

InfoNorth

Challenges and Accomplishments: A Celebration of the Arctic Institute of North America

by Robert MacDonald

BACKGROUND

IN THE 1930s, EXPLORER VILHJALMUR STEFANSSON, northern scientists (particularly geologists), and developers such as Gilbert LaBine recognized the strategic nature and economic potential of the Arctic regions. The Second World War brought this potential into focus with various projects, especially the Northeast and Northwest Staging Routes for air traffic, the Alaska Highway, and the Canol Pipeline from Norman Wells, as well as the weather stations and the voyage of the *St. Roch* through the Northwest Passage.

In 1942, a group of Canadians held private discussions about how Canada could increase her administrative, scientific, and technical competence in the Arctic to match that of other Arctic nations, such as the Soviet Union. These discussions about Arctic competence and Canadian sovereignty took place against a backdrop of disinterest and ignorance shared by the Canadian government and the public. Through personal contact with the Canadian Trevor Lloyd, American military people and scientists became aware of these discussions: the military was preoccupied with the strategic importance of the Arctic, while the scientists were interested in preserving and making accessible “a remarkable collection of hitherto unassembled information,” bequeathing it to an institution at war’s end (Parkin, 1966:8). By March 1944, Canadian initiatives had led to the realization that some objectives could best be achieved by an international organization. Accordingly, in May 1944, nine Americans and eleven Canadians met in New York: though they were there as individuals, they included senior bureaucrats and university people on the Canadian side and scientists and government Arctic specialists on the American side. Individual relations between these people were important dynamics in the formative stages. Despite differing perspectives, they established a private binational organization, with room for Greenland and Newfoundland and Labrador, and appointed Raleigh Parkin as pro tem secretary. This meeting also stressed the need for a headquarters close to an important library and other facilities, with good access to the capital cities. After a vigorous debate, an American-sponsored motion selected Montreal, with its well-equipped university libraries.

In September 1944, at Montreal, the proposal for the new institute was approved. Its board of governors would include not only scientists, but also members with broad experience in financial management and administration. The proposal identified a need for independent scientific research: basic general research, studies on the problems of Arctic living, and an examination of the Arctic’s relationship to the physical, social, and economic problems of the world. The new institute would strive to coordinate its research with other ongoing research and to cooperate with government bodies and other research institutes.

Geophysicist Laurence Gould became acting director in 1944, and Lincoln Washburn replaced him in October 1945. Offices were established at McGill University and in December 1945, by Act of Parliament, the Arctic Institute of North America was chartered. Its stated purposes were the following:

- a) to initiate, encourage, support and advance by financial grants or otherwise the objective study of Arctic conditions and problems, including such as pertain to the natural sciences, sciences generally and communication;
- b) to collect, arrange and preserve records and material relating to the Arctic regions, and especially to such areas thereof as form part of or are contiguous to the Continent of North America;
- c) to make such records and material available for pure and applied scientific use by properly qualified individuals and organizations, including governmental agencies;
- d) to arrange for or to assist in the publication of reports, maps, charts and other documentary material relating to the Arctic regions;
- e) to establish and maintain close contact with other Arctic Institutes and organizations engaged in similar or related fields of study. (An Act to Incorporate The Arctic Institute of North America, Chapter 45, 9–10 George VI, 1945)

Bylaws to establish a board, fix fees, hold meetings, and manage assets were authorized. The institute was also incorporated in the State of New York. Later the American incorporation was shifted to the District of Columbia.

THE MONTREAL YEARS

The institute was directed by a board of governors, elected annually for limited terms. In addition, there were members or associates who shared aims and interest in Arctic research. By 31 May 1948, there were 1204 members, exceeding initial expectations. In May 1948, the board instituted a program of “Fellows” of the Arctic Institute, who were recognized for their contributions to the North. Empowered to elect three of the six board members and to nominate other Fellows, they also gained a voice in institute affairs. The board, with an elected chair, functioned in part through committees. By 1946, for example, a Research Fellowship Committee (later Research Committee) was established, in part to approve grants-in-aid and to conduct research from government grants and contracts. Other committees arose as need required. Overseeing the work was the Executive Committee, composed of the chair, treasurer, and secretary, with the executive director ex-officio (as committee secretary). This latter body was essential especially as the board of governors increased in size to 18 by 1956 and 24 by 1966.

While the headquarters were in Montreal, other offices were established in New York in 1948, in Washington in 1951, at Johns Hopkins University in Baltimore from 1949 to 1950, and in Ottawa in 1956. These satellite offices raised the institute’s profile among individual supporters, industry, and foundations and helped to secure funding for its activities. Each office was headed by a director who reported to the executive director. In 1959, the New York and Washington offices were combined in the latter city.

During the McGill years, several individuals held the post of executive director. Washburn resigned in 1951, to take over the Washington office, and was succeeded by R.C. Wallace (formerly of the University of Alberta and then Queen’s University) in November of that year. Following Wallace’s sudden death in 1955, Tom Manning, who had been involved in Arctic research since 1931, served as temporary executive director, but remained in Ottawa. In 1957, A.T. Belcher, a former deputy commissioner of the R.C.M.P., accepted the post. After Belcher retired in April 1960, Dr. John Reed of the U.S. Geological Survey was appointed. In 1963, when Dr. Reed moved to a new Washington office to further the institute’s profile there, O.S.C. Robertson, commander of H.M.C.S. *Labrador* through the Northwest Passage and of a DEW Line task force, was named deputy executive director in the Montreal office. With Reed’s retirement in 1968, the board selected Brigadier H.W. Love, director of the Montreal office since 1965, as the new executive director, a position he would hold until 1975.

