Creativity, Lighting the Poles: Collaborative Solutions to Common Problems: Proceedings *of the* 16th Polar Libraries Colloquy, June 17-22, 1996, Consortium Library, University of Alaska Anchorage *and* Partial Proceedings *of the* 6th Northern Libraries Colloquy, July 12-15, 1976, Elmer E. Rasmuson Library, University of Alaska, Fairbanks

• *Edited by* Juli Braund-Allen *and* Cathie Innes-Taylor

Consortium Library, University of Alaska Anchorage 1997

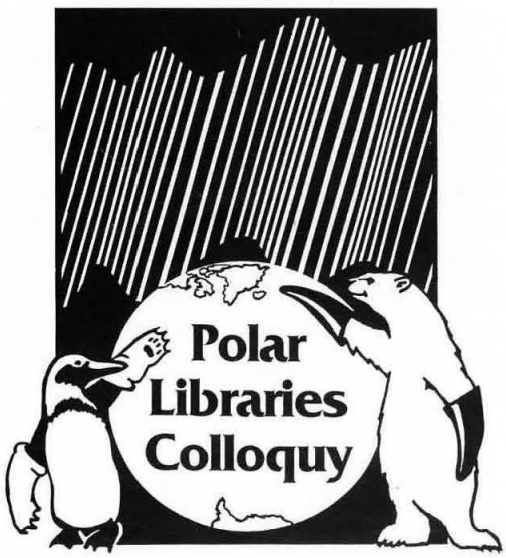
Creativity, Lighting the Poles: Collaborative Solutions to Common Problems: Proceedings *of the* 16th Polar Libraries Colloquy, June 17-22, 1996, Consortium Library, University of Alaska Anchorage

AND

Partial Proceedings *of the* 6th Northern Libraries Colloquy, July 12-15, 1976, Elmer E. Rasmuson Library, University of Alaska, Fairbanks

Edited by
Juli Braund-Allen *and* Cathie Innes-Taylor

Consortium Library, University of Alaska Anchorage
Anchorage, Alaska
1997



Cataloging-in-Publication Data

Polar Libraries Colloquy (16th : 1996 : Anchorage, Alaska)
Creativity, lighting the poles : collaborative solutions to common problems : proceedings of the 16th Polar Libraries Colloquy, June 17-22, 1996, Consortium Library, University of Alaska Anchorage, and Partial proceedings of the 6th Northern Libraries Colloquy, July 12-15, 1976, Elmer E. Rasmuson Library, University of Alaska, Fairbanks / edited by Juli Braund-Allen and Cathie Innes-Taylor.

202 p.

1. Arctic regions--Information services--Congresses.
2. Libraries--Arctic regions--Congresses.
I. Braund-Allen, Juli.
II. Innes-Taylor, Cathie.
III. Northern Libraries Colloquy (6th : 1976 : Fairbanks, Alaska). Partial proceedings.

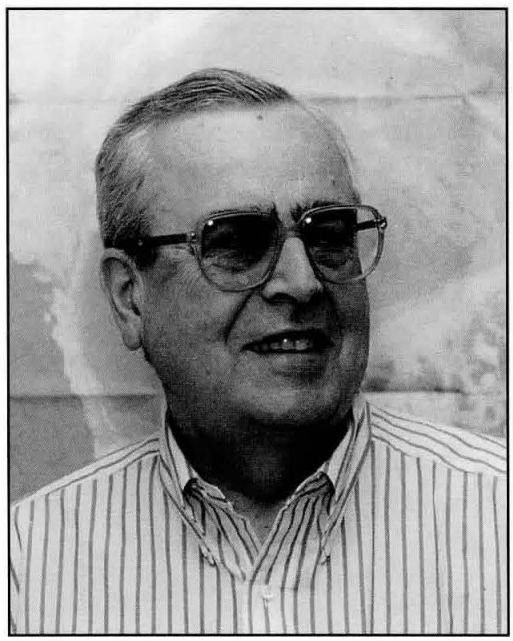
Z675.A2P65 1996

This document is printed on acid-free paper.

Published in part by Grant No. OPP-9627353 from
The National Science Foundation.

Copies are available for $25 (U.S.) from
The Consortium Library
University of Alaska Anchorage
3211 Providence Drive
Anchorage, AK 99508

Dedication



The proceedings of the 16th Polar Libraries Colloquy
are dedicated to the memory of

Hubert Wenger

22 April 1927–17 October 1995

Hubert was a long-time participant in Polar Libraries Colloquies; a student and collector of materials on the "first contacts" between northern peoples and explorers; and a strong supporter of libraries, librarians, and northern information. He and his wife Beatrice conceived the idea and donated the funding to develop the *Wenger Anthropological Eskimo Database*, the prime source for the collected "first encounter" materials. Hubert gave us the benefit of his scholarship, his friendship, his generosity, and his marvelous sense of humor. We treasure our memories of times shared and we miss you Hubert.

Wildlife Caution Alert
Bear Seen Near/On Campus

University Police were advised of a bear, unknown breed, on the bike path north of the Administration building. This path leads to Goose Lake.

The bear was seen on Wednesday evening, June 19. UPD officers responded to the area but did not locate the bear. Please exercise caution when walking in this area. Also, moose remain in the campus area this summer. This is a general reminder to exercise caution and be aware of wildlife on the campus. Please report any sightings to UPD immediately.

A bulletin distributed across the University of Alaska Anchorage campus during the 16th Polar Libraries Colloquy.

...on all American campuses, this integration of voice, video, and data is a phenomena that is accelerating at a tremendously rapid pace. And I think it challenges the very concept of a library...

Edward Lee Gorsuch, Chancellor
University of Alaska Anchorage

Contents

Sharing Unique Archives and Resources

Introduction

The 16th Polar Libraries Colloquy (PLC) was held 16-21 June 1996 in Anchorage, Alaska, 20 years after the 6th Northern Libraries Colloquy convened in Fairbanks. No proceedings were ever published for the Fairbanks Colloquy, and so it is with great pleasure that we present this volume, which contains as an appendix a partial proceedings of the 1976 meeting. We think it important these be available as they constitute an early piece of Colloquy's history and provide us with an appreciation of PLC's growth as an organization and the commitment of its members.

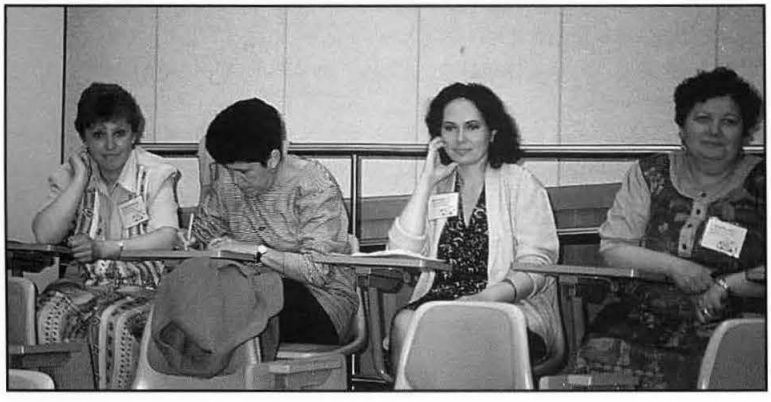
Twelve of those attending the 1976 Colloquy were also present at the 1996 Colloquy, which was hosted by the University of Alaska Anchorage's Consortium Library, the Anchorage Municipal Libraries, and the Anchorage Museum of History and Art. Creativity, Lighting the Poles: Collaborative Solutions to Common Needs was chosen as the Colloquy theme to highlight ongoing collaboration and emphasize the need for creativity in using changing technologies and dwindling fiscal resources to provide universal access to polar data and information.

Participants from 13 countries described individual archives, library collections, scientific depositories, and other bibliographic resources and projects; talked about impacts from the loss of personally held, unwritten information; discussed the Internet vis à vis two major CDS, *Arctic & Antarctic Regions* and *PolarPac*; gave demonstrations and updates on the PLC and other Web pages; presented status reports on the major polar databases and information initiatives underway in participating regions and countries, including Russia, Italy, and Australia; and held a dialog concerning PLC's information goals over the next five years.

The first Colloquy was held 25 years ago at the Boreal Institute for Northern Studies to discuss these same issues: how can we identify, capture, and share the information? The 6th Colloquy included a presentation about cooperatively disseminating information on northern library databases and pondered what direction to take following the completion of the *Arctic Bibliography*. We have made considerable advances since then, but universal access is still a work in progress, whose character is more and more shaped by technology.

See you all in Iceland in 1998.

Participants of the Colloquy.



Acknowledgments

This Colloquy could not have been held without the combined efforts of many people, not least of whom were the members of the PLC Steering Committee and all PLC participants. We thank the National Science Foundation for their generous funding of the Colloquy and these proceedings; the University of Alaska for a grant from its President's Special Projects Fund; and the Anchorage Chapter of the Alaska Library Association for its contribution.

We are particularly indebted to the Anchorage Municipal Libraries, the Anchorage Museum of History and Art, and the University of Alaska Anchorage for their hospitality and support, especially for use of their facilities and so many hours of staff time contributed in organizing and hosting the Colloquy. We appreciate the superb meals provided by UAA's Food Services, as well as its cheerful staff (at 6:30 A.M.) whose incredible helpfulness and flexibility smoothed our way.

We are most grateful to Julianne Settlemeyre and Winnie Treitline of the Consortium Library, who graciously kept our finances straight, produced needed documents and lists, arranged housing, communicated with participants, checked and double checked details, and pitched in wherever needed. Thanks also to Judy Alward and Wanda Seamster of UAA's Environment and Natural Resources Institute for invaluable help at the information desk and for graphics and layout of the Colloquy logo, documents, and proceedings.

In addition, we appreciate the assistance and contributions made by Candy Kahklen, Loretta Andress, Ramya Subramanian, Denise Halliday, Anita Hansen, Opal Myers, Frances Ray, Connie Meehlis, UAA's Athletic Department, Eugene Short and the Alaskana Bookstore, Borders Books and Music, Cook Inlet Book Company, Cyrano's Books and Cafe, the Western Library Network, Anchorage Daily News, National Bank of Alaska, First National Bank of Anchorage, Anchorage Historic Properties, and the Anchorage Convention and Visitors Bureau.

16th Polar Libraries Colloquy Organizing Committee

Barbara J. Sokolov, Chair
Juli Braund-Allen
Diane Brenner
Cathie Innes-Taylor
Nancy Lesh
Bruce Merrell

1994-1996 Polar Libraries Colloquy Steering Committee

Kirsten Caning, Phil Cronenwett, Deidre Sheppard, Klaus Hansen, Liisa Kurppa, Valentina Markusova, Eric Tull, William Mills, Sharon West, and Martha Andrews

Participants of the 16th Polar Libraries Colloquy at the Anchorage Municipal Z.J. Loussac Library.

Appreciation to the Polar Libraries Colloquy

Beatrice Wenger, Mies, Switzerland

Good morning. Most people here don't know me, never saw my husband Hubert, and never heard of the Eskimo database. This is nothing exceptional. Imagine, if you will, in 1976 there is the Colloquy in Fairbanks, Alaska; a group of ladies awaiting the participants at the train station, here in Anchorage, asked themselves what the reason could be for an unknown French couple to come to the Colloquy.

I will tell you very briefly about these two people. They had what you would call a late vocation. Having quit business, and traveling in 1970 as tourists in Greenland, they were very much taken by this new country, and as usually happens, they came back with more questions than answers. Hubert went around in Paris, where we lived at that time, to look for an institution and especially a well furnished library. He found what he was looking for, and we both got to work, fascinated. Since then, everything bearing the name "Polar" has been reason to make contact and to investigate.

In 1973 Hubert came for the first time in contact with the Colloquy in Rovaniemi, Finland. The wonderful thing was that this group of people, themselves very much qualified and specialized in library and other sciences, accepted us in their group—we having no qualifications at all.

We began working at the University of Alaska Fairbanks Rasmuson Library, I think in 1981, going regularly once or twice a year. In between we had the good luck to enter Harry King's domain at the Scott Polar Research Institute in Cambridge, England, where we spent several periods of very agreeable and useful work. In 1988 we went to the Rasmuson Library to start the Database Foundation. Again we were lucky: after twice trying, Marvin Falk hit the nail on its head and wrote a very good program for Hubert's research material.

All this is important, but I would like to emphasize the importance of Colloquy. It is a meeting place for new visions, new ideas, but above all friendship and support—what we both needed, working all alone by ourselves.

Barbara, and in you I address myself to the whole group, I'm very much indebted to you all to have dedicated this Colloquy to Hubert, and I hope that Hubert and I also took our share in promoting the knowledge and the enthusiasm for what we all are here for: the Polar Regions.

Thank you very much.

Beatrice Wenger
June 1996

The Gang of Four (left to right): Nora T. Corley Murchison, G.A. "Nita" Cooke, H.G.R. "Harry" King, and Beatrice Wenger are original founders of and long-time contributors to Colloquy. In recognition of this, they were named PLC's first ever honorary members in 1996.

Keynote Address

Creativity in Science and Business

S.-I. Akasofu

Director, Geophysical Institute, University of Alaska Fairbanks, USA

The title of my talk today is Creativity in Science and Business. During the last several years, I have been trying to teach my young colleagues and my students how to be more creative by using a number of examples. In doing so, I have found that examples in the business world are often more effective in making important points than examples in the world of science.

Actually, the reason I can present business examples in this particular talk is simply that the bottom line in the science world and in the business world is very similar, in spite of many apparent differences. The bottom line is: Non-stop innovation is the only way to survive and perform well in the rapidly changing worlds of both science and business. Creativity is the source of innovation and survival. This is true for individual scientists, businessmen, scientific institutions, and business corporations.

Now, let me define, first of all, the act of creation in science. Creation in science consists of perceiving a new thought pattern on the basis of already available data and theories. That is to say, creation in science is synthesized by combining, relating, and integrating data which are often seemingly unrelated to each other.

...non-stop innovation is the only way to survive and perform well in the rapidly changing worlds of both science and business. Creativity is the source of innovation and survival.

Perhaps Charles Darwin, a 19th century British scientist, is the most creative scientist in science history. He had an amazing synthesizing power. When you visit the South Pacific, you find many atolls. He found that there are three kinds of coral reefs. In the first one, the reef surrounds the shore of an island. In the second one, an atoll surrounds an island in the center, and the third one is simply a circular atoll. These observational classifications were good enough. However, Darwin went further. He inferred that these different types (the available data) are related. By hypothesizing sea-level increase, he suggested that the different types of atolls represent different stages of atoll formation. This example shows how great his synthesizing power was. In fact, his hypothesis has recently been confirmed by drilling at the center of an atoll; an old island exists as the bedrock of an atoll. In another example, he observed,

> What can be more curious than the fact that the hand of a man formed for grasping, that of a mole for digging, the leg of a horse, the paddle of the porpoise, and the wing of the bat should all be constructed on the same pattern?

Charles Darwin was one of the first scientists to conceive the concept of the evolution of life, and he developed the hypothesis. We are surrounded by many living creatures: single cell organisms, star fish, squids, horses, dogs, crabs, scorpions, mushrooms, flower-bearing plants, ferns, algae, etc. (the available data). They do not seem to be related at all. With his great synthesizing power, Darwin inferred that all these creatures have evolved from a single-cell organism and have branched out into different species. Since we cannot really observe the evolution of life, I think that the concept of the evolution of life is merely a hypothesis. Nevertheless, there is no question that this is one of the greatest syntheses of the human mind.

Now, let us look at the sky. There are all kinds of stars—small, large, red, yellow, blue stars, and nebulas. There are also many invisible stars, radio stars, infrared stars, x-ray stars, etc. Astronomers know all the characteristics of stars, so these stars constitute already available data. Astronomers have synthesized this data set. They now believe that infrared stars are the youngest stars, visible stars are middle-age stars, and large red stars are old stars. That is to say, when you look up at the sky, it is like looking at a great crowd of people; there are babies, kids, young people, middle-aged and old folks. They infer that many stars end their lives by exploding, and that some nebulas are a remnant of exploded stars. This is a great synthesis.

In fact, astronomers believe that baby stars are born as a result of the contraction of interstellar gas which makes up the arms of a spiral galaxy. Then stars evolve, age, and end their lives by exploding. The exploded gas becomes a new star, and so on. Therefore, the interstellar gas has already been recycled many times. The solar system was formed from such a recycled gas cloud about 4.6 billion years ago. Terrestrial organisms are made from such recycled materials on earth. For example, iron atoms in your blood cells were formed in the center of stars by a nuclear process billions of years ago. Like the evolution of life, it is impossible to observe the entire evolution of stars. However, the theory of the evolution of stars is a great creation of astronomy.

Now let me define creation in business. Creation in business is producing a new product by combining already available products or materials. We can extend our definition of creation in business by including already available business practices.

Ray Krock did not invent hamburgers. Before his day, hamburger-making was a mom-pop business in every town. What he did was to standardize and streamline the hamburger-making process, train employees for the process, and franchise the hamburger-making business. This is a great synthesis. Sears, Roebuck & Co. developed the catalog sale, namely the combination of sale and mail.

As you all know, non-stop innovation is the only way to survive and perform well in the business world. Until recently, a camera consisted of a lens and a black box. However, there have been major innovations in cameras. For example, modern cameras have a self-focusing system that uses a computer. It can now be said that a camera is nothing more than a computer with a lens. In other words, a camera is an "image processor."

Someone might say, "It is simple to be innovative. All we have to do is to create a new product combining two or more existing products." Unfortunately, that is easier said than done. The most serious obstacle to business innovation is the success of ongoing business. For example, Swiss watchmakers have long been improving mechanical watches. They thought the only thing for them to do was to perfect mechanical watches. The result is undoubtedly a beautiful product, and the business has been a great success.

Therefore, when a Swiss watchmaker came up with the idea of a digital watch, it was rejected it as an insult to the profession. It was Seiko which took up this idea and dominated the watch market at least for a while. Fortunately, Swiss watchmakers have recovered from the initial shock of digital watches. All watchmakers are now competing in terms of design. This is a very difficult competition.

Another example of the obstacle to innovation being the great success of ongoing business can be found in the copying machine market. Xerox was developing larger and larger copying machines. Since this business was successful, it did not pay much attention to the need for smaller copying machines. Canon discovered the need of copying machines by small business, individual lawyers, and dentists and filled it. By the time Xerox recognized it, it was too late for them; the market was already dominated by Canon and a few others. A similar thing happened to IBM in the PC market.

In the science world, the most serious obstacle is success of ongoing research. In order to explain this situation, let me introduce Thomas Kuhn's book, *The Structure of Scientific Revolution,* which was published in 1962. In this book he coined the term "paradigm." It is my understanding that it is a Greek word which means an example or an exercise problem in a textbook.

A textbook often provides you with examples at the end of each chapter, so that you can practice what you learned in each chapter with the new tool.

Kuhn points out that there is a good analogy between a jigsaw puzzle and a paradigm. Suppose that a group of scientists agree that they are going to solve the Garfield puzzle—we may call this the "Garfield paradigm." A jigsaw puzzle has many rules. First of all, you have to think of Garfield only, not other jigsaw puzzles. Do not use scissors, etc. An important point here is that, like examples in a textbook, the jigsaw puzzle is supposed to be solvable if you do it right. All scientists involved in the Garfield puzzle believe so, at least in the beginning.

The frontier of science is not unlike a jigsaw puzzle. However, it is a very complicated puzzle. For example, the pieces do not necessarily match together well and many pieces are still missing. Most scientists have not learned how to deal with such a jigsaw puzzle.

Suppose one piece doesn't seem to fit at all in the Garfield puzzle. In this situation, many scientists throw the piece away by saying that it came from another puzzle. Some scientists in the Garfield paradigm think that they are not capable of solving the puzzle or that they are not working hard enough. They reject, often violently, someone who suggests that the puzzle is not a Garfield puzzle, but another puzzle.

Since we talked about Darwin's theory of the evolution of life, let us take it as an example. It is known that well-developed dragonflies, mosquitoes, and many other insects appear suddenly at particular geologic times. If such creatures are a product of evolution, we would expect less-developed dragonflies and mosquitoes at a little earlier geologic time and much less-developed ones even earlier. So far, they have not been found. Scientists in Darwin's paradigm believe that if geologists would work hard enough, they would eventually find them. The important question is, Is it really so? Some important revision in the evolution scheme may be needed. But such a thought will be violently rejected by orthodox scientists in Darwin's paradigm.

Going back to the odd piece in the Garfield paradigm, one scientist will finally find that all the pieces, including the odd piece, match better together by supposing that the puzzle is actually the "Snoopy puzzle," not the Garfield one. After some confusion, everyone begins to believe that he is solving the Snoopy puzzle. This paradigm switch is called "scientific revolution."

A scientific revolution is perhaps a little different from a political revolution. Let me explain this point by a very simple example. Suppose we have a very small segment of a circle. Most scientists tend to look at only this small segment and argue that it is a straight line with extremely high accuracy. That is indeed the case. However, it takes only one scientist to tell that the segment is a small part of the circle. One good thing about science is that eventually a right solution prevails. That is to say, in the science world we make step-by-step progress. The situation may be different in politics; it is my understanding that what we learn from history is that we do not learn anything from history.

As a footnote, you may be interested to know that the term "paradigm" has now been introduced into the business world. In his *Megatrends*, John Naisbitt used this term. It is also explained in *In Search of Excellence* by Peters and Waterman; they say that a major change in management style is in progress in this country. They describe it in terms of a paradigm switch.

However, Kuhn observes that even when confronted by severe and prolonged anomalies, scientists do not, in general, respond to the resulting crisis. They think that anomalies are just a few rotten apples and their accidental presence in a barrel does not discredit others. They will push their paradigm harder than ever to see, in the area of difficulty, just where and how far it can be made to work. Although they may begin to lose faith, they do not renounce the paradigm that led them into crisis. They will devise numerous articulations and ad hoc modifications of their theory in order to eliminate any apparent conflict. Failure to do so discredits only the scientists and not the theory. An extreme case of this state may be identified as what Arthur Koestler calls "collective mental blockage." They collectively fall into the 'fallacy of the only conclusion' and cannot allow for an alternative no one has yet thought of (Beveridge).

The transition from a paradigm in crisis to a new one, a scientific resolution, is inaugurated by this growing sense that the existing paradigm has ceased to function adequately in the exploration of an aspect of nature. This will be the situation in which the more carefully they examine the barrel, the more rotten apples they find. Kuhn observes further that scientists do not reject a paradigm simply because they are confronted with anomalies or counter instances, once it has achieved the status of a paradigm. A scientific theory is declared invalid only if an alternative candidate is available to take its place. New facts alone do not destroy an outlived theory.

The emergence of a new paradigm candidate is most often far from a cumulative process, one achieved by an articulation or extension of the old paradigm. It is more often a creation of an imaginative mind, a sudden flash of inspiration. Scientists, artists, and poets alike abstract what they feel most essential in their object and express their feelings about it by equations, paintings, or poems, respectively. For scientists, their procedure of abstraction consists of choosing basic equations and terms they feel most essential, ignoring the rest, and also simplifying initial and boundary conditions.

The choice is obviously different for different scientists and results in different models. This difference is like different paintings of the same object painted by different artists. Picasso's painting of a girl may be far more difficult to comprehend than paintings of the same girl by ordinary artists. We have to be aware of the fact that, in principle, there are always an infinite number of theories that fit the observed facts more or less adequately (Hesse). The same 'crucial experiments' can be interpreted in more than one way (Koestler).

Scientists have to learn that their "truth" about reality is nothing but a consensus of contemporary 'experts.' At this point, it is worthwhile to listen to what Popper has to say, "...only in our subjective experience of conviction, in our subjective faith, can we be absolutely certain...." Greek philosopher Senoplanes said that the "Final truth...is but another woven web of guesses."

The "unscientific" nature of creating a new paradigm will most often bring a battle over its acceptance. Since an old paradigm must have been fully developed near the end stage, they can use their mathematical rigor as a powerful arm toward such a creative act (which is often full of errors by its nature) and tend to give an impression that imprecision is a defect of the new idea. Actually, such a defect is almost a prerequisite for a pioneering paper. By definition, a pioneering paper cannot be complete, conclusive, and self-contained (Ninio).

As a new paradigm begins to emerge, scientists tend to respond in a way similar to any other community. Here, Koestler observes:

> Like other establishments, they are consciously or unconsciously bent on preserving the status quo partly because unorthodox innovations are a threat to their authority of the paradigm, but also because of the deeper fear that their laboriously erected intellectual edifice might collapse under the impact.

A scientific establishment is highly conservative and attempts to preserve its power, its ruling group, against any rebels. It accepts new observations and people only in the proportion to which they conform with their truth, which is a consensus of experts (Grazia). It will greet and reprimand a new idea. Thus, a pioneer often must stand alone on the fringe of the scientific establishment, independent minded and perhaps something of a rebel (Beveridge).

The emergence of a new paradigm does not necessarily mean, however, new progress in that particular field. As Koestler puts it:

> Progress by definition never goes wrong. Evolution constantly does, and so does the evolution of ideas, including those in 'exact science.'

In his address as retiring President of the American Association for the Advancement of Science, Samuel Pierpont Langley (1889) noted that the progress of science is not like the march of an army towards truth but is instead

> ...not wholly unlike a pack of hounds, which in the long-run perhaps catches its game, but where, nevertheless, when at fault, each individual goes his own way, by scent not by sight, some running back and some forward; where the louder-voiced bring many to follow them nearly as often in a wrong path as in a right one; where the entire pack even has been known to move off bodily on a false scent....

All these confusions are left out of the textbooks by their compilers. Thus, students learn only that science progresses monotonically, asymptotically approaching truth.

It is ironic that Langley led the entire American enterprise to build aircraft with a steam engine, only to be defeated by the Wright Brothers who used a gas engine.

Unfortunately, it is human nature that the revolution soon turns into a new orthodoxy, with its unavoidable symptoms of one-sidedness, one-specialization; loss of contact with other provinces of knowledge; and, ultimately, estrangement from reality (Koestler). Since the new paradigms can never reach truth, a new crisis will eventually arise, leading to a new revolution—namely a new synthesis—and the cycle starts all over again. History repeats itself. Scientific communities are no different from other establishments. After all, science is created by human beings called scientists, so that the history of science is nothing but a human drama.

In concluding this talk, let us listen to Koestler:

> The history of science has its Pantheon of celebrated revolutionaries—and its catacombs, where rest the unsuccessful rebels, anonymous and forgotten.

Panel Presentation

A Polar Libraries Colloquy Web Site: Progress and Plans

Martha Andrews[1], Ann Brennan Thomas[2](in absentia), Liisa Kurppa[3], William J. Mills[4], and Eric Tull[5]

[1] Institute of Arctic and Alpine Research, University of Colorado Boulder, USA
[2] World Data Center A for Glaciology, Boulder, Colorado, USA
[3] Arctic Centre, Rovaniemi, Finland
[4] Scott Polar Research Institute, Cambridge, England
[5] Arctic Institute of North America, University of Calgary, Alberta, Canada

Abstract: A new Polar Libraries Colloquy (PLC) Web site is being established at the Arctic Centre, Rovaniemi, Finland. It consists of a home page and links to other sources of polar regions bibliographical, digital, and institutional information. The home page introduces PLC and highlights information and publications related to it. Current interest items will appear and will be kept updated. The links will be limited to reviewed sources that are current and complete.

Keywords: Polar Libraries Colloquy Web site; World Wide Web; Arctic Centre; Finland

---

The panel presentation for the 16th Polar Libraries Colloquy began with a review of the Polar Resources Gopher and Arctic Information Web site activities that had occurred since the colloquy in Cambridge in 1994. Practical procedures for establishing the Web site were detailed, followed by a demonstration of the Polar Libraries Colloquy Web site, including some linked sources and a Web version of *Arctic Information and Data: A Guide to Selected Resources*, second edition, 1996. A group discussion followed. Participation from the entire colloquy was sought and consensus gained on such matters as organization of information; regular maintenance of the home page and of all links; and the types of information that should be included. A plan was formulated whereby William Mills will coordinate the large number of volunteers from the Polar Libraries Colloquy in an effort to distribute responsibility on the basis of geographic regions.

Correspondence:
Martha Andrews
Institute of Arctic and Alpine Research
University of Colorado, CB450
Boulder, Colorado, 80303
USA

FYI: Information Projects at Canada's Department of Indian Affairs and Northern Development

Julia Finn

Departmental Library, Department of Indian Affairs and Northern Development, Ottawa, Ontario, Canada

Abstract: The Departmental Library of Canada's Department of Indian Affairs and Northern Development (DIAND) is using technology to increase access to Canadian Aboriginal information. A number of DIAND sectors and Aboriginal organizations are listing their information holdings on the Library's database. The Library is managing the content of the DIAND departmental Web site. A fully searchable CD-ROM of the Department's Indian Affairs Annual Reports from 1861 to 1991 is in production.

Keywords: Department of Indian Affairs and Northern Development; DIAND; Databases; World Wide Web; Canada; Cultural Educational Centres Program; First Nations Confederacy of Cultural Education Centers; Indian Affairs Annual Reports; Aboriginal information

Introduction

The proliferation and accessibility of new information technologies is giving many libraries opportunities to expand services and resolve problems in ways that seemed impossible five years ago.

The Departmental Library of Canada's Department of Indian Affairs and Northern Development (DIAND) is working on several projects using these technologies. These projects are addressing issues related to Canadian Aboriginal information that have concerned the Library for some time. They include making DIAND departmental information more accessible and helping Aboriginal organizations automate and share their own information collections.

A Shared Library Database for Indian and Northern Affairs

The DIAND Departmental Library purchased the VTLS integrated library system in the fall of 1991. As a system originally developed for a university library environment (Virginia Tech in Blacksburg, VA), VTLS supports the simultaneous listing in one database of holdings for a number of libraries, each with their own subdivisions (such as Reference or Gov Docs) and specific circulation policies. From the initial installation of VTLS, it was obvious that the system could not only improve the services and activities of the Departmental Library, but could also become a vehicle for sharing information holdings throughout the Department.

Beginning in 1992, the managers of a number of other DIAND information collections were invited to list their holdings on the Library's new database. The Departmental Library took every opportunity to promote its database to other departmental managers as a way of managing and providing access to their information collections. The Library database was presented as a vehicle for sharing departmental resources and avoiding duplication of effort. The fact that software costs and maintenance are covered by the Library was a definite "sales feature."

In addition to the Departmental Library, there are two other true libraries at DIAND, both independent of the Departmental Library; these are in the Yukon Regional Office in Whitehorse and the Indian Oil and Gas office in Tsuu T'ina, Alberta. Both are now listed on VTLS. In addition, 11 other departmental information collections from across the country are listed. These collections range from basic reference material to important and unique research collections used to support Aboriginal land claims research.

Adding the records of these information collections to the database has been handled in a number of ways. Occasionally, if one of the two Departmental Library catalogers is between projects, the Library does the inputting. In most cases, input is done by staff working with the information collections, or the Library helps information managers hire contractors to handle the input. In all cases, the Library is responsible for training staff to do the inputting.

Other Organizations on the DIAND Database

Every year, a number of Aboriginal and northern organizations approach the Department for advice and/or financial support for creating or automating their own libraries. Last year, the office of the Dene Nation approached our Minister for a grant to automate its library in Yellowknife. At the same time, the National Aboriginal Forestry Association and the Nunavut Planning Commission approached the Departmental Library for advice on automating their information holdings.

The possibility of helping these organizations while also making their collections available to DIAND employees interested the Library immediately. In the summer of 1995, it was decided to invite all three organizations to add their information holdings to the DIAND Library database.

Cultural Education Centres on the Library Database

The Cultural Educational Centres Program (CECP) was created in 1971 by the Canadian government in response to the recommendations of Chiefs and Elders for action to preserve Aboriginal cultures and languages. Today there are 74 centres and programs across the country, preserving and promoting Aboriginal cultures. Funded by DIAND, they train Aboriginal language teachers, develop curriculum material, videotape interviews with Elders, and host a variety of educational events. The centres now have a national association, the First Nations Confederacy of Cultural Education Centers (Morrison 1995).

For several years, these cultural education centres have wanted to network their information. Since the DIAND Library database had all the features required for such a network, including circulation functions and messaging, it was decided to initiate a special pilot project to add their collections to the DIAND database. This past winter, staff from seven cultural education centres were trained to catalog on the database. If the pilot project is a success, the database will be made available to any of the cultural education centres that wish to add their information holdings.

Reaction to the Expanding DIAND Database

The software company, VTLS, has had no objection to DIAND extending the use of their proprietary software to these external organizations. To date, these organizations have all been small. As well, most of them receive some or most of their funding from DIAND and so could be considered an extension of the Department.

VTLS has offered the DIAND Library technical advice on options for the cultural education centres project. One option might be to have some centres search the VTLS database on CD-ROM, download and edit MARC records, and send new and edited records on diskette to the DIAND Library for uploading. VTLS has a similar project under way in Brazil, with over 70 groups and organizations contributing to a union catalog.

Senior management at DIAND has enthusiastically endorsed this project. Sharing DIAND Library and computer resources with Aboriginal and northern organizations is consistent with the Department's goals "to strengthen Aboriginal communities and to build new partnerships with Aboriginal people" (Canada DIAND 1996).

Access to the DIAND Library Database

When VTLS was installed at DIAND, a department-wide network already existed. This allowed the Library to offer all employees across the country desktop access to the Library's database. Unfortunately, access to the database from outside the Department has, to date, been extended to only a small number of larger Aboriginal organizations, such as the Assembly of First Nations. Opening the database to a large number of external organizations has not been pos-

sible because of departmental concern for computer security and a belief that this would put pressures on network resources that would negatively affect all users.

This year the Departmental Library hopes to finally make the database accessible to external researchers through the Internet. The Library also hopes to install the VTLS Internet gateway to make searching the database easy for users who are unfamiliar with the VTLS software.

The DIAND Library database now contains over 55,000 records. Of these, 3,400 records represent material that is not found in the Departmental collection itself.

The DIAND Departmental Web Site

In the spring and summer of 1994, it was clear that DIAND's senior management was not convinced of the value of making DIAND information available on the Internet or of allowing DIAND employees access to the Internet for research purposes. The Departmental Library decided to step in to help provide senior management with the information required to make informed decisions about the Internet.

The Library first signed up with a commercial Internet service provider to make the Internet accessible at DIAND. One "Internet computer" was set up in the Library and made available for clients to use for searching. The computer was totally isolated from the DIAND network to allay any fears that the network could be compromised.

Library staff then began an active program of information sessions on the Internet, offering weekly lunch-time "brown bag" sessions to DIAND staff and special demos to departmental managers. By the end of 1994, DIAND was committed to establishing a Web site. The Departmental Library was tasked with creating the site.

In April 1995, the DIAND departmental Web site was launched. The establishment of the site was a direct result of lobbying and marketing by the Departmental Library.

The Library continues to manage the content and file structure of the Web site as part of the public enquiries and publication distribution activities it has also assumed for the Department. The Library is a member of a departmental Internet committee that approves all information put on the site and handles all the work of digitizing and coding information for the site. The Library has also designed a three-hour hands-on course on using Netscape that it delivers each week to departmental employees.

As described earlier, the Library hopes this year to make its own database available through the DIAND Web site. The departmental Web site is available at: http://www.inac.gc.ca

A CD-ROM of the Indian Affairs Annual Reports

For many researchers doing land claims research, the Indian Affairs Annual Reports are one of the most important sources of information. These reports were published from 1861 to 1966 by various government departments, depending on which department at the time had responsibility for Indian Affairs. In 1967, the separate Indian Affairs and Northern Affairs reports were combined into one annual report when responsibility for both was united under the newly created Department of Indian Affairs and Northern Development. As a cost-saving measure, the Department ceased to publish an annual report in 1991.

The Library has been concerned for some time about the worsening condition of its sets of these annual reports. The microfiche version produced some years ago by a major Canadian microform company has recently been discovered to be incomplete and inaccurate. At the same time, the proliferation of CD-ROMs and full-text search software suggested a way of improving access to the reports.

The Department provides funding for Aboriginal communities to research claims being brought against the federal government, besides paying for its own research done in response to the claim. Making the annual reports easier to search by digitizing them and combining them with full-text search software could save the Department valuable research dollars.

In March 1996, the Departmental Library contracted with an Ottawa company to create a fully searchable CD-ROM of the 130 years of the Indian Affairs Annual Reports. The master CD should be ready by December 1996. The

Library is partnering with a number of sectors in the Department to pay for the project.

Besides providing the CD-ROM within the Department, a plan to distribute copies to interested Canadian Aboriginal organizations, communities, and schools is being considered. The annual reports are a unique record of Canadian social and political history and would be a useful resource to Aboriginal schools.

It is expected that there will be a great deal of interest in the annual reports from non-Aboriginal institutions and researchers as well. Unfortunately, selling copies of the CD-ROM will not be an option; as a government library, the DIAND Library must negotiate with the government for the right to keep even a portion of any funds it could generate from the sale of products. A solution to making the digitized reports accessible to a wider audience may be to make them available on the DIAND Web site. Even if the reports were available on the Internet, providing Aboriginal organizations, communities, and schools with the reports on CD-ROM would still be desirable because it would provide them with access to the reports whether or not they have Internet access or can afford telecommunications charges.

Conclusion

The DIAND Library is hoping, in the future, to add information collections from other DIAND sectors and Aboriginal organizations to its database. The Library will continue working to increase access to departmental information through the departmental Web site and the application of other technologies.

Note: Within documents and publications of the Department of Indian Affairs and Northern Development words such as "Aboriginal" and "Native" are usually capitalized as a sign of respect for the Department's clients.

References

Canada. Department of Indian Affairs and Northern Development. 1996. *Framework for action: a work in progress*. Ottawa: the Department.

Morrison, Glenn. 1995. Overview: First Nations Confederacy of Cultural Education Centers. *CCLR Bulletin CCDL* (University of Ottawa, Faculty of Law, Canadian Centre for Linguistics Rights) 3(1):17-20.

Correspondence:
Julia Finn, Manager Client Services
Departmental Library
Department of Indian Affairs
and Northern Development
Ottawa, Ontario, K1A 0H4
CANADA
Telephone (819) 997-8205
finnj@inac.gc.ca

The Arctic Science and Technology Information System: Creative Funding of a Northern Information Service in the 1990s

Ross Goodwin

Arctic Institute of North America, University of Calgary, Alberta, Canada

Abstract: The Arctic Science and Technology Information System is an abstracting and indexing service that describes publications and research projects about northern Canada. ASTIS is funded almost entirely through contract work and product sales. This dependence on external funding ensures that ASTIS covers subjects and geographic regions of current importance, that most of the bibliographic citations in the database are to gray literature, and that the database's policies on chronological coverage and timeliness are flexible. Recent developments at ASTIS include CD-ROM distribution of the annual cumulative *ASTIS Bibliography* and the production of the Nunavut Environmental Database, which is available on the Nunavut Planning Commission's World Wide Web site. Objectives for the next few years are to find funding for more comprehensive coverage of the literature about northern Canada and to move the production version of the ASTIS database to a new hardware and software platform.

Keywords: Arctic Science and Technology Information System; ASTIS; Funding; Databases; Northern Canada; Canada

Introduction

The Arctic Science and Technology Information System (ASTIS) is Canada's only northern abstracting and indexing service. ASTIS is a project of the Arctic Institute of North America (AINA) at the University of Calgary. The mandate of ASTIS is to improve access to information about northern Canada, while being financially self-sufficient. Design work and fund-raising for ASTIS began in mid-1976, and the system began operations in May 1978.

The records in ASTIS describe both publications and research projects. ASTIS products and services include the bi-monthly *ASTIS Current Awareness Bulletin,* the annual *ASTIS Bibliography* on CD-ROM, online and Web access from QL Systems Ltd., inclusion on *Arctic & Antarctic Regions* CD-ROM, custom searches performed for clients by ASTIS staff, contract abstracting and indexing projects, and the preparation of printed bibliographies and bibliographic databases.

This paper describes how the dependence of ASTIS on revenue from contract work and product sales affects the contents of the database. Recent developments and future challenges are also discussed. The ASTIS brochure summarizes the scope, sources of information, and products and services of ASTIS in a form that is more comprehensive and more concise than this paper.

Sources of Revenue

During its first few years of operation ASTIS was funded almost entirely by the Arctic Petroleum Operators' Association, an organization of petroleum companies working in northern Canada. During this period ASTIS operated like a conventional abstracting and indexing service, doing regular scanning of over 200 journals as well as indexing industry and government reports. By the mid-1980s, industry interest in northern Canada was waning. It became obvious that if ASTIS was to survive it would have to change its funding model from one based on grants to one requiring increased dependence on contract revenues from both government and industry. This transition was successfully completed by the late 1980s.

Figure 1 shows ASTIS revenues by source, not adjusted for inflation, from the project's commencement in 1976 to the fiscal year ending March 1996. (The apparent decrease in revenues in 1979 is due to a nine-month fiscal year resulting from a change in fiscal year-end.) Sales revenues, shown in black, include revenues from all the regular products and services of the database, including fees for online searches performed for clients by ASTIS staff, royalties from QL Systems and NISC, subscriptions to the current awareness bulletin and annual CD-ROM bibliography, and sales of special bibliographies. Prices for ASTIS products are established to maximize revenue. We charge what we think the market will bear, taking into account the pricing of other similar products.

Contract revenues, shown in dark gray, are those earned by ASTIS for the performance of specific tasks, which include the indexing of report collections, the preparation of special bibliographies in printed form or as microcomputer databases, and the provision of consulting services. ASTIS usually undertakes between six and eight contract projects per year, for amounts ranging from $2000 to $50,000. Contract revenues come from both government and industry. The large peak in the center of the graph, for example, is the result of two years of contract work for the Environmental Studies Research Funds (ESRF).

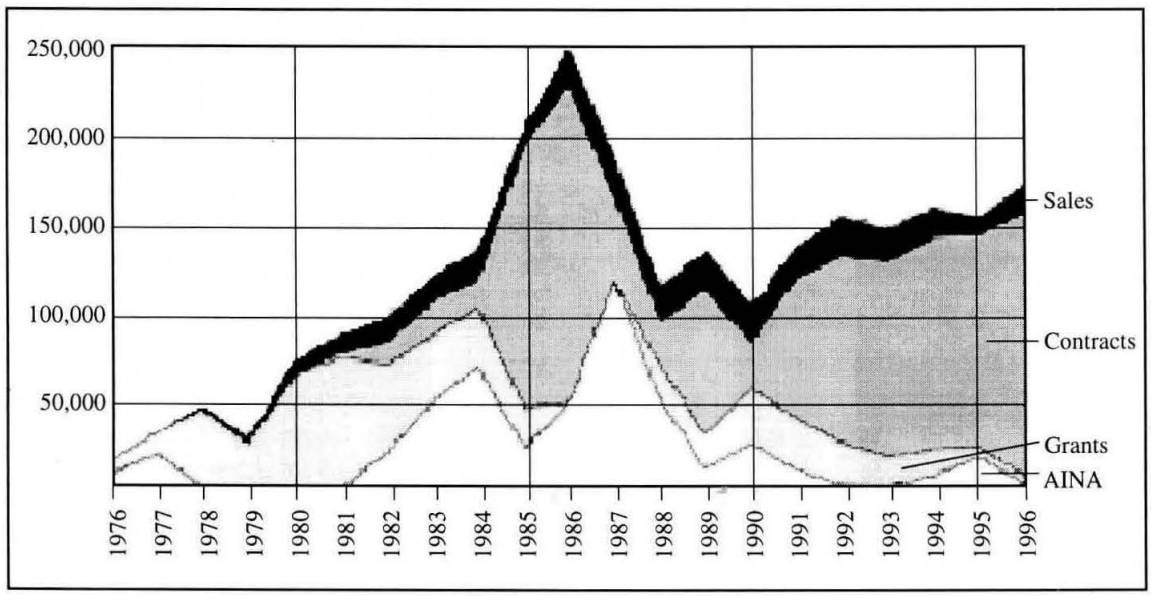
Grants, shown in gray, include money given to ASTIS with no, or virtually no, strings attached. All of the grant money that has been received by ASTIS has come from the petroleum industry. There are no existing government of Canada programs, of which I am aware, that are possible sources of grant funding to information systems such as ASTIS. The petroleum industry's current lack of interest in the Canadian North has caused grant revenues to drop to a very low level.

ASTIS aims to break even, but occasionally needs small subsidies from the Arctic Institute, and these are shown in light gray. For several years in the mid-80s the Institute received a major infusion of funding from the University of Calgary's Endowment Fund, some of which it chose to invest in ASTIS.

A graph showing staff levels at ASTIS over the years would fluctuate even more violently than this graph of our revenues. ASTIS has had as many as eight staff members and as few as just one, the Manager, during several short periods when all of the rest of the staff was on layoff due to lack of funds. Needless to say, running an information system that is self-sufficient is sometimes very hard on the staff, and I would like to acknowledge the dedication of the ASTIS employees.

The good thing about contract work, besides the revenue, is that one knows that the in-

Figure 1. Sources of ASTIS revenue.



formation going into the database is important enough to someone that they are willing to pay to have it included. Contract work tends to be about hot topics, or to ensure the wider dissemination of information from important industry and government research programs.

However, being as dependent on contract revenue as ASTIS is has three disadvantages. First, a great deal of the Manager's time is spent getting, administering, and reporting on contracts, and this means less time to work on improving software, marketing products and services, and developing the talents of our staff. Second, a significant part of our Information Analysts' time is spent finding literature for specific contract bibliographies, and therefore the number of records entering the database each year is much lower than if the same amount of funding were to be spent solely on indexing and abstracting. Third, the project's revenue stream is subject to sudden fluctuations when, for example, both industry and government enter periods of restraint at the same time.

Subject and Geographic Scope

ASTIS covers all subjects. The phrase "science and technology" in our name is, to some extent, a misnomer. ASTIS is just as interested in the social sciences and humanities as in the physical and natural sciences.

Since many of the records entering ASTIS are being prepared for contract bibliographies, coverage of some subjects is much better than of others. Thanks to recent contracts, ASTIS currently cites, for example, 759 reports on sources of gravel in Yukon and the Northwest Territories, 361 reports on the effects of hard rock mining on the aquatic environments of the two territories, and 833 publications on indigenous knowledge in northern Canada. Fortunately, some of our contract tasks are not defined by subject. For example, our series of contracts to index publications supported by the Northern Scientific Training Program ensures that much Canadian university northern research, on all subjects, is cited in ASTIS. All research funded by the Northern Oil and Gas Action Program, which supported multi-disciplinary research in many federal and territorial government departments, is also cited in ASTIS.

The geographic scope of ASTIS is all of Canada north of the southern limit of discontinuous permafrost, plus adjacent ocean areas. As shown in Figure 2, this definition includes large parts of the provincial north. Our coverage of the provincial north is not as good as our coverage of the two territories, however, because a large proportion of our contract work comes from federal government agencies whose mandates include only the two territories (see Figure 2).

The scope of some of our contract projects has been defined geographically. The Nunavut Environmental Database that we are preparing for the Nunavut Planning Commission and a bibliography on the West Kitikmeot/Slave Geological Province region that we prepared with the Dene Cultural Institute are two such examples.

Types of Information Cited

The dependence of ASTIS on contract work over the last 10 years has resulted in a higher proportion of gray literature being cited in the database than was the case in the early years of the project. Many of our contracts have been specifically for the indexing of gray literature from certain projects or agencies. Some of these were described in a paper presented at the 14th Polar Libraries Colloquy (Goodwin 1992). Even when a contract bibliography is about a subject or a geographic area, a majority of the relevant literature is usually gray literature. Governments, and to a lesser extent aboriginal organizations and industry, are responsible for most of what is being written about northern Canada. A database of only journal and conference literature would miss much of what is happening in the North.

In the mid-1980s, in order to make the database more useful to potential users and therefore maintain sales revenues in the face of declining industry interest in the North, ASTIS took an unusual step. A second record type, descriptions of research projects, was added to the database. Information for these records was obtained from the three agencies in the Northwest Territories that license all field research: the Science Institute of the Northwest Territories, the Department of Renewable Resources, and the Prince of Wales Northern Heritage Centre. ASTIS currently contains nearly 8000 research

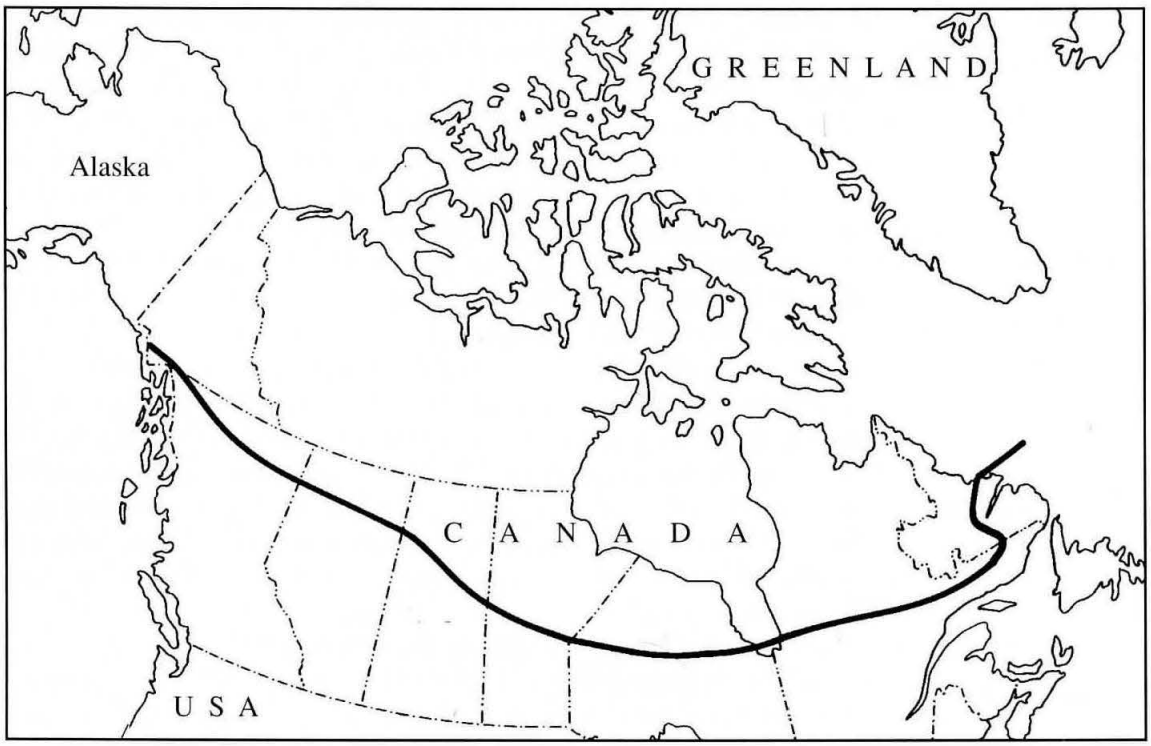


Figure 2. Southern limit of geographic coverage.

project descriptions. Two thousand three hundred of these, covering the years 1984 to 1995, contain abstracts and the addresses of principal investigators. The research project descriptions in ASTIS are a valuable supplement to the bibliographic citations since they allow users to contact the principal investigators of research projects that did not, or have not yet, resulted in publications.

Chronological Coverage and Timeliness

The general chronological scope of ASTIS is from the mid-1970s to the present, but we often add older publications that are needed for contract bibliographies. Contract work has also affected the timeliness of ASTIS, since the publication dates of citations prepared for a particular bibliography are often spread over two or three decades.

The best way to visualize the timeliness of the information in a database is to plot a surface that shows the years that items were indexed versus the years that they were published. Figure 3 is such a plot for ASTIS. The vertical axis shows the number of records for each combination of year indexed (along the left) and year published (along the right). In the case of research project descriptions, the year that the research was conducted is used as the year of publication.

The left-hand side of the surface is at zero height because a publication cannot be indexed before it is published. Most publications are indexed in the first few years after they are published, resulting in the main ridge that runs towards the viewer. The height of the surface trails off to the right of this ridge without ever actually reaching zero because older publications are always being added to the database. Years in which major retrospective bibliographies were prepared have subsidiary ridges running to the right.

For a very timely database, such as one that is indexing only recent journal articles, the main ridge would have a much steeper left-hand side and would trail off more quickly to the right. It would be interesting to see timeliness graphs for other polar databases and library catalogs.

Recent Development

Here are some highlights of the last two years at ASTIS. In 1994 the database was moved

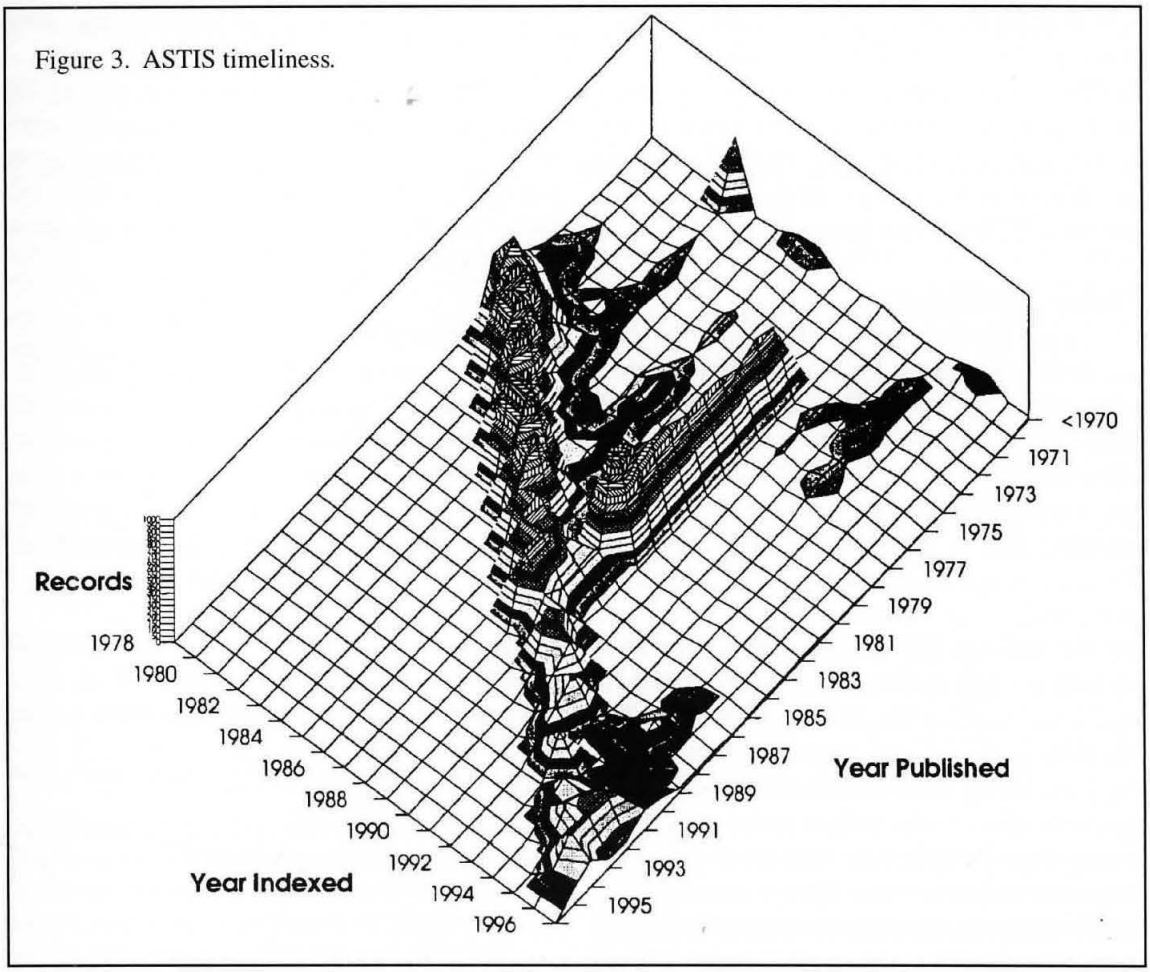


Figure 3. ASTIS timeliness.

from a mainframe computer running the MTS operating system at the University of Alberta to one running the VM operating system at the University of Calgary. The SPIRES database management system continues to be used. Some database re-design was done as part of the move, adding and changing a few fields and indexes based on a wish list that we had accumulated over several years.

Perhaps the most significant recent development at ASTIS was a change in format for the annual cumulative *ASTIS Bibliography*, which switched from microfiche to CD-ROM format with the 1994-95 issue. *ASTIS Bibliography* uses the same ROMWright software as the *Arctic & Antarctic Regions* CD-ROM. The target market of our $110 CD-ROM consists of organizations that are interested primarily in Canadian information and which cannot afford the $895 *Arctic & Antarctic Regions*. *ASTIS Bibliography* allows each of the more than 20 subset bibliographies in ASTIS to be searched individually, and the ASTIS subject and geographic thesauri are built into the retrieval software to allow thesaurus browsing and the "exploding" of terms while searching.

Over the past 18 months, ASTIS, with funding from the Nunavut Planning Commission, has developed the Nunavut Environmental Database (NED) as a subset of the ASTIS database. NED currently contains 10,965 records, or 29% of the 37,874 records in ASTIS. In spite of the word "environmental," it covers information in all subjects about the Nunavut Settlement Area. NED is available for free online searching from the Nunavut Planning Commission's Web site at: http://npc.nunavut.ca

To celebrate the Arctic Institute's 50th Anniversary in 1995, ASTIS published *A Selected Annotated Bibliography of the Publications of the Arctic Institute of North America* containing 678 AINA publications and University

of Calgary northern theses. This is only a subset of the 2547 AINA publications currently in the database, since papers from *Arctic* and some other categories of AINA publications were not included in the bibliography. ASTIS now also has its own Web page as part of the AINA Web site at: http://www.ucalgary.ca/~aina

Future Challenges

Like most bibliographic database producers, ASTIS is looking for new models of information delivery via the World Wide Web. We cannot at this time afford the major decrease in sales revenue that free Web access to our database would cause. There is no software product available now at a reasonable cost that would allow us to put our database on the Web ourselves and charge for usage. (Our database is on the Web through QL Systems, but our royalties are only a small percentage of what the user is charged.) Making the NED subset of ASTIS available for free on the Web has allowed us to begin exploring some of the issues that Web access will raise. In the longer term, as more information is published in Web form only, bibliographic databases and library catalogs will have to deal with the issue of whether to attempt to create records for Web pages or to leave Web searching to Web search services.

ASTIS has two major goals for the next five years. The first is to find the funding to increase, by at least one person, our present staff of two Information Analysts. This would allow us to provide more comprehensive coverage of the information that is being published about northern Canada. The Canadian Polar Commission has given up on finding funding for a comprehensive Canadian Polar Information System, so the best that we can hope for in the short term is incremental improvements to existing Canadian polar information services. Our second goal is to move the ASTIS database to a new hardware and software platform, since we will probably be forced to leave VM/SPIRES in about two years. Hopefully a software alternative running on the PC platform will be available by then.

