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*Igor Krupnik, Michael A. Lang,
and Scott E. Miller
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Smithsonian Contributions to Alaskan Ethnography: The First IPY Expedition to Barrow, 1881–1883

Ernest S. Burch Jr.

ABSTRACT. From 1881 to 1883, as part of the First International Polar Year, an expedition sponsored by the U.S. Signal Corps and the Smithsonian Institution operated a research station a short distance north of where the modern city of Barrow now stands. The 10 members of the expedition had the primary task of making an unbroken series of weather and magnetic observations over the two-year period, and the secondary task of studying the natural history of the Barrow area. “Natural history” included descriptions of native life and collections of material culture, in addition to studies of the fauna and flora. In this paper, I summarize the substantial contributions to our knowledge of North Alaskan Eskimo life made by members of the expedition, and evaluate them in the light of work that has been done since.

INTRODUCTION

From 1881 to 1883, as part of the first International Polar Year, an expedition sponsored jointly by the U. S. Signal Corps and the Smithsonian Institution operated a research station near Point Barrow, Alaska.¹ The members of the expedition had the primary task of making an unbroken series of weather and magnetic observations over the two-year period, and the secondary task of studying the natural history of the Barrow area. “Natural history” was understood to include descriptions of the local people and collections of their material culture, in addition to observations of the fauna and flora. In this paper, I summarize and contextualize the contributions they made to our knowledge of North Alaskan Iñupiaq Eskimo life.

Point Barrow is the northernmost point of Alaska and of the United States as a whole. It is approximately 550 kilometers north of the Arctic Circle, and 400 kilometers north of the latitudinal tree line (Figure 1). It is located in the Beaufort coastal plain ecoregion, a treeless area of very low relief having a considerable amount of surface water (Nowacki et al., 2002). Summers are short and cool, and the winters are long and cold. The climate was significantly colder in the nineteenth century than it is now. During the winter, the nearby ocean was completely frozen over; for much of the summer, it was covered with unconsolidated floating ice.

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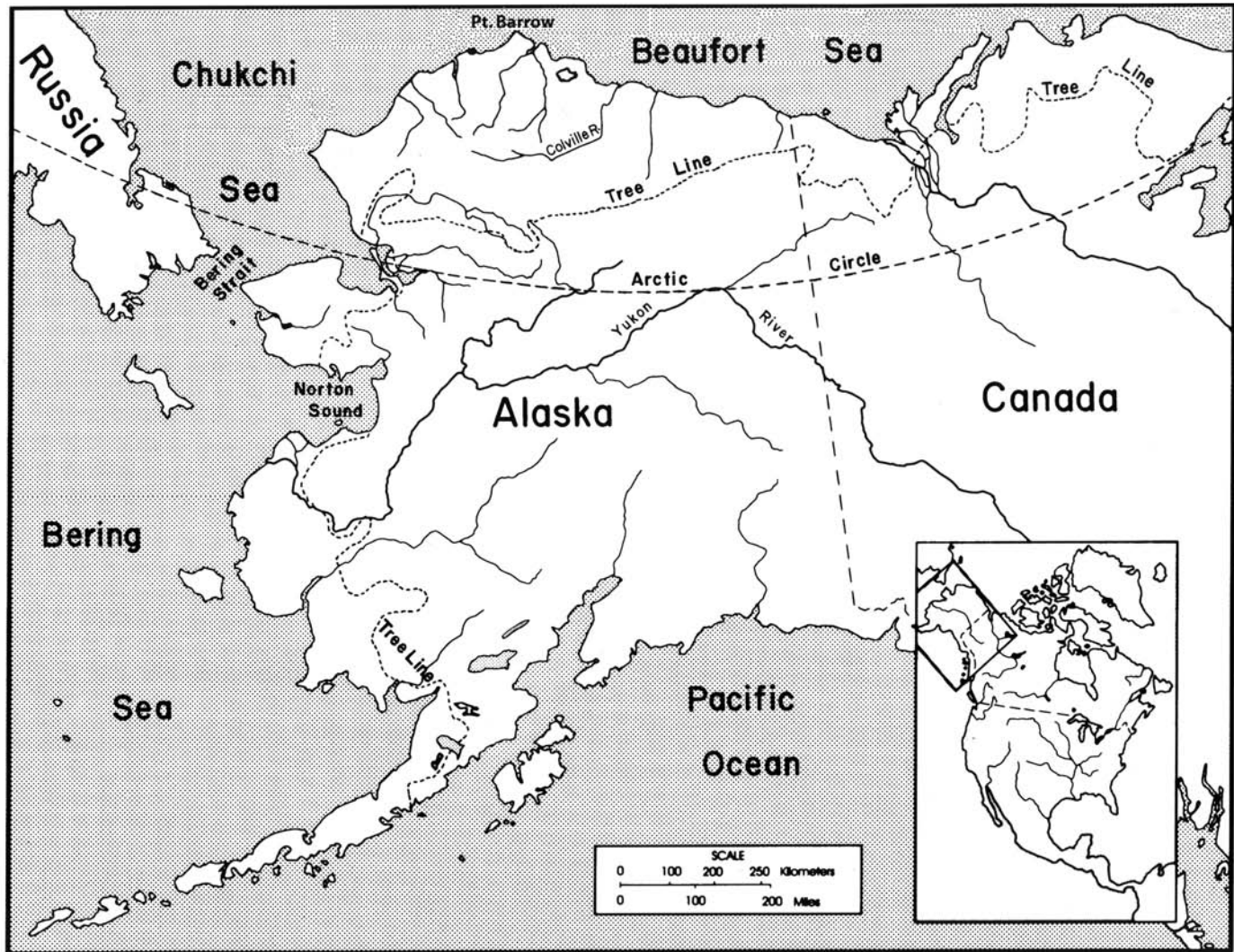


