

Alaska Anthropological Association 10th Annual Meeting



March 11 & 12, 1983
Anchorage Westward Hilton Hotel

**ALASKA ANTHROPOLOGICAL ASSOCIATION
10TH ANNUAL MEETING, MARCH 11 AND 12, 1983,
ANCHORAGE WESTWARD HILTON HOTEL
Conference Speakers**

Keynote Address: Dr. Margaret Lantis
 (Saturday Luncheon)

Margaret Lantis has had a distinguished career in anthropological research in Alaska and other parts of the United States. She is best known to Alaskans for her research on Eskimo ceremonials, childhood and personality disorders, human ecology, health, and ethnohistory. She has long been an advocate of applied anthropological research and has conducted such studies on wartime relocation programs, reindeer herding, dental care, food preferences, tuberculosis, sanitation, and the spread of disease.

She has published and edited many volumes that are staples in the anthropological literature of Alaska. These include such well-known works as "Alaska Eskimo Ceremonialism", "Folk Medicine and Hygiene", "Lower Kuskokwim and Nunivak-Nelson Island Areas", "Eskimo Childhood and Interpersonal Relationships: Nunivak Biographies and Genealogies", and "Ethnohistory in Southwestern Alaska and the Southern Yukon: Method and Content".

Dr. Lantis was educated at the University of Minnesota, and received her Ph.D. in anthropology from the University of California, Berkeley in 1939. Post-doctoral studies included sociology and personality analysis at the University of Chicago and Washington School of Psychiatry. She has served several government agencies, been a fellow of numerous foundations and institutes, and taught at Reed College, McGill University, and Berkeley. Since 1963 she has been Professor of Anthropology at the University of Kentucky. We are honored to welcome her.

Symposium/Conference Address: Dr. Michael Zimmerman
 (Friday Luncheon)

Michael Zimmerman is a paleopathologist who has conducted human biological studies in many parts of the world. He is known for his work in Alaska on the "Frozen Lady" of St. Lawrence Island, several Aleutian mummies, and, most recently, study of the "Frozen Family" of Utkiavik at Barrow.

In addition to publications on these studies, Dr. Zimmerman has written on the approaches to the study of ancient diseases, culminating in his recent book (with M.A. Kelley) Atlas of Human Paleopathology.

Michael Zimmerman holds both the Ph.D. in physical anthropology from University of Pennsylvania and the M.D. from New York University. Dr. Zimmerman has taught pathology at the University of Pennsylvania, Temple University, New York University, University of Michigan, and Hahnemann Medical College. He currently serves as Chief of Anatomic Pathology at Jeanes Hospital. We are privileged to welcome a scientist with his diverse medical and anthropological talents.

ALASKA ANTHROPOLOGICAL ASSOCIATION
10TH ANNUAL MEETING

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PROGRAM

**ALASKA ANTHROPOLOGICAL ASSOCIATION
10TH ANNUAL MEETING**

FRIDAY, MARCH 11, 1983

SESSION I (Aleutian/Kenai Room)

**THE HUMAN HERITAGE OF UTKIAVIK VILLAGE:
An Interdisciplinary Study of Lifeways and Life
in Pre-contact Inupiat Alaska**

A.M. -- PART I Chair: John E. Lobdell

9:00 **INTRODUCTION - John E. Lobdell**

9:10 **Albert A. Dekin, Jr.**

Utqiagvik: An Archaeological Introduction

9:25 **Albert A. Dekin, Jr.**

**The Utqiagvik Archaeology Project: A Summary of
Research Progress**

9:40 **Raymond R. Newell**

The Mound 44 House: Excavations and Implications

10:00 **Edwin S. Hall, Jr.**

**A Clear and Present Danger: The Use of Ethnohistoric
Data for Interpreting Mound 44**

10:20 BREAK

10:40 **David D. Thompson and Kathleen S. Cowen**

Age at Death and Bone Biology of the Barrow Mummies

11:00 **Patricia M. Masters**

**Stereochemical Age Determination for the Barrow Eskimo
Remains**

11:20 **John E. Lobdell**

**Harris Lines: Markers of Nutrition and Disease at
Prehistoric Utqiagvik Village**

12:00 LUNCHEON (Alaska Room)
SYMPOSIUM ADDRESS

Michael Zimmerman

"Paleopathology and Prehistoric Alaska"

P.M. -- PART II

2:00 Diana R. Silimperi and W. L. Alward

Center for Disease Control Microbiologic Investigations
of the Barrow Eskimo Specimens

2:20 Jaime T. Benitez

Temporal Bone Studies: Findings in Two Specimens from
the Barrow Frozen Family

2:40 T. Y. Toribara, Ann G. Muhs, and T. W. Clarkson

Hair: A Keeper of History

3:00 BREAK

3:20 Melissa Connor and Dale Slaughter

Diachronic Investigations of Inuit Diets Utilizing
Trace Elements

3:40 Jens P. Hart Hansen

The Eskimo of Greenland, A.D. 1460

4:00 Frederick Smith

Legal Aspects and Suggested Protocol for Dealing with
Human Remains in Archaeological Contexts

4:20 DISCUSSION

5:00 SYMPOSIUM POSTER DISPLAY (Commodore Room)

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FRIDAY, MARCH 11, 1983

SESSION II (Portage Room)
GENERAL CULTURAL ANTHROPOLOGY

A.M. Chair: Ann Fienup-Riordan

8:20 David Thompson

Subsistence and Life Expectancy on the Aleutian and St.
Lawrence Islands

8:40 Richard A. Morris

The Question of Interdependence as Established by
Russians - Past and Present - Between Alaska and Lands
South

9:00 Loren C. Pahlke

White Migration to the Bush

9:20 Matthew L. Ganley

The Other Epidemic: Spanish Influenza Among the Seward
Peninsula Native Population, 1918 - 1919

9:40 BREAK

10:00 Albert Harper

Aging, Life Expectancy, and Environment

10:20 Michael Nowak

Contemporary Subsistence and the Concept of
Maximization

10:40 Timothy Kennedy

Community Communication for Rural Development

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FRIDAY, MARCH 11, 1983

SESSION III (Portage Room)
ARCHAEOLOGY: SOUTHERN ALASKA

P.M. Chair: Douglas Reger

2:00 Douglas Reger

Late Prehistoric Occupation and Resource Use at the
Clam Gulch Site

2:20 Harvey Shields and Roger K. Harritt

Rescue Archaeology at Brooks River, Katmai National
Park and Preserve, Alaska: An Interim Report

2:40 Don E. Dumond

Test Excavation in Chignik Region, Alaska Peninsula

3:00 BREAK

3:20 David Yesner

Archaeological Reconnaissance of the Port Heiden
Region, Alaska Peninsula

3:40 Owen K. Mason

An Analysis of the Lithic Remains from the Sandy Beach
Bay Site, Umnak Island

4:00 James Ketz

The Interpretive Potential of Glass Beads for Dating
Historic Period Sites in the Copper River Region,
Alaska

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SATURDAY, MARCH 12, 1983

SESSION IV (Commodore Room)
HUNTING AND FISHING IN RURAL ALASKAN CULTURES

A.M. -- PART I Chair: Robert J. Wolfe

HISTORY

8:00 Ann Fienup-Riordan

Past as Prologue: Harvest Disruptions on the Yukon-Kuskokwim Delta

8:20 Linda J. Ellanna

Technological and Social Change in Marine Mammal Hunting in Bering Strait

8:40 Jim Fall, Ron Stanek, and Dan Foster

Historic and Contemporary King Salmon Fishing in an Upper Cook Inlet Tanaina Community

