

Current Perspectives on Western Boreal Forest Life: Ethnographic and Ethnohistoric Research in Late Prehistoric and Historic Archaeology — A Preface

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ABSTRACT. At the 1987 Society for American Archaeology Meetings in Toronto, several scholars gathered to present their most recent research using ethnographic and ethnohistoric information to study late prehistoric and historic Athabaskan archaeology in the western subarctic interior. An important subsidiary goal of the session was to promote information exchange between Canadian and U.S. researchers. The papers from this symposium make up the rest of this volume; this preface provides the reader with some background for better appreciating the papers that follow.

The preface begins with a short historical summary of recent Athabaskan archaeology, including the use of ethnohistoric and ethnographic approaches. It continues with very brief summaries of the six papers as context for the subsequent comments, presented at the session by the symposium's two discussants, Polly McW. Quick and Donald W. Clark. Their comments touch on several important issues, including adaptation to environmental variability, the importance of explicit linkages between ethnographic information and archaeology, the value of oral history, the difficulties of projecting findings from recent historic sites back even to more distant historic sites, the promise and problems of interpreting social groupings from structural remains, the value of having northern researchers who live and work throughout the year in the North, and the need for better frameworks for linking ethnographic and ethnohistoric information with archaeology to permit some generalization.

The preface closes with a discussion of future research directions and priorities. Future research needs to expand the role and types of ethnoarchaeological research in the area to include: more detailed studies of spatial patterns, relationships between time-motion and activity areas, disposal behavior, technological processes, the cultural patterning of cemeteries, and the impact of ideational aspects of Athabaskan culture on material remains. At the same time future research must make important and potentially difficult choices concerning the amount of time and money devoted to ethnohistoric and archaeological research versus ethnographic research with a diminishing group of elders with traditional knowledge. Other difficult choices may include decisions about which sites to investigate and what values will influence the way research is conducted and its results reported. The more specialized training archaeologists have tended to receive in recent years may not be the most appropriate for this type of research.

Key words: Alaska, archaeology, Athabaskans, boreal forest, Canada, ethnoarchaeology, ethnography, ethnology, ethnohistory, historic period, research priorities, Subarctic, symposium

RÉSUMÉ. Lors des réunions de 1987 de la Society for American Archaeology à Toronto, plusieurs spécialistes se sont rassemblés pour présenter leurs plus récentes recherches faisant appel à l'information ethnographique et ethnohistorique, pour étudier l'archéologie athabaskienne de la préhistoire tardive et de l'histoire, dans l'intérieur de la zone subarctique occidentale. Un but accessoire mais important de ces débats était de promouvoir l'échange d'information entre les chercheurs canadiens et américains. Les articles présentés lors de ce symposium constituent le reste du volume, et la préface donne au lecteur un contexte qui lui permet de mieux apprécier le contenu des articles qui suivent.

La préface commence par une brève description historique de l'archéologie athabaskienne, y compris l'utilisation d'approches ethnohistoriques et ethnographiques. Elle se poursuit avec des résumés succincts des six articles, qui forment un contexte pour les commentaires subséquents présentés lors de la session par les deux participants du symposium, Polly McW. Quick et Donald W. Clark. Les commentaires abordent plusieurs questions importantes, y compris l'adaptation à la variabilité de l'environnement, l'importance des liens explicites entre l'information ethnographique et l'archéologie, la valeur de l'histoire orale, les difficultés dans la projection des résultats de fouilles sur des sites historiques récents à des sites historiques datant d'époques plus reculées, l'intérêt et les difficultés suscités par les vestiges architecturaux dans l'interprétation des groupes sociaux, l'importance de faire venir des spécialistes du Grand Nord qui habitent et font de la recherche à longueur d'année dans la région, et le besoin de meilleurs cadres pour relier l'information ethnographique et ethnohistorique à l'archéologie en vue de permettre un certain degré de généralisation.

La préface se termine par une discussion sur les directions et priorités de la recherche dans le futur. Celle-ci a besoin d'élargir le rôle et les types de recherche ethnoarchéologique dans la région afin d'inclure les points suivants: des études plus approfondies des schémas spatiaux, les rapports entre temps-déplacement et les zones d'activité, le comportement dans le traitement des déchets, les processus technologiques, la disposition culturelle des cimetières et l'impact des aspects conceptuels de la culture athabaskienne sur les vestiges matériels. En même temps, la recherche future doit faire des choix importants et qui peuvent s'avérer difficiles quant à l'importance en temps et en argent que l'on doit accorder à la recherche ethnohistorique et archéologique vis-à-vis de la recherche ethnographique avec un groupe de plus en plus petit d'anciens qui possèdent les connaissances traditionnelles. Parmi les autres choix difficiles, il y a celui des sites à explorer et celui des valeurs qui influenceront la façon de mener la recherche et de rapporter les résultats. La formation plus spécialisée que les archéologues ont eu tendance à recevoir ces dernières années n'est peut-être pas celle qui convient le mieux à ce type de recherche.

Mots clés: Alaska, archéologie, Athabaskans, forêt boréale, Canada, ethnoarchéologie, ethnographie, ethnologie, ethnohistoire, période historique, priorité dans la recherche, subarctique, symposium

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INTRODUCTION

Over the past several years archaeologists working in the western Subarctic have increasingly used ethnohistoric and ethnographic approaches, especially for studying late prehistoric and historic Athabaskan sites. The new applications and results growing out of this work created a need for

researchers interested in these approaches to come together. The idea for this particular session came from a more general symposium on ethnographic and ethnohistoric approaches in archaeological research held at the Canadian Archaeological Association annual meeting in Victoria in 1984. After that session, which included papers on the Arctic, the Subarctic, and the Northwest Coast, some of the participants,

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including Robert Janes and Wendy Arundale, discussed the possibility of a similar session on the western Subarctic at a future Society for American Archaeology (SAA) annual meeting.

In addition to their common geographic and theoretical interests, this group felt acutely an old and resolved problem: the international boundary, which throughout most of the past never bothered the Native people, today tends to inhibit the flow of information between U.S. and Canadian scholars. They felt that studies of recent Athabaskan sites were progressing rapidly so that interchange would be extremely valuable. In 1979 a joint Canadian-U.S. symposium on recent research in Eskimo archaeology had helped break down some of these barriers (Arundale and Schledermann, 1980). A similar session on late prehistoric and historic Athabaskan studies, but smaller and more narrowly focussed, seemed like a reasonable way to approach this problem again.

