Volume One, Number One 2001

Alaska Journal of Anthropology

Owen K. Mason, Editor







Alaska Journal of Anthropology

Published biannually, Summer and Winter ©2001 by the Alaska Anthropological Association: All rights reserved.

Correspondence:

Manuscript and editorial correspondence should be sent to:

Alaska Journal of Anthropology

Attn: Editor P.O. Box 241686 Anchorage, AK 99524 Telephone: (907) 336-0092 Fax: (907)336-0093;

Email: geoarch@ptialaska.net or afokm@uaa.alaska.edu

Editorial Board:

Ernest S. Burch Smithsonian Institution

Barbara Crass University of Wisconsin Oshkosh

Ben Fitzhugh University of Washington

Christine Hanson University of Alaska Anchorage James Kari University of Alaska Fairbanks

Rachel Mason National Park Service Alaska Support Office

Allen P. McCartney University of Arkansas

Polly Wheeler Division of Subsistence, State of Alaska

William B. Workman
David R. Yesner
University of Alaska, Anchorage
University of Alaska Anchorage
University of Alaska Anchorage

Wanetta Ayers Editorial Assistant

Subscription Rates:

Annual:

Individuals: \$50.00 per year aaa Member: \$35.00 per year Student: \$20.00 per year Institutions: \$150.00 per year

Two Year Rate:

Individuals: \$85.00 per year aaa Member: \$60.00 per year

Lifetime Sustaining Membership: \$1,000.00

Please add 10% for postage outside North America.

Photo Credits:

Cover: Dolls by Ethel Washington, Ellen Savage and Caroline Penayah from the Charles and Wiona Browning Collection, currently on display at the Alaska Native Heritage Center, with permission from Guy Maclure.

Page Border: Unknown artist, ivory handle carving, as depicted in *The Graphic Art of the Eskimos*, Walter J.

Hoffman, M.D.

Citation:

Mason, Owen K. (ed). 2001. *Alaska Journal of Anthropology*, 1(1), Alaska Anthropological Association, Anchorage, Alaska USA.

aaa Board of Directors:

Diane Hanson President Army Corps of Engineers, Environmental Resources
Debbie Corbett Director Fish and Wildlife Service, Cultural Resources

Michele Jesperson Director U.S. Air Force, Environmental Division, Third Wing Ken Pratt Director Bureau of Indian Affairs, ANCSA Office

Dale Slaughter Director Bureau of Indian Affairs, Regional Archeology

Polly Wheeler Director Alaska Department of Fish & Game, Division of Subsistence

Other Association Officials (not members of the Board)

Karen Workman Secretary University of Alaska Anchorage, Department of Anthropology

Susan Bender Treasurer National Park Service, Cultural Resources
Rachel Mason Newsletter Editor National Park Service, Cultural Resources

Rick Reanier Aurora Editor Reanier & Associates
Owen Mason Journal Editor GeoArch Alaska

Alaska Journal of Anthropology

Volume One, Number One 2001

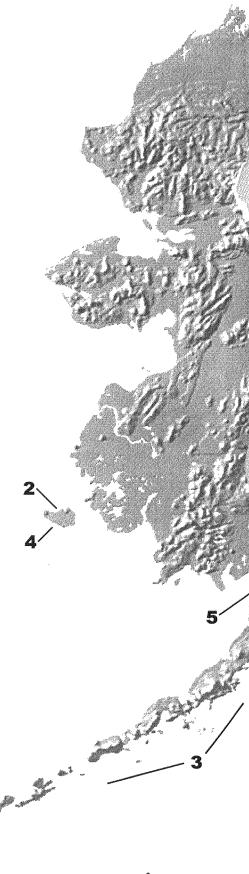


Edited by: Owen K. Mason

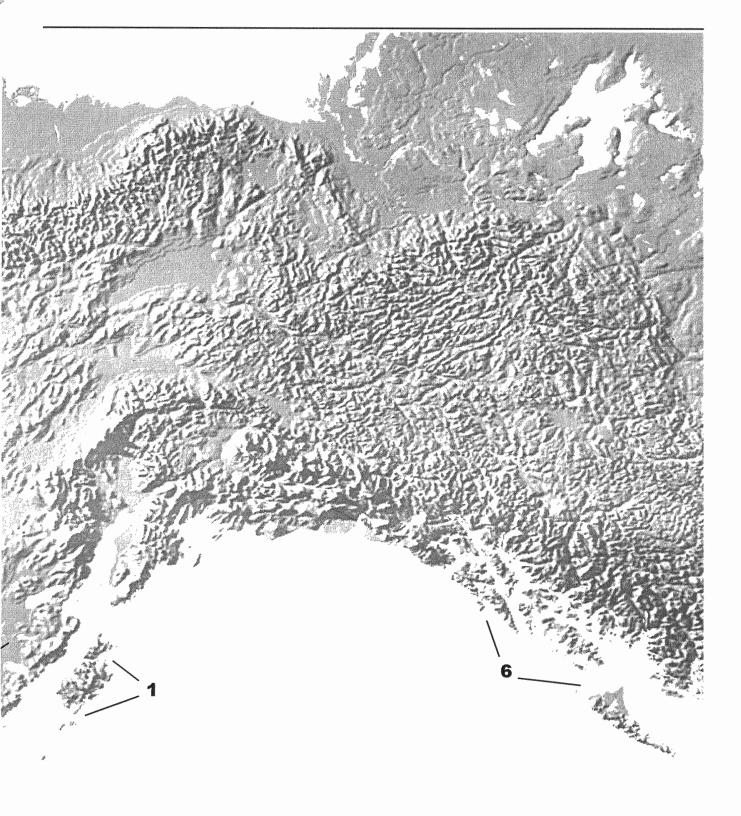


TABLE OF CONTENTS

. The state of the
2
4
7
"All Bar
. and the same of









EDITOR'S MESSAGE

The journey to the assembly of thoughts and images in your hands has involved the vision and dedication of many people. For many years, Alaska anthropologists have lamented and endured the "arctic small paper tradition," the haphazard survival and acquisition of the gray literature of conference presentations. The present volume has as its predecessor the aaa conference proceedings compiled by the Fairbanks office of the Bureau of Land Management in the late 1970s. In the mid-1990s, as the number of publishing outlets for northern research languished. Roger Harritt and Robert Shaw proposed the creation of a new venue for arctic researchers, sponsored by the only anthropological professional society in the American arctic, the Alaska Anthropological Association. In summer of 2000, at the behest of the Board of the aaa, I assumed the mantle, not without considerable trepidation, as the first editor of the Alaska Journal of Anthropology. I expected an outpouring of frustrated authors, clamoring for access into print! We did, eventually, obtain a fair number of submissions this first year, and I look forward to that steady rush of submissions as the skeptical among you subscribe to a journal that you now have a chance to see! For those of you who disagree with a point of view or wish to respond, please consider submitting a Comment, and expect the resulting dialog from the author.

Many people are owed thanks in the production of this first issue of the *Alaska Journal of Anthropology*. Wanetta Ayers shouldered the production responsibilities, as well as the editorial massage of the accepted articles; hers is the vision that produced its handsome layout and polished design. With heart felt thanks, I commend the nearly sixty optimistic souls that have sent subscriptions of one, two and even lifetime subscriptions! While

all of the editorial board members have answered my calls to action, Ken Pratt, has served as constant gadfly and consultant! Without the authors, nothing would have been possible, of course. I acknowledge the fifteen or so uncompensated reviewers who labored expeditiously to evaluate the submissions.

The Office of History and Archaeology has provided office space gratis and I wish to extend a hearty thank you to the State Historic Preservation Officer, Judy Bittner. Dave McMahan (OHA) has ably served as our webmaster, attaching the AJA materials to the aaa website (http://www.alaska.net/~oha/aaa)

The aims and goals of this journal are enjoined in the Style Guide; but I hasten to add that I hope to witness a trail-blazing theoretical ardor as well as the analysis and reporting of solid and substantive data from all four fields—Socio-cultural anthropology, Physical anthropology, Linguistics and Archaeology. The journal is the creation of its authors and those researchers who fail to lend us *their* ideas should not begrudge those who do.

The launching of a new print journal in the 21st century might seem quixotic to some; however, the permanence of the internet venue is far from established and paper still offers our best hope of survival. The association will pursue an internet outlet as the technology matures and as our sponsorship increases.

Owen K. Mason Editor



REMEMBERING JAMES W. VAN STONE

(TEXT OF A SPEECH TO AAA, MARCH 2000, FAIRBANKS, ALASKA)

The impressive professional work of Jim Van Stone, who died on February 28, 2000, has been acknowledged over and over by the Alaska Anthropological Association. At the same time, the passing of somebody like Jim leaves a noticeable hole in the world that calls for at least a few words. I am honored to have been asked to say those words, although I'm sure I am less worthy than some others of us, who knew him longer, or knew him better. I suspect one reason it fell to me is that I promised not to break into tears while making a few assertions about the Jim I knew.

Like all the rest of us, Jim was not a perfect human being, but unlike some of us, he was decidedly a lovable one. Most engaging among his characteristics was his sense of humor, which notably included an ability — even a drive — to poke fun at himself.

I first met Jim in 1962. Although he was only a little more than three years older than me, he was nearly a decade ahead in his professional career. Over the next few years we met repeatedly in Anchorage at the end of our respective field seasons in southwestern Alaska. Together we participated in several symposia. My strongest memory is of one in Winnipeg, with Van Stone, Dave Damas, and me, sitting for what must have been hours, drinking Redeyes. We were bonding through a common admiration for the properties of alcohol. Later (and soberly) the three of us worked together on the *Arctic* volume of the *Handbook*.

Jim and his twin sister were orphaned and adopted at a very early age. When he was 9 or 10 Jim came down with polio and spent about a year in bed. At about this time, perhaps while this was going on, he decided to become an archaeologist. And he did, but an archaeologist in his own way, and with a difference. Because of the polio, he was supposed to wear a brace for his back, but he almost never wore it, and as he got older I think he rather paid for it.

He was sensitive to people, *all* people. For a couple of hours one day I watched him while he played, full of sympathy, with a little kid who was what we would have to call "intellectually disadvantaged." He was also consistently sympathetic to his Native contacts, addressing them as "Mr. So-and-So" or "Mrs. So-and-So" in a formal way that conveyed respect, and in response they respected him, and they became friends. The same interest led Jim to focus much of his ethnographic work not on "memory culture," but on Native problems in coping with the larger society. This is the major thrust of his Point Hope monograph, and represents the concluding sections in both his historic ethnography of the Nushagak region and his synthesizing *Athapaskan Adaptations*.

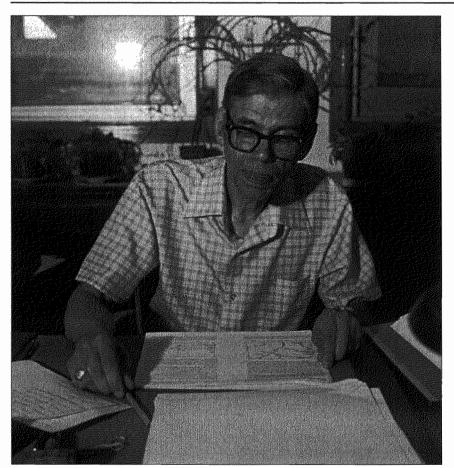
In his own career, he was decisive. In 1958, when he found the situation at UAF not to his liking, he resigned, although he had to spend a year without a job. In 1966 he and six other junior faculty members resigned from the University of Toronto, again when the local situation seemed intolerable, although this time he went to work immediately for the Field Museum. And when it became clear to him that he had developed a drinking problem, more than 15 years later, he quit cold turkey, joined Alcoholics Anonymous, and turned himself into an unwavering teetotaler.

Nevertheless, he was in many practical ways inept. With all of his living alone, he apparently never learned even the rudiments of cooking. He was unable to change a faucet washer in his house. Some of this rubbed off onto his field experiences: In 1965 he and two assistants went into the field for two months at the former Tikchik village in the upper Nushagak drainage. Two weeks before the time came for the airplane to take them back to Nushagak, they ran out of the food Jim had bought. For those two weeks they lived on nothing but pancake flour mixed with water and fried. I remember one aaa meeting in March, probably in the 1970s, when Iim showed up in Anchorage after having made an invited visit to a village somewhere to the north; I forget where. He was wearing a two-piece brown suit and his Chicago overcoat and carrying a briefcase - his entire traveling outfit. He said he had to ride several miles from the airport into the village in the back of a pickup and had been afraid he might freeze. "I forgot how cold it gets here," he said.

But he was also in many ways well organized and systematic. His Nushagak project is possibly the best example: begun with a synthesis of Contact-period history and more recent ethnography, then an annotated regional bibliography, three site monographs, and an overall settlement pattern study — a book and five museum monographs, all published between 1967 and 1972. These display his difference from many archaeologists: his attention to history, to interviews, to ethnographic synthesis. With these interests in combination, small wonder he turned especially to the nineteenth century.

Jim and I worked together in the field only for a single season in 1985, at the historic-period Paugvik site at the mouth of the Naknek River. Turned out he was diffident about his excavation methods. "After all," he said, "I learned my field techniques from Louie Giddings!" And he told about going to Cape Denbigh with Giddings in 1950, and one day finding Giddings prone, with only his feet sticking out of a hole he had tunneled completely under a

ATTA SELECTION OF A MARCHARLA



Jim Van Stone. Photo courtesy of the Field Museum, Department of Anthropology.

midden to follow what he thought was the Denbigh Flint Complex deposit. Later, Jim worked with Wendell Oswalt, who had also dug with Giddings. When we offered Jim a trowel and a brush at Paugvik; he took the trowel, but balked for a while at the brush. Finally, "Don't ever let Oswalt know I used a brush! I'd never hear the end of it!" He and Oswalt, he said, had decided they would like to dig a whole site sometime with only shovels. But, Jim said, "You've got to be quick to catch the artifacts on the fly! There goes one!" We laughed, of course, while he laughed at himself.

In both ethnography and archaeology his real focus was on the concrete. He had to have collections, he said, or he wouldn't have anything to write about. And collections he described efficiently and often profoundly, although a social anthropologist who had worked with him warned me that "he is very, very fast, but you have to watch him; he makes mistakes." And that was true. He moved so fast he sometimes needed a personal proofreader to follow him and keep him out of trouble. But in addition to his work in Alaska, the number of collections he wrote up for the Field Museum is truly prodigious.

Was he only descriptive? Not at all. His various collection monographs are larded with related historical research, some of it in depth. In one of the earliest he was among the very first of any archaeologists to produce a documented argument that the Central Eskimo were descended from their Thule predecessors, rather than from some later migration. Collections were simply part of his focus on the concrete. His eye was on the ball, and because he was an avid fan of his favorite baseball team that image is absolutely appropriate.

In mid-March there was a memorial for Jim at the Field Museum, held in the huge Hall of Northwest Coast and Arctic Peoples that he had organized, and that remains as a really superb monument to him. Two hundred people were there.