CONTEMPORARY THEORY

9:00 Richard K. Nelson

Coastal Zone Subsistence Revisited: Wainwright in 1981

9:20 Robert J. Wolfe

Resource Diversification and Riverine Habitats: The Economy of the Yukon Delta Eskimos

9:40 Joe Gross

Strategies of Household Production in Rural Alaskan Mixed Economies

10:00 BREAK

10:10 Steven Behnke and John M. Wright

Land Use Patterns of Yupik, Athapaskan, and Aleut Communities of the Bristol Bay Region

POLICY

10:30 Steve Langdon

The Impact of State Land Disposals in Bristol Bay on Local Subsistence Patterns: A Methodological Exploration

10:50 **Kerry Feldman**
Subsistence Beluga Hunting in Alaska and the IWC: A
View from Eschscholtz Bay

11:10 **Dennis Kelso**
Applied Anthropology and Resource Management

11:30 Discussant: **Harvey Feit**

12:00 LUNCHEON (Alaska Room)
KEYNOTE ADDRESS

Margaret Lantis

"Studies in Urban Alaska"

P.M. -- PART II

ETHNOGRAPHY

2:00 **Steve Braund**
Kivalina Subsistence Use Patterns

2:20 **Sverre Pedersen**
Hunting and Fishing Patterns in Kaktovik, Alaska

2:40 **Judith Morris**
Subsistence Fishing on the Naknek River

3:00 BREAK

3:10 **Gayle Martin**
Contemporary Resource Use Patterns in Dot Lake, Alaska

3:30 **Anne Shinkwin and Martha Case**
Contemporary Subsistence Patterns in Nenana, Alaska

3:50 Discussant: **Richard K. Nelson**

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SATURDAY, MARCH 12, 1983

SESSION V (Kenai Room)
THE INTERFACE OF PLACE:
History, Architecture, and Archaeology
of Big Delta, Alaska

A.M. Chair: Craig Mishler

8:30 INTRODUCTION - Craig Mishler

8:40 Craig Mishler

Big Delta: The Early Historic Period, 1898 - 1906

9:00 Charles E. Holmes

Archaeological Testing of an Early 20th Century Cabin
Ruin at Big Delta

9:20 Stephanie Stirling

Big Delta Historical Overview

9:40 Timothy L. Dilliplane

An Archaeological Inquiry at Rika's Roadhouse

10:00 BREAK

10:20 Robert A. Mitchell

Big Delta State Historic Site as seen by the Historical
Architect or Being Confronted by Overwhelming
Opportunities

10:40 Film: First Showing of Hunting in Alaska, a rare
documentary film shot in and around Big Delta by
Wendell Endicott in 1927 - 1930.

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SATURDAY, MARCH 12, 1983

SESSION VI (Aleutian Room)
GENERAL ARCHAEOLOGY

A.M. Chair: Georgeanne Lewis Reynolds

9:00 **Bruce Ream**

A Review of CPSU, 1975 - 1983: A Eulogy

9:20 **Georgeanne Lewis Reynolds**

Results of the Yukon-Charley Archaeological Survey, 1982

9:40 **R. Gal**

Lithic Technology and a Preliminary Comparative Typology of the Girl's Hill Assemblage

10:00 **Alan Boraas**

Technology and the Origin of Human Hemispheric Asymmetry

10:20 **Craig Davis**

Procedures for Obtaining Permits to Conduct Archaeological Studies on National Park Service Lands, Alaska

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SATURDAY, MARCH 12, 1983

SESSION VII (Kenai Room)
**ARCHAEOLOGY AND CULTURAL ANTHROPOLOGY:
NORTHERN ALASKA**

P.M. Chair: Tim Smith

2:00 Georgeanne Lewis Reynolds

Ownership Marks and Social Relationships in
Northwestern Alaska in Late Thule Times

2:20 Grant Spearman

Who Are Those Guys? Documenting a Little Known Band of
Nunamiut Inupiat

2:40 Mark Standley and Robert C. Betts

Archaeological Survey on the Coleen River, Northeast
Alaska

3:00 BREAK

3:20 Robert Sattler

Metric and Non-metric Traits of Arctic Throwing Boards

3:40 Arthur Spiess and Craig Gerlach

Some Observations on the Faunal Remains from the
Croxton Site, Tukuto Lake, Alaska

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SATURDAY, MARCH 12, 1983

**SESSION VIII (Aleutian Room)
ARCHAEOLOGY AND CULTURAL ANTHROPOLOGY:
NORTHWEST COAST**

P.M. Chair: Stanley Davis

2:00 Jon M. Erlandson

The Role of Shellfish in Coastal Economies

2:20 Madonna L. Moss

Phosphate Analysis of Cultural Resource Sites,
Admiralty Island, Southeast Alaska

2:40 Robert King

The Photographic Record as an Aid to Interpretation of
Archaeological Remains in Alaska: The Case of Dyea and
the Chilkoot Trail

3:00 Chris Rabich Campbell

An Ethnohistorical and Archaeological Overview of
Tuxekan Village

3:20 BREAK

3:30 Chuck Smythe

Tlingit Property Law

3:50 Stanley Walens

Immanence and Emergence in Kwakiutl Metaphysics

4:10 Edwin S. Hall, Jr. and Margaret Blackman

In a Continuing Tradition: Northwest Coast Indian
Serigraphy

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**ALASKA ANTHROPOLOGICAL ASSOCIATION
BUSINESS MEETING
(Kenai/Aleutian Room)**

4:30 P.M.

SYMPOSIA ABSTRACTS

THE HUMAN HERITAGE OF UTKIAVIK VILLAGE: An Interdisciplinary Study of Lifeways and Life in Pre-contact Inupiat Alaska

Symposium Organizer: John E. Lobdell
Symposium Sponsors: The Atlantic Richfield Foundation
ARCO Alaska
North Slope Borough

The Utkiavik Village site at Barrow, Alaska has been the focus of detailed investigations for the past two years. The recent finding of a collapsed house with excellent preservation of both cultural and human remains has ignited an interest in the diverse studies that have taken place to date. The attempt of the symposium is to integrate studies of social, natural, and medical sciences in order to learn about the late prehistoric culture and health of the North Alaska Maritime Eskimo.

Contributed papers will be followed by a hosted poster display session for all Association members and guests.

HUNTING AND FISHING IN RURAL ALASKAN CULTURES

Symposium Organizer: Robert J. Wolfe

This symposium offers a many-faceted approach to the questions of subsistence cultures in Alaska. The presentations involve history, contemporary theory, policy, and ethnography. The many diverse resources and the critical nature of the subsistence lifeways will be explored in this day-long session.

THE INTERFACE OF PLACE: History, Architecture, and Archaeology at Big Delta, Alaska

Symposium Organizer: Craig Mishler

Big Delta (also known as McCarty, Grundler, and Rika's Landing) is a multi-component site located on the Tanana River near its confluence with the Big Delta. Big Delta was first used as a campsite for Tanana-speaking Athapaskans, then as an early trading post, a ferry landing, an Army Signal Corps station, a roadhouse, and an airfield. Panel members from the Alaska Division of Parks and Division of Geological and Geophysical Surveys will present the results of recent efforts to excavate the old trading post, restore the roadhouse, and interpret the site to the public. A rare, recently-discovered documentary film made in 1930 (perhaps the first ever shot in the Interior) will be shown here for the first time.

