

BIBLIOGRAPHY OF ARCTIC RESEARCH

By Marie Tremaine

RESearch in the sciences, the natural, physical and social sciences, pure science, is fundamental to developments in technology, human relations and welfare, even the arts. Fundamental to scientific research is bibliography. To build and operate, for example, a weather station on a northern coast, or to construct and service a road, a knowledge may be required of the physical geography, the geology, flora, fauna and native people of the locality. Data on for example, permafrost, ecology, marine currents in a region far away, may contribute essentially to an understanding of the locality under study. Such data are the results of exploration and research carried on during centuries by sea, land and air, in the polar basin, the adjoining seas, on the arctic islands, the northern reaches of the continental land masses, and also in laboratories and study rooms in lower latitudes. Such results are published in many languages, in thousands of journals. But who knows where to put his hand with confidence on the working literature for his arctic problem? There are many lists of works on a sector; Russian bibliographies on Novaya Zemlya, on Yakutia, Hulth's Spitzbergen, Tanner's Labrador, Wickersham's Alaska. There are lists on various subjects on Eskimos, reindeer, geology, botany, etc.; publications of organizations such as *Meddelelser om Grönland*, *Skrifter om Svalbard og Ishavet*, and transactions of the Arctic Institute of U.S.S.R. whose indexes are themselves bibliographies of arctic research. There are periodic lists appearing currently in *Geographisches Jahrbuch*, and *Bibliographie Géographique Internationale* and in *Polar Record*. But the most recent bibliography of the Arctic as a whole is still Chavanne's *Literatur uber die Polar-Regionen*, published in Vienna in 1878. It was to resolve the present bibliographical anarchy that the Arctic Institute of North America promoted its Bibliography Project as fundamental to any productive program of Arctic research.

Planning and Direction

This Project was set up in June 1947, as a three-year program to produce a comprehensive bibliography of Arctic research publications. It has a Directing Committee of leading scientists and librarians of United States and Canada, in touch with current research programs of private and governmental agencies, several themselves with field experience in the North. The Committee determines policies in the preparation of the Bibliography and its members act in an advisory capacity to the Project staff in the various scientific fields represented in the literature. The staff comprises a Director, three research analysts, all experienced librarians, and three assistants at the Project headquarters, also several contributing analysts. This staff includes specialists in the principal foreign languages,

Scandinavian, Russian, German and French, experienced in the principal sciences, zoology, botany, geology, meteorology, oceanography, etc., and familiar with the collections of the principal libraries of the United States, Canada and Europe. The Project headquarters is in Washington, in space generously made available by the Library of Congress. The Project is financed by the U.S. Office of Naval Research, the U.S. Department of the Army and by the Canadian Government. It is sponsored by, and its funds are administered by the Arctic Institute of North America.

The scope of the bibliography is broad geographically, covering Alaska, northern Canada (and Labrador), Greenland, Svalbard, northern Scandinavia and U.S.S.R. and Kamchatka, the Arctic Seas and Straits and the North Polar Basin.

In subject matter the range is also wide, including geography, geology, geophysics, meteorology, oceanography, botany, zoology, anthropology, medicine, administration and government. The Project in fact, includes the various disciplines which are our avenues of approach to an understanding of the arctic world, its physical features, indigenous life, and its resources in terms of our civilization, and not least the discipline by which we may utilize these resources and adapt ourselves to the conditions of the Arctic.

Emphasis on Records of Explorers and Scientists

For a project so broad in scope the literature is obviously immense; in so limited a time some selection is necessary. The Directing Committee and Project Staff in consultation, decided to place primary emphasis on publications giving the explorers' and scientists' own record of their work in the area of interest, results of expeditions and investigations as produced by their members; then emphasis on government reports, then on discussions in publications of learned societies and scientific institutions devoted to arctic work, and so on. The Bibliography is designed to contain as much of the original records of arctic research and exploration as may be analysed and indexed in three years' time. This means the narratives of Bering, Mackenzie, Hearne, the Rosses, Parry, Back, John Rae, Nansen, Nordenskjold, Peary, Sverdrup, Amundsen, Stefansson, Rasmussen, Erichsen, the Kochs and hundreds of others whose names endure on the maps and in the literature of the Arctic. This means indexing the scientific reports from hundreds of expeditions into all parts of our area; the Canadian Arctic Expedition 1913-18 (88 separate papers), the *Vega* expedition (about 60 papers), the Koldeway expedition to East Greenland 1869-70 (about 40 papers), the Harriman Alaska expedition (about 100 papers), the Gjoa expedition; reports from the drift of the *Fram*, the *Sedov*, and the Russian North Pole ice-floe party in 1937; reports of the Thule expeditions to Greenland and northern Canada; the numerous Cambridge and Oxford University expeditions in the eastern and western Arctic; from the Wilkins, Ellsworth-Amundsen, *Graf Zeppelin*, the *Aries*,

and the numerous Soviet flights in polar regions. It means also, reports from exploratory, patrol and survey work, more or less regularly carried on in Alaska, northern Canada, Greenland, and the northern U.S.S.R., by the agencies of the various governments.