A variety of reasons delayed plans, but when the SAA annual meeting was scheduled for Toronto in May 1987, the timing seemed right. Despite the session's time slot near the end of a long meeting, the audience was ample and attentive, and there was some good discussion. This issue of *Arctic* includes all the papers presented in Toronto, as well as a paper by Chris Campbell originally scheduled for the session but not presented when Campbell's travel arrangements broke down at the last minute.

This preface, whose senior author was the symposium's organizer, attempts to provide a framework for the papers that follow. It begins with a very short historical summary of recent Athabaskan archaeology, including the use of ethnohistorical and ethnoarchaeological approaches. Next comes a brief summary of the papers to provide the reader with a context for understanding the subsequent discussants' comments, which have been edited for publication. The preface closes with some additional thoughts on future research directions and priorities. The preface's junior authors were the discussants for the symposium and have graciously contributed their comments to this paper. The senior author is responsible for the remaining portions of this preface.

One final comment on the title. The original symposium title was "New Perspectives on . . ." However, as the participants began to assemble their work, we realized that it spanned quite a spectrum from more traditional to quite innovative. Even the papers using the newest perspectives have elements that quite obviously are not new. These elements stem in large part from a tradition among boreal forest archaeologists of drawing on ethnographic and ethnohistorical sources. The persistence of these traditional elements speaks strongly of their current research value. With this combination of old and new, "Current Perspectives on . . ." seems a much more appropriate title for this volume.

BACKGROUND

By comparison with their coastal neighbors, the interior's northern Athabaskans and their archaeology and ethnography have been almost neglected by northern anthropologists. Until quite recently most archaeological studies of the western Subarctic were done by a few academic or museum researchers, often with meager funding and very small crews. Much of this work took place in Alaska; with one exception, no professional research was carried out in

the western Canadian boreal forest until well after the end of World War II (Cinq-Mars and Martijn, 1981). Nevertheless, because of their pioneering character and the broad vision of the researchers involved, some of these earlier efforts significantly shaped our understanding of prehistory over large geographic areas. De Laguna's 1935 survey along the lower Yukon River (de Laguna, 1936, 1947) and MacNeish's work in western Canada (MacNeish, 1953, 1954, 1955, 1959a,b, 1960, 1963, 1964) are two outstanding examples.

By about 1970, this situation had begun to change. For example, during the 1960s A. McFadyen Clark, later joined by D. Clark, began doing archaeology to supplement ethnohistoric research on the upper Koyukuk River (see especially Clark and Clark, 1974); McKennan and Cook were excavating the rich site of Healy Lake with an early component that they date at 9000 B.C. (Cook, 1969; McKennan and Cook, 1970); and on the Canadian side of the border Morlan, Irving, and Cinq-Mars were investigating areas such as the northern interior Yukon for the first time on a sustained basis (Morlan, 1973; Irving and Cinq-Mars, 1974).

The growth and change begun in the 1960s was accelerated even further in Alaska by the 1971 passage of the Alaska Native Claims Settlement Act (ANCSA) and mitigation for the trans-Alaska oil pipeline (University of Alaska, 1970, 1971; Cook, 1977). In Canada, preliminary archaeological work for the proposed Mackenzie Valley Pipeline had some similar effects (Cinq-Mars, 1973, 1974; Janes, 1974; Millar and Fedirchuk, 1975).

Along with these major mitigation efforts, the 1970s also brought increasing efforts on both sides of the border to enact protective measures for cultural resources at both the federal and the state, provincial, or territorial level. In Alaska and the Canadian provinces and territories, government agencies were created to evaluate and manage historical and archaeological resources, providing some financial support for these activities. And increasingly, archaeology became integrated into the environmental impact studies for construction projects (Cinq-Mars and Martijn, 1981; McKay, 1977; Workman, 1985). More recently, mitigation efforts for large-scale construction projects, such as the proposed TAGS natural gas line (Aigner, 1979; Aigner and Gannon, 1980, 1981, 1982; Shinkwin and Aigner, 1979) and the proposed Susitna Dam (Dixon *et al.*, 1980, 1982a,b, 1984) in Alaska (Aigner, 1986) and the NOGAP project (Bourtelli, 1985; Hanks and Pokotylo, this volume; Monroe and Hanks, 1987) in Canada have helped provide a much clearer but still incomplete picture of interior prehistory.

Besides a notable increase in fieldwork and publication, the 1970s also saw an increasing emphasis on a broad interdisciplinary approach to research with an ecological emphasis. The broader trend away from culture history and toward the more systemic approaches that characterized Americanist archaeology as a whole during the preceding decade began to affect northern work as well. Expanding knowledge in related fields such as botany, geology, and paleoclimatology enhanced understanding of the natural environment.

At the same time a renewed appreciation for ethnographic data on boreal hunting and fishing adaptations led researchers to develop models of environmental exploitation that could be tested with both prehistoric and historic period data. These trends, in turn, influenced the way in which contemporary

mitigation projects were being conducted (Cinq-Mars and Martijn, 1981). The intellectual growth of this period is evident in part in four conference and symposium volumes devoted to Athabaskans (Darnell, 1970; Derry and Hudson, 1975; Helmer *et al.*, 1977; A.M. Clark, 1975).

Since then several kinds of research have continued to contribute to our improving knowledge. Academic and museum-oriented research efforts, such as those to locate "Early Man" sites, have enhanced our information about a wide range of interior sites, not all of them with early dates. Increasingly, archaeologists working for government agencies have become involved in interior archaeological studies. For example, agency research to validate Native land claims made under provisions of ANCSA have greatly expanded our inventory of Alaskan interior sites, particularly sites from the late prehistoric and historic periods (see, for example, Andrews, 1977).