PROGRAM ABSTRACTS

BENITEZ, JAIME (William Beaumont Hospital)

TEMPORAL BONE STUDIES: FINDINGS IN TWO SPECIMENS FROM THE BARROW FROZEN FAMILY

Paleopathological investigation of the inflammatory, traumatic, and congenital ear disorders that cause deafness was carried out in two temporal bones from two individuals of the Barrow frozen family.

X-ray studies by polythomography, which allows tissue survey in a millimeter by millimeter fashion, revealed a soft tissue mass of about 2 x 3 mm in the epitympanic area of the specimen from Skeleton 3 suggesting cholesteotoma. No abnormalities were detected in the tympanic area of the specimen from Skeleton 2. The mastoid air cell system and the cochlea were normal in both specimens.

Macroscopic studies with a Zeiss operating microscope showed the soft tissue mass, described as above, to be compatible with cholesteotoma. The excellent preservation of the lenticular process of the incus in both specimens ruled out conduction deafness by interruption of the ossicular chain. In both temporal bones, the oval window and the stapes bone showed no evidence of otosclerosis which also causes conduction deafness.

Conventional histology of the soft tissue mass showed epithelial tissue not consistent with cholesteotoma. Histological studies by the undecalcified method of sections from selected areas of both temporal bones revealed no evidence of metabolic bone disease.

BRAUND, STEPHEN R.

KIVALINA SUBSISTENCE USE PATTERNS

Despite the influx of imported foods in recent decades, the residents of Kivalina (pop. 260) still depend on the preferred and locally available wildlife resources. Kivalina residents exploit a diverse resource base to compensate for population fluctuations, seasonal availability, and other uncertainties associated with particular resources. Caribou, marine mammals, and fish provide the mainstay of Kivalina's subsistence economy. This paper addresses the Kivalina seasonal round (emphasizing the 1982 fall harvest of Arctic char) as well as the following changes in the resources and methods used by Kivalina residents over the past twenty years: declining char harvests, increased availability of walrus, establishment of local spring bowhead whaling camps, and the increased productivity of and concentrated effort in the June sea mammal hunt.

CAMPBELL, CHRIS RABICH (Tongass National Forest)

AN ETHNOHISTORICAL AND ARCHAEOLOGICAL OVERVIEW OF TUXEKAN VILLAGE

A recent survey of the Tuxekan village site discovered six additional house depressions, which precipitated this report. Although Tuxekan's significance has never been doubted, no information collected by anthropologists had been analyzed. A synthesis of data both identifies discrepancies and strengthens the importance of the site. For example, oral traditions describing events that stimulated population movements northward indicate that Tuxekan may have been one of the oldest, continuously occupied Tlingit communities. This paper includes a description of clans that had occupied Tuxekan, house names, the quantity of houses, their patterning according to moiety affiliation, and other relevant factors.

CONNOR, MELISSA and DALE SLAUGHTER (U. of Wisconsin)

DIACHRONIC INVESTIGATION OF INUIT DIETS UTILIZING TRACE ELEMENT ANALYSIS

This preliminary study uses trace element analysis in a diachronic investigation of northwest Alaskan Inuit diets. Presently, stable strontium appears to be the trace element that is most sensitive as a dietary indicator. Strontium is incorporated into bone tissue in varying amounts depending upon regional geochemistry and the trophic level of the species. Plants generally contain higher levels of strontium than do mammals. Previous dietary studies using this element have investigated the relative importance of plant foods in the diet of the population under study. Because of the high levels of strontium in sea water, marine animals absorb more of this element than do terrestrial animals. Since traditional Inuit diets contained only negligible amounts of plant foods, elevated strontium levels in Inuit bone should reflect the heavy subsistence of sea mammals.

The trace element content of bone from six Inuit populations has been analyzed. Geographically these groups range from Cape Krusenstern to Barrow, and chronologically they range from the beginning of the Christian Era to the late nineteenth century. As a control, the trace element content of marine predator and terrestrial herbivore bone has also been analyzed.

DEKIN, ALBERT A., Jr. (SUNY, Binghamton)

UTQIAGVIK: AN ARCHAEOLOGICAL INTRODUCTION

This is a slide-based presentation to orient the audience to the setting, both geographic and historic, in which the archaeological research has been conducted. It is designed to provide background information essential for an understanding of the finds while eliminating the need for each symposium participant to provide details of Barrow and North Alaska.

DEKIN, ALBERT A., Jr. (SUNY, Binghamton)

THE UTQIAGVIK ARCHAEOLOGY PROJECT: A SUMMARY OF RESEARCH PROGRESS

Two years of archaeological, ethnohistorical, geological, and botanical research have been conducted in Barrow, Alaska, focused on the nineteenth century village of Utqiagvik. Initial sponsorship by the Bureau of Indian Affairs, United States Department of the Interior through the National Park Service, was followed by support of the North Slope Borough, through Frank Moolin and Associates, Inc., for a second season to continue research. The project was conceived as an integrated approach to provide an appropriate data base on Utqiagvik while mitigating the potential impact of utilities construction.

This paper will summarize the results of this research to date, as a setting in which to appreciate these remarkable archaeological and human biological finds. Some of the implications of this project for science in the public service will also be addressed.

DILLIPLANE, TIMOTHY L. (Alaska Division of Parks)

AN ARCHAEOLOGICAL INQUIRY AT RIKA'S ROADHOUSE

In June of 1979 three archaeologists on the staff of the State Historic Preservation Officer (SHPO) conducted archaeological testing at Rika's Roadhouse, an important component of Rika's Landing State Historic Site. Located at Big Delta, Alaska, the roadhouse was possibly built in its original form during the first decade of this century, and was a major rest stop on the Richardson Highway. Because of its historic significance, the roadhouse complex was entered into the National Register of Historic Places on September 1, 1976. The archaeological work, partly funded by a Federal Historic Preservation matching grant administered by the SHPO, was undertaken primarily to support future restoration work at the site. An important secondary goal was an increased understanding of as many behavioral patterns associated with the complex as possible. This paper discusses the extent to which each of these two goals was achieved.

DUMOND, DON E. (U. of Oregon)

TEST EXCAVATIONS IN THE CHIGNIK REGION, ALASKA PENINSULA

In 1975, survey in the Chignik region of the Alaska Peninsula led to the location of ten sites, and to the excavational test of three of them. On the Chignik River, site 49-CHK-007 produced some 300 implements of chipped stone and two radiocarbon ages of about 2130 and 2165 years; site 49-CHK-011 produced a very small assemblage of polished stone, and a single radiocarbon age of about 545 years. The abandoned settlement of

Unangashik on the Bering Sea coast (site 49-CHK-015) yielded, in addition to materials of historic age, an underlying sample of chipped stone implements and a radiocarbon age of about 1175 years. It is concluded that through substantially all of the first millenium A.D., the Chignik region of the Peninsula pertained to the non-ceramic, chipped-stone-using cultural sphere that is so well represented at the Hot Springs site at Port Moller, and that some time about the end of that millenium Chignik began to experience increasing contact with people of what has been called the Thule tradition, who were resident farther to the northeast.