The Bibliography is arranged by author with a subject-geographic index. Under each author is the list of his works. For each work appears the title, its date of publication, the number of pages, details of illustration and analysis of its content with the geographic localities specifically mentioned. Works in foreign languages are fully described in English. Each work has a note of the library from which the analyst examined it, usually in Washington, but occasionally of necessity elsewhere.

Filing Source Material

Files of the important journals are analysed volume by volume for their arctic papers, e.g. the *Geographical Journal*, 1830-, *Petermann's Geographisches Mitteilungen*, 1855-, *Meddelelser om Grönland*, 1876-, *Geografiska Annaler*, *Ymer*, *Geographical Review*, files from the Academy of Science of U.S.S.R., of Sweden, Norway and Denmark, in fact the principal publishing media of explorers and scientists in each country where arctic research flourishes. Papers published in journals, government reports, or as parts of a larger work are listed and analysed under the author's name, with the journal etc., precisely indicated so it may be found in many large or special libraries.

The Bibliography is planned for publication in several volumes with a separate index volume (or volumes). Each book or paper analysed in the bibliography is indexed for its subject matter and for the general region in which the work was done. The entire area of interest is divided into seventy such regions and all (except theoretical) works appear under one or more of these regions. In the index the subject headings are subdivided for the general region, so that material on *Ice conditions* for example is indexed under:

- Ice conditions* — Baffin Bay
- Barents Sea
- Beaufort Sea
- Bering Sea
- Chukchi Sea

and so on. Similarly works under regional headings are broken down for subject matter, so that material on *Barents Sea* for example is indexed under:

- Barents Sea — Atmospheric electricity
- Bathymetry
- Currents
- Fishes
- Ice conditions

and so on. In addition the index includes the names of hundreds of geographic features and all works are indexed specifically to such features prominently treated by the author. Lakes, rivers, volcanoes, capes, islands, populated places, tundras, glaciers, fiords, etc., appear under their individual names, such as Kluane Lake, Nizhnyaya Tunguska (*river & basin*), Vulkan Ksudach, Cape Hope's Advance, Angmagssalik Ö, Hebron, Bol'shezemel'skaya Tundra, Klutlan Glacier, Isforden. They are indexed under their officially established name, with references to this form from any more commonly known English forms. The U.S. Board on Geographic Names and the Canadian Board on Geographical Names are cooperating with the Project to ensure that the names used are those appearing on the best maps of the area concerned. And the geographic feature headings are identified in the index with their location on a map.

Arctic enthusiasts or imaginative index readers may find unexpected delight in the columns of this index. Headings such as Airplanes' landing & takeoff, Aridity phenomena, Auroras, Buoys, Carbon monoxide poisoning, Carrier pigeons, Diet & nutrition, Dogs & dog driving, Eskimos' origin, Franklin (Sir John) Search for, Hypothetical lands, International Ice Patrol, Low temperature effects, Mines & mining, Mirages *see* Optical phenomena, Motorized equipment, Norsemen, Northern Sea Route U.S. S.R., Northwest Passage, Reindeer diseases, Stellar's sea cow, Tree line, Uranium, suggest the range of Arctic literature. With this Bibliography, arm-chair explorers may enjoy tours over the end of the earth, conducted mile by mile by guides whose feet measured those miles. For whatever is one's avocation, photography, butterflies or maps, arctic literature thus accessible opens a fresh new field. As Professor J. T. Wilson said in an early publication of the Arctic Institute, "scientific reasons for the study of polar regions have always existed." This comprehensive Bibliography gives a birds-eye view of work done, and high lights the work that remains.

ASSOCIATES OF THE ARCTIC INSTITUTE

During the formative years of the Arctic Institute many friends expressed the hope that a means of close association with its objectives might be made possible. In response to this expression the Institute has developed a membership program for Associates of the Arctic Institute. Associates will receive the journal of the Institute biannually and other

reports from time to time. The chief qualification for Associate Membership is interest in Arctic work, and the Board of Governors will welcome the widest possible participation. Dues are \$3.00 annually and may be paid in United States or Canadian funds and forwarded to either the New York or Montreal offices of the Institute.