FIGURE 1. Map of Alaska.

EARLY EXPEDITIONS

The first westerners to visit the Point Barrow district were the members of a detachment from the Frederick W. Beechey expedition led by Thomas Elson, which arrived from the southwest in September 1826 (Beechey, 1831:414–442). The explorers were met with a friendly greeting from the Natives, but that was quickly followed by considerable hostility. Not only for that reason, but also because the season was dangerously far advanced, the men turned around and headed back south almost immediately.

The second western expedition to make contact with the Native people of Point Barrow was a detachment from a Hudson's Bay Company expedition sent to explore the

western Arctic coast of North America. The group was led by Thomas Simpson, and it arrived at the point from the east on August 4, 1837 (Barr, 2002:70–112; Simpson, 1839; 1843). Simpson's small party was fortunate to get there when it did, because the settlement was largely unoccupied at the time. The few residents who were there were frightened and hid from the explorers. However, they were soon persuaded to come out and show themselves. Everyone got along pretty well for the few hours that the explorers were there.

The next year, on July 23, 1838, a Russian expedition led by Aleksandr Kashevarov reached Point Barrow in a fleet of small boats, arriving from the southwest (VanStone, 1977:31–45). A fair number of people, with

considerable hostility, met Kashevarov's party. The Russians were forced to flee in fear of their lives after just three days. Despite the brevity of his stay, Kashevarov acquired some very useful information on native life in the Barrow district. This was due to the fact that his party included an interpreter. Kashevarov is the *only* person, Native or otherwise, who has ever reported the name of the nation (Burch, 2005:11–33) whose members inhabited the Barrow district. According to what he was told, they called themselves, and were known by others, as “Kakligmiut” (VanStone, 1977:33).

FRANKLIN SEARCH EXPEDITIONS

The fourth western expedition to visit Point Barrow consisted of several of the ships involved in the search for the lost British explorer Sir John Franklin (Bockstoce, 1985). One of them, the depot ship H. M. S. *Plover*, under the command of Rochefort Maguire, spent the winters of 1852–1853 and 1853–1854 frozen in the ice a short distance southeast of Nuvuk, the Iñupiaq settlement on the

point (Figure 2). The British were greeted with considerable hostility. However, through wise diplomacy by the leaders on both sides, peaceful relations were established, and were maintained for the rest of the time the British were there. The information on native life acquired by the members of this expedition exceeded that of its three predecessors by several orders of magnitude.