ERLANDSON, JON M. (U. of California, Santa Barbara)

THE ROLE OF SHELLFISH IN COASTAL ECONOMIES

Traditional perspectives on the role of marine invertebrates within coastal economies view shellfish from a standpoint of total dietary caloric contribution, and conclude that shellfish represented a relatively minor or supplemental resource. However, it is suggested here that such studies oversimplify the nutritional needs of human populations, and that the significance of shellfish within coastal subsistence strategies can be more properly understood by assessing the total contribution of shell species to dietary protein intake. Recent hypotheses suggesting that shellfish represent a resource of low energetic return per unit of labor investment are re-examined in light of more specific data, and again are rejected as over simplistic. Conversion ratios for deriving edible meat and protein yields for a number of shell species commonly found in southeastern Alaskan archaeological contexts are presented in tabular form.

FALL, JAMES A., DAN FOSTER, AND RONALD T. STANEK

HISTORIC AND CONTEMPORARY KING SALMON FISHING IN AN UPPER INLET TANAINA COMMUNITY

The paper focuses on the role of king salmon fishing in the historic and contemporary sociocultural systems of the Upper Cook Inlet Tanaina village of Tyonek. It summarizes some of the results of recent research on the community's history and current patterns of resource use. After a brief review of the general ethnography of the Upper Cook Inlet Tanaina, the paper describes the annual round of wild resource harvest as it occurred in the past and it takes place at present in the Tyonek area. A more detail discussion of the historic and contemporary uses of king salmon follows, which demonstrates how king salmon fishing for local use continues to play a central role in the ongoing way of life of the residents of Tyonek. As with other wild resources, the harvest and distribution of king salmon are organized on the basis of kinship; the sharing of king salmon and salmon products integrates the community and provides a basis for both the village's economy and resident's cultural identity. Several

reasons for the continuing importance of king salmon are suggested. These include Tyonek's relative isolation from the population centers of Southcentral Alaska, the paucity of economic alternatives to wild resource use, and the symbolic value of king salmon for the Tyonek community as it has attempted to preserve its way of life in the face of a growing regional population, increasing regulatory constraints, and impending resource developments.

FELDMAN, KERRY D. (U. of Alaska, Anchorage)

SUBSISTENCE BELUGA WHALE HUNTING IN ALASKA AND THE IWC: A VIEW FROM ESCHSCHOLTZ BAY

The International Whaling Commission recently began to add cetaceae, such as beluga whales (Delphinapterus leucas), to its schedule of species to be monitored and subject to Commission harvest level proposals for subsistence users. The IWC has already recommended zero harvest level rates for two regions in Canada where subsistence beluga hunting by Canadian Inuit populations has and continues to occur. Data on Alaskan and contiguous bodies of water have recently been compiled by the Commission in an effort to assess the endangered status of beluga in them or migrating through them. Information relative to the role of beluga products among current Alaskan Native subsistence hunters is scant. This paper will examine the role of beluga hunting as currently practiced among several villages which congregate each June in Eschscholtz Bay (located in Kotzebue Sound) to cooperatively harvest beluga. Beluga harvesting will be examined in terms of its ecological, economic and sociocultural parameters. An ethnographic description of the annual hunt will precede the analysis, and will be accompanied by a slide presentation.

GAL, R. (BLM, Fairbanks)

LITHIC TECHNOLOGY AND A PRELIMINARY COMPARATIVE TYPOLOGY OF THE GIRL'S HILL ASSEMBLAGE

The Girl's Hill site (49-BET-040, 041) was a multi-locality prehistoric archaeological site whose discovery and excavation were consequences of construction of the Trans Alaska Pipeline by the Alyeska Pipeline Service Company. The archaeological work was performed by the Alyeska Pipeline Project of the University of Alaska, Fairbanks. Cores, blades, burins and burin spalls, bifaces, and projectile points (including fluted forms) were recovered from the Girl's Hill site.

Site setting, geology, and the soils will be briefly reviewed. The technological forms recovered at each of the two main and four satellite excavation localities at Girl's Hill will be described and the North Alaskan congeners of these forms will be indicated.

A final brief discussion will suggest the implications of the comparative typology for designing field and analytical methodologies and interpreting the cultural historical record.

GANLEY, MATTHEW L. (U. of Alaska, Fairbanks)

THE OTHER EPIDEMIC: SPANISH INFLUENZA AMONG THE SEWARD PENINSULA POPULATION, 1918 - 1919

A discussion of the material available concerning the spread of influenza among the Inupiat population of Seward Peninsula with special emphasis on oral accounts and their validity in light of the few printed accounts in existence from that time.

Methodological consideration will be given for the use of oral accounts and archival materials in the pre-field stages of investigation.

GROSS, JOSEPH J. (U. of Alaska, Fairbanks)

HOUSEHOLD STRUCTURE AND SUBSISTENCE STRATEGIES IN RURAL ALASKA

If Chayanov's thesis is correct that households undergo regular shifts in the ratio between consumers and producers that effect both their productive capacity and their consumption needs, then a number of households in a given population should be non-viable, i.e., the laborers a household can provide is not suitable for the exploitation of its means of subsistence and hence the latter is not adequate for the support of its members. What is the outcome of such a situation? What are the options or alternatives for a household? This paper will explore a number of cases from rural village Alaska to elucidate this problem.

HALL, EDWIN S., Jr. (SUNY, Brockport)

A CLEAR AND PRESENT DANGER: THE USE OF ETHNOHISTORIC DATA FOR INTERPRETING MOUND 44

The use of ethnohistoric data secured from contemporary and historically recent Inupiat peoples to explicate archaeological manifestations has been a standard practice in the North American Arctic. Assignment of function to specific tool types, reconstruction of subsistence and other activities, and analysis of even more ephemeral aspects of past human behavior, have been confidently advanced solely on the basis of ethnohistoric analogs. Heavy dependence on ethnohistoric analogy is attributable to the belief of many prehistorians that Inupiat cultural evolution, over the past 2000 years at least, has been essentially unilinear and to the demonstrable closeness-of-fit between many ethnohistorically and archaeologically represented human behavior patterns in the Arctic.

However, research conducted in conjunction with the Utqiagvik Project suggests that ethnohistoric data derived from

modern Inupiat whose immediate ancestors lived in the Barrow region may not be directly applicable to late prehistoric Inupiat behaviors as archaeologically represented at the Utqiagvik site. A number of considerations lead to this assertion, including a potential homogenization of Inupiat knowledge about the details of the past, a recasting of that knowledge into a western scientific perspective, and considerable doubt that the present-day and recent historic Barrow Inupiat are direct cultural descendants of Utqiagvik's inhabitants. Given uncertainties through an ethnohistoric lens, caution must accompany the utilization of ethnohistoric data to interpret the prehistoric behavior represented at Mound 44.

HALL, EDWIN S., Jr. and MARGARET BLACKMAN (SUNY, Brockport)

IN A CONTINUING TRADITION: NORTHWEST COAST INDIAN SERIGRAPHY

During the past fifteen years, artistic production has increased dramatically among the various Northwest Coast Indian tribes. In particular, serigraphy or silkscreens, has been a popular medium for the creation of both traditional and contemporary designs for the commercial market and for ceremonial purposes. An examination of more than 1,000 published designs suggests some interesting research problems on such diverse topics as sources of inspiration, traditional versus modern designs, ceremonial versus commercial use, and the development of regional and individual styles.