And perhaps most importantly, Native people themselves have gotten more involved in interior research. One reason that several recent projects have been quite successful in greatly expanding our information base is that increasingly they have had the assistance of local resource specialists, Native villagers, often elders, with knowledge of local history and traditional cultural practices (Aigner, 1986). (For additional information and references concerning the historical development of western interior subarctic archaeology, see Aigner, 1986; Cinq-Mars, 1973, 1974, 1976; Cinq-Mars and Martijn, 1981; D.W. Clark, 1975, 1981; Clark and Morlan, 1982; Davis, 1981; Dekin, 1978; Dixon, 1985; Hanks and Pokotylo, this volume; Maxwell, 1980; Morrison, 1987; Noble, 1981; and Wright, 1981.)

The slow development of research is not the only factor responsible for the sluggish pace at which western boreal forest archaeology has evolved. There is at least one other factor: preservation. The mobile lifeways of interior peoples dictate that many of their camps were occupied only briefly, leaving relatively ephemeral remains. Sites tend to be small and shallow or have multiple shallow occupations sometimes spread over large areas (D.W. Clark, 1982). Further, these camps were frequently located in active environments, such as along river courses, where wind or water were likely to erode them away, or on permafrost, where they may be disturbed or mixed by frost action. Finally, in many places soils are thin, and their acidity can rapidly destroy evidence of bones and other organic items. Often organic materials are preserved only in recent sites.

Because interior research has been slow to develop, many basic questions about Athabaskans and interior prehistory remain unresolved. For example, when did the first Athabaskans come to Alaska and western Canada? Or put another way, how far back in time can the interior's archaeological record be identified with the Athabaskan people? What were the boundaries of Athabaskan territory and how have they varied in time? How did interior people adjust to the fluctuating availability of resources that seems to be typical of their region? And how can we best assign temporal and functional meaning to the various forms found in interior stone tool technologies such as the Denali Complex? In fact, a 1975 conference on the prehistory of the western North American Subarctic was subtitled "The Athapaskan Question" (Helmer *et al.*, 1977). We could still use a similar title today, but it would have to be plural!

With so many questions remaining about interior archaeology, researchers have sought a variety of methods to answer them. Some archaeologists look strictly at the archaeology. Others make use of biological, linguistic, and ecological data as well. Some of the most useful nonarchaeological sources of information, particularly for researchers interested in late prehistoric and historic period sites, have been ethnohistory and ethnography. Both have long been used in North American archaeology, although until recently neither has consistently played a prominent role in interpretation. (See Charlton, 1981, and Spores, 1980, for summaries of these approaches and their historical development.) Following methods well established by workers in other regions, western boreal forest researchers have used these approaches as well.

In fact, northern researchers have a long tradition of integrating ethnohistoric, ethnographic, and archaeological data sources. Such important established researchers as Frederica de Laguna, J.L. Giddings, Annette McFadyen Clark, and James VanStone have frequently worked with knowledgeable local informants and used ethnographic and ethnohistoric data to supplement their archaeological research. Thus, although this symposium draws to some extent on more recent developments, such as ethnoarchaeology, it also honors a valuable and long-standing tradition within northern archaeology.

Because interior archaeologists have recognized how valuable ethnohistoric and ethnographic data can be, interior subarctic research has produced some rather good examples of this kind of work. One of the best is James VanStone's (1978, 1979a,b) study of the historic Ingalik. Using both extensive ethnohistoric sources and ethnographic information together with archaeological data from surface survey, VanStone outlines the historic and ecological changes that have affected the Ingalik or *Deg Hit'an* region and its people. Another more site-oriented example of good archaeological research that uses both ethnohistoric and ethnographic or oral history data is Shinkwin's (1979) study of Dakah De'nin's Village. Canadian examples include Morlan's (1973) work at Klo-Kut and the surrounding area and Noble's (1975) research on the central Mackenzie District.

As the broader archaeological community increasingly recognized the value of ethnohistoric and ethnographic sources, it also became increasingly frustrated because the ethnographic data, in particular, often lacked information concerning those aspects of material culture most interesting to archaeologists. As a result some newer approaches, termed ethnoarchaeology, have developed in which the archaeologist frequently collects his or her own ethnographic data geared specifically to the archaeological questions at hand. (See, for example, Binford, 1977, 1978a; Charlton, 1981; Donnan and Clelow, 1974; Gould, 1978, 1980; Gould and Schiffer, 1981; Kramer, 1981; Stiles, 1977; Thomas, 1986; and Yellen, 1977, for information on the development of ethnoarchaeology, examples of the kinds of studies this approach encompasses, and discussion of some of the methodological issues raised.)

Closely connected with the growth of ethnoarchaeology and encompassing some of the same theoretical objectives has been an increasing interest in building a body of mid-range or middle range theory. (For more detailed discussions of middle range theory, see, for example, Binford, 1977, 1978a; Grayson, 1982; Raab and Goodyear, 1984; and

Thomas, 1986.) One of middle range theory's major goals is to produce operational definitions for basic archaeological concepts. Such definitions are not easy to obtain, and so far the goal has proven frustratingly difficult to reach. Nevertheless, it is an important goal for archaeology and one toward which we are beginning to see some innovative boreal forest researchers directing their efforts (see especially Janes, this volume).

Since the western Subarctic is one of the few regions of North America where Native people with direct ethnic ties to the historic and prehistoric population still live on the land in ways that clearly reflect traditional lifestyles, it is an ideal area for using some of these more recent ethnoarchaeological approaches. Indeed, beginning in the early 1970s with research by Annette and Donald Clark that foreshadows current approaches, interior researchers have produced some very interesting and valuable studies. Perhaps the most extensive recent work using these approaches is Janes's (1983) monograph on the archaeological ethnography of the Willow Lake band of Slavey (see also Janes, 1975a,b). Two recent dissertations, Sheila Albright's *Tahltan Ethnoarchaeology* (1984) and Jack Ives's *Northern Athapaskan Social and Economic Variability* (1985), offer some very interesting findings. A fourth research project of considerable note is the work by Hetty Jo Brumbach, Robert Jarvenpa, and their colleagues (Brumbach, 1985; Brumbach *et al.*, 1982; Brumbach and Jarvenpa, in press) on historic Chipewyan, Cree, and Euroamerican adaptations in northern Saskatchewan. Shorter works include, for example, papers by Hanks and Winter (1983, 1986) on using the ethnogeography of Mountain Dene place-names to help unravel the history of the local settlement systems.

