

The Mackenzie Basin: An Alternative Approach to Dene and Metis Archaeology

CHRISTOPHER C. HANKS¹ and DAVID L. POKOTYLO²

(Received 9 February 1988; accepted in revised form 21 June 1988)

ABSTRACT. More active Dene and Metis involvement in archaeology and a shift in research strategies from culture history to ethnoarchaeology are gradually changing the way that the archaeological record of the Mackenzie Basin is studied. This is occurring at a time when the Dene are tired of being simply the object of inquiry and are becoming inquirers in their own right. Recent community-based ethnoarchaeological and archaeological research has involved Native elders as consultants in project design, data collection and analysis, and the training of Native youth as crew members. Collaboration between archaeologists and northern Native people poses new questions of mutual concern that integrate oral histories, material culture, contemporary land use and settlement patterns, and archaeological data. At the regional level of analysis, new hypotheses evaluate present and past interrelationships of Native place-names, resources, travel routes, and camp locations. Traditional Native knowledge of spatial usage and feature function allows more accurate archaeological definition of site structure and settlement types at both pre- and post-European contact sites.

Key words: Athabaskans, Metis, ethnoarchaeology, ethnogeography, Mackenzie Mountains, Mackenzie Basin, Mountain Dene, Slavey, field training

RÉSUMÉ. Une participation accrue des Déné et des Métis dans le domaine de l'archéologie et un transfert, de l'histoire de la culture à l'ethnoarchéologie, dans les stratégies de recherche, sont en train de changer graduellement la façon d'étudier les données archéologiques du bassin du Mackenzie. Cela arrive au moment où les Déné, fatigués d'être simplement l'objet de la recherche, sont en train de devenir chercheurs de plein droit. De récentes recherches ethnoarchéologiques et archéologiques qui s'appuient sur la communauté autochtone, ont fait intervenir les anciens comme consultants pour la conception des projets, la collecte et l'analyse des données, et la formation de jeunes autochtones comme membres de l'équipe de recherche. La collaboration entre archéologues et peuple autochtone du Nord, pose de nouveaux problèmes touchant les deux parties, qui portent à la fois sur l'histoire orale, la culture matérielle, l'utilisation de la topographie et les schémas de peuplement actuels, ainsi que les données archéologiques. Au niveau régional de l'analyse, de nouvelles hypothèses évaluent les rapports présents et passés entre les noms de lieux, les ressources, les routes et les emplacements des camps autochtones. La connaissance traditionnelle des autochtones en ce qui a trait à l'utilisation de l'espace et aux fonctions de ses caractéristiques, permet une définition archéologique plus précise de la structure des sites et des types de peuplement sur des sites établis avant comme après le contact avec les Européens.

Mots clés: Athabaskans, Métis, ethnoarchéologie, ethnogéographie, monts Mackenzie, bassin du Mackenzie, mont Déné, Slavey, formation sur le terrain

Traduit pour le journal par Nésida Loyer.

INTRODUCTION

Increasing self-reflection by Mackenzie Basin Dene and Metis has led them to express their own sense of history in new forms. At the same time, however, the Dene do not wish to have their current lifestyle, with its ties to traditional land-based subsistence, relegated to museum shelves (George Barnaby, pers. comm. 1982). Several Dene trappers have recently written about their lives (Tetso, 1977; Blondin, 1987; George Boots, pers. comm. 1985), reflecting the desire of many elders to pass on knowledge about their life on the land to a new generation that now spends more and more time in villages. The community of Snowdrift felt so strongly about the need to preserve the record of early 20th-century life at the edge of the barrens around Artillery Lake that they undertook a community-based architectural survey of ?EDAGHCHO TU'E, or Artillery Lake (Jacob, 1985). Concern in the communities of Fort Good Hope and Fort Norman over the fate of old Dene and Metis trapping cabins along the Mackenzie River led to cooperative projects with the Prince of Wales Northern Heritage Centre to inventory these sites (Hanks and Winter, 1983a, 1986a).

As the Dene and Metis develop a new sense of their past, many have critically questioned the present overemphasis in historical interpretation on the role of explorers like Franklin and the long-standing bias of historical archaeology toward

European fur trade forts (Andrew Hammond, pers. comm. 1986; Janes, 1975a). Such sentiments have led them to seek an active role in recent archaeological research undertaken by the Prince of Wales Northern Heritage Centre and the University of British Columbia (see Fig. 1). The increased collaboration and consultation between archaeologists and Native groups has resulted in a new approach, based mainly on Dene ethnogeography, to study pre-contact and post-contact subsistence settlement patterns in the Mackenzie Basin (Andrews and Hanks, 1987; Pokotylo and Hanks, 1985).