HART HANSEN, JENS P. (U. of Copenhagen)

THE ESKIMO OF GREENLAND, A.D. 1460

Around the year A.D. 1460 (according to radiocarbon dating), shortly after the last descendants of the Vikings disappeared from the southern part of Greenland, six adult and two sub-adult Eskimos were entombed in two rock clefts near the settlement of Qilakitsoq in the Umanak district of northwest Greenland. The bodies were fully dressed, wrapped in furs, and covered with stones. Due to favorable climatic conditions, the remains were well-preserved by mummification when discovered in 1978.

An extensive program of preservation and investigation has been undertaken. A multidisciplinary approach has been taken to obtain as much knowledge as possible of the Greenlandic Eskimo of that time, of his life and lifeways, culture, diseases, environment, and subsistence animals. A score of different scientific approaches have been applied with interesting results. Several methods of natural and medical sciences have proved extremely valuable in examining ethnographic finds like the present.

HOLMES, CHARLES E. (Alaska Division of Geological and Geophysical Surveys)

ARCHAEOLOGICAL TESTING OF AN EARLY 20TH CENTURY CABIN RUIN AT BIG DELTA

In the course of examining a proposed parking facility at the Rika's State Historic site, a large depression next to a dirt road was discovered and tested. The excavations indicate that the depression is directly associated with a log structure and was most likely a cellar. Artifacts recovered include both historic manufactured items and lithic materials. The artifacts confirm an age of early 1900s and strongly suggest that the historic cabin was built on top of earlier cultural deposits related to late prehistoric/early historic Athapaskans. The log structure is probably the small cabin built by Ben Bennett around 1904.

The site provided the opportunity to study some of the earliest evidence relating to the historical development of Big Delta and may provide data useful to the study of the protohistoric period.

KENNEDY, TIMOTHY (U. of Alaska, Fairbanks)

COMMUNITY COMMUNICATION FOR RURAL DEVELOPMENT

This presentation describes a non-directive community development process that utilizes video and film as tools to strengthen the participation of citizens in governmental and other decision making processes.

Film and videomakers instead of acting as advocates or interpreters, work together with development fieldworkers as facilitators (social animators) within a process that is controlled by the community they are assisting.

Films will be shown to complement a case study of the Alaska SKYRIVER Project, which is considered by UNESCO and other international organizations to be the classic model for the use of video and film as tools for non-formal education and community development.

KETZ, JAMES A. (Fairbanks)

THE INTERPRETIVE POTENTIAL OF GLASS BEADS FOR DATING HISTORIC PERIOD SITES IN THE COPPER RIVER REGION, ALASKA

Glass trade bead collections from Dakah De'nin's Village, the Knoll and Point sites at Paxson Lake, and Taral are described, and this archaeological record is compared with archival data pertaining to glass beads listed in the trade goods inventories of the Alaska Commercial Company. Some general observations concerning the distribution of glass bead types in the Copper River region during the 19th Century are presented, and the interpretive potential of glass beads for the relative dating of historic period sites in the area is explored.

LANGDON, STEVE (U. of Alaska, Anchorage)

THE IMPACT OF STATE LAND DISPOSALS IN BRISTOL BAY ON LOCAL
SUBSISTENCE PATTERNS: A METHODOLOGICAL EXPLORATION

As part of the planning process for the joint federal-state Bristol Bay Cooperative Management Plan, projections of future patterns of subsistence use of salmon, caribou, and moose were attempted for different subregions of Bristol Bay. A basic model involving population growth, household income, and biological status of the various resources was used. Following baseline projections, an analysis of the impact of state land disposal created homesites on subsistence patterns was made. This paper will present the methodology and key assumptions, the baseline projections of subsistence use for the three major species, and the impact of new land disposal created homesites on present and projected subsistence use.

LOBDELL, JOHN E. (U. of Alaska, Anchorage Community College)

HARRIS LINES: MARKERS OF NUTRITION AND DISEASE AT PREHISTORIC
UTQIAGVIK VILLAGE

Harris lines, lineations seen in x-rays of long bones, are present in the human remains from the Mound 44 house at Utqiagvik village. The use of these lineations to recognize elements of the human condition is not without cautions, but such lines can indicate possible starvation or disease stress in a population.

The morphology and known causes of these lines are considered. The identification of Harris lines in other prehistoric populations, including limited information on additional Eskimo groups, is presented.

The Utqiagvik remains possess multiple and patterned Harris lines, indicative of seasonal stress. Utilizing ethnographic and faunal interpretations, a period of malnutrition is postulated.

MASON, OWEN K. (U. of Alaska, Fairbanks)

AN ANALYSIS OF THE LITHIC REMAINS FROM THE SANDY BEACH BAY SITE,
UMNAK ISLAND

The Sandy Beach Bay site containing stratified, successive house depressions dating to the fifth and sixth millennia B.P. offers the promise of resolving conflicting claims concerning the continuity and behavior of humans (whether Aleut or unknown) in the Aleutians. The present paper represents a full description of the lithic materials as a part of the final site report. Beyond providing morphological classes for the material, the investigation has monitored retouched and utilization styles and traces, considered the role of lithology in conditioning morphology and demarcated activities within the depressions. Through several clear-cut types such as "ulu" shapes and bifacial

knives are found, the principal determinant of Sandy Beach technology seems to be the character of the edge. The goal of the analysis is to provide a "technologic fingerprint" using evidence of reduction sequence to establish comparability with Anangula and Chaluka.

MASTERS, PATRICIA M. (U. of California, Scripps Institute)

STEREOCHEMICAL AGE DETERMINATIONS FOR THE BARROW ESKIMO REMAINS

The extent of aspartic acid racemization in a metabolically stable tissue such as tooth dentin can provide the age at death for well-preserved human remains. Dentin was separated from teeth extracted from the two mummies and the other three skeletonized individuals. Aspartic acid racemization analyses of the dentin sample has yielded ages at death for the five individuals. The amino acid ages for the children's remains (Skeletons 1, 2, and 3) are similar to ages estimated by tooth eruption and osteological features.

Results on the mummified remains of the Northern Body indicate an age of 31 ± 3 years. The Southern Body is calculated to be 45 ± 5 years. This age for the Southern Body is more consistent with histological evidence of lactation and osteon remodeling and morphology of the pubic symphyses than were the original age estimates at autopsy.

MISHLER, CRAIG (Alaska Division of Geological and Geophysical Surveys)

BIG DELTA: THE EARLY HISTORIC PERIOD, 1898 - 1906

Recognized as a small Indian camp as early as 1898, Big Delta soon became the site of a trading post in 1904 and an Army Signal Corps station in 1905. This paper reviews the development of Big Delta via its position on the Valdez to Fairbanks trail and its ties to the gold rush in the Tenderfoot mining district in 1906, when steamboats began running up the Tanana River in earnest. The year 1906 also marks the arrival of John Hajdukovich, a Yugoslavian immigrant whose life provides a narrative thread for the events which transpired at Big Delta over the next 59 years.