The surgeon on the *Plover*, John Simpson, already had acquired some proficiency in the Iñupiaq language when the ship spent successive winters on Kotzebue Sound (1849–1850) and in Grantley Harbor (1850–1851), on the western end of the Seward Peninsula. He was assigned the task of learning about native life in the Barrow district, in addition to his duties as surgeon. He performed his research through almost daily contact with Nuvuk's inhabitants; this was mostly when they visited the ship, but also through his periodic visits to the village.

Simpson (1855; 1875) wrote an outstanding report on what he learned about native life. It was one of the best ethnographic accounts of any indigenous North American people to appear in the nineteenth century. Much more

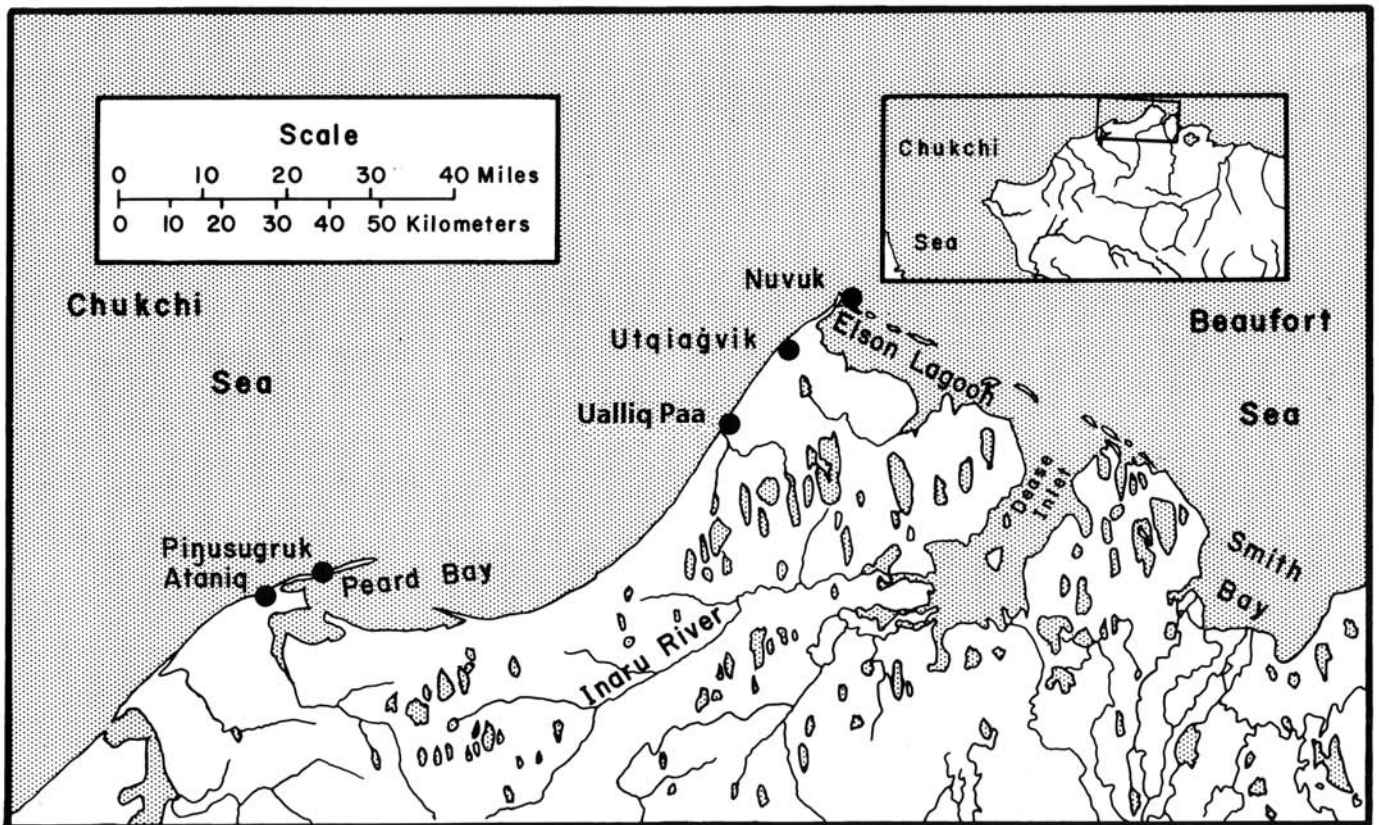


FIGURE 2. Former Iñupiaq settlements in the Barrow district, Alaska.