A BRIEF HISTORY OF ARCHAEOLOGICAL RESEARCH IN THE MACKENZIE BASIN

Archaeological research in the Mackenzie Basin can be divided into two schools: culture historical and ethnoarchaeological. The search for the "ice-free" corridor and early man motivated the first archaeological survey in the late 1930s (Bliss, 1939). The National Museum of Canada sponsored work that focused on tracing human migrations and building cultural chronologies. This began with Richard MacNeish's research in the late 1940s (MacNeish, 1953) and continued through the early 1970s with preliminary mitigation studies for the Mackenzie Valley pipeline (Millar, 1968; Clark, 1975; Cinq-Mars, 1973, 1974; Janes, 1974a).

¹Prince of Wales Northern Heritage Centre, Department of Culture and Communications, Government of the Northwest Territories, Yellowknife, Northwest Territories, Canada X1A 2L9

²Department of Anthropology and Sociology and Museum of Anthropology, University of British Columbia, 6303 N.W. Marine Drive, Vancouver, British Columbia, Canada V6T 2B2

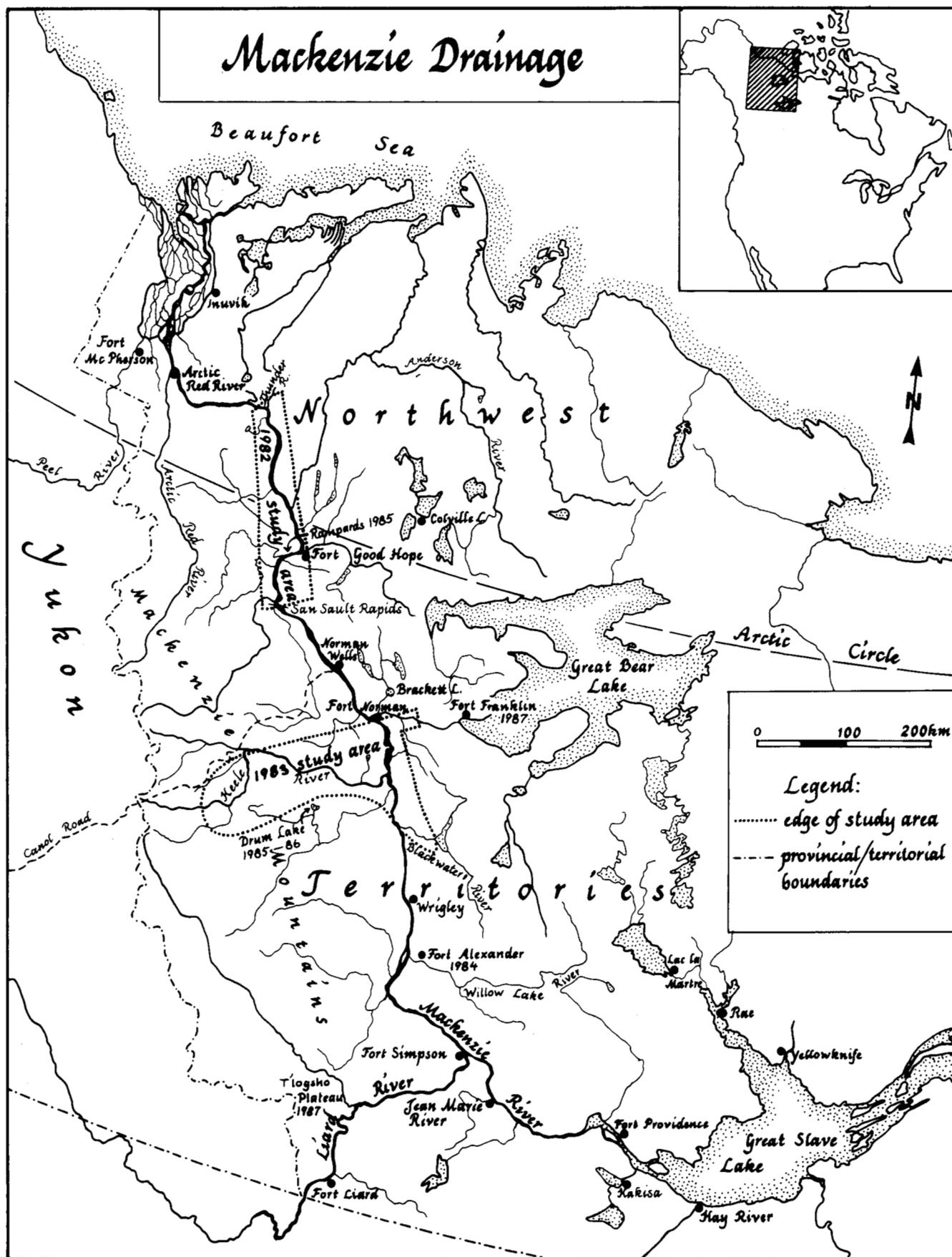


FIG. 1. Map of the Mackenzie Basin, showing 1982-87 project study areas described in the text.