As the Arctic Institute was forming, the respective national research councils provided \$200 each for outlays and shortly a further \$1000. An unsolicited private donation of \$1000 signified early encouragement. In 1945, the Hudson’s Bay Company contributed the first of many annual amounts of \$5000, while the Canadian War Technical and

Scientific Committee, or the Banting Fund, gave \$50 000 over ten years. As the institute was formalized, the Carnegie Corporation provided \$55 000 to support research. In 1951 this was increased to \$139 000 spread over five years. The Northwest Territories Council granted \$5000 and the U.S. Office of Naval Research provided \$100 000 for grants in aid of research. By 1957, 25 corporations in the United States and Canada were contributing, including some providing \$2500 over several years. American support was such that there was a proposal to move headquarters to the United States. Individuals also contributed to specific projects, and members’ fees assisted the finances. Originally set at \$3.00, these were raised to \$5.00 in January 1953. In 1962, a scale of contributions was approved: contributing associates (\$10), subscribing associates (\$25), and sustaining associates (\$100+). Students and retirees paid \$5.00. Members were entitled to participate in the election of four board members.

With a budget of \$10 000 the first year, the institute’s revenues rose to \$156 000 by 1950, and \$400 000 by 1955. From 1958 to 1965, annual income ranged around a million dollars. By 1964, the institute was in increasing competition for funding from the federal, territorial, and provincial governments and the petroleum industry. Canadian government sustaining grants were ultimately cut, as it appeared that industry and government preferred to deal directly with individuals and universities. An attempt was made to set up an endowment fund. Despite uncertainties and deteriorating facilities, the institute carried on with its field stations and publications. In 1974, grants and contracts were still close to previous years’ figures. By cutting administrative expenses and selling assets, expenditures were reduced to just under a million dollars, with losses around \$80 000 (Reed, 1966:19).

Indirect funding came from outside sources. Through contracts, the U.S. Office of Naval Research enabled up to 29 researchers to work out of its Arctic Naval Research Laboratory at Barrow, a testament to Washburn’s endorsement of its founding in 1946. In addition, the U.S. National Science Foundation provided support for a number of projects, especially during the International Geophysical Year 1957–58, including the establishment and operation of a biological station in Antarctica and glaciological investigations in northern Alaska (Reed, 1966). In Canada, the National Research Council continued support, contributing \$50 000 a year for three years beginning in 1963. Finally, the close association with McGill was central to the institute’s success: this included not only office space, but McGill personnel on the AINA board and also cooperation in the Banting Fund administration and grants-in-aid to McGill graduate students.

This financial and organizational support enabled the Institute to carry on a number of programs. The first of these was the establishment in 1945 of a polar library, which benefited from the gift of a collection from Philip Smith, head of the Alaskan Division of the U.S. Geological Survey and one of the institute’s original founders. The

library grew substantially: by 1955, the librarian, Nora Corley, reported that the AINA library constituted one of the important Arctic libraries in the world. At the end of that year, there were over 1000 acquisitions, including periodicals, pamphlets, books, and maps, and over 5100 items in the cataloguing system. In 1961, when the library moved to new quarters with twice the space, it contained 4848 volumes and 476 serials. By 1966, the collection had grown to 7500 volumes.

Not all material, of course, was purchased, as from the beginning the library relied on gifts of books and article offprints donated by members. Government departments and agencies of both countries, and some from the United Kingdom and Denmark, also contributed material, and so did private bodies and companies. Among the special holdings were works printed before 1800 and a letter written by Sir John Franklin from Fort Franklin on Great Bear Lake in 1825. Early in the library's development, a unique cataloguing system evolved, unlike the more familiar Dewey Decimal or Library of Congress systems. Instead, the system was broken into eight geographic areas and one of general interest, each with a separate number from one to nine or multiple thereof. In 1968, after years of single-handed work, Nora Corley published a catalogue of the institute's library.

The library contained a small museum, which received gifts, such as a caribou skin parka donated by Rose Heninger in 1953. Another generous gift was a photographic collection begun in 1950 with 1400 prints. A significant part of the institute's holdings was the developing art collection.

If the library was one important pillar, the second was the journal *Arctic*, launched in 1948 to communicate information about the Arctic and the institute's affairs more widely (Wilson, 1948:3). Trevor Lloyd, a geographer, was the first editor of the journal. He was replaced in 1950 by Diana Rowley, also a geographer. Anna Moffat succeeded her briefly before Paul Bruggemann, a retired entomologist, became editor in 1956. For most of the final years in Montreal, Anna P. Monson, a journalist and librarian, organized the issues.

Arctic published research articles on the Arctic and Subarctic, along with news of the institute and of the North in general, as well as book reviews, obituaries, and occasional commentaries. Beginning with two issues in 1948, the journal published three issues annually until 1951, after which it appeared quarterly. On occasion, the journal published more than one issue together. Articles were in English, but in 1966 French translations of abstracts were added, and from 1966 to 1977, Russian translations were included. From time to time special editions or supplementary issues were also published.

During the first decade of publication, papers in the earth sciences dominated the content, while biological sciences, often classical wildlife studies, were the second largest component. Studies on the Arctic in general were another category. Defence research items, which were significant during the first years of the Cold War, later fell

off dramatically. Finally, social sciences, which leaned heavily to history and exploration and only later to anthropology, archaeology, resource management, and politics, were represented in fewer articles.

In June 1947, AINA began a project to produce a comprehensive bibliography of Arctic research. A Directing Committee of leading scientists and librarians from Canada and the United States acted as project advisors. Sixteen volumes of the *Arctic Bibliography* were eventually published, the first 14 under the editorship and direction of Marie Tremaine and the last two completed by Maret Martna, who succeeded Tremaine in 1968. In all, over 108 000 books and papers, written in 40 languages, were abstracted in English. A hundred different libraries assisted in the production, especially the Library of Congress. Initial funding in part came from the U.S. Office of Naval Research and the three armed services plus the Canadian Defence Research Board. Later additional support came from a variety of government agencies such as the National Institutes of Medicine, the U.S. Coast Guard, and the Canadian Department of Indian Affairs and Northern Development.

