THE NORTH IN CANADIAN BIBLIOGRAPHY¹

When we were together seven years ago, I talked to you about the *Arctic Bibliography* and its uses in Canada. Now, I'd like to tell you about some developments in that interval, about the materials going into the bibliography, especially some that tie the North into our life in lower latitudes. I'll also outline the work of the Arctic Institute, and the workings of its bibliography project. And finally, show why its product is now, in a special sense, Canadian bibliography.

The North has long attracted man, and his activities there have fostered a voluminous literature. The movements of primitive man northward in Europe and Asia, the migration of some Asians north-eastward to this continent, the accommodation of these migrants to the harsh northern environment, and the cultures they developed, all these achievements of the distant past left evidence, and most of it has come to light in our own time. In later epochs, came the activities of Europeans moving westward toward our continent: the Vikings (as evidenced in the Vinland map of recent fame², and in Ingstad's current excavations on Newfoundland); after the Vikings, the explorers, the Northwest Passage seekers, the traders, adventurers, scientists, all these were active within the last millenium. They penetrated Canada from east to west, delineated the north coasts, and explored the archipelago. Others, the Russians, penetrated Asia from west to east, explored the north coasts and seas, crossed the Bering Sea and claimed Alaska. It was a period of written record; the latter half of it had the printing press; and its literature, as you know, is extensive and diverse. Much of this literature is cherished, or coveted, by the bibliophiles of our Society, and forms a notable part of our great Canadiana collections. These retrospective remarks are not to offer you a capsule of history, but just to remind you of the deep perspective in which bibliographers view the North, before we turn to recent activities.

1. Text of Miss Tremaine's address to the members of the Society at the Annual Meeting held in Ottawa on June 18, 1967.

2. *The Vinland Map and the Tartar Relation*, by R.A. Skelton and others. New Haven, Conn., 1965, 291 p.

Interest in the arctic and subarctic regions, both national and international interest, has greatly increased in the twentieth century, particularly since World War II. These regions are no longer a matter of curiosity, but a challenge. We now see the Arctic as a central basin ringed about by great land masses, a mediterranean sea almost enclosed by the Eurasian and North American continents. It offers direct short cuts between the important population centres of the Northern Hemisphere, and many international air routes cross it. It is in fact a potential crossroads of the world. Strategic aspects and defence measures are also a factor in the increase of interest in arctic regions. So is their importance in world meteorology. The International Geophysical Year programmes brought the arctic region into the regular network of stations for planetary studies. These programmes included facilities and a pattern of international effort not dissipated subsequently, and produced a very extensive literature.

There is a growing realization of the existence of mineral resources, electric power, fisheries, and other economic potentialities of northern regions, and a growing concern to habilitate their aboriginal peoples for a role in the national community. This intensification and expansion of interest is evidenced in the rise of new institutions devoted to northern studies, agencies within government such as the Cold Regions Research and Engineering Laboratory at Hanover, New Hampshire, and the Arctic Health Research Centre at Fairbanks, institutes of universities such as the Arctic Meteorology Research Group at McGill, the Centre d'études nordiques at Laval, the Institute of Northern Studies at the University of Saskatchewan, Institute of Polar Studies at Ohio State University, Geophysical and Polar Research Centre at the University of Wisconsin, private organizations such as the Arctic Circle, Indian-Eskimo Association, Musk-ox Circle, and so on. Besides the specifically polar and low temperature research organizations, many institutions with research interests find the North a newly accessible and relatively unworked area in their subjects. There are in fact a thousand or more institutions of Western Europe and the Soviet Union which now engage in some activities in arctic or subarctic areas; these are identified and their work described in two directories³ published by our own Arctic Institute. There are probably a few hundred North American institutions as well. All this again is reflected in increase of publication.

3. *Institutions of the USSR Active in Arctic Research and Development*, by Vlas Stanka, Washington, 1963. 196 p. *Arctic Research in Western Europe, a Directory of Institutions*, by Peter H. Wood, Washington, 1967. 296 p.