The only significant difficulty in reaching these goals is money, or the staff time necessary to raise the money. With the excellent support that ASTIS receives from AINA's Executive Director and Board, I think that both of our goals can be met.

Acknowledgments

I would like to thank the many client organizations that have supported ASTIS with contract work, as well as the many people in those organizations who have worked closely with us over the years. I would also like to thank the ASTIS staff, Lynne Howard, Lynda Howard, and Iola Phillips, for their dedication and support.

References

Arctic Institute of North America (AINA). 1978- . *ASTIS current awareness bulletin*. Calgary: Arctic Institute of North America.

___. 1979- . *ASTIS bibliography*. Calgary: Arctic Institute of North America.

Goodwin, R. 1992. Contract indexing of industry and government gray literature at ASTIS. In *International Sharing of Polar Information Resources: Proceedings of the 14th Polar Libraries Colloquy, May 3-7, 1992, Byrd Polar Research Center, The Ohio State University, Columbus, Ohio, U.S.A.*, edited by Lynn B. Lay and Lynn Tipton Everett. BPRC Report No. 4. Columbus, Ohio: Byrd Polar Research Center.

Goodwin, R., L. Howard, and L. Howard. 1995. *A selected annotated bibliography of the publications of the Arctic Institute of North America*. ASTIS Occasional Publication No. 14. Calgary: Arctic Institute of North America.

National Information Services Corporation (NISC). 1990-. *Arctic & Antarctic Regions*. Baltimore: National Information Services Corporation.

Correspondence:
Ross Goodwin
Manager, ASTIS
Arctic Institute of North America
The University of Calgary
Calgary, Alberta, T2N 1N4
CANADA
Phone 403-220-4036
Fax 403-282-4609

Journal Coverage in the Cold Regions Bibliography

Stuart G. Hibben

Cold Regions Bibliography Project, U.S. Library of Congress

Abstract: Regular serial journals are the largest single source of publications in the *Cold Regions Bibliography*. This article reviews the methodology used for exploiting journals, evaluates its success, and indicates some of the problems in the process. Ways of improving journal coverage are suggested, including better acquisition of foreign journals.

Keywords: *Cold Regions Bibliography*; *Cold Regions Database*; Indexing; Journals

Introduction

Articles from serial journals provide the largest and most timely input to the *Cold Regions Database*. They currently comprise about 55% of all entries, thus accounting for more than all other sources combined. The object of this article is to review the ways in which journals are being exploited, to identify problem areas, and to examine possible ways of improving this coverage.

Before I address the *Cold Regions Database* coverage specifically, it may be helpful to consider the treatment of scientific and technical journals as a category at the Library of Congress. The Library maintains a current index of all scientific and technical journals worldwide which are selected for cataloging. The index presently includes some 60,000 titles, in round numbers, and receives several thousand new titles yearly. If even a modest portion of these titles, say 10%, publish material pertinent to cold regions, that could give us some 6000 titles to follow, not to mention several hundred new titles appearing every year; a daunting task for a small project.

The situation is complicated by the fact that the Library of Congress also receives a number of journals that, for whatever reason, are not cataloged, but are treated as ephemera; these titles are typically shelved for a year or two and then disposed of. We know that some, at least, of these ephemeral titles are pertinent and have been cited in our database. With this background, let us now look at some actual data on cold regions journal coverage.

Census of Journals

In an effort to gain firmer control of journal input, the author began and maintains a cumulative list of all regular serial journals cited in the *Cold Regions Database* since 1988. I have limited this list to regular serials, since they can be readily monitored by volume and issue number, which is not generally true for irregular serials. The majority of our journal titles are in any case regular ones.

A recent count of the journal list shows a total approaching 2000 titles. It is also safe to assume that there are a number of journals which have not been cited since 1988, so the grand total of journals cited must be well over 2000. The number of newly cited titles continues to grow steadily, with several new ones added every month. I have recently searched each journal title in the database, so now have a current "snapshot" of their overall frequency of citation.

Next I searched the highest-yield titles for Antarctic or CRREL [Cold Regions Research and Engineering Laboratory] items, using the PCODE field which codes records as Antarctic (a), CRREL (c), or both (b) in the record entry form; thus my title search includes PCODE=a or b for Antarctic and b or c for CRREL items. Sorting these two dumps by citation frequency I

Antarctic Journal of the United States (US)	3387
Journal of Geophysical Research (US)	1048
Antarctic Record (Jpn)	739
Nature (UK)	606
Polar Biology (Ger)	600
Polar Record (UK)	461
Geophysical Research Letters (US)	352
Annals of Glaciology (UK)	296
Polar News (Jpn)	276
Journal of Glaciology (UK)	273
Instituto Antartico Chileno. Ser. cientifica (Chl)	270
Polish Polar Research (Pol)	263
Antarctic Science (UK)	251
South African Journal of Antarctic Research (SA)	236
Earth & Planetary Science Letters (US)	226
Deep-Sea Research (UK)	221
New Zealand Antarctic Record (NZ)	177
Oceanology (trn of *Okeanologiia*) (Rus)	160
Antartida (Arg)	149
Science (US)	143

Figure 1. Journals with highest yield of Antarctic items.

Journal of Glaciology (UK)	1604
Journal of Geophysical Research (US)	1223
Annals of Glaciology (UK)	858
Antarctic Journal of the United States (US)	827
Transportnoe Stroitel'stvo (Rus)	809
Stroitel'stvo Truboprovodov (Rus)	744
Low Temperature Science (Jpn)	682
Arctic and Alpine Research (US)	627
IVUZ Stroitel'stvo I Arkhitektura (Rus)	621
Cold Regions Science and Technology (Ne)	545
Energeticheskoe Stroitel'stvo (Rus)	516
Seppyo (Jpn)	492
Avtomobil' nye Dorogi (Rus)	471
Nature (UK)	439
Journal of Glaciology & Geocryology (Chi)	436
Soil Mechanics & Foundation Engineering (Rus)	426
Geophysical Research Letters (US)	362
Botanicheskii Zhurnal (Rus)	360
Mekhanizatsiia Stroitel'stva (Rus)	347
Zeitschr. fur Gletscherk. u. Glazialgeol. (Ger)	340

Figure 2. Journals with highest yield of CRREL items.

get the lists shown in Figures 1 and 2 for the top 20 titles in each case.

The lists reflect an international flavor, with some 10 countries represented, all with active polar programs.

The most revealing statistical information can be found in the sorted list which ranks titles in order of citation frequency. This list shows that for the median, i.e., the 1000th title of 2000, the citation frequency is only 5. This means that half of the journals in this 40-year-old database are cited 5 times or fewer, which is a stark indication of how diffuse the journal sources are. There are, in fact, over 400 titles which are cited once only, and furthermore this is the fastest growing category.

Since we clearly cannot afford to browse such low-yield journals regularly, the question arises as to how these rare entries are being found. To answer this we will next consider how journal items are acquired by the project.

Acquisition of Journals

Early in the development of the *Cold Regions Database*, several fields were added to the record format to provide statistical information about selections. Among these are a coded entry for the form of the item (FORM) and another for how the item was acquired by this project (ACQ). The categories chosen under ACQ are: routing, browsing, reference (*Dialog*, etc.), *Referativny Zhurnal* (Russian Abstracts Journal), *Government Reports Index*, other bibliographies, sponsor, systematic search (nonrouted material), author or publisher, and any other. Under form of item (FORM) we have monograph, technical

Routing	22,500
Reference	17,300
Sponsor	15,000
Author/publisher	11,100
Systematic search	9,900
Browsing	8,500
Other bibliographies	2,500
Current Contents	700
Other	1,500

Figure 3. How journal articles are acquired.

report, journal article, conference paper, patent, abstract, and other.

Thus I can query any record as to its form (FORM) and method of acquisition (ACQ). If I first get all journal items in the database (by asking for FORM = JOURNAL ARTICLE) and then rank the results by acquisition method, I find the order (rounded off) as shown in Figure 3.

I then repeated this search on low-yield titles to see if there was any meaningful difference. While the above ranking shifts slightly for low-yield journals, there appears to be no significant difference: thus we find rare journal articles pretty much the same way we find any others.

Tracking of High-yield Journals

An obvious first step towards completeness of coverage would be to make sure that we do not miss any issues of the "heavy hitters" that appear in the ranked lists of Figures 1 and 2. We have for a number of years been logging-in each issue of the heavy hitters, which I have arbitrarily defined as any journal title which is cited 100 or more times in the bibliography. This is a rather generous definition for a database as old as this one, and it gives me some 120 journal titles to track. The log is a simple WordPerfect file, kept by the editor, since he is the only one who sees every cited journal. A sample entry is shown in Figure 4.

Such an exercise, of course, does not guarantee that pertinent items may not be missed, but it does insure that every issue of a title is accounted for. In fact, I recently have done a "sweep" of all the logged titles to check for missing past issues; this is an easy exercise in STAR, using only the VOL (Volume and Issue) field to search. I was gratified to find nearly 100% coverage, with only a few issues missed from more than 100 titles checked. It is thus fair to say that we are doing a reasonably complete job in covering the most important pertinent journals.

Coverage of Other Journals

Granted that the high-yield coverage is adequate, how might we measure our success with the other journals in the list? I have tried two ways of doing this. First, the strategy was to look at what journals some authors in the database had cited in their own references, and see how well we covered the pertinent ones. This should serve two purposes: it would be a check on how thorough our coverage of that title was, and also might yield journal titles not being covered by us.

In checking a number of author's references in English-language journals, I thus found 203 citations that should have been candidates for the *Cold Regions Database*; in fact, 172 of these did appear, so my success rate was 172:203, or 85%.

My second method of checking was simply to select some more obscure titles farther down on my ranked list and scan some back volumes of them to see if anything had been missed. For this exercise I chose some titles that had a low but not negligible yield, i.e., in the range of 15-20 citations in the database. Given the life span of the database, that would be less than one item per year on average, so one might surmise that it would be easy to miss such items. From 10 titles reviewed, scanning through several random volumes of each, I thus found 86 candidates, 71 of which were in fact in the bibliography. My success rate here was 71:86, or 83%, which almost matches the result of my author references exercise.

```
0125   Canadian journal of civil engineering  6x TA1.N17513  11N
                    1  2  3  4  5  6
   v17-19           complete
   v20   1993       X     X        X
   v21   1994       X     X  X  X  X
   v22   1995       complete
   v23   1996
```

Figure 4. Sample from the Journal Log.

Non-English Language Coverage

As I indicated above, these exercises were done with English-language journals. When I repeat them with foreign-language journals, the results are predictably less encouraging. I made a brief attempt at this by reviewing

references in Italian- and Swedish-language journals. I identified 28 non-English journal items cited in these journals, of which 18 appear in the *Cold Regions Database*, for a success rate of 64%. This is probably too small a sample to be significant, but it confirms to me that there are pertinent foreign journal titles not being cited. This is an area where we can improve coverage.

Thoughts on the Selection Process

The question of relevance has to be decided for each entry by the person reviewing the journal, and in some cases this can be a gray area, where one may argue for or against inclusion of the item. This is mostly so for CRREL items, since there is more room for discretion when selecting. It is obviously simpler to select Antarctic items, since the sole criterion is a geographical one; but even here there are pitfalls. Consider, for example, the following three article titles:

- Formation of nitric acid hydrates—a chemical equilibrium approach
- Pressure dependence of the reaction between ClO and OClO at 226K
- Glass-rich chondrules in ordinary chondrites

Can the reader guess why these were selected as Antarctic items? You would need to know that the first two concern the chemistry of polar stratospheric clouds which relate to the ozone hole, and that the third refers to mineral compositions typical of some Antarctic meteorites. Their selection is owed to some institutional memory on the part of the reviewer, since the titles do not at first glance appear obvious as Antarctic material.

I should emphasize that the selection of articles from journals in the Cold Regions Project is done almost entirely by browsing the tables of contents. With the volume we must process, there is not time to browse through individual articles looking for clues as to relevance. Given this constraint, we are likely always to miss a certain amount of pertinent material in cases where titles are not explicit. There is a clear advantage when text can be browsed, as in some of the *Dialog* searches.

Conclusions

From this study I draw the following three main conclusions.

- Coverage of high-yield English-language journals by the Cold Regions Project is close to 100%; coverage of lower yield titles is less, but still better than 80%.
- Coverage of pertinent non-English journals is unsatisfactory; a systematic effort should be made to improve foreign-language coverage.
- The capture rate for journal articles would improve if more sophisticated ways of browsing text rather than just titles were available.

Correspondence:
Stuart G. Hibben
Science & Technology Division, Library of Congress
Washington, DC 20540-5582
USA

Bringing the Russian Far East Online: The Challenges of PolarPac4

Lisa M. Lehman

Elmer E. Rasmuson Library, University of Alaska Fairbanks, USA

Abstract: This paper describes technical and logistical challenges encountered while producing *PolarPac4*, the fourth version of a CD-ROM product containing bibliographic data on Polar Regions. The emphasis of *PolarPac4* was the addition of records from three libraries in the Russian Far East: Yakut State University Library, the Khabarovsk Territorial Universal Scientific Library, and the Institute of North-East Studies Library. These three libraries required start-up assistance of hardware, software, and an introduction to the USMARC format. Disks of completed bibliographic records were eventually delivered to the Western Library Network (which produces *PolarPac*) by an informal courier network of project participants and others traveling between the United States and the Russian Far East. Although e-mail and faxes could be used for communication, these methods did not always work reliably. Records were converted from Cyrillic to Roman characters, not always a straightforward task with Yakut special characters. A lack of standardization between classification schemes, subject headings, and record formats (MARC records were not always delivered) added another layer of complexity. In spite of these difficulties, a good start has been made in disseminating bibliographic information from an important and relatively poorly known northern region.

Keywords: *PolarPac4*; CD-ROM databases; Russian Far East; Bibliographic exchange; Russia; Alaska

Background of PolarPac

In 1988, participants in the 12th Polar Libraries Colloquy drew up an action plan for the creation of a polar information database. The first version of *PolarPac* was produced in 1990 as a joint effort of the Elmer E. Rasmuson Library, University of Alaska Fairbanks; the Institute of Arctic and Alpine Research, University of Colorado Boulder; and the Western Library Network (WLN) in Lacy, Washington. The project was funded by the National Science Foundation. As a CD-ROM product, *PolarPac* is relatively inexpensive to produce and highly portable, making it available to a wide variety of libraries (McCarthy and West 1994, 5).

PolarPac Overview

The holdings of Alaska libraries in the WLN database formed the basis of the original *PolarPac1*. Monographic holdings were also included from the Stefansson Collection, Dartmouth College; the Institute of Arctic and Alpine Research, University of Colorado Boulder; and the Goldthwait Polar Library at Ohio State University. *PolarPac1* contained 85,293 records from libraries in Australia, Canada, Denmark, England, Germany, Finland, France, Greenland, Iceland, Italy, Japan, New Zealand, Norway, Sweden, and the United States (West 1990).

PolarPac2, representing the holdings of 32 libraries, was produced in 1991 with some support from the National Science Foundation. This version also included analytical periodical databases such as the *Bibliography of Alaska and the Polar Regions*, produced by the Rasmuson Library, and the [Anchorage-based] Oil Spill Public Information Center's news file.

PolarPac3, funded by a grant from the National Endowment for the Humanities, contained 194,325 monograph and serial records. The intent of version 3 was to increase holdings in the social sciences and humanities, disciplinary areas that were underrepresented when compared with the sciences (West and McCarthy n.d.). Libraries participating for the first time

were chosen for the strength of their holdings in these areas. The Scott Polar Research Institute at Cambridge University and the main library at the Department of Indian and Northern Affairs Canada in Ottawa were the major contributors. In all, over 50 libraries participated in *PolarPac3*.

USIA/ARC Project and PolarPac4

Russian contributions to the research and literature of the North have long been recognized, but are somewhat difficult to access. With the conversion of the Soviet Union to independent states, interest in Russia and especially the Russian Far East has increased dramatically, as examined by V.M. Kotlyakov and G.A. Agranat (1994). Rich deposits of oil, gold, and other minerals are attracting investors; environmental pollution from industrial waste and radiation produced by northern Russian factories threaten not only Russia but the rest of the Arctic; and Native peoples of the Russian Far East struggle to retain their cultural identities. An open exchange of information between Russia and the rest of the world is imperative for solving problems that affect the arctic community.

With this in mind, funding was obtained from the United States Information Agency (USIA), through the American Russian Center (ARC), University of Alaska Anchorage, to establish relations with several libraries in the Russian Far East. These were the Yakut State University Library (Yakutsk, Republic of Sakha), the Khabarovsk Territorial Universal Scientific Library (Khabarovsk), and the Institute of North-East Studies Library (Magadan). The Russian Far East has long had cultural and historical ties with Alaska, as well as a wealth of arctic-related information stored in its libraries; information that has been available to few researchers outside of the region. The tremendous pressures faced by libraries in the Confederation of Independent States as a whole (Greening 1995) has encouraged them to cultivate exchanges and other cooperative arrangements with foreign libraries. The grant proposal was submitted in the fall of 1993 and the project implemented in the spring of 1994.

The purpose of the USIA/ARC project was to promote access to information for the participating libraries' patrons by focusing on two strategies. First, by sharing professional ethics, guidelines, and practices used by U. S. libraries in discussions with administrators and staff of the three sites, and by sponsoring a seminar on the role of libraries in a free society during the visits by the libraries' staff to the United States. Second, by supporting their efforts to make library holdings relating to the North and North Pacific more readily available to the primary users of the three sites, library users throughout the Russian Far East, and scholars throughout the world via *PolarPac* (McCarthy and West 1994, 3).

USIA/ARC Project Participating Libraries

The Yakut State University Library and the University of Alaska Fairbanks have developed a close relationship over several years, including student and faculty exchanges. The State University's library collection is strong in materials covering the Republic of Sakha. The Khabarovsk Territorial Universal Scientific Library is the largest in the Russian Far East, has a broad base of users, and a strong regional collection. The Institute of North-East Studies Library has a history of strong northern scientific support and geographical proximity to Alaska (McCarthy and West 1994, 4).

Library Exchanges

Two representatives from each of the three libraries visited Alaska. During the visit, Alaska librarians offered a seminar on the role of libraries in a free society and training in U.S. library systems, techniques, and computer use. On each of these exchange visits, staff from both the Rasmuson Library and the Noel Wien Fairbanks North Star Borough Public Library provided instruction and orientation.

During visits to the Russian Far East, Rasmuson Library staff worked with representatives at each of the libraries. Staff gained a much better sense of the challenges facing Russian Far East libraries and how some of the problems might be solved using state-of-the-art techniques employed by U.S. libraries. Each side learned more about standards, cataloging practices, use of libraries, finances, and administration of collections that served as a basis for discussion and further joint work. U.S. participants

learned of the impressive library collections acquired over many years. In the case of the Khabarovsk Territorial Library, the collections extend over the past 100 years.

Implementation of the Project

To implement the grant, Rasmuson Library provided computer equipment and training to the three libraries to convert their bibliographic records relating to the Russian Far East and Siberia to computer-readable format. Each site was provided with a fully equipped 486-class microcomputer, a 7-bay CD-ROM tower, a copy of WLN's *LaserCat* (containing approximately 3.5 million citations from over 350 libraries in the Pacific Northwest), and a copy of the latest version of *PolarPac*. The equipment supplied through the project was the most sophisticated equipment available to libraries in the Russian Far East. While there were a few 486-class computers in the libraries visited, there were no CD-ROM towers resident at any of the sites. The equipment and associated software allowed the sites to catalog the agreed upon collections using dedicated equipment, software, and staff. Rasmuson Library personnel also provided training for all three sites and installed the equipment at two of the sites.

Processing the Bibliographic Records

Converting Records for *PolarPac4*

The three sites entered their bibliographic citations in Cyrillic characters, using software provided by WLN. These records were thus available immediately on a local database. Each library copied its records to disk and then forwarded the disks to WLN. The initial contributions were collected by Paul McCarthy during visits to the Russian Far East, then mailed to WLN. Later, disks were delivered by mail or by colleagues traveling between the Russian Far East and the United States.

The bibliographic records were first converted from Cyrillic to Roman characters. WLN staff mapped Cyrillic characters to their corresponding Romanized versions using the ALA-LC Romanization tables distributed by the U. S. Library of Congress. The Yakut writing system contains 13 characters which do not correspond to these tables, and their interpretation was provided by a native of Sakha studying at the University of Alaska Fairbanks. Data was then converted whenever necessary from nonMARC into USMARC format using WLN's MARC Record Service (MARS) (Lichtenberger 1995). The most significant challenge of the project was the lack of standardization in records, subject headings, and classification schemes. Yakut State University Library maintains an author and title catalog and a classified (subject) catalog derived from the Bibliotechno-bibliograficheskaia klassifikatsiia (BBK) schedule, based on Marxist principles (Gurevich 1990, 78-83). The Institute of North-East Studies Library in Magadan uses the UDC system. Khabarovsk Territorial Universal Scientific Library had switched classification systems from UDC to BBK.

Khabarovsk and Magadan contributed some records that were not in conformance with MARC standards. Some fields, such as the 600s (subject access fields) and 700s (added entry), were combined and proved difficult to split apart in the absence of standardized delimiters. Records from Magadan combined all fields in a record without delimiters. After months of work, we determined that it would be impossible to split the records into their proper fields without manually processing each one.

Data Delivery Problems

Because of irregular, unreliable postal service, mailing disks or other materials was out of the question. (We received one package of disks by mail four months after it was postmarked.) Instead, we relied on individuals traveling between the United States and the Russian Far East to hand carry disks, letters, and computer equipment. This informal arrangement guaranteed delivery, but precluded scheduling, as we were dependent on varying individuals' travel plans.

Our experiences in obtaining bibliographic data confirm the assessment of information exchange in libraries in the Confederation of Independent States given by Evgeny Kuzmin, Director of the Library, Russian Ministry of Culture,

> ...online information exchange remains problematic for most libraries, with our inadequate telephone network.... (Kuzmin 1995, 108)

Communications by fax were somewhat reliable but unsuitable for data delivery. E-mail

is used at all three of the libraries and was used for general communication. Messages to two of the libraries were collected at a central desk, translated into Russian, then forwarded to the recipient. The recipient would then reverse the process to send a message. Obviously, this centralized approach slowed communications. File transfer protocol over the Internet would have been a solution for the three participants, but was not available at the time. As telecommunications improve, as they gradually do, the Internet will become a viable method of data exchange (Shraiberg 1995).

Impacts of the USIA/ARC Project and PolarPac4

In spite of problems, the project enabled the three participants to convert much regional literature cataloging to machine-readable form. As the project continued, two of the institutions redesigned their facilities so that the equipment and data would be accessible to the public. In Khabarovsk, the computer workstation was to be placed directly in the special collections reading room. In Magadan, a special room is being remodeled so that students, faculty, and other users can have access to a workstation. At Yakutsk, the data will be available on a library network. With the distribution of *PolarPac4*, bibliographic data from the Russian Far East will become part of a significant "virtual" polar catalog.

References

Greening, Joyce Martin. 1995. Ten years in the life of Russian libraries. *International Information & Library Review* 27: 113-127.

Gurevich, Konstantin. 1990. Russian/Soviet history in library classifications. *Cataloging & Classification Quarterly* 21(1): 63-85.

Kotlyakov, V. M., and G. A. Agranat. 1994. The Russian North: problems and prospects. *Polar Geography and Geology* 18(4): 285-295.

Kuzmin, Evgeny. 1995. Russian libraries in the context of social, economic and political reforms. *IFLA Journal* 21(2): 106-109.

Lichtenberger, Lynn. 1995. *Cyrillic conversion information*. E-mail to author. 22 March.

McCarthy, Paul H., and Sharon M. West. 1994. Developing a northern and North Pacific information infrastructure: an Alaskan/Yakutian/Russian cooperative approach. Paper presented at the Joint Conference of the American Association for the Advancement of Science, Arctic Branch, and the Russian Academy of Sciences, Far East Branch, Vladivostok, Russia, September.

Shraiberg, Yakov. 1995. The current state and prospects of online systems in Russian libraries. *UDT Occasional Papers*. March. Available from URL: http://www.nlc-bnc.ca/ifla/VI/5/op/udtop01b.html; INTERNET.

West, Sharon M. 1990. Moving toward an arctic information network: stage I. In *Man's Future in Arctic Areas: Proceedings of the 13th Polar Libraries Colloquy, 10-14 June 1990*, edited by R. Kivilahti, L. Kurppa, and M. Pretes. Rovaniemi: University of Lapland.

West, Sharon M., and Paul H. McCarthy. [n.d.] Polar information: an international approach. *Electronic Green Journal*. 1(1). Available from URL: http://drseuss.lib.uidaho.edu:70/docs/egj01/west01.html; INTERNET.

Correspondence:
Lisa M. Lehman, Assistant Professor,
Elmer E. Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756800
Fairbanks, Alaska 99775
USA

Gray Literature Database on Russian Research in the Arctic

Valentina A. Markusova, Irina G. Vlasova, and Lilia A. Tsvetkova

All-Russian Institute for Scientific and Technical Information (VINITI), Moscow, Russia

Abstract: The goal of this project is to develop a comprehensive Russian Arctic Database (RADB) in English, based on a special kind of gray literature—Deposited Papers (DP)—and to facilitate access to this previously unavailable literature for western scientists. This paper describes briefly the system of collecting and distributing DP information in Russia and the Former Soviet Union, which since 1967 has been the responsibility of the All-Russian Institute for Scientific and Technical Information (VINITI). A bibliographic index to Deposited Papers that covers all fields of natural and applied sciences is published monthly by VINITI. To prepare RADB, 27,000 Deposited Papers from 1990-94 were analyzed, and about 1,000 references covering a variety of studies related to the Arctic and cold regions, ice, and snow were chosen and entered into ProCite 1. Each reference includes the author's name, title, keywords, address of the organization where the research was done, and the DP registration number. RADB could be made available through *PolarPac* and/or the Internet. A request for a hard copy of a DP can be sent by e-mail to the VINITI Delivery Service.

Keywords: Deposited paper; Databases; VINITI; Gray literature; Russian Arctic Database; Deposited Papers on Arctic Studies; All-Russian Institute for Scientific and Technical Information; Russia

Introduction

Until 1991 when the Soviet Union fell apart, the Communist Party Central Committee and the Council of Ministries strictly controlled the journal network and the activity of publishing houses. Because of the high rate of growth of science and technology in the 1960s and the small number of scientific journals, the time lag between submissions of papers and their publication reached three years. The expansion of these journals could not compete with the growth of submitted papers that, according to peer reviews, deserved to be published.

The scientific community badly needed to find a way out of this situation. In 1967 the Council of Ministers instituted a System of Deposit, which reviewed and accepted high-quality papers that faced substantial delay in publication. About 50 institutes of scientific and technical information in industry and medicine were responsible for collecting and distributing information about Deposited Papers submitted to industry and medical journals. VINITI was given the responsibility of collecting Deposited Papers submitted to journals published by the Academy of Sciences of the USSR, as well as those published by the Academy of Sciences of the republics of the Former Soviet Union. Since then, the Abstracts Journals (JA) of VINITI have covered all Deposited Papers and have been the main source of information about them (Arskii et al. 1996). The System of Deposit worked pretty well until 1992, when the transition to a market economy completely transformed life in Russia.

What are Deposited Papers?

Deposited Papers are those that have been submitted to a journal and approved by its editorial board but are, for one of several reasons, not immediately available through regular publication channels. To ensure that the papers were preserved and available internally, the editorial board would advise the authors to deposit the papers at VINITI. After the papers were reviewed and accepted, they were considered Deposited Papers.

The editorial board advises authors to deposit their scholarly studies for one of several reasons:

- The paper discusses a very specialized area of study or subject;
- The paper is too lengthy to meet the guidelines of the journal, and the author believes that the paper cannot be extensively abbreviated; or
- The projected time lag between the submission of the article and its publication is too long to meet the author's purposes (i.e., the author must demonstrate "acceptance" of the paper to meet academic degree requirements).

The System of Deposit began to work in 1971 when the Soviet government took the position that a paper reviewed and accepted in the Abstract Journals of VINITI would be considered a published paper. Since then, every author of a deposited paper receives a certificate that includes the title of the paper, a registration number, and the number of the abstract in the Abstract Journals. The Deposited Paper file was, and still is, very important for many scientists. It is especially important for individual scholars who must defend their thesis to obtain a Ph.D. and the rank of Professor. For example, to complete requirements for a Ph.D., a scientist has to publish no fewer than eight articles. Given Soviet and Russian publication schedules for both journals and books, an individual scientist would have to wait years to see the first publication of his or her findings. This has proved to be a formidable obstacle for most, if not all, scholars.

The Deposited Paper file is also important to other Russian scientists whose subject matter is too specialized to appeal to those Russian journals still being published in this era of extreme austerity.

Many Deposited Papers report new findings or chart new courses of action and usually contain important "know-how" information. About 15% of the DP file consists of deposited books and conference proceedings. This information should not be overlooked. In the 1970s, VINITI was allowed by the government to organize the exchange of DP with Chemical Abstracts Service (CAS) and some universities in France and West Germany. At that time, VINITI produced the microfiche of DP and supplied its foreign partners with a hard copy. In 1980 the KGB abolished this exchange of information. It was resumed only in the era of "perestroyka."

VINITI is a well known information service that generates databases and publishes 26 Abstract Journals in all fields of natural and applied sciences. From 1972 until 1992, the Abstract Journals of VINITI included the abstracts of Deposited Papers submitted to it and to 48 other information agencies. Since 1978 VINITI has published a monthly bibliographic index of DP. Unfortunately, the *Index of Deposited Pa-*

Table 1. The quantity of Deposited Papers reflected in the *Index of Deposited Papers* and Abstract Journals of VINITI.

Year	*Number of DP at VINITI*	*Number of DP deposited with other organizations*	*Total number of abstracts of DP covered in Abstract Journals of VINITI*
1986	11,925	15,310	27,235
1987	12,360	15,450	27,810
1988	11,812	14,503	26,315
1989	9,510	12,500	22,010
1990	8,053	9,100	17,153
1991	5,550	6,860	12,411
1992	4,214	4,700	8,914
1993	3,590	3,518	7,108
1994	3,360	3,240	6,600
1995	3,600	3,560	7,160

pers was never produced in computer-readable form.

In Table 1 are the statistical data about the quantity of Deposited Papers reflected in the *Index of Deposited Papers* and Abstract Journals of VINITI.

The *Index of Deposited Papers* covers all fields of natural and applied sciences: physics, chemistry, geography, oceanography, life sciences, biomedicine, ecology, computer science and electronics, economics, agriculture, engineering, and technology. It includes bibliographic information about the paper, the name and address of the organization where the research was done, and the registration number in VINITI or other organizations in the Confederation of Independent States where the paper was deposited.

Database

From the beginning of the 1960s, we have seen the growth of "gray literature" in the world. A special international conference on gray literature was held in the United States in 1995, at which the different databases of gray literature were discussed. Special attention was given to the gray literature of the Former Soviet Union and Russia, and the difficulties for the world scientific community in getting this information were emphasized. At the 15th Polar Libraries Colloquy in 1994, the need to access Russian information about arctic exploration was discussed (Brown and Stone 1994).

The 1994 *Bridges of Science between North America and the Russian Far East* conference, supported by the American Association for the Advancement of Science, underlined the necessity of developing a partnership between Russian and American libraries and making the information about Deposited Papers on Arctic Studies (DPAS) available to American scientists. As part of this cooperation, a database of DPAS from 1990-1994 was developed by the Far Eastern Branch division of VINITI. The project was supported by the International Science Foundation.

VINITI staff members carefully reviewed the file of 27,000 Deposited Papers and selected about 1,000 papers related to the Arctic and to cold regions studies, with special attention to environmental problems. Papers that covered studies of ice and snow were also selected. Mr. G. West (University of Alaska Fairbanks) helped define the borders of the geographical area that was selected for the database. The border follows the Amur River to the Pacific Ocean. In the Pacific Ocean, we included Sakhalin Island, the Sea of Okhotsk, the Kuril Islands, and Kamchatka Peninsula. Table 2 includes data about Deposited Papers on northern studies and the total number of Deposited Papers submitted to VINITI from other organizations, as well as from Russia and other members of the Confederation of Independent States.

As we can see from Table 2, many of the Deposited Papers relate directly to the North—a critical area, given Russia's extensive work in

Table 2. Distribution of Deposited Papers on Northern Studies in the *Index of Deposited Papers* of VINITI.

Year	*DP on North submitted to VINITI*	*Total number DP submitted to VINITI*	*DP on Northern Studies submitted to other organizations*	*Total number DP submitted to other organizations*	*Total number DP on Northern Studies covered in IDP of VINITI*
1990	253	8,650	116	9,347	369
1991	215	6,083	90	7,008	305
1992	146	4,636	66	5,050	212
1993	122	3,933	42	4,224	164
1994	142	3,498	34	3,702	176
Total	878	26,800	348	29,331	1,226

the North and, concurrently, the many challenges now facing Russia's scientific community in dealing with environmental concerns. The distribution of Deposited Papers according to the fields of science is given in Table 3.

Every paper selected was analyzed for indexing, and keywords were chosen. Each entry in the database consists of from 10 to 15 keywords and the name and address of the organization where the research was carried out. ProCite.1 software was used to produce the database, and the data could be used as a part of *PolarPac* or be available free of charge for any library. Requests for hard copy should be submitted to the VINITI Delivery Service via e-mail: viniti@sovam.com

Table 3. Distribution of Deposited Papers according to the field of science.

Field of Science	*1990*	*1991*	*1992*	*1993*	*1994*
Biology	74	48	82	43	50
Chemical Technology	5	1	5	3	3
Economy	1	1	1	2	
Environment	20	16	17	8	7
Energy	2	1	3	3	2
Fisheries	11	2	2	2	15
Forestry & Agriculture	25	2	11		5
Geography	19	3	4	9	6
Geophysics	40	24	49	24	25
Geology	124	78	117	24	29
Geodesy & Cartography	5	5	10	4	10
History & Soc. Science		2			3
Mining	13	10		4	11
Meteorology	22	24		11	10
Transport	13	1		2	2

Acknowledgments

The authors express their gratitude to Mr. P. McCarthy (University of Alaska Fairbanks) who initiated and consulted on the project, to Mr. E. West (University of Alaska Fairbanks) for his advice, and to the International Science Foundation for its financial support.

References

Arskii, Y. M., R. S. Gilyarevskii, I. S. Turov, and A. I. Chernyi. 1996. *Infosphere*. Moscow: VINITI, in Russian.

Brown, J., and M. Stone. 1995. Towards a Russian arctic information database. In *Bipolar Information Initiatives: the Needs of Polar Research, Proceedings of the 15th Polar Libraries Colloquy, July 3-8, 1994, Cambridge, UK.*, edited by D. W. H. Walton, W. Mills, and C. H. Phillips. Huntington, U. K.: Bluntisham Books.

Correspondence:
V. A. Markusova
I. G. Vlasova
L. A. Tsvetkova
All-Russian Institute of Scientific and Technical Information (VINITI),
Usievich Str. 20
Moscow 125219
RUSSIA

Panel Presentation

Status and Goals of our Major Access Tools: A Summary

Keywords: Databases; International cooperation; *Arctic & Antarctic Regions*; Arctic Centre; ASTIS; *Bibliography of Alaska and Polar Regions*; *Boreal Northern Titles*; *BOREAL Database*; CRREL; *Cold Regions Bibliography*; *Antarctic Bibliography*; DIAND; SPRI; VINITI

Many of those involved in producing the major polar bibliographic databases were brought together in two panel discussions devoted to describing the current status of their databases, anticipated changes in terms of both coverage and technology, and placement in the overall picture of international access. Databases and participants included:

Arctic & Antarctic Regions
Fred Durr, National Information Services Corporation, Baltimore, Maryland, USA (participated via written reply to questionnaire)

Arctic Centre
Liisa Kurppa, Data and Information Service, Arctic Centre, University of Lapland, Rovaniemi, Finland

ASTIS
Ross Goodwin, Arctic Science and Technology Information System, Arctic Institute of North America, University of Calgary, Alberta, Canada

Bibliography of Alaska and Polar Regions
Ron Inouye, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Alaska, USA

Boreal Northern Titles/BOREAL Database
Robin Minion, Canadian Circumpolar Library, University of Alberta, Edmonton, Alberta, Canada

CRREL/Cold Regions Bibliography/ Antarctic Bibliography
Nancy Liston, Cold Regions Research and Engineering Library, U.S. Army Corps of Engineers, Hanover, New Hampshire, USA and Stuart Hibben, Science and Technology Division, U.S. Library of Congress, Washington, DC, USA

DIAND
Julia Finn, Departmental Library, Department of Indian Affairs and Northern Development, Ottawa, Ontario, Canada

PolarPac
Paul McCarthy, Western Library Network, Lacy, Washington, USA and Lisa Lehman, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Alaska, USA

SPRI
William Mills, Scott Polar Research Institute, Cambridge, England

VINITI
Valentina Markusova, All-Russian Institute for Scientific and Technical Information, Moscow, Russia

The first panel was chaired by Martha Andrews of the U.S. Polar Information Working Group. Participants described their databases in terms of the following questions, which had previously been sent to them.

1. Purpose and audience of database:
2. Area of focus:
   Subjects:
   Geographic areas:
   Strong in:
   How comprehensive in area(s) of strength?
   Weak in:
3. Dates of coverage:
4. Types of material covered:
   _____ journal articles
   _____ technical reports
   _____ monographs
   _____ newsletters
   _____ unpublished material
   _____ maps
   _____ proceedings
5. Frequency of update:
6. No. of monographic titles:
7. No. of journal titles covered:
   No. selectively indexed:
   No. indexed cover-to-cover:

8. Abstracts included?
   If yes, what percent of records have abstracts?
9. Are instructions for searching available?
   _____ printed_____ online or CD
10. Is your database on the Internet?
    If so, what percent of it?
    Do you have a home page?
11. If not commercially available, how can your database be accessed?
12. How are you funded?
13. Can citations and/or abstracts be downloaded and/or printed?
14. Can the abstracts be used in a published bibliography or report if credit is given?

The second panel, chaired by Martha Shepard, former librarian of the U.S. Bureau of Land Management's Alaska Resources Library, began by focusing on the future of each database. It culminated in a discussion of overall access—how the individual databases might fit together in a single system. Concerns were raised about funding, journal coverage for arctic regions, copyright issues, the need for rapid document delivery, the impact of electronic publishing, and the possibility of losing a polar focus if concerted efforts were not made in indexing and providing search capabilities on the Internet.

Questions posed to the participants included:

- What plans do you have for your database over the next five years?
- Will it be expanded, and if so, how?
- Do you plan to put the database on the Internet, and if so, when?
- Do you have plans to provide full text?
- Is full text economically feasible?
- Is your database copyrighted?
- If copyrighted, what are the restrictions?
- What changes do you envision in your database by the year 2001 in terms of contents and access, especially with regard to technological changes?
- How does your funding look, and if cuts are necessary, how and where will you make them?
- What do you perceive to be the weakness(es) of your database?
- Can Colloquy, as an organization, assist you in any way?
- Can the U.S. Polar Information Working Group assist you?

Is Publishing Perishing? Reflections on Publishing in Polar Science

Martha Andrews

Institute of Arctic and Alpine Research, University of Colorado Boulder, USA

Abstract: While searching the CD-ROM *Arctic & Antarctic Regions* (NISC 1996) for another purpose, the author observed a decline in numbers of publications per year beginning in 1985. Various types of data collected from this CD are analyzed, with a view to determining the reasons for this decline in the number of publications per year (as distinct from the number of records indexed by the database producers per year). While no definitive conclusion can be reached without further research, it appears, on the basis of the numbers analyzed, that this decrease is caused by a large decline in the number of records indexed by one of the databases, by a significant decline in the number of Russian-language entries, by some decline in publications about Canada, and by what is possibly a very large decline in indexing of publications about oil and gas pipelines and related topics.

Keywords: Publishing trends; CD-ROM databases; Indexing; *Arctic & Antarctic Regions*

Introduction

Data compiled from the March 1996 edition of the CD-ROM *Arctic & Antarctic Regions* (NISC 1996) show a decline in the number of publications for each year starting with 1985 (see Figure 1). This decline is taking place to a greater or lesser extent in all nine of the databases searchable on this CD-ROM. This phenomenon was discovered while the author was looking for some indication of a change in database production that could possibly be linked to CD-ROM publication of databases and/or to improved cooperation among database producers in selection and indexing of relevant publications. Further inspection (see Figure 1) revealed, however, that this decline in publications had begun in 1985, four years before the first edition of *Arctic & Antarctic Regions (AAR).*

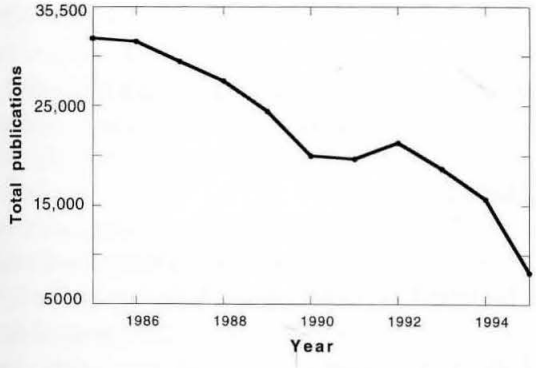


Figure 1. Total publications per year *Arctic and Antarctic Regions* CD-ROM.

It cannot be emphasized too strongly that this decline in numbers of published works per year does not necessarily represent a decline in numbers of publications per year accessioned by each database producer since retrospective as well as current accessions are included. Nor does it necessarily mean that publications by polar scientists have declined in number overall. Nevertheless, despite all caveats, this evidence is quite unexpected in the face of an apparently well documented information explosion.

In seeking an explanation, several lines of inquiry, for which there is some evidence, have been explored and are presented in this paper.

Methods

AAR contains about 756,000 bibliographic records on nine databases that can be

simultaneously searched. These databases are produced at institutions in the United States, Canada, and the United Kingdom. All disciplines and all Polar Regions are covered; the oldest record is from 1775.

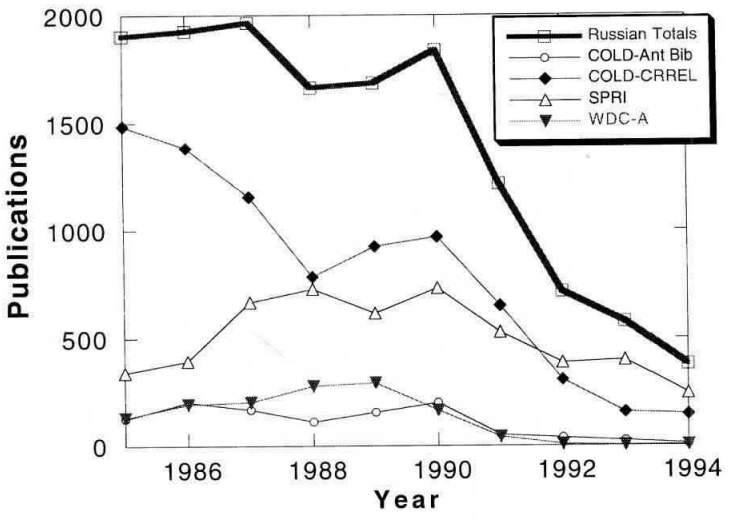


Figure 2. Russia-language publications per year.

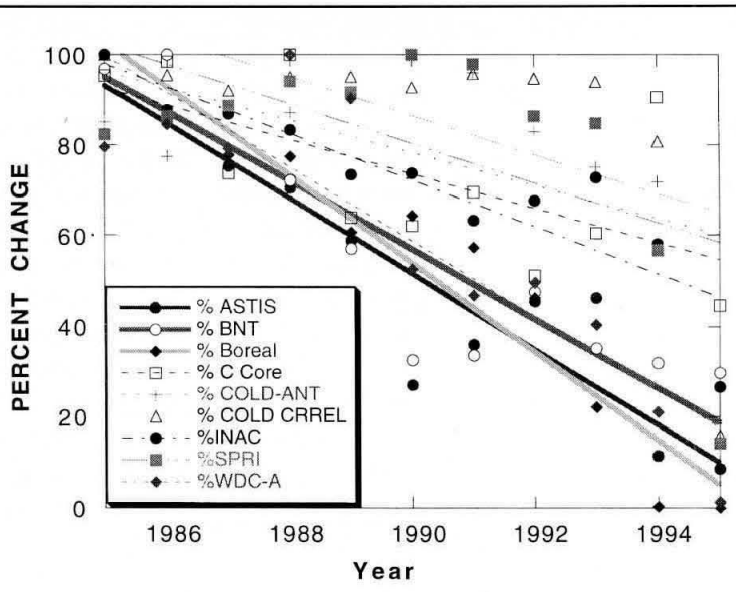


Figure 3. Percentage change in publications per year–each database.

Preliminary Hypotheses

Having established that, according to statistics collected from *AAR*, a decline in publications per year has occurred, the following hypotheses (among others) were briefly tested and then further investigated since they showed some sign of explaining this phenomenon:

1. Discipline-oriented (nonpolar) journals are publishing a higher proportion of "polar science" papers than previously (as compared to the traditional polar journals);
2. Peer-reviewed journal publication has become increasingly dominant, causing a decline in the technical report literature;
3. Russian-language publication has either decreased or become more difficult to access;
4. The "publish or perish" culture has peaked and is in decline;
5. The database producers' resources either have not increased or have declined, making it difficult for them to track publications from ever-widening sources;
6. Changes have occurred in regional coverage of the Polar Regions; and
7. Changes have occurred in scientific disciplines represented in polar regions research.

Data Collection

Data for evaluating these hypotheses were collected from the March 1996 edition of *AAR*. The search screen displays field tags at the left-hand column; each of these fields has an index. Field tag terms used in this study, in various combinations, included: database, geographic area, major topic, language, year, and publication type. All combinations contained the "year" term;

years selected were 1985 through 1995, although the year 1995 is incomplete. Selected combinations appear as Figures 1 through 4; these and others are referred to in the text. It is to be noted that not all publications on *AAR* take advantage of all of the field term indexing options offered, as is noted under sections, "Results from Hypothesis 5" and "Results from Hypothesis 7."

Other data, presented in previous work by this author, measured publishing trends in polar science (Andrews in press). Some of these results are used here and referenced accordingly.

No attempt beyond that described above was made to interpret the data collected—in other words, no surveys or interviews were taken from the database producers to answer questions posed by the statistics collected.

Results

Results from Hypotheses 1 and 2

Results from an earlier study of publishing trends in polar science (Andrews in press) showed that over the past 25 years, and especially over the last 10 years, both polar "journal article" and "technical report" publication types have declined relative to publication in nonpolar journals. Therefore, it seems possible that as polar scientists are publishing in a widening variety of journals, perhaps these publications are not being picked up for the Polar Regions databases. However, no real evidence to support this hypothesis was found during this research.

As noted above, the results from Andrews show a decline in the publication of technical reports relative to journal articles. Data from *AAR* support this finding—between 1985 and 1994 technical reports declined 38% while journal articles declined only 16% (overall decline = 49%). This does not reveal whether or not the decline in technical report publication is being partially compensated by journal article publication.

Results from Hypothesis 3

Figure 2 shows the decline in total Russian-language publications per year and the decline in Russian-language publications for each of the four databases accessioning the most Russian material; COLD-CRREL shows the greatest decline. Whether this represents a decline in papers published in Russian, or a decline in the availability of those papers to database producers, is not known. It is also possible that database producers are indexing less Russian-language material because their users do not consider it a priority. This decline is responsible for some 10% of the overall decline.

Results from Hypothesis 4

> The scholarship requirements for tenure [at Stanford University], first labeled 'publish or perish' in the 1950s, have made teaching success often synonymous with academic failure. (Nolan 1996)

This "evidence" is anecdotal, but there does seem to be a trend toward less demand being placed on publication in university evaluation schemes.

Results from Hypothesis 5

Figure 3 shows the percent change in publications per year for each of the nine databases, with a linear best fit line fitted to each database. The results show two clusters. The cluster with the least percent change, i.e., the more horizontal lines, includes COLD-CRREL, SPRI, COLD-Antarctic Bibliography, C-CORE, and INAC in that order. The cluster with the most percent change, on average around an 8% decline per year, includes WDC-A, BNT, ASTIS, and BOREAL in that order. The last three mentioned are produced in Canada (see following section). BNT (Boreal Northern Titles) is the largest database on *AAR*, with 234,940 records. [This very large and useful database has a format which does not include fields such as geographic area, major topic, language, or publication type—fields that were used for analysis in the present paper. The decline in number of publications per year in BNT is 34%; because of its size, this represents 70% of the overall decline. BNT is eliminated from further analysis here because of its limited indexing.]

Results from Hypothesis 6

Several geographic terms, such as Russia*, Greenland*, etc., were tested for a decline in numbers. No clear trend appeared, and it seems that articles ABOUT Russia have not declined significantly; in fact, there was an increase in

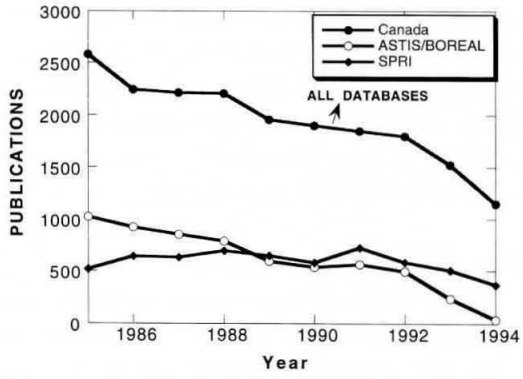


Figure 4. Publications on Canada (as a geographic area).

the early 1990s, possibly because western scientists found it easier to do research in Russia. The geographic term Canada* did show a decline in numbers as shown in Figure 4. This figure links the decline in publications about Canada with the decline in numbers of publications in the databases ASTIS and BOREAL, while the number of publications about Canada indexed by SPRI is fairly steady.

Results from Hypothesis 7

Many of the 126 "Major Topics" used as indexing terms on *AAR* were searched; of these only "Petroleum, natural gas and pipelines" was significantly down, to 292 in 1985; 32 in 1990; and 12 in 1994. This major topic index is not used by BNT and four of the other databases (BOREAL, C-CORE, COLD-CRREL, and INAC) which were major indexers of pipeline literature until its downturn in the mid-1980s. This is likely responsible for a large part of the decline.

Discussion

This study presents clear evidence of a decline in the number of records per publication year (not to be confused with records indexed per year by the database producers). However, the reasons for this decline are not clearly indicated from the evidence presented, although there are definite trends contributing to this phenomenon. A large decrease in the largest database, BNT, is responsible for much of the decline, but the reasons for the decline within BNT need further exploration (although it is likely that much of it is connected with declines in the oil and gas industry and publications supported by that industry). The same situation may be affecting other databases as well, particularly those produced in Canada. Russian-language publications are definitely in decline. Again the reason is not clear, but may be due to a conscious decision regarding priorities for indexing in the CRREL database. Publications about Canada as a region are in decline, and the reasons for that have not been adequately explored here.

Further work is suggested following up on the points raised here.

References

Andrews, M. In press. Publishing trends in polar science. In *International Association of Aquatic and Marine Science Libraries and Information Centers (IAMSLIC), 21st Annual Conference, October 8-12, 1995, Southampton, U.K.* Proceedings.

National Information Services Corporation (NISC). 1996. *Arctic & Antarctic Regions.* March ed., 1 disc. Baltimore: National Information Services Corporation.

Nolan, Martin F. 1996. Stanford undergraduates to get more teaching by full-time profs. *Denver Post*, 10 May, 15A.

Correspondence:
Martha Andrews
Institute of Arctic and Alpine Research
University of Colorado Boulder
Boulder, Colorado 80309
USA
andrewm@spot.colorado.edu

Poster Presentation

The Alaska Natural Resources Library Group: Adapt, Migrate, or Die

Juli Braund-Allen

Arctic Environmental Information & Data Center, Environment and Natural Resources Institute, University of Alaska Anchorage, USA

Keywords: Alaska Natural Resources Library Group; Library consolidation; Partnerships

---

Project Description

Faced with individual downsizing or closure, six of Anchorage's natural and cultural resources libraries are working to merge into a single library to safeguard and maintain their collections and services for users in Alaska. These collections are vital to natural and cultural resource policy decisions, research, and education.

They are especially important because Alaska is a book-poor state. The combined total of all of the books in all of the libraries in Alaska amounts to less than half that of an average-sized research library in the rest of the Unisted States, such as Stanford University Libraries. For several decades Alaska libraries have stretched available monies by cooperatively focusing each collection on specific subject areas. They thus rely heavily upon each other. The loss of any of these libraries is, therefore, a matter of grave concern; many of their holdings are not duplicated elsewhere in the city, the state, or the nation.

> *Alaska's economic well-being is so tightly bound to the utilization of its natural and cultural resources (e.g., oil, mining, fishing, tourism) that wise resource management is of primary concern to all informed Alaskans. Effective access to this information is critical not only to the federal resource management agencies, but also to state and local governments, private industry, and any Alaskans concerned about the state's resources.*
>
> Barbara J. Sokolov, Director, Consortium Library, University of Alaska Anchorage
> 1996 Testimony before the United States Senate Committee on Governmental Affairs

The merged library would achieve cost savings through centralization, by streamlining operations, and eliminating duplication. It would also provide users with "one-stop shopping" for their information needs.

This concept of a combined library is called the Alaska Natural Resources Library. Representatives from the affected resource libraries and other governmental groups that have expressed interest and support have formed the Alaska Natural Resources Library Group (ANRLG). The mission of ANRLG is to design an innovative partnership that provides a responsive and cost-effective framework for organizing, managing, and delivering the library information necessary to our customers.

Project Methodology

The Reinvention Laboratory

Under Vice President Gore's Reinventing America program, which is aimed at creating a government that works better and costs less, the U.S. Department of the Interior—the parent agency of the largest ANRLG library—is using reinvention laboratories as a mechansim to identify news ways of accomplishing its mission and improving service to customers.

Support for the reinvention laboratories includes, at the appropriate level:

- Waivers to operate within the law but liberated from regulations and policies which hinder progress

- Freedom to be creative and innovative, take risks, and provide incentives for change
- Adequate time to evaluate long-term success
- Budgetary support where needed
- Empowerment

Using the Reinvention Laboratory to Form the Alaska Natural Resources Library

The U.S. Department of the Interior conducted a Reinvention Training Workshop for ANRLG participants in November 1995. With assistance from its Management Advisory Group, ANRLG is currently developing design, management, budget, and operating plans for the consolidated library. Preliminary steps for merging the collections are now underway, thanks to a grant from the University of Alaska Anchorage. Pending final plan approval, the actual consolidation will take place during 1996-1997.

Members

Members of ANRLG are Juli Braund-Allen, University of Alaska Anchorage; Carrie Holba, Oil Spill Public Information Center; Christine Huffaker, U.S. Minerals Management Service; Ann Kain, U.S. National Park Service; Celia Rozen, Alaska Department of Fish and Game; Barbara Sokolov, University of Alaska Anchorage; Nancy Tileston, U.S. Fish and Wildlife Service; Cathy Vitale, U.S. Bureau of Land Management; and Mary Ellen Wilson, Anchorage Municipal Libraries.

ANRLG members are in consultation with Dave Allen, U.S. Fish and Wildlife Service; Tom Allen, U.S. Bureau of Land Management; Bob Barbee, U.S. National Park Service; John Buffington, U.S. National Biological Survey; Sal Cuccarese, University of Alaska Anchorage; E. Lee Gorsuch, University of Alaska Anchorage; Judy Gottlieb, U.S. Minerals Management Service; Jody Kusek, U.S. Department of the Interior; Frank Rue, Alaska Department of Fish and Game; Anne Shields, U.S. Department of the Interior; and Deborah Williams, U.S. Department of the Interior.

Anticipated Project Results

The "reinvented" library will lower operating costs to its member agencies by

- Reducing space costs
- Consolidating clerical and technical functions
- Eliminating duplicative functions and holdings
- Collecting fees for specialized services from non-contributors
- Seeking grants, contracts, and gifts

It is anticipated that the combined library collection will eventually be collocated (or merged) with the University of Alaska Anchorage's Consortium Library to provide further savings in its maintenance. A separate unit of library professionals will provide specialized information services to the collection's founding agencies, as well as to others on a fee basis.

Description of Consolidating Collections

Oil Spill Public Information Center (OSPIC)

Mission: OSPIC provides public access to information and materials pertaining to the *Exxon Valdez* oil spill and subsequent restoration activities, and supports the mission of the *Exxon Valdez* Oil Spill Trustee Council in its efforts to restore the injured environment. Through the management, synthesis, and dissemination of information and materials collected as a result of the *Exxon Valdez* oil spill, OSPIC facilitates meaningful public participation in the restoration process, as mandated in the settlement agreement between the state and federal governments and Exxon.

Area of Speciality: OSPIC focuses on the *Exxon Valdez* oil spill, with a secondary focus on oil spills in the marine environment. Information on specific oil spills, spill response, cleanup, damage assessment, and restoration is contained in a variety of formats, including books, technical reports, journals, legal documents, maps, audio and video tapes, photographs, slides, and CD-ROM databases. Special collections include a complete set of *Exxon Valdez* oil spill shoreline evaluations; damage assessment and restoration interim, annual, and final reports; and the Trustee Council Administrative Record.

U.S. Minerals Management Service (MMS) Library

Mission: Now closed, the MMS Library provided the technical and scientific information and data needed to ensure that the professional staff

could efficiently and effectively perform their jobs.

Area of Speciality: MMS Library provided information on petroleum engineering; geology; marine mammals; seabirds; oceanography; and oil spill and social and economic studies as these topics relate to offshore exploration and development.

U.S. National Park Service (NPS)

Mission: The mission of NPS is to conserve the scenery and the natural and historic objects and the wildlife therein, and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

Area of Speciality: NPS maintains the Natural Resources Library, a collection containing a mix of all topics, and the Cultural Resources Collection, which covers archeology, history, historic preservation, and museum topics.

Alaska Resouces Library (ARL), U.S. Bureau of Land Management

Mission: ARL serves as a central location where the U.S. Department of Interior, other federal agencies, Native corporations, and the public can come for information on Alaska lands and their resources.

Area of Speciality: Alaska's natural resources, including archeology, geology, fish and wildlife biology, cold weather engineering, and land management.

Alaska Dept. of Fish and Game (ADF&G) Habitat Library

Mission: Its mission is to provide a maximum level of library and information services to Habitat and Restoration Division staff through the development of a highly specialized collection acquired to serve Habitat and Restoration Division information needs. The Habitat Library accommodates other ADF&G staff with the use of this collection at the intermediate level of library services. The library seeks and promotes resource-sharing cooperation with other libraries and information specialists, thereby serving community information needs. The library provides a minimum level of direct library services to the general public.