A major objective of the Mackenzie Highway and pipeline studies was the construction of regional archaeological sequences (Cinq-Mars, 1973:1-5). The investigations also focused on late Pleistocene-early Holocene occupations relating to the ice-free corridor area (Cinq-Mars, 1973:11-26). Data from historic sites were primarily regarded as a potential source of analogies to better understand pre-contact patterns (Cinq-Mars, 1974:23). Given this approach, the thrust in historic archaeological research should have been on Native rather than Euro-Canadian settlement. Such studies would have required a greater emphasis on local Dene and Metis oral tradition, as written records provide relatively little information on specific processes of Native land use and camp life. The historic archaeology research carried out, however, concentrated on Euro-Canadian sites, and ethnographic analogy was not successfully integrated into the prehistoric studies.

Further, expectations from research on the west coast, the plains, and in the eastern woodlands led researchers to anticipate large stratified sites in the Mackenzie Basin that would provide the basis for culture histories. This perspective changed slowly. In 1982, Clark (1983:2) abandoned his search for "landmark sites" and acknowledged the need for small site archaeology in the region. Since archaeological site formation and transformation processes were often ignored, large aggregation sites were usually dismissed as unanalyzable given their potentially mixed components and the absence of clear vertical stratigraphy (Clark, 1983:2). Recent work on similar types of sites elsewhere in the northern forest, however, has shown that such locations can be productively analyzed (Hanks, 1988). Archaeologists interested in culture history now hope that many small, single component sites will eventually be found and dated to allow construction of a chronology for the Mackenzie (Clark, 1983:2). Meanwhile, attempts to synthesize a regional sequence have used general typological comparisons with the plains, Yukon, and Alaska (Clark, 1983:2-7; Morrison, 1984:207).

Fortunately, the gap created by the emphasis on culture history was recognized and a new approach gradually emerged (Noble, 1975; Janes, 1974b, 1975b, 1976). The first step was an inventory of post-contact period sites along the Mackenzie River by Millar and Fedirchuk (1975) during the Mackenzie Highway survey in 1973. A real breakthrough, however, did not occur until 1974, when Janes, ". . . impressed with the gap that clearly existed between the sparse archaeological data he was recovering and the variety and complexity of the living Dene culture" (Janes, 1983:iii), carried out the first ethnoarchaeological research in the Mackenzie Basin. Janes's work with the Dene at Willow Lake was based upon a developing interest in anthropological archaeology in the relationship between ethnographic observations of living human societies and patterning in the archaeological record (Donnan and Clewlow, 1974; Gould, 1978). In addition to involving the Dene actively as consultants in archaeological research, Janes (1974a) examined the role of Native people as archaeological field assistants.

Archaeological research in the Mackenzie Valley was dormant in the late 1970s, after the Berger inquiry on northern pipelines recommended a 10-year moratorium on pipeline construction. This break was to allow Native people in the region to prepare themselves for the social and economic changes that would occur with development

(Berger, 1977). During this time, the development of an archaeological field training program for Inuit youth by the Northern Heritage Society demonstrated the potential for doing something similar with the Dene (Bielawski, 1982, 1984). Further, Clark's (1982) research on traditional bush structures along Great Bear Lake indicated the urgency of recording and interpreting the post-contact archaeological record. His study revealed the large amount of archaeological information potentially available from these features, while at the same time making the point that these very fragile remains were rapidly disappearing.

The broadening of archaeological approaches in the Mackenzie Basin from an emphasis on culture history to greater concentration on ethnoarchaeology effectively allowed questions derived from the Native perspective to become valid avenues of archaeological inquiry. Dene groups have been most actively involved in our research to date, and we focus on the results of this collaboration below. Most of the Dene's questions concern land use, particularly the geographic knowledge embedded in place-names and narratives about travel. Regional sampling methods based on "siteless" archaeology (Dunnell and Dancy, 1983) mesh well with a concept of a culturally distinct Dene geography, or ethnogeography, now being used to define a universe for archaeological survey in the Mackenzie River drainage (Andrews and Hanks, 1987). The significance of human occupations is viewed not only in terms of the qualitative or "culturally diagnostic" summary of artifact assemblages at a site, but also in the total variability of the archaeological record reflected across the landscape and through time (Dunnell and Dancy, 1983:267). Collaboration with the Dene provides a new starting point to collect baseline data on human use of the subarctic landscape. Changing land use, settlement patterns, and residential patterns derived from ethnographic knowledge of the early to mid-20th century are being archaeologically examined by "historically upstreaming," or working back from the present to the pre-contact period (Bishop, 1974:x). The methodology is similar to the direct historic approach, but it does not require assuming linkages between historically known ethnic groups and late prehistoric cultural remains. We contend that there is a continuity of essential ecological and cultural adaptations between the pre- and post-contact periods in the Mackenzie Basin without necessarily connecting these similarities to ethnicity. Therefore, the more neutral phrase used by ethnohistorians, historical upstreaming, is applied here.