MITCHELL, ROBERT A. (Alaska Division of Parks)

BIG DELTA STATE HISTORICAL SITE AS SEEN BY THE HISTORICAL ARCHITECT OR BEING CONFRONTED BY OVERWHELMING OPPORTUNITIES

The Big Delta site contains some twenty-odd major and minor structures in various states of deterioration and exhibiting a number of curious characteristics. This overview will illustrate some of the architectural problems, details and curiosities being dealt with in the investigation and preservation planning

processes. In addition to discussing some typical deterioration conditions and remedies, it will address such details as internal and external changes in building configuration over the years; use of wallpaper and newspaper; gadgets; floor parquet; interior and exterior trim; porches, fences, and the garden; log and lumber details; door and windows.

MORRIS, JUDITH M. (Alaska Department of Fish and Game)

SUBSISTENCE FISHING ON THE NAKNEK RIVER

The Division of Subsistence, Alaska Department of Fish and Game, conducted research into the subsistence fishery on the Naknek River during the summer of 1982. Among local residents, there were found two characteristic patterns of usage. One pattern is associated with family units who have lived in the Naknek/Kvichak area for a minimum of twenty years. These units also tend to be related to other family groups, spanning up to four generations, living in the immediate area. Family units living in the area for less than twenty years and having no related family units in close proximity, have a second distinct set of characteristics. While it is possible to identify two sets of characteristics among the residents, subsistence fishing is also an integrating activity among and between the groups of residents living in the Naknek/Kvichak drainage.

MORRIS, RICHARD A. (U. of Oregon)

THE QUESTION OF INTERDEPENDENCE AS ESTABLISHED BY RUSSIANS -- PAST AND PRESENT -- BETWEEN ALASKA AND THE LANDS SOUTH

Russian America looked to the fertile lands of what is now California as a support base for its fur business in Alaska. Due to various difficulties, the outcome was disappointing. Nonetheless, as a repeat of the past, the present-day Russian Old Believer village in Alaska, with its preference for isolation, looks to a kin group in Oregon with different expectations but much more successfully. The current arrangement, in its way establishes a modified but important interdependence.

MOSS, MADONNA L. (Tongass National Forest)

PHOSPHATE ANALYSIS OF CULTURAL RESOURCE SITES, ADMIRALTY ISLAND, SOUTHEAST ALASKA

The goal of this study is to assess the utility of phosphate analysis in the recognition of archaeological sites in Southeast Alaska. The main assumption is that archaeological evidence for some kinds of human activity is undetected by visual inspection of soils. Shellfish remains are probably the most conspicuous indicators of prehistoric sites, and fortuitous discoveries of stone tools have occurred. Generally, however, acid soils

destroy bone remains, and durable artifacts are not abundant. Human occupation alters soil chemistry, in culturally produced phosphate has been shown to be stable through time. since naturally occurring levels of phosphate are low in Southeast Alaska, identification of areas of increased phosphate content may reveal cultural deposits. Soil samples from known cultural sites, suspected sites, and naturally occurring soils on Admiralty Island were investigated in this study.

NELSON, RICHARD K. (U. of Alaska, Fairbanks)

COASTAL SUBSISTENCE REVISITED: WAINWRIGHT 1981

This paper looks at patterns of subsistence activity in the coastal region surrounding Wainwright, an Inupiat Eskimo community on Alaska's North Slope. It focuses primarily on change and continuity in harvesting activities, comparing information gathered in 1964-65 with that obtained during a brief return study in the fall of 1981. The paper will include some thoughts on the value of maintaining a long term involvement with the same community and the same people. This kind of involvement is significant not only to subsistence research, but to professional anthropology and the people it serves in modern Alaska.

NEWELL, RAYMOND R. (Rijksuniversiteit, Groningen)

THE ARCHAEOLOGY OF MOUND 44: EXCAVATIONS AND IMPLICATIONS

The excavations of Mound 44 were conducted under unusual circumstances, with unusual haste, unusual care, and unusual results. This paper describes the conduct of the excavations, the artifacts, and data obtained and discusses the implications of these finds for the theoretical and methodological concerns of the Utqiagvik Archaeology Project. Special attention will be paid to the spatial organization of behavior both within and about the houses in the Utqiagvik village.

NOWAK, MICHAEL (Colorado College)

CONTEMPORARY SUBSISTENCE AND THE CONCEPT OF MAXIMIZATION

A number of studies in the recent past have indicated that the process of maximization or getting the greatest return for a given investment applies to contemporary harvesting of subsistence game. This paper examines some of the implicit and explicit decisions that appear to play a role in subsistence harvest strategy today. Although data from a number of studies are examined, specific considerations focus on the subsistence activities seen on Nunivak Island, Alaska.

PAHLKE, LOREN G. (Anchorage)

WHITE MIGRATION TO THE BUSH

The white population of Eagle, Alaska, from gold rush days to the present is considered as a diachronic sample of population movement into the bush towns of the state. Historic motives for immigration to the community, as inferred from correlating population movements with historic events, are compared with the motives of present-day residents. The current population is seen to be comprised predominantly of long term residents, in contrast to the large transient populations of some previous episodes.

REGER, DOUGLAS R. (Alaska Division of Geological and Geophysical Surveys)

LATE PREHISTORIC OCCUPATION AND RESOURCE USE AT THE CLAM GULCH SITE

The Clam Gulch site contains remains of faunal resources harvested by aboriginal inhabitants of the area just prior to the arrival of Euro-Americans. Faunal remains are predominantly marine with various shellfish, salmon, halibut, harbor seal, and cetaceans the most common. Land mammal remains are varied and sporadic through the middens.

Artifacts from the deposits date to the late 17th and early 18th Centuries and, as an assemblage, are unlike any other collections reported in the Cook Inlet Basin. The assemblage included barbed bone points, bone awls and pins, bone earrings, carved shell, a birch bark basket, a slate point and a stone adze bit. The site gives us a look at the late prehistoric culture of the middle Cook Inlet area.

REYNOLDS, GEORGEANNE LEWIS (National Park Service)

RESULTS OF THE YUKON-CHARLEY ARCHAEOLOGICAL SURVEY, 1982

Between June 5 and July 20, 1982, a prehistoric site survey was conducted in the Yukon-Charley National Preserve. Twenty sites were found along the Yukon River between Calico Bluff and Takoma Bluff. An additional site was located near the confluence of Crescent Creek and the Charley River. This paper examines selected assemblages and relates them to the prehistory of interior Alaska and the adjacent Yukon Territory. Suggestions are made for future studies in the area.

REYNOLDS, GEORGEANNE LEWIS (SUNY, Binghamton)

OWNERSHIP MARKS AND SOCIAL RELATIONSHIPS IN NORTHWESTERN ALASKA DURING LATE THULE TIMES

Late Thule ownership marks on harpoons and arrowheads from Utkiavik (Barrow), Alaska, provide a provocative data base in the

study of Inupiat social relationships in the 19th Century. Complex marks are first broken down into individual elements and then compared by locality. Available property marks from Walakpa and Nuwuk provide material with which to compare data from all three sites. It is then possible to quantify the degree of similarity exhibited in these sites and rank their relationships to each other. Based on these results, inferences may be made concerning late Thule social patterns during a time of change.