Area of Speciality: Includes habitat, wildlife, land use, environmental impacts of development, stream impacts, and logging.

U.S. Fish and Wildlife Service Library

Mission: Its mission is to provide complete library and information services to the U.S. Fish and Wildlife Service and the National Biological Service staff in Alaska and to assist in library and information services to other interested parties.

Area of Speciality: Information relating to Alaska's fish and wildlife resources, their habitats, and management.

Arctic Environmental Information & Data Center (AEIDC)

Mission: AEIDC, now a central component of the University of Alaska Anchorage's Environment and Natural Resources Institute, was established in 1972 by state legislative action and placed within the university system as a focal point for information on Alaska's natural resources and environments. AEIDC maintains several unique collections on Alaska of use to decision makers, resource managers, and the general public. The library is supported through a combination of user fees, revenues earned from the sale of its publications, participation in grant- and contract-funded activities, and the discretionary allocation of state general funds through its parent institute.

Area of Speciality: AEIDC's collection philosophy places special focus on those materials relating to Alaska's environment and natural resources that are not normally available through other reference libraries. The collections include a large proportion of gray literature and out-of-print published materials. The library also maintains a few specialized collections of professional organizations.

Correspondence:
Juli Braund-Allen
AEIDC, ENRI
University of Alaska Anchorage
707 A Street
Anchorage, Alaska 99501
USA
(907) 257-2733 Fax (907) 276-6847

The American Polar Society: Past, Present, and Future

Raimund E. Goerler and Lynn Lay

Byrd Polar Research Center, The Ohio State University, Columbus, Ohio, USA

Keywords: American Polar Society; Antarctica; Howard, August; Shoemaker, Brian; Expeditions; United States

Founded in 1935, the American Polar Society (APS) developed from popular interest in the events of exploration and discovery in the Polar Regions. During its more than six decades, the Society has served as a clearinghouse of information through its *Polar Times,* which was for many years the only central source of information to guide polar scientists and explorers. At the same time, the Society has benefited from and stimulated popular interest in the Polar Regions. It has engaged its membership and readership in the work of sharing information about the polar environment and polar accomplishments.

What follows is a history of the Society. Based upon the records at The Ohio State University and interviews with the current APS Secretary, Captain Brian Shoemaker, this presentation has three parts: the Society's social and historical context, August Howard and the origins of APS, and APS in recent years.[1]

The Setting

The involvement of the United States in polar areas has depended greatly upon the attention, contributions, and participation of private citizens. Massive involvement of the U.S. Federal Government for basic transportation and logistical support and for funding ventures of scientific discovery and geographical exploration is a phenomenon of the last five decades only. Until then, science and exploration advanced only as far as expedition leaders—from Elisha Kane and Robert Peary to Richard Byrd and Finn Ronne—engaged the interest, financial donations, and even self-sacrifice of individuals, not government agencies. Most of the members of these private expeditions volunteered and served without salaries. Expedition leaders paid their debts from fees for lectures and publications.

Historians have analyzed the many reasons why private Americans have supported polar exploration and discovery. Certainly the wealthy looked forward to having new lands and places named in their honor. For everyone, rich and poor, the mystery of the poles as the last unknown areas excited the imagination. As late as 1969 Raymond Bernard postulated in *The Hollow Earth* that the poles were entrances to a hollow earth.[2] Within the earth, he speculated, was a superior civilization whose members periodically appeared to earthlings as Unidentified Flying Objects (UFOs).

Reports of the dangers of polar environments appealed to those with a sense of adventure. All accounts of the polar explorers in the "Heroic Age" of polar exploration are filled with references to dangers, from polar bears to frostbite. In fact, one historian has concluded that during the nineteenth and early twentieth centuries, the poles served as a metaphor for gender in which male explorers pitted masculine virtues against the hazards of "mother nature." Even the clerks, middle-managers, and office workers who never left the temperate zones could identify as males with those explorers who left women and children behind to challenge the primeval forces of nature at the extremes of the earth.[3]

Nationalism, too, played a pivotal role in drawing popular attention to polar areas. In the nineteenth century, the possibility of rescuing British explorer Sir John Franklin excited many Americans eager for both adventure and an opportunity to demonstrate the valor and superior-

ity of the former colonies. In 1909, the aged Robert Peary reported that he had "nailed the flag" to the North Pole. Similarly, in 1928 the forty-year-old Richard Byrd, in many respects the successor to Peary as an American hero of polar exploration, established his base in Antarctica as "Little America," from which he would fly an airplane as American as Ford over the South Pole in 1929.

Commercial interests also stoked the flames of adventure and nationalism in the fires of enthusiasm for exploration and discovery in polar cold. Newspaper entrepreneurs such as James Gordon Bennett invested in expeditions for the sake of stories that would sell newspapers. His *New York Herald* competed with the *New York Times* in supporting and defending the competing claims of Frederick Cook and Robert Peary as to who was the first American to reach the North Pole. The *New York Times* was a prominent supporter of Byrd in Antarctica and sent prize-winning writer Russell Owens to develop exclusive stories for the *Times* to publish.[4] At the same time, Paramount had a film crew with Byrd at Little America to make and sell movies and photographs. Businesses donated equipment not for the sake of patriotism alone but also for opportunities to advertise the value and durability of their products. Byrd himself referred cryptically but accurately to all of this as "the hero business."

August Howard and the Origins of the American Polar Society

The mid-1920s were a particularly exciting time for polar exploration. Airplanes, which Americans Wilbur and Orville Wright had done so much to invent, were proving their usefulness in polar exploration. Thus, in 1925 Roald Amundsen and Lincoln Ellsworth attempted to use airplanes to reach the North Pole but failed. A year later Richard Byrd claimed credit as the first to fly over the North Pole. Two years later, Byrd organized an expedition to Antarctica that would culminate in a flight over the South Pole. Before Byrd could reach the South Pole, Sir Hubert Wilkins, an Australian who was financed by American publisher William Randolph Hearst, became the first to fly in Antarctica in 1928.

At sixteen years of age in 1926, August Howard grew up fascinated by Richard Byrd and the romance and adventure of the North Pole flight.[5] The son of a tailor and Russian immigrant, August Howard adopted Byrd as his personal hero. Polar exploration and discovery became the avocation of his life even as it was the vocation of his hero. Howard's other interest was the Boy Scouts. In 1928, at the age of eighteen and after years of pleasure in Scouting, he became an employee of the National Council of Boy Scouts of America, which would become his life-long career.

Interest in polar exploration, Byrd, and the Boy Scouts came together in 1928 when Richard Byrd and the Boy Scouts of America conducted a national campaign to select a suitable Boy Scout to accompany Byrd on his first expedition to Antarctica. The successful applicant, Eagle Scout and Sea Scout Paul Siple, became a close friend of August Howard. To report the activities of fellow Scout Siple on the first Byrd Antarctic Expedition (1928-30), Howard created the *Metropolitan Pilot*, a mimeographed newsletter that was distributed monthly to relatives and friends of Paul Siple and to the 25 members of Siple's Sea Scout Ship. This was the official beginning of Howard's career in journalism, and the first step towards the *Polar Times*.[6]

In 1933 Richard Byrd commenced his second expedition to Antarctica and Paul Siple joined him again, as he would on each of Byrd's expeditions. By this time August Howard was assistant to the director of publicity for the National Council of the Boy Scouts of America. In addition, he advised the Manhattan Boy Scout Press Club. For him, the second expedition was an opportunity for another venture into journalism: *The Little America Times*, named after Byrd's base in Antarctica. In 18 issues, from December 27, 1933, to May 31, 1935, *The Little America Times* reported monthly the activities of the second Byrd Expedition and also the Lincoln Ellsworth expedition of 1935. It was distributed freely to friends and relatives of members of the expeditions. In fact, much of the *Times* was the transcription of radio broadcasts from Little America.

As *The Little America Times* expanded in content and readership from the *Metropolitan Sea*

Pilot, which had focused on Paul Siple during the first expedition, August Howard confronted the commercial concerns of polar exploration in the private age. Letters in the records of the American Polar Society evidence the fear of some in the leadership of the Byrd expedition that reporting by *The Little America Times* would violate the contracts that the expedition had negotiated with other news media in exchange for funding. Howard resolved this brief but intense conflict with the support of Admiral Byrd himself.[7]

Byrd's second expedition, and that of Lincoln Ellsworth, and Howard's experience with *The Little America Times* set the popular stage for the creation of the American Polar Society. Radio broadcasts from Little America II to the living rooms of Americans brought the voice of an American hero to the ears of many. Byrd's solitary near-death experience and rescue at a weather station approximately 120 miles away from Little America gave the second expedition the drama that the first had had with the South Pole flight. Meanwhile, American explorer Lincoln Ellsworth accomplished the feat of flying across the continent in 1935. Clearly, Antarctica had become an arena for American accomplishments in exploration and science, an arena in which Byrd was already planning his third expedition.

At this time August Howard and others saw a need and an opportunity. No government office or private agency existed as a central clearinghouse of information pertaining to Antarctica. Something was needed to enable explorers to learn from each other about Antarctica. Private citizens—children as well as adults—who would never become explorers or polar scientists also had no easy way of satisfying their interest in Antarctica, which the exploits of Byrd, Ellsworth, and Wilkins had stimulated.

In a letter of July 31, 1934, August Howard proposed the creation of a privately funded organization that would serve as a clearinghouse of information about Antarctica. He noted that public interest was at a fever pitch and there was the likelihood of financial support from the Columbia Broadcasting System, the *New York Times*, and Paramount. A special polar library, to house information about Antarctica, could be created in either the American Geographical Society or the American Museum of Natural History. Howard proposed that Franklin Delano Roosevelt be honorary president and that Richard Byrd and Lincoln Ellsworth be honorary vice presidents. The organization would make a special effort to recruit veterans of polar expeditions and scientists as members. In addition, this new organization should maintain regular contact with similar organizations elsewhere, including the Scott Polar Research Institute, the New Zealand Antarctic Society, and the Arctic Institute of Leningrad.[8]

Finally, Howard envisioned that the organization should develop a service for the education of children. He proposed that the society should use its library to develop bibliographies and outlines for teachers to instill an interest in geography, history, and science in their students. At an early age, youngsters could develop a lifelong interest in science and the Polar Regions.

On November 29, 1934, notice of the organization of the American Antarctic Society was mailed to potential members. The American Museum of Natural History offered space for meetings and a mailing address. By January 1, 1935, there were 25 members.

A few months later, Fred Meinholtz of the *New York Times* proposed to change the name from the American Antarctic Society to the American Polar Society. This would expand the range of interest and the numbers of prospective members. At an organizational meeting at the Hotel Barbison in New York City on September 9, 1935, August Howard presided as chair. The name was changed officially to the American Polar Society. At the time, it already had 93 members in 20 states and 7 foreign countries. Paul Siple became the first president, and the Society held its first annual meeting on November 25th at the American Museum of Natural History.

August Howard's friendship with Siple and his ties with the newspaper and scientific organizations in New York City were critical to the formation of the American Polar Society and the *Polar Times*. By the spring of 1935, Howard had developed agreements with the *New York Times* and the North American Newspaper Alliance to receive and re-print newspaper articles

concerning the Polar Regions. In September of 1935 the Burrelle Press Clipping Bureau agreed to provide its services for $1 per month. These important agreements assured that the *Polar Times* would have a sufficient number of articles to serve its primary purpose as a central source of information about the Polar Regions. By 1937, Howard had added the Associated Press, United Press International, the New York *Herald Tribune*, and the *London Times* to his volunteers in the campaign to gather news and information about the poles.

The first *Polar Times* appeared in June of 1935. It brought news of interest to explorers, armchair explorers, and polar enthusiasts excited by tales of adventure. Of course, much of the issue focused on Admiral Richard Byrd's second expedition and that of Commander Lincoln Ellsworth. The paper also included stories of adventure in the Arctic, plans by Sir Hubert Wilkins for a submarine expedition beneath the Arctic Ice, and Soviet activities in polar regions. For the explorer-in-waiting, there were useful articles about tractors in polar work and surveying in Antarctica. Historians then, and even now, appreciated the biographical information contained in obituaries of famous figures in polar exploration and scientific discovery.

August Howard's interest in polar environments, his vision for the American Polar Society, and his work in creating and sustaining the Society and its *Polar Times* earned him a lasting memorial. Two places in Antarctica owe their names to him. In 1948 Cape Howard on the Weddell Sea was named in his honor and a glacier bears the name of the *Polar Times*. Ironically and tragically, Howard never had the opportunity to visit Antarctica before his death in 1988.

Activities of the American Polar Society

As famous polar explorers such as Sir Hubert Wilkins, Richard Byrd, Richard Black, Bernt Balchen, and Finn Ronne joined the American Polar Society, the organization continued after 1935. Created in the midst of the Great Depression, the Society also survived the distractions of World War II which turned the attention of Americans to other parts of the earth. By 1947, at war's end, the Society had doubled its membership to 500 members in 41 states and 16 foreign lands. Two years later August Howard reported that membership had again more than doubled to 1,319. Much of this dramatic increase was due to Operation Highjump which exposed some 1,100 soldiers and scientists to Antarctica in 1946 and 1947.

APS flourished despite the challenges of war and financial adversity by directing the energy and enthusiasm of its members into a variety of activities in addition to gathering news for the *Polar Times*. One effort, headed by first president and distinguished polar scientist Paul Siple, was to organize committees to report the news of scientific activities for a popular audience. In 1949 Siple had the responsibility of coordinating committees based on 21 subjects dealing with polar regions.[9]

Drawing attention to noteworthy polar explorers and scientists was an important activity of the Society. Beginning in 1936, it designated as "Honorary Members" those explorers and scientists who had distinguished themselves in polar activities. The first was David L. Brainard of the Adolphus Greely expedition (1881-84). Thereafter, many others received that honor, including Richard Byrd, Vilhjalmur Stefansson, Lincoln Ellsworth, and Lawrence Gould. A total of 12 individuals have been so honored, including one woman, scientist Louise A. Boyd. In the process of selecting its honorary members, the Society issued press releases and succeeded in making both members and nonmembers aware of the importance of polar work and what had been accomplished to date.

Another activity that drew attention to itself and to polar achievements was the celebration of polar anniversaries. In 1949 and in 1959, for example, APS arranged a tribute and celebration to commemorate the fortieth and fiftieth anniversaries of Robert Peary's claim to the North Pole. Similarly in 1961, the Society organized a celebration to honor Roald Amundsen, which it held with the Washington Group of the Explorers Club.

Finally, APS encouraged the formation of APS Societies outside of New York City. The one in Washington, D.C., was particularly active, but groups also formed in Chicago, Seattle,

and San Francisco. Each of these had its own educational and social activities.

Of course, basic reference service continued to be a prominent activity of APS. The correspondence of the Secretary includes numerous letters from adults and school children for information about Antarctica.

The American Polar Society in Recent Years

By 1975 membership in the Society reached a peak of 2,300 members. Thereafter, membership would decline and remain stable at approximately 1,600 until the present.[10]

A number of factors explain the relative stagnation in membership, despite the increasing number of scientists in the Polar Regions. As a clearinghouse of information for scientists, *Polar Times* had been outstripped by the development of bibliographic databases. Beginning in the late 1940s, polar scientists had access to printed bibliographies which focused primarily on scientific reports and journal articles. *Recent Polar Literature*, a biannual feature of *Polar Record*, listed new reports, journal articles, and books. In 1951 the first volume of *Antarctic Bibliography* was published, as was the first *Annotated Bibliography on Snow, Ice, and Permafrost*, the predecessor of the *Bibliography on Cold Regions Science and Technology*. Two years later, in 1953, the *Arctic Bibliography* began publication.

Online retrieval services began providing access to bibliographic citations in the early 1970s. The COLD database, which contains both the *Bibliography on Cold Regions Science and Technology* and *Antarctic Bibliography*, became available online. Discipline-oriented databases, such as Agricola, GeoRef, and BIOSIS were also accessible online. In the late 1980s, CD-ROM technology made access to even more information possible. All of these developments made the sharing of scientific reports more comprehensive and convenient than could the *Polar Times*, which appeared every six months at best.

Another challenge was internal. From its beginning, the Society was a private organization of interested individuals. It had, and still has, no central office or salaried staff. In fact, August Howard and his family sorted newspaper clippings and compiled each issue of the *Polar Times* in their own home in their leisure hours. From 1948 to 1954, the leisure hours disappeared when August and Rose Howard devoted their time at home to the care and raising of two children. In that period, the *Polar Times* did not publish any issues.

Eventually the forces of time and change take their toll on all. In the 1970s, the original polar enthusiasts of the 1920s and 1930s were in retirement. For teenagers in this period, the world was full of distractions that were not polar. The excitement of space exploration and the turmoil of Viet Nam occupied popular attention among youth. Meanwhile, the *Polar Times* continued to publish but without surges of membership in APS.

On December 4, 1988, August Howard died. APS would continue as his legacy, but faltered temporarily. In 1989, the Society designated Peter Anderson of The Byrd Polar Research Center to succeed Mr. Howard, and records and papers of the Society arrived at The Ohio State University. However, a stroke soon after the transfer prevented Mr. Anderson from resuming the *Polar Times* and the Society's work.

In 1992, APS turned to one of its members, Captain Brian Shoemaker, to take over responsibility for the *Polar Times*. Captain Shoemaker—a U.S. Navy veteran—commanded 1,500 men, 20 airplanes, and 4 ships in Operation Deep Freeze and is a man of both experience and knowledge with regard to polar issues and history. He earned a master's degree in polar studies from the University of Cambridge in 1989. Shoemaker, like his *Polar Times* predecessors, has a landmark named in his honor: the Shoemaker Glacier in the Southern Cross Mountains. Captain Shoemaker was also a member of the Board of Directors of the Hero Foundation and helped the foundation and the city of Reedsport, Oregon, acquire and permanently display the polar research vessel *Hero*.

In 1993, the new secretary resumed publication of the *Polar Times* and began seeking new directions. In addition to recruiting members amongst military veterans and scientists, Captain Shoemaker has made the ever-increasing numbers of tourists to Antarctica aware of the Society and its publication. Currently, he is seek-

ing to develop an oral history program in which members of APS would interview in their areas the distinguished scientists and veterans of polar expeditions. Documentation of the interviews would be deposited, preserved, and made available at The Byrd Polar Research Center. Since 1994, he has served on the Advisory Board to The Byrd Polar Research Center Archival Program at The Ohio State University.

Conclusion

The American Polar Society is evidence of the continuing interest and fascination with the geographical extremes of the earth. Although the science of Antarctica has changed greatly as a result of governmental sponsorship and although bibliographic databases have made scientific information more widely available, readers of the *Polar Times* have continued to participate as "armchair" explorers and scientists in unraveling the mysteries of the Polar Regions.

Endnotes

1. See the American Polar Society, Record Group 56.16 at The Ohio State University Archives. Another collection of the Records of August Howard exists at the U. S. National Archives. The collection at The Ohio State University is 1.5 cubic feet and consists of biographical information of August Howard, documentation of *Little America Times*, and the records of the American Polar Society, including constitutions, correspondence of the APS Secretary (for most years, August Howard), honorary member documentation, and photographs.

   The National Archives has RG4/8, August Howard's Papers, which consist principally of publications and some correspondence.
2. Raymond Bernard, *The Hollow Earth: The Greatest Discovery in History* (Secaucus, N.J.: Citadel Press, 1969) maintains that Byrd saw the entrances to the hollow earth in 1947 and in 1956. This book, however, contains so many factual errors that it is cited here only as evidence of the continuing mystery about the Polar Regions in the popular imagination.
3. See Lisa Bloom, *Gender on Ice: American Ideologies of Polar Expeditions* (Minneapolis: University of Minnesota Press, 1993).
4. An excellent study of the importance of polar exploration to journalism is Beau Riffenburgh, *The Myth of the Explorer: The Press, Sensationalism, and Geographical Discovery* (London: Belhaven Press/Scott Polar Research Institute, 1992).
5. Originally, August Howard grew up as "August Horowitz." He changed his name in the early 1940s.
6. Biographical information about August Howard cited here is found in RG 56.16, box 1, folders 1-4. Documentation consists of newspaper clippings, obituaries, and an oral history interview of Doris Howard by Peter Anderson in 1989.
7. See August Horowitz to Mrs. Marie Ames Byrd, October 26, 1933, RG 56.16, box 1, folder 6, The Ohio State University Archives.
8. August Howard to Joerg, July 31, 1934, RG56.16, box 1, folder 8, The Ohio State University Archives.
9. Unfortunately, no documentation exists of the work of these committees.
10. As of April 1996, membership is 965.

Correspondence:
Raimund E. Goerler
Byrd Polar Research Center
The Ohio State University
2700 Kenny Road
Columbus, Ohio 43210-1046
USA
rgoerler@magnus.acs.ohio-state.edu

Organizational Creativity: Historical/Cultural Publications of Selected Northern Municipalities, Native Organizations, and Institutions

Ronald K. Inouye

Elmer E. Rasmuson Library, University of Alaska Fairbanks, USA

Keywords: *Bibliography of Alaska and Polar Regions*; Alaska; *Alaska Periodical Index*; Rasmuson Library; Databases; *BibAPR;* Newsletters; *Bibliography of Alaskana*

The *Bibliography of Alaska and Polar Regions* (*BibAPR*) is an online index to periodical literature at the University of Alaska Fairbanks Rasmuson Library. Initially created during the 1960s to improve access to Rasmuson Library's periodicals, the bibliography, then entitled *Bibliography of Alaskana*, was produced manually for use at service points in the library. As a useful index for non-Rasmuson libraries with Alaskan interests, paper and later microfiche formats were utilized.

As computerization became possible, the indexing was made available on the University computer system in 1973, and the number of records increased significantly. In 1986 Rasmuson Library began using the current Virginia Tech Library System (VTLS) for its online public access catalog and circulation system, and the VTLS subindexing system was used to develop the *Bibliography*. With the advent of CD-ROM technology, *BibAPR* became a part of *PolarPAC*, as did the Rasmuson Library book catalog listings.

BibAPR can be found on ElmerNet, Rasmuson Library's current network, under the ARCTIC & ANTARCTIC REGIONS section, specifically as the *Alaska Periodical Index*.

Over 5,000 articles are added to the index annually from more than 500 periodical titles. Staffing is 1.5 full-time equivalency. When staffing was more plentiful, students searched for appropriate articles and created partial records. Now, to streamline operations, preference is for non-student indexers who can evaluate, create records, and add indexing terms in one operation. Using experienced personnel at higher salaries has proved to be the most efficient.

Periodicals are reviewed and selected articles indexed within 24 hours of their receipt. Library of Congress subject headings are assigned to describe the contents of the articles at general and specific levels; corporate and personal names and geographic place names are liberally included to ensure access. Notes indicate illustrations as well as the number of column inches of text for articles less than one page in length. The database currently contains more than 100,000 entries.

Creativity through Publications

As the theme of this Colloquy deals with creativity, I will selectively illustrate examples of creativity in some of the periodicals we index. With no specific definition of "creativity," there are nonetheless some characteristics which make these periodicals stand out among those of similar content or format. As you may not know about all of these periodicals, I hope to introduce you to some jewels which may be of interest to your library users, and which will perhaps open a door to a world of information currently unknown to you and your library.

Native Organizations

The Native corporations and nonprofit associations created by the Alaska Native Claims Settlement Act of 1971 (ANCSA) changed the political, social, and economic reality of Alaska, recognizing Alaska Natives as more than just Aboriginal peoples. Rather than considering

Alaska Natives as simply Indians or Eskimos, we in the general populace now recognize them as Athabascan Indians of many differing locations and languages (such as Han, Koyukon, Gwichin, Holikachuk, and Tanaina); we recognize them also as Haida Indians, Tlingit Indians, Tsimshean Indians, or Aleuts, and we know also that Eskimos identify themselves regionally into Southern Yup'ik, Northern Inupiat, etc.

And ultimately, within the ANCSA capitalist economic framework, the myriad local village and regional corporations have been wined and dined by bankers, investment brokers, and hucksters seeking access to the monetary and natural resource wealth of Alaska Natives.

ANCSA provided a vehicle for Alaska Natives to positively self-identify and to join forces with other Natives with whom there previously was no common identity. ANCSA and subsequent state, national, and, increasingly, international politics have united previously solitary Natives. With the establishment of organizations and forums, ranging from statewide entities like the Alaska Federation of Natives to the international Inuit Circumpolar Conference, Alaska Natives have stepped beyond local boundaries into the international arena; with that transition, a fascinating trail and tale has unfolded and been captured largely by oral stories, newsletters, and periodicals of their own creation.

Among the interesting newsletters of the Native corporations and associations are *Venture*, *Sealaska Shareholder*, and the *Council*. These represent three different regions of Alaska and reveal much about the direction of the regional and village corporations and associations. Taken separately, each newsletter reveals the concerns of the particular region in educating stockholders about the management of funds and natural resources, but taken together they also increasingly reveal their cultural heritage.

Venture is the newsletter of the Nome village corporation (called the Sitnasuak Native Corporation). *Venture* is simple in design and concept, quite straight forward in describing corporate information; its stockholder education function is evident.

The *Sealaska Shareholder* of the Sealaska Corporation, which represents the Tlingits, Haidas, and Tsimshians of southeast Alaska, is the most sophisticated of the newsletters, with a significant amount of financial and political information. Its design, layout, and content are well considered, and it increasingly includes articles reflecting cultural concerns such as the recent Celebration '96 event which gathered southeast Natives together in Juneau for cultural activities. The *Sealaska Shareholder* represents one of the state's largest corporations.

In the interior of Alaska, *Council* is the newsletter of the Tanana Chiefs Conference, the non-profit regional association of the Doyon Ltd. for-profit corporation. The *Council* contains a significant amount of information about interior and statewide Native issues. If federal health legislation is pending, training funds are available, or a political issue arises, the *Council* will discuss it.

Places, Regions

Because Alaska encompasses a large geographic region, some general-topic regional publications have emerged. In many instances these publications are not widely known beyond their region, which has occasionally meant their fiscal demise.

Anchorage Magazine is an important source of historical and visual information for the state's largest city. Rasmuson Library has copies of the now defunct magazine and indexed its contents, which featured many Anchorage characters, myths, and legends.

The *Alaskan Southeaster* is a treasure trove of Juneau and southeast Alaska information, a region about which other Alaskans have little knowledge.

We Alaskans are parochial in our knowledge of other arctic regions. The relatively short-lived *Arctic Circle* magazine provided an interesting news-magazine glimpse of other parts of the circumpolar Arctic largely unknown to Alaskans through existing periodicals. Physically adjacent but politically separate, we Alaskans know little about our Canadian neighbor despite commonalities of ecology, Native peoples, landscape, and economic resources. Sources like *Up Here: Life in Canada's North* provide an *Alaska Magazine*-like counterpart for learning about the Northwest Territories.

Figure 1. Examples of general-topic regional publications.

Figure 2. Examples of publications by Alaska school districts.

Education

Reviewed annually, the newsletters of Alaska school districts are not unlike those of other places. They contain information about student achievements, new teachers, activities, and lots of pictures of happy faces. However, viewed through time, these newsletters tell a great deal about changes in curriculum, local and external sources of program funding, and community politics as reflected in school board membership and school administrators.

In 1976, Alaska simultaneously created 52 new school districts called Regional Education Attendance Areas in the state's so-called unorganized boroughs—the areas outside incorporated cities like Anchorage, Fairbanks, and Juneau. Because the United States believes local communities should determine educational goals at the local level, local school boards have the authority to set curriculum, hire and fire teachers, and seek requisite funding. It was a large socio-political experiment to transfer the power of determining what local communities wanted their children to study, to local school boards rather than continuing to have the State provide the direction. Two newsletters from such rural school districts provide diverse and interesting insights into the development of that governance.

Strait Talk of the Bering Strait School District is filled with glossy photos of the students, the school board, sports competitions among the district schools, etc. *Han Zaadlitl'ee* of the Yukon-Koyukuk School District focuses more on student work. Following the Koyukuk River flood of 1994, which completely destroyed the villages of Allakaket, Alatna, and Hughes, *Han Zaadlitl'ee* contained some of the only written accounts of the devastation, dislocation, and eventual rebuilding of those communities.

Stephanie Marks, an eighth grader at Allakaket School, wrote:

> It is hard to plan on living in one place for the rest of your life, the life of your children and your grandchildren, and all of a sudden because

of a disaster have to change your plans. It's not only hard on you but it's also hard on your friends and family who had shared your same goals and had planned on living with you for the rest of your lives. It is very hard on you physically and emotionally. Like I have said, this flood has affected a lot of people and has given the villagers a lot of problems to worry about. But the most important thing to do is to stick together and be strong. Our ancestors had a lot of problems like floods and they stuck together and handled their problems as a tribe, not as individuals. If they didn't stick together and be strong through the times of their crisis, then we would not be here today. We would just be history, an extinct tribe. (Strait Talk, vol. 15, no. 2, October 1994)

Contrasted with Stephanie's comments were those of Joe Dayton, a seventh grader who recounted his evacuation experience in Fairbanks:

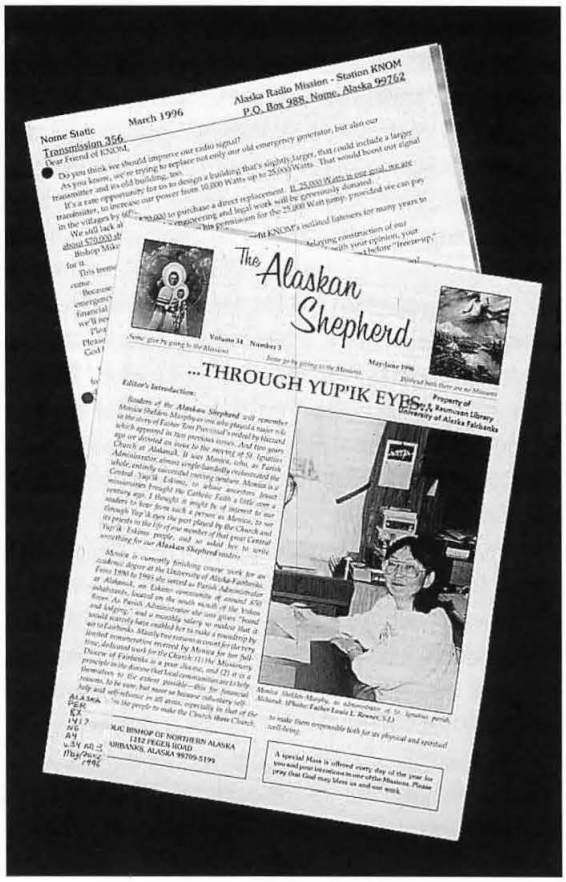
> After the flood we have been going on a lot of field trips. My favorite was when we went to Hamme swimming pool (in Fairbanks). When we were there some guy almost drowned. The lifeguard pulled him out of the water and gave him mouth-to-mouth. It was cool! The ambulance guys came in and carried him out on a stretcher. They told us we could go back in the pool, but I didn't want to because as soon as he got some air he threw up in the pool. (Strait Talk, vol. 15, no. 2, October 1994)

Churches

Religious proselytization has played a significant role in Alaska's history, and church newsletters provide insight into the beliefs and activities of the state's various organized religious groups. Contemporary researchers find the meticulously kept diaries and archival records of individuals and church jurisdictions, registers of births, deaths, and social events wonderful sources of information not only on religion but also on the history of individuals.

Tracing the Russian Orthodox Church's activity in Alaska through its publications leads one into an interesting maze of Church jurisdictions through time. For example, the church's headquarters was initially in Russia and is currently in Syosset, New York.

Figure 3. Examples of church-based publications.



Two very different newsletters of the Catholic Church in Alaska reveal how solicitations to the Lower 48 for volunteers and funds to maintain and operate a Nome radio station, KNOM, differed significantly from solicitations directed to Catholics in Alaska.

Newsletters

Organizational and subject-specialist newsletters provide an excellent means of communication for geographically disparate colleagues. Whether specialized or general, they link individuals with common interests. For example, students in Northern Studies at the University of Alaska Fairbanks are eager to learn what students at other universities are doing, and can learn through the newsletters such as those of the Canadian Northern Studies programs.

Government

Alaska governmental publications have noticeably slackened since the Trans-Alaska

Pipeline boom era. Since 1986, the number and quality of state-funded and state-produced publications have dropped dramatically. Glossy, high-production agency reports; public relations magazines with lots of color photographs; and newsletters from every section within a State department have largely evaporated, resulting in fewer periodicals; those that remain are often of spare design quality and are produced on in-house computer-generated systems.

With current cut-backs in federal funds, federal documents are becoming more difficult for researchers and public users to locate. While state and federal policy requires information produced with public funds to be free to the public, libraries have difficulty locating and obtaining such documents for users.

On a local level, one of the most useful publications developed in Fairbanks was the *Community Research Report* produced by the Fairbanks North Star Borough. It contained significant socio-economic information and analysis useful for planners and those monitoring the socio-economic health of the community. It was created during the Trans-Alaska Pipeline construction boom and documented much of that period; in its current form it simply aggregates statistical data otherwise available from disparate sources. The current *Community Research Report* is an example of a slimmed down, but still useful publication: a survivor in an era when most other governmental publications have ceased. The Municipality of Anchorage has created a similar publication for its local use.

Specialty Publications

Pacifica, A Journal of Pacific and Asian Studies represents the institutional creativity of the Pacific Rim Studies Center of Alaska Pacific University in Anchorage. This title, one of the few academic journals published in Alaska, was created in 1989 to reflect Alaska Pacific University's emphasis on the Pacific Rim, and it focused academic interest on multi-disciplinary issues beyond Alaskana. For several years this biennial journal featured articles relating to Alaska's location on the north Pacific Ocean and its ties to other pacific nations, to Asia, and historically to Russia. Unfortunately the journal ceased publication.

Figure 4. Examples of specialty publications.

Beringian Notes of the U.S. National Park Service is another of those wonderful publications which significantly alter our conceptualization of geography and disciplines. Recent efforts at developing the Beringian Heritage International Park in cooperation with the Russian Federation have sparked collaborative Russian-American multi-disciplinary research across the previously frozen ice curtain. Much international work with Russian researchers occurs now, and *Beringian Notes* represents that collaboration with colleagues across the Bering Strait, just as the presence of Russian librarians in this and in previous Colloquies illustrates the creativity of people working together for common goals.

In a similar vein, the *Russian Far East News* published by the University of Alaska Anchorage's Center for International Business provides economic analysis of and information on commerce in the Russian Far East. Unlike other Russian Far East commerce newsletters

currently available, this one presents information of particular interest to Alaskans.

The *Arctic News-Record* published in Oslo, Norway, recaps in English many news articles of the Arctic Regions. Although English is clearly not the primary language of the editor, the selected articles and commentary provide an international glimpse of arctic issues and news. Seldom do northerners have a periodical that gives another nation's perspective on energy and environmental news. For Alaskans and Americans, this publication may lessen our arctic parochialism.

Of similar interest to Alaskans is an unlikely source of local and regional information, the *Alaskan Token Collector & Polar Numismatist*. Collectors of items as diverse as medals, stamps, and coins know a lot about history, and this kind of historical information is oftentimes not published. In any single issue of this monthly newsletter, there will be several articles about postal history, histories of old companies, the use of seal skin as script, and many other fascinating facts to ensure your minimal daily requirement of Alaska trivia.

Tumivut, the cultural magazine of the Nunavik Inuit produced with Canadian Federal funds, is an informative trilingual magazine in French, English, and Inuit syllabics. Articles of contemporary and historical interest are well written and illustrated, capturing the lives and history of the Nunavik Inuit. Few comparable periodicals have such rich content and excellent production values. For most of us who know little about the people and politics of northern Canada, this publication creatively informs us about the people and land of Nunavik.

What is the Future of Periodical Indexing?

In this selective review of northern periodicals I have cited examples which I believe are distinctive and creative. These publications have all been produced in hard copy, and they are the regular items we index for the *Bibliography of Alaska and Polar Regions*. What does the future hold for periodicals and the way we index them?

The future is now, and the changes in periodicals are here. Many of our favorite periodicals have fallen victim to the difficult economic times. Ironically, and simultaneously, subject specialities have proliferated, producing myriads of separate, narrowly defined publications to which no single library could comprehensively subscribe. Periodicals are now increasingly available electronically or in alternative forms to hard copy.

Will creative software produce powerful search engines for these databases and online systems that can sort and provide access to the world of periodicals our users need? Will new forms of document delivery be necessary to meet the needs and demands of our researchers and users? In this time of dynamic change, what role will we of the library and information community take in determining the direction of those innovations and solutions? Can we, as polar information specialists, find creative solutions to these many complex issues to ensure that our users have access to and use of the information they seek?

Creativity takes many forms. Old indexers who may not seek solutions to contemporary issues will still be of value, indexing those large, long runs of old periodicals full of valuable information which is still difficult to find. As Liam Wescott of the *BibAPR* staff related as he indexed the 1940 issues of *Alaska Life*,

> Even then the President of the University was in Juneau lobbying the Territorial Legislature for money to fix crumbling buildings, increase staff salaries, and recruit new students....The Territorial politicians were upset about too much control of Alaska by the Federal Government, and stories about fishing, hunting, and mosquitos were common.

Indeed, everywhere things are changing, and yet they are the same. Perhaps our creativity will become evident when we shift our conceptualizations to fit the new realities.

Correspondence:
Ronald K. Inouye, editor
Bibliography of Alaska and Polar Regions
Elmer E. Rasmuson Library
University of Alaska Fairbanks
Fairbanks, Alaska 99775
USA

Poster Presentation

The History of Polar Research Specialist Group of the German Society of Polar Research

Cornelia Lüdecke

Institute of History of Sciences, University of Munich, Munich, Germany

Abstract: The program of the History of Polar Research Specialist Group of the German Society of Polar Research is described. Special emphasis is made to present German polar research in an international context. Several examples are given of German promoters of polar research and international cooperation before and after the turn of the century. A chronological survey of polar expeditions and a detailed description of the international society Aeroarctic are also given. With our contribution we hope to foster future international and interdisciplinary work.

Keywords: German Society of Polar Research; Aeroarctic Society; International cooperation; Germany; Antarctica; History of Polar Research Specialist Group

Program of the History of Polar Research Specialist Group

During the 16th International Polar Conference of the German Society of Polar Research in Göttingen in April 1991, the History of Polar Research Specialist Group was set up. This working group is concerned with using methods of historical research to analyze unpublished sources relating to German polar research. We try to find unpublished works that are hidden in archives, private collections, or old boxes somewhere in the attics of polar researchers in the former western and eastern parts of Germany. We want to motivate scientists from different disciplines (such as astronomy, botany, cartography, ethnology, geodesy, human geography, physical geography, geology, geophysics, glaciology, medicine, meteorology, oceanography, zoology, and others) to analyze these materials in an interdisciplinary way.

Polar research is not studied as an isolated case; in addition to the context of scientific evolution, it is seen in political and economical contexts as well. Which trends favor or defeat which research programs? What are the social components? Who promotes whom?

We are open to research in an international context, especially since Germany is not a country physically located in the Polar Regions. Its expeditions have been more or less dependent on the help of other countries. For instance, the Norwegian ice pilot Paul Björvik took part in the South Polar Expedition under the leadership of Erich von Drygalski (1901-03), the Study Trip of the German Arctic Zeppelin Expedition (1910), and the Antarctic Expedition under the leadership of Wilhelm Filchner (1911-12).

German researchers have also stimulated and/or organized events and projects involving international cooperation such as the International Polar Years (1882-83 and 1932-33), the International Cooperation (1901-04) in Antarctica, and the founding of the International Society for the Exploration of the Arctic by Means of Aircraft (Aeroarctic), 1924-37.

The aim of our working group is to establish a database on German polar expeditions in the period up to World War II (1939). Subjects will include:

- Biographies of German polar researchers
- A genealogical tree of polar researchers (Who is the pupil/assistant/collaborator of whom?)
- A chronological list of German polar expeditions with additional data on participants and research projects

- A bibliography of polar expeditions
- A list of archives holding documents or manuscripts concerning polar expeditions.

A yearly newsletter (in German, since 1996 with English explanations) informs our members of activities of the working group and publishes informal contributions of our members. It also contains some pages of bibliography dealing with historical subjects concerning German-speaking polar expeditions and gives references to archives, libraries with polar literature, anniversaries, and conferences. Each issue, published in December, has a special priority: Bibliography (No. 1, 1992), Archives (No. 2, 1993), Resources (No. 3, 1994), International Cooperation (No. 4, 1995), and Polar-Philately (No. 5, 1996, planned).

Our members contribute to the International Polar Conferences organized by our Society. These conferences take place every two and one-half years in a German-speaking country (March 1996: Potsdam [D], September 1998: Bern [CH]). During the first German History of Sciences Meeting (September 1996), our group will organize a session on "Polar Research in the 1900s." At the moment, our specialist group is concentrating on publishing historically oriented papers in *Polarforschung* (*Journal of the German Society of Polar Research*).

The interlocutor for the German history of polar research before the turn of the century is Reinhard A. Krause of the Alfred Wegener Institut. His Ph.D. thesis is entitled *The Period of the Founding of German Polar Research, 1865-1875* (*Reports on Polar Research*, Bremerhaven, Nr. 114 '92, 1992, 375 p. + 64 p.). Cornelia Lüdecke of the Institut für Geschichte der Naturwissenschaften, Universität München, specializes in German polar research between the turn of the century and World War II. Her Ph.D. thesis is entitled *German Polar Research between the Turn of the Century and the Influence of Erich von Drygalski* (*Reports on Polar Research*, Bremerhaven, Nr. 158 '95, 1995, 340 p.+72 p.).

We would be glad to correspond with you. Please write to the head of the of the History of Polar Research Specialist Group, Dr. Cornelia Lüdecke, Valleystr. 40, D - 81371 München, Germany {tel./fax: [49] (89) 725 6 725}.

Highlights from German Polar Research in an International Context

In order to demonstrate the German impact on polar research in international terms, five prominent promoters are introduced, together with their projects. A chronological survey of polar research and German expeditions shows the national activities.

German Promoters of Polar Research Before the Turn of the Century

It was the natural scientist Alexander von Humboldt (1769-1859) who in 1836 wrote a letter to his old friend and at that time president of the Royal Society in London, A. F. Duke of Sussex (1773-1843), proposing simultaneous measurements of declination, inclination, and field-strength with similar instruments on both hemispheres from the equator to the poles. He thus initiated the race to the magnetic South Pole, for which the mathematician Carl Friedrich Gauss (1777-1855) had calculated a position of 66°S and 146°E. The French J. S. C. Dumont d'Urville (1790-1842) and the American Charles Wilkes (1798-1877) sailed southward, but the British Sir J. C. Ross (1800-1862), who had already found the magnetic North Pole at 70°5'N and 96°46'W, finally won the race and defined the magnetic South Pole on Antarctica at 75°05'S and 154°08'E.

In 1847, August Petermann (1822-1878, cartographer) moved from Potsdam, Germany, to London, where he advanced to the position of physical geographer of her Majesty, Queen Victoria (1819-1901). In England he published many papers concerning polar research. When he returned to Gotha, Germany, in 1854, he founded a geographic journal called *Petermanns geographische Mitteilungen*. In this journal he promoted arctic research among all, by postulating an open Arctic Ocean so there would be a possibility to cross the North Pole by boat.

Georg von Neumayer (1826-1909, geophysicist) founded and led a geophysical and meteorological observatory on Flagstaff Hill in Melbourne when he stayed in Australia from 1857-1864. Especially as director of the Deutsche Seewarte (German Naval Observatory) in Hamburg (1875-1903), he intensively promoted a complex exploration of the Antarctic.

First, he managed the observation of the transit of Venus in front of the sun at Kerguelen on 9 December 1874 during the expedition of the famous German *Gazelle*. Second, besides Karl Weyprecht (1838-1881), he was initiator of the First International Polar Year (1882-83) and organized two German expeditions: one to Kingua Fjord on Baffin Island and one to South Georgia, where the transit of Venus was observed again on 6 December 1882. Third, he was constantly working for his dream— a German Antarctic expedition.

Sir C. Markham (1830-1916) played the same role in England as Neumayer did in Germany, so it was obvious to coordinate both efforts. This was done during the Sixth International Congress in London in 1895, when Antarctica was defined as the last area on the globe to be investigated at the turn of the century.

The New Generation

Erich von Drygalski (1865-1949, geographer) had already guided two expeditions to Greenland (1891 and 1892-93) when he was chosen as leader of a German expedition in 1898. During the Seventh International Congress in Berlin in 1899, Drygalski pleaded for international meteorological and magnetical cooperation in exploring the Antarctic. In the period 1902-04, four expeditions took place (Table 1). Later on, Drygalski influenced and supported German polar research until the Second Polar Year (1932-33).

Max Grotewahl (1894-1858, geophysicist) led a small expedition to Svalbard during the summer of 1925. Due to his experiences, he founded the private Archiv für Polarforschung (Archives of Polar Research) in 1926. It was the first German institution supporting polar research. The journal *Polarforschung* has been published since 1931. The Association for the Promotion of the Archives of Polar Research was founded in 1928 and transformed into the German Society of Polar Research in 1959. Thirty-three years later a History of Polar Research Specialist Group was established.

Survey of German Expeditions

Petermann's idea of an open Arctic Ocean triggered the first German polar expedition to

Figure 1. German expeditions from 1865 to 1940.

Table 1. The four Antarctic expeditions in international cooperation (1901-1904).

Leader	*Ship*	*Year*	*Area of Exploration*
Erich von Drygalski (1865-1949)	*Gauss*	1901-03	South of Kerguelen
R.F. Scott (1868-1912)	*Discovery*	1901-04	Victoria Land
O. Nordenskjöld (1869-1928)	*Antarctic*	1901-03	Graham Land
W.S. Bruce (1867-1921)	*Scotia*	1902-04	Eastern Weddell Sea

Table 2. International cooperation in polar research initiated by Germans up to World War II.

Year	*Name of Cooperation*	*Initiated by*
1882-1883	First International Polar Year	Karl Weyprecht and Georg von Neumayer
1901-1904	International (meteorological and magnetical) Cooperation	Erich von Drygalski
1931	Airship Expedition of *LZ 127 Graf Zeppelin*	Walter Bruns and Fridtjof Nansen (Aeroarctic)
1932-1933	Second International Polar Year	Leonid Breitfuß and Johannes Georgi (Aeroarctic)

the Arctic in 1866. Most of the subsequent arctic expeditions investigated Svalbard (34 expeditions) and Greenland (20 expeditions).

The transit of Venus in front of the sun prompted German researchers to equip an expedition to Kerguelen (1874-75) and one to South Georgia during the First International Polar Year (1882-83). The first German expedition entering the Antarctic Circle took place just after the turn of the century. Altogether, there were 63 expeditions to the Arctic and 10 expeditions to the Antarctic (Figure 1).

Chronological Survey of German Polar Researchers in an International Context

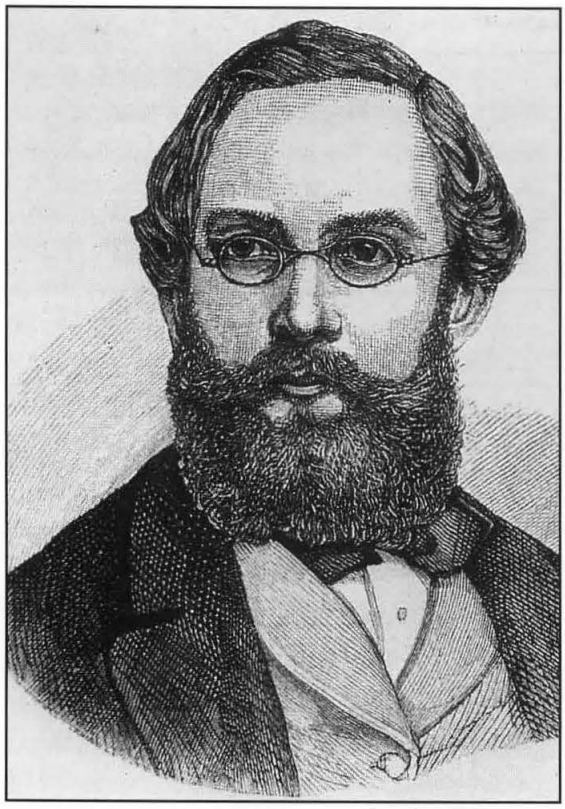
Figure 2 shows a chronological survey of the most important German polar researchers together with researchers from other countries, including who influenced each other, worked together or were rivals, or showed no cooperation at all. Weyprecht, a German naval officer in Austrian service, followed Petermann's ideas and led an Austrian expedition to the Arctic (1872-74) during which Franz-Joseph-Land was discovered. As already mentioned, Neumayer and Markham both promoted Antarctic research.

As a polar researcher, Nansen led the way for many decades. Nominated president of the International Society for the Exploration of the Arctic by Means of Aircraft (Aeroarctic) in 1924, Nansen again turned to polar research in the last years before his death in 1930. He influenced the proposal of Drygalski for doing research in the Antarctic. Also, Nansen's ship *Fram* served as the model for the construction of the first German polar research vessel *Gauss*.

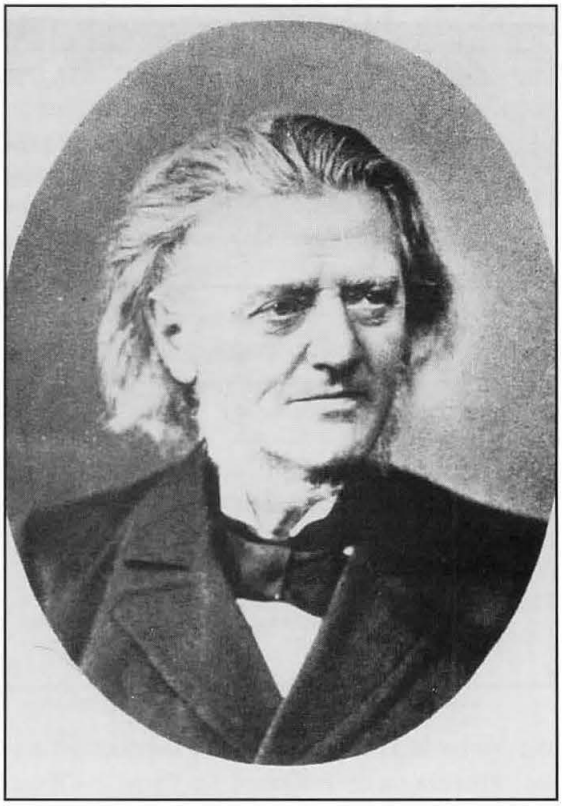
When Drygalski planned to go to the Antarctic, Scott wanted to go there also. Instead of becoming rivals, they cooperated from the beginning. But a decade later, Scott wanted to win the race to the South Pole. There had been no prior agreement for coordinated research. Amundsen anticipated Scott, while Filchner worked in the southeastern Weddell Sea. When Wegener established three aerological stations crossing Greenland along 70°N to investigate the glacial anticyclone, Watkins also supported a meteorological station on the inland ice cap during his British Air Route Expedition.

At the end of the period in question, there was no conflict between Ritscher and Byrd, when both flew airplanes over Antarctica making a detailed and complex photogrammetric survey. Each worked in different areas for his own nation.

When Grotewahl supported a station in Greenland during the Second International Po-



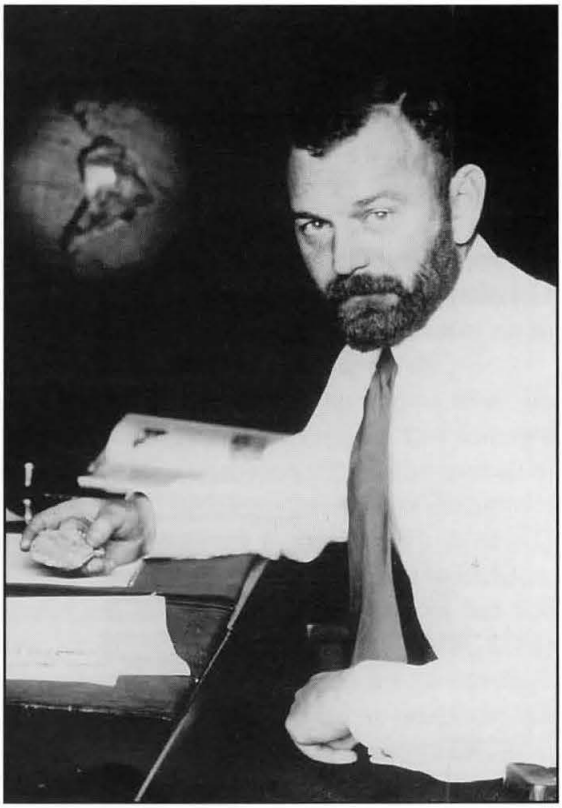
August Petermann



Georg von Neumayer

Erich von Drygalski

Max Grotewahl



lar Year, he was not financed by the German State because his personality was highly disputed.

International Cooperation in Polar Research

Due to Weyprecht's experiences during the Austro-Hungarian North Pole Expedition, he proposed "Forschungswarten statt Forschungsfahrten" (scientific observatories instead of scientific sailing expeditions) during his famous speech in 1875. There he also gave a general outline of coordinated polar research. This was the initiation of the First International Polar Year (Table 2).

With Neumayer's ideas in mind, Drygalski was the originator of the International Cooperation of meteorological and magnetical measurements south of 30°S.

Walter Bruns (1889-1955) stood behind the founding of the Aeroarctic, organizing the airship expedition of *LZ 127 Graf Zeppelin* under the presidency of Nansen.

The Second International Polar Year originated in the Aeroarctic, when Leonid Breitfuß

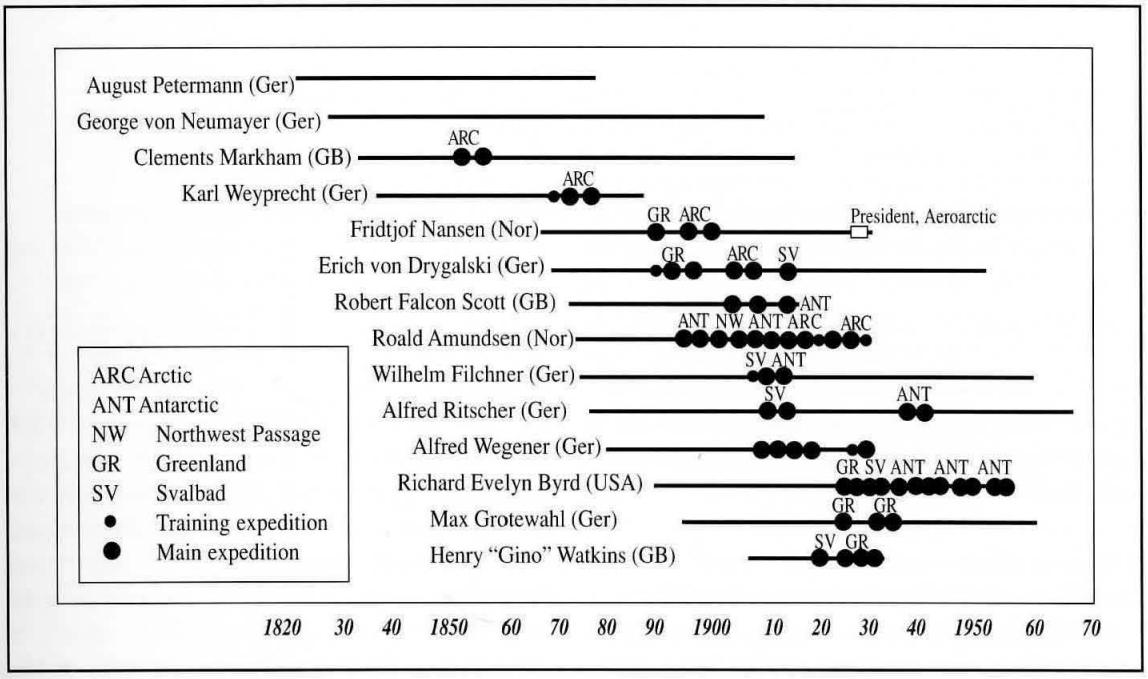


Figure 2. Chronological survey (1820-1970) of German polar researchers in an international context.

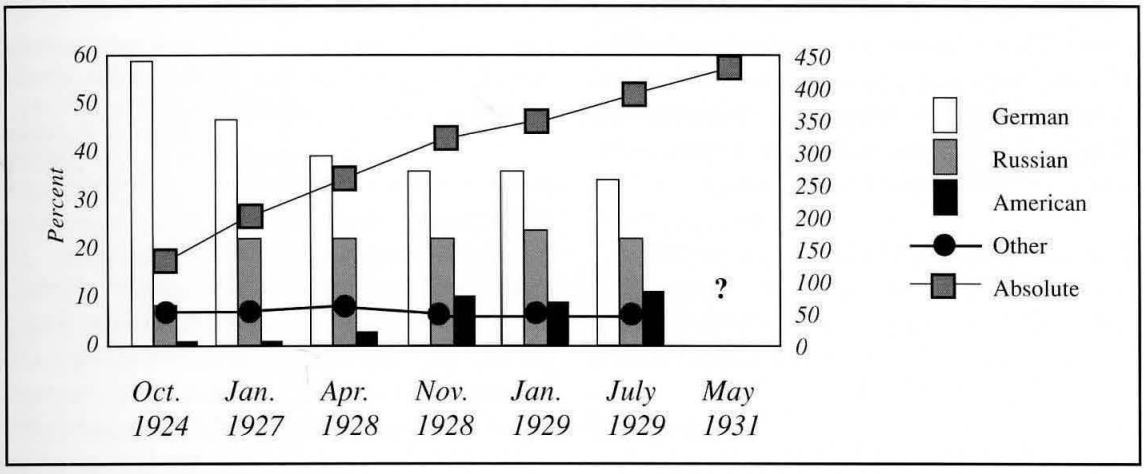


Figure 3. Development of national memberships in the Aeroarctic (1924-1931).

Table 3. Chronology of the International Society for the Exploration of the Arctic by Means of Aircraft (Aeroarctic), 1924-37.

