adaptations to the limited resources of the region. Further discovery of sites of this type could provide valuable information regarding the persistence of highly specialized patterns of behavior for exploiting the ecological potentials of limited resource regions.

HISTORIC SUMMARY

The six applicable sites, <u>XBP 001-006</u>, are discussed in Segment Twenty-nine.

HISTORIC EVALUATION

The history of the area traversed by this segment is like that of Segments Twenty-nine, Twenty-nine(A), and Thirty. The route contains both coastal lands and river valleys; thus its history must reflect Native movement along the river valleys to the coastal areas, as discussed in Segment Twenty-nine. Leffingwell was probably the first to explore these lands in a scientific manner.

HISTORIC TRAILS

BEECHY POINT (Quad #150)

No trails are crossed by the segment in this quadrangle.

SAGAVANIRKTOK (Quad #140)

Trail 26. This trail running south from Foggy Island Bay is crossed in Section Fifteen, T6N, R18E one mile east of the Shaviovik River.

MT. MICHELSON (Quad #139)

No trails are crossed by the segment in this quadrangle.

ARCHAEOLOGICAL AND HISTORIC LOCALES

HAL #102

<u>XMM R-3.</u> ARCHAEOLOGICAL. <u>Katakturuk Lookout</u> (thirty-five mi. N.E.).¹/ This important site on a high promontory affords a 270-degree view of the intermontane river valley and Ignek Creek. The wide variety of artifacts indicate this strategic spot has been in intermittent use since Paleoindian times. Artifacts referable to the early British Mountains, Paleoindian and Denbigh Flint complexes were recovered, as were features suggestive of historic Eskimo occupation. (Solecki et al. ms. 1973).

XMM R-4. ARCHAEOLOGICAL. (twenty mi. N.E.)Material recovered here closely resembles that from XMM R-3. Both sites appear to have been occupied simultaneously by groups of wandering hunters. (Solecki <u>et al.</u>, ms. 1973).

XBP 001-006. HISTORIC. These recent dwelling sites are discussed in Segment Twenty-nine.

<u>1</u>/Parenthetical distances and directions are from the closest approach of the proposed alignment to sites outside the ten-mile wide corridor.



DESCRIPTION

Segment Thirty-two is the thirty mile long northern option of the interior alternate route which extends from the confluence of the Marsh and the Canning River (69°12'N, 145°53'W) along the Main Fork to the headwaters of the Canning.

MODERN ENVIRONMENTAL SETTING

This segment is wholly within the Brooks Range with the alignment following the valley of the Main Fork of the Canning River and one of its tributaries to a point a few miles north of the Continental Divide. Surficial geologic deposits in the corridor range from bare rock on mountain slopes to thick alluvial and glacial deposits in the narrow valleys.

The climate is arctic but shows some continental influence at the southeast end of the segment. Mean annual precipitation ranges from thirty to forty inches and the mean annual temperature is approximately twelve degrees. The valleys have High Brush and Moist Tundra vegetative ecosystems; steep slopes and highest elevations have Alpine Tundra ecosystems or are unvegetated (bare rock and ice). The Canning River valley is a fall migration route for the Porcupine Caribou Herd, and it forms the southwest and west boundary of the Arctic National Wildlife Range. Caribou is the most abundant large mammal species using the corridor, although the corridor is habitat for grizzly bear, Dall sheep, and other species.

This segment is remote from even small human population centers, the nearest permanent habitation beging Arctic Village almost fifty miles south of the segment. Arctic Village is discussed in Segment Thirty-four.

PALEOENVIRONMENTAL SETTINGS

This short segment in the east central portion of the Brooks Range is in the Brooks Range Paleoenvironment Zone. During the last forty thousand years the climate here has been arctic or sub-arctic. The Wisconsin Glaciation covered all or most of this area with valley glaciers, remnants of which still exist at higher elevations less than ten miles from the proposed alignment. The glacier-carved valley of the Canning River followed by the alignment has likely become ice-free during the last ten thousand years. The southernmost portion of the corridor near the continental divide may have been glacier-free for only five hundred to one thousand years. Even in the present environmental setting deep snow cover remains in the highest mountain passes in some years.



The historic shiftings and fluctuations in the migrations of the Porcupine Caribou Herd over the Brooks Range (Hemming, 1971) provides a good index for present environment and past conditions which would have affected man's movements in the corridor. Few archaeological sites younger than five thousand years old are likely to exist in this corridor because (1) the present environment is marginal for large game animal populations and thus of human populations; (2) the present environment represents a gradual improvement over the last ten thousand years; and (3) any archaeological sites in this valley pre-dating the most recent glaciation without doubt would have been obliterated by this glaciation.

HISTORIC EVALUATION

During the historic period few, if any, events of significance occurred in this region. The seasonal plenitude of game probably brought hunting parties to the area, particularly those of Native groups who supplied coastal whalers and exploratory expeditions of the nineteenth century. Their departure from the area and the earlier exploring parties who may have traversed the region are described in Segment Twenty-nine which contains a comprehensive evaluation of the Arctic Coast and north slope.

ARCHAEOLOGICAL SUMMARY

There are no AHRS sites recorded for Segment Thirty-three. This route traverses an area that is virtually unknown archaeologically.

ARCHAEOLOGICAL EVALUATION

Because this route follows one of the natural passes through the Brooks Range, it is highly important that the impacted area receive careful attention. Information obtained from survey along this route could be of substantial interpretive value for understanding the critical time periods for the diffusion and expansion of Paleoindian culture and post glacial movements between the arctic and interior zones. This potential reinforces the need for integrating a companion geological study for assessing the significance of any sites which may be discovered in glacial contexts.

HISTORIC SUMMARY

There are no sites of historic interest recorded in this segment.

HISTORIC EVALUATION

The historic significance is associated with that described in Section Twenty-nine.

HISTORIC TRAILS

MT. MICHELSON (Quad #139)

No trails are crossed by the alignment in this quadrangle.

ARCTIC (Quad #136)

No trails are crossed by the alignment in this quadrangle.

ARCHAEOLOGICAL AND HISTORIC LOCALES

There are no AHRS sites within the ten mile wide segment corridor. The two closest sites are approximately twenty-five miles distant across the Franklin Mountains. These are XMM 002 and XMM 003.



DESCRIPTION

Segment Thirty-three is the thirty-seven mile long Marsh Fork southern option of the interior alternate route which extends from the confluence of the Marsh Fork and the Main Fork of the Canning River (69°12'N, 145°53'W) to the headwaters of the Canning.

MODERN ENVIRONMENTAL SETTING

Surficial geology ranges from bare rock on the mountain slopes to thick alluvial and glacial deposits in the valleys.

The climate is arctic with some continental influence at the segment's southeastern end. Mean annual precipitation ranges from thirty to forty inches, and mean annual temperature is approximately 12°F.

The alignment corridor encounters High Brush and Moist Tundra vegetative ecosystems in the valleys and Alpine Tundra or bare rock and ice on the higher elevations. Caribou is the most significant animal within this segment which is part of a major caribou migration route for the Porcupine herd. Other species inhabiting the corridor include Dall sheep, moose, and grizzly bear. This segment has no permanent settlements, the nearest being Arctic Village fifty miles to the south. The segment enters the new Alaska Educational Attendance Area, number thirteen.

PALEOENVIRONMENTAL SETTINGS

This short segment which follows the valley of the Marsh Fork of the Canning River north of the Continental Divide in the Brooks Range is in the Brooks Range Paleoenvironmental Zone. The climate has been arctic or sub-arctic for at least forty thousand years, with the present marginal setting for human occupation representing probably the warmest and most ice-free conditions since the beginning of the last recession of glaciation in the area around ten thousand years ago.



Although human habitation of the area was possible around twenty-five thousand years ago, archaeological sites dating from this period may have been obliterated by the Wisconsin Glaciation. Archaeological sites are likely five thousand years old or younger and sparse because of the always low subsistence capacity of the Alpine Tundra ecosystem which has covered most of the corridor during interglacial intervals. Even today the annual migrations of caribou through the corridor of this segment are sporadic and less dependable than in some other localities.

ARCHAEOLOGICAL SUMMARY

No sites have been recorded for Segment Thirty-three.

ARCHAEOLOGICAL EVALUATION

This route is in all respects comparable to Segment Thirty-two. Neither corridor has been well surveyed nor is the potential of the area known. Especially careful and early survey operations are indicated for any segment which is unknown archaeologically.

HISTORIC SUMMARY

No sites of historic interest are found within Segment Thirty-three.

HISTORIC EVALUATION

During the historic period few, if any, events of significance occurred in this region. The fur trading and mining which brought exploration and settlement, even if temporary, to other regions never developed here, for lack of easy access in the first case and lack of mineral resources in the second. Coastal exploratory and whaling expeditions presumably did not reach this far inland. If they did, no record was made or preserved. It was well into the twentieth century, in the search for minerals, before the area was explored thoroughly. Leffingwell, during his six year sojourn on Flaxman Island, did some mapping of the region and provided a narrative description of the geology.

HISTORIC TRAILS

MT. MICHELSON (Quad #139)

No trails are crossed by the alignment in this quadrangle.

ARCTIC (Quad #136)

No trails are crossed by the alignment in this quadrangle.

HISTORIC AND ARCHAEOLOGICAL LOCALES

There are no AHRS sites in the vicinity of Segment Thirty-three except for the old log church at Arctic Village, fifty miles southward, which was recently nominated to the National Register [ARC 056].

SITE AREA LOCATION



DESCRIPTION

Segment Thirty-four is the southeastern 155 miles of the interior alternate route which extends southeasterly from the junction of Segments Thirty-two and Thirty-three (68°48'N, 145°40'W), around the southern limits of the Arctic National Wildlife Refuge, and easterly to the Canadian border.

MODERN ENVIRONMENTAL SETTING

This segment is in the Brooks Range and Porcupine Plateau Physiographic Provinces. The terrain varies from high mountains and steep valleys in the north to rolling and hilly uplands in the southeast. Surficial geology varies; there is bare rock on mountains and deep alluvial and glacial deposits in valleys of the Brooks Range. There are flood plains and outwash deposits in the Porcupine Plateau. It is drained by the Canning River for the few miles north of the Continental Divide and by the Chandalar, Sheenjek and Coleen Rivers south of the divide.

The segment has arctic and continental climates. The mean annual precipitation ranges from forty inches near the Continental Divide to fifteen inches near the Canadian border. Mean annual temperature is approximately 11°F throughout the segment.

The vegetative ecosystems, Alpine Tundra, Moist Tundra and High Brush of the northern portion of the segment gradually give way to the Upland Spruce-Hardwood Forest, Low Brush, Muskeg-Bog and Bottomland Spruce-Poplar Forest ecosystems of the southeastern portions. The most abundant large mammal in the region is caribou. The Porcupine herd, one of Alaska's largest, ranges the entire length of this segment. Other wildlife include moose, grizzly bear, wolf, Dall sheep, and waterfowl.

With the exception of hunting parties, this region is generally unpopulated. The nearest permanent settlement, Arctic Village, is thirty-eight miles distant.

PALEOENVIRONMENTAL SETTINGS

This segment crosses approximately equal portions of the Brooks Range and Intermontane Paleoenvironmental Zones. During the time span of consideration the climate has ranged from slightly warmer to much colder than present arctic and continental climates. The northern, mountainous portion of the corridor was extensively glaciated and during interglacial intervals (as now) had a predominantly Alpine Tundra. The southern portion, in the Intermontane Zone at lower elevations, has varied in setting from Alpine Tundra and arctic climate to boreal forest and continental climate. During the period of maximum glacial extent this portion of the Intermontane Zone was periglacial and contained some smaller ice fields and glaciers at higher elevations.



Possibilities for finding pre-Wisconsin Glaciation archaeological sites in the northern half of the segment are practically non-existent and very low for the post-glacial period. For the southern half of the segment, archaeological sites dating from any time during the last twenty-five thousand years are possible, but the expected frequency of occurrence is low for all periods because of the nearness of the corridor to glacial activity.

ARCHAEOLOGICAL SUMMARY

One archaeological site of possible prehistoric age has been recorded for this route. <u>TAB 002</u> yielded many flint fragments and broken projectiles which have not yet been classified as to cultural affiliation.

ARCHAEOLOGICAL EVALUATION

Thorough survey is advised where this route crosses the East Fork of the Chandalar, the Koness, the Sheenjak, and the Coleen, and follows Monument Creek. The large collection of prehistoric material from Old John Lake indicates this segment may be potentially significant for locating sites of considerable antiquity. Caribou fences and traps throughout the area attest to the importance of the caribou in early historic, and possibly prehistoric, times. Further identification of Athapascan sites would be of potential value for ethnoarchaeological studies.

HISTORIC SUMMARY

The three listed historic sites, <u>ARC 052-054</u>, are caribou fences typical of the pre-contact period and therefore archaeological in nature.

HISTORIC EVALUATION

The three caribou fence sites recorded for this region are indicative of the scarcity of known historic resources. The area has been traversed seasonally by Native hunting and trapping parties in search of game for food and skins for trade. The fence sites are typical of the commonly used hunting method before the white man's introduction of the rifle. The fences are, then, of archaeological interpretive value. Apart from the fences and the hunting practices they represent, the historic resources are indefinite; they must be surmised. White trappers and missionaries who are known to have travelled through the area as early as the last quarter of the nineteenth century are not known to have kept narrative or map records. The earliest of these men were undoubtedly associated or trading with the Hudson's Bay Company. They may have arrived as early as 1825, the initiation of the period of exploration in the far north. Explorers associated with the Franklin, Dease and Simpson, Pullen, Hooper, and Collinson expeditions normally used the direct Mackenzie River route to the Arctic Coast. Occasional wavers and detours, however, may have brought them to this region, particularly to the portion just above the Porcupine River.

It was furs taken from this region that supplied the British trading posts along the Porcupine throughout the early and mid-1800's. Church of England missionaries, later the Episcopalians, ministered to the Indians at Native seasonal encampments. The missionaries' dual purpose of evangelization and education was made somewhat simpler by the new semi-permanent campsites the Indians established with the coming of the white trader. For the first time semi-permanent homes were built.

Other cultural influences still visible, now often a part of Native life, were brought about by missionaries whose individual names are not now part of recorded history, include schools, medical practices, and Christian names and religion.

The mining which so dominates the history of much of the rest of Alaska is not reflected in this segment; historic character here was formed by anonymous traders and missionaries.

HISTORIC TRAILS

ARCTIC (Quad #136)

No trails are crossed by the alignment in this quadrangle.

FABLE MOUNTAIN (Quad #137)

No trails are crossed by the alignment in this quadrangle.

COLLEEN (Quad #121)

<u>Trail 32</u>. This important trail from Circle to Canada along the Coleen River is crossed in Section Twenty-seven, T36N, R25W.

ARCHAEOLOGICAL AND HISTORIC LOCALES

HAL #105

<u>ARC 001-042</u>. ARCHAEOLOGICAL. <u>Old John Lake</u> (twenty-five miles SW).¹/ A series of sites in the vicinity of Old John Lake appear to be seasonally utilized observation/chipping stations and family campsites situated on prominent knolls, beaches or ancient beach strands with good vistas across open areas. Nineteen of the thirty-four sites with classifiable artifacts contain microblades and other lithic material possibly representative of the transitional period, <u>ca</u>. 5,000 to 4,000 B.P., from the Notched Point cultures of the Paleoarctic Tradition to development of the Arctic Small Tool Tradition. (Hall and McKennan, 1973).

ARC 052. Red Sheep Creek. HISTORIC. Caribou fences at these locations are of the type utilized for taking caribou in large numbers prior to the introduction of the rifle. Although dating to the nineteenth century, they are reflective of prehistoric hunting techniques.

ARC 053, 054. HISTORIC. (twenty-five miles S.W.) Caribou fences similar to ARC 043, ARC 052 are reported from the vicinity of Arctic Village, Old John Lake, and the Junjik River. (Roseueau, 1973).

ARC 045-051. ARCHAEOLOGICAL. <u>Tikyitsal</u>; <u>Redfish Lake</u>; <u>Old John</u> Mountain Sites.

HAL #106

TAB 002. ARCHAEOLOGICAL. Many flint fragments and broken points were found at this probable observation point for hunters on Monument Creek. No dates or cultural affiliation have been established for this unexcavated site. The following sites, although outside the corridor, are listed because of their importance.

TAB 004. ARCHAEOLOGICAL. This site consists of caribou drive fences and traps. Some of the spruce rails used to build the fences and corrals were cut with stone axes.

TAB 005-009. ARCHAEOLOGICAL. Sheenjek #1-#4; Kaultui. (seventeentwenty-six miles NE). These are five caribou fences. (Roseueau, 1973).

ARC 043. ARCHAEOLOGICAL. Sheenjec-Old Woman Site. A caribou fence has been discovered here. It is of the same type discussed above.

ARC 056. HISTORIC. Old log church at Arctic Village, an example of early architecture with sod roof and log belfry.

<u>l</u>/Parenthetical distances and directions are from the closest approach of the proposed alignment to sites outside the ten-mile wide corridor.



FRONTIER ARCHITECTURE

ARC 056. Photograph of old log missionary church at Arctic Village, Alaska. Recently nominated to the National Register of Historic Places.

> Iroquois Research Institute 1975 Photo and Nomination [Meets criteria 2.1.2(1), page 218]



DESCRIPTION

Segment Thirty-five, 110 miles in length, is the northern segment of both the Fort Yukon alternative route and the Fairbanks alternative route. It extends from Prudhoe Bay to Oksrukuyik at the confluence of the Sagavanirktok and Ribdon Rivers and has eighty-three miles in common with El Paso Prime Route Segments One and Two [Volume One].

MODERN ENVIRONMENTAL SETTING

Segment Thirty-five passes through the Arctic Coastal Plain, Arctic Foothills and Brooks Range Physiographic Provinces. Throughout most of its length the segment follows the modern flood plain of the Sagavanirktok River. The surficial geology varies from the gravelly deltaic coastal deposits at Prudhoe Bay to the sandy deposits on low terraces, alluvial fans and flood plains.

The arctic climate of the segment has a mean annual precipitation which varies from six inches in the north to ten inches in the south and a mean annual temperature of approximately 10°F.

[As of October, 1975, approximately 50% of the crude oil line and 25% of the pumping stations of Alyeska Pipeline near this segment are completed.]

The predominant vegetative ecosystem along the segment is High Brush with areas of Wet Tundra and Moist Tundra encountered in the north. Caribou are the predominant large mammals of the region, although moose browse the high brush along the Sagavanirktok. Wolf and wolverine are present throughout the segment. Grizzly bears use the southern portion of the route from spring to fall. The density of waterfowl is high in northern portions of the segment but low in the southern sections.

Other than the oil related activities at Prudhoe Bay population of this region is low. The Segment enters the new Alaska Educational Attendance area, number twelve.

PALEOENVIRONMENTAL SETTINGS

Segment Thirty-five follows the valley of the Sagavanirktok River, a major stream draining the north slope of the central portion of the Brooks Range. Approximately half of this segment corridor in the Brooks Range Paleoenvironmental Zone was affected by the Wisconsin Glaciation. However, the unglaciated portion of the corridor in the Arctic coastal Plain Zone was at the same time contiguous with a now submerged portion of the Arctic Coastal Plain. Thus the unglaciated land area during the Wisconsin Glaciation maximum was actually a wider ice-free corridor than indicated by the modern coastline.



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During the time span considered, the climate has always been arctic throughout the corridor, with short periods slightly warmer and much longer periods colder than today. Archaeologically the paleoenvironments of pre- and mid-Wisconsin Glaciation for the Arctic Coastal Plain Zone are very important, as the coastal plain is one of the theoretical migration routes for the Paleoindian and the early Eskimo. Although theoretically possible for earlier periods (pre-Wisconsin) all known archaeological sites in the corridor date from the recession of the most recent glaciation, a period of warming climate.

ARCHAEOLOGICAL SUMMARY

Although caribou hunting stations and habitation sites by pre- and post-contact Eskimo use (SAG 002, 004, 005 discussed in Volume I) appear to reveal little new data for comparative analysis of hunting practices, SAG R-5 on a naturally protected knoll at Franklin Bluffs has yielded a large collection of specimens that appear to be of Eskimo workmanship, as well as microtools suggestive of Arctic small tool technologies.

ARCHAEOLOGICAL EVALUATION

It is quite possible that discovery of additional sites of pre- and post-contact Eskimo use could reveal important information on North Alaskan Eskimo origins. The presence of microlithic tools in the Franklin Bluffs area suggests that survey should be carefully conducted for further evidence of early occupation.

HISTORIC SUMMARY

The one recorded site of historic interest is Prudhoe Bay, XBP 005, [Volume One (page 56)]. This traditionally Eskimo coastal settlement is known to have been occupied intermittently since Sir John Franklin named that bay on August 16, 1826. Franklin's explorations of the coast and subsequent expeditions, including those to recover traces of his lost party, are discussed with other coastal history in Segment Twenty-nine.

HISTORIC EVALUATION

The route, as it follows the valley of the Sagavanirktok River, has not been environmentally conducive to historic Eskimo, Indian or white settlement. Only in the coastal area and immediate inland river valley was there early motivation for exploration and settlement. Eskimo hunting and fishing sites are known to have existed at various times and locations throughout the Prudhoe Bay area from at least the early nineteenth century. They were noted by explorers, both Russian and British, at first in search of the Northwest Passage and later in search of furs, whales and wealth. The seasonal Native campsites established themselves on a more permanent, year-round basis as the fur-trade and whaling increased. White exploration of inland areas occurred only when an occasional trader or whaler ventured inland for game or new sources of trading goods. These ventures did not prove to be worthwhile; thus no inland trading settlements were established. Mapping of anything but the coastline was left for U.S.G.S. survey teams in the twentieth century.

HISTORIC TRAILS

BEECHEY POINT (Quad #150)

No trails are crossed by the alignment in this quadrangle.

SAGAVANIRKTOK (Quad #140)

Trail 289. Hickel Highway is followed for about five miles where the highway crosses the Sagavanirktok River.

PHILIP SMITH MTS. (Quad #135)

No trails are recorded for this quadrangle.

ARCHAEOLOGICAL AND HISTORIC LOCALES

HAL #1

SAG R-5. ARCHAEOLOGICAL. This excavated site, located on a naturally protected knoll at Franklin Bluffs, yielded a microburin and microblade suggestive of the Denbigh Flint Complex. The majority of materials appear to be of Eskimo workmanship. An anomolous depression has been interpreted through careful analysis of soil profiles as the remains of a semisubterranean dwelling. (Solecki et al, 1973, Site Thirteen.) HAL #2, #3

SAG 001, 002, 003, 004, 005, 006, R-3 and R-4. ARCHAEOLOGICAL. These sites were all discussed in Volume One, sites R-3, R-4, 003, 004 and 006 in Segment Two, p. 64-65; sites 001, 002 and 005 in Segment Four, p. 93-94.



"One look at our dogs nearly gave me a fit. They resembled a bunch of Fourth of July balloons. Since I had refused to visit [the Eskimos] as long as they wished, the woman had simply fed our dogs so much the poor animals could hardly waddle, let alone draw a sled. I lost my temper and stamped around in the snow angrily telling the grinning Natives what I thought of such a trick. They only grinned all the more. Finally, I joined in the general laugh." [1883]

Fifty Years Below Zero Charles D. Brower: 1942



SHAMAN OR DEVIL DOCTOR

The Central Eskimo Frank Boas: 1888

"The last devil-doctor to lose out at Utkiavie was an unmarried woman...the fact that she would soon have a baby presented no obstacle to her teachings. Quite the reverse. She capitalized her condition by pounding in the story of the Immaculate Conception until only the actual birth of the baby was needed to set her up as a second favored virgin. Had all gone well, it might have restored to the devil-doctors their former prestige for another decade.

"One day, Dr. Marsh, who had been particularly upset by the sacrilegious angle, come bolting into the station, beaming all over:

"She's done it this time, Charlie!"

"Done what? Who?"

"That woman devil-doctor. Her baby's come, and now everybody knows she's a fake."

"I thought the baby was supposed to prove she's another Madonna." "So it was. But Charlie," his smile broadened, "they can't see any Madonna having a *girl*!"

> Fifty Years Below Zero Charles D. Brower:1942

"The wooden masks worn at social dances often were designed to make the audience laugh, not because of the mask itself but because of the gestures of the dancer. Comic masks often were the caricatures of Indians."

> Alaskan Eskimos W. H. Oswalt: 1967

SITE AREA LOCATION



DESCRIPTION

Segment Thirty-six is the 191 mile Wind River option of the Fort Yukon alternative route which extends from Oksrukuyik (68°48'N, 148°48'W) to Nuntragut Slough (66°40'N, 145°14'W).

MODERN ENVIRONMENTAL SETTING

This segment passes through three physiographic provinces: the Brooks Range, Porcupine Plateau and Yukon Flats. It thus has a corresponding variety of terrain characteristics and surficial geology. The terrain varies from steep mountain valleys on both sides of the Continental Divide through the rolling uplands of the southern foothills of the Brooks Range and Porcupine Plateau, to the lowlands of the Yukon Flats. Surficial geology ranges from the bare rock and rubbly deposits on the steep slopes, through the modified moraines and associated drifts of the mountain valleys, to the modern flood plains and alluvium in the uplands and flats. The region is drained by numerous streams and rivers including the Ribdon River north of the Divide and the Wind and Christian Rivers south of the Divide. The segment has areas of both arctic and continental climates. The mean annual precipitation along the segment varies from approximately ten inches on both ends of the segment to approximately twenty inches on the south slope of the Brooks Range. The mean annual temperature varies from about 10°F in the north to 20°F in the south.

The segment also passes through a variety of vegetative ecosystems from Moist Tundra and Alpine Tundra in the Brooks Range to High Brush, Upland Spruce-Hardwood Forest and Lowland Spruce-Poplar Forest south of the mountains. The Porcupine Caribou Herd uses this entire region as winter range; grizzly bear, moose, wolf and wolverine are distributed throughout the segment area. Some black bear is found at the southern end. Dall sheep inhabit the Brooks Range. The Yukon Flats is on a major east-west migration route for waterfowl.

Segment Thirty-six passes within forty miles of Arctic Village, within twenty miles of both Venetie and Christian, and terminates within ten miles of Fort Yukon. It will cross the Venetie Indian Reservation.

PALEOENVIRONMENTAL SETTINGS

About forty-five percent of this segment corridor is in the Brooks Range Paleoenvironmental Zone and fifty-five percent in the Intermontane Zone. High passes of the Philip Smith Mountains of the Brooks Range contain remnants of Wisconsin glaciers on both sides of the Continental Divide. Except for the time span since recession of glaciers paleoenvironmental settings indicate low probability of archaeological sites but high probability for sites since the contact period occurring in the northern portion of the corridor where considerable archaeological surveys have been conducted for Alveska.



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The unglaciated, or only partially glaciated, portion of the corridor has had arctic, sub-arctic and continental climates which were also, at times, wetter and drier than at present. Most significant in this unglaciated portion has been the cyclical advance and retreat of the boreal forest which, during the height of the Wisconsin Glaciation, retreated to a small area along the Yukon and Porcupine Rivers. During the glacial maximum the periglacial area likely had a dry, cold steppe ecosystem with vegetation more sparse than modern tundra.

ARCHAEOLOGICAL SUMMARY

Chert flakes, large notched points and biface fragments of Tuktu-Palisades II type recovered from four localities near the confluence of the Sagavanirktok and Ribdon Rivers (PSM 060) provide the only evidence at present for prehistoric occupation of this region. Radio carbon analysis has placed the age of similar specimens from the Tuktu complex of Anaktuvuk Pass at about 6000 B.P. (Campbell, 1962). A number of localities containing tent rings and caribou fences of the type utilized prior to the introduction of rifles appear to pertain to early historic and recent periods.

ARCHAEOLOGICAL EVALUATION

Of the five archaeological sites and localities reported here, only <u>PSM 060</u> has been assigned potential importance for comparative analysis. The presence of specimens relating to the Notched Point Tradition provides significant time depth in this virtually unknown archaeological zone. Additional sites reflecting temporal sequencia would be invaluable for clarification of the origin and distribution of this early Arctic hunting tradition and could yield information regarding subsequent development of Athapascan cultural patterns.

HISTORIC SUMMARY

The four sites <u>CRS 001-004</u> are caribou fences typical of pre-contact hunting, therefore archaeological in nature. Caribou Roadhouse (<u>CRS 005</u>) is quite recent for historic importance or eligibility.

HISTORIC EVALUATION

The corridor over the Philip Smith Mountains of the Brooks Range has been, historically, of subdued interest to white settlers and explorers. Any importance of the area in general must result from its contribution to the fur-trade conducted at nearby Fort Yukon, the depository for furs collected by both Indians and white men throughout the latter half of the nineteenth century.

Missionaries, first of the Church of England and then succeeded by the Episcopalian Church, travelled to Native villages and camping sites throughout the area on an intermittent basis from the arrival of Rev. William Kirby in 1861 through the first quarter of this century.

The amount of prospecting which occurred at the northern extreme of the segment around the turn of the century is insignificant and cannot be said to have influenced this area.

HISTORIC TRAILS

PHILIP SMITH MTS. (Quad #135)

No trails are recorded for this quadrangle.

ARCTIC (Quad #136)

No trails are crossed by Segment Thirty-six in this quadrangle.

CHRISTIAN (Quad #122)

Trail 35. This sled trail from Venetie to Christian is crossed in Section Thirty-two, T28N, R9E.

FORT YUKON (Quad #119)

Trail 34A. This trail from Alexanders Village to Veh-Tenjerlow Lakes is crossed 1.7 miles west of Alexanders Village.

Trail 34. This unnamed trail connects Fort Yukon with Christian and is crossed 1.8 miles south of Alexanders Village.

ARCHAEOLOGICAL AND HISTORIC LOCALES

HAL #4

PSM 001. ARCHAEOLOGICAL. Tent rings were found at this low-lying location near the junction of the Sagavanirktok and Ribdon rivers. (ALPS Survey, 1970)

PSM 002. ARCHAEOLOGICAL. These recent Eskimo tent rings, tested, are dated fifty to one hundred years B.P. (ALPS Survey, 1970).

<u>PSM 007</u>. ARCHAEOLOGICAL & HISTORIC. Among the various tent rings found at the two locations included in this single site listing near Accomplishment Creek are those of both historic and indeterminate ages. (ALPS Survey, 1970).

PSM 060. ARCHAEOLOGICAL. The four localities included in this site contain artifacts of Tuktu-Palisades type. The chert flakes, large notched points and tool biface fragments were found on a high bluff (terrace) on the edge of Sagavanirktok River, near its confluence with Ribdon River. (Field Notes, G. Bacon: APSC prelim. report. 1974).

HAL #111

ARC 044. ARCHAEOLOGICAL. Dhadedse Ridge. This site contained a nineteenth-century caribou fence, used for taking large numbers of game animals before the introduction of rifles. (Roseueau, 1973).

HAL #112

<u>CRS 002.</u> HISTORIC. (ten miles N.E.); $\frac{1}{2}$ <u>CRS 003.</u> HISTORIC. (twelve miles N.E.); <u>CRS 004.</u> HISTORIC. (twenty-seven mi.NE) At these locations were found caribou fences probably used prior to the introduction or rifles as a method of taking caribou in large numbers. (D. G. Roseueau, 1973).

CRS 005.HISTORIC. (sixteen miles E.) Dating from the 1930's, Caribou Roadhouse is near the Christian River, about ninety miles north of Fort Yukon. (ADP Roadhouse Study, 1974).

HAL #113

<u>CRS 001.HISTORIC</u> (eighteen miles NE). A native site fifty-five miles north of Fort Yukon, this Kutcha-Kutchin Indian village is on the boundary of the Venetie Indian Reservation. It is situated on the right bank of the Christian River, near the intersection of the Fort Yukon-Christian Sled Trail and the Christian River. Sometimes called Christian Village, the site was named for the stream. (Orth, 1967).

 $\frac{1}{P}$ Parenthetical distances and directions are from the closest approach of the proposed alignment to sites outside the ten-mile wide corridor.

SITE AREA LOCATION



DESCRIPTION

Segment Thirty-seven is a ninety mile portion of both the Fairbanks alternative route and the Chandalar River option of the Fort Yukon alternative route. Extending from Oksrukuyik at the confluence of the Sagavanirktok and Ribdon Rivers to the confluence of the Koyukuk, Dietrich and Bettles Rivers, this segment has approximately sixty-nine miles in common with Segment Two of the El Paso proposed routes [Volume One].

MODERN ENVIRONMENT SETTING

Segment Thirty-seven is in both the Arctic Foothills and Brooks Range Physiographic Provinces with the attendant rolling hills and steep mountain valleys. The area is drained by the Sagavanirktok, Atigun and Dietrich Rivers. Surficial geology varies from the modern flood plain, low terrace and alluvial fan deposits along the Sagavanirktok, through modified moraines with associated drifts on either side of the Continental Divide, to the rubbly deposits and bedrock associated with the steep-sloped mountains in the areas around the Continental Divide.

This segment includes areas with both arctic and continental climates, with mean annual precipitation ranging from approximately ten inches in the north to approximately twenty inches in the south. The mean annual temperature varies from about 12.5°F to 15°F.

The segment begins in a region of High Brush vegetative ecosystem, passes through areas of Moist Tundra and Alpine Tundra and terminates in a region of Upland Spruce-Hardwood Forest. Large mammals in the region include caribou, moose, grizzly bear, Dall sheep, fox, wolf, and wolverine. Waterfowl and seabirds are present along the Sagavanirktok River, and interior valleys are nesting areas for migratory birds from all over North America.

Wiseman, with a 1970 population of twenty-six, is the community closest to the route.

PALEOENVIRONMENTAL SETTINGS

This segment in the Brooks Range mountains and foothills is in the southern half of the Brooks Range Paleoenvironmental Zone, where past climates have ranged from arctic to subarctic and continental. In this corridor ecosystem changes were marked during Pleistocene and Recent epochs by retreats and advances of the Central Alaska boreal forest. The presently partially forested condition represents the most recent readvance of forests from a residual area which survived the Wisconsin Glaciation maximum in the lowlands along the Yukon River to the south.



Archaeological sites of pre-Wisconsin Glaciation are possible, but their evidence is likely to have been obliterated by glacial action. Thus archaeological sites not older than ten thousand years and representing Interior hunting and fishing cultures are those most likely to be found in this corridor.

ARCHAEOLOGICAL SUMMARY

[Six additional sites have been reported for this segment subsequent to Volume One.] Four Eskimo summer camps in the Sagavanirktok River and Galbraith Lake regions are seasonal stations for exploiting riverine faunal resources. <u>PSM 004</u> and <u>PSM 009</u> are of recent origin; <u>PSM 068</u> and <u>PSM 003</u> are approximately two hundred years old. Two additional sites are nondiagnostic.

PROJECTILE POINTS OF THE PALEOINDIAN TRADITION


ARCHAEOLOGICAL EVALUATION

On the basis of recorded data, this corridor is one of the most critical for retrieval of potentially valuable information regarding Paleoindian manifestations and changing adaptive patterns from the earliest interior Eskimo peoples to the present. It is assumed, however, that current investigations in some areas are complete depending on the proximity of the gas route to the crude oil route. Areas of greatest concentration of known sites lie in the Atigun River and Galbraith Lake regions and the bluffs and terraces of the Sagavanirktok River about ten kilometers southwest of Oksrukuyu.

HISTORIC SUMMARY

The three historic sites along this corridor are in the Galbraith Lake vicinity and of an archaeological nature. They are discussed on page 70 of Volume One.

HISTORIC EVALUATION

The region of Segment Thirty-seven has, so far, been of little interest historically. The area has been too empty and isolated for trading settlements, and the land has not shown any mineral value that would encourage prospecting. Exploration and survey was not even conducted until this century with its attendant searches for any available mineral. The occasional hunting which has been done in the area is mostly for sport rather than subsistence.

HISTORIC TRAILS

PHILIP SMITH MTS. (Quad #135)

No trails have been recorded for this quadrangle.

CHANDALAR (Quad #123)

No trails are crossed by Segment Thirty-seven in this quadrangle.

ARCHAEOLOGICAL AND HISTORIC LOCALES.

Forty-nine ARCHAEOLOGICAL and three HISTORIC sites within the corridor of this segment have been discussed in Volume One, pages 65-71. Four ARCHAEOLOGICAL sites, <u>PSM 001</u>, <u>002</u>, <u>007</u> and <u>060</u>, are common to segments Thirty-six and Thirty-seven and are discussed in Segment Thirty-six of this volume. Of these sites, the alignment of Segment Thirty-seven will be nearer to some and farther from others than was Segment Two (Volume One).

HAL #4

<u>PSM 004</u>. ARCHAEOLOGICAL. A recent Nunamuit occupation of undetermined length is situated on the Sagavanirktok River bluffs about eight miles southwest of Oksrukuyu.

HAL #5

PSM 003. ARCHAEOLOGICAL. Sagavanirktok River I. Located on the lower river terrace eight miles north of Galbraith Lake, this site containing a tent ring, caribou bone fragments and unworked bone, is a camping station not more than two hundred years old.

PSM 008. ARCHAEOLOGICAL. Two surface sites on Accomplishment Creek are reported in ALPS.

PSM 009. ARCHAEOLOGICAL. Sagavanirktok River III--Coleman Site. This recent Eskimo site on the left bank of the Sagavanirktok River is a summer hunting and fishing camp. Four stone tent rings and a sod house have been located.

HAL #6

<u>PSM 005</u>. ARCHAEOLOGICAL. A concentration of four high elevation surface sites and food caches have been found in glacial drift; no dates or cultural affiliation are reported.

PSM 006. ARCHAEOLOGICAL. Two sites containing tent rings and isolated finds of worked wood are reported from Atigun Canyon.

PSM 068. ARCHAEOLOGICAL. One Bead Site. Caribou bone, flakes, charcoal, fire-cracked rock, and one bead eroding from cut bank on a tributary stream of the Atigun River indicate a small campsite, possibly Nunamuit, dating to ca. 1700. (I. Wilson, 1974: Field Notes). This potentially important site will not be endangered by proposed construction.

"Another thing that's strange here is all the girls are bull cooks. First day at Galbraith [Alyeska Pipeline construction camp], I went out for a shower, naked, two girls in there. I said I'm sorry. They said, "That's OK." We see that every day..."

> Fred Stickman, Sr. in Tundra Times: 1975

"On the evening of November 10, 1898, a romantic union took place between Frank McGillis and Aggie Dalton, near the mouth of Dall River. Splicing was done by 'French Joe' (Joe Durrant), and the form of the contract was as follows:

> Ten miles from the Yukon, on the banks of this lake, For a partner to Koyukuk, McGillis I take; We have no preacher, and we have no ring, It makes no difference, it's all the same thing.

> > Aggie Dalton

I swear by my gee-pole, under this tree, A devoted husband to Aggie I always will be; I'll love and protect her, this maiden so frail, From those sourdough bums on the Koyukuk trail.

Frank McGillis

For two dollars apiece, in Cheechaco money, I unite this couple in matrimony; He be a rancher, she be a teacher, I do the job up, just as well as a preacher.

French Joe"

Yukon Press, March 17, 1899

SITE AREA LOCATION



DESCRIPTION

Segment Thirty-eight is the southern one hundred fifty miles of the Chandalar River option of the Fort Yukon alternative route. This segment extends from the confluence of the Koyukuk, Dietrich and Bettles Rivers (67°38'N, 149°43'W) to Nuntragut Slough (66°40'N, 145°14'W), approximately eight miles north of Fort Yukon.

MODERN ENVIRONMENTAL SETTING

This segment is within three Physiographic Provinces and therefore displays a wide range of terrain characteristics and surficial geology. It passes through mountain valleys in the Brooks Range, across the rolling uplands of the foothills and Porcupine Plateau, and out across the Yukon Flats. The surficial geology ranges from bedrock exposures with associated coarse, rubbly deposits, through modified moraines and associated drift, to modern flood plain and its associated terraces and alluvial deposits.

The segment has a continental climate, with mean annual precipitation varying from ten inches in the north to eight inches in the south. The mean annual temperature ranges from 14°F in the north to 20°F in the south.

Segment Thirty-eight passes through regions dominated by five vegetative ecosystems: Alpine Tundra and Moist Tundra in the north, Upland Spruce-Hardwood Forest in the Porcupine Plateau, Lowland Spruce-Hardwood Forest on the Yukon Flats, and locally important Bottomland Spruce-Poplar Forest along the Chandalar River. There is a large variety of wildlife along the route with caribou being the most significant, but also including beaver, fox, bear, moose, Dall sheep, wolf, and wolverine. The Yukon Flats is Alaska's largest productive habitat for migratory birds.

This segment passes within twenty miles of the village of Venetie and the village sites of Chandalar and Christian. It will cross a small southern portion of the Venetie Indian Reservation. To the west of this segment, the Prospect Creek Pumping Station of Alyeska Pipeline was over 25% complete as of October, 1975.

PALEOENVIRONMENTAL SETTINGS

This segment begins at the southern boundary of the Brooks Range Paleoenvironmental Zone and crosses approximately the northern third of the Intermontane Zone. Except for isolated patches on higher elevations, this corridor was not glaciated by the Illinoian or Wisconsin Glaciation. At the height of the Wisconsin Glaciation the northern portion of the corridor would have had an arctic climate and a tundra or dry steppe ecosystem similar to modern tundra but generally drier.



There is paleobotanical evidence of the Wisconsin age of a residual area of forest along the Yukon River and approximately the southeast one-third of this segment corridor.

This residual forest, though slightly more sparse than the present forest around Fort Yukon, spread northward and southward during the last ten thousand years to again occupy the former tundra on portions of the south slopes of the Brooks Range which had been covered with glacier ice.

On a paleoenvironmental basis, archaeological sites dating from the first arrival of Early Man in Interior Alaska could occur in this corridor.

ARCHAEOLOGICAL SUMMARY

Two sites recorded for this segment lie in the vicinity of Big Lake. One site, at the east end of Big Lake, has been tested. It appears that the cultural material may be stratified. A second site near Linda Creek contained nondiagnostic chert flakes.

ARCHAEOLOGICAL EVALUATION

So little archaeological research has been undertaken in this area that it is difficult to assess the impact of pipeline construction on the archaeological resources. Robert McKennan, who has walked through much of the area in connection with his research on Athapascan peoples, regards the region as promising for discovery of archaeological sites. (McKennan, personal communication).

HISTORIC SUMMARY

Both sites listed, <u>CHN 001</u> and <u>CHN 004</u>, are abandoned mining camps dating from the prospecting era at the turn of the century.

HISTORIC EVALUATION

This area has historically been of little interest to white settlers and explorers.

As local names, Bonanza Creek and Prospect Creek, indicate several streams around Big Lake and Bettles River and a few small tributaries to the Chandalar were prospected in the gold rush era around the turn of the century. Few settlements were established as the area proved a poor one for mining. Those few were soon abandoned. Caro and Chandalar, the two sites discussed, are among these. Beginning in the 1860's missionaries from Fort Yukon visited Native villages and communities along the southern portion of the route. The missionaries did not establish white settlements or church structures, preferring to travel among the tribes and villages.

At the same time, and earlier, regional Natives brought furs to white Yukon traders, first of the Russian American Company and later the Hudson Bay Company and the Alaska Commercial Company. As the fur traffic declined and followed that of prospecting, the population and traffic along the corridor also declined,

HISTORIC TRAILS

CHANDALAR (Quad #123)

<u>Trail 51</u>. This unnamed trail runs from Wiseman to the North Fork of the Chandalar River. The pipeline alignment roughly parallels this trail from the Bettles River to the South Fork of the Koyukuk River, where the alignment crosses the trail.

Trail 51C. This unnamed trail runs from trail 51 at the alignment crossing to Denny's Gulch. The alignment roughly follows this trail to a point one mile east of Denny's Gulch, a distance of 2.7 miles.

Trail 40. This winter trail runs from Boulder Creek to McLellan Pass, and is crossed at Crooked Creek.

<u>Trail 43</u>. This unnamed trail runs from the town of Beaver to Trail $\frac{1}{40}$ at Horse Creek. It is crossed by the alignment at the North Fork of the Chandalar River.

Trail 42A. This trail is a spur of Trail 42 and crosses the valley of the North Fork of the Chandalar River for a distance of about nine miles in a north-south direction. The pipeline alignment crosses the trail about one-half mile north of the river.

Trail 42. Trail 42 runs northwesterly from Caro on the Chandalar River to Goldbug Creek in T29N, R6W. The alignment crosses the trail about one mile north of Kobuk Lake and then parallels the trail for 4.4 miles.

Trail 36. Trail 36 runs northerly from Caro to Chandalar Mine, connecting with Trail 40 (above) at McLellan Pass. The alignment crosses the trail less than one mile north of Caro.

CHRISTIAN (Quad #122)

Trail 35. This sled trail from Venetie to Christian is crossed 1.5 miles north of Venetie.

FORT YUKON (Quad #119)

Trail 34AA. This short spur trail of 34A is crossed in T23N, R9E.

Trail 34. This unnamed trail connects Fort Yukon with Christian and is crossed by the pipeline alignment in Section 29, T22N, RllE.

ARCHAEOLOGICAL AND HISTORIC LOCALES

HAL #8

CHN 002. ARCHAEOLOGICAL. This former lookout one-half mile north of Linda Creek was the site of a few chert flakes below mossy lichen cover in a six square foot area. (Holmes, 1971) (Volume One, page 71).

CHN 003. ARCHAEOLOGICAL. Cultural material that may be stratified was discovered two-three inches deep in reddish soil at this site on the north shore at the east end of Big Lake. (Holmes, 1971) (Volume One, page 72).

HAL #119

CHN 001. HISTORIC. Caro. This abandoned mining camp on the left bank of the Chandalar River at the mouth of Flat Creek, was established in 1906. There was a U.S. Post Office here from 1907 to 1912. (Orth, 1967).

CHN 004. HISTORIC. (Seventeen Miles N.N.E.). Chandalar. This site on the east shore of Chandalar Lake at the mouth of Rosaline Creek was developed as a mining camp in 1906-7. There was a U.S. Post Office here from 1908 to 1944. Apparently an earlier location of Chandalar was downstream near Flat Creek. (Orth, 1967).



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DESCRIPTION

Segment Thirty-nine is the ten-mile Porcupine River crossing of the Fort Yukon alternative route. It begins at the meeting of Segments Thirty-six and Thirty-eight at the Nuntragut Slough and ends at the Arctic Circle, five miles east of Fort Yukon.

MODERN ENVIRONMENTAL SETTING

Segment Thirty-nine is in the Yukon Flats Physiographic Province, underlain by alluvial material, terrace deposits and lake sediments. With a continental climate, there is a mean annual precipitation of approximately eight inches and a mean annual temperature of 20°F. The segment crosses the Porcupine River and several of its distributaries.

The segment is primarily within a Bottomland Spruce-Poplar Forest vegetative ecosystem bordered by Lowland Spruce-Hardwood Forest. Black bear, wolverine, caribou, and wolf are present in the area, with moose concentrated on the right bank of the Porcupine. Beaver, muskrat and mink are important fur resources. The region is part of the Yukon Flats, Alaska's largest productive habitat for migratory birds. Fort Yukon, with a 1970 population of 448, is the only permanent settlement along this segment.

PALEOENVIRONMENTAL SETTINGS

This short segment crosses the modern Yukon Flats and the Porcupine River a few miles upstream from Fort Yukon. This area in the Intermontane Paleoenvironmental Zone has remained unglaciated at least since before the Illinoian Glaciation over one hundred thousand years ago, although much of the recent alluvial deposits now occupying the area consist of materials originally produced by glacial action, some at great distances from the area.



Paleobotanical records show that the boreal forest, which had during the Sangamon Interglacial interval occupied larger areas of interior and northern Alaska, retreated to a refugium in this locality at the height of the Wisconsin Glaciation about twenty thousand years ago. This area, therefore, has remained forested for all of the forty thousand year time period considered, even though the regional climate has varied from slightly warmer to colder than at present. There is considerable contact period and Early Man potential here.

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ARCHAEOLOGICAL SUMMARY

This segment contains no recorded sites, but the rich and varied nature of the Yukon Flats environment must have been attractive to both historic and prehistoric peoples.

ARCHAEOLOGICAL EVALUATION

The proximity of this route to Fort Yukon increases its potential for recovery of new archaeological data which may contribute to our understanding of the kinds of influences which have shaped the Athapascan ways of life. Discovery of sites of prehistoric age could provide essential time depth for ethnoarchaeological research incorporating both early historic and recent studies of Alaskan Indian culture. In this regard, the enthographic reports of Robert Kennicott and other explorers from the mid-nineteenth century (discussed in the Historic Evaluation) affect the essential historical perspective of the immediate contact period on which comparative analysis depends.

HISTORIC SUMMARY

Two sites of historic interest are included in this area. Fort Yukon (FYU 001) has been the upper Yukon's center for trade and exploration since the early nineteenth century. The other site, Fort Yukon Roadhouse, (FYU 002) is of twentieth century importance.

HISTORIC EVALUATION

The historic character of the Fort Yukon region is the cumulative result of voyageurs and fur traders of the British Hudson's Bay Company, exploratory and mapping efforts by the Western Union Telegraph Company, United States government-sponsored explorations, the Alaska Commercial Company, and the intermittent visitations and records of missionaries to the area.

This entire area was considered to be a British trading area, the boundary between British and Russian trading areas being the junction of the Yukon and the Tanana. Fort Yukon is known to have been visited in 1863 by Ivan Lukeen, a Russian trader claiming to be a desertee from Nulato, the easternmost Russian post. Lukeen soon deserted Fort Yukon to return to Nulato with information about the British fort. The only other Russians to possibly journey this far eastward would be priests of the Russian Orthodox Church. Father Sequin, a Roman Catholic who visited Fort Yukon in 1862, reported that some Indians there had known Russian Orthodox priests. The Hudson's Bay Company, the British fur-trading company, can be credited with most of the original mapping of the Fort Yukon area and the establishment of a settlement at that site.

In 1846 Robert Bell, a Hudson's Bay Company voyageur and trader, was led by Indian guides to the junction of the Porcupine with the Yukon. He came by way of the Porcupine River from Fort McPherson on the Mackenzie River in Canada. The next year Alexander H. Murray, Bell's assistant, followed the same route and established the Hudson's Bay Company trading post which he named Fort Yukon, the westernmost post of the company.

Robert Campbell, another company voyageur and trader, in 1848 descended the Yukon by Indian canoe to the newly established trading post, thus connecting his discoveries with those of Bell and various exploring fur-traders.

In the mid-1860's the Russians and the English did cooperate with the American Western Union Telegraph Company's exploration efforts in the area for the purpose of establishing an inter-continental telegraph line. It was to extend from the United States through Canada and what was then Russian-America to Asia and Europe. The project was abandoned in 1866 when the Atlantic cable was laid. These explorations, however, marked American exploration of the Yukon.

Robert Kennicott, in charge of the scientific part of locating the Yukon division of the overland line, spent a season in 1863 studying the ethnology of the vicinity and examining the river and surrounding country. In 1866 Kennicott died in Alaska while preparing to further explore the upper Yukon. Frank Ketchum and Mike Lebarge continued the explorations begun by Kennicott. In 1867 they explored the upper Yukon and its headwaters in Canada and the United States. William H. Dall, a Smithsonian scientist for whom Dall sheep and Dall Mountain are named, in 1867 reached Fort Yukon on the same mission. He was accompanied by Frederick Whymper, the artist and author. All four men spent a season at Fort Yukon exploring the immediate area.

Accompanying the purchase of Alaska in 1867 were explorations and surveys by the United States Army. In 1869 Captain C. W. Raymond accurately determined that Fort Yukon was west of the 141st meridian and thus in the United States. He ordered the Hudson's Bay Company to vacate the post.



Surplus of the Indian wars by Mail Order: Late 1890's



THE SNARE

This rare pencil and ink drawing by an unknown young adult Eskimo in the 1890's was discovered a few years ago at the Smithsonian Institution in Washington, D. C. In the scene depicted, the snare is made of whale baleen and raw hide cord. Snares have been used by Eskimo and Indian to catch small animals as well as caribou. When the Western Union Telegraph was abandoned, the Indians used the wire for snares to capture caribou.

> "In one such gap in the fence lay the skeleton of a caribou, the closed [wire] snare still around the cervical vertebrae."

> > Journeys into the Far North Olaus J. Murie: 1972

The post was next occupied by Moses Mercier, a trader of the Alaska Commercial Company which was formed soon after the purchase of Russian America. This company's founder had bought, on the day the United States bought Russian America, the Russian America Company's vessels, warehouses and fur-trading posts. The A.C. Company soon secured control of the fur trade not only along the Yukon and its tributaries but throughout Alaska. The monopoly was not challenged until gold stampede days along the Upper Yukon. In 1893 the Northern American Transportation and Trading Company, N.A.T.&T., was established upriver at Forty Mile. The competition lowered gold-boom inflated prices to a more reasonable level.

Missionaries are known to have visited Fort Yukon by 1861. That year Rev. William Kirby of the Church of England visited the post, supposedly the first missionary to visit the upper Yukon. However, as mentioned earlier, Father Sequin of the Roman Catholic Church, in reporting his 1862 visit, stated that "Among the 1,200 to 1,300 Indians who frequented the post there were only a few who had ever seen a Catholic priest. Some had known the Russian Orthodox priests." Thus missionaries of either the Russian Orthodox or Roman Catholic Church may have traveled through the area visiting Native villages, as was the technique of Church of England and succeeding Episcopalian missionaries, as well as Russian missionaries in other Alaska regions.

Robert McDonald, sent by the Church of England in 1862 to minister to the Indians of the Yukon and tributaries, translated the Book of Common Prayer, the Hymnal, and portions of the Bible into the Indian tongue. It was McDonald who first discovered gold in the region. His casual mention of the discovery led to the prospecting in the area and the naming of Preacher Creek in his honor. The Bishop Bompas often visited the region and Fort Yukon throughout the 1860's, as did Rev. A. V. Sim who died while teaching on the Porcupine.

The Church of England missionaries remained the only ones in the area after the purchase until the late 1880's. At that time the church's American counterpart, the Episcopalians, assumed responsibility for the region. Mr. Hawksley, a Canadian, was allowed to remain at Fort Yukon throughout the 1880's and 1890's; Bompas continued his travels in the region, by this time ministering to prospectors as well as Natives. In 1892 Mr. Prevost, an Episcopalian missionary, visited thirty-two Indian villages on a trip across the Goodpastor River to the upper Forty Mile.

Missionary impact during the gold rush era at the turn of the century was enormous. The presence of missionaries at Native sites through which the hordes of white men passed and even at Fort Yukon, a popular wintering place for travellers caught in inclement weather, did much to lessen or deter the exploitation of Natives, particularly through alcohol. With the decline of river travel and gold mining around the upper Yukon, Fort Yukon became less and less a strategic location. The fact that it remains at all attests to its importance as a center for trade and travel. A facsimile of the old trading post has recently been constructed, and the roadhouse, although abandoned, still stands.

A number of alternate trading-forts were built up the Porcupine. Contradictory information from early diaries suggests that a pre-construction survey carefully assess the area for traces of mid-nineteenth trading posts.

HISTORIC TRAILS

FORT YUKON (Quad #119)

This segment crosses no recorded trails.

ARCHAEOLOGICAL AND HISTORIC LOCALES

HAL #115

FYU 001. HISTORIC. Fort Yukon, located on the right bank of the Yukon River at its junction with the Porcupine River, was founded in 1847 as a Hudson's Bay Company trading post by Alexander H. Murray. The original location was between one and two miles upstream from Fort Yukon Village, the present location. The fort was moved in 1864. The fort was considered, before the sale of Russian-America to the United States in 1867, to be the westernmost British post not shared in common with the Russian traders. The visit of the Russian trader Ivan Lukeen in 1863 was, therefore, necessarily surreptitious. Moses Mercier, a representative of the Alaska Commercial Company, took command of the trading post soon after it was determined by C. W. Raymond, of the U.S. Corps of Engineers, that the fort was on U.S. soil. The site has continued as a trading center to this day. The remains of the fort were discovered by bulldozer operations in 1955. A facsimile of the fort, as it is supposed to have been, has been constructed.

FYU 002. HISTORIC. The Fort Yukon Roadhouse, located at Fort Yukon on the Yukon River trail, was first reported in 1927. It was used until the 1940's. (ADP Roadhouse Study, 1974).



FORT YUKON

FYU 001. This photograph of the historical Fort Yukon settlement dates from circa 1905. The fort and trading post was first established by the Hudson Bay Company in Russian territory. After the Alaska Purchase, the U. S. forced the company to relocate in Canada. Fort Yukon is still an important staging point in the interior of Alaska.

National Archives Photo



DESCRIPTION

Segment Forty is the southern 184 miles of the Fort Yukon alternative route. It extends from the Arctic Circle five miles east of Fort Yukon to the Canadian border three miles north of the Yukon River.

MODERN ENVIRONMENTAL SETTING

As Segment Forty crosses the Yukon Flats, Porcupine Plateau and Ogilvie Mountains Physiographic Provinces, it encounters a variety of terrain and surficial geology, from the modern flood plain of the Yukon Flats, through the granular deposits on the gently sloping hills of the Plateau to the more restricted modern flood plain of the Yukon River in the Ogilvie Mountains. The Yukon River is the principal stream draining the corridor.

The segment has a continental climate with a mean annual precipitation varying from eight inches in the north to approximately twenty inches in the south. The mean annual temperature is approximately 21°F.

Segment Forty passes through regions dominated by five vegetative ecosystems: Low Brush-Muskeg Bog, Lowland Spruce-Hardwood Forest, Upland Spruce-Hardwood Forest, some isolated areas of Alpine Tundra, and Bottomland Spruce-Poplar Forest.

There is a variety of wildlife in the region, with caribou the most significant, but including moose, Dall sheep, bear, wolf, beaver, and waterfowl. An important breeding area for the endangered Peregrine falcon is along the Yukon River from Circle to Eagle.

The village of Circle is within ten miles of the proposed alignment and Eagle is within five miles.

PALEOENVIRONMENTAL SETTINGS

This segment corridor closely parallels the right bank of the present Yukon River. This segment in the Intermontane Paleoenvironmental Zone has been glaciated on isolated higher elevations and during the Wisconsin Glaciation would have been over one hundred miles from the edges of major ice covered areas to the north, east and south.



At the height of the Wisconsin Glaciation the climate here was likely drier and colder than at present, as the major areas of heavy precipitation would then have as now, have been in the Alaska Range and coast mountains. The geographical distribution of vegetative ecosystems at the height of the Wisconsin Glaciation indicates a refugium of sparse forest along the Yukon River throughout the length of this segment corridor. This area has been forested for the last forty thousand years but at times has been near areas of tundra and dry, cold steppe.

Archaeological sites in this corridor could date from the first arrival of Early Man in interior Alaska, although earlier sites near the Yukon have a high probability of having been obliterated by recent and extensive alluvial sediment.

ARCHAEOLOGICAL SUMMARY

There are no sites recorded for this segment. The nearest site is twenty-five miles distant, near Twelve Mile Bluffs just below Circle, discovered by Hadleigh-West. (McKennan, personal comm.)

ARCHAEOLOGICAL EVALUATION

The total absence of archaeological data for this segment suggests that survey work should be undertaken with care; as this route crosses the historic territory of the Kutchin tribal groups it is likely to contain valuable sites relating to Athapascan prehistory. Paleoenvironmental evidence further suggests the strong possibility that the unglaciated Yukon corridor was one of the routes utilized by paleoindian hunters moving from Eurasia into the North American interior, and great care should be taken in surveying for evidence of very early habitation remains.

HISTORIC SUMMARY

Twenty-six sites within the influence of the alignment are discussed individually. These include: three FYU sites (RH[1]-RH[3]), three CIR sites (CIR 008, 009, 018), thirteen CHR sites (RH[1]-RH[7], CHR 001-006), and seven Eagle sites (RH[1], [2], EAG 001, 004-006, 014).

The twenty-seven sites listed by name and AHRS designation are within Eagle township. They are, therefore, not discussed individually but as a group. The few individual sites and the two complexes, Jack Wade and Chicken, are included for their contribution to the region, despite their location outside of the ten-mile corridor.

HISTORIC EVALUATION

The Yukon River basin lands traversed by Segment Forty gained historic importance primarily from the contributions of turn-of-the century gold prospecting and mining along the Yukon tributaries in both Canada and the United States.

This era, however, was preceded by a series of exploration, fur-trading, and the short-lived settlement camps of the telegraph explorations.

In 1844 James Bell, a Hudson's Bay Company trader, followed the Porcupine River to its confluence with the Yukon. Three years later Bell sent his assistant, Alexander Hunter Murray, to establish a trading post at this site. The following year, 1848, Robert Campbell, another Hudson's Bay Company trader, arrived by Indian canoe at the confluence, having just completed the first exploration of the upper Yukon. Fort Yukon is discussed further in Segment Thirty-nine.

Representatives of the Western Union Telegraph Company, soliciting the cooperation of Russia, Canada and the company's American offices, in the early 1860's began exploratory work for an intercontinental telegraph line from the United States to Asia and Europe via Canada and Russian America. The project was abandoned in 1867 when the Atlantic Cable was successfully laid.

Despite the venture's incompletion, it marked American exploration of the Yukon and can be credited with much invaluable survey of the Yukon and its tributaries, particularly the lower Tanana. Robert Kennicott, a young explorer and naturalist, was in charge of the scientific part of locating the Yukon division of the overland line. He recorded his findings of 1862, but he died in Alaska before further exploration and records were completed. His responsibilities were then given to his companions Frank Ketchum and Mike LaBarge, who in 1866 traveled extensively through the area of the Upper Yukon. On parts of their expedition they were accompanied by William H. Dall, a Smithsonian scientist, and Frederick Whymper, the artist and author.

The <u>Circle District Historical Society</u> has recently been formed. [See Page 295, Appendix One]. The local Society members would likely vigorously oppose any alternative routing along the Steese Highway.

Implications of the telegraph project were greater than the area's partial mapping and the recording of natural science data. The project introduced the Yukon area to men beyond the interest of the fur-trade. The Esquimaux, a journal spawned by the project, introduced the Yukon area and the labors of American explorers to the world outside, and it brought news of that outside world to the Yukon basin. This was the first periodical published in Russian-America. It was edited and published by J. J. Harrington, a worker on the telegraph line at Libbysville, on the eastern side of Bering Strait. The monthly journal was published from October, 1866 until September, 1867, when the telegraph project and telegraph towns like Libbysville were abandoned. The handwritten editions, which had been distributed to camps along the project route, were taken to San Francisco where they were published in October, 1867. The cover reproduced on page 155 is from the October 31, 1867 edition published in Siberia. The page reproduced on page 164 is from one of the earlier editions published in Libbysville, Alaska.

The <u>Esquimaux</u> was not the only carrier of Yukon activities. Dall's records, Kennicott's journals, Whymper's sketches, and the tales related by telegraph laborers all contributed to a new interest in Alaska.

The purchase of Russian America in 1867 led to further exploratory expeditions, these under the auspices of the United States government. Captain Raymond's reports of his 1867 voyage along the Yukon, at which time he established that Fort Yukon was within the United States territory, was the first of these. At that time the government also authorized revenue cutter service to service the few river settlements and trading posts, including Fort Yukon. In 1883 Lieutenant Schwatka was sent to explore the entirety of the Yukon. His reports included mention of the occasional and scattered prospecting occurring in the region; they spurred much of the ensuing influx of hopeful, and often inexperienced, prospectors.

The Yukon River region above Fort Yukon was first settled by white men when Moses Mercier, a French-Canadian and a fur-trader for the Alaska Commercial Company, established Belle Isle in 1874 at what is now in Eagle Historic District. The post Mercier established was moved to the mouth of Forty Mile in 1886 when Howard Franklin found gold on that stream, formerly called Chittondeg (Shitando), the Creek of the Leaves. The new post, Forty Mile, was on the Canadian side of the border and in an area of several trading settlements.



Franklin's discovery revolutionized the methods of prospecting and mining in the entire Yukon region. His paystreak of continuous bedrock was the first of its kind to be found. Prospectors already in the region had sought merely for gold-carrying bars: sand bars in mid-stream with light gold intermixed with the gravels, thrown up from bedrock by the force of the river's current and the spring ice flow.

These prospectors had come from various places, including both British Columbia and the Treadwell mine near Juneau. They supported their part-time prospecting activities by trapping and trading with the Indians and the Alaska Commercial Company. This company had been running a cutter service along the river since 1867 when it had secured the equipment, vessels and fur-trading posts of the Russian-America Company and the accompanying trade and wealth.

L. N. McQuesten, one of these prospector-traders, and well-known, had first arrived in 1873. He established Circle as a trading and supply center in 1887 to accommodate the growing influx of prospectors. The town surfaced, among the several new roadhouses and supply centers established for the same purpose, as second only in size and importance to Eagle City, not yet established. Circle became the trading center for the "Birch Creek mining district," experiencing its heyday between 1893 and 1896.

In 1899 white men returned to occupy the Belle Isle site. That year the U.S. Army built Fort Egbert on the site of the former Belle Isle trading post. A town, Eagle City, complete with custom house, two churches, a Catholic hospital, two restaurants, and a minimum of four or five log cabin saloons at any one time, was established alongside the military post. In a matter of months it became the primary supply center for the region by then recognized as "Forty Mile mining district." The town was wealthy enough to enforce a \$1,000 annual liquor license fee and was respected enough to be chosen as the center and name for the third judicial division, Eagle City, one of the three Alaska judicial divisions established by Act of U.S. Congress in 1900.

That judicial division in 1900 had a white population of fewer than 1500 within its 300,000 square miles. This area included the land from the Alaska-Canada border to a point west of Tanana and the junction of the Yukon and Tanana Rivers, the area now proposed to be criss-crossed by pipelines.