recently, John Bockstoe (1988) published an edited and annotated version of Captain Maguire's diary of the years spent near Point Barrow. He included in the volume a reprint of Simpson's 1855/1875 report and several other useful documents. More recently still, Simpson's (1852–1854) diary, as well as several other manuscripts written by him, became accessible in the Duke University Archives. These documents, plus others produced by people involved in the Franklin search (e.g., Collinson, 1889, Hooper, 1853, Maguire, 1857, Pim, 1853, Pullen, 1979, Seemann, 1853), contain a remarkable amount of information on native life in the Barrow district in the mid-nineteenth century. We know not only what the members of the expedition found out, but also, through the diaries, how and from whom many of them acquired their information.

THE IPY EXPEDITION²

The IPY expedition to Barrow arrived 27 years after the Plover left. The members of this expedition established a base on shore about 15 kilometers southwest of the point. It was near Utqiagvik, the other main settlement of the "Kakligmiut." Its leader, Patrick Henry Ray, did not want to establish a base at Nuvuk because the only dry ground there was already taken by the native village. He also did not want to locate the base right in Utqiagvik because he was afraid of being pestered by the Natives. So, it was set up a little more than 1 kilometer to the northeast, at the place known more recently as Browerville.

Some tension between the Natives and the researchers arose due to the fact that the commander tried to put a stop to the trade in whiskey and firearms that was being conducted with American whalers during the period when the expedition was based there (Ray, 1882b, 1882c). However, in general, the two groups got along pretty well. The commander, Patrick Henry Ray (1882a), wrote that "these people in their appearance, general intelligence and industry are superior to any native I have seen on the continent. . . ." His colleague, John Murdoch (1890a:223), said that the Eskimos were "altogether pleasant people to see and to associate with." Another colleague, Middleton Smith (1902:118), characterized them as "a good people." One does not expect to read such positive sentiments expressed by late-nineteenth century-American white men about indigenous North Americans. They help account for the expedition members' willingness to loan tools and sometimes weapons to their Iñupiaq neighbors, at least during the second year of their stay. (I have seen no evidence on what the residents of Utqiagvik thought of the IPY people.)

The expedition members consisted of 10 men of whom five are of special importance to this paper. In what follows I summarize the individual contributions made by these five, plus one other person, and then discuss the expedition's collective results.

PATRICK HENRY RAY

Patrick Henry Ray was a first lieutenant in the 8th infantry. It is not quite clear to me just how he spent his time in Utqiagvik. He was apparently not involved in the boring, time-consuming work of recording meteorological and magnetic observations. Instead, he managed to get out and about a fair amount of the time, both in the native village and beyond. For example, in late March and early April of both 1882 and 1883, he traveled south to the Meade River with Native companions during caribou hunting season (Ray, 1988a:lii; 1988b:lxxvii). He also visited the settlement on numerous occasions. There he was able to observe ceremonies and rituals, as well as people simply going about their daily lives (Murdoch, 1988:80, 432; Ray, 1988c:xciii).

Ray wrote informative summaries of the expedition and of his own travels inland (Ray, 1988a, 1988b), as well as a comprehensive sketch of native life (Ray, 1988c). The latter is a generally accurate document, but it is diminished by the fact that its author paraphrased and even plagiarized the work of John Simpson from 30 years earlier. There is evidence (e.g., in Murdoch, 1988:433) that Ray kept a notebook, but if he did, it has been lost.

E. P. HERENDEEN

The second person worthy of mention is Captain Edward Perry Herendeen, a whaler and trader with considerable experience in northern Alaska (J. Bockstoe, pers. comm.). Herendeen was brought along as interpreter and storekeeper. Just how effectively he acted as an interpreter is questionable. Other members of the expedition complained about being unable to communicate effectively with the Natives during the first year of their stay (e.g., Murdoch, 1988:45), and Ray (1988c:lxxxvii) stated flatly that the party had no interpreter. By the second year, each man could do fairly well on his own (Ray, 1988a:li).