SATTler, ROBERT (U. of Alaska, Fairbanks)

METRIC AND NON-METRIC TRAITS OF ARCTIC THROWING BOARDS

The throwing board is a device used to throw a spear or dart. Post-contact Maritime people utilized the throwing board to facilitate hunting out of small boats. During the late 1800's and the early 1900's many complete throwing boards were collected by explorers which were subsequently donated to museums. Complete specimens exhibit particular metric (measurable) and non-metric (non-measurable) traits that reveal stylistic and functional similarities and differences. Although throwing boards were probably used in prehistoric time they usually do not survive in the archaeological record. Due to the preservation characteristic of most Alaskan archaeological sites, the throwing board is rarely recovered complete in stratigraphic context during systematic excavations. Ethnographic collections present the archaeologist with a possible opportunity to glimpse at stylistic and functional attributes of "lost" material culture.

SHIELDS, HARVEY M. and ROGER K. HARRITT (National Park Service)

RESCUE ARCHAEOLOGY AT BROOKS RIVER, KATMAI NATIONAL PARK AND PRESERVE, ALASKA: AN INTERIM REPORT

A block excavation at BR 3 along the banks of the Brooks River revealed a large late prehistoric pithouse surrounded by three slightly older houses. Several other features were found including sod borrow areas, camps, and a pottery kiln. Everything in this season's excavations relate to the Brooks River Bluffs phase (A.D. 1450 - 1800). Information derived from the excavations led to conceptual changes in the research design.

SHINKWIN, ANNE and MARTHA CASE (U. of Alaska, Fairbanks)

CONTEMPORARY SUBSISTENCE PATTERNS IN NENANA, ALASKA

Research results from a study of contact-traditional and contemporary subsistence patterns in Nenana, conducted in summer and fall 1982, are presented. Patterns of local resource use and the magnitude of contemporary harvesting of these resources are discussed with particular emphasis on the social organization of

procurement and consumption. The data illustrate a continuity of contact-traditional (1850 - 1940) economic strategies characteristic of former local bands, composed of matrilineal families (sibs), whose descendants, along with local residents from other areas, now reside in Nenana. These strategies structure subsistence activities today which are pursued within the context of bilateral family networks, represented predominantly by related nuclear family households which participate in these "family economies".

SILIMPERI, DIANA R. and W. L. ALWARD (Center for Disease Control)

CENTER FOR DISEASE CONTROL MICROBIOLOGIC INVESTIGATIONS OF THE BARROW ESKIMO SPECIMENS

In 1982, an archaeological excavation in Barrow, Alaska revealed frozen and well-preserved female cadavers. In addition to the human remains, four buckets containing feces, urine, and cooked meat were found.

Specimens collected by CDC personnel during a second autopsy included: abdominal and chest organ blocks; spinal, pleural, and pericardial fluid; blood vessels; brain tissue; bone; skin; and the contents of the buckets. Ongoing investigations include: electron microscopic examination of tissues; bacteriologic and viral cultures of uncontaminated specimens; biochemical and DNA hybridization studies; viral and parasitic titers; immunologic and chemical assessments; nutritional evaluation; and environmental toxin screening. This unique archaeologic finding provides an opportunity to investigate the evaluation of microorganisms and contributed to our understanding of related disease processes.

SMITH, FREDERICK (Alaska Court System)

LEGAL ASPECTS AND SUGGESTED PROTOCOL IN DEALING WITH HUMAN REMAINS FOUND IN AN ARCHAEOLOGICAL CONTEXT IN ALASKA

The coroner's jurisdiction is reviewed, giving the foundation for his involvement in human remains found in the archaeological context.

The laws in Alaska relating to prehistoric or archaeological resources, desecration of graves, and disinterment are discussed, and suggestions are made for protocol in handling human remains in various circumstances.

SMYTHE, CHUCK (Anchorage)

TLINGIT PROPERTY LAW

This paper presents a preliminary formulation of the principles of Tlingit property law. Categories of property, title, ownership and use rights, transference, inheritance, and succession are discussed.

SPEARMAN, GRANT (Anaktuvuk Pass)

WHO ARE THOSE GUYS? DOCUMENTING A LITTLE KNOWN BAND OF NUNAMIUT
INUPIAT

Interviews with a senior Nunamiut elder have added considerably to our knowledge of the Ulumiut, a little known, and reportedly the easternmost major band of the Nunamiut in existence before the turn of the century. In-depth interviews and map research followed by a low level aerial overflight and an on the ground survey have resulted in the recording of band history, territories and season round pattern as well as the location of nearly 250 historic, subsistence, and place name sites. This presentation will review some of these data as well as examine two sites whose surface remains may aid in locating other similar kinds of sites, which otherwise might go unnoticed.

SPIESS, ARTHUR and CRAIG GERLACH (State of Maine and Brown U.)

SOME OBSERVATIONS ON THE FAUNAL REMAINS FROM THE CROXTON SITE,
TUKUTO LAKE, ALASKA

The Croxton site is a large midden located on the eastern shore of Tukuto Lake, about twenty miles north of Howard Pass, Alaska. Two seasons of field research at the site have resulted in the recovery of a large sample of faunal material from a variety of contexts, including occupational floors, feature, and areas of secondary deposition. This study presents the results of an analysis of faunal material collected in 1981, from occupational levels radiocarbon dated between 1350 ± 290 years B.P.

Although a summary of taxa identified includes Ovis (mountain sheep), Ovibos (muskox), Canis (domestic dog?), Ursids (bear) and Aves (birds), about 98% of the analyzed material is represented by caribou. The caribou remains are analyzed in terms of bone breakage and discard patterns, seasonality, body size, tooth wear, demography and herd use. Preliminary results demonstrate that the Croxton site was most intensively utilized from late spring through fall, and that butchering and processing activities were spatially distributed across the site. The study of molar tooth wear on the Croxton caribou reveals a pattern of attrition that is dramatically different when compared to modern Arctic and Kaminuriak herds. Additionally, data on caribou exploitation at the late prehistoric Sikoruk site located at the northern end of Tukuto Lake suggest a very different pattern of land and herd use than is indicated for the Croxton site.

STANDLEY, MARK and ROBERT C. BETTS (U. of Alaska, Fairbanks)

ARCHAEOLOGICAL SURVEY ON THE COLEEN RIVER, NORTHEAST ALASKA

During July and August, 1982, an archaeological reconnaissance was conducted in Northeastern Alaska on the Coleen

River, supported by the Otto Geist Fund. Fieldwork at 28 survey locales in this little explored river basin led to the testing and recording of 14 archaeological sites, which range from the American Paleoarctic tradition to historic times with an uncertain hiatus of Northern Archaic material (based upon the artifact typologies both present and absent).

The Coleen River has served as a natural corridor for caribou migrations, a travel route for explorers, and a trade route for Eskimo and Indian groups in recent times. Evidence of such traffic found during this survey include an antler skin-drum handle and a piece of worked walrus ivory. Oral histories and ethnographies provide possible explanations for four circular stone structures at three sites as meat caches. A radiocarbon date of 220 ± 50 years B.P. (Beta-5723) at the Rainbow Bend site and ongoing obsidian-hydration studies on five specimens from three additional sites will provide an initial chronology for these Coleen River sites, all located adjacent or in close proximity to the main drainage.

The survey objective of establishing base-line data on the Coleen River led to the identification of potential areas of future research including Eskimo-Indian contact, prehistoric occupations in Northeastern Alaska, and site survey methods in Alaska.