It is perhaps fitting and a compliment to these legal representatives of the United States government that the first litigant in the Eagle City division was a Tena Indian chief, Chief Charley, who traveled upriver a hundred miles in birch bark canoe to appeal the theft of his dog. Returning the dog, stolen by an Eagle village Indian, probably prevented a fight between the Eagle and Charley River Indians, according to Judge Wickersham who heard the case. The decline of the gold rush in Birch Creek and Forty Mile mining districts, which Eagle, Circle and the other regional settlements were established to serve, meant the rapid depopulation of the area. Many roadhouses, camps and settlements were abandoned as quickly as they had been established. The center of mining, social and judicial activity became Fairbanks. The sites listed below date from that short but vital turn of the century era. Few remain standing; fewer still are salvageable. Many leave no trace of their existence in this region, some small part of which is now an official historic district.

HISTORIC TRAILS

FORT YUKON (Quad #119)

Trail 32. Trail 32 is an important route, being the northeast access from Circle through Chalkyitsik to Canada at Bilwaddy Creek. The pipeline alignment crosses the trail 5.7 miles southeast of Twenty-two Mile Village.

CIRCLE (Quad #104)

This segment crosses no known trails in the Circle quadrangle.

CHARLEY RIVER (Quad #103)

Trail 196. Nation River - Rampart House Trail. This trail runs from the Yukon River at the mouth of the Nation River northeast along the Nation River to the Canadian border, then back and forth across the border to Rampart House on the Porcupine River. The pipeline alignment crosses the trail near the mouth of Nation River.

Trail 195. Yukon River-Canada. This trail follows the Tatonduk River from Miller Camp on the Yukon River to the Canadian border. The alignment crosses this trail one mile east of Miller Camp.

EAGLE (Quad #102)

Trail 180. Yukon River - Tatonduk River Trail. This trail runs from the Yukon River at Shade Creek across the Canadian border and back, and up Thicket Creek to the Tatonduk River. The alignment crosses the trail at Shade Creek.

Trail 179. Yukon's Eagle River Confluence to Canada. This trail is crossed at the Yukon River-Eagle River confluence.

ARCHAEOLOGICAL AND HISTORIC LOCALES

HAL #115

*FYU RH(3). HISTORIC. Seventeen Mile Cabin. Judge Wickersham reported this cabin in his 1901 diary. It was probably named after Twelvemile Island, twelve miles upstream from Fort Yukon. That island is sometimes referred to as Seventeen Mile Island.

HAL #116

*FYU RH(1). HISTORIC. <u>Twenty-Mile Roadhouse</u>. Judge Wickersham reports this roadhouse in his 1901 diary to be between Circle and Half-Way Roadhouse, the latter being forty-five miles downstream from Circle. He may have been referring to the Twenty-two Mile Slough or Village, located approximately twenty-two miles downstream from Circle and forty-four miles upstream from Fort Yukon. The village was actually a camp located on an island in the river.

*FYU RH(2). HISTORIC. <u>Half-Way Roadhouse</u>. Judge Wickersham reports this roadhouse in his 1901 diary to be forty-five miles downstream from Circle. It is probably near Halfway Whirlpool.

Circle (Circle City). This supply center for CIR 008. HISTORIC. prospectors (at the southern border of the Yukon Flats) was first established in 1887 by L. N. McOuesten. It was named for the Arctic Circle, on which it was mistakenly thought to be located. The town's heyday lasted from 1893-1896: from the time Jack Gregor and Pat Kennaley located the first mining claims in the Birch Creek mining district until the greater gold stampede to Dawson and the Klondike. The town claimed to be the greatest log cabin town in the world, the "Paris of Alaska", containing twenty-eight saloons, stores, church, a newspaper, eight dance halls. miners' cabins, and a Grand Opera House. Circle, along with Eagle and Rampart, was used as a supply base for prospectors searching the hills around and between the Yukon and Tanana rivers. After 1896 the town was used merely as a supply camp for the Birch Creek mines. A few structures still stand. A Native cemetery is located about two and one-half miles south of Circle. (Orth, 1967).

<u>CIR 009.</u> HISTORIC. <u>Chileans Cabin</u>. (ten miles W).¹/This shelter cabin was reported in 1915 by G. A. Waring, U.S.G.S. It is located on the Fairbanks-Circle Trail (Steese Highway), four miles southwest of Circle. (Orth, 1967).

<u>CIR 018.</u> HISTORIC. <u>Tanana Roadhouse</u>. (eight miles W.) This twostory structure, destroyed by fire about thirty years ago, was a roadhouse in the old mining community of Circle. It was called Romakers Roadhouse after proprietor Joe Romaker and his wife in 1927. (ADP Roadhouse Study, 1974).

*Precise locations for these sites are not available.

1/Parenthetical distances and directions are from the closest approach of the proposed alignment to sites outside the ten-mile wide corridor.

CHR RH(5). HISTORIC. Johnson's Roadhouse. This roadhouse was reported in Judge Wickersham's 1901 diary to be twenty-two miles "out of Circle."

HAL #117

CHR RH(1). HISTORIC. Nation (Nation City). This Yukon site, now containing only two whole cabins and thirteen in ruins, was formerly a mining settlement and river landing for the Fourth of July Creek placer mining area. Lt. John Cantwell reported the small settlement in 1900. It never developed into a large permanent population. (Orth, 1967).

CHR RH(2). HISTORIC. Slaven's Cabin. This mining camp, on the left bank of the Yukon at the mouth of Coal Creek, was in use from the 1890's until 1930. Several buildings remain.

CHR RH(4). HISTORIC. Coal Creek Roadhouse. This roadhouse was reported in Judge Wickersham's 1901 diary to be at the mouth of Coal Creek, twenty-four miles downstream from the Charley River Indian Roadhouse on the Yukon.

CHR RH(6) [EAG 053]. HISTORIC. Millers Camp (Millers Roadhouse). A former woodcutting camp on the right bank of the Yukon at its junction with the Tatonduk, this abandoned and deteriorating site has a few structure remaining in good condition. The camp was established early this century as a woodstop for Yukon riverboats as well as a supply point and roadhouse for goldminers and others. (BLM).

*CHR RH(7). HISTORIC. Bierderman's Camp. Located on the right bank of the Yukon near the mouth of the Kandik River, the site consists of an old fish factory and five or six cabin-size structures. Adolph Biederman, for whom the site was named in 1965, carried mail to miners along the Yukon by dog sled between 1910 and 1938.

*CHR 001. HISTORIC. Charley Village, on the right bank of the Yukon at the mouth of the Kandik River and destroyed in 1914 by high water resulting from ice breakup, was inhabited by Tadoosh Indians. Lt. Schwatka, who visited the village in 1883, wrote that the Tadoosh Indians were reported to be among the best natured on that part of the river.

CHR 002. HISTORIC. (en Miles S.W.). Charley River Roadhouse. This roadhouse, about one mile up Charley River on the right bank, was reported by Judge James Wickersham in 1901 to be a one-room, 10'x16' log building. The building, reportedly still standing in 1974, was also called Webber's Roadhouse, named after the proprietor. (ADP Roadhouse Study, 1974). CHR 004. HISTORIC. Noves Roadhouse. This site on the right bank of Yukon River, near the west of the mouth of Kandik River, was reported in 1903 by T. G. Gerdine and R. B. Oliver. (ADP Roadhouse Study, 1974).

CHR 005. HISTORIC. (thirteen Miles S.W.). Woodchopper Roadhouse. On the left bank of Yukon River, one mile east of the mouth of Woodchopper Creek and reported to be standing in 1974, is the site of Woodchopper, a mining camp established about 1910. (ADP Roadhouse Study, 1974).

*CHR 006. HISTORIC. Washington Creek Roadhouse, thought to have been on Washington Creek on the left bank of the Yukon, was reported by Hudson Stuck in 1917. According to anecdote, the lady owner reportedly shot at people, on the river who passed her roadhouse in favor of another downstream. (ADP Roadhouse Study, 1974).

HAL #118

*CHR RH(3). HISTORIC. Montauk Roadhouse. This roadhouse was reported in Judge Wickersham's 1901 diary to be fourteen miles south of Nation and twenty river miles north of Star Roadhouse, at the mouth of Seventy Mile Creek. Montauk Roadhouse probably was named for Montauk Bluff or Creek. It is unsure if the site is on the left or right bank of the Yukon.

*CHR 003. HISTORIC. Nation Roadhouse. This site at the mouth of Nation River, was reported by Judge James Wickersham in the early 1900's. (ADP Roadhouse Study, 1974).

EAG 004. HISTORIC. Belle Isle. The smaller of the two Yukon islands opposite Eagle, this wooded island contains a few remains of the log house trading station established by Moses Mercier about 1874. The station operated intermittently until the mining boom, when Eagle flourished as a center for the Forty-Mile mining area. (Orth, 1967; Clary, 1974).

EAG 006. HISTORIC. Crooked Creek. (twelve miles W). The former mining camp located on the right bank of Crooked Creek, eighteen miles northwest of Eagle, was reported in 1925. (Orth, 1967).

EAG RH(1). HISTORIC. Star Roadhouse Complex. Star Roadhouse was functioning in 1901 when it was reported to be on the left bank, twenty river miles north of Eagle. At that same site, eleven air miles north of Eagle, a mining camp named Star City by prospectors was reported in 1897. A post office was maintained from 1898 to 1902. Two miles upstream of Star City another mining camp, Seventy Mile, was named by prospectors for the stream on which it was located. It was reported in 1898. Supposedly the inhabitants of Star City moved to Seventy Mile when their own camp was destroyed by spring flooding. The larger community became known as Seventy-Mile City. The site is abandoned. (Richs, 1965). EAG 014. HISTORIC. Liberty (twenty miles S) This mining camp, now abandoned, was located north of the junction of Solomon Creek and Liberty Forks, twenty-two miles south of Eagle. It was reported by U.S.G.S. in 1903. (Orth, 1967).

EAG 001-004; EAG 021-047. HISTORIC. Eagle Historic District. This district, located on the left bank of the Yukon River at the mouth of Mission Creek and six miles from the Canadian border, includes the City of Eagle and old Fort Egbert and environs. Eagle was the early twentieth century military, judicial, communications and transportation center for interior Alaska. It was the terminus of the Valdez-Eagle trail, the end of the telegraph, a major riverport, and the seat of the interior Alaska judiciary between 1901-1904. A log house trading station called "Belle Isle" was established about 1874 by Moses Mercier and developed as a mining camp in 1898, at which time it was named "Eagle City" for the American eagles nesting nearby on Eagle Bluff. In 1899 the U.S. Army established the "Eagle City Camp" and in 1900 built Fort Egbert, abandoned in 1911. The district is on the National Register

The district contains several historic buildings, listed below, of which several are still in use.

EAG	021	Mule Barn	1900	EAG	035	Gymnasium	1909
EAG	022	Granary	1903	EAG	036	Barracks	1899
EAG	023	Water Wagon Shed	1905	EAG	037	Powers Barn	1920s
$\mathbf{E}\mathbf{A}\mathbf{G}$	024	Quartermaster		EAG	038	Red Men Hall	1908/1909
		House	1899	EAG	039	Eagle Roadhouse	1908/1909
EAG	025	NCO Quarters	1900	EAG	040	Wickersham Cabin	1900-1903
EAG	026	Bakery	1905	EAG	041	NC Store &	
EAG	027	Wickersham				Warehouse	1898-1899
		Courthouse	1901	EAG	042	Amundsen Cabin	1905
EAG	028	Well House and		EAG	043	Presbyterian	
		Water Tank	1907			Church	20th cent.
EAG	029	Taylor Building	1905	EAG	044	Wireless Station	1908
EAG	030	Custom House	1900	EAG	045	Water Works	20th cent.
EAG	031	City Hall	1901	EAG	046	Water Warming	
EAG	032	Schoolhouse	1905			Houses	20th cent.
EAG	033	Hospital	1906	EAG	047	Fort Egbert	
EAG	034	Signal Corps				Cemetery	20th cent.
		Barracks	1905				

EAG 005. HISTORIC. Eagle Village, on the left bank of the Yukon River and 3 miles east of Eagle, was originally called "Johnnys" by "the Whites." It is a Han Kutchin Indian village. (Orth, 1967).

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*"Jack Wade Dredge" Complex. The complex includes EAG 050 & 077. Both are found in the vicinity of Jack Wade Creek, south of the Forty Mile River and approximately forty miles from Eagle. Several features of the mechanical gold mining which followed the prospecting of the Forty Mile district are here extant.

EAG 050. Included is one of the smallest and oldest dredges to be used in the region. It operated in streambeds of the region for over forty years. The dredge is presently located in the Forty Mile Resource area, mile 87 of Taylor Highway.

EAG 077. A boiler, almost twelve feet long and six feet wide, is covered with gravel and silt. This abandoned piece of mining equipment has interpretive potential.

*"Chicken" Complex. A settlement was established at Chicken during the heyday of gold prospecting and early mining in the Forty Mile area. The settlement was almost fifty miles southwest of Eagle. Many artifacts and buildings remain at and near the site which at one time supplied the mining district. Still extant are the Powers Store (EAG 066), Powers Hay Barn (EAG 067), Powers Horse Barn (EAG 068), Chicken Creek Dredge (EAG 069). The dredge is significant in that it was the last to operate in the Forty Mile mining district.

"With a borrowed wheelbarrow and the help of some friends, he got the keg to his boat, where he and his friends proceeded to have an extemporaneous party before Iowa headed back upriver. But the party was short-lived. It took about ten drinks to drain the keg. Iowa shook his head in disbelief; but he had a sinking feeling that he had somehow been taken, his practical joke returned with interest. He rolled the keg. It still sloshed, but nothing came from the bung hole. In anger, he smashed in the end of the keg with the butt end of an axe. The barrel was full of water except for a whiskey bottle fitted into the bung hole.

"Such practical jokes were the epitome of mining camp humor. They became part of the folklore of the country. From that day, Iowa was known as "Whiskey" John and the storekeeper as "Candles."

> The Alaska Gold Rush David B. Wharton: 1972

THE ESQUIMAUX.

EVALUATE: Our readers and the public generally will at once perceive the benefits of extending to The Esquimanx their patronage. R is the only journal virculated in this territory, and none other is published north of Virtoria, B. C., on this continent, or China in the Western Hemisphere, between the parallels of longitude 130° cast and 120° west of Greenwich, nearly half the globe. It is the afficial organ for all matters connected with the Western Union Telegraph, Russian Extension, in the vast extent of country to be traversed by this gigantic enterprise of the 19th century, and it therefore is a better medium for advertisers, than any paper published in the world.

The Esquimanx.

LIBBTSFILLE, PORT CLARENCE, R. A., SUNDAY, DEC. 9, 1866.

How we Should Treat the Natives.

Being for some time to come, permanently located in this country, among people who have had very little intercourse with the Anglo-Saxon, it behaves us to study some plan of action in our dealings with them, which will be beneficial to ourselves, as well as acceptable in the eyes of our neighborly Esquimanx.

An Indian, we all know, has ideas and customs which seem strange and unaccountable to the civilized, and in our transactions with them, we should take these things into consideration. The natives here are no exception to this rule: their idea of an American is, that he is abundantly supplied with everything, and, not understanding the cost of goods, think he should be liberal in his disbursement. What intercourse they have had with whaters, and others, has not served to give them a very exalted idea of the white man's character ; the traders generally showing a grasping nature, and using their power for imposing on their semi-civilized customers to such an extent, that is it to be wondered at, that, now the natives knowing our position here, should retaliate upon us Americans, and make what profit they can out of our stay It is therefore, necessary that we should adopt a concerted mode of action, for our guidance in connection with them, so that they will perfectly understand our position as regards themselves.

In buying goods of them, there should be no two prices paid, for nothing looks worse than to see white men over-bidding each other, while purchasing of an Indian. The articles they have for sale should be bought by some one man, agreeable to all, and who will work for the mutual inferest of everyone; he to establish a scale of prices, within the reach of all, by which means, goods can be purchased cheaper and better than heretofore.

When they visit our houses, we should not roughly eject them, but in a kindly manner, explain to them the largeness of our numbers, and the cooped-up state of our

dwellings, giving them to understand that we have built a house for their especial accomodation. This should be especially so, as regards strangers, who come from a distance, with materials for trading. If we have any refuse victuals, they should be given to them, and not to these daily pests, whose only object here, is the getting of American constant.

If we do all this, and not interfere with their sacred relations, we will always be acceptable guests in their villages, and remain free from all acts of animosity, on their part. Let the practice of civilization, be our motto, and the white man's advent here, will be a blessing to the now unenlightened Esquimanx.

Winter.

Old grizzled Winter, with all his cheerless family have arrived, and pitched their tents among us, for a long stay. Of all our numerous visitors, he is the most unwelcome; no matter how anxious you are for him to keep his distance, he will intrude, and press his acquaintance, even going so far, as to send his children to dwell with you, and be the companions of your every moment, contesting with your shadow, for the prominent position. Snow is the purest of the old fellow's picininies, and has carneted the surrounding country, with its soft white flakes, entirely hiding the green moss, which gave a cheerful aspect to the eye, on our first arival here. His brother, the ice, too, has made his presence manifest, and shown his power; the adjacent lakes, and lagoons, are locked by his embrace : the bay, where but a short time since, the waters colled and frothed, in their anger, is now spell-bound by his presence, and the canoe of the Indian, which once glided on the waters, is now replaced by their dogs and sleds. Of all old winter's fumily, Jack Frost is the most persistent, stealing in at the windows, and painting fantastic figures on the panes in his entry. He pokes his glistening white face in through the most minute places, where you thought he would have no chance to creep, and seems to laugh to scorn your efforts to keep him out. Little Jack will also nip your nose, and punish your fingers and loes, if the opportunity offers, and you may be sure, he is always on the lookout for such chances. Winter's family has a large number of attendants, among which, the winds and lowering clouds, strive to excel in homage to their grin master. The Indians, learning from the animals of nature, now build, or burrow in the ground, knowing, that there they are most safe from the season's perils. The birds of the air have flown to a more congenial clime, and all nature seems to know of the coming time. To us, who have lived in more southern lands, amid the scenes of civilization, where the winter presents numerous enjoyments, both indoor and out, the present season looks dreary, but we must remember, that with ourselves rests the solution of the question as to what effect it will have upon us. By promoting hod-ily exercises, and attending to nature's rules, and placing our trust in the all-seeing God of calms and storms, the coming spring will find us all as healthy und happy us we are today.

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EAGLE SCHOOL

EAG 032. This public schoolhouse was constructed around 1905 and complemented by a new flag with forty-five stars and a new school teacher. Eagle enjoyed the reputation for being the "loveliest" town on the Yukon and being the closest of the gold camps to the year-round port at Valdez, a telegraph line between the two was established, and Judge Wickersham was its first judge in 1900.

SITE AREA LOCATION



DESCRIPTION

Segment Forty-one, a central portion of the Fairbanks alternative route, is 142 miles long and has 116 miles in common with El Paso Segments Two and Three (Volume One) and generally with Alyeska Pipeline Service Company. It extends from the confluence of the Koyukuk, Bettles and Dietrich Rivers to the Yukon River.

MODERN ENVIRONMENTAL SETTING

Located in the Brooks Range and the Yukon-Tanana Uplands Physiographic Provinces, Segment Forty-one primarily follows river and stream valleys both through the mountains and in the rolling uplands. The surficial geology varies from undifferentiated slope alluvium and the rubbly deposits associated with steep-sloped mountains through remnants of highly modified moraines and drift to modern flood plains with associated terraces and alluvial fan deposits. The regions through which the segment passes are drained by numerous streams and rivers, including the Middle and South Forks of the Koyukuk River, the Jim River, and the Kanuti River.

With a continental climate, the segment experiences a mean annual precipitation of approximately twenty inches throughout most of its length, tapering to less than ten inches within the southern forty miles. Mean annual temperatures vary from 12.5°F to 23°F.

The segment is primarily within the Upland Spruce-Hardwood Forest vegetative ecosystem with regions of Alpine Tundra in the northern portion. The segment is part of the winter range of the Arctic Caribou Herd. Other mammalian wildlife in the region include moose, bear, fox, Dall sheep, wolf, and wolverine. Many species of waterfowl nest or overwinter near the segment-corridor, both in the Koyukuk River area and the Yukon Flats area. The segment passes within one mile of Wiseman. [The Alyeska pipeline construction in this area was almost 55% completed and the stations about 25% completed on October 27, 1975.

PALEOENVIRONMENTAL SETTINGS

Although the northern end of this corridor may have been partially glaciated, the boundaries of maximum glaciation are imprecisely known in this region and we place this corridor entirely in the Intermontane Paleoenvironmental Zone. During the past forty thousand years this corridor in interior Alaska is noted as an area where forests have repeatedly advanced and receded with even minor fluctuations in climate.



The present tundra in the northern portion of the corridor represents a succession over the past seven thousand to eight thousand years from tundra vegetation like that around modern Barrow to the present composition which includes shrub species and some dwarf tree species. These chronological shifts in vegetation have followed climatic trends since the last (Wisconsin) glaciation and were determined from pollen spectra from Chandler Lake and near Barrow (Colinvaux, 1967).

Along the corridor south of the present tree line, the vegetation and climate shifts did, however, leave a small forested area along the Yukon River which survived through the most recent glaciation. During the glacial maximum this small forest area, surrounded by tundra and steppe, survived to reforest larger areas of central Alaska after the recession of the glacier.

On a paleoenvironmental basis, archaeological potential varies for this corridor from high for all ages near the Yukon to moderate near the north end for the earliest time periods.

In light of recent findings in France [Francois Bordes: Personal Communication, 1975] that Middle Paleolithic hunters and gatherers lived very near glaciers, the periglacial portion of this segment and others could contain sites of great antiquity. The evidence at the France site indicates a human adaptation to the bioclimatological conditions near glaciers prior to the time period for which we consider human habitation of Alaska likely.

ARCHAEOLOGICAL SUMMARY

Alaska Heritage Resource Survey records contain no additional information to supplement the sixty-three archaeological sites discussed in Volume One.

ARCHAEOLOGICAL EVALUATION

In terms of known archaeological sites this segment is one of the most critical for exhaustive survey work in all areas of potential impact. A major caribou range today and in all probability richly productive for hunting in the past, this predominately forested intermontane zone has revealed cultural materials within the pipeline corridor reflecting human occupation from as early as 10,000 B.C. to the present.

The pipeline abuts the eastern edge of the Batza Tana obsidian outcrops where it skirts Caribou Mountain. Because this obsidian zone has been one of the most prolific sources for fluted points and other tools of the glassy, volcanic material (Clark, 1972 a) the impacted area may well contain sites offering evidence linking this natural resource with obsidian implements found in regions as far distant as Driftwood Creek (Humphrey, 1970), Healy Lake (Cook and McKennan, 1971), Fairbanks (Rainey, 1940) and the Putu site on the Sagavanirktok River (Alexander, 1971, 1972). Such information would help explicate the relationship of channel-flake industries to other technological traditions and could provide as well indications of ancient patterns of trade and migration.

It is also important to note that the pipeline traverses regions utilized by both the earliest Eskimo (Denbigh) and Athapascan (Tuktu-Denali) peoples. The discovery of evidence in this transitional zone may help clarify the difficult problem of distinguishing the respective socioeconomic traditions and provide more detailed information on developmental processes in the formation of distinctive Eskimo and Indian cultures.

HISTORIC SUMMARY

The six sites of historic interest include two from Volume One: LIV 065, page 84, and WIS 008, page 72. The four new sites are also of twentieth century import. They are LIV RH(1), LIV RH(2), WIS 007, and WIS 009. All six sites are roadhouse and camping establishments for service to miners and river travelers.

HISTORIC EVALUATION

The area traversed by this segment was considered to be of little or no value to white men until the discovery of gold in the Wiseman-Coldfoot area.


TRAPPING FUR-BEARING ANIMALS IN ALASKA.

Early explorers along the northern coast ignored this inland area; hunting and trade was profitable enough just along the coast and in the immediate inland area. Early explorers of interior Alaska disregarded the area for the same reason; the furs they wanted could be obtained along the Yukon and its tributaries. A few missionaries visited the more accessible portions of the region, but the apostolic purpose was deterred as easily as the traders'.

The river valleys and some portage routes were summarily explored under United States government-sponsored expeditions, first by Lieutenant Allen in 1885 and then by Alfred Brooks in 1901. By 1900 the high hopes of prospectors around the upper Koyukuk and the various Forks had drawn river steamers and supply agents to the area. These men provided basic manuscript maps of navigable areas.

The expectations of these traders and prospectors are reflected in the United States Geological Survey maps published at that time. The 1906 map shows several "cities" along the route. These include Jim City, Soo City and Seaforth City, all on the South Fork of the Koyukuk, and Dall City, further to the east and on Dall River. These were prospectors' camps occupied in the winters of 1898-1900 by prospectors on their way to Coldfoot. These "city" sites correspond to those currently listed on maps as prospectors' camps along the winter trail and were probably used as mining activity moved northward to Wiseman after 1911. They are denoted on the following 1909 map. As mining activity subsided, so did general interest in the area. The new pipeline activity in the area, particularly around Bettles, has revived some interest in the area.

HISTORIC TRAILS

CHANDALAR (Quad #123)

<u>Trail 51</u>. This unnamed trail runs from Wiseman to the North Fork of Chandalar River. Pipeline alignment joins this trail along the Middle Fork of the Koyukuk River and follows the trail to about one mile north of Wiseman.

WISEMAN (Quad #124)

Trails 56B and 56. These two trails combined link Allakaket and Wiseman. The pipeline alignment follows 56B east of Wiseman into 56 and then follows 56 to Cathedral Mountain.

Trail 48. Trail 48 runs from near Coldfoot south to Bonanza Creek. The pipeline alignment crosses the trail near Coldfoot and again five and one-half miles east of Tramway Bar.

BETTLES (Quad #117).

Trail 49, a winter trail, runs from Bettles Field south through Sevens Village, across the Yukon River to Livengood. This trail is a portion of the Hickel Highway, No. 289. The pipeline alignment crosses the trail eight miles north of Caribou Mountain.

TANANA (Quad #106)

No trails are crossed by this segment in the Tanana quadrangle.

BEAVER (Quad #118)

No trails are crossed by this segment in the Beaver quadrangle.

LIVENGOOD (Quad #105)

No trails are crossed by this segment in the Livengood quadrangle.

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ARCHAEOLOGICAL AND HISTORIC LOCALES

Sixty-three ARCHAEOLOGICAL and two HISTORIC sites within the corridor of this segment have been discussed in Volume One. Forty-two ARCHAEOLOGICAL and one HISTORIC sites are discussed in pages 71-76 of Segment Two. Nineteen ARCHAEOLOGICAL and one HISTORIC site are discussed in pages 81-84 of Segment Three.

Segment Forty-one includes four additional sites.

HAL #8

WIS 007. HISTORIC. <u>Coldfoot</u>. Coldfoot, at the mouth of Slate Creek on the east bank of the middle fork of the Koyukuk River, eleven miles south of Wiseman, was begun as early as 1899. The name reportedly originated when one of the first stampeders got this far, got cold feet and went back. In 1902 Coldfoot was reported to consist of one gambling place, two roadhouses, two stores and seven saloons. (Orth, 1967; ALPS field notes, 1970.

<u>WIS 009.</u> <u>Slisco's Roadhouse</u>. This roadhouse was formerly the center of social life in the mining supply camp of Wiseman. The site consists of two rectangular squared log-buildings joined together, both one-story with medium gables. Only the walls, almost buckling, and a portion of the roof remain. The doors are barnlike. (ADP Roadhouse Study, 1974).

LIV #23

LIV RH(1). HISTORIC. Tucker's Cabin. This woodchopper's cabin, reported by Judge Wickersham in his 1901 diary, was located on the Yukon approximately thirty miles upstream from Rampart. It may have been further downstream than he reported, as it was owned by a man named Clinton and there is a Clinton Creek between Rampart and this point.

LIV RH(2). HISTORIC. Anderson's Woodcutter's Cabin. This cabin, reported by Judge Wickersham in his 1901 diary, was located along the Yukon between Rampart and Fort Hamlin, probably about eight miles downstream from Fort Hamlin.

"A sixty-mile hike was of no great consequence. With the prospect of whiskey, it was literally a stroll. It took the men only two days to reach the cache, but the return was a bit slower. Indeed, the men confessed that the keg had become a mite heavy and that it had become necessary to stop and lighten the load from time to time. No one at Miller Creek could really object to the logic of this reasoning and indeed felt that the men who carried the keg took only what was rightfully their due. Nor were they penalized when the moose was carved and everybody stepped up with a tin cup to draw his first drink of spirits since New Year's Day."

> The Alaska Gold Rush David B. Wharton: 1972

SITE AREA LOCATION



DESCRIPTION

Segment Forty-two is a 318 mile portion of the Fairbanks alternative route having 213 miles in common with El Paso Segments Seven, Eight and Twenty-two; and about 140 miles generally parallel to Alyeska. It extends from the Yukon River (65°53'N, 149°43'W) to the right bank of the Tanana River (63°21'N, 142°40'W) three miles northwest of Tetlin Junction. The segment parallels the Alaska Highway south of Fairbanks.

MODERN ENVIRONMENTAL SETTING

Entirely within the Yukon-Tanana Uplands, Segment Forty-one primarily follows stream and river valleys, although it occasionally crosses the rolling hills. The surficial geology varies from coarse and fine grained deposits in the north, through thick valley-bottom silt and sand in the vicinity of Fairbanks, to modern flood plains and associated low terraces and alluvial deposits. The region is drained by numerous streams and rivers including the Yukon, Tolovana, Chena, Tanana, and Delta.

The segment has a continental climate and receives a mean annual precipitation between ten and twenty inches throughout its length. The mean annual temperature varies between 22.5°F and 25°F.

Although the predominant vegetative ecosystem is Upland Spruce-Hardwood Forest, the segment also crosses regions of Low Brush, Bottomland Spruce-Poplar Forest, and Lowland Spruce-Hardwood Forest. Moose are the predominant large mammal along the segment although bison have a calving and summer range along the Tanana River near Lake Healy. Bear, wolverine, wolf, caribou, lynx, red fox, and muskrat are present throughout the segment. Isolated nesting and molting areas for waterfowl and seabirds exist throughout the region; and the Tanana valley is known to be a nesting area for the threatened ospreys, bald eagles and Peregrine falcons.

Fairbanks is the largest community along the segment corridor, but as the segment follows the Alaska Highway it passes many smaller communities. In this area, Alyeska Pipeline was almost 45% completed, and the three pumping stations about 20% completed by October 27, 1975.

PALEOENVIRONMENTAL SETTINGS

This long segment corridor crosses both lowlands and relatively high plateaus, and although not glaciated it probably has had in the past, as it does now, a variety of microclimate differences and localized ecosystems differing significantly because of elevation and nearness to major streams. The climate here has probably remained continental throughout the last forty thousand years. During the Wisconsin Glaciation maximum and at other times this interior corridor was nearer ice-covered areas than presently and likely drier and colder because of greater distances and isolation from maritime moisture sources.



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Near the Yukon and along the Tanana Rivers this corridor remained predominantly forested throughout the Wisconsin Glaciation (Hopkins, 1967). The paleontological record for both plants and animals is more extensive than for many other areas of Alaska and shows that both tundra and forest ecosystems have existed in close proximity for the forty thousand year period considered here. Archaeologically, this corridor has been continuously bioclimatically suitable for human occupation throughout this entire time span.

ARCHAEOLOGICAL SUMMARY.

The forty-two archaeological sites reported for this segment span the range of human occupation from Paleoarctic sites to recent Athapaskan camping localities. <u>XBD R-4</u>, situated in the Tanana River valley east of Big Delta, contains materials reflective of Kluane Lake artifacts of the Paleoarctic Tradition; while the Campus Site <u>FAI R-6</u>, adjacent to the University of Alaska, has yielded distinctive wedge-shaped cores, semi-polyhedral cores and microblades that pertain to the core and blade industries developing about six thousand years ago in the interior. <u>LIV 004</u>, <u>LIV 007</u> and <u>LIV 012</u> all represent components of the Northern Notched Point Tradition.

The most thoroughly investigated region adjacent to this corridor is in the vicinity of Healy Lake, approximately fifteen miles distant from the right-of-way. The Village site (XBD 020) excavated by Cook and McKennan (1971) yielded four cultural levels in stratigraphic sequence dating from 11,090 B.P. to a historic Athapascan component. Stratified components from the Garden Site (XMH 204) confirm the sequence of occupation. Several sites including XMH 213-16 and LIV 001 are Athapaskan sites of pre- and post-contact periods. Sites XMH 205-211 provide additional indications of cultural continuities in this archaeological zone.

ARCHAEOLOGICAL EVALUATION

Recent scientific investigations in this sector are beginning to clarify the chronology and affiliation of Early Man sites in the interior. The evidence from Healy Lake and artifacts discovered in association with now-extinct Pleistocene fauna along tributaries of the Tanana (FAI R3, FAI R5) suggest that the area may be one of the most important for potential discovery of Paleoindian sites. The presence of materials reflective of the Paleoarctic Tradition (XBD R-2, XBD R-4), the Northern Notched Point Tradition (LIV 004, LIV 007, LIV 012) and microblade industries (FAI 001, HEA 005, HEA 008) indicate as well the need for careful survey. A second critical problem is the lack of information pertaining to the changing socioeconomic patterns by interior Indian groups. Particular attention to pre- and postcontact sites of Athapaskan affiliation would be valuable for interpretation of the minimal data now available.

WEDGE-SHAPED MICROCORES OF THE PALEOARCTIC TRADITION









UTUKOK R. ALASKA

CAMPUS SITE. ALASKA

TACHIKAWA SITE HOKKAIDO JAPAN

SHAN YUAN SHENSI. CHINA

HISTORIC SUMMARY

The forty historic sites of Segment Forty-two includes twenty-one discussed in Volume One. The sites date from the mining and resultant settlements of the region early in this century. Two sites, both in Fairbanks, are listed on the National Register of Historic Places. These sites are the George C. Thomas Memorial Library and the steamer, Nenana.

HISTORIC EVALUATION

Settlement of this area by white men was almost non-existent before Fairbanks established itself as the hub of interior Alaska in the first decade of this century. The travel and settlement generated by the gold mining of that era has been described in Volume One, Segments Seven, Eight and Twenty-two.

The explorations preceding twentieth century settlement are numerous and must include discussion of Tanana River explorations downstream from where Segment Forty-two and the Tanana meet.

Robert Kennicott is the first white man of record to scientifically survey the lower Tanana region. This he did in the early 1860's while employed by the Western Union Telegraph as superintendent of the scientific part of that company's overland route. In 1875 Arthur Harper and B. Yates ventured into upper regions of the river. They crossed by Indian trail from the mouth of Mission Creek to the Tanana and floated down to the confluence of the Tanana with the Yukon. In 1876 Jack McOuesten went upriver three hundred and fifty miles for purposes of trading with the Indians; Arthur Harper and Captain Al Mayo ascended the river for two hundred miles two years later. None of these traders are known to have made maps or published any account of their journey. Bob Bean, the first trader to attempt to establish a post in the valley, was tragically unsuccessful. In 1876 Bean and his wife and two children built a cabin only seventy-five miles up the river and offered trade goods at a higher price than was charged at the Yukon posts. The enraged Indians murdered Mrs. Bean and attempted to murder the trader, who escaped with the children.

The first mapping of the Tanana was done in 1885 by Lieutenant Allen, who also wrote an account of his journey along much of the river.

The 1890's saw occasional prospecting along the river, as well as visitations by travelling missionaries. In 1892 Mr. Prevost, an Episcopalian missionary, traveled up the Tanana to the future site of Fairbanks and across the Goodpastor River to the Forty Mile. He reported visiting thirty-two Indian villages. Visitation by missionaries was not uncommon by that time.



TENTS OF GOVERNMENT SURVEYORS IN ALASKA.

The first official exploration of the entire river valley was made in 1898 by Peters and Brooks of the U.S. Geological Survey. Their map of Tanana tributaries, as well as that map resulting from Lieutenant Herron's military survey of the region in 1896, was inaccurate. It was the unofficial map drawn up by Judge Wickersham's Mt. McKinley expedition of 1903 that was used by the prospectors throughout that decade.

In 1901 E. T. Barnette established a trading post, Barnette's Cache, at the present site of Fairbanks, then a desolate location on the Chena Slough. The post was established here merely by chance: the steamer carrying Barnette and his goods could go no further because of the sandbars. Simultaneously, Felix Pedro was prospecting the area and convinced Barnette of the prospectors' need for a supply post right where Barnette was located. The first winter's trade was good, but it was from furs instead of gold. The 1902 strike of Pedro brought immediate attention and many prospectors. No resultant outpouring of gold materialized, and the region was hastily deserted. The next year, however, gold began to flow, yielding \$40,000 in 1903, \$600,000 in 1904, \$6 million in 1905, and \$9 million in 1906.

By 1906 Barnette's Cache had been renamed Fairbanks, was the new headquarters of the Third Judicial District which had previously been at Eagle, and could claim even a railway, telephone service, electric lights and a water system. This was due to the foresight of Barnette, who had offered free land to anyone wishing to build at his site. Chena, a rival site now almost forgotten, might have developed the way Fairbanks did, had not its greedy developers established exorbitant land prices.

The roadhouses, railroad and riverboat stops, and gold-mining camps along this segment and other access routes to Fairbanks all resulted from the successful attempt to develop the area, the last center for Alaskan gold mining. As such, the sites and history discussed in Volume One and this volume are invaluable in understanding present-day Alaska.

HISTORIC TRAILS

LIVENGOOD (Quad. #105)

Trail 75. This trail from Hunter Creek to Livengood is crossed approximately three miles northwest of the town of West Fork.

Trail System 64A. A southern branch of this trail system surrounding Livengood is crossed one and one-half miles southeast of West Fork.

Trail 192. Dunbar-Brooks Terminal (Livengood) Trail. This sixtyseven mile sled road is first crossed approximately one mile southeast of West Fork. The pipeline route then roughly parallels the trail for eleven miles; the two join for about another six miles where they diverge at the northern boundary of the Fairbanks North Star Borough. The trail was first reported in 1921. <u>Trail 73</u>. Aggie Creek Trail. This trail is crossed twice approximately four miles northeast of Olnes.

Trail System 73D. This trail system serving the Olnes, Dome, Gilmore, and Fox mining areas is crossed once at Olnes, three times less than two miles south and west of Dome Camp, and three times less than two miles east of Fox.

FAIRBANKS (Quad #100)

Trail System 73D. See above.

Trail 193. Fairbanks-Chena Hot Springs Trail. This historic sixty-four mile trail which was first reported in 1913 is crossed at Steele Creek.

Trail System 73B. This trail system east of Fairbanks is crossed three miles north of North Pole.

Trail System 73A. This trail system around North Pole and Eielson Air Force Base is crossed twice in the vicinity of Moose Creek.

BIG DELTA (Quad #101)

Trail System 186. This trail system near Salchaket and Harding Lake is crossed four times between Harding Lake and Birch Lake.

Trail 184. This trail from the Richardson Highway to the head of Gilles Creek is crossed on the north side of Birch Lake.

Trail 184A. Crossed at Banner Creek, this trail runs from the town of Richardson to Trail 184.

Trail 184C. This short independent trail connecting two points of the Richardson Highway is crossed near Keystone Creek.

Trail System 52B. Crossed near the confluence of the Tanana and Delta Rivers and again 2.8 miles north of Delta Junction, this trail system serves the Big Delta-Delta Junction area.

MT. HAYES (Quad #86)

Trail 24. Less than a half-mile southeast of the proposed pipeline, this tractor trail is paralleled for about five miles, just west of the Gerstle River.

Trail 23. This short trail 0.2 miles north of the present alignment might be affected if the segment is realigned near the Gerstle River.

Trail 15. This pack trail is crossed at the Little Gerstle River.

TANACROSS (Quad #85)

Trail 8. Old Highway. This short trail is crossed three miles southwest of Tanacross.

Trail 3. Eagle Trail. Probably the old Mentasta-Mansfield Trail, Eagle Trail is crossed about three miles southeast of Tanacross. It was first reported in 1923.

Trail 7. Crossed two and one-half miles northeast of Tok, this trail runs from Tok to the Tanana River.

ARCHAEOLOGICAL AND HISTORIC LOCALES

Within the corridor of Segment Forty-two there are thirty archaeological sites and twenty-one historic sites which were reported in Volume One. In Segment Seven, pages 108 and 109, there are twelve archaeological and two historic sites in common with Segment Forty-two. In Segment Eight, pages 115-121, there are seventeen archaeological and eighteen historic sites in common with Segment Forty-two. Segment Nine, page 130, has one historic site in common with Segment Forty-two. Segment Twenty-two, page 213, has one archaeological site in common with Segment Forty-two.

In addition to the fifty-one repeated sites, there are twelve new archaeological and twenty-two new historic sites for Segment Forty-two, due to differences of alignment or newly available data.

HAL #123

<u>LIV 015.</u> HISTORIC. Fort Hamlin. (ten miles NE.) $\frac{1}{4}$ An Alaska Commercial Company trading post was established here in the last quarter of the nineteenth century. This was a stop-off point for the revenue cutter and other Yukon River traffic.

HAL #25

<u>LIV 062</u>. HISTORIC. <u>Tatalina Roadhouse</u>. (ten miles E). This roadhouse on the Elliot Highway reported by USGS in 1915 as Lankey Roadhouse on the Fairbanks-Livengood Trail. By 1916 it was called Tatalina Roadhouse, presumably because of its proximity to the Tatalina River. (ADP Roadhouse Study, 1974)

LIV 063. HISTORIC. The Crossing Roadhouse. (ten miles E.) Dating from the 1920's, this site on Elliot Highway was once a roadhouse on the Fairbanks-Livengood Road. (ADP Roadhouse Study, 1974)

 $[\]frac{1}{Parenthetical}$ distances and directions are from the closest approach of the proposed alignment to sites outside the ten-mile wide corridor.

HAL #26

LIV 013. HISTORIC. Alder Creek Camp. (twelve miles E.) This former mining camp was located on the left bank of Fairbanks Creek, west of the mouth of Walnut Creek. (Orth, 1967)

LIV 014. HISTORIC. Fairbanks Creek Camp. (twelve miles E.) This camp resulted from the discovery of gold in Fairbanks Creek in 1902. The site is approximately ten miles from the route. (Orth, 1967)

LIV 016. HISTORIC. Golden City. The former mining camp at this site was reported in 1903 by USGS. It is at the confluence of Twin and Pedro Creeks. (Orth, 1967)

LIV 024. HISTORIC. Meehan. (eleven miles E.) A former mining camp, this settlement began about 1905 and was named by prospectors for Pat Meehan, an early miner. (Orth, 1967)

LIV 019. HISTORIC. Eldorado Camp. This mining camp was reported by the USGS in 1908. A post office established there in 1907 was discontinued in 1910. (Orth, 1967)

LIV 020. HISTORIC. <u>Casey Roadhouse</u>. This roadhouse on the Fairbanks-Livengood Road was built in the 1920's and is nine and one-half miles east of the proposed right-of-way. (ADP Roadhouse Study, 1974)

LIV 021. HISTORIC. Cleary. Approximately seven and one-half miles east of the proposed right-of-way, this abandoned mining camp was established about 1904 and had an active post office from 1905 to 1942. (Orth, 1967)

LIV 022. HISTORIC. Cleary Summit Roadhouse. Known as the Summit Roadhouse until 1908, this two-story frame structure was originally built in the early 1900's and has had three separate additions. It is approximately six and one-half miles east of the proposed right-of-way. (ADP Roadhouse Study, 1974)

LIV 023. HISTORIC. Chatanika. Established in about 1904, this mining settlement became a railway stop with the completion of the Tanana Valley Railroad in 1907 and acquired a post office in 1908. It is approximately seven miles east of the proposed right-of-way. (Orth, 1967)

LIV 058. HISTORIC. Ridgetop. The now abandoned railroad station building at this site was built in 1914 to replace the original which burned and which had been constructed by the Tanana Valley Railroad when that group extended their service to the Chatanika. The station was reported by USGS in 1907. (Orth, 1967) LIV 059. HISTORIC. Vault. The mining camp formerly occupying this site was reported in 1907 by USGS. A post office operated here from 1908 to 1909. The site is on the right bank of Vault Creek, one-half mile east of Treasure Creek. (Orth, 1967)

LIV 060. HISTORIC. Bell (Belle) Creek Roadhouse. (seventeen miles NE). This early twentieth century roadhouse, now in ruins, was once a one-story rectangular log structure. The Steese Highway, beside which it is located, follows the one important old trail from Circle to Fairbanks. (ADP Roadhouse Study, 1974)

LIV 061. HISTORIC. Snowshoe Roadhouse. Located on the Eliot Highway near Snoeshoe Creek, this roadhouse was first reported by USGS in 1915. It was a roadhouse on the Fairbanks-Livengood Road. (ADP Roadhouse Study, 1974)

LIV 056. HISTORIC. West Fork. This abandoned settlement was established in 1915 as a supply point for the Livengood camp five miles upstream on Livengood Creek. The site was at the head of navigation for small boats on the Tolovana River. In 1916 it contained a sawmill, roadhouse and some warehouses. (Orth, 1967)

LIV 057. HISTORIC. Olnes. This once prosperous mining supply village on Dome Creek was reported by USGS in 1907. It was the site of the Olness post office from 1908-1910 and again from 1922-1925 when it was called Olnes. The Tanana Valley Railroad established a station here. (Orth, 1967)

HAL #27

FAI 084. HISTORIC. <u>Rainey's Cabin</u>. Although constructed in 1936, this log cabin has been nominated for inclusion in the National Register. It is located on the University of Alaska campus just west of Moore Hall.

FAI 085. HISTORIC. <u>Creamer's Dairy</u>. The first barn in this dairy was built in 1903 and is representative of beginning twentieth-century agriculture. The Fairbanks building is in good condition.

FAI 089. HISTORIC. <u>St. Matthew's Episcopal Church</u>. This building was probably the first church in Fairbanks. It is considered an excellent example of Alaskan architecture.

FAI 086. ARCHAEOLOGICAL. <u>Blair Lakes Number One</u>. Chert flakes collected from two small knolls overlooking the Blair Lake No. 843 site are possibly referable to early Salcha Athapascan or Denali occupation.

FAI 087. ARCHAEOLOGICAL. Blair Lakes Number Two. Surface examination of this site revealed heavy concentrations of cultural material, including microblades and microcores suggestive of the Denali complex, ca 3000 B.C. FAI 088. ARCHAEOLOGICAL. Blair Lakes Number Three. Microblades and flakes possibly related to Denali materials were recovered from a 1120 square meter area on summit 1128 overlooking the western side of Blair Lake.

XBD 007. HISTORIC. Fox Farm Lodge. Also known as Overland Roadhouse and Silver Fox Roadhouse, the lodge dates from the early 1900's. It had accommodations for forty people and included stables and dog houses. Vincent and Matthews were the proprietors of the lodge in 1910. (ADP Roadhouse Study, 1974)

XBD 009. ARCHAEOLOGICAL. Reported Site.

XBD 010. ARCHAEOLOGICAL. Reported Site.

XBD 025. HISTORIC. <u>Richardson Roadhouse</u>. The original two-story log structure built in 1906 had forty private rooms, a large living-room, dining room and kitchen. The current roadhouse, across the road from the former site, is one-story. (ADP Roadhouse Study, 1974)

XBD 028. ARCHAEOLOGICAL. Canyon Creek Site. Buried archaeological strata and possible hearths at three feet below surface are reported from this roadcut bank at the mouth of Canyon Creek. Gravel layers above road level have yielded vertebrate fossils of possible Wisconsin age.

XBD 056. HISTORIC. Washburn. Washburn House was the third stage station from Fairbanks and was located on the right bank of the Tanana River, two miles southwest of Birch Lake. A telegraph and post-office were maintained here, the post office from 1907 to 1913. USGS reported the site in 1908. (Orth, 1967; ADP Roadhouse Study, 1974)

XBD 064. HISTORIC. Clark's Roadhouse. This early twentieth century roadhouse is located near Harding Lake, forty-four miles south of Fairbanks. (ADP Roadhouse Study, 1974)

XBD 065. HISTORIC. <u>Chena Slough Roadhouse</u>. In 1906 a traveler on the Valdez-Fairbanks Trail reported this roadhouse. It is located on the right bank of the Tanana River about two miles downstream from the confluence of Delta Creek and the Tanana River.

HAL #29

XBD 019. ARCHAEOLOGICAL. Reported site.

XBD 020. ARCHAEOLOGICAL. Healy Lake Village Site. This stratified site excavated in 1970 revealed four distinctive cultural levels. Level I contained six medium-sized thin projectile points of tear-drop shape and two triangular projectile points with the same flaking characteristics. Associated with these points were blade-like flakes or blades, two burins, and a wedge. A burned bone fragment dated by radiocarbon analysis to 11, 072 + 170 B.P. Level II contained artifacts relating to the Tuktu complex in the Brooks Range and Level III yielded microcores and blades of the Campus type. The Fourth Level was comprised of historic Athapascan artifacts. (Cook and McKennan, 1971)

XBD 057. HISTORIC. Nigger Bill's Roadhouse. Mile 250 on an old trail, this roadhouse was first reported by a traveler in 1906. It is located near Big Delta at the confluence of the Tanana and Delta Rivers. (ADP Roadhouse Study, 1974)

XBD 059. HISTORIC. Big Delta Roadhouse. This roadhouse was established ca. 1906 at Mile 252 of an old trail, at the junction of the Delta and Tanana Rivers. The site has also been called Bennett's Roadhouse, McCarty's Roadhouse and Ricka's Roadhouse. The structure is a three-story log building with kitchen, dining room, sitting room, private apartments and a sleeping loft. The site also includes a barn, meat and storage sheds and a large windmill. (ADP Roadhouse Study, 1974)

XBD 063. HISTORIC. Tenderfoot Roadhouse. USGS in 1918 reported a roadhouse and mining camp to be located at this site near the mouth of Tenderfoot Creek, fifteen miles northwest of Big Delta. (ADP Roadhouse Study, 1974)

HAL #126

XMH 213-217. HISTORIC AND ARCHAEOLOGICAL. These are five sites located five miles north of the right-of-way. All sites were given the same coordinates. One is listed as "recent Athapaskan"; two are listed as "contact Athapaskan"; and two are listed as "prehistoric". (J. P. Cook in personal communication with K. W. Workman.)

XMH 204. ARCHAEOLOGICAL. <u>Garden Site</u>. Stratified cultural levels relating to the Tuktu, Campus and Denali Sequences from <u>XBD 020</u> have been recovered from this extensively excavated site on the Healy River. Recent Athapascan use is indicated by tent floor and sweat bath features.

XMH 205. ARCHAEOLOGICAL. Ashes Point. Occupation spanning the time between proto-Athapascan and early contact periods is demonstrated by stone, bone, antler and copper artifacts recovered on the east arm of Healy Lake. The site, now flooded, is significant for interpretation of cultural continuities in the late prehistoric period. XMH 206-208. Reported sites near Healy Lake.

XMH 209. Microblades, projectile points and flakes observed over a large area are reported from Hidden Lake.

XMH 210. Hidden Lake Site. Testing and surface examination indicate stratified cultural deposits may be present.

XMH 211. Burgess Point. Preliminary testing revealed artifacts which may relate to the earliest levels at Healy Lake Village Site. (XBD 020).



"When early in the school's history an old medicine man at Nenana had been roused to animosity by her [missionary Annie Farthing] refusal to countenance an offensive Indian custom touching the adolescent girls, and had defiantly announced his intention to make medicine against her, she resolutely, staff in hand, attended by two or three of her devoted youths, invaded the midnight pavilion of the conjurer in the very midst of his conjurations, tossing his paraphernalia outside, laying her staff smartly across the shoulders of the trembling shaman, and driving the gaping crew helter-skelter before her...it gave a shrewder blow...than decades of preaching..."

> Alaskan Missions of the Episcopal Church Hudson Stuck, D.D.: 1920





DESCRIPTION

Segment Forty-three is the sixty-two mile Ladue River option of the Fairbanks alternative route. It extends from the right bank of the Tanana River (63°21'N, 142°40'W), three miles northwest of Tetlin Junction, to the Canadian border at the Ladue River.

MODERN ENVIRONMENTAL SETTING

Wholly within the Yukon-Tanana Upland Physiographic Province, Segment Forty-three follows the Ladue River valley through the moderate to steepsloped mountains and hills of the uplands. Surficial geology is primarily coarse and fine grained deposits associated with the mountains, although a region of old terraces and outwash deposits is found in the center of the segment. The Ladue River, which flows into Canada, is the principal drainage feature of the region.

The segment has a continental climate and a mean annual temperature of approximately 22.5°F. The mean annual precipitation along the segment varies from approximately ten inches in the west to approximately twenty inches at the Canadian border. While the primary vegetative ecosystem along the segment is Upland Spruce-Hardwood Forest, a Low Brush area occurs near the center of the route. Moose, black bear, wolverine and wolf are distributed throughout the segment, although moose are concentrated on the western end. The spring migration route of the Forty Mile Caribou Herd passes through the center of the segment. This region produces a fall flight of about three hundred thousand ducks and becomes heavily impacted with species rare in Alaska when the Canadian prairies are suffering drought.

The closest permanent habitation is Tetlin Junction, at the western terminus of the segment.

PALEOENVIRONMENTAL SETTINGS

This short segment in the Intermontane Paleoenvironmental Zone crosses the Yukon-Tanana Uplands from the Tanana River to the Canadian Border. During Pleistocene glaciations this area remained unglaciated, though near the extensive ice-covered Alaska Range. Like portions of Segment Forty-two, this corridor has significantly higher elevation than nearby lowlands along the Tanana, and during the period of drier and colder climate coinciding with the Wisconsin Glaciation maximum the forest likely retreated to a narrow strip along the Tanana River, leaving the highlands with a tundra or steppe setting until the gradual readvance of the forest to its present state.



The Ladue River followed by this corridor is minor stream compared with the Tanana River and its relatively broader and deeper valley. The archaeological potential is likely correspondingly less than along the larger streams at lower elevations.

ARCHAEOLOGICAL SUMMARY

There are no sites recorded for this segment.

ARCHAEOLOGICAL EVALUATION

It is probable that this corridor may contain campsite and hunting stations used seasonally for the interception of caribou. Such sites could be useful for comparative studies by seasonal exploitation of localized resources and the kinds of supportive special structures which provide both flexibility and stability for the community.

HISTORIC SUMMARY

There are no historic sites recorded for this region.

HISTORIC EVALUATION

The Ladue River valley has little historic evidence or interest. This region has not been conducive to trading, mining or settlement. The region was not considered important enough even for general exploration until this century. The mining which was done north of this area earlier in this century is discussed in Segment Forty.

HISTORIC TRAILS

TANACROSS (Quad #85)

Trail 22. This two-mile long, local trail is crossed by the pipeline alignment 2.8 miles northeast of Tetlin Junction.

Trail 166A. This branch of the Boundary-Canyon City Trail is crossed one mile west of the Canadian border.

ARCHAEOLOGICAL AND HISTORIC LOCALES

There are no recorded A.H.R.S. sites in the vicinity of Segment Forty-three.

SITE AREA LOCATION



DESCRIPTION

Segment Forty-four, seventy-seven miles long, is the Scottie Creek option of the Fairbanks alternative route. The entire length of this segment coincides with the southern portion of El Paso Segment Twenty-two (Volume One). The segment extends from the right bank of the Tanana River (63°22'N, 142°40'W) to the Canadian border near Scottie Creek.

MODERN ENVIRONMENTAL SETTING

Located primarily in the Tanana-Kuskokwim Lowland Physiographic Province, Segment Forty-four follows the Alaska Highway through old flood plains. The Lowlands'are underlain chiefly by gravel and sand, outwash fans, silts and sand along streams, and loess. The segment is drained by numerous streams and the Tanana, Nabesna and Chisana Rivers.

The segment has a continental climate, with a mean annual precipitation of approximately ten inches and a mean annual temperature of approximately 22.5°F.

The Bottomland Spruce-Poplar Forest vegetative ecosystem is predominant throughout the segment, although pockets of Lowland Spruce-Hardwood Forest and Low Brush are crossed. Moose, bear, caribou, wolf, and wolverine are present throughout this segment. Large numbers of waterfowl utilize portions of the region for resting and foraging during migrations. The threatened ospreys, bald eagles, and peregrine falcons are known to nest in the Tanana Valley.

As the segment follows the Alaska Highway it passes near several communities, including Northway Junction and Tetlin Junction.

PALEOENVIRONMENTAL SETTING

During the Wisconsin Glaciation this corridor in Intermontane Paleoenvironmental Zone was unglaciated and probably contained a remnant of coniferous forest along the Tanana and Chisana Rivers. During this period the location of the corridor on the lee side of the Alaska Range likely resulted in a drier and colder climate than today, as the high, glacier-covered area to the south would have then produced a more pronounced "rainfall shadow" than it does now.



an an seo Bhailte an an seo Although not glaciated, this segment has been affected by glacial outwash sediment and watered by glacier-fed streams. The climate has probably never been strictly arctic, nor has the area had an extensive and long-enduring tundra ecosystem. Like the Yukon valley, this corridor has had a continuously suitable bioclimatological setting for human occupation for the last forty thousand years. Although the potential for containing pre-Wisconsin Glaciation archaeological sites is moderate, the potential for coverage of earlier sites by recent alluvial and aeolian sediment is high in this corridor which was near the glacial boundary.

ARCHAEOLOGICAL SUMMARY

No sites have been reported for this segment.

ARCHAEOLOGICAL EVALUATION

As the summary of the environmental characteristics indicates, this corridor crosses one of the most favorable areas for continuous human occupation and this provides an ideal situation for recovery of new information on developmental sequences in the area. This route, as well as several others, traverses traditional Athapascan territory. The orientations of historic and immediate prehistoric tribal units to major river arteries (Osqood, 1936; McKennan, 1965; Nelson, 1973) suggests that archaeological sites within the impacted corridor could reveal potentially valuable information for ethnoarchaeological studies which expand our understanding of earlier economic patterns and social At present, the only sites with Kutchin or Han Athapascan systems. components for which temporal sequences are available are the Dixthada site near Mansfield Village and the Klo-Kut site in northwestern Canada. (Morlan, 1969)

HISTORIC SUMMARY

The single historic site recorded is located ten and one-half miles south of the route.

HISTORIC EVALUATION

There have been few regional resources in the immediate area which would generate extensive early trapping and trading with the ensuing exploration and settlement. As twentieth-century mining centers developed in surrounding areas, however, this corridor developed as an access route. Preliminary exploration of this area was conducted between 1885 and 1887 by Lieutenant H. T. Allen of the United States. He reported the two Indian sites of Nandell, a former village, and Tetling's, now known as Tetlin Junction. Allen gave Nabesna River its name, which is from the Indian word for the Upper Tanana. Nabesna Village was established as a mining camp in 1909.

Later explorations in the area included that of A. H. Brooks and W. J. Peters in 1898. They are responsible for naming many streams between Tetlin Junction and the Canadian border.

HISTORIC TRAILS

NABESNA (Quad #84)

Trail 60. This one and one-half mile trail is crossed by the pipeline alignment between the Alaska Highway and Deadman Lake.

Trail 55. This four and one-half mile trail from Scotty Creek Lodge to the Alaska Highway is crossed in the vicinity of Island Lake.

<u>Trail 56.</u> This trail runs between the Alaska Highway and Island Lake and is crossed in the vicinity of Island Lake.

Should the pipeline alignment be shifted to the other side of the Alaska Highway, the following trails would be crossed:

Trail 58. This ten-mile trail from the Alaska Highway to a cabin on an unnamed lake would be crossed in the vicinity of Paradise Hill.

Trail 59. This trail from the Alaska Highway to Gardiner Creek would be crossed one and one-half miles southeast of Ten Mile Creek.

TANACROSS (Quad #85)

Trail 4. This one mile trail would be crossed in the vicinity of Bitters Creek.

ARCHAEOLOGICAL AND HISTORIC SITES

There are no A.H.R.S. recorded sites within the ten mile segment corridor. The nearest site, ten and one-half miles south, is:

HAL #54

TNX 001. HISTORIC. <u>Nandell</u>. The site is a former Indian village or camp on the Tetlin River near Tetlin Lake, and was named for its chief. It was first reported by Lt. H. T. Allen, U.S.A., in 1885 when it had a population of 86. (Orth, 1967) (Volume One, p. 214)

"Mike was outside holding on to a bottle and arguing with Baldy Red. "Now you know better than this, Baldy." "Sergeant, you haven't got a legal leg to stand on."

"How's that?" Mike asked tolerantly.

"This here's three-fourths tobacco juice. Now, there's no law that says you can't drink tobacco juice above the 50th parallel." "How about the other one-quarter?" the mountie said. "Hell," said Baldy, "that's flavoring!"

> Mrs. Mike Benedict and Nancy Freedman:1947

"There is a story that at some point of the journey [of Rev. Prevost in 1899] the horse fell lame and was shot and abandoned beside the trail; that there came along immediately behind some enterprising chaps with a dog team, who skinned and butchered the carcase and, overtaking Mr. Prevost, sold some of it to him as moose meat."

> Alaskan Missions of the Episcopal Church Hudson Stuck, D.D.: 1920



TECHNICAL CONCLUSIONS

There are a number of valuable and quantifiable conclusions to be summarized from the assessment and evaluation contained in these two volumes. Most of the resources identified are achaeological and this is fortunate since the archaeological investigations in the field provide, in most cases, the most difficult tasks to perform within the spectrum of cultural resource surveys. Inclusive of redundant resources, the El Paso evaluation required our analysis of over seven hundred sites, and the Arctic Gas evaluation, over four hundred. These are known resources. Remaining unquantified, of course, are the unknown resources. It would be helpful to be able to predict the number of unknown sites with confidence for discrete geographical areas, such as a pipeline corridor segment.

Tables in this section contain two essential categories of data for discrete geographical segments of proposed pipeline alignments in Alaska. The assessment of 4,817 miles of pipeline corridors is a biased, skewed assessment of 48,170 square miles, or 8.2% of the total state. In our immediate application, scientifically-speaking, the bias, skewed sample [8.2%] is ideal since we are concerned with a similarly biased envelope of scrutiny. The principal factors are: (a) pipelines are not randomly aligned; and (b) portions of some corridor segments have benefited from field surveys associated with the current pipeline [crude oil] construction by Alyeska Pipeline Service Company.

Therefore, the geographical areas are neatly defined.

Table 1 [next page] shows there are 5,154 potential archaeological sites* within the defined geographical areas, - the corridor segments of the proposed pipeline routes. The criteria used,[explained in the Prologue], are based on bluffs and confluences. The number of 5,154 potential sites is significant and it is important to recall that a potential archaeological site may also reveal more recent, historical resources.

Therefore, the geomorphological criteria is known, and the quantity is reasonably known of how many bluffs and confluences of streams occur within each geographical area. The quality of these data has been examined.

* In Table 1, the 6,153 total potential sites minus 99 redundant sites = 5,154.

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ARCHAEOLOGICAL SITE LOCATION CRITERIA: A SUMMARY OF POTENTIAL AND ACTUAL SITES RELATIVE TO BLUFFS AND STREAM CONFLUENCES WITHIN PIPELINE CORRIDORS.

Proguesis 7	Resear	ch I	nsti	tute						EL	PASO	ROUTE	s														
Segment Criteria	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	<u>1∕</u> 24	25	26	27	28
ONFLUENCES																											
;1	0	41	3	29	37	1	5	24	24	6	25	13	41	29	27	18	38	8	16	28	42	22	14	23	36	6	11
2	2	134	29	88	90	11	77	146	97	40	90	26	110	109	58	53	83	63	19	23	29	63	23	74	119	14	35
<u>sub-totals</u>	2	175	32	117	127	12	82	170	121	46	115	39	<u>151</u>	138	85	71	121	71	35	51	71	85	37	97	155	20	46
23	0	13	4	2	ò	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	1	1	6	2	0	0
24	2	15	3	1	1	0	2	0	5	0	0	0	5	2	0	6	1	0	0	0	1	1	1	12	0	0	0
Sub-totals	_2	<u>28</u>	_7	_3	_1	_0	_2	0	_6	_0	0	_0	6	3	_0	_6	<u> </u>	_0	_0	_0	<u> </u>	_2	_2	<u>18</u>	2	_0	_0
BLUFFS																											
31	0	59	8	41	16	7	9	15	17	8	12	31	28	17	17	7	19	11	4	<u>,</u> 3	14	29	2	17	17	8	9
32	1	123	26	59	51	19	18	53	26	18	22	58	67	48	21	5	43	33	5	5	11	73	19	35	48	12	27
<u>ub-totals</u>	_1	<u>182</u>	34	<u>100</u>	<u>67</u>	<u>26</u>	<u>27</u>	<u>68</u>	<u>43</u>	26	34	<u>89</u>	<u>95</u>	<u>65</u>	<u>38</u>	<u>12</u>	<u>62</u>	<u>44</u>	9	8	25	102	21	<u>52</u>	<u>65</u>	20	36
33	0	31	10	0	0	0	5	1	12	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0
34	0	24	9	1	1	0	5	7	13	0	0	3	0	2	0	1	0	0	0	0	0	4	0	4	2	0	0
Sub-totals	_0	55	<u>19</u>	_1	1	_0	<u>10</u>	8	<u>25</u>	_0	_0		0	2	_0	<u> </u>	0	_0	0	_0	_0		_0	7	_2	_0	_0
lotals																											
C1+C2+B1+B2	3	357	<u>66</u>	217	194	38	109	238	164	72	149	<u>128</u>	246	203	123	83	<u>183</u>	115	<u>44</u>	<u>59</u>	96	187	58	149	220	40	82
3+C4+B3+B4	2	83	26	4		_0	12	_8	<u>21</u>	_	0	3	_6	5		_7	<u> </u>	<u> </u>	_	0	<u> </u>	_7	_2	25	4	_0	0

										AR	CTIC .	ALASK	A ROU	TES						
Segment riteria	29	29A	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	El Paso Total	Arctic Total	Grand Total All Segments
ONFLUENCES																				
1 '	5	32	44	19	18	16	27	9	30	25	20	6	63	45	84	31	13	567	487	1,054
2	35	22	57	53	7	13	53	14	74	27	45	14	75	34	191	17	45	1,705	776	2,481
ub-totals	<u>40</u>	<u>54</u>	<u>101</u>	<u>72</u>	25	<u>29</u>	80	23	<u>104</u>	52	<u>65</u>	<u>20</u>	<u>138</u>	<u>79</u>	<u>275</u>	<u>48</u>	<u>58</u>	2,272	1,263	3,535
3	0	0	0	0	0	0	1	1	1	5	0	0	0	4	1	0	· 0	32	13	.45
4	0	0	0	0	0	0	1	1	0	2	0	0	0	1	6	0	0	58	11	69
ub-totals	_0	_0	_0	_0	_0	_0	_2	_2	_1	_7	_0	_0	_0_	5	_7	_0	_0_	90	_24	.114
LUFFS																				
1.	0	0	1	11	12	14	28	12	31	40	19	0	74	41	99	47	30	425	459	884
2	0	0	5	27	12	11	43	26	77	69	63	0	99	124	159	50	43	926	808	1,734
ub-totals	_0	_0	6	<u>38</u>	<u>24</u>	25	<u>71</u>	<u>38</u>	108	109	<u>82</u>	_0	<u>173</u>	<u>165</u>	258	<u>97</u>	<u>73</u>	1,351	<u>1,267</u>	2,618
3	0	0	0	0	0	0	0	0	0	. 4	0	0	0	11	2	0	0	63	. 17	80
4	0	0	0	0	0	0	0	2	1	20	1	0	ò	16	14	0	0	76	54	130
ub-totals	_0	_0	0	_0	_0	_0	_0	_2	1	24	_1	_0	_0	27	<u>16</u>	_0	_0	<u>139</u>	<u>71</u>	210
otals																				
1+C2+B1+B2	40	54	<u>107</u>	<u>110</u>	<u>49</u>	54	<u>151</u>	61	212	<u>161</u>	<u>147</u>	20	<u>31</u> 1	244	533	145	<u>131</u>	3,623	2,530	<u>6,153</u>
3+C4+B3+B4								4		<u>31</u>		_0	<u> </u>	<u>32</u>	23			229	<u>95</u>	<u>324</u>
$r_1 = \text{confluences within one-half mile of the alignment}$ $C_3 = C_1 \text{ confluences within one-half mile of the alignment}$												es whi	.ch ha	ve <u>re</u>	corded arch	aeological	sites			

2 = confluences between one-half and five miles

 1_1 = bluffs within one-half mile of the alignment 2_2 = bluffs between one-half and five miles

/ Segment 23 is in Canada.