Herendeen seems to have gotten out and about even more than Ray did. He attended a number of ceremonies in the village, hunted inland with Natives in both fall and winter, and visited the whaling camps on the sea ice in spring. Others (e.g., Murdoch, 1988:39, 272, 276, 364,

372, 374, 423) cite Herendeen as having provided them with information about a variety of subjects that he had to have obtained in the village or out in the country. If he kept a journal, it has been lost, and the only publication he produced that I am aware of was a piece on caribou hunting (Herendeen, 1892).³

GEORGE SCOTT OLDMIXON

George Scott Oldmixon was the surgeon on the expedition. In addition to treating the health problems of expedition members, he also treated many sick Natives, and he made many visits to the village for that purpose. In the process, he learned something about native health problems and their means of dealing with them. Unfortunately, he, too, is not known to have kept a journal. However, he reported some of what he learned to others, who wrote down some of what he told them. Oldmixon's one substantive contribution to the expedition's published reports was a set of height and weight measurements made of a number of Iñupiaq men and women from the two Barrow villages (Murdoch, 1988:cvii).

MIDDLETON SMITH

Middleton Smith was one of the assistants who checked the instruments and kept the records of the magnetic and meteorological observations. As far as I am aware, the only thing he wrote about the expedition was a popularized piece titled "Superstitions of the Eskimo" (Smith, 1902). Unfortunately, the article contains some erroneous information, such as the population figures on pp. 113–114. It also paints an idyllic picture of Iñupiaq life (e.g., on pp. 118–119), contributing to the stereotype of Eskimos as being happy, hard-working, fun-loving, peaceful people. In fact, like most people everywhere, they were considerably more complicated than that.

Smith also presents interesting bits of information not included in the reports of his colleagues. For example, on page 120 he reports:

When a death occurs in the village the women are not allowed, from sunset to sunrise, either to make or repair garments or to do sewing [of] any kind, except in the most urgent cases, when the work must be done while sitting within circles inscribed by the point of a knife upon the floor of the iglu.

This is the only source I am aware of that reports on a way of circumventing a taboo. It would be fascinating to know if there were others. Also of interest are Smith's ac-

counts (pp. 127–128) of how the Natives cheated during some of their trading sessions.

JOSEPH S. POWELL

Joseph S. Powell was not a member of the IPY expedition, but he commanded the ship sent to re-supply it for the second winter. Powell's (1988) report summarizes his visit, and also contains quite a bit of interesting information about native life in Utqiagvik. Very little of this information could have been obtained first-hand, however. Powell was at Utqiagvik for only a week, and at least some of the time was prevented from going ashore due to bad weather. Presumably, he also spent some of his time in supervisory activities onboard the ship.

Rather than basing his account on personal observation and experience, Powell relied on information conveyed to him by others, primarily Lieutenant Ray and Sergeant James Cassidy (Powell, 1988:lx). This had to have been presented to him in summary form rather than in detail, and, as a result, his report contains some useful generalizations. For example: "There are leading men whose influence depends on their wealth and the number of their relatives and friends, but no chiefs, hereditary or otherwise. . ." (Powell, 1988:lx). I have never seen the subject of Iñupiaq leadership characterized more accurately or succinctly than that.

JOHN E. MURDOCH

This brings us to John E. Murdoch. A Harvard-trained naturalist, Murdoch was one of the men involved in the tedious recording of magnetic and meteorological data. Accordingly, he was not inclined to go out as much as some of his colleagues. However, it is clear from comments scattered about in his various writings that he was interested in and generally aware of what was going on in Utqiagvik and the area around it. He became proficient enough in the Iñupiaq language for people living on Norton Sound in western Alaska, to identify him later, on the basis of his speech, as someone coming from Point Barrow (Murdoch, 1988:46). Unlike John Simpson in the 1850s, Murdoch never reached a level of linguistic proficiency at which he could discuss abstract philosophical matters, but he understood enough to know that the Eskimos had a raunchy sense of humor (Murdoch, 1988:419), and he could converse with them about a variety of day-to-day matters (e.g., Murdoch, 1988:58, 79, 384, 412, 424, 432).