Thus, when we initiated archaeological research in the Mackenzie Valley in 1982, changing Native attitudes meshed nicely with advances in archaeological methods, leading us to undertake community-based projects in collaboration with Dene and Metis elders. The first projects studied the changing role of late post-contact period camps of these two related groups along the Mackenzie and Keele rivers (Hanks and Winter, 1983a, 1986b; Pokotylo and Hanks, 1985). Subsequent research by the authors at Drum Lake in the Mackenzie Mountains (Hanks and Pokotylo, n.d.) indicated that sites dating back prior to the White River Ash fall (circa 1250 B.P.) exhibit a regional distribution and internal structure patterning similar to many descriptions provided by Dene elders. For example, both pre- and post-contact sites are located along Dene foot trails that were regularly used until the 1950s. Similarly, many pre-contact and early contact

period sites contain types of hearth features and activity areas that are very comparable to those present in contemporary bush camps.

NEW PROBLEMS AND NEW PARTNERS: DEVELOPING COMMUNITY-BASED RESEARCH IN THE MACKENZIE BASIN

Once the decision had been made to actively involve Native people of the Mackenzie in the archaeological research process, we had to be very flexible in defining our problems and allow local communities to have input into project development. Archaeology had never made itself socially relevant to the Dene. They were suspicious of our motives and perceived archaeologists as taking material (artifacts, photographs, and notes) away without ever giving anything back to the communities. Many Dene wondered if archaeological research could really provide them with useful information about their past.

The initial project, a survey of late 19th- and early 20th-century lodges and cabins along the Mackenzie River Valley (Figs. 2 and 3), addressed concerns expressed by both the Dene and Metis (Hanks and Winter, 1983a). In addition to updating the site inventory and beginning to develop a predictive model of site distribution based on traditional land use, the project brought Native people directly into the research (Hanks and Winter, 1983a).



FIG. 3. Cabin structure originally erected by the Roman Catholic Church at Saw Mill Bay, Great Bear Lake, and moved to its present location by the Mackenzie River below Fort Good Hope around 1930.

The research strategy followed the lead of recent ethnographers and ethnoarchaeologists by treating oral tradition related to knowledge of hunting and the environment as the basis for an "ethnoscience" (Feit, 1986:173; Andrews and Hanks, 1987; Hanks, 1983). This approach allowed the researchers and the Dene to identify a common problem and to tackle it in a manner that placed traditional Native knowledge on an equal footing with Western science. Before the research began, arrangements were made to provide the communities with a display and to return and give a slide talk on the project.

In response, the elders of Fort Good Hope said that in order to understand why they camp where they do, it was necessary to examine how they use the land, and to do that a knowledge of place-names was critical (Hanks and Winter, 1983b). Hanks and Winter (1986a) have used this information to evaluate a series of hypotheses about Dene place-naming:

1. Locations known to have been historically utilized are named.
2. Geomorphological features are important in place-naming.
3. Local knowledge of site function influences place-naming.
4. Places with Euro-Canadian names differ significantly from places with Dene names.

These hypotheses are currently being refined and tested (Pokotylo and Hanks, 1985; Hanks and Pokotylo, n.d.) for integration into a Dene ethnogeography (Andrews and Hanks, 1987).

Ethnogeography provides the background for comparing seasonal, social, and biogeographical factors that influence broad patterns of regional land use. Recent comparisons of narratives about travel routes and the archaeological survey of Dene trails have raised questions about how culturally significant places are linked and related to nonsignificant places (Binford, 1980, 1982; Andrews and Hanks, 1987). This work has potential implications for understanding the relationship between human activity (i.e., archaeological sites) and the Dene perception of the landscape.



FIG. 2. Contemporary tepee structure with the canvas cover removed, Mackenzie River Valley.

At the site level of analysis, only one known Dene house structure had been excavated in the Mackenzie Valley prior to 1984 (Gordon and Savage, 1973). Pilon's (1987) recent work on the southwest Anderson Plain has revealed a broad distribution of semi-subterranean house pits similar to the one investigated by Gordon and Savage (1973). Janes (this volume) has developed an initial model for identifying architectural remains in the archaeological record, based on his excavation of a contemporary tepee at Willow Lake. Our ability to distinguish temporary dwellings in boreal forest sites will improve as this model and others like it are integrated with data on early contact period Native lodge structures excavated at Fort Alexander in the Upper Mackenzie Valley (Figs. 4 and 5) (Hanks, 1984) and at Drum Lake in the Mackenzie Mountains (Hanks and Pokotylo, n.d.). Our study of these structures combines standard archaeological spatial and artifact analyses with analogies of seasonality, site structure, hearth function, and activity area utilization. The analogies are derived from our ethnoarchaeological observations of contemporary bush camps and similarities that Dene colleagues have noted between archaeological and contemporary structures. These studies suggest some relationships that we have formulated as hypotheses regarding settlement types, feature function, and assemblages variability:

1. The presence-absence of dwelling structures at a site may be a reliable indicator of group composition. Male hunting parties travelling without women and children seldom build shelters at overnight camps unless forced to do so by the weather. In the absence of shelters, men sleep around an open fire. Clark (1987) noted a similar practice at Great Bear Lake.

2. Fort Norman elders have suggested a basic typology for hearths and their relationships to activity areas. Sunken or pit hearths are constructed to create a smudge for smoking hide. Hearths at ground level produce a mild level of smoke associated with drying meat and fish. Structures used for preserving food also frequently serve as work areas for women. Elevated clay and rock platform hearths are used in living quarters where more draft is created under the fire to clear the smoke. Hearths elevated on a boulder may reflect a winter occupation where a packed snow and spruce bough floor surrounds the fire. The potential of hearth forms as seasonal indicators has been documented for other subarctic regions (Hanks, 1983).

3. Taboos prohibiting women from associating with hunting gear may explain why items such as projectile points would have been made, stored, and discarded away from generalized living areas around hearths, where women

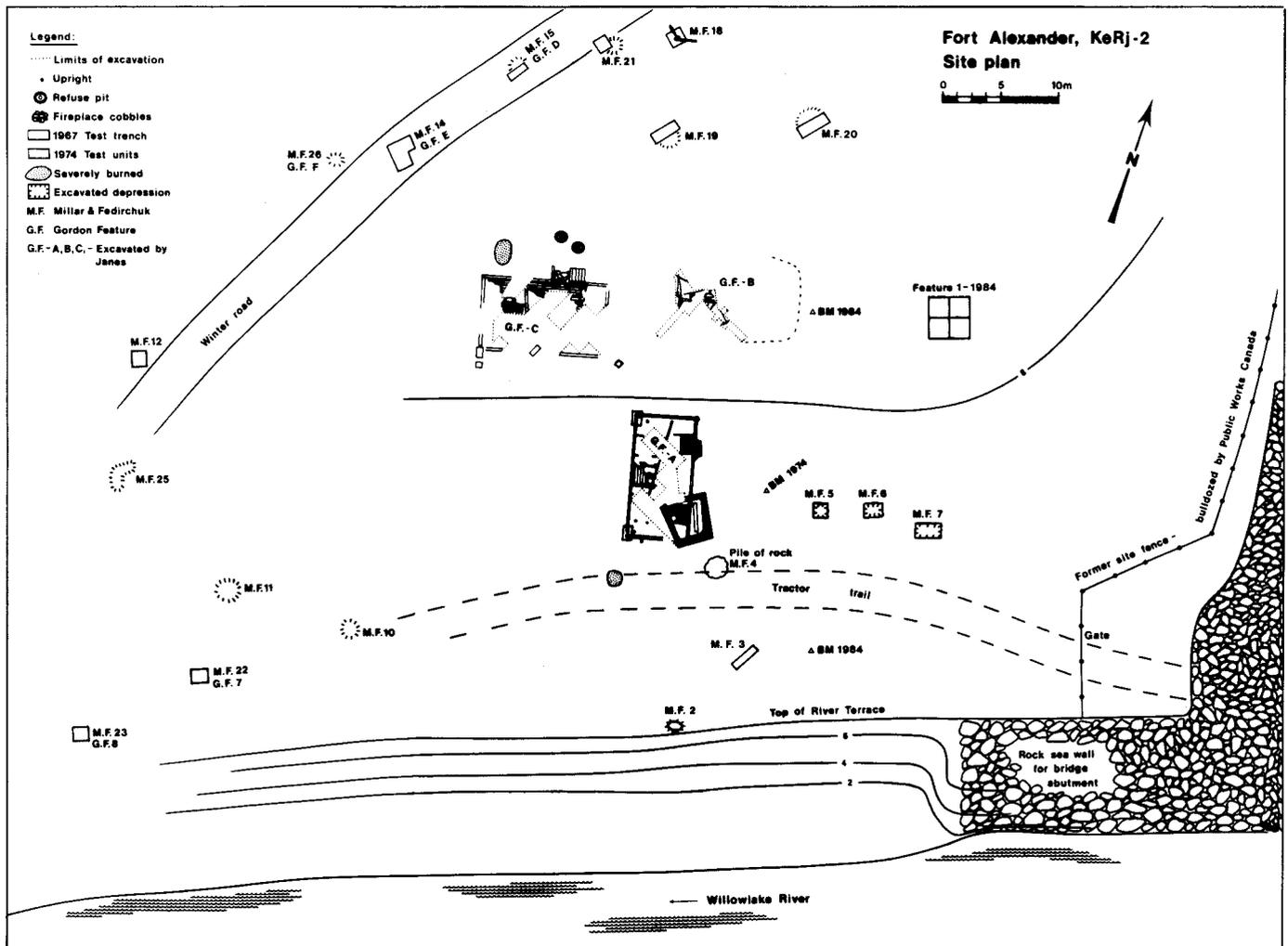


FIG. 4. Site plan map of Fort Alexander, situated on the north bank of the Willowlake River approximately 1.5 km from the Mackenzie River. The fort was maintained by the Northwest Company from 1817 to 1822. Feature 1 is an early historic tepee structure.

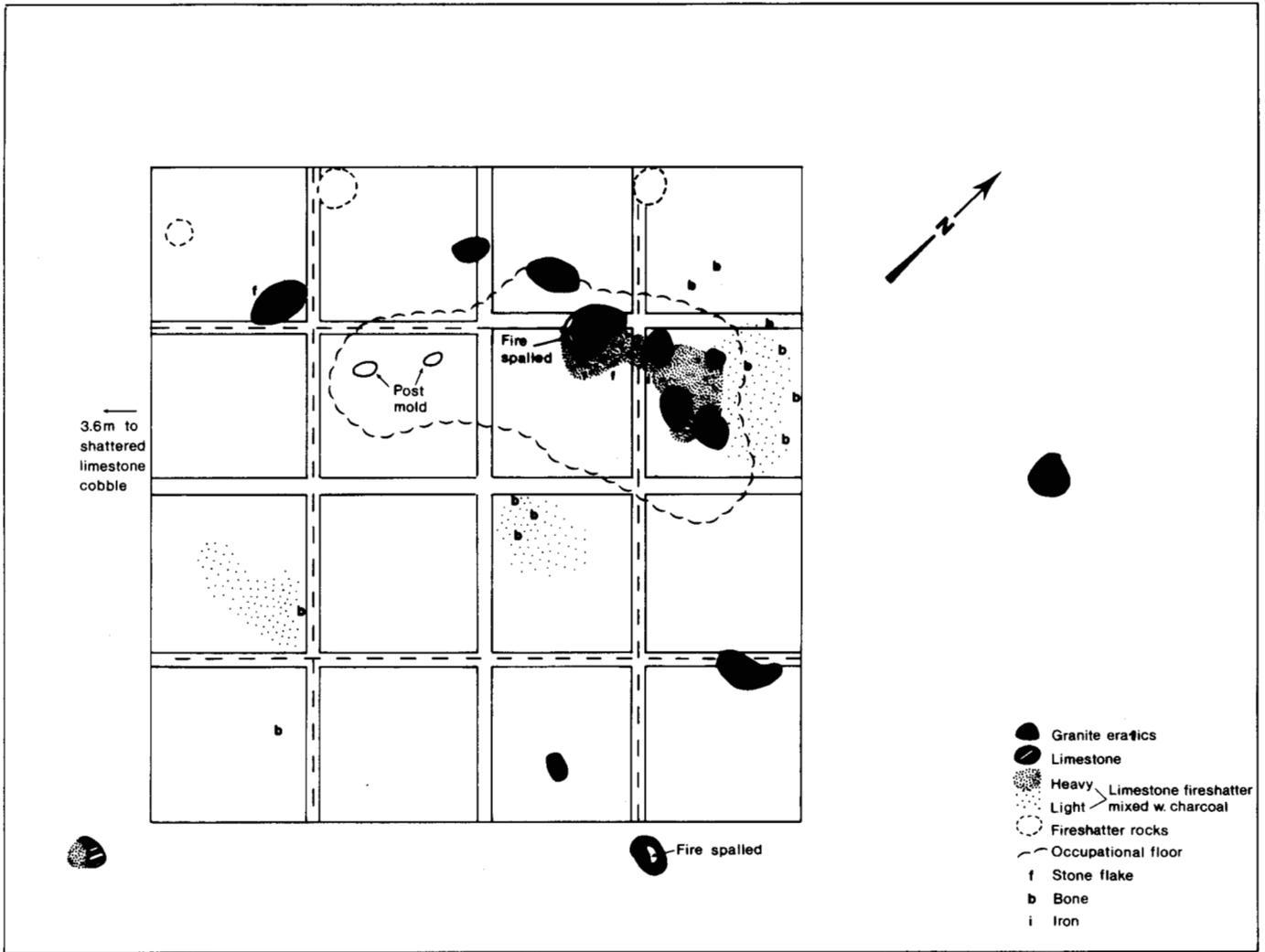


FIG. 5. Plan map of Feature 1, a half tepee structure with a hearth in front, located next to Fort Alexander. This early historic structure is similar to a lodge type described by Alexander Mackenzie.

commonly spent a substantial portion of their time. Dene elders speculate that, as present-day hunting taboos were stronger in the past, they may account for the lack of hunting equipment found in association with hearth complexes at many of the larger prehistoric residential sites at Drum Lake, for example (Hanks and Pokotylo, n.d.).