 C_3 = C_1 confluences which have $\underline{recorded}$ archaeological sites C_4 = C_2 confluences which have $\underline{recorded}$ archaeological sites

.

 B_3 = B_1 bluffs with recorded archaeological sites B_4 = B_2 bluffs with recorded archaeological sites

The quality of the geomorphological criteria can only be realistically determined by a field test. Fortunately, the field testing for an important portion of the total 48,170 square miles has been done by Alyeska Pipeline Service Company. In the case of the El Paso routes which overlap with Alyeska, better than 14% of the bluffs and confluences have contained archaeological sites, and in the case of Arctic Gas, about 9%. These reflect a significant rate of occurrence within an adequate sample size.

[The findings for the El Paso segments were developed internally after Volume One was completed and are not contained elsewhere. After being commissioned to complete Volume Two an analysis of the Arctic Gas segments was pursued through internal research. See Section 2.3.5, page 219].

Table 2 identifies the known number of archaeological sites in those Arctic Gas pipeline segments and shows the frequency with which sites are found according to the geomorphological criteria we adopted early in 1975. In these surveyed corridor segments, as many as 58.6% of all recorded discoveries so far have been on bluffs, and 17.2% at confluences. These are significant rates of occurrence. Bluffs are particularly so, since they represent a binomial on a yes or no basis.

	SITES WHICH OCCUR ON CONFLUENCES AND BLUFFS														
	SEGMENT KNOWN ARCHAEOLOGICAL SITES:														
[Total	On confluences	On bluffs	<u> </u>	<u>%</u> B	<u>% Total</u>								
l															
	35	9	2	2	22.2	22.2	44.4								
	.37	48	8	28	16.6	58.3	75.0								
	41	58	6	34	10.3	58.6	69.0								
	42	30	9	21	30.0	70.0	100.0								
	Totals:	145	25	85	17.2	58.6	75.8								
Ł							GHWalker								

TABLE TWO

The criteria adopted for our evaluation of "potential" account for over three-quarters [75.8%] of sites discovered to date. While this reflects well on the quality of the data, the value can not be generalized, in our opinion, because of other variables; such as terrain differences, unknowns related to technique and intensity of the "tests" commissioned by Alyeska, and the need to identify and evaluate such variables, and paleoenvironmental influences on the movement of early man are imprecisely known in quantifiable terms. An important difference between values in Tables 1 and 2 is the inclusion of multiple archaeological discoveries within one geomorphological site only in Table 2. In cases where sites reveal discoveries different enough one from the other, the "multiple discoveries" are reflected in Table 2.

There are other biases which are identifiable.

There are at least one natural bias, one investigational bias, and a third which is a mix of both. Often, bluffs occur at the confluence of streams, and were counted as bluffs and not as confluences. It was one or the other. While stochastic, the choice was a "judgment call" by the analyst. This bias appears reasonable since evidence at confluences may be eradicated by seasonal flooding and river banks collapsing during break-ups. Mosquitoes are more common at confluences than at higher elevations. The field investigators may have been less pressured and more thorough on bluffs. Perhaps early man had the same pressures and established himself more often on elevations for longer periods of time. Regardless of the biases, if one were to select *high probability areas*, bluffs and confluences should rank high on the list of criteria of selection.

Of the two, bluffs are top ranked. Early man was a hunter. Contact man was a hunter. A bluff overlooking local terrain is a natural lookout platform to see game at a distance.

It appears, but this has not been quantified, that the combination of the two criteria is the best. A confluence provides twice the opportunity to capture andromous fish, and the bluff provides hunting advantages.

Since both applicants have reasonably selected river valleys as primary routing alignments, the geomorphological settings employed herein appear to be suitable potential criteria for *high probability areas* for discovery.

Table 3 summarizes the data for the four Arctic Gas segments analyzed and on a site:discovery basis, bluffs appear to be three times more profitable for discovery as a field survey objective.

	CONFL	UENCES	AND BL	JFFS WH	ICH CONTAI	N SITES			
SEGMENT	с	sc	В	sb	C + B	s ^{c+b}	ŧС	ŧВ	%Total
	23	2	38	2	61	4	8.6	5.5	6.6
37	52	7	109	24	1 61	31	13.5	22.0	19.3
41	79	5	165	27	244	32	6.3	16.4	13.1
42	275	. 7	258	16	533	_23	2.5	6.2	4.3
Totals:	429	21	570	69	999	90	4.8	12.1	9.0
C = Confluences. S^{C} = Confluences with recorded archaeological sites. B = Bluffs. S^{b} = Bluffs with recorded archaeological sites.									
% = % of C	, or B	, or C+	B, with	record	ed archaeo	logical	sites.		
									G H Walker

TABLE THREE

Due to the adequate data base today which did not exist three years ago, it is our recommendation that the Mitigating Procedures required under Federal regulations for historic preservation practices be specific in both objectives and methods as discussed in the next section.

MITIGATING PROCEDURES

Mitigating Procedures is a term of reference which describes the measures and the consideration of alternatives to protect cultural resources from damage or destruction or any adverse effect from the action proposed. In this case the action proposed is the construction of a natural gas pipeline and all its supporting facilities such as compressor stations, communications facilities, temporary roads and temporary airfields - in Alaska.

Just as Alaska provided the scene for enforcement of the National Environmental Policy Act in the case of the crude oil pipeline, Alaska may be the stage on which the landmark accountability for surveying of cultural resources will probably be defined. In the first case, once it was determined that the environmental regulations could not be ignored, the methodology with which environmental considerations are now quantified in measurable terms actually evolved and much of today's state-of-the-art had its beginning in Alaska. This two volume work reflects the first serious attempt by the Federal government to assess, evaluate, and protect the cultural resources which might be impacted by the proposed action of the two competing applicants.

It is important to note that there are several Federal laws which protect cultural resources; such as any building, site, district, structure, object, data or any material significant in history, archaeology, tradition, or architecture. Cultural resources enjoy Federal and local protection even without the Environmental protection laws. The latter simply reinforce protection of cultural resources.

The rationale for the geomorphological analysis described in the <u>Technical Conslusions Section</u> is predicated on two objectives: (1) accurately predicting the best target areas for archaeological potential and (2) establishing cost-effective procedures to comply with cultural resource laws and regulations. By coupling the results of the two objectives to the state-of-the-art, procedures then can be established by which measurable accountability of performance and of compliance can in fact exist.

A lingering question requiring definition is: what is accountability? A new question is: what is the contractual state-of-the-art? The answer to each interconnects logically. Accountability is the documentation on public file which accurately describes the inventory of resources, explains the dangers to them, exposes the alternatives for safeguarding them, and certifies that official notification of these considerations were made to higher authority. It is an auditable paper trail showing compliance with regulations.

The contracting state-of-the-art is the best evolved technique to control the expenses and the quality of work necessary to perform the steps in compliance with regulations aimed at protecting cultural resources.

Appendix 2 contains many examples of current and recent contracts on cultural surveys and assessments. An interested reader will peruse this first collection of such documents with considerable interest. Some major findings are cited below.

A requirement for negative site data is now incorporated by the National Park Service, Interagency Archaeological Services [Ex.: Birch Lake, Oklahoma project] and by the Arizona Archaeological Center [Page 1, Item 6; and Page 2, Item 4]. The agreement between South Dakota and the U.S. Department of Agriculture cites the need to determine "sampling intensity," and the Idaho Panhandle office of the U.S. Forest Service addresses the need to evaluate adjacent areas, not only direct impact, and to clearly identify causative agents of disturbances.

A persistent problem in most of the contracts is the absence of clear field standards of procedure and quality. Many incorporate the condition that work techniques meet <u>professional</u> standards or be performed in a <u>professional</u> manner. Nowhere are professional standards or manner defined.

If one accepts our earlier described thesis that bluffs and confluences constitute high probability areas, the record keeping of field investigators must, for the sake of accountability, maintain field records which record both negative and positive findings. Without the former, a Permittee can be repeatedly flooded with demands for field investigations in areas which have already been surveyed without positive results, and science is denied the very tools and facts to analyze why there was no or little movement of primitive man in one setting as opposed to another. In science, negative data can be as valuable as positive data. At this time, Alaska and most states collect only positive data in a central file to which scientists must turn. This must be corrected. [See Section 2.3.7, page 220].

The mitigating procedures for the gas pipeline will profit from the survey work done by Alyeska Pipeline Service Company and by the record keeping of the Alaska Division of Parks. Without this, no sampling rates of occurrence to accurately determine a reasonable level of field sampling intensity would be possible. Therefore, the foresight benefiting this project is the hindsight to be suffered by the first. It is axiomatic that one should learn from experience and that technical advances tend to outrun society's ability to regulate or cope with them. The state-of-the-art of archaeological procedures in the field has for many years outrun the means and agility of contracting and procurement offices to define them. Now, however, the force of federal compliance requires that all these factors be reconciled into written procedures and stipulations, and done so well in advance of authorizing one applicant to proceed.

Stipulations for the crude oil pipeline construction in Alaska were prepared and reviewed several years prior to authorization to proceed, and underwent several revisions.

The final Federal stipulations related to cultural resources follow:

1.9. Antiquities and Historical Sites 1.9.1. Permittees shall engage an archeologist approved by the Authorized Officer to provide surveillance and inspection of the Pipeline System for archeological values. 1.9.2. If, in connection with any operation under this Agreement, or any other Agreement issued in connection with the Pipeline System, Permittees encounter known or previously unknown paleontological, archeological, or historical sites, Permittees shall immediately notify the Authorized Officer and said archeologist. Permittees' archeologist shall investigate and provide an on-the-ground opinion regarding the protection measures to be undertaken by Permittees. The Authorized Officer may suspend that portion of Permittees' operations necessary to preserve evidence pending investigation of the site. 1.9.3. Six copies of all survey and excavation reports shall be filed with the Author-

ized Officer.

Stipulations for proposed Trans-Alaska Pipeline: 1973 as amended When compared to the contractual evidence in Appendix 2, and in light of the importance of cultural resources in Alaska, it may appear surprising that the twenty lines above "say it all" or that the scientific community did not object to conditions running contrary to professional code of ethics. Actually, the Government's "Stipulations" did not run the gauntlet of public debate as did the environmental issues during the controversial years, and scientists have been forced into a save-what-you-can-as-best-you-can situation.

Section 1.9.3 of the Government's "Stipulations" is clearly inadequate under the existing laws and regulations on promulgation of results and a clear, public record. Should the scientist pay publication costs out of his own pocket? Clearly the costs should be borne by the Permit holder and the Government should insist that ample funds be available. Examples of analyses which have not been published and should be are in Appendix 1 [manuscripts by Gal, Kunz and Slaughter, Newell and Wiersum, Wiersum, and Cook]. The gas pipeline "mitigating procedures" should avoid this problem by solving it at the outset.

The existing and possible additive field investigations for cultural resources in Alaska is probably the largest effort of its kind ever undertaken in the United States in terms of time, definiable area, and manpower. The financial and scientific implications are too great to be left to chance, left to the most perfunctory standards, left to the personal sacrifices of a few archaeologists to find the independent means, to analyze their findings, to publish their results, and to make their findings available both to the public and to the scientific community having a right to this information.

Heretofore, the code of professional ethics required that information be published and data be made available on a timely basis to scholars. The traditionally low financial support to archaeologists and historians has made this almost impossible to attain without great personal sacrifice to the scientists employed to conduct the surveys. We propose that the Government provide all and ample funds to correct this and that the successful applicant reimburse the Government in full for these costs.

The disposition of artifacts found in Alaska is another issue which must be squarely faced.

Virtually every [North and South] American Native may claim direct geneological lineage with primitive man in Alaska and arctic Canada regardless of the migratory vector he used to arrive. It would be a scientific impurity to suggest that new discoveries must be cached in a single locale and remain inaccessible to the scientific community and the American public for unreasonable lengths of time.

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One may also argue on this basis that since Alaska was in the pathway of intercontinental human migrations that scientific insight would be improved by at least sharing findings, if not artifacts, with the world scientific community.

The United States National Museum is the Smithsonian. Artifacts found on Federal property and lands properly belong at the Smithsonian and to the United States public. By charter, the Smithsonian is responsible for a fair distribution of artifacts to the scientific community, and in the case of display, to suitable museums where the American public can have access to view them.

No Alaskan artifact has been deposited with the Smithsonian since 1958.* Thousands have been recovered in Alaska on public lands since then. Thousands are in Alaska and have not been catalogued in a way that can benefit other American scientists, students, scholars or members of the public around the United States. Alaskan scientists independently are trying to accomplish this while being submerged by demands on their time and suffering from lack of adequate funds. This situation, in our view, must be corrected. [See Section 2.3.1, page 219].

To those who suggest that the Alaska Natives are responsible for this policy we say that this is not entirely true. Prior to the Natives selecting their lands, they felt that Native artifacts, particularly Native burial grounds, were exploited and often shipped to points unknown and used for purposes of individual disposal. Some suggest that the Natives have now selected their lands and all artifacts found on public lands belong to the public. But the Native has no better chance to know the location of an ancient and hidden burial ground than the next person. Obviously, a burial ground deserves respect and very special consideration wherever discovered.

But for other artifacts found on public lands, it would appear to be counterproductive and contradictory for anyone to deny the widest promulgation of scientific information to the scientific community. There is a need for public discussion on this issue, particularly with Native corporations. We recommend consideration of all non-burial ground cultural resources to be under the custody of the Smithsonian when these resources are found on Federal public lands.

We suggest that the Government provide the necessary funds for the Smithsonian to be in fact the United States repository of United States artifacts and that the costs to accomplish this be reimbursed by the successful applicant for the gas pipeline project. The Government could also consider implementing this recommendation retroactively for artifacts discovered on public lands during the crude oil pipeline construction.

* See Page 294, Appendix One.
Without adequate corrective funding for the Smithsonian or for the State of Alaska to provide the broadest public and scientific access to such discoveries, the safest repository is with the Alaskan scientists as is now the case.

It is our further recommendation that artifacts found on state lands belong in Alaska or wherever Alaska decides. Artifacts found on private or Native lands should remain where these parties under Alaska law decide.

Another issue relates to the "analysis" of discovery. Mitigating Procedures, as defined by regulation, must be complete in describing the cultural resources, possible adverse effect, the importance of the resources, and alternative means considered to protect them. Since the obligation for surveying falls upon the Permit holder [the licensee of the Government], the Government has the obligation to insure that the scientists do have ample funding to fulfill the bare requirements of the law related to promulgation to the public and to the scientific community.

We recommend that the Government retain the services of outside experts to conduct these surveys directly and pass on the costs of these surveys to the licensee or Permit Holder, in this case the successful applicant for the gas pipeline. Arctic experts interviewed on this subject all agree that much more extensive guidelines, statements of responsibility, and controls are necessary.

In summary, we recommend that the Government include detailed stipulations on protection of cultural resources in any license or permit granted to any applicant in this matter; and that those stipulations contain:

- 1. Detailed accountability from initial research through the review process; and
- The recording and reporting of negative as well as positive data; and
- 3. The evaluation of direct and indirect impacts on all cultural resources which the pipeline project may affect, not merely those along the right-of-way; and
- 4. The clear identification of the impacting agents and recommendations for mitigating the impacts; and
- 5. The definition of minimum standards of performance and of personnel qualifications; and
- 6. Timely analysis of findings and publication; and

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- 7. The naming of the Smithsonian as the repository for all artifacts from sites other than Native burial grounds on Federal lands, and the provision of funds by the Government to the Smithsonian, reimbursed by the Permittee, to permit competent and timely cataloguing and analysis of the artifacts; and
- 8. Timely public access to reports of cultural resource investigations and evaluations; and
- 9. Reimbursement by the Permittee to the Government for all direct and administrative costs incurred for cultural resources' surveys and compliance.

For purposes of illustration and example, a set of cultural resource stipulations for compliance and accountability follow. We believe these original procedures are the most complete at this time for the proposed gas pipeline project in Alaska. These stipulations include provisions for the Federal official in charge of overseeing cultural resources' compliance to have adequate latitude for adding controls warranted by events or discoveries unknown at the time a permit is issued [See Sections 1.1.22 and 1.2.1, page 217].

STATE Alaska

These procedures have been developed by Iroquois Research Institute to meet the intent and requirements of Federal laws and regulations in effect in October, 1975, as they apply to the natural gas pipeline routes proposed in Alaska by different applicants before the Federal Power Commission under Docket No. CP 75-96, et al. The purpose of these procedures is to provide guidance for the discharge of responsibilities for the Identification, preservation and mitigation of losses of cultural resources affected or influenced by the construction of a natural gas pipeline from the North Slope of Alaska to an authorized exit point in Alaska.

1. GENERAL

1.1 Definitions

- 1.1.1 <u>National Register of Historic Places.</u> The official register of districts, sites, buildings, structures, and objects, significant in American history, architecture, and culture, maintained by the Secretary of the Interior under the authority of section 2(b) of the Historic Sites Act of 1935 (49 Stat. 666, 16 U.S.C. 461) and section 101(a) (1) of the National Historic Preservation Act of 1966. The register is published in its entirety in the "Federal Register" each year in February and addenda are published on the first Tuesday of each month.
- 1.1.2 Advisory Council. The Advisory Council on Historic Preservation, established pursuant to Title II of the National Historic Preservation Act of 1966 (16 U.S.C. 470) (80 Stat. 915).
- 1.1.3 Legislative and Executive Authority and References. Prime references related to the preservation of cultural resources of the United States as probably affected directly by this project are: Public Law 59-209, Antiquities Act of 1906 (34 Stat. 225, 16 U.S.C. 431-433); Public Law 74-292, Historic Sites Act of 1935 (49 Stat. 666, 16 U.S.C. 461-467); Public Law 99-555, National Historic Preservation Act of 1966 (80 Stat. 915, 16 U.S.C. 431-433); Public Law 91-190, National Environmental Policy Act of 1969 (83 Stat. 915, 42 U.S.C. 4321); Public Law 93-291, Preservation of Historic and Archaeological Data (88 Stat. 174) amending the Reservoir Salvage Act of 1960 (74 Stat. 220, 86 U.S.C. 469-469c); Identification and Administration of Cultural Resources (33 CFR Part 305); Permits for Activities in Navigable Waters or Ocean Water Policy, Practice and Procedure (33 CFR 209.120); Preparation of Environmental Statements: Guidelines for Discussion of Cultural Resources, National Park Service, May, 1974; Field Surveys to Identify Cultural Resources affected by EPA Construction Grants Projects, Program Guidance Meno #52, July 2, 1975; Archaeological and Paleontological Salvage, Federal Highway Administration, March 31, 1971; and 84 Stat. 204 (1970), and 87 Stat. 139 (1973); and Alaska Construction Manual, Department of Highways, Alaska Standard Specifications for Highway Construction, 1972; and Alaska Statutes: 41.20.020, 41.35.080 and 44.37.190, and Alaska Administrative Code: 11AACL6.
- 1.1.4 Agency Official. The individual delegated by the approving Federal agencies to supervise the construction of a natural gas transportation system and its facilities on United States territory as authorized on this Docket matter, and for which, various U. S. lead-agencies would be required to issue permits, certificates, licenses, authorizations to proceed, or to deny them, or to withdraw them.

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- 1.1.5 Permittee. The entity or entities named by the United States Government as the recipient of permits, certificates, licenses, authorizations to proceed, and other approbations for the purpose of constructing and maintaining a natural gas transportation system and its essential supportive facilities as the result of the decision on Docket CP75-96, et al.
- 1.1.6 Pipeline. The principal element of a natural gas transportation system proposed in Alaska and all its essential facilities, including compressor stations, maintenance stations, and other related transportation or handling facilities, and originating on the North Slope of Alaska near Prudhoe Bay and extending to designated exits in Alaska and to authorized termini or connection points in the contiguous United States.
- 1.1.7 <u>Right-of-Way.</u> The permanent right-of-way granted over public lands by the United States for the operational life of a pipeline transportation system in accord with the Mineral Rights Leasing Act of 1920, as amended, and the Trans-Alaska Oil Pipeline Authorization (Public Law 93-153).
- 1.1.8 Corridor. A linear and contiguous area which includes the proposed or actual pipeline right-of-way and which extends 1.5 kilometers to either side of the centerline of the proposed or actual pipeline right-of-way.
- 1.1.9 Contractor. The organization(s) or person(s) whose professional services have been retained to find, identify, interpret and safeguard Cultural Resources, as defined below, which will be affected by the Permittee's actions.
- 1.1.10 Cultural Resources. Any building, site, district, structure, object (religious, secular, archaeological, artistic, etc.), data or other material significant in history, architecture, archaeology, culture, or Native tradition which is included or eligible to be included on the National Register of Historic Places according to the criteria promulgated by the Keeper of the National Register and according to the Procedures described in 36 CFR Chapter VIII at Part 800.
- 1.1.11 Historical Authorities. The Secretary of the Interior or his designated representative, the State Historic Preservation Officer, the State Archaeologist and the State Historian.
- 1.1.12 <u>Access and Supportive Facility.</u> Any temporary or permanent road, facility or trail constructed, used or established by the Permittee for ingress and egress to or from the Corridor or for transportation and construction within the Corridor including, nonexclusively; airstrips, stockpile sites, borrow deposits, camps and wharves.
- 1.1.13 <u>Mitigating Procedures.</u> The amelioration or the elimination of adverse effects on Cultural Resources, as hereinbefore defined, as the result of proposed or actual action of the Permittee. The amelioration or the elimination of adverse effects may range from a rerouting of the pipeline and a change in construction schedule to accomodate intense investigation and salvage to such minor changes as increased investigatory manpower. This thought and action process requires the articulation of alternative mitigating procedures.
- 1,1.14 Low Ground Pressure Off-the-Road Vehicle. A vehicle imposing no more ground pressure than 400g/cm² and meeting the definition of Off-Road Vehicle in the January 10, 1974 Final Environmental Statement [FES74-2] entitled Departmental Implementation of Executive Order 11644 Pertaining to Use of Off-Road Vehicles on the Public Lands.
- 1.1.15 Protected Data. Information providing the location details of a cultural resource. This location data is generally available to private individuals showing good cause and motivations and is generally not available indiscriminately to the general public in order to prevent vandalism of cultural resources.
- 1.1.16 Segment. A portion of the pipeline transportation system which constitutes a complete physical entity geographically in and of itself and which can be surveyed or constructed independently of any other portion and is a designated area between two given geographical reference points reasonably proximate to one another, and is not to be construed as referring to the entirety of the pipeline or pipeline transportation system.
- 1.1.17 High Probability Area. Topographical features within the Corridor and which are distinguished by elevations of at least one hundred feet, generally, above surrounding terrain and which early inhabitants may have found useful as game look-out stations, camps or habitations. Occasionally, these pronunced elevations may be less than one hundred feet above surrounding terrain. The elevations may be bluffs, terraces and hillsides. A second category of *High Probability Area* within the corridor are lands near confluences of streams and of former streams where the lands are or may have been sufficiently high above perennial water levels and otherwise physically suitable for human activities; such as, camping, hunting, fishing, slaughtering, and habitation. Other categories may be established as *High Probability Areas*; such as the entire proposed route(s) aligned north of the Continental Divide within the Brooks Range, or *Segments* which follow or cross established game migratory routes.
- 1.1.18 Principal Investigator. The contractor(s) or individual(s) employed by the contractor who is qualified for evaluating the cultural, historical, or archaeological resources and in the event of controversy or of court challenge will be available to testify on behalf of the Government in support of evaluations contained in Segment reports. He will have attained a doctorate in an appropriate discipline from an accredited institution of higher learning or possess the equivalent qualifications through a combination of academic training and professional experience. The Principal Investigator will have had prior arctic or subarctic field experience; such as, in the Aleutians or north of 65°N in Scandinavia.
- 1.1.19 Preliminary Resources Assessment. A literature and data search, a review and examination of maps, aerial photographs, aerial and satellite remote sensor images and of official cultural resource records, in order to quantify and evaluate the cultural resources within the corridor and within the area designated or reasonably expected to be designated or used for Access and Supportive Facilities. The primary goals are to provide the cultural resources baseline against which further plans and impact on cultural resources can be assessed and to identify those areas which can be classified as High Probability Areas. The assessment should also identify those non-high probability areas which may require field sampling during the Reconnaissance, hereinbelow defined, due to the density and the frequency of existing sites in a limited area or due to distinctive palecenvironmental characteristics suggesting cultural resource potential. The Final Report of this assessment should clearly establish the cultural resource values and potential for identifiable portions of the corridor and access and supportive facilities. Protected Data should not be contained in the Final Report, but provide separately to the Agency Official, the State Historic Preservation Officer, and to the Permittee.

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Reconnaissance. An update of the Preliminary Resources Assessment, if necessary, and an on-the-ground examination using surface examination, and where warranted, subsurface testing of High Probability Areas and of those non-high probability areas requiring field sampling. This Reconnaissance will extend to all areas falling under the purview of the Agency Official's responsibilities as defined in Section 1.2.2. The Reconnaissance Final Report should be adequate to evaluate the Cultural Resources, to qualify their importance and value, to generally know their location [Protected Data handled as above], to determine eligibility to the National Register of Historic Places, to understand their prehistorical, historical, cultural and artistic importance and relevance, and to meet the test of documented adequacy when applied by reasonable men. The Report's presentation should meet at least three objectives: (1) the information must be presented in a manner easily understood by the public and public decisionmakers [40 CFR Chapter V \$1500.8(b)], the presentation and content should merit publication in a scientific medium for further review by scholars, and (3) it should be useful and factual by addressing the issue and project at hand. It must meet the canons and standards of ethics as defined in Section 1.2.3. Whenever the evaluation suggests the need for further testing and study for a site, for preservation or for salvage, mitigating and alternate solutions should be addressed, the beneficial and adverse effects described for each situation including the consequences on time and cost, and cultural advantages and disadvantages fairly and clearly exposed.

1.1.21 Intensive Survey. An update of the Preliminary Resources Assessment, if necessary, and a 100% on-theground examination and survey of actual and potential cultural resources within the right-of-way of the Segments and any actual or reasonably potential Access and Supportive Facilities, and employing, where so warranted, subsurface testing, to permit the final evaluation of actual and potential cultural resources affected by the proposed project. The presentation and completeness of the Final Report will be equal to the conditions and requirements described above for the *Reconnaissance* Report. The Intensive Survey shall be repeated for any change in or modification of the right-of-way alignment or of any proposed site location. In the Final Report the Contractor shall address any site salvage conflict directly and squarely; and where the alignment suggests that a site must be destroyed, the cost and time factors of complete salvage of the site should be determined, and the doctrine of "preservation in situ" be left for Advisory Council determiniation. It is incumbent on the Contractor(s) when faced with a salvage conflict to serve as Devil's Advocate by establishing the complete, supportive arguments for scientific excavation or for relocation of the resource if it is to be preserved at all. The time factors and costs for most other alternate and mitigating solutions, still practical in terms of the project, are best known by the Agency Official and the Permittee, and the Contractor must address these alternatives, but within the limitations of precise data available to him.

> Inspection. The presence of a qualified field investigator from the Contractor will be provided when excavation is performed by the Permittee or his agents in *High Probability Areas*. The Contractor(s) shall otherwise have available, on an on-call basis satisfactory to the Agency Official, field inspectors to go visit the site of a reported discovery as described in Section 3.4. The Contractor(s) shall dispose of the discovered resources as described in Section 2.3.1 and shall prepare a report containing key and vital data, circumstances of the find and relationships among the objects and surroundings, and submit copies of the report to the Agency Official, the State Historic Preservation Officer, and others as directed by the Agency Official.

Responsibilities

2 RESPONSIBILITIES

Responsibilities of the Permittee. The Permitee's schedule for construction and any other planning schedule 2.1 will reflect the time required for the Contractor(s) to perform the work, analyses and preparation of reports for which the Contractor(s) must provide under these Survey and Salvage Procedures for Cultural Resources, and the Permittee will initiate no action which could impede the Contractor(s)' performance. The Permittee will provide to the Contractor(s) any and all alignment maps and drawings whenever these are established and shall not withhold such information for reasons of propriety and confidentiality. The Permittee will also make available to the Contractor(s) aerial photographs of the proposed or actual right-of-way, aerial and/or satellite remote sensor images of the proposed or actual right-of-way, and reasonable, unlimited access to review and examine all soil survey analyses and core boring profiles, and a copy of any report of discovery of a cultural resource by the Permittee's employees, contractors or subcontractors on this project, and shall require such reports of them within three days of such individual discoveries. The Agency Official may add additional responsibilities to these as he deems necessary.

Responsibilities of the Agency Official. The Agency Official will prevent the Permittee from initiating any 2.2 action, work or schedule change which will interfere with the Contractor(s)' performance and which could prevent due consideration of the reports and findings submitted by the Contractor(s). He will make available to the Contractor(s) a copy of any Preliminary Case Report submitted to the Advisory Council [36 CFR Chapter VIII §800.4(2)] or of any smimilar report submitted to higher administrative authority. He shall review all Permittee's plans which affect or could affect Cultural Resources in any Segment or Access and Supportive Facility areas and will prevent the Permittee from initiating any execution of these plans unless the Agency Official provides specific written authorization to do so. The Agency Official shall retain the services of the Contractor(s) and he will devise a plan whereby the Permittee will reimburse the Agency Official for all direct and indirect costs incurred in procuring and supervising the services of the Contractor(s). The Agency Official will use his good offices to assist the Contractor(s) in acquiring any special Federal permits; such as for the use of Low Ground Pressure Off-the-Road Vehicles on public lands, and for shipment of Cultural Resources, generally objects, to the Smithsonian Institution, and he will make ample funding or arrangements available to provide to the Contractor(s)' employees emergency aid and protection procedures similar to those provided to employees of contractors and subcontractors of Alyeska Pipeline Service Company.

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1.2.3 Responsibilities of the Contractor(s). The Contractor(s) will manage the duties assigned herein and as may be assigned by the Agency Official and will exercise ethical standards equal to those promulgated by the Society of American Archaeology [Oct., 1961] and of the Council of the American Anthropological Association [May, 1971], and, in particular, will not provide reports that are not available to the general public and to the recipients identified in Section 2.2.1 [below], except for Protected Data described in Section 1.1.15 [above], and for private and privileged information or data contained in Permittee documents and having no bearing on Cultural Resources. The Contractor(s) shall inform the Permittee and the Agency Official of any delays anticipated in delivering reports for which delivery dates had been established or estimated. The Contractor(s) will insure that supervisory personnel at the level of field director or above will be available full time from the time field work has been concluded to the time that ne commercial or economic ties or relationships or apparent conflicts of interest exist between the Contractor(s) will not permit the transport of intoxicants into the field. His methods and reports will reflect accountability from data collection to final recommendations.

Criteria

2. CRITERIA, STANDARDS AND REQUIREMENTS

2.1 Antiquities and Historic Criteria

- 2.1.1 National Register Criteria. National Register Criteria means the following criteria established by the Secretary of the Interior for use in evaluating and determining the eligibility of properties for listing in the National Register: The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association and: (1) That are associated with events that have made a significant contribution to the broad patterns of our history; or (2) That are associated with the lives of persons significant in our past; or (3) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (4) That have yielded, or may be likely to yield, information important in ore history.
- 2.1.2 Criteria considerations. Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past fifty years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories: (1) A religious property deriving primary significance from architectural or artistic distinction or historical importance; (2) A building or structure removed from its original location but which is the surviving structure most importantly associated with a historic person or event; (3) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; (4) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; (5) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; (6) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or (7) A property achieving significance within the past fifty years if it is of exceptional importance.
- 2.1.3. <u>Criteria of effect.</u> A Federal, federally assisted, or federally licensed undertaking shall be considered to have an effect on a National Register property or property eligible for inclusion in the National Register (districts, sites, buildings, structures, and objects, including their settings) when any condition of the undertaking causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.
- 2.1.4 Criteria of adverse effect. Generally, adverse effects occur under conditions which include but are not limited to: (a) Destruction or alteration of all or part of a property; (b) Isolation from or alteration of its surrounding environment; (c) Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting; (d) Transfer or sale of a federally owned property without adequate conditions or restrictions regarding preservation, maintenance, or use; and (e) Neglect of a property resulting in its deterioration or destruction.

COMPLIANCE CRITERIA

In addition to the Agency Procedures identified and explained in Section 800.4, Title 36, Chapter 8, Part 800 of the Code of Federal Regulations, the Agency Official will make ample funds available to the Contractor(s) to permit adequate publication of reports of the Preliminary Resources Assessment, the Reconnaissance, and the Intensive Survey to permit the distribution of said reports to: Alaska Historic Preservation Officer and the State Historian, one each; National Park Service, Office of Archaeology and Historic Preservation and the Pacific Northwest Regional Office and the Alaska office, two each; Alaska state libraries, one each; the Library of Congress, four; the Advisory Council on Historic Preservation, Washington, D. C. and Denver, Colorado offices, two each; the Council on Environmental Quality, one; the University of Alaska, library, two, archives, one, museum, one; all libraries of institutions of higher learning in Alaska, one each; the Society for American Archaeology, two; the National Science Foundation, one; National Archives, Center for Polar Research, one; the Permittee, five; and the Agency Official, five. In addition to the minimum distribution herein, the Agency Official may authorize additional distribution and publication as he deems necessary.

2.2.2 The Contractor(s) will establish specific work procedures and performance controls consistent with the intent of the Advisory Council's Procedures for the Protection of Historical and Cultural Properties and consistent with any exclusive procedures established by any guidelines of Federal agencies associated and responsible for the Permittee's project wherein there is required a consideration of mitigating procedures pursuant to the Legislative and Executive Authority and References hereinbefore provided.

2.3 PERFORMANCE CRITERIA

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2.2.1

2.3.1 Depository Requirement. All recoverable cultural resources discovered on lands under State control will be collected, safeguarded and deposited according to a plan defined by the Contractor(s) and found acceptable to the Alaska Historic Preservation Officer. All recoverable cultural resources discovered on lands under Federal control will be collected, safeguarded and deposited with the Smithsonian Institution, Washington, D.C., along with copies of all pertinent scientific details of their discovery. These objects, singly or in groups as scientifically dictated will be distributed by the Smithsonian, at its discretion, on a first call basis to any public or private museum or scientific institution in the United States or its territories where the objects can be studied by scholars or viewed by the public. The State of Alaska will be given reasonable preference by the Smithsonian after physical receipt and appropriate cataloging by the latter. Ample funding will be made available to the Contractor(s) for the described distribution and to the Smithsonian for the reimbursement of costs incurred by the Smithsonian for receipt, sorting, handling, coding, cataloging, storage and reshipment once [within one year of original receipt] to a secondary depository. The Agency Official will provide ample funding described herein.

2.3.2 <u>Abandonment Criteria</u>. Upon completion of any archaeological, historical or cultural excavation or shovel test, a site will be restored by the Contractor(s), insofar as practical and reasonable, to its original appearance.

2.3.3 Verification Requirement. Verification of primary data developed by the Contractor(s) during the Reconnaissance and the Intensive Survey will be included in the Contractor(s) Design Plan and will be equal to no less than 5% of the finite geographic areas selected randomly from the list of those investigated areas of the Reconnaissance, and will be equal to no less than 1% selected randomly among those areas or sites for which field records were established by the Contractor(s) during the Intensive Survey. Ample funds will be made available by the Agency Official to permit the Alaska Historic Preservation Officer, or someone delegated by him, to participate in all field verification. An apparent error rate of more than 10% resulting from the verification of the key field data resulting from the Reconnaissance will be cause to revaluate and improve the field data collection procedures and to submit a Design Plan change to the Agency Official and to the Alaska Historic Preservation Officer for their written acceptance prior to continuing work on the Intensive Survey.

2.3.4 Key Data Criteria. As a minimum, Key Data will include the original field classification and subsequent recording and transmittals given to: (1) site location, (2) site description, (3) indices and coding, (4) general description of actual or potential cultural resources, if any, attributed to the site, and (5) the identification of the coding and the disposition of any cultural resource discovered. Additional Key Data may be mutually established by the Contractor(s) and the Agency Official.

2.3.5 <u>Sampling Criteria.</u> A minimum accuracy will be incorporated in any Design Plan in cases where some field investigations require less than 100% sampling of categories of finite geographic areas. The accuracy objective in cases of less than 100% sampling will be a confidence level of 95%, or better, and a sample size adequate for reliability of approximately 5%, or better. In cases where it would be risky or impossible to estimate an occurrence rate of unknown or unrecorded cultural resources for certain categories of finite geographic areas, the Design Plan should be conservative, requiring a larger sample than would be the case where it is possible to justify expected rates of occurrence where these may be substituted as an attribute where *P* = percent [decimal] of attribute in the universe; *O* = 1-*P*; N = size of universe; and *v* = size of sample: then:

 $\Sigma \% = \sqrt{\frac{\rho \Theta}{\nu}} \left(\frac{N-\nu}{N-1}\right)$

- 2.3.6 Field Procedural Standard. The Design Plan shall contain detailed procedures which insure the maximization of homogeneity of data quality and of data collection. The homogeneity will be established through and within groups with clearly defined parameters for distinct environmental characteristics and for cultural identification. The Design Plan must provide for a field training pretest for the Principal Investigator(s) and for all field investigators in a controlled area and for groups of individuals numbering no less than two nor more than five at one time. This pretest in the controlled area will test the hierarchy of measurement criteria for all Key Data and for applying different field investigatory techniques; such as cursory visual observation, transect, quadrat, clustering, grid and shovel testing.
- 2.3.7 <u>Survey Design.</u> The Contractor's Work Plan shall include a survey design which will articulate the sampling technique and its rationalization for the High Probability Areas and all other distinctly defined areas of investigation. In the event of a design for less than 100% sampling of any area during the Reconnaissance, he will establish the probability values resulting from the archaeostatistical design for each category of or individual distinctly defined area. A distinctly defined area can be smaller than a segment or a definable Access and Supportive Facility. The Survey Design shall provide for unbiased observation and for recording of all vital or key field data, both negative and positive, and for determination of accurate environmental characteristics and of cultural identification during subsequent analyses, review and verification.
- 2.3.8 <u>Data Control</u>. Data control applies to the methodology for providing quality, precision, reliability and homogeneity of field data, recorded accurately in the field and transferred accurately to subsequent integration, sorting, analysis, storage and retrieval. The plan must provide for both negative and positive findings on a site-by-site basis for all ground investigations during the Reconnaissance, and for positive findings during the Intensive Survey. A field investigator will note the characteristics of an actual or suspected archaeological or cultural resource site. The absence or presence of archaeological materials on the surface will be noted whenever his visual observations are more than a cursory observation common in a walk-through. When he performs a test dig or other test, he will note the results. The data of a test has a greater hierachical standing than does data from surface examination, and the data handling subplan will segregate hierachical categories of data.
- 2.3.9 Data Recording. A standard field data recording form will be designed and pretested in the controlled test area required under these Procedures. The form must provide for negative and positive findings for all vital or key data questions or requirements and for the recording of time, date and identification of the investigator originally completing the form, and for the time [and date when appropriate] when the site visit or observation was concluded. The technique used for observation or testing must be identified clearly and the intensity of technique should be accurately described. Field investigators will submit their completed forms daily or as often as practicable to the Party Chief or to the Field Director, who will record such reception accurately in his field journal or log. As soon as possible, the Party Chief or Field Director will review the forms and clarify [through interview with the field investigator] vital data entries, where necessary, and particularly for geographical features, cultural identifications [evidence of adaptive systems, cultural contact, social and technological activities, chronological sequences], notation of site disturbance and its impact consequences, if any, and other factors such as territorial distribution and contact period.

Management

2.4 MANAGEMENT AND PERSONNEL

2.4.1 <u>Management Plan</u>. The Contractor(s) will establish a Management Plan for planning, coordinating, supervising, and integrating the work of the specialists and supporting personnel. Recognizing that the conduct of cultural resource surveys, evaluations, preservation, and archaeological and historic data recovery for such a project requires an interdisciplinary approach, the mechanism of the Management Plan should reflect the control of the interrelationships, often of equal importance, of experts from diverse expertise; such as, geologists, biologists, archaeologists, architectural historians, computer programmers and engineers or budget analysts. Responsibility and accountability should be identified for all key managerial or scientific tasks. The plan should exploit the concentration of scientific expertise on the survey and evaluation and data control objectives by focusing time and funds so as to minimize administrative distractions in the daily scientific and technical tasks. The Management Plan will incorporate the *Qualifications of Personnel* requirement given below into a businesslike organization for the project by skillfully blending the effective use of materials,money, transportation needs, people and time. [Management or administrative personnel may have field assignments.]

2.4.2 Qualifications of Personnel.

- 2.4.2.1 <u>Project Director</u>. The Project Director, whether a scientist, administrator, or manager, will have had previous demonstrable experience in having been fully responsible in a project of similar size or demands or accountability.
- 2.4.2.2 Principal Investigator or Field Director. [There may be one or more individuals at this supervisory level depending on the scope of geography, terrain, time and distance incorporated into the scope of work assigned to one or more Contractors.] The scientific and academic qualifications of the Principal Investigator are contained in Section 1.1.18. He may serve in the field and perform in the *Reconnaissance*, *Intensive Survey*, and *Inspection*. A Field Director will be responsible for the supervision over and the performance of no more than twenty individuals in the field, and for their support and logistics. The Field Director will possess the appropriate experience and training and managerial background which reflects the awareness of the interrelationships of various cultural resource experts and the ability to focus on the objectives of the project. Principal Investigators and Field Directors report directly to the Project Director and are supervised by him.

- Party Chief. A Party Chief reports directly to a Principal Investigator or a Field Director as identified by the Project Director. The identified Project Director or Principal Investigator supervises the performance of the Party Chief. A Principal Investigator or a Field Director may serve as a Party Chief. A Party Chief will have attained a Master's degree in a discipline appropriate to cultural resource identification and evaluation, or demonstrate the equivalent experience or academic background, and will have prior experience in field work and in supervising the performance of subordinates,
- .4.2.4 Field Investigators. Field Investigators report directly to and are supervised by a Party Chief. A Field Investigator should have academic training and formation or appropriate experience equal to a baccalaureate achievement in an appropriate discipline essential to cultural resource identification, interpretation and evaluation. Depending on the plurality of values to be anticipated within an investigatory area as determined from the Preliminary Resources Assessment and succeeding reports, if any, the composition of expertise among party personnel should reflect the probability of scientific interpretation needed in the territory. Expertise, through academic formation or experience, will be drawn appropriately from the fields of archaeology, ethnology, anthropology, biology, geology, history, architecture, geography, and others.
- .4.2.5 Field Assistants and Apprentices. There may be two field assistants or apprentices attached to each party under the direct supervision of the Party Chief and in addition to the five individuals (Field Investigators) also under the direct supervision of the Party Chief. An individual who is a candidate for a baccalaureate from an accredited institution of higher learning, or an individual with appropriate academic formation and experience may qualify as a Field Assistant or Apprentice.
- .4.3 <u>Native Investigators</u>. Depending on the circumstances and individual qualifications of Alaskan Natives available for this project, Natives recognized among their peers as expert and knowledgable in Native traditions, folklore, stories, sites, and local geography should be included in field parties as a Field Investigator.
- .4.4 <u>Field Party.</u> For purposes of expediency and ease of logistics, the field parties should not be larger than necessary. While the composition and size of the field parties may differ, the maximum number of individuals assigned to one party in the field at any time should not exceed: [in addition to the Party Chief] five field investigators, two field assistants or apprentices, and one camp hand.
- .4.5 Recruitment. Nothing in these Procedures is intended to relieve the Contractor(s) from any requirements in any applicable laws, statutes, Executive Orders, or regulations regarding nondiscrimination in employment for any position for the performance of the duties described herein.
- .4.6 Construction Inspector. For purposes of inspecting discoveries of cultural resources and serving as the Contractor's Representative during the Permittee's activity as described in Sections 1.1.22, 3.3, and 3.4, a Construction Inspector or Contractor's Representative will have gualifications equal to a Field Investigator as described in Section 2.4.2.4.
- .4.7 <u>Consultants, Associates or Subcontractors.</u> Nothing in these *Procedures* precludes the Contractor's use of outside consultants, or associates, or subcontractors when individuals assigned to this performance have qualifications equal to these imposed on the Contractor(s). Any consultant, associate or suncontractor shall have the same responsibilities and obligations as imposed by the Agency Official on the Contractor(s).

Execution

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SCHEDULING_AND_COORDINATION

- <u>Planning.</u> Before initiating the engineering survey and staking of the pipeline's alignment within the corridor, the Permittee will submit to the Agency Official his work plan which incorporates consideration of cultural resources identified in the *Preliminary Resources Assessment* previously provided to him by the Contractor(s), and which contains coordination and logistics support, if any, for the Reconnaissance.
- .2 <u>Preconstruction</u>. Prior to the initiation of any clearing and grubbing within the right-of-way or for any purpose other than engineering survey, the Permittee will submit to the Agency Official his plan which will reflect his review of the Reconnaissance Report(s) and which will incorporate any provisions for supporting the Intensive Survey.
- .3 Vegetative Cover Removal. Whenever the Permittee proposes to remove the vegetative cover of any portion of the right-of-way, and this removal is not phased with a construction spread, the Agency Official will provide for a Contractor representative to be on location for immediate examination of the stripped area. In no case will stripping of vegetative cover be authorized prior to an Intensive Survey.

OPTRIGHT

<u>Construction</u>. Prior to construction, the Permittee will submit a work plan to the Agency Official which will contain the following elements: (a) have physically present during construction in any *High Probability Area* a representative of the Contractor (s), and (b) have suitable communications and transportation means in all other areas to make available a Contractor representative to examine any discovered cultural resource, and (c) have an educational program established to instruct all construction and excavation workers on identification of cultural resources and on what procedures to follow when these cultural resources are discovered, [While these procedures do not directly address "salvage", Alaska Statutes have such provisions.] and (d) a procedure for safeguarding, salvaging and safely storing cultural resources discovered during excavation or construction.

Performance Times. The Agency Official will not approve any schedule or work plan submitted by the Permittee which does not provide ample time for the Contractor(s) to perform as stated herein and for the Contractor Reports to be received and considered. (Bearing in mind the severe seasonal fluctuations in Alaska and the absence of a specified date by which a Permittee will be selected by the United States Government, it is neither reasonable nor practical to spell out precise Contractor performance times. Nontheless, for the majority of routes proposed by El Paso and by Arctic Gas, a qualified field investigator can average about 9.1 acres a day during the Intensive Survey, consequently one mile of approved "corridor" is equal to two man/days of Intensive Survey, and a 70 day productive field season can be accomodated for any length of corridor through multiples of manpower, qualified to act.]. The Agency Official will insure that the Contractor(s) have the following minimum times for adequate performance: (a) Preliminary Resources Assessment; ten weeks; (b) Reconnaissance, five months; and (c) Intensive Survey, sixteen weeks or thirteen weeks following each of the following: staking, clearing or grubbing, whichever is longer. [The Reconnaissance depends on airborne support, not calculable at this time. The offshore alternative requires marine archaeological procedures using either the wet submarine technique or divers alone].

Field Accountability

3.4

3.5

SPECIAL TECHNICAL PROCEDURES

- 4.1 <u>New Evidence.</u> Whenever new evidence of actual or potential cultural resources is developed during any performance or task which upgrades a non-high probability area and becomes qualified as a *High Probability Area*, the Contractor shall inform the Agency Official immediately of this determination and of the Contractor's plan to investigate the area appropriately, dependent on the intensity of investigation already performed in the specific area.
- 4.2 Site Location and Identification. All field personnel conducting cultural resources investigation will be provided an alphameric sequence which will be distinct from and independent from all other sequences to avoid duplication of site identification. This alphameric identification will be clearly marked on original field forms for each site by the individual first recording the site, and only one identification from a sequence will be used for a site. The Party Chief, upon receipt of a field form and report from any individual under his supervision, shall note the alphameric identification separately and in sequence in his field records along with appropriate comments to clearly establish its location.

4.2.1. Recording of Location.

- 4.2.1.1. Reconcilable locations. In those areas where survey markers exist, whether first or second order, the site location will specify a compass bearing, specifying true or magnetic, and the distance, specifying whether taped, paced, instrumented or estimated and how estimated, from the marker. If readable, the marker [where applicable meaning "monument"] identification on the disk and name of station, if given, shall be clearly recorded and the description of the place where the marker was found shall be sufficiently detailed to permit a third party to find the marker or monument, and to permit the third party to locate the original records from files; such as those of the State of Alaska, U. S. Coast and Geodetic Survey, U. S. Geological Survey, and Bureau of Land Management. The identified site should separately be plotted on a U.S.G.S. map of a scale no smaller than 1:250,000.
- 4.2.1.2 Nonreconcilable locations. In regions or areas, such as north of the Brooks Range, where recognizable land features do not generally exist, sites which demonstrate actual or potential cultural resources will be referenced by at least three stakes, adequately flagged and identified alphamerically, extending at least one meter above the ground. These stakes will be placed asymetrically at varying distances from the site, not to exceed one hundred meters. Distances from each identified stake will be accurately recorded on the field form and will <u>mot</u> be recorded on the stakes.
- 4.2.1.3 <u>Permittee location stakes.</u> Whenever engineering survey stakes, markers or monuments are within five hundred meters of a site which is recorded, whether negatively or positively, this information will be recorded as in Section 4.2.1.1 above. This requirement applies only to locations surveyed by the Permittee or his agents, or in cases where identification records for these locations are available to the public.

4.3 Photographs. A photographic record will be maintained whenever practicable, preferably multichrome.

4.3.1 <u>Close-ups.</u> When a photograph is taken by using a macro lens or at less than one meter, a scale reference such as a ten centimeter rule will be included within the clear field of view and a color chart showing additive or subtractive primaries and their complementary colors, two of which will be named black-on-white.

- 4.3.2 <u>Other photos. A simple, normal lens for negative size is recommended. A long-focus lens is discouraged.</u> A ideal color photograph of a site is one taken at more than thirty meters and less than fifty meters, and one taken toward the site from a key marker or monument or geographically relocatable place. Depending on the distance between camera and site, an appropriate stadia or meter stick should be included for scale reference.
- 4.3.3 Photo data control. A double entry system for key photo data will be employed. The fact that photographs have been taken will be noted on the field site form, indicating the number of photos taken, whether or not close-ups, and the roll number and the frame number as indicated on the camera counter, if any, or as shown on the film roll record. The second entry will be on the film roll record. Every film used in the field will have a roll number assigned sequentially following the photographers initials. A film record will bear the same alphameric identification. The photographer will record for each photo and in sequence, the place or site identification, compass direction in which the photo as taken, the place from which the photographer will safeguard the film record as carefully as his field forms and other field records. Suitable prints of photographs taken will accompany the final site record submitted to the keeper of the Alaska Heritage Resource Index in the office of the Alaska Historic Preservation Officer.

Maps. For use in the field and for plotting the location of sites by point and identifying alphameric assignment, a U.S.G.S. map with a scale of 1:63,360 is recommended. Where such map scales are nonexistent for an area, then a scale of 1:250,000 must be used.

> Sections on Records Handling, Field Party Management, and on Salvage do not apply.

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4.4

GLOSSARY

ADZ

A cutting or planing tool with the blade's cutting edge in a line horizontal to the handle.

ALEOLIAN DEPOSITS

Sediments and sedimentary rocks which are mostly composed of windblown material.

ALLUVIUM

A general term used to designate the sand, silt, and mud deposited by a stream or river, along its banks or upon its floodplain, during periods of high water.

ANADROMOUS FISH

A class of fish which ascend rivers from the sea for breeding purposes.

ANGLE BURIN

See Burin

ANTICYCLONE

An air mass with high barometric pressure relative to its surroundings, rotating in the opposite direction of the earth's rotation, and varying from a few hundred miles to several thousand miles in size. Usually accompanied by bright, clear weather.

ALPINE TUNDRA ECOSYSTEM

Characterized by barren rocks and rubble interspersed with low plant mats, both herbaceous and shrubby.

ARTIFACT

Any object or part of an object that was made or altered by man.

ASSEMBLAGE

The piecing together of the findings of an archaeological site, including all the types of activities, artifacts, burials, etc. The term also denotes all the artifacts which have context together

BARB

A projection on the head of a weapon, such as a spear or arrow, that anchors the head in place after it enters the flesh of an animal.

BASALT

A fine-grained, igneous rock, dark grey or black.

BEDROCK MONUMENT

Bedrock projecting above surrounding landscape.

BELUGA

Commonly called the white whale, this is a mammal of the dolphinpurpoise family that reaches a length of 10 to 18 feet.

BIFACED

A term describing an artifact that has been worked both front and back.

BIPOLAR (TECHNIQUE)

A tool-making technique producing flakes from both ends of a core.

BLADE

A parallel-sided narrow, long flake, fairly flat and thin, and often fairly large. Also lamellar flake.

BLADE, NOTCHED

A blade with a notch in it, probably used to prepare a shaft or to point an arrow.

BLOWOUT

A valley or depression blown out by the wind in areas of shifting sand or light soil.

B. P.

Before present.

BORER

A variety of hand ax which is smaller than normal and has its point drawn out in a narrow spike shape. It is cylindrical, with a shart edge, and is used to make holes in materials.

BOTTOM-LAND SPRUCE-POPLAR FOREST ECOSYSTEM

A tall, relatively dense forest system usually found along level flood plains and low river terraces, with a generally dense undergrowth consisting of high and low phrube and other plants.

BURIN

A flake tool for sculpturing or engraving. It is characterized by a blade with sides sliced obliquely at one end so that they form a narrow chisel edge when they meet.

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BUTCHERING SITE

See Kill site

CACHE

A secure place for concealing, preserving, and storing provisions or implements.

CAMPSITE

An archaeological site characterized by the presence of a hearth, and a tool inventory including, for instance, skin preparation tools, fleshing tools, engraved objects, implying domestic or leisure related activities occuring over a period longer than one night.

CHERT

A fine-grained rock similar to flint.

CHIPS

The small waste pieces that result when a stone is flaked or chipped into an implement.

CHIPPING, STONE

Shaping stones by chipping.

CHIPPING STATION

A site where lithic material has been chipped and flaked as evidenced by the great amount of debitage.

CHISEL

A flint tool whose cutting part is made in a thin edge, so that its cutting line lies parallel to the flake's plane.

CHUKCHI

The most easterly inhabitants of Siberia.

CLAN

A kin group where membership is reckoned either through the mother's of father's ancestral line only; usually a member must marry outside this kin group. A clan provides mutual security, legal help, government, marriage regulation, economic relationships, religion, ceremonies, property regulation, social control, and role assignment. Members of a clan usually live in one locality with common property. The members usually trace their descent from their original ancestor, who may exist only in the mythological past and can be either human, animal, or a spirit or feature of the landscape.

COASTAL WESTERN HEMLOCK-SITKA SPRUCE FOREST ECOSYSTEM

A dense evergreen forest system. In poorly drained lowland areas it is associated with Low Brush-Muskeg Ecosystems.

COMPOSITE HOUSE

A structure consisting of several rooms or houses joined together.

COMPLEX

A group of related traits or characteristics that combine to form a complete activity, process, or culture unit. Lithic complexes are identified by the presence of several key implements or tool types in association.

COMPONENT

An archaeological site or level within a site that represents one manifestation of a geographically and chronologically limited culture unit.

CONTACT PERIOD

The period from the mid-18th century to the late 19th century during which white men first arrived in Alaska.

Core

A piece of flint, obsidian, or stone from which flakes were struck to make implements.

CULTURE

All that which is non-biological and socially transmitted in a society, including artistic, social, ideological, and religious patterns of behavior, and the techniques for mastering the environment.

DALL SHEEP

A large white wild sheep. (Ovis montana dalli)

DART

A barbed harpoon.

DEBITAGE

Flaking and chipping debris.

DEFLATED SITE

See Blowout

DENDROCHRONOLOGY

A method of determining dates from the examination and comparison of the growth of tree rings.

DIACHRONIC STUDIES

The analysis of culture change, through time and space.

DIAGNOSTIC ARTIFACT

A sufficiently distinct artifact feature or artifact type which can be placed into an existing cultural tradition.

DIFFUSION

The transference of elements of culture from one society to another.

DISCOIDAL SCRAPER

A disc-shaped scraping tool.

ECOSYSTEM

The basic unit in ecology. It includes organisms and their non-living environment, each interacting and influencing the properties of the other. It has characteristic vegetation with associated animal and/or human community. It may be defined and studied in various sizes as long as the major components are present and operate together to achieve some sort of functional stability. Vegetation, as the only means of converting solar energy, air, minerals, and moisture into forms sustaining animal life, determines the basic pattern of natural and human environment.

END BLADE

A blade attached to the end of any tool or weapon to serve as a cutting edge.

EOCENE

Second earliest geological epoch of the Tertiary Period extending from about sixty million to forty-five million years ago.

ETHNOARCHAEOLOGY

The use of ethnography and native informants to aid in the location and interpretation of archaeological sites and materials.

ETHNOGRAPHY

The descriptive study of the cultures of living peoples.

FACET

One of several small, flat, or nearly flat, surfaces on an artifact.

FIORD ESTUARIES MARINE ECOSYSTEM

This zone is protected from direct pounding of sea waves. Since the water stratifies (by temperature-levels) high plant production is limited to early spring. Kelp, intertidal seaweeds, and varying densities of one-celled plants are found. Animal life is essentially that of Wave-Beaten Coasts.

FLAKE

Any piece of stone removed purposefully from a larger stone.

FLAKEKNIFE

A flake sharp enough to be used as a knife just as struck from the core, although it may be further sharpened or refined by additional chipping.

FLAKING

See Chipping.

FLAKING, PRISMATIC

A fairly advanced method for making flint implements.

FLAKING STATION

See Chipping Station.

FLINT

A very hard smooth stone, highly desirable for fashioning into tools and weapons because of the extremely sharp edges obtained by flaking or chipping.

FLINTS

A term popularly used to denote all chipped and flaked stone artifacts.

FLINT KNAPPING

See Flint Chipping.

FLUTED POINT

A bifaced weapon point with one or both faces thinned at the center from the base toward the tip. The thinning permits the insertion into a shaft that has been split to receive it.

FLUVIAL

Meaning river, and used by geologists and physiographers to denote a river as the agent shaping the earth or depositing sediment.

GLACIAL TILLS

Coarsely graded sediments composed of clay, sand, gravel, and boulders deposited by mountain or continental glaciation.

GRAVER

A small, pointed stone tool used to engrave bone, antler, or ivory.

GRAVER FACET

A flake scar that results from holding the flake or blade vertically and striking a vertical blow at that point.

HABITAT

The environmental setting in which a plant or animal lives; including food sources, shelter and suitable climate.

HAMMERSTONE

A round stone which is used to hammer.

HAND AX

A superficially flaked core-tool, with a sharp edge between the trimmed upper and lower faces. These heavy triangular artifacts were probably general utility weapons.

HARPOON

A shafted weapon with detachable head used for hunting sea mammals. A line fastened at one end to the head is secured at the other end by the hunter, so that when the head of the weapon enters the flesh of the animal, a tug on the line rotates (toggles) the head enough so that it cannot be pulled out.

HEARTH

The pavement, which can be lined with clay or stones or may be just a depression, used for fire.

HIGH BRUSH ECOSYSTEM

These are dense to open deciduous brush systems of three major types: extensive coastal alder thickets with well-developed grass and fern layer below, flood plain thickets, and birch-alder-willow thickets, dense or open, found near the tree line in interior Alaska.

HOUSE PIT

A house built by embedding the floor in the ground over the site of a pit before erecting the superstructure.

HUMIC SOIL, HUMOUS

Black or brown organic soil material formed from decayed or decomposing animal or vegetable matter.

HYDROLOGIC REGIONS

These are major geographic/physiographic areas which are defined with reference to the drainage of principal rivers, bays, or areas of the sea.

IGNEOUS ROCK

Rock produced by a solidification of molten material within or on the surface of the earth.

INDUSTRY

The total collection of artifacts of any one kind of material from a site, site component, or stratum; All stone tools represent the lithic industry;

IN SITU

A term applied to an object found in its natural position or place in the rock or earth in which it was first placed or formed.

INTRUSIVE

A term applied to an object found in a soil level in which it was not originally formed or deposited.

KAME

Geologic term for system of irregular shaped mounds and ridges found only in glaciated regions.

KILLSITE

Indicated by the presence of points, butchering tools, lance points, arrows, spear, and faunal remains.

LAMELLAR FLAKE

See Blade

LANCEOLATE

Narrow and tapering to a point at the peak.

LENSES, ICE

A layer of ice found in permanently frozen ground.

LICHEN

A small, mosslike plant that grows extensively in the north. This is a primary food for caribou and reindeer.

LITHIC

Stone

LOESS

A yellowish and nonstratified silty material carried by the wind and deposited at a distance. Loess $deposit_{ed}$ on the surface continues a process that occurs in the dry and cold steppe flanking glaciers.

LOOK-OUT SITE

A high place, as on a cliff, with various tools, flaking debris, and lack of faunal remains.

LOWLAND SPRUCE-HARDWOOD FOREST ECOSYSTEM

Characterized by dense to open lowland forest of evergreen and deciduous trees, with small bogs and muskegs in depressions.

LOW BRUSH, MUSKEG-BOG ECOSYSTEMS

Vegetation in this ecosystem is varied, but commonly consists of a thick spaghnum moss mat, lichens, low shrubs and cotton grass, with shrubs dominant in the exposed and drier areas.

MESOLITHIC

This cultural stage developed in other areas of the world at later times; the New World equivalent is the Archaic Period.

MICROLITHS

Very small stone tools formed from small prismatic flakes. They occur in geometric forms, often set in rows in slots cut in wood, bone, or antler implements. Most common types of stone tools, such as blades, cores, burins, etc. are found in these small forms.

MIDDEN

A refuse mound, usually associated with habitation sites.

MOIST TUNDRA

Characterized by a complete ground cover varying from continuous cottongrass tussocks with sparse growth of other sedges and dwarf shrubs to areas where tussocks are scarce and dwarf shrubs are dominant.

MORAINE

A general term for debris of all sorts originally transported by glaciers or ice sheets.

MUSKEGS

A sphagnum or peat bog, especially one with grassy tussocks.

NATIVE

An individual with Aleut, Eskimo or Indian parentage in Alaska.

NEOLITHIC

The cultural period beginning about 8,000 B.C. in the Near East and later elsewhere, characterized by ground and polished stone and bone tools, pottery, domesticated animals, and cultivated grain.

NIVATION

Freezing followed by thawing.

OBLIQUE FLAKING

Where the flaking scars are directed diagonally across the face of the specimen, joining so smoothly as to give the impression of a single flake scar.

OBSIDIAN

Volcanic glass.

PALEOINDIANS

The people who inhabited the New World during and just after the last glacial advance (c. 10,000 B.C.). They lived by hunting large animals, now extinct, such as the mammoth, with finely made stone weapons.

PALEOLITHIC

This was the period when man had his beginnings and gradually began to improve his techniques of chipping stone tools. This period ended about 10,000 B.C.

PALEONTOLOGY

The study of fossils.

PATINATED

Possessing a surface changed or mellowed by long use or exposure to the elements.

PEAT

Partially carbonized vegetable matter, such as accumulates in a swamp.

PERCUSSION FLAKING

The technique of shaping a stone through removing flakes by blows struck with another stone or with a heavy bone or piece of wood.

PERMAFROST

A layer of soil at a variable depth beneath the earth's surface in which the temperature has been below freezing from a few years to several thousands of years.

PHYSIOGRAPHIC REGIONS

Regions which are defined in reference to the large-scale land forms in the area.

PICTOGRAPH

A cartoonlike character intended for communication rather than art.

PIT HOUSE

See House Pit

PLEISTOCENE

The glacial epoch, extending from 1 1/2 million years ago until about 10,000 years ago.

POINT, PROJECTILE

An implement which probably served as the tip of darts, lances, arrows, and other devices used in hunting.

POLYHEDRAL CORE

The many-faceted core remaining after the removal of a quantity of blades.

POTSHERD

A piece or fragment of broken pottery.

PRESSURE FLAKING

The process of removing chips or flakes from a piece of stone by pressure rather than by a direct, hard blow.