When I was a kid I was taken by an epitaph in some boot hill cemetery that I read about. It said, "Bill Smith was a liar." I thought

that was neat and succinct and probably said all there was to say about Bill Smith. Jim was cremated and his ashes were scattered, so there is not any obvious place to hang an epitaph for him. But if there is some great archaeologist's boot hill cemetery in the sky, I have the perfect epitaph:

"Jim Van Stone kept his eye on the ball."

Don E. Dumond Department of Anthropology 1218 University of Oregon Eugene, Oregon 97403-1218

MARKERS OF IDENTITY: LABRETS AND SOCIAL ORGANIZATION IN THE KODIAK ARCHIPELAGO

Amy F. Steffian and Patrick G. Saltonstall

Abstract: Labrets were a common item of personal adornment among the complexly organized hunting and gathering societies of the Gulf of Alaska. Based on ethnographic analogies, archaeologists commonly interpret their occurrence in prehistoric contexts as evidence of ranking. This paper presents a stylistic analysis of prehistoric labrets from the Kachemak and Koniag traditions of the Kodiak Archipelago, Alaska, and examines spatial patterning in the distribution of labret types. We argue that labrets carried information on the wearer's social identity, signaled affiliation with a corporate group - not just individual status, and relayed different social messages at different levels of organizational complexity.

Key Words: Labrets, Style, Status

INTRODUCTION

At historic contact coastal regions of the northeastern Pacific were inhabited by a diverse group of complex hunting and gathering societies. Aleut, Eskimo, and Indian peoples organized around the exploitation of marine resources, the accumulation of surplus, and hereditary ranking occupied coastal habitats from southern British Columbia to the Aleutian Islands. For archaeologists this diversity of hunting and gathering adaptations offers an excellent opportunity to study the emergence of ranking. Ethnographic data document the material correlates of status and well-preserved sites provide the means of identifying these indicators in the archaeological record. Evidence of personal adornment is one such indicator. Throughout the region, increases in population density, subsistence intensification, and inter-regional interaction are accompanied by a proliferation in the production of beads, bracelets, combs, earrings, nose pins, pendants, rings, and labrets (Ames 1985; Jordan and Knecht 1988; Moss 1998; McCartney 1984), items of personal adornment that reflect increasing social differentiation.

Recently, archaeologists have cited evidence of labret use in sites from the Northwest Coast as an indication of ranking (Cybulski 1992:67; Fladmark 1986:61; Keddie 1989:7; Matson 1989). Carlson (1994:346-347) writes, "the earliest hard evidence of both wealth and differential rank is the presence of the labret - an ornamental lip plug worn through a perforation in the lower lip or cheek which serves to visually differentiate individuals." While labret use is clearly associated with displays of individual status in ethnographic literature (Emmons 1991; Gritton 1988; Jonaitis 1988; Niblack 1970:256), this association cannot be automatically extended to all prehistoric contexts. Throughout western Alaska labrets were worn by individuals in societies without ascribed status (Murdoch 1988; Nelson 1899) and labret use appears to predate social and economic changes that accompany the development of organizational complexity in at least several regions of the Alaskan

Gulf coast (Ames 1994:222). Even among ranked societies, labrets were worn by low rank individuals (Moss 1996). As such, the use of labrets requires a broader explanation.

This paper proposes a model for labret use based on the communication theory of style (Wiessner 1983; Wobst 1977), and explores this model with archaeological data from the Late Kachemak and Koniag traditions of the Kodiak Archipelago, Alaska. We argue that as highly visible items of personal adornment labrets carried a social message (cf. Ames 1994:222; Keddie 1989:3; Moss 1996:83). We believe this message was designed to identify affiliation with a corporate group, as well as personal identity, and that such messages changed as the structure of corporate groups was transformed by the development of organizational complexity. We argue that the use of labrets evolved as a means of identifying members of economically-competing social groups during a period of population growth and increasing social circumscription. We believe that early labret types will reflect horizontal social distinctions, family and regional affiliations, and perhaps some level of achieved status. In contrast, we believe that among later ranked societies, labret types will signal vertical social distinctions, hierarchical relationships, in addition to horizontal affiliations. In sum, we argue that the use of labrets is part of the continuum of behaviors associated with the increasing differentiation of group identity and social space that accompany the development of organizational complexity and not simply an indicator of hereditary ranking.

STYLE AS COMMUNICATION

Anthropologists have long been interested in the ways that material culture expresses relatedness. How do objects reflect the social affiliations of their makers? A central assumption of many stylistic analyses is that proximity breeds similarity. Archaeologists commonly argue that artifact styles will be shared among closely



interacting social groups. Under this paradigm, style is learned behavior that can provide a measure of acculturation, but has no express function of its own (cf. Conkey and Hastorf 1990:2; McCartney 1988:37; Wobst 1977:318). A growing number of studies on the spatial distribution of artifact styles suggest that this is not always true (Conkey and Hastorf 1990; Hantmann and Plog 1982; Hodder 1979; Sampson 1988; Sinopoli 1991; Wiessner 1983; Wobst 1977). Where social units recognize themselves as distinct within a larger network, style often functions to differentiate these individual units (Sinopoli 1991:63). Ethnicity, regional affiliation, family ties, gender, age grade, ownership, rank, and religious beliefs are some of the social categories that are stylistically symbolized (Hodder 1979:450; Wobst 1977:323). As such, variation in stylistic attributes can transmit information on group membership and individual identity (Wiessner 1983:256), and social proximity may result in distinctive stylistic differences between closely related human groups (Sinopoli 1991:73).

More specifically, this communication theory of style argues that decorative attributes can purposefully transmit information on social identity to a target population (Wiessner 1983:257). Under this paradigm, a shared style integrates cooperating members of a social group and differentiates them from other groups (Wobst 1977:327). This type of signaling occurs in situations where social distinctions are important. The spatial and temporal distribution of stylistic attributes tends to be homogeneous when population size and density are low and when regional movement is unhindered (Hantmann and Plog 1982:240). Conversely, discrete distributions of stylistic attributes tend to be associated with economically competing groups that have well-developed social networks (Hodder 1979:450; Wiessner 1983:258). Here, the greatest differences in style are across boundaries where the most economic competition occurs. Consequently, stylistic signals help to establish social or territorial boundaries, maintain group cohesion, and enhance the predictability of interaction. Following Wobst (1977:327), "stylistic messages of identification, ownership, and authorship link efficiently those members of a community who are not in constant verbal contact and who have little opportunity to observe each others' behavior."

This theory also predicts that changes in social order will be reflected in stylistic symbols (Hodder 1979:498). Style is seen as a dynamic phenomenon that supports other cultural processes (Wobst 1977:335). When social messages are stable changes in stylistic attributes are expected to be slow. However, culture change can lead to rapid transformation in the meaning of social messages and, therefore, the character of stylistic attributes (Hantmann and Plog 1982:239-240; Wiessner 1983:257). For example, as the size and complexity of human groups increase, expanded interaction between socially distinct groups requires more stylistic signaling (Wobst 1977:326). Moreover, stylistic symbols tend to reinforce class distinctions among ranked societies and regional economic units among more simply organized groups (Hodder 1979:448-449).

Clearly, information exchange cannot explain the distribution of all stylistic attributes (Hegmon 1992:521; Sackett 1985). There are many other derivations of style. Wiessner (1983), for example, distinguishes between group style (*Emblemic*) and individual style (*Assertive*), observing that personality, creativity, and self-image are all possible components of expression. Style is also learned behavior. Individuals in every culture are socialized with a mental image of how specific objects should look (Earle 1990:73). Despite many potential sources of style, however, anthropologists consistently find strong associations between material culture and culturally recognized social units among groups who maintain distinctive social identities (Hegmon 1992:527).

Any item of material culture has the potential for information exchange (Wobst 1977:322), although some items communicate more effectively than others. First, objects that display social affiliation must be broadly recognized - part of the shared symbolic repertoire of interacting groups (Sinopoli 1991:64). This is necessary for messages to be both recognized and decoded. Second, although the classes of artifacts that carry information vary with cultural and historic context, objects that are highly visible and durable are most likely to encode social affiliation. Objects used in high densities and in multiple contexts, particularly public settings, have more opportunities to broadcast a message. Similarly, objects with longer life-spans have a greater chance of conveying social information. Consequently, clothing, head dresses, and jewelry, and permanent manipulation of the human body like head flattening and tattooing, accommodate communicative style particularly well (Hegmon 1992:528; Wiessner 1983:260; Wobst 1977:323). We believe that the highly visible practice of wearing labrets also falls into this category.

LABRETS AS SOCIAL SIGNALS

Labrets are decorative plugs worn through purposefully pierced holes in the face. This conspicuous form of personal decoration requires permanent bodily modification and often causes substantial tooth wear (Cybulski 1992:69). Labret use was once widespread among the coastal societies of the North Pacific and Bering Sea (Keddie 1981, 1989). From Northern Japan to Puget Sound and from Bristol Bay to the McKenzie River Delta, ethnographically and archaeologically-known hunter-gatherers wore labrets of wood, bone, and stone. Throughout the region, plugs were inserted below the lower lip (medially) or at the corners of the mouth (laterally) at either birth or puberty. The initial incision was usually quite small and fit with a slender object to prevent closure (Lantis 1959:32; Murdoch 1988:144; Nelson 1899:48; Niblack 1970:256). Over an individual's life, however, labret holes were periodically stretched to accommodate larger ornaments. Across the North Pacific, the size, shape, material type, and decoration of labrets varied greatly with cultural context, as did social customs surroundings their use (e.g., occasions associated with labret enlargement, gender of the wearer, placement, number worn; Keddie 1981). Historic accounts describe a wide variety of labret shapes and decorative motifs. Inlays, incised designs, and attachments were common additions to basic forms (Dall 1884; Emmons 1991; Gritton 1988).

This general description illustrates that labrets were well suited for stylistic signaling. Throughout coastal Alaskan societies many members of society commonly wore them. Labrets were both present in high densities and part of a widely recognized system of personal decoration. Moreover, they were worn in a highly visible fashion and capable of great stylistic variation. Labrets have another important quality. Many are made of durable materials that are preserved in archaeological sites. As many of the utilitarian artifacts recovered by archaeologists are not likely to carry information on social affiliation (Wobst 1977:337), the spatial distribution of labret types offers a good opportunity to study the structure of past social systems (Suttles 1990:13-14).

The variety of Alaskan labret-wearing practices is well summarized in the anthropological literature (Dall 1884; Fortuine 1985; Gritton 1988; Keddie 1981, 1989). There is less information on the social significance of this conspicuous form of personal adornment (but see Jonaitis 1988; Moss 1996, 1999). In part, this situation reflects the rapid abandonment of labrets during the Historic period (Keddie 1981:59). Explorers, merchants, and missionaries were unanimously horrified by a practice they believed caused facial disfigurement (Dall 1884:82, 87; Davydov 1977:148; Emmons 1991:245-246; Holmberg 1985:38; de Laguna 1956:205). Under Western pressure, and in the face of rapidly changing social circumstances, the use of labrets disappeared within three generations of contact throughout Alaska (Gritton 1988:181). As such, few anthropologists had the opportunity to observe the practice in its fullest form.

The complete social context of labret use has also been overshadowed by an emphasis on the relationships between personal ornamentation and prestige. In Alaska, the most extensive ethnographic data on labret use come from descriptions of Tlingit culture, noted for its high degree of social stratification. Tlingit labret use, where conspicuous ornamentation is associated with displays of privileged status, has become the assumed pattern for other areas and times (Carlson 1994:346-347; Cybulski 1992:67; Fladmark 1986:61; Keddie 1989:7; Matson 1989). Although we fully recognize the role of personal ornamentation in the maintenance and perpetuation of elite classes (Donta 1994:124; Earle 1990:81; Hodder 1979:448-449), we believe such displays are part of a broader pattern of social identification and differentiation among the densely populated, highly mobile societies of coastal Alaska. Even among the Tlingit, labrets had a larger social context (cf. Jonaitis 1988; Kan 1989; Moss 1996; Suttles 1990:13). Ethnographic data illustrate some of the additional functions of personal adornment in Alaska and suggest that affiliation with a corporate group and personal identity were at least two classes of information symbolized by the stylistic attributes of labrets.

Stylistic symbolism is present in many items of Alaska Native material culture. According to Fitzhugh and Kaplan (1982:144-146), the Yup'ik Eskimo could identify an individual's regional affiliation through a broad array of stylistic details, including parka motifs, boat designs, and other variable forms of personal adornment. This observation is supported by Himmelheber's (1993) analysis of Yup'ik art. Among the Yup'ik, illustration and decoration are primarily a form of language and less an aesthetic act (1993:16). Pictures and motifs are always used to tell stories, particularly the well-known pursuits of ancestors. Commonly, a specific motif becomes the hallmark of an ancestor story, and thus associated with a particular extended family. "You must know that every picture has a meaning...we never paint something told to us by a stranger, but only what happened in our own family" (Yup'ik artist in Himmelheber 1993:23). Because ancestor stories are widely shared and story motifs are employed in parka, jewelry, labret, tattoo, and hair styles, a person's family of origin, and thus regional affiliation, can be easily deciphered from highly visible stylistic attributes of dress and decoration (Himmelheber 1993:13).

The ability of people in other villages and regions to decode such messages is illustrated by the fact that motifs were simplified and used as ownership marks on hunting gear. These marks were specifically designed to identify the rightful owner of a wounded animal that escaped capture and was discovered at another time and place (Himmelheber 1993:23-24). This association between style, personal ancestry, and resource use is particularly powerful. In essence, ownership marks, and the motifs they are derived from, symbolized a tie to traditionally used resources and foraging areas. Such ties were critical in a region where extreme environmental variation was the norm and settlement mobility was a principal strategy for managing economic shortfall (Fienup-Riordan 1984:68).

Among the Yup'ik, villages were united into regional confederations, social and political units that formed the basic exchange, marriage, and ceremonial universe (Fienup-Riordan 1984:71). Mobility within these confederations was frequent and served, among other things, to redistribute people in relationship to resources. Mobility between confederations, however, was risky. Although exchange and inter-marriage were important mechanisms for buffering environmental variation among economically distinct confederations, such practices were considered dangerous, and warfare between confederations was frequent (Fienup-Riordan 1984). This is exactly the type of context where Wiessner (1983:256) and Hodder (1979:446) predict stylistic signaling of social units will occur.

The cognitive significance of these regional social units is symbolized in Yup'ik naming practices. Census data from the 1800s illustrates that "... personal names were regularly shared on an inter-regional level, while rarely beyond it" (Fienup-Riordan 1984:71). Although it is not expressly stated in ethnographic descriptions, it appears that highly visible stylistic attributes of Yup'ik



material culture had a similar cognitive function. As motifs displayed in clothing, personal adornment, and items of technology tied families to both harvesting areas and regional confederations, they produced group cohesion and signaled regional social differentiation in the face of economic competition.

Similar connections between material culture and regional affiliation are apparent in descriptions of Aleut culture, although there is the added dimension of rank. At historic contact the Aleut were divided into a number of autonomous societies (Townsend 1983:121). Several interacting villages that formed a single regional polity inhabited each island, or island cluster. Population densities in these polities were high and opportunities to establish new settlements limited. As such, villages and families maintained rights to local resources that they protected against usurpation. Access to resources was also influenced by social rank. Aleut societies were divided into three distinct social classes: elite, commoner, and slave. Although elite positions were inherited, the privileged maintained their status by accumulating wealth. Trade, warfare, and slavery were the principal means of both acquiring goods and displaying position (Townsend 1983:122). The elite had exclusive access to certain raw materials, and were the only individuals who could own slaves or initiate a raid.