A second program was the publication of technical papers that were either too long or too specialized to be included in *Arctic*. Twenty-seven volumes were published in the Technical Paper series between 1956 and 1974. Subjects ranged from Banks Island mammals, northern Manitoba vegetation, gulls, lemmings, marine law, archaeology in the Thelon area, Ungava salmon, Arctic Alaska tundra, Palaeozoic stratigraphy and corals, to the five-volume study of Eskimo administration by renowned anthropologist Diamond Jenness.

Other publication ventures included studies of the Arctic Basin, the flora of Alaska's Arctic slope, the periglacial environment, Soviet Arctic research, papers of Alaska Science Conferences, and a series of translations from Russian on Arctic anthropological topics such as the Bering Sea culture, ethnic origins in Northeast Asia, and shamanism. With the University of Kansas Museum of Natural History, AINA published monographs by Francis Harper, a grant recipient, on the biology and people of Keewatin and Ungava.

The institute established itself at the forefront of research by its involvement in several significant large-scale projects. Project Snow Cornice, begun in 1948, examined the Seward-Malaspina glacier system in southwest Yukon and southeast Alaska. Headed by Walter Wood, then director of AINA's New York office, project investigators from several universities, the U.S. Geological Survey, the American Alpine Club, and the institute studied snow accumulation and the dynamics of the system. The early work focused on the Upper Seward Glacier, while in 1951 the team concentrated on the Malaspina Glacier, with helicopter support. That year, the project scientists were devastated when the institute's Norseman, piloted by Maurice King, disappeared en route from the Seward Glacier base camp to Yakutat on 27 July: on board were



The Blue Dolphin at anchor in Seaplane Cove, northern Labrador, in 1950.

Wood's wife, Foresta Hodgson Wood, who had been extensively involved in earlier Yukon expeditions with her husband, and his daughter Valerie.

In 1949, the institute was involved in the *Blue Dolphin* Expedition to Labrador. Over several years, this study involved oceanographic and biological investigation of the Strait of Belle Isle and the Labrador coast north, with some attention to the Hamilton Inlet–Lake Melville region and its great influx of fresh water. Studies of plankton, fish such as cod and salmon, bottom-feeding fauna, algae and aquatic seed plants, and observations of whales occupied the scientists. Some studies of nesting birds and small mammals were also made. Members from the Geological Bureau of the Department of Mines and Resources made observations on the area settlements.

A third major project was the Baffin Island Expedition in 1950 to study the Barnes Ice Cap near Clyde River and the surrounding country. Headed by Patrick Baird, the director of the Montreal office, the project team comprised about 20 scientists and student assistants from Canada, the United States, the United Kingdom, and Switzerland. Support for the project came not only from the Arctic Institute of North America, but also from the Royal Canadian Air Force, the Swiss Foundation for Alpine Research, the Geological Survey of Canada, the Canadian Geographical Society, companies, individuals, and especially



Patrick D. Baird, director of the AINA Montreal office, at the 1953 base camp of the Baffin Island Expedition.

the various universities from which most of the scientists were drawn. That year, camps were set up on the ice cap, a biological camp at Clyde River, and a mountaineer camp at Sam Ford Fjord, then Eglinton Fjord. AINA's Norseman aircraft moved equipment and personnel to the camps, moved geologists around, and restocked the camps. Among the subjects of study were bedrock geology, geomorphology, glaciology, meteorology and climate, vegetation ecology, and lichens.

In 1953, 13 scientists, including Swiss glaciologists, were investigating the Cumberland Peninsula between Pangnirtung and Padloping, including the glaciers leading to Pangnirtung Pass from the Penny Ice cap: meteorology, glaciology, botany, and zoology were specialties. Three investigators, including Baird, remained from 1950. Two camps were established, but the weather often hindered investigation. The project had its sad news when W.R.B. Battle, a geomorphologist and senior Carnegie Fellow, accidentally drowned while on a lone walk near base camp in the Pangnirtung Pass.

In 1959, under a contract with the U.S. Air Force Research Laboratory at Cambridge, Massachusetts, a team organized by AINA began studying the Ellesmere Ice Shelf, especially Ward Hunt Ice Shelf and Ice Rise. Others involved in the project included the Defence Research Board (as observers) and the U.S. Naval Civil Engineering Laboratory. The following year, ice-core analysis, geomorphology, and rate of ice melt were studied.

During this time, two projects were begun that would have significant long-term impacts on the work of the institute, as they led to the establishment of the institute's research stations at Devon Island and Kluane Lake. The Devon Island Project, led by Spencer Apollonio, was a coordinated multidisciplinary attempt to understand and evaluate the physical, chemical, and biological variations in the waters of Jones Sound. It examined factors such as glacial discharge, evaporation and transfer of mixture from the ice cap and glacier to the sea, solar radiation and the ice cap, marine biological production, and the growth



The Devon Island Research Station at Truelove Lowland during the early 1970s.

and decay of sea ice. Planning began in 1959, and a base was established in 1960 near Cape Skogn. The research got under way in earnest in April 1961, with a team that included researchers from American, British, and Swedish universities. Five men remained throughout the winter of 1961–62, collecting ice cores, studying sea-ice thickness and dynamics, including the composition of seawater, and collecting meteorological data. The following summer, 13 scientists continued a geoelectrical study of the glacier; meteorology and radiation; and marine salinity, temperature, and nutrients, both there and at Grise Fjord. Detailed reports of the year's work were published regularly in *Arctic*. Funding came from a variety of sources, ranging from Canadian and American military groups to private organizations and individuals.