Activities so numerous are feasible because they can utilize means and techniques unknown thirty years ago: aircraft, with landing facilities including ice landings, and techniques for dropping supplies and equipment, and for air-rescue service; helicopters which can reduce mapping time 95%. Networks of meteorological stations, shipboard observers, ice-scouting aircraft, and now satellites supply data for weather- and ice-forecasting services broadcast from a central bureau. Many of the stations carry on geophysical and oceanographic observations as well; they serve as depots in the communications, transport, and resupply systems, and often as bases for field research parties. There are well over a hundred of these so-called polar stations in the Soviet Arctic; those in the Canadian Arctic include the most northerly of all, at Alert, less than 10° from the Pole. An innovation for the weather- and ice-forecasting services are the unmanned stations installed on land or at sea, some at sea drifting with the current; they are equipped with instruments set automatically to record certain ambient conditions and to radio the data to a prearranged base. Some are now nuclear-powered, and I believe the first such was the one installed in 1961 at Sherwood Head in the Canadian Arctic.

A facility very productive of information on areas hitherto little penetrated is the research base established on drifting ice at sea. Such a base is usually set up on a large floe in the central Arctic, and resupplied as necessary, its personnel rotated, special research parties brought in, and the entire base eventually evacuated, all by aircraft. These drifting stations are in continuous radio contact with the mainland and are active for periods of several months to a few years, usually till their ice foundation begins to break up. The course and speed of the drift, the meteorologic and oceanographic elements recorded, and diverse research carried on, for example on the ice itself, on auroras, the ionosphere, solar radiation, the cloud cover, or sometimes curious neighbours such as polar bears, all are ultimately reported in the literature. I must mention also the special research vessels equipped for laboratory work, underwater photography and sound recording, and long-range nuclear-powered submarines. They greatly extend the potential study of marine life and physical conditions of the sea, including its ice as seen from below. Nuclear-powered icebreakers can extend the navigation season for shipping, as do air-bubbling systems which can keep the waters of docking areas ice-free, long after freeze-up would normally close a port.

On land, techniques have been found for constructing stable buildings, roads, bridges, airfields, dams, water mains and sewage lines in areas of permafrost; these are the areas where the subsoil and rock

remain frozen the year round, unless man's activity disturbs it, as when warmth from occupied buildings causes the ice in the ground to melt. The surface, so-called active layer is subject to seasonal freeze and thaw. But if the warmth penetrates into the permafrost beneath and disturbs its natural level, the effects upon the building may be serious. Now this can be foreseen and methods have been found to forestall or counteract the results. Building and construction on permafrost is probably the major achievement for the North in our time. It has resulted from the efforts of many scientists and engineers, and from a copious literature, of which the end is not yet in sight.

The requirements of surface transport have been met — if not completely satisfied — by a variety of tracked vehicles, tractor trains, compacted snow and ice roads, river boats and barges. The Soviet Union has been working on a specially designed sea-going river boat which eliminates transshipment of cargo. Another invention, which also has this among other virtues, is the air-cushion vehicle called hovercraft which skims the surface by just a few feet and so is independent of rough terrain and of ice-strewn waters as well.

While new facilities and techniques have been found and are utilized in exploration and research, in surveying and prospecting, the high cost of operations in remote and inaccessible areas limits for a time resource development and settlement to exceptional locations, for example where the nature or extent of mineral deposits, and the national economy, or the general market warrant development. Such has been the case at Schefferville, Thompson, Yellowknife, and (though differently) at Inuvik in Canada. Similarly on a larger scale in the USSR, development of apatite, nickel, copper, coal, gold, and more recently industrial diamonds, natural gas, and oil deposits has brought large industrial communities into being.