Highly visible items of Aleut material culture seem to have illustrated both affiliations with particular polities, as well as individual status. McCartney (1984:135) notes, "by inspecting collections from one island group to the next, one gets a distinct impression that each group has artifact styles not found elsewhere but also styles shared with adjacent groups." Among the western Aleut, tattoos, labrets, jewelry, and raw materials used in parka production were diagnostic of particular regions. Members of different societies could be distinguished by the combination of adornment techniques they employed (e.g., labrets and necklaces vs. tattoos and nose pins) and by the particular animal skins in their parkas (Black 1984:59-60). Although there is no established typology, labret shapes also varied distinctly by locality (Black 1982:106). Similar patterning was present in the stylistic attributes of bentwood hunting hats. Black (1991:12) notes that hat shapes, ornament types, and decorative motifs had recognizable regional provenience. The context of hat wear also suggests a signal of social affiliation. Hats were worn for traveling, visiting, entertaining, waging war, as well as hunting (Black 1991:21); public circumstances where individuals from other regions might be encountered. Like the Yup'ik, it appears that the Aleut were signaling affiliation with regional social units in the face of social circumscription and competition for control of economic goods.

Importantly, hat decoration, personal adornment, and parka materials also encoded information on social status. Highly decorated hats were "badges of prestige and rank" worn only by the wealthy (Black 1991:17), and parkas made of certain bird skins denoted status (Black 1984:59). Similarly, high rank individuals wore more elaborate items of personal adornment. Each of these

categories of material culture transmitted at least two distinct social messages simultaneously, the regional affiliation of the wearer and his or her social status.

Although the Yup'ik and Aleut examples illustrate a tie between material culture and displays of personal and regional social identity, how does the use of labret represent this tie? Suttles (1990:13-14) suggests that among the societies of the Northwest Coast, permanent modifications of the human body were used to signify participation in regional social networks. He argues that the widespread practices of head flattening, tattooing, and labret use helped to identify individuals who belonged to one of four broad regional groups and participated in a common system of inter-marriage. Kan (1989:60) aptly describes these modifications as "... transforming the 'natural' skin into a 'social' one."

Historical accounts of Tlingit labret use also illustrate this tie. When the French met Tlingit women in Lituya Bay in 1786, they implored the women to remove their labrets. The women, however, were reluctant, embarrassed to do so in the presence of strangers (La Pérouse in Dall 1884:88). Here again, labrets seem to be functioning as a symbol of social identity, one that facilitates interaction in circumstances where people do not know each other. Emmons' (1991:245) observation that the Tlingit never removed labrets in front of strangers and that slaves (people without social identity) were not allowed to wear labrets supports this interpretation.

Edward Nelson (1899:50), who lived with the Yup'ik in the 1870s wrote that when traveling "...labrets were removed and carried in a small bag until we approached a village at night, when they were taken out and replaced, that the wearer might present a proper appearance before the people." Again, this observation suggests a symbolic association between labrets, social identity, and inter-regional interaction. This association is also suggested by the adoption of labrets among Athapaskan individuals who traded with the Tlingit and the Yup'ik (Keddie 1989:17; Osgood 1940). Keddie argues that labret use linked Athapaskan individuals to particular coastal societies strengthening alliances. When the Stikine Tlingit encountered Tahltan women wearing labrets they knew they were related (Emmons in Keddie 1989:17).

There are many more examples of the connections between material culture and social affiliation in Alaska. This short summary illustrates that dress, body modification, adornment, and even technology can encode information on a person's family and regional affiliation, information that can be read by other people participating in the same social network. Moreover, although the choice of items that carry such information is culturally and historically bound, labrets repeatedly appear to carry social messages.

Individual identity is another category of social information encoded in labret use. Identity, however, is not limited to ascribed



rank. Ethnographic information on Native Alaskans suggests that personal ornamentation encoded information on individual achievement and passage through certain life events, as well as inherited social position. Historic accounts of labret use in the Gulf of Alaska commonly note a correlation between labret types and both age and ascribed rank (Dall 1884:87-89; Emmons 1991:245-246; Niblack 1970:256; Jacobsen 1977:11). The Tlingit, Haida, Tsimshian, and Bella Bella associated the use of labrets with a woman's passage into adulthood (Jacobsen 1977:11; Jonaitis 1988:191). Among the Tlingit the initial incision was usually made at menarche and a young woman fitted with a small plug or wire. After marriage a woman received a larger, oval, wooden plug. All middle-aged and low rank women wore these intermediate size labrets. The largest plugs, and those decorated with exotic raw materials, were reserved for older, highly ranked women (Emmons 1991:245). For the Tlingit, therefore, the stylistic attributes of labrets encoded at least three distinct features of a woman's social identity, her marriageability, age, and rank (Jonaitis 1988:193).

The association between puberty, adult status, and labret use was also common among the less complexly organized coastal societies of Alaska. Among the Iñupiat, labrets were worn exclusively by men. A young man received his labret holes at puberty, after killing his first large game. The piercing ritual signaled attainment of adult status and sexual maturity (Simpson in Keddie 1981:71). After the initial piercing, labret holes were gradually enlarged, although these episodes were not associated with specific life events (Murdoch 1988:144). The value of labrets to the Iñupiat is symbolized by the fact that Murdoch (1988:145) was unable to purchase any. The Iñupiat sold him rough replicas, but they would not part with their personal ornaments. This circumstance, and the fact that ancient labrets were often carried as amulets (Murdoch 1988:147), suggests strong ties between labrets and individual identity.

Ethnographic data from coastal Alaska suggests that dress and personal adornment were widely used to signal social identity. Messages were encoded in the stylistic attributes of a variety of highly visible objects, including labrets. These attributes simultaneously transmitted information on at least two dimensions of identity: (1) group affiliation - regional ties, family, ancestry; and (2) personal identity: gender, age, passage through life events, personal achievement, and rank. Items of adornment were not solely markers of ascribed rank as some archaeologists have assumed, but reflected the range of social relationships in specific cultural and historical contexts. Importantly, multiple items displayed these social messages. Following Wobst (1977), redundancy insures message transmission. Repeatedly broadcast messages are more likely to be received. As such, labrets were one part of a system of stylistic signaling. Customs surrounding labret use and the combination of labrets with other symbolically important items also indicated social identity. Alone, therefore, the distribution of labret types is an incomplete account of the social messages transmitted by a population. For archaeologists, however, spatial patterning in labret types in combination with other evidence, patterns of subsistence or raw material use, can help to define the structure of past social systems (Earle and Ericson 1977:11).

Labret use and social evolution in the Gulf of Alaska

The earliest evidence of labret use on the Pacific coast comes from Pender Canal, a coastal site in British Columbia more than 5000 years old (Cybulski 1992:70-71). Despite this early occurrence, more widespread use of labrets does not occur in other areas of the Alaskan Gulf until after about 1500 BC (Ames 1985:169, 1994:221; Clark 1984:139; Fladmark 1986:61; Keddie 1981; MacDonald and Inglis 1980:45; McCartney 1984:134; Moss 1998:101). Although the course of cultural development is imperfectly known along this vast arc of the North American continent, labret use accompanies a remarkably similar set of developments in all regions: increases in population density; subsistence intensification; and the elaboration of material culture.

Archaeologists note an increase in the number, density, and size of prehistoric sites, as well as greater accumulations of midden, large villages, and larger houses after 3500 BC. These changes are interpreted as evidence of substantial population growth (Ames 1985:167; Jordan and Knecht 1988:231; McCartney 1984:134; MacDonald and Inglis 1980). Several important technological innovations accompany this growth. Coastal foragers begin to use mass capture techniques and to widely manufacture ground stone tools. Stone tidal traps, wooden stake fish weirs, net sinkers, and drying racks indicate an increased reliance on seasonally abundant resources like salmon and herring. More importantly, they imply the use of storage and the careful organization of labor (Ames 1985:172; Moss 1998:103). Similarly, archaeologists interpret the variety of easily-resharpened ground stone cutting tools as evidence for processing large quantities of food (Ames 1985:172). Together, these developments point toward subsistence intensification areawide efforts to increase food production.

A dramatic elaboration of material culture accompanies subsistence intensification. The number and diversity of artifact styles increases enormously, reflecting in part, more intensive use of new habitats and resources (Ames 1994:218; Erlandson et al. 1992:53). Additionally, artwork and items of personal adornment appear in greater quantities, and utilitarian items are embellished with decorative motifs (Ames 1985:169; Hausler 1992:22). Labrets are part of this elaboration.

We believe that each of these developments reflects a broad pattern of increasing resource competition. Throughout the region, population growth and subsistence intensification seem to have



promoted the emergence of logistical foraging strategies aimed at harvesting productive yet variable resources in the face of social circumscription (cf. Ames 1985). Earle (1990:74-75) notes that such circumstances often lead to the development of well-defined corporate groups that control access to resources. This control is justified through ceremonial identification with traditionally used foraging areas and resources (e.g., veneration of the dead) and illustrated by regional stylistic variation in display items (Earle 1990:81).

Within this context, we suggest that personal adornment flourished out of the need to signal group membership and illustrate social boundaries. We believe that the early distribution of labret types may reflect the distribution of regional economic units. In contrast, we expect that as more complex forms of social organization developed, labret types will encode the added dimension of rank. These patterns are explored further with archaeological data from the Kodiak Archipelago.

Labrets in the Kodiak Archipelago

The Kodiak Archipelago lies in the central Gulf of Alaska (Figure 1), the northern-most region of the Pacific Ocean. This rugged, mountainous cluster of islands is characterized by a cool, stormy, maritime climate and a diverse array of biological resources. Marine resources, including anadromous fish, sea mammals, shellfish, and birds, were the foundation of prehistoric subsistence and remain the driving force of the modern economy. The Archipelago is the traditional homeland of the Koniag, one of three regional groups of Alutiiq people (pl. Alutiit). Although the origins of the Alutiit continue to be debated (Clark 1992; Dumond 1998; Dumond and Scott 1991; Fitzhugh 1996; Jordan and Knecht 1988; Knecht 1995), maritime foragers have inhabited the archipelago for at least 7500 years (Fitzhugh 1995b).

The culture history of the Archipelago is divided into three traditions, Ocean Bay (5500 BC to 1800 BC), Kachemak (1800 BC to AD 1200), and Koniag (AD 1200 to historic contact). Although there is no evidence of labret use among the people of the Ocean Bay tradition (Hausler 1992), labrets are common in archaeological deposits from the subsequent Kachemak and Koniag traditions (Clark 1984:139; Knecht 1995; Steffian 1992a). Labrets first appear in the early Kachemak. Unfortunately, only a hand full of assemblages have been dated to the period of roughly 1800 BC to 200 BC and little is known about social and economic organization. In contrast, there are many assemblages from Late Kachemak, which document the cultural context of labret use.

Late Kachemak labrets

At roughly 200 BC coastal villages with dense accumulations of shell midden, clusters of single-roomed semi-subterranean houses, and a diverse array of artifacts appear in great numbers

(Clark 1997:3; Jordan and Knecht 1988:231). This evidence of population growth is accompanied by materials documenting subsistence intensification and resource competition. Archaeological data illustrate increases in diet breadth (Lobdell 1980; Yesner 1992), the use of mass capture technologies and storage (Jordan 1988:8; Steffian 1992b), more intensive use of a greater variety of habitats (Erlandson et al. 1992:53; Fitzhugh 1995a; Jordan and Knecht 1988:236; Reger 1977:48; Workman 1980:84), and possibly over-exploitation of particular resources and ecological areas (Lobdell 1980; Yesner 1992:177).

In turn, subsistence intensification is associated with increases in territorial behavior and inter-regional interaction. Kachemak winter settlements were centrally located in areas suited for both resource exploitation and control. Here, the dead were carefully buried around communities, some of them in repeatedly used crypts, suggesting multi-generational ties to particular settlements and harvesting areas (Simon and Steffian 1994:96-97; Workman 1992:20). And hunting lances were commonly decorated with makers' marks to tie individual hunters to their kills (Clark 1970:97). Additionally, increasing social violence seems to be represented in the purposeful dismemberment of human remains (Simon and Steffian 1994:96-97; but see Workman 1992:21-22 for a broader interpretation) and the development of refuge sites (Fitzhugh 1996: 332, 371). This increasing control of space is coupled with evidence of greater social interaction. Regional mobility and exchange are evident in the widespread distribution of non-local raw materials. On Kodiak, utilitarian tools, items of personal adornment, and artwork were commonly made from antler, ivory, high-grade coal, and other materials not available in the Archipelago. Clearly, ties to other regions and ecological areas, particularly the Alaskan mainland, were significant to Kodiak's Late Kachemak economies (Steffian 1992a).

We believe that these increases in territoriality and interregional exchange were accompanied by stylistic signals of social space. Specifically, we propose that labret types carried information on group affiliation (emblemic style, cf. Wiessner 1983:257). From Kachemak mortuary data we know that both men and women wore labrets, often in lateral pairs (de Laguna 1975:110; Simon and Steffian 1994:87). Moreover, there are many types of Kachemak labrets. In analyzing several small collections, Clark (1974b:131) found so much variation that he could not identify spatial and temporal patterns. Thus, labrets occurred in high densities and were capable of great stylistically variation, two prerequisites for carrying stylistic messages.

Although labret types could signal many potential social divisions, the economic importance of exchange in the face of social circumscription suggests that social networks were important in moving resources to people. This is exactly the circumstance where social signals would be useful - when frequent travel and social interaction resulted in encounters with poorly known people at a time of increasing territorial control.



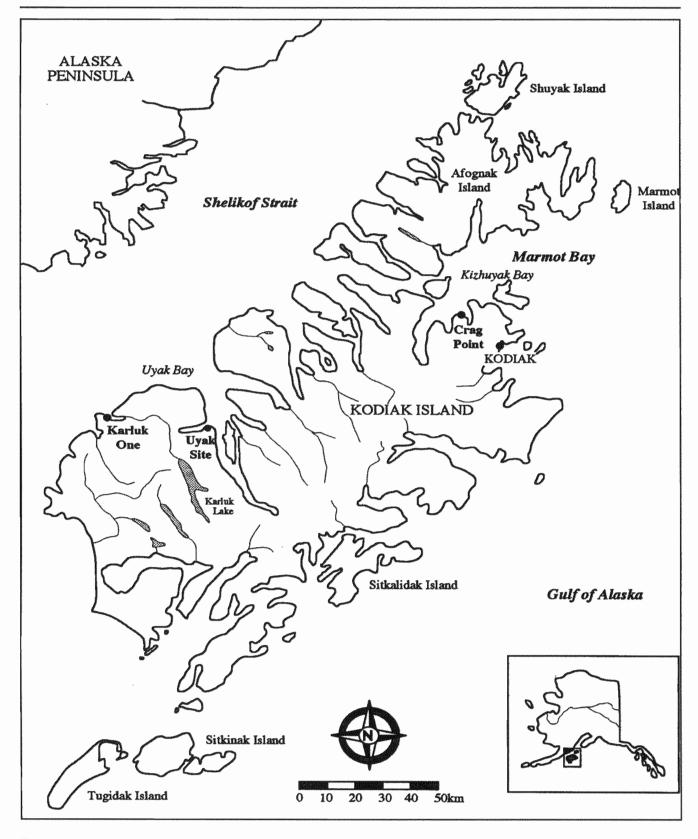


Figure 1: The Kodiak Archipelago with archaeological sites included in the study.