At Devon, four Jamesway huts provided sleeping, eating, and research facilities for researchers, and two Massey-Ferguson tractors and a Weasel were available. In 1965, a geomorphological study and a field-oriented geomorphology program were carried out, the latter supported

entirely by the Arctic Institute. In 1970, 25 researchers and assistants used the Devon Island facilities. Among the projects was the integrated ecosystem study directed by L.C. Bliss of the University of Alberta for the Canadian International Biological Program. By this time the camp consisted of eight Parkall and Jamesway huts, with transport provided by two snowmobiles, a double-tracked Ranger, and a Massey-Ferguson tractor, as well as air transport by Otter and Beaver. The integrated tundra ecosystem study continued until 1974 with involvement also of the Polar Continental Shelf Project and the Canadian Wildlife Service. Among the investigations were those relating to the hydrology of Truelove Lowland, soil bacteria, flora, population dynamics, and nitrogen intakes of polar desert plants. Camp managers and support personnel ensured the station ran efficiently for investigators.

The Icefield Ranges Research Project owed much to Walter Wood's earlier Yukon experience. Created in 1960, it had its first season in the summer of 1961. In addition to the base camp at the southern end of Kluane Lake, on the

Alaska Highway, camps were set up for specific studies. Scientists, graduate students, and assistants, drawn mostly from universities, conducted field work in glaciology, meteorology, climatology, geophysics, and glacial geology. Part of the attraction was easy access to the nearby Kaskawulsh Glacier. Flow rates of the glacier, bedrock and ice profiles, oxygen isotope tracer studies, weather, glacial history, and geology of the Shakwak Valley were among the areas examined. By 1965, the project included 14 different programs involving 47 people. The research had extended to the dielectric properties of snow and ice, geomorphology, plant and animal ecology, and aerial photography and mapping. Assisting the field parties was a Helio-Courier aircraft in which AINA pilot Phil Upton made 300 landings on glaciers and other unprepared surfaces. Complementing these studies in 1965 was one on the north side of Mount Logan, conducted by the U.S. Army Cold Regions Research and Engineering Laboratory. In 1968, still under Wood, 70 scientists and assistants, with 15 support staff, studied the area. Project people gave papers at the Alaskan Science Conference, held in Whitehorse that year, and 70 delegates participated in a field trip to Kluane and an aerial tour.

In August 1971, a workshop was held at Kluane, in part to identify questions on the terrestrial environment of interest to defence and military operations in alpine, Subarctic, and Arctic regions, and to recommend research directions. In 1974, the station was used by 104 researchers and assistants, representing 20 universities, government agencies, and institutions. That year was the seventh annual High Altitude Physiological Study, which examined changes in oxygen, electrolytes and hormone secretion so as to understand better acute mountain sickness and mechanisms to acclimatize people to altitude. Several subjects performed tasks at various elevations from 2900 m to 5300 m.

The institute was concerned not only with the Arctic, but also with Antarctica. Just after the International Geophysical Year 1957–58, in which AINA had a role in administering various phases of the U.S. program through National Science Foundation grants, the institute administered two ground traverses from Scott Base and Byrd Station. During the first, the Arctic Institute Range of mountains was discovered. This support continued in Antarctica in subsequent years. At one point a name change for the institute was suggested to reflect dual polar interests.

One of the ongoing issues of Arctic science, as in other disciplines and regions, has been the recruitment of new researchers. In part, the institute addressed this through the Grant-in-Aid Program, which had awarded grants to 800 students by 1974. Beginning in 1950, the institute participated in the McGill Geography Summer School, with Patrick Baird, director of the Montreal office, directing two courses. One of the lecturers in each was the noted Arctic and Antarctic explorer Sir Hubert Wilkins. In 1962–63, the institute gave a ten-week course on northern

geography as a regular course for the university's extension program, with 50 enrolled. Participation depended on funding, but the institute provided small grants for American teachers to attend. In 1965, the Thirteenth Summer School, at Stanstead, Quebec, offered two specific courses on polar studies, one on northern lands by Trevor Lloyd and one an Arctic seminar with speakers from the staff and governors of the institute. Two years later, Dr. Brian Bird coordinated an intermediate course entitled "The Circumpolar Lands," which included specialists in anthropology, permafrost, climatology, and exploration. Three years later, the offerings expanded to include a seminar for advanced students, with Bird again coordinating. The Washington office organized a course on Arctic geography in 1965–66, and that same year a group of Colgate University students attended a field school on the properties of snow and ice.

During these first 30 years, AINA not only met the challenge of getting organized but played a key role in promoting the Arctic, encouraging research, publishing a variety of studies on the region, and developing infrastructure and systems that could carry the research into the future. In accomplishing this, it faced the challenge of funding in which it was generally successful. But a new challenge emerged.

A TIME FOR DECISION

By the 1970s, the institute had begun to lose its central role in Arctic research. The Canadian government was increasingly conducting its own research projects because of sovereignty concerns. The University of Alaska was developing into a focal point for American expertise and hence for funding by American agencies (Love, 1987). Canadian government funding, of course, was essential to the work of AINA, as Canadian corporate donors were few, with little long-term interest in the North beyond personal levels. Although the discovery of petroleum at Prudhoe Bay and later in the Mackenzie Delta and Sverdrup Basin increased interest in the North, industry tended to consult individuals or government agencies, despite expertise found among AINA governors, members, and resources in the institute library. The institute work did go on, but deficits were occurring. In 1974, a working group was struck to examine AINA's future direction.

In 1975, Brigadier H.W. Love, the executive director, retired, as did Jean Brain, the administrative secretary (and longest-serving employee). Love was succeeded by Robert Faylor, who had headed the Washington office since 1959.