The physiological effects of cold have been much studied, not only in the field but in laboratories, and not only the effects on man but on animals and plants. Some of this research has not just arctic but universal applications, as for example research on hypothermia, that is, the lowering of body temperature in warm-blooded creatures below the normal level. Experiments in artificially inducing this condition in man were made successfully years ago, and hypothermia became a useful tool in certain heart and brain surgery. More recently, it has aroused considerable interest and literature in England, when elderly people were found to die of cooling out of the body due to poor thermoregulation during winter cold spells. These practical discoveries have given impetus to the study of man's and animals' responses to

cold; how cold affects performance, what happens when part of the body gets chilled, how to minimize and prevent cold injury. This kind of injury is not now so common as one might expect in the North, partly due to awareness of the danger by people, except when intoxicated. Under the latter circumstance, such injury may be just as common during the winter in temperate latitudes as in the North. Though publications are still numerous on frostbite and occasional hypothermia, they mostly originate from regions of temperate climate. Experimental research on both still goes on, with the refinement of methods succeeding the earlier wide range of work. The somewhat related study of hibernation of mammals, their winter sleep, is increasing both in scope and in number of publications. This condition also is common in the sub-Arctic and in temperate regions. During hibernation, the body temperature of the animal drops to near that of the environment, heartbeat is reduced to 2 or 3 pulses per minute, and other vital processes are correspondingly slowed. This built-in capacity to become hypothermic has come into the foreground of interest during the past four or five years, especially the biochemical changes in the organism during its winter sleep, the external factors triggering it, and the mechanism of arousal and course of "reanimation."

The study of man's acclimatization to cold has given us a large literature for many years. Recently this study has in part shifted to sub-tropical countries. This began when it was fully realized that the Eskimo in his native dress and house, which are ideally adapted to the arctic cold, actually lives in a warm microclimate. On the other hand the Australian and some African natives who use little clothing sleep naked during the cold desert nights. Study of their body reactions to the night cold appears to throw considerable light on the controversial problem of man's acclimatization to cold, whether in the North or not.

Practical economic benefits may be expected from attempts to acclimatize animals and plants to a new northern habitat. For a number of years the USSR has been reintroducing valuable animals into areas where they have been hunted out, and extending their range north: animals like the sable, muskrat and beaver. The Russians have also been trying to acclimatize in the North animals and plants of more southerly origin. One of these projects is the transfer of the pink salmon in the egg stage by the tens-of-millions from the Pacific into European waters in the Kola Peninsula. Results so far are poor, however, due in part to Kola's early onset of winter cold, which kills much of the newly hatched fry. Still, a few anadromous Pacific

salmon have been caught as far west and south as Scotland; thus it is not improbable that this valuable fish may acclimatize in, and repopulate the relatively warmer waters of northwestern Europe. Experiments in farming northern fur animals, like the polar or blue fox, in more southerly areas have been more successful.

There is a continuous effort to extend agriculture northward by selection of cold-resistant or quick-maturing strains of cereals, vegetables, feeds, and even ornamental trees and house plants for use in northerly communities. Studies of the effects of soil and fertilizer on plant growth and of plant physiology under harsh climatic conditions also add considerably to the volume of literature.

The postwar interest in food, especially in protein sources, is the motivating power behind the great increase in fisheries and marine research in countries that hitherto have had insignificant sea fisheries. Some of these activities have spread from home waters to the great fishing banks fringing the east coast of North America and Greenland. Research, as well as fishing effort and cooperation among many countries, has been developed through the International Commission for Northwest Atlantic Fisheries whose own publications greatly advance this industry. The same can be said for the work of the international North Pacific Fisheries Commission. These two organizations publish from Halifax and Vancouver respectively. The study of partly marine fishes (like the precious salmon) and of freshwater life and resources is also not neglected. All these activities have caused an unusual increase, qualitatively as well as quantitatively, in the literature of recent years.