We predict that the spatial distribution of labret types will reflect membership in corporate groups that maintained control of particular harvesting areas and participated in long distance exchange networks. Haas and Creamer (1993:21-22) note that the formation of corporate groups among tribal societies is often marked by the presence of discrete sets of stylistic types in highly visible items of material culture (e.g., ceramics, ceremonial architecture). Each type represents a distinct social group, and thus, the total number of types reflects the number of groups. Following this prediction, we believe that sets of labret types should cluster within the Late Kachemak culture area, occurring repeatedly in within a social and economic region (cf. Haas and Creamer 1993:22). However, as Alaskan Gulf coast foragers were highly mobile and as social and economic ties beyond regional networks were probably important, it is likely that a small number of types will occur in adjacent regions. Thus, we do not expect type groups to be mutually exclusive, but simply to show significant spatial clustering.

Koniag labrets

After roughly AD 1200 ethnographically documented patterns of Alutiiq culture become archaeologically visible. The population of Kodiak continues to increase and there is a dramatic change in the structure and organization of villages. Clustered villages with single-roomed houses become larger linear villages with multiroomed structures reflecting the consolidation of households into extended family groupings (Jordan and Knecht 1988). Variation in structure size and construction is enormous, and villages are often laid out with the largest structures in the center (Donta 1992:12). Changes in village organization are accompanied by regional economic specialization on resources including salmon (Knecht 1995:726) and whales (Fitzhugh 1996:378). Continued participation in far-ranging exchange networks, the adoption of gambling, and artistic and ceremonial elaboration are particularly evident (Knecht 1995; Saltonstall 1997:26). Together, these data are interpreted as evidence of increased organizational complexity, the development of ethnographically recorded ranked societies (cf. Birket Smith 1953:93; Davydov 1977:190; Desson 1995:76,158; Gideon 1989:40, 42; Holmberg 1985:36) in which positions of power were maintained through the accumulation of wealth and lavish ceremonial displays (Donta 1994:123; Fitzhugh 1996; Jordan 1994:15; Knecht 1995)

Unfortunately, the lack of multiple large assemblages of Koniag labrets makes it impossible to analyze the spatial distribution of labret types during this period. However, we predict that when other samples are collected, regional type groupings reflecting the presence of corporate groups will be present. Access to non-local materials must have remained important to Koniag foragers to meet economic needs and support status differentiation. Such interregional trade is well documented among the neighboring Aleut and Tlingit (Townsend 1980), as is regional variation in material

culture. On Kodiak, this regionalization is suggested by variation in clothing and personal adornment illustrated on incised pebbles from the early Koniag. Clothing styles common to the Monashka Bay site on northern Kodiak differ from those found at Karluk One (Donta 1993:345) on the southwestern end of the Island. Moreover, at Karluk One, the frequency of labrets covaries with the frequency of end blades (for war arrows) and exotic materials throughout the site's occupation. All of these artifacts are more frequent during the Little Ice Age, a period of environmental cooling and changing subsistence practices (Knecht 1995:733-734). This pattern suggests intense regional interaction and competition and a concomitant intensification of social signals.

Additionally, we predict that Koniag labret types will reflect social stratification. Hodder (1979:449) points out that among complexly organized societies the tension driving stylistic variations is vertical as economic competition occurs within communities. In these circumstances signals reinforce the corporateness of the ruling class. From ethnographic data we know that both Aluttiq men and women wore labrets, and that stylistic attributes encoded information on rank. Extremely large labrets were the fashion among elite men, elite women might wear as many as six plugs (Holmberg 1985:38), and both sexes decorated their labrets ornately (e.g., with strand of beads, Davydov 1977:148). Such displays were designed to illustrate power and wealth. This pattern is expected during the prehistoric Koniag tradition as well.

Although the labret data alone cannot confirm the presence of ranking, given the increases in ceremonial display characteristic on the Koniag tradition, we expect Koniag labrets to show a greater degree of individuality and ostentation (assertive style, cf. Wiessner 1983:256). Ultimately a combination of labret and mortuary data would allow us to explore social differentiation from a stronger, multi-dimensional perspective (cf. Moss 1996:82-83; Pebbles and Kus 1977). Unfortunately, data for this kind of analysis are not yet available. Consequently, we have chosen to compare variation in labret size, decoration, and material type between the Kachemak and Koniag traditions.

CASE STUDY: LABRETS IN THE KODIAK ARCHIPELAGO

The labret sample

Although archaeologists have long realized the potential for labrets types to display significant spatial and temporal patterning, labret samples from most sites have been small (Clark 1974b:131). Extensive excavations in the Kodiak Archipelago over the past fifteen years (Jordan and Knecht 1988; Knecht 1995; Saltonstall 1997; Steffian 1992b), however, have produced large labret assemblages appropriate for stylistic studies (Figure 2). Additionally, these assemblages include imagery of people wearing labrets (Donta



1993:245, 344-346; Knecht 1995:591-598), dolls carved with labrets (Jordan 1994:161,164-165; Knecht 1995:686), and labret hole stretchers (Knecht 1995:640-641); data which enrich the picture of prehistoric adornment practices.

The labrets included in this study come from three archaeological sites on Kodiak Island which date to the Late Kachemak and Koniag traditions; Crag Point (49-KOD-044), Karluk One (49-KAR-001), and Uyak (49-KOD-145) (Figure 1). Some of the specimens from Crag Point were collected by Donald Clark as part of the Aleut-Konyag project (Clark 1970). Those from Karluk One, Uyak, and an additional sample from Crag Point were collected by the KANA/Bryn Mawr College archaeological project over seven seasons of research (Jordan and Knecht 1988; Steffian 1992b). Information on the spatial and temporal distribution of labret types from other excavations was culled from published reports and the examination of labrets in the University of Alaska Museum, the Alutiiq Museum and Archaeological Repository, and the University of Wisconsin, Department of Anthropology.

Briefly, the samples from the Crag Point and Uyak sites date to the Late Kachemak tradition. Crag Point is a multi-component site located on north Kodiak Island. Here, Late Kachemak materials accrued over a period of as much as 1200 years through repeated occupation of a small settlement (Mills 1994:143; Steffian and Simon 1994:83). These deposits span the entire Late Kachemak period. In contrast, the Uyak assemblage reflects a shorter occupation of a larger village. Here cultural materials were deposited around the remains of more than sixteen structures inhabited for about 450 years (Mills 1994:143). The Uyak Site is

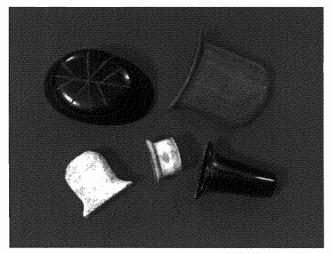


Figure 2: Labrets from the Kodiak Archipelago, illustrating variation in form, decoration, and raw material. Upper left, lower right: coal labrets from Late Kachemak tradition deposits, Uyak site, City of Larsen Bay Collection, Alutiiq Museum, (UA88-78-1144, UA88-78-2658). Upper right, lower left, center: wood, limestone, and ivory labrets from Koniag tradition deposits, Karluk One site, Koniag, Inc. Collection, Alutiiq Museum (AM193.87.9320, UA84.193.2868, UA85.193.6881). Photograph by Patrick Saltonstall.

located on southwestern Kodiak Island (Steffian 1992b). Preservation at both sites was similar. There was little wood, but shell, bone, and antler were well represented. One major difference in the labret assemblages at the two sites is that the Uyak site contains extensive evidence of labret manufacture (Steffian 1992a; see also McMahan 1996:8-9), an industry not documented at Crag Point. Our sample includes 40 labrets from Crag Point and 86 from Uyak.¹

Karluk One is the only site with a substantial assemblage of prehistoric Koniag labrets (Knecht 1995:621). The sample of labrets from this site includes 241 specimens made largely of wood and bark, and an additional 41 labret hole stretchers expediently carved from soft woods (Knecht 1995:640).2 The site assemblage also contained an assortment of wooden dolls (Jordan 1994:158; Knecht 1995:685), anthropomorphic carvings that illustrate patterns of labret use. The presence of this many wooden objects related to labret use reflects the site's remarkable organic preservation. These and other extraordinary artifacts accumulated over approximately 750 years, the remnants of a large permanent village at the mouth of the Karluk River (Jordan and Knecht 1988). Prehistoric deposits at the site date from roughly 1100 A.D. to historic contact and reflect the entire length of the Koniag tradition (Mills 1994). Tight chronological control of the assemblage makes it possible to study temporal trends in labret types during the Koniag tradition (Knecht 1995:634).

Determining labret types

A labret can be divided into two parts, flange and body (Keddie 1981:61). The flange, or slightly curved proximal end of the ornament, forms a broad collar that rests against the flesh of the inner mouth and abuts the teeth. This collar anchors the ornament, preventing it from slipping through the hole. The body, or distal portion of the labret, extends through the cheek forming the visible, decorative end of the plug. In some types, the body of the labret is separated from the flange by an encircling groove. In these labrets, both the broader body and flange keep the ornament in place.

² The sample of labrets from Karluk One has increased substantially in recent years. In 1994, the site began to erode dramatically as the adjacent Karluk River cut a new course. Many wooden artifacts from the deposits were salvaged from the beach by local residents and added to the site collection stored at the Alutiiq Museum. This included more than 140 additional labrets - many without provenience data. These pieces were not added to our analysis, although careful visual inspection illustrated that they replicate the patterns observed in the original study. This study includes all labrets collected from Karluk One by the end of the 1994 field season.



¹ During test excavations of the Uyak site in 1993, archaeologists from the Alaska Office of History and Archaeology uncovered four individual labrets and cache of 13 others (McMahan 1993:8-9, 11). As the site's stratigraphy is complicated, and as these labrets were not associated with dated strata, these 17 pieces were not included in our Uyak sample. Visual inspection of the labrets, however, illustrates that they are quite similar to others from the site. They are made of similar material [coal, ivory, and sea mammal bone] and replicate types in the larger assemblage. There are no new types represented in this additional collection. We also omit labrets from Hrdlicka's original excavation of the Uyak site. The collection from this excavation has very limited provenience data and Kachemak and Koniag labrets cannot be reliably segregated.

Kodiak foragers employed these basic forms in a variety of labrets. To document the range of labret shapes and sizes in our sample, we recorded eight metric measurements on each specimen in the sample.³ The measurements included total height (TH), height of body (HtB), length of body (LB), width of body (WB), length of flange (LF), width of flange (WF), diameter at narrowest point (DN), and height to diameter at narrowest point (HtDN) (Figure 3). Measurements were made on whole and fragmentary labrets and on nearly finished preform pieces (those where the final form was clearly evident). Additionally, we coded four nominal variables; raw material, flange type (grooved, stepped, flared), decoration type, and a visual classification of overall shape. Any modification to the original labret form, an inlay, carving or incised design, was considered decoration.

Once gathered, measurements of continuous variables were subjected to cluster analysis. This analysis was aimed at testing our visual classification and identifying any previously unrecognized forms. In the second stage of analysis we cross-tabulated the resulting

forms with information on flange type and decorative motifs to identify labret types. For the Kachemak samples, we then compared the numerical distribution of each type by site. This was not possible for the Koniag sample as it is from a single site. However, the Koniag sample was subdivided into three chronological periods, early (house floors seven and below), middle (house floors four through six), and late (house floor one through three) to investigate temporal patterning (adapted from Donta 1993; Knecht 1995).

It should be noted that our analysis was designed only to investigate broad spatial and temporal patterning in labrets. It is not intended as a comprehensive summary of labret types. Although our large sample appears to document a majority of the known types, there are clearly others present in other assemblages (e.g., whale tale and claw / beak forms from the Kiavak site, Clark 1974:271). As these labrets are from much smaller site samples, and as they were not readily available for measurement, we did not include them in the analysis.

Following our study of labret types, we conducted two supplemental investigations with artifacts from the Karluk One assemblage. First, we measured hole stretchers, temporary plugs of soft wood worn to stretch the skin in preparation for wearing a larger labret (Knecht 1995:641). Most of these stretchers were

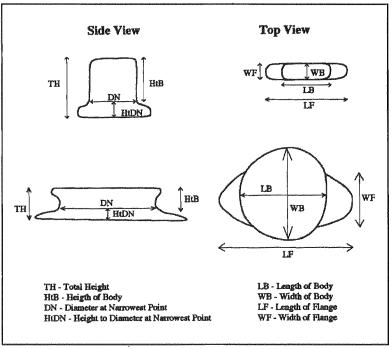


Figure 3: Labret dimensions measured

expediently carved from segments of slender alder branches, with a simple flange or groove at one or both ends. We measured the distance between the flanges, or grooves, to determine the length of the desired labret incision and to look for discrete size classes. Second, we surveyed the wooden dolls in the Karluk One assemblage for representations of labrets. We noted doll type (cf. Knecht 1995:685-690), doll gender, the presence or absence of labrets, and the number and placement of labrets. As labrets on these small carvings were typically represented as tiny rectangles, it was not possible to distinguish labret types worn by different dolls.

Kachemak labrets

Cluster analysis confirmed our visual classification of labret forms. The Kachemak specimens fall into eleven shape classes that remained distinct during statistical manipulation. These robust shapes suggest that labret forms were designed to be visually distinct. Figure 4 illustrates these forms and Table 1 shows their distribution in the sample. Each form was named to facilitate discussion (see Figure 4). Type descriptions can be found in the appendix to this paper. Some forms were made in two sizes. Orca and Three Mile Island forms, for example, occur in a large and a small size in the Uyak assemblage. Despite this variation, different sizes of the same form were classed as a single form.

Seven categories of decoration were recorded among the Kachemak labrets (Figure 5). Two decorative motifs, vertical side groove and raised bar, were unique, occurring only on single specimens. In general, however, decorative motifs tended to covary



³ We did not record labret weight. Although weight is certainly a consideration for the labret wearer, and would be instructive in comparing labrets of different sizes, chemical conservation of wood and bone labrets altered the weight of many of the pieces in our sample. As such, current weight was not a reliable indicator of original weight. Moreover, as our analysis showed, the Kachemak and Koniag labrets in our sample were largely made of different materials, making temporal comparisons of weight uninformative.