PRESSURE RETOUCH

Sharpening, edging, or re-edging a tool or weapon by pressure flaking.

PTARMIGAN

A northern game bird of the grouse family.

RADIOCARBON DATING

A method of determining the age of an organic specimen by measuring the degree of disintegration of its carbon-14 atoms. The standard notation for dates obtained by this method includes the standard deviation of probability expressed as + and the abbreviation B. P. (Before Present). The reference point is the year 1950.

RETOUCH

A secondary removal of small flakes from a stone artifact for the purpose of sharpening or resharpening the edge.

SCRAPER

An artifact used for rasping or cleaning hides. They are named by the position of their cutting edge, as end scraper, side scraper, or by their shape, turtle back, snub-nosed, or thumb scraper.

SHAMAN

An individual who is believed to derive power directly from the supernatural which he often uses for purposes of healing.

SIDE BLADE

A blade attached to the side of a tool or weapon to serve as a cutting edge.

SPALL

To break around or break into smaller pieces; a piece broken off in making a core tool; a fragment or a chip.

STAGE

A level in an historical-developmental sequence. A given cultural stage may be reached at different times in different areas.

STRATIGRAPHY

Natural, often differing, deposits that have accumulated in one place over a period of time and now lie layered in the earth's surface, the oldest deposits being the deepest. Cultural materials are dated relative to each other by their position in the stratigraphic levels.

STRIKING PLATFORM

A small flat surface on a lump of flint on which it is possible to strike the kind of blow needed to fashion an implement.

TENT RINGS

Stones used to hold tent-coverings down, usually forming a ring.

TERRACE

A bench-like feature, bordering a stream valley, which is a remnant of a former valley floor now dissected by the stream.

TEST TRENCH, TEST PIT, TEST EXCAVATION

Where a random selection of points in a presumed site are dug, in order to locate approximate boundaries of the site, or depths of deposits.

TIDE-MIXED ESTUARIES AND MARITIME ECOSYSTEMS

This is a zone of depths of less than 200 feet with tides as primary mixing forces (causing relatively small temperature variation) allowing high plant production. Certain areas are characterized by heavy sedimentation. Tides and tidal currents are extreme, with tidal flats common.

TRADITION

A major large scale space-time cultural continuity, defined in reference to persistent configurations in single technologies or total cultures, occupying a relatively long interval of time and a quantitatively variable but environmentally significant space.

TRAIT

Any single element of culture.

TRANSVERSE FLAKING

Horizontal parallel flaking produced by the removal of narrow flakes which begin at either edge and join so smoothly that they often give the impression of forming a single flake scar.

ULU

A woman's knife, crescent shaped with a wooden handle.

WEIR

A fence of wood or stakes placed in a body of water to catch fish. Fish pass along a funnel into a basket, from which they cannot escape.

WET TUNDRA ECOSYSTEM

Usually found in areas with little topographic relief. Dominant vegetation is sedge and cottongrass forming a mat rather than tussocks. A few woody and herbaceous plants occur on the drier sites, and rooted aquatic plants occur along the shorelines and in the shallower waters of the numerous lakes.

WINTER HOUSE

See Pit house.

WISCONSIN

The last major glacial advance of the Pleistocene epoch.

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The newcomers who first experienced Nature's great cold storage warehouse in Alaska's interior considered themselves the bravest, strongest and the most optimistic of men. There was a oneness of purpose and the self denial and hardihood required some sort of brotherhood. The "Arctic Brotherhood" club was organized and at a get-together banquet in Vancouver they developed this menu:

Potages

Malamook. Consommé à la Moccasin

Poissons

Dried salmon à la husky, sauce au bacon juice. Lake Bennet Greyling

Entrées

Fried snowballs. Husky Sweetbreads. Skaqway Prawns en seaweed.

Rot^s

Sirloin of Mule à la Heney. Yukon Goose, Mossberry Sauce. Atlin Ptarmigan stuffed with Nuggets. Arctic Ravens, White Horse Sauce.

Desserte

Arctic Mystery. Gleaner Sauce. Dawson Aqua. Klondike Strawberry Tartlets. Briggs' Extract. Yukon Boulders. Flap-Jacks. Arctic fruit (translated Beans) Alaska magazine, 1900

E. Whitehead, publ.

ERRATA IN VOLUME ONE

Page 19	Add the heading: GLOSSARY
Page 21	Under Chisel. Correct <u>flakes</u> to <u>flake's</u> .
Page 23	Under Facet. Correct or to on.
Page 29	Under Potsherd. Correct pierce to piece.
Page 63	Paragraph 4; Line 2. Misspelling of population.
Page 64	Under Historic Trails. Trail 58 should read Trail 48 .
Pages 64-65	Add the following sites:
	HAL #4 HAL #5 HAL #6
	PSM 003 PSM 005 PSM 008 PSM 006 PSM 009 PSM 068
Page 67	PSM 059. [Discrepancy in location is due to difference between computer print-out and record card.]
Page 68	PSM 01. Should be corrected to PSM 018.
Page 71	CHN 016. Change to read CHN 002 (K-16). Under HAL $\#$ 10, add <u>WIS</u> 007 (Coldfoot).
Page 74	Eliminate duplicate entry: <u>BET 023</u> .
Page 84	Under LIV 065. Correct north bank to right bank.
Page 108	Add the heading: HISTORIC TRAILS Also add: Trail 75 Trail 192 Trail system 64(A)
Page 112	Under EVALUATION. Correct misspelling of impossible.
Page 113	Paragraph 2; Line 8. Delete just a few years and insert 1906.

Line 114 Line 9. Misspelling of "<u>Nenana</u>".

Page 115 Under Trail 184. Delete the name. Under Trail 185. Add the name: Salcha-Caribou Sled Road.

- Page 116 FAI 005. Misspelling of "Nenana".
- Page 120 FAI R-6. Should read FAI 001
- Page 129 Trail System 52 B. Should read: "Main route crosses trail system once approximately 1.5 miles east of Big Delta and once three miles north of Delta Junction."
- Page 134 GUL 056. Add: "This site is listed on the National Register of Historic Places."
- Page 151 Add the heading: SEGMENT THIRTEEN.
- Page 152 Paragraph 5: delete both colons (:).
- Page 213 Add: Trail System 52B
 - Trail 24 Trail 23
 - Trail 15
 - Trail 8
 - Trail 3
 - Trail 7

[These trails are discussed in Volume Two, Segment Forty-two.]

APPENDIX B

Appendix One contains the record of official correspondence with Federal and Alaska state and local agencies, and with experts or with persons knowledgable in the areas of this investigation contained in Volume Two.

Also contained herein are examples of scientific analyses of cultural resources field investigations in Alaska which result from surveys commissioned by Alyeska Pipeline Service Company; and a copy of the Barrow Whalers' Rules.

FEDERAL POWER COMMISSION WASHINGTON, D.C. 20426

IN REPLY REFER TO:

OGC Arctic Gas Pipeline Company, <u>et al</u>. Docket No. CP74-239, <u>et al</u>.

TO THE PARTY ADDRESSED:

The Iroquois Research Institute is preparing on behalf of the Federal Power Commission and the Department of the Interior an analysis of the potential and importance of archaeological and historical sites in the proximate vicinity of Arctic Gas Pipeline Company's proposed pipeline. In the interest of obtaining additional data, the FPC Staff requests that any relevant information related to this subject, which you have available, be given to the Iroquois Research Institute. A memorandum is attached herein from the Iroquois Research Institute further explaining their needs. The material submitted will be available to any party upon a sufficient showing of good cause.

Sincerely yours,

alla M. Anleson fr.

Allan W. Anderson, Jr. Commission Staff Counsel

THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

cc: All Parties

October 9, 1975 Washington, D. C.





SUITE 215

FALLS CHURCH, VIRGINIA 22044 6201 LEESBURG PIKE TEL: 703 - 534-8200



REQUES

9 October 1975

INQUIR

MEMORANDUM

On behalf of the Department of the Interior and of the Federal Power Commission, under the FPC contract to us, we are evaluating the potential and the importance of archaeological and historical sites on or near the proposed natural gas pipeline routes described by the Alaskan Arctic Gas Pipeline Company in its filing CP 74-239 to the FPC on March 21, 1974, and whose proposed alignments are shown on our attached map, dated 8 October 1975.

By means of this "Request and Inquiry" we are addressing individuals and groups or organizations having possibly relevant information of sites having potential cultural, religious, architectural, historical, anthropological or archaeological significance along these routes and which information may not be available in existing published materials. We do now have access to competent research materials such as those of the Alaska Heritage Survey Index, the Smithsonian Institution; and to the Draft Environmental Impact Statement related to the Alaskan Arctic Gas Pipeline Company's application to the Department of the Interior, dated June, 1975, and to the Final Environmental Statements by the Department of the Interior related to the so-called d-2 withdrawals of lands under the Alaska Native Claims Settlement Act of 1971, PL 92-203.

We would be grateful if you could reply to this letter by 20 October 1975 and provide any information relevant to this inquiry. Thank you.

Sincerely yours, Iroquois Research Institute Robert L. Humphrey, Ph. D. Bernard W. Poirier

Chief Project Scientist

Director

Attachments Map FPC letter

Re: National Historic Preservation Act of 1966



Community officials or councils of:

Anaktuvuk Pass 99721 Alatna Allakaket Canyon Village Minto (New) 99758 Venetie 99781 Fort Yukon 99740 Birch Creek 99733 Circle Eagle 99738 Eagle Village 99738 Beaver 99724 Stevens Village 99774 Chalkyitsik 99788 Fairbanks North Star Borough 99701 Arctic Village 99722 Kaktovik 99747 Barrow 99723 Dot Lake 99737 Tanacross 99776 99779 Tetlin Northway 99764 Nabesna Village 99767 Rampart Manley Hot Springs 99756 Nenana 99760 Central 99730 Delta Junction 99737 Bettles Field 99726 Nooiksut 99723

Regional Corporations:

AHTNA, Inc. Copper Center 99573 Arctic Slope Regional Corporation Barrow 99723 Doyon Limited Fairbanks 99701

Others:

National Park Service, Pacific Northwest Region, Seattle 98101 Chief, Parks and Recreation, Alaska Department of Natural Resources, Anchorage, 99501 Chairman, Department of Anthropology, Alaska Methodist University, Anchorage, 99501 Director, Alaska State Museum, Juneau 99801 Director, University of Alaska Archives, College 99701 Director, State Libraries, Alaska Department of Education, Juneau 99801 Alaska State Council of the Arts, Anchorage 99501 U. S. Forest Service, Regional Forester, Juneau 99801 Governor of Alaska, Juneau 99801 President of the Senate, Juneau 99801 Speaker of the House, Juneau 99801 Alaska Transportation Museum, Anchorage 99501 Alaska Department of Environmental Conservation, Juneau 99801 National Park Service, Alaska Task Force, Anchorage 99501 Right-of-Way Director, Alaska Department of Highways, Juneau 99801 Alaska Commissioner of Natural Resources, Juneau 99801 Alaska Transportation Commission, Anchorage 99501 Capital Site Selection Committee, Anchorage 99501

Page 1

MAILING LIST continued

Press

Associated Press, Anchorage 99501 Anchorage Times, Anchorage 99501 Fairbanks News-Miner, Fairbanks 99701 Anchorage News, Anchorage 99501 Southeast Alaska Empire, Juneau 99801 Tundra Times, Fairbanks 99701 The Washington Post, Washington, D. C. 20005 The Washington Star-News, Washington, D. C. 20061

Others

National Archives and Records Service, Washington, D.C. 20408 Department of American Studies, National Museum of Natural History, Smithsonian, Washington, D. C. 20560 Honorable Mike Gravel, United States Senate, Washington, D. C. 20510 Honorable Ted Stevens, United States Senate, Washington, D. C. 20510 Honorable Don Young, House of Representatives, Washington, D. C. 20515 Department of Anthropology, Smithsonian, Washington, D. C. 20560 Department of Vertebrate Zoology, National Museum of Natural History, Washington, D.C. 20560 Associate Curator of Paleoindian Archaeology, Smithsonian, Washington, D. C. 20560 Curator of North American Archaeology, Smithsonian, Washington, D. C. 20560 Curator-Emeritus of the Smithsonian, Washington, D. C. 20560 Lael Morgan, Anchorage 99509 Director, Department of Anthropology, Smithsonian, Washington, D. C. 20560 Arctic Institute of North America, Arlington, Virginia 22201 National Geographic Society, Washington, D. C. 20036 Alaska Northwest Publishing Company, Edmonds, Washington 98020 Department of Anthropology, Dartmouth College, Hanover, N.H. 03755 Department of Anthropology, Columbia University, New York, N.Y. 10027 The Cousteau Society, Westport, Conn. 06880 Alaska Federation of Natives, Inc., Anchorage 99501 Tanana Chiefs Conference, Fairbanks 99701 Dr. John P. Cook, Institute of Arctic Biology, University of Alaska, College 99701 Department of Archaeology, Simon Fraser University, Burnaby 2, B.C. V5A 1S6 Canada Department of Anthropology, University of New Mexico, Albuqueque, N.M. 87106 Alaska State Archaeologist, Anchorage 99501 Division of Anthropology, National Museum of Canada, Ottawa KIA ON8 Canada Dr. Froelich Rainey, University of Pennsylvania Museum, Philadelphia, Pa. 19179 Department of Anthropology, S.U.N.Y. College, Brockport, N.Y. 14420 Department of Anthropology, University of Oregon, Eugene, Oregon 97403 Department of Anthropology, Washington State University, Pullman, Wash. 99163 Department of Anthropology, Bryn Mawr College, Pennsylvania 19010 Department of Anthropology, Brown University, Providence, R.I. 02912 Center for Nordic Studies, Laval University, Quebec, P.Q., Canada North Slope Borough, P.O. 546, Barrow 99723

Page 2

MAILING LIST continued

Central Lodge, Central 99730 Yukon Trading Post, Circle 99733 Fairbanks-North Star Borough, Box 1267, Fairbanks 99701

Department of Anthropology Northwestern University Evanston, Ill. 60201

Department of Anthropology University of New Mexico Albuquerque, N.M. 87131

Department of Anthropology S.U.N.Y. College Potsdam, New York 13676

Department of Anthropology University of Oregon Eugene, Oregon 97403

Curator, Haffenreffer Museum Brown University Providence, R.I. 02912

Chairperson, Department of Anthropology S.U.N.Y. College Brockport, N.Y. 14420

Department of Anthropology Dartmouth College Hanover, N.H. 03755

Department of Anthropology Wichita State University Wichita, Kansas 67208

Department of Biobehavorial Sciences U-154, University of Connecticut Storrs, Conn. 06268

Chairperson, Dept. of Anthropology University of California Los Angeles, Calif. 90024

Director National Museum of Man Ottawa, On. KIA OM8 Canada R.S. Peabody Foundation for Archaeology Box 71 Andover, Ma. 01810

Department of Anthropology University of Toronto Sidney Smith Hall Toronto , On M5S 1A1, Canada

National Museum of Man Ottawa, On. K1A OM8 Canada

Copy to Federal Power Commission Washington DC 20426 BRYN MAWR

PENNSYLVANIA 19010

DEPARTMENT OF ANTHROPOLOGY

221 Roberts Road Bryn Mawr, Pa. 19010 October 14, 1975

Iroquois Research Institute Suite 215, 6201 Leesburg Pike Falls Church, Virginia 22044

> OGC Arctic Gas Pipeline Company, <u>et al.</u> Docket No. OP74-239, <u>et al</u>.

Gentlemen:

Your request for information about potential archeological and historical soltes along the proposed route, or routes, of the gas pipeline from Prudhoe Bay, is poorly conceived.

First, you mail it only on October 9, and expect a well-informed reply by October 20. I did not receive it until October 14.

Second, you fail to indicate the proposed terminus, or termini; these are $\frac{1}{\alpha_s}$ important for environmental impact as the route itself.

Third, <u>only</u> arche**6**logical and historical sites are considered, not the inevitable **2**mpact on flora-fauna, and on people, who would be disturbed by any route.

There are certainly villages, and presumably ancient sites, along the route which by-passes Bettles and Stevens village. Yet the sites could only be discovered by advanced exploration in this little studied area. In view of the fact that there is already a pipeline from Fairbanks to Lynn Canal (where the terminus has effectively already destroyed an important archeological site), I would favor laying the gas pipeline along the same route as the gasoline pipeline.

I would expect to find important sites at or near Venetie Landing and Fort Yukon, and up the Yukon River. To follow such an important ' river for a great distance would have a disastrous effect on wild life.

I do not know, however, which route across the Brooks Range, or even near the coast into Canada, would be least disastrous to fragile tundra facena. Such damage as will inevitably be caused even by driving a tractor -- or hauling a handsled -- will not disappear for over 100 years, to judge from well authenticated traces left by Arctic explorers in 1821 and found again in 1924:

No one, however, seems to consider the disruption to Alaskan natives by the massive influx of engineers and their work. Surely these American citizens and fellow men deserve as much consideration as sites and animals. HAVE YOU CONSULTED THEM?

I will be in Alaska from October 20 to November 4, and will send further information. (OVER) 264 One consideration should be kept in mind: Do the communities **bayexthexfax** that will expect an influx of outsiders and their families have the facilities to accomodate them: water, sewage, schools, housing, police? On the whole, they will receive no benefit from new jobs, which will require outside skilled technicians, yet will have to accomodate themselves to a swamping of such people. Actually, such a short-lived boom often means economic and social disaster to the small host community.

I hope my observations have been of some help.

Sincerely,

Redenica de Lasuna Fréderica de Laguna

Professor Emeritus of Anthropology



THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

Troquois Research Institute



SUITE 215

6201 LEESBURG PIKE FALLS CHURCH, VIRGINIA 22044 TEL: 703 - 534-8200

17 October 1975

Frederica de Laguna Professor Emeritus of Anthropology 221 Roberts Road Bryn Mawr, Pennsylvania 19010

Dear Dr. de Laguna,

This is to acknowledge your letter of 14 October in response to our Request and Inquiry associated with the Alaska Arctic Gas proposed routes for natural gas pipelines in Alaska. Your response will be included in Volume Two of our archaeological evaluations of the competing applications in the FPC docket cited in our correspondence.

Your earlier response related to the El Paso assessment has been included in Volume One. Both volumes will probably be available from either the Federal Power Commission or the Department of the Interior near the end of this year, as well as some twenty-five possible volumes on the entire environmental impact assessment.

We have contacted all Native villages and Native regional organizations and Native groups in Alaska on both occasions and have paid for paid advertisements in the Tundra Times and other Alaskan newspapers. Our personnel have also made personal visits to some of these proposed routes during the course of this year.

Please rest assured of our awareness of the sensitive issues you feel so keenly about. I will ask Dr. Humphrey, the principal archaeological investigator, to try to get together with you but it now appears that your Alaskan travel schedules will miss by two days.

With kindest regards and appreciation for your concerns, we remain

Sincerely yours, Iroquois Research Institute

Colonal Squad or h We Willing Bernard W. Poirier Director



THE ARCTIC COMPANY, LTD.

AN OPERATING UNIT OF

Dartmouth College HANOVER · NEW HAMPSHIRE · 03755



Department of Anthropology · TEL. (603) 646-3256

Dr. Robert L. Humphreys Project Scientist Iroquois Research Institute Suite 215, 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Bob:

Last February, in response to an inquiry from your Iroquois Research Institute, I wrote you regarding archaeological projects along the proposed El Paso-Alaska gas route. Since I never heard anything further from you, perhaps my letter was never received. Now comes another form inquiry from the Iroquois Research Institute requesting essentially the same information. As you know, I have conducted archaeological research in the Old John Lake area and Ed Hall and I sent you a separate of our results. I am of course glad to be of any possible assistance to you in these matters, but it seems to me that someone in your Institute might better consult your correspondence files before sending out a request for essentially the same information.

Sincerely,

RAMcK:MEW

THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

OCT 17 1975

Robert A. McKennan Professor of Anthropology Emeritus, and Research Professor of Anthropology

October 15, 1975

Troquois Research Institute

SUITE 215

6201 LEESBURG PIKE FALLS CHURCH, VIRGINIA 22044 TEL: 703 - 534-8200



17 October 1975

dana;

Robert A. McKennan Professor of Anthropology Emeritus, and Research Professor of Anthropology Dartmouth College Hanover, New Hampshire 03755

Dear Dr. McKennan,

I am taking the liberty of writing you in Bob Humphrey's absence.

Your last response to our inquiry associated with the assessment of the El Paso proposed pipeline routes was in fact received and included in our assessment contained in Volume One of our two part effort. (Library of Congress Catalog Card Number 75-8279). We believe that both volumes will be released by the Federal Power Commission and the Department of the Interior near the end of this year.

The recent inquiry is completely different from the earlier one. The majority of the proposed routes by the competing proposal of Alaska Arctic Gas in this docket case differ from those proposed by El Paso which were evaluated in Volume One, the earlier effort this spring.

The information you supplied earlier during the El Paso assessment will of course be considered by us during the equal assessment effort for the Alaska Arctic Gas proposed routes.

We have only a thirty-eight day turnaround from start to finish and unfortunately could not distinguish in our mailing between new addressees and other experts previously contacted last spring.

Your alertness is once again deeply appreciated and rest assured that your expert advice is equally and deeply appreciated by Bob and everyone here.

With kindest regards, I remain

Sincerely yours, Iroquois Research Institute Unclust Speed Dr B. W. POULLS: Bernard W. Poirier Director

THE ARCTIC COMPANY, LTD.

AN OPERATING UNIT OF



RECEIVED)

THE ARBITIC CONTRASY, LTD. IROQUOIS RESEARCH INSTITUTE 6 October 1975

Letter to the Editor Fairbanks News-Miner 200 North Cushman Fairbanks, Alaska 99701

Dear Editor,

On July 30th, your "On the Inside" editor scolded us for a horrible typo in a gas pipeline evaluation report we submitted to the Federal Power Commission. In that report section devoted to the Fairbanks area the word "Nenana" appears often and correctly spelled except in the instance where our proofer really blew it when the "steamer <u>Nemana</u>" was allowed to slip through to the printer.

Imagine our chagrin and little consolation to have since noted that on page 5250 of the February 4, 1975 issue of the National Register of Historic Places is the unforgivable misspelling: "Steamer <u>Nemana</u>"."

All of which proves you just cannot trust anyone east of Eagle, Dawson, Edmonton, Chicago, and Youngstown, Ohio.

Kindest regards.

Sincerely, Iroquois Research Institute ſ

3

Bernard W. Poirier Director

Robert B. Atwood, Editor & Publisher



Anchorage Daily Times

Box 40, Anchorage, Alaska 99510

(907) 279-5622

Telex 902-5254

October 13, 1975

Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Sirs:

In response to your letter of October 9, the Anchorage Times does not have the information you are seeking readily available. I did some preliminary checking and did not come across any material of the nature you are seeking. Our staff does not have the time to do any detailed research for parties outside of our organization.

I suggest you contact the Bureau of Land Management, 733 W. 4th Ave., Anchorage 99501 and the Alaskan Arctic Gas Study Company, 601 W. 5th Ave., Anchorage 99501. The latter organization, in particular, could probably give you some information.

Sincerely,

And Rhonda J. Dye



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THE ARCTIC COMPANY, LTD. Iroquois research institute



DEPARTMENT OF THE ARMY MEMPHIS DISTRICT, CORPS OF ENGINEERS 668 CLIFFORD DAVIS FEDERAL BUILDING MEMPHIS, TENNESSEE 38103

LMMED-PT

14 October 1975

Mr. George Walker Iroquois Research Institute Suite 215 6201 Leesburg Pike Hall's Church, Virginia 22044



OCT 1 7 1975

THE ARCTIC COMPANY, LTD. ROQUOIS BESEARCH INSTITUTE

Dear Mr. Walker:

In response to your telephone request to Mr. Bert Strohm of this office, inclosed is a copy of a contract for Archeological Inventory and Reconnaissance of the Cache River Basin Project in Arkansas. This copy is as drafted in 1973 prior to execution of the contract, but is technically the same as that finally executed.

If we may be of further assistance please call on us.

Sincerely yours,

1 Incl As stated

GENE A. DODSON Chief, Engineering Division





United States Department of the Interior

NATIONAL PARK SERVICE

Pacific Northwest Region Fourth and Pike Building Seattle, Washington 98101

H22 (PNR)PSA

October 16, 1975

Mr. Bernard W. Poirier Iroquois Research Institute 620 Leesburg Pike, Suite 215 Falls Church, Virginia 22044

Dear Mr. Poirier:

We are responding to your request and inquiry memorandum dated October 9 regarding archeological and historical sites on or near Alaska Arctic Gas Pipeline Company's proposed natural gas pipeline routes.

While we are aware that cultural values will be involved, this Office has no substantive data. You may wish to consult the following people: Dr. John Cook, Department of Anthropology, University of Alaska; Dr. William Workman, Alaska Methodist University; and Mr. Russel W. Cahill, Alaska State Historic Preservation Officer. The latter official's address is: Director, Division of Parks, Department of Natural Resources, 323 East Fourth Avenue, Anchorage, Alaska 99501.

We hope the above leads prove fruitful and regret we couldn't be of more direct help.

Sincerely yours,

harles 7. Sahannan

Charles F. Bohannon Acting Associate Regional Director, Professional Services



THE ARCTIC COMPANY, 175. Iroquois research instituti



THE UNIVERSITY MUSEUM

🖕 UNIVERSITY OF PENNSYLVANIA

THIRTY-THIRD AND SPRUCE STREETS PHILADELPHIA, PA. 19174 CABLE ADDRESS "ANTIQUE" TELEPHONE: EVERGREEN 6-7400 (AREA CODE 215)

October 16, 1975

Bernard W. Poirier Director, Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirier:

With reference to yours of October 10 and photographs for your archeological study in connection with the pipeline in Alaska, all of my photographs made at Ipiutak and Point Hope are on file in the photographic library of the American Museum of Natural History in New York. Naturally I would be pleased to have you use the aerial photograph and any others from that excavation and I'm sure the American Museum will supply you with copies. I have none of these in my own possession since they were all done for the American Museum when I worked in the Arctic. May I suggest that you look through that file in the American Museum and select what you wish.

All best wishes,

Dr. Froelich G. Rainey Director

FGR:bt



OCT 201975

THE ARCTIC COMPANY, LTD. Roquois research institute

City of Kaktovik P. 0. Box 27 Kaktovik, Alaska 99747

October 15, 1975

Irguois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 220比

ATTN: Bernard W. Poirier

Dear Mr. Poirier:

In answer to your letter of October 9, 1975, regarding Historical Sites, we have picked a committee composed of the following people:

Issac Akootchook

Herman Rexford

Mildred Rexford

George Agiak

Nora Agiak

Wilson Soplu

Fred Gordon

This committee will be channeling their information through Flossie Hopson, Planning Associate, North Slope Borough, P. O. Box 546. Barrow. Alaska 99723.

Sincerely.

lanx W.s

Marx W. Sins Mayor

MWS: eka

cc: File Federal Power Commission Flossie Hopson

OCT 2 0 1975

THE ARCTIC COMPANY, LTD. **IROQUOIS RESEARCH INSTITUTE**



UNIVERSITY OF ALASKA FAIRBANKS, ALASKA 99701

October 20, 1975

Bernard Poirier Director Iroquois Research Institute Suite 215, 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirier:

This is a brief note in response to your request and inquiry dated 9 Oct 75.

While a complete search of the collections would be impossible we do have material relating to the Old Crow and Porcupine Rivers in two collections, that of Otto Geist and Jesse Rust. We have some journals relating to Arctic Village and a Linkletter diary which relates to Old Rampart House. We also have two collections that would relate to Rampart, Alaska. The date of most of these materials would be the early 20 th Century.

We do have, I am sure, in other collections, such as the political ones of the Representatives, Senators, Delegates to Congress, some materials which might relate to communities and areas that might fit into your study areas. A search for this material would be extensive and perhaps not fruitful in terms of what you might be looking for.

I'm sorry we are not able to engage in an extensive search of the collections for you but I hope some of the information we have been able to convey to you will be helpful.

Sincerely yours,

Paul McCarthy University Archivist and Curator of Manuscripts

PMc:bd



OCT 2 2 1975

THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

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PLEASE REPLY BY AIRMAIL

Proquois Research Institute

SUITE 215

6201 LEESBURG PIKE

FALLS CHURCH, VIRGINIA 22044 TEL: 703 - 534-8200

coquoi.

22 October 1975

Mr. Frank R. Fisher Manager, Environmental Protection Alveska Pipeline Service Company 1835 South Bragaw Street Anchorage, Alaska 99504

Subject: Request for Information for public record

Dear Frank.

We are currently working on a project study for the Federal Power Commission and the Department of the Interior related to the Alaska Arctic Gas proposal. One of our tasks is directed at developing specifications for protection of historical and archaeological materials; including the development of mitigating conditions for such protection for compliance with the National Historic Preservation Act should any natural gas pipeline route proposed by Arctic Gas or El Paso be approved.

In order to establish a baseline for the contractual state-of-the-art, we have canvassed most of the U.S. authorities for copies of contractual work statements, excluding proprietary and cost data. As we understand Alyeska's posture, Alyeska has two separate contracts: one for the "northern portion" and one for the "southern portion" of the pipeline, and that Alyeska has developed a "archaeological clearance procedure" among other tasks which are satisfactory to the Government's Authorized Officer.

Bearing in mind that your response and documentation attached to a response may become part of the public record of both the Federal Power Commission and the Department of the Interior, and that we wish to exclude private, proprietary or third party cost data, I would appreciate it if you could make available the portions of both contracts which spell out working procedures, standards and criteria, data control provisions, recovery and protection, personnel qualification criteria, procedural controls in the field and in data collection, observation frequency controls, etc.

I have left word by telephone and hope to speak with you tomorrow and am sending this letter as written confirmation of our request.

With kindest regards, I remain

Sincerely yours, Iroquois Research Institute Original Signed dy B. W. PULLEd Bernard W. Poirier

Director

THE ARCTIC COMPANY, LTD.

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THE ARCTIC COMPANY, LTD. Iroquois research institute

94TH CONGRESS 1st Session

S. 2510

IN THE SENATE OF THE UNITED STATES

OCTOBER 9 (legislative day, SEPTEMBER 11), 1975 Mr. GRAVEL introduced the following bill; which was read twice and referred to the Committee on Commerce

A BILL

Relating to construction of natural gas pipelines for transporting Alaskan north slope natural gas to the lower forty-eight States.

1 Be it enacted by the Senate and House of Representa- $\mathbf{2}$ tives of the United States of America in Congress assembled, That, with respect to the application of the Alaska Arctic 3 Gas Pipeline Company for a certificate of public conven-4 ience and necessity to construct and operate a natural gas $\mathbf{5}$ pipeline on a Canadian route pending before the Federal 6 7 Power Commission on the date of the enactment of this Act, and the application of the El Paso Alaska Company for a 8 9 certificate of public convenience and necessity to construct and operate a natural gas pipeline on a competing Alaskan 10 route so pending on such date, the Federal Power Com-11

Π

mission shall make a final decision in the case of each such 1 application on or before June 30, 1976. Any such decision 2 shall become effective in accordance with the provisions of 3 section 3 of this Act, but in no case shall any such decision 4 be subject to judicial review under any law in any court, 5 except that claims alleging the invalidity of this section 6 may be brought within sixty days following its enactment, 7and claims alleging that an action will deny rights under 8 9 the Constitution of the United States may be brought within 10 sixty days following the date of such action. A claim shall be barred unless a complaint is filed within the time speci-11 12fied. Any such complaint shall be filed in a United States 13 district court, and such court shall have exclusive jurisdiction 14 to determine such proceeding in accordance with the pro-15 cedures hereinafter provided, and no other court of the 16United States, of any State, territory, or possession of the 17 United States, or of the District of Columbia, shall have 18jurisdiction of any such claim whether in a proceeding 19instituted prior to or on or after the date of the enactment 20of this Act. Any such proceeding shall be assigned for hear-21ing at the earliest possible date, shall take precedence over 22all other matters pending on the docket of the district court 23at that time, and shall be expedited in every way by such 24court. Any review of an interlocutory or final judgment,

 $\dot{2}$

3

decree, or order of such district court may be had only upon
 direct appeal to the Supreme Court of the United States.

3 SEC. 2. The Congress hereby authorizes and directs the Secretary of the Interior and other appropriate Federal 4 officers and agencies to issue rights-of-way, permits, leases. 5 6 and other authoriaztions that are necessary for or related to the construction, operation, and maintenance of a natural gas $\mathbf{7}$ pipeline for the purpose of transporting Alaskan north slope 8 natural gas to the forty-eight contiguous States on or before 9 10 June 30, 1976. Any such actions shall become effective in accordance with the provisions of section 3 of this Act. but 11 12in no case shall any such actions be subject to judicial review 13 under any law in any court, except that claims alleging the 14 invalidity of this section may be brought within sixty days 15following its enactment, and claims alleging that an action 16 will deny rights under the Constitution of the United States 17may be brought within sixty days following the date of such 18 action. A claim shall be barred unless a complaint is filed 19 within the time specified. Any such complaint shall be filed 20in a United States district court, and such court shall have 21exclusive jurisdiction to determine such proceeding in ac-22cordance with the procedures hereinafter provided, and no 23other court of the United States, of any State, territory, or $\mathbf{24}$ possession of the United States, or of the District of Co-

lumbia, shall have jurisdiction of any such claim whether 1 in a proceeding instituted prior to or on or after the date $\mathbf{2}$ of the enactment of this Act. Any such proceeding shall be 3 assigned for hearing at the earliest possible date, shall take 4 precedence over all other matters pending on the docket of $\mathbf{5}$ the district court at that time, and shall be expedited in 6 every way by such court. Any review of an interlocutory or 7 final judgment, decree, or order of such district court may be 8 had only upon direct appeal to the Supreme Court of the 9 United States. 10

11 SEC. 3. (a) No final decision of the Federal Power Commission referred to in the first section of this Act or any 12 actions by the Secretary of the Interior and other appro-13 priate Federal officers and agencies referred to in the second 14 15 section the this Act shall take effect until the end of the 16sixty-day period (excluding Saturdays, Sundays, and holi-17 days, and any day on which either House is not in session) 18 beginning on the day such decision or such actions are transmitted by the Chairman of the Federal Power Commis-19 20 sion or the Secretary of the Interior or other appropriate 21 Federal officer to the Speaker of the House of Representatives 22and the President of the Senate and then only if during such 23sixty-day period both Houses of Congress do not adopt a con- $\mathbf{24}$ current resolution disapproving such decision or such actions. 25

(b) (1) This section is enacted by Congress-

(A) as an exercise of the rulemaking power of the 1 $\mathbf{2}$ Senate and the House of Representatives, respectively, and as such these provisions are deemed a part of the 3 rules of each House, respectively, but applicable only 4 5with respect to the procedure to be followed in that House in the case of resolutions described by this section; 6 and they supersede other rules only to the extent that 7 they are inconsistent therewith; and 8

9 (B) with full recognition of the constitutional right 10 of either House to change the rule (so far as relating 11 to the procedure of that House) at any time, in the same 12 manner and to the same extent as in the case of any 13 other rule of that House.

(2) For the purpose of this section, "resolution" means 14 15only a concurrent resolution, the matter after the resolving clause of which is as follows: "That the 16disapproves of the decision of the Federal Power Commission 17.", the blank spaces theredescribed as follows: 18 in being appropriately filled; but does not include a reso-1920lution which specifies more than one action.

(c) A resolution with respect to such decision shall be
referred to the appropriate committees of the House of
Representatives and the Senate, by the President of the
Senate or the Speaker of the House of Representatives, as
the case may be.

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1 (d) If the committee to which a resolution has been re-2 ferred has not reported it at the end of twenty calendar 3 days after its introduction, it is in order to move to dis-4 charge the committee from further consideration of any 5 other resolution with respect to the same action which has 6 been referred to the committee.

(e) A motion to discharge may be made only by an $\mathbf{7}$ 8 individual favoring the resolution, is highly privileged (except that it may not be made after the committee has re-9 ported a resolution with respect to the same action), and 10 11 debate thereon shall be limited to not more than one hour, 12to be divided equally between those favoring and those opposing the resolution. An amendment to the motion is not 13in order, and it is not in order to move to reconsider the 14 15vote by which the motion is agreed to or disagreed to.

16 (f) If the motion to discharge is agreed to or disagreed 17 to, the motion may not be renewed, nor may another mo-18 tion to discharge the committee be made with respect to any 19 other resolution with respect to the same action.

20 (g) When the committee has reported, or has been dis-21 charged from further consideration of, a resolution, it is at 22 any time thereafter in order (even though a previous mo-23 tion to the same effect has been disagreed to) to move to 24 proceed to the consideration of the resolution. The motion 25 is highly privileged and is not debatable. An amendment

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to the motion is not in order, and it is not in order to move
 to reconsider the vote by which the motion is agreed to or
 disagreed to.

4 (h) Debate on the resolution shall be limited to not 5 more than ten hours, which shall be divided equally be-6 tween those favoring and those opposing the resolution. A 7 motion further to limit debate is not debatable. An amend-8 ment to, or motion to recommit, the resolution is not in 9 order, and it is not in order to move to reconsider the vote 10 by which the resolution is agreed to or disagreed to.

(i) Motions to postpone made with respect to the discharge from committee or the consideration of a resolution,
and motions to proceed to the consideration of other business,
shall be decided without debate.

(j) Appeals from the decisions of the Chair relating to
the application of the rules of the Senate or the House of
Representatives, as the case may be, to the procedure relating to a resolution shall be decided without debate.

94TH CONGRESS 1ST SESSION

S. 2510

A BILL

Relating to construction of natural gas pipelines for transporting Alaskan north slope natural gas to the lower forty-eight States.

By Mr. Gravel

OCTOBER 9 (legislative day, SEPTEMBER 11), 1975 Read twice and referred to the Committee on Commerce Dartmouth College HANOVER · NEW HAMPSHIRE · 03755



Department of Anthropology • TEL. (603) 646-3256

October 22, 1975

Bernard W. Poirier, Director Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirier:

Thank you for your letter of October 17th. While I realize that the Arctic Gas proposal involves some routes not included in the El Paso plan, much of what I had to say regarding the latter proposal is equally applicable to the Arctic Gas routes.

First, it must be realized that inasmuch as the natives were the sole inhabitants of Alaska until relatively recent times, any possible pipeline route is destined to pass near or through habitation sites of the historic and proto-historic periods. All such sites are important to a student of culture, be he native or white. Second, our present knowledge of Alaskan archaeology is so fragmentary that it is impossible to evaluate the importance of archaeological sites along such generalized routes as those shown on the maps submitted by the pipeline companies. One can only make educated guesses based on the little archaeological work that has already been done, coupled with a knowledge of the terrain. It should be kept in mind that any of the proposed routes is likely to transect the migration route or routes taken by the earliest migrants to the New World. Consequently it is extremely important that as soon as the pipeline route has been chosen and the exact line has been staked out, competent archaeologists, experienced in northern work, should be put on the line and a careful survey made before any construction begins. In the long run this will save both time and money by avoiding later construction delays.

I have viewed the terrain along all of the proposed routes from the air, and have covered much of it on the ground over the past forty-five years. I also have some acquaintance with the archaeological work done to date; consequently I am willing to make a few very generalized statements regarding the archaeological possibilities of each route, beginning with the northernmost one and continuing south. The first, the off-shore route, of course, involves little or no archaeology. The two coastal routes traverse an area of exceedingly wet tundra, but between the various north-flowing rivers lie low and drier ridges, which could well contain sites of early man, as the work of Dennis Stanford near Barrow and Jim Dixon at the Gallagher Flint Site have demonstrated. The next route cuts across to the Canning River, terra incognita archaeologically, and once over the Brooks Range, cuts across the headwaters of the East Fork of the Chandalar, the Koness, the Sheenjek, and the Coleen. On the basis of my archaeological work at nearby Old John Lake I would expect this area to contain good archaeological sites, although it may well have been ice-covered until 5-6,000 years ago. The next route evidently follows the Alyeska line up the Sagavanirktok, whose archaeology is already a matter of record, and then one alternative cuts across and down what appears to be the Wind River. I have traversed some of this area on foot in connection with my ethnographic research. Its archaeology is unknown, but the terrain is promising. The same is true of the other branch which follows down the North Fork of the Chandalar. Once the route hits the Yukon Flats its archaeological prospects become slender although Hadleigh-West did uncover an early site at Twelve Mile Bluff just below Further up the Yukon Irving has reported a site or Circle. sites in the vicinity of Eagle. The southernmost route evidently follows the Alyeska pipeline as far as Delta Junction and thence along the highway to the border. Since I have already commented on this route in my earlier letter I will make no further surmises, but I might suggest that a more detailed map would be helpful.

Sincerely,

Robert A. McKennan Research Professor of Anthropology; Professor of Anthropology Emeritus.

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RAMcK:MEW Enc:



THE ARCTIC COMPANY, LTD. Iroquois research institute
-Iroquois Research Institute
CONVERSATION RECORD
Complete all entries carefully RE: FPC TASK STUDY
NAME OF INTERLOCUTOR Dr. Don Clark of Archaeological Survey of the National Museum of Canada National Museum of Canada
DATE 27 October 1975 TEL, NO. (613) 996 5250
INITIATED BY: B. W. Follier 1st 1/W 1/DL. G. Hatbonald, Chief of archaeology re: d. Jenness excavations 1913 @ Barter Is telcon returned by Don Clark, 10H25, 29 Oct 75 PURPOSE FOR TELEPHONE CALL OR CONVERSATION In 1914, Jenness excavated three groups. Two at the west end of Barter Island: one of 15 houses and other features; and at east end of sand spit, 77 dwellings, graves and other features including ice cellars. Most excavated. On Sand spit on Arey Is (offshore bar?), 43 houses and other featuressome excavated by local Eskimo diggers. Sketches indicate late pre-historic or contact. No coordinates or map in ms. Ed Hall,SWNY,Brockport is analyz. collection. QUESTION OR STATEMENT RAISED ABOUT ARCTIC NATURAL GAS TRANSPORTATION SYSTEM: NONE
RESPONSE OF IRI EMPLOYEE OR ASSOCIATE <u></u>
OCCURRENCE WAS AT (time) 1st 10H04 27 Oct 75 2nd 10H25 29 Oct 75 (place) telcon f/Falls Church to Ottawa
If it is unknown whether the interlocutor is associated with an actual or a potential intervenor in the matter before the Federal Power Commission, he or she should be asked: subject matter was not raised
"Are you or your organization intervening on the [d/n/a/] Arctic natural gas pipeline issue, or do you does not apply think you might be an intervenor?" CHECK ONE: YES NO HAYBE DOUBT IT DON'T KNOW

CLASSIFIED AD

17 October 1975

Iroquois Research Institute is preparing for the Federal Power Commission and the Department of the Interior a study of the traditional, cultural, historical and archaeological importance and potential of sites that may be on or near the natural gas pipeline routes proposed by the Alaskan Arctic Gas Pipeline Company.

Persons familiar with such sites in the area of any portion of pipeline routes proposed by the Alaskan Arctic Gas Pipeline Company are requested to advise us about sites known to them. Such information may not be found in usual published references and documents describing places of special historical, religious or cultural importance, and consequently would be valuable for this study.

Persons having such information are requested to make known the location and the site's significance to us by 30 October and to communicate this information to:

IROQUOIS RESEARCH INSTITUTE Archaeological and Historical Department 6201 Leesburg Pike, Suite 215 Falls Church, Virginia 22044

Replies received will become part of the public record being established by the Federal Power Commission and the Department of the Interior.

38 Anchorage Daily Times, Monday, October 27, 1975

vice. Watch for sale date. Socijith Sec. 518-38-5993. (8) ROQUOIS R rch in I P . . 191 2 6 ft no to m 0 00 requested Arctic Go IN PI M FT. ret ce to us by 28 O Conce - Communicatio Hain n to: IBOGUOII ICH INSTITUTE, A sl and Historical (001 Leatburg Pile ents Church, Virgini anti-option will Part ch ber EV 1911 1911 will a of the put plished by t mission and e interior. 部に以 - 4 11

Tundra Times, Wednesday, October 22, 1975

Page 9

HELP WANTED

17 October 1975

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NELP WANTED 17 October 1975 Troquois Research Institute' is preparing for the Federal Power Commission and the Department of the Interior a study of the traditional, importance and potential of sites that may be on or near the natural ges pleine routes proposed by the Alaskan Arctic Gas Pipeline Company. Persons familiar with such sites in the area of any portion of pipeline fourts proposed by the Alaskan Arctic das Pipeline Company are requested to advise us about sites known to found in usual published references and documents describing glaces of sectal historical, religious or cultural importance, and consequently would be valuable for this study. Persons having such information area requested to make known the location information to: I R Q U O I S R ESEARCH NSTITUTE. Archaeological and Historical Department.

Archaeological and Historical

Archaeological and Historical Department 6201 Leesburg Pike, Suite 215 Fails Church, Virginia 22044 Replias received will become part of the public record being established by the Federal Power Commission and the Department of the Interior. Pub.: Oct. 22, 1975



WICHITA STATE UNIVERSITY

WICHITA, KANSAS 67208 PHONE 316/689-3195

DEPARTMENT OF ANTHROPOLOGY

October 22, 1975

Dear Bob,

Thanks for the information you sent me. I enclose two copies of my final report on S_e dna Creek and copies of the things which I have done more recently. The latter have nothing to do with Arctic archaeology.

I wish you all the best! Please give our greetings to your wife! Say hello to the dog Sedna if she is still with you.

I hope to see you sometime,

Yours,

Karl

Karl H. Schlesier

+ CLAIRE + SEDNA + SIBYLLE.

Encl.

OCT 28 1975

THE ARCTIC COMPANY, LTD. Iroquois research institute

UNITED STATES OF AMERICA GENERAL SERVICES ADMINISTRATION

DATE: November 3, 1975

National Archives and Records Service Washington, DC 20408



ATTN OF: NNEN

SUBJECT:

Information about records concerning Alaska (your letter October 9, 1975)

Iroquois Research Institute ATIN: Dr. Robert L. Humphrey 6201 Leesburg Pike Suite 215 Falls Chruch, VA 22044

Our staff Archivits would be glad to consult with representatives of the Iroquois Research Institute concerning their work in locating and evaluating the potential significance of archeological and historical sites in the vicinity of the natural gas pipeline routes under consideration by the Alaskan Arctic Gas Pipeline Company.

Records in our holdings concerning Alaska date from about 1867 and include very little substantive material bearing on archeological subjects. The larger portion of the records date from 1884 when the First Organic Act placed administrative responsibility for Alaskan affairs with the Department of the Interior. Records among the holding of the Natural Resources Branch from the 1880's to 1900 concern, for the most part, federal interst in Alaskan school, fishery and fur seal matters.

Information concerning Army explorations in Central and Northeastern Alaska is available as reports published in the Congressional Serial Set. Our Navy and Old Army Branch may have more information in this area. They may be written at the following address: National Archives and Records Service, Navy and Old Army Branch, Washington, D.C. 20408.

Renie M. Jaussaud

RENKE M. Jaussaud Natural Resources Branch Civil Archives Division

NOV € 1975

THE ARCTIC COMPANY, LTD. Iroquois research institute

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1 de la compañía 398830 - 101829 Archeological material NO. OF CARDS 3479 & CUND I RECEIVED_Col. for USNM: March 3, 1958 NO. OF SPECIMENS 8,431 FOR THE YEAR 1962-1963 ACCESSION 242284 (Part Ц16709 - Ц16803-А RECORDED IN BOOK COLLECTOR'S NOS. Division of Archeology ASSIGNED TO GAND GATALOGUE MADE July 6, 1962 BY C. A. Garrabrant INSTALLED

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HISTORY OF COLLECTION.

Archeological material obtained by excavation and purchase, for the United States National Museum by James A. Ford, between Point Barrow and Wainwright, 2nd Judicial Division, Alaska, in 1931, 1932, and 1936. This material was studied, cataloged and numbered by Ford and assistants at the American Museum of Natural History, blocks of numbers having been assigned by the Division of Archeology, United States National Museum for that purpose. The collection was returned to the United States National Museum March 3, 1958 and was checked, recataloged and stored July - August, 1959.

Central, Slaska Nov. 20 1975 ECERAED Lear Mr. Porrier_ NOV 2 5 1975 **THE ARCTIC COMPANY, LTD.** Ouce again we encounter! **ROQUOIS RESEARCH INSTITUTE** We have fast received mail after two months wandering in Canada, Nova Scotia and the Easter Coast Your letter & maps were here in Ohio wanting for us. We realize the information cut off date is long part however, we ded want you to them that The CIRCLE DISTRICT HISTORICAL Society has met, he formed, and, is in the brocens of menporating. Your routes did not indicate a pathway Three The Steere Heghway but one never Kuows, In any event, do not under estimate Re Hesterical value of The Cencle Destrict We would champion Any infringement apon its shoren. Althe just in its infancy the Society would indeed now to preserve all evidence of The gold-seeking wave that came out of themson and into Face banks. A good wenter to you -Jane Williams H.O. Williams.



mpullishel



Archeology of Interior Alaska

THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

John P. Cook

In general terms known sites in interior Alaska may be placed into three broad categories of culture history: (1) historic or late prehistoric occupations, rather definitely Athapaskan in nature, (2) an older cultural stratum which may, or may not, be early or ancestral Athapaskan, and (3) a vaguely defined early period.

Throughout the present range of Athapaskans, there are scattered old villages (most of which are rather small), fishing and hunting camps, abandoned caches and other signs of historic native occupation. A few of these have been excavatedusually in the process of trying to find earlier occupations. These sites, such as those along the Tanana Valley, along the Copper River, and to the north near Old Crow, attest to the rapid influx of selected trade items such as steel saw blades, iron files, and brass bars which were then fashioned into a large variety of tools and weapons often in imitation of older styles made of native copper, horn and bone. Decorative items, such as beads and buttons, accompanied these metal items as did, undoubtedly, other tangible and intangible effects of the approaching trappers, traders and prospectors. Sheet metal and "tin" cans were made into travs and baskets in the same manner as birch bark. Some of these sites such as Dakah De'nin's Village on the Copper River and Dixthada near Lake Mansfield were probably visited by early explorers. Others, such as Joseph's and Healy Lake villages were off the main rivers but still participated in the pervasive trade network-one undoubtedly surviving from earlier precontact times.

Other authors have discussed the great diversity which exists in both the Athapaskan language and the material culture of these widely but sparsely distributed peoples of Alaska. It is unreasonable to assume that less diversity would have characterized the cultures in pre-contact time. Although there are certain <u>leit motifs</u> and common implement types among the archeological collections, each site differs from each other site in distinct ways--a premonition of the later diversity.

Sites relating to this precontact period are fairly numerous, although few have been given adequate treatment in the professional literature. As expected, they may be found wherever Athapaskans are now living. In addition, however, there are strong indications that at least in the north, the Indians were utilizing regions that at present are normally considered to be Eskimo territory. The Kavik Site and the Itkillik horizon of the Onion Portage site as well as finds discovered along the route of the oil pipeline, attest to this expanded Athapaskan distribution about 1000 years ago.

Another important feature of this period is the evidence for a wide-spread trading system, one which was to carry over into historic times. Copper, originating in the White and Copper River areas diffused down the Tanana to Dixthada, where it was used for arrow points, sewing awls, skin scrapers and ornaments. Further down river at the Ashes Point Site, Healy Lake, are found a knife and awl of copper. The material is found as far away as the Atigun Site north of the Brooks Range. As might be expected sites nearer the source area have significantly higher quantities of the metal, which seems to have come into use some time after A.D. 1000. A similar pattern, although with a different distribution, may be discerned by the amounts of obsidian found in many of these late prehistoric sites. Relatively near the presumed source along the Kovukuk River, the Birches Site at Lake Minchumina produced an inventory comprised of almost 90% obsidian specimens. A fair proportion of obsidian is also to be found at Old Fish Camp near Kaltag. Much lower percentages are to be found at such sites as Onion Portage, Kavik Site in Anaktuvuk Pass, near Galbraith Lake, and Dixthada, although preliminary neutron activation studies indicate that this obsidian all has the same origin near Indian Mountain.

A typological <u>leit motif</u> which pervades these Athapaskan sites is the small stemmed projectile point--the Kavik point. Although there are differences from site to site, this artifact type is characteristic whether made of stone, bone or copper. The split boulder spall or a thin slab of tabular schist utilized for skin scraping is another common tool, usually called a tchi-tho.

More generally, another characteristic common to all these late prehistoric Athapaskan sites is the relative lack of finely worked stone tools. Bone and antler seem to have been much more important. Although this may be an artifact of differential preservation, earlier cultures certainly seem to have given much more care to lithic technology than the Indians of about A.D. 1000.

Unilaterally barbed arrowheads, small "gaming pieces" comprised of thin rectangular slabs of bone, and fleshing tools made of caribou tibia are artifacts common to most of these sites. Although lacking the more reknown decoration of Eskimo bone tools, these Athapaskan artifacts are in many cases decorated with a finely executed geometric style.

Most of the sites are comprised of clusters of semi-subterranean houses, located near good fishing places. These have received the most attention insofar as excavation is concerned (Dixthada, Birches, Gulkana). Others appear to be related to caribou hunting and are situated on good lookouts (Kavik, Sagwon Bluffs, Gallagher Flint Station). The subsistence pattern seems to be much like that which is found at the present--diverse exploitation of available resources.

It is probably impossible to place any temporal limits on this prehistoric phase of Athapaskan prehistory; it merges into the ethnographic present and historic Indians on one end, and on the other end of the continuum, probably has its origin in what we are calling the proto-Athapaskan period.

Dating the sites is equivocal in many instances, resting on typological similarities (mostly the Kavik point) and unproven obsidian hydration studies. Only a few have produced good radiocarbon dates: Dixthada (A.D. 1300), the Birches site (A.D. 1300) and Onion Portage (A.D. 400-800). Stratigraphic relations of the Ashes Point and Village Site at Healy Lake are compatible with this range as are sites in the nearby Yukon Territory, where these sites occur adjacent to an ash fall of about A.D. 400. Thus it would appear that this phase, diverse in many respects yet homogeneous in others, can roughly be assigned to the Christian Era. This provides a picture, still murky, of a developing Athapaskan heterogeneity seen in the ethnographic present.

In the two millennia preceding the Christian Era a number of sites on the periphery of the Athapaskan culture area described above may be related to the Eskimo tradition generally. Norton, Choris and Denbigh affinities are seen along the Brooks Range from Onion Portage in the west to Galbraith Lake on the route of the Trans-Alaska pipeline. This incursion provides an interlude of Eskimo occupation of an area that had heretofore been inhabited by cultures that are probably ancestral to the later Athapaskan cultures of the interior. Elsewhere in the interior, and in this cultural ecotone before about 2000 B.C., there are a number of sites grouped rather tentatively into two poorly defined and poorly dated cultural facies--the Denali and the Tuktu/Palisades complexes. Both are characterized by nothing but lithic technologies.

The latter, discovered almost simultaneously by Giddings at Cape Krusenstern and Campbell at Anaktuvuk Pass, is characterized by side and corner notched projectile points. This trait seems to have appeared very soon after the development and expansion of the boreal forest throughout most of interior Alaska. Anderson's suggestion that notched points (and possibly the people using them) appeared here about 5000-6000 years ago from the east and south is generally accepted although the term Northern Archaic is not. Specifically, there is no class resemblance nor a temporal likelihood that they (notched point concepts or people) came from the Archaic cultures of the eastern or midwestern states, but they might logically be from the high plains.

As a technological adaptation to the northern forests, the notched point concept spread west along the Brooks Range from the Mackenzie River valley to Onion Portage about 6000 years ago.

Various sites on both flanks of the Brooks Range and north of the Yukon River seem to represent the major occupation of the Tuktu/Palisades complex. The Tuktu site has been dated about 4500 B.C. and bands 6 and 7 at the Onion Portage site lie between 4000 B.C. and 2300 B.C. Several notched point sites (Ribdon, Prospect Creek, Twelve Mile Bluff and others) have not yet been dated.

Among these sites there are a number of differences, chief among which is the presence or absence of a microblade technology. The Tuktu site, for instance, is characterized quite markedly by the presence of microblades as are some of the pipeline sites. Palisades, the Ribdon Site, Onion Portage and Twelve Mile Bluff are not; however, the meaning of this technological dichotomy is not yet clear. Also, many sites contain notched pebble axes or choppers, others do not. Most of the sites contain well flaked lanceolate points or knives as well as the notched varieties. And it should be noted that there is considerable stylistic variation within the notched point category.

This complex, adapted as it may have been to a hypsithermally expanded forest biome, was replaced about 2000 B.C. during the neoglaciation by the Eskimo phases mentioned earlier. At this time, and perhaps earlier, certain traits belonging to the complex diffused southward. Besides the idea of notched points, such artifact types as tabular microblade cores and notched pebble axes or choppers appear sporadically at such sites as Campus, Village, Ratekin, the Hosley Ridge localities and in the Tangle Lakes region. It is even possible that the Security Cove collection reflects this southward diffusion. Where dated these appear somewhat later than in the north (Campus 1300 B.C.; Village Site <u>circa</u> 2500 B.C.) and may represent a partially successful adoption by the Denali complex residents of the Tanana Valley and contiguous regions.

The Denali complex, primarily defined by a fairly specific kind of microblade technology, is found throughout the Yukon-Tanana Upland, all along the Tanana drainage and in the Tangle Lakes area as well as, sporadically, in other regions of Alaska. Associated with its cores and microblades are round based lanceolate points and the distinctive Donnelly burins, transversely spalled, as well as the usual end scrapers and retouched flakes.

The concentration of sites, the heartland so to speak, appears to be in the Tanana Valley. This together with the long duration in the region may well indicate that the origin of Athapaskan culture is rooted in this part of Alaska. The threads that tie the later phases of the complex to the late prehistoric horizon are the microblades and burins, which persist well into the Christian Era at Healy Lake (A.D. 900) and the College Site (Lake Minchumina, A.D. 800), and almost as late in the lower level of Dixthada (500 B.C.), the Donnelly Ridge site (A.D. 150) and the Yardang Flint Site (350 B.C.). This is well within the period estimated by Krauss for the duration of the Athapaskan language in

the Tanana Valley. At the other end of the temporal range, cores and microblades of this distinctive character have been found associated with the Chindadn complex at Healy Lake (9000 B.C.), at Tangle Lakes (estimated about 7000 B.C.) and the Kobuk and Akmak_levels of Onion Portage (8000 through 6000 B.C.). These, especially Tangle Lakes, indicate that the Denali complex was beginning to take form during the late Pleistocene. A recently discovered site near Healy, the Dry Creek Site, contains this kind of microblade technology and some of the burins. The dates obtained so far are equivocal, but definitely old--from 9500 B.C. to about 20,000 B.C. The association of extinct fauna makes this site even more important and it is hoped that future excavation and analysis will further elucidate what may be an early Athapaskan cultural complex. Several sites associated with the pipeline archeology are presently undergoing analysis and will undoubtedly also help in the definition and explanation of this complex.

Direct and Indirect Evidence for Early Man in Alaska

More and more evidence is accumulating in the rest of North and South America for early occupation of the New World. Inasmuch as passage from Alaska to the more southerly areas was blocked--or at least rendered rather improbable for habitation--from about 23,000 to some 12,000 years ago, any sites dating within this period must presuppose an occupation of Alaska prior to 23,000 B.P. In addition, it is likely that the Bering Land Platform was under water until about 25,000 B.P. and unlikely that the people could have moved across Bering Strait through Alaska, and down south in the short two millennia between emergence of the platform and merging (or near merging) of the continental ice sheets during the late Wisconsin glaciation. Therefore there is every possibility that human populations diffused into Alaska during the earlier emergence of the Bering Platform due to early Wisconsin glaciation. This could have been as long ago as 60,000 or 70,000 years.

Other indications, indirect, yet perhaps more substantial than the foregoing hypothetical situation, is the presence of artifacts and crushed and broken bones in solifluction deposits (muck) of Wisconsin age near Fairbanks. One well flaked lanceolate point or knife was found in apparent association with a preserved mammoth foot dated about 15,000 years ago. Along the Old Crow River in the Yukon Territory, a flesher made of a fossilized caribou tibia was found with several mammoth and horse bones, apparently cut, abraded or broken by cultural activity. Dates of some 27,000 years have been obtained from the artifact and the bones. If people were in the Yukon at this time, they must certainly also have been in Alaska.

Bones from the Trail Creek Caves have also been broken in a culturally determined pattern, according to Larsen, who obtained a radiocarbon age of almost 15,000 years for the deposit.

Several surface finds have at one time or another been attributed great age. The case for these, however, rests upon rather flimsy grounds, although it is quite possible that some may indeed be old. A number of other sites have been reported with dates in excess of 8,000 years, <u>i.e.</u>, to the late Pleistocene before the reforestation of the Tanana Valley.

The Old Crow and Trail Creek sites have been mentioned above. Inasmuch as the cultural inventory of both is restricted to bone, it is impossible to compare them with the lithic collections from the other sites. It should be noted, parenthentically, that the Old Crow caribou tibia flesher is identical to those made by the late prehistoric and historic Athapaskans.

Another early site that so far has little comparative value is Ground Hog Bay, dated at 8000 B.C. The inventory does document the early occupation of southeast Alaska. Since 1947, when a fluted point was found along the Kukpowruk River, several other sites, particularly along the pipeline, with this distinctive type of artifact have been reported. Mot finds are isolated and from the surface, although they have also been found in association with a variety of other materials, in such a variety however that the associations are of little present value.

All of these are located north of the Yukon River although a basally thinned specimen from the Chindadn complex at Healy Lake indicates this distribution may be expanded. More than 20 have been found in the Koyukuk region, more specifically the Batza Tena localities. Several more have been recovered during investigations along the Alyeska pipeline; the Putu Site has an apparently unreliable date of 6500 B.C. Given the ambiguities of the chronology, it is difficult to assess the role of fluted point finds in Alaskan culture history.

This leaves us with only five sites reliably dated and with sufficient cultural material to make tentative comparisons. They are: (1) Chindadn complex, Village Site, Healy Lake; (2) Locality 1, Gallagher Flint Station, Sagavanirktok River; (3) Akmak complex, Onion Portage, Kobuk River; (4) Anangula Site near Nikolski, Umnak Island; and (5) Amphitheater Mountain Complex, Tangle Lakes. One site is in northwest Alaska, one in northcentral, three right in the middle of the state and the remaining the extreme southwest; in other words they cover pretty much the whole state.

The Chindadn material, dated to about 9000 B.C. consists of the microblade technology mentioned above in connection with the Denali complex as well as Donnelly burins and a distinctive point/knife. Chindadn points are very thin, bifacially flaked, with a tear drop outline. A basally thinned point is in association as are some small triangular specimens.

This collection is quite unlike that from the nearby Amphitheater Mountain complex at Tangle Lakes with its large bifaces and blades, although the latter appear to be coeval with Chindadn (8500 B.C.). There is a much closer relation ship of the Chindadn material to the as yet unpublished Dry Creek Site mentioned earlier. This affinity rests solely upon the microblade technology, however, and it cannot be said that the Dry Creek Site (8500 B.C.) should be ascribed to a Chindadn occupation for the site lacks the very distinctive projectile points.

The collections from all three of these centrally located sites bear little resemblence to the North Slope Gallagher Flint Station which dates to about 8500 B.C. There, the inventory is characterized by a wide range of blades and microblades struck from somewhat blocky, irregular, though definitely prepared, cores quite unlike those from Healy Lake or Dry Creek.

To the west the Akmak complex at Onion Portage (8000 B.C.) and Walakpa Bay near Point Barrow presents a yet different artifact typology. Although there are similarities to Healy Lake and Dry Creek in the microblade cores, the presence of large discoidal cores and the markedly curved blades struck from them strongly indicate a different approach to tool making. Although there are some burins in the collection, these too are distinctly different. No points like those of the Chindadn complex are found although there is one very large point/knife from the Onion Portage site.

Out at Anangula, there is also a core and blade technology. Although somewhat younger (6000 B.C.) these bear a marked resemblance to the Gallagher Flint Station material. There are too many other differences, however, as well as an implausible distance to the North Slope to comfortably put them together in the same cultural complex. Transverse burins (not unlike Chindadn), end scrapers and retouched blades comprise this barrier to compatibility.

We are left with a number of sites all over Alaska, each of which is unlike the others, at an early period in the prehistory of the state. Chindadn is like Dry Creek and Akmak only in the microblade technology. Otherwide they are dintinctively different. Chindadn and Anangula have similar kinds of burins; there the resemblence ends. Anangula and the Gallagher Flint Station, on the other hand, are linked by comparable ranges and kinds of cores, blades and microblades, quite dissimilar to the discoidal blade cores of Akmak or the Denali complex kind of cores.

In other words, the inhabitants of Alaska had already developed regionally distinctive technologies as much as 10,000 years ago. Whether or not these complexes were the antecedents of the diverse cultures of later periods is a moot point at present, although there are certain continuities. This late Pleistocene cultural diversity does, however, strongly argue for habitation of the various

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parts of Alaska for some time prior, enabling the bearers of this technology to develop such distinctive styles.

With the rapidly developing archeology in Alaska, many of the now absent links, geographically, culturally and chronologically, will be discovered. It will not be too long, hopefully, before we will have a much clearer picture of the development of native cultures in the state and the habitation of the north.