The executive director and board of governors struggled with the issue of finances as it tried to integrate AINA into the new research realities. In 1973 and 1974, the board examined the institute's function, finances, location, and opportunities. Grants-in-aid, *Arctic*, and the library were deemed essential to operations, though the library moved to smaller quarters with reduced staff. There was

discussion about moving offices to a northern location, but it was felt that Montreal was close to the big centres of influence—Ottawa, Washington, and New York. There were suggestions to move the Washington office to Anchorage, though initially this was rejected in favour of an office in Arlington that could still serve New York, Congress, industry, and trade associations. However, the U.S. Corporation (as it was known after 1976) deteriorated as an active organization and eventually it was effectively moved to Fairbanks, Alaska, where interest and research were still active.

During this time, in spite of some success in finding new funds, there was a continued feeling that Montreal (including the library) was far from the centre of new northern activity (and potential funding) in the Canadian west, especially Alberta. A committee chaired by R.G.S. Currie, vice-president of Panarctic Oils, investigated another location as well as “renewed and adequate funding on a continuing basis” (Love, 1987:250). Despite the presence of the Boreal Institute at the University of Alberta, the Alberta government was reported to have offered a trust fund of five million dollars, and the University of Calgary made space available. Reaction to the potential move of the institute was swift. McGill offered to continue housing AINA rent-free and to provide some money, and three francophone universities indicated support, while a Montreal shipping firm with Arctic interests reportedly was prepared to donate over five years. At a late date, the Quebec government again offered help. An initial board meeting approved the move, but the decision was controversial, and a subsequent larger meeting that included the Fellows rejected the plan, fearing AINA would become a tool of petroleum companies. But in May 1975, a meeting in Calgary with only board members endorsed the move. Resistance remained. In Edmonton, the Boreal Institute questioned having two northern institutes in Alberta, noted duplication of materials, and served notice of possible legal and other action if any of its programs were taken over. Rivalry between Calgary and Edmonton played a role. In Quebec, the government served notice of its intention to declare the library as part of Quebec’s cultural heritage so that it would remain in the province. However the legal notice came two days late, and almost all the library (60 000 items) arrived in Calgary on 3 February 1976.

By November–December 1975, Gerald Thompson, AINA’s financial officer, had arrived in Calgary to set up headquarters in a small office on the ground floor of the university library. In 1977 John Tener, after a career in the Canadian Wildlife Service, took over the top position; however, he returned to Ottawa and public service in 1979. Peter Schledermann, whose appointment as research associate in 1976 had solidified his connection with the institute, became first acting director, then executive director in 1980.

Despite the relocation, the financial situation did not improve sufficiently. The reported endowment was not

forthcoming. Negotiations with the provincial government led to an agreement whereby the Boreal Institute and the Arctic Institute would each get basic funding of \$160 000 annually. The Alberta government also agreed to cover AINA’s moving expenses from Montreal and pay off its debt to the Bank of Montreal. The federal government also provided some financial support to AINA. These funds did not resolve the ongoing financial difficulties of the Arctic Institute. After negotiations, in 1979 the University of Calgary took over the institute, though AINA retained a certain degree of autonomy with its own advisory board (later board of directors) drawn largely from outside the university, the ability to raise funds beyond the university grant, and the continued integrity of its library, including caveats on any disposal. Though tensions in the relationship would remain, the change did usher in some stability. And programs did continue.

Arctic continued to be one of the premier peer-reviewed multidisciplinary journals on the Arctic region. Editorship changed several times. M. Vivian Hambly, who was the editor from 1974 to 1978, was replaced by James Cragg, who in turn was succeeded by Len Hills of the University of Calgary’s Geology Department. In 1983, Claudette Reed Upton, wife of Phil Upton, the pilot at Kluane since 1960, became editor: she continued for a while after her husband’s death in April 1984. Gordon Hodgson, a chemist who had been director of the university’s Kananaskis Research Centre, became the editor with the June issue of 1985. Both he and his predecessor were assisted by a part-time production editor and editorial assistant.

With the March 1981 issue, *Arctic* moved to an 8 1/2 by 11 inch two-column format, which provided more page space and was more cost-efficient. In June 1982, an Arctic Profile series was initiated by AINA research associate Richard Davis, whose interest was exploration literature. The series was designed to provide “*Arctic*’s specialized scientific readership with glimpses into a more subjective and human element that has influenced the history of arctic development,” especially of those “who have shaped our understanding of northern Canada” (Davis, 1982:327).

With respect to content, biological sciences had replaced earth sciences as the dominant subject, while social science articles increased slightly and those in defence research and other disciplines remained relatively steady. About half the journal’s funding came from membership and subscriptions, while a quarter came from the government research councils and the rest from AINA or other charges such as back issue sales.

In the 1970s, the newsletter *Information North* had appeared, replacing the news items *Arctic* had printed and earlier newsletters. Spring, autumn, and winter issues contained short articles in various fields such as John Hornsby’s travels, a CANMAR icebreaker, Greenland Home Rule, political changes in the Yukon, and American whalers in the western Arctic. Board meetings, publications, art exhibits, research programs at the research stations and field work, news about other institutes, pipeline



Executive director Peter Schledermann lectures to the seniors in the boardroom of the Arctic Institute in 1985.

hearings, North Slope activities, and northern political development suggest the range of the items in this publication.

During this time of transition, support of research continued. In 1976, Peter Schledermann began long-term archaeological investigations in the area of Bache Peninsula and Alexandra Fjord on Ellesmere Island, adjacent to Kane Basin and the North Water polynya and to Sverdrup Pass. In addition, the Icefield Ranges Research Project and High Altitude Physiology Study led to new developments, such as the annual Hypoxia conferences. The Kluane facilities continued to attract researchers conducting long-term studies on glaciers, rock glaciers, permafrost, willow ptarmigan, snowshoe hares, and atmospheric chemistry and climate from high-altitude ice cores. By 1986, 19 doctorates and 29 master's degrees had been awarded to students who did their research at Kluane. In addition to daily accommodation fees, Kluane relied upon multi-year infrastructure grants from the Natural Sciences and Engineering Research Council of Canada, first received in 1985.