Partly because of need of food, but also because of the threat of exploitation and in some cases extinction, many animals like some seals (but not *all* seals), the polar bear, certain ducks, geese, swans, the elk, and others are protected by limiting or prohibiting their kill. In order to effect such protection and make their conservation an international effort, their numbers, habitats and migrations must be studied. This is a widespread and expanding activity in northern countries, and it produces a considerable and fascinating literature.

Northern life must be protected from another hazard as well, damage by radioactive fallout. Although this hazard was foreseen, its effects in certain sections of the Arctic have been unexpectedly bad in comparison with the rest of the world. Fallout is taken up by plants, and those which grow slowest and longest before being consumed, like lichens, take up most. Caribou or reindeer live on lichens, especially

in winter, hence their meat is highly contaminated with radioactive material. For certain northern peoples, like the Lapps, inland Eskimos and Chukchis, caribou meat and milk are a main staple food, and as a consequence their bodies contain a much higher amount of ultimately fatal radioactive material. This has attracted the attention of scientists monitoring the fallout and its consequences, and is mirrored in the relevant literature.

With increasing interest in the economic potentialities of the North mentioned earlier, one of its natural resources to which attention is directed is the human one. The northern aborigines on this continent are of two main groups, Eskimos and Indians, and in Eurasia of 18 main groups; each of these peoples has its traditional economy, habitat and way of life, and these are disrupted as people of the temperate latitude come into the area bringing another way of life. Every northern country has a nature, peoples, resources and social systems peculiar to it, but the arctic or subarctic environment imposes common problems on all. One of these problems is the utilization of the human resource. This problem has many aspects and attracts the attention of practically every kind of worker in the social sciences and of many in the humanities and arts as well. There is new literature on schooling, job-training and modernization of traditional occupations, or introduced types of economic organization such as co-operatives and kolkhozes, on health, welfare, nutrition, and child care, working conditions and wage rates, as new diseases, new foods, clothing, and a new technology are introduced from the south. As the old way of life is disrupted, family bonds and community mores weaken, alcoholism and teen-age delinquency develop in some settlements but not in others, and this interests psychologists as well as social workers. Ethnologists still seek the more isolated bands to study a traditional culture, others visit the mixed community with temporary or seasonal employment, or with stable jobs but transient labour. And all this field work eventually expands the literature. The northern aborigines are peoples with mostly oral traditions and a wide range of languages. The reduction of each language to a written alphabet in roman or cyrillic letter is a lengthy process, often complicated by its variety of dialects; and for Canadian Eskimo somewhat further complicated by an earlier reduction to syllabics. But this process has engaged the interest of many linguists. And you may be surprised to know our volume published this year abstracts some two hundred papers on the orthography and other features of northern aboriginal languages. The written language is important not only in education, in bilingual education, but in practical and cultural exchange throughout life. A notable talent and skill in northern aborigines is their art and applied

art. Comprehensive collections from northern Europe and Asia are being formed, and published designs studied and utilized. In other countries as in Canada, these native talents in sculpture, graphic arts or fabric design are being exploited to provide cash income for northern communities from the southern market.

Though the arctic regions have distinctive climatic conditions, plant life, and perennially frozen soil, their limits are not clearly defined. The astronomical concept is of a zone within $23\frac{1}{2}$ degrees of the North Pole, where the sun remains above the horizon for one 24 hour period a year, and for another such period remains below it. The so-called Arctic Circle which delimits this zone has no value as a geographic boundary. Such a boundary is considered by some people in terms of vegetation: the limit of tree growth, which also represents a natural division in indigenous wildlife and in land use by man. Other people consider the boundary in terms of climate, for example the 50° isotherm, the line between points whose mean air temperature for their warmest month is 50° F. Some people consider the southern limit of permafrost of greatest significance. The sub-Arctic, of more concern to many now than the Arctic, is also variously delineated. In bibliography, however, the Arctic and sub-Arctic do not coincide with any of these boundaries. For one thing, some phases of arctic investigations now take place in laboratories and high altitude regions in temperate and tropical climates. For another, the main factor, the area the *Arctic Bibliography* was set up to deal with, was delineated as the little known **undeveloped** regions of the North. These regions were very extensive in Canada and the USSR. In Canada they included, besides the Yukon and Northwest Territories, some northern parts of Manitoba, Ontario, Quebec, and Labrador.