Related work by colleagues in cultural anthropology and linguistics has also been helpful and stimulating. Examples include linguistic and place-name studies among the Ahtna and Tanaina (see, for example, Kari and Kari, 1982; Kari, 1983, in press) and subsistence studies, particularly those that reference traditional place-names, hunting techniques, and resource areas (see, for example, R.A. Caulfield's 1983 study of the Arctic Village area). Of particular contemporary interest is the comprehensive, historically oriented subsistence and community study of the Nondalton area on the Alaska Peninsula by Linda Ellanna and Andrew Balluta (in press) sponsored by the U.S. National Park Service.

In addition to a fresh theoretical framework with some traditional roots, other aspects of this more recent work are also new. Although Native people have been involved in past research, the kind and level of their participation has evolved substantially. In the past their involvement has been primarily on an individual basis; now they are involved on an organizational level as well. Thus, in addition to individuals working with particular researchers as collaborators and resource people, organizations representing Native people have taken a more active role in determining what research should be done, who should do it, how it should be carried out, and even in some cases providing funding. In Alaska, Native regional corporations, such as Doyon, Ltd., and predominantly Native governing bodies, such as the North Slope Borough, are sponsoring and funding this kind of research (Arundale, 1983, 1984). In Canada, community and band councils and other Native organizations have also taken an active role; for example, the Council of Yukon Indians has hired its own archaeologist.

With this background on previous research to provide context, let us now turn to the symposium papers. The first paper, by David Yesner, uses primarily ethnohistoric and ecological data. It looks at the role of moose in reconstructions of western subarctic subsistence patterns. On the basis of some ethnographic, but primarily archaeological and ecological information, he questions the frequent assumption that moose were a central resource in prehistoric interior subsistence patterns. His research suggests that intensive use of moose is relatively new in the western boreal forest, or at least was not widely characteristic of the late Holocene period. If any large game was used, it was more often caribou. Historical factors, especially fire, seem to have promoted recent increases in moose populations. From Yesner's ecologically oriented discussion, we get a better sense of both the regional and temporal variability that characterized the resource base available for human consumption during prehistoric and historic times.

The second paper, by John Cook, uses ethnohistoric information more extensively but also brings in some ethnographic data to describe and interpret the history of the archaeological materials from the late 19th- and early 20th-century levels of the Village Site at Healy Lake. Cook's ethnohistoric sources provide a broad context for the development of trade in the Tanana Valley and give some insights concerning the movement of Native people. His ethnographic sources, chiefly the unpublished field notes of well-known northern anthropologist Robert McKennan, with whom Cook worked at Healy Lake, provide most interesting, if sometimes conflicting, information on the evolution of Healy Lake as a settlement location. Our knowledge of how Euro-American contact changed the lives of people living in Alaska's upper Tanana Valley is spotty at best. This paper makes a valuable contribution to that understanding.

The third paper, by Chris Rabich Campbell, employs an even greater portion of ethnographic material, including her own interviews with local elders. Campbell examines the question of origins for the Nexadi clan of the Sanyakwan Tlingit. The Nexadi have an unusual social organization involving three phratries, rather than the two found among all the other Tlingit groups. Their traditional subsistence practices were also divergent and in some notable respects resembled more closely the patterns of their Tsetsaut Athabaskan neighbors. Swanton (1970) suggested that Nexadi origins were connected with the Tsetsaut. Campbell draws on several sources to argue persuasively that instead the Nexadi probably were one of the five original Tlingit clans and the only original clan to preserve an ancient three-part phratry system. Although Campbell's paper is not strictly archaeological, the historic and ecological data she presents could be crucial for understanding some aspects of the late prehistoric and historic archaeology in both present and former Nexadi territory.

The next three papers in the set are more specifically ethnoarchaeological, beginning with a thoughtful piece by Robert Janes. Janes is concerned with understanding the relationship between ethnographically observed behavior and its material expression in the archaeological record. He discusses the excavation of a historic tepee for which he has considerable ethnographic information. From his experiences with this and other similar work, he develops a model for identifying tepee features in the absence of surficial architectural remains. He

proposes that tepees in northern Athabaskan sites imply the presence of women and children, since men traveling without dependents almost always sleep in the open or build improvised open camp shelters.

Next follows a paper by Christopher Hanks and David Pokotylo discussing the increasing involvement of Mackenzie drainage Dene and Metis in archaeological research. Hanks and Pokotylo point out that the Dene are tired of being simply objects of inquiry and are becoming inquirers themselves. After a brief account of recent archaeological work in the Mackenzie Valley, they describe how one project in community-based research has developed. In 1985 and 1986, the authors, with help from Fort Norman elders, conducted an ethnoarchaeological field school at Drum Lake, located in the Mackenzie Mountains. The authors found that closer collaboration with the Dene and Metis brought new and rewarding insights to their research.

Finally Wendy Arundale and Eliza Jones are working with Koyukon Athabaskans in Alaska to record data on historic settlement and landscape use in the Allakaket area. They begin by presenting some sample data describing late winter landscape use practices from several different periods ranging from 1890 to 1953. From these data they assemble a simple model of the Koyukon settlement patterns for this time of year and discuss the changes that have taken place in the settlement patterns over time. Then by using Binford's (1978a,b, 1980, 1982) models of forager-collector subsistence strategies and site mobility, they show how the Koyukuk River Koyukon have become more logistically organized as they have become more sedentary. They also call attention to the need to explore more thoroughly how the Koyukon belief system may influence archaeological variability.

CONCLUDING COMMENTS AT SYMPOSIUM

At the papers' conclusion, two discussants, Donald Clark and Polly Quick, presented their comments. Donald Clark is particularly well qualified to serve as a discussant for this session. He has long done archaeology in areas currently occupied by Athabaskans in both Canada and Alaska and with his colleague and spouse, Annette McFadyen Clark, has carried out research that foreshadows ethnoarchaeological approaches in the more modern sense discussed above. Polly Quick also brings much valuable expertise and perspective. She has carried out research in ethnoarchaeology in California, some of it with Athabaskans, and she has organized two major sessions on the topic at recent national meetings. Their comments were an interesting contrast in style. Quick's approach was brief, direct, and incisive; Clark's style was more discursive and anecdotal — in some ways akin to how an Athabaskan elder might approach the task. Each in different ways added valuable insights.