April 1922	*Committee for the Exploration of the Arctic by Means of Aircraft* founded in Berlin. Chairman: Ernst Kohlschütter.
7 Oct. 1924	Foundation of the *International Society for the Exploration of the Arctic by Means of Aircraft* (Aeroarctic) in Kristiania (Oslo). Chairman: Fridtjof Nansen. The seat of the Society is Berlin.
May 1925	Publishing of the memorandum of the Society.
9-13 Nov. 1926	1st Ordinary Meeting of the Aeroarctic in Berlin.
18-23 June 1928	2nd Ordinary Meeting of the Aeroarctic in Leningrad (St. Petersburg). Setting-up of an Exploration Council consisting of 11 Commissions.
12-13 Oct. 1928	1st Meeting of the Exploration Council (Berlin): 11 Commissions.
13-14 May 1929	2nd Meeting of the Exploration Council (Berlin): 12 Commissions.
28-29 Oct. 1929	3rd Meeting of the Exploration Council (Friedrichshafen, Lake of Constance): 12 Commissions and member of the planned expedition.
30 May 1930	Death of Fridtjof Nansen. Delay of expedition.
5-8 Nov. 1930	4th Meeting of the Exploration Council: 12 Commissions. Hugo Eckener from the Airship Building (Friedrichshafen) is elected as successor of Nansen.
25-30 July 1931	Airship Expedition of *LZ 127 Graf Zeppelin* into the Russian Arctic Ocean.
7-9 Nov. 1931	3rd Ordinary Meeting of the Aeroarctic in Berlin.
9 Nov. 1931	5th Meeting of the Exploration Council: 13 Commissions.
5 March 1933	Take-over by Adolf Hitler and the Nazi Regime. Shrinking interest in the Aeroarctic.
14 March 1933	Results of the expedition published in *Petermanns Geographische Mitteilungen*, Ergänzungsheft 216. No more activities evident.
27 Jan. 1937	Dissolution of the Aeroarctic.

(1864-1950) made a first suggestion in 1926. It was Johannes Georgi (1888-1972) who pursued the idea.

The Aeroarctic—an Example of an International Society of German Origin

Originally founded as a committee in Berlin in 1922, the International Society for the Exploration of the Arctic by Means of Aircraft (Aeroarctic), under the presidency of Fridtjof Nansen, began in 1924. A chronological survey of its most important dates is given in Table 3. In the beginning, 60% of the members were German (Figure 3). Three years later, the ratio of German members to Russian members was 2:1. By the end of 1928, the ratio was 3:2:1, with the third number representing American members. The *Graf Zeppelin* expedition was very successful. A photogrammetric survey and even radiosonde measurements (!) were taken during the flight, using the airship as the platform.

If you know of English papers, or books, or unpublished materials on the Aeroarctic existing in archives, please let me know.

Correspondence:
Dr. Cornelia Lüdecke
Institute of History of Sciences
University of Munich
Valleystr. 40, D-81371 Munich
GERMANY

Panel Presentation

Significant Problems Caused by the Loss of Personal Information from Retirements

Lyle D. Perrigo[1], Nicholas Flanders[2], Dale B. Perrigo[3], and Mead Treadwell[4]

[1] U.S. Arctic Research Commission, Anchorage, Alaska, USA
[2] President, Arctic Research Consortium of the United States, Fairbanks, Alaska, USA
[3] Perrigo Technology, Inc., Anchorage, Alaska, USA
[4] Siberia Alaska Co., Anchorage, Alaska, USA

Keywords: Information loss

Moderator Lyle Perrigo opened by noting that the panel would be discussing a new issue, i.e., the loss of unwritten, personally held information due to retirement, downsizing, or other causes and the resulting impacts on government, industry, and society in general. The stimulus for this panel was research undertaken by the moderator and Dale B. Perrigo that was presented as a paper at the 1995 National Association of Corrosion Engineers Canadian Region Western Conference held in Regina, Saskatchewan, Canada (Perrigo and Perrigo 1995). Although the focus at that conference was on corrosion control implications, the research revealed that the effects of personal information loss were not limited to one technical area but were very broad. The investigation was undertaken when several individuals mentioned a number of detrimental effects on industrial and commercial ventures resulting from early retirements and downsizing operations.

Dale Perrigo described how the research was conducted and that it included contacts with 41 individuals across the United States and Canada. Formal questionnaires and direct interviews were used to acquire information about these losses and their implications. All but two contacts indicated that personal information losses had serious implications and steps should be taken to avoid such effects.

Mead Treadwell (former Deputy Commissioner of the Alaska Department of Environmental Conservation) gave examples of impacts of personal information losses that occurred when state government administrations changed following elections. Because there is generally no contact between the appointed personnel in the outgoing and incoming administrations, programs in their formative stages are either forgotten or their initiation is delayed by one or more years. He gave examples of occasions when special funding from federal sources lapsed because new management did not appreciate that there were time as well as focus constraints.

Nicholas Flanders noted that different cultures have traditionally placed different values upon personal information. The Japanese, Maori, and Indigenous Native groups of North America emphasize its importance. In contrast, Western Civilization has overlooked the value of personal information over the past several hundred years in favor of what is in print or, more recently, in electronic form.

There was general agreement that additional research was needed on this issue and that ways librarians might help overcome current problems should be explored.

References

Perrigo, Dale B., and Lyle D. Perrigo. 1995. An information problem with corrosion cost, efficiency, and

safety overtones. In *Corrosion: an Economic Opportunity, Proceedings of the NACE International Canadian Region Western Conference, February 19-22, 1995, Regina, Saskatchewan, Canada.*

Correspondence:
Lyle D. Perrigo
U.S. Arctic Research Commission
707 A Street
Anchorage, Alaska 99501
USA

Poster Presentation

Rural Alaska Health Information Access Project

Jeraldine Jo van den Top and Robert M. Reider

Health Sciences Information Service, University of Alaska Anchorage, USA

Abstract: Access to current biomedical information resources and medical library services can be problematic for rural health care organizations. The University of Alaska Anchorage Consortium Library's Health Sciences Information Service developed and administered the Rural Alaska Health Information Access Project in order to demonstrate electronic information access to rural Alaska health care providers. Supported by a grant from the National Library of Medicine, the project set out to provide computer access to the National Library of Medicine databases. At the conclusion of the project in June of 1996, 19 hospitals statewide had been computer-linked and/or provided with training on electronic information access. Equipment was supplied to sites requiring hardware, and professionals from a variety of health-related disciplines were trained. Each site received an initial setup/assessment visit and one follow-up visit approximately three to twelve months later. Major results indicate a continuing increase in the number of documents ordered electronically, and this provides a quantitative measure of the success of the project. Qualitative data were collected from on-site interviews and from an outcomes questionnaire completed by each site.

Keywords: Medical information; Rural Alaska Health Information Access Project; Information dissemination; Alaska

---

Correspondence:
Robert M. Reider
Health Sciences Information Service
Consortium Library
University of Alaska Anchorage
3211 Providence Dr.
Anchorage, Alaska 99508-8176
USA

Needs of Russian Polar Scientists and Possibilities of Organising Mutually Beneficial Exchanges

Isabella M. T. Warren

Scott Polar Research Institute, University of Cambridge, England

Abstract: In this paper I will outline the effects that the economic situation and subsequent changes in the Former Soviet Union have had on the acquisition of materials relating to the Russian North. I will discuss the problems facing Russian polar scientists and examine their bibliographic and other needs. I will then consider how as a polar library we can organise mutually beneficial exchanges of information and printed material, and I will give examples of some of the exchanges our library has set up.

Keywords: Bibliographic exchange; Scott Polar Research Institute; SPRI; Former Soviet Union; Soviet Union; Russia; England

---

Since the break-up of the Soviet Union and the ensuing dramatic economic changes affecting scientific research, publishing, and libraries, our task at the Scott Polar Research Institute (SPRI) in acquiring material relating to the Russian North has become increasingly complicated. This is of major concern to a polar library since the Former Soviet Union has contributed more than any other single nation to the study of both Polar Regions. I will first outline our main existing sources of Russian material and examine the reasons for considering new avenues.

The SPRI library has depended, like many other libraries, on exchanges for the acquisition of both periodicals and monographs. Exchanges with Russian institutions were set up in the 1930s, soon after SPRI's foundation, and more extensive exchanges with several prominent Russian libraries were organised by Dr. Terence Armstrong in the 1960s. Other factors, such as the demise of British booksellers specialising in books from USSR and the increasing decentralisation of book publishing in Russia, have led to a need to examine other sources of printed material. Two trips to Russia in April 1991 and May 1995, during which I met with some of our exchange partners and visited several key academic institutions involved in polar research, provided me with some insight into the problems facing these bodies, but also gave me the opportunity to explore other ways of acquiring material. It was interesting to witness the change that had taken place in the intervening time between these two visits.

Libraries in Russia have borne the brunt of the economic difficulties facing academic institutions. In the past they were manned by a huge staff working without automation with gigantic card catalogs and furnished with an unlimited supply of cheap books. Now, libraries face a demoralised workforce and inadequate funds. At a conference in May 1996 in Omsk, librarians registered their protest at the state of their buildings, their poor book stocks, a lack of government funds since January 1996, their miserable pay, and their lagging behind in information technology. They expressed the fear that they would become isolated. Those of us in the West depending on exchanges with these libraries have become aware of the reduction in the material received, its irregularity, and the increasing imbalance in our exchanges as the cost of journals we send in exchange has soared. It has always been difficult establishing the true cost of material acquired from Russia as books have been so much cheaper there than in the West. SPRI's exchange with GPNTB in Novosibirsk was set up originally on a one-to-one book basis, but it is generally agreed that it is not always possible to equate quality of production of most academic books and journals published in the Former Soviet Union with those published in the

West. Furthermore, in the Soviet Union most research, even at postgraduate level, was published as monographs which were therefore highly specialised.

Depository libraries, such as GPNTB in Novosibirsk, no longer automatically receive copies of all books published, and it was these surplus books which constituted to a large extent their exchange pool. A further problem has arisen as a result of the economic crisis; libraries often receive funds for postage only intermittently which accounts for the fact that we receive journals now once or twice a year, several issues at a time. However, in spite of these problems, it is important to continue these exchanges as much to support Russian libraries during this difficult time as for our own benefit. There is also great scope for information exchanges, especially bibliographic ones.

Book agents are another source of both monographs and journals. Unfortunately there are no longer any British ones specialising in USSR material, and though several new booksellers specialising in Russian books have sprung up elsewhere, especially in North America, prices are high, particularly when compared to source price, and postage adds considerably to the cost. Moreover, publications relating to the Russian North and the Arctic are relatively few in their catalogs; much of the material of interest to polar libraries is published regionally and is not available in Moscow or St. Petersburg.

I have considered and investigated the possibility of purchasing books directly from sources in Russia. However, this is generally not possible unless done in person with cash, the reason being that foreign currency bank accounts in Russia are subject to a high tax and, therefore, are not feasible for most individuals and state institutions. Credit card purchases are also out of the question. Where publications are available for purchase from other countries, i.e., in dollars, prices are exorbitantly high and do not reflect the true value of the book. The concept of market forces appears to be surprisingly absent in the so-called transition to a market economy. Translations are often available for direct purchase but unfortunately the quality of translation is sometimes lacking, and the original is of more use to a library even in Russian. At SPRI we have experimented with paying a freelance Russian translator to acquire material on our behalf, but this was not successful as he did not have easy access to publications of interest to a polar library apart from those readily available in book shops. However, we have managed to acquire a large amount of invaluable material through direct purchase by members of our institute during field trips. At the same time, they have also set up subscriptions for local newspapers.

As with many libraries, we have been donated a great deal of material. Visiting Russian scientists have been especially generous with gifts of books, in particular their own works. Unfortunately, Russian authors now receive only one free copy of their own publications and, due to the increase in book prices relative to their pay, they are no longer able to donate as many publications as formerly. Although many authors in Russia now publish their own research, it is still difficult for them to bear the cost of free distribution. However, we do continue to receive many donations from Russian scientists.

There was a time during the worst of the economic crisis in the Former Soviet Union when it looked as though academic publishing was heading for a serious decline concurrently with the rise of erotica and detective stories. There have been constant reports and rumours about the difficulties of the Russian Academy of Sciences' main publisher, Nauka. It has, it appears, a 10-year backlog, and certainly in my experience there is a delay of up to three years in the publication of previously advertised monographs. However, the cost of books and journals published by Nauka has not risen more than inflation, and this reflects the large subsidies Nauka still receives from the Academy of Sciences.

In the early 1990s there were serious paper shortages and huge price increases. However, presidential decree No. 4698 of 1 December 1995 "On State Support for the Means of Mass Communication and Book Publishing in the Russian Federation" provides for tax exemptions for all aspects of publishing and dissemination of information, including distribution and production. All types of material are covered with the exception of pornography and commer-

cial publishing. The decree allows for foreign currency earned by publishers to be exempt from tax if these profits are ploughed back into production. In practice this may not ensure the continuation of cheap publications, but does demonstrate the commitment of the government to academic publishing. Some book prices have risen dramatically, reflecting not only the new demands of cost-accounting, but also demand in certain areas such as dictionaries and literature on business.

All of the factors and experiences mentioned above led us at SPRI to consider how we could best use our limited resources in obtaining material published in Russia. Our closer contacts with Russian researchers have opened up new possibilities, and at the same time we are highly conscious of the problems facing these same researchers. The scientific press in the West includes constant reports on the problems of science in Russia. Following are a few extracts to this effect gleaned from *Nature*, *Science*, and the *Chicago Tribune* over the last two years:

- Lack of funding had meant only one tenth of scientific journals previously available can now be found in research libraries. (*Nature* 6/4/95)
- Fears of further bureaucratisation of funding distribution. Attack by head of RAN on government for proposing more competition and paper review in Russian science. (*Science* 9/6/95)
- Yeltsin promises to pay scientists salaries and lab maintenance costs. Says he is aware of dwindling prestige of science in Russia...15-fold reduction in finance for science since 1990. No funds have been released in past months therefore RAN has not been able to pay salaries or heating bills. Mass hunger strikes were threatened by prominent members of RAN. Yeltsin also retracting horns with throwbacks to old Soviet rhetoric: "foreign threat to state, caused by revealing of our technological secrets...foreign intelligence activity in field of Russian scientific and technological achievements." (*Nature* 22/2/96)
- Scholars in Russia feel chill of a communist comeback. Access to sensitive archives is likely to become even more restricted if communists get back in at next election. Already there is a retraction in access and nervousness amongst Russian archivists in allowing western scholars to use archives. (*Chicago Tribune* 11/3/96)
- Letter from scientist: "Russian science is threatened with extinction." (*Nature* 20/4/95)

The lack of access to Western scientific literature and the sense of isolation are significant problems for many Russian scientists. The drastic cuts to libraries' budgets have led to a reduction in their holdings of non-Russian publications. Although Soros has funded a large program of distributing journals throughout Russian academic institutions, the sheer number of institutions and libraries in Russia means that only a few libraries have benefited. There has also been a reduction in the number of Russian journals available, one notable example being *Referativnyy Zhurnal* whose price has soared and is now too expensive for all but the largest libraries. A further problem has been the tradition in academic institutions in the Former Soviet Union of working in isolation and even in competition. This has meant that the concept of shared resources and research is rarely to be found, and thus there is little practice among academics of using the libraries of other institutions. With new fields of research and new approaches to traditional fields, it is imperative for scientists the world over to have ready access to current research and data.

For many Russian scientists, their great need is to have a "foot-in-the-door" in the West, both to make known their own research and have it recognised, as well as to have contact with their Western counterparts. An example of this is a partnership SPRI library has with Respublika Komi, instigated by one of our postgraduate students, Paul Fryer. During field work in Respublika Komi, Paul not only acquired almost all currently available publications of the Komi Nauchnyy Tsentr of the Academy of Sciences, but also set up exchanges with one of its institutes. In return for SPRI's *Polar Record*, the director of the institute has undertaken to collect all of their own publications. Another institution, KRIPPKRNO, has given SPRI its own publications and will continue to do so in the future.

At present the exchange is rather one-sided, but they are keen to promote their work and make contact with the West. The Komi Filial of the Academy of Sciences is unable to send its publications directly abroad and, therefore, the only way at present to acquire this material is through personal contacts. Komi is a region of Russia that feels relatively isolated, as no Western country other than Finland has taken an active interest in it apart from the recent oil spill.

At this point I need to emphasize that all these contacts and exchanges need constant refueling. Our arrangements for acquiring material in Respublika Komi will not continue indefinitely unless personal contacts are maintained, and this will not always be possible. However, the isolation and other problems facing Russian academic institutions will surely not continue forever, particularly with growing communication and electronic exchange of information, and I do not doubt that in the future it will become easier to obtain this valuable material. In the meantime, it is essential to nurture these links.

One of the main characteristics of Russian institutional life has always been its bureaucracy. This manifests itself in various ways and often has a bearing on our relationship with an institute. It frequently causes difficulties in setting up productive exchanges. Sometimes the academic members of the institute can help bypass the bureaucracy, but they can easily fall victim to it as well. In one instance, SPRI has been trying to acquire important publications from a key polar institute in Russia but we have been unable to organise any exchanges through its library due to its lack of resources. We have been receiving the institute's journal sporadically via the RAN library which itself is facing enormous economic difficulties. When a young scientist came to SPRI from the institute in question for a three-year study period, it seemed an ideal opportunity to set up a more direct link with the institute and thus acquire its other important publications. He has acted as a bridge between the director of his department and our library. Bureaucracy determined that the exchange should be routed though the institute's director but, as the channel was at an academic level and reinforced by our director, we are close to having a successful exchange. We will provide bibliographic information from all the various polar databases, send photocopies of selected articles, purchase one of two key monographs, and in return receive all of the Russian institute's publications. This is an example of the importance of making personal contacts at an academic level.

Apart from their own and their institute's publications, Russian scientists can act as "bibliographic hunter-gatherers." They understand our needs since they share them and will know of other sources of material, either other institutions, organisations (such as government departments), or book shops. Books, especially academic, are still cheap even by Russian standards. However, academic researchers are very poorly paid and may be unable to afford all this material. We have in this case provided cash (in U.S. dollars) for them to buy relevant publications. This is somewhat of a problem when it come to our auditor's report, but dollar for dollar we obtain far more books and journals for our library!

In another instance, since postage abroad can be prohibitive to Russian academic institutions, a department of Moscow State University is acting as courier. We have an on-going joint research program with this department, and our journals are sent to them while they bring theirs with them on their visits to Cambridge. The problem of postage is a key factor in acquiring material from Russia. Many libraries and individuals simply cannot afford to send printed matter. However, it does seem that in the not too distant future we will be able to receive material through the Internet. Russian academic institutions already have good Internet links and have realised its potential in a country where distance and economic crisis have made communication by sea, air, road, and rail very difficult.

Naturally all these exchanges involve far more work for both myself and our researchers at SPRI in maintaining them. However, one of the benefits of finding new ways of acquiring material from Russia has been the involvement of SPRI's academic staff in the library's activities. There has been a greater commitment to the library and more contact on a daily basis between myself and the academic staff. For my part, I am more aware of current research at the

institute and have gained more insight into the bibliographic needs of our researchers.

Correspondence:
Isabella M. T. Warren
Scott Polar Research Institute
University of Cambridge, Lensfield Road
Cambridge CB2 1ER
ENGLAND

Interdisciplinary? Multiple Authorship? Collaboratory? What are the Current Trends in Research at Universities?

Margo Young, Pamela Ryan, and Robin Minion

Science and Technology Library, University of Alberta, Edmonton, Canada

Abstract: Preliminary results of a study undertaken to determine cooperative research trends at the University of Alberta during the period 1983-1993 are presented. Citation analysis of 805 publications written by 91 faculty members in 8 departments was undertaken to detect trends towards interdisciplinarity, multiple authorship, and/or collaboratory research. The departments examined in this paper are Anthropology, Botany, Educational Psychology, Finance and Management Science, Geography, Geology, Sociology, and Zoology. While there was a constant, although slight, increase in interdisciplinary research in five of the eight departments studied, overall there were no major shifts in trends which would indicate increased cooperative research activity.

Keywords: Research trends; Universities; University of Alberta; Canada

Introduction

New research trends are being promoted, or at least heatedly discussed, in current academic settings; these include interdisciplinary research, multidisciplinary research, multiple authorship, and collaboratory research. Since the early years of this century, dispersal of knowledge within North American universities has been traditionally organized by academic departments within a larger faculty structure. Within universities, departments often felt and acted as if they were not pieces of a whole but rather specialized units. Very little interaction took place between departments or even within departments, particularly at the level of the researcher. Contact, and thus fruitful interaction, between researchers at different institutions was even more limited. In addition, while academic researchers from different universities maintained informal networks and met occasionally at conferences, contact, much less cooperation, with researchers outside the academic setting was often viewed with suspicion.

A shift seems to be occurring. Words are being uttered which indicate a new desire to remove some of the barriers to cooperation both within and beyond the academic environment. A view is being promoted that the study of a discipline or specialized piece of a discipline by individuals within one organization leads to a less rich result than research conducted from a more broadly based perspective. Technology may be contributing to this shift. Technology is seen to provide a means for increased cooperation among researchers at geographically distant institutions. The literature suggests that increased access to electronic mail and other information technologies can make research distance-independent and lead to the establishment of collaboratories (collaborative laboratories) (National Research Council 1993). Also, management theory both inside and outside universities is promoting a team approach, and this may be slowly filtering into academic departments. Economic pressure may also be a factor. Reduced funding to universities is causing some faculties to merge departments, with a view to both protecting units and saving administrative costs. Reduced grant funding may be causing researchers to search out increasing amounts of industry funding. Or maybe, as Georges Gusdorf suggests, the shift toward interdisciplinarity is an age-old idea reasserting itself:

> From age to age, the idea of interdisciplinarity has been one of the guiding tendencies in the history of knowledge. As specialization has brought about the advancement of learning, so a concern for unity has fostered a desire for

> bringing together again, a reamalgamation to remedy the intolerable fragmentation both of the fields of knowledge and the men of science (Gusdorf 1977).

From the rhetoric, one would assume that a shift has taken place. It is certainly politically incorrect to suggest otherwise. But how strong is inertia? Is progress being made towards increased cooperation among researchers?

Problem

In this paper, the preliminary findings of a study are presented. The purpose of the study was to determine whether research conducted at the University of Alberta shows an increased trend towards interdisciplinary research, multiple authorship, and/or collaboration between researchers at different geographic locations over the 10-year period 1983-93. The technique used is citation analysis of the publications of 470 faculty for the years 1983, 1989, and 1993. In order to compare trends in different departments and in order to take into account possible differences in publication formats predominant in different disciplines, all scholarly forms of publication including journal articles, monographs, papers in conference proceedings, and chapters in books were included. Preliminary results for eight departments are presented in this paper. In choosing the departments, an attempt was made to represent a variety of disciplines/departments. The departments chosen for inclusion were: Anthropology, Botany, Educational Psychology, Finance and Management Science, Geography, Geology, Sociology, and Zoology.

Definitions

Julie M. Hurd points out that there are many definitions for the term 'interdisciplinary' and that "thoughtful authors who deal with this topic are careful to define the terminology they use" (Hurd 1992). For the purpose of this study 'interdisciplinary' is defined as research which reflects the integration of ideas, concepts, or techniques from two or more disciplines. This is achieved through a researcher(s) using the ideas, etc., from a different discipline in combination with his/her own. A trend towards increased multiple authorship, or an increase in the number of authors per paper, reflects an increasing cooperative approach to research. Collaboratory research can be single discipline or interdisciplinary, but researchers work at geographically different locations. The following definition of a collaboratory is used:

> Initially proposed as a single all-encompassing entity, a national collaboratory was defined ... as 'a center without walls, in which the nation's researchers can perform their research without regard to geographic location—interacting with colleagues, accessing instrumentation, sharing data and computational resources, [and] accessing information in digital libraries' " (National Research Council 1993).

Multidisciplinary research occurs when a problem is broken down into separate pieces—usually along disciplinary lines—and each piece of research is conducted by different researchers with different disciplinary backgrounds. Papers are normally produced on each piece of research. Amalgamation of research results takes place at a secondary level. This study does not examine trends towards multidisciplinary research. It is not possible to identify multidisciplinary research through citation analysis.

Methodology

This study was initiated in late 1994. The publications of faculty have been used as the unit of analysis. Four criteria were established for inclusion of publications in this study. The first two criteria were aimed at ensuring that a trend over time could be established. The second two criteria were aimed at limiting the study to current faculty at the University of Alberta. The criteria were:

- Faculty must have a 1993 publication
- Faculty must have one other publication in either 1983 or 1989
- Faculty must be on the 1994 payroll list of academic staff (includes Professors Emeriti)
- Faculty must have been at the university since 1988

To obtain a list of faculty publications for years included in the study, several methods were used. A letter was sent to all departments requesting publications lists for all faculty. The response was uneven. Some departments had complete lists for all the years requested. Some

had lists for current years only. Some had no lists at all.

The University of Alberta has produced a publication called *Discoveries* since 1991/92. The 1992/93 and 1993/94 editions were checked for 1993 publications (University of Alberta 1991/92).

Faculty who published papers in 1993 and whose department had not supplied complete publications lists for the years required were sent individual letters requesting lists of publications for 1989 and 1983.

The lists were correlated. Faculty with a 1993 publication and at least one publication in either 1989 or 1983 were selected for inclusion in the study. There were 2,519 academic staff on the payroll list in 1994. Of the 2,519 academic staff, 878 or 34.8% had a 1993 publication and had been at the University of Alberta since 1988. Of these 878 individuals, 470 also met the criteria of having provided at least one reference to a 1989 or 1983 publication. These 470 individuals represent 53.5% of the academic staff employed at the University since 1988 who published in 1993. These 470 individuals also represent 18.6% of the academic staff on the 1994 payroll list. All of the 470 individuals were faculty.

Therefore, in total, 470 faculty and more than 4,500 publications were included in the study. All departments at the University of Alberta are represented in this study except five. Four departments (Art & Design, Drama, Native Studies, and Women's Studies) are not represented because they did not have faculty who met the criteria. Music was the only department from which no faculty responded.

For the eight departments included in this paper, 191 people were on the 1994 payroll list, and 91 individuals or 46.7 % met all the criteria for inclusion. This is a higher percentage than in the larger study which includes all departments. The number of faculty included for each of these departments are:

- Anthropology: 20 on payroll list; 9 included in the study; responded by department, so those not included did not meet criteria
- Botany: 11 on payroll list; 6 included in study; responded as individuals
- Education Psychology: 40 on payroll list; 23 included in study; responded as department, so those not included did not meet criteria
- Finance & Management Science: 15 on payroll list; 7 included in study; responded as department, so those not included did not meet criteria
- Geography: 23 on payroll list; 9 included in study; responded as department, so those not included did not meet criteria
- Geology: 20 on payroll list; 11 included in study; responded as department, so those not included did not meet criteria
- Sociology: 38 on payroll list; 11 included in study; responded as individuals
- Zoology: 24 on payroll list; 15 included in study; responded as individuals

Interdisciplinary Research

Methodology

To determine a trend concerning interdisciplinary research, each citation was analyzed as follows:

- Department of the University of Alberta faculty member
- Year of publication
- Subject area of the cited item (i.e., paper, chapter)
- Subject area of the source publication.

To maintain consistency, *Ulrich's* subject categories were used to describe the subject area of the cited item and source publication. If the source publication (i.e., journal) appeared in *Ulrich's*, the subject category assigned by *Ulrich's* was used. If the source publication did not appear in *Ulrich's* (e.g., conference proceeding, monograph), an *Ulrich's* subject heading was assigned.

A database containing this information was constructed and sorted by department of the University of Alberta faculty member and year of publication. For each citation, the department of the faculty member was compared to the subject area of the cited item and the subject area of the source publication. The citation was categorized as interdisciplinary if one or more of these three factors was not consistent with the others. For example, if the department of the faculty member was Anthropology, the subject of the cited item was Environmental Studies, and the

subject of the source publication was Biology-Zoo-logy, the citation was categorized as interdisciplinary. If the department was Anthropology and both the cited item and the source publication were Anthropology, then the citation was judged not to be interdisciplinary. Co-author affiliation was not taken into consideration in determining multidisciplinarity. These data were entered into a spreadsheet.

Findings/Discussion

Table 1 shows the number of interdisciplinary publications compared to the total number of publications for each of the eight departments in each of the three years. Figure 1 shows what percentage the number of interdisciplinary publications were of the total number of publications for each department for each of the years. Five of the eight departments show a constant, although sometimes slight, percentage increase in the number of interdisciplinary publications. One department, Zoology, showed a percentage increase in interdisciplinarity between 1983 and 1989 and then maintained this level in 1993. Two departments, Botany and Geography, show a percentage decrease between 1989 and 1993.

If Geography can be excluded on the basis that it can be defined as either an 'Arts' or 'Sciences' department depending on whether the human or physical geographers are in ascen-

Table 1. Interdisciplinary publications compared with total number of publications.

Department	*1993*		*1989*		*1983*	
	No. of interdisciplinary publications	*Total no. of publications*	*No. of interdisciplinary publications*	*Total no. of publications*	*No. of interdisciplinary publications*	*Total no. of publications*
Anthropology	10	18	8	15	5	10
Botany	3	23	3	19	1	16
Educational Psychology	9	93	2	75	1	57
Finance & Management Science	4	18	3	15	1	6
Geography	9	17	14	19	5	9
Geology	6	36	7	49	0	17
Sociology	45	62	27	39	9	21
Zoology	16	66	15	63	5	48

Figure 1. Interdisciplinary publications as a percent of total publications by year.

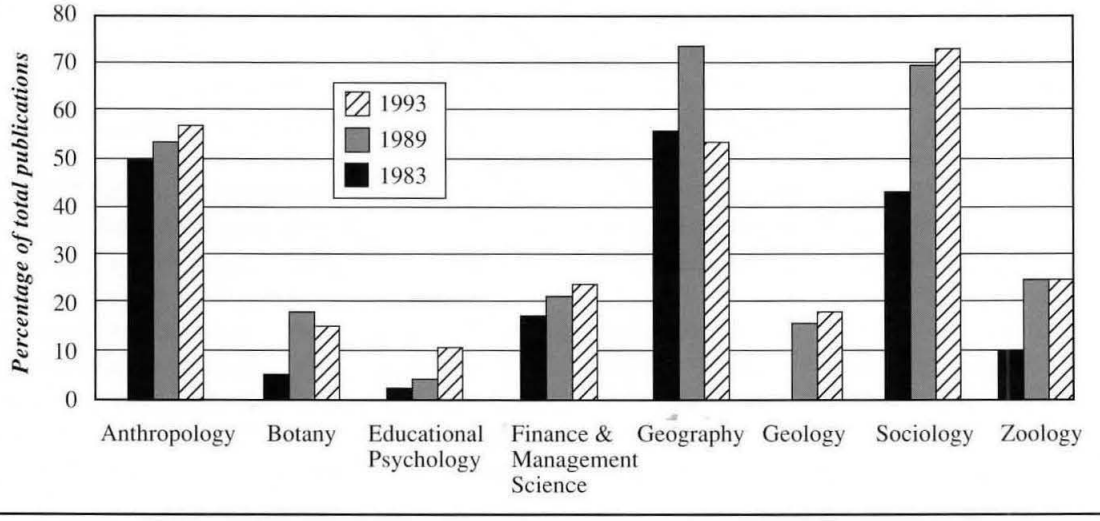


Table 2. Interdisciplinary publications compared with total number of publications by northern researchers in the departments of anthropology and zoology.

Department of Northern Researchers	*1993*		*1989*		*1983*	
	No. of inter-disciplinary publications	*Total no. of publications*	*No. of inter-disciplinary publications*	*Total no. of publications*	*No. of inter-disciplinary publications*	*Total no. of publications*
Anthropology	8 89% of total	9	4 57% of total	7	3 50% of total	6
Zoology	6 86% of total	7	6 33% of total	18	4 57% of total	7

dancy, then what is striking is that the 'Arts' (Anthropology and Sociology) have produced a substantially higher percentage of interdisciplinary papers in all three years than any of the other departments, including the 'Sciences.'

This suggests, although it needs to be substantiated by analysis of more departments, that there is something in the nature of research in the Arts which contributes to 'interdisciplinarity.'

In the interest of the Polar Libraries Colloquy audience, the authors identified the northern researchers in two departments—Anthropology and Zoology. Their papers were analyzed to determine trends in interdisciplinarity (Table 2). In Anthropology, the percentage of interdisciplinary publications for northern researchers was almost the same as the percentage of interdisciplinary publications for all researchers in 1983 and 1989. In 1993, it was substantially higher. In Zoology, the percentage of interdisciplinary publications for northern researchers in 1983 and 1993 is similar to findings in Anthropology during the same years and substantially higher than the percentage of interdisciplinary publications for all Zoology researchers in the same years. In 1989, the percentage of interdisciplinary publications for northern researchers dropped, although it was still slightly above the percentage for all Zoology researchers. These results suggest that in Zoology, northern researchers contribute substantially to the interdisciplinarity of the department as a whole. In Anthropology, the difference between northern researchers and other researchers is not as clear, although there is some suggestion that northern researchers may be increasing their interdisciplinary approach in more recent years.

Multiple Authorship

Methodology

To determine trends in multiple authorship, a second analysis of the citations was undertaken. Each citation was analyzed as follows:

- Name of the University of Alberta faculty member
- Department of the faculty member
- Year of publication
- Number of co-authors per publication

These data were easily extracted from the citations collected from the departments and payroll list. A second database containing this information was constructed.

Findings

Table 3 presents data relating to multiple authorship. A comparison of the frequency of authorship in individual departments shows that faculty in Anthropology and Sociology most frequently publish alone. Moreover, with the exception of Anthropology researchers in 1989, faculty in these two departments publish as often or more frequently alone than they do with all other combinations of co-authors. Publishing patterns in both departments remained relatively stable over all three years.

Faculty in Botany, Educational Psychology, Finance and Management, and Geology publish most frequently with one co-author. With the exception of 1983 publications in Botany,

Table 3. Trends in co-authorship.

No. of authors	*No. of papers by department*							
	Anthropology	*Botany*	*Educational Psychology*	*Finance & Management Science*	*Geography*	*Geology*	*Sociology*	*Zoology*
1993								
1	10	2	27	4	1	2	26	8
2	6	9	39	11	13	16	18	16
3	2	5	20	3	2	12	6	21
4	-	5	9	-	1	5	2	11
5	-	2	-	-	-	1	-	6
6	-	-	2	-	-	-	-	2
7	-	-	-	-	-	-	-	1
8	-	-	-	-	-	-	-	1
9	-	-	-	-	-	-	-	-
1989								
1	7	4	28	5	9	6	19	4
2	4	9	29	9	9	21	17	17
3	4	4	14	-	-	15	2	17
4	-	2	3	1	1	3	0	15
5	-	-	2	-	-	3	-	6
6	-	-	-	-	-	1	-	2
7	-	-	-	-	-	-	-	1
8	-	-	-	-	-	-	-	1
9	-	-	-	-	-	-	-	-
1983								
1	7	2	18	3	5	1	13	18
2	3	13	26	3	4	7	8	17
3	-	1	8	-	-	5	-	5
4	-	-	4	-	-	1	1	3
5	-	-	-	-	-	-	-	2
6	-	-	-	-	-	2	-	2
7	-	-	-	-	-	1	-	-
8	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	1

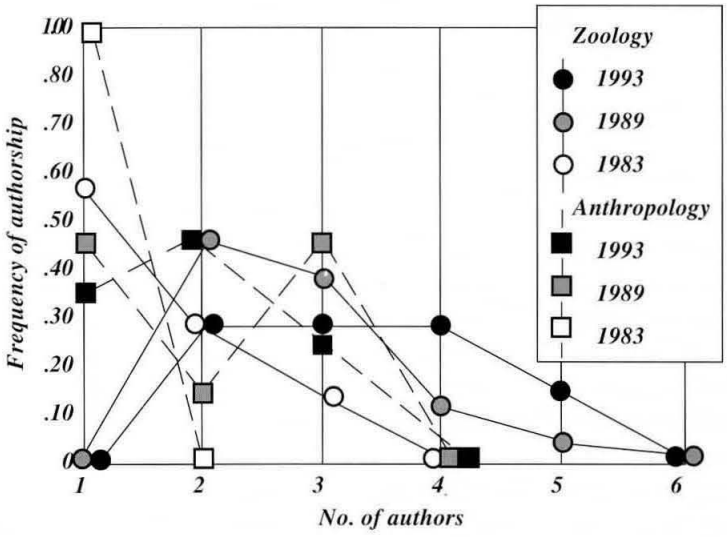
there has been no major change in any of the trends relating to co-authorship.

Geography and Zoology have less stable patterns over the three years than the other departments. Single authorship is the most frequent form of authorship in Zoology in 1983. The years 1989 and 1993 both show a large and relatively equal drop in the frequency of single authorship, with co-authorship with one or two other authors being the most frequent pattern. The trend displayed in 1989 is quite closely mirrored in 1993. Geography displays a different trend. The patterns of authorship in 1983 and 1989 are relatively stable, with single authorship being the most or equally frequent pattern of authorship. In 1993, co-authorship with one other author became the most frequent form of authorship.

The most apparent trends displayed by an examination of co-authorship are (1) overall, patterns of co-authorship have remained stable over the 10-year period and (2) patterns of co-authorship are different in the 'Arts' departments than in other departments. Faculty in 'Arts' most frequently write alone, while faculty in the other departments most frequently co-author papers with one or two others.

Multiple authorship trends for northern researchers in Anthropology and Zoology (Figure 2) were also examined. In 1983, in both departments, northern researchers most frequently wrote alone. There has been a significant shift towards co-authorship in both 1989 and 1993. In Zoology, this reflects the general trend of the department, although northern researchers tend

Figure 2. Trends in co-authorship for northern researchers in zoology and anthropology.



to have co-authored publications more frequently than non-northern researchers. Northern researchers in Anthropology also display a greater tendency to co-author publications than is the norm in the department.

Collaborative Research

Methodology

Affiliations of co-authors of publications were difficult to determine without viewing the original publication. A list sorted by faculty was produced in order to easily identify co-authors who are also currently University of Alberta faculty. This method produced some errors because a current faculty member could have been a graduate student in another department at the time the publication was written. However, these situations are likely rare occurrences.

The remaining unidentified co-authors were checked against the Special Collections library catalog. This catalog lists all theses produced at the University of Alberta up to 1987 and, therefore, this method could be used to identify graduate students. The online catalog of the University Library system lists theses produced after 1987, and this was also checked. The remaining names were checked in the *National Faculty Directory*, but it is difficult to identify common names by this method. Post-Doctoral Fellows and technicians in labs are particularly difficult to determine as they are not listed in standard sources. When affiliations could not be readily identified, they were left blank. Faculty in the departments were sometimes contacted for additional help. Further work on identifying co-authors is required.

Findings

Co-author affiliations identified to date have been correlated in Table 3. The data are not complete, and only general conclusions can be drawn. In general, the data suggest that very little research is conducted with researchers outside the University of Alberta and indeed outside the department of the author. There are no data to suggest increased collaborative research between 1983 and 1993 with researchers outside the department, but there is an indication that in some departments, notably Botany, Educational Psychology, and Financial Management, there is increased collaborative research with faculty in other departments on campus. Collaboration with students is much lower than the authors expected. Zoology appears to undertake collaborative research more often than other departments. Collaboration occurs with both researchers in other departments and researchers outside the department.

Conclusions

While there has been a steady increase in interdisciplinary research in five of the departments studied during the period 1983 and 1993, the increase has generally been slow and gradual. Overall, trends in multiple authorship have been stable during this period. While it must be recognized that the data relating to co-author affiliations are incomplete, there is little there to suggest any marked change in trends towards increasing cooperative research with individuals outside the department and even less to suggest

increasing cooperative research with researchers at geographically distant institutions. There does not appear to be substantial movement towards increased cooperation either within or beyond the academic environment. Maybe, given the time lapse between research and publication, it is too soon to expect that increased cooperation should be reflected in the literature.

It is interesting, however, that research being done in the Arts departments appears to be substantially different from research being conducted in all other departments. Arts researchers are more likely to write alone and are more likely to write on a topic or publish in a journal outside their discipline. This suggests a more holistic approach to research than the other departments. The Science departments are known to be more reductionist, and it appears that many of the other departments follow this approach in their research.

Overall, northern researchers appear to undertake more cooperative research than researchers in general. They appear to be more interdisciplinary in their approach than other researchers in the same departments. This was much more evident in the Science department examined in this study than in the Arts department. The data on multiple authorship suggest, but do not prove, because of their limited nature, that northern researchers are much more cooperative than the norm. There has been a distinct trend away from single authorship to multiple authorship among northern researchers.

Given the data available from this study, the overall conclusion is that no major shift has occurred in interdisciplinary, multiple author, or collaborative research in University of Alberta departments despite current rhetoric. Some shift in trends may be taking place among northern researchers. Completion of the large study from which the data for this paper have been drawn needs to be done. Further studies will require the inclusion of other institutions to determine if the apparent trends at the University of Alberta are isolated to this campus. Further studies also need to be conducted to determine if shifts in trends in research that is being currently conducted can be determined. Studies to detect trends in multidisciplinary research also need to be conducted. Lots of work remains. Perhaps it can be done in a cooperative manner.

Works Cited

Gusdorf, Georges. 1977. Past, present and future in interdisciplinary research. *International Social Science Journal* 29(4):581.

Hurd, Julie M. 1992. Interdisciplinary research in the sciences: implications for library organization. *College & Research Libraries* (July):284.

National Research Council. Committee on a National Collaboratory. 1993. *National collaboratories: applying information technology for scientific research.* Washington, D. C.: National Academy Press.

University of Alberta. Office of the Vice-President (Research). 1991/92. *Discoveries: research and creative works at the University of Alberta. 1992/93* [and] *1993/94*. Edmonton: University of Alberta.

Correspondence:
Robin Minion, Librarian,
Canadian Circumpolar Library
Science and Technology Library
University of Alberta
Edmonton, Alberta T6G 2J8
CANADA

The Italian Antarctic Project: Policy for Antarctic Information Dissemination

Liana Bacigalupi[1], Anna Pignocchi[1], Donatella Alesi[2], and Elisabetta Morani[2]

[1] The National Agency for New Technologies, Energy and the Environment (ENEA)–Antarctic Project, Rome, Italy
[2] Biblionova, Rome, Italy

Abstract: Descriptions are given of the Programma Nazionale di Ricerche in Antartide (Italian National Antarctic Research Program) and of the Italian Antarctic Project's policy for information dissemination and its library. Available polar bibliographic resources and the role of polar libraries in information sharing and acquisition are discussed.

Keywords: Italian Antarctic Project; Antarctica; Italy; Information dissemination

Description

Italy signed the Antarctic Treaty on May 18, 1981. On June 10, 1985, the Italian Parliament approved Law 284 under which the Programma Nazionale di Ricerche in Antartide (PNRA, the Italian National Antarctic Research Program) was constituted, and a scientific research program in Antarctica for the 1985-1991 period was established. Financial resources were made available, and the organization, tasks, and responsibilities were defined in order to start research activities in Antarctica. Italy became a Consultative Party to the Antarctic Treaty in October 1987.

On November 27, 1991, the Italian Parliament approved Law 380 for the extension of activities over the 1992-1996 period. The law authorizes the Minister for Universities and Scientific and Technological Research to draw up five-year scientific and technological research programs in Antarctica, to supervise their implementation, and to ensure compliance with the provisions of the Antarctic Treaty. The Minister is assisted by two ad hoc bodies: a National Scientific Commission and an Inter-ministerial Consultative Committee.

The National Agency for New Technologies, Energy and the Environment (ENEA), with the scientific advice of the National Research Council (CNR), is responsible for the implementation of the program through an ad hoc organization, the Antarctic Project.

Non-governmental Italian expeditions are subject to the approval of the Ministry of Foreign Affairs. This approval is granted after checking that the Antarctic Treaty principles are respected as far as both scientific and logistic aspects are concerned. Proposals for research in Antarctica are submitted by operational units from universities; research institutes, such as the National Research Council, OGS (Experimental Geophysical Observatory), ING (National Institute of Geophysics); and national industry. PNRA funding is granted upon approval by the National Scientific Commission for Antarctica.

Details on Activities

Scientific and technological research activities are carried out in Antarctica along the following main lines:

1. Geological structure and evolution of the Antarctic continent and of the Southern Ocean;
2. Glaciology and paleoclimate;
3. Climate: atmosphere, ocean, and their interactions;
4. Sun-earth interactions and astrophysical research;

5. Biology, ecology, and environmental contamination;
6. Permanent observatories, geographic information, and so forth; and
7. Advanced technological research.

By law, at least 20% of Antarctic program funds are to be used for international scientific cooperation, both in joint ventures and in international programs such as those promoted by the Scientific Committee on Antarctic Research (SCAR).

Activities include operating the summer station at Terra Nova Bay (Ross Sea) and organizing annual expeditions to Antarctica. Moreover, the Italian National Antarctic Program participates in international projects such as the Cape Roberts Project (with Germany, the United Kingdom, New Zealand, Australia, and the United States) and the Concordia Project (with France).

Information Dissemination Policy

As the implementing agency of PNRA, from 1985 onwards the Italian Antarctic Project has been disseminating information on Italian activities in Antarctica, both at the national and the international level.

At the national level (Manzoni and Zucchilli 1991), this has taken place through the (1) publication of an *Internal Reports Series* that includes data on annual Antarctic programs, field reports on Antarctic expeditions, and all the appropriate information for expedition members; (2) production of videotapes and agreements with national broadcasting networks; (3) creation of a small library at the Antarctic station; and (4) organization and management of an itinerant Antarctic exhibition.

At the international level (Cervellati and Marsico 1992), it has occurred through (1) the publication on a yearly basis of reports to SCAR and the Antarctic Treaty Exchange of Information, circulated to all the countries active in Antarctica; (2) financial support for organizing national and international meetings and publishing proceedings; and (3) organization and management of a thematic library.

Since inception of its Antarctic program, Italy has spared no efforts in sharing scientific results related to Antarctica (Article 3 of the Antarctic Treaty). Proceedings of national and international meetings organized in the framework of PNRA have been distributed free of charge to the libraries of the Antarctic Treaty Consultative Parties and to all other institutions requesting them (Guthridge 1992). We also sent to all the libraries of the Antarctic Treaty Consultative Parties a number of volumes of full reprints of papers published within PNRA (Meadows, Mills, and King 1994). We hope to be able to continue this practice for 1992-1995, to give the Antarctic libraries a complete picture of the 10 years of Italian activities in Antarctica. This policy has, of course, very important benefits for the Italian national program: our proceedings and grey literature were included with an abstract in the *Antarctic Bibliography*, and the results of the Italian scientific activities were made known to the international research community.

It is needless to underline the excellent services of the U.S. Library of Congress in the field of Antarctic research.

PNRA's Library

The PNRA library is included in the online catalog of ENEA libraries. This is mainly due to the fact that we use the same classification system (DDC, 20th edition) and are in the same network, ENEA/ENET (a DOBIS/LIBIS network), although separately funded and administered.

A positive aspect of this participation was that our library could start as a strictly thematic one. We could diversify our efforts of document acquisition, mostly as far as periodicals were concerned, and subscribe only to Antarctic journals, as ENEA has a good collection of other research periodicals.

A negative aspect was that until 1993 we had no specialized staff in our library; we could only keep the documents, either purchased directly or received on an exchange basis from other Antarctic libraries.

The holdings of our library consist of:

- Some 2000 booklets, reprints, and technical reports
- Some 900 volumes on Antarctica
- 52 serials of polar interest.

As can be noted in Table 1, some disciplines are poorly represented with respect to PNRA's engagement in Antarctica. This is due

Table 1. Volumes of PNRA's library divided into disciplines.

- General: 128
- Economics, natural resources, administration: 45
- Legislation (Antarctic Treaty): 55
- Environmental policies: 15
- Natural sciences: 26
- Geomagnetism: 4
- Geology: 22
- Oceanography: 28
- Climatology: 27
- Earth sciences: 45
- Psychology: 20
- Botanics: 15
- Biology: 86
- Engineering: 66
- Cartography: 3
- Zoology: 55
- Physics: 5
- Astronomy: 3
- Glaciology: 43
- Meteorology: 32
- Medicine: 12
- Geography: 144
- Paleontology: 8

to various factors: (1) Italy's relatively recent presence in Antarctica has required the acquisition of books on history, exploration, and general themes; (2) requests received by the library vary according to the personal belongings of the individual scientists; (3) for a long time, we have not been in a position to offer satisfactory services to potential users; and (4) the library is in Rome, while our scientific community is spread over the whole Italian territory.

Some considerations about (3) above: In 1993, we signed a contract with a specialized firm for a complete classification of our documents. Beginning in 1994, we could count on specialized personnel. This has enabled us to issue a bulletin of the periodicals received, including their tables of contents, which we circulate to our 270 operational units in Italy. This initiative strongly increased service requests (bibliographic research, document location, verification of actual availability, and delivery). We also met with internal difficulties in buying photocopies of articles (funding was too limited to justify a foreign purchase order), which we partly solved with the British Library Document Supply Center and the French INIST Diffusion coupons. In 1995, we added a list of monographs to our bulletin, and we now have a printed catalog, a copy of which can be sent upon request.

Another goal we achieved was mounting our catalog online; its Telnet address and access procedures are shown in the Appendix.

Bibliographic Resources

As you may know, Italy first joined the Polar Libraries Colloquy at their 15th meeting, held in Cambridge in July 1994, and has been included in the Pollib-1 electronic mailing list: we are now members of the wide polar libraries community.

The bibliographic source most used by us is the CD-ROM *Arctic & Antarctic Regions*; we are examining the possibility of acquiring the last edition of *PolarPac*.

As it emerged from the Panel on the Polar Libraries Colloquy Web Site: Progress and Plans (see Andrews, M. et al., this volume), the present problem is not so much one of lack of information sources, but rather one of their abundance, which may make thorough bibliographic research more difficult. This is why we would propose that the PLC Web site become an instrument of international bibliographic control for polar information and documentation.

The above is particularly true for a young polar library, whose problem is not only to grow but also to fill gaps in its collections. To this end, a good budget is not enough; we need cooperation too.

In this context, PLC members should try to devise common procedures for interlibrary loans and electronic document delivery among polar libraries, as was proposed in the abovementioned Panel. Furthermore, in the spirit of Article 2, as a consequence of the change from a Northern Libraries Colloquy to a Polar Libraries Colloquy, membership should be enlarged to include more countries specifically interested in Antarctica.

To conclude, it is our opinion and also follows Dr. Akasofu's keynote address at this Colloquy that we should try to obtain a new product by combining all the information and data we have been exchanging in this extremely interesting (and beautifully organized) PLC meeting.

Appendix

To access the ENEA libraries catalog, you need a WWW browser (Netscape, Mosaic, etc.)

that supports a TN3270 application, such as QWS3270 for a Windows platform or Brown University TN3270 for Apple Macintosh. The Telnet host names are:

192.107.51.254 or mvssig.frascati.enea.it

There will appear a screen asking:

USERID

PASSWORD NEW PASSWORD

APPLICAZIONE (APPLICATION).

The first two questions should be skipped by means of the send key; the last one should be answered menu.

From the display of ENEA computer services, option number 1 (ENEA databases online service) should be selected, followed by option 9 (BIBL:ENEA library network), where the ENEA libraries catalog can be found.

PNRA holdings are identified by a code beginning with antartide in the field other entries, and by the location Anta and the $ symbol in the call number.

References

Cervellati, R., and B. Marsico, eds. 1992. *Italy in Antarctica*. Rome: PNRA.

Guthridge, G. G. 1992. NSF's role in polar information. In *International Sharing of Polar Information Resources: Proceedings of the 14th Polar Libraries Colloquy, May 3-7, 1992, Byrd Polar Research Center, The Ohio State University, Columbus, Ohio, U. S. A.* edited by Lynn B. Lay and Lynn Tipton Everett. Columbus, Ohio: Byrd Polar Research Center. BPRC Report No. 4.

Manzoni, M., and M. Zucchelli. Italian engagement in Antarctica. 1991. *Polar Record* 27(161):121-124.

Meadows, J., W. Mills, and H. G. R. King. 1994. The Antarctic. *World Bibliographical Series* 171 (980): 249.

Correspondence:
Anna Pignocchi
ENEA Progetto Antartide - Biblioteca
Via Anguillarese 301, 00060
S. Maria di Galeria (Rome)
ITALY

Roald Amundsen, the North Pole and the Alaskan Connection

Susan Barr

Norwegian Polar Institute, Oslo, Norway

Abstract: Roald Amundsen is one of the most famous polar explorers, whose name is associated with both the North and the South Poles. He led the first expedition to sail all the way through the Northwest Passage on one expedition and one ship (1903-06), he was the first to reach the South Pole (1911), he sailed through the Northeast Passage on an attempt to drift to the North Pole and made unsuccessful attempts to use airplanes (1918-23), he flew towards the North Pole from Svalbard (1925), and flew over the North Pole to Alaska in an airship (1926). He lost his life during an attempt to rescue Umberto Nobile, who was returning from an airship voyage to the North Pole (1928). He was a pioneer of air travel in the Arctic. On several of these expeditions Amundsen had Alaska as a starting or ending point. This paper emphasizes Amundsen's connections with Alaska, rather than describing the expeditions in detail. In addition to giving information about the historic material available on the subject in Norway, the author also hopes to encourage information flow concerning items and collections on Amundsen in Alaska.

Keywords: Amundsen, Roald; North Pole; Alaska; Expeditions; Norwegian Polar Institute; Northwest Passage; Norway

Roald Amundsen, a Born Polar Explorer

Roald Amundsen (1872-1928) can be described as Norway's second-greatest polar hero. To non-Norwegians he is perhaps better known than Fridtjof Nansen because he managed to reach a certain well-defined geographical point before anyone else, and at least before Robert Falcon Scott. However, it is not the South Pole I will be talking about here, but that other elusive goal, which lies more or less midway between Norway and Alaska—the North Pole.

If the truth were known, it was in fact not actually the South Pole that Amundsen really strove to reach. That trophy was taken more or less "on the spur of the moment" when he received the news that Robert Peary and Frederick Cook both claimed separately to have reached the North Pole in 1908 and 1909. It was, and always remained, the North Pole which drew Amundsen, and in light of the new disclosures about Richard Byrd's notes from his supposed flight to the North Pole in 1926, it seems as though Amundsen actually could have claimed that prize as well.

A brief résumé of Amundsen's North Pole expeditions is given in this paper in order to provide the background for a discussion of the archival material from these expeditions and, not least, in order to show that Alaska always seemed to be involved in one way or another!

Amundsen had always dreamed of being a polar explorer. There was in fact no other career he was willing to contemplate. His greatest asset in this respect was his single mindedness and complete dedication to the cause. As early as possible in life he staked out the road he should travel, training on skis, hardening himself against the cold by swimming in the fjord, taking his mate's certificate and joining the Belgian *Belgica* expedition to Antarctica in 1897-99. The mate's certificate was insurance for the role of leader on his own expeditions. Polar expeditions were of necessity principally ship-based. An expedition leader who was not at the same time the ship's captain would have another authority to contend with as long as he was onboard. Amundsen combined the roles in one person.

The Northwest Passage

There was at that time one job that should be done before the North Pole was attempted. The search for the Northwest Passage had a central part in the history of the Arctic. The Passage was an arctic grail which beckoned expeditions through several hundred years and took more lives than any other single polar goal. By Amundsen's time the Passage was more or less mapped, but no one had yet sailed all the way through it. This was, therefore, the aim of Amundsen's expedition with the small ship *Gjøa*, which took three years to complete (1903-06). To lend authenticity to the program, the proclaimed aim was to pinpoint the position of the North Magnetic Pole, and this was accomplished during the two-year stopover in Gjøahaven on King William Island.

This harbour-bound period was also used for a detailed ethnographic study of the Netsilik Inuit in the area. This was in effect another part of Amundsen's work at being the perfect polar explorer. In order to develop in his special field, it was logical for him to study the Natives who had already adapted to the arctic environment through many generations. By learning how they were clothed, how they drove dog sledges, what food they ate, how they built igloos, and more, he should be better able to cope with his own polar expeditions. At the same time, his studies and collections of clothes, artifacts, and photographs of the Netsilik became one of the best early documentations made of this group. The collection was given to the Oslo University Ethnographical Museum, where it still is to be found. The Ethnographical Museum contains most of the original photographs, but a number are also to be found in the Amundsen collection in the photographic archives of the Norwegian Polar Institute in Oslo. These are glass-plate negatives, that have now been repro-photographed and copied to new paper copies for public use.

The Amundsen Photograph Collection

Being an old institute with roots back to 1906, the Norwegian Polar Institute naturally has acquired different collections of photographs through the years. There has been a collection of Amundsen photographs "since time began," without their exact provenance being known. In 1982 the widow of Amundsen's nephew gave a large collection of Amundsen's own photographs to the Institute. In not particularly good order or state, they were nonetheless a treasure trove. About 700 of them are glass dias, of the old 8 x 8 cm "lantern slide" variety, which Amundsen had had made to use in his lectures. Lecture tours were an important part of the wearisome job of collecting money for his expeditions. He lectured a good deal also in the United States, where his heavy Norwegian accent was a pain to the audiences. The lantern slides were a means of taking the public's attention away from the dreadful accent, at the same time as they of course illustrated the expeditions to areas which few people at the time had any picture of in their mind's eye. For added value, about 250 of these lantern slides were hand colored, many with high artistic qualities. With the best, it is in fact difficult to see that they are not from original color negatives.

Almost all of our Amundsen photographs (about 1800 so far, although these are not all different images) have now been repro-photographed and copied to paper prints which are arranged in albums. We are slowly but surely working through the collection to identify and catalog the various images. Our aim is of course to end up with a database which can be accessed by the Internet or in CD-ROM. I believe our collection to be the largest in Norway and, therefore, probably the world.

The First Time in Alaska

Naturally enough the voyage through the Northwest Passage ended up in Alaska, after three winterings on the way: the above-mentioned two at King William Island and a last, disappointing one at King Point on the Yukon coast when the ice stopped them at the last minute. In order to send the news of the successful traverse to the paying newspapers as soon as possible, Amundsen made a long sledge journey to the nearest telegraph station, Eagle City, which is near the Canadian-Alaskan border at the same latitude as Fairbanks. Quite a journey. It took six weeks one way, and was a 1500-km round trip which he made on skis. There is now a memorial to Amundsen in Eagle Memorial Park.