The facilities at the Truelove station on Devon Island were improved with a larger kitchen, a remodelled sauna,

and better storage facilities. In 1984, 940 user-days were recorded, with seven major projects. Much of the success of the operation of Truelove was due to Dr. Don Pattie of the Northern Alberta Institute of Technology, who conducted annual bird surveys on the lowland and acted as camp manager.

As the relationship with the university was still developing, the institute embarked upon a number of initiatives. About the time of the move to Calgary, Robert Faylor, director of AINA's Washington office, envisioned the creation of an electronic database to replace the *Arctic Bibliography*. In 1978, the Arctic Science and Technology Information System (ASTIS) was established and initially funded in part by the Arctic Petroleum Operators' Association. Through the work of the ASTIS manager, Ross Goodwin, the project produced current awareness bulletins (six per year), annual cumulative bibliographies (on microfiche and then on CD-ROM), and special bibliographies. The success of ASTIS depended upon contracts from many sources, such as Indian and Northern Affairs Canada, the Canada Oil and Gas Lands Administration, and the petroleum industry, as well as some funding from the Arctic Institute. In 1984, ASTIS received a three-year grant from the Environmental Studies Revolving

Funds (ESRF) to enhance the database in areas of interest to the oil and gas industry and related government agencies. The ESRF/ASTIS project resulted in the publication of comprehensive bibliographies on ice scour, icebergs, marine oil pollution, and the training and employment of Northerners.

A second initiative was the Northern Political Science Program (NPSP) established in 1980 with a Donner Foundation grant to Dr. Harriet Critchley, who held a joint appointment with the Department of Political Science and AINA. Studies were done on the fiscal viability of northern governments and on northern housing policy. In addition to the evolving northern politics, there was also a strategic studies element, stressing the changing strategic significance of the Arctic and the law of the sea.

An outgrowth of the NPSP was the Northern Employment Training Study initiated in 1983 with funding from the Donner Foundation, Petro-Canada, and the Arctic Institute. In 1984, four students from the western Arctic received job training through seminars, written assignments, and work experience, under the guidance of Frances Abele. Among the "employers" were the Norman Wells Pipeline Project, the Department of Indian Affairs and Northern Development, Arctic Cooperatives, the Inuit Broadcasting Corporation, and "Tuk Tech," the petroleum industry facility in Tuktoyaktuk. Some students such as James Ross from Fort McPherson and Cecile McCauley from Fort Norman later became prominent in the Northwest Territories.

It was the dream of the board and the executive director, Dr. Peter Schledermann, for AINA to become a teaching institute, offering courses for undergraduates. This vision met academic and departmental resistance; however, an agreement was reached with the Faculty of Continuing Education to offer non-credit courses to seniors. In 1980, a ten-week course entitled "Introduction to the North" was coordinated by Schledermann, who invited a series of guest lecturers to speak to the seniors on a broad range of topics. The following year, the coordinator was a doctoral student in archaeology, with the same format of lectures given both at the institute and at the Kerby Centre for seniors. Thereafter, the coordinator and then instructor was Robert MacDonald. Interest initially was such that two sections were offered in both fall and winter sessions, in addition to a spring session for rural seniors, with a variety of themes developing over the years.

The institute sponsored a lively lecture program during the 1980s with presentations by university researchers from Canada and abroad, northern Native leaders, northern politicians, and environmentalists. During Schledermann's tenure, the institute also hosted post-doctoral fellows, such as Robert Janes and Richard Davis, and initiated a student chapter of AINA on campus.

As the staff, researchers, and programs increased, and with the absorption of AINA by the university, it became necessary to shift the library from the floor where the offices were located to a separate location. AINA's rare books were housed with the university library's special

collections, and the main collection was kept intact on another floor. The old card-cataloguing system was retained for works acquired before 1979, while subsequent acquisitions were integrated into the university library catalogue. Transcripts of the Berger hearings on the proposed northern natural gas pipelines that were donated to AINA became the basis of an increasing collection of material from the petroleum industry, which soon also included the Canadian Arctic Gas Study Library.

The university's absorption of AINA had led to changes, including the reduction of the size of the board, changes in the bylaws on board membership, alterations in the working conditions of the staff, and new relationships with the university library and academic departments. In June 1986, Schledermann resigned as executive director in order to return to active research. Now on solid financial footing, the institute was in a strong position to move in new directions. The process of re-evaluating its mandate would continue into the next phase.

A NEW VISION

One of the first tasks of the new executive director, Michael Robinson, was to work with the chair, E.A. Pallister, and other members of the AINA board in reviewing the institute's mandate and developing a new focused direction. In 1987, AINA produced a document outlining a new mission: "The Northern Information Homecoming Mission." The new mission recognized the increasing significance of the "information industry" and the service sector, and the fact that Northerners wanted not random information but relevant knowledge applied to current needs. The goal of the mission was "to assemble, review, synthesize and deliver information on a focused list of subjects to northern decision makers" (AINA, 1987:6). Four core programs were established: a Networking Program, to promote collaborative links with other groups interested in the North; a Database Program to strengthen the AINA library and ASTIS; a Research Facilities Program to promote and maximize the use of the Devon Island and Kluane field stations; and a Research, Publication and Secondment Program. Priority subjects to be addressed in the latter program included northern land-use planning, engineering and architecture in cold climates, government structures, sustainable economic development, social and natural sciences, and the humanities. The board of directors also authorized the establishment of a program trust fund to create a cushion on which the institute could rely in future to cover costs (through interest or, if necessary, capital).