Polly Quick's Comments

The symposium's papers illustrate two broad new perspectives on boreal forest life, or better, on methods for studying boreal forest life. The first method, and the most widely represented in the symposium, brings the "ethno" into archaeology, through ethnohistory, ethnogeography, ethnography, and ethnoarchaeology. Drawing on nonarchaeo-

logical observations and sources of information to illuminate archaeological patterns, these approaches assist the interpreter in going beyond the mostly stone remains to the people who left them. The second method, brought out by David Yesner, uses primarily archaeological data, though generally not artifacts, to emphasize ecological considerations in archaeological interpretation.

Both perspectives yield a good deal of information gathered for purposes other than recording culture histories. Yet we still need one or more frameworks on which to place the information, or we will be back to a Boasian sort of archaeology. I sense the different investigators know where they are going and feel, as I do, the importance of collecting as much information as possible from the sources to which these new perspectives lead us. What I find missing, both in these papers and in my own work and that of my compatriots in California, is the explicit articulation of the ethnographic information with the archaeology in a way that permits some generalization. Nevertheless, the symposium's papers present some questions and thoughts that may provide ways of approaching the needed articulation.

Yesner's paper cautions that many reconstructions of all but the latest prehistory in the boreal forest may be wrong because they presume a different subsistence base than the faunal remains and climatic information would suggest. His caution is appropriate, but I was more interested by the variability that apparently has been an inherent part of Athabaskan life for centuries. Yesner shows variability that traced and retraced similar cycles with enough frequency that one can imagine how experience and oral tradition across living generations may have permitted relatively easy responses to change for these populations. In other words, the elders always included some who knew the old techniques and resource areas used in their youth that now could help their grandchildren survive.

In California the Athabaskans are very recent arrivals. Although they live primarily in the more "marginal" environments, some of them, such as the Hupa, have shown the ability to pick up substantial elements of their neighbors' very specialized riverine adaptations. As a result we characterize them as very adaptable with the capability of shifting from generalized subsistence strategies to specialized strategies in the right time and place. Yesner's attention to prehistoric variability in environment and resources suggests a derivation for this adaptability. The variability he points out also adds another dimension to the cautionary tale: the behavior we see ethnohistorically and ethnographically probably also was part of subsistence behavior periodically in earlier prehistory at different points in the cycles of variation. Yes, we must be cautious, but we have good reason to examine the "ethno" data with great care, rather than dismiss them as irrelevant.

Janes was most explicit in linking ethnographic information and archaeology, and I commend his explicitness to all of us working in the area. Such work may well prevent us from using some inappropriate analogies. My queries to him are: what more ethnoarchaeology would you recommend to get at the variability in camp size and duration that the recent ethnography tells us about? Would you recommend work similar to that done on the tepee across the whole camp? Are there observations you did not make in your ethnographic work that you wish you had made when it came time to interpret the archaeology?

Janes concludes his paper with the proposition that the presence of tepees in a site may imply the presence of women and children. This conclusion is dropped a bit like a bombshell. Certainly there is great appeal in the promise of some way to infer the presence of things and people that we cannot see directly in the archaeological record. Perhaps Hanks and Pokotylo can elaborate some on this for us, and we can ponder how to evaluate the validity of such inferences. Although inferring the presence of people and things not reflected directly in the archaeological record is an appealing prospect, we need ways to evaluate the validity of such inferences.

The other three papers are less explicit in making linkages than Janes, and I think that is my major criticism of them. Like several of the authors, I am a proponent of using historical research, oral history, work with present-day descendants, and collection of ethnographic data in conjunction with archaeological research. What I miss in their papers is a demonstration with specific cases of some general applications of such data. Arundale and Jones indicate some directions, but cannot provide more conclusive results at this stage of their research.

Hanks and Pokotylo tell us that archaeological investigations have changed in nature because of Dene involvement, but they do not tell us how. What new questions are being asked? What new methods used? It seems the elders are joining the archaeologists as instructors for the Native students, but how is the presence of Native co-workers, either elder or younger, changing the focus of their work?

Both the Hanks and Pokotylo paper and the Arundale and Jones paper emphasize the importance of ethnogeographic data, but I miss some demonstration of that importance, particularly for the situation where we do not have a specific Native name for a place where a researcher is making archaeological interpretations. Surely the ethnotaxonomy of places and the attributes and functions that an ethnogeography provides would be useful in such a case. However, I think we are still at the stage of collecting the basic data for ethnogeographies. We have not yet done enough formal analysis to provide for applications in the places where there are no one-to-one correspondences.

Cook's paper shows us how the different data sources may be explored separately, while at the same time illustrating what I think is our current difficulty in applying these new perspectives. We have begun to tap new data sources, but we have not yet formulated a systematic and theoretically explicit way of integrating them toward our goal of full archaeological interpretation. I am encouraged to see that we are pursuing these directions, essential for an anthropological archaeology, but let us add some rigor, and let us not ignore pertinent archaeological and paleontological information as we add data from other sources.

Donald Clark's Comments

When A. Clark and I started work on the Koyukuk River in Alaska during the 1960s and early 1970s — she in 1961, before me — we went to study culture history. We did not define history as starting when the first white people came. We found Paleoindian artifacts, probably 10 500 years old, but we also noticed who would go to someone's house and take a ladder, evidently without asking permission. In other

words, we cast a broad net. One focus of our work was to excavate contact period houses. Thank goodness for the contact period, because Athabaskan housepit archaeology can be very meager without glass beads and little scraps of trade goods (Clark and Clark, 1974). We also recorded traditional and later lifeways, subsistence practices, settlement patterns, and considerable information on other topics, much of it from older people who are now deceased.

Among the stories we recorded is one that bears on Yesner's paper and the issue of resource availability. On the Koyukuk and in northwestern Alaska generally from about 1880 on, the caribou decreased. The diminished herds did not migrate as far southward as previously when they overwintered in the boreal forest. There used to be moose in the area a little over 100 years ago, around 1860, much like there were 100 years later, but in the last decades of the century the moose, too, were disappearing. It became very difficult to make a living off the land by 1890 and for some time thereafter. Trapping and working for miners was not sufficient to fill the gap in the subsistence hunting and fishing economy.