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ALYESKA PROJECT - Section 4, 1974

							-		Field Notes			
Write-up (name)	State Site No.	Site Name	Cata- loged (x)	U of A Acquisition No.	Location of Artifacts	Excavated or Tested	Const. Area	Destroyed, damaged, or unendangered	Name	Dates	Location of Notes	Xerox copies made (x
· .	BET-013	S4-1	x	UA70-132 #1-45 UA75-134 #1-4	? IAB	excavated (see 1970)	-	not endangered	Gal	4/29/74	IAB	
• :	BET-012	S4-2	x	UA70-105 UA75-135 #1-5	? IAB	tested (see 1970)		not endangered	Gal	4/29/74	IAB	r i si 2 ¹ 2
	BET-044	S4-3	x	UA75-136 #1	IAB	tested	-	not endangered	Gal	4/29/74	IAB	
	BET-008	S4-4	x	UA70-149 #1-5 UA75-137 #1-5	? IAB	tested (see 1970)	- · · · ·	not endangered	Gal	4/30/74	IAB	
•	BET-006	S4-5	x	UA70-146 #1-4 UA75-138 #1	? IAB	tested (see 1970)	-	not endangered	Gal	4/30/74	IAB	
	LIV-065	S4-6	no artifacte	-	-	e e 12 ¹	-	not endangered	Gal	5/ 1/74	IAB	
	BET-046	S4-7	x	UA75-139 #1	IAB	tested	- ,	not endangered	Gal	5/ 4/74	IAB	
	BET-004	S4-8	X	UA70-143 #1-6 UA75-140 # 1	? IAB	tested (see 1970)	-	not endangered	Gal	5/5-6/74	IAB	
	BET-005	S4-9	X	UA70-145 #1 UA75-141 #1	? IAB	tested (see 1970)	-	not endangered	Gel	5/ 6/74	IAB	
	BET-006	S4-10	x	UA70-147 #1-2 UA70-148 #1-6	?	tested (see 1970)	MS 87-1.1	undisturbed, not endangered	Gal	5/ 7/74	IAB	
				UA75-142 #2	IAB							
	BET-012	54-11	X	UA70-104 #1-3	?	tested (see 1970)	-	not endangered	Gal/Yar- borough	5/15/74	IAB	

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							• • • • • • • • •		Field Notes			
Write-up (name)	State Site No.	Site Name	Cata- loged (x)	U of A Acquisition No.	Location of Artifacts	Excavated or Tested	Const. Area	Destroyed, damaged, or unendangered	Name	Dates	Location Xerox of copies Notes made (x	
••	BET-023	S4-12	x	UA70-195 #1-156	IAB	excavated (see 1970)	MS 92-1	destroyed	see index		IAB	
	BET-048	84-13	X	UA75-143 #1	IAB	tested	- -	not endangered	Gal/Yar- borough	5/26/74	IAB	
	BET-009	S4-14	x	UA70-150 #1-7 UA75-144 #1	? IAB	excavated (see 1970)	- - 	not endangered	Boraas Gal/Yar- borough	5/26/74	IAB	
	WIS-012	S4-15	x	UA74-49 UA75-145 #1-20	IAB	excavated	MS 97-4	not endangered	Gal/Yar- borough	5/27-28/74	IAB	
	BET-040	S4-16	X	UA74-26 #1-764	IAB	excavated	MS 91-3.1	destroyed	see index		IAB	
	WIS-013	S4-17	X	UA74-51 #1-63	IAB	excavated	MS 99-1.2	not endangered	see index		IAB	
•	BET-041	S4-18	X	UA74-27 #1-6513	IAB	excavated	MS 91-3.1	destroyed	see index		IAB	
	BET-011	S4-19	X	UA70-153 #1-3 UA75-	? IAB	tested (see 1970)		not endangered	Gal/Yar- borough	6/ 4/74	IAB	
	BET-014	84-20	x	UA70-152 #1-13 UA75-12 #1-57 4	? IAB	tested (see 1970 and 1975)	PLCL AS 85 Sta 1168	partially des- troyed by pad construction	Gal/Yar- borough	6/ 4/74	IAB	
	BET-018	S4-21	X	UA74-50 #1-2	IAB	excavated	MS 90-1	undisturbed, not endangered	Gal/Yar- borough	6/10/74	IAB	

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										Field Not	es	
Write-up (name)	State Site No.	Site Name	Cata- loged (x)	U of A Acquisition No.	Location of Artifacts	Excavated or Tested	Const. Area	Destroyed, damaged, or unendangered	Name	Dates	Location of Notes	Xerox copies made(x)
<u> </u>	WIS-014	S4-22	x	UA75-146 #1-2	IAB	tested	-	not endangered	Yarborough	6/15/74	IAB	
	WIS-015	S4-23	X	UA75-147 #1	IAB	excavated	MS 100-1.2	destroyed	Yarbo rough /Pierce	7/10- 7/11/74	IAB	
	BET-050	S4-24	no artifact	B	-	-	MS 92-3	undisturbed, not endangered	Gal	7/17/74	IAB	
• .	WIS-010	S4-25	X	UA74-46	IAB	excavated	MS 96- 3	destroyed	see index			
	WIS-011	S4-26	X	UA74-47	IAB	excavated	MS 96-3	destroyed	see index			
	BET-051	S4-27	x	UA75-148 #1-2	IAB	tested		not endangered	Gal	7/29/74		
	BET-042	S4-28	x	UA74-44 #1-328	IAB	excavated	MS 93-1	undisturbed, not endangered	see index		IAB	
	WIS-016	S4-29	X	UA75-149 #1	LAB	tested	MS 96-3.1	destroyed	Yarborough	8/13/74	IAB	
	WIS-017	S4-30	X	UA75-150 #1-4	LAB	tested	MS 94-1B	undisturbed, not endangered	Gal	9/13/74	1	
	WIS-018	S4-31	X	UA75-151 #1	IAB	tested	MS 94-1B	undisturbed, not endangered	Gal	9/13/74		
	WIS-019	S4-32	x	UA75-152 #1-2	IAB	excavated	MS 96-1	undisturbed, not endangered	Yarborough Dye Kinane	8/14-15/74 8/14/74 8/15/74	IAB	

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ALYESKA PROJECT - Section 4, 1974

										Field No	tes	
Write-up (name)	State Site No.	Site Name	Cata- loged (x)	U of A Acquisition No.	Location of Artifacts	Excavated or Tested	Const. Area	Destroyed, damaged, or unendangered	Name	Dates	Location of Notes	Xerox copies made (x
······	BET-052	S4-33				tested	-	undisturbed, not endangered	Gal/Dye	8/15/74	IAB	
	BET-053	S4-34				excavated	MS 92-3.1	destroyed	see index		IAB	
	BET-054	S4-35	n Na Santa Na Santa			excavated	MS 93-3	destroyed	see index		IAB	
	BET-055	S4-36	X	UA75-153 #1-3	IAB	tested	MS 93-3	undisturbed, not endangered	Gal	8/22/74	IAB	
	BET-056	S4-37	x	UA75-154 #1-3	IAB	tested	MS 94-0.2	undisturbed, not endangered	Gal	8/23/74	IAB	
	WIS-020	S4-38	x	UA75-154 #1-4	IAB	tested	MS 96-2.1	destroyed	Gal	8/24/74	LAB	
	WIS-007	S4-39	no artifact	8	-	-	PLP 1010	disturbed by bottle hunters	Gal	5/13/74	IAB	
	CHN-005	S4-40	x	UA75-156 #1	IAB	tested	-	undisturbed, not endangered	Gal	9/15/74		
	CHN-006	S4-41	x	UA75-157 #1	IAB .	tested		undisturbed, not endangered	Gal	9/15/74		
	CHN-007	S4-42	no artifact	. - 8	-		RDCL AS 102 Sta 2060	undisturbed, not endangered	Gal	9/15/74		
	WIS-022	54-43	1974 1975X	UA75-113 #1-105	IAB	excavated (see 1975)	PLCL AS 94 Sta 1015	partially damaged, not endangered	see index		IAB	

ALYESKA PROJECT - Section 4, 1974

										Field Not	es `	
Write-up (name)	State Site No.	Site Name	Cata- loged (x)	U of A Acquisition No.	Location of Artifacts	Excavated or Tested	Const. Area	Destroyed, damaged, or unendangered	Name	Dates	Location of Notes	Xerox copies made(x)
<u> </u>	BET-057	S4-44				excavated	PLCL AS94	destroyed	see index		IAB	
- -	WIS-023	S4-45	x	UA74-52 #1-117	IAB	excavated	MS 95-1 .2	undisturbed, not endangered	see index		IAB	
•	WIS-006	K-9	X	UA70-136 #1-622 UA75-	Anth/UA	excavated (see 1970)	MS 96-3	destroyed	see index			
	WIS-003	K-30	x	UA70-207 #1-2	1	excavated (see 1970)	MS 96-1	undisturbed	see index		IAB	

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Trans-Alaska Pipeline Section 4

THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

The Jim River Grayling Creek Valley

Robert Gal

The Jim River Grayling Creek Valley is a 22-mile long corridor which extends from the confluence of the Jim River and Prospect Creek and is a small portion of Section 4 of the Alyeska Pipeline. The ridges bordering the valley are at least 300 m above the valley floor which at its widest point is about a kilometer wide. The valley serves as a ready north-south corridor for animals and man and the Alyeska pipeline and haul roads wind their way through this valley.

In 1970, archeologic reconaissance of the Jim River/Grayling Creek Valley was initiated by the University of Alaska. During this survey preliminary to pipeline construction, five archeological sites (BET-023, BET-024, BET-025, BET-026, BET-027) were located and tested. In 1974, with the beginning of construction of the Alyeska pipeline, thirteen additional archeological sites were located (BET-040, BET-041, BET-053, BET-051, BET-042, BET-052, BET-054, BET-055, WIS-022, WIS-017, WIS-018, BET-057, BET-056). Of these thirteen, six (BET-040, BET-041, BET-053, BET-042, BET-054, BET-057) were directly endangered by pipeline construction and were excavated and one (WIS-022) was partially excavated in 1974 and completed in the 1975 digging season. Also, in 1974, BET-023 (discovered in 1970) was excavated and in 1975, BET-026 (also discovered in 1970) was excavated, and BET-059 was discovered and excavated. Of the 19 archeological sites located in the Jim River/Grayling Creek Valley during the course of pipeline construction then, nine have been excavated.

All 19 sites are located on slight elevations - kame features or decomposed bedrock knolls. No sites were located directly on the shores of Grayling Lake or on river or creek sides. It seems probable that most sites are situated for reasons of improving visibility for game spotting. The physiography of the Jim River Grayling Creek Valley presents a restricted ecological system.

Disregarding climatic changes over time - the exploitation of physiography in game pursuit is in a greater sense the most critical feature. Analysis of cultural and subsistance variables can proceed among lines based upon the compatibility of site situation. Thus, differences in tool kits between sites can be explained not simply in typological/chronological terms but in functional terms. Specifically, we can make the assumption that people use different parts of their territory for different activities employing different tool kits at different seasons in different social groups.

The Jim River Grayling Creek Valley - page 2

As analysis has just begun, only an indication of the significance of the settlement patterning is available. Almost all of the excavated sites had hearths associated with the artifacts indicating an occupation rather than simply a look-out station. Of the 19 sites, ten command a north view, four command a south view, and five, because of the small size of the hillock, command both a north and a south view. Unfortunately, only minute fragments of faunal material have been recovered from these sites. Nevertheless, the assumption that caribou constitute the resource base seems most probable (faunal analysis of the recovered fragments of bone will lend support to this statement). The northerly or southerly dispositon of the sites, given our assumption of a caribou-based economy will indicate whether sites were occupied in the spring or the fall time - south-facing sites allow for easy spotting in the spring when the herds move north and northfacing sites would be occupied in the fall when the animals are moving south.

The two most significant sites excavated, BET-040 and BET-041, are located on the same bedrock remnant on the floor of the Jim River valley and face south and north respectively. A brief discussion of these two sites will illustrate the application and utility of the seasonal model.

	Microblade				•		
	Cores &		· · · ·		Buri ns	Knife	
	Fragments	Microblades	Points	Gravers	& Spalls	Bifaces	Scrapers
BET-040	68	584	9	1	47	9	6
BET-041	65	5,272	34	8	149	41	41

At both sites essentially the same diagnostic artifact types were recovered - wedge-shaped microblade cores and microblades, side-notched, foliate and lanceolate projectile points, and transverse or Donnelly burins.

Some notable differencs do occur - for instance, BET-040 lacks the fluted or Batza-tena projectile points which do occur at BET-041. In a general view, the BET-040 inventory seems more poverty-struck in terms of quantity of debitage. Identical forms are more massive at BET-041 than at BET-040. Obsidian and the variety of raw materials is more abundant at BET-041 than at BET-040. The density of occupation judged by quantity of raw material per unit area is greater at BET-041 than at BET-040. A Spring/Fall model would account for some of these differences. Raw material is most readily procured in the summer and fall than in the spring. If a supply of raw material is obtained during the summer thaw and gradually exhausted over the winter months - material would be more carefully utilized in the spring. Ethnographic accounts describe small scattered groups during spring hunting and larger co-operative hunting groups in the fall.

The Jim River Grayling Creek Valley - page 3

By looking at the proportion of functional types in the two sites some interesting propositions arise. In both sites microblade technology is pronounced - except the number of microblades in the spring site (BET-040) is decreased - perhaps indicating less discrimination in the selection of blades for use. Most distinctive in the preliminary figures (based upon catalog items) are the graver/burin category and the knife/scraper category. The increase in scrapers and knives at the northern (fall) site is understandable by ethnographic analogy. Fall hides were valued for winter clothing and hide processing is a major fall activity. Spring hides are poor. The graver/ burin increase in the supposed fall site is perhaps indicative of an increase in the working of antler. Interesting here is the strong high spatial correlation at BET-041 of Donnelly burins and microblades.

While microseriation of the materials from the Jim River Grayling Creek Valley promises new insights into culture process, by doing so it should promote greater understanding of the Interior Alaska chronology. Are lanceolate forms associated with notched forms? How generalized or restricted is microblade technology? Should microblade technology be discarded as "noise" and should our concern instead shift to other types as chronological indicators? These are some of the problems that will be posed.

In a more traditional view, the Jim River finds offer new artifact assocations - for example the co-occurence of fluted points, microblades and tabular microblade cores. The microblade population recovered from BET-040 and BET-041 is the largest yet discovered in Alaska - roughly doubling the total number of microblades discovered to date. The insight into microblade technology such a large population of specimens can provide will be useful in understanding the significance of other microblade sites in the state.



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Trans-Alaska Pipeline Section 5/6

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THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

1970-1975

Michael L. Kunz and Dale C. Slaughter

Trans-Alaska Pipeline Section 5/6 is the farthest north and longest of all the pipeline sections. This section extends from Minnie Creek, located 110 km north of the Arctic Circle, to Prudhoe Bay on the Beaufort Sea; a distance of approximately 355 road/pipeline kilometers. The majority of this section (300 km) lies north of the continental divide, while the rest covers the southern portion of the Brooks Range and the mountainous, hilly woodland area adjacent to the Range's southern flank. Only that portion of Section 5/6 lying north of the continental divide will be discussed here, as that portion south of the divide is virtually identical, archeologically and culturally, to the material that has been discussed in Section 4.

The physiography of the area is that of mountains and broad river valleys, trending into rolling tundra, which in turn gives way to the flat arctic plain. Ground cover is typical tundra, accentuated by small stands of willow and dwarf birch along some of the water courses.

A total of 126 archeological sites were discovered and tested; of these, twenty-one (21) were deemed worthy of intensive excavation. This work was carried on between May, 1970, and October, 1975. In some cases winter excavation was necessary with field personnel working at temperatures as low as 45° C below zero. As a result of this a number of new excavation techniques were developed through necessity.

The sites of this section can basically be divided into the following categories: Pre-Denbigh-Ipiutak continuum, Denbigh-Ipiutak continuum, Modern Athapaskan, Prehistoric and Historic Eskimo. Most of the sties are multicultural, arguing for long-term use of sites, and fairly shallow, making an assessment of any cultural stratigraphy quite difficult. Where cultural mixing does occur separation has been arrived at through morphology of diagnostic artifacts, differences in lithic material, and the fact that different cultural materials usually are found in separate localities within the same site.

The Pre-Denbigh sites are represented by the Gallagher, Batzatena, and Palisades/Tuktu cultures, with dates of 10,500 BP, 8,000 BP, and 5000-6000 BP, respectively. The Locality I Gallagher material demonstrates a core and blade industry in which the workmanship is rather crude while

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Trans-Alaska Pipeline Section 5/6 - page 2

the later Batza-tena material is typified by rather thick, lanceolate points, some of which are fluted. The Palisades/ Tuktu material is typical of that defined by Giddings and Campbell. Four sites make up this division, three of which are multi-cultural.

There are thirteen sites which fall into the Denbigh-Ipiutak continuum category, which includes Denbigh, Choris, Norton, and Ipiutak. The majority of these demonstrate only what appears to be Choris and Norton components, though several include Denbigh and possibly Ipiutak. The largest of these sites (PSM-049) is made up of twenty-one separate localities, seventeen of which are Denbigh. All of these sites appear to be of the small hunting camp variety; the same area being used seasonally and sporadically over a fairly long period of time. Tool types appear to be quite typical of the Denbigh-Ipiutak continuum, with slight variations probably occuring due to a change of habitat, inland as opposed to coastal.

Three of the twenty-one mentioned sites are Kavik, thought to be representative of the Athapaskan culture. Two of the sites are single component while one is multi-component. The largest of these sites is PSM-074, which extends discontinuously for approximatly one-half mile along the northern bank of the Atigun River near Galbraith Lake. This is one of the few deeply buried, stratified sites in the region, as well as one of the farthest north major habitation sites of Athapaskan peoples. The various cultural levels of the site date between 700-1500 AD; the same dates probably are applicable to the other two sites representing this culture.

Six sites may be assigned to the Eskimo (prior to white contact); in this case, Nunamuit Eskimo. In all cases but one, these sites are multicomponent displaying Eskimo trending into Historic Eskimo. One large site (PSM-036) on the south bank of the Atigun River, opposite PSM-074, contained a number of collapsed moss houses, and tent rings. This site contained both prehistoric and historic artifacts in a definite sequence.

Five sites may be placed in the Historic Eskimo category. These sites range from approximately the time of white contact through the 1940's. These sites demonstrate the very rapid change in the Eskimo way of life once sustained white contact was established.

Perhaps the single most important aspect of the archeological work done in Section 5/6 is the discovery of site PSM-050 from which a date of 10,500 BP has been obtained. This is the oldest dated site on the entire 1200 km of pipeline. The second oldest site on the pipeline, PSM-027, is also located in this section. This section contains, due to the location, a greater cultural diversity spread over a greater time period than any of the other sections.

State Site No.	Gallagher	Batza-tena	Tuktu Palisade	Denbigh	Choris	Norton	Ipiutak	Kavik	Prehistoric	Historic Eskimo
PSM-069									x	
PSM-092			X	x	?					
PSM-055				?					x	
PSM-049				X			?	X		
PSM-074								X		
PSM-036									х	X
PSM-027		x								
PSM-091					X	X				
PSM-056					X	X				
PSM-010					X	X				
PSM-059					X	X				
PSM-058				X	X	X				
PSM-050	x		X		X	X	?		x	
PSM-072				?	x	X	?		x	
PSM-057					X	X				
PSM-060			X	?	X	X	?			
SAG-005								x		
SAG-004									х	Х
SAG-002										Х
PSM-009										X
XBP-005										х

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Trans-Alaska Pipeline Section 2

THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

1974-1975

Raymond R. Newell and Wayne E. Wiersum

Trans-Alaska Pipeline Section 2 is the southernmost section of the line to be investigated by the University of Alaska, Fairbanks. Beginning in the south at Hogan Hill, the line passes through rolling hills with boreal forest and upland moist tundra between the Gakona and Gulkana river systems. Passing the proglacial lake remnant, Summit Lake, the line crosses the alpine zone of the Alaska Range at Isabel Pass and into the Yukon-Tanana drainage basin. North of that divide, it passes through the same succession of ecological zones, but in reverse order, roughly paralleling the Delta River until the latter flows into the Tanana, north of Big Delta. From this confluence, the line procedes through the heavily forested Tanana Uplands and across the Salcha River into Section 3. In terms of elevation, Section 2 commences at 789.1 meters at Hogan Hill, rises to 1,100 meters over a distance of 90 km at Isabel Pass and then drops to 238.7 meters in 160 km at the Salcha River.

Archaeological investigations in Section 2, directly related to pipeline activities, began initially in 1971. A small-sized crew conducted a preliminary, rapid survey along the right-of-way and located and tested three sites: Coopenhaver's A.S. 50; Donnelly A.S. 42; and Shaw Creek A.S. 49 (APSC Final Report 1971). No archaeological work was conducted in 1972 nor in 1973, due to the construction push north of the Yukon River. Spot checking and testing of material site prospects during 1974 by Dr. John Cook produced four additional sites: MS. 32-0, M.S. 33-4, M.S. 37-2, and M.S. 39-3.

From February to June, 1975, survey of the pipeline corridor, access roads, disposal sites, and material sites (and prospects) was conducted by one of the supervisory archaeologists. During this period, no additional sites were located. From June through August, 1975, intensive line and material site survey and testing was continued. In addition, persistent surveillance of Vertical Support Member drill holes by the Section 2 resident archaeologists produced positive, valuable palaeontological evidence (V.S.M. 655, V.S.M. 721, and V.S.M. 747 A1).

In the early summer, systematic excavations commenced at the Fish Creek Site (GUL-060) at M.S. 33-4. The site is located on the tope of a truenorth-south oriented lateral moraine, some 2 hectares in extent and 27.5 meters above the valley floor. The site consisted of three separate concentrations. Preliminary field identification would indicate that the separate concentrations

Trans-Alaska Pipeline Section 2 - page 2

are possibly single-component occupations. The exact chronological relationships between the concentrations have yet to be determined. However, the southerly two and most prolific of the concentrations are both characterized by stemmed and side- and corner-notched points and rounded and rectangularbased lanceolate points, end scrapers, tchi-thos, biface fragments, retouched flakes, a few microblades, obsidian flakes, and a minimum number of Donnelly burins. The third concentration had a much lower density of waste material and its only artifact was a retouched flake. In addition to the lithic material, the southerly two concentrations yielded fuanal remains preliminarily sorted into "small mammal", "large mammal", and "fish" categories. In hoth concentrations, the bone fragments are tightly grouped into two discrete clusters immediately adjacent to the respective tool clusters. None of the concentrations yielded convincing ground features.

The patterns of the horizontal distribution and densities of the wastematerial, artifacts, and faunal remains, as well as the heterogeneity of the tool-kits would indicate that all three concentrations are some sort of specialized activity or extraction camps. In terms of industrial (cultural?) affinity, all three concentrations would seem to belong to the broad and as yet ill-defined Denali Complex of Interior Alaska.

Finally, as neither the Coopenhaver site nor the Shaw Creek site was directly threatened, no further investigations were conducted. The Donnelly area was intensively tested in the summer of 1974 and again in 1975. Neither campaign succeeded in locating more than a minimum amount of widely scattered materials. Extensive testing by last summer's field crew at M.S. 32-0, M.S. 37-2, and M.S. 39-3 failed to yield sufficient new materials to justify full-scale excavation. Later, their deletion from the Alyeska construction plans meant that the threat of immediate destruction of these marginal sites had been curtailed.



Trans-Alaska Pipeline Section 2

THE ARCING COMPANY, LTB. IROQUOIS RESEARCH INSTITUTE

The Fish Creek Site

Wayne E. Wiersum

The Fish Creek Site (Gul-60) is located on the Mt. Hayes Quadrangle A-3 some 13 km north of Paxon, Alaska. The exact provenience of the site, designated MS 33-4 by the Alyeska Pipeline Company, is 510 m east of milepost 191 on the Richardson Highway, and 90 m north of Fish Creek, a feeder stream of the Gulkana River.

The site is situated on the top of a north-south oriented lateral moraine, some 2 hectares in extent which is part of the Summit Lake glacial valley. The height of the moraine above the low, flat tundra to the west is approximately 25 m, which would have provided the occupants with a commanding view of the surrounding area. The Summit Lake valley is classified as a moist tundra ecosystem.

Preliminary spatial distributional analysis indicates three high-density artifact producing zones separated by sterile areas. These high-density zones correlate with the three knobs of the moraine. The southernmost knob (Zone A) has the highest density of debitage and second highest tools to chipped stone debitage ratio. Zone B produced the highest density of retouched tools but a relatively low density of waste flake index. The northernmost small knob, Zone C, yielded few tools and a meager amount of debitage. Although mammal and fish bone was present it was randomly scattered and highly broken to small pieces.

There was little vertical depth to the cultural deposit. Almost 95% of the retouched tools and debitage was encountered in the A_1 or A_2 zone of a weakly developed Podzol, or, within the first 6-8 cm of the soil profile. The lack of clear cut natural and cultural stratigraphy and other environmental factors, i.e., cryoturbation prohibits a significant vertical distribution analysis.

The retouched tool assemblage consists of eight broad artifact classes each broken down into a number of subclasses. The tool classes include: 1) Projectile Points (stemmed, side-notched, and square and rounded base lanceolate forms); 2) Biface Fragments; 3) Microblades; 4) Blades; 5) Scrapers (end, side, random flakes); 6) Burins; 7) Tchi-tho; and 8) Cores. A total of 175 lithic retouched tools came from an excavated area of 350 square meters.

The Fish Creek Site - page 2

The general tool assemblage is similar to a limited number of Denali Complex components particularly Site 9 on the Susitna River drainage, the Campus Site in College and the Donnelly Ridge Site near Delta Jct. Similarities are also evidenced in the uppermost levels at the Healy Lake Site as reported by John Cook. He has also suggested the Denali complex to be an early manifestation of the Athapaskan Tradition. F. Hadleigh-West has two debated C^{14} dates of AD 120+200 and AD 160+300 from the Donnelly Ridge Site. Other dates for this complex cover a period from the time of Christ to the Historic Period.

Alyeska pipeline

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Archaec	ologist's Initials	Date						
Serial N	umber	Pipeline Section No						
		Alignment Sheet No.						
	ARCHAEOL	LOGY REPORT						
Site De	scription							
Date Ex	camined							
The ab inspecti	ove site was examined for archaeological and on are as follows:	I paleontology artifacts, relics and fossils. Results of the						
1.	Site is clear of any archaeological or paleontolo	gical material of value.						
2.	Site contained some material which has been re	covered.						
3.	Surface of site is clear but archaeologist should	be present when excavation is started.						
4.	Site contains material of value and further work	k is needed before any construction.						
5.	Previously reported archaeological or paleonted been cleared.	ological discoveries at this location have now						
Re	port of findings will be made by	(Date)						
		(Check one)						
	This is to c	certify construction work at this site is cleared						
		conditionally cleared						
		not cleared						
*Condl	tions:							
		Alyeska Archaeologist Signature						
ee: (1	White) Alveska Manager Environmental Protection							
	Canaryl Alyeska Project Marisger for this Section 7ink) Chief Archaeologist Soldenrod) Archaeologist File	320						



DITION DE 1853

THE ARCTIC COMPANY, Ltd.

SUITE 215 6201 LEESBURG PIKE FALLS CHURCH, VIRGINIA 22044 TEL: 703 - 534-8200

BARROW WHALERS RULES

April 12, 1971

Revising those of April 2, 1968

- 1. Bomb or pieces of bomb found in a whale other than those that were used to kill the whale will be considred the first bomb to enter the whale. The marker should be clearly marked on the bomb, so as not to be missed when identifying the marker. The captain and crew of the identified bomb will take possession of the whale. A bomb or pieces of bomb found just sticking to the muktuk or blubber of a whale, with no apparent harm to the whale, will be considered the first bomb. The captain and crew of the identified bomb will put up flags and take possession of the whale.
- 2. A whale that has been wounded, considered lost and abandoned by a crew, when killed by another crew and a bomb or pieces of bomb is found; the first bomb will take possession of the whale, however, the captain is subject to surrender 1/2of his "ordi" and also surrender his right to "sakik".
- 3. Replacing the used bomb or bombs used in killing a whale will be decided by the captain of the first bomb and the captain or captains who used the bombs to kill the whale. They will have a choice of either muktuk or bomb.
- 4. Persons who help cut up the whale, other than those on a crew of a boat, will get a share from the whale to divide among the persons who help. The captain who has possession of whale will keep track of the persons who are helping by writing the names down on a piece of paper.
- 5. All boats who anticipate going on the lead to whale will get a share of the first whale caught before they can get to the lead. Those who are subject not eligible for share are as follows: (a) not actively participating in whaling, (b) not represented in butchering whale while knowing a whale has been caught.
- 6. The captains of each boat decided that each captain who gets a whale will get a "sakik" in addition to what he normally gets from the whale.
- 7. Subject: "Pilaneak" People who cut pieces of meat or muktuk from the whale for their own, will not pilaneak until the captain or his representative who is a member of the whaling crew tells them. There will be no "pilaneaking" while the whale is being cut up.

8. NEW ADDITION. All boats shares not hauled away within 48 hours or 2 days will be at the disposal of the crew by direction of the captain that caught the whale. However, the captain shall notify the owner or his representative before taking this action.



9. Red flares are to be used in case of emergency and NEED OF HELP. B. W. Poirier

© 1971 [Note: the first written whalers rules in 1968 were based on tradition Fille Champer, See File, 321

1971 WHALING Symbols

	L
I. RALPH AVEOGANNA	
2. ROBERT AIKEN 1/1	COMPANDA IN
3. ALFRED HOPSON A.H.	
4. ROXY OYAGAK R.O.	
5. Thomas Ita T.K.	I.
6. Thomas BROWER 40	RH
7. ALFRED LEAVITT A.L	
8. WHITLAM ADAMS W.	II OR IWA
9. WARREN MATUMEAK	
10. ALLEN KALEAK	<i>H</i> n
11. NATE NEAKOK	HIN
12. LUTHER LEAVITT	
13. WINFRED AHVAKANA	WFA OR XX
14. JOSEPH PANIGED	J.P.
15 MERLE SOLOMON	IXXI
16. PERCY NUSUNGINYA	PN OR DN
17. DAVID BROWER	X OR DB
18. THONIASJ. PANNINGONA	T.J.P.
19 WYNIAN PANIGEO	
20. ARNOLD BROWER SR.	$\rightarrow $ or h
21. JOE SIKVAYUGAK	#
22. HAROLD ITTA/SAMITA.	ALAK H
23, HORACE AHSOGEAK	H.A.
24 SIMEON PATKOTAK	5. <i>P</i> .

L

STATE UNIVERSITY COLLEGE AT BROCKPORT / state university of new york brockport, new york 14420



Department of Anthropology

October 27, 1975

Robert L. Humphrey Chief Project Scientist Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, VA 22044

Dear Bob:

In regard to your recent request about information on the archaeological resources along the various pipeline routes, I have nothing new to add to my last response. However, if possible, I would appreciate a copy of your final report.

How goes it?

Best,

Edwin S. Hall, Jr. Professor, Acting Chairman

ESH/cfh



THE ARCTIC LIMPANY, LTD IROQUOIS RESEARCH INSTITUTE



UNIVERSITY OF ALASKA FAIRBANKS, ALASKA 99701

November 3, 1975

Dr. Robert L. Humphrey
Chief Project Scientist
Alaskan Arctic Gas Pipeline
Company Project
Iroquois Research Institute
Suite 215
6201 Leesburg Pike
Falls Church, VA 22044



THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

Dear Bob:

Your letter of inquiry with regard to information relevant to evaluating the potential and importance of archaeological and historical sites on or near the proposed natural gas pipeline routes has been forwarded to me from Potsdam, and I rush to respond as your October 20 deadline is already past.

I am presently working with John Cook on the Alyeska Archeology Project in conjunction with the trans-Alaska pipeline. As you are aware, we have collected extensive information with regard to archeological and historical sites along the pipeline corridor, which would be relevant to your present project. Some of these data have already been published in 1970 and 1971 and should already be available to you through the institutions for whom you execute this contract.

In the interest of safeguarding these significant cultural resources, we would be pleased to cooperate with your project in so far as possible. However, we are presently under contract with the Alyeska Pipeline Service Company and lack the resources and staff to prepare such a report as you request. If your project were willing to support the direct and indirect costs of preparing such a report, we would be able to provide significant information relevant to your analysis. If you wish to pursue this matter further, we would be pleased to provide you with an estimate of the time and support required to complete such an analysis. Perhaps it would be most appropriate if such a request were directed to John Cook.
UNIVERSITY OF ALASKA

Dr. Robert L. Humphrey

November 3, 1975

Additionally, I am concerned that the public disclosure of site locations would lead to an increase in potential destruction of these resources as a result of enlightened pot-hunting activity, perhaps in the future after public access is increased. In New York State, we have attempted to make public only areas of archeological sensitivity, without locating actual sites or divulging their contents in an enticing manner. It would be disastrous if actions taken to preserve these resources had the long-term impact of causing their destruction, and I would like to know your thoughts on this question.

- 2 -

Rest assured that we are willing to assist you in this important undertaking in any reasonable manner, and would be willing to cooperate in any effort to safeguard Alaska's cultural heritage.

Best regards.

Albert A. Dekin, Jr. Supervisory Archeologist Alyeska Archeology Project Institute of Arctic Biology

AADbw

cc: J.P.Cook A.W.Anderson, Jr.





Appendix Two contains examples of the contractual state-of-the-art for compliance with regulations for the protection of cultural resources.

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CONTRACTS		<u> 330 - 4</u>	486	
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			I	END

Troquois Research Institute

SUITE 215

6201 LEESBURG PIKE FALLS CHURCH, VIRGINIA 22044 TEL: 703 - 534-8200

14 October 1975

MEMORANDUM TO ALL FIFTY STATE HISTORIC PRESERVATION OFFICERS

We are currently performing an archaeological study for the Federal Power Commission and the Department of the Interior. This study, Volume Two of a twopart effort, will contain our recommendations for technical performance specifications which could be imposed on any commercial entity authorized by these agencies to construct a natural gas pipeline through Alaska.

It is our intention to articulate the step by step field and investigatory procedures to comply with the National Historic Preservation Act et al for both the preconstruction and the construction phases, and to define as clearly and as neatly as possible the field procedures; operational criteria; performance standards; sampling and search stipulations; data collection, control and coding; reimbursement of direct project costs incurred by the local Historic Preservation Office; assessment accuracy; qualification of personnel; recovery and preservation of artifacts; etcetera. In order to accomplish this we wish to establish as broadly as possible the contractual state-of-the-art and for this purpose we request your aid.

We would like to receive as promptly as possible any copies of relevant contracts (without proprietary or cost data) related to archaeological investigation in which technical and professional specifications, objectives, standards, criteria and procedures are spelled out. We would also like to receive whatever criteria or standards have been promulgated as guidelines and may be incorporated by reference in archaeological contracts awarded within your state or for performance in your state.

This study for Interior and FPC, under FPC contract FP-1780, has a very tight timetable and we request your assistance, recommendations, advice, ideas and reply just as soon as possible. The materials and information we receive could become part of the public record by Interior or by FPC, or both.

Thanking you in advance for your courtesy in this matter, we remain

Sincerely, Iroquois Research Institute Bernard Director

c.c. Society for American Archaeology Associated General Contractors of America

RSVP by 23 October 1975



1835 SOUTH BRAGAW STREET (99504), P.O. BOX 4-Z (99509), ANCHORAGE, ALASKA, TELEPHONE (907) 278-1611, TELEX 090- 5

October 28, 1975



Mr. Bernard W. Poirier, Director Iroquois Research Institute 6201 Leesburg Pike, Suite 215 Falls Church, Virginia 22044

Dear Mr. Poirier:

THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

General A. P. Rollins has suggested that I correspond direct to expedite furnishing some of the archaeological material you requested in your letter of 10 October 1975.

Attached are two 1974 archaeological surveillance proposals submitted to Alyeska Pipeline Service Company, describing field investigations and salvage efforts to be furnished the Trans-Alaska Pipeline r.o.w. One covers the area from Valdez to Hogan Hill, the second from Hogan Hill north to Prudhoe Bay.

Archaeological investigations, surveillance and salvage as outlined in these proposals was conducted, and in fact some phases, i.e., report preparation and cataloging of artifacts or materials collected, and certain field surveillance efforts are continuing through the remainder of the construction project.

Hopefully, this information will be of assistance to you.

Sincerely Hilliker

Environmental Administrator

BLH:vjz

xc General A. P. Rollins, w/attachment
Frank R. Fisher
Records Center

(Your letter of 22 October 1975 has been received.)

alaska methodist university

DRAFT

Memorandum of Agreement

SURVEILLANCE OVER PRELIMINARY CONSTRUCTION ACTIVITIES ALONG THE SOUTHERNMOST PORTION OF THE PROPOSED TRANS-ALASKA PIPELINE (VALDEZ TO HOGAN'S HILL): PROPOSED WORK IN 1974

1. Name and Address of Institution

Laboratory of Anthropology Alaska Methodist University Anchorage, Alaska 99504

2. Director

William B. Workman Assistant Professor of Anthropology Alaska Methodist University

NOU

THE ARCTIC CLAUPANY, LTD. IROQUOIS RESEARCH INSTITUTE

3. Desired Starting Date

Manpower commitment, preferably by February, 1974 Limited Preliminary Work, May, 1974 Field Work, June 1-November, 1974

4. Total Period of Project

Phase I Preliminary Construction Activities, summer and fall, 19

5. Nature and Scope of Project

The purpose of this project is to aid the Alyeska Pipeline Service Company meet construction stipulations by maintaining surveillance over the preliminary phases of construction activity adequate to prevent or minimize loss of archeological information from construction activities. All projected construction sites which may contain archeological information will be inspected for the duration of Phase One construction activities. These sites will include access roads, pumping stations, construction camps, communication towers, and material sources in addition to clearance and other construction activities along the right of way itself. Owing to the scope of the project, the fact that several clearing crews will be operating at once, and the size of the area covered, frequent checking will be necessary, but it is anticipated that one three-man crew (to divide its activities as circumstances warrant) will normally be adequate. If substantial endangered archeological sites are located under circumstances where salvage excavations are indicated, it will be necessary to obtain a larger salvage crew for a short period. In this event supervision will be supplied by us and manpower by Alyeska. The added expense of undertaking substantial salvage excavations on an emergency basis and the subsequent extensive necessary laboratory analysis have not been included in the budget estimates which accompany this proposal.

· •• .

A full crew to be based in the area can be provided from June through August and hopefully into September, 1974. Some preliminary preparatory work is scheduled for May. From mid-September our activities will be confined to weekly inspection trips of c. 2 days duration by a crew of two. Ordinarily this work will be done on weekends, but under special conditions a midweek check will be possible. Attention will be focused on land cleared since the inspection of the week previous. Borrow sources, proposed access roads, and other major activity areas off the right of way itself will have been checked out during the summer. As the subarctic winter draws on, daylight working hours will be increasingly curtailed and it will, of course, become more and more difficult to test potentially significant areas with the advent of snow cover and as the ground freezes.

Close relations with the Alyeska Pipeline Service Company will be maintained both in the field and in Anchorage for the duration of the project. Brief reports will be prepared weekly by the appropriate individuals and a longer interim report will be prepared by the field director at the end of the summer's work. A final summary report will be prepared by the director of the project within 30 days following the conclusion of field work.

Explanation of Budget Items

Salaries and Wages

The summer budget has been calculated on the basis of a field season lasting from carly June to mid-September. It may not be possible to find a crew whose academic commitments allow it to stay in the field that long. If this proves to be the case, our fall inspection program will start carlier and the budgeted funds will probably not be entirely expended.

The position of fall field director has been inserted in anticipation of great difficulty in finding qualified

archeologists available for part-time work at this time of year. It seems likely that the director will have to participate in the field work in the fall and attend to a number of other details, including the preparation of the final report. This task will be a considerable drain on his time and it is thought that the institution (not the individual) should be compensated for making the necessary adjustment in his academic duties.

The summer budget has been calculated on the basis of a six-day work week. Obviously, when circumstances warrant, the crew will be expected to be on the job on a seven-day basis.

The consulting item has been inserted in anticipation of the possibility of encountering significant paleontological remains where an expert's opinion would be of value. Extensive analysis (as opposed to excavation) of paleontological remains is beyond our competence and other arrangements will have to be made if this proves necessary.

This budget estimate attempts to foresee circumstances which may be thought reasonably to prevail. At no time will more money be spent than necessary to accomplish the work described. Should unforeseen complications arise, the project director will submit to Alyeska a revised estimate of expenses.

Surface Transportation Air Travel

From June to September we will need control of one substantial vehicle--preferably a four-wheel drive carryall. We will also need access to other vehicles when our crew must be split to do along-the-road work, but this use can be integrated with Alyeska's work schedule.

From September to November we will need a vehicle for our weekly inspection trip from Anchorage. Possibly a University vehicle could be used for this with mileage reimbursable at 15¢ per mile (estimated weekly cost c. \$75.00). Obtaining gas for these trips may prove a problem.

We should be able to keep use of helicopter time to a minimum since much of the land is accessible from the road system. When working in inaccessible areas (i.e., across major rivers from the road system) we should be able to coordinate our work so that we can go out with the brushing crew, etc., for whem transportation must be provided at any rate. Possibly we will need helicopter transport to check out the localities where communication towers are planned. We should be able to coordinate our work with the local work schedule and needs.

Equipment

We will need these items. Alyeska has the option of providing them rather than the money to purchase them.

4 -

Food

Our understanding is that Alyeska will provide room and board for the crew in its construction camps. The sums entered here for the summer work are in anticipation of work and travel requirements causing us to miss a number of these provided meals.

SURVEILLANCE AND SALVAGE ARCHEOLOGY

ALYESKA PIPELINE SERVICE COMPANY

Principal Investigator: Department of Anthropology University of Alaska Fairbanks, Alaska

(Dr. John P. Cook)

Effective Date: 1 April 1974

Duration: Until pipeline and associated construction is complete (approximately three years)

Endorsements:

Earl Peterson Business Manager Northern Region

Beistline Earl Provost Northern Region

IROQUOIS RESEARCE INSTITUTE Anthony B. Frol Associate Comptroller University of Alaska

3 1975

NGV

THE ARCTIC COMPANY, LTD.

Dr. Donald Theophilus Vice President/Academic Affairs University of Alaska

APSC-1, 2/26/74

General

Since 1969, the University of Alaska has surveyed all available sections of the Alyeska pipeline route north of Hogan's Hill for archeological remains. More than 200 sites were located, resulting in some 10,000 catalogued items. All of these sites were restricted to surface or near surface conditions. Construction activities involving deeper excavation will undoubtedly reveal more, and quite possibly older, sites, as pointed out by the Arctic Institute of North America in its evaluation of the archeological work to the present.

Proposed

This is a proposal to ensure a constant surveillance and continuing survey during clearing and construction activities of Alyeska. It is intended to extend for the duration of pipe and facilities construction although the budget figures beyond the second quarter of 1974 (April -June) may require adjustment.

Basically, the plan to best accomplish the archeological objectives is as follows:

- Surveillance of construction and survey of clearing operations. Two archeologists will rotate between four construction camps over a one- or two-week period.
- 2. An orientation/information session to acquaint camp personnel with the importance of archeology. This will be presented by the Principal Investigator at each camp at least twice per year. Other techniques (e.g., movies) will also be utilized to "get the message across".

APSC-2 2/26/74

3. Emergency Salvage

- A. Excavation of a known site at the Atigun River crossing is necessary during Spring 1974.
- B. In the event that other sites are found which are beyond the excavation capabilities of the two-person surveillance crew, an emergency crew will be contracted with separately, not through the University, to effect the proper salvage of the site insofar as is possible.

4. Processing

A part time laboratory technician will clean, catalog and make an initial analysis of material recovered by the surveillance and survey crews. A part-time secretary will process biweekly reports and others as needed.

Personnel

- 1. Supervisor/Principal Investigator Dr. John P. Cook
- Archeologists Senior graduate and undergraduate students in archeology - will require two for every four construction camps. One will also be required to supervise the excavation of the Atigun site.
- Assistant Crew Members archeology students to excavate sites beyond the time and manpower capabilities of the surveillance/ survey crews.
- Laboratory Technician archeology student to process material recovered in the field.
- 5. Secretary to prepare reports, order supplies, and keep records.

Transportation

All necessary transportation within Alaska will be furnished by Alyeska Pipeline Service Company. On-the-ground transportation along the pipeline and haulroad will require a vehicle for about one week per month for each construction camp.

Facilities

Camp facilities (meals and lodging) will be furnished by Alyeska Pipeline Service Company for the surveillance/survey crews. This will involve four persons from 1 April to 16 May and six persons thereafter until more construction camps are opened, when more crews will be needed. Emergency excavation crews will also be furnished such camp facilities when and where feasible.

Administration

Responsibility for archeological salvage along the part of the pipeline from Hogan's Hill to Prudhoe will lie with the Supervisor from the Department of Anthropology. This will include the crew hiring in compliance with EEO guidelines, application for Antiquities Act permits, and quarterly budget review and revision.

Material obtained during the course of construction activities will be deposited in the University Museum, University of Alaska, in trust for the people of Alaska.

APSC-4 2/26/74

Schedule of Operations

- 1. Second Quarter 1974
 - A. 1 April 15 May
 - 1. surveillance of construction (camps, airstrips, river
 - crossings, roads)
 - 2. survey during clearing operations
 - 3. two 2-person crews
 - B. 16 May 1 June
 - 1. surveillance and survey as above
 - 2. emergency excavation of site at Atigun River crossing
 - 3. initiation of orientation/information sessions
 - 4. three 2-person crews plus archeologist and five crew

members for Atigun excavation

C. 1 June - 30 June

- 1. surveillance and survey as above
- 2. continuation of orientation/information sessions
- 3. three 2-person crews
- 2. Third Quarter 1974 until end of construction
 - 1. surveillance and survey
 - 2. orientation/information sessions
 - one 2-person crew for every four construction camps or as needed.



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Office of Archeology and Historic Preservation Interagency Archeological Services - Atlanta 730 Peachtree Street, Room 1010 Atlanta, Georgia 30308

H2219-PI(A)

Mr. Bernard W. Poirer Director Iroquois Research Institute 6201 Leesburg Pike, Suite 215 Falls Church, Virginia 22044

OCT 3 1 1975

Dear Mr. Poirer:

Thank you for your recent letter requesting information on our contracting procedures for archeological services.

Enclosed you will find copies of some typical scopes of work for archeological investigations at different levels of intensity. These documents specify to potential contractors the agencies' responsibilities under the various legislative and executive mandates as well as the services which are required in order to comply with the stated requirements.

We hope this information will be useful to you and if you have any questions, please do not hesitate to call our office at 404-526-2611.

Sincerely yours,

Wilfred M, Husted

Wilfred M. Husted Acting Chief, Interagency Archeological Services-Atlanta

Enclosures:scopes of work



THE ARCTIC COMPANY, LTD. Iroquois research institute



REQUEST FOR PROPOSAL TO PROVIDE A CULTURAL RESOURCES SURVEY AND EVALUATION

As an agency of the Federal Government, the Corps of Engineers has certain responsibilities concerning the protection and preservation of cultural resources. These responsibilities are defined in several federal laws and Executive Order 11593. Section 101 (b) (4) of the National Environmental Policy Act of 1969 (Public Law 91-190) declares that, "...it is the continuing responsibility of the Federal Government to use all practical means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may - preserve important historic, cultural, and natural aspects of our national heritage ... " More specifically, Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665) states that, "The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to . the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation established under title II of this Act a reasonable opportunity to comment with regard to such undertaking."

The Advisory Council on Historic Preservation has developed procedures to assist the Federal agencies in compliance with section 106 of the National Historic Preservation Act and Executive Order 11593. Part 800.4 of Procedures for the Protection of Historic and Cultural Properties (title 36 of the Code of Federal Regulations, part 800) contains the Agency Procedures to be followed in the compliance process. This step by step process begins with the identification of properties. "...located within the area of the undertaking's potential environmental impact that are included in or eligible for inclusion in the National Register." The identification procedure includes a check of the National Register of Historic Places including monthly supplements, coordination with the State Historic Preservation Officer to determine those sites or properties being considered for but not yet nominated to the National Register, and an intensive survey to locate those undiscovered sites and properties that are eligible for nomination.

Once all previously unknown sites and properties have been located, the Corps of Engineers, in consultation with the State Historic Preservation Officer, must apply the National Register criteria to all cultural sites within the area of concern. If a property appears to meet the criteria, the opinion of the Secretary of the Interior must be requested. Upon the Secretary's determination that one or more properties meet the eligibility criteria, a determination of the effect of the project on each eligible property must be made. If it is determined that the effect is adverse the Corps of Engineers must then prepare a preliminary case report for the Advisory Council on Historic Preservation. This report must contain all relevant information concerning the undertaking.

As a potential contractor with the Corps of Engineers, you are being asked to provide all of the information required for the Corps to effect compliance with the Advisory Council's Procedures for the Protection of Historic and Cultural Properties. Essentially this is all of the cultural data necessary for the preparation of a preliminary case report.

SCOPE OF WORK

I. Project Description:

The services to be provided under this contract are those required to:

- a. Conduct a survey (surface and subsurface) level investigation of the archeological and historic resources within the potential impact area of the proposed Dickey-Lincoln School Lakes Project, located on the St. John River, Maine.
- b. Provide the contracting office X copies of a report of the results of this investigation. The report shall provide a written narrative of the results of the survey and research and be of sufficient scope and detail to appraise potential project impacts on historic and archeological resources as required by the National Environmental Policy Act, Executive Order 11593 and 36 CFR part 800.

II. Study Area:

The study area is defined as the St. John River and its major tributaries from Lincoln School to the limits of impoundment, and includes the Little Black River, the Big Black River and their tributaries.

III. Contractor Services:

The contractor shall agree to perform the following services:

- a. Consult the latest edition of the National Register of Historic Places (Federal Register, Vol. 40, No. 24, Tuesday, February 4, 1975) and all monthly supplements for properties located within the area of potential environmental impact already listed.
- b. Consult with the Maine State Historic Preservation Officer to determine if there are properties within the area of potential environmental impact under consideration for nomination to the National Register.
- c. Conduct literature and documentary searches to determine known site locations and to permit the prediction of site locations.
- d. Conduct an intensive survey of the area of the project's potential environmental impact for the purpose of locating all cul-

tural resources present including prehistoric, historic, and architectural sites or properties. Test pits may be required to reveal sites obscured by vegetation, etc..

- e. Evaluate in terms of the National Register criteria all sites and properties located within the area of the project's potential environmental impact and provide a list of those properties meeting the criteria including a discussion of why each property does or does not meet the
- eligibility criteria. Test excavations may be required to permit evaluation of sites.
- f. Evaluate each site within the area of the project's potential environmental impact in terms of the impacts the project will have upon them.
- g. Provide a proposal for a program of mitigation (salvage) including detailed funding requirements. The proposal should include a research design as well as a discussion of the public and scientific value of the proposed mitigation actions.
- h. Prepare a report of the investigations that will include discussions in detail of the preceding seven services to be provided. The report shall describe and fully document the archeological and historic resources found including:
 - 1. A description of each site
 - 2. A discussion of the general relation of the resources with respect to project features
 - 3. A preliminary appraisal of the significance of the resources and their potential for contributing information about archeological and historic problems in the area.

ARCHEOLOGICAL MITIGATION AT THE BIRCH LAKE RESERVOIR, NORTHEASTERN OKLAHOMA

SCOPE-OF-WORK

1. Introduction.

The United States acting by and through the Interagency Archeological Services - Denver, is soliciting proposals for test excavation study of archeological sites located within the area to be affected by the reservoir impoundment behind the Corps of Engineers' Birch Lake dam now under construction on Birch Creek, a tributary of the Arkansas River Basin. The dam is being located one and one-half miles south of Barnsdall, Osage County, Oklahoma. The work defined herein is to be performed in accordance with this Scope-of-Work within the authorities of the Archeological and Historical Preservation Act of 1974 (Public Law 93-291).

2. Introduction to Scope-of-Work.

This study involves test investigations in seven rock shelter sites listed below. Selection of sites was made by following leads developed through archeological site survey carried out by the Oklahoma River Basin Survey in 1964 (Barr 1965) and the Corps of Engineers in 1972 (Perino 1972). These surveys resulted in a record of 14 prehistoric sites. Subsequent reconnaissance was conducted in 1974 by the Oklahoma River Basin Survey (Lehay 1974) but no additional sites were added to the inventory.

Additionally, the contractor will provide reconnaissance of the 14 identified prehistoric sites for the purpose of assessing whether they meet published National Register of Historic Places criteria. Based upon his conclusions, he will prepare National Register nomination forms (10-306) for all sites, buildings, districts, and objects appearing to meet those criteria, and provide recommendations for mitigating impacts on such sites. The contractor will analyze all pertinent data and prepare a publishable report on all research findings. A statement for each site not deemed to meet the criteria shall be included.

3. Engineering Specifications.

The earthfill dam, started in construction in 1973 and scheduled for completion in October of 1976, is now approximately 45.0 percent complete. Construction is underway at a site on Birch Creek at mile point 0.8. When completed, the top of the flood control pool will stand at an elevation of 774.0 creating a temporary lake covering 2,339 acres.

4. Archeological Recommendations.

Research will be conducted on the following seven sites: 340s126, 340s129, 340s131, 340s132, 340s133, 340s134, and 340s135. These sites

are all situated within rock shelters found along Birch Creek. Rock Shelter deposits are normally conducive to excellent preservation of organic materials such as micro- and macro-vegetal and faunal remains as well as providing considerable information on cultural chronologies based on stratification. Following is a list of sites proposed for investigation, depth of deposit, surface area size, and nature of the investigation:

Site Number	Estimated Depth (m)	Surface <u>Area (m²)</u>	Investigation
0s126	1.00	152	Test
0s12 9	.33	86	Test
0s131	.25	38	Test
0s132	?	770	Test
0s133	.30	12	Test
0s134	?	?	Test
0s135	.90	25	Test

Site 0s135 displays the deepest culture-bearing deposit of the seven shelters and appears to have the greatest potential for containing multi-component stratification. Excavation of this site should provide important information on paleoenvironmental history of the Birch Creek area. Both the cultural and environmental data derived from the excavation of 0s135 will then be used as a master sequence to correlate similar data retrieved from the other shelters.

5. Problem Orientation.

Proposals should be organized to address at minimum the research problems presented herein. Due to the paucity of previous archeological research, certain basic information on the area's prehistory is lacking. Considering this, research shall emphasize:

a. Developing a cultural chronology for the valley through radiometric dating, artifact seriation, and stratification.

b. Reconstructing the paleoenvironment of the valley through faunal, pollen, and botanic analyses.

c. Describing as much as possible the valley's cultural history.

Such a research program shall be undertaken in stages of work. The initial reconnaissance is to be followed by testing the sites recommended for further work in order to ascertain each site's depth, area, number and identity of components, archeological context (i.e. primary, disturbed, etc.), and the state of preservation of noncultural artifacts (i.e. fauna, botanic remains, pollen, charcoal, etc.).

Such site testing should not only provide for site evaluation, but contribute to developing a cultural chronology and paleoenvironmental history of the valley.

6. Research Methods.

The prospective contractor, in the process of formulating his research design response to this Scope-of-Work, shall devise methods of research that will allow articulation of the research problem(s) with the expected data recovery. These methods and related research techniques shall detail the step-by-step manner in which the investigation is to proceed both in the field and in the subsequent laboratory operation.

7. References Cited.

(It is encouraged that potential offerers examine the following cited literature).

Barr, T.

1965 "An Archaeological Survey of the Birch Creek Reservoir" Oklahoma River Basin Survey Project, General Survey Report No. 6, Norman.

Lehay, R.

1974 "Report of 1974 Summer Season work at Skiatook and Birch Creek Reservoirs." Oklahoma Anthropological Society Newsletter, October, 1974.

Perino, G.

1972 "An Historical Cultural Assessment of the Proposed Birch Reservoir (Tulsa)."

8. Supplemental Documentation.

a. Report Standards. Final drafts of reports of investigations shall reflect and report the analysis outlined in the Scope-of-Work. They shall be suitable for publication and be prepared in a format reflecting contemporary organizational and illustrative standards of the current professional archeological, architectural, and historical journals. The most recent edition of <u>Suggestions to</u> <u>Authors of the Reports of the United States Geological Survey</u> (published by the U.S. Government Printing Office) is highly recommended as a guide for report organization, preparation of illustrative material, and suggestions for expression. In addition, all reports must contain the following: (1) If a report has been authored by someone other than the contract principal investigator, the cover and title page of the publishable report must bear the inscription <u>Prepared Under the</u> Supervision of (Name), Principal Investigator.

(2) If a report has been authored by someone other than the contract principal investigator, the principal investigator must at least prepare a foreword describing the overall research context of the report, the significance of the work and any other related background circumstances relating to the manner in which the work was undertaken.

(3) The title page of the report must bear an appropriate inscription indicating the source of funds used to conduct the reported work.

(4) An abstract suitable for publication in an abstract journal must be prepared. This should consist of a brief, quotable summary useful for informing the technically oriented professional public of what the author considers to be the contributions of the investigation to knowledge. <u>Suggestions to Authors.</u> should be consulted for abstract writing recommendations.

(5) The potential contractor is to provide reasonable assurance of access to a publication media through which the final technical report, plus any interim reports on the research, may be printed and distributed to the profession, interested lay public, and most importantly to the major university and public libraries around the country thereby providing as wide a dispersal of the public financed investigation as can be achieved.

b. Timetable for Work Completion and Payment. Distribution of this scope will be made by October 8, 1975. Within 15 days, interested persons are to notify the Interagency Archeological Services - Denver, National Park Service, 1978 South Garrison, Room 107, Denver, Colorado 80227, of their intention to submit a proposal. Completed proposals are to be received by the Interagency Archeological Services - Denver, office by November 8, 1975. Selection of the most appropriate proposal from those submitted will be made so as to award the contract by November 20, 1975. Research crews are to be fielded prior to December 31, 1975. Once awarded, quarterly progress reports will be required with due dates specified in the contract. A draft report, detailing the research results, will be prepared for submission at a date to be negotiated but not more than 12 months after contract award. Within 30 days, the reviewed draft will be returned to the contractor for preparation of the final technical monograph. Partial payments will be made

on appropriate billing of up to seventy-five percent (75%) of the contract amount. Twenty-five percent (25%) will be withheld until receipt and acceptance of the final report in a minimum of 10 copies.

c. Personnel Standards. Agencies, institutions, corporations, associations, or individuals will be considered qualified when they meet the minimum criteria given below. As part of the supplemental documentation, a contract proposal must include vitae for the principal investigator and main supervisory personnel in support of their academic and experiential qualifications for the research. In the event that support personnel have not been identified at the time of contract proposal, vitae on supervisory positions may be omitted until such time as they are identified with the provision that those to be selected meet the minimum professional standards stated below and that their retention is subject to approval by the contracting officer's authorized representative.

(1) Archeological Project Directors or Principal Investigators (PI). Persons in charge of an archeological project or research investigation contract; in addition to meeting the appropriate standards for archeologist, must have the doctorate or an equivalent level of professional experience as evidenced by a publication record that demonstrates experience in field project formulation, execution and technical monograph reporting. Suitable professional references may also be made available to obtain estimates regarding the adequacy of prior work. If prior projects were of a sort not ordinarily resulting in a publishable report, a narrative should be included detailing the proposed project director's previous experience along with references suitable to obtain opinions regarding the adequacy of this earlier work.

(2) <u>Archeologist</u>. The minimum formal qualifications for individuals practicing archeology as a profession are a B.A. or B.Sc. degree from an accredited college or university, followed by two years of graduate study with concentration in anthropology and specialization in archeology during one of these programs, and at least two summer field schools or their equivalent under the supervision of archeologists of recognized competence; a Master's thesis or its equivalent in research and publications is highly recommended, as is the Ph.D. degree. Individuals lacking such formal qualifications may present evidence of a publication record and references from archeologists who do meet these qualifications,

d. Standards for Consultants. Personnel hired or subcontracted for their special knowledge and expertise must carry academic and experiential qualifications in their own fields of competence. Such qualifications are to be documented by means of <u>vitae</u> attachments to the proposal or at a later time if the consultant has not been retained at the time of the proposal. The environmental and

resource exploitation study outlined above contemplates use of ancillary consultants as appropriate in the allied natural science fields of geology, soils, botany, zoology, and geochronology.

e. Institutional or Corporation Qualification. Any institution, organization, etc. obtaining this contract, and sponsoring the principal investigator or project director meeting the previously given requirements, must also provide, or demonstrate access to the following capabilities: ~

(1) Adequate permanent field and laboratory equipment necessary to conduct whatever operations are defined in the Scopeof-Work. However, this qualification may be waived under circumstances of extreme need through negotiation.

(2) Adequate laboratory and office space and facilities necessary for proper treatment, analysis and storage of specimens and records likely to be obtained from a given project. This does not necessarily include such specialized facilities as pollen, geochemical, or radiological laboratories, but does include facilities sufficient to properly preserve or stabilize specimens for any subsequent specialized analysis.

f. Disposition of Data. When the recovered data has been removed from non-federally owned lands such as state, municipal, corporations, or private citizens, then negotiated arrangements must be made. The principle governing these negotiations is to be that where public funds are expended for the recovery of such data, the public must be the benefactor.

g. Permits for Excavation. Insofar as the affected lands are already owned or acquired by the Federal Government, award of contract satisfies Federal archeologial permit requirements since the validated principal investigator is considered to be a representative of the United States Government.

h. Budget and Schedule of Work. An estimated budget separated into amounts of time and money to be allocated to the various research tasks proposed is to be part of the proposal. The specifics of salary and other costs, expressed in quantified terms, are to be shown along with pay rates and duration of work to yield a total product figure. Salary levels are governed by the current base salary pay rate for that individual when not otherwise employed on the research project (41 CFR §1-15.309-7). The budget will be placed in an inner sealed and marked envelope separate from the proposal. The outer envelope will be marked in the lower left hand corner "Archeological Mitigation at Birch Lake, Due November 8, 1975."

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In support of the budget outline, an attachment will be prepared which justifies the expenditures clearly tying the work tasks to the time and dollar amounts. Considerable care should be exercised in this justification sufficient to allow an opportunity to assess the reasonableness of the proposed charges. This endavor will include a Schedule-of-work diagramming the duration of each field and laboratory operation outlined in the Research Methods section of the proposal.

i. Contract Requirements. Attached to this Scope-of-Work document are provisions dealing with: (1) equal opportunity hiring,
(2) minimum wage requirements, (3) health conditions for employees,
(4) overhead limitations and excessive charge levels, (5) hiring of the handicapped, (6) use of convict labor, and (7) on-site Federal agency inspection. The prospective contractor must be familiar with these Federal requirements.

j. Research design responses to the Scope-of-Work will be evaluated by the Interagency Archeological Services Division evaluation committee to review the signed and sealed proposals. In special cases, neutral outside (non-Federal Agency) professional archeologists may be utilized as review consultants but in all cases the final decision as to the successful offerer will be made by the Interagency Archeological Services, Contracting Officer. Criteria for proposal evaluation will be weighted as follows:

(1) Comprehension of research problem(s) and attendant method(s) with statement of elaboration (50.00 percent).

(2) Qualifications of personnel (vitae) (20.00 percent).

(3) Organizational (i.e. individual, institutional, or corporate) past record and capability to conduct the research (15.00 percent).

(4) Feasibility of budget and work scheduling (15.00 percent).



DEPARTMENT OF THE ARMY

ALASKA DISTRICT, CORPS OF ENGINEERS P.O. BOX 7002 ANCHORAGE, ALASKA 99510

RÉPLY TO Attention of:

Mr. Bernard W. Poirier

6201 Leesburg Pike

Iroquois Research Institute

Falls Church, Virginia 22044

NPAEN-PR-EN

Director

3 November 1975



NOV 71975

THE ARCTIC COMPANY, LTD. BROQUDIS RESEARCH INSTITUTE

Dear Mr. Poirier:

I am in receipt of your letter of 10 October 1975 in which you requested information pertaining to a study you are performing for the Federal Power Commission and the Department of Interior on archaeological potential of proposed natural gas pipeline routes in Alaska.

In response to your request for an example of Corps of Engineers performance stipulations for archaeological work, I am inclosing a copy of the scope of work for an archaeological and historical reconnaissance contract which we recently awarded relative to a hydroelectric survey study of the Upper Susitna River Basin in Alaska. If this project is authorized and funded for detailed engineering and environmental studies, additional archaeological investigations will be required. This work would be awarded to a qualified commercial entity and stipulations of the contract would be in conformance with the requirements of the Archaeological and Historic Preservation Act of 1974 (PL 93-291).

In response to the "Request and Inquiry" attached to your letter, I am also inclosing a copy of our Draft Environmental Impact Statement entitled <u>Offshore Oil and Gas Development, The Alaskan Arctic Coast</u>. This statement describes the offshore environment and addresses impacts which result from oil exploration and development activities within the area of the offshore pipeline route which is one of the alternatives you are studying.



3 November 1975

NPAEN-PR-EN Mr. Bernard W. Poirier

I hope this information will be of some benefit to you. Please do not hesitate to call or write if we can be of further assistance.

Sincerely yours, CHARLES A. DEBELIUS 2 Incl Colonel, Corps of Engineers District Engineer As stated

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APPENDIX "B"

SCOPE OF WORK

*1975

NOV

RCHEOLOGICAL & HISTORICAL INVESTIGATIONS OF THE UPPER SUSITNA RIVER BASIN

SOUTHCENTRAL-RAILBELT STUDY, ALASKA

THE ABOVE COMPANY, LTD. ROQUOIS_NESEARCH INSTITUTE

Description of Work Required Under this Contract: The Contractor shall, upon execution of this contract, furnish all necessary labor, material, and equipment to develop a report covering the following three phases:

a. Phase I - Conduct a literature-based search and map study of the Upper Susitna River basin area from the railroad bridge at Gold Creek to the Susitna Glacier. The basin area is defined as that area impounded by the proposed four dam system as indicated on the inclosed diagram. The literature search will assemble and evaluate existing data in order to ascertain the location of known archeological and historical sites. Information from the literature search will be used to delineate those areas in which archeological and historical sites are reported but for which no accurate site location data is available.

b. Phase II - Conduct an area reconnaissance to locate and map the general areas for which accurate site location information is not available from the literature. No attempt will be made to recover or delineate the exact size or extent of any archeological or historical findings.

c. Phase III - Prepare a report covering the results of the literature search and field investigations. The report will summarize data gathered and a map indicating the locations of known historical and archeological sites, and any areas of potential importance and recommendations concerning future investigations which will be necessary to preserve and/or salvage these resources endangered by the proposed project.

Maps, drawings, photographs and tables shall be used as appropriate to simplify and further explain information presented.