Arctic, which came under the Research, Publication and Secondment Program, continued to be the flagship of the institute. Gordon Hodgson retired in 1989 and was succeeded by Karen McCullough, who had been assisting the journal operations for the previous year. In 1994, the journal switched to desktop publishing, which brought



Executive director Mike Robinson serving research associate Michael Crauford-Lewis at the 1993 annual potluck dinner.

substantial savings in both time and money. *Information North* continued to be published as a separate newsletter until 1997, when it was revamped as a separate “InfoNorth” section in each issue of *Arctic*. By merging the two publications, AINA significantly decreased production costs and broadened the content appeal of *Arctic*. The two-page information sheet “What’s New,” which had been initiated in 1987 to provide members with short news items about the institute, was also incorporated into the InfoNorth section of *Arctic* as a cost-saving measure.

In 1989, the former Technical Papers evolved into the Komatik series, which would also be desktop-published. Komatik No. 1, *Gathering Strength*, by Frances Abele, was the final report of the Native Employment Training Study. Six books were published in the series.

ASTIS continued to grow as Canada’s major northern abstracting and indexing service. With funding from the Canadian Polar Commission, ASTIS worked with the Canadian Circumpolar Library at the University of Alberta and other northern information centres on the design of a Canadian Polar Information System (CPIS). By 1998, the database contained over 43 000 records, citations to the literature about northern Canada, and research project descriptions. Funding for ASTIS continued to come mainly from indexing contracts, product sales, and small grants from industry.

The AINA library collection also continued to grow, with increased support from the University Library, donations from the petroleum industry such as the CANMAR Library and many smaller industry collections, government publications, and journals received in exchange for *Arctic*. To make the collection more accessible, in addition to providing staff with updates of books received, the Northern Studies/Arctic Institute librarian Eric Tull spoke to undergraduate classes about the collection and other aids to northern research. Internet connections enabled greater links with outside institutions, libraries, and researchers.

True to its original mandate, the institute was engaged in research through its staff and research associates.

Senior AINA research associate and anthropologist Joan Ryan directed several projects, including a training program in literacy and curriculum development for the Gwich’in that resulted in the establishment of a regional Gwich’in Language and Cultural Centre, a study of traditional Dogrib justice in Lac La Martre, Northwest Territories, and a study of traditional Dogrib medicine. Other research associates studied small-business development in the North, native self-government, and the evolution of the Inuktitut, Yupik, and Inupiat languages. Gerald Holdsworth continued his analysis of the 1980 ice core from Mount Logan and what it revealed about climate change.

Many researchers continued to make use of the Kluane research station, which was supported by user charges, grants from the Natural Sciences and Engineering Research Council, and AINA funds. Some of the topics studied from Kluane included glaciers such as Trapridge, population dynamics of a boreal forest community, permafrost and land forms, palaeoclimates, high-altitude physiology, bear monitoring, genetic diversity among isolated rodent populations, and climate change. A key to enabling this research to take place was the manager and pilot, Andy Williams. His experience and understanding of the area were underlined when he served as chair of the South West Yukon Land Use Planning Commission. In recognition of his service to northern research, he received an anniversary commemorative medal from the Polar Commission a few years later. In 1991, the Kluane station celebrated 30 years of research.

The Devon Island station continued to be used by film companies, field schools, and some researchers, such as Larry Bliss, who had been involved in the International Biological Program in the early 1970s. Once Dr. Bliss’s research at Devon ended, the use of the station became more sporadic, and discussions began on the future of the station.

To reaffirm AINA’s commitment to students, in 1995 the U.S. and Canadian corporations re-established the Grant-in-Aid Program, which had lapsed in the mid 1970s. With funding entirely from members’ donations, a binational committee chaired by Erich Follmann (a member of the U.S. Board of Governors) provides small research grants to students from universities in both Canada and the United States. In Calgary the institute continued to adjudicate and administer the federal government’s Northern Scientific Training Program on behalf of the University of Calgary. The institute also administered scholarships established by friends and families of two young biologists who had died, as well as a scholarship in honour of James Bourque, a Metis leader in the Northwest Territories. The Jennifer Robinson and Lorraine Allison scholarships are awarded annually to students conducting graduate research in the biological sciences. The Bourque scholarship is awarded annually to a Canadian aboriginal student undertaking post-secondary training in education, environmental studies, traditional knowledge, or telecommunications.

In 1995, AINA research associate Karim-Aly Kassam developed the Theme School in Northern Planning and Development Studies, an interdisciplinary minor taught by the Arctic Institute and offered through the Faculty of General Studies. To gain practical experience in northern development and planning issues, the Theme School students participated in a variety of internship projects, concerning the impact of chemical pollutants on Arctic communities, indigenous knowledge of sea ice and climate change in Holman, Northwest Territories, and a comparative study of the traditional role of women in forest communities in the Canadian North and India. As part of the Arctic Technology Preservation Project, initiated by Jack Gallagher (then president of Dome Petroleum Limited) and Murray Todd (then vice president/president of CANMAR), four Theme School students researched and wrote a book entitled *Breaking Ice with Finesse*, about technological, environmental, and social aspects of Arctic petroleum exploration. In 1995, when Gerald Thompson retired after 30 years of serving the institute as financial officer and associate director, a scholarship was established in his honour, with applicants drawn from the Theme School.

To provide a variety of services to First Nations, governments, and industry, Mike Robinson developed a Professional Services group at AINA. Many projects involved cultural land-use and occupancy studies, community economic development training, participatory methodology, workshops, mediation, strategic road-mapping sessions, and conference organization. A portion of revenues resulting from Professional Service activities was used to sustain other institute programs.