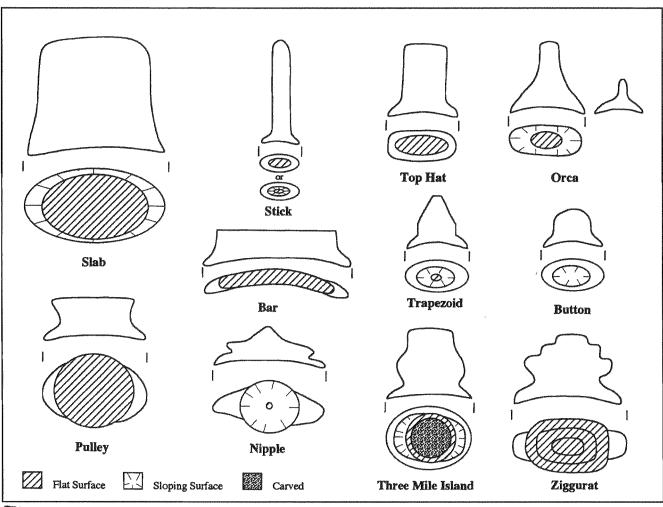
with labret forms and occur on all size labrets of a particular shape, supporting the identification of discrete labret types. Although pulleys displayed a variety of decorations, certain labret types were never decorated (nipple, orca, and top hat forms), others were always decorated (Three Mile Island), and some if decorated were decorated in a particular way (buttons with a peg hole, bars with incised lines) (Table 1). From these patterns of covariation we determined a minimum of thirteen labret types. The variety of decorative motifs on pulleys may reflect the presence of additional types, but as concentric circles and multiple carved holes were the only decorations that patterned exclusively with this form they were the only decorative motifs used to identify individual types.⁴

The distribution of these types differs by site (Figure 6). Four types are present in the Crag Point assemblage, three of which (top hats, bars, and sticks) accounted for 95% of the variation. These

same three types make up only 3% of the Uyak assemblage. At Uyak, a total of thirteen types were identified, five of which (buttons, orcas, nipples, three mile islands, and pulleys) accounted for nearly 90% of the specimens. None of these five types is present in the Crag Point assemblage. If one excludes types that account for less than 15% of variation, the Crag Point assemblage is characterized by two types (sticks 58%, bars 25%) and the Uyak assemblage by three (buttons 28%, pulleys 26%, orcas 25%).

Another intriguing result is that labrets were made of distinctly different materials at each site (Table 2). At Uyak 92% of the labrets were manufactured from cannel coal and slate and only 8% from other light colored materials. At Crag Point labrets were made out of a greater variety of materials, but bone, ivory, limestone and other light colored materials account for 80% of all labrets. The majority of Uyak labrets are black and the majority of Crag Point labrets an off-white color. Furthermore, this regional color distinction occurred within labret types. For instance, bulls-eye labrets in the Uyak assemblage are made of coal, while those in the Crag Point assemblage are manufactured from beige sandstone.

Figure 4: Kachemak labret forms



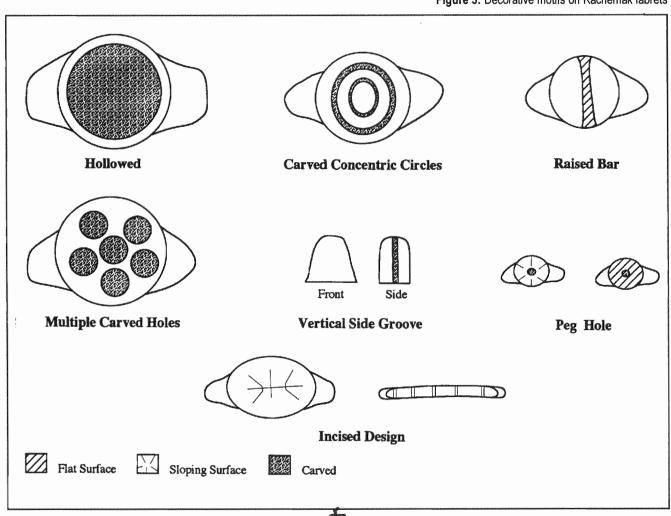


⁴ Red stains on labrets in the Old Karluk assemblage and in a variety of other Late Kachemak contexts (Clark, personal communication, 2001), suggest that carved depressions once held inlays of red ochre, particularly those made of coal.

Decoration	Bar	Button	Nipple	Orca	Pulley	Slab	Stick	Top Hat	TMI	Trap.	Zig.	Other	Total	Total %
Circles					3								3	2.4
Hollowed					7		1		5	1		1	15	12.2
Incised Design	5	-			1								6	4.9
Multiple Holes	24/4/19/04			***************************************	2								2	1.6
Peg Hole		11	NAME OF THE PARTY					***************************************					11	8.9
Raised Bar	MANAGE EN AND AND AND AND AND AND AND AND AND AN				1								1	0.8
Side Groove						1							1	0.8
No Decoration	6	11	5	20	11	1	22	7			1		84	68.3
Total	11	22	5	20	25	2	23	7	5	1	1	1	123	
Total %	8.9	17.9	4.1	16.3	20.3	1.6	18.7	5.7	4.1	0.8	0.8	0.8		100.0

Table 1. Cross tabulation of Kachemak labret forms and decorative motifs

Figure 5: Decorative motifs on Kachemak labrets





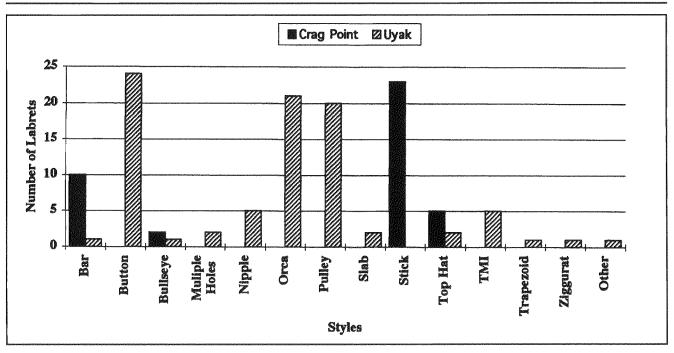


Figure 6. Distribution of Kachemak labret types by site

Koniag labrets

Like Kachemak labrets, Koniag labret shapes were easily categorized by visual inspection. We recognized a total of 13 shapes, confirmed by cluster analysis, which occurred

Light Colored Materials Dark Colored Materials Site Limestone Marble Sandstone Coal Bone Ivory Slate Total Crag Point 8 1 3 4 40 19 4 3 78 Uyak 0 4 0 0 1 86 1 82 5 Total 19 10 4 3 126

in a variety of sizes. Figures 7 and 8 illustrate these shapes and Figure 9 shows their distribution in the Karluk One sample. Interestingly, within individual shapes there were more discrete size classes than in the Kachemak labret sample. All common Koniag labret types (n=4) occur in three or four distinct size classes, as indicated by multimodal distributions in flange size (generated by multiplying flange length [FL] by flange width [FW]). This is an increase from the one or two size classes observed for individual types in the Kachemak sample.

Similarly, the hole stretchers from Karluk One fall into at least two discrete size classes. The distribution of stretcher lengths displays two clear modes (i.e. size classes) with several large outliers possibly representing a third mode. Importantly, this distribution closely overlaps the distribution of labret flange lengths in the sample, and both distributions have similar modes. Again, this suggests the presence of discrete size classes, although the exact range of these size classes is in part influenced by labret type. There are not highly standardized size classes into which all labrets can be divided. Each style occurs in it's own set of sizes,

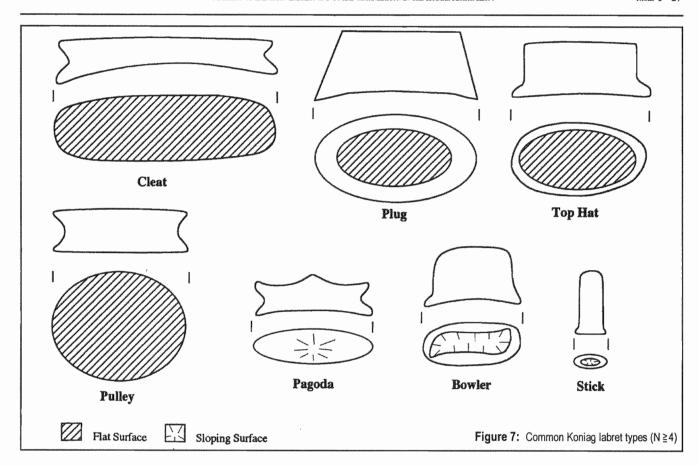
although given the physical limits of labret-wearing, these size classes are not radically different.

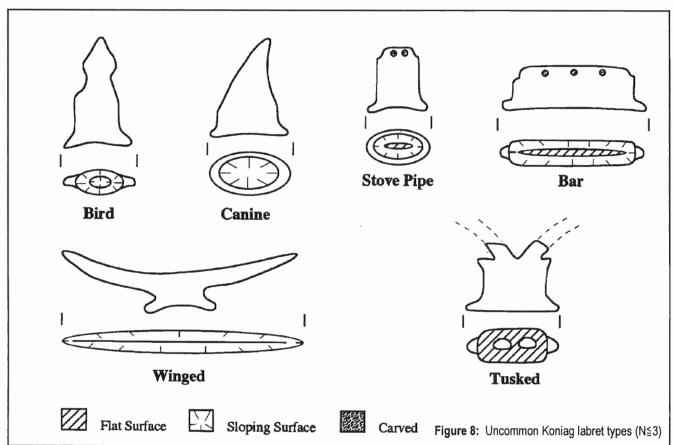
Table 2. Distribution of Kachemak labrets by color and raw material

Decorative motifs were also more variable in the Koniag labret assemblage and fewer labrets were decorated. Only 15% of the Koniag assemblage was decorated as opposed to 53% of the Kachemak assemblage. This is surprising as the majority of Koniag labrets were made from wood, a more malleable and easily decorated material than the stone typically used for Kachemak labrets. Moreover, decorative motifs were not easily categorized. Koniag Labrets were embellished with a variety of inlays (fish teeth, an otter tooth), carved designs (a paw motif), and raised forms unique to individual specimens. This is especially true of the cleat type labrets. Consequently, no types were determined by the co-occurrence of decoration and form. Our 13 Koniag labret types are based solely on shape.

Four labret types dominate the Karluk One assemblage, bowlers (34%), top hats (24%), cleats (18%), and pulleys (11%). These types account for 88% of the stylistic variation in









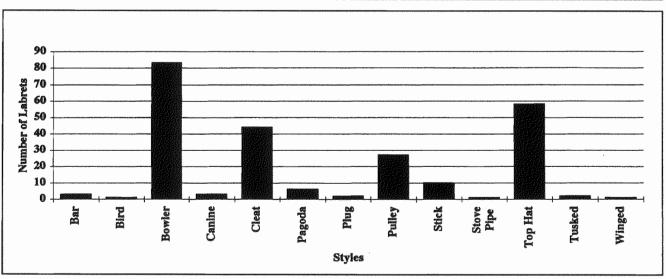


Figure 9: Frequency of Koniag labret types

the assemblage (Figure 9) and are well represented in all stratigraphic levels. Despite this apparent stylistic continuity, some of the less common forms display temporal patterning (Table 3). Pagoda, plug, and stove pipe labrets occur only in the lowest levels of the site, and canine, stick, tusked, and winged labrets are present only in the upper levels.

Wood and bark are the most common labret materials at Karluk One. If they had not been preserved, the remaining types would have provided an extremely biased view of Koniag labret use. Only 16 of 241 labrets (7%) were made of other materials, and nine of these are small, uncommon types (n = 3, e.g., canine, tusk, bar, and stove pipe types) (Table 4). Consequently, material type is remarkably uniform and closely correlated with shape, size, and decoration. Among the common wood labret types only the largest are decorated. In contrast, more than half of the small labrets of uncommon materials are decorated. These patterns are distinct from the Kachemak sample, where a specific type maybe made out of a variety of different materials, and decoration occurs on all sizes of labrets within types.

Dolls in the Karluk One assemblage provide a more general picture of Koniag labret use, highlighting the importance of labrets to a person's unique identity. There were 53 dolls in our sample and one doll's head. Based on ethnographic analogy, they can be divided into two general types. The first type are children's toys (n=20). These dolls are carved with generic faces, detailed torsos, legs, and male or female genitalia. Elders recall that such dolls were playthings, taken out of storage each spring to symbolize the rebirth of the year and the reincarnation of recently passed souls (Crowell and Leer 2001:195). This association with rebirth and reincarnation is consistent with the dolls' prominent genitalia, and may indicate that they also functioned as fertility charms for women who wished to have children (cf. Lisianski 1968:178). The second

type of dolls are shamanic pieces (n=33) (Figure 10). These artifacts lack detailed bodies. A carefully carved, unique face rests on top of a featureless, triangular steak, or in two cases, a wooden gnarl. According to oral histories, shaman carved these images in the likeness of people they wished to help or harm (Birket-Smith 1953:127; Knecht 1995:686).

Of these 53 dolls, 16 (30%) displayed labrets. Labrets were depicted three ways. The majority of labret-wearing dolls (n = 13) show a pair of lateral labrets. Of the remaining three, two wear a single medial labret and one has four holes below the mouth indicating a series of multiple medial labrets. This finding contrasts with patterns of labret use identified on incised pebbles from Karluk One, which overwhelmingly show individuals wearing single medial labrets (Donta 1993:345). This might be explained by differences in the individual's depicted in different artistic mediums. Donta believes that incised pebbles show members of wealthy, ruling families - perhaps even venerated ancestors (Donta 1992:17). If particular labret types, worn in specific places on the face, were associated with specific social groups (e.g., families, lineage, or clans), then incised pebbles showing members of these groups might depict one particular type of labret.

Interestingly, the generic faces of children's dolls rarely feature labrets. Out of the 20 children's dolls only two wear labrets, one male and one female, each with a pair of laterally placed ornaments. In contrast, the individualized faces of shamanic dolls, 14 out of 33, commonly displayed labrets (Figure 10). A chi square test indicates that this pattern is statistically significant at the .05 level (chi square statistic = 5.370, 1 df, P-value = .0205). We believe this association highlights the importance of labrets to individual identity. When a specific person was carved, his or her labrets were included in the depiction as an essential part of their visible persona.



LEVEL	Bar	Bird	Bowler	Canine	Cleat	Pagoda	Plug	Pulley	Stick	Stove Pipe	Top Hat	Tusked	Winged	TOTAL
Upper			32	2	4			2	7		12	1	1	61
Middle	2	1	24		14			9			12		W. F. C. S.	62
Lower	1		12		11	5	, 1	3		1	9			43
TOTAL	3	1	68	2	29	5	1	14	8	1	33	1	1	166

Table 3: Stratigraphic distribution of Koniag labret types at Karluk One.

FORM	Wood/ Bark	All Other	TOTAL
Common (N≥4)	220	7	227
Uncommon (N<4)	3	9	12
TOTAL	223	16	239

Table 4: Koniag labret types by form and raw material.

Conversely, generic people were shown without labrets, as they had no social identity to convey.⁵

This apparent association between labrets and an individualized human identity corresponds with ethnographic descriptions of labret hole piercing in infants. In Alutiiq society laboring women and their new born babies were considered unclean, potentially polluting to men and their hunting gear. Babies were born in special huts, where mother and child were secluded for up to twenty days postpartum (Lisianski 1968:201). At the end of this seclusion, babies were washed and their labret holes pierced by a close relative (Davydov 1977:148; Holmberg 1985:38). Then, mother and child moved back into the family home. In essence, labret holes were pierced when an infant became a family member - when it acquired a social identity in its community.