2. Cooperation: The Contractor will be provided with copies of pertinent Corps of Engineers' regulations, project reports, news clippings and other existing Alaska District Office data on the project. Corps personnel will be available for a field reconnaissance and informal consultations to provide up-to-date information in the study area.



_____ -___

Within 15 days of the effective date of this contract, the Contractor will submit to the Contracting Officer, for his approval, a working plan and schedule for the performance of work required under Section 1. The plan shall contain at least two specific review meetings to be held at the Corps of Engineers, Alaska District Office:

a. One near the end of Phase I for a general review of work progress, problems, and preliminary findings. Photos, maps, and rough sketches shall be provided by the Contractor for review and discussion at this meeting.

b. One near the end of the contract period for review of a draft of the report.

3. <u>Submittals</u>: Six photo-machine copies of the draft will be submitted to the Corps of Engineers at least five (5) working days prior to the second required review meeting. Upon completion of the required work, one original and three photo-machine copies of the final report shall be furnished to the Contracting Officer or his authorized representative. The original copy of written text shall be suitable for direct reproduction on $8 \times 10\frac{1}{2}$ inch paper. Fourteen space margins shall be provided on both left and right sides of typed paper. Original maps, photographs, and other drawings or graphic material shall be submitted in suitable manner for photographing (size reduction to be accomplished by Corps of Engineers) if needed for offset printing.

4. <u>Time Requirements and Period of Service</u>: The Contractor shall complete all work and services (including required submittal, return of loaned reports, etc.) under this contract by 30 August 1975. Within 10 calendar days after receipt of work for final approval, the Contracting Officer will notify the Contractor in writing either that the work is accepted or that revisions are required.

5. Contract Price:

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EC 1105-2-37

DEPARTMENT OF THE ARMY Office of the Chief of Engineers Washington, D.C. 20314

DAEN-CWP-A

Circular No. 1105-2-37

8 August 1975

EXPIRES 30 JUNE 1976 Planning IDENTIFICATION AND ADMINISTRATION OF CULTURAL RESOURCES: PROPOSED REGULATION

1. <u>Purpose</u>. This circular transmits for review and comment a proposed regulation on identification and administration of cultural resources. The proposed regulation will be shortly published for comment in the Federal Register.

2. <u>Applicability</u>. This circular is applicable to all OCE elements and all field operating agencies having Civil Works responsibilities.

3. Discussion.

a. The National Park Service has recently advised that it will be unable to conduct or supervise cultural resource reconnaissance studies needed during Corps of Engineers preauthorization planning. Consequently, it will no longer be necessary to ask NPS to conduct these studies before seeking other assistance. However, addressees are reminded that the \$10,000 limit on preauthorization cultural resource investigation may not be exceeded without prior approval of DAEN-CWP-P.

b. The National Park Service has also expressed a willingness for at least the time being, to review all proposals for archeological reconnaissance, surveys or excavations submitted by prospective contractors. Reporting Officers are encouraged to avail themselves of this opportunity for professional review of contract proposals.

c. Addressees are reminded that nominations of Corps administered properties to the National Register of Historic Places should be forwarded to DAEN-CWP-P for execution by the Federal Representative.

4. <u>Comments</u>. Comments should be consolidated by Division Engineers and sent to HQDA (DAEN-CWP-P) WASH DC 20314 by <u>1 October 1975</u>. Exempt:report para 7-2y, AR 335-15. Negative responses are not required.

FOR THE CHIEF OF ENGINEERS:

16 MÁRVIN W. REES

l Appendix APP A - Proposed Regulation

Colonel, Corps of Engineers Executive Director of Civil Works

LIMITED DISTRIBUTION - Do not requisition, additional copies are not available.

APPENDIX A



EC 1105-2-37 8 Aug 75

ER 1105-2-XXX

DEPARTMENT OF THE ARMY Office of the Chief of Engineers Washington, D.C. 20314

DAEN-CWP-P

Regulation No. 1105-2-XXX

Planning

IDENTIFICATION AND ADMINISTRATION OF CULTURAL RESOURCES

1. <u>Purpose</u>. This regulation provides guidance for the discharge of responsibilities for identification, preservation and mitigation of losses of cultural resources associated with water resources developments and programs.

2. <u>Applicability</u>. This regulation is applicable to all OCE elements and all field operating agencies having Civil Works responsibilities.

3. References: (See EP 310-1-1 for index of Corps regulations).

a. Public Law 59-209, Antiquities Act of 1906 (34 STAT 225).

b. Public Law 74-292, Historic Sites Act of 1935 (49 STAT 666).

c. Public Law 89-655, National Historic Preservation Act of 1966 (80 STAT 915).

d. Public Law 91-190, National Environmental Policy Act of 1969 (83 STAT 852).

e. Public Law 93-291, Preservation of Historic and Archeological Data (88 STAT 174) - amending Public Law 86-523, the Reservoir Salvage Act of 1960 (74 STAT 220).

f. Executive Order 11593, Protection and Enhancement of the Cultural Environment, 13 May 1971 (36 F.R. 8921, 15 May 1971).

g. National Register of Historic Places 1975, (F.R. 4 Feb 1975, Vol 40, No. 24, published annually and supplemented on the first Tuesday of each month.

h. ER 10-1-3

i. ER 37-2-10, Chapter 8

j. ER 405-1-875

k. ER 1105-2-507

This regulation supersedes ER 1105-2-11 and cancels RCS DAEN-CWP-10, 15 March 1972; and supersedes ER 1105-2-12, 15 May 1972.

ER 1105-2-XXX

1. ER 1145-2-303

m. TM 5-801-1

4. <u>Definitions</u>. This following definitions are applicable to this regulation:

a. "Advisory Council." The Advisory Council on Historic Preservation, established pursuant to Title II of the National Historic Preservation Act of 1966 (16 U.S.C. 470i).

b. "Agency Official." For purposes of 36 CFR Part 800, normally the District Engineer under whose jurisdiction actions are taken or recommended.

c. "Appropriate historical or archeological authorities." The Secretary of the Interior or his designated representative, the State Historic Preservation Officer, the State Archeologist and the State Historian.

d. "Cultural resource." Any building, site, district, structure, object, data or other material significant in history, architecture, archeology or culture.

e. "Cultural resources reconnaissance." A literature search and records review plus an on-the-ground surface examination of selected portions of the area to be affected, adequate to assess the general nature of the resources probably present and the probable impact of a project. Test excavations may be required at some sites so that evaluations may be adequately accomplished. This level of investigation is appropriate to preliminary planning decisions and will be of assistance in determining viable project alternatives.

f. "Cultural resources survey." An intensive, on-the-ground survey and testing of an area sufficient to permit determination of the number and extent of the resources present, their scientific importance, and the time factors and cost of preserving, recovering or otherwise mitigating adverse affects on them. This level of investigation is appropriate when the project has been authorized and finally formulated, and will thus be accomplished during the Phase II GDM stage of project planning.

g. "Mitigation." The amelioration of losses of significant paleontological, scientific, prehistorical, historical or archeological data which will be accomplished through preplanned actions to preserve or recover such data by application of professional techniques and procedures reflecting the contemporary state of the art. Mitigation measures will only be accomplished during the actual construction or

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operational phases of Civil Works projects except in unusual circumstances requiring prior approval by DAEN-CWP-P.

h. "National Register." The National Register of Historic Places which is a register of districts, sites, buildings, structures and objects significant in American history, architecture, archeology and culture, maintained by the Secretary of the Interior under authority of Section 2 (b) of the Historic Sites Act of 1935 and Section 101(a)(1) of the National Historic Preservation Act. The National Register is published in its entirety in the <u>Federal Register</u> each year in February. Addenda are published on the first Tuesday of each month.

i. "One per centum of the total amount authorized to be appropriated for such project." One per centum of the total Federal project cost last presented to the Congress. For operating projects maintained by the Corps of Engineers, the one per centum applies to the last annual amount appropriated or requested for O&M of an individual project.

j. "Principal Investigator." The person or contractor responsible for the validity of the material presented in cultural, historical and archeological reports. He shall sign the final report and in the event of controversy or court challenge shall testify on behalf of the Government in support of report findings. He shall have access to a depository for notes, photographs and artifacts where they will be permanently available to scholars. He is normally the employee of a university, college, museum or other qualified contractor engaged by the District Engineer to accomplish cultural resource studies or data recovery.

k. "Significance." Attributable to districts, sites, buildings, structures and objects of historical, architectural, and archeological (cultural) value when such properties are included in or have been determined by the Secretary of the Interior to be eligible for inclusion in the National Register of Historic Places.

1. "State Historic Preservation Officer." The official within each State, authorized by the State at the request of the Secretary of the Interior, to act as liaison for purposes of implementing the National Historic Preservation Act.

5. <u>Background</u>. Primary responsibility for actions pertaining to cultural resources associated with Federal programs and projects was delegated by legislation to the Secretary of the Interior, (National Park Service), up until 1966. With the enactment of the National Historic Preservation Act in 1966 and subsequent legislative and administrative actions, however, a major portion of this responsibility was shifted to the agencies having jurisdiction or control over those resources. As a result it is now necessary that the Corps coordinate and conduct all

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such activities with advice and consultation of the National Park Service, the Advisory Council on Historic Preservation, and State Historic Preservation Officers. While the National Park Service still has a major role in matters dealing with cultural resources, it is now more nearly that of a principal coordinator and expert adviser to other agencies of the Government rather than the sole agency with responsibilities and expertise in matters concerned with these resources.

6. General Policy.

a. From the initiation of preauthorization planning through postauthorization planning and design, construction and operation and management as well as regulation of work by others in navigable waters, all Corps of Engineers actions will be evaluated in terms of their effect on cultural resources within the overall policy provisions of this regulation. Those actions having an effect on significant cultural resources will be fully coordinated with the National Park Service, State Historic Preservation Officer, and the Advisory Council on Historic Preservation, and appropriate actions taken to discharge all Corps responsibilities involved in a spirt of proper stewardship of these resources for the benefit of present and future generations.

b. Division and District Engineers should consider the assignment of lead responsibility for this function to the appropriate organizational element under their command, normally the Environmental Analysis element (ER 10-1-3). This element will take the lead in coordinating and processing implementation actions involved. Within current space limitations, each Division and District Engineer should evaluate the need to staff this function as required to discharge his responsibilities in a competent and professional manner.

c. At each stage of Corps planning, design and construction, the degree and scope of cultural resource investigations will be conducted and displayed at the same level of precision as other related studies, i.e., economics, hydrology, geology, biology, etc.

d. Reports made available to the general public will not contain specific locations of archeological sites so as to preclude vandalism.

e. When archeological or historic studies are related to a specific group of people whose descendants are still living in the general area, they should be informed of the studies and consulted, especially where interpretive developments are being considered. Human skeletal remains will not be placed on public display without prior approval of DAEN-CWP-P.

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f. Preservation of significant cultural resources is nearly always considered preferable to recovery of data by excavation, and may often be more economical in terms of both economic and environmental costs. When a significant site can be preserved for an amount reasonably comparable to, or less than the amount required to recover the data, full consideration shall be given to this course of action.

7. <u>Specific Implementation Actions</u>. Action requirements for the implementation of current authorities vary with the type of action or program involved. Guidance for principal activities is as follows:

a. Preauthorization Studies.

(1) Upon initiation of general investigation studies, the District Engineer shall notify in writing the appropriate field official of the National Park Service (NPS) and the State Historic Preservation Officer(s) of the study area involved. The District Engineer shall conduct or have conducted a <u>cultural resource reconnaissance</u> in order to identify cultural sites, objects, buildings, ruins, etc., of interest or importance in history or prehistory which would be affected by proposed projects. This work may be performed by <u>qualified in-house personnel</u> or by contract with a <u>qualified institution which shall execute the</u> contract through a <u>principal investigator</u>. Funds will not be transferred to the NPS for participation in preauthorization studies.

(2) The reconnaissance report shall describe or assess the general significance or values of the cultural resources located in the project area. In addition it should include a discussion of methods and an estimate of anticipated costs for a <u>cultural resources survey</u> within the project area during later stages of planning.

(3) Where regional or basinwide studies are being conducted or where numerous alternatives exist, the scope of the overall investigation <u>may</u> require that cultural resource studies include only literature research and a statistically valid sample field reconnaissance. This reconnaissance should be of the magnitude required to provide a predictive-model for the numbers, types, and qualities of cultural resource problems in the area. The minimum surface coverage required to provide adequate quantifiable data for such a predictive model will vary, but will normally not exceed 15% of the total project area.

(4) The investigations shall conform to the standards prescribed for a reconnaissance level investigation as defined in para 4 of this regulation.

(5) Upon completion of cultural resource investigations, two copies of the report shall be forwarded to the National Park Service with a

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request for review and comment. Copies shall be also furnished the respective State Historic Preservation Officer, State Archeologist and State Historian for review and comment, and to other agencies, societies, universities, museums, institutions or individuals on a need-to-know basis. Information resulting from the cultural resource investigations will be incorporated in all pertinent reports. The draft Environmental Impact Statement (EIS) will include data from the report and will discuss in general terms recommendations for further study and testing.

(6) Expenditures to provide cultural resource inventories or reconnaissance studies on unauthorized projects will be presented in the Plan of Study. In instances where these investigations are estimated to exceed \$10,000, review of the Scope of Work and the cost estimate will be made by DAEN-CWP-P prior to approval of the proposed expenditures.

b. <u>Phase I Advanced Engineering and Design (AE&D)</u>. Procedures for cultural investigations for the Phase I AE&D studies shall be essentially the same as for the preauthorization feasibility studies. In instances where the feasibility (survey) report is reasonably current and no significant changes in the authorized project are proposed, the information previously provided may be used in the Phase I GDM and updated EIS. In-depth studies will be made at this stage only if required in the decision-making process, i.e., the cultural resources involved are potentially of such significance as to affect the nature or location of the project.

c. Phase II Advanced Engineering and Design (AE&D).

(1) Upon initiation of Phase II AE&D studies, a <u>cultural resources</u> <u>survey</u> shall be made and a report prepared therefrom. The nature of this survey will be based on the recommendations contained in the cultural resources reconnaissance report obtained during the preauthorization or Phase I study.

(a) This report shall include assessment of eligibility for inclusion in the National Register of Historic Places, specific recommendations for all necessary mitigiation, recommendations for development of interpretative displays and a discussion of the public or scientific value of proposed mitigation actions.

(b) It may be desirable that the Principal Investigator complete nomination forms to the National Register, but in all cases he shall specifically define the reasons for significance in order to justify expenditures of funds for data recovery or other mitigation during the project construction period. Nominations to the National Register will not be submitted to DAEN-CWP-P for sites not currently on fee-owned lands
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without an accompanying letter from the present landowner indicating concurrence in such action. Information on significant sites not on fee-owned lands at the time the survey is accomplished should be furnished to the State Historic Preservation Officer, who may submit nominations or make requests for eligibility determinations through State channels. This work may be accomplished by qualified in-house personnel, by direct contract with qualified institutions and individuals, or by transfer of funds to the National Park Service.

(2) Two copies of the draft report will be furnished the National Park Service, one copy each to the State Historic Preservation Officer, State Archeologist and State Historian with a request for review and comment.

(3) The information from the above report and comments obtained from officials and agencies cited in para 7c(2) shall be incorporated in the Phase II GDM and any EIS under preparation. If the final EIS has been filed with the Council on Environmental Quality, supplemental pages shall be prepared as deemed necessary by the reporting officer, and forwarded to CEQ as provided by ER 1105-2-507 (para 7). Copies of the letter of transmittal and supplemental pages will be furnished to the Advisory Council on Historic Preservation, State Historic Preservation Officer and the National Park Service.

d. <u>Feature Design Memoranda</u>. Full recognition shall be given to the cultural resources known or anticipated to exist on project lands during preparation of feature design memoranda. Designs and cost estimates shall reflect the agreed upon mitigation measures determined to be appropriate in the approved cultural resources reconnaissance and survey reports.

e. <u>Detailed Project Report</u>. The procedures outlined in para 7c for Phase II GDM's shall be followed during the preparation of Detailed Project Reports under Continuing Authority Programs.

f. <u>Construction and Land Acquisition not Started</u>. Upon receipt of initial construction funds, the District Engineer shall initiate mitigation measures recommended in the approved cultural resource survey which are in accordance with any executed Memorandum of Agreement between himself, the Advisory Council on Historic Preservation and the State Historic Preservation Officer.

(1) Initial migitation efforts should be directed to critical items of construction such as access roads, project buildings, dam sites and borrow areas and relocations. The work may be accomplished by qualified in-house personnel, by contract with recognized institutions or individuals, or by transfer of funds to the National Park Service.

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(2) To preclude deterioration and vandalism, consideration should be given to allowing present owners or others to occupy at reduced or no rental, or otherwise to utilize historic structures under lease arrangements until the property is actually required to be vacated.

g. <u>Projects Under Construction</u>. (1) In instances where construction has been initiated without an adequate survey and plan for mitigation of losses of cultural resources, steps should be taken to include funds for such activities in the next project cost estimate and budget request, or preferably, after concurrence of DAEN-CWP-P and DAEN-CWB to reallocate available funds so as to insure compliance with the requirements of law and this regulation.

(2) All items having any apparent historical or archeological interest which are discovered in the course of construction activities shall be carefully preserved. Contracts shall require the contractor to leave the find undisturbed and immediately report it to the Contracting Officer so that the proper authorities may be notified.

h. Operation, Maintenance and Management.

(1) The funding authorities and provisions of Public Law 93-291 apply to Operation and Maintenance activities on Federally-owned lands. Therefore, District Engineers shall establish and implement, with amounts not to exceed one-percent of annual amounts appropriated for Operations and Maintenance of individual projects, a program to insure consideration and protection of cultural resources at existing Corps-operated projects under their jurisdiction.

(a) In some cases, this will require a cultural resources reconnaissance or survey of lands which have been only partially or inadequately investigated in the past. The District Engineer will evaluate sites under his jurisdiction which are identified by such investigations and prepare and forward to DAEN-CWP-P nomination forms to the National Register of Historic Places for sites meeting Register criteria, in accordance with para 5-3, TM 5-801-1. (RCS DOI-1005 applies.)

(b) In cases where cultural properties on or eligible for inclusion in the National Register are being or would be adversely affected as a result of past or future activities such as land alteration, shoreline erosion, traffic or public use; and methods for protection or preservation are infeasible or economically unreasonable, data recovery through scientific excavation shall be considered in the same manner as if the lands had recently been acquired for construction of a new project.

(c) Consultation with the State Historic Preservation Officer and the Advisory Council on Historic Preservation will be accomplished as prescribed in Appendix B.

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(d) Environmental Impact Statements prepared for the project will address impacts upon cultural resources.

(2) Administrative actions such as leases, licenses, easements and permits involving the utilization of project resources by others (see subparagraph i below for Sec 10 permits) may result in significant effects on cultural resources and will therefore require separate consideration on a case-by-case basis. The effects of these actions shall be considered and treated in the environmental assessment or EIS pertaining to the action, and appropriate protective or mitigative provisions shall be included in the administrative action instrument.

(3) The authorities in PL 93-291 do not include the expenditure of appropriated Civil Works funds for the maintenance, rehabilitation, restoration or salvage of cultural resources which are not, or would not be, adversely affected as a direct result of Corps of Engineers construction or operation and maintenance activities. Cultural resource investigations and mitigation measures at completed projects which have been turned over to local interests for operation and maintenance are thus ineligible for funding under this authority.

(4) Permission for the examination of ruins, excavation of archeological sites or gathering of objects of antiquity on project lands will be granted in accordance with the provisions of ER 405-1-875.

i. <u>Regulatory Permits</u>. Regulatory permits for activities in navigable waters and ocean waters will be administered as prescribed in ER 1145-2-303 which provides general policy, practice and procedure to be followed in connection with applications for permits required pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Federal Water Pollution Control Act and Section 103 of the Marine Protection, Research and Sanctuaries Act. In order to provide the Secretary of the Interior, the Advisory Council on Historic Preservation and the State Historic Preservation Officer the requisite written notification that scientific, prehistorical, historical or archeological data may be lost or destroyed as the result of approval of an application for a Department of the Army permit, and in order for these entities to carry out their responsibilities, the District Engineer will provide them a copy of every Public Notice and will:

(1) Include in every Public Notice a statement that the District Engineer has consulted the latest published version of the National Register of Historic Places (Appendix B) and of the presence or absence of registered properties or properties listed in the latest published version of the Register as being eligible for inclusion therein. Each Public Notice will also include a statement that presently unknown archeological, scientific, prehistorical or historical data may be lost or destroyed by work to be accomplished under the requested permit.

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(2) In the event that the National Park Service advises in response to the Public Notice that it will conduct or have conducted a survey or other investigation of cultural resources in the requested work area, or that it will recover and preserve cultural resources or data located therein, notify the applicant and encourage him to contact the National Park Service with a view toward arriving at a mutually agreeable date by which such activities will be completed. The Advisory Council on Historic Preservation will be furnished a copy of all comments from the National Park Service and the State Historic Preservation Officer.

(3) The accomplishment of any cultural resources surveys or other investigations which he deems necessary, and the recovery and preservation of scientific, prehistorical, historical, or archeological data in a work area applied for under a Department of the Army Regulatory Permit is the responsibility of the Secretary of the Interior pursuant to Section 4 of PL 93-291, and Section 7(c) of the Act expressly authorizes funds to be appropriated to him for such purposes. Consequently, Civil Works funds will not be expended for such activities in conjunction with Regulatory Permits.

j. <u>Emergency Activities</u>. Work conducted as a result of a natural disaster or other emergency actions cited in para 8 of ER 1105-2-507 is excluded from the provisions of this regulation if cultural resources surveys and/or data recovery would impede remedial construction activities. However, action officers should exercise reasonable precaution to insure preservation of cultural resources consistent with the nature of the situation.

8. <u>Costs of Cultural Resource Studies and Mitigation</u>. All costs incurred for investigation, planning, coordination, preservation and mitigation of losses of cultural resources directly affected by Federal construction are non-reimbursable project costs. These costs are presumed to be at least equaled by the benefits to science and the public generally. Consequently, the costs incurred for cultural resources surveys, data recovery and analysis, and report preparation will be shown by footnote in project cost allocations and Justification Statements, but will not enter into the allocation or apportionment of project costs or into computation of benefit-cost ratios. Procedures for cost accounting are contained in ER 37-2-10.

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9. <u>Coordination With Others</u>. Close coordination with other agencies and entities with responsibilities for preservation of cultural resources is required in all phases of project planning and execution. Specifically designated agencies for coordination and review of project impacts on cultural resources are the National Park Service, Advisory Council on Historic Preservation, and the appropriate State Historic Preservation Officer. It is also desirable to maintain coordination with other public interest groups, State Archeologists and Historians, State and local archeological and/or historical societies, other State and Federal agencies, institutions, foundations, or individuals with special interests or expertise in cultural resources.

a. <u>National Park Service</u>. Pursuant to the Reservoir Salvage Act of 1960, as amended by Public Law 93-291, District Engineers will provide written notice to the Secretary of Interior (National Park Service) before undertaking any Federal construction project or the granting of approval for a Federally licensed project, activity or program which may cause irreparable loss or destruction of significant scientific, prehistorical, historical, or archeological data. Thereafter, the District Engineer will maintain continuing coordination with the Service on cultural resource matters, including transfer of funds for <u>post-authori-</u> zation cultural resource surveys and/or mitigative actions when considered appropriate, including the analysis of data and publication of reports resulting from such investigations.

(1) Instructions for such work will specify the necessity for the Service to provide information at appropriate times in order that other planning studies and construction activities are not delayed.

(2) The National Park Service will be instructed to keep the District Engineer notified of the progress of any survey or data recovery effort in order that there will be as little disruption or delay as possible in the carrying out of functions of the Corps of Engineers.

(3) When cultural resources studies or data recovery are to be performed by direct contract, the District Engineer may request the National Park Service to review the proposals, and will furnish a copy of the contract to NPS. Upon completion of the work, the District Engineer will notify the appropriate field official of the Service of the findings, in writing, by furnishing two copies of the report prepared by the Corps or its consultants. Copies of all final reports of cultural resource investigations made by the Corps or its consultants should be provided the Service which may make them available to the public for inspection and review as required by Section 3(a) of PL 93-291.

b. Advisory Council on Historic Preservation. If the District Engineer determines as a result of cultural resources investigations and

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coordination that there will be an effect on sites listed in, or determined by the Secretary of Interior as being eligible for inclusion in, the National Register, he will request consultation with the Advisory Council as required by 36 CFR Part 800 (Appendix B).

(1) If possible, a Memorandum of Agreement will be executed (during Phase II AE&D studies) on proper mitigation measures to be accomplished after initiation of construction. This agreement will normally be between the District Engineer, acting in his capacity as the "Agency Official" for purposes of these procedures, the Advisory Council and the State Historic Preservation Officer. The Memorandum of Agreement, if one can be obtained, will be included with the EIS and discussed in the pertinent planning report.

(2) If agreement cannot be reached, the District Engineer will forward the Preliminary Case Report, (See Appendix E), to the Advisory Council and the State Historic Preservation Officer. The Executive Director of the Advisory Council shall request the Chairman of the Council to schedule consideration of the undertaking at the next Council meeting and notify the District Engineer of the request. Upon such notification, the District Engineer will delay further actions which would adversely affect Register properties or properties determined eligible for the Register, until the Council has transmitted its comments or the Chairman has given notice that the undertaking will not be considered at a Council meeting. The various steps to be followed are outlined in the flow chart "Compliance Procedures for Sec. 106 (Historic Preservation Act of 1966)," Appendix C, and the procedures of the Advisory Council contained in 36 CFR Part 800, (Appendix B).

c. State Historic Preservation Officer.

(1) Upon completion of the cultural resources reconnaissance report, the District Engineer shall forward a copy to the appropriate State Historic Preservation Officer and request his views concerning the significance of sites listed in the report and especially those sites recommended by the Principal Investigator for further testing during Phase II AE&D studies. In addition, the State Historic Preservation Officer should be requested to furnish any additional information concerning archeological, historical, or cultural sites in the project area which were not identified in the reconnaissance report. The views of the State Historic Preservation Officer shall be discussed in the planning report and draft EIS, and the exchange of correspondence appended thereto. In cases where his comments are unavailable prior to distribution of the draft EIS, he will be specifically requested, in the letter transmitting the draft for review and comment, to furnish a response for inclusion in the final EIS.

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(2) Should the intensive cultural resources survey conducted during the Phase II GDM studies reveal sites considered eligible for the National Register, statements detailing such assessments will be completed by the Principal Investigator and forwarded to the State Historic Preservation Officer by the District Engineer. The State Historic Preservation Officer should be asked to return the eligibility statements, with his comments, to the District Engineer who will forward them to the keeper of the National Register for determination of eligibility for the Register. A copy of the letter of transmitttal should be provided DAEN-CWP-P.

10. <u>Contract Procedures and Reports</u>. In instances where the District Engineer contracts directly with a qualified university, museum, firm, institution, foundation, agency or individual, the contract shall conform to standard A-E contracting procedures.

a. Since many of these institutions are unfamiliar with A-E contracts, it should be made especially clear as a condition of the contract that neither the contractor nor his representatives shall release any sketch, photograph, report or other material of any nature obtained or prepared under the contract without specific written approval of the Contracting Officer.

b. Upon award of the contract, a complete copy, including the scope of services, study design and cost to the United States, will be forwarded by the District Engineer to the appropriate field official of the National Park Service.

c. Upon completion of the manuscript resulting from the investigation, two copies will be forwarded to the National Park Service for review and comment. The Service should be advised in the transmittal letter that if no response is received within a specified time, the reporting officer will assume that the Service is in agreement with the quality and legal sufficiency of the report. Additional review copies should be furnished the State Historic Preservation Officer, State Archeologist and State Historian, and may be sent to other qualified individuals, institutions or agencies for comment at the discretion of the District Engineer. Copies of final reports should be furnished to the National Park Service, the appropriate State Historic Preservation Officer, the Library of Congress, Smithsonian Institution, the State Archeologist and the State Historian.

d. In instances where funds are transferred to the National Park Service for archeological investigations at authorized projects, a DA Form 2213 will be forwarded to the appropriate National Park Service office for such services. It will then become the responsibility of the National Park Service to provide a Scope of Services for the contract and include any specific requirements of the Contracting Officer. As representative of the Contracting Officer, the National Park Service shall

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insure the quality, competency and timely completion of the report resulting from the investigation and be prepared to defend the report in the event of litigation or other adverse action. The National Park Service will thus fulfill the role of Principal Investigator for the District Engineer. Prior to completion of any report, the Service will forward a draft manuscript to the Corps for review and comment. In all cases, cultural resources reports will provide, in a timely manner, specific information needed for related Corps of Engineers reports.

a. Materials recovered from Federal lands are the property of the United States. Normally, these materials will be maintained at the institutional facility of the Principal Investigator. Arrangements may also be made by District Engineers with reputable museums and large universities to provide storage and curatorial services for materials recovered as a result of activities performed by in-house personnel or by contract with private firms or small colleges lacking adequate facilities of this nature. After completion of the necessary analysis and report, these materials may be used by the holding institution if not required by the Corps of Engineers for interpretative displays in project offices, visitor centers, or other appropriate areas for the information and benefit of the public.

b. Plans for such displays should be identified in the Phase I GDM with details developed in the Phase II GDM and applicable Feature Design Memorandums. For further guidance in this aspect, see ER 1130-2-401.

FOR THE CHIEF OF ENGINEERS:

5 Appendixes APP A - Synopsis of Authorities APP B - Federal Register; Vol 40, No. 24, Part II; 4 Feb 75 (Separate Cover) RUSSELL J. LAMP Colonel, Corps of Engineers Executive

- APP C Flow Chart; Compliance Procedures for Section 106 (Historic Preservation Act of 1966)
- APP D Flow Chart; Cultural Resources Reconnaissance
- APP E Preliminary Case Report; Section 106 (Historic Preservation Act of 1966); Content

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APPENDIX A

SYNOPSIS OF PERTINENT AUTHORITIES

1. Antiquities Act of 1906 makes it a Federal offense to appropriate, excavate, injure or destroy any historic ruin or monument located on lands owned or controlled by the United States without permission from the Secretary of the Department having jurisdiction thereof. Further guidance on this matter is contained in ER 405-1-875, 7 May 1973.

2. <u>Historic Sites Act of 1935</u> declares it national policy to preserve for public use cultural properties of national significance and vests certain powers in the Secretary of the Interior in this regard.

3. <u>National Historic Preservation Act of 1966</u> establishes national policy for historic preservation, authorizes establishment by the Secretary of the Interior of a National Register of Historic Places, and creates the Advisory Council on Historic Preservation. Section 106 of the Act directs consultation by Federal agencies with the Advisory Council on Historic Preservation prior to commencing construction or issuing entitlements to others when these activities would affect cultural resources listed in the National Register. Executive Order 11593 (more below) applies the same consultation and protection provisions to properties which the Secretary of the Interior determines are eligible for inclusion in the Register. Implementing procedures for consultation with and securing the advice of the Advisory Council are contained in 36 CFR part 800, 25 January 1974; (Appendix B).

4. <u>Reservoir Salvage Act of 1960, as amended</u>, is applicable only to <u>authorized</u> Civil Works projects. The Act permits the expenditure of up to one percent (1%) of the amount authorized to be appropriated for an individual Civil Works project for survey, recovery, analysis and reporting of important scientific, historical, archeological and paleontological data which are being or may be irreparably lost or destroyed as the result of Civil Works undertakings on lands under Corps jurisdiction including non-Federal lands provided by local interests for certain types of projects.

a. Before undertaking construction, written notice must be provided the Secretary of the Interior setting forth the site of the proposed project including the area to be flooded or otherwise changed.

b. If advised by the Secretary of the Interior or other appropriate authority that Federal construction activity may result in the loss of important cultural data, or when the agency finds that such losses may

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occur, notice will be provided the Secretary of the Interior. The agency may undertake directly, or by contract with qualified investigations or by transfer of funds to the Secretary of the Interior, the recovery, protection and preservation, analysis and publication of reports of such data, including surveys or other investigations as in the determination of the agency are needed. The amount expended for such activities may not exceed one percent of the amount authorized to be appropriated for the project, and all expenditures made for such activities are to be treated as non-reimbursable project costs.

c. The survey and recovery of cultural data at areas involved under Department of the Army Regulatory Permits are the responsibility of the Secretary of the Interior who must be notified of the proposed work by the District Engineer.

d. No survey or recovery work is required in connection with works conducted in connection with any emergency if in the determination of the Chief of Engineers such activities would impede necessary construction.

e. The Secretary of the Interior must report annually to Congress on Federal expenditures and accomplishments under this authority.

5. Executive Order 11593 directs Federal agencies to institute procedures to insure that their projects and programs contribute to preservation and enhancement of non-Federally owned cultural properties of significance. Consequently, Corps of Engineers planning reports and EIS will discuss the effects of proposed undertakings on significant non-Federally owned properties listed in or eligible for inclusion in the National Register of Historic Places.

a. Agencies are directed to inventory lands under their jurisdiction and nominate to the National Register cultural properties that appear eligible for inclusion in the Register. Nomination forms will be completed by District Engineers and after review by the State Historic Preservation Officer forwarded through the Division Engineer to DAEN-CWP-P for execution by the Federal Representative and transmittal to the Secretary of the Interior.

b. Agencies are directed to exercise caution to ensure that Federallv owned cultural properties on lands under their jurisdiction are not inadvertently sold, demolished or substantially altered until the Secretary of the Interior has the opportunity to review the eligibility of the property for the National Register and if an eligible property is to be sold, demolish or altered, the Advisory Council on Historic Preservation has an opportunity to comment and steps are taken to make records of the property for deposit in the Library of Congress.

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6. <u>The National Environmental Policy Act</u> charges the Federal Government with "the continuing responsibility" of using "all practicable means ... to the end that the Nation may:

- "(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- "(2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings:
- "(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- "(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice."

This law charges the Government to administer its policies, regulations, and laws to the fullest extent possible in accordance with these policies. Agencies are directed to develop methods and procedures for "giving unquantified environmental amenities and values appropriate consideration in the decision-making process along with economic and technical considerations."

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(Next Page is A-19)

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APPENDIX B

Forwarded Under Separate Cover

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APPENDIX E

CONTENT OF SEC 106 PRELIMINARY CASE REPORT

1. A general description of the proposed undertaking with explanatory graphic material;

2. A description of the properties included in or eligible for inclusion in the National Register to be affected by the undertaking, identifying any significant features of the properties;

3. An evaluation of the effect of the undertaking upon the properties included in or eligible for inclusion in the National Register;

4. An outline of measures taken in consideration of the undertakings's effect upon the properties included in or eligible for inclusion in the National Register, including:

a. An expression of the views of the State Historic Preservation Officer:

b. An indication of the support or opposition of units of government, as well as public and private agencies and organizations;

c. A review of alternatives which would remove any adverse effects; and

d. A review of alternatives which would mitigate any adverse effects.

The Corps of Engineers will refrain from taking any action with regard to the undertaking that will foreclose proper Advisory Council consideration of alternatives to avoid or mitigate adverse effects of the undertaking on cultural properties listed or eligible for inclusion in the National Register of Historic Places.

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Program Guidance Memo # 52
(INTERIM POLICY)

* * * * * * *

UBJECT: Field Surveys to Identify Cultural Resources Affected by EPA Construction Grants Projects DATE: JUL 2 1975

ROM: John T. Rhett, Deputy Assistant Administrator John Frild (WH-446)

Sheldon Meyers, Director Office of Federal Activities (A-104) Kilde

Regional Administrators Regions I - X

PURPOSE

T0:

This memorandum sets forth Agency policy to guide decisions in the EPA Title II construction grants program on field surveys for the purpose of identifying historical, architectural, archaeological and cultural resources (hereafter referred to as "cultural resources") in accordance with the "Procedures for the Protection of Historic and Cultural Properties" (36 C.F.R. Part 800.4(a)) issued by the Advisory Council on Historic Preservation.

BACKGROUND

Section 106 of the National Historic Preservation Act of 1966 and Executive Order 11593 impose responsibilities on Federal agencies to consider the effects of Federal, Federally assisted, and Federally licensed undertakings on properties included or eligible for inclusion in the National Register of Historic Places and to afford the Advisory Council on Historic Preservation an opportunity to comment on such undertakings. The Advisory Council has issued "Procedures for the Protection of Historic and Cultural Properties" (36 C.F.R. Part 800) to guide agencies in meeting their responsibilities under the Act and the Executive Order.

Several Regions have raised questions about EPA's specific responsibilities for historic preservation within the Grants program. The central issue is as follows: What are EPA's responsibilities for conducting field surveys to identify cultural resources under the procedures of the Advisory Council on Historic Preservation (30 C.F.R. Part 800.4(a))?

POLICY

Responsibility to Conduct Field Surveys in Areas of Primary Effects Only

EPA has the responsibility to conduct field surveys to identify cultural resources that may be affected by wastewater treatment grant projects only in the primary impact areas of the grant projects. Primary impact areas are those where ground will be disturbed for the project, such as the plant site, pumping station sites, access roads, and rights of way for interceptors.

'A Form 1320-6 (Rev. 6-72)



Areas in which the wastewater treatment facilities will have direct visual, odor, or aerosol effects may also be primary impact areas if they are likely to contain cultural properties of a type which are susceptible to such impacts and if the proposed project has been designed so as to be exposed to view or will emit odors or aerosols.

Use Standard of Probability

In areas where there are likely to be primary effects on cultural resources, EPA must identify all properties listed in the National Register of Historic Places by consulting the latest issue of the National Register, including monthly supplements. The current compilation is found in the <u>Federal Register</u> of February 4, 1975 (<u>Federal Register</u>, Vol. 40, No. 24, pp. 5248 - 5345); supplements are pub-Tished in the <u>Federal Register</u>, usually on the first Tuesday of each month.

EPA must also identify all properties eligible for listing in the National Register within the primary impact area. To do this, EPA shall consult with the State Historic Preservation Officer (SHPO) to determine the extent and adequacy of existing information.

If existing information is insufficient to identify affected properties that may be eligible for the National Register, EPA shall conduct or fund cultural resources surveys at a level adequate to do so. EPA's responsibility to conduct or fund such surveys on primary impact areas shall be limited by the following standard: The extent of survey activities should be based on the degree of probability with which cultural resources can be expected to be found.

Intensive surveys should be conducted only when a sufficient amount of information exists to indicate that there is a reasonably high probability of discovering important cultural resources. In areas where such information does not exist, some or all of the following usually will suffice to determine whether an intensive survey is justified: a documentary search of reference materials on the cultural resources of the area, a walk-over reconnaissance survey for archaeological properties, and a "windshield" or photographic survey of historic and architectural properties.

When necessary, intensive surveys may include ground testing for archaeological resources, or the preparation of a comprehensive map locating historical and architectural resources. The information obtained from any identification activities conducted shall provide the basis for determinations of eligibility for listing in the National Register in accordance with Part 800.4(a) of the Advisory Council procedures.

Determine Eligibility of Survey Costs Case-by-Case

The decisions as to what are reasonable survey activities and costs should be made on a case-by-case basis applying the standard of probability described above. Reasonable costs for surveys and other identification activities are to be considered grant eligible. Early assessment of survey needs should be undertaken to avoid project delays. Many survey decisions will require some degree of historical or archaeological expertise in order to weigh the probabilities of discovering particular properties. Regional personnel may find it advantageous to retain the services of a historian or an archaeologist if they anticipate numerous problems in this area.

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PROPOSAL EVALUATION CRITERIA

- Understanding the Problem The offeror should recognize and understand the scope and objectives of the Statement of Work and the programs to which it relates.
- Soundness of Proposal The offeror's program plan should present a realistic approach to the completion of the required tasks to professional standards commensurate with the time requirements and funding stated.
- Experience in Related Work The depth and breadth of the offeror's knowledge and experience in the field outlined in the Statement of Work.
- 4. <u>Qualifications and Capabilities</u> The nature of the offeror's organization - its stability and available support facilities, including libraries, laboratories, facilities, or provisions for compliance with the curatorial requirements; the qualifications of personnel to be utilized in the completion of the project, including academic and research credentials, qualifications and research record; experience in related work, including the experience of the project leaders and field personnel in relation to the tasks described in the Statement of Work; and the availability of nonsensitive data to the research community.
- 5. <u>Special Technical Factors</u> Incorporation of any innovative or unique approaches which would improve determination or solution of the tasks presented will be recognized.
- 6. <u>Compliance with Requirements</u> The offeror's proposal should show com-10% pliance with the requirements set forth in the Statement of Work.
- Overall Management Qualifications of the management, scientific, and technical staff and the ability to complete the tasks and requirements with adequate staff and facilities.

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Date Tetal

STATEMENT OF WORK

DIVISION 100 - GENERAL REQUIREMENTS

110 - Scope of Contract. The contractor shall provide all services necessary to complete an intensive archaeological reconnaissance of proposed timber sale areas as set forth in Section 120 on the Idaho Panhandle National Forests, and provide appropriate reports as required by the technical requirements herein. Work shall include the furnishing of all labor, professional services, materials, data, instruments, equipment, and other incidentals including travel. An intensive archaeological survey is an on-the-ground surface survey and test program adequate to determine the number, extent, and importance of resources, and to design a program including cost estimates for maximum mitigation of impact. Ideally, an intensive archaeological reconnaissance would record and correctly assess all cultural sites, and correctly assess and evaluate the scientific value of the total. Most reports of intensive archaeological surveys will allow for the contingency of sites that can only be discovered by project construction activities.

<u>120 - Location</u>. The intensive archaeological reconnaissance covers the areas encompassed by proposed timber sales and their related transportation facilities, as set forth in the schedule below and the attached maps, on the Idaho Panhandle National Forests.

Sale Area and Location	<u>Net (Gross) Acres</u>	Report Needed
Priest Lake District		
Item la - Fedar Junction	1,221 (2,848)	February 15, 1976
Section 6, T61N, R4W, B.M. Sections 1, 2, 11, 12, T61N, R5W, B.M. Sections 30, 31, T62N, R4W, B.M. Sections 25, 35, 36, T62N, R5W, B.M.		
Item lb - Big "H"	440 (7,844)	February 15, 1976
<pre>Section 6, T57N, R5W, B.M. Sections 1, 12, 13, T57N, R6W, B.M. Sections 6, 7, T32N, R46E, W.M. Sections 1, 12, T32N, R45E, W.M. Sections 30, 31, T33N, R46E, W.M. Sections 21, 22, 23, 24, 25, 26, 35, 36 T33N, R45E, W.M.</pre>	,	
<u>Item lc – Switchback</u>	300 (1,970)	March 15, 1976
Sections 21, 22, 27, 28, 29, 33, 34, T62N, R5W, B.M.		

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STATEMENT OF WORK, continued

Sale Area and Location	Net	(Gros	s) Acres	Date Interim Report Needed
Item 1d - South Lamb		(:	2,900)	July 15, 1976
Sections 20, 21, 26, 27, 28, 29, 30, 33 34, 35, 36, T60N, R5W, B.M.	,			
Item le - Binarch Root Rot		(1,500)	July 15, 1976
Sections 1, 2, 3, 10, 11, 12, T59N, R5W, B.M. Sections 34, 35, T60N, R5W, B.M.				
Item lf - Olson's Tunnel		(1,670)	July 15, 1976
Sections 7, 17, T57N, R5W, B.M.				
Item 1g – Ledge Creek		(3,450)	July 15, 1976
<pre>Sections 4, 5, 6, 7, 8, 9, 16, 17, T63N</pre>	,		· · · ·	
Item 1h - Observatory Point			(420)	October 1, 1976
Sections 19, 20, T58N, R3W, B.M.		· .		
<u>Item li - Grassy Top</u>		(1,580)	October 1, 1976
Sections 16, 17, 20, 21, 28, 29, 30, T38N, R45E, W.M.			• •	
Item lj - Galena-Klahowya	1	,500 (10,590)	October 1, 1976
<pre>Sections 1, 2, 3, 4, 9, 10, 11, 12, 16, T34N, R45E, W.M. Sections 14, 15, 16, 21, 22, 23, 24, 25 26, 27, 28, 33, 34, 35, 36, T35N, R45E, W.M.</pre>	•		n a serie de la composition de la composition de la composition de la composition de la composition de	
Sandpoint District				
Item 2a - Salee Ridge Section 27, T54N, R2W, B.M.		439	e digensis d 1. – Sin Su Su S ¹⁸¹ – Sis	November 15, 1975

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STATEMENT OF WORK, continued

<u>130 - Government-Furnished Property</u>. The Government shall deliver to the contractor the following listed materials, supplies, property, or services (hereinafter referred to as "Government-furnished property") at the places and times specified below. The contractor shall be liable for all loss or damage of such delivered Government-furnished property until completion and final acceptance of work required under this contract. If the Government fails to make timely delivery of such Government-furnished property suitable for its intended use, and upon written request from the contractor, the Contracting Officer shall make an equitable adjustment of the contract delivery or performance dates or contract price or both pursuant to the "Changes" clause of the General Provisions of this contract.

131 - One copy of preliminary aerial photos of the areas. Will furnish two (2) copies for areas with cultural resources.

132 - Project Maps of the units.

<u>140</u> - Other Government-Furnished Property. The Government will provide maps of the areas for the contractor's use. The contractor may accompany Forest Officer to and through the work areas. Upon request, the Government will indicate when crews may be working on specific areas, if known.

DIVISION 200 - TECHNICAL REQUIREMENTS

210 - Archaeological Reconnaissance shall:

211 - Identify, locate, and standardly record consistent with professional standards, objects, sites, buildings, or structures of archaeological, historical, or cultural significance within or immediately adjacent to the above study areas outlined in Division 120. Work will be accomplished in a professional manner and to professional standards, following standard archaeological field investigation procedures.

 $\frac{212}{10}$ - Describe and evaluate the above resources discovered during the reconnaissance.

213 - Make and justify recommendations regarding alternative management plans to preserve and protect the identified resources.

<u>214</u> - Identify agents of disturbance or destruction to the above resources in the area and recommend alternative mitigation measures by priority.

 $\frac{215}{100}$ - Recommend for study those sites, objects, buildings, or structures as to eligibility for nomination to the National Register of Historic Places.

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STATEMENT OF WORK, continued

<u>216</u> - The survey shall be responsive to adjacent areas that will be affected by the proposed projects.

<u>220 - Curative Responsibilities</u>. The contractor will provide, either through its own facilities (if acceptable to the Government) or through acceptable arrangements with recognized museums or institutions, for suitable storage and curatorship for all records and artifacts. A copy of all records, including those involving analysis, will be furnished to the Contracting Officer.

DIVISION 300 - REPORTS

<u>310 - Interim Reports</u>. Interim report time schedules for specific items are set forth in paragraph 120.

Interim reports shall include a brief letter form statement of work progress for the individual item along with what was found, including description and location of the resource. The report should include copies of any completed site forms and recommended alternatives or mitigation.

<u>320 - Preliminary Report</u>. A preliminary report corresponding with the completion of field season is also required within thirty (30) days of the completion of field work. The preliminary report shall include a descriptive report of what has been done and found, along with minimal recommendations for subsequent measures that the Forest Service should use for planning additional work.

<u>330 - Final Report</u>. The final report will be required by December 1, 1976. The final report shall be a comprehensive interpretive statement, written to professional standards and suitable for publication in a professional journal. It should include appropriate illustrations. There is to be an accompanying statement of recommendations for mitigation of impacts, suggested program changes, and suggestions for planning additional work.

DIVISION 400 - MEASUREMENT AND PAYMENT

Progress payments will be made upon acceptance of interim reports, not to exceed 85% of the agreed amount for each study area.

Final payment will be made upon acceptance of the final report.



EXECUTIVE DIRECTOR

STATE OF ALABAMA ALABAMA HISTORICAL COMMISSION

725 MONROE STREET

MONTGOMERY. ALABAMA 36130 November 20, 1975



TELEPHONE NUMBER 832-6621

Mr. Bernard W. Poirier, Director Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirier:

Please find enclosed a copy of an agreement used by the Alabama Historical Commission in contracting archaeological investigations as per your request October 14, 1975.

Sincerely,

Warner Floyd

GCB

Enc: 1



THE ARCTIC COMPANY, LTD. Iroquois research institute



STATE OF ALABAMA)



THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

AGREEMENT

THIS AGREEMENT, entered into as of this day of

______, by and between Bascom Mack Brooms, Professional Archaeologist (hereinafter called the Contractor) and the Alabama Historical Commission (hereinafter called the Alabama Historical Commission). WITNESSETH THAT:

WHEREAS, the Alabama Historical Commission desires to engage the Contractor to render certain technical or professional services hereinafter described.

NOW, THEREFORE the parties hereto do mutually agree as follows:

A. EMPLOYMENT OF CONTRACTOR

The Alabama Historical Commission hereby agrees to engage the Contractor and the Contractor hereby agrees to perform the services hereinafter set forth in connection with a documented survey and test excavation of sites of historical and archaeological significance in the area of the

B. SCOPE OF SERVICE

The Contractor agrees to do, perform, and carry out in an expedient, satisfactory and proper manner, the survey work, liaison services and coordination services described. The Contractor further agrees that all work done under this agreement shall satisfy general requirements of the Alabama Historical Commission. The Contractor will make a detailed and fully documented survey of sites of archaeological significance in ______

1. Purpose

This survey and the resulting report are needed to obtain an inventory and evaluation of archaeological and historical resources of cultural value including architectural features such as buildings and structures as well as historic sites and landmarks that may exist in

In addition, areas of unique scenic value and natural attractions shall be included in the survey and report. The data collected and the information

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gained shall be used as part of the general procedures for implementing provisions of Public Law 86-523 and Public Law 89-665 which deal with the preservation of archaeological and historical sites.

2. Requirements

A survey shall be made of these sites. The survey shall include the following:

(a) Determine if such archaeological, historical resources or unique scenic areas exist within the area of the structural measures. If resources are found--record, identify, and appraise the significance of resources.

(b) Evaluate the impact of planned project installation on archaeological and historical resources.

(c) Provide and result in recommendations for mitigation of adverse impacts anticipated.

(d) Provide estimate of costs required for mitigation (salvage, protection, etc.).

3. Report

Provide a written narrative report of the survey and maps as necessary to show location and types of significant resources. Report shall be of sufficient scope and detail to fully appraise potential project impacts on historical and archaeological resources as required by the National Environmental Policy Act, and the guidelines as printed in the Federal Register on June 3, 1974, Appendix B. This report shall be furnished the Alabama Historical Commission in Montgomery, Alabama, on or about

C. PERSONNEL AND ADMINISTRATIVE SERVICES

1. Administrative Services

a. Review of Work

The Contractor agrees to permit and to facilitate review of his work hereunder by the Alabama Historical Commission, at Montgomery or at other places as the parties hereunder may determine and to which they may mutually assent and at such times as may be mutually agreeable.

(1) The Alabama Historical Commission shall meet with the Contractor to review forms, photographs and other descriptive material displaying information pertinent to the survey. This review shall evaluate the validity of data sources and determine the adequacy of the survey.

(2) The Contractor shall keep accurate records of all receipts and disbursements which shall be open for inspection to any state or federal agency, and an expenditure statement shall be submitted to the Alabama Historical Commission with each invoice submitted by the Contractor.

b. Personnel

(1) The Contractor represents that he has, or shall secure at his own expenses, all personnel required to perform the services under this agreement. Such personnel shall neither be employees of nor have any contractual relationship with the Alabama Historical Commission.

(2) All of the services required hereunder shall be performed by the Contractors or under his supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state and local law to perform such services.

(3) None of the work or services covered by this Agreement shall be subcontracted without the prior written approval of the Alabama Historical Commission.D. TIME OF PERFORMANCE

The services of the Contractors are to commence as soon as practicable after the execution of this Agreement and shall be undertaken and completed in such sequence as to assure their expeditious completion in the light of the purposes of this Agreement, but in any event all of the services required hereunder shall be completed and all required forms, photographs, maps submitted prior to

E. COMPENSATION

F. TERMINATION OF AGREEMENT

The Alabama Historical Commission or Contractor may terminate this Agreement at any time by giving written notice of such termination and specifying the effective date thereof, at least 15 days before the effective date of such termination. In that event, all finished or unfinished documents and other materials shall, at the option of the Alabama Historical Commission, become its property. If the Agreement is terminated by the Alabama Historical Commission as

provided herein, the Contractor shall be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total service of the Contractor covered by this Contract, less payments of compensation previously made. <u>Provided however</u>; that if less than 60 percent of the services covered by this Agreement.

G. CHANGES

The Alabama Historical Commission may, from time to time, require changes in the scope of the services of the Contractor to be performed hereunder. Such changes, including any increase or decrease in the amount of the Contractor's compensation, which are mutually agreed upon by and between the Alabama Historical Commission and the Contractor shall be incorporated in written amendments to this Agreement.

H. EQUAL EMPLOYMENT OPPORTUNITY

In carrying out of the contract work, the Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment advertising, layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notice to be provided by the Government setting forth the provisions of this nondiscrimination clause. The Contractor will, in all solicitations or advertisement for employees placed by or on behalf of the Contractor state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin. The Contractor will incorporate the foregoing requirements of this paragraph in all subcontracts if any for services covered by this contract.

I. INTEREST OF MEMBERS OF THE ALABAMA HISTORICAL COMMISSION AND OTHERS

No officer, member, or employee of the Alabama Historical Commission, and no member of a governing body of the locality or localities in which the project is situated or being carried out who exercises any functions or responsibilities in the review or approval of the undertaking or carrying out

of this project shall (a) participate in any decision relating to this Agreement which affects his personal interest or the interest of any corporation, partnership, or association in which he is directly, or indirectly interested; or (b) have any interest, direct or indirect, in this Agreement or the proceeds thereof.

J. ASSIGNABILITY

The Contractor shall not assign any interest in this and shall not transfer any interest in the same (whether by assignment or novation), without the prior written consent of the Alabama Historical Commission thereto.

K. INTEREST OF CONTRACTOR

The Contractor covenants that he presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. The Contractor further covenants that in the performance under this Agreement no person having any such interest shall be employed.

L. OFFICIALS NOT TO BENEFIT

No member, or delegate to, the Congress of the United States of America and no Resident Commissioner shall be admitted to any share or part thereof or to any benefit to arise therefrom.

M. REPORTS

Contractors will prepare, furnish and deliver his survey reports in not less than two (2) copies, which survey report shall be in the form and substance as directed by the Executive Director of the Alabama Historical Commission, and said report will conform to standards set by the Department of the Interior and same shall adequately present factual data to support each and every finding and shall contain all necessary and usual information which is normally submitted for National Register nominations. A final report, to be submitted to the Alabama Historical Commission not later than ------

describing the field work and analyzing excavated materials shall include, but will not be limited to the following information:

- Descriptions and photographs of sites located during the survey and of excavations at sites listed in Paragraph B above.
- 2. Descriptions, photographs, and analyses of artifacts surface collected during the site survey and of those excavated.
- 3. Data of resource utilization including identification of faunal remains.
- 4. Interpretation of the local prehistoric sequence, prehistoric settlement patterns, and man-environment relationships.

5. Comparative statements on extra-regional relationships with emphasis

on other prehistoric cultures of the Gulf Coast Plain.

P. COPYRIGHT

No reports, maps or other documents produced in whole or in part under this Contract shall be the subject of any application for copyright by or on behalf of the Contractor. IN WITNESS WHEREOF, the parties to this agreement have caused same to

be executed on this day of

Bascom Mack Brooms Professional Archaeologist Montgomery, Alabama _, 19____.

STATE OF ALABAMA Alabama Historical Commission

By:

APPROVED:

ATTEST:

George C. Wallace Governor of Alabama Agnes Baggett Secretary of State

STATE OF ALABAMA

MONTGOMERY COUNTY

I, the undersigned authority, a Notary Public in and for said State and County hereby certify that W. Warner Floyd, whose name as Executive Director of Alabama Historical Commission of the State of Alabama is signed to the foregoing instrument and who is known to me, acknowledged before me on this date, that being informed of the contents of the within instrument he, in his capacity as such Executive Director of Alabama Historical Commission of the State of Alabama and with full authority, executed the same voluntarily the day the same bears date.

Given under my hand and seal this _____ day of _____, 19 .

Notary Public

STATE OF ALABAMA

MONTGOMERY COUNTY

Given under my hand and seal this day of _____, 19____,

Notary Public

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS /

323 E. 4TH AVENUE --- ANCHORAGE 99501

October 28, 1975

Bernard W. Poirier Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirier:

Enclosed, as you requested, is a sample of specifications which are part of the contracts we enter into with investigators. Archeological specifications are "professionally acceptable procedures".

As these contracts are negotiated only with professional individuals or institutions, we do not find it necessary to spell out the procedures in the contract specifications.

Sincerely,

sailed (al

Russell W. Cahill, Director and State Historic Preservation Officer

DR:gn



THE ARCTEL COMPANY, LTC. IROQUOIS RESEARCH INSTITUTE

EXHIBIT A

SERVICES TO BE PERFORMED

Part I.

The recipient shall obtain the services of an archaeologist qualified under the provisions of 11 AAC 16.040 to:

1. Undertake the field survey described in Attachment A-1.

- Report results of this work on Alaska Historical Survey Record cards (Attachement A-2) for each archaeological and/or historic site identified (blank cards provided by the Division of Parks).
- 3. Plot each identified stie on USGS Map, Scale 1:63,360 and the appropriate protraction sheet available from the Department of Natural Resources, Division of Lands (provided by the Division of Parks).
- 4. Prepare nominations to the National Register of Historic Places in accordance with Attachment A-3 (How to Complete National Register Forms, June 1973), for all properties appearing to meet eligibility criteria as stated in Attachment A-3.
- 5. Furnish representative slides and black and white photographs as feasible for each site.

Prepare a narrative summary of survey and test excavation results to include a recapitulation of identified archaeological sites, cultural identification of such sites whenever possible, analysis of potential dangers to sites (natural or man-made), evaluation of relative significance of endangered sites with reference to preserv. cion needs (acquisition, ruins stabilization, etc.).

- 7. Documents and records will be furnished the Alaska Division of Parks as follows:
 - Item 2 one (1) typed or printed Alaska Historical Survey Record card per site.
 - Item 3 Maps, scale 1:63,360 and Alaska approved protraction sheets, with site locations recorded.
 - Item 4 Nominations to the National Register of Historic Places as appropriate.
 - Item 5 Mounted 35 mm slides, two (2) per subject and/or 8 x 10 glossy black and white prints, two (2) per subject.

Item 6 - Five (5) copies of narrative report.

8. Work required by this agreement will be submitted to the Alaska Division of Parks for review and acceptance on or

before the following dates:

6.

ITEM	DRAFT	FINAL
2		10-1-75
3		10-1-75
4	10-31-75	1-31-76
5	· · · · · · · · · · · · · · · · · · ·	1-31-76
6	10-31-75	1-31-76

EXHIBIT A

CONDITIONS

Part II.

- Recipient agrees that the State may edit, publish, and use all material produced under this agreement without restriction.
- 2. Nothing in this agreement is to be construed as a field archaeology Antiquities Act permit. Recipient shall apply to the appropriate authorities for such permits.
- 3. The Alaska Division of Parks may not be billed for more than one-quarter total costs until satisfactory documentation of the field work has been received.
- 4. Recipient must comply with the provisions of 11 AAC 16.
ARIZONA STATE UNIVERSITY

DEPARTMENT OF ANTHROPOLOGY

TEMPE, ARIZONA 85281

October 24, 1975

Mr. Bernard W. Poirer Director, Iroquois Research Institute Suite 215, 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirer:

Ms. Dorothy Hall, Arizona State Historic Preservation Officer, has forwarded your memo of 14 October 1975 to me for response. With this letter I am including copies of typical contract agreements. In general all our work is designed to meet the specifications of <u>Guidelines for the Preparation and Evaluation of Cultural Resource</u> <u>Management Studies</u>, prepared by Archaeological Reports Seminar, Society for American Archaeology, Airlie House Conference Center, Virginia, 1974, and <u>Guidelines for the Preparation of Statements of</u> <u>Environmental Impact on Archaeological Resources</u>, by Douglas H. Scovill, Garland J. Gordon, and Kieth M. Anderson, Arizona Archaeological Center, National Park Service, 1972. You may contact the responsible agencies for copies of these documents. I hope this information has been of some assistance to you.

Sincerely,

Id E. Wenner, Jor.

Donald E. Weaver, Jr. Director, Office of Cultural Resource Management Department of Anthropology Arizona State University



THE ARCTIC COMPANY, LTD.

IROQUOIS RESEARCH INSTITUTE



THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

CONTRACT NO: CX8000 40027

FISCAL YEAR: 1974

FUNDING: 8102-1002-558

UNITED STATES OF AMERICA DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

CONTRACTOR: Arizona Board of Regents, acting for and in behalf of Arizona State University, Tempe, Arizona

PROJECT: CE, Cave Buttes Dam Alternative Site, Intensive Survey, Maricopa County, Arizona

I. The Arizona State University agrees to:

a. Supply the necessary personnel and facilities to conduct an intensive archeological survey and evaluation of archeological resources within the Cave Buttes Dam Alternative Site Project, Corps of Engineers, Maricopa County, Arizona, in accordance with the attached Research Proposal, pursuant to and in accordance with the Act of June 27, 1960 (75 Stat. 220. 16 U.S.C., Sec. 469). The Arizona State University has designated Dr. Alfred E. Dittert, Jr., as Principal Investigator for this contract;

b. Begin the field work within ten days following June 10, 1974;

c. Complete the field research phase of the work by July 20, 1974;

d. Submit to the Service a monthly report on the progress of the research work by the last day of each month;

e. Within 10 days following the completion of field work the Contractor shall submit in duplicate a preliminary letter report outlining the results of the survey, including a summary of the archeological resources identified, the area studied, extent of coverage, man-days used in the survey, and two copies of the Corps of Engineers Drawing, Cave Buttes Dam, Alternative Sita, General Plan, dated February 12, 1974, Scale: 1 in./600 feet on which the location and boundaries of archeological resources have been plotted.

f. No later than September 1, 1974, the Contractor shall submit a draft of the final report to the Contracting Officer's Representative for review and approval of format, method of presentation, and compliance with applicable contract requirements. Technical findings shall not be subject to the approval of the Contracting Officer's Representative, but recommendations by the Contracting Officer's Representative for changes in the findings which are acceptable to the Contractor shall be incorporated in the reproduction copy. Should such recommendation be unacceptable to the Contractor, the reproduction copy will contain an appropriate statement that the technical findings do not necessarily reflect the view nor have the concurrence of the Contracting Officer's Representative;

g. Submit to the Service by September 30, 1974, 25 copies of a final report meeting acceptable scientific standards as final fulfillment of this contract, including maps, descriptions and evaluations of

2

archeological resources identified, the effect of the project upon these resources, an estimate of the cost of recovering all significant archeological data in the project area, and a recommended program of studies which will realistically mitigate adverse effects of the project including cost estimates and schedules. The Contractor shall retain 75 copies of the final report for distribution to institutions and professional archeologists with an active current interest in archeological research in Central and Southern Arizona.

h. Within 60 days after termination of field research under this contract the Contractor/Investigator will evaluate each site located, surveyed or investigated in accordance with National Register of Historic Places criteria (36 CFR 800.10), and will prepare and submit to the Contracting Officer's Representative three copies of Preliminary Inventory of Historic Places Forms for each site evaluated, indicating on the form for those properties <u>not</u> recommended to be nominated to the National Register. The inventory forms submitted by the Contractor shall be accompanied by printed maps (in three copies) of a scale suitable to reasonably locate the inventoried sites (e.g. USGS 7 1/2 or 15 minute series, or equivalent). As many sites as possible should be located on a single map. Additional individual site or district maps, at a larger scale, are required for properties recommended for the National Register, in order to better define property boundaries for the limits of significant

3

resources. Submission of the inventory outlined above shall not serve in lieu of any portion of the contract satisfying monthly reports and final manuscript report;

i. Conferences. During the progress of the work, the Contractor shall confer with the Contracting Officer's Representative to provide preliminary study data which might be deemed pertinent to the timely design and coordination of this project, and confer as necessary to assure that the completed material shall meet the approval of the Contracting Officer's Representative;

j. The Contractor shall submit with the final report one complete copy of field and laboratory documentation records, including but not limited to the following: Field notes, field drawings, photographs, and laboratory analysis cheets;

k. Consult with the Service with a view to determining the ownership of and the most appropriate depository for relics and specimens recovered as a result of the work performed pursuant to this agreement and furnish to the Service, if requested by it, relics and specimens and representative collections from this research;

1. Fulfill its obligations as outlined in the appended Supporting Data furpished by the Contractor which are made part of this contract;

m. Upon completion of any excavation and/or tests, the sites will be restored, insofar as practical, to their original appearance, except that in cases where it can be definitely ascertained that the sites will be completely flooded within the next 60 days, the sites may be left open;

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n. The Contractor further agrees that in the performance of the work covered by this agreement, the attached General Provisions of 24 articles plus amendments and additions thereto will be observed and are incorporated herein;

No partial payments are to be authorized after 60 days following completion of field research under this contract unless and until the inventory requirements in Item Ih above has been completed.

Contract work will be considered incomplete and no final payment authorized until the inventory requirement in item Ih above has been satisfied.

Invoices shall be submitted to the Contracting Officer's Representative who will certify that the work has been performed and payment is justified. Upon certification the invoice will be submitted to the Contracting Officer for payment.

-5

The Chief, Arizona Archeological Center, F. O. Eox 49008, Tucson, Arizona 85717, is designated as the Service's Contracting Officer's Representative.

IN WITNESS WEREOF, the parties hereto have hereunto subscribed their names.

1974 UNE 25 Ey DATE

Isi W. PRS

W.B. Peppers, Contracting Officer Chief, Division of Contracting and Property Management Western Regional Office National Park Service

COMTRACTOR: Arizona Board of Regents, Acting for and in Behalf of Arizona State University

Vice President

Title

404

Research Proposal Submitted

to the

Arizona Archaeological Center

National Park Service

Ъy

Arizona State University

Tempe, Arizona

۶.