With its Networking Program, the institute undertook a number of outreach activities, such as open houses for the university community and annual potluck dinners for AINA members and guests. A regular lecture series was revived, with talks on subjects ranging from climate warming to Inuit art, the Arctic National Wildlife Refuge in Alaska, political development in the Northwest Territories, and the suspected murder of American explorer Charles Francis Hall. When Nunavut was created in 1999, AINA sponsored a series of talks on the territory and its challenges. Meanwhile in 1998, the AINA U.S. Corporation initiated a very successful series of “Arctic Roundtables” to bring together individuals with Arctic interests at the University of Alaska in Fairbanks. Under the leadership of Dr. Carl Benson (Chair of the U.S. Board of Governors since 1984), AINA U.S. Corporation also began hosting an “Arctic Reception” at the annual autumn meetings of the American Geophysical Union.

In December 1999, Mike Robinson resigned as executive director to become the president and chief executive officer of the Glenbow Museum and Archives in Calgary. During his 14 years, he helped build an esprit fostered in part by the informal gatherings celebrating an event and the annual potlucks. Although AINA’s books were balanced and its trust fund had grown significantly, the end of

the 20th century ushered in a new era of challenge for the institute.

NEW CHALLENGES

While the board and university sought a successor to Robinson, Dr. Mark Dickerson, an emeritus professor from Political Science, was appointed acting executive director. After a search and public lectures by candidates, Karla Jessen Williamson, originally from Greenland, was selected, joining in September 2000. Her vision included “bringing together two apparent solitudes”: those in research/academia and the peoples of the North (Williamson, 2000:4). Williamson foresaw a role for the institute in coordinating multidisciplinary research in the North in partnership with Northerners. Core programs—*Arctic* and other publications, ASTIS, the field stations, the library, the Theme School, and the research associates—were to be nurtured while pursuing initiatives in research and a strengthened relationship with the university and other institutions.

A major proposal was developed during Williamson’s tenure for the Dew Line to Sea Lane Project, a multidisciplinary research initiative that would examine the impact of the building of the DEW Line (radar defence) stations on the people of the North and what these impacts might reveal about the potential effects of the future commercial use of the Northwest Passage predicted under a scenario of climate warming. In cooperation with the Centre for Military and Strategic Studies at the University of Calgary and other research partners, the project team applied for funding as part of the Network of Centres of Excellence. Although the team was unsuccessful in obtaining NCE approval, a portion of the DEW Line to Sea Lane Project became part of ArcticNet, Laval University’s major program to study the impact of climate change on the Canadian North’s coastal communities.

The institute continued to support its core programs—*Arctic*, ASTIS, the Kluane Lake Research Station, grants-in-aid, and scholarships—while developing new initiatives and turning increasingly to the World Wide Web for the distribution of information. The institute’s website, which had begun modestly in 1995, grew to more than 130 pages of detailed information about AINA’s programs and allowed online ordering of its publications. The ASTIS printed and CD-ROM publications ceased in 1999 when the full ASTIS database was made available on the Web for free. Most ASTIS contract work now involves the creation of subset databases that are available from their own websites. *Arctic* began to make papers available on the AINA website for free, as PDF files, three years after their publication.

In 2002, research associate Constance Martin initiated a project to catalogue AINA’s collection of more than 4000 photographs and to create a database, using professional archival standards, from which images could be

recalled for scholarly and public use. With help from the AINA board of directors, the project successfully obtained funding from a number of petroleum companies active in the North.

That same year AINA entered into a publishing agreement with the University of Calgary Press to establish a joint initiative called the *Northern Lights Series*. The mandate of the series was to publish non-technical works from all areas of northern scholarship. Former AINA executive director Peter Schledermann became the first editor of the new series, followed by AINA research associate William Barr in 2004.

Offsetting these new activities in 2002 was the departure from the institute of the Theme School in Northern Planning and Development Studies, which was relocated to the Faculty of Communication and Culture. As well, negotiations began with the Grise Fjord Iviq Hunters and Trappers Organization for them to assume ownership of the Devon Island Research Station, which had not been active in 2001 and 2002.

During the summer of 2004, AINA successfully hosted the 14th Inuit Studies Conference with the theme of looking at how researchers could better communicate the results of their research to the Inuit. The conference involved researchers and Northerners, open public sessions, and smaller workshops and presentations.

Although Karla Williamson hosted the Inuit Studies Conference, she had resigned as AINA executive director earlier in the spring in order to concentrate on her doctoral dissertation and other research projects. ASTIS manager Ross Goodwin, appointed acting executive director, was succeeded in January 2005 by Mark Dickerson when ASTIS work became more urgent. The board and university struck a search committee, and in April 2005 Dr. Benoît Beauchamp, a sedimentary geologist then at the Calgary office of the Geological Survey of Canada, was appointed executive director. With his long experience in northern research and administration, Dr. Beauchamp is well suited to take on the challenges of this venerable institute.

CONCLUSION

For 60 years, AINA has accomplished a great deal of which it can be proud. The institute has always benefited immensely from its ability to attract dedicated board members, staff, researchers, and supporters. Interest in northern research is experiencing a renaissance as governments, universities, and industry recognize the strategic and economic importance of the Arctic and its role as a bellwether of global climate change. As Canada and other circumpolar nations gear up for the 4th International Polar Year in 2007–08, the institute is eminently well situated to build on its past successes and continue to fulfill its mandate of expanding and disseminating knowledge and understanding of the North. The coming decades will no doubt

provide their share of challenges, but with the institute's proven capacity to adapt, we can confidently look forward to AINA's centennial celebrations in 2045.

ACKNOWLEDGEMENTS

This sketch was written using materials available at the Arctic Institute, as well as the author's private files. My thanks to the staff and research associates who commented on the paper or provided background information. The illustration on the cover of this issue and all photographs in this essay are from AINA's Photographic Archives.

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