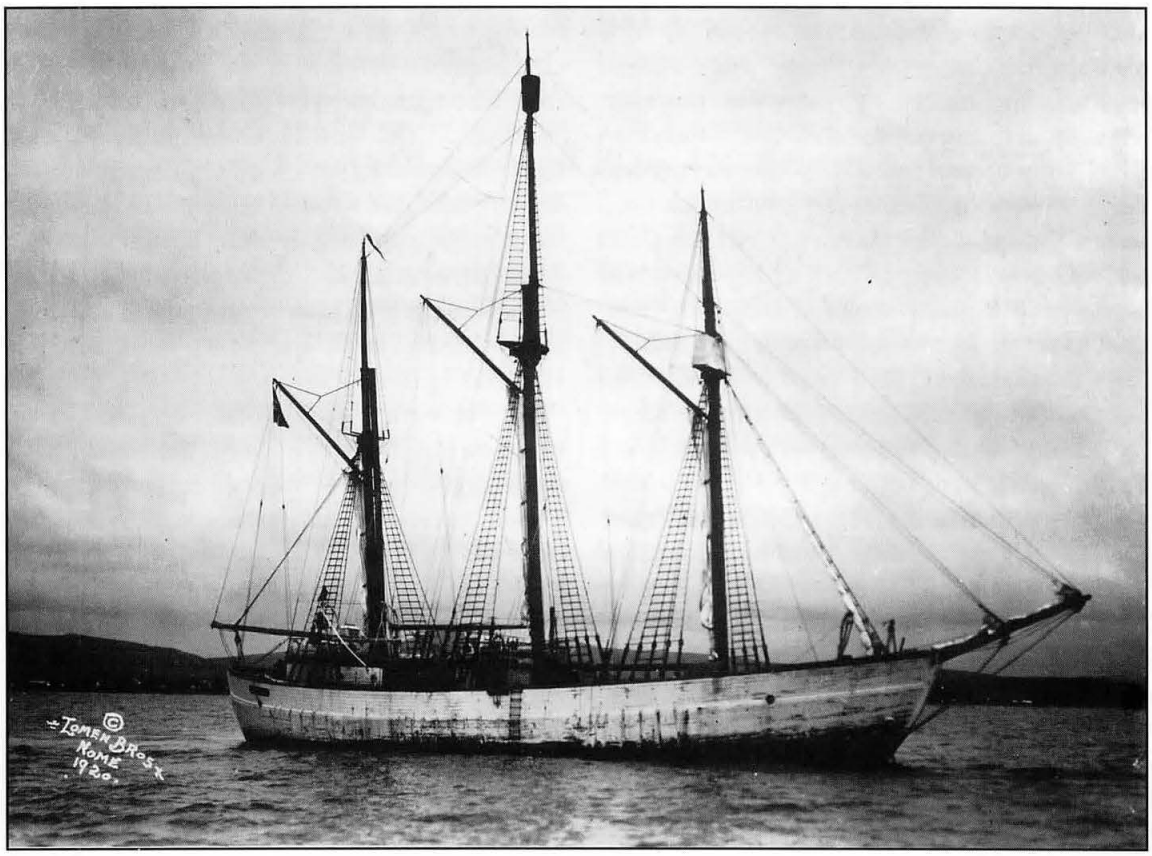
On the last day of August 1906, the *Gjøa* arrived in Nome, which at that time was a gold-rush town with a large number of Norwegian immigrants. The expedition was therefore met with the Norwegian national anthem before they even set foot on land. Amongst the ex-Norwegians they met was the dog-driver Leonhard Seppala, and they also made a visit to the gold mines before Amundsen left on the steamer *Victoria* for Seattle and the crew sailed *Gjøa* to San Francisco, which incidentally was still reeling after the large earthquake in April.

A North Pole expedition, via the South Pole and the Northeast Passage

Amundsen was now an established polar explorer, and it was time to attack the North Pole question. In the three years 1893-96, Fridtjof Nansen with 12 men and the polar ship *Fram* had drifted (intentionally) in the ice across the Arctic Ocean from the New Siberian Islands to Svalbard. The idea was to prove the theory of an east-west current in the ocean, to explore this still unknown area around the North Pole, and hopefully to drift right across the North Pole. The expedition had been a huge success, apart from the fact that they had not reached further north than 86°N. Amundsen wished now to repeat the drift at a higher latitude because his aim was not general exploration and scientific observation, but to be the first man at the top of the world.

However, when the expedition was ready to start, the Peary and Cook claims had "used up" the North Pole for a while. It became a South Pole expedition instead, and a very successful one, in the years 1910-12. But Amundsen had in fact promised Nansen he would repeat the *Fram* drift. So it had to be done. Therefore, once the First World War was about over, Amundsen set off for the Northeast Passage with a new ship, the *Maud*, to enter the ice as far to the northeast as possible. This expedition was, in contrast to the South Pole one, dogged by problems, and the *Maud* was still stuck on the east Siberian coast in the winter 1919-20. It was time to get some news to the outside world. Two crew

Figure 1. The *Maud* at Nome in 1920. (Norwegian Polar Institute collection)



members were sent with dog sleds to the west coast to try to get over the ice on the Bering Strait and then to Nome. They met with difficulties of two kinds: one was that the ice was not strong enough to bear them over the Strait, and the other was the Russian Revolution. The Bolsheviks had taken over and the situation was still chaotic, but Amundsen's name was known, and the telegraph station at Anadyr was allowed to send the message to Nome. At the end of July 1920 the *Maud* herself arrived in Nome and Amundsen was back for the second time, this time through the North-east Passage.

It was still Amundsen's intention to continue the attempt to get into the Arctic Ocean ice as far north as possible, but first the *Maud* had to be repaired and restocked. From Nome he had "trophies" from the expedition packed and sent home to Norway. These turned out to be 40 polar bear skins; sacks of brown bear and white and blue fox skins; a large amount of handwork which the crew had made on the *Maud* during the long winter months; a large collection of arctic birds; and much else. In Nome Amundsen was helped by the Norwegian-born gold prospector Jafet Lindberg, not just to send home the trophies, but also to send home three of the crew who had had enough after three years without accomplishing much. The crew was, however, left without the money to return home and obviously without too much help from Lindberg. Hanssen went to work at the gold mines for a month. The two others were not up to that and sold as many of their clothes as anyone would buy to keep themselves going until they managed to get in contact with Norwegian authorities who guaranteed their passage home. The three had to wait in Nome for a month, the *Maud* stayed only 10 days because she had to get back into the Arctic Ocean before it froze for the winter.

With three of the crew in Nome, and three who had left earlier, there were now only four onboard, including Amundsen. Not least, the cook had left ship in Nome, so a middle-aged Inuit woman was hired to cook for them on the ship: Mary, also known as Tuttsi, already knew something of Amundsen and his men from the *Gjøa*'s third wintering at King Point 14 years before.

The Future Lies in the Air

After one more winter in the ice without really getting anywhere, Amundsen had had enough. No more ship expeditions: it was in the air that future polar exploration would be done! After a sledge journey to the northeast corner of Siberia, Amundsen traveled with a Norwegian whaler, the *Herman*, over the Bering Strait and back to Nome again, arriving on 17 June 1921. With him he had two "adopted daughters" whom he had picked up on the Siberian coast to educate back home in Norway. One was a four-year-old motherless Tsjuktsjer girl and the other was a 10-year-old half-breed. The stay in Nome lasted as long as usual; at the end of June the three went onboard the *Victoria* to travel to Seattle. *Maud* went also to Seattle for repairs, but Amundsen had now left the earth for the skies. The future for polar exploration lay indeed in the air.

Amundsen and his "adopted daughters" stayed in Seattle until the New Year, during which time Amundsen set the wheels in motion towards his new airborne plans. He ordered two planes with pilots sent from Norway, ending up with the two pilots, while the planes (a Junkers and a Curtiss) were found in the United States. Of peripheral interest is the information that Amundsen christened the planes "Elisabeth" and "Kristine." The world has newly learned[1] that this was in honour of Amundsen's secret sweetheart, the married Kristine Elisabeth Bennett. All these extra acquisitions were loaded onto the *Maud* in Seattle, and the well-worn route to Nome was again traversed. Amundsen, however, chose to travel in more comfort, again with the *Victoria*.

The voyage took at that time 10-14 days. It was on this trip back to Nome that Amundsen, according to his new biographer Tor Bomann-Larsen, met another lady in his life, Bess Magids. Bess was the wife of Sam Magids, who had built up one of the larger trading firms in Alaska: Magids Brothers. It was this meeting that sent the heavily loaded *Maud* in to Deering after picking up Amundsen in Nome. Deering was one of the Magids' trading stations, and the expedition stayed there for two weeks so that Amundsen could try out the Curtiss plane. The Magids were

Figure 2. Wainwright, apparently in 1926 when the airship *Norge* was passing over. (Norwegian Polar Institute collection)

also there. It took a week to flatten a strip for the plane to take off and land.

The plans were now changed. Amundsen and pilot Oskar Omdal went ashore at Wainwright on the northwest coast with the *Elisabeth,* while the *Maud* was sent northwestwards into the ice to start the drift which should have been started in 1918. It was now the end of July 1922, and Amundsen intended to spend the winter in Wainwright and then attempt to fly over the North Pole to Svalbard the following summer. A little winter cabin and a hangar for the plane were built at Wainwright and christened "Maudheim," and the two men should have settled down to wait for flying weather the next year. However, Amundsen was restless. He left for Point Barrow, the nearest settlement, in November, acquired a dog sledge there, and returned to Deering and then to Nome, where Mary could keep house for him. Omdal was left looking after the plane.

In the spring (April-May), Amundsen returned to Wainwright by dog sledge, a trip of nearly four weeks. The North Pole flight was set for 20 June 1923 and 28-year-old Omdal had managed to unpack the plane from its transport boxes and put it together. Air transport was a new, developing sport; flying in the Arctic even more so. Omdal's test flight on May 11 was a great success—the plane rose into the air and flew around over Wainwright. However, what goes up must also come down. The landing was not such a success and the chassis was damaged. The same result awaited the next test a month later, and that was that for a while. At the beginning of August, Wainwright and Maudheim were left behind as the two Norwegians returned by ship to Nome and Seattle.

The Ignominious End of the Maud *Expedition*

The *Maud* did not arrive back in Nome until 22 August 1925. The ship had frozen into the ice near the New Siberian Islands as planned, but never got into the current that should have taken it over the North Pole. However, a considerable amount of valuable geophysical information was gathered in these three years. Back in Nome the *Maud* was seized as security for the expedition's debts. She was saved by the Norwegian community long enough to be allowed to sail out to Seattle, but there she was seized again and sold to Hudson's Bay Company. She ended her days as a wreck in Cambridge Bay, not far from Gjøahaven.

Amundsen's next expedition was indeed by air. With the help of Lincoln Ellsworth, he was able to finance the purchase of two sea planes; freight them to Ny-Ålesund, Svalbard (Spitsbergen); and attempt to fly to the North

Figure 3. Amundsen and companions arriving in Nome from Teller in 1926. (Norwegian Polar Institute collection)

Pole from there. They reached 87°43'N before having to land on the ice. In very dramatic circumstances they managed to get back to Svalbard and the breathless waiting world three weeks later.

Finally the Pole

After so many attempts by so many means, Amundsen felt the North Pole was now within reach. Again with Ellsworth's economic support, he purchased an airship from Italy, constructed and flown by Colonel Umberto Nobile. Ny-Ålesund was again the starting point and finally, on 12 May 1926, Amundsen was over his life's goal—the North Pole! Unfortunately the triumph was slightly tarnished by Richard Byrd's claim to have already been there a couple of days earlier. Even at the time the claim was wondered at, as the flight had been accomplished quicker than seemed possible. But Amundsen never mentioned doubts on this account. He just claimed the first crossing of the Arctic Ocean from Svalbard over the pole to Alaska.

It is always the landing that is the difficulty, and wind conditions were not easy in Alaska on the morning of 14 May (European time). The airship flew over Wainwright and a landing was finally made by Teller, between Nome and Deering. This time all went well. The airship was deflated and packed. Here there are different versions of what happened with the *Norge* (Norway), as the airship was called, after landing. It is said to have been shipped back to Italy. But parts of the huge envelope seem to have turned up in various museums and private homes rather like splinters from the cross of Jesus. A chair from the gondola and a fuel tank are now in the Aviation Heritage Museum in Anchorage. I would be most interested to hear of any details concerning the fate of the other parts.

Amundsen, Ellsworth, and two other Norwegians left the next day by dogsled for Nome, where they put up at the house of the dog-driver Seppala. Nobile arrived later by boat. Here again they waited a month in the by now well-known town for the steamer *Victoria* to take them to Seattle. From there the intrepid airmen traveled by comfortable train across the continent to take a ship back to Europe.

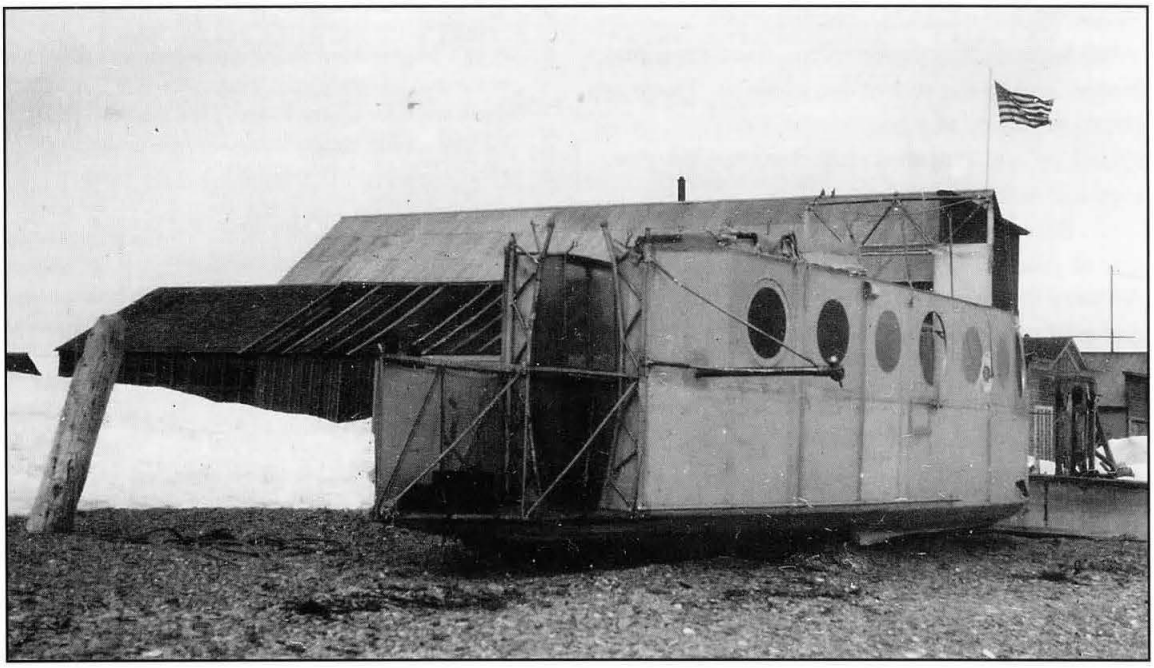


Figure 4. The gondola from the airship *Norge*, presumably in Teller. (Norwegian Polar Institute collection)

The Alaskan Lady

This was the last time Amundsen was in Alaska, but by no means the last connection he had with the state. In the winter of 1927-28 he received the lady he had met on the steamer *Victoria* in 1922, Bess Magids, secretly at his home by the fjord outside Oslo. She apparently stayed for two months in full discretion.[2] As far as one knows she then returned home to the USA to arrange her divorce from Sam. She would be back, but events in the polar arena were to spoil the plans.

In May 1928 Umberto Nobile disappeared with his new airship *Italia* on the way back from the North Pole to Svalbard. In June weak radio signals were heard from the ice. The world mobilized to save him, and Amundsen was also prepared. As Bess Magids was waiting in New York to travel back over the Atlantic for a reunion with, and apparently marriage to, the polar hero, he was winging his way in a French plane northwards from Norway towards the ice. The plane never arrived at Svalbard, but disappeared into the Barents Sea between the Norwegian mainland and the Svalbard archipelago.

Bess Magids received a part of the inheritance after Amundsen's death, including a number of silver objects. She returned to Alaska, where she married twice more, to Art Chamberlain and then John Cross. She took over the Magids firm in 1944, after both brothers were dead, and she sat a short while as a democratic representative in the Alaska territorial government.[3]

Archives and Collections

Concerning the archives and collections connected with Amundsen's visits to Alaska, the Norwegian Polar Institute has, as already mentioned, a large collection of photographs, while Amundsen's private archives are mostly intact in the University Library in Oslo. The *Gjøa* was exhibited in the Golden Gate Park in San Francisco for many years, until it was returned to Oslo where it is on display beside the *Fram* Museum. The *Maud*, as mentioned above, is lying as a wreck in Cambridge Bay, by the Northwest Passage. Attempts have been made to bring her back to Norway, but it seems as though the local population wishes to keep her there.

More interesting from the Norwegian point of view is to know where any other collections of archival material, photographs, or objects may be located. There must be many reminders of the three expeditions which visited Alaska be-

tween 1906 and 1925, not least photographs. What happened to the envelope from the airship Norge, and to the rest of the airship? There are photographs of the gondola and engines being crated up and put on a ship, but was the envelope left behind?

Already known is the fact that the University of Alaska Fairbanks has an interesting, but not very voluminous, collection of photographs and artifacts from the *Gjøa* and *Norge*. I would be most grateful to hear of any other material or the names of people and institutions who may be able to assist in this matter.

Endnotes

1. A new biography of Roald Amundsen was published at the end of last year: Bomann-Larsen, Tor. 1995. *Amundsen. En biografi*. Norway: Cappelens forlag.
2. All revealed in the above-named new biography.
3. *Ibid.*

Correspondence:
Susan Barr
Norsk polarinstitutt
P.O. Box 5072,Majorstua
0301 Oslo
NORWAY
+47 22 95 9509 fax +47 22 95 9501
barr@npolar.no

The Anchorage Times *Morgue Digitizing Project*

Ralph Courtney[1], Colleen Tyrrell[1], and Dan Fleming[2]

[1] Consortium Library, University of Alaska Anchorage, USA
[2] Z. J. Loussac Library, Anchorage Municipal Libraries, Alaska, USA

Keywords: Newspapers; Digitizing; Indexing; *Anchorage Times* Morgue Digitizing Project; Alaska

---

The *Anchorage Times* Morgue Digitizing Project began during the summer of 1996 as a pilot project undertaken by the University of Alaska Anchorage's Consortium Library. The objective of the project is to determine the feasibility of applying new technology to the longstanding problem of gaining easy access to information in the *Anchorage Times* newspaper. We have made significant headway in resolving both technical and methodological problems, and while the pilot project has not yet been completed, we are hoping to see expansion of the project to encompass the entire newspaper.

The origin of the *Anchorage Times* was the *Knik News* of 1914-1915. That weekly newspaper became volume 1, number 1, of the *Cook Inlet Pioneer* on 5 June 1915 (over a month before the Anchorage townsite auction on 10 July), changed its name to the *Anchorage Daily Times* on 24 May 1916 (volume 1, number 174), and continued publishing until 1992, dropping the "*Daily*" from its title on 2 January 1975. Throughout these changes, the *Anchorage Times* has been the recorded story of Anchorage. It is important social and historical source material containing the day-to-day history of Alaska and of Anchorage in particular. Over the course of about 80 years, it was witness and sometimes midwife to many events vital in Alaska history, ranging from the founding of the city through World War II and Statehood to oil discovery, the Alaska Native Claims Settlement Act, and the controversy over oil exploration in the Arctic National Wildlife Refuge. The paper is available in microfilm at many libraries, but you either need to know the date of what you are interested in or else go through the newspaper page by page by page to find what you are looking for. The newspaper employees had the same problem when they needed to refer to old articles to find information for current stories. There had to be a better way of finding things.

And there was a better way: the newspaper morgue. The word "morgue" is journalism slang for newspaper articles organized by subjects and names and kept for future reference; in fact, it originally meant the biographical information kept on hand for writing future obituaries. The *Anchorage Times* kept a morgue from the mid-1950s until it ceased operation as a daily paper. Over a dozen major subject categories were devised, such as "Politics" and "Alaska Natives," and numerous subheadings were created as well. Each day, the morgue workers clipped out articles from that day's paper, pasted them onto letter-sized sheets, and arranged them by subject into various three-ring binders. An article that was concerned with several subjects required copies of the article to be pasted into several different notebooks. The articles were identified with a date stamp, and since *Anchorage Daily News* articles were also collected—perhaps ten or fifteen percent of the morgue consists of *Anchorage Daily News* articles—another stamp indicated the source of the article. Page numbers were not copied.

The years went by, and by 1992 when the *Anchorage Times* closed its doors and the morgue passed into the possession of the *Anchorage Daily News*, the morgue consisted of well over 6,500 three-ring binders, along with substantial amounts of other material. It was a very impressive accomplishment, and it remains to this day the only real subject access to the *Anchorage*

Times and to many *Anchorage Daily News* articles as well. But there were some problems in using the morgue.

First of all, maintaining the morgue was extremely labor intensive and expensive. As a result, the articles in the morgue were not individually indexed so that you could pinpoint a particular article. Secondly, you had to have physical access to the morgue in order to be able to use it. Once you located the subject area you were interested in, you then had to browse through the appropriate binders in that subject area until you found the particular information you were after. And as functional as binders of articles arranged by subject might be, it is not the same thing as being able to browse through a good index in a convenient location. So why not index the newspaper and make it more accessible to everyone by providing the index to libraries that carry the *Anchorage Times* microfilm?

It was an obvious idea, a wonderful idea, and it was attempted by librarians in the early 1980s—back in those silicon dark ages when a desktop computer with 128K of RAM and a 10MB hard drive made you a power user. Between the state of the technology at the time and the demands that indexing made on already full workloads, it was decided after a year or so not to continue with the indexing project.

Area librarians have wanted to try imaging technology on the *Anchorage Times* for years. In the summer of 1995, the *Anchorage Daily News* made a significant and generous gift of $200,000 to the University of Alaska Anchorage. Chancellor Gorsuch directed approximately half of that amount to the Consortium Library, funding our request to conduct a study on the feasibility of using imaging technology as a means of making the *Anchorage Times* more accessible.

Our immediate goal was to conduct a pilot project using a small portion of the morgue in order to determine the feasibility of scanning the morgue in its entirety. We decided that our source material would be the section of the morgue concerning Alaska Native regional corporations; at nine notebooks containing an estimated 3,740 articles, it was a good size for making an effective trial run.

We had to make a number of crucial decisions in the early phases of the project. The first thing we wanted to do was to convert the articles into digital images through scanning. We decided to use a flatbed scanner rather than one with an automatic feeder because of the fragile nature of our source material. We also had to decide on what resolution to use in scanning the material. Normally, higher resolution should produce better results. However, higher resolutions require dramatically larger amounts of storage. If one article is scanned at a high enough resolution to require a megabyte of storage, that is not a problem. But if that same resolution is used for scanning a million articles, that is a big problem in terms of storage. The balance we had to look for was the minimum acceptable resolution—good enough to be acceptable, but not so good as to needlessly eat up storage. We settled on 200 dots per inch as our standard. We also had to decide on the particular format to use in storing the images. We are using TIFF 4 (Tagged ImageFile Format version 4) because it is a common standard that should remain useful for some time to come.

Digital images alone, however, are not that useful. Scanning a newspaper clipping is similar to taking a photograph of that same clipping —you can look at the photograph and you can read the article in the photograph, but you cannot load the photograph into your word processor and make changes to the words in the image. Most search programs rely on text, and for that reason we decided to use Optical Character Recognition (OCR) software to convert our image files into standard ASCII text files, which we then saved separately. So at this point we have two files for each article. One is the image file, which is essentially an electronic photograph of the original article, and the other is the OCR file, which is the electronic text of that article. What OCR does is to take that electronic photograph and analyze its light and dark areas, looking for anything that might be a letter. It matches the image against standard letter fonts and basically rebuilds the article from the electronic photograph. OCR is pretty close to electronic magic, but it is not perfect magic. It does make mistakes, and it can be thrown off by smudges, poor originals, fuzzy print, handwriting, date stamps

—in essence, by anything that the software is not programmed to recognize. In addition, OCR is primarily concerned with text as opposed to other kinds of information that frequently appears in newspapers, such as photographs, maps, tables, charts, and graphs. That information is still stored in the image file and is a good reason for keeping the text and image files linked. We have been using a program called OmniPage Pro from Caere for scanning and OCR because it has given us consistently good results with a high rate of accuracy. In fact, OCR was one of the reasons we chose 200 dots per inch for our scanning resolution; we found that lower resolutions decreased OCR accuracy, but this process is simplified by the program's proofing editor. The text is then saved as a file separate from the image file it was derived from.

What we have so far are a lot of image and text files, and what we needed was a way to organize them, store them, and search them for relevant information. To do this, we are using a program called Alchemy Gold from IMR. Image and text files can be transferred to Alchemy, matching image and text files can be linked, each file can be given a descriptive profile, and a large database can be built that allows keyword searching of full text. Once the database is built, it can then be written to compact disc complete with accompanying search engine. The end-user can search the text files for relevant information and then view the linked image files to see the articles in their original layout.

This forms a good overview of the process we envision, but I would like to emphasize that we are still in the middle of the project. For instance, due to the time-honored reason of technical difficulties we cannot yet write discs; we hope to have that situation rectified very soon, but for the moment, our vision of the project is more complete than our database is. For the same reason, while I feel that the long-cherished goal of greatly enhanced access to the *Anchorage Times* is now within reach given continued operating funds, I will not have the data to back that claim up until we finish and evaluate the pilot project.

I would like to touch on a few important points that have shaped the way we have approached this project, as well as on a few directions in which we would like to go. One major concern has been where to put the data. One CD will hold about 650MB of data. We anticipate that we will be able to write all of the articles contained in the nine notebooks of the demonstration project onto one disc. It will, however, be a fairly full disc, and doing the entire morgue on disc would require the inconvenience of a great many discs. We would prefer a more elegant method of mass storage and access and will continue to explore alternatives—for example, an array of hard drives linked to the World Wide Web would be a possibility.

Another concern is indexing time. We looked into automatic indexing, but that process seems to be in its infancy. We then considered doing full indexing of the articles, but that would have been the same as doing traditional manual indexing with its associated time and labor costs. We decided instead to use Alchemy to do keyword indexing and searching of the text files, and then to emphasize the linked image files for viewing purposes. There are some limiters that can be applied to searches (such as date range), so it is not solely keyword searching. The main concern from a management and workflow point of view is how much information we can effectively process each day while maintaining a high level of quality.

A further concern is source material. We are actively exploring the possibility of scanning directly from microfilm in the next phase of the project. This would allow us to cover the entire run of the newspaper back to its origin, while the morgue only started in the mid-1950s. It would greatly speed up the scanning process as well, with much less manual intervention than is involved with the flatbed scanner. Another possibility would be to use the nearly complete collection of bound original issues of the *Times* located at the Z. J. Loussac main branch of the Anchorage Municipal Libraries. They are still in very good condition, and with an oversized flatbed scanner could be scanned a page at a time.

One additional consideration of immense importance to the success of an imaging project is worker comfort. We have fully adjustable chairs, large monitors of good quality, and ergonomic keyboard trays. There is a lot of repetitive motion and eyestrain involved in a long-term

project of this nature, and anything that can keep your workers healthy, comfortable, and productive will more than pay for itself in the long run.

The *Anchorage Times* Morgue Digitizing Project is still evolving, and while we think we have found a good method of operation, we are not resting on that process. We remain open to new methods and ideas that can help us reach our objective of much greater access to the *Anchorage Times*.

Correspondence:
Ralph Courtney
Consortium Library
University of Alaska Anchorage,
3211 Providence Drive
Anchorage, Alaska 99508-8176
USA

Poster Presentation

Australia in Antarctica: Information Initiatives

Lynn M. Davies

Division of Information Services, University of Tasmania, Hobart, Australia

Keywords: Antarctica; Australia; Databases; Southern Ocean; World Wide Web

---

This poster presents the major national information initiatives of Australian Antarctic information specialists and scientists.

Hobart, the capital city of Tasmania and island state of Australia, is the main center for activities involving the Antarctic and Southern Ocean, and it is here that Australia's Antarctic organizations are responsible for managing the following information resources.

The major polar (particularly Antarctic and Southern Ocean) resources under development in Australia are the following.

Database of International Marine Treaties

http://www.antcrc.utas.edu.au/antcrc.html

This database of over 360 overlapping international treaties or protocols will provide an efficient, easily accessible, flexible research tool for anyone looking at issues of marine policy or law. It is the most comprehensive database of its kind in the world and is being developed into a CD-ROM by Kluwer Law International, Netherlands, for international release and sale by October 1996.

Directory of Expertise: Antarctica and the Southern Ocean

http://www.antcrc.utas.edu.au/iasos.html

The second edition of the *Directory* will be completed by September 1996 and will be available at this site with a search engine to enable browsers to search by name, institution, and keyword subject fields. It is an invaluable reference source for people seeking Australian contacts, professional advice, or information on the Australian Antarctic and the Southern Ocean.

Australian National Antarctic Data Centre **http://www.antdiv.gov.au/**

The Australian Antarctic Division has begun work on Australia's Antarctic Data Centre. It will be an integrated data management system including a data directory, database of publications, and Geographic Information System (GIS). The Australian Antarctic bibliographic database, part of the Australian Antarctic Data Centre, will be available at this site by July 1996. The database is a result of merging a number of existing Australian Antarctic publication listings. Its aim is to index all articles, reports, and conference papers which result from Australian National Antarctic Research Expedition (ANARE) activities.

Australian Collection of Antarctic Microorganisms (ACAM)

http://www.antcrc.utas.edu.au/antcrc.html

ACAM, established in 1986, is now part of the Microbial Processes Program at the Antarctic Cooperative Research Centre, University of Tasmania. It was set up as a collection of microorganisms isolated from the Antarctic continent, sub-Antarctic islands, and the Southern Ocean. It is a continually expanding collection, and now has over 300 strains.

Australia is now an active contributor to polar information resources. This role is set to expand in the future, reflecting Australia's significant involvement in Antarctic and Southern Ocean research.

Correspondence:
Lynn M. Davies, Head of Science Libraries
University of Tasmania
GPO Box 252C
Hobart, Tasmania 7005
AUSTRALIA

Elements of the Nature Conservation Thesaurus

Nina G. Dobrynina

Research Institute on Nature Conservation and Reserves, Moscow, Russia

Abstract: In 1995 the *Russian Dictionary on Nature Conservation* was published. It includes 2000 terms subdivided into three major groups dealing with impacts on the environment. The knowledge system has the following structure: science, discipline, and research field. Keywords are used for identification.

Keywords: *Nature Conservation Thesaurus*; Indexing; Russia

Introduction

The *Russian Dictionary on Nature Conservation* was published in 1995. It includes more than 2000 terms subdivided into three major groups dealing with impacts on the environment. The principles of thesaurus development were followed for the dictionary. The process included four stages: analysis of the information situation, selection of linguistic tools, experimental development of a branch thesaurus, and regulation and introduction of linguistic tools.

Analysis of the Information Situation —Interaction of Ecological Disciplines and Terms

The first stage in developing the thesaurus involved studying the terminological base of information needs in their connection with ecological disciplines. A survey performed between 1983 and 1991 among the ecological disciplines was also studied. This survey revealed that while the number of ecological discipline categories is steadily increasing, the biology, zoology, ornithology, and forestry categories still seem to be predominant in the environmental sciences. The combination of main and subsidiary categories formed a system of interdisciplinary interaction. As a researcher could require information about concepts, methods, and facts of adjacent disciplines exceeding the bounds of the research subject or even the problem field, the cross-disciplinary links were analyzed. The feature of a tight relationship of the above four categories with geography and chemistry appeared common, while varying dependence on such disciplines as economics (for zoology and biology), physics (for zoology and ornithology), and geology (for ornithology and biology) was less common. Two types of expertise became evident: expertise involved in the specific knowledge field; and expertise that combined studies of adjacent subjects. It was concluded that multispecialization and a complex approach to concrete research were typical.

Selection of Linguistic Tools—Analysis of Internal and External Sources

This analysis began with a study of existing terminological standards used for nature conservation. At present, two standards, 1) *Nature conservation—Conservation and protection of forests—Terms and definitions* and 2) *Nature conservation—Landscapes—Terms and definitions,* list 126 terms that are inadequate to cover the whole structure of the information system. These terms were united into several large groups that included general biological terms as well as specific terms, such as fire, pest and disease control, protected areas and objects, development, and management and protection of landscapes.

Later, the *INFOTERRA Thesaurus*, the *Thesaurus on Agriculture*, and the *Thesaurus of Scientific and Technical Terms* were studied.

The *INFOTERRA Thesaurus* has the following subdivisions: organization features (status and functions of the information source, geographical scope by region, geographical scope by country/area, and working languages), a list of subjects and sections on the environment (for

instance, natural resources and wildlife), and adjacent domains (atmosphere and climate, monitoring and assessment, management and planning, social and economic aspects, education, training, and information). The section "Wildlife—animals and plants" in the *INFOTERRA Thesaurus* includes 113 descriptors and 47 non-normalized terms. The ratio of synonyms is 0.29.

The Terminological Background of the Information Retrieval Thesaurus on Nature Conservation

The *Information Retrieval Thesaurus on Nature Conservation* (*IRT*) is based on the user's glossary. The first attempt at developing a terminological system for ecology was taken in 1989-1990 when the glossary was initially compiled. Descriptors were set up by combining environmental terms into equivalent classes, i.e., groups of terms with similar meanings. All words included in these classes were declared conditional synonyms. In addition to equivalent classes, other semantic links were fixed between descriptors.

The user's glossary included more than 220 terms subdivided into five groups:

- Scientific terms characteristic of the knowledge as a whole (formed 18% of the terminological system)
- General biological terms peculiar to the subbranch ecology (formed 41%)
- Specific biological terms (formed 22%)
- Fauna and flora species (formed 14%)
- Geographic names (formed 5%)

It follows from the above results that general and specific biological terms form the largest part of the terminological system, but the boundaries between these groups are rather flexible. This peculiarity should be extended to the *IRT* structure. This means that it is necessary to single out as the most essential the general and specific biological sections. In order to supplement this, federal and branch standards as well as various dictionaries seem to be useful.

Third in importance and frequency of usage are the scientific terms characteristic of the knowledge as a whole. In this context, the *IRT* must be connected with the scientific terms adopted in this country, as well as with those adopted abroad to make it compatible with other information retrieval thesauri.

Furthermore, another part of the glossary contains the system of fauna and flora species. It is appropriate to transfer this section to the thesaurus using the biologic family-level system, since more detailed information may complicate the thesaurus structure and make its usage difficult.

Geographic names are preferably kept since research projects often have definite geographic characteristics and different solutions may be required for implementation.

Thus, the user's glossary was used for the preliminary version of the *IRT*, which consists of five parts of various terminological capacities. The next stage called for increasing the terminological base.

Nature Conservation Dictionary

In 1995, the *Russian Dictionary on Nature Conservation* was published. It includes more than 2000 terms subdivided into three major groups based on the impact on the environment: 1) the factor of impact, 2) the object of impact, and 3) the ecosystem response (ecosystem components).

The knowledge system has the following structure:

- Science (the subject and methods of research)
- Discipline (the objects of research)
- The line of investigations (the basis of a method).

Keywords are used for identification. Arrangement is strictly alphabetical, and cross-references are used for the reader's convenience.

Machine Translator

This stage will regulate and introduce the linguistic tools. The research project to develop the computer version of the bilingual glossary began in 1996, and its aim is to provide machine translation of the environmental texts. Among several software versions currently existing, one of the most widely used (Stylus for Windows) has been chosen as an example. In analyzing the modern versions, it is clear that a lack of environmental terms is typical.

Conclusion

Results received during the studies briefly described here demonstrate the need to continue developing the *Russian Nature Conservation Thesaurus*. The author will be grateful for any comments on the above information.

Correspondence:
Nina G. Dobrynina
8-1-53 Chelomeya Str.
Moscow 117630
RUSSIA

Looking into Old Maps: Who Generated Alaska's Historical Maps Up Through the Gold Rush?

Marvin W. Falk

Alaska and Polar Regions Department, University of Alaska Fairbanks, USA

Keywords: Alaska, Historical maps; Maps

Visual images convey attitudes and values as well as other kinds of information. Maps were generated for various entities and reflect their philosophies and missions. With historical maps, these values are as important to us as the place names and physical geography that they depict. In this short space, many important elements in the history of Alaska's cartography will be passed over quickly in the interests of showing general types and gaining an overview.[1] The history of the mapping of Alaska from the earliest maps to the present has yet to be written. It would be a rich and complex tale, but one much too long to contemplate in a short article.

Academic Interest

The figure of the earth, the relationship of the continents, early geography and cosmology: all of this represents a kind of curiosity and battle of concepts and theories so dear to academics, even if most of the practitioners were not actually a part of the "academy." This is powerful stuff, not to be taken lightly as a motivation to explore. It had very much to do with the centuries of searching for a Northeast and a Northwest Passage. I have examined aspects of the period of the speculative geography of Alaska elsewhere.[2] Most of the published maps of this genre are a part of the traditional commercial press of the day.

The possibility of a strait which would allow passage to the Arctic across the globe from Europe was a common map type. Gerhard Mercator placed his faith in this concept in his famous Arctic projection showing his four Arctic Islands [world map, 1538].[3] This is a prevalent depiction of the Arctic by one of Europe's greatest and most influential cartographers, whose projection is still the most common in general use today. It has what became known as the Strait of Anian, a passage to the Pacific Ocean in the general vicinity of Alaska.

Some map dealers have described Wytfliet's 1597 map as the first map of Alaska; you can see why because of certain interesting points, including the Arctic Circle passing through something very much like the Seward Peninsula and rivers that could be the Yukon, Colville, and Mackenzie. There are a whole series of these maps in various states, including less convincing ones in earlier years that were issued by Plancius and De Jode.

Even up to the late 18th century, reported expedition discoveries were shown adjacent to depictions of spurious voyages and legendary accounts. This is especially true of a series of maps issued by Joseph Delisle and his allies in France, starting in 1752 and continuing to the early 19th century.

There are a substantial number of early maps, both published and manuscript, that placed rumored lands off northeast Asia. Some of these show some misplaced Dutch discoveries (based on actual expeditions which sighted Hokkido or on rumors passed on from accounts of Native trade across Bering Strait).[4]

Exploration and Expedition Mapping

The cartography of the Bering Expeditions has been considered at length in the literature.[5]

Much of what was known during the early period of the fur trade is just now coming to light, as the manuscript material now available for analysis allows research not possible before.

The Levachev-Krenitsen Expedition, which lasted from 1764 until 1771 (at sea 1766-1770), systematically explored the Aleutian Islands. Their summary map was leaked to the west with the approval of Catherine the Great. This map, now in our collection, is the one provided through Catherine's Scottish physician to a Scottish colleague who then published it and made this information widely available through the publications of William Coxe, in various editions from 1780 to 1803.

Cook's third voyage took place from 1775 to 1780, although Cook himself perished in Hawaii. Perhaps the best known and most publicized of the 18th century voyages of exploration, maps resulting from this voyage were published widely during the 1780s and 1790s in official and unofficial editions. Striking images of Alaskan scenes, especially those done by the expedition artist Webber, became very well known.

The Billings Expedition, 1785-1794, was led by an Englishman in Russian service who had served in a subordinate capacity with Cook. The second in command, Gavrill Sarychev, who can be seen strolling on a beach in Prince William Sound in one of the plates of the atlas published in 1802, was a premier cartographer who issued the expedition atlas and later an important compilation of maps of Alaska while he was hydrographer-general of Russia. Luka Voronin was the artist upon whose work the expedition's engravings were based. Sarychev made a simple map of Shelikov's settlement at Three Saints Bay on Kodiak Island that was published in his atlas of maps. The engraved view was published in the expedition's atlas of views. His beautifully rendered, full-page view brings life to the map. As with many of the atlases issued during these years, there are many coastal views, hundreds and hundreds of miles of them.

With regard to La Perouse, 1786, and the Spanish voyages, I will pass over them quickly, except to note that much of the important Spanish material was never published during that era, and remains in manuscript form. Excellent photographic reproductions are available from the Museo Naval in Seville.

George Vancouver's voyage lasted from 1791 to 1795. His survey, especially of southeast Alaska, remained the standard upon which all others were based for 100 years, although a significant amount of additional material was added over time.

The Krusenstern-Lisianski round-the-world voyage occurred from 1803 to 1806. This was the first Russian circumnavigation. Both men published the results of the voyage, and although Lisianski's *Neva* was the only one of the two ships to be in Alaskan waters (Krusenstern with Rezanov was in captivity in Japan), Krusenstern later issued an important atlas of the Pacific in several editions. A number of observations were made, including those of natural phenomena and man-made objects. Lisianski aided Baranov in re-taking Sitka. He included a sketch of the Tlingit fort, after the Tlingit withdrew, as well as his rendition of the newly re-established settlement.

Otto von Kotzebue led a privately funded expedition from 1815-1818 that included several artists. One artist, Ludwig Choris, made hundreds of paintings and drawings of which a selection was eventually published. One depicts expedition members investigating ground ice in the vicinity of present-day Kotzebue. A significant amount of scientific information was gathered and a number of contributions made to cartographic knowledge.

Frederick William Beechy surveyed the northern coast of Alaska as far as Point Barrow in 1826 and 1827. I have had the pleasure of examining the manuscript charts from this expedition at the Hydrographic Department in Taunton, England, and have had copies made of them. We have several of the oil paintings that were used as the basis of colored illustrations in the voyage account in our rare book collection.

Fedor Litke led a voyage with M. N. Staniukovich that lasted from 1826 to 1829. As with many other important voyages, this resulted in substantial publications which included maps and a striking atlas of views. He was tutor to the Grand Duke Constantine who became head of the Russian Navy. Litke was a principal founder of the Russian Geographic Society and President

of the Russian Academy of Sciences. We have prepared a translation of a modern biography of Litke by A. I. Andreev which will appear in July of this year [1996] in the Rasmuson Library Historical Translation Series published by the University of Alaska Press.

Extended Compilations for Russian America

There are several compiled atlases that should be mentioned.

Krusenstern, who continued to work with hydrography after his voyage, published two versions of his *Atlas of the Pacific Ocean*. They demonstrate the continuing evolution of maps. The first was published in 1826 (in Russian) and the second in 1827, but corrected to 1835. A look at the 1826 map shows almost no detail along the Alaska Peninsula. Not so with the 1835 map. A wealth of new place names have been compiled onto the corrected version.

The last great bound atlas of Russian America was published in Saint Petersburg by Mikhail Tebienkov in 1852, from copper plates that had been drawn by a Creole ship captain, M. Kadin, and engraved in Sitka by a Creole technician, Kozima Terentiev. Tebienkov had served in Alaska for many years, finishing as Chief Manager of the Russian American Company, and had gathered all available information on Alaska, the coast of the Russian Far East, and the coast as far south as California.

Alexsandr Filippovich Kashevarov was born in Alaska, trained in Saint Petersburg, and actively engaged in extensive exploration and cartographic work in Russian America during the 1830s and early 1840s. He gathered extensive materials in Alaska which he took back with him when assigned map-making duties in Saint Petersburg. He was responsible for a series of maps published by the Hydrographic Department of the Naval Ministry through the early 1850s. Originally planned as an atlas, they were issued individually and are the last of the important original maps of Alaskan waters produced by the Russians. They are fairly rare. Imagine my surprise when I found one of them used for decoration in the lobby of the old railroad hotel in Healy.

The Russian American Company published a limited number of interesting special maps in some of their annual reports to stock holders. These are listed in my cartobibliography.

American Era Exploration up to the Gold Rush

George Davidson and his party made an extensive cruise on the Revenue Cutter *Lincoln* in 1867. He purchased, and was given, an extensive library of maps at Sitka and these were the basis for the first American hydrographic charts (we have his annotated map collection at the Rasmuson Library, the majority of his other papers are at the Bancroft Library). The first two editions of the *Coast Pilots of Alaska*, 1869 and 1883, were based upon his work and that of William H. Dall and Marcus Baker. The third edition was prepared by H. E. Nichols in 1891. While a few specific surveys were made, most of the early U.S. maps were based on earlier surveys done by other nations, primarily Russian and British. The first continuous survey began in 1882, but the charting was limited to the most used channels and harbors.

The U.S. military mounted a number of reconnaissance mapping expeditions to Alaska's interior during the years preceding the gold rush. The army was involved starting with the Raymond expedition to Fort Yukon in 1869 and continuing sporadically up to the gold rush.[6]

Bowing to pressure by the early miners already in the Yukon drainage, Congress appropriated the magnificent sum of $5,000 to the U.S. Geological Survey. Three geologists were sent to study coal and gold deposits. By 1898, the government was convinced that more maps were needed, and the U.S. Geological Survey began its systematic work in earnest. The International Boundary Survey was initiated, and the Coast and Geodetic Survey's coastal charting program was substantially increased.

The gold rush brought an explosion of popular interest in Alaska. There were about 18 published maps issued by commercial firms and government agencies just before the gold rush in 1895. In 1896 a modest 12 were published. However, once the news got out, there were 84 in 1897 and 74 in 1898.

Manuscript mapping continued to be important, and resources such as the Yukon River

pilot charts hold a great deal of interesting historical resource material. Maps as essential historical resource material have not been utilized to their fullest potential. It is hoped that this will change.

Endnotes

1. For a partially annotated list of the maps of Alaska through 1900, see my *Alaskan Maps: A Cartobibliography of Alaska to 1900* (New York: Garland, 1983).
2. Marvin Falk, "Images of Pre-discovery Alaska in Work of European Cartographers," *Arctic* 37, no.4 (1984):562-73.
3. "Limes occidentis Quiuira et Anian," in Cornelius Wytfliet, *Descriptionis* (Louvain, 1797). map 24x30 cm.
4. For an outstanding series of reproductions of these manuscript maps, see Aleksei Efimov, *Atlas geograficheskikh otkrytii v Sibiri v Severo-Zapadnoi Amerike, XVII-XVIII veka* (Moscow: Nauka, 1964). For the best short account of early mapping of the Strait, see Raymond Fisher, "Early Cartography of the Bering Strait Region," *Arctic* 37, no.4 (1984):574-89.
5. For the meaning of Bering's voyages and their contribution to geographical knowledge, see the closely argued book by the late Raymond Fisher, *Bering's Voyages: Wither and Why* (Seattle: University of Washington Press, 1977). For an explanation of the international controversies that surround the interpretation of Bering's contributions in Europe, see Gerhard Frederich Muller, *Bering's Voyages: The Reports from Russia*. Translated with commentary by Carol Urness (Fairbanks, Alaska: The University of Alaska Press, 1986). Rasmuson Library Historical Translation Series, vol. 3.
6. The best introduction, covering all U.S. agencies is Morgan B. Sherwood, *Exploration of Alaska, 1865-1900* (Fairbanks, Alaska: University of Alaska Press, 1992). This is the third printing of his account. The original 1965 edition was in the Yale Western Americana Series, no. 7.
7. For descriptions of the methodology and working conditions of the early U.S. Geological Survey, see the following essays by the head (pre-W.W.I) of the Alaska section: Alfred H. Brooks, *Blazing Alaska's Trails*, compiled by Button L. Fryxell (Caldwell, Idaho: Caxton, 1953).

Correspondence:
Marvin W. Falk
Alaska and Polar Regions Department
University of Alaska Fairbanks
Fairbanks, Alaska 99775
USA
ffmwf@aurora.alaska.edu

Poster Presentation

The International Permafrost Association Contributions to the Polar Libraries Colloquy

J. Alan Heginbottom[1], Robert van Everdingen[2], Ray Kreig[3], Marina Leibman[4], and Jerry Brown[5]

[1] Geological Survey of Canada, Ottawa, Ontario
[2] Arctic Institute of North America, University of Calgary, Alberta, Canada
[3] R. A. Kreig and Associates, Anchorage, Alaska, USA
[4] Earth Cryosphere Institute, Russian Academy of Sciences, Moscow
[5] International Permafrost Association, Woods Hole, Massachusetts, USA

Keywords: International Permafrost Association; *Frozen Ground*; World Wide Web; CD-ROM databases

---

At the 15th Polar Libraries Colloquy in Cambridge, the International Permafrost Association (IPA) established formal liaison with the Colloquy. This short report summarizes and illustrates IPA's contributions to polar information over the past two years. These comprise the following:

1. Publication of two issues per year of the news bulletin *Frozen Ground*. Starting in 1996 *Frozen Ground* is being distributed with subscriptions to the Wiley quarterly journal *Permafrost and Periglacial Processes*, which has been designated an official journal of IPA. Special subscription rates are available to those demonstrating a professional interest in permafrost and other aspects of frozen ground. In addition to printing *Frozen Ground*, we now have a World Wide Web site which is maintained by the Geodata Institute, University of Southampton. Current information from the two most recent issues of *Frozen Ground* is available at:

http://www.geodata.soton.ac.uk/ipa

2. The multi-language glossary of permafrost and related ground ice now contains terms in 11 languages (Chinese, English, French, German, Icelandic, Italian, Norwegian, Polish, Russian, Spanish, and Swedish). As a direct result of discussions in Cambridge, Icelandic terms were added by Halldor G. Petursson. A listing in Romanian is also being undertaken. A revised format is employed, with the term first listed alphabetically in English followed by the other languages. The current version of the glossary continues to be available from Robert van Everdingen at the Arctic Institute of North America on two MF2HD diskettes in WordPerfect 5.1 (for IBM DOS), formatted for HP III laser printer (US $15.00). A final revised printed copy should be available in 1997.

3. A partial bibliography of maps containing permafrost information was prepared and published in the Glaciological Data Report GD-28 (*Workshop on Permafrost Data Rescue and Access*. Boulder: World Data Center for Glaciology, University of Colorado, Boulder, Colorado, 1995). It now consists of 675 citations listed alphabetically by first author. The compilation was prepared by Irina D. Streletskaya and Marina O. Leibman in Moscow as part of the Data and Information Working Group. Many of the references are found in Moscow institutes and the Lenin Library. A location index was developed by Lee Ann Gerhart of R. A. Kreig and Associates, Anchorage. Using the index map of the Russian Cartography and Geodesy Service (GUGK: Quad Numbering System Designation), the bibliographic entries were assigned to a map grid location according to their latitude and longitude. The index was created using a program written in QBASIC. The program could be easily adapted for indexing other citations if latitude and longitude are given.

4. In preparation for the 7th International Conference on Permafrost, to be held in

Yellowknife, NWT Canada, 23-27 June 1998, several groups are preparing a CD-ROM of permafrost data and information. The CD, tentatively named Circumpolar Active-layer Permafrost System (CAPS), is expected to contain the glossary, map and literature bibliographies (possibly a cumulative index starting with the 1983 index), and selected permafrost data from each of the IPA Members and other countries in both hemispheres.

5. Since 1963 there have been six international conferences on permafrost and several related bibliographies published. Since each country publishes it own proceedings, there has been no standard form of citation for the resulting publications. A standard format for citing publications of the International Conferences on Permafrost is proposed by J. Alan Heginbottom as follows:

- *Permafrost: International Conference, Proceedings.* Washington, D. C., National Academy of Sciences, 1966. National Research Council Publication 1287.
- *Permafrost: Second International Conference, Yakutsk, Abstracts of Papers.* Moscow, Nauka Publishing House, 1973.
- *Permafrost: Second International Conference, Yakutsk, The North American Contribution.* Washington, D.C., National Academy of Sciences, 1973.
- *Permafrost: Second International Conference, Yakutsk, The USSR Contribution.* Washington, D.C., National Academy of Sciences, 1978.
- *Permafrost: Third International Conference, Edmonton, Abstracts of Papers.* Ottawa, Ontario, National Research Council of Canada, 1978.
- *Permafrost: Third International Conference, Edmonton, Proceedings.* Ottawa, Ontario, National Research Council of Canada, 1978. [Volume 1, Volume 2] (NRCC Report 16529). *Note:* English translations of the Russian and French papers from this conference were published by the National Research Council of Canada.
- *Permafrost: Third International Conference, Edmonton, English translations of the forty-nine Soviet papers, the one French paper, and the three invited Soviet theme papers.* Ottawa, Ontario, National Research Council of Canada, Report 18119, 1980. [Part 1, Part 2].
- *Permafrost: Fourth International Conference, Fairbanks, Alaska, Abstracts and Program.* Fairbanks, Alaska, University of Alaska, 1983.
- *Permafrost: Fourth International Conference, Fairbanks, Alaska, Proceedings.* Washington, D. C., National Academy Press, 1983.
- *Permafrost: Fourth International Conference, Fairbanks, Alaska, Final Proceedings.* Washington, D. C., National Academy Press, 1984.
- *Permafrost: A Bibliography, 1978-1982.* Glaciological Data Report GD-14. Boulder: World Data Center for Glaciology, University of Colorado, Boulder, Colorado, 1983.
- *Permafrost: Fifth International Conference, Trondheim, Norway, Proceedings.* Trondheim, Norway, Tapir Publishers, 1988. [Volume 1, Volume 2, Volume 3].

  Note: Volume 3 was also issued as *Frost i Jord* Nr. 27 (*Frost Action in Soils*, volume 27) of the Royal Norwegian Council of Scientific and Industrial Research, November 1988.
- *Permafrost Bibliography Update, 1983-1987.* Glaciological Data Report GD-21. Boulder: World Data Center for Glaciology, University of Colorado, Boulder, Colorado, 1988.•
  Permafrost: Sixth International Conference, Beijing, Proceedings. Wushan, Guangzhou, China, South China University of Technology Press, 1993. [Volume 1, Volume 2].• *Permafrost Bibliography Update, 1988-1992.* Glaciological Data Report GD-26. Boulder: World Data Center for Glaciology, University of Colorado, Boulder, Colorado, 1993.•
  Permafrost and Climatic Change: An Annotated Bibliography. Glaciological Data Report GD-27. Boulder: World Data Center for Glaciology, University of Colorado, Boulder, Colorado, 1993.
- *Workshop on Permafrost Data Rescue and Access.* Glaciological Data Report GD-28. Boulder: World Data Center for Glaciology, University of Colorado, Boulder, Colorado, 1995.

Correspondence:
Jerry Brown
International Permafrost Association
P.O. Box 7
Woods Hole, Massachusetts 02543
USA
jerrybrown@igc.apc.org

Antarctic Artist Extraordinary: The Edward Adrian Wilson Collection at the Scott Polar Research Institute, Cambridge

H. G. R. King

Scott Polar Research Institute, Cambridge, England

Abstract: The Scott Polar Research Institute is custodian of over 800 watercolour and pencil sketches by the artist Edward Adrian Wilson. This paper outlines Wilson's formative years as an artist and the circumstances leading to his appointment as surgeon, artist, and vertebrate zoologist on Captain R. F. Scott's *Discovery* expedition to Antarctica, 1901-04. The problems of sketching encountered in the Antarctic environment and Wilson's methods of dealing with these are outlined and the broad range of his interests as an artist suggested. A brief outline of his work in Britain between 1905-1910 follows. A short review of his contribution to Scott's second Antarctic (*Terra Nova*) expedition, 1910-12, focuses on his pencil sketches made on the South Pole journey, October 1911-February 1912. The paper concludes with a summary of Wilson's hints on polar sketching and reference to the religious and mystical motivation behind his art.

Keywords: Antarctica; Art; Wilson, Edward Adrian; Scott Polar Research Institute; Expeditions; England

Introduction

When the Scott Polar Research Institute's Memorial Building was first opened to the public in November 1934 it was commended not only for the architectural merits of its museum and library but also for one unusual feature—an art gallery, specifically designed to house a collection of watercolors by Antarctica's most outstanding artist, Dr. Edward Adrian Wilson. The gallery has long since succumbed to the more pressing needs of the library and research students, but the pictures, over 800 of them, many presented by the artist's widow, are today safely conserved in a humidity-controlled archives room; they include watercolors, pen-and-ink and pencil sketches, illustrated field-notebooks, and pocket sketch books. The watercolors rarely see the light of day in order to obviate fading. Some have been reproduced in facsimile. This paper purports to outline Wilson's early development as a scientific artist, to review his work on Scott's *Discovery* and *Terra Nova* expeditions with special reference to the Cambridge collection, and to conclude with a brief account of his methodological and spiritual approach to his art.

Precursors of Wilson

In his scholarly monograph on Antarctic birds, the late Brian Roberts referred to Wilson as being "the first to convey an accurate idea of the beauty and subtlety of Antarctic colours. Often these records were as precise as photography and much more pleasing" (Roberts 1967, 33). Undoubtedly the most accomplished, Wilson was by no means the first artist to accompany a British Antarctic expedition. William Hodges, artist on Captain Cook's famous circumnavigation of the continent in 1772-75, made excellent sketches of icebergs and meteorological phenomena. John Edward Davis, Master of H.M.S. *Terror* on Sir James Clark Ross's expedition of 1839-43, a talented amateur, was the first to make watercolor sketches of newly discovered Victoria Land, Ross Island, and the Great Ice Barrier, several of which are in the Scott Polar Research Institute's collection. Wilson's sketches of Antarctic wildlife and scenery are, however, in a class of their own; John Constable's dictum that "painting is a science and should be pursued as an inquiry into the laws of nature" encapsulates Wilson's approach to his work exactly.

Wilson's Development as an Artist

Inherited skills, parental encouragement, and exposure to the natural environment all contributed to Wilson's unique genius. He was entirely self-taught, inheriting artistic skills from his paternal grandmother's family, and was reported sketching at the early age of three. Born in Cheltenham, Gloucestershire, England, in 1872, the son of local physician Dr. E. T. Wilson, his formative years were spent on a farm rented by his mother, "The Crippetts," a local Cotswold beauty spot. Here he loved nothing better than to ramble in the local countryside noting every detail of the plant and animal life and making collections of butterflies and birds' eggs and even practising dissection and taxidermy on the occasional dead animal picked up by the wayside. At school, he pursued and developed his hobby as is evidenced by some early sketchbooks in the Polar Institute's collection. As an undergraduate at Cambridge University, reading for the Natural Sciences Tripos and medicine, his rooms at Gonville and Caius College were reported to be littered with drawings and the bones and skulls of numerous birds. During the Long Vacation, Wilson studied and drew the animals in the London Zoo and visited the National Gallery, where he declared himself "smitten to distraction" by the works of J.M.W. Turner. By now he was determined to follow a medical career and on leaving Cambridge began work as a junior houseman at St. George's Hospital, London, where he evidenced a considerable reputation as an anatomical artist. But overwork led to a breakdown in health, subsequently diagnosed as pulmonary tuberculosis. Sent to Norway to recuperate, he roved the countryside sketching the Lapps and their reindeer and of course the birdlife, his special interest. Later he convalesced in Switzerland, returning to Cheltenham in 1899 to complete his medical exams.