Comparison of Kachemak and Koniag labrets

The major similarity in the Kachemak and Koniag labret samples is the distribution of types. Both traditions are characterized by a similar number of types and each assemblage is dominated by two to four types that account for most of the stylistic variation. Other types occur in extremely small numbers and are statistically swamped by more common forms, even when temporal trends are discernible.

Despite this similarity, there are major differences between the Kachemak and Koniag labret assemblages (Table 6). First, although there is clear temporal variation in labret sizes at Karluk One (see also Knecht 1995:634), and individual types vary in size in both traditions, Koniag labrets are larger than Kachemak labrets (Table 5; Figure 11). The mean Koniag labret size, determined by multiplying flange length by flange width is 1298 mm² and the mean Kachemak size only 613 mm². The standard deviations of labret size measurements within each tradition, however, are similar. These results suggest an overall increase in the size of Koniag labrets and not simply the addition of a particular type of larger labrets.

This trend is also evident in the number of size classes in each tradition. Kachemak labret types generally occur in one or two sizes, whereas common Koniag labret types occur in three or four. These size classes, however, still fall within a similar overall size range.

Third, almost all Koniag labrets are made of wood and Kachemak labrets of more durable materials (Table 7). Clark notes that coal labrets are typical of the Kachemak tradition, but seldom found in Koniag sites (1974b:131). Moreover, Koniag sites without wood preservation typically produce few labrets. It appears that wood became the preferred labret material in late prehistoric times. Although this apparent preference for wood in the Koniag era awaits verification from a well preserved Late Kachemak assemblage, it appears to be more than just a preservational difference.

Fourth, labret decoration changes between the two traditions. During the Kachemak, decorative elements were chosen from a set of motifs which were used repeatedly and covaried with form. In contrast, Koniag decorative elements are more individualistic. Decoration does not covary with form and there is no fixed set of decorative elements. Decoration is less common and is as varied as the number of decorated specimens. Moreover, it is reserved for the largest labrets and small labrets of uncommon materials.

Fifth, there are more unusual labret types in the Koniag sample. In the Kachemak sample common and uncommon types are made of the same materials, and uncommon types conform to size, shape and decorative conventions shared by the rest of the assemblage. In short, the uncommon types are only uncommon in that they occur in small numbers. This is not true of many of the uncommon



⁵ Pairs of lateral labrets, and v-shaped mouths suggesting the facial deformation caused by lateral labret wear (Knecht 1995:676), are also depicted on a few palm-sized masks in the Karluk One collection (Jordan 1994:157; Steffian 2001:127). The function of these pieces is unknown (Desson 1995:300-301), but they may represent carvings of particular spirits (Birket-Smith 1953:127; Knecht 1995:676).



Figure 10: Labret-wearing shaman's dolls from Karluk One. Koniag, Inc. Collection, Alutiiq Museum. (Catalog numbers from left to right AM193.84.1985, AM193.95.1069, AM193.95.1520, AM193.95.861). Photograph by Patrick Saltonstall.

Koniag types (i.e. bars, bird, stovepipe, and winged). These labrets are truly unique. They tend to be smaller, made of uncommon materials, and look exotic. Limestone labrets from Karluk One, for example, are stylistically similar to common types from the Aleutians (Knecht 1995). This diversity of unique types is also characteristic of other Koniag labret assemblages not included in our analysis (Clark, personal communication, 2001).

DISCUSSION

The most significant result in the Kachemak labret analysis is the clustering of types by site. Although Uyak and Crag Point share a few types, those that typify each assemblage are different. There are several potential explanations for this pattern. It could reflect temporal changes in labret types, as the Crag Point assemblage accrued over a greater period of time. This does not seem to be the case. Both sites span the very Late Kachemak and if labret types varied chronologically there should be stylistic similarities between Uyak labrets and those from the uppermost levels of Crag Point.

There are no strong similarities. In fact, the dominant labret types at Crag Point remain similar throughout the Kachemak occupation, suggesting long term stylistic continuity. There are no significant correlations between the Crag Point labret types and stratigraphic provenience or depth below datum.

A chronological explanation is also rejected on the basis of area wide patterns in labret types. The clustering of types in the Uyak and Crag Point assemblages mirror the distribution of types throughout the Kachemak culture area during the entire span of the tradition. Bar and stick labrets characteristic of the Crag Point assemblage also typify assemblages from Kachemak Bay (de Laguna 1975:Plate 51; K. Workman 1977:Plate 5, 1994:212; Workman et al. 1980:392) and Prince William Sound (de Laguna 1956:206). In contrast, types characteristic of the Uyak assemblage (e.g., pulley, button, orca, Three Mile Island, and nipple) occur throughout southern Kodiak (Clark 1970:107; Crozier 1989:93; Jordan and Knecht 1988:251, 253) and on the Alaska Peninsula (G. Clark 1977:Plates 3, 5, 16; Dumond 1981; Henn 1978:183; Oswalt 1955:61). These regional distributions are imperfect and there is



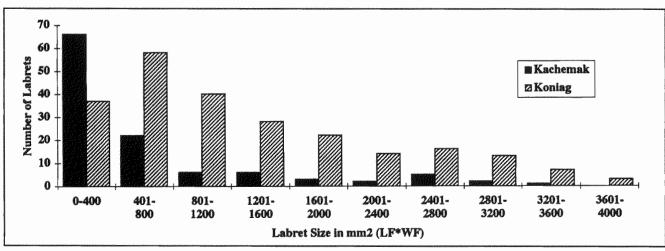


Figure 11: Comparison of Kachemak and Koniag labret sizes

OBSERVATIONS	All Kachemak		K-1 Middle		
Number of Labrets	136	44	62	60	241
Mean size (LF • WF), mm²	613	1090	1589	913	1298
Standard Deviation,mm ²	754	794	1015	821	943

Table 5: Temporal variation in Koniag labret size

overlap in the distribution of some types. Large coal pulleys, for example, occur in Kachemak Bay sites (Workman et al. 1980) and a bar labret and small numbers of stick labrets are present in Hrdlicka's assemblage from the Uyak site (Heizer 1956:193). The broad scale pattern, however, suggests stylistic regionalization; spatial clustering of sets of labret types within the Kachemak culture area that may reflect social networks, perhaps even tribal units, within Kachemak society.

In assessing the cultural relationships between Kodiak and Kachemak Bay, Workman (1988) sees similar regionalization. He suggests that Kachemak Bay societies traded and intermarried with northern Kodiak societies, based both on proximity and the presence of materials from the Kenai Peninsula in Kodiak sites. At Crag Point and Uyak, walrus ivory, caribou antler, rodent incisors, and non-local stone provide firm evidence of interaction with the mainland. Moreover, the source, distribution, and use of these materials illustrate patterns of exchange. The Kachemak era occupants of Crag Point produced beads out of red shale imported from the Kenai Peninsula (Clark 1970:85), and although a few finished coal artifacts appear in the assemblage there is no evidence of coal working. Conversely, the Kachemak era occupants of the Uyak site produced items out of coal from the Alaska Peninsula (Steffian 1992a), and although red shale beads are present there is no evidence of local manufacture.

These site specific patterns are also regionally visible (Steffian 1992a:119; Workman 1994:212). The distribution of these sourceable materials, and the production of objects from them, covaries with the regional distribution of labret types. We suggest that this pattern illustrates the presence of two broad social networks in the Late Kachemak culture area - networks that tied groups living in ecologically distinct regions (archipelago and mainland). Such far ranging social ties were probably critical in managing periodic

economic shortfall and social conflict, particularly in light of the increases in population density and resource competition so evident in the archaeological record (Simon and Steffian 1994; Steffian and Simon 1994). Analysis of labrets from other Kachemak sites and patterning in the use and distribution of more raw material types would help to test this idea and delimit Kachemak exchange networks more precisely.

There are other interesting patterns in the Kachemak labret data, which may reflect additional social distinction, but all require further examination. Our model does not address the function of individual types, although we tentatively suggest that these reflect corporate groups, perhaps lineage or clan affiliations. Such relationships might explain the difference in the number of labret types at Uyak and Crag Point. If labret types reflect family level social divisions there could be a difference in the number of types present between large winter settlements and smaller task specific sites, particularly if specific sites were used exclusively by particular social units (e.g., family fish camps). The presence of size classes within individual types may also reflect social divisions, perhaps age and/or gender distinctions as suggested by the region's ethnographic literature.

Like Kachemak labrets, Koniag specimens cluster in a set of site distinctive types. Although there is no other large sample available for comparison, at least five of the Karluk One types are



Kachemak	Koniag									
Size										
Smaller than Koniag labrets with an average flange length of 1298 mm ²	Larger than Kachemak labrets with an average flange length of 613 mm ² .									
Types are made in one or two size classes.	Types are made in three or four size classes.									
Use of Raw Materials										
Labrets are made largely of durable materials - coal, bone and ivory.	Labrets are made largely of soft organic materials - wood and bark									
Deco	pration									
A small set of decortive motifs is used repeatedly.	Decoration motifs are numerous and highly variable.									
Decoration covaries with form. Large wooden labrets and small labrets of exotic materials are most frequently decorated.	Decoration is independent of form									
Uncomn	non Types									
Uncommon types are made with the same materials and decorative conventions as common types. The are stylistically similar to common types.	Uncommon types are unique. They tend to be small and made of exotic materials. They are stylistically different from common types.									

Table 6: Summary of labret characteristics by tradition

present in other Koniag assemblages throughout the archipelago. The labret assemblage from Settlement Point, an early Koniag site on southern Afognak Island (Saltonstall 1997), contains 16 labrets of three types - top hats, sticks, and canines. Similarly, top hats and bowlers were found at Rolling Bay, canine and stick types at Kiavak (Clark 1974b:271), a canine at Pineapple Cove (Clark 1974a:67) and a tusked type on Long Island (Clark 1974a:173). The set of labret types at Karluk One and the presence of these same types in other contemporary assemblages suggests that certain labret types were associated with social units that cross cut settlements (cf. Haas and Creamer 1993:21-22).

At a broader level, however, it is impossible to determine where regional type groupings occur from the current sample of Koniag labrets. Images of labret use preserved on incised on pebbles, however, suggest that such regionalization in types may be present. In the early centuries of the Koniag era, the Alutiit drew pictures of people in ceremonial regalia on thousands of small beach pebbles and slate tablets (Clark 1964; Donta 1992; Heizer 1952). These images typically depict an individual from the chest up, and include sketches of clothing, headdresses, labrets, tattoos and ceremonial objects (Donta 1993:338-339).

In comparing incised images from Karluk One at the southern end of Kodiak Island with contemporary images from the Monashka Bay Site on northern Kodiak, Donta identified distinctive patterns in labret wear. The Karluk One images overwhelmingly show individuals with one large medial labret. In contrast, the Monashka Bay images depict individuals wearing multiple medial labrets decorated with hanging beads (Donta 1993:345). Again, this may suggest the presence of different social networks and/or tribal groups within Koniag society. On going studies of raw material use in the Koniag era will help to further illustrate patterns of social interaction (Saltonstall 1995).

Another poorly understood pattern is the difference between common labret types of wood and uncommon types of other materials. Some of the exotic looking specimens may reflect long distance trading or the practice of taking war captives (Jordan 1994:167; Knecht 1995), but they may also reflect rank, occupational specialization, or some other social or functional distinction. Donta (1994:130) notes that the Alutiit wore special clothing for ceremonial events. Perhaps unusual labrets were reserved for special occasions. Labret samples from other Koniag sites would help in interpreting these unusual pieces.

The most significant differences between the Kachemak and Koniag labret samples are increases in size and decorative diversity. We believe that these changes reflect a heightened concern with social display and status. The overall enlargement of Koniag labrets is particularly notable. On average, Koniag labrets are twice as large as

Kachemak labrets and would have required an enormous hole. The Koniag preference for wood labrets may reflect this size increase. Larger labrets made of dense materials like ivory and coal are heavy and may have been difficult to wear. Switching to lighter materials may have allowed people to make a greater visual impact more comfortably. Wood is also locally available in quantity and easy to decorate. This apparent preference for wood may also reflect a need to alter social messages more frequently. By using an easily carved, locally abundant material, people could continue to embellish labrets to reflect changes in their status or social affiliations. Whatever the answer, larger labrets are more visible, suggesting an increased emphasis on display.

This emphasis corresponds with ethnographically recorded patterns. Ostentation was the primary means of maintaining status among the historic Koniag, and labrets were part of the costume that supported the association between display and rank (Donta 1994:131). The dramatic increase in labret size at Karluk One coincides with an increased frequency of items associated with feasting, ritual, and ceremonial activity (Jordan 1994:154-155), archaeologically illustrating the development of ethnographically



recorded practices of elaborate personal ornamentation (Davydov 1977:148-150; Holmberg 1985:37-38)

Increased decorative diversity and the presence of more size classes suggest a new degree of social differentiation. This pattern is distinct from the limited decorative repertoire of the Kachemak tradition where decorations covary with particular labret types, and appear to support group affiliation. Koniag labret decoration is extremely variable, and is associated with large labrets, unusual types, and uncommon materials. Decoration seems to express individuality. It marks certain individuals within a group and further distinguishes individuals who wear uncommon types. From ethnographic data we know that the Koniag had occupational specialists, a variety of household, village, and regional leaders (Donta 1994:123; Jordan 1994:150), as well as three social classes. Decorative diversity seems to reflect the development of these new social roles.

CONCLUSIONS

A range of anthropological data illustrates that labrets encode different levels of social information. Multiple aspects of group affiliation and personal identity are symbolized in both form and decoration, often simultaneously. Our review of archaeologically recovered labrets from the central Gulf of Alaska points to at least three levels of social signaling. At the broadest level, sets of labret types cluster regionally, suggesting the presence of broadly maintained interaction spheres; avenues of social and economic interchange over long distances, and in this case, across ecological boundaries. At the community level, groups of common labret types in multiple sizes and states of decoration suggest membership in corporate groups - social and economic units that cross cut individual settlements. These regional and community levels of stylistic signaling correspond well with Wiessner's (1983:257) definition of emblemic style, as they "transmit a clear message to a defined target population (Wobst 1977) about conscious affiliation or identity." Finally, at the individual level, variations in decoration, material type, and labret

Table 7. Comparison of Kachemak and Koniag labret types by raw material

size express aspects of assertive style - a person's status, age, or perhaps specialized occupation.

Importantly, the expression of these different layers of stylistic signaling corresponds with particular cultural systems. Labret types mimic the social order, identifying social distinctions important to specific cultural and historical settings. This is most clearly represented in the differences in ostentation between the Kachemak and Koniag labret samples. With the development of hereditary ranking in the Koniag era, labrets took on added dimension of decorative display. These temporal changes in stylistic patterning illustrate that archaeologists must consider the social context of practices like labret use before assuming they reflect the ethnographic pattern. As cultures change, the information transmitted by such practices changes as well. In the Kodiak Archipelago, labrets were associated with status display in the historic period, but their origins are in the increasing definition of group identity and social space that accompanied long term population growth and economic competition.