Some of the men used to go out on long hunting forays in the autumn, and they didn't have much food to take in their packs. A young hunter from one party finally came to a tree with scratches on the trunk. Usually that means that there has been a bear there, and the hungry hunters knew that the bear probably had gone into hibernation nearby. So the young hunter said, "Oh, boy, we're gonna eat, we're gonna eat," and they decided that before searching out the den, they would sit down and have a "feast." They opened their packs and ate up their sparse rations. Then this young fellow took the older hunters to the tree to show them the scratches. Behold! They were just porcupine scratches. The hunters now were hungrier than ever. The Koyukon view this incident retrospectively as humorous, and undoubtedly recount it for the "benefit" of unseasoned younger generations.

The point I wish to make, though, is different. In his cautionary tale, Yesner reasons that there must have been times when key resources failed and Native peoples had to adapt by shifting their bases of subsistence and the localities they exploited and even by moving in with other people living in places favored with food. We have good historic evidence from what the old people have told us that exactly these things happened on the Koyukuk River. The picture is very complicated: the moose failed, the caribou failed, prospectors were coming into the drainage, there were epidemics, there were ephemeral trading stores, to name only a few of the events that were happening around the turn of the 19th century.

Nevertheless, the Koyukon people adapted through a major population movement from one part of the river to other areas, both along the Koyukuk and elsewhere. They also foraged over wider areas searching for bears and, far to the east, the occasional moose. Retrospective history from the Native people, in the manner Eliza Jones and Wendy Arundale have described in their paper and Annette Clark (1974, 1975, 1981) and Richard Nelson (1983) have done in their research, provides such data. Thus, concomitant with Yesner's reasoned model of what is likely to have happened during resource crises, it is possible to find examples or derive test cases from local information. I doubt if the Koyukuk area is unique in this respect. Past hard times are widely

reported in the North, and stories can convey important recollections of how people adapted and survived.

Now let me relate a cautionary tale from my own work. I said we are thankful for contact period sites because archaeology in the northern forest would be very sparse without them. But sometimes recent sites do not reflect or meet our suppositions about the remoter past — suppositions that we read from the present or less remote past and project back in time through the ethnoarchaeological approach. For the upper Koyukuk we obtained a nearly complete list of contemporary and recently used salmon fishing camps (other fish were also caught from these camps). We looked at a number of them, expecting to find traces of earlier occupation, but found little. After talking with people on the river, we learned that the introduction of yarns and commercial nets had brought about some changes in fish camp locations. In the old days few such camps were located on the main river. Instead each band constructed one or two big traps where several families lived for the summer under the direction of a “boss.” We did not find early sites at the net fishing camps because new aspects of fishing technology were influencing the settlement pattern.

Great Bear Lake is another place I have worked (Clark, 1987) that raises another set of questions. There I was after prehistory alone. When you survey there, you are struck by the later evidence. There are tepees, some with poles still standing, and many other kinds of structures. On the barren grounds, artifacts lie on the surface, and you don't have to dirty your hands digging them up. Towards the east side of the lake — towards the barren grounds — one continues to see features such as tepee poles fallen in circles and cones and the outline of rectangular shelters. Hardly a shrub or tuft of grass grows in some of them, since some of the shelter traces now are located on denuded ground. You expect to pick the artifacts right off the floor, but I got down on my hands and knees to search and could not even find a trade bead.

This account brings me to Bob Janes's paper. He deals with a tepee seasonally occupied in the 1940s and subsequently for about 30 years. He recovered numerous artifacts. As Polly Quick asks in her comments, how are his findings going to articulate with prehistoric archaeology? He finds many artifacts in a recent historic tepee, but I find nothing in somewhat earlier historic shelters (though not all historic shelters are barren [Clark, 1987:208-211]). Janes's work is a start, but needs to be extended to cover tepees older than 1940, tepees occupied only briefly, and earlier tepees discernible on the surface, perhaps only through the distinctive vegetation of the floor area surrounding a hearth. (Stone tepee rings are uncommon in the area and thus cannot define an adequate sample.) Other kinds of structures that may have been used at family camps also deserve consideration. There are many rectangular shelters in the Mackenzie District, some with hearths, that evidently served as winter domiciles, in certain cases for paired families.

At the same time, the history and permutations of the tepee form should be explored in depth. What constitutes a tepee is a matter for discussion. There is documentary evidence that in the northern Mackenzie District, tepees close to the Plains format, but less steeply pitched, are a historic introduction. I believe, though, that some form of conical shelter probably has been used there for millenia. Michéa

(1963:61), who traveled among the Mountain Indians west of the Mackenzie River, documents a minimal shelter called a *trépied à viande* or *trépied de sechage*, or tripod drying rack (Michéa's photograph, Pl. V-B, actually shows a four-pole superstructure) that he states could be covered and used for a camping shelter in rainy weather. It was a family shelter capable of addressing concerns for welfare and comfort, but it was also a temporary feature of a mobile camping group. Janes's key thesis is that the use of covered tepees in a camp indicates a family was present. Camps with tepees, especially in multiples, represent a more stable or permanent part of the settlement pattern. Janes has made a good point but needs to broaden it.

This discussion of settlement pattern and of when families may be united around one shelter reminds me of another anecdote from the Koyukuk River. The upper river has been inhabited by both Athabaskans and Iñupiat. An elderly Iñupiat who has lived all his life among Athabaskans sometimes gave a very ethnocentric view of his neighbors, whether seriously or in jest. In former times, he told us, the Kobuk Iñupiat men would leave their wives at fishing camps on the Kobuk and Alatna rivers, then spend the whole summer hunting throughout the southern foothills of the Brooks Range. “But,” he would add, “the Indians didn't do that. They couldn't leave their wives long enough.”

I don't know how you can pick up the contrasting configurations of such camps archaeologically, especially since even in the Kobuk and Alatna fish camps there were always some old men with the women. Thus the camp assemblages would not be exclusively oriented towards female use. It is possible to introduce humanity into the archaeological record when you combine it with ethnography. However, before modeling archaeological interpretation on Native settlement pattern and dichotomous deployment of the two sexes, the archaeologist should have a very good ethnographic foundation. Despite the demands of mobility and the hunt, varied permutations of hunting and traveling parties undoubtedly existed, combining able men, women, younger families, and persons of all ages.