In recent years, emphasis on development has greatly increased, and regions of our *Arctic Bibliography* interest are now extended to include the Middle North in Canada and corresponding parts of Eurasia. In Canada this extension, based on census district boundaries, include **underdeveloped** areas from coast to coast, taking into account the population density, industrial activity, ground transport, and communications, in relation to the resources. Thus, significant sections of all the provinces (except the Maritimes) as well as the territories are to be covered by our bibliography from now on. This greatly increases the Canadian content of future volumes to our advantage abroad as well as at home.

AINA⁴ is the same age as the Canadian Library Association. It came about through the efforts of several scientists and men in government service, and several American scientists on wartime duty with the Arctic Desert Tropic Information Center. The Canadians were concerned that the North have more public attention in the post-war than in the pre-war years. The Americans wanted to prevent the knowledge accumulated on the Arctic from being dissipated and interest in it supplanted by others when the war ended. The two aims, though not identical, had enough in common for a joint undertaking and the Arctic Institute was organized in Montreal in 1945. It was incorporated in both countries and another office opened subsequently in the United States. Though bi-national in origin and plant, it is integrated in policy, organization, funding, and activities. Policy is set by a board of governors composed of scientists, administrators, and business men, 24 in all. Revenue is derived mostly from government grants and contracts usually for specified research or services. Significant support comes also from foundations, industry and individuals. About 75 percent of the revenue is laid out in research, about 12 percent in administration, the rest in grants to individuals, publications, library, and so on. The first year's income was ten thousand dollars; nowadays it ranges between a million and a million and a half a year. The work done on contracts and grants includes research, the administration of research projects, and logistic support of field activities; this work is carried out in Alaska, Canada, Greenland, and in the Antarctic as well. Other types of Institute work include arranging symposia and conferences⁵, AINA also arranges publication of these conference proceedings and of other works. A recent example is *The Arctic Frontier* planned jointly with the CIA, carried out on a Ford Foundation grant, and published by the University of Toronto Press. Still other types are the compilation of *Arctic Bibliography* of which more anon, and translation of selected Russian studies published as *Anthropology of the North* series, vol. 8 in press, also at University of Toronto Press.

Direct grants-in-aid to individual scientists are made each year, and there are almost twice as many worthwhile applicants as can be financed. Thirty-one grants were made for 1967: eight for studies in the physical sciences, twenty in life sciences including biological oceanography, and three in social sciences. In recent years there has been a noticeable increase in support of life science and social science

4. *Arctic*, Mar. 1966, pp. 5-38.

5. E.G. on the Arctic Basin 1962, Polar bear conservation 1965, Middle North development 1966, Drifting stations 1966, Biomedicine 1967.

studies. In 21 years, 641 such grants have been made, ranging from under a hundred to 15,000 dollars. On the whole, they are providing a sound investment for increasing knowledge of the North, and for fostering specialists to work there. Published results of studies aided by these grants run to hundreds of papers. Most of the grantees continue to engage in some kind of northern research; about half of them are teachers, and many teach subjects related to the Arctic. This is significant for the long haul: the need for research in the North is greater now than a generation ago and the facilities are better, but more people are required, as our Director, Dr. Reed says, "trained, dedicated, enthusiastic people," bent on a career in the North. AINA also takes part in this training at McGill and George Washington Universities. It provides courses largely by invited lecturers who are knowledgeable and experienced in the various fields. Though the Institute's staff is small and mostly administrative, its fellows and about 2,500 associates include most polar workers outside the USSR. It maintains an excellent library in Montreal with large interlibrary loan and foreign exchange programmes.