STIRLING, STEPHANIE (Alaska Division of Parks)

BIG DELTA HISTORICAL OVERVIEW

The years following the gold rush into the Interior brought changes to the roadhouse at Big Delta. During this period John Hajdukovich acquired interest in the property, Alonzo Maxey (a homesteader of questionable mental clarity) created problems for the Signal Corps, and the Valdez-Fairbanks Trail evolved into the Richardson Highway.

The history of the site chronicles the major developments in the Interior of Alaska during the first half of the twentieth century -- trade, travel, and communication activities all focused on this site. Rika Wallen operated the roadhouse and established a homestead, while John Hajdukovich developed his trading and trapping business with the Interior Athapaskans. A WAMCATS station was established at the site, and the site became a focal point for Alaska Road Commission activities with the operation of the ferry across the Tanana River.

The events and personalities associated with the Big Delta site can provide both a detailed look at the specifics that led to development in the Interior while allowing us to view the broader historical forces at work in the region. This information is of value to historians, archaeologists, and anthropologists alike.

THOMPSON, DAVID D. and KATHLEEN S. COWEN (U. of Connecticut)

AGE AT DEATH AND BONE BIOLOGY OF THE BARROW MUMMIES

Bone samples removed at autopsy from the femoral cortex and iliac crest of the Northern and Southern bodies were subjected to morphological, histological, and crystallographic analyses.

The estimation of age at death based on the degree of secondary osteon remodeling indicated an age of 24 years for the Northern Body and 42 years for the Southern Body. Age estimation by the degree of remodeling of the pubic symphyseal face corroborated the age estimates obtained by histological methods.

Histomorphometric analysis of the iliac crest sections indicated a trabecular bone volume of 14% for the Northern Body and 15% for the Southern Body. These values fall within the range of clinically defined osteoporosis. Osteomalacia was not apparent in the section as no excessive osteoid seam widths were found. Cortical thickness values for the femoral samples from the two mummies were within the expected range based on our studies of 400 female Inupiat Eskimos.

Crystallographic studies showed hydroxyapatite crystals to be within the osteoporotic range for size and/or shape and contain CO-3/PO-4 content similar to a comparable sample of osteoporotic Eskimos.

TORIBARA, TAFT Y., ANN G. MUHS, and T. W. CLARKSON (U. of Rochester)

HAIR: A KEEPER OF HISTORY

Certain trace elements are incorporated into the hair at the time of its formation in concentrations related to the concentration in the fluid in contact with the root. Once that hair emerges from the skin, that concentration of a given element, unless subject to external influences, will not change and every segment should contain information related to the levels existing in the body at the time that hair was formed. The profile of concentrations of an element along a hair should reveal information concerning the levels of that element in the circulating fluid existing during the period represented by that hair if the growth rate were known (approximately 1 cm per month for present populations).

We have the capability of producing such a profile with a unique x-ray fluorescence spectrometer which will determine non-destructively the concentrations of 16 elements simultaneously in a 1 mm portion of a single hair. This instrument, which was built to our specifications, has been used to analyze the hair from the frozen Barrow bodies. These results will be compared to those from other specimens, both ancient and modern. Factors affecting the reliability of the information will be discussed as well as some possible interpretations.

WALENS, STANLEY (U. of California, San Diego)

IMMANENCE AND EMERGENCE IN KWAKIUTL METAPHYSICS

Some key principles of Kwakiutl metaphysics are examined in this paper, principles with important ramifications for a description of Northwest Coast philosophy consonant with native ideas. It is argued that analyses of traditional Kwakiutl social structure and ceremonial activities that have failed to see the centrality of these principles have presented an inaccurate picture of Northwest Coast culture.

WOLFE, ROBERT J. (Alaska Department of Fish and Game)

RESOURCE DIVERSIFICATION AND RIVERINE HABITATS: THE ECONOMY OF THE YUKON DELTA ESKIMO

This paper examines the types and quantities of resources hunted, fished, and gathered by residents of six contemporary Central Yup'ik Eskimo communities on or near the Yukon River delta, the Kuigpagmiut and Taprararmiut. Ethnographic data were collected from May through August 1981 using participant observation and systematic interviews with a 20% sample of community households. The report addresses the question of whether the hunting and fishing economies of this coastal-riverine group is specialized or diversified in comparison with other hunter-gatherer societies. According to the theoretical literature, specialization among northern riverine hunter-gatherer groups might be expected because of (1) the alleged low biological productivity of high latitude habitats creating a relatively narrow range of exploitable resources, and (2) the abundance of Pacific salmon encouraging an exclusionary focus on salmon fishing. In contrast with these predictions, the contemporary Kuigpagmiut and Taprararmiut economies comprise diversified patterns of fishing, hunting, and marketing activities. A wide range of resources are utilized in substantial quantities, including fish, small sea mammals, land mammals, and waterfowl. The report argues that the degree of diversification or specialization is a function of the relative efficiencies of exploiting a wide or narrow range of resources rather than the relative biological productivity of the entire ecological system.

YESNER, DAVID R. (U. of Southern Maine)

ARCHAEOLOGICAL RECONNAISSANCE OF THE PORT HEIDEN REGION, ALASKA PENINSULA

During the summer of 1981 a 6-week archaeological survey was undertaken of the Port Heiden region of the Alaska Peninsula. The survey covered river drainages north and south of the region, interior lakes, the "caribou pass" portage over to the Chignik (eastern) side of the Peninsula, and the Bering Sea coastline.

Although few sites were found and these were late in date, the bone tools and house structures uncovered yielded additional data on cultural interaction and ethnic origins on the northcentral Peninsula.

ZIMMERMAN, MICHAEL (Jeanes Hospital)

PALEOPATHOLOGY AND PREHISTORIC ALASKA

Several mummified bodies from Alaska have been examined over the past decade, the oldest being a mammoth and some smaller mammals from the collection of the American Museum of Natural History. These frozen remains have been radiocarbon dated at over 21,000 years B.P. and show remarkable preservation of microscopic anatomy. Human mummies have been studied from the Aleutian and St. Lawrence Islands, and have demonstrated the antiquity of pneumonia, trauma, and atherosclerosis.

The frozen family of Barrow is a unique find in terms of the intact archaeological provenience. Five individuals were identified, crushed and frozen in their house. This talk focuses on the anatomic findings of the bodies, two of which were almost perfectly preserved. Standard autopsy procedures were used on the Northern Body and the Southern Body, both females who died of crushing injuries. Northern Body was a young, relatively healthy adult. Southern Body was middle-aged and showed atherosclerosis. She had probably suffered a complicated pneumonia earlier in her life and may have been lactating at the time of her death. She may also have had trichinosis.

The three other individuals were poorly-preserved skeletonized sub-adults.

ALASKA ANTHROPOLOGICAL ASSOCIATION

10th ANNUAL MEETING

CONFERENCE ORGANIZER:	John Lobdell
CONFERENCE PROGRAMS:	Doug Reger Tim Smith John Lobdell
CONFERENCE REGISTRATION:	Kerry Feldman
CONFERENCE PUBLICITY AND MEDIA:	Richard Stern
CONFERENCE AUDIO-VISUAL:	Robert Mack Steve Klingler Greg Dixon
CONFERENCE PLANNING AND FINANCES:	Doug Veltre

We thank the membership for their support in this our 10th annual meeting.