In addition to his other duties, Murdoch was put in charge of cataloguing the numerous artifacts that were

obtained from the Natives through barter. He wrote the catalogue of ethnological specimens and the natural history sections of the expedition's final report (1885a, 1885b), and he authored a major monograph (1988) and more than a dozen articles. The latter concerned such varied subjects as fish and fishing (1884), seal hunting (1885d), sinew-backed bows (1885e), legends (1886), native clothing and physique (1890a), counting and measuring (1890b), Iñupiaq knowledge of heavenly bodies (1890c), whale hunting (1891), and Iñupiaq knowledge of local wildlife (1898).

DISCUSSION

The primary objectives of IPY-1 were in the fields of physics and meteorology. Thus, as noted by Igor Krupnik (2009, this volume),⁴ it is a curious fact that the most enduring products of the expedition to northern Alaska were its ethnographic collections and reports. Just why the members of this expedition engaged in studies of human affairs at all is not immediately clear. Of the main contributors in this area, Patrick Henry Ray, was a military man and John Murdoch was a naturalist, although both seem to have been intelligent and intellectually curious individuals. The answer to this question must lie in the considerable involvement of Spencer F. Baird, head of the Smithsonian Institution, in the expedition's planning and staffing. Baird was a biologist with wide-ranging interests, he was an avid collector personally, and, at the time, he was engaged in an ambitious program to build up the museum's collections (Henson, nd). In 1879 he oversaw the integration of the Bureau of American Ethnology with the Smithsonian, and, "with strong support from Congress, [he] encouraged the ethnologists to also collect artifacts and pursue archaeological investigations" (Henson, nd). Thus, it seems reasonable to conclude that Baird strongly encouraged/required the members of the expedition, particularly Murdoch, to conduct ethnological/ethnographic research and to bring what they acquired back to the museum. If the expedition was sent out with a set of specific ethnographic research objectives, however, no record of what it was has been discovered. We are thus forced to surmise that the various sections of Murdoch's (1988) monograph reflect a set of more or less ad hoc conceptual categories that enabled him to organize into a coherent account his own experiences and observations, as well as those reported to him by his colleagues.

Nearly all pieces of the artifact collection were obtained through barter, with "the natives bringing their weapons, clothing and other objects to the station for

sale" (Murdoch, 1988:19). Since Murdoch was the person charged with recording these items, this gave him "especially favorable opportunities for becoming acquainted with the ethnography of the region" (Murdoch, 1988:19), even though he was not able to leave the station nearly as often as some of his colleagues.

Murdoch apparently hoped to do more than just collect artifacts. The following passage expresses his frustration:

It was exceedingly difficult to get any idea of the religious belief of the people, partly from our inability to make ourselves understood in regard to abstract ideas and partly from ignorance on our part of the proper method of conducting such inquiries. For instance, in trying to get at their ideas of a future life, we could only ask "where does a man go when he dies?" to which we, of course, received the obvious answer, "to the cemetery!" (Murdoch, 1988:430)

Another passage elaborates:

Occupied as our party was with the manifold routine scientific work of the station, it was exceedingly difficult to get hold of any of the traditions of the Natives, though they showed no unwillingness, from superstitious or other reasons, to talk freely about them. In the first place there were so many (to the Eskimos) more interesting things to talk about with us that it was difficult to bring the conversation round to the subject in question. Then our lack of familiarity with the language was a great hindrance to obtaining a connected and accurate version of any story. The jargon, or kind of *lingua franca*, made up of Eskimo roots and "pigeon English" grammar, which served well enough for every-day intercourse with the Natives, enabled us, with the help of expressive gestures, to get the general sense of the story, but rendered it impossible to write down an Eskimo text of the tale which could afterwards be translated. Moreover, the confusion and difficulty was still further increased by the fact that two or three people generally undertook to tell the story at once. (Murdoch, 1886:594)

The above factors resulted in the fact that the main ethnographic contribution of the IPY expedition lay in its collection of material objects, not in accounts of Native social organization, history, philosophy, or worldview. In the latter areas, John Simpson's (1855; 1875) report remains the best single source, although there are many bits and pieces of new and updated, information in the IPY documents. However, the IPY collection of artifacts was significant, the largest ever acquired in Arctic Alaska. Murdoch's massive volume, first published in 1892, is a superb adjunct to the collection itself because it provides excellent illustrations and descriptions of the objects and

tells how many of them were made. It also compares items in the Barrow collection with similar artifacts acquired in other parts of the north by other expeditions.