The *Arctic Bibliography* project was set up by the Institute in 1947 by contractual arrangement with the U.S. Office of Naval Research with a budget of one hundred and ten thousand dollars for a three-year period: Army and Air Force as well as Navy shared in providing these funds, and the National Research Council of Canada, separately, contributed ten thousand dollars. The Institute undertook to deliver an indexed bibliography on cards, a set to be provided for each of these four supporters. In 1950 publication was decided on instead, and our first three volumes appeared in 1953. Each year subsequently, funds have been found for compilation and most years for printing as well. Costs rose through the years and the American defence agencies became disenchanted with exclusively supporting a research tool so widely used outside the military. The Canadian government made contributions in the 1950's, as did the National Geographic Society, and now in addition the U.S. Office of Naval Research, the Department of the Army and the National Institutes of Health contribute substantially, as do the Atomic Energy Commission, the Canada Council, the Defence Research Board of Canada and the Department of Indian Affairs and Northern Development. Besides the well known fact that it all adds up, this diversification is tangible evidence of the varied uses of *Arctic Bibliography* and such evidence is helpful in gaining further support. It costs roughly a hundred thousand dollars a year now to compile *Arctic Bibliography*, and about forty thousand to print a volume. As the importance of research becomes more widely recognized, especially in the sciences, its organization, facilities

and support get more attention. The role of the bibliographic and abstracting services, not only in research but also in research planning, likewise gains recognition; here a control of the literature prevents duplication of earlier work and saves literally man-years of effort. The economy of these services is so patent that their quality, coverage and timeliness are more serious factors than cost. If dependable, they are cheap at the price. The *Arctic Bibliography* project has a steering committee of 15, of whom Dr. J.M. Harrison, Moira Dunbar and Graham Rowley of Ottawa, Brigadier Love, Lachlan MacRae, Lincoln Washburn and Henry Collins are probably known to many of you as colleagues, neighbours or field workers in our North. The committee meets occasionally for policy matters, but its members individually are more than occasionally helpful to me because they are all experienced specialists in some phase of our work. Our staff consists of about 15 people, two-thirds of them scientists. This relatively large number of scientists, most of them working part-time, enables considerable subject specialization and command of a wide range of languages. We use English and Russian most, of course, but nearly all other European languages as well. Two of us have some library experience, Maret Martna from Ottawa and Montreal, and I from Toronto. Experience and judgment are required of all staff members, so only a couple of us are under forty; most of us are over fifty, two are over seventy. Full orientation in the project takes about two years; then the scientist does his own searching, abstracting, and some indexing; the editorial staff does cataloguing, indexing, editing and proof-reading. For many odd jobs in preparation for going to press, I bring in Library of Congress technical personnel on evenings and week-ends.

Northern literature, as my fellow members of this Society well know, spans the centuries and covers over a sixth of the earth's surface. It includes most of the arts and sciences of man: the art of the Siberian Neolithic, the art of navigation, and the art of A.Y. Jackson. The problem of bringing this literature under bibliographic control becomes a question of where to start. In 1947 we decided to advance on a circumpolar front, seeking primarily published results from the great expeditions. Such enterprises as polar expeditions do not originate in a vacuum; they have intellectual, economic, political, or other impetus. They are rooted in a society, and staked, intellectually and economically, by the institutions of their time. These institutions, the great ones which carry the generations' cultural heritage, are also apt to publish the results of such enterprise. So in 1947 we sought out the works of the principal institutions of learning in the countries which face or travel through the North; our emphases were on exploration and on field work in earth sciences and natural history.