On Scott's Discovery *Expedition, 1901-04*

That same year recruitment was under way for a joint Royal Geographical Society-Royal Society combined expedition to Antarctica, the first full-scale scientific undertaking to visit the little-known continent. Wilson's joining the expedition was very much a chance affair resulting from a recommendation to its leader R.F. Scott from Sir Clements Markham, President of the Royal Geographical Society, and Dr. Philip Sclater, President of the Zoological Society of London, both of whom recommended Wilson on the grounds of his remarkable artistic ability. When Wilson eventually set sail on *Discovery* in August 1901 with a far from satisfactory bill of health, it was very much on a kill-or-cure basis. His official briefing as junior medical officer and vertebrate zoologist was a tremendous challenge to which he responded with all his being. As zoologist his chief concern was to record pictorially Antarctic animal life in meticulous detail—whales and dolphins, the various species of seal and, most important of all for him, the birds; these included albatrosses, petrels, skuas and penguins, and several sub-Antarctic species. The Polar Institute's accessions register lists approximately 800 watercolors and other sketches made on this expedition which extended over two seasons. Examples of his work will be found in his official report on the birds published by the British Museum (Wilson 1907a) and in the volume by Brian Roberts referred to above. Ann Savours' edited edition of his *Discovery* diary reproduces many of his best watercolours (Wilson 1966). The diary contains numerous references to the problems of catching, skinning, and sketching birds at sea in a rolling ship with the artist exposed to the elements; later in the Antarctic the problems of cold-weather sketching are elaborated. An extract from the diary sums these up:

> Sketching in the Antarctic is not all joy, for apart from the fact that your fingers are all thumbs, and are soon so cold that you don't know what or where they are, till they warm up again in the tent (then you know all about it!); apart from this you get colder and colder all over, and you have to sketch when your eyes stop running, one eye at a time, through a narrow slit in your goggles. No one knows till they have tried it how jolly uncomfortable it all is. (Wilson 1966, 241-2)

Another problem facing the artist relates to the use of watercolors. As Wilson makes clear, painting out-of-doors in Antarctica is generally impracticable. Wilson's method, as evidenced by dozens of pencil sketches in the Polar

Institute's collection, was to make rough pencil sketches in the field to which he appended brief shorthand color codes. These aides-memoires plus his own remarkable color memory allowed Wilson to work up selected sketches into finished watercolors during the long hours of winter both on board *Discovery* and in the hut at Cape Evans on the *Terra Nova* expedition. This necessitated the use of candles or acetylene gaslight, the latter, Wilson asserted, making his pictures "look queer by daylight—the blues and yellows are apt to go wrong" (Wilson 1972, 190-1). His admirers, however, can find no fault with them.

Bird Pictures

Wilson's finely illustrated *Discovery* and *Terra Nova* diaries both evidence the wide range of topics which attracted this artist's eye, first and foremost being the bird life. Chief amongst these were the penguins, especially the Emperor Penguins (*Aptenodytes forsteri*) whose rookery at Cape Crozier, Ross Island, constituted a vast open-air laboratory. The Polar Institute's collection includes a number of Wilson's completed watercolors and pencil sketches of the rookery minutely portraying the development of the bird from the chick stage to the immature and juvenile and finally the adult stage. Each sketch is remarkable for the amazingly accurate detail in which feathering and coloring are displayed. A number of color sketches of Emperor Penguin eggs is a reminder of Wilson's interest in penguin embryology and his theories of their evolutionary development from the reptiles. It was this thinking that led him to undertake the hair-raising midwinter journey to Cape Crozier in June-August 1911 accompanied by A. Cherry-Garrard and Lt. H. R. Bowers to collect samples of these eggs during the Emperors' unusual laying season. Not just the birds but every aspect of the Antarctic scene attracted Wilson's attention; the multifarious formations of sea and land ice for example, from tabular icebergs to the serrated cliffs of the Great Ice Barrier (Ross Ice Shelf) were all recurrent subjects. One of his favourite themes was the active volcano Erebus with its characteristic plumes of smoke whose varying directions and height were faithfully recorded. Challenging too were the atmospheric phenomena peculiar to the Antarctic—auroral bands, fog bows, parhelia and paraselenae and iridescent clouds—all evidencing not only the artist's virtuosity but an insight into his spirituality. In a more light-hearted vein are the illustrations he produced for the expedition magazine *The South Polar Times* subsequently published in facsimile, the originals being held by the British Museum.

Panoramic Sketches

A significant aspect of Wilson's work as an artist in Antarctica during this pioneer period of its exploration was his skill in making detailed panoramic sketches of the mountain ranges fringing the coast of Victoria Land. The Polar Institute has a collection of many of the original field sketches including those drawn on the record southerly journey made by Wilson, Shackleton, and Scott in the Antarctic summer of 1902-03. When subsequently he came to redraw them on good quality paper he recorded that they measured "nearly eighty yards (72 metres) in all" (Wilson 1966, 257). In due course, 66 of these panoramic views were published in a portfolio volume as part of the set of official reports published by the Royal Society (Royal Society 1908) and described by Brian Roberts as "a model of lucid recording never surpassed in the annals of polar exploration" (Roberts 1967, 33).

Between Expeditions

On the return of the *Discovery* expedition to England in 1904 an exhibition of Wilson's pictures was held at the Bruton Gallery, London. Among the throng of viewers was Sir Joseph Hooker, then aged 88, who as a young naturalist had accompanied Sir James Clark Ross, discoverer of Victoria Land, over 60 years previously. Writing to the Director of the Royal Kew Observatory in March 1905 Sir Joseph remarked:

> I made an effort to see the Antarctic sketches with my legs bandaged up to the knees (but not painful). They are marvellous in number, interest and execution. No naval expedition ever did the like. The heads and bodies of the birds by Dr. Wilson are the perfection of ornithological drawing and colouring. They are absolutely alive. (Roberts 1967, 21)

Another distinguished visitor to the exhibition was Lord Lovat whose appreciation of

Wilson's work led to the latter's appointment as principal field observer, anatomist, and physiologist to the Board of Agriculture's Enquiry on Grouse Disease, a job which kept Wilson fully occupied dissecting grouse in Scotland over the next five years; indeed he was still working on the color plates for the published report while on board *Terra Nova* en route for Antarctica in 1910. During these same years, Wilson had also been commissioned to illustrate a history of British mammals in addition to a volume on British birds. This second book was never published—a great loss to the public. The original 90 watercolors and 35 pencil sketches are today held by the Polar Institute and hopefully will attract the attention of a publisher.

Scott's Last Expedition and the Pole Sketches

June 1910 saw Wilson once more accompanying Captain Scott to Antarctica, this time as Chief of the Scientific Staff and Chief Zoologist. On this occasion the organization and supervision of the multidisciplinary scientific program coupled to the detailed preparation demanded by Scott's plans to achieve the South Pole left him less time for sketching than on *Discovery*. Just prior to leaving for the pole on 1 November 1911 Wilson reported having completed over 100 color sketches to be sent home via *Terra Nova* prior to his expected return to Cape Evans. Though fewer in number, the quality of his watercolors evidences a maturity of technique to be observed in some magnificent views of Erebus painted in a near Japanese style to which he was much attracted. It is at this juncture that Wilson the artist tends to be obscured by Wilson the polar hero and by the dramatic sequence of events attending the so-called race to the pole and the tragic circumstances leading to the deaths of all five members of the main pole party. By great good fortune both Wilson's pocket sketchbooks and his diary were found on his body by the search party in November 1912. These precious relics—the diary held by the British Museum, the sketchbooks by the Polar Institute—constitute a remarkable illustrated account of that melancholy *via dolorosa*. The sketchbooks with their carefully delineated pencil sketches, often executed in the most appalling weather conditions imaginable, record the trek across the Great Ice Barrier with scenes of the pony camps, Wilson's companions on the march, mock suns, and panoramic views of the mountain ranges converging on the Beardmore Glacier. There follows the ascent of the glacier itself, the route to the polar plateau, with detailed notes on geology and the various peaks and side glaciers all noted. Of consuming interest are the sketches made in the vicinity of the pole itself —the sombre black marker flag, evidence of Amundsen's priority and his flimsy tent erected near the Pole itself a month previously. Further marginal sketches are to be found in Wilson's diary—"The Queen's flag at the pole" and "the South Pole for King George." There are said to be additional pole sketches in the Royal Collection though these still need to be traced. Further sketches were made on the return march, though they do not hint at its agonies. On the descent of the Beardmore, Wilson paused to record the all important fossil evidence of Antarctica's geological history. A final sketch was made at the foot of the glacier not far from where Petty Officer Evans collapsed and died. Wilson himself died alongside Scott and Bowers on or about 29 March 1912; he was only 39 years of age—a youngish man by our reckoning, but one who in his lifetime as an artist of the Antarctic had accomplished more than any other artist previously or since.

Wilson's Sketching Principles

During the winter of 1911 Wilson lectured to his companions, several of whom were aspiring artists themselves, on the technique of polar sketching, acknowledging his debt to the artist John Constable and to the maxims of art critic John Ruskin, who founded his own aesthetic principles upon truth to nature in landscape painting. Chief among the hints given by Wilson to his audience were the following quoted by his friend Griffith Taylor:

> 1. Accuracy rather than the making of pictures should be our aim in the Antarctic as our sketches are largely connected with scientific work.
> 2. Every line is to be criticised as a part of the whole, which means you mustn't scribble haphazard.

3. No coarse methods will reproduce snow, ice or distant mountains.

4. Do your outlines in very faint lines....Remember that nature relieves everything by shadow and colour, but not by lines. (Taylor 1916, 251-2)

Such were some of the basic maxims underpinning Wilson's strength as a scientific artist coupled with his belief that nothing is true until one has sketched it, and that nothing less than the truth will suffice. This insistence on accuracy was to result in many a sketch of outstanding natural beauty, ranging from an orange pink afterglow on Mount Erebus to the coloration on the inside of the mouth of an albatross.

Wilson's Religious and Mystical Motivation

It has already been suggested that Wilson's impulse to draw and paint was rooted in heredity and environment, but as his biographer George Seaver has argued in a study of Wilson's spiritual being (Seaver 1948), it was quite certainly a religious or mystical one exemplified in his devotion to the life and works of St. Francis of Assisi, for like St. Francis, Wilson adored nature. To quote, in conclusion, a letter of Wilson's to his wife Oriana:

> Above all things, I admire in St Francis his broad-minded happiness in everything that savoured of beauty, or sickness, or any other odd thing that came his way, and turned his mind to love and praise and sympathy.... (Seaver 1948, 23)

References

Roberts, B. 1967. *Edward Wilson's birds of the Antarctic*. London: Blandford Press.

Royal Society. 1908. *National Antarctic Expedition 1901-1904. Album of photographs and sketches with a portfolio of panoramic views*. London: Royal Society.

Seaver, G. 1948. *The faith of Edward Wilson*. London: John Murray.

Taylor, G. 1916. *With Scott: the silver lining*. London: Smith, Elder.

Wilson, E. A. 1907a. *Aves*. London: British Museum. (National Antarctic Expedition 1901-1904. Natural History, Vol. 2, Zoology [pt. 2]).

___. 1907b. *Mammalia (whales and seals)*. London: British Museum. (National Antarctic Expedition 1901-1904. Natural History, Vol. 2, Zoology [pt.1]

___. 1966. *Edward Wilson: diary of the* Discovery *expedition to the Antarctic regions 1901-1904*. Edited by Ann Savours. London: Blandford Press.

___. 1972. *Edward Wilson: diary of the* Terra Nova *expedition to the Antarctic regions 1910-1912*. Edited by H. G. R. King. London: Blandford Press.

Correspondence:
H. G. R. King, Research Associate
Scott Polar Research Institute
University of Cambridge, Lensfield Road,
Cambridge CB2 1ER
ENGLAND

Poster Presentation

Creating Reference Works from the Cambridge Arctic Shelf Programme's Information Resources

Eda L. Lesk

Cambridge Arctic Shelf Programme, Cambridge, United Kingdom

Keywords: Publications; Cambridge Arctic Shelf Programme; England

---

The Svalbard Archipelago provides the key to understanding the geological evolution of the north Atlantic and Arctic Oceans. The foundations of the Cambridge Arctic Shelf Programme (CASP) lie in Svalbard research. Our interests expanded to include studies of the Pan-Arctic early on in our history. We are recognized for our achievements in arctic geological research and the parallel growth of our collections of Pan-Arctic geological literature, including Russian translations.

The CASP Library and Information Centre interacts with the geological research groups at CASP to provide research support for current bi-polar projects. Current projects include Russia, the Pan-Arctic, east Greenland, the Barents Sea, and the south Atlantic (the Falkland Islands and the Antarctic Peninsula). Literature acquired for their support is incorporated into the library, and the library collections are representative of both the historical and contemporary initiatives of the organization.

Recently we have been able to make creative use of our own polar resources by preparing reference works and other projects which will allow us to share CASP resources with the wider research community.

Future and pending projects based on our information resources and expertise include *The Geology of Svalbard*; *A Directory of Geoscientists of the Former Soviet Union*; and *Bibliography of the Geology of the Arctic and the Former Soviet Union*. Two reference works have already been published: the *Tectonic Elements Map of the Arctic* and a chart, *Stratigraphic Distribution of Oil and Gas Deposits in the Former Soviet Union*.

The Geology of Svalbard will be a synthesis of Cambridge-initiated research, as well as contemporary and historical thought published in the literature from as early as 1867. Over 2500 references to published literature are cited from the CASP collection of over 3000 accessions.

Our information resources and translation expertise will allow us to prepare *A Directory of Geoscientists of the Former Soviet Union,* which will be issued on CD-ROM and aimed at encouraging international cooperation between western and Russian geoscientists. Information accumulated on the CD-ROM will be compiled from questionnaires designed to elicit information about the educational and professional backgrounds of the geoscientists and will require them to provide other information useful to western geoscientists when seeking collaboration, such as subject, stratigraphic age, and region of research. The questionnaires will be translated into English from keywords provided by the Russian geoscientists, thus keeping costly translation time to a minimum.

The *Bibliography of the Geology of the Arctic and the Former Soviet Union* will also be distributed on CD-ROM. This valuable resource will cite over 70,000 references. In addition, it will include the CASP archive of 35,000 references, currently on a card file, that have been accumulated during more than 48 years of arctic research. The number of serial publications currently cited in this bibliography is approximately 1200.

The *Tectonic Elements Map of the Arctic* and the *Stratigraphic Distribution of Oil and Gas Deposits in the Former Soviet Union* were prepared by geologists using our literature resources and translation program in collaboration with Russian colleagues.

References

Cambridge Arctic Shelf Programme. n.d. *Bibliography of the geology of the Arctic and the Former Soviet Union*. One CD-ROM. Cambridge: CASP, in preparation.

___. n.d. *A directory of geoscientists of the Former Soviet Union*. One CD-ROM. Cambridge: CASP, in preparation.

Harland, W.B. (with contributions by other researchers). n.d. *The geology of Svalbard*. London: Geological Society, in press.

Korchagin, V. I., A. Yu. Rozanov, M. A. K. Turton, L. G. Voronova, S. J. Tull, and D. I. M. Macdonald. 1994. *Stratigraphic distribution of oil and gas deposits in the Former Soviet Union*. One sheet. Cambridge: CASP.

Scott, R. A., L. M. Natapov, L. M. Anderson, J. C. Stewart, and C. F. H. Willan. 1995. *Tectonic elements map of the Arctic*. Scale 1:10,000,000, one sheet. Cambridge: CASP.

Correspondence:
Eda L. Lesk, Information Officer
Cambridge Arctic Shelf Programme
Gravel Hill, West Building
Huntingdon Road
Cambridge CB3 0DJ
UNITED KINGDOM
el10006@cus.cam.ac.uk
44(0)1223-277586 Fax: 44(0)1223-276604

The Diary of H.E.: A Displaced Life as a Creative Voyage of Discovery

Tamara Lincoln

Elmer E. Rasmuson Library, University of Alaska Fairbanks, USA

Abstract: In the Archival Collections of the Elmer E. Rasmuson Library there is a remarkable, sporadically created personal document of a tumultuous life of an exceptional émigré woman. Her thoughts and recollections offer us a glance at a chronicle depicting her inner life in Alaska as well as in many other parts of the world. The winds of wars and change made her very life and thoughts a perpetual cycle of discoveries as she became the creator and explorer of her inner and outer worlds.

Keywords: Evans, Helen Holl; Diaries; Estonia; Alaska

To create new visions and understandings we must be willing to push forward, to take that risk of combining the known with the unexplored. This statement can indeed be readily applied to the persona of Helen Evans, the woman who is the heroine of this chronicle. The exceptional diary of this Estonian woman, found in the Rasmuson Library of the University of Alaska Fairbanks, offers the reader a poignantly honest, often disturbing glance at the expansive inner and outer universe she depicts.

Helen, on January 1960 you wrote:

> One more page...it may be the last page of my diary, why write more? It's just a waste of time. Who will read it now, most of it is written in ungrammatical, poorly written Estonian language anyway. Last night...we looked at my photographs, my past life...all for nothing ....My poor, darling Yukon [a dog], no more rides to the country, the gravel pit or chasing rabbits....It is lovely outside, sun is sparkling ...spring will soon be here....Oh, my God, I hate to die! (Evans, unpaged)

Helen, I want to tell you now that it has not been a waste of time. I feel privileged that you have shared your courageous life. Please let me dedicate this work to you, in gratitude.

In January 1977, I encountered your reflections for the first time. Reading your diary, the intersection of our lives at that moment seems magical in retrospect. As you talked to me through those terse, voluminous pages, my own, recently established Alaskan habitat became a private sanctuary, where we met, as if by secret. Your feelings, the dense exotic environments you shared, the lure and mosaics of distant places, became partially mine. You helped me often, at that time, to regain parts of my memory and consciousness.

Helen Evans herself provides the best introduction to the retrospective dimensions of her diary, when, in 1914, at the age of 14 she comments in the initial pages.

> There are moments when a human being simply cannot keep silence. It happens to me often, and the only salvation then is to write! A few days ago I read a diary of a woman, who started working as a waitress...and I thought...if she can do it, why not I?...Don't really know where or how to begin, but I'll try to tell my tales without reshading....(Evans, 1)

The unpublished diary of Helen Holl Evans, nee Ojasson, cover the years July 1914 to January 1960. As she notes throughout the manuscript, the typewritten version is not the original. The author was a voluminous writer, so in order to save space and provide clarity, she began converting the handwritten version in the 1920s, whenever she had access to a typewriter.

The manuscript comprises 449 single-spaced pages, written largely in pre-orthographic reform Estonian, partially in the Tartu regional dialect. There are also Russian, German, and English insertions. The major portion of the di-

ary covers parts of eastern, western, and northern Europe and many other parts of the world. Its geographic perimeters are immense: the Baltics, Russia, Norway, Sweden, England, France, Brazil, South Africa, China, Australia, the United States, and of course, Alaska. The Alaskan portion covers about one-fourth of the manuscript.

Helen's diary is not a day-to-day account of events. Her entries are sporadic, though loosely tied to a chronological sequence. They rush from place to place, as if to reflect the restlessness of her being. Her writing is alternately prosaic and moody, exhibiting a great accumulation of detail, especially when it reflects the natural environment. The clouds, seashore, birches, flowers, sunshine, moonlight, mountain ranges and rain, ice and the aurora...all these elements become infused with the poetry of color and feeling. Her relationship to the creatures sharing her world, such as birds and dogs, is also evoked tenderly.

There are also images and impressions so brief as to barely record what occurred, written with neither art or artifice. At times, they seem too plain and sketchy so as to appear almost coded:

> ...have arrived in another new place, do I even know where—today I do not see anything ...cannot think...why did I come here?...tomorrow all will change. (Evans, unpaged)

The diary begins with an indication of her poverty stricken youth and extremely low social status. Growing up in pre-First World War Estonia as the daughter of a laundress and a gardener and occasional manure distributor, Helen rarely enjoyed the comfort of a home. Their habitats most often consisted of single rooms, filled with furniture that her father built out of anything available. Being an adventurous 14 year old, she emerges energetic and optimistic, in the midst of chaos. She offers us a clinical view of herself as an attractive, restless young woman. She is driven by curiosity, yet is miserable in school.

> I was kept back every other year, must have been because I was lazy in school, not elsewhere. After all, I worked with mom, helping her iron since I was nine...but school, was just not right....But I knew I had to learn somehow, learn about other things...the world....(Evans, 12)

When the Great War began she left school, but later continued her education in Russia.

She captures our attention immediately, exploring the dramatic possibilities of a brief scene, as she draws her reader into the provincial world of Parnu, Estonia, in 1914. At that moment, the small coastal community in Estonia becomes a microcosm of the terror of war, which will soon envelope the world. Calmly, she cites:

> Parnu was bombed on the fifth of August 1915. Rumors have been circulating for days that the German fleet had been seen....God, it's here, the houses were bombed, factories burned. I saw a half-mad woman running, hair burning, flowing in the wind...trying to save her children. Why was she carrying an old pair of slippers? I asked. Why? Why is this happening...need to get home....I knew that I had never been so frightened. I was running, choking, inhaling smoke. Why had I disobeyed my mom?...I was petrified and excited! Something extraordinary was happening, as I watched buildings blow up around me....As I turned a corner, I saw a beautiful horse on the ground with its head cut off. Its dead master was still holding on to him. I ran past the church in rubble and smoke, somehow Christ on the crucifix seemed to be hanging from the rafters....At home, mother was alive—she was waiting for me. I asked for food, as she pushed me into the cellar. On the way, I noticed an abandoned bike...in our yard...it had been the dream of my life! So what, if I am hit by shrapnel, finally I can have a bike! (Evans, 27)

In this madness the girl records other moments of tragic dimension.

> A great peril came one early evening...a young man followed me...and then—I only remember that I was frightened to death and could not move for an hour, I lay trembling, crying...what insolence? I cannot imagine what gave him an idea of such insolence? (Evans, unpaged)

Here, our storyteller delicately uses a Victorian tactic to convert the brutal rape into a case of insolence, so as to shelter her inner self from the brutality of the act.

Moving swiftly from place to place we are allowed to follow her into Petrograd (Saint Petersburg, Petrograd, Leningrad, St. Petersburg). The discovery of that marvelous city leaves her speechless, mystified, excited:

> It simply did not fit into my soul that I was in Russia's capital city. I wanted to remember every stone, every face; and I knew that I wanted to come here again. I did not even notice the horrendous cart father was driving, nor the most miserable looking horses I had ever seen. I am not going to be afraid of hard work, and mom tells me that I also need to go to school again. Nevsky Prospect was the most beautiful street I had ever seen...and I wanted to return....I knew I would be back, after all, girls were envious of me because I was pretty and I was not afraid of anything....And someday, someone with very beautiful dark eyes will find me.... (Evans, unpaged)

For Helen, the journey to find that dark-eyed perfection proved very difficult and long —occupying her most of her life. At the end, as we will see, the perfection had eluded her. Yet, in the meantime, she is fully conscious of her need to survive, to be able to stand on her own, to be herself. She learns to type, she begins learning English and even studies piano, among other things. A curious mixture of independence and also dependency on men, she rushes forward, rarely glancing back. By the time she is 17, her reputation is questionable, and her parents beg her to marry an older Russian-Latvian businessman from Tallinn. Mr. J. T. Tchepanov converts our free spirit into a young matron. This role distances her from her own peers, and in her captivity and boredom H. E. begins to explore the fragile but lucrative business of hairdressing in one of her husband's salons. The economic freedom gives her an opportunity to become more explorative, to travel and to pursue many of her illusions. The shock of her newly acquired profession permeates the provincial society, but she is stubborn. Her restless spirit drives her relentlessly—out of her marriage, her home, and her motherland. Finally, scattering the fragile bonds, she leaves her husband and her lover S. Her continuous escapades push her further and further away from any social, political, or personal reality. She exists in her own realm. In it, she becomes consumed with the idea of liberating herself from the provincial surroundings of the Baltics. To accomplish this, she even abandons the idea of wealth as she pursues a talented Russian-Norwegian flutist, Waldemar or Volodya N, whom she marries.

The years 1923-1924 represent a very happy and calm period of her life, where tranquillity seems almost possible. The descriptions of Norway are pure, lyrical, colorful, and gentle. There, she pursues her own love of music, seems to be in tune with nature, with self. Tragedies interrupt, she loses a child, her husband dies of tuberculosis, and once again she is beset by fear, restlessness, and alcoholism. She plays out the many fantasies of her life.

> Love is lost forever, I need to survive. That which will happen to me does not matter....I need to repay our debts honorably....(Evans, unpaged)

To secure her position and to acquire a better range of clientele she works as a beautician in a premier hotel, creating illusions for others as well as herself. There, she encounters an infinite variety of characters from the world of entertainment and art, business, and many foreigners. Her foreign contacts, once again, reawaken her dream of someday coming to America, though it proves to be a very complex passage. So, our heroine embarks on a journey to South Africa; to Capetown, Johannesburg, and other areas. There is even a shipwreck as the vessel runs on to coral reefs! Throughout these passages her energy is boundless, her eye keen, as she describes the townships and landscapes of South Africa imbued with bitter fragments of racism. Her industriousness is amazing! It propels her through the seemingly endless search for self, recognition, and power. Yet her life, up till now is only a prelude to the voyages that follow. As we look at the entries dealing with South Africa, we seem to be reading a picaresque novella. Amidst recording, preserving outside events and impressions such as strikes and fires, her diary still serves as a mirror of self-examination.

The passages she takes, whether they are to Johannesburg, Cairo, Rio DeJaneiro, Sidney, China, or Fairbanks, are always a representation of a perennial search for the colorful, non-pro-

saic, the potential, the unfinished. In her quest for herself to be honest, to be free, she eventually reaches a point where turning back becomes an impossibility. By moving through her life in such a manner, Helen E. created new playing fields where all traditional roles were altered, social expectations and mores challenged. She moves through time and space on her own sheer will and determination. Her quest is freedom and discovery, while she is, at the same time, fully aware of the sacrifices and losses. It is that intimacy with self which gives this diary such strength. She confides to her diary her need for acceptance, the right to be who she is.

South Africa cannot hold her, nor can England, Egypt, nor her vast journeys in China. The record of the life she is constantly recreating could, indeed, be viewed as a series of travel journals, but the intimate poignancy of the work would be lost by doing that. Her quest for self-realization, for liberation from traditional roles, makes her current to the contemporary reader.

The South African passage leads her to an unsuspecting young Englishmen, H., whom she marries. The chosen one seems to be somewhat down on his luck, however, as the son of quite wealthy parents he could afford to play the role of an adventurous free spirit. Together, they embark on their Brazilian venture, seeking riches while she writes

> ...my God, we have never been so poor! We only have 1 box and are down to six shillings....A whole bunch of bananas cost only three pennies, so we will not starve....

She continues her recollections.

> As we sat on our box in our little room, I noticed that a whole family of large lizards had moved in with us...they just kept coming.... We cannot stay—I have lost my looks, we have all the wrong garments and no one could possibly call me 'Helen of Troy' anymore! We left—in a third class cabin. My God, we wanted to try our luck in the Amazon! All the women on the boat looked like little black birds, they were completely wrapped in black and wore heavy loads on their heads—when they saw me smoke, they crossed themselves! The man, sat around and played boardgames and did not do anything at all! (Evans, unpaged)

Ultimately our adventurous couple returns to England, where a very conventional life follows. It is too placid to fit the scheme, and so in 1932 she returns to Estonia to touch memories of her past. While there, she asks

> Is my life a dream or a nightmare? Home, mother's grave, my old father what has happened to it all? Oh, how beautiful it once had been! I am leaving, knowing I shall never see father again. Tschepan, my ever faithful first husband keeps assuring me that I will return to him when I am forty or, I'll become a madam in a whorehouse. Hah! (Evans, 102)

She returns to England to leave H. and England forever. Egypt and China are her next destination. China leaves her with incredible impressions as she travels extensively throughout all the major regions that are accessible to her.

By 1940, the restless winds of war break her tranquillity and she embarks for Australia.

> Once again I am leaving, and I never look back. Nothing bores me more than sameness. I have always been free. I felt free even when I used to dream of my bike.

Reaching Sydney, we hear:

> I have reached true paradise, never have I imagined that any place could be so beautiful. Yet, I know that once I'll become accustomed to it I'll be bored. (Evans, unpaged)

Though she started her career in Australia as a dishwasher, she was ultimately very successful in establishing a private shop. Again, the conventional success bored her as she began to feel being alienated from the various émigré circles she tries to penetrate. She cannot fit into any ethnic setting, but feels closest to the Russian émigrés.

> I started drinking again and hanging around again...what a mess I have made of my life! No one really accepts me. It's 1945—the war has ended! Sydney is full of joy—so why am I not happy? Soon I know, I have to leave again....September 1949: The day I have been waiting for is finally here! I have endured the paradise and even have some money, as I have sold my business. I feel independent, strong, soon I'll be in San Francisco. But, I do not want to stay in San Francisco. When I was younger, I always used to say I must get to New

> York, or die! Well, now I don't know. I am going to Seattle, who knows that will happen? (Evans, unpaged)

Is it a surprise then, that she boards the steamship *Denali* on September 22, 1949, and arrives in Fairbanks by choice. She believes all the old myths about Alaska and cannot wait to see the realm where there was once so much gold and there now are 25 men to only one woman!

Thus, her multifaceted life has brought her to Alaska. Plotting out Helen's response to Alaska is no simple matter, for it involves the perceptions of one who was again cast into alien surroundings, one who was almost by definition an alien because her heart and spirit were always searching for the next place. Yet, she chooses Fairbanks as her new home, for somehow in its quiet wilderness she finds the courage to plunge into her new role as the mysterious continental woman, who, according to the memories of her attending physician (Dr. S. 1976), could recite tales more fascinating than those found in the *Arabian Nights*. As she moves from residence to residence, from hotel to hotel, she never forgets her role as the record keeper of her experiences, populated with a series of colorful characters, drawn from the backrooms of bars, secret gambling hide-aways, restaurant kitchens, and the streets of Fairbanks. Thus this extraordinary woman has taken us through the lacquered suburbs of Johannesburg, Oslo, and Sydney, and she has transported us to the slums and shabby quarters of many parts of the world. Yet, it is here in Fairbanks that she somehow manages to find peace. Her descriptions of the daily, mundane life of a waitress or a dishwasher are both funny and tragic and always hopeful. Her new homeland fills her with a sense of rustic calm and a powerful closeness to nature.

Never does wealth rest on her doorstep again as she energetically moves about in the gray world of waitressing, dishwashing, and welfare. She has an experienced eye and a sharp tongue as she explores the legal and the illegal businesses abounding in the "Golden Heart" of Alaska. The "Helen of Troy of Fairbanks" becomes a compassionate, humorous companion to some of our local "gambling Dons," but much of her life is spent in discovering the beautiful, rustic world she found here. Moving about, she chronicles the local events and gives us impressionistic images of life on 1st and 2nd Streets. A multitude of characters occupy her canvas. Many a drawn figure is familiar, adding piquantness and poignancy to her tale. Alaska reawakens in her the forgotten lure of nature. As she settles into a cabin on Lacey Street, she begins to grow flowers . . . she admits:

> I have nothing, yet I have surrounded myself with beautiful flowers—they grow in everything, and they cover my entire little hut....I am happy, they fill me with joy. Every inch of the inside of my house is covered with flowers as well, curtains, tablecloth, lampshades!... And now I have finally found out what true freedom is...to be content and not desire more than you need, but rather—rejoice in the beauty that surrounds me everywhere, and all that is free!

She transforms her humble monastic dwellings with verdant flowers, bells, and pets. The friendships she makes acquire a depth here. Her altruism, always overshadowed by egoism before, surfaces, and her human relationships become warm and caring. The humorous, flamboyant Helen is still present, but she is warmed by compassion and integrity. Indeed, she does go to New York, to fulfill her lifelong dream, but she returns to Fairbanks, recognizing it not as her last escape, but rather as her home.

Ultimately, she succumbs to arthritis and cancer. Yet, even while she is in the hospital, the eternal vixen is contemplating the theoretical possibility of attracting her recently widowed attending physician! As a woman, Helen has always acknowledged her full range of feelings. From her words she gradually emerges as a capacious and even boisterous persona. "I feel no boundaries within myself—I have no fears and am bounded by no walls," she frequently tells us. Her observations are equally freely structured. On her canvas, prostitutes, alcoholics, geniuses, nymphomaniacs, doctors, gentle friends, scoundrels, and even professors parade by the reader on equal footing. As she recorded lovingly the antics of her birds and dogs, the reader is allowed to examine a gentler side of her nature where loyalty, dependence, and the value of trust and love are cherished. Throughout her journeys she remains a participant and

an observer, and always a chronicler of the outer and inner realms.

The final decades of her life brought many understandings to this woman, who, at the age of 14, began inscribing the self. Her last years were overshadowed by pain and the growing intrusion of the cancer that eventually wrestled down her body, but not her spirit. With the same stubborn strength that she had displayed throughout her life, she fought to the very last against the rapacious cells in her body.

In trusting herself to speak through her diary she has made sense of her life. With passion, bravado, guilt and humility, she shared her journey. This was the story of one woman: Helen Holl Evans. It needs to be acknowledged and recorded permanently and made accessible to a wider audience. Her text serves as a significant part of everyday life, a valuable autobiography, and an important record of historical place and time.

References

Dr. S. 1976. Personal interview.

Evans, Helen Holl. [1960.] *Diary (Paevaraamat).* Unpublished, untitled diary (in Estonian). Elmer E. Rasmuson Library Archives.

Correspondence:
Tamara P. Lincoln, Associate Professor
Elmer E. Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756800
Fairbanks, Alaska 99775
USA

Poster Presentation

Antarctica Retrospective—a Comprehensive Resource for the History of Antarctica and the Southern Ocean

William J. Mills

Scott Polar Research Institute, University of Cambridge, England

Abstract: This paper describes the initial stages of a project designed to develop a comprehensive finding aid to Internet and other resources available for the study of Antarctica's history. Antarctica Retrospective grows out of the earlier Historic Antarctic Bibliography Project funded by the British Antarctic Survey and carried out by the library of the Scott Polar Research Institute. Whilst the objective of the latter project was to compile a comprehensive bibliography to 1961 of literature relating to Antarctica and the Southern Ocean south of the Antarctic Convergence, the aim of Antarctica Retrospective is to provide access not just to publications, but to the entire range of relevant resources: archives, museum artefacts, inventories of historic sites, directories of relevant organizations, and biographical and expedition information.

Keywords: Antarctica; Antarctica Retrospective; Scott Polar Research Institute; Historic Antarctic Bibliography Project; SPRILIB; World Wide Web; England

The Historic Antarctic Bibliography Project, 1985-

All those familiar with the collection of the library of the Scott Polar Research Institute (SPRI) will be aware of its unrivaled Antarctic holdings. These holdings have a particular importance given Antarctica's unique political status outside any sovereign state, for as a result Antarctica has no national library, no national bibliography, and no system of legal deposit to ensure that all relevant publications are brought together in one collection and listed in one bibliography. Since 1965, publication of the *Antarctic Bibliography* by the Cold Regions Bibliography Project (CRBP), Library of Congress, has largely met the need for a comprehensive current bibliography to which SPRI also now contributes. With retrospective coverage in CRBP's COLD database extended back to 1961, the major lacuna for Antarctic bibliography has been the period up to 1961. Funded by the British Antarctic Survey, the aim of the Historic Antarctic Bibliography Project (HABP) is to fill this gap through a retrospective conversion program in which the relevant SPRI card entries have been added to the in-house database SPRILIB, supplemented by creation of SPRILIB records for all entries not in the SPRI card catalog but listed in two major bibliographies covering Antarctic literature to 1950 (U.S. Naval Photographic Interpretation Center 1951) and between 1951 and 1961 (Library of Congress 1970). Finally, SPRILIB records have been created for all publications identified through systematic scanning of the published expedition reports, not all of which were listed in the SPRI card catalog or above-mentioned bibliographies. By the end of 1997, we intend to offer comprehensive coverage in SPRILIB for all publications published up to 1961, complementing the comprehensive coverage provided after that date by COLD.

Antarctica Retrospective

Completion of HABP is only the beginning for Antarctic Retrospective. This ambitious project plans to build upon the comprehensive bibliographic resource provided by HABP and the new opportunities provided by the Internet to evolve into the first point of contact for a wide range of resources relating to the history of the

Figure 1. Initial appearance of home page of Antarctica Retrospective on the World Wide Web.

ANTARCTICA RETROSPECTIVE

Sources of information for the study of Antarctica's history are very widely scattered. This site, hosted by the Scott Polar Research Institute (SPRI), University of Cambridge, aims to bring together as much information in electronic form as we have been able to trace. This is an ongoing project and it will be some time before all of the information available here at SPRI can be loaded for you to see, let alone all the information available elsewhere. All users of Antarctica Retrospective are invited to help in this process. If there is information that you think should be added, please select New Information and fill in the form provided. You can use this form to suggest new information of any kind, corrections, ideas for new facilities, etc.

Now choose one of the following options:

Historic expeditions

Antarctic biographies

Antarctica's regions, islands and the Southern Ocean

Archives and museums with Antarctic collections

Organizations with Antarctic collections

More information about Antarctica Retrospective

Other WWW sites

Figure 2. Initial appearance of source page for biographical information of Antarctica Retrospective on the World Wide Web.

BIOGRAPHICAL INFORMATION ABOUT NOTABLE ANTARCTICANS

Sources of information about notable Antarcticans are widely scattered. This page aims to bring together as much information in electronic form as we have been able to trace. This is an ongoing project and it will be some time before all of the information available here at SPRI can be loaded for you to see, let alone all the information available elsewhere. All users of Antarctica Retrospective are invited to help in this process. If there is information that you think should be added, please select New Information and fill in the form provided. You can use this form to suggest new 'notables' or additional information for existing entries. Corrections are also welcome.

Enter name here SEARCH BOX (e.g. Siple, Paul)

For brief biographical details, select here.

For a select list of publications containing biographical information, select here.

For a list of books, articles, etc. written by your named person, select here.

For archives and museums with relevant holdings, select here.

For photographs, painted portraits and other illustrative materials, select here.

For a list of associated historic sites, select here.

Antarctic regions. That there is need for such a facility has been apparent for some time. Given Antarctica's remoteness, special jurisdictional situation, and the number of countries active at differing times on the continent and its adjacent waters and islands, materials relating to Antarctic exploration and history are exceptionally widely scattered. SPRI is well placed to bring much of the relevant information together, beginning naturally with that already available at the Institute in electronic form. In addition to SPRILIB, this currently includes a directory of archives and museums with Antarctic holdings and a directory of relevant organizations. Other information available at SPRI but as yet not electronically, includes the catalog of manuscripts (Holland 1982 and updates) and a survey of Antarctic holdings in Australian and New Zealand archives (Savours 1961). Other files will need to be compiled from SPRI and other sources. These include a biographical resource listing names, birth and death dates, expeditions, and other relevant information for all notable Antarcticans; an expedition resource designed to complement rather than duplicate Headland's authoritative Antarctic chronology (Headland 1989) listing expedition leaders, participants, objectives, dates, areas visited, etc.; and an Antarctic image database listing paintings, book illustrations, photographs, and other illustrative material. Antarctica Retrospective will also include relevant non-SPRI resources beginning with the *Low-Latitude Antarctic Gazetteer* of Robert Stephenson which offers a very helpful listing of sites outside the Antarctic with Antarctic associations (e.g., birthplaces of explorers, memorial statues, plaques, etc.). In addition to resources made available through loading to the SPRI webserver, links will be provided to other WWW sites with relevant information, particularly to archives and museums with Antarctic collections, as and when they become available.

References

Headland, R. K. 1989. *Chronological list of Antarctic expeditions and related historical events.* Cambridge: Cambridge University Press.

Holland, C., ed. 1982. *Manuscripts in the Scott Polar Research Institute, Cambridge, England: a catalogue.* New York: Garland Publishing, Inc.

Library of Congress. 1970. *Antarctic bibliography, 1951-1961.* Washington, DC.

Savours, A., comp. 1961. *Catalogue of original manuscripts of polar interest in Australia and New Zealand, compiled 1960-61.* (SPRI, unpublished ms. 629).

U.S. Naval Photographic Interpretation Center. 1951. *Antarctic bibliography.* Washington, DC: Department of the Navy, Chief of the Bureau of Aeronautics (NAVAER 10-35-591).

Correspondence:
William J. Mills
Scott Polar Research Institute
University of Cambridge, Lensfield Road
Cambridge CB2 1ER
ENGLAND

Under the Red Flag: Photographs of the Hudson's Bay Company's Kamchatka Venture, 1921

Anne Morton

Hudson's Bay Company Archives, Winnipeg, Manitoba, Canada

Abstract: The Hudson's Bay Company was involved in the fur trade in the Russian Far East from 1920 to 1925. This enterprise was generally known as the Kamchatka Venture. In 1992, the Hudson's Bay Company Archives acquired a photograph album with 272 images documenting the Venture's 1921 season.

Keywords: Fur trade; Hudson's Bay Company; Russian Far East; Kamchatka Venture; Canada; Russia

---

In 1938 the old sailor, Captain Lancelot Beavis, looked back at his first voyage to Kamchatka for the Hudson's Bay Company (HBC) 17 years before. He remembered the people of Petropavlovsk as

> ...most hospitable and very polite. They kept aloof from politics. The government offices were decorated on our first visit with portraits of Lenin and Trotsky. Later, these gave way to pictures of the late Czar and Czarina. Shortly afterwards Lenin and Trotsky again adorned the walls. (Beavis 1938, 38)

The shifting portraits are evidence of the volatile political and military climate of the Russian Far East in 1921. This fluid situation, coupled with Lenin's 'New Economic Policy,' made it possible for foreign capitalists like HBC to do business there. But the story of the portraits might also suggest that perhaps doing business there was not very sensible. What motivated HBC to send out its Kamchatka Venture of 1921?

In the early decades of this century, HBC was eager to push its fur trade into areas where it would encounter little or no competition. Its move into the western Arctic, which began with the opening of a post on Herschel Island in 1915, was part of this drive. The western arctic posts were reached by sea from Vancouver, a route which would take an HBC ship close to the Russian Far East where there were not only furs but a ready-made market, created by American whalers and traders, for North American goods.

HBC was unusually 'Russia-minded' during the war years and the 1920s. This may have been partly due to the influence of its Deputy Governor, Charles Sale, who had years of business experience in the Far East, based in Japan. During the war, from 1915 to 1919, HBC had operated a shipping agency in Archangel. From 1919 to 1920, the HBC subsidiary, the Merchant Trading Company, conducted a trading venture to the Black Sea. (For a further account of HBC in the White Sea and the Black Sea, I would recommend Ann Savours, *The Voyages of the Discovery: The Illustrated History of Scott's Ship*, 1992.)

HBC's involvement in Russia had not been strictly commercial. It had assisted with the supply of sledge dogs to the Allied troops supporting the White Russians in 1919. One of its Archangel employees, Henry Armitstead, was a British military intelligence agent, a fact known to HBC. (The curious are directed to A. J. Plotke, *Imperial Spies Invade Russia: The British Intelligence Interventions, 1918*, 1993.)

After 1917, it is hard to see how any foreign enterprise could have conducted business in Russia for strictly commercial reasons. At any rate, geopolitical considerations and Imperial responsibilities seem to have had some bearing on HBC's decision to trade in the Russian Far East. It was thought important that British and Canadian firms should be represented in Russia, and that the commercial interests of the United States, Japan, and Germany should not be. Trade

relations might keep Russia, whatever its form of government, in the British sphere of influence. There seems also to have been a hope that a company like HBC, by conducting an enterprise beneficial to the Russian people (as they believed their venture to be), might incline the Bolsheviks to look more favourably on capitalism.

But however anxious to assist the causes of Empire and capital, prudent businessmen might think twice about engaging in commerce in the Russian Far East if they could get no better reward for their efforts than the roubles the local governments were churning out on their printing presses. In return for its trade goods, however, HBC would receive furs to sell on the London market.

In 1920, HBC decided to test the North Pacific waters by means of the so-called Trio Account. HBC owned 60% of this enterprise. Its two partners were Sale & Frazar, the Yokohama branch of Charles Sale's family business, and Grooshetsky & Co., a Russian firm in the Kamchatka fish business. The 1920 trade was not in itself a success but it was sufficiently encouraging that in 1921 HBC decided to go it alone on its Kamchatka Venture. Sale & Frazar continued to provide what assistance they could, by using their knowledge as old Japan hands and in the purchase of trade goods (notably the right sorts of tea and tobacco) that could not readily be bought in North America.

As the name Kamchatka Venture indicates, HBC was not foolishly optimistic. It was determined that expenses be kept as low as was consistent with good business practice. In its first two years, the Venture had an extremely low profile. HBC's shareholders at their Annual General Meeting in June 1922 were told no more of the 1921 Venture than

> We are also experimenting with the development of fur collection outside Canada. If these experiments prove successful, they will be extended and developed. (HBC, *Annual Reports & Proceedings*)

For a time it seemed as if the Venture would indeed prove successful. The network of HBC posts expanded, and for the year 1923 HBC was granted a monopoly of furs collected in eastern Siberia. This monopoly, which was apparently not honored, expired in March 1924 and was not renewed. HBC, battered by exorbitant taxation and the hostility of the Bolshevik authorities, may even have been thankful. It withdrew from the Siberian trade in 1924, liquidating the business in 1925.

The photograph album (HBCA, PAM, Photo Coll., 1992/43), with a title written in chalk on the first page, "The Hudson's Bay Company/ Kamchatka Venture/1921/Photographs taken by members of the Expedition," arrived unheralded in the archives in November 1992. There was no accompanying letter, only a compliments slip from Beaver House Ltd., a London-based property-holding subsidiary of HBC. We do not know who found the album or where it was found. The mysterious nature of the album is increased by the fact that many of the photographs are not captioned; the captions that do exist are in the handwriting of Anton Hoogendijk, one of the leaders of the Venture. Fortunately, a similar album, with somewhat fuller captioning, is in the possession of the British Columbia Archives and Record Service in Victoria. It was acquired from the widow of another leader of the Venture, Vernon Elphick. The captions in the BCARS album were a great help to us in describing our album, but much remains obscure.

At the end of 1921, Vernon Elphick wrote an excellent report (HBCA, PAM, Unclassified Kamchatka Papers, "Siberian Fur Trade Venture, 1921") on which I have drawn heavily in what is to follow. This report has also been useful in providing a time-line for the photographs and in increasing our understanding of some of them.

The first nine photographs were taken by staff of HBC's Vancouver office in May 1921 and mailed to London. They are our introduction to the leaders of the expedition and to the *Casco*.

The three leaders of the Venture were Anton Hoogendijk, Vernon Wentworth Elphick, and Kenneth Churchill Skuce. Hoogendijk was a Dutchman with many years of experience in the Russian fur trade. He was also the manager of, and a partner in, the Hudson's Bay North Russian Trading Co., Ltd., based in Archangel. By the end of the 1920s, he was trying to support himself and his family as a tobacco farmer near Delhi, Ontario. Vernon Elphick (1889-1955) had been in Japan working on Trio Account business

in 1920. He remained with HBC until his retirement in 1948. Kenneth Skuce, who celebrated his 23rd birthday on May 17th, had started work in HBC's London fur warehouse as a lad in 1916. He was chosen for the Venture because of his knowledge of furs and HBC's London fur grading. He also had some skill in the Russian language.

The *Casco* was an American vessel, chartered in San Francisco. She was a steel, twin screw motor vessel, built in 1920. She was only 300 tons, with dimensions of 120' by 24' by 12'. In fact, she was too small. In addition to the trade goods, passengers, and crew, she had to carry 240 100-gallon drums of fuel; two pre-fabricated warehouses, 40' by 18' by 9'; and two specially constructed river launches. These were placed on the forward deck, where they took up all the room, with great difficulty and prayers for a smooth crossing. Shortly before sailing, HBC learned that its chief competitor, Hibbard and Swenson of Seattle, had lost their schooner to a fire at sea. This news caused the Venture to increase its quantity of trade goods, with the result that a certain amount had to be left behind, with plans for later delivery by the *Lady Kindersley*.

Floating over all was the red flag at the masthead, the variant of the Red Ensign used as the house flag of HBC. On at least one occasion this was mistaken for the "people's" flag. This happened in the Sea of Okhotsk in June 1922, when HBC's chartered vessel, *Koyo Maru*, was steaming into Ola. Captain Beavis recalled that the white flag of the White Guard was flying over the town. As the *Koyo Maru* drew nearer, the white flag came down. It turned out that HBC's flag had made the townspeople think that a Bolshevik vessel was bearing down on them.

The *Casco* sailed from Vancouver on May 19th, arriving in Petropavlosk on June 8th. (In the course of the 1921 Venture the International Date Line was crossed more than once, but I shall not take this into account when giving dates.) Petropavlovsk was the Venture's first port of call for several reasons. As representatives of a British company, sailing in an American vessel, the Venturers thought it a good idea to introduce themselves to the local government officials and also to the Japanese consul and the commander of the Japanese naval forces. Japan took a keen interest in Siberian affairs for both political and commercial reasons. At this time the Japanese actually occupied Vladivostok where they propped up a government they found politically acceptable. When the Japanese fleet withdrew from the region in the fall of 1922, it was a sign that it was indeed game over for the White Guard.

Petropavlovsk also provided proper harbor and wharf facilities for re-stowing freight. It had been decided to increase the planned number of posts on the west coast of Kamchatka. This added to the complications of stowing freight in the traditional fur trade manner, that is, with all the goods to be unshipped at each post stowed together. It was a huge task, but one that was accomplished fairly quickly thanks to the Russian laborers who worked day and night—a service not likely to have been provided on the other side of the Pacific.

While in Petropavlovsk, the Venturers also conferred with Leo Shiker, who had been in charge of Trio Account affairs there, and hired a new employee, Gourey Diakonoff. He was a native of Siberia (b. 1884) and had been the Petropavlosk manager for the Vladivostok firm of Tchurin & Co. It was HBC's practice to hire Russians to operate the Venture's trading posts because of their experience and language skills. It was also felt that Russian employees would make the Venture seem less 'foreign' to the authorities. After the Venture was over, their association with foreign capitalists apparently made life difficult for HBC's Russian employees.

Diakonoff was more fortunate. Wanting his expert advice on the purchase of trade goods, HBC brought him, his wife, and their three children to Canada. Some years ago, the archives was in correspondence with one of the children, Nina Donnelly, who shared some of her memories of 1921. Canadians will be interested to learn that her daughter is the TV journalist, Helen Hutchinson.

This first sojourn at Petropavlovsk was marred by the deaths of the two Canadian engineers, John Overhill and George Clucas, whose job it was to service the river launches. On the afternoon of June 23rd, Overhill apparently tried to repair a leak in the fuel tank of one of the launches with a blow torch and soldering iron.

In the resulting explosion, Clucas was horribly burned, dying after two hours in the hospital. Overhill's body was found after a diver from one of the Japanese vessels searched for nearly three hours; two Japanese doctors then tried for nearly an hour to revive him.

On June 29th, the *Casco* sailed for the west coast of Kamchatka, having left behind the cook, who was drunk, and taken on board the members of a Swedish scientific expedition. The mouth of the Bolsheretsk River was reached on July 2nd. The goods were unloaded with the help of about 50 Japanese laborers from the Grooshetsky cannery. One of the pre-fabricated warehouses was erected, and the sign "Hudson's Bay" in Russian characters was put up by the door. Meanwhile, Skuce sailed north to Tigil in the *Casco*, taking along eight Japanese laborers as extra muscle power. On the way, goods were also unloaded at Oblukovina.

The *Casco* was back in Petropavlovsk on July 19th. The river launches, which had been repaired—and in fact improved—were loaded up once more, this time stowed across the well deck, so that they stuck out about 10 feet on either side. On July 22nd it was off north to Ust Kamchatka, which was reached on July 24th. Here one of the launches was unloaded for use on the Kamchatka River, as was the second warehouse.

When the time came to settle accounts with the men who had been running the Ust Kamchatka post for the Trio Account, Elphick was dismayed to learn that only $4,000 in cash was available. The Venture was now seriously short of funds. Before they left Petropavlovsk, however, they had learned through the wireless that the *Lady Kindersley* had transported the goods left behind at Vancouver not to Anadyr but to Teller in Alaska. By means of wireless messages it was arranged that the Venture could pick up $25,000 (U.S.) at Nome while on the way to Teller.

Leaving Diakonoff in charge of Ust Kamchatka, the *Casco* sailed on July 30th to Mariensk at the mouth of the Anadyr River, arriving on August 5th. The leaders of the Venture began to consider 1) how best to carry on a trade with the nomadic Chukchi people and 2) how to eliminate their chief competitors in northeastern Siberia, the Seattle firm of Hibbard and Swenson. It was decided that these ends could be achieved by entering into an agreement with the leading Russian firm in the region, the Karieff Brothers.

On August 13th, the *Casco* sailed for Nome with Elphick and Skuce and two of the Karieff brothers. Hoogendijk was left in charge at Anadyr, where the second river launch was used to tow barge loads of goods 400 miles up the Anadyr River as far as Markovo.

The *Casco* could not anchor at Nome until August 15th because of heavy weather and even then Elphick, Skuce, and the Karieffs could not reach shore until the U.S. Customs officer came to their rescue in his surf boat. The next day they called at the Miners and Merchants Bank, where credit of $25,000 had been arranged. Here they were greeted with the unwelcome news that the failure of the Scandinavian American Bank in Seattle had caused a run on the Miners and Merchants. The manager could not give them more than $5,000 in cash. They would have to await the arrival of the SS *Victoria* from Seattle, which was expected about August 27th.

Quickly revising their plans, the Venturers spent the next few days in Nome, buying and loading more trade goods, and sailed for Teller on August 19th, arriving the next day. Here they picked up the cargo left by the *Lady Kindersley*, which included 130 drums of fuel oil and 970 sacks of flour. Fuel oil was moved from the drums into the storage tanks by means of two small hand pumps. The drinking water tanks were filled by water carried from a stream in buckets to one of the lifeboats and thence to the ship—a tedious activity that reminds one of the days of Captain Cook.

The *Casco* sailed for East Cape on August 24th where heavy seas made it impossible to land until August 28th. Unloading was carried out with the help of the Chukchi people and their skin boats. Around midnight on the 28th the *Casco* sailed for South Head and Lorin and then back to Nome, landing on September 1st. The *Victoria* did not arrive until the next day, when the Venturers got their $30,000 (they had upped their requirements). By September 6th they were at Providence Bay, where they attempted to buy the trading post from its owner, who was said to

Table 1. Slide presentation of the photographs of the Hudson's Bay Company's Kamchatka Venture, 1921.

The following slides were shown when this paper was presented at the 16th Polar Libraries Colloquy. Captions in brackets were provided by the archivist. Others are from the Hudson's Bay Company Archives or British Columbia Archives and Record Service albums.

1. The *Casco*, "Leaving for Vancouver" (HBCA, PAM, Photo Col., 1992/43/6)
2. The *Casco*, "Ready for sea" (HBCA, PAM, Photo Coll., 1992/43/5)
3. The *Casco*, [The Adventurers farewell] (HBCA, PAM, Photo Coll., 1992/43/3)
4. Petropavlosk, [The wharf] (HBCA, PAM, Photo Coll., 1992/43/31)
5. Petropavlovsk, "Re-stowing freight" (HBCA, PAM, Photo Coll., 1992/43/37)
6. Petropavlovsk, [Horse & cart] (HBCA, PAM, Photo Coll., 1992/43/43)
7. Petropavlovsk, "Russian Volunteer Fleet S. S. Seesham" (HBCA, PAM, Photo Coll., 1992/4351)
8. Petropavlovsk, "A. H. [Hoogendijk], L. Shiker, G. Diakonoff" (HBCA, PAM, Photo Coll., 1992/43/53)
9. Petropavlovsk, "Swedish Kamchatka Scientific" (HBCA, PAM, Photo Coll., 1992/43/61)
10. Petropavlovsk, "The launches after the explosion" (HBCA, PAM, Photo Coll., 1992/43/57)
11. Petropavlovsk, "Funeral of Overhill & Clucas" (HBCA, PAM, Photo Coll., 1992/43/66)
12. Petropavlovsk, [The view from the gravesite] (HBCA, PAM, Photo Coll., 1992/43/69)
13. Petropavlovsk, "The cook, left behind for obvious reasons" (HBCA, PAM, Photo Coll., 1992/43/73)
14. The *Casco* ,"A Kamchatka deck passenger" [Samoyed dog] (HBCA, PAM, Photo Coll., 1992/43/74)
15. Bolsheretsk, "Unloading at Bolsheretsk" (HBCA, PAM, Photo Coll., 1992/43/77)
16. Bolsheretsk, "Japanese cannery labourers" (HBCA, PAM, Photo Coll., 1992/43/90)
17. Bolsheretsk, "HBC warehouse...built in four days" (HBCA, PAM, Photo Coll., 1992/43/84)
18. Tigil, "Typical inhabitants" (HBCA, PAM, Photo Coll., 1992/43/106)
19. Tigil, "Typical inhabitants" (HBCA, PAM, Photo Coll., 1992/43/107)
20. Anadyr, [Men and fish] (HBCA, PAM, Photo Coll., 1992/43/144)
21. Nome, [Miners and Merchants Bank] (HBCA, PAM, Photo Coll., 1992/43/159)
22. Teller, "U.S. Mission for Eskimo children—Mission staff" (HBCA, PAM, Photo Coll., 1992/43/168)
23. East Cape, [Chukchi men moving goods into Karieff warehouse] (HBCA, PAM, Photo Coll., 1992/43/177)
24. [South Head], [Chukchi woman] (HBCA, PAM, Photo Coll., 1992/43/187)
25. [South Head], [Chukchi family outside their tent] (HBCA, PAM, Photo Coll., 1992/43/189)
26. [Cape Behring], "A Native village" (HBCA, PAM, Photo Coll., 1992/43/196)
27. [Providence Bay], [Chukchi man and boy] (HBCA, PAM, Photo Coll., 1992/43/203)
28. [Place unknown], [Chukchi men and reindeer] (HBCA, PAM, Photo Coll., 1992/43/217)
29. The *Casco*, [Elphick in Venture office] (HBCA, PAM, Photo Coll., 1992/43/229)
30. The *Casco*, "Ceremony of the Pipe," HBC illustrated calendar for 1921 (HBCA, PAM, P-385)
31. The *Casco*, "Capt. and Mrs Lee and Hudson [their son]" (HBCA, PAM, Photo Coll., 1992/43/235)
32. The *Casco*, "Mr Wilson [first mate] in arctic costume" (HBCA, PAM, Photo Coll., 1992/43/264)
33. The *Casco*, "Homeward bound" [Elphick & Hoogendijk] (HBCA, PAM, Photo Coll., 1992/43/267)
34. Petropavlovsk, [Last photo of the Adventurers] (HBCA, PAM, Photo Coll., 1992/43/273)

want to return to America, but his asking price was too high. The *Casco* then called at Cape Behring and Holy Cross Bay before arriving at Anadyr on September 11th.

On September 15th, with Hoogendijk on board, the *Casco* sailed for Ust Kamchatka. The day before, a sign board with the HBC's name in Russian characters had been placed on the post building at Anadyr and the HBC flag hoisted.

At Ust Kamchatka, reached on September 22nd, Diakonoff was picked up.

The *Casco* returned to Petropavlovsk on September 25th, where Elphick and Hoogendijk tried to make arrangements to sail to Japan. A Japanese ship was sailing on the 27th, but the commander refused to take them, saying that he had no official permission. This was something of a surprise, as they had wired Sale & Frazar in Yokohama two months previously to get the necessary permission. Sale & Frazar had been informed that the Japanese Navy was unable to assist, as it had no vessels in the Kamchatka region. Elphick and Hoogendijk needed to reach Shanghai quickly, as it was there that the Head Commissar for Kamchatka resided. Without his permission, HBC would not be able to trade in 1922.