One important contribution the IPY reports in general made was to provide evidence of changes that had occurred in the Barrow people's way of life during the 30 years since the Franklin Search Expedition. Perhaps the most striking difference was demographic. In 1853, the combined population of Nuvuk and Utqiagvik had been about 540; 30 years later, it was less than 300 (Ray, 1988c:xcix).

The intervening years had seen the arrival of American whaling ships and trading vessels in Arctic Alaskan waters. Many of these ships stopped briefly at one or both of the Barrow villages almost every year after the Franklin Search Expedition left. The Americans brought firearms, ammunition, whisky, and epidemic diseases to the Natives. They also killed a substantial number of the bowhead whales, on which the coastal native economy was based.

Other changes resulted from the use of firearms in hunting. Previously, seal hunters had first attached themselves to a seal with a harpoon and a line, and only then killed the animal. With firearms, they killed the seal at a distance, then tried to attach a line to it for retrieval (Murdoch, 1885c). Whereas before they rarely lost a seal that had been struck, they now lost a significant number, particularly in spring.

Caribou hunting was also transformed. In the 1850s, Barrow hunters killed caribou in winter by digging pitfalls in the snow and killing the animals that fell into them. Since the snow was not deep enough in the fall to permit this, they did not hunt caribou at that time of year. By the 1880s, they could kill caribou at a distance with firearms, so they could hunt them in both fall and winter. This nearly doubled the hunting pressure on this particular resource.

POST-IPY RESEARCH

The IPY expedition took place at a time when native life in the Barrow district was beginning to come into increasing contact with members of the U. S. Revenue Marine and with an assortment of adventurers, explorers, and traders. Some of the individuals involved wrote informative descriptions of native life in the region. However, none of them conducted systematic research and none of them made any effort to relate their observations to those of the earlier IPY or Franklin Search reports (of which they probably were unaware.) This situation did not change until the 1950s, when some more serious investigations were undertaken. The major people involved in this subsequent

work were Robert F. Spencer, Joseph Sonnenfeld, and Barbara Bodenhorn.

ROBERT F. SPENCER

The first researcher to build on the work of the nineteenth-century investigators was Robert F. Spencer.⁵ Spencer did his research in Barrow in the early 1950s, publishing his findings in the late 1950s, and for many years afterwards (e.g., 1959, 1967–1968, 1968, 1972, 1984). Despite the late date of his field studies, the emphasis in his writing was on the “traditional” way of life, with the timeframe being left unspecified. Careful examination of both his publications and his field notes indicates that the situation he wrote about was what his informants experienced as children, in the late 1880s and 1890s (Bodenhorn, 1989:24 n. 19). It certainly was not what J. Simpson and Maguire described for the early 1850s. Thus, even though Spencer did his research some seven decades after the IPY expedition left the field, it is almost as though he did it just a few years later.

Spencer filled in two major gaps left by his predecessors. First, he paid almost as much attention to Iñupiat living inland as he did to those living along the coast (1959:3–4, 132–139). It seems hard to believe in retrospect, but until Spencer's book appeared, most anthropologists believed that Eskimos were primarily or even exclusively a coastal people. In fact, as Spencer (1959:21) pointed out, in the nineteenth century, inlanders outnumbered coast dwellers in Arctic Alaska by a ratio of about three to one. He then went on to describe (1959:62–97) in some detail the nature of the relations between the residents of the two ecological zones, showing how they were linked into a larger regional system.

Spencer's second main contribution was to give the Iñupiaq family system the attention it deserves (1959:62–96; 1967–68; 1968). Again, it seems hard to believe in retrospect, given the importance of families in Iñupiaq societies, but systematic studies of Eskimo family life were all but nonexistent at the time Spencer did his research. Spencer changed all that, and the decades following publication of his major monograph witnessed an outpouring of kinship studies in Eskimo settlements all across the North American Arctic (Burch, 1979:72).