ACKNOWLEDGMENTS

This paper was originally prepared for the 60th annual meeting of the Society for American Archaeology held in Minneapolis, Minnesota in 1995. We are most grateful for the thoughtful comments of Doug Price, Madonna Moss, Rick Knecht, Philomena Hausler, Donald Clark, Bill Workman, Chris Donta, Ben Fitzhugh and an anonymous reviewer. We also recognize the Alutiiq Museum, the Department of Anthropology at the University of Wisconsin, and the University of Alaska Museum for providing access to labrets in their collections. Quyanásinaq - thank you very much.

Amy F. Steffian amy@alutiiqmuseum.com

PATRICK G. SALTONSTALL patrick@alutiiqmuseum.com

Alutiiq Museum and Archaeological Repository, 215 Mission Rd., Suite 101, Kodiak, AK, 99615

TRADITION	Antler	Bark	Bone	Coal	Limestone	Marble	Sandstone	Slate	Wood	TOTAL
Kachemak	0	0	19	82	4	3	1	5	0	126
Koniag	5	28	1	0	2	0	0	1	197	241



APPENDIX

Labret type descriptions

This appendix provides brief written description of the labret types identified in this study. Readers are referred to figures 4, 5, 7 and 8 for illustrations of the forms and decorative motifs used in determining these types. The list that follows in not intended as a comprehensive summary of all known labret styles in the Kodiak region. Other types are present in assemblages not considered in our quantitative analysis.

Koniag labret types - common forms

Bowler: The display surface this labret type is curved in a gentle s-shape. From the side, however, these labrets look like a derby hat. Their thin, rounded bodies terminate abruptly on a ledged flange that encircles the entire labret. Symmetrically curved flanges suggest they were worn medially. See Jordan and Knecht 1988: Figure 32 f, g, h, i; and Knecht 1995: Plate 133 m through gg for examples.

Cleat: This labret type has a flat, nearly rectangular display surface reminiscent of the cleats used in securing boat lines. These labrets have a grooved flange that does not always encircle the entire specimen, but is most pronounced on either end of the long axis of the labret. As the inner flange surface is often asymmetrically curved, suggesting that cleats worn laterally. See Knecht 1995:Plate 134 o through r for examples.

Pagoda: Similar to the cleat type, these labrets have a grooved flange and when viewed from above, they are rectangular in shape. This type is distinguished by a thin protruding body, distinctly shaped like the silhouette of a Chinese pagoda. Like cleats this type appears to have been worn laterally. See Jordan and Knecht 1988:Figure 21 i; and Knecht 1995:Figure 136 w for examples.

Plug: Plugs are typified by a flat, ovate display surface and straight, sloping sides. These symmetrically shaped labrets may have been worn laterally or medially. They do not have a true flange, but flare toward a curved base.

Pulley: With a nearly circular display surface, and a grooved flange that encircles the labret body, these labrets look like a pulley. They could have been worn laterally or medially.

Stick: Sticks have a long, thin, rounded body that resembles a nail. Their tips, however, are usually flat - not pointed. Sometimes the body is flattened like a narrow Popsicle stick. They have a ledged flange that encircles the body. This type appears to have been worn laterally. The same type is found in Kachemak collections. See Jordan 1994:Figure 9-11 for examples.

Top Hat: These labrets look like top hats in profile. Their display surface is flat, or very gently beveled around a central ridge, and

ranges from ovate to tear shaped. The body of the labret has straight sides that end abruptly on a ledged flange. The flange encircles the entire body. The asymmetrical, tear-shaped appearance of the display surface suggests lateral placement. See Jordan 1994:Figure 9-11 upper right; and Knecht 1995:Figure 135 a through v for examples. Note this type is distinct from the Top Hat type identified in Kachemak assemblages.

Koniag labret types - uncommon forms

Bar: Usually small, this type of labret is ovate when viewed headon. It has a narrow, rectangular body with slightly concave sides that end abruptly on a ledged flange encircling the body. Some examples of this type have holes drilled into the display surface perpendicular to the long axis of the labret body. These holes were probably used for suspending ornaments (cf. Gideon 1989; Holmberg 1985:37). This type was probably worn medially. This types is similar, though not identical, to the bar labrets found in Kachemak assemblages.

Bird: Typically small and carved of limestone, this labret type is characterized by a long, narrow, distinctively shaped body reminiscent of a bird in profile. The flange is ledged but only extends beyond the long axis on the body.

Canine: A labret type styled after an animal canine. It has a gently curved, cone-shaped body, often carved from an actual canine. A stepped flange held these ornaments in place. This type was probably worn laterally. See Clark 1974a:Plate 21 h; Clark 1974b:Plate 50 j; and Heizer 1956:Plate 79 l for examples.

Stove Pipe: A small type of labret that is round when viewed headon, and has a straight-sided, pipe-shaped body. The display surface can be flat, but often has small holes drilled perpendicular to the display surface for dangling ornaments (cf. Gideon 1989; Holmberg 1985:37). The body end abruptly on a thin, ledged flange that encircles the base. This type may have been worn laterally or medially. See Knecht 1995:Plate 136 h for an example.

Tusked: Generally small and made of limestone, this type looks like a small rectangle when viewed head-on. It has a ledged flange that encircles the base. However, the display surface is not flat, but has two tusk-like protuberances. This type was probably worn medially and often exhibits small holes drilled laterally across the short axis beneath the 'tusks'. These holes were probably used for suspending ornaments (cf. Gideon 1989; Holmberg 1985:37). See Clark 1974a:Plate 22 d; and Jordan and Knecht 1988:Figure 32 k for examples.

Winged: This small labret is characterized by a pair of long, distinctively shaped protuberances that look like wings in profile. These wings extend far beyond the base and narrow toward pointed tips. The labret has a ledged flange, but the ledge only extends outward from the long axis of the base. This type was probably



worn medially. See Jordan and Knecht 1988:Figure 32 j for an example.

Kachemak labrets

Bar: Bars have a long, narrow display surface with a narrow, straight sided body attached to a sloped, ledge flange that is emphasized on either side of the ornament's long axis. This type was probably worn medially, as the inside surface of the flange is symmetrically curved. See Clark 1970:Figure 9 z, aa; Heizer 1956:Plate79 g, h, i; Jordan and Knecht 1988:Figure 9 l for examples. This types is similar, though not identical, to the bar labrets found in Koniag assemblages.

Button: This type of labret has a rounded, spherical display surface that often contains an inset hole in the center. These labrets would have looked like small buttons when worn. The flange is stepped at either end. They could have been worn medially or laterally. See also Crozier 1989: Figure 14 c; Heizer 1956: Plate 50 g; and Steffian 1992b: Figure 12 k, l.

Bullseye: A pulley type labret (see below) decorated with carvings of concentric circles. See also Jordan and Knecht 1988:Figure 14 b, c; and Steffian 1992b:Figure 12 q for examples.

Nipple: Like a pulley labret (see below), this type has an ovate to round display surface and a groove flange that completely encircles the ornament. It is distinguished by a small, upraised, nipple-like projection in the center. See also Heizer 1956:Plate 79 f; and Steffian 1992b:Figure 12 a, b for examples.

Multiple Carvings: A pulley type labret (see below) decorated with multiple, carved, circular holes, possibly used to hold inlays of red ochre or other materials. See also Steffian 1992b:Figure 12 c.

Orca: This type has a flat to pointed display surface with a gently curving body that meets a ledged flange. The body shape resembles the dorsal fin of a killer whale. The flange extends out along the long axis of the ornament. There is a great deal of size variation in these labrets, and larger examples are characterized by a more rounded, flatter display surface. See also Clark 1970:Figure 9 x;

Heizer 1956:Plate 50 h, i, j; Jordan and Knecht 1988:Figure 11 d, Figure 14 a; and Steffian 1992b:Figure 12 d, e, f for examples.

Pulley: Pulley labrets are typified by a large, flat, ovate to round display surface, a thin body, and a grooved flange that encircles the entire labret. (See labret at upper left in Figure 2). See Heizer 1956:Figure 33 b, Plate 50 b, c for examples.

Slab: The display surface of these labrets is flat and round to ovate in shape. This type has sloped sides on either end of the long axis and straight sides on the short axis. Slab labrets lack a true flange. The base of the body is curved to fit against the teeth, but there is no groove or step to hold the plug in place. See Heizer 1979:Plate79 e for an example.

Stick: Sticks have a long, thin, rounded body that resembles a nail. Their tips, however, are often flat - not pointed. Sometimes the body is flattened like a narrow Popsicle stick. They have a ledged flange that encircles the body. This type appears to have been worn laterally. The same type is found in Koniag collections. See Clark 1970: Figure 9 r through t; Heizer 1956: Plate 79 w through a' for examples.

Three Mile Island: Labrets assigned to this type have a round, concave display surface with concave sides sloping to a grooved flange that encircles the base. In profile this type looks like the cooling tower of a nuclear reactor. These labrets were probably worn medially in pairs. A matched pair was found together at the Uyak site. See Heizer 1956:Plate 50 f; and Steffian 1992b:Figure 12 g, h for examples.

Top Hat: A labret type with a display surface that is rounded in profile and ovate to rectangular when viewed head-on. The sides are straight but flare slightly where they meet a ledged flange encircling the ornament. See Clark 970: Figure 9 v for a profile view.

Trapezoid: A labret with a distinctively shaped trapezoidal body with a fat base and small, inset display surface. There is a ledged flange at either side of the long axis of the ornament's body.

Ziggurat: A pulley type labret with a display surface that is carved with multiple, concentric tiers or steps, like a pyramid. See Steffian 1992b:Figure 12 o for an example.

REFERENCES CITED

AMES, KENNETH M.

Hierarchies, Stress, and Logistical Strategies among Hunter-Gatherers in Northwest North America. In Prehistoric Hunter-Gatherers the Emergence of Cultural Complexity, edited by T. Douglas Price and James A. Brown pp. 155-180. Academic Press, San Diego.

1994 The Northwest Coast: Complex Hunter-Gatherers, Ecology, and Social Evolution. Annual Review of Anthropology 23:209-229.

BIRKET-SMITH, KAJ

1953 The Chugach Eskimo. Nationalmuseets Skrifter, Etnografisk Raekke, Vol. VI, Copenhagen.

BLACK, LYDIA

1982 Aleut Art. Aleutian/Pribilof Islands Association, Inc., Anchorage.

1984 Atka: An Ethnobistory of the Western Aleutians. Limestone Press, Kingston, Ontario.

1991 Glory Remembered: Wooden Head Gear of Alaska Sea Hunters.
Alaska State Museum, Juneau.

CARLSON, ROY

1994 Trade and Exchange in Prehistoric British Columbia. In *Prehistoric Exchange Systems in North America*, edited by T. Baugh and J.E. Ericson, Plenum Press, New York.

CLARK, DONALD W.

1964 Incised Figurine Tablets from Kodiak Island, Alaska. Arctic Anthropology 2(1):118-134.

1970 The Late Kachemak Tradition at Three Saints and Crag Point, Kodiak Island, Alaska. Arctic Anthropology 6(2):73-111.

1974a Contributions to the Later Prehistory of Kodiak Island, Alaska.
Archaeological Survey of Canada, *Mercury Series*, Paper 20. National Museum of Man, Ottawa.

1974b Koniag Prehistory. Tubinger Monographien zur Urgeschichte, Band 1. Verlag W. Kohlhammer, Stuttgart.

1984 Prehistory of the Pacific Eskimo Region. In *Arctic*, edited by David Damas. *Handbook of American Indians, volume 5*, W.T. Sturtevant gen. ed., pp. 136-148, Smithsonian Institution, Washington, D.C.

1992 "Only A Skin Boat Load or Two": The Role of Migration in Kodiak Prehistory. Arctic Anthropology 29(1):2-17.

1997 The Early Kachemak Phase on Kodiak Island at Old Kiavak. Archaeological Survey of Canada, Mercury Series, Paper 155. Canadian Museum of Civilization, Hull.

CLARK, GERALD H.

1977 Archaeology of the Alaska Peninsula: The Coast of Shelikof Strait, 1963-1965. University of Oregon Anthropological Papers No. 13. Eugene.

CONKEY, MARGARET AND CHRISTINE HASTORF (EDITORS)

1990 The Uses of Style in Archaeology. Cambridge University Press, Cambridge.

CROWELL, ARON L. AND JEFF LEER

2001 Ukgwepet (Our Beliefs): Alutiiq Spiritual Life and Traditions. In Looking Both Ways: Heritage and Identity of the Alutiiq People, edited by A.L. Crowell, A.F. Steffian and G.L. Pullar, pp. 189-221, University of Alaska Press, Fairbanks.

CROZIER, S. NEAL

1989 Excavation at a Late Prehistoric Dwelling Structure on Kodiak Island, Alaska. Arctic Anthropology 26(2):78-95.

CYBULSKI, JEROME

1992 A Greenville Burial Ground. Archaeological Survey of Canada, Mercury Series, Paper No. 146, Canadian Museum of Civilization, Ottawa.

DALL, WILLIAM W.

On Masks, Labrets, and Certain Aboriginal Customs, with an Inquiry into the Bearing of their Geographical Distribution. *Third Annual Report of the Bureau of American Ethnology* (1881-1882) pp. 67-203, Smithsonian Institution, Washington, D.C.

DAVYDOV, GAVRIIL IVANOVICH

1977 Two Voyages to Russian America, 1802-1807. Translated by Colin Bearne, edited by Richard A. Pierce, Limestone Press, Kingston, Ontario, Canada.

Desson, Dominique

1995 Masked Rituals of the Kodiak Archipelago. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Alaska Fairbanks, Fairbanks.

Donta, Christopher L.

1992 Incised Slate Images and the Development of Social and Political Complexity in South Alaska. In *Ancient Images, Ancient Thought: The Archaeology of Ideology*, edited by A. Sean Goldsmith, Sandra Garvie, David Selin, and Jeanette Smith, pp. 11-18, University of Calgary, Calgary.

1993 Koniag Ceremonialism: An Archaeological and Ethnohistoric Analysis of Sociopolitical Complexity and Ritual among the Pacific Eskimo. Unpublished Ph.D. Dissertation, Department of Anthropology, Bryn Mawr College, Bryn Mawr, PA.

1994 Continuity and Function in the Ceremonial Material Culture of the Koniag Eskimo. In *Reckoning with the Dead, The Larsen Bay Repatriation and the Smithsonian Institution*, edited by Tamara L. Bray and Thomas W. Killion, pp. 122-136, Smithsonian Institution Press, Washington, D.C.



DUMOND, DON

1981 Archaeology of the Alaska Peninsula: the Naknek Region, 1960-1975. University of Oregon Anthropological Papers No. 21, University of Oregon Press, Eugene.

1998 The Archaeology of Migrations: Following the Fainter Footprints. Arctic Anthropology 35(2):59-76.

DUMOND, DON E. AND G. RICHARD SCOTT (EDITORS)

1991 The Uyak Site on Kodiak Island: Its Place in Alaskan Prehistory. University of Oregon Anthropological Papers, Volume 44, University of Oregon Press, Eugene.