As we continue to develop these hypotheses through further ethnographic work, experimental archaeology, and intra- and inter-site analysis, we can evaluate their potential to increase our understanding of Dene settlement systems.

All three of the above hypotheses examine the role of the fire in Dene encampments. The hearth, or contained fire, is the basic structural feature in all camps. Building a fire is typically the first job done when setting camp, and putting it out is typically the last task before moving on. Once the fire is going, a lodge is built around or near it to meet the specific needs of the group at that moment. The evolutionary role of the hearth in Slavey residential space is expressed linguistically by the term for cabin — *Koe*. *Koe* is derived from the phrase for fireplace. (According to Slavey translators, *Koe*, or cabin, in Slavey is derived from *Ko*, or fire, and *K'e* = *e*, or place of [E. Bran and E. Townsend, pers. comm. 1987].) To properly define its various forms it is necessary to

understand not only the traces of human behavior around fires, but also the function of different hearth forms.

Some Mackenzie Dene continue to use stone tools when they are more functional than steel. Hafted stone scrapers are still used for softening hides in the western Northwest Territories and in northern and central British Columbia (Albright, 1984; R.G. Matson, pers. comm. 1988; Pokotylo, 1988). Dene elders have identified stone adze cut stumps in the Mackenzie Mountains around Great Bear Lake, and south of the Mackenzie River in the Kakisa drainage (Johnson and Raup, 1964:179; Pokotylo and Hanks, 1985; Charlie Neyelle, pers. comm. 1987; Hanks, 1984). Native curers continued to perform surgery with stone tools until the turn of the 20th century (Graham, 1935). Many elders remember making strike-a-lights to start fires and still pass on knowledge of locations where good stone for such artifacts can be procured in an emergency situation. At Fort Liard, elderly women still use old fire steels to hone trap spring scraper blades (Bill Stewart, pers. comm. 1987).

Mountain Dene elders from Fort Norman, using narratives about chert sources told to them by their fathers, led us to a quarry in the Mackenzie Mountains in 1983 (Pokotylo and Hanks, 1985). During excavations at Drum Lake in 1986, one

young woman uncovered a spall tool. When Hanks asked her what she had found, she replied, “. . . it is a stone scraper like the ones we use to soften hides” (Betty Betsedia, pers. comm. 1986).

With the help of the Dene we are beginning to understand the distribution of recent sites. They have offered us different explanations for site distributions, the function of features, and the spatial interpretation of artifacts both within and between sites. A basis has now been laid for developing community-based archaeology in the Mackenzie Basin. Although we have been primarily carrying out research with the elders, we think that it is necessary to disseminate what we have learned to Dene youth. To accomplish this goal, we had to go beyond providing artifact display cases to a few schools and band offices and giving slide talks after the field season in nearby communities.

FIELD TRAINING

In 1985 and 1986, we developed an archaeological field training program for Mackenzie Valley Dene students at Drum Lake, located in the Mackenzie Mountains (Hanks and Pokotylo, 1986). In collaboration with Mountain Dene elders in Fort Norman, we based the instruction on traditional Dene methods of learning by participant observation. The training program commenced with an experimental archaeology project. The students built a fish camp, set a fish net, and prepared dry fish. Paul Wright, the resident elder at Drum Lake, described different kinds of hearths that one might build depending upon the amount of smoke desired in the dwelling, how the shape of the tepee could affect the draft, and when such shelters were used.

During the experimental program we discussed with the students the potential archaeological site being created as they cleaned and dried the fish. They examined the patterns of items deposited during construction of the drying rack and the preparation of dry fish. Through this process they learned to identify activity areas. After observing the fresh remains, we discussed organic decay and what clues might be left for future archaeologists. Wright talked about traditional restrictions on bone disposal, which led to discussions of ideal as opposed to actual behavior (see Janes, 1983). Finally, we considered what would happen to the tepee after abandonment. How would its eventual collapse affect the appearance of the site to an archaeologist?

Next, Wright showed the students maps of the Mackenzie Mountains with Dene camps and trails plotted on them and gave place-names for many of the locations. This process placed Drum Lake, our field school study area, within the Mountain Dene cultural landscape. With this information, the students could understand where Drum Lake and other mountain localities fit in the regional settlement pattern.