Thus our first three volumes, which were retrospective from 1949, had material of interest to a wide range of people, and material of stature: the classics. Not all were covered in a mere three years, of course, and a few continue to appear in each subsequent volume of the *Bibliography*. These later volumes represent mainly intensive work in northern-oriented aspects of the earth and life sciences, in technology, the arts and humanities, and in some polar aspects of extra-terrestrial science. Increasingly now, these volumes deal with current activities, both field studies and certain laboratory or other research relevant to northern conditions; for example, food packaging, fire fighting or bird banding. Emphasis is less on exploration than on exploration for oil, diamonds, etc.; on finding and utilizing the resources, on adapting to the environmental conditions, on the techniques of travel, transport or construction.

Before closing, I will mention a few features of our ways of finding and recording materials for the *Bibliography*; these ways and others, maybe better ones, are familiar enough to members of this Society. Our search has two aspects, one stronger for the earlier, retrospective volumes; the other, latterly, when current publications are our main concern. Earlier we worked mainly through the principal institutions of Europe (including Russia) and of North America, which sponsored and published results of northern expeditions through the 19th century, working back also into the 18th, and forward into the 20th centuries. We compiled a list of their serials and of other journals in the fields of science represented in the North. We read bibliographies, assembled thousands of references, and arranged them not by author or subject, but by serial; thus we developed a kind of priority rating of the journals according to the number or importance of their northern-interest materials. Then we located or pieced together files of those serials and searched them volume by volume. Institutions which published in several languages over the years, or on a variety of subjects, we tackled as a team. To keep citations in standard form and to avoid duplicating work, a serial record was set up in the office in which each person's searches were noted. We all met together from time to time, to pool problems and arrive at common solutions, and still do. Now we are mainly concerned with current journals and our problems of search are different. Our institutional approach is still important, but northern research papers may appear nowadays in almost any scientific or technical journal. The literature of broad subject areas is kept under scrutiny by one staff member or another. Current indexes (as of medical literature) and accession lists (from specialized collections) bring to our attention many items from the more out-of-the-way sources. About 95% of the materials in *Arctic*

Bibliography and 99% of our search problems derive from serials. Our recent volumes contain over eight thousand items, about 90% of recent date, and roughly half of them are foreign-language papers. We should not be dismayed at this high proportion of foreign material in a Canadian bibliography. But keep in mind that environmental conditions, logistics, indigenous populations, resources, and development pose some fundamentally similar problems in all countries whose North is a factor in the national economy. The foreign papers may not be as impressive qualitatively as quantitatively (I am a bibliographic mugwump on this question) but we can profit by foreign experience. Translations become more numerous, easier to find money for, and easier to trace⁶ than formerly. Books present no peculiar search or translation problems. They are relatively few, but some have lasting importance and some the charm that age does not wither.

As our staff expanded, our searches extended to large or specialized libraries in New York, the Boston area, Montreal, Ottawa, Paris, and Cambridge, England. Compilation headquarters is within the matchless assemblage of international literature collections and bibliographic facilities in Washington. As offices, we have a room in the Library of Congress and another in an office building nearby. With 1967, publication of our work is transferred from the US Government Print Office to McGill University Press.⁷ This young press, established in 1960 as the second university press in Canada, has the possibility of making the contributions to Canadian life that the press has made in other countries since Gutenberg's time. It is part of a teaching institution which has deep stakes in northern research and development, and incidentally it is in the same building in Montreal as the head office of AINA. I look forward to the next twenty years of *Arctic Bibliography*, to volumes encompassing the under- as well as the undeveloped areas of Canada, and to the wider usefulness of these volumes, promoted by a Canadian publisher here and abroad. And to me, a dyed-in-the-wool bibliographer, the crowning achievement is that they will be volumes with a Canadian imprint.

MARIE TREMAINE

6. Translations Section, The Library, National Research Council of Canada, Ottawa; Special Libraries Association Translations Center, John Crerar Library, Chicago; Clearinghouse for Federal and Technical Information, Springfield, Va., which issues a twice-monthly list, *Technical Translations*.

7. *Arctic Bibliography*, Vol. 13. Montreal, 1967. lxiv, 1554 p. \$12.50