Touching on a point mentioned in more than one of the papers, I want to reiterate that what is recovered in the archaeological record often is abandonment behavior. We see this behavior best when we know what should or should not be recovered, a situation most likely to occur in a historic period context. Such knowledge comes from ethnographic information. Returning to the Koyukuk excavations, at one of the contact period houses, we found bear bones on the floor. Anyone who has worked with Northern Athabaskans knows that you should never find bear bones on a house floor. Worse yet, one bone may have been chewed by a dog! With the exception of humans, bears are the highest ranked of the ritually treated animals. This occurrence is an extreme case of the real culture not following the ideal. It is probably best explained not simply by the generally recognized gap between the real and the ideal, but instead through an extraordinary circumstance of abandonment.

Hanks and Pokotylo describe training youthful Native crew members. I do not intend to comment on that topic as my time is limited, and it has many facets on which I am not qualified to speak. I will, however, mention one other example of increasing integration between archaeologists and the world in which they work. The kind of research discussed

here is increasingly being done by staff of northern educational and scientific institutions. All the presenters at this symposium are based in the North, in Alaska or the Northwest Territories. Although this occurrence might not be unusual for a conference with a northern venue, it is noteworthy for one held in Toronto.

Operating from a base located close to the field has major logistical and other benefits over having to travel 6000 km or more to reach your field location. When you must travel so far, the pressure to make the precious weeks in the field "pay off" increases. Given the handicaps of operating long distance, just to get wet, cold, and eaten by insects, it is not surprising that after some people have made a couple of trips to the North, the next thing you hear is that they are working in Mexico.

Archaeologists and ethnographers who live and work close to the scene of their research can work more easily in local situations with local people, maintaining continuous contacts through the years to build up a body of information without each field excursion being the logistical campaign of the season or the decade. They also do not always have to have a big project focus. If I were based in Fairbanks, for instance, I could more easily extend the archaeological research on Koyukuk housepits back from the contact period. The sites are there, and it would not cost a large amount to dig them, if permission were granted.

An additional benefit from increased staffing of archaeologists and ethnologists at northern institutions is that southerly based persons who continue to work in the North can be freed from some of their logistic burdens through collaboration with northern colleagues. A northern collaborator should be able to make arrangements more expeditiously from his northern base, including matters pertaining to equipment, charters, permits, assistants, and curation of collections. Thus, key words for northern fieldwork in this time of increased Native and local interest and control are *collaboration* and *cooperation*.

SOME ADDITIONAL COMMENTS

The papers in this symposium suggest only a few of the possibilities for applying ethnohistoric and ethnographic data to archaeological interpretation in the western boreal forest. Many new options remain virtually unexplored. Further, some of these new directions raise important practical and epistemological issues that deserve a bit of further exploration.

Directions for Future Research

The studies in this symposium, as well as those mentioned earlier in this paper, indicate that approaches using ethnography and ethnohistory are indeed fruitful for western boreal forest researchers. Although we still have much to gain from traditional approaches, we particularly need to expand the types of ethnoarchaeological studies undertaken. In particular, we need more studies of modern Athabaskan material culture. Studies of spatial patterns, relationships between time-motion and activity areas, disposal behavior, technological processes, and the cultural patterning in cemeteries could all be valuable and enlightening (see, for example,

Chang, 1988, for research showing how some of these other types of ethnoarchaeology have been used with another northern group). Such research could also tie in nicely with another area that cries out for more detailed study: the ideational aspects of Athabaskan culture and its impact on material remains.

Studies looking at the changing patterns of material culture in the last 40-50 years might also be quite productive. Information for this period would be more accessible than farther back in time. Just as Yesner's (this volume) description of late prehistoric and early historic subsistence patterns may provide a model for one phase in the resource variability cycle, the material evidence of adaptation to rapid social and technological change over the last 50 years may also hold some important lessons for understanding the more distant past.

From the ethnohistoric perspective, our research would benefit from more extensive use of archival data. In many cases we have only begun to scratch the surface of what is available, and perhaps surprisingly, some new sources are being added to existing collections. For example, John Cook's paper in this volume makes use of Robert McKennan's field notes, which have only recently become available for study at the University of Alaska Fairbanks's Rasmuson Library. Another resource archaeologists have yet to tap effectively is the collections of historic photographs of Athabaskans found in many northern locations, including the homes of many Native people (see Blackman, 1981, for techniques of interpreting material culture from historic photographs; see also Scherer and Brown, 1981, for examples of how ethnographers have studied Athabaskan life using such photographs).

In recent years, both ethnohistorians and archaeologists have shown us that an expanded range of materials can provide useful information (Charlton, 1981). Researchers such as Beryl Gillespie (1975, 1981) and Shepherd Krech (1983, 1984; see also Krech, 1980a and b, for useful bibliographies of additional recent works) have given us a sense of what can be done with archival materials. We simply need to pursue their use more vigorously. We also need to make the archival and ethnographic sources work together to tell us more, as Catharine McClellan (1975) has done. When we add the archaeology, we have three sources that can give us quite different perspectives on the same set of events and thereby enhance our ability to understand change.

As time goes on, we recognize more clearly that ethnohistoric and ethnographic data are valuable not only because they can provide analogies and thus help us interpret data from earlier periods, but also because they provide additional points in time against which we can begin to measure the effects of change. Here Quick's emphasis on the need for theory and methods that will help us integrate the three types of data becomes particularly important. Each type of data has its own inherent limitations and biases, and it goes almost without saying that at the outset each must be critically evaluated in its own terms. But as we begin to compare and integrate them, we need a more explicit framework than the requirements of analogy (Charlton, 1981; Wylie, 1985). Recent research in ethnoarchaeology has begun to provide useful models for integrating archaeology and ethnography. But we still lack parallel approaches for integrating ethnohistoric data. As Charlton (1981) admits, integration of material from these important complementary sources is still poorly

developed in North American archaeology, despite our long history of using them together.