AN INTENSIVE ARCHAEOLOGICAL SURVEY OF THE CAVE BUTTES DAM

ALTERNATIVE SITE AND RESERVOIR, ARIZONA

Principal Investigator:

Alfred E. Dittert, Jr. Professor Department of Anthropology

Proposed Starting Date: 1 June 1974 Complete Field Work: 1 July 1974 Submission of Final Report: 30 September 1974 Amount Requested:

Endorsements:

Department Chairman

Department of Anthropology

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TEMPE, ARIZONA 85281

ARIZONA STATE

DEPARTMENT OF ANTHROPOLOGY

30 May 1974

TO: Arizona Archaeological Center P.O. Box 49008 Tucson, AZ 85717 Attn: Mr. Garland Gordon

FROM: Department of Anthropology
Arizona State University
Tempe, AZ 85281
(Dr. Alfred E. Dittert, Jr.; Donald E. Weaver, Jr.)

RE: An Intensive Archaeological Survey of the Cave Buttes Dam Alternative Site and Reservoir, Arizona

The maps sent by the Arizona Archaeological Center indicate that an area of 3 to 6 square miles may be inundated by the construction of the Cave Buttes Dam Alternative and the region must be surveyed for archaeological resources. The area has not been previously investigated but similar surveys conducted in an adjacent area to the south indicate that a relatively high density of sites can be expected. The terrain of the survey area is, in places, quite rugged and will require more time than an equivalent region with low relief.

The proposal request specifies that the study be sufficiently intensive to allow preparation of an environmental impact statement about the archaeological resources; a program of studies, including a budget, to realistically mitigate adverse effects resulting from construction; and a detailed evaluation of sites for possible nomination to the National Register of Historical Places. The type of archaeological survey proposed to meet these requirements is an intensive field survey.

The Department of Anthropology will furnish all personnel, supplies, materials, and vehicles to perform archaeological investigations to yield the following results:

1. Recording and evaluation of the significance of all archaeological resources identified by the survey and their potential for contributing information about archaeological problems in the Cave Creek area.

2. A recommended program of studies which will realistically mitigate adverse effects resulting from construction of the Cave Buttes Dam Alternative, including cost estimates and schedules. 3. Recommendations for any other mitigating measures which may lessen the adverse effects of the project.

4. An evaluation of all surveyed archaeological sites for possible nomination to the National Register of Historical Places.

5. A preliminary letter report, including the area studied, extent of coverage, and man-days used in the survey, to be submitted 10 days after completion of the field work.

6. A final report of acceptable scientific standards to be submitted for approval by 1 September 1974 and in final form by 30 September 1974.

7. Copies of all field notes, site survey forms, lab analysis sheets, and site evaluation forms.



Arizona Archeological Center

THE ARCTIC COMPANY, LTD. Archeological Survey Contract Specifications ROQUOIS RESEARCH INSTITUTE

Furnish necessary personnel, supplies and materials to provide archeological survey, necessary testing and report adequate as input for an environmental statement for:

Complete the field work by

Estimated time: _____ man-days.

If archeological resources are located in areas affected by the project(s), submit ______ copies of a final report meeting acceptable scientific standards by ______, including where appropriate:

1. An inventory and description of archeological resources identified in areas to be affected by the Project(s), including maps showing their relationships to the project(s) at a minimum scale of _____;

2. The significance of the identified resources and their potential for contributing information about archeological problems in the area including identification of those which may merit listing on the National Register of Historic Places;

3. A cost estimate for the recovery of data from all significant archeological resources to be affected by the project(s);

4. A recommended program of studies to realistically mitigate adverse effects which will result from the project, including research recommendations and estimates of time and funding needed;

5. Recommendations for any other mitigating measures which may lessen the adverse effects of the projects;

6. A description of the examination procedures used including number of acres studied, extent of coverage and man-days required.

If no archeological resources are located in areas affected by the project(s), submit a letter report by _____, including:

1. A description of the area examined and its relationship to the project(s);

2. A map of the area examined, with the project boundaries;

3. A description of the examination procedures used including number of acres studied, extent of coverage and man-days required;

4. A statement that no archeological resources were found;

5. A recommendation that archeological clearance be granted.

Charge for this work will be in accordance with standard fees charged by ______ for such work, provided they do not exceed \$_____. Payment will be made on an itemized invoice (or attached fee schedule) certifying that the expenses were actually incurred.

Authority: Section 302(c)(5) of the Federal Property and Administrative Services Act of 1949, as amended.

Principal Investigator:

1. Within 60 days after termination of field research under this contract the Contractor/Investigator will evaluate each site located. surveyed or investigated in accordance with National Register of Historic Places criteria (36 CFR 800.10), and will prepare and submit to the Contracting Officer's Representative three copies of Preliminary Inventory of Historic Places Forms for each site evaluated, indicating on the form those sites likely to qualify and which should be nominated. Explanation of professional considerations must be provided on the inventory form for those properties not reconnended to be nominated to the National Register. The inventory forms submitted by the Contractor shall be accompanied by printed maps (in three copies) of a scale suitable to reasonably locate the inventoried sites (e.g. USGS 7 1/2 or 15 minute series, or equivalent). As many sites as possible should be located on a single map. Additional individual site or district maps, at a larger scale, are required for properties recommended for the National Register, in order to better define property boundaries or the limits of significant resources. Submission of the inventory outlined above shall not serve in lieu of any portion of the contract satisfying monthly reports and flual manuscript report;

j. Conferences. During the progress of the work, the Contractor shall confer with the Contracting Officer's Representative to provide preliminary study data which might be deemed pertinent to the timely design and coordination of this project, and confer as necessary to assure that the completed material shall meet the approval of the Contracting Officer's Representative.

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PRELIMINARY INVENTORY OF HISTORIC PLACES FORM

Date:

1. Name of Property:

2. Owner of Property:

3. Location of Property

(should this information be released. Yes No

A. State and County:

B. Latitude and Longitude

C. Township, Range and Section (if appropriate):

D. Other legal description (if appropriate):

E. Map Reference:

4. Nature of Property:

A. District () Site () Building () Object ()

B. Description, present condition and use:

5. Summary of Importance:

6. Should property be nominated to National Register:

7. Location of more detailed information about the condition and importance of this property:

8. Name(s) and location of personnel preparing this inventory:

(submit an original and two copies)

EXPLANATION

- Item 1. Name of Property: For a prehistoric site with no name, use the numbering system commonly in use in that State, or consult the State Historic Preservation Officer. If an historic place has no formal or local name, enter "No Name".
- Item 3. Latitude and longitude should be used for properties of less than 10 acres. Township, Range and Section should be to nearest 1/4 of 1/4 Section for properties of more than 10 acres. Identify map used (preferably U.S. Geological Survey, 7.5 minute topographic quadrangle series). Should this information be released (yes or no). Include printed map (3 copies of each separate map). Show as many sites as possible on a single map, rather than a separate map for each site. One copy of each map should be original, others may be reproduced.

Item 4a. Check appropriate block (see Part II, A).

- Item 4b. List the major dimensions of the property (length, width, height, depth, etc); if a building, give the number of stories and construction materials (i.e. wood, stone, brick, adobe, etc). If an archeological site, describe nature of the remains (midden, structures, rockshelter, surface, buried, etc.). List any unusual features. Give probable date(s) of construction/ occupation/event. Described boundaries should include all areas that have research potential. In order to better define boundaries or limits of significant resources include a larger scale drawing or map for sites recommended to the National Register.
- Item 5. Why is it significant enough to be recorded? Tell what historical events took place there, or the importance of the site in local and regional history or prehistory. If an archeological site, in what manner does it have a potential for yielding important information. Is the property significant primarily because of its research potential or does it also have potential for development as a public use area? Note: The National Register of Historic Places may include sites of local or state as well as national importance.
- Item 6. Must be answered. Explain professional reasons and considerations as to why a property is either recommended or not recommended for nomination.
- Item 7. Either bibliographic citations of reports of investigations upon the inventories property, or the identification of data repositories containing unpublished information upon the property.
- Item 8. Businers or agency address is desired, as well as telephone number with area code.

This form is recommended only as an acceptable minimum level of information for the inventories.

Contract No.

CONTRACT FOR SERVICES

DEPARTMENT OF THE ARMY

CONTRACTOR AND ADDRESS:

Arkansas Archeological Survey University of Arkansas Museum Fayetteville, Arkansas 72701

CONTRACT FOR:

Archeological Inventory and Reconnaissance . Cache River Basin Project, Arkansas

PAYMENT TO BE MADE BY:

Finance and Accounting Officer Memphis District, Corps of Engineers 668 Clifford Davis Federal Building Memphis, Tennessee 38103

The supplies and services to be obtained by this instrument are authorized by, are for the purposes set forth in and are chargeable to the following allotment, the available balances of which are sufficient to cover the cost of the same:

Appropriation: 96X3112 - Flood Control, Mississippi River and Tributaries, Cache River Basin Project, Arkansas

This contract is negotiated pursuant to the following authority:

10 U.S.C. 2304(a)(4)



OCT 1 7 1975

THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE



APPENDIX A

Contract No.

THE ARCTIC COMPANY, LTD. Iroquois research institute

SCOPE OF WORK

Archeological Inventory and Reconnaissance Fortion of the Environmental Inventory and

Environmental, Social, and Economic Evaluation and Impact Assessment

Cache River Basin Project, Arkansas

1. <u>Subject</u>. Outline of work to accompany contract for an inventory and recommaissance of archeological resources, and a report thereon covering the Cache River Basin Project area in Arkansas and Missouri, shown on Plate No. 1 of this Appendix.

2. <u>Purpose</u>. The purpose of this work is to provide (1) an inventory of archeological resources, (2) an assessment of the relative significance of these resources, (3) an assessment of probable future changes affecting these resources without the project, (4) a determination of probable effects of alternate plans of improvement and of nonstructural alternatives, and (5) a base for planning conservation and/or mitigation measures during any future detailed planning.

A summary report which will not show exact locations of archeological sites will be included in a detailed project environmental impact statement being prepared. The full report to be prepared by the contractor will not be included in the statement but will be kept in Corps of . Engineers' and State Archeologist's files. This is at the specific request of the State Archeologist.

3. <u>Description of Work</u>. The work will consist of three levels of effort (1) utilization of Secondary Source Data, (2) Reconnaissance, and (3) Comprehensive Inventory - as follows:

a. <u>Secondary Source Data</u>. Existing records should be utilized to the maximum extent possible for the entire 2,018 square mile drainage basin. It will not be necessary to obtain additional information for the approximately 260 square miles of the headwater portion lying along the western slope of Crowleys Ridge.

b. <u>Reconnaissance</u>. A reconnaissance or spot checks will be made to supplement secondary source data for the purpose of estimating total archeological resources in the entire 1,753 square mile alluvial valley portion of the basin.

c. <u>Concretensive Inventory</u>. This inventory will cover a zone along the routes of the authorized channel enlargement and realignment where direct impacts are most likely. In general, this zone will consist of the strips approximately 1,000 feet on either side of the channels between the mouth of Cache River and mile 69.6 (2 miles south of Arkansas Highway 18) and between the mouth of Bayou DeView and mile 29.9 (Missouri-Pacific Railroad). Above these points, the zone to be covered will be 500 feet on either side of the channels (Cache River miles 69.6 to 140.0; Little Cache River Ditch miles 0.0 to 8.8; Little Cache River Ditch No. 1 miles 0.0 to 3.7; Main Canal Cache River miles 0.0 to 2.1; and Bayou DeView miles 29.9 to 76.9).

4. <u>Sequence of Work</u>. To the extent permitted by high water stages, the comprehensive inventory effort should be initiated and concentrated on the lower reaches of Cache River (25 miles) and Bayou DeView (16 miles). These lower reaches are the most critical from the standpoint of accessibility and are the creas where project construction would occur first.

An interim report to be completed prior to the final basin report will cover the inventory of these lower reaches and will include an overall reconnaissance of the entire basin which gives an adequate picture of archeological resources sufficient for inclusion in a project environmental impact statement. The schedule for this interim report is shown in paragraph 9, following.

5. Format of Recorts.

The reports shall be submitted on $8 \times 10-1/2$ inch paper.

Narrative matter shall be typed single spaced, one side of the page.

Margin at binding edge shall be 1-1/2 inches (left margin); at outer edge not less than one inch. Top and bottom margins shall be one inch, with page number in middle of bottom margin.

Charts, maps and tables in excess of standard page size shall be multiples of 4 inches, folded to an 8-inch width, with allowances for binding. Greater vertical dimensions in excess of 10-1/2 inches may be used but shall be folded so that the title block will remain exposed.

The contractor shall submit five copies of report drafts for review and comment. Comments resulting from the review will be furnished to the contractor for consideration in preparation of the final reports. A typed copy of the final text of the reports shall be furnished along with five copies of the final reports.

6. <u>Consultation</u>. The contractor shall be available throughout the contract period for consultation with the contracting officer or his authorized representative.

7. Materials and Supplies.

a. <u>Contractor Furnished</u>. The contractor shall furnish all materials, equipment, supplies, labor, transportation and services required to conduct the work described herein, except as noted in the next paragraph below.

b. <u>Government Furnished</u>. The government will furnish necessary engineering data and any of the following quadrangle maps considered necessary by the contractor: 1:62,500, 1:24,000 (full basin coverage not available on this scale), and 1:250,000.

8. <u>Rights-of-Way</u>. The contractor shall be responsible for obtaining all necessary permits, licenses, leases, or other property rights associated with the carrying out of contractor's responsibilities under terms of this contract.

9. <u>Schedule</u>. The contractor shall, unless delayed due to causes beyond his control and without his fault or negligence, complete all work and services under this contract within the following time limitations. In the event these schedules are exceeded, due to causes beyond the control and without the fault or negligence of the contractor, the contract will be modified in writing and the contract completion date will be extended one calendar day for each calendar day of delay. Work on this contract shall be started within 10 days and is to be completed within 14 calendar months after date of receipt of notice of award.

a. <u>Interim Report</u>. (1) <u>Dreft</u>. A draft of the interim report, described in paragraph 4 of this appendix, shall be submitted within 90 days after the date of receipt by the contractor of written notice to proceed with the work.

• (2) <u>Review Period</u>. A 14-day period will be required by the government for review of the draft of the interim report.

(3) <u>Final Interim Report</u>. The final interim report shall be submitted within 30 days after receipt of the government comments to the draft of the report.

b. <u>Comprehensive Report</u>. (1) <u>Draft</u>. A draft of the comprehensive report covering total basin archeological resources shall be submitted within 12 months after the date of receipt by the contractor of written notice to proceed with the work.

(2) <u>Review Period</u>. a 30-day period will be required by the government for review of the draft of the comprehensive report.

(3) <u>Final Comprehensive Report</u>. The final comprehensive report shall be submitted within 3C days after receipt of the government comments to the draft of the report.

3

10. Payment.

a. Payment shall be made monthly, based on estimates and evidence submitted by the contractor of the extent and value of the work and services performed under this contract. Evidence will consist of data collected and records of work performed which will be submitted with each pay estimate. Upon approval of such estimate by the contracting officer, payment upon vouchers approved by the contracting officer shall be made to the contractor, as soon as practicable, of 90 percent of the amount of such approved estimates.

b. Upon satisfactory completion of the work under this contract and its final acceptance, the contractor shall be paid the unpaid balance of any money due horeunder.

c. Cost of travel to Memphis, Tennessee, to discuss any part of this work, as requested by the contracting officer, will be reimbursed by the government on the basis of transportation costs, plus costs for lodging and miscelleneous expenses, not to exceed \$25.00 per day per person; plus the current daily (8-hour) rate of the individual, but not to exceed the current daily equivalent of the rate for a GS-18 for each day of their services.

d. Payment will be made by the Finance and Accounting Officer, U. S. Army Engineer District, Memphis, 668 Clifford Davis Federal Building, Memphis, Tennessee 38103.

11. <u>Testimony in Judicial Proceedings</u>. The contractor will furnish competent expert personnel to attend conferences and furnish testimony relating to any of the data and reports to be furnished under this contract in any judicial proceedings involving this Cache River Basin Project. When required, arrangements for these services and payment therefor will be made by representatives of either the Corps of Engineers or the Department of Justice.

1 Attachment Plate No. 1, General Map



Office of the STATE HISTORIC PRESERVATION OFFICER

for Connecticut

59 SOUTH PROSPECT STREET • HARTFORD, CONNECTICUT 06106 • 203 566-3005

October 22, 1975

Mr. Bernard W. Poirier Director Iroquois Research Institute Route 215 6201 Leesbury Pike Falls Church, VA 22044 RECEIVED

OCT 281975

THE ARCTIC COMPANY, LTD. Iroquois research institute

Dear Mr. Poirier:

The Connecticut Historical Commission does not have on staff a full-time archaeologist. Our archaeological survey work is done by the Connecticut Archaeological Survey, 1615 Stanley Street, New Britain, CT 06050. The contract of the Connecticut Historical Commission with the Connecticut Archaeological Survey is a general one and a copy is enclosed for your information.

The Connecticut Archaeological Survey does do survey work for various State and federal agencies. I would suggest that you contact Dr. Frederick Warner, President of the Connecticut Archaeological Survey for information about their contractual arrangements with other agencies.

We are pleased to note that the type of information that you are collecting will be available from one source. This office would very much like to receive a copy of any final written report.

If we may be of further assistance, please call on us.

Sincerely,

Clark J/ Strickland Preservation Specialist

CJS/eb Enclosure

STATE HISTORIC PRESERVATION OFFICER: The person responsible for implementation in Connecticut of the National Historic Preservation Act of 1966 administered by the Department of the Interior, National Park Service, Washington, D. C.

between

STATE OF CONNECTICUT

and CONNECTICUT ARCHAEOLOGICAL SURVEY, INC. 1615 Stanley Street New Britain. CT

THIS AGREEMENT, made and entered into this first day of March 1975, by the STATE OF CONNECTICUT acting herein by the Connecticut Historical Commission (hereinafter called the "Commission") on behalf of the U.S. Department of the Interior and Connecticut

Archaeological Survey, Inc. (hereinafter called the "Applicant") pursuant to the provisions of Section 10-321f of the Connecticut General Statutes and Public Laws 89-665 and 91-243.

WITNESSETH THAT in consideration of the mutual promises and undertaking herein provided and for the purpose of carrying out the provision of the General Statutes of the State of Connecticut cited above providing for the State utilizing federal funds for the preservation of historic landmarks, specifically the conducting of a statewide survey of historic or archaeologically significant sites for identification, evaluation, inclusion in the state inventory of historic properties and possible nomination to the National Register of Historic Places.

- The State, on behalf of the U.S. Department of the Interior, will administer a matching grant-in-aid in an amount not to exceed <u>\$ 19,500</u> to assist in the project to be undertaken in this Agreement, namely Connecticut Arehaeological Survey Project federal project number (09-75-00018-00)
- ?. In carrying out the project, the applicant will
 - (A) Duly and faithfully comply with the terms and conditions of this Agreement.
 - (B) Duly and faithfully comply with all applicable federal and state laws.
 - (C) Duly and faithfully comply with all regulations and directives issued by the Commission and the U.S. Department of the Interior
 - (D) At all times during regular business hours and as often as the Commission requires, permit its representatives and all other authorized representatives of the State and federal government full and free access to the project and to the accounts, records and books of the applicant relative thereto, including the right to make excerpts and transcripts from such accounts, records and books.
 - (E) At such times as the Commission and the U.S. Department of the Interior may require, furnish it with such periodic reports, statements and other documentary data and information as it may reasonably request relative to the progress and status of the project and as to compliance with the terms and conditions of this Agreement. A progress report shall be made quarterly on the first day of October, January, March, and July and submitted to the Commission not later than the fifteen day of those months.

- (F) Shall not use Federal or Commission monies to match the monies granted through this Agreement, unless specifically allowed under special federal enabling legislation.
- (G) Conduct archaeological survey work in the counties of New Haven, New London and Litchfield in accordance with generally accepted professional methods and standards.
- (H) Examine scholarly journals, especially the newsletters and bulletins of the Archaeological Society of Connecticut, New York State Archaeological Society, the Massachusetts Archaeological Society and Pennsylvania Archaeological Society.
- (I) Complete data forms, including a map reference to U.S.G.S. 7.5 minute series topographical maps, on at least 250 sites after conducting an on-site examination to determine whether the site still exists, its present condition, and to identify the degree of threat to a site should a threat be found to exist.
- (J) Provide the Commission with copies of all material produced in connection with the archaeological survey, especially as related to sites inventoried therein, including copies of completed survey data sheets, photographs, and maps.
- (K) Hold the State and Federal government harmless from damages in any action arising from any activities conducted under the terms of this Agreement.
- 3. Failure of the Grantee to comply with any of the terms or conditions of this Agreement shall be deemed a material breach of this Agreement, and upon failure of the Grantee to remedy such breach within thirty (30) days after written notice from the Commission, the State and Federal government shall, to the full extent permitted by law, have each of and all the following rights and remedies.
 - (A) The right to refuse to make payments from the account for the grant-in-aid of the Project.
 - (B) Each and every additional right and remedy available to the State and Federal government either at law or in equity.
- 4. Progress payments shall be made upon submission of a certificate of eligible actual costs executed by the person in charge of the project or by such other person who shall be approved for this purpose by the Historical Commission (usually the signer of this Agreement). Such progress payments shall not exceed fifty percent (50%) of the certificate of eligible actual costs less ten percent (10%) retainage of the State's contribution.

Upon submission of a certificate of completion a final inspection will be made by the Historical Commission. If work has been completed satisfactorily, the retainage shall be paid.

The making by the State of any progress payment on account of the State grant-in-aid of the Project shall not consitute nor be construed as a waiver by the State of any breach of covenant or any default which may then exist on the part of the applicant nor shall the doing of any such act by the State while any such 422 ch or default shall exist in anywise impair or prejudice any rig remedy available to the State in respect of such breach or default

Page 3

5. The State of Connecticut assumes no liability for payment under the terms of this Agreement until the applicant is notified by the Commission that said Assistance Agreement has been approved by the Department of Finance and Control and the Attorney General of the State of Connecticut and that funds have been received from the Department of the Interior.

The Applicant agrees that the project for which this grant has been made shall be completed and all ORIGINAL bills from contractors, suppliers, and vendors, plus a certificate of eligible actual costs shall be submitted not later than December 31, 1975 • All such bills not on hand at the office of the Commission on this date shall not be honored.

- 6. Should the United States of America at any time after the execution of its Grant Contract, if one exists, be under no obligation to make any payments on account of capital grants-in-aid of the Project under such Contract by reason of the failure of the Applicant to comply with the terms and conditions thereof, the State and the U.S. Department of the Interior will be under no obligation to make any payments on account of the grant-in-aid of the Project.
- 7. The contractor agrees and warrants that in the performance of this contract he will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religion, national origin, sex or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved in any manner prohibited by the laws of the United States or of the State of Connecticut, and further agrees to provide the commission on human rights and opportunities with such information requested by the commission concerning the employment practices and procedures of the contractor as relate to the provisions of this section.
- 8. This contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill promulgated June 16, 1971 and, as such, this contract may be cancelled, terminated or suspended by the state labor commissioner for violation of or noncompliance with said Executive Order No. Three, or any state or federal law concerning nondiscrimination, notwithstanding that the labor commissioner is not a party to this contract. The parties to this contract, as part of the consideration hereof, agree that said Executive Order No. Three is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the state labor commissioner shall have continuing jurisdiction in respect to contract performance in regard to nondiscrimination, until the contract is completed or terminated prior to completion.

sistance Agreement

The Applicant agrees, as part consideration hereof, that this contract is subject to the Guidelines and Rules issued by the state labor commissioner to implement Executive Order No. Three, and that he will not discriminate in his employment practices or policies, will file all reports as required, and will fully cooperate with the State of Connecticut and the state labor commissioner.

The Applicant agrees to assume the responsibility for monitoring all contractors, subcontractors, vendors and suppliers and to inform them in writing of the terms of the foregoing Paragraph 10.

9. This Contract is subject to the provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15, 1973, and, as such, this Contract may be cancelled, terminated or suspended by the contracting agency or the state labor commissioner for violation of or noncompliance with said Executive Order No. Seventeen, notwithstanding that the labor commissioner may not be a party to this Contract. The parties agree to abide by said Executive Order and agree that the contracting agency and the state labor commissioner shall have joint and several continuing jurisdiction in respect to Contract performance in regard to listing all employment openings with the Connecticut State Employment Service.



THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE



MEMO: To All Agencies Involved in the Alteration of the TerrANDV ?7975

- FROM: Division of Historical and Cultural Affairs, Sectime Affairs, Sectime Affairs, State of Delaware ROQUOIS RESEARCH INSTITUTE
- SUBJECT: Responsibilities for the Preservation of Historical and Archaeological Data as Outlined by Federal Policy

DATE: December 1, 1974

It has come to our attention that through unintentional neglect, numerous private and governmental agencies have failed to meet their responsibilities for the preservation of historical and archaeological data as spelled out in several Federal laws and policy statements. Consequently, we feel it is necessary to call to your attention certain major points from the following items:

National Historical Preservation Act of 1966 (89-665) National Environmental Protection Act of 1969 (91-190) Executive Order Number 11953 (May 31, 1971) Archaeological and Historical Preservation Act of 1974 (93-291)

- I. Federal projects leading to the alteration of the terrain shall conduct or <u>cause to be conducted</u> a survey to recover, protect, and preserve (including preliminary survey, analysis and publication), scientific, prehistorical, historical or archaeological data that may be adversely effected by that project.
- II. Any alteration of the terrain caused as a result of private projects that are either supported in whole or in part through Federal contracts, grants, subsidies, loans or other forms of funding assistance; or that involve a Federal lease, permit, license, certificate or other entitlement for use must comply with the provisions of the above.
- III. Heads of all Federal agencies shall, in cooperation with the liaison office for Historic Preservation for the State or territory involved, locate, inventory, and nominate to the Secretary of the Interior, all sites, building, districts and objects under their jursidiction or control that appear to qualify for listing on the National Register of Historic Places. The above agency obligations must be complied with even when an environmental impact statement is not required.

In order to facilitate the processing of Federal applications of all sorts it is strongly recommended that proper concern be taken for the above mentioned responsibilities as early in the developmental process as is feasible. The Division of Historical and Cultural Affairs, Section of Archaeology is available to offer advice on how the conditions might best be met.

Division of Historical and Cultural Affairs Section of Archaeology R.D. 2 Box 126 Milford. Delaware 19963 STATE OF DELAWARE DEPARTMENT OF STATE DIVISION OF HISTORICAL AND CULTURAL AFFAIRS SECTION OF ARCHAEOLOGY R.D. #2, BOX 126 MILFORD, DELAWARE 19963 425



ILLINOIS ARCHAEOLOGICAL SURVEY

109 DAVENPORT HALL

UNIVERSITY OF ILLINOIS

URBANA, ILLINOIS 61801

Cooperating Institutions: University of Illinois Southern Illinois University Illinois State Museum

October 24, 1975

Mr. Bernard W. Poirier Director Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirier:

I have received a request from the Illinois Department of Conservation to provide you with information regarding technical performance specifications for contract archaeological work.

At the present time the IAS is completing its own certification system for professional qualifications for contract work. However, since it has not yet been voted upon by our membership, we are unable to send it out to anyone else. You may wish, however, to contact the following two agencies for information relative to their scope of work regarding archaeological contracting in Illinois: U.S. Army Corps of Engineers, Louisville District, P.O. Box 59, Louisville, Kentucky, 40201; Soil Conservation Service, P.O. Box 678, 200 West Church Street, Champaign, Illinois, 61820. You may also wish to contact the Illinois Department of Conservation again for a copy of their requirements for archaeological investigations on state lands.

We would very much like to receive a copy of your volume two or at least a notification when it is available. If possible, do you have a brochure which describes your research institute and lists your personnel.



CJB:cb cc: W. Farrar Cordially yours,

- Bares Charles J. Bareis

Secretary-Treasurer



STATE OF LOUISIANA

Department of Art, Historical and Cultural Preservation

OLD STATE CAPITOL,

BATON ROUGE,

LOUISIANA 70801 (504) 389-5086

EDWIN EDWARDS GOVERNOR JAY R. BROUSSARD

October 21, 1975

Mr. Bernard W. Poirier, Director Iroquois Research Institute Suite 215, 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirier:

Your letter of October 14, 1975 has been referred to me for reply. At the present time, the State of Louisiana is in the early stages of setting up a state-wide archaeological program and as part of formulating this program we are attempting to set up guidelines and minimal acceptable standards for contract archaeology.

Unfortunately we are still in the preliminary planning stages at this time. I am chairing a statewide committee of professional archaeologists; the specific purpose of this committee is to develop a program for contract archaeological standards. As soon as we have developed this program and have something on paper, I will be happy to forward a copy of this information to your office.

In the meantime, I suggest you contact the following archaeologists here in Louisiana who have been engaged in contract work for several years. Our agency has not entered into contract archaeology in the past, nor do I forsee our involvement in this area of archaeology in the near future.

Robert W. Neuman Department of Geography & Anthropology L S U Baton Rouge, Louisiana 70803 Lorraine Heartfield Greene Dept. of Geoscience -329 Hanna Hall Northeast Louisiana State University Monroe, Louisiana 71201

I hope this information will be of some value to your office. We would greatly appreciate your sending us copies of any published material that results from your study.

Sincerely,

Jorothy H. Seltens

Dorothy H. Gibbens Staff Archaeologist Art, Historical and Cultural Preservation Agency, H&CP Section



THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

DHG/bc

WASHINGTON SUBURBAN SANITARY COMMISSION

manyband CONTRACT FOR ENGINEERING SERVICES

WSSC CONTRACT NO. 69CT3663-0

ARTICLES OF AGREEMENT made and concluded this the day of , 197, by and between the WASHINGTON SUBURBAN SANITARY COMMISSION, a municipal corporation duly established by law in the State of Maryland (hereinafter referred to as the COMMISSION) and

(hereinafter referred to as the CONSULTANT).

WITNESSETH

WHEREAS, the COMMISSION proposes to construct a 102" Anacostia Relief sewer in Maryland and a 108" Anacostia Force Main in D. C. under Contract Nos. 69CT3663-B,C,D & E.

WHEREAS, the COMMISSION desires the professional services of the CONSULTANT to prepare a preliminary archeological survey of the land within the Project Work Limits across National Park Service lands and a field reconnaissance during construction for the purpose of finding artifact

NOW THEREFORE, in consideration of the premises, the mutual covenants hereinafter recited and for other good, valuable and sufficient consideration, the receipt of which is hereby acknowledged, the parties hereto mutually covenant and agree as follows:

ARTICLE I: THE CONSULTANT SHALL:

- Α. Furnish all services described herein in accordance with the following overall objectives:
 - 1. Prepare a preliminary archeological survey of the land within the Project Work Limits across National Park Service lands.
 - 2. Provide archeological reconnaissance during construction of the relief sewer and force main.



THE ARCTIC COMPANY, LTD. **IROQUOIS RESEARCH INSTITUTE**

in consideration of the foregoing objectives, the CONSULTANT agrees В. to perform, but not limited to, the following services:

1==== Secure permission to enter upon public and private lands; in ac----- cordance-with-COMMISSION-guidelines; as required to perform work under this Agreement (The CONSULTANT shall use care and discretion while working on public or private property, and APPLICABL shall be responsible for any damages to said property incurred as -a-result-of his-operations).

NOT R 7/9/75

2 ____ Cause_ plans, reports and other documents_submitted_to_the COMMISSION -under-the-terms-of-the Agreement-to-be-signed by a-principal or principals of the CONSULTANT'S firm registered to engage in the practice of the appropriate branch of engineering APPLICABL THE STATE OF MARAANET

NOT (H 7/5/7

- 1. Review and inventory available data on archeological resources that could be impacted by the planned project. The review will include:
 - Library and records checks, including the study а. of previous collections, documentation and literature. These will include the results of Bruce Powell's survey, files of the Smithsonian Institution, National Archives of Anthropology, and D. C. Consortium of Universities Potomac Valley Archeological Survey. Verification of the Study by Charity Davidson (NCP) will be made and a preliminary determination of sites and kinds of sites will be attempted.
 - Listing of known sites that could be impacted by b. the project and display of same on the working map: provided by COMMISSION and NCP.
 - Listing of suspected or potential sites that could c. be impacted by the project and display of same on the working maps provided by WSSC and NCP.
- 2. Perform an archeological reconnaissance investigation and test excavations.
 - The field reconnaissance and surface examination a. will cover the entire surface to be impacted within Areas B, C and D.
 - The field reconnaissance and surface examination b. will cover the entire surface to be impacted within Area E under existing plans, and in the event archeological remains are determined within the right of way the survey will be extended laterally to estimate the extent of the site for recommendations on possible relocation of the line.
 - Confirmation of the existence and location of knowr c. sites that could be impacted by the construction will be made and their present conditions described

2

- d. The existence and location of any other archeological sites that could be impacted by the construction will be established and their present condition described.
- e. Site localities will be recorded on forms used by the D. C. Consortium of Universities Potomac Valley Archeological Survey and will include previous site designations and bibliographic references.
- f. Known and potential sites that require further investigation will be identified. Identification will require the use of exploratory test excavations to determine the lateral and vertical extent of sites. This will be especially critical for Nacotchtanke, a prehistoric and protohistoric Piscataway village noted in the ethnohistorical literature as one of the largest and most important Piscataway villages.
- 3. Provide a complete report, suitable for reproduction, of the findings of the review and inventory and of the archeological reconnaissance.
 - a. The findings and recommendations regarding sites that will be impacted by the project will be summarized as follows:
 - indicate results of findings on the working maps provided by WSSC and NCP
 - using location maps and narrative or graphic displays, provide an estimate of the lateral and vertical extent of the sites
 - 3) provide an estimate of the kinds of sites (village, limited activity, etc.), age of the sites (prehistoric, protohistoric, etc.), prevalence of the finds and importance of the sites rated on the basis of local, regional and national significance
 - provide a justification for the need for salvage including the location and extent required
 - 5) provide detailed estimates of salvage costs and estimated performance schedule based on a full-time operation
 - b. The findings and recommendations regarding those areas that require further investigations will be summarized. The scope of additional investigation will be estimated.
- 4. Provide archeological reconnaissance during construction.
 - a. Be present during all construction activities for the purposes of identification, salvage, protectic

and restoration of all archeological artifacts encountered during the construction of the 108-inch effluent pipeline through Piscataway Park in accordance with the terms and conditions of the National Park Service Permit No. 6:830:377.

b. Represent the Commission and the National Park Service in all matters pertaining to the preservation and protection of archeological artifacts as described under the Historic Preservation Act of 1966 and Executive Order 11593.

EXECUTIVE BOARD

ELECTED MEMBERS

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MARVIN F. KIVETT DIRECTOR-SECRETARY



Phone 402/432-2793

October 22, 1975

EXECUTIVE BOARD

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> 1500 R STREET LINCOLN, NEBRASKA 68508

Bernard W. Poirer, Director Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

OCT 24 1975

THE ARCTIC COMPANY, LTD. Iroquois research institute

Dear Mr. Poirer:

The Nebraska State Historical Society has not entered into any contracts for the recovery of archeological data for nearly a decade. Contracts were signed at that time with the National Park Service using their forms. Of course, these contracts did not reflect the impact of the recent laws on Historic Preservation and therefore would be largely irrelevant at the present. I regret that we are unable to be of assistance on this matter.

Sincerely, Jecha Richard E. Jensen

Curator of Anthropology

REJ/aj1



The Nevada State Museum

CAPITOL COMPLEX CARSON CITY, NEVADA 89710 Telephone (702) 885-4810 October 27, 1975

Mr. Bernard W. Poirier Iroquis Research Institute 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirer:

Since 87% of Nevada is under federal jurisdiction, and since 2/3 of that percentage is owned or controlled by the Bureau of Land Management, I'd suggest you direct your inquiries to: Robert York, State Archaeologist, Bureau of Land Management, Room 3008, Federal Bldg., 300 Booth St., Reno, Nevada 89502.

The Bureau has already held a hearing in Nevada regarding the EAR, and the Nevada Archaeological Survey, a Nevada State Museum agency, is prepared to undertake archaeological and historical work in Nevada,

Sincerely yours, Donald R. Tuony

Curator of Anthropology



THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE


NEW YORK STATE PARKS & RECREATION Agency Building 1, Empire State Plaza, Albany, New York 12238 Information 518 474-0456 Orin Lehman, Commissioner

October 22, 1975

Mr. Bernard W. Poirier Director Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirier:

Your memorandum to the State Historic Preservation Officers was referred to me and I read with considerable interest that you will make recommendations for technical performance specifications which comply with the National Historic Preservation Act for preconstruction and the construction phases.

We do not, at this period in time, have devised standards which would be of use in your project. However, you may be very sure we would be most interested in obtaining a copy of your study when it is available.

With best wishes,

Very truly yours,

uce I. Sherwood

Bruce T. Sherwood Director Division for Historic Preservation Field Services

BTS/sj



THE ARGTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

New York Archaeological Council

archaeological resource management service



Bernard W. Poirier, Director Iroquois Research Institute 6201 Leesburg Pike, Suite 215 Falls Church, VA 22044

Dear Mr. Poirier:

Thank you for your memo of 14 October. I am enclosing some information that may be of use to you. I can say in passing that I think the kinds of standards and criteria used by most SHPOs are ghastly. I object particularly to the separation of "archeology", "history" and "historic architecture" into separate parts, when what we ought to be doing in cultural resource management is developing inter-subdisciplinary generalists who can deal with all sorts of resources in a manner responsive to the requirements of the law and the principles of good general planning. Patricia Hickman, Gary Berg and I are currently preparing and attempting to market a book that is planned to be a comprehensive analysis of cultural resource management from an anthropological point of view, but this volume is in the very early stages at the moment. What may be of some immediate use to you are the enclosed, including:

"Preservation Law..." which attempts to set forth methods of compliance in an archaeologically meaningful way.

"Keys Ranch..." by Hickman, which deals with the evaluation of significance anthropologically via National Register criteria.

My comments on the recent DOI EIS on the proposed Alaska Natural Gas Pipeline.

"Citizen Activist..." which deals with how project-antagonists might use historic preservation law to challenge and delay a project.

Our complaint in a current lawsuit filed against EPA and our SHPO, which outlines a legal argument against the unfortunately rather widespread impression that the SHPO is omniscient.

Our instructions for archaeological site recording, coding, etc.

If I can be of further assistance to you, please feel free to contact me.

Sincerely yours Thomas F. King Administrator

4242 Ridge Lea Road, Buffalo, New York 14226 Tel. (716) 831-1144



OCT 3 0 1975

THE ARCTIC COMPANY, LTD.

IRDOUDIS RESEARCH INSTITUTE

NEW YORK ARCHAEOLOGICAL COUNCIL SITE SURVEY SYSTEM

Prepared by Neal L. Trubowitz, Department of Anthropology, SUNY at Buffalo June 30, 1975

00 11 6 1975

THE ARCTIC COMPANY, LTD. ROQUOIS RESEARCH INSTITUTE

In order to meet the need for coordinated management of New York State's finite archaeological resources, the New York Archaeological Council (NYAC) has developed a comprehensive archaeological site survey system . It is the first statewide centralized and computerized file for such data.

The system will eventually consist of three parts:

- 1. Site Survey File.
- 2. Computerized Data Bank of selected site information.
- 3. Computerized Data Bank of the entire State divided into 10,000 meter square grids. This will give information on the nature of archaeological investigation per grid square.

At present only the first two parts of the system are in operation.

Members of the New York Archaeological Council have agreed to submit all new site information retroactive to January 1, 1974 to the NYAC files via the Archaeological Resource Management Service (ARMS) of NYAC. It is hoped that eventually all previously recorded archaeological sites will be added to the file. NYAC welcomes the submission of site information from outside the organization, and NYAC forms and instructions are available to those wishing to submit data that will help in the management of New York's archaeological resources.

Persons wishing to keep their site information confidential may do so by designating the sites "Restricted" on the NYAC form. Sites so designated will be used by ARMS only to check site locations against land development projects that might adversely affect them. In the event that a site is found to be endangered, ARMS will notify the recorder of the site that it is being taken into consideration in the project planning in order to carry out procedures designed to mitigate the impact of the project.

There currently are four sets of forms plus instructions for them. The forms are:

- 1. Site Survey Form (2 pages).
- 2. Keypunch Form for Site Survey Data.

3. Keypunch Form for Additions to Site Survey Data.

4. Keypunch Form for Replacements and Deletions of Site Survey Data. This document will explain how to use these forms.

The kinds of data and definitions of data required for archaeological resource management are expected to change over time. The system is designed to be flexible so that as new kinds of data are discovered, or old kinds become obsolete, the system can be accomodated to meet these changes. Suggestions for changes, additions, or improvements of any kind can be made to the ARMS office. The current location of the ARMS Office is: 4242 Ridge Lea Road, Buffalo, New York 14226. Phone (716) 831-1144.

INSTRUCTIONS: NYAC SITE SURVEY FORM

- Description: Two page form used for gathering relevant information on a single archaeological site. See example on pages 8 and 9 . Use of the form provides an original and two copies. The form can be used in the field as well as indoors.
- Format: Data categories are labeled in capital letters in the left margin, from SITE NAME to REMARKS. Heavy lines separate categories. Thin lines separate subdivisions within a category.

I. General Instructions

A. Write on a hard surface with a #2H pencil. Check to make sure that the carbon copies come out clearly enough to be machine copied (xeroxed). A #2H pencil is specified because it does not smear like the common #2, yet it is easier to machine copy than harder pencils. Ballpoint pen is not suitable because moisture can affect the ink. If the form is filled out indoors, a typewriter with a good ribbon can be used. Handwritten forms should be done with printed capitals rather than in script.

B. Fill in or circle where appropriate. If information exceeds the space provided under a particular category, it can be continued on the second page under REMARKS, or a separate sheet can be attached and the survey form is referenced "see attached page".

C. Be as comprehensive as possible in finishing the form. Be precise: rather than guess about data, find out for sure.

D. When completed, take the form apart (starting at the top) and send the second copy (pink) to the NYAC ARMS Office. Keep the original (white) and the first carbon (yellow) for your own records.

E. If future work adds information to a site file, or shows the need for a correction to a site record, inform ARMS of these additions or corrections.

A. <u>NYAC SITE NUMBER</u>. When you are reporting new sites, get in touch with ARMS for NYAC site numbers. These numbers are the computer data bank site file serial numbers.

B. <u>LOCATION CLASSIFICATION</u>. Sites designated restricted will be held confidential by ARMS and will be used only to check site locations for cultural resource management.

C. SITE NAME.

1. Official. The official name is the one in the literature, or the one recorded as the name in the NYSAA system, or the name

C. SITE NAME. (continued)

the investigator gives it, if unnamed. In general, a new name should be that of the present property owner. Avoid first names, 'farm', "site" or other extraneous labels unless they are needed to differentiate sites with similar names.

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2. Other. Compile additional site names that do not fit the remaining site name subdivisions below.

3. Institution. This subdivision is for the names or numbers that a particular institution keeps for its own files. Fictional example: "SUNY Buffalo 112233" would refer to a site on record with the Department of Anthropology at SUNY at Buffalo. DO NOT place your institutional affiliation in this slot unless it is part of a site coding system.

4. NYSAA. This is the alphanumeric code (not name) from the NYSAA system which is coded according to U.S.G.S. 15' quadrangles. Files for sites west of Syracuse are kept at the Rochester Museum, while sites east of Syracuse are filed at the State Museum. Fictional example: "Cda O-4" would be a site on the Caledonia 15' quadrangle.

5. Collector. Site name and/or code used by private collectors or chapters of the NYSAA if they maintain their own numbering systems. DO NOT use this slot for the name of the person who made a collection from the site, unless it is part of that person's name for the site.

D. <u>PERIOD.</u> Circle the appropriate name(s) of period(s). If you have a site which is prehistoric, but you cannot further identify the period, write UNIDENTIFIED PREHISTORIC in the left margin. If you cannot determine whether a component is Early, Middle, or Late, either for Archaic or Woodland, then just circle Archaic or Woodland as the period designation.

E. <u>CULTURE(S)</u>. Fill in the names of appropriate tribes, confederacies, archaeological traditions, and archaeological phases. Choose appropriate names from the list on pages 20-21. Be as complete as possible; phase names should be preceded by the tradition it is part of, and tribes should be followed by the confederacy they were part of. If there are several components on a site, number them consecutively in general order from earliest to latest.

F. <u>SITE TYPE.</u> Circle the appropriate name(s) or fill in the blank under "OTHER": if no appropriate designation is printed on the sheet. Where a slash separates two words (example: "Cabin/House"), both may be circled if the investigator is not certain of which to use, or one of the pair can be designated if more data is available. When there is more than one component, and variation in the site type relating to the different occupations, the circled site types should be designated with the number corresponding to the number given the component under culture.

G. LOCATION.

1. State Fill in.

2. County. Fill in.

3. Town. In New York State a town is an administrative division of a county with varying corporate powers. Town corresponds to the largest lettering on the U.S.G.S. 7 1/2' quadrangles. See examples on page 13, which is the Town of Avon. Do not confuse towns with villages; for example, there is a Village of Avon within the Town of Avon.

4

4. Township. Not generally used in New York State today, but when encountered, it is a number. Example: "Town of Brighton, Township XIII". Other states and provinces may use it as their equivalent of town. Any name designation called township in New York State should be written as its Town name and Township is left blank.

5. Lot. In New York State towns are divided into smaller land parcels called lots. County atlases, especially those published between 1850 and 1910, have this information.

6. Range. Not generally used in New York State today. Some old town maps may give the range as a number. Example: "Town of Brighton, Range VII".

NOTE: Town, lot, and range in New York are not connected to or similar to the Federal Government land surveys that were done in other states to the west.

H. MAP-U.S.G.S. 7 1/2' QUADRANGLE (see page 13 for example of map).

1. Name. Fill in name as printed on the lower right hand corner (southeast corner) of the quad sheet. If new editions of a map have recently been issued, the map may have a new name; if so, give both the old and new quad names and designate them as such.

2. Number. Under the quad name in the right lower corner is the quad number, which is the longitude and latitude of that same corner. In the example shown this would be "N4252.5-W7745/7.5". The"/7.5" portion refers to the 7 1/2' size of the map; it can be disregarded in writing out the map number on the NYAC form. Instead, write the number on the form as a fraction with the longitude (N) as the numerator (top) and the latitude (W) as the denominator (bottom). The example map number would be written as: "N4252.5".

W7745

3. Quarter. Circle the appropriate section of the map in which the site is located, either NW, NE, SW, or SE.

4. Coordinates. NYAC is using the Universal Transverse Mercator system for site location. The site coordinates are measured for the center of the site (no matter what its size is) to the nearest 10 meters. See pages 10-12 for an explanation of how to use UTM. I. <u>PROPERTY.</u> Give complete mailing address and phone # for 1-3 below. Give both first and last names for people; Mr. Smith, or Mrs. Harry Jones are not enough;

5

1. Owner. Fill In.

2. Tenant. Fill in.

3. Previous Owner/Tenant. Circle appropriate person and fill in.

J. <u>SITE INVESTIGATION.</u> "Who" refers to the institution, NYSAA chapter, or unaffiliated person who has done either surface collection, testing, and/or excavation on a site. Persons working in connection with an institution or chapter should provide that affiliation rather than their own names. Project name examples: "private collection", "Genesee Expressway survey", or "John Doe's dissertation research", etc. Dates: fill in. If there are several different investigations under a particular subdivision, you may need to continue them elsewhere (see page 2, I.B.)

1. Surface Collection. This is for survey investigation. Comment on the intensity of the collection; were only diagnostic items picked up? were records of provenience kept? NYAC has developed code names for different intensities of investigation; See pages 17 - 18 under category 241.

2. Testing. Fill in "Who", "Project", and "Dates" as described above.

3. Excavation. Fill in as described above.

K. <u>COLLECTIONS.</u> "Who" refers to the institution, NYSAA chapter, or unaffiliated person who owns or maintains a collection from the site. Give complete mailing addresses and phone numbers for private collections. Fill in catalog numbers.

L. <u>PHOTOS.</u> "Who" refers to the institution, NYSAA chapter, or unaffiliated person who owns or maintains photographic records of a site. Give complete mailing addresses and phone numbers for private records. Fill in reference numbers for black and white photos, color photos, slides, or infra-red (I-R) photos.

M. REFERENCES.

1. Published. Give standard bibliographic reference using the style required in <u>American Antiquity</u>. (Author, date, title, journal, etc.) For fictional example see page 8 .

2. Unpublished. Include field notes, manuscripts, catalogs, etc. Give complete mailing addresses and phone numbers for owners of private records. Give name of institution or NYSAA chapter if that is where unpublished records are kept.

N. <u>ORIGINAL REPORTER.</u> If the site was located from literature, the original reporter is the earliest published record. If the site is a new location, the person who discovered the site is the original reporter. Give the complete mailing address and phone number of the informant. Give date of the reporting of the site.

0. <u>RECORDER</u>. The person who writes up the form is the recorder. This <u>is</u> the slot in which to note the institutional affiliation of the person filling out the NYAC form. Give both the name of the person(s) who writes up the form and the institutional affiliation at the bottom of pages 1 and 2 in the recorder space. NYSAA members should provide their chapter affiliation if they are not attached to an institution.

Page 2

P. <u>SKETCH MAP</u>. If possible, this map should be made at the site, where the recorder can note local details and landmarks that would not be evident on a 7 1/2' topographic sheet. Label all details and give a scale if it is applicable. The sketch should be oriented with north at the top of the page.

Q. <u>SITE SIZE</u>. Estimate the horizontal extent of the site and give boundaries. Designate what units of measure you are using (feet, acres, meters, etc.).

R. STRATIGRAPHY, DEPOSITION. Describe both natural and cultural layers.

S. <u>CULTURAL LANDMARKS</u>. Fill in houses, names of roads, etc. and distance from them to the site. For example, see Page 9.

Describe the landmarks; "the house at 102030 Avon Road is faced with red brick and has a black asphalt roof".

T. GEOLOGY AND RESOURCES.

Surface Features. (Geologic). Get contour elevation from the U.S.G.S. 7 1/2' quadrangle and provide the reading in feet. (Metrics will officially be adopted by NYAC for this category when the U.S.G.S. sheets are changed to metric elevations above sea level. Until then, metric measurements can be provided in addition to the measurements in feet.) If the site is small, an average elevation can be given. If the site is large, the range of elevation can be written. Fill in the type of geologic feature the site lies on (floodplain, terrace, drumlin, glacial upland, etc.) (See also keypunch code words on page 19).

2. Water Source. Include the type(s) of water source(s) and their names, if any. Give distance to these sources (creek, pond, lake, spring, well, etc.).

3. Vegetation. Give a general description of the kind(s) of vegetation that are on a site. (overgrowth, woods, pasture, crop, etc.) If the site is covered by a crop, name it (corn, beans, etc.).

T. GEOLOGY AND RESOURCES (continued)

4. Soil Type. Provide the alphanumeric code for the soil type. This can be obtained from county soil maps which are distributed free of charge by County Agricultural Agents.

U. <u>CONDITION</u>. This category is important for archaeological resource management. Is the site threatened by any agency, natural (erosion) or human (highways, dams, power lines, housing developments, etc.)? Detail how immediate the threat is. Give the names and numbers of projects that could disturb the site. Are these government projects, projects funded by the government, or projects licensed by the government (local, state, federal)?

V. <u>REMARKS, RECOMMENDATIONS, CONTINUATIONS.</u> Use this space to elaborate other data categories; go to a separate sheet if more space is required. Use this space also to note the site's NATIONAL REGISTER STATUS: is the site eligible for the Register, nominated to the Register, or on the Register? If the site is part of a historical or archaeological district that is nominated to or on the Register, give the name of the district. There are several criteria for National Register eligibility: see the Code of Federal Regulations 36 CFR VIII800. The criterion most often applicable to archaeological sites is whether they have yielded, or may be likely to yield, information important in prehistory or history.

		ITE NO. 999999999	Locati	on	NOTE: THIS IS	Pag-
	Official		Classi	Institution	RUEFALO U2233	7
SITE		LANDOWNER		NYSAA CDD	0-4	-
NAME	Other	INDIAN KNOLL		Collector ASHA	NTEE	
PERIOD	Paleo.	Archaie E M L	(Transitional	Woodland	E M L Historic L	
JLTURE(S)	1. NARA 2. SUSI 3. SENI	2000 BOINT TEADITION, LAMORA QUEHANNA TRADITION, FROST ECA TRIBE? / 20 QUOIS TRADITION	PHASE ISLAND PHAS	5E.		
SITE TYPE	2 Stray F Cave Rocksh OTHER	ind) Pictograph Kill Quarry She elter Workshop Mor	Site II Midden und	Cemetery 1+3. (C Ossuary C Family Plot N	Camp Commercial/Factory Cabin/House Government Village Military	
	State	NEW YORK		Township		1—
OCATION	County	LIVINGSTON		Lot 186]
	Town	AVON		Range		
	U S.G.S.	7½ Quad Name	No.	Quarter	Coordinates]
МАР	CA	LEDONIA	W7745		18T E7426 N 5180	
		Owner		Tenant	Previous Owner/Tenant	
	Name:	BILL LANDOWNER (WILLIAM)	FRANK +	RHODA TENANT	JACK FORMER (Previous owner Now deceased	9
ROPERTY	Address:	102030 AVON ROAD AVON, NEW YORK 14414	AVON, NEW	VORK 14414	Ararat	
	Phone:	(716)999-9990	(716)999	- 0490	()	
		Surface Collection	ļ	Testing	Excavation	-
SITE	Who:	JOHN COLLECTOR (Urder orig. Reporter)	SUNY at	BUFFALD		
STIGATION	Project	PELVATE COLLECTION	GENESEE I	EXPRESSORAY YRVE		
	Dates	SUMMER 1955	JUNE 6-14	1973 & JUNE 10-25 1974	4	_
LECTIONS	Who:	JOHN COLLECTOR SUNY	2t Buffalo			
	Cat. Nos.	ASHANTEE #1-25 , 73.300	/11000 -12000 /15062-15099	7		
ното ѕ	Who B&W Color	JOHN COLLECTOR SUNY PHOTOS 28-35 (84W)	2t BuffAlo 35640-35673	5		
	I-R	- Slides	15249 - 15300	·		
ERENCES	Pub:	1974 "New Evidence of the	Lamoka Ph	ase in the Genesee	Valley " NYSAA BULLETIN No. 452	-
	Unpub:	JOHN COLLEGOR'S SUNY at	BUFFALO :	Kepovts: SUNY BUFI 1973 HIGHWA	y PLESONNATION PROGRAM	

443	
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MEASURING SITE COORDINATES WITH THE UNIVERSAL TRANSVERSE MERCATOR (UTM) GRID

DESCRIPTION OF UTM.

The Universal Transverse Mercator Map Projection (UTM) is a network of straight and parallel lines constructed perpendicular to each other. One series is in a general east-west direction, and the other is in a north-south direction. (Cramer 1963:153) Each line is given a number and therefore any position on the map can be identified as a fixed location much faster and more accuretely than by using latitude and longitude corrdinates.

UTM is used between latitudes 80 degrees north and 80 degrees south. The earth is divided into quadrangles which are 6 degrees east to west and 8 degrees south to north in size. The 6 degree wide columns are identified by numbers from 1 to 60, starting with the 180th meridian and moving eastward. New York State falls within 3 columns: moving east to west, column 17 is between 84 and 78 degrees longitude, column 18 is between 78 and 72 degrees longitude, and column 19 is between 72 and 66 degrees longitude. The 8 degree rows (south to north) are identified by letters of the alphabet. New York State all falls within row T. Combining the row and column designations puts New York State all within either zone 17T, 18T, or 19T. These zones are further divided into 100,000 meter squares which receive letter designations, but these are not needed for the purpose of exact site location. (They will be incorporated in the computer map of New York State; see page 1.)

Each UTM grid zone originates at its own central meridian and at the Equator. The central meridian within each grid zone is set at 500,000 meters, and all east to west (easting) coordinates are read in relation to this line. For the Northern Hemisphere all north meter coordinates are measured from south to north (northing), starting from the Equator, which is the zero meter line.

For further information on UTM see the following sources:

Cramer, R. E. 1963 Essentials of Cartography and Mapping. pages 153-156. W. C. Brown Co.; Dubuque, Iowa.

Dickinson, G. C. 1969 Maps and Air Photographs. pages 119-121. Edward Arnold; London.

Strahler, Arthur N. 1969 Physical Geography. Third Edition. pages 54-58 & 625-628. John Wiley & Sons; New York.

Equipment Required for UTM Measurement

1. Proper 7 1/2' U.S.G.S. quadrangle map containing the site location.

2. A straight edge long enough to extend across the quad sheet from south to north. (A draftsman's T-square)

3. A transparent 30-60-90 degree drafting triangle.

Equipment Required for UTM Measurement (continued)

4. A very sharp #2H drafting pencil, or an automatic drafting pencil using 0.5 mm #2H leads. The latter is available under the trade name "Pentel" and has the advantage of not requiring sharpening in order to obtain a fine line.

5. A machine copy (xerox) of the meter scale from the 7 1/2' U.S.G.S. quad attached to an engineer's scale divided into 60 parts to the inch. This scale is almost perfectly matched to the meter scale of the quads (1000 m on the maps equals 980 on the 60 scale). By attaching a xerox of the map scale to the engineer's scale (make sure the xerox is not distorted or reduced) you can compensate for the slight difference between the two. Or, if you prefer, you can make your own scale rulers.

UTM on the U.S.G.S. 7 1/2' Quadrangles

On each U.S.G.S. $7 \frac{1}{2}$ quadrangle the zone column is given on the bottom of the sheet; its location varies, but is usually on the left side. The east to west meter lines are numbered at least every 8,000 meters, and the south to north meters are numbered at least every 13,000 meters along the edges of the quadrangle. Full meter designations for both the easting and northing meters are given in the upper left and lower right corners of the quads (see example of lower right corner on page 13). Each 1000 meter tick is a blue line that extends slightly inside the margin of the map. Notice the designation for the first 1000 meter coordinate in the example is " 47_{51} 000". This indicates 4,751,000 meters north of the equator. The raised figures in front of the large ones for the easting and northing meters (47 in the example) can be ignored for giving grid location. Points which fall between grid lines are identified by adding digits to indicate hundreds and tens of meters. (Accuracy on the 7 1/2' quadrangles is measurable to the nearest 10 meters.) Note that on the U.S.G.S. maps which are reprinted from military maps (this is told at the bottom of the sheet), such as Conesus, $\frac{N4237.5}{V7737.5}$, there are no 1000 meter tick marks on the map margins. In order to draw 1000 meter ticks and grids on these maps you must have the four surrounding quads which have the tick marks in the margins.

Steps in Measurement

1. Lay the U.S.G.S. sheet, with north to the top of the sheet, on a flat, clean surface with at least two feet of working room around the sheet. Use masking tape to hold the sheet in place if the surface is slippery and the sheet moves around.

2. Locate the center of the site you are taking coordinates for (regardless of total size) and make a pencil point at that spot on the map.

3. Connect the nearest thousand meter ticks that bracket the site on the south and west (one east to west line and one south to north line). Keep the pencil vertical and the lead as close to the edge of the straight edge for an accurate line. IMPORTANT NOTE: The UTM meter lines DO NOT parallel the margins of the quadrangle sheet; therefore, make sure your lines connect the same meter ticks on opposite sides of the sheet.

Steps in Measurement (continued)

4. Place the triangle against the 1000 meter line to the east of the site so that the 90 degree edge forms a right angle through the site point, and draw in a light pencil line from the meter line to the point. Again, keep the pencil line accurate as in instruction 3 above.

5. Repeat step 4, working from the 1000 meter line to the south of the site point. You will then have established two pencil lines at right angles to the 1000 meter grid, which intersect at the site location.

6. Using the scale, measure the distance from the 1000 meter lines to the site point. IMPORTANT: Take care because this is where most mistakes are made. Since the origin of the 1000 meter grid square is always southwest of the point being plotted, memorize the words "RIGHT-UP", which will remind the plotter that one must measure first right to left, i.e. west to east (called the Easting reading), and secondly measure bottom to top, i.e. south to north (called the Northing reading). The fictional site location shown on the map on page 13 is 260 meters east of the 74,000 East meter line and 800 meters north of the 51,000 meter line. The 1000 meter lines were not connected on the example map to avoid giving the impression that they are "predrawn" on the quad sheets. (Some U.S.G.S. sheets have them, but few, if any, do for New York State.)

7. Add the measured meter distances (accurate to the nearest 10 meters) to the value of the 1000 meter grid lines to the east and south. For the example this would give an easting reading of 74,260 meters and a northing reading of 51,800 meters.

8. Report the coordinate figures on the NYAC form (page 1), giving the full zone designation (17T, 18T, or 19T), the Easting measurement, and then the Northing measurement. Example for the fictional site: "18T E7426 N5180". Note that an "E" and an "N" are put in front of the easting and northing readings to avoid confusion, and that the "one's" meter place is dropped because the maps are only accurate to within 10 meters. The example is still read as "zone 18T, east 74,260 meters, north 51,800 meters.

ACKNOWLEDGEMENTS

Much of this section on instructions or measuring coordinates was borrowed, with the author's permission, from Gordon DeAngelo's draft of an article on the New York State Planimetric 10,000 Foot Grid System.



SOUTHEAST CORNER OF U.S.G.S. 72' QUADRANGLE: ILLUSTRATION OF TEXT EXAMPLES

INSTRUCTIONS FOR COMPUTER KEYPUNCH FORMS

Those submitting site survey data to NYAC should at minimum fill out the site survey forms and the corresponding keypunch forms. If the investigator has access to keypunch facilities, NYAC currently prefers that they do the keypunching, because the original researcher or recorder of a site is in a better position to catch coding errors and inconsistencies than a NYAC office keypuncher who is not familiar with the data.

The content of the computerized site file does not duplicate all the documentation available on a site survey form; it contains only selected data categories that enable use of the computer as a search tool.

Once a computer search has been run on the site file, an investigator can go to the regular site files to retrieve data that are not computerized. Anyone who has their own keypunching facilities is free to submit more data than the minimal amount requested by NYAC on the white keypunching forms. A list of data categories is provided on page for all current types of site information that can be entered in the computer. This additional information would be coded on the blue keypunch forms.

The keypunch forms are needed as an intermediate recording step in order to get the data from the NYAC survey forms onto the punch cards that are used to enter information into the computer. The NYAC survey forms were designed for compactness to meet field requirements rather than being suited for keypunching. The forms inlcude: (1) Site Survey Keypunch Form (white), (2) Keypunch Form for Additions (blue), and (3) Keypunch Form for Replacements or Deletions (green).

Data Entry

Data coded on the keypunch forms correspond to the information on the NYAC survey forms, which should be used for a guide in coding. Coding conventions for the keypunch forms are needed in order to do machine searches of the data; therefore, data must be entered consistently. For example, refer to pages 22 - 24.

1. All data is entered in its English equivalent, but in order for the computer to be able to recognize English phrases, the words must be joined by an asterisk "*" in the keypunch coding and punching. Thus, the machine word for New York is "NEW*YORK".

2. All keypunching is in capital letters, and the keypunch forms should be coded that way.

3. Be careful in coding the following letters and numbers so that they are not confused: Distinguish "U" from "V". Distinguish the letter "I" from the number "1". In order to distinguish between the letter "O" and the number "zero", code the letter on the form with a slash through it from upper right to lower left: " ϕ ". Distinguish " ϕ " from the letter "Q".

4. In order to keep words or phrases separate, leave a blank between them. Blanks are coded on the forms as a small letter b with a slash through it from upper right to lower left: """.

The coding sheets correspond to the keypunch cards which consist of 80 columns, each containing a single data character. The first fourteen places are for identification and sequence number of the file. These spaces are never left unfilled. Machine instructions are in columns 15 and 80. Data is entered in the 64 columns between spaces 16 and 79.

1. The first 8 places (columns) on the keypunch form are the site file number, which is obtained from the ARMS office (see page 2, under IIA). This number is used on every card that is punched for a single site. The number is always filled to 8 spaces; site number 196 would be written "00000196".

2. Column 9 is the transaction number, which tells the machine what function to perform with the data being entered. A "4" means add the information that follows (white and blue forms). "A "3" means" replace the existing file with the information that follows (green form)." These numbers are pre-printed on the forms. In order to delete a line, fill out the green form for the proper serial number category and line(s) and leave the data columns blank.

3. Columns 10 - 12 contain the category number (see list on page $_{16}$). This number is pre-printed on the white form, but not on the blue or green forms.

4. Columns 13 - 14 contain the line number. On the white form this is pre-printed because only one line is needed for the majority of the data; in case more than one line is required for data under a particular category, the line number is changed to correspond with the next card number that will be needed. Coding of any categories on the white form that exceed one line are continued on the blue form; this should be noted on the white form (see example on page 22 under category 090, which is continued on page 24, the blue form). There is a maximum of 99 lines per category.

5. Column 15 is left blank for additions (white and blue forms) and has a percent sign ("%") for replacements (green forms); this is pre-printed on all forms. Column 80 is the same as 15.

6. As noted above, columns 16 - 79 (64 data spaces) contain the actual data. When a particular category will exceed this total, continue on as many cards as are necessary (see instruction 4 above).

SITE SURVEY DATA CATEGORY NUMBERS (* means the category is on the white form)

Name No.