ERLANDSON, JON M., ARON CROWELL, CHRISTOPHER WOOLEY, AND JAMES HAGGERTY

1992 Spatial and Temporal Patterns in Alutiiq Paleodemography. Arctic Anthropology 29(2):42-62.

EARLE, TIMOTHY K.

1990 Style and Iconography as Legitimization in Complex Chiefdom. In The Uses of Style in Archaeology, edited by M. Conkey and C. Hastorf, pp. 73-81, Cambridge University Press, Cambridge.

EARLE, TIMOTHY K. AND JONATHAN ERICSON

1977 Exchange Systems in Archaeological Perspective. In *Exchange Systems in Prehistory*, edited by T.K. Earle and J.E. Ericson, pp. 3-12, Academic Press, New York.

EMMONS, GEORGE THORNTON

1991 The Tlingit Indians. University of Washington Press, Seattle.

FIENUP-RIORDAN, ANN

1984 Regional Groups on the Yukon-Kuskokwim Delta. *Inuit Studies* 8(supp.):63-94.

FITZHUGH, J. BENJAMIN

1995a Life on the Beach: Evolution of Settlement and Land-use in the Southeast Kodiak Archipelago. Paper presented at the 60th Annual Meeting of the Society for American Archaeology, Minneapolis.

1995b Timelines and Tidelines: Early Prehistory of Southeast Kodiak. Paper presented at the 22nd Annual meeting of the Alaska Anthropological Association Meetings, Anchorage.

1996 The Evolution of Complex Hunter-Gatherers in the North Pacific; An Archaeological Case Study from Kodiak Island, Alaska. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Michigan, Ann Arbor.

FITZHUGH, W. AND S. KAPLAN

1982 Inua: Spirit World of the Bering Sea Eskimo. Smithsonian Institution Press, Washington, D.C.

FLADMARK, KNUT

1986 British Columbia Prehistory. National Museum of Man, National Museums Canada, Ottawa.

FORTUINE, ROBERT

1985 Lancets of Stone: Traditional Methods of Surgery Among the Alaska Natives. Arctic Anthropology 22(1):23-45.

GIDEON, HIERMONK

1989 The Round the World Voyage of Hiermonk Gideon, translated by Lydia Black, edited by Richard A. Pierce. Limestone Press, Kingston, Ontario, Canada.

GRITTON, JOY

1988 Labrets and Tattooing in Native Alaska. In Marks of Civilization, Artistic Transformations of the Human Body, edited by Arnold Rubin, pp. 181-190, Museum of Cultural History, University of California, Los Angeles.

Haas, Jonathan and Winifred Creamer

1993 Stress and Warfare Among the Kayenta Anasazi of the Thirteenth Century A.D. Fieldana Anthropology, New Series, No. 21, Field Museum of Natural History, Chicago.

HANTMANN, JEFFREY L. AND STEPHEN PLOG

The Relationship of Stylistic Similarity to Patterns of Material Exchange. In *Contexts for Prehistoric Exchange*, edited by J. Ericson and T.K. Earle, pp. 237-263, Academic Press, New York.

HAUSLER, PHILOMENA

1992 Alutiiq Studies Curriculum. Unpublished manuscript on file, Alutiiq Museum, Kodiak.

HEGMON, MICHELLE

1992 Archaeological Research on Style. *Annual Review of Anthropology* 21:517-36.

HEIZER, ROBERT F.

1952 Incised Slate Figurines from Kodiak Island, Alaska. American Antiquity 17:266.

1956 Archaeology of the Uyak Site, Kodiak Island, Alaska. University of California Anthropological Records 17(1):1-199, University of California Press, Berkeley.

HENN, WINFIELD

1978 Archaeology of the Alaska Peninsula: The Ugashik Drainage, 1973-1975. University of Oregon Anthropological Papers No. 14, University of Oregon Press, Eugene.



PAGES 1 - 27

HIMMELHEBER, HANS

1993 Eskimo Artists. University of Alaska Press, Fairbanks.

HODDER, IAN

1979 Economic and Social Stress and Material Culture patterning. American Anthropologist 44(3):446-453.

HOLMBERG, HEINRICH, J.

1985 Holmberg's Ethnographic Sketches. Translated by Marvin W. Falk, edited by Fritz Jaensch, University of Alaska Press, Fairbanks.

JACOBSEN, J.A.

1977 Alaskan Voyage. Translated by Erna Gunther. University of Chicago Press, Chicago.

JONAITIS, ALDONA

1988 Women, Marriage, Mouths, and Feasting: The Symbolism of Tlingit Labrets. In Marks of Civilization, Artistic Transformations of the Human Body, edited by Arnold Rubin, pp. 191-206, Museum of Cultural History, University of California, Los Angeles.

JORDAN, RICHARD H.

1988 Kodiak Island's Kachemak Tradition: Violence and Village Life in a Land of Plenty. Paper presented at the 16th Annual meeting of the Alaska Anthropological Association, Fairbanks.

1994 Qasqiluteng: Feasting and Ceremonialism Among the Traditional Koniag of Kodiak Island. In Anthropology of the North Pacific Rim, edited by W.W. Fitzhugh and V. Chaussonnet, pp. 147-173, Smithsonian Institution Press, Washington, D.C.

JORDAN, RICHARD H. AND RICHARD A. KNECHT

1988 Archaeological Research on Western Kodiak Island, Alaska: The Development of Koniag Culture. In Late Prehistoric Development of Alaska's Native People, edited by Robert D. Shaw, Roger K. Harritt, and Don E. Dumond, *Aurora* IV:225-306, Alaska Anthropological Association, Anchorage.

KAN, SERGEI

1989 Symbolic Immortality. Smithsonian Institution Press, Washington, D.C.

KEDDIE, GRANT

1981 The Use and Distribution of Labrets on the North Pacific Rim. Syesis 14:59-80.

1989 Symbolism and Context: The World History of the Labret and Cultural Diffusion on the Pacific Rim. Paper presented at the Circum-Pacific Prehistory Conference, Seattle.

KNECHT, RICHARD A.

1995 The Late Prehistory of the Alutiiq People, Culture Change on the Kodiak Archipelago from 1200-1750 A.D. Unpublished Ph.D. Dissertation, Department of Anthropology, Bryn Mawr College, Bryn Mawr. PA.

DE LAGUNA, FREDERICA

1956 Chugach Prehistory. University of Washington Press, Seattle.

1975 The Archaeology of Cook Inlet, Alaska. The Alaska Historical Society, Anchorage. Second Edition.

LANTIS, MARGARET

1959 Folk Medicine and Hygiene Lower Kuskokwim and Nunivak-Nelson Island Areas. Anthropological papers of the University of Alaska 8(1):1-75.

LISIANSKI, URI

1968 A Voyage Round the World, 1803-1806. N. Isreal Amsterdam and Da Capo Press, New York.

LOBDELL, JOHN EDWARD

1980 Prehistoric Human Populations and Resource Utilization in Kachemak Bay, Gulf of Alaska. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Tennessee, Knoxville.

MATSON, R.G.

1989 The Lacarno Beach Phase and the Origins of the Northwest Coast Ethnographic Pattern. *Proceedings of the Circum-pacific Prehistory Conference*, Vol. III, Part 2, Seattle.

MACDONALD, GEORGE F. AND RICHARD I. INGLIS

1980 An Overview of the North Coast Prehistory Project. BC Studies 48:37-63.

McCartney, Allen P.

1984 Prehistory of the Aleutian Region. In, Arctic, edited by David Damas, The Hand Book of North American Indians, volume 5, general editor, William C. Sturtevant, pp. 119-135, Smithsonian Institution Press, Washington, D.C.

Maritime Adaptations in Southern Alaska. Proceedings of the International Symposium on Maritime Adaptation in the North Pacific, edited by Hiroaki Okada, pp. 19-55, Abashiri, Hokkaido, Japan.

McMahan, J. David

1996 1993 Archaeological Investigation of the Uyak Site (KOD-145) in Conjunction with Access Road Construction: Larsen Bay, AK (Project 59779). Office of History and Archaeology Report Number 58. Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation, Office of History and Archaeology, Anchorage.



MILLS, ROBIN OWEN

1994 Radiocarbon Calibration of Archaeological Dates from the Central Gulf of Alaska. *Arctic Anthropology* 31(1):126-149.

Moss, Madonna L.

Gender, Social Inequality, and Cultural Complexity: Northwest Coast
 Women in Prehistory. In *Debating Complexity, Proceedings of the* 26th Annual Chacmool Conference, edited by Daniel A. Meyer, Peter
 C. Dawson, and Donald T. Hanna, pp. 81-88, University of Calgary
 Archaeological Association, Calgary, Alberta.

1998 Northern Northwest Coast Regional Overview. Arctic Anthropology 35(1):88-111.

1999 George Catlin among the Nayas: Understanding the Practice of Labret Wearing on the Northwest Coast. Ethnobistory 46(1):31-65.

MURDOCH, JOHN

1988 Ethnological Results of the Point Barrow Expedition. Smithsonian Institution Press, Washington, D.C.

NELSON, EDWARD W.

1899 The Eskimo About the Bering Strait. Eighteenth Annual Report of the Bureau of American Ethnology. Government Printing Office, Washington, D.C.

NIBLACK, ALBERT P.

1970 The Coast Indians of Southern Alaskan and Northern British Columbia. Johnson Reprint Company, New York.

OSGOOD, CORNELIUS J.

1940 Ingalik Material Culture. Yale University Publications in Anthropology 22. Yale University Press, New Haven.

OSWALT, WENDELL

1955 Prehistoric Sea Mammal Hunters at Kaflia, Alaska. Anthropological Papers of the University of Alaska 4(1):23-61.

PEEBLES, C. AND KUS S.

1977 Some Archaeological Correlates of Ranked Societies. American Antiquity 42:421-448.

REGER, DOUGLAS R.

1977 An Eskimo Site Near Kenai, Alaska. Anthropological Papers of the University of Alaska 18(2):37-52.

SACKETT, JAMES R.

1985 Style and Ethnicity in the Kalahari: A Reply to Wiessner. American Antiquity 50:154-159.

SALTONSTALL, PATRICK G.

1995 Inter-regional Interaction, Boundary Maintenance, and the Kachemak to Koniag Transition. Dissertation Improvement Grant Proposal submitted to the National Science Foundation, Polar Programs, Social Science Division, Washington D.C.

1997 Archaeology at Settlement Point, 1997 Preliminary Report. Report submitted to the Afognak Native Corporation, Kodiak. Unpublished manuscript on file at the Alutiiq Museum, Kodiak.

SAMPSON, C. GARTH

1988 Stylistic Boundaries among Mobile Hunter-Foragers. Smithsonian Institution Press, Washington, D.C.

SIMON, JAMES J.K. AND AMY F. STEFFIAN

1994 Cannibalism of Complex Mortuary Behavior? An Analysis of Patterned Variability in the Treatment of Human Remains from the Kachemak Tradition of Kodiak Island. In *Reckoning with the Dead*, edited by Tamara L. Bray and Thomas W. Killion, pp. 75-100, Smithsonian Institution Press, Washington, D.C.

SINOPOLI, CARLA

Style in Arrows: A Study of an Ethnographic Collection from the Western United States. In Foragers in Context, Long-term, Regional, and Historical Perspectives in Hunter-Gatherer Studies, edited by Preston T. Miracle, Lynn E. Fisher, and Jody L. Brown, pp. 63-88. Michigan Discussions in Anthropology, Volumes 10, Ann Arbor.

STEFFIAN, AMY F.

1992a Archaeological Coal in the Gulf of Alaska, A view from Kodiak Island. Arctic Anthropology 29(2):111-129.

1992b Fifty Years After Hrdlicka, further excavations at the Uyak Site, Kodiak Island, Alaska. *Anthropological Papers of the University of Alaska* 22(1&2):141-164.

2001 Cúmilalbet - Ancestors. In Looking Both Ways: Heritage and Identity of the Aluttiq People, edited by A.L. Crowell, A.F. Steffian and G.L. Pullar, pp. 99-135, University of Alaska Press, Fairbanks.

STEFFIAN, AMY F. AND JAMES J.K. SIMON

1994 Metabolic Stress Among the Prehistoric foragers of the Central Alaska Gulf. Arctic Anthropology 31(2):78-94.

SUTTLES, WAYNE

1990 Introduction. In Northwest Coast, edited by Wayne Suttles, Handbook of North American Indians, volume 7, general editor William C. Sturtevant, pp. 1-15. Smithsonian Institution, Washington, D.C.



27

TOWNSEND, JOAN B.

- 1980 Ranked Societies of the Alaskan Pacific Rim. In Alaska Native Culture and History, edited by Yoshinobu Kotani and William B. Workman. Senri Ethnological Series, Volume 4, pp. 123-156, National Museum of Ethnology, Osaka.
- 1983 Pre-contact Political Organization and Slavery in Aleut Society. In, The Development of Political Organization in Native North America, edited by Elizabeth Tooker, pp. 120-132, *Proceedings of the American Ethnological Society*, Philadelphia.

WIESSNER, POLIY

1983 Style and Information in Kalahari San Projectile Points. *American Antiquity* 48(2):253-276.

WOBST, H.M.

1977 Stylistic Behavior and Information Exchange. In For the Director: Essays in Honor of James B. Griffin, edited by C. Cleeland, pp. 317-342, University of Michigan Anthropological Papers, No. 61, Ann Arbor.

WORKMAN, KAREN W.

1977 Chugachik Island: A Kachemak Tradition Site in Upper Kachemak Bay, Alaska. Anthropological Papers of the University of Alaska 18(2):1-22.

WORKMAN, WILLIAM B.

- 1980 Continuity and Change in the Prehistoric Record from Southern Alaska. In Alaska Native Culture and History, edited by Yoshinobu Kotani and William B. Workman, Senri Ethnological Series 4:49-102, National Museum of Ethnology, Osaka.
- 1988 Strangers, Kinsmen and Enemies: Cultural Relationships Between the People of the Outer Kenai Peninsula and the Kodiak Island Group over the Last 3500 Years. Unpublished manuscript in the files of the author.
- 1992 Life and Death in a First Millennium AD Gulf of Alaska Culture: The Kachemak Tradition Ceremonial Complex. In Ancient Images, Ancient Thought: The Archaeology of Ideology, edited by S. Goldsmith, S. Garvie, D. Selin, and J. Smith, pp. 19-25. Proceedings of the 23rd Annual Chacmool Conference, Archaeological Association of Alberta, Calgary.
- 1994 The Kachemak Tradition Occupation of Kachemak Bay: Site Inventory Similarities, Variation, and the Question of Settlement Systems. Anthropological Papers of the University of Alaska 24(1-2):205-227.

WORKMAN, WILLIAM B., JOHN E. LOBDELL, AND KAREN W. WORKMAN

1980 Recent Archaeological Work in Kachemak Bay, Gulf of Alaska. Arctic 33(3):385-399.

YESNER, DAVID R.

1992 Evolution of Subsistence in the Kachemak Tradition: Evaluating the North Pacific Maritime Stability Model. *Arctic Anthropology* 29(2):167-181.