JOSEPH SONNENFELD

Joseph Sonnenfeld is a geographer who did research in Barrow for four months in 1954, the year after Spencer left. He apparently did not know of Spencer's work

at that time, and when he completed his Ph.D. thesis in 1957, he was acquainted only with Spencer's report to the granting agency. As a result, he recapitulated some of Spencer's reconstructive work. However, he was oriented much more to contemporary events than Spencer was. Thus, without really being aware of the fact, he brought the documentation of Barrow Iñupiaq life forward from the end of the nineteenth century to the middle of the twentieth.

Being a geographer, Sonnenfeld was interested primarily in ecological and economic matters. With reference to those subject areas, his Ph.D. thesis (1957) was wide ranging and informative. Unfortunately, it was never published. As far as I am aware, Sonnenfeld published only two articles on his work in Barrow, one (1959) on the history of domesticated reindeer herds in the Barrow district, the other (1960) on changes in Eskimo hunting technology.

BARBARA BODENHORN

Barbara Bodenhorn is a social anthropologist who began her research in Barrow in 1980 and who continued it for many years subsequently. More than any of her predecessors, Bodenhorn tried to learn how the community worked as a social system, and she spent enough time in it to find out. Her work focused on families, the interrelations between and among families, and the role of families in the overall economy. She has written extensively on these and related subjects (e.g., 1989, 1990, 1993, 1997, 2000, 2001).

Bodenhorn's work is only the most recent effort in more than a century and a half of ethnographic research in Barrow. No other Arctic community has been so thoroughly studied over so long a time. Viewed from this broad perspective, although their artifact collection remains unequalled, the ethnographic work of John Murdoch, Patrick Henry Ray, and the other IPY expedition members constitutes just one link in a long chain of empirical investigations. The "chain" as a whole should now become the center of someone's attention: Where else in the Arctic can one find so much good information on social change in one community over so long a time?

CONCLUSION

In conclusion, I wish to address briefly the issue of what scientific value there might be in gaining knowledge

of nineteenth-century native life in Barrow. The answer lies in the value of natural experiments.

Social scientists can experiment with small numbers of people in highly restricted settings, but there is no way that we can experiment with entire societies, certainly not on any kind of ethical basis. The only way we can develop a broad understanding of how human social systems operate is by observing people going about their lives in their own ways without any interference from a researcher. This is what is "natural" about the method. The greater the diversity of the social systems that can be studied in this way, the more "experimental" the approach becomes, and the more powerful any resulting theories about the structure of human social systems are likely to be.

Arctic peoples in general, and Eskimos in particular, are important in this regard because they lived in such extreme environments. In the nineteenth century, the way of life of the Eskimos in the Barrow district stood in marked contrast to the previously recorded ways Eskimos lived in the eastern North American Arctic. This information expands our knowledge of the range of variation of Arctic social systems and, by extension, of human social systems in general. In order to be scientifically significant, though, the research on the societies in a sample of societies must be conducted in terms of a common conceptual and theoretical framework so that a systematic comparative analysis can be subsequently carried out. The Franklin Search and IPY-1 reports are fairly close to meeting that requirement, but they are only a first step. Fortunately, the information they contain is good enough and complete enough for future researchers to adapt for that purpose.⁶

NOTES

1. I thank John Bockstoe and Igor Krupnik for information and/or advice given during the preparation of this article.

2. Most of the expedition's reports, originally published in the nineteenth century, were reprinted in 1988 by the Smithsonian Institution Press. While both the earlier and later versions are listed here in the References, only the 1988 versions are cited in the text.

3. I have not seen this article myself, but I thought its existence should be recorded here.

4. Krupnik, this volume.

5. My knowledge of Spencer's work was enhanced under a grant from the National Science Foundation, Office of Polar Programs (OPP-90817922). I am grateful to that organization for its support, and to Marietta Spencer for giving me her late husband's Barrow field notes.

6. A comparative analysis of the meteorological data acquired in IPY-1 was not carried out until recently (Wood and Overland, 2006). Thus, one of the primary objectives of the first IPY was not achieved until nearly a century and a quarter after the raw data were collected.

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