	No.	Definition (name)	No.	Definition (name)
*	010	Location Classification	* 400	Condition-Project Name
*	020	National Register Status	* 410	Condition-Project No.
*	030	Site Name-Official	* 411	Condition-Alternates
*	040	Site Name-Other	* 420	Condition-Erosion
*	050	Site Name-Institution	* 421	Condition-Destruction
*	060	Site Name-NYSAA	999	Free Form-Remarks.
*	070	Site Name-Collector		Recommendations,
*	080	Period		Continuations
	081	Radiocarbon Dates		
	082	Dates based on artifacts		
*	0 9 0	Culture(s)		
*	100	Site Type		
*	110	Location-State		
*	120	Location-County		
*	130	Location-Town		
	140	Location-Township		
	150	Location-Lot		
	160	Location-Range		
*	170	Map-USGS 7 1/2' Quad Name		
	180	Map-USGS 7 1/2' Quad No.		
*	190	Map-USGS 7 1/2' Quad Quarter		
*	200	Map-USGS 7 1/2' Quad UTM Coordinates		
	210	Property-Owner		
	220	Property-Tenant		
	230	Property-Previous Owner/Tenant		
	240	Site Investigation-Surface Collection	l I	
*	241	Site Investigation-Survey Type		
	250	Site Investigation-Testing		
	260	Site Investigation-Excavation		
	270	Collections		
	271	Diagnostic Data-Projective Points		
	272	Diagnostic Data-Ceramics (not inc. pi	pes)	
	273	Diagnostic Data-Other		
	280	Photographs		
	290	References-Published		
	300	References-Unpublished		
	310	Uriginal Reporter		
×	320	Recorder		
	040	Site Size		
	340	Stratigraphy and Deposition		
- ! -	350	Surface Features Contour Flowation		
	361	Surface Features-Contour Elevation	aic)	
	362	Surface Features-Landron Type (geolo	'gic)	
*	370	Water Source-Name		
*	370	Water Source-Type (rank)		
,	372	Water Source-Distance From		
	372	Water Source-Remarks		
*	380	Vegetation-Type		
	381	Vegetation-Remarks		
*	390	Soil-Type		
	5,5	oort type		

391 Soil-Remarks

Unless particular details are given below, all keypunch forms are filled out with the information given on the survey form, following the conventions outlined above. When Code words are provided, they are the <u>only</u> acceptable information that can be coded and keypunched.

Category

No.

Name

010 Location Classification. Cross out the title that does not apply.

- 020 <u>National Register Status</u>. Code words: ELIGIBLE, NØT*ELIGIBLE, NØMINATED, ØN*REGISTER. If the site is nominated or on the Register as part of a district, leave a blank and then write the name of the district. Example: "NØMINATEDØGENESEE-CANASERAGA*DISTRICT".
- 050 <u>Site Name-Institution</u>. Code words for institutions in the State University System: "SUNY" = State University Facility; "SUC" = State College Facility. Connect proper designation to the facility name. Example: "SUNY*BUFFALØ". Leave a blank between the institution name and site designation. Example: "SUNY*BUFFALØ\$112233".
- 082 Dates based on artifacts. Give year followed by either BP, BC, or AD designation as shown in the example: 1600 AD would be coded "1600 AD".
- 090 <u>Culture(s)</u>. See code word list on pages 20-21. When there is more than one culture, they are numbered as per instructions on page 3 under IIE. Keypunch code example: "1½NARRØW*PØINT*TRADITIØN½ LAMØKA*PHASE½2½SUSQUEHANNA*TRADITIØN".
- 100 <u>Site Type.</u> Where a slash "/" on the NYAC survey form separates two words (i.e. "Cabin/House"), and both are circled, substitute an asterisk for the slash in keypunching (i.e. "CABIN*HØUSE"). Number the site types to correspond with the numbering of cultures in category 090. (see page 3 under IIF and under 090 above).
- 170 Map-USCS 7 1/2' Quad Name. Give all the names, both old and new.
- 200 <u>Map-USGS 7 1/2' Quad UTM Coordinates.</u> (See previous section for discussion of UTM) In coding the UTM coordinates for the computer, the Northing and Easting designations are dropped and the coordinates are put together to form an eight digit number which is preceded by the zone. Example: The coordinates from the NYAC form (see page 8), "18T E7423 N5180", would be coded as "18T½74235180". Be sure that the Easting coordinate precedes the Northing coordinate. (Remember "RICHT-UP").
- 241 Site Investigation-Survey Type. Note: This category is to be applied to the site being recorded, regardless of the general nature of survey in the area. For example, a site may have been intensively investigated even though the general area in which it lies has been only cursorily examined. Code words and explanations: "INTENSIVE". The site has been inspected in detail by professional archaeologists and/or their staffs. The surface has been systematically inspected. Test excavations, architectural studies, or other kinds of specialized means of exploring and describing the site have been employed if necessary. A professional archaeologist is willing to certify the comprehensiveness of the survey.

"SAMPLED".Portions but not all of the site have been inspected in detail by professional archaeologists and/or their staffs. Sites which in the opinion of the responsible archaeologist should be test-excavated in order to adequately characterize them, but which have only been systematically surfaced, should be assigned to this category as well.

"CURSØRY". A professional archaeologist has inspected the area, but not thoroughly or systematically.

"LØCAL". Avocational archaeologists (non-professionals) have inspected the site. Land owners and/or Tenants have collections from their property.

"PØTTED". Pot hunters have visited the site.

"UNSURVEYED". Site has never been visited as far as can be determined. This would apply to old site reports in the literature that have not been tracked down.

For the purpose of this category, the following definitions of terms are used: A "professional archaeologist" is someone who has an advanced degree in anthropological archaeology, field supervisory experience and employment with an accredited institution. An "avocational archaeologist" is someone who does not earn his or her living from archaeology, but has received instruction in archaeological field techniques and keeps adequate documentation of his or her field work. A "pot hunter" is someone who does not keep records of his or her work, only collecting artifacts for personal use.

271 Diagnostic Data-Projectile Points. See Code List on page 21.

- 272 Diagnostic Data-Ceramics. This category does not include pipes, which would go under the following category (273). A comprehensive code word list has not been developed yet. The investigator currently is free to put in any information he/she should care to in the form of the names of ceramic types, such as "VINETTE*1", or "CAYADUTTA*INCISED", etc.
- 273 <u>Diagnostic Data-Other</u>. At present, any diagnostic data one may care to record that does not go under 271 or 272 would be placed under this category. A comprehensive code word list has not been developed yet. Some examples would be as follows: "BANNERSTØNE, BEVELED*ADZE, CØPPER*AWL, ELBØW*PIPE, FRENCH*GUNFLINT, BRASS*KETTLE, IRØN*AXE, FLINTØCK, TUBE*PIPE, PLATFØRM*PIPE, MICA, TRADE*BEADS, WAMPUM, GØRGET".
- 320 <u>Recorder.</u> Use SUNY or SUC designations if they apply (as described under category 050 above) but only give institutional or NYSAA chapter affiliation. This category is used as a means of checking the sources of site records, and personal names should be given only if that person is unaffiliated.
- 360 Surface Features-Contour Elevation. Give at minimum the elevation in feet, either as a single elevation or a range (755 or 750-760). The numeral(s) are followed by "FEET". Example: "750-760%FEET". Note that a blank is left between the numbers and the word. If the researcher wishes to also give the elevation in meters, the procedure is the same, except that "METERS" is substituted for "FEET". Metric readings should always follow the English measurements.

- 361 Surface Features-Landform Type. Code words: FLØØDPLAIN, GLACIAL*UPLAND, LAKE*TERRACE, RIVER*TERRACE, VALLEY*SLØPE. Use "GLACIAL*UPLAND" in place of terms such as drumlin, moraine, kame, esker, etc.; these terms can be used on the site survey form, but should not be keypunched. Suggestions are sought to better define this category.
- 370 <u>Water Source(s) Name</u>. Write in the kind of water source first, and follow it with a proper name, if it has one, separating them with a blank. Current water code words are: BAY, CREEK, LAKE, MARSH, PØND, RIVER, SPRING, STREAM, SWAMP, WELL. If necessary, separate with numbers, as under culture.
- 371 <u>Water Source-Rank.</u> The code conventions for this category have not been determined yet; leave blank and do not keypunch until a supplement with instructions is put out. This code system will allow ranking of all water sources on a statewide basis, rather than within each individual drainage system.
- 380 <u>Vegetation-Type</u>. This is a simple descriptive category. Current code words are: CRØP (Any kind of planted field), MARSH, ØVERGRØWTH (Wild plants, but not wooded), PASTURE, WØØDS.
- 390 <u>Soil-Type</u>. Be careful to distinguish letters and numbers in this alpha-numeric code. The soil type can be written out fully if the researcher cares to add it after the code. Leave a blank between the code and the full name.
- 400 <u>Condition-Project Name</u>. If the site has been investigated as part of a land development project (highways, dams, urban renewal, etc.), it will either be found to be threatened or not threatened. In the former case, a "YES*" is placed in front of the project name, and a "NØ*" is placed in front of the project name in the latter case. Example: "YES*GENESEE*EXPRESSWAY." If several different projects are in the area give the yes or no designation for each one leaving blanks between them. Example: "YES*GENESEE*EXPRESSWAY! YES*CANASERAGA*RESERVØIR".
- 410 <u>Condition-Project Number</u>. Same as 400 with yes or no, except give the project number. Example: "YES*4218.99".
- 411 Condition-Project Alternates. Same as 410 with yes or no, and also repeats project number with the addition of the alternate designation. Example: "YES*4218.99*3A". This is done in order to prevent confusing alternates from different projects that may have the same designations of alternates.
- 420 Condition-Erosion. Any natural causes of site destruction, such as slope wash, or flooding, should be mentioned here.
- 421 <u>Condition-Destruction</u>. If the site has been destroyed, circle the word "DESTRØYED" on the white form, leave a blank, and add the year of destruction. If the site is still intact, cross out "DESTRØYED" and comment on how much of the site is still there.

Comment on whether the site is disturbed, degree of disturbance, and causes of disturbance.

INSTRUCTIONS TO KEYPUNCHERS

Crew chiefs or other supervisors should check over the keypunch forms and initial and date them in the upper right corner as approved for keypunching. This keypunching can be done directly from the coding forms, leaving blanks where indicated. Do not forget to leave blanks for " β " or punch in"%" in columns 15 and 80, depending on what is on the keypunch sheet.

CATEGORY 090, CULTURE(S), CODE WORDS

Culture is divided into three subgroups: (1) Tribal or Ethnic, (2) Archaeological Traditions, and (3) Archaeological Phases. Check below the list in each subgroup when the designation "(see note)" follows a code word.

(1) Tribal or Ethnic.

AFRØAMERICAN	MAHICAN	ØNØNDAGA*TRIBE
ANDASTE (see note a)	MØHAWK*TRIBE	SENECA*TRIBE
CAYUGA*TRIBE	MØNTAUK	SHAWNEE*TRIBE
ERIE	MUNSEE (see note d)	TUSCARØRA*TRIBE
EURØAMERICAN (see note b)	NANTIĆØKE	UNIDENTIFIED*HISTØRIC (see note e)
HURØN	NEUTRAL	WENRØ
IRØQUØIS (see note c)	ØNEIDA*TRIBE	

Note a: ANDASTE is used instead of "Susquehannock."

Note b: EURØAMERICAN is used instead of "European".

Note c: IRØQUØIS refers to the confederacy, as does HURØN. Do not confuse confederacies with tribes.

Note d: MUNSEE is used instead of "Delaware" or "Minismk"

Note e: UNIDENTIFIED*HISTØRIC is used when a tribal or ethnic identity cannot be distinguished for a historic site.

(2) Archaeological Traditions.

ADENA*TRADITIØNNARRØW*PØINT*TRADITIØNCLØVIS*TRADITIØNØWASCØ*TRADITIØNEAST*RIVER*TRADITIØNPØINT*PENINSULA*TRADITIØNHØPEWELL*TRADITIØNSUSQUEHANNA*TRADITIØNIRØQUØIS*TRADITIØN (see note f)UNIDENTIFIED*PREHISTØRIC (see note g)LAURENTIAN*TRADITIØNSUSQUEHANA*TRADITIØN

- Note f: IRØQUØIS*TRADITIØN refers to an archaeological manifestation consisting of a certain type of settlement pattern, artifacts, etc. Thus, it is possible to have sites which are ethnically identified outside of the League of Six Nations, which are still IRØQUØIS*TRADITIØN. Example: an early historic site that is known to have been a HURØN village, would be given the code HURØNØIRØQUØIS*TRADITIØN. Do not confuse the confederacy IRØQUØIS with the IRØQUØIS*TRADITIØN; it is possible to have a site that is both IRØQUØIS and IRØQUØIS*TRADITIØN.
- Note g: UNIDENTIFIED*PREHISTØRIC is used when a cultural identity cannot be distinguished for a prehistoric site.

CATEGORY 090, CULTURE(S), CODE WORDS continued.

(3) <u>Archaeological Phases</u>. The proper phase(s) designation(s) should follow the archaeological traditions they fall within in coding for culture.

BATTENKILL*PHASE	FØUR*MILE*PHASE	ØLD*CØPPER*PHASE
BØWMANS*BRØØK*PHASE	FØX*CREEK*PHASE	ØRIENT*PHASE
BREWERTØN*PHASE	FRØST*ISLAND*PHASE	PICKERING*PHASE
BURNT*HILL*PHASE	GARØGA*PHASE	PRINCESS*PØINT*PHASE
BUSHKILL*PHASE	GLACIAL*KAME*PHASE	RED*ØCHRE*PHASE
CANANDAIGUA*PHASE	GLEN*MEYER*PHASE	RIVER*PHASE
CANØE*PØINT*PHASE	HUNTERS*HØME*PHASE	SAINT*LAWRENCE*PHASE
CARPENTER*BRØØK*PHASE	KIPP*ISLAND*PHASE	SAUGEEN*PHASE
CASTLE*CREEK*PHASE	LACKAWAXEN*PHASE	SEBANAC*PHASE
CHANCE*PHASE	LAMØKA*PHASE	SHANTØK*PHASE
CHAUTAUQUA*PHASE	MCFATE*PHASE	SHENKS*FERRY*PHASE
CLASØNS*PØINT*PHASE	MEADOWØØD*PHASE	SNØØK*KILL*PHASE
CLEARVIEW*PHASE	MIDDLESEX*PHASE	SQUIBNØCKET*PHASE
CLEMSØNS*ISLAND*PHASE	NIAGARA*FRØNTIER*PHASE	SYLVAN*LAKE*PHASE
CØLØNIAL*PHASE(see note h)	NIANTIC*PHASE	VERGENNES*PHASE
DRY*BRØØK*PHASE	NØRTH*BEACH*PHASE	VESTAL*PHASE
DUSTIN*PHASE	ØAK*HILL*PHASE	VØSBURG*PHASE

Note h: CØLØNIAL is used for historic archaeological sites that predate the American REvolution. It is mainly applied to EURØAMERICAN sites.

CATEGORY 271, DIAGNOSTIC DATA-PROJECTILE POINTS, CODE WORDS.

ADENA	LAGØØN	PLANØ
BARE*ISLAND	LAMØKA	PØPLAR*ISLAND
BEEKMAN	LE*CRØY	PØRT*MAITLAND
BIFURCATE (see note)	LEHIGH	RACØØN
BREWERTON	LEVANNA	RØSSVILLE
CLØVIS	LØNG*BAY	SNØØK*KILL
DRY*BRØØK*FISHTAIL	MADISØN	SNYDERS
FØX*CREEK	MEADØWØØD	SQUIBNØCKET
FULTØN*TURKEY*TAIL	MØRRØW*MØUNTAIN	STANLEY
GENESEE	NEVILLE	SUSQUEHANNA*BRØAD
GREENE	NØRMANSKILL	SYLVAN
JACKS*REEF	NØNE (see note)	UNIDENTIFIED (see note)
KANAWHA	ØRIENT*FISHTAIL	VESTAL
KIRK	ØTTER*CREEK	VØSBURG
KØENS*CRISPIN	PERKIØMEN*BRØAD	WADING*RIVER
LACKAWAXEN		

Note:	BIFURCATE is used when a bifurcated point cannot be identified as
	to specific type (such as LE*CRØY).
Note:	NØNE is used when there are no points from a site.
Note:	UNIDENTIFIED is used when there are point types that cannot be
	identified from the list.

New York Archaeological Council SITE SURVEY KEYPUNCH FORM.	Supervisor
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Code form and keypunch cards in order by file number (01-08). 460

NEW YORK ARCHAEOLOGICAL COUNCIL

SITE SURVEY FORM

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NYAC SITE SURVEY FORM

OFFICE OF CULTURAL PRESERVATION State Capitol Pierre, S.D. 57501 Phone (605) 224 3458



October 21, 1975

Mr. Bernard W. Poirier, Director Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

Dear Mr. Poirier:

This is in response to your letter of October 14, 1975, regarding contracts related to archaeological investigations in which technical and professional specifications, objectives, standards, criteria and procedures are spelled out.

Enclosed is a copy of our cooperative agreement with the U.S. Forest which may be of some help to you.

ince ihan Preservation Director

Enclosure JEG:lr

OCT 2 4 1975

THE ARCTIC COMPANY, LTD. Iroquois research institute

The Office of Cultural Preservation of the Department of Education and Cultural Affairs coordinates South Dakota's archaeological research, museums, historical preservation and historical resource in a program designed to preserve our natural and cultural heritage.

UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE Custer National Forest P.O. Box 2556 Billings, MT 59103

1580 December .9, 1974

Dr. James E. Gullihan South Dakota Archeological Research Center Ft. Meade, SD 57741

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Dear Dr. Guilihan:

As we discussed in our phone conversation of December 4, I have enclosed a copy of the revised "Cooperative Agreement between the Office of Cultural Preservation, Department of Education and Cultural Affairs, State of South Dakota and the USDA Forest Service (Northern Region)".

One copy of the agreement is underlined in red indicating the changes from the original agreement. If these changes are satisfactory to you, please sign the unmarked copy and return. I will send this copy to our Regional Forester for his signature. A copy of the agreement signed by both parties will be sent to you and to our District Rangers located at Camp Crook and Lemmon, South Dakota.

I have also enclosed a copy of our Forest maps indicating the location of the National Forest and National Grasslands located in South Dakota that are administered by the Northern Region of the United States Forest Service.

Your cooperation is greatly appreciated.

Sincerely,

THOMAS G. ELLIS Public and Recreation Coordinator



OCT 2 4 1975

THE ARCTIC COMPANY, LTD. IROQUOIS RESEARCH INSTITUTE

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COOPERATIVE AGREEMENT BETWEEN THE OFFICE OF CULTURAL PRESERVATION, DEPARTMENT OF EDUCATION AND CULTURAL AFFAIRS, STATE OF SOUTH DAKOTA AND THE USDA FOREST SERVICE (NORTHERN REGION)

This cooperative agreement, made and entered into by and between the Office of Cultural Preservation, hereinafter called Cultural Preservation, and the United States Department of Agriculture, Forest Service, acting by and through the Regional Forester, Northern Region, hereinafter called Forest Service, under the provision of the Organic Act of 1862 (7 U.S.C. 2201).

The Office of Cultural Preservation:

1. Has the responsibility for conducting a Statewide historic site survey.

2. Is charged with the preparation of a comprehensive Statewide historic preservation plan covering cultural resources.

- 3. Has the expertise and qualified technical personnel to do the basic inventory, evaluation and study of cultural resources within the State.
- 4. Is concerned with the identification and protection of these resources and in the public being able to use and appreciate them.

The Forest Service:

- 1. Has jurisdiction and responsibility for 228,699 acres of National Forest System lands within the State of South Dakota.
- 2. Recognizes that the historic and archaeological resources are valued cultural and non-renewable resources of the American people.
- Is required by laws, Executive Orders, and regulations to: (a) identify, evaluate, protect, and manage these cultural resources on these lands,
 (b) assure these values are protected and considered in development programs through the land planning process, and (c) nominate sites to appropriate registers.
- 4. Has national policies to: "give special emphasis to protection of rare and endangered plants and to significant examples of ecological, archaeological, geologic, and historic interest;" to "cooperate with other Federal, regional, State, multicounty, and . . . county agencies in resource management, and in planning resource management, and in planning and economic development programs;" and to "consult with and seek cooperative action with agencies at all levels of Government, and with private groups and individuals, in programs for resource management and economic development" and, ?

The objectives of the Office of Cultural Preservation and the Forest Service are closely aligned as to the need to locate, inventory, evaluate, study, and protect the cultural resources of the State and, in the interest of both parties, the parties hereto desire to cooperate and agree to the following:

- This agreement covers only National Forest System lands located in the Northern Region within the State of South Dakota and which are under jurisdiction of the Forest Service. Exhibit A of this agreement lists the units involved, size of each, and the location of the office(s) responsible for administering these units.
- 2. Prior to July 1 of each year, Cultural Preservation and the Forest Service shall meet to prepare an Action Plan for specific projects selected by either for investigation on Forest lands within the State for the coming fiscal year. If determined necessary to conduct field examinations and the Office of Cultural Preservation finds costs exceed their current budget allocation, contracts meeting Forest Service specifications on a project basis may be entered into. Specifications and report procedures outlined in Exhibit B will be followed.
- 3. Existing historical and archaeological data known about a particular area will be mutually shared by both parties.
- 4. When investigations turn up significant cultural resources warranting more detailed studies than agreed to in the Action Plan, then: (a) the Forest Service may modify or postpone the proposed project to avoid impacts on the cultural resources found; (b) the needed work may be done by Cultural Preservation at its expense; (c) a mutually satisfactory third party may do the work at its expense; or (d) Forest Service may contract or accomplish through In-Service archaeological expertise the needed additional work.
- 5. Either party may terminate or amend this agreement by providing 60 days written notice to the other party. Unless terminated by written notice, this agreement shall remain in force indefinitely.
- 6. That nothing herein shall be construed as obligating the Forest Service to expend or as involving the United States in any contract or other obligation for future payment of money.
- 7. In the performance of work Cultural Preservation agrees to comply with the provisions shown in Exhibit D which is attached and made a part of this agreement. In this Exhibit "contractor" means Cultural Preservation; "contracting officer" and "contracting agency" means the Forest Service.

The Forest Service shall:

- 1. Furnish Cultural Preservation by January 1 annually for the next fiscal year a listing of projects that may require historic or archaeological expertise. This list will detail the type of project planned, anticipated surface disturbance, location, area involved, elevation, access, and other pertinent information.
- 2. For those expenses incurred on a project basis which are over and above the purposes and objectives of Cultural Preservation, the Forest Service will reimburse Cultural Preservation as agreed to in
 - the jointly prepared Action Plan.

Cultural Preservation shall:

- Evaluate each project listed and advise the Forest Service on the potential archaeological and historical values that may be involved. On projects warranting further investigation Cultural Preservation will advise the Forest Service on standards and methods of examination, estimated cost, and time needed to complete the project.
- 2. On completion of the work agreed to in the Action Plan, indicate its acceptance of the cultural resource evaluation made by signing the final report for the project. This signoff will describe what additional action, protection, interpretation, or additional study is recommended. It will also designate acceptance of the Environmental Analysis Report or Environmental Impact Statement as it affects the proposed project or make recommendations as to what modifications are deemed necessary to protect the cultural resources.
- 3. Render itemized statements of expenditures for the specific project costs as agreed to in the Action Plan to be reimbursed by the Forest Service at intervals as agreed to, but at least as of December 31 and June 30 of each year.

In witness whereof, the parties hereto have executed this agreement as of the last date written below.

DATE

BY ___

OFFICE OF CULTURAL PRESERVATION STATE OF SOUTH DAKOTA

DATE

REGIONAL FORESTER NORTHERN REGION

EXHIBIT A

NORTHERN REGION SOUTH DAKOTA FORESTS AND GRASSLANDS

FOREST

. . . .

RANGER DISTRICT

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NET ACRES

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Custer	Sioux	73,489
P.O. Building Billings, Montana	Camp Crook, South Dakota	
	Grand River	155,210

National Grasslands Lemmon, South Dakota

EXHIBIT B

DEFINITIONS AND TECHNICAL SPECIFICATIONS OF CULTURAL RESOURCE INVESTIGATIONS

Cultural Resource Reconnaissance Report

A Cultural Resource Reconnaissance is defined as the minimal "first-level" effort or preliminary report and shall be based on a systematic review of existing literature and records for possible cultural resource data within the project area. This reconnaissance is the first step leading to either an inventory or survey report if more detailed study is required. This record search shall include the current National Register Listings; State Archaeological Research Center records; State Historic Preservation Center records; local, State and regional cultural resource associations and institutions; knowledgeable individuals and other pertinent sources.

The reconnaissance report shall list literature and records reviewed, pertinent research findings and conclude either that: (1) based on the research, cultural resources have not been identified within the project area or the proposed undertaking will not affect such resources as were identified or, (2) the research indicates cultural resources are present and the proposed undertaking may affect such resources. If cultural resources are identified, the report shall describe the resources and the possible effect of the proposed undertaking. The report shall include a recommendation if additional investigation is considered necessary to meet Federal and State laws and regulations.

The reconnaissance report will usually suffice for projects not authorizing surface disturbing activities; i.e., land use and unit planning, wilderness proposals, etc.

Cultural Resource Inventory Report

An Inventory Report is defined as a more intensive "first level" effort and shall be based on a reconnaissance report plus an on-the-ground search of varying intensities for undiscovered cultural resource data within the project area. The inventory sampling intensity will depend on the findings of the reconnaissance report and on the nature of the project.

The inventory sampling intensity will be determined by mutual agreement between the Office of Cultural Preservation and the Forest Service as detailed in the Action Plan for the specific project.

Projects with minimal surface disturbing activities (spray projects, partial cut timber harvest areas, etc.) will require an inventory sample intensity dependent on the likelihood of cultural resources being present in the area.
Projects involving land disposal or total surface disturbance (road construction, reservoir sites, etc.) will require total inventory coverage of the area effected.

An individual project could have a combination of various levels of inventory work for different activities throughout the project area; i.e., a timber sale with partial cut blocks, clear-cut blocks, landings, skid trails, and road construction. These points will be covered in detail in the Action Plan for that specific project.

The inventory report shall include the information specified for the reconnaissance report, describe the inventory techniques, basis for sampling frequency, and detail the results of the inventory. The inventory report shall state that either: (1) cultural resources are not present or the proposed undertaking will not affect such resources as are identified or, (2) cultural resources. If cultural resources are discovered, the inventory report shall identify and describe the cultural resources and detail any possible effect of the proposed undertaking on these resources.

Cultural Resource Survey Report

The need for a Survey Report shall be based on a determination of relative significance or a reliable prediction of relative significance of the cultural resources discovered. The need for a Survey Report will be determined jointly by Cultural Preservation and the Forest Service. Once this need is determined, the Survey Report will be prepared in accordance with the following outline:

OUTLINE FOR

CULTURAL RESOURCE SURVEY

Research Biases or Rationale

This may be brief, but it should indicate the orientation of the research strategies, methods, and techniques in terms of the theoretical foundations influencing the investigations. It may relate to the author's previous research in the immediate area or in other areas that contain data representative of a historic or prehistoric culture with a similar order of socio-culture complexity or the relevance of the research to a legitimate human cultural area (such as one that would primarily focus on ecological variables).

Field Methods and Techniques (Research Design)

- A. Research Methods include analytical problems to be solved and the procedural steps to be used in solving the problems; e.g., hypotheses, test implications, etc.
- B. Data Collection Techniques include types of data collected (artifacts and other cultural debris as well as spatial relationships between them), sampling techniques (complete, systematic or some specified form of random sampling), and artifact retrieval procedures including the rationale for selecting some artifacts and not others.
- C. Data recording techniques.
 - (1) A graphic description (such as a planimetric map) will show locations of all surface collection grids with respect to some permanent feature of the landscape (a benchmark or discrete natural feature).
 - (2) Show field cataloging procedures for the resource data collected.
- D. Special Information Required for Site Surveys. Mapping and artifact provenience recording procedures should be clearly stated. The site should be recorded on a <u>Site Survey Record</u>. Each site shall be assigned a site number. The numbering of individual sites or districts will be in accordance with the National Smithsonian trinomial system. The <u>Site Survey Record</u> should have two types of maps attached:
 - Location Map: USGS topographic quadrangle or portion thereof. If using a portion of a quadrangle, include pertinent Public Land Rectangular Surveys date (township, range, section), the name of the quadrangle, the scale (7.5 or 15 minutes), date, and your project name.

- (2) Site Map: Show the major features of the site and its immediate environs.
- E. Artifacts found on National Forest land are the property of the Government.

Laboratory Methods

These methods do not have to be given in great detail, but should supply enough information to make them understandable to other researchers.

- A. Classificatory scheme (typology) or schemes used in artifact description and analysis. If using a scheme developed by others, give full reference.
- B. Methods of chronological determination (typological, radiometric, etc.). List the material to be used for each (by catalog number and description) and the institution or agency's name and sample number; e.g., South Dakota 2716.
- C. Other special analytical methods and techniques.
- D. Description of any artifacts collected.

Management Suggestions and Recommendations

A section of the report should offer recommendations for: (1) excavation, site testing, salvage, and evaluation of individual sites; (2) protecting the site or sites (natural or cultural) from damage or destruction from any agency; and (3) for interpreting the site or sites for public information and education.

Conclusions

This section should detail the significance of the site (or sites) in terms of its (their) scientific, archaeological, historical or cultural value. If the examination did not offer an opportunity to gain data sufficient to arrive at a satisfactory conclusion, offer recommendations for further research if you believe it is warranted.

Final Report Format and Transmittal for Cultural Resource Inventory, Reconnaissance and Survey Reports

The report shall consider using graphic media (maps, charts, photographs. etc.) to support textual information. Format shall comply with the following:

A. Page Size: 8 x 10¹/₂. Folded sheets (maps, graphs, etc.) should be folded so as to equal the page size and be tipped-in or included in an envelope affixed to the inside back of the binder. B. Title Page Format: Should include full name of the project, the name of the contracting institution (if the contracting institution is not the institutional repository for the collection, use the latter) and the author's name. Reference to the Forest Service should follow this example:

Prepared Under Cooperative Agreement Between Cultural Preservation and U.S. Forest Service Cultural Resource Inventory (or Reconnaissance or Survey) United States Department of Agriculture Forest Service

National Forest (Grassland)

- C. Citation and Bibliography: Should follow procedures used by the American Anthropological Association and the National Register of Historic Places.
- D. Site descriptions will be recorded on Form R1-2360-1, Archeological and Historical Sites Inventory, Exhibit C.
- E. Binding: Clasp or "presentation" binders with a hard cover are acceptable. The more permanent the binding, the better.
- F. Quality of the Report and Copies: Six (6) copies of the report, bound and suitable for publication and/or research library availability are required. An original typed report, with all photographs, maps, charts, etc., must be included. The other copies (5) may be reproduced from the original so long as they are the product of a copying medium equal in quality to Xerox. All copies must include graphics of the same quality as the original (including photographs).
- G. All six (6) copies of the report shall be directed to the Forest Supervisor, National Forest (Grassland), ,

Acceptance

Each survey report requested and prepared for the Forest Service shall meet professional standards and shall be subject to review for quality and accuracy by the Forest Supervisor or his designated archaeological representative.

Payment

Payment will be made in accordance with the provisions stated in each Action Plan.

EXHIBIT C

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UNITED STATES DEPARTMENT OF AGRICULTURE

EQUAL OPPORTUNITY

(The following clause is applicable unless this contract is exempt under the rules, regulations, and relevant orders of the Secretary of Labor (41 CFR, Cb. 60).

During the performance of this contract, the Contractor agrees as follows:

- (a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to, the following employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this Equal Opportunity clause.
- (b) The Contractor will, in all solicitations or advertisements for employees placed by of on behall of the Contractor, state that all qualified applicants will receive con sideration for employment without regard to race, color, religion, sex or national origin.
- (c) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understandina notice, to be provided by the agency Contracting Officer, advising the labor union or workers' representative of the Contractor's commitments under this Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (d). The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (e) The Contractor will furnish all information and reports required by Executive Orden No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (f) In the event of the Contractor's noncompliance with the Equal Opportunity clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended, in whole or in part, and the Contracter may be declared ineligible for further Government contracts in accordance with procedureauthorized in Executive Order No. 11246 of September 24, 1965, and such othe sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No. 11245 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any sub-contract or purchase order as the contracting agency may direct as 2 means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

	General Environmental	Date
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SCHOOLS	INDUSTRIAL	20
TRANSPORTATION7	MINING	21
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WATER		23
	PUBLIC ACCOMODATIONS	24
POLICE/COURT		
	LOCAL SURFACE GEOLOGY	2
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16	LOCAL DRAINAGE FEATURES	26
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THE STATE HISTORICAL SOCIETY OF WISCONSIN

816 STATE STREET / MADISON, WISCONSIN 53706 / JAMES MORTON SMITH, DIRECTOR

State Historic Preservation Office

October 23, 1975



Mr. Bernard W. Poirier, Director Iroquois Research Institute Suite 215 6201 Leesburg Pike Falls Church, Virginia 22044

THE ARCTIC COMPANY, LTD. Iroquois research institute

Dear Mr. Poirier;

This is in response to your letter of October 14, 1975 concerning contract archeology procedures. I am enclosing the statement of the Wisconsin Archeological Survey for your information. The Survey is a corporation of professional archeologists in Wisconsin who work closely with me through the State Archeologist in matters concerning archeological work for environmental impact statements.

The Survey guidelines are not specific on many matters in which you expressed interest. However, you will note that all aspects are covered. The Survey is the body in this state which reviews reports for adequacy, thus establishing professional competency. In general we follow the guidelines of federal agencies like the U. S. Army Corps of Engineers in establishing qualifications of personnel.

I trust that this information will be helpful to you.

Sincerely,

lucation fronting 12.000 James Morton Smith State Historic Preservation Officer

JMS:dp Enclosure

A STATEMENT ON ENVIRONMENTAL IMPACT EVALUATIONS, POLICIES AND PROCEDURES - WISCONSIN ARCHAEOLOGICAL SURVEY

Introduction

Recent years have seen a heightened awareness regarding the conservation of natural and cultural resources. Specifically expressed in the Congressional passage of the National Environmental Policy Act, projects involving Federal funding now are required to prepare an Environmental Impact Statement which must include an appraisal of the effect of construction on archaeological sites. The Wisconsin Environmental Policy Act requires the same type of assessment for projects undertaken by all state agencies. In addition, the Department of Natural Resources requires impact reports for some private construction. In view of the constant attrition in the finite body of archaeological resources, this legislation provides a means of preservation of some archaeological data, if not the site itself, and imposes a responsibility on the professional archaeological community to see that the task is carried out in a thoroughly competent fashion. It was in response to this problem that the Wisconsin Archaeological Survey members charged the Board of Directors at the October 1973 meeting with the development of some procedural and policy guidelines for this activity. The Board met in April and on May 25, 1974 their preliminary draft was approved with slight revisions at a meeting of the Wisconsin archaeological Survey in the form given below.

Procedures

At the present time, in his capacity as State Historic Preservation Officer under the National Historic Preservation Act of 1966, Dr. James M.

Smith, Director of the State Historical Society of Wisconsin, has the responsibility of reviewing all Environmental Impact Statements to assess the impact on historical and archaeological resources. This has the practical effect of involving the archaeological staff of the State Historical Society of Wisconsin, particularly the State Archaeologist, in assisting him in regard to the archaeological aspects of the Environmental Impact Statements.

In one sense then, through joint membership of its members, the Wisconsin Archaeological Survey is already involved in Environmental Impact Statement procedure and in a position to keep abreast of the latest developments in this area. We therefore recommend that we take advantage of this de facto situation and request that the State Archaeologist also serve as the coordinator through which Environmental Impact Statement assignments be worked out. Since the State Archaeologist already receives many requests for assistance in this area, the office is indeed already acting as a channel through which such recommendations are made. We would point out that making use of this channel would provide some continuity in this activity, for any Survey office such as the President of the Wisconsin Archaeological Survey will rotate frequently from member to member. Since many of the same firms will be involved in activities over the coming years that require impact statements, continuity in the source from which assistance can be obtained, or recommendations of individuals competent to provide assistance, is desirable. It is not the intent of this recommendation to preclude any individual Survey member from accepting employment offered

- 2 -

directly by any organization to do survey or impact statement work, through we think it imperative for them to notify the State Archaeologist of such activities to avoid possible duplication of effort and to keep the roster of those available for such work current. The responsibility of the State Archaeologist to the Wisconsin Archaeological Survey in this regard would be to see that there is an equitable distribution of opportunities to do environmental impact and survey work among the members of the Survey. To accomplish this, it will be essential that members of the Survey keep the State Archaeologist informed as to their availability for such work. It should be remembered that many of these require work on short notice and may involve a total of only a few days of effort or alternatively extended periods of time.

Policies

As a voluntary organization, lacking any form of statutory authority, we are in no position to impose restrictions as to who may make surveys or evaluations on environmental impact. As professional archaeologists, however, we are in a position to evaluate whether or not an Environmental Impact Statement meets professional standards and an obligation to be explicit as to the nature of such standards. The Executive Committee recommends that we also be explicit in indicating that our concern is not to evaluate individuals, i.e. their professional qualifications, but rather the quality of their work and that we are as much concerned with the quality of work of those who may be designated professional archaeologists as that of those whose primary employment is not in this area. Thus we do not wish to evaluate or hold individuals to standards

- 3 -

that we do not maintain ourselves. Such a concern with standards is seen as of critical importance in attempting to cope with the present crisis situation involving the dissipation of limited archaeological resources.

We propose that there be an annual review of all environmental impact statements by a committee appointed by the President of the Wisconsin Archaeological Survey to ascertain the professional quality of the archaeological statements included. Further, that this committee report to the Wisconsin Archaeological Survey as a whole at its annual Fall meeting.

The present procedure is for Environmental Impact Statements to be reviewed by the State Archaeologist acting for Dr. Smith. We feel such a procedure is an adequate one for normal reports meeting professional standards and Misconsin Archaeological Survey guidelines. It is possible that occasionally a report will be received that raises a question of adequacy. In such a situation we recommend that the President of the Wisconsin Archaeological Survey appoint an ad hoc committee to serve in an advisory capacity to the State Archaeologist. We further see the possibility that occasionally the State Archaeologist or the State Archaeologist's staff might be involved in the preparation of an Environmental Impact Statement and then be asked to review their own statement. In such a situation, we would again recommend that the same advisory committee mechanism be employed to avoid such a conflict of interest situation.

Survey Procedures

Survey work in conjunction with highway construction activities,

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as an example, frequently involves sufficient lead time as to permit a stage operation which sites are recommended for further testing to establish their importance. It is evident that this does not often apply in situations where, for example, power plants are to be constructed in the immediate future. Thus it seems evident that survey work in this context requires both surface collecting and extensive testing to establish the importance of a site. The diversities of terrain and prehistoric settlment pattern make it impossible to prescribe any one pattern or procedure that should be followed in appraising a given area but there are a few general principles that we believe should be followed.

First, we believe there should be included in the report such items as an explicit statement as to the strategy employed in conducting the survey. As we have previously indicated, this must include a subsurface appraisal as well as the collection of surface materials and specifically would include a discussion of the technique of subsurface testing and the testing interval established as appropriate for given localities. Since the significance of the archaeological assemblages can not be established without a collection of adequate size, particular attention must also be paid to problems of sampling. In particular, a recommendation must be included in the report as to the effect of construction work on archaeological resources and how this effect can be mitigated.

Since the preservation of archaeological materials obtained on a survey or excavation is of equal importance to conducting a survey in

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the first place, we recommend that the materials obtained be deposited in an institution whose specific purpose includes the preservation of historic and scientific materials. Together with the actual specimens, a full survey report should be deposited at the institution where the materials are deposited and a second copy deposited at the State Historical Society of Wisconsin, routed through the State Archaeologist. Maps, photographs and drawings should be included in such a report for obviously the adequacy of a report can not be evaluated without data. All sites located should be entered in the Wisconsin codification file and all sites should be evaluated in terms of importance by the original survey team.

Finally, as a precautionary measure, it is recommended that no report for an impact statement be so phrased as to give the impression of certainty in regard to the lack of archaeological resources in a given area. Surface collections and limited testing can not reveal the presence of deeply buried sites so agencies should be informed of their responsibility should construction work reveal important materials.

Cost Factors

The Board of Directors did not feel it appropriate to make a public statement on cost factors which obviously must vary depending on the difficulties of work in a given region and the experience and level of competence of the investigator. We have initiated a program to assemble comparative figures on cost from other areas and will make these available to members and corporations on request.



THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

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October 24, 1975



Mr. Bernard W. Poirier Director Iroquois Research Institute 6201 Leesburg Pike, Suite 215 Falls Church, Virginia 22044

THE ARCTIC COMPANY, LTD. Iroquois research institute

Dear Mr. Poirier:

I understand the information requested in your October 14 memo is probably available from The Historical Preservation Council, 1522 "K" St., N. W., Washington, D. C., 20005, Attn: Ken Tapman.

EPA's guidelines are enclosed.

Sincerely,

JOHN C. ELLIS Assistant Executive Director

Enclosure JCE/bar



FRIDAY, JANUARY 25, 1974 WASHINGTON, D.C.

Volume 39 🔳 Number 18

PART II



ADVISORY COUNCIL ON HISTORIC PRESERVATION

PROCEDURES FOR THE PROTECTION OF HISTORIC AND CULTURAL PROPERTIES

Establishment of New Chapter and Part

Title 36-Parks, Forests, and Public Property

CHAPTER VIII-ADVISORY COUNCIL ON HISTORIC PRESERVATION

PART 800-PROCEDURES FOR THE PRO-TECTION OF HISTORIC AND CULTURAL PROPERTIES

Pursuant to the National Historic Preservation Act of 1966 (80 Stat. 915, 16 U.S.C. 470) and Executive Order 11593, May 13, 1971, "Protection and Enhancement of the Cultural Environment" (36 FR 8921, 16 U.S.C. 470), the Advisory Council on Historic Preservation has established Procedures for Compliance, set forth in the FEDERAL REGISTER of February 28, 1973 (38 FR 5388), to implement the purposes of those authorities. Proposed revisions to those procedures were published in the FEDERAL REGISTER of November 5, 1973 (38 FR 30464) and 30 days were allowed for public comment. Federal agencies were also solicited to consult with the Advisory Council with regard to the development of procedures for the protection of nonfederally owned historic and cultural properties as required by section 1(3) of Executive Order 11593.

In response to comments received by the Advisory Council and in consultation with Federal agencies, the proposed procedures have been revised to incorporate suggestions from Federal and State agencies and private citizens. It is the purpose of this notice, through publica-tion of revised "Procedures for the Protection of Historic and Cultural Properties," to apprise the public as well as government agencies, associations, and all other organizations and individuals interested in historic preservation, that the following procedures are hereby adopted as set forth below. The pro-cedures will appear in the Code of Federal Regulations in Title 36, Chapter 8 at Part 800. The procedures are being codified because they affect State and local governmental agencies, private organizations, and individuals, in addition to Federal agencies, to which they are specifically directed, and because of the resultant need to make them widely and readily available.

Federal agencies are advised that the procedures set forth certain steps for agencies to follow to fulfill their obligations pursuant to section 1(3) of Executive Order 11593 and to use as a guide in the development of their required internal procedures in consultation with the Council. The Advisory Council reiterates its solicitation of Federal agencies to consult with the Council on the development of those procedures. Inquiries regarding such consultation, as well as inquiries regarding the substance of and compliance with the procedures in general, should be directed to the Executive Secretary, Advisory Council on Historic Preservation, Suite 430, 1522 K Street NW., Washington, D.C. 20005.

Effective date: January 25, 1974.

ROBERT R. GARVEY, Jr., Executive Director, Advisory Council on Historic Preservation

A new Chapter VIII, Advisory Council on Historic Preservation, containing Part 800, Procedures for the Protection of Historic and Cultural Properties, is added to title 36, CFR, reading as set forth below.

Sec

- 800.1 Purpose and authorities.
- Coordination with agency require-ments under the National Environ-800.2 mental Policy Act. 800.3 Definitions.
- Agency procedures. 800.4
- 800.5 Consultation process.
- 800.6 Council procedures.
- Other powers of the Council. 800.7
- 800.8 Criteria of effect. 800.9 Criteria of adverse effect.
- 800.10 National Register criteria.

AUTHORITY: Pub. L. 89-665, 80 Stat. 915, (16 U.S.C. 470); E.O. 11593, 3 CFR 1971 Comp., p. 154.

§ 800.1 Purpose and authorities.

(a) The National Historic Preservation Act of 1966 created the Advisory Council on Historic Preservation, an independent agency of the Executive branch of the Federal Government, to advise the President and, Congress on matters involving historic preservation. Its members are the Secretary of the Interior, the Secretary of Housing and Urban Development, the Secretary of the Treasury, the Secretary of Commerce, the Attorney General, the Secretary of Transportation, the Secretary of Agriculture, the Administrátor of the General Services Administration, the Secretary of the Smith-sonian Institution, the Chairman of the National Trust for Historic Preservation, and 10 citizen members appointed by the President on the basis of their outstanding service in the field of historic preservation.

(b) The Council reviews Federal, federally assisted, and federally licensed undertakings affecting cultural properties as defined herein in accordance with the following authorities:

(1) Section 106 of the National Historic Preservation Act. Section 106 requires that Federal, federally assisted, and federally licensed undertakings affecting properties included in the National Register of Historic Places be submitted to the Council for review and comment prior to the approval of any such undertaking by the Federal agency.

(2) Section 1(3) of Executive Order 11593, May 13, 1971, "Protection and Enhancement of the Cultural Environ-ment." Section 1(3) requires that Federal agencies, in consultation with the Council, establish procedures regarding the preservation and enhancement of non-federally owned historic and cultural properties in the execution of their plans and programs. After soliciting consultation with the Federal agencies, the Advisory Council has adopted proce-dures, set forth in §§ 800.3 through 800.10, to achieve this objective and Federal agencies should fulfill their responsibilities under section 1(3) by following these procedures. The Council further recommends that Federal agencies use these procedures as a guide in the development, in consultation with the Council. of their required internal procedures.

(3) Section 2(b) of Executive Order 11593, May 13, 1971, "Protection and Enhancement of the Cultural Environment." Federal agencies are required, by section 2(a) of the Executive Order, to locate, inventory, and nominate properties under their jurisdiction or control to the National Register. Until such proc-esses are complete, Federal agencies must submit proposals for the transfer, sale, demolition, or substantial alteration of federally owned properties eligible for inclusion in the National Register to the Council for review and comment. Federal agencies must continue to comply with section 2(b) review require-ments, even after the initial inventory is complete, when they obtain jurisdiction or control over additional properties that are eligible for inclusion in the National Register or when properties under their jurisdiction or control are found to be eligible for inclusion in the National Register subsequent to the initial inventory.

§ 800.2 Coordination with agency requirements under the National Environmental Policy Act.

Section 101(b) (4) of the National Environment Policy Act (NEPA) declares that one objective of the national en-vironmental policy is to "preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment which supports diversity and vari-ety of individual choice." In order to meet this objective, the Advisory Council instructs Federal agencies to coordinate NEPA compliance with the separate responsibilities of the National Historic Preservation Act and Executive Order 11593 to ensure that historic and cultural resources are given proper consideration in the preparation of environmental impact statements. Agency obligations pursuant to the National Historic Preservation Act and Executive Order 11593 are independent from NEPA and must be complied with even when an environmental impact statement is not required. However, where both NEPA and the National Historic Preservation Act or Executive Order 11593 are applicable, the Council on Environmental Quality, in its Guidelines for the Preparation of En-vironmental Impact Statements (40 CFR Part 1500), directs that compliance with section 102(2) (C) of NEPA should, to the extent possible, be combined with other statutory obligations-such as the National Historic Preservation Act and Executive Order 11593-to yield a single document which meets all applicable requirements. To achieve this objective, Federal agencies should undertake, to the fullest extent possible, compliance with the procedures set forth below whenever properties included in or eligible for inclusion in the National Register are involved in a project to ensure that obligations under the National Historic Preservation Act and Executive Order 11593 are fulfilled during the preparation of a draft environmental impact statement required under section 102(2) (C) of NEPA. The Advisory Council recommends that compliance with these procedures be undertaken at the earliest

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stages of the environmental impact statement process to expedite review of the statement. Statements on projects affecting properties included in or eligible for inclusion in the National Register should be sent directly to the Advisory Council for review. All statements involving historic, architectural, archeological, or cultural resources, whether or not included in or eligible for inclusion in the National Register, should be submitted to the Department of Interior for review.

§ 800.3 Definitions.

As used in these procedures:

(a) "National Historic Preservation Act" means Public Law 89–665, approved October 15, 1966, an "Act to establish a program for the preservation of additional historic properties throughout the Nation and for other purposes," 80 Stat. 915, 16 U.S.C. 470, as amended, 84 Stat. 204 (1970) and 87 Stat. 139 (1973) hereinafter referred to as "the Act."

(b) "Executive Order" means Executive Order 11593, May 13, 1971, "Protection and Enhancement of the Cultural Environment," 36 FR 8921, 16 U.S.C. 470.

(c) "Undertaking" means any Federal action, activity, or program, or the approval, sanction, assistance, or support of any other action, activity or program, including but not limited to:

(1) Recommendations or favorable reports relating to legislation, including requests for appropriations. The requirement for following these procedures applies to both: Agency recommendations on their own proposals for legislation and agency reports on legislation initiated elsewhere. In the latter case only the agency which has primary responsibility for the subject matter involved will comply with these procedures.

(2) New and continuing projects and program activities: directly undertaken by Federal agencies; or supported in whole or in part through Federal contracts, grants, subsidies, loans, or other forms of funding assistance; or involving a Federal lease, permit, license, certificate, or other entitlement for use.

(3) The making, modification, or establishment of regulations, rules, procedures, and policy.
(d) "National Register" means the Na-

(d) "National Register" means the National Register of Historic Places, which is a register of districts, sites, buildings, structures, and objects, significant in American history, architecture, archeolcgy, and culture, maintained by the Secretary of the Interior under authority of section 2(b) of the Historic Sites Act of 1935 (49 Stat. 666, 16 U.S.C. 461) and section 101(a) (1) of the National Historic Preservation Act. The National Register is published in its entirety in the FEDERAL REGISTER each year in February. Addenda are published on the first Tuesday of each month.

day of each month. (e) "National Register property" means a district, site building, structure, or object included in the National Register.

(f) "Property eligible for inclusion in the National Register" means any dis-

trict, site, building, structure, or object which the Secretary of the Interior determines is likely to meet the National Register Criteria. As these determinations are made, a listing is published in the FEDERAL RECENTER on the first Tuesday of each month, as a supplement to the National Register.

(g) "Decision" means the exercise of agency authority at any stage of an undertaking where alterations might be made in the undertaking to modify its impact upon historic and cultural properties.

erties. (h) "Agency Official" means the head of the Federal agency having responsibility for the undertaking or a subordinate employee of the Federal agency to whom such authority has been delegated.

(i) "Chairman" means the Chairman of the Advisory Council on Historic Preservation, or such member lesignated to act in his stead.

(j) "Executive Director" means the Executive Director of the Advisory Council on Historic Preservation established by Section 205 of the Act, or his designated representative.

(k) "State Historic Preservation Officer" means the official within each State, authorized by the State at the request of the Secretary of the Interlor, to act as liaison for purposes of implementing the Act, or his designated representative.

(1) "Secretary" means the Secretary of the Interior, or his designee authorized to carry out the responsibilities of the Secretary of the Interior under Executive Order 11593.

§ 800.4 Agency procedures.

At the earliest stage of planning or consideration of a proposed undertaking, including comprehensive or area-wide planning in which provision may be made for an undertaking or an undertaking may be proposed, the Agency Official shall take the following steps to comply with the requirements of section 106 of the National Historic Preservation Act and sections 1(3) and 2(b) of Executive Order 11593.

(a) Identification of resources. As early as possible and in all cases prior to agency decision concerning an undertaking, the Agency Official shall identify properties located within the area of the undertaking's potential environmental impact that are included in or eligible for inclusion in the National Register.

(1) To identify properties included in the National Register, the Agency Official shall consult the National Register, including monthly supplements.

(2) To identify properties eligible for inclusion in the National Register, the Agency Official shall, in consultation with the appropriate State Historic Preservation Officer, apply the National Register Criteria, set forth in Section 800.10, to all properties possessing historical, architectural, archeological, or cultural value located within the area of the undertaking's potential environmental impact. If the Agency Official determines that a property appears to meet the Criteria, or if it is questionable

whether the Criteria are met, che Agency Official shall request, in writing, an opinion from the Secretary of the Interior respecting the property's eligibility for inclusion in the National Register. The Secretary of the Interior's opinion respecting the eligibility of a property for inclusion in the National Register shall be conclusive for the purposes of these procedures.

(b) Determination of effect. For each property included in or eligible for inclusion in the National Register that is located within the area of the undertaking's potential environmental impact, the Agency Official, in consultation with the State Historic Preservation Officer, shall apply the Criteria of Effect, set forth in Section 800.8, to determine whether the undertaking has an effect upon the property. Upon applying the Criteria and finding no effect, the undertaking may proceed. The Agency Official shall keep adequate documentation of a determination of no effect.

(c) Effect established. Upon finding that the undertaking will have any effect upon a property included in or ellgible for inclusion in the National Register, the Agency Official, in consultation with the State Historic Preservation Officer, shall apply the Criteria of Adverse Effect, set forth in §800.9, to determine whether the effect of the undertaking is adverse.

(d) Finding of no adverse effect. Upon finding the effect not to be adverse, the Agency Official shall forward adequate documentation of the determination, including evidence of the views of the State Historic Preservation Officer, to the Executive Director for review. Unless the Executive Director notes an objection to the determination within 45 days after receipt of adequate documentation, the Agency Official may proceed with the undertaking.

(e) Finding of adverse effect. Upon finding the effect to be adverse or upon notification that the Executive Director does not accept a determination of no adverse effect, the Agency Official shall: (1) Request, in writing; the comments of the Advisory Council; (2) notify the State Historic Preservation Officer of this request; (3) prepare a preliminary case report; and (4) proceed with the consultation process set forth in Section 800.5.

(f) Preliminary case report. Upon requesting the comments of the Advisory Council, the Agency Official shall provide the Executive Director and the State Historic Preservation Officer with a preliminary case report, containing all relevant information concerning the undertaking. The Agency Official shall obtain such information and material from any applicant, grantee, or other beneficiary involved in the undertaking as may be required for the proper evaluation of the undertaking, its effects, and alternate courses of action.

§ 800.5 Consultation process.

(a) Response to request for comments. Upon receipt of a request for Advisory Council comments pursuant to Section 800.4(e), the Executive Director shall acknowledge the request and shall initiate the consultation process.

(b) On-site inspection. At the request of the Agency Official, the State Historic Preservation Officer, or the Executive Director, the Agency Official shall conduct an on-site inspection with the Executive Director, the State Historic Preservation Officer and such other representatives of national, State, or local units of government and public and private organizations that the consulting parties deem appropriate.

(c) Public information meeting. At the request of the Agency Official, the State Historic Preservation Officer, or the Executive Director, the Executive Director shall conduct a meeting open to the public, where representatives of national, State, or local units of government, representatives of public or private organizations, and interested citizens can receive information and express their views on the undertaking, its effects on historic and cultural properties, and alternate courses of action. The Agency Official shall provide adequate facilities for the meeting and shall afford appropriate notice to the public in advance of the meeting.

(d) Consideration of alternatives. Upon review of the pending case and subsequent to any on-site inspection and any public information meeting, the Executive Director shall consult with the Agency Official and State Historic Preservation Officer to determine whether there is a feasible and prudent alternative to avoid or satisfactorily mitigate any adverse effect.

(e) Avoidance of adverse effect. If the Agency Official, the State Historic Preservation Officer, and the Executive Director select and unanimously agree upon a feasible and prudent alternative to avoid the adverse effect of the undertaking, they shall execute a Memorandum of Agreement acknowledging avoidance of adverse effect. This document shall be forwarded to the Chairman for review pursuant to Section 800.6(a).

(f) Mitigation of adverse effect. If the consulting parties are unable to unanimously agree upon a feasible and prudent alternative to avoid any adverse effect, the Executive Director shall consult with the Agency Official and the State Historic Preservation Officer to determine whether there is a feasible and prudent alternative to satisfactorily mitigate the adverse effect of the undertaking. Upon finding and unanimously agreeing to such an alternative, they shall execute a Memorandum of Agreement acknowledging satisfactory mitigation of adverse effect. This document shall be forwarded to the Chairman for review pursuant to Section 800.6(a).

(g) Memorandum of Agreement. It shall be the responsibility of the Executive Director to prepare each Memorandum of Agreement required under these procedures. In preparation of such a document the Executive Director may request the Agency Official to prepare a proposal for inclusion in the Memorandum, detailing actions to be taken to avoid or mitigate the adverse effect.

(h) Failure to avoid or mitigate adverse effect. Upon the failure of consulting parties to find and unanimously agree upon a feasible and prudent alternative to avoid or satisfactorily mitigate the adverse effect, the Executive Director shall request the Chairman to schedule the undertaking for consideration at the next Council meeting and notify the Agency Official of the request. Upon notification of the request, the Agency Official shall delay further processing of the undertaking until the Council has transmitted its comments or the Chairman has given notice that the undertaking will not be considered at a Council meeting.

§ 800.6 Council procedures.

(a) Review of Memorandum of Agreement. Upon receipt of a Memorandum of Agreement acknowledging avoidance of adverse effect or satisfactory mitigation of adverse effect, the Chairman shall institute a 30-day review period. Unless the Chairman shall notify the Agency Official that the matter has been placed on the agenda for consideration at a Council meeting, the memorandum shall become final: (1) Upon the expiration of the 30-day review period with no action taken; or (2) when signed by the Chairman. Memoranda duly executed in accordance with these procedures shall constitute the comments of the Advisory Council. Notice of executed Memoranda of Agreement shall be published in the FEDERAL REGISTER monthly.

(b) Response to request for consideration at Council meeting. Upon receipt of a request from the Executive Director for consideration of the proposed undertaking at a Council meeting, the Chairman shall determine whether or not the undertaking will be considered and notify the Agency Official of his decision. To assist the Chairman in this determination, the Agency Official and the State Historic Preservation Officer shall provide such reports and information as may be required. If the Chairman decides against consideration at a Council meeting, he will submit a written summary of the undertaking and his decision to each member of the Council. If any member of the Council notes an objection to the decision within 15 days of the Chairman's decision, the undertaking will be scheduled for consideration at a Council meeting. If the Council members have no objection, the Chairman shall notify the Agency Official at the end of the 15-day period that the undertaking may proceed.

(c) Decision to consider the undertaking. Upon determination that the Council will consider an undertaking, the Chairman shall: (1) Schedule the matter for consideration at a regular meeting no less than 60 days from the date the request was received, or in exceptional cases, schedule the matter for consideration in an unassembled or special meeting; (2) notify the Agency Official and the State Historic Preservation Officer of the date on which comments will be considered; and (3) authorize the Executive Director to prepare a case report

(d) Content of the case report. For

Advisory Council prescribes that certain reports be made available to it and accepts reports and statements from other interested parties. Specific informational requirements are enumerated below. Generally, the requirements represent an explication of elaboration of principles contained in the Criteria of Effect and in the Criteria of Adverse Effect. The Council notes, however, that the Act recognizes historical and cultural re-sources should be preserved "as a living part of our community life and development." Consequently, in arriving at final comments, the Council considers those elements in an undertaking that have relevance beyond historical and cultural concerns. To assist it in weighing the public interest, the Council welcomes information not only bearing upon physi-cal, sensory, or esthetic effects but also information concerning economic, so-cial, and other benefits or detriments that will result from the undertaking.

purposes of arriving at comments, the

(e) Elements of the case report. The report on which the Council relies for comment shall consist of:

(1) A report from the Executive Director to include a verification of the legal and historical status of the property; an assessment of the historical, architectural, archeological, or cultural significance of the property; a statement indicating the special value of features to be most affected by the undertaking; an evaluation of the total effect of the undertaking upon the property; a critical review of any known feasible and prudent alternatives and recommendations to remove or mitigate the adverse effect;

(2) A report from the Agency Official requesting comment to include a general discussion and chronology of the proposed undertaking; when appropriate, an account of the steps taken to comply with section 102(2)(A) of the National Environmental Policy Act of 1969 (83 Stat. 852, 42 U.S.C. 4321); an evaluation of the effect of the undertaking upon the property, with particular reference to the impact on the historic, architectural, archeological and cultural values; steps taken or proposed by the agency to take into account, avoid, or mitigate adverse effects of the undertaking; a thorough discussion of alternate courses of action; and, if applicable and available, a copy of the draft environmental statement prepared in compliance with section 102 (2) (C) of the National Environmental Policy Act of 1969:

(3) A report from any other Federal agency having under consideration an undertaking that will concurrently or ultimately affect the property, including a general description and chronology of that undertaking and discussion of the relation between that undertaking and the undertaking being considered by the Council:

(4) A report from the State Historic Preservation Officer to include an assessment of the significance of the property; an identification of features of special value; an evaluation of the effect of the undertaking upon the property and its specific components; an evaluation of known alternate courses of action; a discussion of present or proposed participation of State and local agencies or organizations in preserving or assisting in preserving the property; an indication of the support or opposition of units of government and public and private agencies and organizations within the State; and the recommendations of his office;

(5) A report by any applicant or potential recipient when the Council considers comments upon an application for a contract, grant, subsidy, loan, or other form of funding assistance, or an application for a Federal lease, permit, license, certificate, or other entitlement for use. Arrangements for the submission and presentation of reports by applicants or potential recipients shall be made through the Agency Official having jurisdiction in the matter; and

(6) Other pertinent reports, statenents, correspondence, transcripts, minites, and documents received by the Council from any and all parties, public or private. Reports submitted pursuant to this section should be received by the Council at least two weeks prior to a Council meeting.

(f) Coordination of case reports and statements. In considerations involving more than one Federal department, either directly or indirectly, the Agency Official requesting comment shall act as a coordinator in arranging for a full assessment and discussion of all interdepartmental facets of the problem and prepare a record of such coordination to be made available to the Council. At the request of the Council. the State Historic Preservation Officer shall notify appropriate governmental units and public and private organizations within the State of the pending consideration of the undertaking by the Council, and coordinate the presentation of written statements to the Council.

(g) Council meetings. The Council does not hold formal hearings to consider comments under these procedures. Two weeks notice shall be given, by publication in the FEDERAL REGISTER, of all meetings involving Council review of Federal undertakings in accordance with these procedures. Reports and statements will be presented to the Council in open session in accordance with a prearranged agenda. Regular meetings of the Council generally occur on the first Wednesday and Thursday of February, May, August and November.

(h) Oral statements to the Council. A schedule shall provide for oral statements from the Executive Director; the referring Agency Official presently or potentially involved; the applicant or potential recipient, when appropriate; the State Historic Preservation Officer; and representatives of national, State, or local units of government and public and private organizations. Parties wishing to make oral remarks shall submit written statements of position in advance to the Executive Director.

(i) Comments by the Council. The comments of the Council, issued after consideration of an undertaking at a

Council meeting, shall take the form of a three-part statement, including an introduction, findings, and a conclusion. The statement shall include notice to the Agency Official of the report required under section 800.6(j) of these proce-dures. Comments shall be made to the head of the Federal Agency requesting comment or having responsibility for the undertaking. Immediately thereafter, the comments of the Council will be forwarded to the President and the Congress as a special report under authority of section 202(b) of the Act and published as soon as possible in the FEDERAL REGISTER. Comment shall be available to the public upon receipt of the comments by the head of the Federal agency.

(j) Report of agency action in response to Council comments. When a final decision on the undertaking is reached by the Federal Agency, the Agency Official shall submit a written report to the Council containing a description of actions taken by the Federal Agency subsequent to the Council's comments; a description of actions taken by other parties pursuant to the actions of the Federal Agency; and the ultimate effect of such actions on the property involved. The Council may request supplementary reports if the nature of the undertaking requires them.

(k) Records of the Council. The records of the Council shall consist of a record of the proceedings at each meeting, the case report prepared by the Executive Director, and all other reports, statements, transcripts, correspondence, and documents received.

(1) Continuing review jurisdiction. When the Council has commented upon an undertaking pursuant to Section 800.6 such as a comprehensive or area-wide plan that by its nature requires subsequent action by the Federal Agency, the Council will consider its comments or approval to extend only to the undertaking as reviewed. The Agency Official shall ensure that subsequent action related to the undertaking is submitted to the Council for review in accordance with § 800.4(e) of these procedures when that action is found to have an adverse effect on a property included in or eligible for inclusion in the National Register.

§ 800.7 Other powers of the Council.

(a) Comment or report upon non-Federal undertaking. The Council will exercise the broader advisory powers, vested by section 202(a) (1) of the Act, to recommend measures concerning a non-Federal undertaking that will adversely affect a property included in or eligible for inclusion in the National Register: (1) upon request from the President of the United States, the President of the U.S. Senate, or the Speaker of the House of Representatives, or (2) when agreed upon by a majority vote of the members of the Council.

(b) Comment or report upon Federal undertaking in special circumstances. The Council will exercise its authority to comment to Federal agencies in certain special situations even though written notice that an undertaking will have an

effect has not been received. For example, the Council may choose to comment in situations where an objection is made to a Federal agency finding of "no effect."

§ 800.8 Criteria of effect.

A Federal, federally assisted, or federally licensed undertaking shall be considered to have an effect on a National Register property or property eligible for inclusion in the National Register (districts, sites, buildings, structures, and objects, including their settings) when any condition of the undertaking causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archeological, or cultural character that qualifies the property under the National Register Criteria.

§ 800.9 Criteria of adverse effect.

Generally, adverse effects occur under conditions which include but are not limited to:

(a) Destruction or alteration of all or part of a property;

(b) Isolation from or alteration of its surrounding environment;

(c) Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;

(d) Transfer or sale of a federally owned property without adequate conditions or restrictions regarding preservation, maintenance, or use; and

(e) Neglect of a property resulting in its deterioration or destruction.

§ 800.10 National Register criteria.

(a) "National Register Criteria" means the following criteria established by the Secretary of the Interior for use in evaluating and determining the eligibility of properties for listing in the National Register: The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association and:

(1) That are associated with events that have made a significant contribution to the broad patterns of our history; or

(2) That are associated with the lives of persons significant in our past; or

(3) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(4) That have yielded, or may be likely to yield, information important in prehistory or history.

(b) Criteria considerations. Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

(1) A religious property deriving primary significance from architectural or artistic distinction or historical importance:

(2) A building or structure removed from its original location but which is the surviving structure most importantly associated with a historic person or event:

(3) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life:

(4) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events: (5) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived:

(6) A property primarily commemorative in intent if design, age tradition, or symbolic value has invested it with its own historical significance: or

(7) A property achieving significance within the past 50 years if it is of exceptional importance.

[FR Doc.74-1986 Filed 1-24-74:8:45 am]

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