It was decided to take the *Casco* to Hakodate in Japan, which was reached on October 5th. Elphick and Hoogendijk went on to Shanghai, returning to London by way of Suez. The *Casco* sailed from Hakodate on October 8th, with Kenneth Skuce and the Diakonoff family. Vancouver was reached on November 9th, after a very rough passage. Nina Diakonoff recalled that when the crew saw Gordon Head on Vancouver Island—their first sight of land in a month—they brought out a phonograph and danced to the music.

Note on Sources

The principal sources used for the account of the 1921 Kamchatka Venture were Elphick's report "Siberian Fur Trade Venture, 1921" (HBCA, PAM, Unclassified Kamchatka Papers"), which he wrote en route from Shanghai to London, and Captain Beavis's "Trading into Siberia HBC Outfit 252," *The Beaver*, Sept. 1938, pp. 36-41. Other documents used for the paper were: "Kunst & Albers, Vladivostok," 1917 (HBCA, PAM, A.12/FT Misc./250), "Siberian Trade [Siberian Supply Co.]," 1919-1921 (HBCA, PAM, RG2/4/34); and "Kamchatka Venture," 1920-1925 (HBCA, PAM, RG2/4/13-27). These are only a part of the extensive documentation in HBCA concerning HBC's trade in the Russian Far East.

Correspondence:
Anne Morton, Head, Research & Reference
Hudson's Bay Company Archives
200 Vaughan Street
Winnipeg, Manitoba, R3L 0H4
CANADA

Poster Presentation

The Alaska Newspaper Project... Preserving Pages from the Past

Mary C. Nicolson

Alaska State Library, Juneau, Alaska, USA

Abstract: The Alaska Newspaper Project is part of the United States Newspaper Program, a national effort to capture, preserve, and provide access to our nation's newspapers. It is funded, in part, by a grant from the National Endowment for the Humanities with technical assistance from the Library of Congress. The Project is sponsored and directed by the Alaska State Library with additional support provided by the Rasmuson Library at the University of Alaska Fairbanks and the Consortium Library at the University of Alaska Anchorage.

Keywords: Newspapers; Alaska Newspaper Project; World Wide Web

---

This poster describes the work of the Alaska Newspaper Project. Its first panel begins with a sample worksheet used during the issue-by-issue inventory of the estimated 4,600 reels of Alaskan newspaper microfilm. The microfilm is checked carefully to identify title changes, numbering irregularities, and any missing or unreadable issues. Newspaper cataloging records are created and contributed to the OCLC database. Similar to a family tree, a chronology or timeline of each community's newspapers diagrams a community's newspaper history.

The poster's center panel features a listing of Alaskan newspaper titles for which no issues have ever been found, along with a flyer publicizing the search for these and other missing issues and the story of locating nearly a complete run of a newspaper that had been published during the Second World War on Umnak Island. In addition, photocopies of the front pages of Alaska's two earliest newspapers, the *Esquimaux* (1866-67) and the *Sitka Times* (1868) are displayed.

The third panel focuses on the development of the Project's World Wide Web site. Users will see be able to a map of the state of Alaska, click on a region or town, and pull up a regional map. The regional map will show every location in that region of the state that has or has had a newspaper. By clicking on that location, a list of all of the newspapers published in that location, with detailed microfilm holdings information, will appear. The user will also be able to move to the matching chronology from this screen. The Web site will provide detailed holdings information about and brief historical information for each title.

At the bottom of the third panel are photocopies of two pages from the July 1895 issue of

WANTED ISSUES

The Alaska Newspaper Project is desperately seeking issues from over 100 titles for which no copies have ever been found. These are a few:

Douglas, *Servian Montenegrin.* ca. 1905

Fort Tongass, *Tangass Wa-wa.* ca. 1869

Katalla, *Catalla Drill.* ca. 1903

McGrath, *McGrath Weekly.* 1941-1942?

Nome, *Alaska Mining News Record.* 1905?-1911?

Skagway, *News-Review.* 5/1941-?

Teller, *Advertiser.* ca. 1901

–Adapted from the project brochure.

the *Eskimo Bulletin*, published in Wales, Cape Prince of Wales, 1893-1902? Its masthead motto reads: "The Only Yearly in the World." This nearly annual newspaper was issued by the teachers and students of the American Mission Association school at Wales. Printed at first by the hectograph process and later by hand-setting type in a press, the "most northerly newspaper in North America" was produced to teach writing, printing, typesetting, and engraving skills to the Eskimo students attending the school. (Editors: W. T. Lopp and H. R. Thornton. Compositors: Keok, Iyah-yung-uk and Ad-looat, also the engraver.)

By preserving these and other Alaskan newspapers on microfilm, we can ensure that generations to come will have access to these rich historical resources.

Correspondence:
Mary C. Nicolson, Project Coordinator
Alaska Newspaper Project
Alaska State Library
P. O. Box 110571
Juneau, Alaska 99811-0571
USA

Poster Presentation

Ninety Years of Controversy: Dr. Cook, Mt. McKinley, and the North Pole

Mike Sfraga and Dennis Stephens

Northern Studies Program, University of Alaska Fairbanks, USA

Abstract: In September 1906, Dr. Frederick A. Cook announced to a receptive public that he and Ed Barrill had successfully climbed Mt. McKinley by a "new route from the North." It was a time of keen interest in exploration, particularly of the arctic and Antarctic regions. While Cook's ascent was initially hailed as the first of North America's highest mountain, his claim came under increasing scrutiny as details came to light (or failed to come to light, as the case may be). The controversy surrounding Cook's Mt. McKinley climb assumed increasing importance in the context of his claim, supported by Knud Rasmussen, to have been the first to reach the North Pole in April 1908. Cook's claim was disputed by Robert E. Peary, who announced that he himself had reached it in April 1909 and that Cook's claim "should not be taken too seriously" in view of statements from the two Inuit who had allegedly accompanied him to the pole.

Keywords: Cook, Frederick A.; Mt. McKinley; North Pole; Alaska

This poster session examines the basis for Cook's claim to have been first to scale McKinley; the sequence of events that has led to general scepticism about Cook's claims; and the figures in northern mountaineering and exploration who were caught up in a bitter dispute that continues to the present day.

List of Figures of Poster Presentation

Figure 1. *New York Times*, 9 September 1909. (Shown at left)

Figure 2. *New York Times*, 29 September 1909. This article is entitled, "Prof. Tarr Doubts Ascent of M'Kinley." The article continues: "Former Defender of Dr. Cook Now Demands That Explorer Clear Up Grave Charges....Guide Thinks It a Joke....Companion of Dr. Cook Quoted as Saying They Went Up Only 5,000 Feet—Disbelief in Alaska."

Figure 3. *New York Times*, 11 November 1910. This article states: "Explodes Dr. Cook's Mt. M'Kinley Claim....Prof. Parker of Columbia Proves His 'Top of the Continent' Yarn Wholly False....The Photograph's Fiction."

NO PROOF THAT COOK SCALED MT. M'KINLEY

Prof. Parker, Back from British Columbia, Tells of Peculiar Circumstances.

SENT COMPANIONS AWAY

Then Suddenly Announced That He Had Succeeded Where Previous Efforts of Expedition Had Failed.

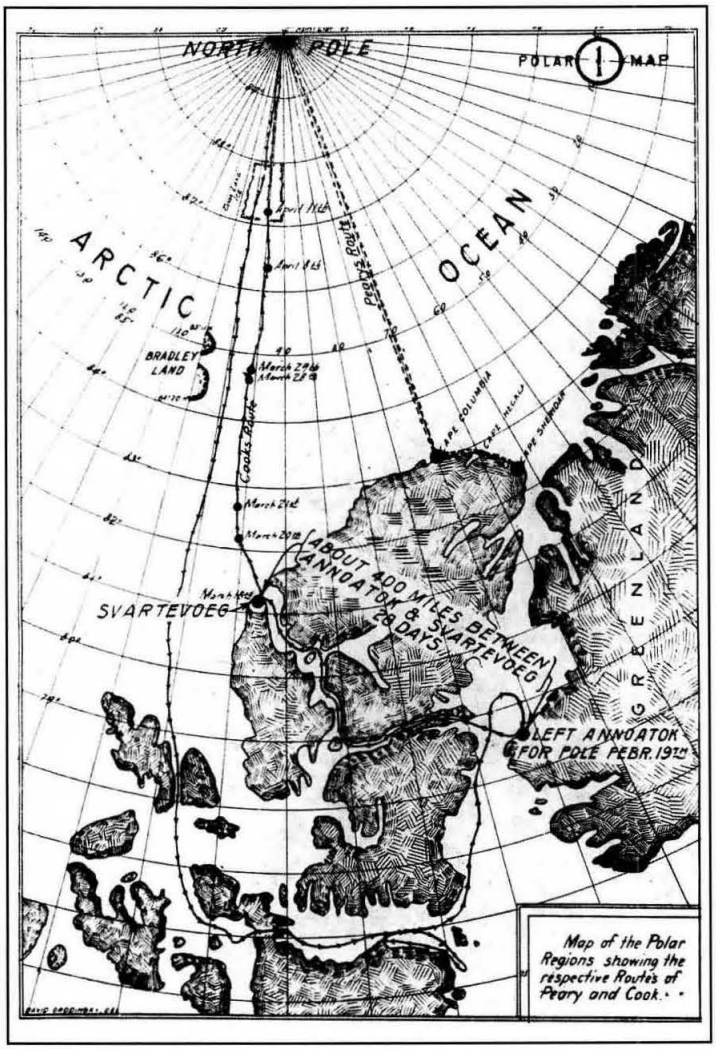
"It is with great reluctance that I am compelled to say that Dr. Frederick A. Cook has not made a satisfactory explanation or submitted corroborative evidence that he made the ascent of Mt. McKinley."

Thus spoke Herschel C. Parker, adjunct professor of physics of Columbia University and scaler of mountain heights, yesterday on his return from exploration in the Selkirk Mountains in British Columbia. The attention of Prof. Parker was called to the fact that the question of whether Dr. Cook had found the north pole had again revived the question of whether Dr. Cook had really climbed Mt. McKinley.

Dr. Cook and Prof. Parker were the

Figure 1. *New York Times*, 9 September 1909.

Figure 4. Map of the Polar Regions showing the respective routes of Peary and Cook. (Hall, 1917)



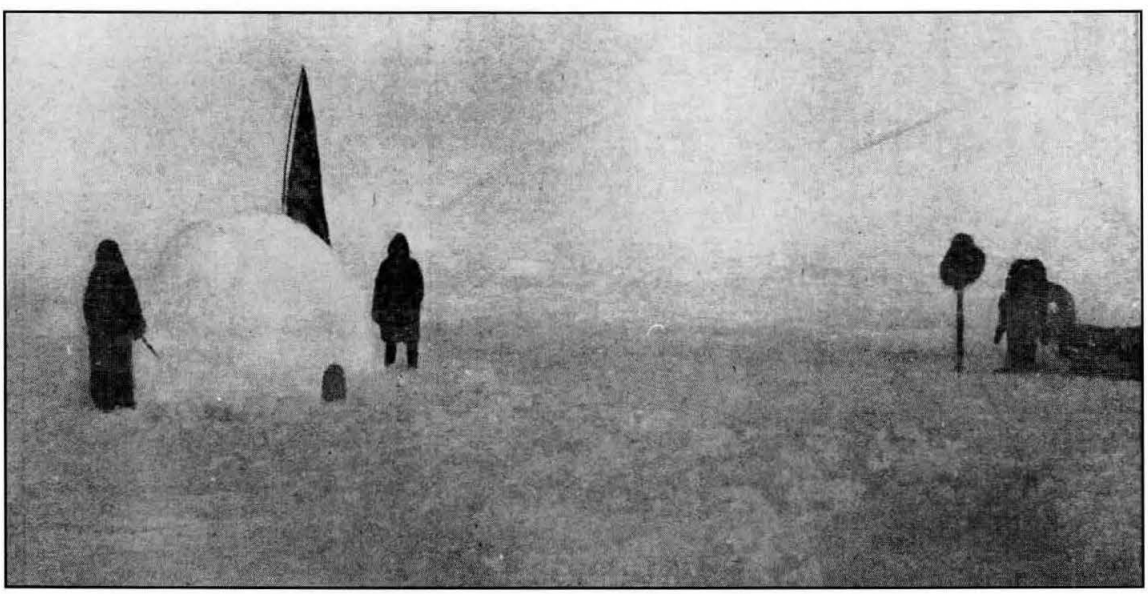


Figure 6. Photograph, "First camp at the pole, April 21, 1908." (Cook, 1913)

Figure 8. Photograph, "The five flags at the pole...." Left to right: Navy League—Ooqueah; D.K.E. Fraternity—Ootah; Polar flag carried 15 years—Henson; D.A.R. peace flag—Egingwah; and Red Cross flag—Seegloo.

Figure 4. Map of the Polar Regions showing the respective routes of Peary and Cook. Reprinted from Thomas F. Hall, *Has the North Pole been Discovered? An Analytical and Synthetical Review of the Published Narratives of the Two Arctic Explorers Dr. Frederick A. Cook and Civil Engineer Robert E. Peary U.S.N...* (Boston, 1917), facing p. 26.

Figure 5. *New York Times*, 2 September 1909. This article states: "Cook Reports He has Found The North Pole....Reached It April 21, 1908, After Prolonged Fight with Famine and Frost....Made Dash of 600 Miles."

Figure 6. Reprinted from Frederick A. Cook, *My Attainment of the Pole; Being the Record of the Expedition that First Reached the Boreal Center, 1907-1909. With the Final Summary of the Polar Controversy* (New York and London, 1913), facing p. 300.

Figure 7. *New York Times*, 9 September 1909. This article states: "Cook Not Near Pole, Says Peary; Proofs Still Held Back By Cook....Cook Supporters Here and Throughout Europe Greatly Worried by His Failure to Refute Peary."

Figure 8. Reprinted from Robert E. Peary, *The North Pole: Its Discovery in 1909 Under the Auspices of the Peary Arctic Club* (New York, 1968; reprint of 1910 edition).

Correspondence:
Mike Sfraga
Northern Studies Program
P.O. Box 756460
University of Alaska Fairbanks
Fairbanks, Alaska 99775-6460
USA

U.S. Polar Information Working Group Agenda of the Annual Meeting held 20 June 1996

Martha Andrews, Chair

---

1. Welcome

2. Update since 1995 meeting

3. Future directions

- What is our role as a working group?
- Is your institution supporting you?

4. Networking activities

- Arctic Research Consortium of the United States
- U.S. Arctic Research Commission
- Interagency Arctic Research Policy Committee
- PLC Web site support

5. User advisory group to serve NISC and PolarPac

6. The* Arctic Bibliography—*can it be scanned?

7. Additional items

16th Polar Libraries Colloquy Business Meeting, 21 June 1996

Minutes Submitted by William Mills, Phil Cronenwett, and Martha Andrews

Keywords: *Polar Libraries Bulletin*; PLC working groups, 1996; PLC honorary members; PLC Steering Committee; PLC Archives; Hubert Wenger Award; PLC venue, 1998

1. Welcome

2. Reports

2.1 Steering Committee

The activities of the Steering Committee since its foundation following the adoption of formal organization at the 15th PLC Business Meeting were briefly outlined.

2.2 Secretary/Treasurer's Report

2.2.1 Membership

1994/95: 34 individual members;
9 institutional members
1995/96: 52 individual members;
19 institutional members

2.2.2 Accounts

Two accounts have been set up in the name of the Polar Libraries Colloquy at Barclays Bank, Benét Street Business Centre, Cambridge, England: a *community account* with chequebook facilities and a *premium savings account* offering higher rates of interest. Co-signatories to the PLC accounts are Christine Phillips (British Antarctic Survey) and William Mills (Scott Polar Research Institute).

- Premium account: £657.56
- Community account: £530.37 and $62.00. A payment of $287.20 for printing the *Polar Libraries Bulletin* was outstanding.

2.3 Newsletter Editors

In the absence of Lynn Lay, co-editor William Mills presented a brief report. Two issues of the *Polar Libraries Bulletin* had been published and distributed free of charge thanks to the generosity of the Cold Regions Research and Engineering Laboratory. Members were asked to continue to identify suitable material for publication in the *Bulletin* and to supply this to the editors. A new feature has been the listing of recent publications relating to particular regions. Member institutions will be contacted by the editors to contribute lists of such publications for regions in which they specialize.

3. Constitution and By-laws

Martha Andrews proposed amendments to the wording of Chapter 4, Article 8, together with a new By-law (no. 5) specifying in greater detail the membership and functions of the PLC Steering Committee. Following discussion during which some rewording was suggested, the text given in the revised constitution was approved.

4. Categories of Membership

A working group was established to review and possibly revise Chapter 3, Article 4, and Bylaws 3 and 4 of the constitution that list individual, institutional, and honorary memberships but do not define institutional membership. The working group will define these categories with a view to proposing an amendment at the next colloquy business meeting. The group consists of June Pinell-Stephens, Martha Andrews, Phil Cronenwett, and William Mills.

5. Electronic Document Delivery

A working group was established to formulate and implement an action plan for electronic delivery of documents from one institu-

tion to another. The group consists of Liisa Kurppa, Robin Minion, Nancy Liston, Julia Finn, and Diane Ruess.

6. Colloquy Logo

A working group was established to consider an appropriate bipolar design for PLC. The group consists of Nancy Liston, Martha Andrews, and Wanda Seamster.

7. Polar and Cold Regions Library Directory

A working group was established to revise and publish this directory and to decide on the means of publication (print and/or electronic). The group consists of Juli Braund-Allen, Kirsten Caning, Eric Tull, Liisa Kurppa, Nancy Lesh, Lynn Davies, and Peggy D'Orsay.

8. Honorary Members

Nita Cooke, Harry King, Nora Corley Murchison, and Beatrice Wenger were elected PLC's first Honorary Members by unanimous acclaim in tribute to their long-term service to PLC and to polar information in general.

9. Relationship to the International Arctic Science Committee (IASC)

Following discussion of the various possible forms of formal relationship available between the PLC and IASC (e.g., Standing Advisory Group, Group of Specialists, or Working Group), together with consideration of the possible mutual benefits from formal association, a motion was carried to seek Standing Advisory Group status with IASC.

10. Election of Steering Committee

The following members were elected: Kirsten Caning, Phil Cronenwett, Liisa Kurppa, William Mills, Julia Finn, Cathie Innes-Taylor, and Lynn Davies. Ex officio members are Palina Hedinsdottir (co-organizer 17th PLC) and Lynn Lay (co-editor, *Polar Libraries Bulletin*).

11. 17th PLC Venue

Palina Hedinsdottir, Librarian of the Icelandic Institute of Natural History, read a letter from the Director General of this Institute and the Assistant Director of the Marine Research Institute inviting the 17th Colloquy to meet in Reykjavik in 1998. PLC accepted this invitation unanimously. The 17th PLC will meet jointly with the International Association of Marine Science Libraries and Information Centres (IAMSLIC).

12. Future PLC Venues

A number of organizations have expressed an interest as possible venues for future colloquies. All such expressions of interest are most welcome and will be investigated further by the Steering Committee before being submitted for final approval at the PLC Business Meeting.

13. Other Business

13.1 PLC Archives

Eugene West reminded delegates of PLC's official archives at the Elmer E. Rasmuson Library, University of Alaska Fairbanks. Organizers of past colloquies were urged to send on historic materials as and when they became available.

13.2 Use of Auction Money

A resolution was passed to establish the Hubert Wenger Award to be paid out of sums raised by the Circumpolar Auction traditionally held following the Colloquy banquet. Awards will be made by decision of the Steering Committee for the purpose of assisting attendance through the payment of registration fees for delegates from countries otherwise unlikely to be represented at PLC.

14. Vote of Thanks to Organizers of the 16th PLC

On behalf of PLC participants, a vote of thanks was presented by Harry King to our host organization—the University of Alaska Anchorage Consortium Library—and to the members of the organizing committee: Barbara Sokolov, Bruce Merrill, Dianne Brenner, Nancy Lesh, Cathie Innes-Taylor, and Juli Braund-Allen.

Program of the 16th Polar Libraries Colloquy

Sunday, June 16

5:00-9:00 p.m.	Registration at the Consortium Library

Monday, June 17

7:00-9:00 a.m.	Breakfast, Poster Set Up, and Registration at Cuddy Center (Bldg. F)
9:05 a.m.	Convene in the Business Education Bldg. (BEB, rm. 117)
9:10-9:30 a.m.	Welcome • Introduction of Organizing Committee • Conference Announcements Barbara J. Sokolov, Chair, 16th PLC Organizing Committee
9:30-10:00 a.m.	Welcoming Remarks E. Lee Gorsuch, Chancellor, University of Alaska Anchorage
10:00-11:00 a.m.	Keynote Address: *Creativity in Science and Business* S.-I. Akasofu, Director, Geophysical Institute, University of Alaska Fairbanks
11:00-11:25 a.m.	Coffee Break
11:25 a.m.-1:15 p.m.	Panel: *A Polar Libraries Colloquy Web Site: Progress and Plans* Martha Andrews, Institute for Arctic and Alpine Research, University of Colorado; Liisa Kurppa, Arctic Centre, University of Lapland; William Mills, Scott Polar Research Institute, Cambridge; and Eric Tull, Arctic Institute Library, University of Calgary
1:15-2:15 p.m.	Lunch and finish poster set up at Cuddy Center
2:15 p.m.	Reconvene (BEB, rm. 117)
2:20-3:00 p.m.	PLC Web site demonstration.
3:00-3:55 p.m.	*Journal Coverage for the* Cold Regions Bibliography*: How are We Coping?* and a demonstration of the National Science Foundation and Cold Regions Research and Engineering Laboratory Home Pages Stuart Hibben, Library of Congress
3:55-4:15 p.m.	Refreshments
4:15-7:15 p.m.	Board buses, tour Anchorage, and return to Cuddy Center
7:15-9:00 p.m.	Dinner at Cuddy Center

Tuesday, June 18

7:00-8:00 a.m.	Breakfast, Poster Viewing, and Registration at Cuddy Center (Bldg. F)
8:00 a.m.	Board buses
8:15-8:20 a.m.	Arrive at Z.J. Loussac Public Library
8:20-8:25	Convene in the Wilda Marston Theatre, level I
8:30-9:00 a.m.	Welcome Connie Jones, Director of Cultural and Recreational Services, Municipality of Anchorage Mary H. (Moe) McGee, Director, Anchorage Municipal Libraries
9:00-9:15 a.m.	Announcements
9:15-10:15 a.m.	Tour Z.J. Loussac Public Library
10:15-10:50 a.m.	Coffee break, Ann Stevens Room, level III
10:50 a.m.	Reconvene in the Wilda Marston Theatre, level I
11:00-11:45 a.m.	*The Klondike Craze: A Centennial Tribute to the Bizarre Side of the Klondike and Alaska Gold Rushes* Terrence Cole, Professor of History, University of Alaska Fairbanks
11:45-12:45 p.m.	Panel: *Significant Problems Caused by the Loss of Personal Information from Retirements* Lyle D. Perrigo, U.S. Arctic Research Commission; Nicholas Flanders, Arctic Research Consortium of the United States; Dale B. Perrigo, Perrigo Technology; and Mead Treadwell, Siberia Alaska Co. (formerly Deputy Commissioner, Alaska Dept. of Environmental Conservation)
12:45-1:30 p.m.	Box lunch in lobby, level I
1:30-2:00 p.m.	Group picture
2:05 p.m.	Reconvene in the Wilda Marston Theatre, level I

2:05-3:30 p.m. Panel: *Status and Goals of Our Major Access Tools*. Martha Andrews, Chair.
This session will present an overall picture of our national and international efforts to provide a truly polar information system, leading to discussion of what we want to accomplish by the year 2001, and where we need to focus our energies.

3:30-3:45 p.m. *An Introduction to the Museum*
Diane Brenner, the Anchorage Museum of History and Art

3:45-4:00 p.m. Break

4:00 p.m. Board buses

4:15-4:30 p.m. Arrive at the Anchorage Museum of History and Art

4:30-5:30 p.m. Tour museum

5:30-6:30 p.m. Reception in galleries 5 and 6; Museum Gift Shop open, 10% discount

6:45 p.m. One bus will return to the dorms. If you choose to stay downtown, consider visiting the Cook Inlet Book Company and Cyrano's Books and Cafe, both near the corner of 5th Avenue and D Street.
Dinner on your own

Wednesday, June 19

7:00-8:00 a.m. Breakfast and Poster Viewing at Cuddy Center (Bldg. F)

8:00-8:15 a.m. Walk to the Consortium Library

8:15-8:55 a.m. Tour of library, database demonstrations

8:55 a.m. Convene in the College of Arts & Sciences Bldg. (CAS, rm. 118)

9:00-9:20 a.m. Announcements

9:20-9:40 a.m. *Organizational Creativity: Historical/Cultural Publications of Selected Northern Municipalities, Native Organizations, and Institutions*
Ronald K. Inouye, Rasmuson Library, University of Alaska Fairbanks

9:40-10:00 a.m. *Collaborative? Multidisciplinary? Interdisciplinary? What are the Current Trends in Research at Universities?*
Margo Young, Robin Minion, and Pam Ryan, Science and Technology Library, University of Alberta

10:00-10:30 a.m. *Is Publishing Perishing?*
Martha Andrews, Institute of Arctic and Alpine Research, University of Colorado

10:30-11:00 a.m. Break

11:00-11:30 a.m. *Under the Red Flag: Photographs of the Hudson's Bay Company's Kamchatka Venture*
Anne Morton, Hudson's Bay Company Archives, Provincial Archives of Manitoba

11:30-11:45 a.m. *FYI: Information Projects at Indian and Northern Affairs Canada*
Julia Finn, Indian and Northern Affairs Canada, Ottawa

11:45-12:05 p.m. *Gray Literature Database on Russian Research in the Arctic*
Valentina Markusova, L. Tsvetkova, and I. Vlasova, All-Russian Institute for Science and Technological Information, Moscow

12:05-12:25 p.m. *Creative—By Whose Standards?*
Gretchen L. Lake, Rasmuson Library, University of Alaska Fairbanks

12:25-12:45 p.m. *Bringing the Russian Far East Online: The Challenges of* PolarPac 4
Lisa Lehman, Rasmuson Library, University of Alaska Fairbanks

12:45-1:00 p.m. Break

1:00-8:00 p.m. Board buses and tour to Portage Glacier, Girdwood, and Mt. Alyeska. Box lunch on the bus. No dinner is provided, but restaurants are open at Girdwood.

8:00 p.m. Arrive back at dorms.

Thursday, June 20

7:00-8:00 a.m. Breakfast and Poster Viewing at Cuddy Center (Bldg. F)

8:00-8:15 a.m. Walk to the College of Arts & Sciences Bldg. (CAS)

8:15 a.m. Convene in CAS, rm. 118

8:15-8:30 a.m. Announcements

8:30-9:00 a.m. *Alaska Libraries and SLED.*
Karen Crane, Director, Alaska Div. of Libraries, Archives, and Museums

9:00-9:20 a.m. *Looking into Old Maps: Who Generated Alaska's Historical Maps Up Through the Gold Rush?*
Marvin Falk, Rasmuson Library, University of Alaska Fairbanks

9:20-9:40 a.m. *The Arctic Science and Technology Information System: Creative Funding of a*

	Northern Information Service in the 1990s Ross Goodwin, Arctic Institute of North America, University of Calgary
9:40-10:00 a.m.	*The American Polar Society: Past, Present, and Future* Lynn Lay and Raimund E. Goerler, Byrd Polar Research Center, Ohio State University
10:00-10:20 a.m.	Break
10:20-10:40 a.m.	*Scientific Artist with Captain Scott: The Edward Adrian Wilson Collection in the Scott Polar Research Institute, Cambridge, England* H.G.R. King, retired, Scott Polar Research Institute, Cambridge
10:40-11:00 a.m.	*The Diary of H.E.: A Displaced Life as a Creative Voyage of Discovery* Tamara Lincoln, Rasmuson Library, University of Alaska Fairbanks
11:00-11:45 a.m.	*Roald Amundsen, the North Pole and the Alaskan Connection* Susan Barr, Norsk Polarinstitutt, Oslo
11:45a.m.-Noon	Walk to Cuddy Center
Noon-1:00 p.m.	Lunch and Poster Viewing at Cuddy Center
12:30-2:00 p.m.	U.S. Polar Information Group open meeting at Cuddy Center
2:00-5:00 p.m.	Board buses and tour the Alaska Zoo
5:00 p.m.	Board buses. Buses will go to Borders Books and Music, drop off those interested, and return to dorms. No return transportation is provided from Borders. Dinner on your own

Friday, June 21

7:00-7:55 a.m.	Breakfast and Poster Viewing at Cuddy Center (Bldg. F)
8:00 a.m.	Convene in the Business Education Bldg. (BEB, rm. 101)
8:00-8:15 a.m.	Announcements
8:15-8:35 a.m.	*The Italian Antarctic Project: Policy for Antarctic Information Dissemination* Anna Maria Pignocchi, ENEA (National Agency for New Technologies, Energy, and the Environment) Antarctic Project
8:35-9:15 a.m.	*Digitizing the* Anchorage Times *Morgue* Ralph Courtney and Colleen Tyrrell, Consortium Library, University of Alaska Anchorage; and Dan Fleming, Anchorage Municipal Libraries
9:15-9:55 a.m.	Wenger Eskimo Database *for Windows* James A. Ketz, Rasmuson Library, University of Alaska Fairbanks
9:55-10:15 a.m.	*Information Needs of Russian Polar Scientists and Possibilities for Organising Mutually Beneficial Exchanges* Isabella Warren, Scott Polar Research Institute, Cambridge
10:15-10:35 a.m.	Break
10:35-12:35 p.m.	Panel: *Status and Goals of Our Major Access Tools.* Martha Shepard, Chair. Wrap-up session.
12:35-1:30 p.m.	Lunch at Cuddy Center
1:35 p.m.	Reconvene (BEB, rm. 101)
1:35-3:35 p.m.	Colloquy Business Meeting
3:35 p.m.	Formal Adjournment
3:40-4:15 p.m.	Break. Posters come down
4:15-7:00 p.m.	Free time
7:00 p.m.	Banquet and Auction at the UAA Pub

Poster Sessions

Cuddy Center, Bldg. F, daily beginning at 7 a.m.

Alaska Natural Resources Library Group: Adapt, Migrate, or Die
Barbara J. Sokolov, Consortium Library, and Juli Braund-Allen, AEIDC, University of Alaska Anchorage; and Cathy Vitale, Alaska Resources Library, U.S. Dept. of the Interior

The Alaska Newspaper Project... Preserving Pages from the Past
Mary Nicolson and Kay Shelton, Alaska State Library; Marvin Falk and Jeffrey J. Pederson, Rasmuson Library, University of Alaska Fairbanks; and Nancy Lesh, Consortium Library, University of Alaska Anchorage

Antarctica Retrospective – A Comprehensive Resource for the History of Antarctica and the Southern Ocean
William J. Mills, Scott Polar Research Institute, Cambridge

Arktikum-House, Phase 2: Institute
Lea Karhumaa, University of Lapland Library

Australian Antarctic Research Programs and Internet Resources
Lynn Davies, University of Tasmania Science & Technology Library

German Polar Research since the Turn of the Century and the Influence of Erich von Drygalski
Cornelia Lüdecke, German Society of Polar Research

International Permafrost Association and the 1998 Seventh International Conference on Permafrost
Jerry Brown and Alan Heginbottom, International Permafrost Association, Virginia

Lighting the Poles: Creating Reference Works from the CASP Polar Collections
Eda L. Lesk, Cambridge Arctic Shelf Programme, Cambridge

New Geophysical Institute Library Opening 1998
Judith Triplehorn, Geophysical Institute, University of Alaska Fairbanks

NOAA (National Oceanic and Atmospheric Administration) Central Library: Services and Publications
Judith Triplehorn, Geophysical Institute, University of Alaska Fairbanks

Proposed Map-based Graphical User Interface to Ease Alaska Map Access at the Elmer Rasmuson Library, University of Alaska Fairbanks
Jeffrey J. Pederson, Rasmuson Library, University of Alaska Fairbanks

Rural Alaska Health Information Access Project
Jeraldine van den Top and Robert M. Reider, Health Sciences Information Services, University of Alaska Anchorage

List of Participants

Donatella Alesi
ENEA-Progetto Antartide-Biblioteca
Via Anguillarese, 301
00060 Santa Maria di Galeria (Rome), Italy
biblioteca@enea.pnra.it
+39 6 3048 6498 Tele., +39 6 3048 4893 Fax.

Judy Alward
AEIDC, Environment & Natural Resources Institute
University of Alaska Anchorage
707 A Street
Anchorage, Alaska 99501, USA
1-907-257-2732 Tele., 1-907-276-6847 Fax.

Loretta Andress
University of Alaska Anchorage Consortium Library
3211 Providence Drive
Anchorage, Alaska 99508-8176, USA
aflma@uaa.alaska.edu
1-907-786-1609 Tele., 1-907-786-1608 Fax.

Martha Andrews
Institute of Arctic and Alpine Research
University of Colorado CB450
Boulder, Colorado 80309, USA
andrewm@spot.colorado.edu
1-303-492-1867 Tele., 1-303-492-6388 Fax.

Marty Arvey
P.O. Box 81195
Fairbanks, Alaska 99708, USA
University of Alaska Fairbanks Rasmuson
Library (Retired)
blarvey@alaska.net
1-907-479-6929 Tele.

Susan Barr
Norsk Polarinstitutt
P. O. Box 5072, Majorstua
0301 Oslo, Norway
barr@npolar.no
+47 22 95 9509 Tele., +47 22 95 9501 Fax.

Maria Billings
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
fnmtb@aurora.alaska.edu
1-907-474-6693 or 1-907-474-7403 Tele.
1-907-474-6841 Fax.

Juli Braund-Allen
AEIDC, Environment & Natural Resources Institute
University of Alaska Anchorage
707 A Street
Anchorage, Alaska 99501, USA
anjb1@uaa.alaska.edu
1-907-257-2733 Tele., 1-907-276-6847 Fax.

Kirsten Caning
Danish Polar Center
Strandgade 100H
DK-1401 Copenhagen K, Denmark
kec@dpc.dk
+45 32 88 0100 Tele., +45 32 88 0101 Fax.

Annie Cathala
Institute Français pour las Recherche et la
Technologie Polaires
Technopole Brest Iroise B.P. 75
29280 Plouzane, France
+98 05 65 52 Tele., +98 05 65 55 Fax.

Ethel Clausen
P.O. Box 2815
Kenai, Alaska 99611, USA
Kenai Peninsula College Library (Retired)
1-907-283-9094 Tele.

Nita Cooke
8734 119th Street
Edmonton, Alberta T6G 1W8, Canada
Canadian Circumpolar Library (Retired)
1-403-439-5879 Tele.

Phil Cronenwett
Dartmouth College Library
Hanover, New Hampshire 03755, USA
phil.cronenwett@dartmouth.edu
1-603-646-2037 Tele., 1-603-646-3702 Fax.

Lynn Davies
University of Tasmania, SciTech Library
GPO Box 252L
Hobart, Tasmania 7000, Australia
lynn.davies@lib.utas.edu.au
+002 202132 Tele., +002 207817 Fax.

Emily DeForest
Kenai Community Library
163 Main Street Loop
Kenai, Alaska 99611, USA
emilyd@muskox.alaska.edu
1-907-283-4378 Tele., 1-907-283-2266 Fax.

Peggy D'Orsay
Yukon Archives
P.O. Box 2703
Whitehorse, Yukon Territory Y1A 2C6, Canada
yarchive@gov.yk.ca *or* pdorsay@gov.yk.ca
1-403-667-5625 Tele., 1-403-393-6253 Fax.

Marvin Falk
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
ffmwf@aurora.alaska.edu
1-907-474-6595 Tele.

Paula Filén
University of Luleå Library
S-971 87 Luleå, Sweden
pafi@lib.luth.se
+46 920 91572 Tele., +46 920 72040 Fax.

Julia Finn
Indian & Northern Affairs Canada
Departmental Library
Ottawa, Ontario K1A 0H4, Canada
finnj@inac.gc.ca
1-819-997-8205 Tele., 1-819-953-5491 Fax.

Nick Flanders
Arctic Research Consortium of the United States
Dartmouth College
Hanover, New Hampshire 03755, USA
nicholas.flanders@dartmouth.edu
1-603-646-1455 Tele., 1-603-646-1279 Fax.

Betty Galbraith
Arctic Research Consortium of the United States
600 University Ave., Suite 1
Fairbanks, Alaska 99709, USA
bettyg@muskox.alaska.edu
1-907-479-5196 Tele.

Raimund Goerler
Byrd Polar Research Center
Goldthwait Polar Library
The Ohio State University
1090 Carmack Road
Columbus, Ohio 43210-1002, USA
rgoerler@magnus.acs.ohio-state.edu
1-614-292-2409 Tele., 1-614-688-4150 Fax.

Ross Goodwin
Arctic Institute of North America
University of Calgary
Calgary, Alberta T2N 1N4, Canada
rgoodwin@acs.ucalgary.ca
1-403-220-4036 Tele., 1-403-282-4609 Fax.

Judy Green
Consortium Library
University of Alaska Anchorage
3211 Providence Drive
Anchorage, Alaska 99508-8176, USA
afjfg@uaa.alaska.edu
1-907-786-1977 Tele., 1-907-786-6050 Fax.

Pálína Hédinsdóttir
Icelandic Institute of Natural History Library
P.O. Box 5320
IS-125 Reykjavik, Iceland
palina@nattfs.is
+354-562-9822 Tele., +354 562-0815 Fax.

Stuart Hibben
Science & Technology Division
Library of Congress
Washington, D. C. 20540-5582, USA
hibben@mail.loc.gov
1-202-707-1181 Tele., 1-202-707-1925 Fax

Catherine Innes-Taylor
Consortium Library
University of Alaska Anchorage
3211 Providence Drive
Anchorage, Alaska 99508-8176, USA
ancei@uaa.alaska.edu
1-907-786-1875 Tele., 1-907-786-6050 Fax.

Ronald K. Inouye
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
fnrki@aurora.alaska.edu
1-907-474-5354 Tele., 1-907-474-6365 Fax.

Vibeke Sloth Jakobsen
Danish Polar Center
Strandgade 100H
1401 Copenhagen K, Denmark
vsj@dpc.dk
+45 32 88 0106 Tele., +45 32 88 0101 Fax.

Lea Karhumaa
Lapland University Library
P.O. Box 8123
96101 Rovaniemi, Finland
lkarhuma@levi.urova.fi
+358 60 324910 Tele., +358 60 324933 Fax.

James A. Ketz
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
fnjak@aurora.alaska.edu
1-907-474-6595 Tele.

Randi Kiil
University Courses on Svalbard
Postbox 156
N-9170 Longyearbyen, Norway
randi@unis.no
+47 79 02 33 09 Tele., +47 79 02 33 01 Fax.

H.G.R. King
12 St. Mark's Court
Cambridge, CB3 9LE, United Kingdom
Scott Polar Research Institute (Retired)
+01 223 322021 Tele.

Shirley Kisoun
Joint Secretariat
Inuvik, Northwest Territory X0E-0T0, Canada
1-403-979-2828 Tele., 1-403-979-2610 Fax.

Svetlana Kornienko
Magadan Regional Library (Puskin)
K. Max 53/13
Magadan, 68500, Russia
adm@bip.magadan.su
(413) 2-84-61 Tele., (413) 2-60-98 Fax.

Liisa Kurppa
Arctic Centre
University of Lapland
P.O. Box 122
96101 Rovaniemi, Finland
lkurppa@levi.urova.fi
+358 60 324775 Tele., +358 60 324777 Fax.

Gretchen Lake
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
gretchen@muskox.alaska.edu
1-907-474-5590 Tele., 1-907-474-6365 Fax.

Mary Ann Larson
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
fnmal@aurora.alaska.edu
1-907-474-5003 Tele., 1-907-474-6365 Fax.

Lisa Lehman
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
fflml@aurora.alaska.edu
1-907-474-6693 Tele., 1-907-474-6841 Fax.

Nancy Lesh
Consortium Library
University of Alaska Anchorage
3211 Providence Drive
Anchorage, Alaska 99508-8176, USA
afnll@uaa.alaska.edu
1-907-786-1877 Tele., 1-907-786-6050 Fax.

Eda Lesk
Cambridge Arctic Shelf Programme
West Building, Gravel Hill, Huntingdon Road
Cambridge CB3 0DJ, United Kingdom
el10006@cus.cam.ac.uk
+01223 276121 Tele., +01223 276604 Fax.

Tamara Lincoln
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
fftpl@aurora.alaska.edu
1-907-474-6693 Tele., 1-907-474-6841 Fax

Nancy Liston
U.S. Army Cold Regions Research and
Engineering Laboratory
72 Lyme Road
Hanover, New Hampshire 03755-1290, USA
nliston@crrel.usace.army.mil
1-603-646-4221 Tele., 1-603-646-4712 Fax.
http://www.crrel.usace.army.mil/library

Maureen Long
127 Finch Crescent
Whitehorse, Yukon Territory Y1A 5X5, Canada
Yukon College
melong@yknet.yk.ca
1-403-668-8872 Tele., 1-403-668-8808 Fax.

Chris Maack
Z.J. Loussac Library (Alaska Collection)
3600 Denali Street
Anchorage, Alaska 99503-6093, USA
73201.3124@compuserve.com

Valentina Markusova
VINITI (All-Russian Institute for Scientific &
Technical Information RAS)
Moscow 125219, Russia
viniti@sovam.com
7-095-151-3681 Tele., 7-095-943-0060 Fax.

Paul McCarthy
Western Library Network
P.O. Box 3888
Lacey, Washington 98503-0888, USA
1-800-342-5956 Tele. *or* 1-206-923-4000 Tele.
1-206-923-4009 Fax.

Isabel McDonald
9037 S.W. Monterey Place
Portland, Oregon 97225, USA
1-503-292-3237 Tele.

William Mills
Scott Polar Research Institute
Lensfield Road
Cambridge CB2 1ER, United Kingdom
wjm13@cam.ac.uk
+66(0) 1223-336557 Tele., +66(0) 1223-336549 Fax.

Robin Minion
Science & Technology Library
University of Alberta
Edmonton, Alberta, Canada
robin.minion@ualberta.ca
1-403-492-7324 or 1-403-492-7936 Tele.
1-403-492-2721 Fax.

Antonina Monastyreva
Foreign Languages (Chief Librarian)
400 Lenin Street,
677007 Yakutsk, Russia
(411-2) 22-38-39 Tele., (411-2) 24-56-59 Fax.

Anne Morton
Hudson's Bay Company Archives
200 Vaughn Street
Winnipeg, Manitoba R3C 1T5, Canada
amorton@chc.gov.mb.ca
1-204-945-2579 Tele., 1-204-948-3236 Fax.

Nora Corley Murchison
185 Kamloops Avenue
Ottawa, Ontario K1V 7E1, Canada
1-613-521-4737 Tele.

Mary Nicolson
Alaska State Library
Alaska Newspaper Project
P.O. Box 110571
Juneau, Alaska 99811, USA
maryn@muskox.alaska.edu
1-907-465-2919 Tele., 1-907-465-2990 Fax.

Jeffrey J. Pederson
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
fnjjp@aurora.alaska.edu
1-907-474-6595 Tele., 1-907-474-6365 Fax.

Anna Pignocchi
ENEA-Progetto Antartide-Biblioteca
Via Anguillarese, 301
00060 Santa Maria di Galeria (Rome), Italy
antar@casaccia.enea.it
+39 6 3048 6453 Tele., +39 6 3048 4893 Fax.

June Pinnell-Stephens
Fairbanks North Star Borough Public Library
1215 Cowles Street
Fairbanks, Alaska 99701, USA
junep@muskox.alaska.edu
1-907-459-1020 Tele., 1-907-459-1024 Fax.

Tatyana Polyakova
North East Interdisciplinary Research Institute
16 Portovaya Street
Magadan 685000, Russia
root@neisri.magadan.su
7-422 2-37-50 Tele.

Fred Inge Presteng
Norsk Polarinstitutt
P.O. Box 5072, Majorstua
0301 Oslo, Norway
presteng@npolar.no
+47 22 95 9624 Tele., +47 22 95 9501 Fax.

Diane Ruess
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
1-907-474-7224 Tele., 1-907-474-6841 Fax.

Elena Sergeeva
K. Marks St. 65B, dep. 16
Magadan 68503, Russia
Magadan Regional Library (Puskin)

Kay Shelton
Alaska State Library
P.O. Box 110571
Juneau, Alaska 99811-0571, USA
kays@muskox.alaska.edu
1-907-465-2926 Tele., 1-907-465-2665 Fax.

Bill (William) Smith
765 Eighth Avenue
Fairbanks, Alaska 99701-4401, USA
University of Alaska Fairbanks (Retired)
bills@muskox.alaska.edu
1-907-456-4841 Tele.

Barbara Sokolov
Consortium Library
University of Alaska Anchorage
3211 Providence Drive
Anchorage, Alaska 99508-8176, USA
anbjs@uaa.alaska.edu
1-907-786-1825 Tele., 1-907-786-6050 Fax.

Dennis Stephens
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
ffdjs1@aurora.alaska.edu
1-907-474-6695 Tele., 1-907-474-6841 Fax.

Rob Sutherland
Yukon College
P.O. Box 2799
Whitehorse, Yukon Territory Y1A 5K4, Canada
rsuther@yknet.yk.ca
1-403-668-8888 Tele., 1-403-668-8808 Fax.

Judith Triplehorn
Geophysical Institute Library
University of Alaska Fairbanks
Fairbanks, Alaska 99775, USA
fygilib@aurora.alaska.edu
1-907-474-7512 Tele., 1-907-474-6891 Fax.

Eric Tull
University of Calgary Library
2500 University Drive, NW
Calgary, Alberta T2N 1N4, Canada
tull@acs.ucalgary.ca
1-403-220-5650 Tele., 1-403-282-6837 Fax.

Isabella Warren
Scott Polar Research Institute
Lensfield Road
Cambridge CB2 1ER, United Kingdom
imtw1@cam.ac.uk
+44 1223 336565 Tele., +44 1223 336549 Fax.

Beatrice Wenger
10 Chemin de la Faverge
1295 Mies (VD)
Switzerland

Eugene West
Rasmuson Library
University of Alaska Fairbanks
P.O. Box 756810
Fairbanks, Alaska 99775-6810, USA
ffcew@aurora.alaska.edu
1-907-474-7261 Tele., 1-907-474-6375 Fax.

Louise Wuorinen
Lakehead University Library
955 Oliver Road
Thunder Bay, Ontario P7B 5E1, Canada
louise.wuorinen@lakeheadu.ca
1-807-343-8728 Tele., 1-807-343-8007 Fax.

Constitution of the Polar Libraries Colloquy

(Approved July 7, 1994; amended June 21, 1996)

Chapter One
Name of the Association

Article 1
The name of the association is the Polar Libraries Colloquy.

Chapter Two
Aim and Purpose of the Association

Article 2
The Polar Libraries Colloquy (hereafter called PLC) provides a forum through which librarians and others evidencing an abiding interest in the collection, preservation, and dissemination of polar information, discuss issues of mutual concern and promote initiatives leading to improved collections and services.

Article 3
In order to implement its aims, the PLC:
(i) holds an international conference every two years, or at an interval agreed upon by the membership;
(ii) exchanges information by appropriate means;
(iii) co-operates with other national and international organizations whose aims are complementary to those of the PLC.

Chapter Three
Membership

Article 4
Membership of the PLC is open to all persons and institutions evidencing an abiding interest in the collection, preservation, and dissemination of polar information. There will be three categories of membership: individual, honorary, and institutional. The rights and privileges of each category shall be as defined in the bylaws. Applications for membership must be directed to the PLC Steering Committee.

Article 5
Individual and institutional members must pay an annual membership fee. Honorary members shall pay no fees. Such fees will be as approved in the business meeting of the preceding colloquy. The Steering Committee may agree to waive membership fees for a predetermined period upon application.

Article 6
The status of Honorary Member may only be conferred by a proposal agreed to at the business meeting. Honorary members will enjoy all the rights and privileges of individual membership.

Chapter Four
Organization and Administration

Article 7
Decisions regarding the aims, purposes, and functioning of the PLC are approved in the business meeting held during the international conference (hereafter called the business meeting).

Article 8
The PLC's activities are directed and planned by the PLC Steering Committee which is elected at the business meeting to serve until the next business meeting. These members shall, as far as possible, be chosen so as to be representative of the different regions and types of libraries comprising the PLC membership in general.

Chapter Five
Meetings

Article 9
An international conference is held every two years, or other agreed interval. The venue and host organization are decided upon according to procedures stipulated in the Bylaws. An institution or site wishing to host the next PLC conference should inform the PLC Steering Committee at least sixty days prior to the business meeting.

Article 10
The organization and financial arrangements of the international conference are the responsibility of the host organization, which shall also be responsible for the preparation, publication, and distribution of the conference proceedings. Organizations hosting the international conference should budget to cover costs but not make a profit. Arrangements for the international conference should be made by the conference host in consultation with a conference organizing committee, the latter being selected at the preceding PLC business meeting. The role of the conference

organizing committee is essentially consultative and supportive of the conference host, who retains primary responsibility for the making of conference arrangements.

Chapter Six
Entry into Effect of this Constitution

Article 11
This Constitution will come into force at the close of the business meeting at which it is approved by a two-thirds majority of the members voting.

Chapter Seven
Changes to the Constitution of the Colloquy

Article 12
Amendments to the Constitution may be proposed by any member. Such amendments must be submitted in writing to the PLC Steering Committee in time for dissemination prior to the business meeting.

Article 13
Adoption of an amendment requires an affirmative vote of at least two-thirds of the members present at the business meeting.

Chapter Eight
Changes to the Bylaws of the Colloquy

Article 14
Amendments to the Bylaws may be proposed by any member. Such amendments must be submitted in writing to the PLC Steering Committee in time for dissemination prior to the business meeting.

Article 15
Adoption of an amendment requires an affirmative vote of at least two-thirds of the members present at the business meeting.

Bylaws

1. For the purpose of the business meeting at which the adoption of this constitution will first be mooted (15th PLC, Cambridge), all delegates attending the business meeting will be considered as members with full voting rights.

2. The selection of the venue for the PLC conference will be recommended by the PLC Steering Committee for approval by the general membership at the business meeting. The tradition of alternating between the European and North American continents will be considered in venue selection with due consideration given to other regions as evidence of interest becomes apparent.

The PLC Steering Committee will reach their decision taking into account the following factors: The prospective host should offer:

(i) a demonstrated, on-going commitment to the aims of the PLC;
(ii) the ability to provide a suitable venue including appropriate accommodations and meeting facilities, and relevant and interesting sites to visit;
(iii) a significant polar collection;
(iv) a record of successfully hosting international conferences;
(v) a letter of invitation from the director of the institution;
(vi) evidence of institutional commitment, both financial and physical;
(vii) a suitable theme for the conference;
(viii) a commitment to publish the proceedings

Consideration shall be given to appropriate sites which have yet to host the PLC conference.

3. Only individuals and honorary members may hold office. Members, whether individual, honorary, or institutional, all have only one vote.

4. Dues for individual and institutional members shall be five pounds sterling.

5. There shall be a PLC Steering Committee, herein referred to as the "PLCSC," that shall direct and plan the activities of the PLC and take such actions as it considers necessary to carry out the objectives of the PLC and perform such other functions as the membership may direct.

The PLC Steering Committee shall consist of at least three and not more than seven members elected by the membership. Additional ex officio members shall consist, at least, of the bulletin editor(s) and the chair of the next colloquy. Nominations for, and election of, PLCSC members shall be made at the PLC business meeting.

PLCSC members shall elect PLCSC officers from among their elected members as follows: the chair, the vice-chair/chair-elect, and the secretary-treasurer. All members of the PLCSC shall be members of the PLC.

The PLCSC shall hold at least one meeting biennially in association with the PLC and may hold additional meetings. Fifty percent shall constitute a quorum.

A vacancy among the officers of the PLCSC, except in the office of chair, shall be filled by majority vote of the remaining members of the PLCSC, this PLCSC-elected officer to serve until the next biennial election. A vacancy in the office of chair shall be filled by the vice-chair/chair-elect.

The term of office of all PLCSC members shall be at least one cycle (usually two years) between meetings of the PLC. The chair shall normally serve one cycle. The vice-chair/chair-elect and the secretary-treasurer shall serve two cycles without standing for re-election. With the exception of the offices of chair and vice-chair/chair-elect, any officer shall be eligible for re-election. The chair and vice-chair/chair-elect shall be eligible for election to any other PLCSC office. All members of the PLCSC shall serve until their successors are elected and assume their duties. The term of office shall commence at the adjournment of the PLC Business Meeting.

The chair shall be chief executive officer of the PLC and, subject to the PLCSC, shall: preside at all meetings of the PLCSC and represent the PLC and/or the PLCSC as needed.

The vice-chair/chair-elect shall: assist the chair in the performance of the duties of the chair and assume all the duties and obligations of the chair in the event of absence or withdrawal of the chair.

The secretary-treasurer shall: keep a record of all meetings of the PLC and of the PLCSC; prepare this record for publication in the PLC Bulletin and/or the PLC Proceedings; collect all dues from the PLC; have custody of the PLC funds; sign all cheques drawn upon PLC funds; and furnish such financial statements as may be required by the PLC or the PLCSC.

Author Index

Keyword Index

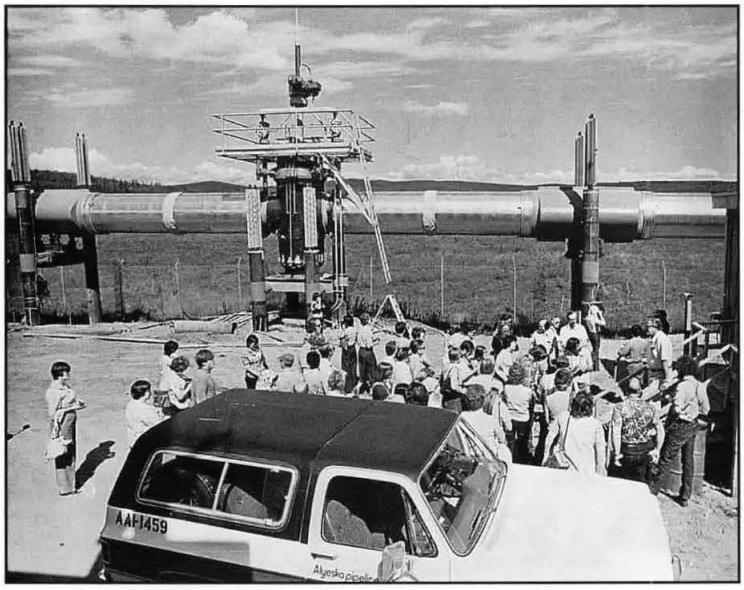
Partial Proceedings *of the* 6th Northern Libraries Colloquy, July 12-15, 1976, Elmer E. Rasmuson Library, University of Alaska, Fairbanks

Edited by
Juli Braund-Allen
and
Cathie Innes-Taylor

Consortium Library, University of Alaska Anchorage
1997

Participants of the 6th Northern Libraries Colloquy, 1976, Fairbanks, Alaska.

Contents



Visit to the newly built Trans-Alaska Pipeline.

Hard at work.

Introduction

Twenty years ago the 6th Northern Libraries Colloquy was held at the University of Alaska, Fairbanks. I helped Nancy Lesh organize and guide a pre-Colloquy tour on the Alaska Railroad to Mt. McKinley (since renamed Denali) National Park. We Colloquy participants spent three days seeing the sights and getting to know one another.

It was a wonderful way to introduce everyone to Alaska, and friendships begun on that trip have enriched and enlivened my life. Who, after all, has forgotten the scene of librarians shoving dollar bills into the waistband of the belly dancer's costume at the banquet at the "renowned" Octa Restaurant? Though this anecdote is part of the unrecorded social history of the Colloquy of that year, until now, even the recorded history has been unavailable.

Primarily due to the poor quality of the tapes of the sessions, only partial transcriptions were ever put on paper, and a proceedings volume was never done. It seemed to us on the Organizing Committee for the 1996 Polar Libraries Colloquy that we should do something about this if we could. Thanks to the staff at Rasmuson Library, we obtained copies from the PLC Archives of the available 1976 tape transcriptions, a copy of the program, and some photographs. Unfortunately, no copy of the minutes of the business meeting was available. After extensive editing we have been able to provide in this volume at least a partial proceedings.

Seventy-two librarians came to the 1976 Colloquy, representing Canada, Finland, France, and Norway, as well as the United States. Hubert Wenger, to whom this volume is dedicated, was one of those present.

Until now, the history of the 1976 Colloquy has been carried around in the heads of the attendees but otherwise unavailable, except in bits and pieces divulged over a drink, or in the case of we Alaskans, while we were planning the 1996 Colloquy.

It has been 20 years, and our memories are getting fuzzy, but here in written form are some of the proceedings of the 6th Northern Libraries Colloquy.

Cathie Innes-Taylor

Program/Steering Committee

H. Theodore Ryberg	Chairman, Northern Libraries Colloquy
Marvin Falk	Co-Chairman, Program
Paul McCarthy	Co-Chairman, Program
William Smith	Chairman, Housing
Sharon West	Chairwoman, Hospitality and Transportation
Margie Thomas	Chairwoman, Meals and Entertainment
Alan Schorr	Chairman, Registration
Marvin Smith	Chairman, Publicity
Nancy Lesh	Chairwoman, Pre- and Post-Colloquy Tours

Tour of the musk ox farm, University of Alaska, Fairbanks.

Opening Session:
Introduction to Campus Libraries

Monday, July 12, 1976, 9:00 A.M. to 12:00 noon

Ted Ryberg,
Colloquy Chairman and Moderator:

It is my privilege to call into session the Sixth Northern Libraries Colloquy. We are delighted to have you here in Fairbanks. I thought I would give you a little time before beginning because I wasn't sure how many of you would have difficulty adjusting to our local time. It seems most of you were able to make it.

We do have some greetings this morning and I was trying to think of what kind of setting I could provide for the first person who will be speaking to you, and it occurred to me that I could tell you a little story about myself. I left Alaska, after being here for five years, in 1968—forever. Well, as you can see, forever isn't very long after all! When I returned to the campus, one year later, I stepped out of my car and the first person I saw was a man named Arnie Echols, who is no longer here. He looked at me and he didn't say hello, welcome back, glad to see you —nothing like that. He just looked at me and said, "It took you about six months longer than I thought it would." Well, Dr. Cutler was here from 1962 to 1966, but he was a little bit slower than I because he didn't come back until 1976. We are indeed delighted to have Dr. Cutler back as Chancellor of the Northern Region.