The students also learned to flake stone tools and experimented with hafting tools and cutting dry fish. In 1985, George Pellissey, one of our Dene consultants and crew chief, shot a caribou and butchered it with flaked obsidian knives to determine the effectiveness of prehistoric lithic industries. This “hands-on” approach enabled the students to readily identify lithic tools and debris in archaeological sites. The ability to rapidly distinguish small-sized flaked stone artifacts is critical in boreal forest archaeology.

With this background, the Drum Lake students excavated

a late post-contact period drying rack and a winter lodge. This activity had direct links with their tepee building experiment. Combining the two experiences helped the students identify and interpret the excavated archaeological remains. They then worked at a contact period site with a mixture of lithic and European goods and finally on several pre-contact occupations.

During the 1987 field season, salvage excavations were conducted on the 1825-27 winter quarters of the Second Franklin Expedition at Fort Franklin, N.W.T. The above techniques were modified to quickly train a local crew to do rescue archaeology. This experience demonstrated that the experimental phases could, if necessary, be greatly reduced when circumstances dictated. Although this information is pragmatically useful for salvage situations, the abbreviated training does not provide the participants with as comprehensive a cultural experience.

Over the past three years, we have been able to train a capable crew within two weeks. Our goal, however, was to create more than field assistants. We wanted the people who completed our program to act as community heritage advisors, and in so doing help their communities make decisions about local cultural remains. This second step is critical if the Dene and Metis hope to increase their role in the management of cultural resources in the Mackenzie drainage.

DISSEMINATION OF INFORMATION

To spread the flow of information beyond the six or seven people who work on our crew each summer, we have collaborated with the Department of Culture and Communications, Film and Television Unit, and the Language Bureau to produce a series of half-hour Native language video tapes. The first is on the Drum Lake field school. A second video, now nearing completion, is about the protection of traditional places through the use of historic sites legislation. The third, currently in translation, is the story of a 52-song cycle composed by “Old Andrew” at Drum Lake in the 1920s. This video was inspired and largely scripted by the Mountain Dene elders in Fort Norman. A fourth video currently in production concentrates on the use of first- and second-person interpretation by Native people in historic reconstructions. This is being done in response to questions posed to us by the Dene as they consider the implications of marketing their culture to develop tourism. We hope that this kind of collaboration will continue in the future with the new Dene Cultural Institute. All of these initiatives are in addition to the usual reports, conference papers, and scholarly articles on the archaeological and ethnoarchaeological research.

CONCLUSIONS

Over the last five years, the Dene’s role in archaeological and anthropological research has fundamentally changed from that of “objects of inquiry” to “inquirers.” The shift to cooperative research is the first step toward self-initiated projects by the Dene that examine their past. The Mackenzie Dene are tired of being the objects of research over which they have no control. Researchers venturing into the North will soon find it more and more difficult to work unless they

include the active participation of the Dene and Metis. Some investigators may find this relationship intimidating, but we hope that others will find, as we have, the new and rewarding possibilities that closer collaboration has brought to our research.

ACKNOWLEDGEMENTS

We wish to especially thank George and Vivian Pelligsey, Paul Wright, Gabe Etchinelle, and George Boots for their ideas on how to organize the field training. Shirley Snowshoe, Ricky Andrew, Fred Rabesca, Anthony Antoine, Tony Tatti, Michael Jackson, Betty Ann Betsedia, Joe Catholicque, Greg Baptiste, Linda Modeste, Dennis Kenny, and George Vital participated as students in the Drum Lake and Fort Franklin projects. George Barnaby, John Shae, John Hottie, and David Etchinelle acted as crew on various projects. People in the communities of Fort Norman, Fort Good Hope, Fort Franklin, and Willow Lake River have been a constant source of encouragement for our work. The Prince of Wales Northern Heritage Centre, the Northern Oil and Gas Action Plan, the University of British Columbia, MacMaster University, the Social Sciences and Humanities Research Council of Canada, the Fort Franklin Dene Development Corporation, and the Archaeological Survey of Canada at the Canadian Museum of Civilization provided financial support over the years. Barbara Winter, Andy Hammond, Tom Andrews, Sheila Greer, Susan Irving, Bob Janes, Glen McDonald, Roger King, and Mary Ann Tisdale have all participated in our Mackenzie research projects over the last five years. Chuck Arnold and Bob Janes provided an opportunity to try out many ideas. To these and many other individuals not mentioned here, we wish to express our gratitude.

An earlier version of this paper was read at the 1987 meeting of the Society for American Archaeology in Toronto. Nancy Hanks, Chuck Arnold, Peggy Monroe, and Wendy Arundale made many valuable editorial comments. This paper has benefited greatly from the constructive suggestions of two anonymous reviewers for *Arctic*. However, the ideas expressed in this paper are entirely the responsibility of the authors.

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