Issues of Priorities

Finding solutions to the problems mentioned above will not be easy. Only a few researchers are studying the interior Subarctic, and the value placed on northern work by much of Americanist archaeology is not very great. Research costs are high, and outside of development-related projects, funding for northern research is often difficult to obtain. These circumstances seem particularly ironic since the North in general, and the western Subarctic in particular, is an especially valuable place to investigate issues such as: (1) understanding hunter-gatherer adaptations, (2) documenting the range of human variability, and (3) examining how people adapt to environmental and resource instability — issues of broad primary concern within Americanist anthropology as a whole.

These limitations also add an air of extra urgency to some difficult issues concerning research priorities. For example, working with ethnohistoric, ethnographic, and archaeological sources together, though extremely valuable, can present us with a difficult dilemma. The need to interview aging elders is urgent; we want to talk with them while their memories are clear and sharp. Yet we may be able to make the most of what they have to say only if we take time away from this important task to study the archival record as well. (See also concerns about ethnoarchaeology and research priorities raised by Trigger, 1982.)

In most western boreal forest areas the most obvious historic sites, and in most areas the majority of the sites that have been studied, are the larger, often older residential sites. Yet if the expectations generated by some recent research (Binford, 1978a, 1980, 1982) are correct, these sites are likely to be the most complex and difficult to interpret, particularly if we have not looked at the simpler sites in the same settlement system from a contemporary period. If we are to understand the settlement system as a whole, we need to begin with smaller, single-purpose, single-use sites. Janes's paper in this volume illustrates very nicely the value of this approach. From such sites, especially if they are relatively recent so that knowledgeable people are available to talk about them, we are most likely to get (1) good ethnographic data, along with (2) good archaeological data recovery, resulting in (3) patterns that will help us interpret other older and more complex sites.

Yet this priority raises other questions. Can we justify spending time and money doing ethnoarchaeology on relatively small, recent sites when the elders that can give us the detailed historical, cultural, and even archaeological background on the older, more prominent and more complex sites are not likely to be with us very much longer? Through such detailed studies of small sites may come better opportunities to model settlement systems and develop operational definitions for basic archaeological concepts, goals very important to the discipline of archaeology. But often what really matters to the Native people is the detailed history of the large, old, and prominent sites in their area. Whose goals will prevail when research funding is so very scarce?

Doing the ethnography now and the archaeology later is not a workable solution, for each is needed as the process

of inquiry proceeds. In projects such as Hanks and Pokotylo (this volume) present, the two goals have been successfully reconciled. There are no pat answers, however, and the appropriate response will vary from case to case. Perhaps the only certainty is that local people must be involved in deciding the future direction of research concerning their land and their heritage.

Further, ethnoarchaeological research demands that the investigator be broadly trained so she or he is capable of working comfortably and skillfully with archaeological, ethnographic, and ethnohistoric data. Indeed, the conflicting needs just discussed and the dilemmas they present make such training even more imperative. Yet increasingly, archaeologists are receiving more and more specialized training in their own subfield of anthropology and less and less training in the other subfields that would help them with this kind of research and the concerns about priorities it raises.

This trend toward more specialized training has some additional implications when we consider one final issue. In presenting results, such as this symposium reports, recognizing that we as researchers are not separate from our data becomes increasingly important. Once archaeological materials are presented in some form, be it museum exhibit or professional paper, two messages result:

The obvious one is what the past was like. The other one is the meaning the present imposes on data from another time and which the present thus feeds back to itself. The first message is one we can help create as archaeologists. The second is one we can help understand as anthropologists [Leone, 1981:15].

An increasing number of historic archaeologists, in particular, are choosing to address this important epistemological issue through application of critical theory and similar approaches (see, for example, Clarke, 1973; Gero *et al.*, 1983; Handsman, 1981; Leone *et al.*, 1987; Meltzer, 1981). Whatever approach we choose for exploring this issue, we can ill afford to leave it unexamined.

The question of how the present imposes meaning on the past is more than an epistemological one for those working in the western boreal forest; it has a very clear practical side, too. As local Native people become increasingly involved in the work, we must ask, whose present will shape the data? The present of the academic, museum-oriented, or government agency archaeologist, or the present of the Native people? Or some combination of both? Because most archaeologists are trained and employed by major institutions (universities, museums, government agencies) in a dominant culture, even the very framework within which our work takes place cannot help but reflect, in at least some ways, the values and structural relationships of that culture. This issue has some very important implications for the manner and extent to which Native people are involved in our research. As we consider the paper by Hanks and Pokotylo (this volume), it also speaks in a variety of ways to the question of how local people are trained to do such work.

As anthropologists, we are uniquely equipped to see how the values and relationships of our own culture may influence the conduct and presentation of our work and to address the role that influence plays, if only we will look. We should be forewarned, however, that looking, although extremely interesting, may not be an entirely comfortable process. Looking may tell us some things about ourselves and the

institutional structures in which we work that we would rather not see because it may heighten our awareness of conflicting values. Nevertheless, we forego such insights at our own peril.

Because the past is grist for establishing and giving meaning to the present, this issue is also particularly important for the Native people with whom we work. Throughout the contact period, the history, language, and culture of Native people have been denigrated, and even today, much in their everyday world implies that these intrinsic aspects of their lives are somehow inferior. Yet if Native people are to adapt successfully to their rapidly changing world, they need a strong sense of self-worth, part of which comes from an appreciation of and respect for one's past.

Native people themselves clearly recognize this requirement. They confirm its importance through: (1) statements indicating their need to use their traditional language, culture, and stories, (2) the often expressed desire to have a local museum and to hold heritage-related activities sponsored by their own organizations, such as elders' conferences, and (3) participation in research projects that document their past, like the ones discussed in this symposium. In some cases, Native groups are hiring anthropologists to do the work. (See also Miller, 1980, for a discussion of similar and related issues.)

Yet even under these conditions, what the Native people want documented and the way they want it presented may only partially overlap with what the researcher's training and values indicate are important and appropriate. And without critical examination, both parties may find themselves missing important hidden social, economic, or political agendas. No one perspective is intrinsically right or wrong, but carefully exploring a wide range of perspectives can be vital to meeting local needs, avoiding unnecessary conflict, and understanding influential meanings and values in the present that might otherwise remain hidden and unexamined. Along with all the other requirements of our research, it is crucial that we address, not ignore, how the present of both archaeologists and Native people influences our research and its presentation.

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