Those of us who worked with him when he was here before found that he was a man of wisdom, sensitivity, friendliness—a warm person. He is a man of exceptionally good sense. I feel that label is justified because he exercised it in 1963 when he hired me! Anyhow, it is indeed a privilege for me to introduce Dr. Howard A. Cutler, Chancellor of the Northern Region of the University of Alaska to those of you who didn't meet him and his lovely and charming wife Enid last night at the reception. Dr. Cutler.

Howard A. Cutler, Chancellor of the Northern Region, University of Alaska:

Thank you, Ted. It is a special privilege to be able to welcome you this morning. I notice that there are several welcomers on the list. Generally one thinks that the committee is pretty adequate to give the welcome but there is a strange institution in higher education in which the business is performed by a mat at the door and the mat at the door says "welcome." In higher education we generally use the Chancellor as the mat. So I am here to say explicitly that I am delighted that you are here. We are delighted that this unique group is here at our unique campus. Northern Libraries Colloquy. A discipline and a location. I'm curious as to how you got here: how you got to the library, how you got to the North. One of the unique things about our area is that you don't drift into it. Most people who are here, are here for a commitment. You've got to be committed to come this far. I know this is true from the dedication of many members of the staff—and we enjoy presence here. Quite unlike the gentlemen who was asked, "Just what made you decide to be a parachute jumper?" And he said, "Three dead engines in an airplane!" There are very few in your group who just drifted into the area. If you don't live in the North, you have an interest in it; if you do live in the North, you have come because of fascination. And the result is we enjoy a staff of considerable dedication and faith.

The same three engines in the airplane have another story attached to them. The airplane was going really quite well and all of a sudden there was a fire on the outer engine on the right-hand wing. The Captain announced, "Some of you may have noticed a little trouble on the right-hand wing. The engine has gone

out, but you have nothing to worry about. We've got three other engines and we are going along very, very well, so have faith, there's nothing to worry about—we'll get in on time." After about twenty minutes there was a fire on the left-hand far engine. The Captain reported, "You may have noticed that we have lost our far left-hand engine, but don't worry—we have two good engines, we are making good speed, we ought to arrive on time, no problem at all, just relax." A few minutes later the third engine went out. The one on the right-hand side closest to the fuselage. The Captain's voice came over and he said, "Well, I just want you to know that the third engine has gone out, but we've got one good one left. If that one goes out, we are liable to be up here for a long, long time."

So it takes faith to build in an area of uniqueness such as the northern libraries are dedicated to. We have done that here. Our University began pragmatically like most universities did. The Church founded universities in Western Europe for the purpose of teaching people to read and write so that they could do the Church's work. Within our country, as you know, Harvard was founded to develop ministers. Very pragmatic. And so we started out pragmatically. Our interest has been in meeting the needs of the North, so consequently the University at Fairbanks is unique in the emphasis it puts on research. We have a larger percentage of full-time research faculty, relative to teaching faculty, than almost any university in the country, because of the nature of how we started and the problems needing to be solved. I note in the program that you will devote considerable time learning about some of our research activities, and I think this is probably proper in terms of the way we spend our efforts here.

The result of all these environmental factors is an active "DO IT" type of performance. You have to be able to act to survive in the North. This is, I think, exemplified by the committees that have been working to host you, and by the sign for a dry-cleaning establishment that reads, "No matter what the stain is, we guarantee to take it out and sew up the hole." The attitude is: we get the job done. We hope while you are here, you'll have the opportunity to get the job done.

We are delighted that you are with us. I regret that I cannot fully participate in the Colloquy, including all the nicely planned side trips. Welcome. Do have a nice time. We are pleased you are here.

Mr. Ryberg: Thank you, Dr. Cutler.

Phil Younker, Presiding Officer of the Fairbanks North Star Borough Assembly, next welcomed participants on behalf of the local government.

Margie Thomas welcomed participants on behalf of the Alaska Library Association.

Mr. Ryberg read letters to the Colloquy from Jay Hammond, Governor of the State of Alaska; Harry King of the Scott Polar Research Institute; and Silvio Zavatti of the Library of the Instituto Geographico Polare. Irene Pelli of the Oulu University Library presented a wall hanging of ideographs from Jorma Etto, Chairman of the Fifth Northern Libraries Colloquy, which was held in Rovaniemi, Finland.

Mr. Ryberg announced that the costs to participants had been kept low because of a grant from the Alaska State Library and a gift from an anonymous donor. Committee Chairpersons were then introduced.

ELMER E. RASMUSON LIBRARY
University of Alaska, Fairbanks

Mr. Ryberg—
with a brief history of library service at the University of Alaska:

I would like to talk with you about the University of Alaska, and specifically about Rasmuson Library. To give you a brief historical overview of the Library, the first President of the University, Dr. Bunnell, started collecting books for it the year before the College actually opened in 1922. It was then called the Alaska Agricultural College and School of Mines, and it opened with six students and 2,326 volumes. The secretary to Dr. Bunnell, LarVerne Borell, was the part-time librarian. The Library was in one room in Old Main—a building long since gone. The Library next moved to a new fireproof building, which currently houses the University Museum.

The first full-time librarian, Francis Meals, was hired in 1936 and served until 1943. Enrollment at that time was 598, and there were 12,000 volumes in the Library. In 1945 John Mehler became the librarian, and in 1959-60 the Library moved into a wing of the Bunnell Building which is now the Administration Building. The Library wing had a book capacity of about 70,000 volumes. I came in 1963 when we had 78,000 volumes. In 1969 we moved into our present building, whose book capacity is 400,000 volumes. We expect to add our half-millionth volume this year. We have a total of two and a half acres of floor space, a half acre on each of the five floors.

I will tell you just a little bit about the statewide organization of the University of Alaska. I think it is probably unique, at least as far as I know. I know of no other plan quite like the one the University of Alaska has developed. We have a President of the statewide system (this is not especially unique), but the system is then divided into three regions: Southeastern, which is headquartered in Juneau; Southcentral, headquartered in Anchorage; and Northern, headquartered here. In addition, we have a Vice-President for Rural Affairs who is largely in charge of the community colleges that are not located within the three regions. For example, the community colleges in Ketchikan, Sitka, Kenai, Bethel, Kodiak, and Nome fall under the direction of the Vice-President for Rural Affairs. But the Matanuska-Susitna Community College, located in Palmer, is administered as part of the Southcentral region. To further complicate matters, our regional centers also have divisions. We have a senior college and a junior college. Here on this campus we have the four-year University of Alaska system and the Tanana Valley Community College two-year system. It's all very confusing; sometimes we think it changes so much and so rapidly that what I tell you now may not be true at lunch time.

On this campus we also have a number of state and federal agencies. They are not specifically part of the University, but they are located on campus and we coordinate our programs with them. These include the Arctic Environmental Research Laboratory, which is part of the U.S. Environmental Protection Agency; the branch of Alaskan Geology of the U.S. Geological Survey; the Magnetic and Seismological Observatory, which is part of the U.S. Geological Survey; the Bureau of Mines, part of the U.S. Department of the Interior; and the Institute of Northern Forestry, which is part of the U.S. Department of Agriculture. Under state operations here we have the State Division of Geological and Geophysical Surveys; the State Materials Laboratory, which is part of the Department of Highways; and the State Office of Research and Academic Coordination, which is part of the Department of Environmental Conservation. Overall, we think that these campus tenants are advantageous for us.

Let me take you for a brief verbal tour of our Library. We have five levels in the building with the main entrance on level three.

On our fifth level we have approximately half of our book collection: our oversize books and the Library of Congress classified books from A through N. There are four seminar rooms that are left open when they are not scheduled for group use by students. In addition, we have 11 faculty studies (not faculty offices) and 17 locked graduate carrels. It's been our policy to mix books and people. We think people should be able to use books close to where they pull them off the shelves. We have a great many double carrels interspersed among the book stacks. We have a mural depicting Christian missionary activity in Alaska that you may want to take a look at. In our stairwell we have pictures of early Alaskan bush pilots.

On our fourth level we have the rest of our main book collection. We have a similar number of seminar rooms, faculty studies, and graduate carrels as on level 5. We have a complete collection of 49 lithographs by a well-known and popular Alaskan artist, Fred Machetanz, who lives down near Palmer.

The third, or the main, level has our reserve room to the right as you enter. It has a seating capacity of 100 and also contains an audio room where records and cassettes are available for listening by our patrons. Video tapes and a video play-back unit are available. We have a typing room where we make typewriters available. Entering the main level, the card catalog is directly ahead. Reference, Juvenile, Bib-

liography, our collection on Alaska and the Polar Regions, and our Rare Books are also on this level.

I noticed in Saturday's paper a column by Jo Ann Wold on rare books and rare Alaskana. She quotes Herb Hilcher, who many of you from the Anchorage area know. According to Hilcher, the finest collection of Alaskana, without question, is at the University at Fairbanks. The bulk of the collection was purchased in the 1940s with money donated by Gilbert Skinner of the Alaska Steamship Company. With that money the University of Alaska bought the Erskine collection in Kodiak. That sale, by the way, was handled by Hilcher and was the beginning of our Alaskana collection, sometimes referred to as the Skinner Collection.

The offices and work-room areas for acquisitions and cataloging are on the periphery of this floor. As you enter the Library you will come through our Check-Point security system which we think has been a success. It has cut our book losses down substantially. We have staffed our security desk with some nice little old retired ladies. They are great, as sweet as they can be, and as tough as nails.

We asked for 100-foot candle illumination throughout the building to give us maximum flexibility. Would you believe that we ended up with 125-foot candle, and the first thing people did was complain about the high level of light! We have about half of the lights turned off most of the time. We discovered that we have 13,000 lights in the building. The heat that they produce when we keep them all on, even with the fluorescent bulbs, is enough that we don't have to introduce heat into the building until the outside temperature gets to -20° Fahrenheit. You can imagine our problem when it is warm!

The second level is mainly our periodical collection. Our bound periodicals are shelved in Library of Congress classification order and we have computer print-out access to the holdings. The current issues are arranged alphabetically by title. We have our microforms on this floor also, our microfiche collection of ERIC, Human Relations Area File, periodicals in microfiche, and periodicals and newspapers on microfilm. The kardex serial record is also located on this level, as is our machine room which contains the telex machine, microform reader-printers, and microfilm camera. We have been microfilming old Alaskan newspapers, trying to capture them before they completely disintegrate. This is another project in which we have had excellent cooperation from the libraries throughout the state. Wherever possible, we have pooled our collection of old Alaskan newspapers to make it as complete as possible. The Alaska State Library in Juneau has also been microfilming.

We have started microfilming rare books. We would like to have circulating copies available of all our rare books. We don't have the funds to get them all done now, but it is something that we are planning for the future. We would also like to be able to microfilm much of our Alaska collection because many of the items are out of print.

On the first level is an extensive collection of government documents. We are a selective depository for U.S. Government publications and receive about 75% of all available titles. We have a map collection in the same area. The records management program located here microfilms University records for storage. It works in cooperation with the Archives and Manuscript collection, which is also on the first level.

Because you are probably tired of hearing me talk by this time and because Mr. McCarthy is far more knowledgeable about the details, I have asked him if he would describe what we have in our Archives and Manuscript collection.

Paul McCarthy, Archivist and Curator of Manuscript Collections:

I would like to take a few minutes to generally outline what the Archives has, or is, rather than describe in detail the collections. We have brochures available which not only describe our program, but that of the Museum as well. We do a lot of joint collecting and joint trips with museum staff and put out a brochure that has uniform appeal. I kid the people in the Museum that we collect the literate material and leave the illiterate material to them.

The Archives was established in 1965. What we have endeavored to do is identify collections throughout Alaska, both older and more recent ones, that we think will have some research value. Research value is difficult for many

people, including us, to pin down because we aren't sure what people will want to use in 30 years. We try to identify the kinds of records that we think might be useful for research purposes. One that I think is the most interesting is the kind that provides a personal perspective on Alaska's history and development. This might be a lengthy diary, for example, by a pioneer like George Pilcher who lived on the Yukon River from 1898 until 1933. Pilcher kept a very careful record of his activities, whether they were important or not. So for 14 days in a row he reports, "I chopped wood." At -30° F, he chopped wood. As the temperature dropped, he chopped wood more often. But he also had some interesting observations on his contacts with Natives and his work with steamboat captains and crews. He exhibits the physical and mental regime of somebody who lived in the North alone for 35 years. Some of his entries are humorous: He went to Nome and reported, "Bad, bad, bad!" And another time he made the remark, "Another morning, and we are served up another body for breakfast," indicating the level of violence that he perceived there.

There are a number of collections of letters and correspondence from, for instance, people like Sara Gibson who came up in 1898, established a commercial laundry, and was involved in land deals both in Dawson and in Fairbanks. Another one is from a young man who came up through the Wrangell area, up Telegraph Creek, prospecting along the way. He wrote back to his family constantly: "I'm very close to it; I'm going to make it, my friends have got it." He moved into Dawson, gradually moved down to Rampart, and worked very hard. He said, "I will be coming home in a couple of months. A friend of mine has struck it rich and I'm sure that I will make it very quickly." The last item in the collection is a clipping from the Rampart newspaper detailing his death in a snow slide shortly thereafter.

We also try to work with organizations that we think are either producing or have produced the kinds of records people will find useful for discussing or analyzing public policies in Alaska. We have worked with the League of Women Voters in Alaska, an organization involved with various public policy questions. We work with conservation organizations like the Alaska Conservation Society. We have also collected the papers of the Fairbanks Chamber of Commerce to provide material to the researcher who would like to look at both sides of an issue, like the development of the Rampart Dam, or the Alaska pipeline.

We also endeavor to collect selective business records, those that give a profile of what business was like in Alaska at a certain point in time. One of our larger collections is that of the Alaska Commercial Company, for which we have a published register. It was active from about 1868 to 1911 when it was succeeded, at some locations, by the Northern Commercial Company. We also have a collection of records of gold dredging companies to show the early development of the industry in the Tanana valley, the problems it faced, and the reason for its eventual demise.

Some of our strongest collections are political papers, namely those of the Alaska Delegates to Congress and our U.S. Senators and Representatives. We have collected essentially all the extant papers of the Delegates to Congress from 1921 through 1959 and those of our U.S. Senators and Representatives from 1959 through the early 1970s.

We have about 3,000 cubic feet of records —perhaps a kind of meaningless figure, but more meaningful than counting sheets of paper or individual items, or using some other measure.

I would like to share with you a few of the humorous and not-so-humorous items in the archives. A not-so-humorous one is from Pilcher's diary of 1908:

> I am alive tonight only through the kind providence of God. A murderer and robber came to my cabin at noon, was made welcome, and ate a hearty meal. After dinner he got ready to go and, when my back was turned, he placed a 38 caliber Ivar Johnson revolver at the back of my head and fired. When I whirled around, he fired again full at my face. Each time the revolver was closer than three feet from my head. I felt the puff distinctly both times. He then turned and fled.

Pilcher followed him down the river and eventually captured him, wounding him slightly. He put him up in a cabin, and took himself and

his captive down to Nome, where they turned themselves in.

Many of us have asked people to write letters of recommendation and often, at least previous to the latest disclosure laws, we have never seen them. The following is a rather dubious letter of recommendation that was given to a Native guide in Marcovus, Siberia, when they were attempting to build the telegraph line. It is dated March 14, 1866:

> The bearer is named Okokray. Myself and Lt. Arnold have traveled with him from the mouth of the Anadyr River to this place. A bigger liar never walked the earth. I paid him to take us through in ten days, and we were sixty-four. He has promised to take care of my boats and traps left at Camp McCray. Should he visit any ships belonging to the Company and not produce the boats and traps, he should be well thrashed and kicked out.

Imagine this poor soul carrying and clutching this letter and showing it to the various company officials. As he traveled around, he probably learned very quickly that he had something of dubious value!

Finally, one of the more enigmatic ones is in the minutes of a Rampart citizens' meeting. Dated 1902, the only entry reads: "Moved and seconded that Rampart be incorporated as a city. Ayes, zero; no's eleven. Lost. Moved and seconded to adjourn." You're not quite sure why they bothered to assemble, unless somebody rashly suggested they incorporate and they wanted to indicate to whoever this was, that they were having absolutely no part of it.

Other parts of the collection are, of course, the official University records. We also cooperate with a number of organizations that have actively collected oral history tapes—especially the Alaska Library Association and the Tanana-Yukon Historical Society—and have made a few oral history tapes ourselves. We have about 1,000 audio tapes in our collection. We have collected or purchased microfilm copies of records that relate to Alaska, whether the records are physically located outside the state or not, so Alaskans will have the opportunity to study the history of their own state within its boundaries. For many years, most of the records had been shipped out of Alaska and, consequently, Alaska has been record poor. Anyone who wanted to study certain aspects of Alaska's history would have to go to Seattle, if not to Washington, D.C., or New York.

One of the more popular parts of the Archives is the photograph collection, from which I have brought a few samples. We have approximately 45,000 prints. The collection grows at an astounding rate. We were wondering why we were having difficulty keeping up with the number of incoming items until we realized that over a period of two or three months we had received between 1,200 and 1,300 photographs.

At this point, Mr. McCarthy showed some examples from the photograph collection and described them to illustrate the broad spectrum of Alaska life recorded there.

That, briefly, is a description of what we are attempting to do. I would like to invite each and every one of you to visit us downstairs in the Rasmuson Library. I know the staff will be happy to show you collections I have mentioned, as well as others. Thank you.

Mr. Ryberg: Two other units of the Rasmuson Library system are located here on campus but not in our building. I have asked our Bio-Medical Librarian, Dwight Ittner, to describe briefly the first one.

Dwight Ittner, Bio-Medical Librarian, Bio-Medical Library:

The Bio-Medical Library is located on the West Ridge of the campus in the Arctic Health Research Building where many of the University institutes are also located.

The Library itself had its beginnings in 1949 when it was the Arctic Health Research Center Library in Anchorage. Later, when the Center moved to Fairbanks, the Library came with it. In 1973 the Center was closed and the University took over the Library and changed its name to the Bio-Medical Library. The Library is part of the Rasmuson Library, and I am part of the Readers' Service Department. The collection is a little over 17,000 volumes now. We also have about 1,200 bibliographic units of microfilm, primarily bound volumes of journals. In our microfiche holdings there are approximately 9,500 bibliographic units.

We provide basically the same services as are provided at the Rasmuson Library. We handle our own inter-library loans, primarily utilizing the Pacific Northwest Health Sciences Library in Seattle and the Pacific Northwest Bibliographic Center to obtain materials.

Our collection fairly well represents the history of the Library. At one time it was also the Library for the Alaska Water Laboratory, which is now closed. Besides materials in the health sciences, we thus have quite a few materials that deal with water resources.

The current area of emphasis in the collection is physiology, especially respiratory physiology. Basically all medical books which come into the system go to the Bio-Medical Library. We are developing the veterinary medicine collection because there are hopes that in the next few years there will be a first-year program here in veterinary medicine. We also attempt to obtain materials in microbiology because there are some state health labs and several microbiologists on the West Ridge.

The main reason for the medical part of the Library's name is that our primary users are the faculty and students of the WAMI program. WAMI stands for *W*ashington, *A*laska, *M*ontana and *I*daho and is a cooperative regional program whereby medical students take their first-year medical training in their home state and then go to the University of Washington in Seattle to finish. Over the past year members of the WAMI faculty have conducted research in the Fairbanks area on the effect of carbon monoxide on the human body. We have a display in the Bio-Medical Library describing the various WAMI research activities that we'd like you to stop in to see.

Being located in the Arctic Health Research Building provides the Library the opportunity to serve quite a large and diverse group. The building itself contains several different agencies and offices for members of different institutes. These include the Arctic Environmental Research Laboratory run by the federal government, the Alaska State Virology Laboratory, and the Northern Regions Health Laboratory. The building also houses people from the Institute of Marine Sciences, the Institute of Arctic Biology, and the Forest Soils Microbiology Lab —and I haven't checked today to see who else has moved in! We are expecting to get rid of a few of them this summer as the Institute of Marine Sciences is consolidated into the Irving Building. Perhaps we will be getting back some of the space in the building for someone else to move into.

The number of staff of the Bio-Medical Library varies. It depends upon what time of the year you ask me about the size of the staff. This summer, since we have a fairly large project underway to move periodicals, our staff is at a minimum. Besides myself, there is a full-time library assistant and a student who is working full-time during the summer. Library staff has been as large as three full-time clerks, two part-time clerks, and about 70 hours of student help a week. Those are bygone days because two of our positions were partially financed by the federal CETA and PEP programs, and we have lost both of those programs. The half-time positions are funded through grant money, and we haven't yet heard about our grant money this year so we still don't have those people back on board. Right now we are a small, friendly staff. Across the hall is the Tanana Valley Community College training cafeteria, so there are a lot of people who drop in when they come by for coffee, doughnuts, and their noon meal. I hope you will all be able to stop by while you are here. We are open 8 to 5, Monday through Friday, during the summer.

We provide some of our services through the Alaska Health Sciences Library in Anchorage. We perform Medline searches and for the personnel of the Arctic Environmental Research Laboratory we provide access to the U. S. Environmental Protection Agency's computer banks where we can have bibliographic searches run. Unfortunately, these searches are only available to agency personnel or contractees.

Mr. Ryberg: Media Services is the second unit of the Library that is not located in our building. The logo on your packet was developed by our Media Services department. John Beckler of the graphics section did most of the work and was ably assisted by Jerry Kelly of the photography unit. I think we had fun racing with the clock in developing the logo, but it worked out very well.

Media Services also includes the film library and audio-visual equipment check-out. Because of budget limitations we are not sure how much we are going to be able to do this year with our video services, but during the past year we acquired some good equipment and improved procedures. We video-tape student teachers so that they can review their presentations. We are also developing training programs on video cassettes. There is tremendous opportunity in this area. We certainly hope that some of this oil money that we keep hearing about is going to enable us to expand our work! Our faculty have indicated that this service is important to them.

At this point in our program I'll ask Jack O'Bar to talk about the Consortium Library on the Anchorage campus. Since I'm not sure a consortium exists anymore because I'm not sure Alaska Methodist University still exists, I hope Jack will clear up this point. In the past, the Library was called the Anchorage Higher Education Consortium Library. Its director, Jack O'Bar, will tell us a little bit about it and the status of the Library at the moment. Jack.

ANCHORAGE HIGHER EDUCATION CONSORTIUM LIBRARY

Jack O'Bar, Director, Consortium Library:

One of the things that binds this group together is its interest in arctic literature. I've only lived here for four years and haven't quite learned to say arctic yet, but I'm working on it.

I have a neighbor who is a collector of books on the natural history of Alaska, and occasionally I give him some help with his bibliographic needs. There is a mushroom book published by the Cooperative Extension Service which he tried very hard to obtain. I finally got a Xerox copy for him. After studying it on long winter evenings he decided that when the winter was over he would take his family out mushroom hunting. They went out into the woods and had considerable success. They brought home their finds and the mother of the family cooked the mushrooms. They were anticipating a great meal. The family cat showed an intense interest in the preparation as cats often do. The wife gave the cat a few of the mushrooms, which the cat ate. Then the family sat down and began to eat. When they were part way through their meal they heard a noise and looked under the table. There was the cat, rolling on the floor, writhing in agony. The father and mother, of course, were disturbed because they had all eaten these mushrooms. They quickly loaded the family into the car and went to the emergency room. They all had their stomachs pumped. Two or three hours later they returned home—very, very weak, pale, and shaken, but happy that there had been no serious illness. For the first time they thought of their pet. The children and the mother ran through the house trying to find the cat. They finally located her in a linen hamper—nursing three newborn kittens!

To get on with the subject of the Consortium Library, I'm not sure that the Consortium exists anymore either. The facility exists, but I suspect it will be receiving a new name. Ted told you that the University of Alaska changes so rapidly that what you say or what you liked about it one day is not apt to be true the next day. This is literally the case with me. When I sat down to make notes for this meeting I talked about the Senior College of the University of Alaska, Anchorage. There is now no longer a senior college. It has been totally reorganized.

The Consortium Library served two universities—the University of Alaska, Anchorage (UAA), and Alaska Methodist University (AMU). So you will not get confused I'll say that the lower division of UAA was the Anchorage Community College and its upper division was the Anchorage Senior College.

The Anchorage Community College was established in 1954 and subsequently became a part of the statewide system of the University of Alaska. In 1960, years after the establishment of Anchorage Community College, AMU, the only privately supported liberal arts college in the state, was founded. In 1971 UAA's Anchorage Senior College was established with graduate programs. Since the two universities—UAA and AMU—were next door neighbors competing for enrollment, and since UAA was state supported, it could offer education to students at one-seventh the cost of the privately supported AMU. Naturally enrollment mushroomed in the pub-

licly supported institution and lagged in the privately supported one.

Nonetheless, AMU was the source of much pride in Alaska. Sometimes for public relations purposes it called itself the "Harvard of the North." Whether that was ever justified is immaterial because the school did have a mystique which won for it many friends, many powerful and influential friends, both inside and outside of government. When its enrollment began to fall due to competition with UAA and when the Methodist Church withdrew its financial support, the friends of AMU began to seek means of diverting public funds to the preservation of this private institution. Thus, in the late 1960s UAA and AMU were united by the Governor and the Alaska State Legislature in a shot-gun marriage called the Consortium. The Consortium Library was the unhappy child of this union. Other legislation was also enacted giving tuition equalization to students who attended AMU, ensuring that an Alaskan student could receive a private education just as cheaply as he could receive a public education.

Both universities were to contribute their library staffs to the Consortium Library. AMU donated 15 acres of land, and a public bond issue provided the funds for the construction of a library building. Fortunately, the collections of both schools were classified by the Library of Congress system, so there was little problem in bringing them together on the shelves. A Library Advisory Committee composed of faculty, students, citizen users, and other librarians was organized to advise the Library Director, the President of AMU, and the Provost of UAA. The Committee functioned quite well in solving the many thorny problems that resulted from the conflict of interest between the two schools. However, I think that it must be said that the efforts at consorting probably were a failure. The rivalry between the two schools directly affected the operation of the Library. One of the main problems was the fact that the staff was composed entirely of University of Alaska employees except for a very small number of AMU employees. This staff did not have an opportunity to participate in the academic activities of AMU, and therefore had little knowledge of the programs they were attempting to serve. The only opportunity they had to gain rapport with AMU faculty was when faculty members actually came into the Library. On the other hand, most of the staff were University of Alaska personnel and deeply involved in University of Alaska activities. So whereas I think that the University of Alaska got very good service, perhaps AMU was not so well served by the Consortium Library. But, it must also be said that the overwhelming proportion of financing the Library fell upon the University of Alaska and not upon AMU.

I would like to talk just a little bit about the collections of the Consortium Library. I don't think a discussion of collections should necessarily be a statistical report, but some statistical information is necessary. Just as the UAA is an embryonic university, so too is its library collection an embryonic one. There are about 150,000 cataloged volumes, about 70,000 federal documents, and some other collections of varying significance.

I guess I should say at this point, as I should have said earlier, that AMU closed its doors last spring. The Consortium Library is now the library of UAA and can probably expect to have its name changed soon.

We have about 7,800 titles of arctic and antarctic literature which we provincially refer to as the Alaskana Collection. Within the collection there are a small number of rare books, a larger number of scarce books, and then I suppose that most of the remaining titles are, more or less, reasonably available for purchase.

Whenever possible, most of our periodicals are maintained with microfilm backfiles. The microfilm is not popular with our faculty and I'm sure that many of them wish we would bind all of their favorite journals, but budgetary restrictions and limited storage space require us to rely upon microfilm instead of bound journals. It now costs approximately $100 per square foot to build library space in Alaska, and we're already running out of space in our new library building. I think that use of the periodical collection would rise if we were able to do some selective binding of the titles we are now storing on microfilm. It's difficult to select titles for binding because faculty members disagree: we would end up binding the entire collection if we

left it up to the faculty to determine which are the important periodicals.

The primary clientele of UAA is composed of students, faculty, and researchers. UAA has styled itself a community university. I think the term has sometimes been used without any clear idea of what a community university is. It is, of course, a public relations slogan. However, the Consortium Library enjoys a distinct visibility in Anchorage and is increasingly serving as a community library. User cards are issued without charge to any Alaskan applicant who has established residence. While the Library serves as the regional research library for Southcentral Alaska in the state network of libraries, most off-campus use is generated in Anchorage by government agencies, private industry—particularly oil interests—private researchers, local libraries, and even high school students.

I will slightly amend the statement I made about user cards. Students, or any Alaskan 19 years of age or older may receive a user card. High school students and younger people who borrow materials must use inter-library loan or have a parent who has a user card. This policy has been agreeable to the public school system.

A library likes to think that it has a great deal of control over circulation to its own faculty and students and can retrieve overdue books from its captive audience. However, we know that the machinery for getting these materials back is slow and often ineffective. Trying to get overdue materials returned from unenrolled users is even more difficult. Last year we undertook a radical approach to overdue materials. With the approval of the Consortium Library Advisory Committee, the Deans and Directors, and the Academic Council, we began using a collection agency to retrieve overdue materials. It sounds drastic but it works out beautifully. The user gets three notices. The third one says that if they don't bring their books back we're going to turn them over to a collection agency. Usually that threat gets the books back. We treat students, faculty, and community users alike: when we don't get the material back, the collection agency gets action. This is the first time I've been in a library system in which the library didn't have the dismaying situation of a larger and larger number of overdues. Our overdue numbers are staying down. This program has a lot of support in the University. Believe it or not, the program is well regarded by various administrators who personally don't want to have anything to do with disciplining a faculty member who will not return overdue material. I think only one or two instances have occurred in which faculty members have actually had the collection agency after them. Quite a few instances have occurred in which students and off-campus users have had this experience. We do not have to put any of our own money into this program; it pays for itself.

As Ted mentioned, it is possible for a patron wearing a parka in winter to walk out the door with the Great Books set under his coat. We, too, experience unaccountable losses of too many books. I'm not going to engage Rasmuson Library in a debate over which electronic system is best, but we like tattletape. We began using this security system about a year ago and it works well for us.

The Consortium Library follows the Alaska Inter-Library Loan Code rather than the American Library Association Inter-Library Code. We borrow books for undergraduate as well as graduate students. Of course every effort is made to first obtain the materials within the state.

I think we are the only library in Alaska that still provides photocopy service at five cents a page. I don't know whether I was receiving a left-handed compliment when a student told me, "Your reduced Xerox charge is the finest service the Consortium gives!" Five-cent photocopies are popular and bring many people to the Library, but I don't know how many books are checked out as a result.

Use of the Library in fiscal year 1975 was up 30% over 1974 as measured by circulation statistics. We have not yet compiled the 1976 circulation statistics. I think there is some increase, but it will probably not be as dramatic as it was last year.

The Consortium Library provides information to its clients regardless of the packaging. That's a round-about way of saying that we acquire print and non-print materials for our clients. Although there were a few projectors, films, and slides located in various places on campus,

there was not a media services department at UAA until one was established in 1973 in the Library. Despite discouragement over inadequate financial support, some definite progress has been made. There was a division of opinion among the Library staff over whether or not print and non-print materials should be intershelved. In the absence of consensus, administrative fiat prevailed. The Canadian rules recommending intershelving were not followed. Our non-print material is shelved separately by format.

We circulate films within the Southcentral region, an area stretching north as far as Bethel, south to Valdez, as far east as Glennallen, and west to Adak in the Aleutian Chain. Three years ago we had an enormous collection of 17 motion pictures which has now grown to 900 films. The collection is still woefully inadequate, but we are working to increase the number of films. We also give film service to non-enrolled clients as a backup to the statewide film service offered by the Alaska Division of State Libraries.

In addition to circulating media software, all media productions which take place on campus are produced in the Library. We have been in the production business only about 10 months but have made some progress. Most of our productions have been on video tape, a medium familiar to all Alaskans and one which can be readily used with a video-cassette player or broadcast on television.

In cooperation with the vocational-technical faculty, our Media Services Department has completed a three-hour video-taped course in drafting technology which can be offered to individuals or groups. It has two sound tracks, one in the Yupik Eskimo language and one in English. A student in a village who has imperfect command of English can, with the help of a video-cassette player, see the plans which he has drafted transformed into a building.

Our Media Services Department shares production facilities with KAKM Channel 7. In return for the space it occupies rent-free, the station gives University faculty and students in the developing communications program "hands-on" access to its facilities.

The Consortium Library has some other non-traditional connections with the curriculum through a Learning Center Laboratory that has recently become part of our Media Services. The main thrust of the Learning Center Laboratory is instructional media. The Laboratory is where students involved in independent study pick up the software and equipment they need. In a building nearby is a "mediated" classroom which was established a year or two ago. We are not using it very much because we simply don't have enough usable courses yet. As we continue to develop mediated courses like the drafting course, this mediated classroom will be used more and more.

The Learning Laboratory also provides person-to-person tutoring by volunteer faculty and media personnel and by paid students in such basic areas as English, mathematics, and reading. The tutoring is designed to bring students up to the entry level of their chosen program.

The Consortium Library is looking toward the future. Already we're running somewhat short of space. Within the last two months we had a nationally known consultant spend several days surveying the inter-relationships between our programs and our library services. We brought him up to help us begin writing a program for building expansion, but I think there will be many benefits from his report. In the fall the Consortium Library staff will begin to write a comprehensive program for library services and building expansion.

Mr. Ryberg: Thank you very much, Jack. We have a number of libraries on the Fairbanks campus that are not part of the Rasmuson Library system. For a brief report and overview, I'll ask Dwight Ittner to speak again.

LIBRARIES ON THE UNIVERSITY OF ALASKA CAMPUS NOT PART OF THE RASMUSON SYSTEM

Dwight Ittner:

A large part of the University of Alaska, Fairbanks, campus consists of research institutes and laboratories that conduct research relating to arctic and sub-arctic conditions. Many of these institutes and laboratories have their own libraries that they utilize in addition to the Rasmuson Library and the Bio-Medical Library. Accord-

ing to my count, there are nine such libraries on this campus; however, I'm afraid that after the talk is over I'm going to learn about a couple more. Before I started working on this talk, I'd only been in two institute libraries and now I've been in all but one.

Some of these libraries might not fit everyone's definition of a library, but the individuals who use them call them libraries and therefore, that's what I'm going to call them. There are, of course, many similarities among these libraries but some also have unique files, holdings, or services. Staffing varies from full-time professional librarians to students who attempt to keep things in fairly neat order. Only four are maintained by individuals with degrees in librarianship. However, for the sake of simplicity, I'm going to refer to anyone in charge as the librarian.

Some of these libraries would fit the definition of a special library, but many are of the more traditional type and offer fairly traditional services. In some cases the librarian is primarily responsible for collection maintenance; in others, collection maintenance is a minor part of their operation and they function more as an information office.

Funding for these libraries may be a regular part of the institute's budget or depend largely on grant money. One of the libraries on campus is a federal library. Some of the libraries cooperate with Rasmuson Library by sending a main entry card to be filed in Rasmuson's union catalog; others do not. Many provide information on their periodical holdings for the Rasmuson Library printout of serial titles on campus, which will soon contain statewide holdings.

Except for one, all of the libraries that catalog their books use the Library of Congress classification. In general, open hours are 8-5, Monday through Friday, but in most cases institute personnel have their own key to the library. I'm going to give a brief description of each library and of the type of research conducted at their institutes since the research very much influences the library holdings.

The Geophysical Institute

The Geophysical Institute, founded in 1949, is the oldest and largest of the institutes on campus. Most of its early work was on polar auroras and the earth's magnetic fields. Today the principal fields of study are solar and terrestrial science, meteorology, climatology, glaciology, and various areas of solid earth sciences. The primary users of the Library are the personnel of the Geophysical Institute and graduate students in the various physical sciences.

The Library contains over 14,000 volumes, as well as holdings on microfilm, some maps, and a few films. It is currently receiving over 400 periodical titles. The materials budget is around $30,000. The staff consists of one full-time librarian, Judy Mimkin, and a half-time classified person. The Library is located on the fifth floor of the Geophysical Institute.

The librarian is responsible for acquisitions, cataloging, and reference service and also prepares the publication section of the Institute's annual report. Among her other duties are proof reading, ordering reprints for articles to be added to the Institutes's Contribution Series, and updating the bibliography of publications. Judy Mimkin can show you the Library and answer any questions you may have about the Institute itself.

The Institute of Marine Sciences

The Institute of Marine Sciences (IMS) was founded in 1960 and specializes in oceanography, with emphasis on the Northern Regions.

The Library contains over 6,000 volumes and currently receives approximately 160 periodical titles. It is maintained by Ester DeWitt, who has been there about 10 years. The full range of library services are provided. The Library attempts to obtain all books published on ocean-related subjects. They have the important reference works and indices in the area of oceanography and house the Institute's various reports, which are available on microfiche and in hard copy. Holdings also include Coast and Geodetic Survey maps and hydrographic maps from around the world. An interesting feature of the Library is its reprint file, which is indexed on a computer. A computer printout arranged by author and subject is available.

The IMS Library is currently in transit—literally. Starting today it is moving from the Duckering Building on the lower campus to the

Irving Building on the West Ridge. Therefore, if you want to visit the Library you may have to run back and forth to look at the materials! Esther says she expects everything to be moved by Wednesday, so perhaps on Thursday you could go in and help her unpack.

The Institute of Social, Economic & Government Research

The Institute of Social, Economic and Government Research (ISEGR) was founded in 1961 to conduct interdisciplinary research in the social sciences and related fields. Research interests include economic planning and development, utilization of natural resources, human ecology, education needs and problems of the state, the political-sociological-psychological dimensions of cultural change, government institutions and political processes, community organizations and development, communications, and environmental policy of Northern Regions and the North Pacific basin. Now you know why some people refer to it as the Institute of Almost Everything!

The Library is maintained by a typist/library assistant who reports to the Institute's executive officer. Her duties include receiving and cataloging books, maintaining the Institute's clipping file, maintaining and updating the publication distribution list, distributing the Institute's publications, and collection maintenance.

The Alaska cities and towns vertical file contains newspaper clippings on subjects of interest to the personnel of ISEGR. The Library is on the eighth floor of the Gruening Building.

The Institute of Arctic Biology

The Institute of Arctic Biology (IAB) is on the third floor of the Irving Building. Judy Triplehorn is the librarian. The Institute dates from 1963 and focuses on the biology of arctic and sub-arctic regions. The Library contains about 1,300 volumes and subscribes to about 30 periodicals. Most of the materials are acquired through grants received by the research personnel. Judy describes her holdings as a general physiology reference collection. She relies heavily on the Bio-Medical Library and the Rasmuson Library.

The librarian serves primarily as an information gatherer. She runs down citations, helps researchers with their bibliographies, and disseminates information found through scanning certain journals to keep people aware of materials coming out in their field.

The Mineral Industry Research Laboratory

The Mineral Industry Research Laboratory (MIRL) was founded in 1963 and is located on the second floor of the Resources Building. It conducts basic and applied research in many phases of the mineral industry. The collection is small, with most of the publications acquired through exchange programs. It does not have a regular staff. The Library contains a reprint file of MIRL publications. Dr. Ernest Wolff is the Director of MIRL and if you have any questions he'd be the one to contact.

The Center For Northern Educational Research

The Center For Northern Educational Research (CNER) is the newest of the institutes. It was established in 1971. The Library itself has only existed for about a year. The Institute is involved with the development of educational policy analysis, research, and program development in cooperation with local, Native, state, and federal agencies. It is involved in such programs as the Alaska Native Language Program and the Alaska Educational Program for Inter-Cultural Communications, as well as satellite-transmitted educational programs.

The Library subscribes to about 36 periodical titles. A large part of its collection is uncataloged community- and student-produced reports. The librarian is Jan Burke, who has a joint appointment with the Rasmuson Library. Her main duties are information gathering and distribution; she also distributes CNER publications. The Library has a good vertical file collection on bilingual and cross-cultural education.

The Education Curriculum Library

The Education Department maintains a collection called the Education Curriculum Library, located on the fifth floor of the Gruening Building. This collection supports education

courses by providing children's literature materials. This Library is not open during the summer. During the regular term it is maintained by graduate students.

The Institute of Northern Forestry

The Institute of Northern Forestry (INF) is part of the U.S. Forest Service. Its research focuses on the ecology of Alaska's boreal forest and on developing methods of forest management. The person in charge of the Library is Marion Fontish, whose main duty is collection maintenance. The collection is small, highly specialized, and mainly composed of periodicals and a reprint file. The Library is classified by the Oxford System, which is a modification of the forestry portion of the U.D.C. System. INF research personnel assist the librarian by assigning call numbers to the books since it is difficult for a person who is not familiar with forestry to use the classification well.

The Wildlife Library

The Wildlife Library, located on the second floor of the Irving Building, is a shell of its former self. Most of the journal and book holdings were turned over to the Rasmuson Library in the past year or so. The Library now consists of a basic reference collection and published and unpublished reports cared for by Fran Noddler. Of special note is its large Termatrex file of wildlife reprints.

Conclusion

As you can see, the institute libraries tend to be small and specialized. They function as information points, either to their own collections or to the Rasmuson Library. Some do their own inter-library loans, but others rely on Rasmuson Library to provide this service. It should be emphasized that Rasmuson Library has no administrative control over any of these libraries. Some cooperate freely with Rasmuson Library in reducing duplication in holdings and in various projects, while others have little contact.

I am sure that any one of the individuals I have mentioned would be happy to show their library to you and answer any questions that you may have.

Mr. Ryberg: This morning we have tried to give you an overview of libraries located on campus, as well as a feel for UAA's Consortium Library. During the rest of your stay you can follow your own particular inclinations to see those which interest you.

Second Session:
Public Libraries in Alaska

Monday, July 12, 1976, 1:30 P.M. to 4:30 P.M.

Margie Thomas,
Alaska Library Association:

This afternoon our program is going to deal with public libraries and public library service in Alaska. I will say no more than to introduce Dick Engen who is this afternoon's coordinator and overall explainer of the session's various speakers.

OVERALL STATE PLAN

Richard Engen, Director of
State Libraries and Museums:

Thank you, Margie.

How can a person from Southeast Alaska resist quoting our eminent Director of the Rasmuson Library who got up this morning and said, "Oh heck, another typical morning!" Now, I would say that too except I would also have to admit that when I walked out on the parapet this noon and saw that bright thing up in the sky that's kind of warm, I turned to one of my friends from Fairbanks and said, "What is it?" He said, "That's the sun." Coming from Juneau, I thought it was very nice of you people to arrange sunshine so those of us visiting from Southeast would recognize that which we have been reading about for many years! Actually, it ain't true: we have beautiful weather in Southeast!

I'm chairing the panel today because the Alaska State Libraries are assigned a broad range of functions by statute. These include reference services to state agencies and officials, consultant services to community and school libraries, administration of state and federal grant programs, provision of direct service by mail to people without reasonable access to public libraries, maintenance of an Alaska historical library, and the coordination of statewide library services. I'm planning to give you the broad overview of the plan for statewide library services for all Alaskans [Public Administration Service. 1969. *Library Service for All Alaskans: A Statewide Plan for Library Development and Interlibrary Cooperation*]. Others to follow will provide more specifics and go into greater depth about the various aspects of the service plan.

There is one key word in Alaska library development. That word is cooperation. This morning I think I counted four times when cooperation between types of libraries was mentioned. I asked Mr. Ryberg if he would please bring over a copy of the Resources Directory Alaskana Project, which was a joint effort of the State Library and the University Library and lists approximately 5,600 titles of the English-language monographs in the Skinner Collection. The directory is produced on a computer database by the Washington Library Network of the Washington State Library. It is now a part of the national MARC database and is available for anyone to use elsewhere. I think you may want to take a look at this—our first book catalog in the state of Alaska. It is now being mailed to libraries and service points throughout the state and will be available to all.

This afternoon we will focus on instate activities, but our concept of cooperation does not stop with any political boundary. For instance, the Alaska State Library shares in the costs of operating the Pacific Northwest Bibliographic Center (PNBC) in Seattle. Over five million books are listed in this union list of materials. Every library in Alaska can, for no charge, use PNBC to locate materials for interlibrary loan.

We also are members of a program involving 13 states linked cooperatively for continuing education and library resource sharing. This is the WICHE program, now called WILCO. I'm not certain what the acronym means, maybe the

Western Interstate Library Cooperative Organization.

Also, under the State Library Documents Depository Program, one of our full depository libraries is the National Library of Canada. We also are a selective depository for Canadian publications. In addition, the Mid-West Center For Research Libraries is a full depository for State of Alaska publications. This means that our State publications can be more quickly accessed by users in Canada and the contiguous United States than if they were only housed in Alaska. California State Library is also a depository library for us.

Our idea of cooperation doesn't stop just because there is a line on a map somewhere. We feel that the totality of knowledge and the totality of people are what's important. We just care about getting the person who needs something together with that which he needs. The basic guideline for library development throughout Alaska has been a plan developed in 1968 that has proved flexible in addressing changing situations but keeps the goals of where we want to go clearly in mind. Perhaps this is so because the plan started with the needs of library users. Their needs have remained paramount in our development of library services. In other words, we do not ask the public to conform to what is primarily an administrative convenience in terms of organization.

Perhaps the best starting point is an overview of Alaska as a state. Probably you have an idea of our large size. Some of you come from larger areas, but Alaska does have some unique opportunities and difficulties in providing library services. A unique combination of physical and population characteristics makes Alaska unusual as a library service area. Furthermore, geographical barriers as well as climate, population, and other features divide Alaska into several distinct regions, each with its special service requirements.

A summary of these various conditions will give you an idea of what we are talking about:

- Size–586,000 square miles or two and one-half times the size of Texas.
- Topography–High mountain ranges, great expanses of tundra and muskeg, and large bodies of water divide the state and separate its populated areas.
- Distances–500 miles between cities are common. It's 2,500 air miles across the state.
- Time Zones–The contiguous 48 states have a total of four time zones. Alaska has four time zones of its own.

In Juneau we recently had a meeting of the new local school districts that were established when we eliminated the state-operated school system. It cost $3,760 for a one-way fare for the school board president who is from one of the Aleutian Islands to attend the meeting! Because there is no radio communication with the island, a tugboat had to take the invitation to the meeting in its mailbag. The person received it and had to leave on the same tugboat or could not have gotten out. He went to Shemya, chartered an airplane to Adak, then caught a Reeve Aleutian Airways plane to Anchorage where he took an Alaska Airlines plane down to Juneau. It may be an exaggeration that they spent that much but I wouldn't want any legislative auditor looking into my travel budget to see why! The following summarizes some of our difficulties.

- Alaska has a population of approximately 400,000 people, or one person per 1.5 square miles, compared to more than 65 persons per square mile in the contiguous 48 states.
- We only have two urban centers with a population of more than 25,000. After these we have one center with 16,000, another with approximately 10,000, and then we drop to large numbers of very small localities, isolated from each other.
- Unusual combinations of air, water, and overland transportation are required to move people and things. Juneau is our capital but you can't drive there. You go in either by air or by sea, and this is true for a great many Alaska communities.
- Rapid communication between populated areas is often difficult, sometimes impossible, and always costly. For a number of years the Alaska Library Association, the State Library, and all of the librarians in the state have been working with satellite communications. We were one of the first public agencies to use the ATS-l satellite. We need to be sure that the

needs of the libraries throughout the state are recognized as new satellite communications make possible much quicker communication.

The goal of the statewide plan is to provide total library service to meet the educational, informational, and cultural needs of the general public, as well as those of the business community, public officials, children, students, Native Alaskans, teachers, researchers, and scholars. The plan is designed to reach into the community with programs and services that are relevant to community needs, and to provide the full sweep of information materials and resources—books, magazines, newspapers, government publications, historical documents, sound recordings, audio tapes, films, film strips, slides, photographs, and maps.

This goal is to be achieved by maximum cooperation among all types of libraries (community, school, college, university, special, and research) in a regional system of library services with statewide coordination for equitably sharing responsibilities and support. Basic to the plan is that improved library service can best and most economically be achieved by building on what now exists to form a single broad cooperative system—a network in which each type of library continues to serve the needs of its particular clientele, but in cooperation with rather than in isolation from each other. The collections and services of each library and each type of library should be developed to complement the others, with fair arrangements for sharing resources. No library can expect to include in its collection all the materials that may be required, thus comprehensive coverage at any level can be achieved only through the combined efforts of all the libraries in the state. Cooperation must reach across all jurisdictional lines, across not only the legal and political lines of cities, towns, and boroughs, but also across those of functional and institutional entities.

Under the plan, Alaska is divided into three regions, each constituting a regional library system. The regions are Southcentral, Northern, and Southeast, with Anchorage, Fairbanks, and Juneau as the regional centers. Each regional system is designed to offer three levels of service. The first level is the community library—which is the first line of service. This is the place or facility to which a person usually goes for library service and which is equipped insofar as possible to meet his ordinary needs. When it can not provide the information or material needed, it will obtain it or refer the person to the nearest and best source. For a school population, the school library shares this role.

The second level is the resource center library. Within each region there should be a resource library to supplement the community library with respect to resources, facilities, and staff. It should offer a full range of backup services. Primary responsibility for administering the regional library system would rest here.

The third level is the research library with one located within each region. You heard Jack O'Bar say this morning that the Consortium Library, soon to be renamed, is the research library for the Southcentral Region. The Rasmuson Library is the research library for the Northern Region, and the State Library is the designated research library for the Southeast Region.

Now I am going to turn the floor over to those who know what they are talking about, who are on the firing line, and who know how to accomplish things because what this state keeps doing is accomplishing things.

Our next speaker is Marvin Smith, Director of the Fairbanks North Star Borough Library, which is the designated regional resource library for the Northern Region. In 1974 residents of Alaska passed a bond issue to assist in the construction of public library buildings; 2.9 million dollars were authorized for Anchorage for the public library and regional resource center, 2 million dollars for the Fairbanks North Star Borough Library, and 3 million dollars to assist with smaller community libraries in their development program.

Marvin has had experience in the Los Angeles County Library, the Riverside City-County Library, and the California State University System. He was also in the Peace Corps in Jamaica. He came to Alaska just over a year ago from Beverly Hills, an interesting juxtaposition if you look at the two communities. The other librarians in the state are glad Marvin is here.

SERVICE THROUGH FACILITIES

Marvin Smith, Director, Fairbanks North Star Borough Libraries:

Thank you very much for your introduction, Dick.

Early in the history of Fairbanks an ambitious and farsighted citizenry placed a public library high on the list of priorities. Carefully laid plans were to result in a building and collection of books within the first 10 years of the city's existence.

In the nearly 70 years since that auspicious beginning, the public library has gone from a church and women's club activity to a city department and then, in 1965, to its present parent organization, the Fairbanks North Star Borough.

There have been many attempts throughout the library's history to rekindle that original spirit and build a new building. But until 1974 the dollars were not in evidence. Then a terrifically successful public bond issue was passed and a combination of borough and state funding became available to provide the services and facilities so badly needed.

The Fairbanks North Star Borough Public Library was to provide not only the materials and services for this area, but administer to the needs of the entire Northern Region of Alaska. The full realization of this long-awaited program would come to pass with the completion of the new library facility.

The immediate problem was to develop a plan for the new facility. A program, or road map, if you will, had to be written and architects contacted. I am sure that many of you have been faced with the task of putting into words the complexities which make up each of these institutions called libraries! The dreams, the realities, the objectives, the goals, and the uniqueness of Alaska, and in particular Fairbanks, had to be incorporated into the plan. This document, when completed, would be the course followed by the architect to construct our new building.

For the first time in Alaska it was decided to choose the architect through a competition. Announcements were sent out stating our intention to proceed with this novel idea, and we received nearly 30 bids.

The criteria laid down by the borough included several unalterable demands. The single most important of these was that the successful participants in the competition should have had building experience in an arctic climate. At times, our consultant even demanded that this experience should have been in Fairbanks. Those of you who have spent winters in this or similar areas realize the importance of this consideration!

Out of the original group of interested architectural firms, five were finally selected. At the same time this selection was being done, the ground rules for the competition were being drawn up under the direction of the American Institute of Architects in Washington, DC. Once the rules were accepted by A.I.A. and the local jury chosen, we were ready to begin our selection of the winning design and, as it turned out, the architect.

The jury selection of the library design was a lengthy process, but a highly successful maneuver in my opinion. The preliminary designs presented offered three strong contenders and, for the first time in my building experience, we did not have to buy the proverbial "pig in a poke."

The desire to take full advantage of this market-place atmosphere and shop around was even more strongly emphasized in our statement to the competing architects that, even though they might not be the winner, we could use any innovative ideas shown in their presentations. We were simply going to get as much mileage as possible out of this opportunity.

The winning design and architect were from CCC/HOK of Anchorage and San Francisco. The design was chosen because it was functional and yet changeable; the architect was chosen because he would allow the changes to take place.

Ground has been broken and our building goes out to bid by the end of this month. Our move-in date is October 1977. The new building will house 150,000 books and be the regional center for public library activities for northern Alaska.

Having new facilities to house public library services in Fairbanks will, in itself, be a giant step forward as you can see by comparing the present building with the new one. How-

ever, the soul of any library is not the physical structure, but the people, services, and collection housed therein: we want to give the residents of the North the best possible library program.

Some of the new or expanded services to be offered with the new building are:

- Mail-a-book service to isolated areas of the borough and, hopefully, to the entire Northern Region.
- Bookmobile services to include two new vans.
- An information center to be maintained on all community services available in the Northern Region.
- Computerized circulation control with assistance for acquisitions and processing procedures.
- A microfilm card catalog to replace the regular card catalog, with the potential of providing every branch or sub-station with a holdings list of the library's collection.
- Audiovisual materials and equipment to provide the public with serious or recreational listening and viewing.
- A media laboratory for public use that will include a dark room, duplicating equipment, and film editing facilities.
- A printing room to house equipment for complete publication or duplication of printed or photographic material.

These are only a few of the highlights of the new public library program here in Fairbanks, and I invite you to view the plans which I have brought along. Thank you for your interest.

Richard Engen: Thank you, Marvin.

It is always hard to introduce a staff member because the person up here sure has to be good. If you say how good she is you know you are going to be hit up for a salary raise. What I'm going to do is to introduce you to one of the people we feel very fortunate in managing to recruit, from Fort Vancouver Regional Library in Washington, to run our satellite training program. Sheila ran the Tridimensional Community Librarians Training Program in Fort Vancouver for one year. She was fortuitously available for a one-year appointment as the Northern Regional Coordinator. Sheila Furer.

SERVICE THROUGH TRAINING SATELLITES

Sheila Furer, Northern Regional Coordinator:

Thank you, Dick.

Alaskan interest in continuing education in library and information science is especially high right now and is manifest at all levels of training and experience.

As many of you know, Alaska has no established course sequence or full program leading to a degree or certification at any level in the library profession. If that sounds discouraging, let's see if we can identify some of the many successful training activities that have taken place. I can give you many examples. The annual Alaska Library Association Conference, first of all, is a popular event and has been consistently planned to include learning experiences, either through workshops, by having out-of-state guest lecturers or consultants, or through actual hands-on or demonstration experiences. Of course the Alaska State Library frequently sponsors workshops.

The regional coordinators have specific responsibilities for training, both in the field on a one-to-one basis and through organized workshops. In the past these efforts have concentrated on paraprofessional training for the most part. In addition, the State Library finances training activities at all levels.

Alaska's membership in WICHE (The Western Interstate Commission on Higher Education), now renamed WILCO, has provided opportunities for a number of us to attend institutes and to interact with librarians from the other western states. WICHE also provides internships for continuing professional education at schools "Outside."

The role of the Alaska Library Association must be mentioned in any discussion of training. Several years ago, the Fairbanks campus hosted a federally supported Institute on the Management of Small Community Libraries. The personnel training committee of the Association wrote the grant request and designed the content of the institute. The same committee acted as an advisory group for another institute held in Fairbanks [The Tri-dimensional Train-

ing Program for Paraprofessional Librarians], which we will be taking an in-depth look at. Currently, the committee is planning an assessment of just how far we have come and, more importantly, where we need to go to meet the training needs of each and every person involved in providing library services. This concern is well expressed in the 1968-69 PAS study [*Library Service for all Alaskans*] Dick referred to, which has served as a foundation for our long-range planning. I'd like to quote from that document because it makes a critical point:

> It is quite clear that the implementation of a state-wide plan will be achieved well or poorly in direct proportion to the rate which library staff at other than the full professional level are trained in Alaska.

Our Association now has six active chapters: one each in Fairbanks, Anchorage, Kenai, Ketchikan, Kodiak, and Juneau. Training activities at the local level have been very successful.

Finally, I should mention the growing number of formal library courses that are being offered. Courses for library technicians have been offered in the Anchorage area under the auspices of Chapman College in California. The University of Alaska system has sponsored accredited courses in many locations throughout the state, on topics ranging from government documents to programs on materials for intermediate-age children. There is growing support in Anchorage for developing a full program leading to eventual certification for school librarians. Again, we're working with the University on this project.

The speaker now gives a slide presentation of the Tri-dimensional Training Program for Paraprofessional Librarians held at the University of Alaska, Fairbanks. The relevant portions of the narrative are included below.

Participants in this training program were librarians in small public libraries, sometimes working as the head volunteer, sometimes working for a small salary. They were school librarians or people representing a combined school-community library in remote areas of Alaska.

When asked what their personal objectives were for becoming a participant, here's what some of them told us. From Talkeetna,

> I was relatively new in library work and I felt anything that helped me provide better services to my community would be great. I was sure that just checking out the books and shelving properly wasn't enough.

From a southeastern library in the community of Craig,

> I wanted a broad overview of library administration to find out how to establish library policies and what policies should be established and why librarians have some of the views they do."

From Ninilchik,

> I wanted to learn enough about the operation of libraries to be able to make decisions with confidence and not always feel that I was doing the wrong thing in my small library. Among other things I wanted experience with satellites and video tapes.

Since Jackie Deck was from Seward, which is an isolated area, she was interested in this special effort to keep up to date. Paula Russell had just been hired in a public library position in Fairbanks. She needed to meet other librarians and she wanted an overview of the Alaska library world.

The students' training experience included three elements: the foundation, which is the Loyola Library Service correspondence course, taught by Ohio State Librarian Joseph Shubert; the supplement, which involved the periodical workshop; and the experiment, which was the opportunity to use the ATS-6 satellite.

In Alaska our effective satellite receiving area, or footprint as we always refer to it, includes 16 locations selected by NASA. They are designated intensive sites, which means that they can transmit an audio signal as well as receive video and audio. The ability to transmit audio and receive video is really the unique feature of this project. Ideally, students, studio guests, and the coordinator could talk to one another. The question was posed: Would this interaction significantly help overcome the isolation that students often feel when they're working on a correspondence course outside of a classroom?

In nearly all cases equipment was located in a school classroom in the village because of the educational focus of other programming coming from the Governor's Office of Telecommu-

nications. Our students could view the broadcast on the color monitor and then respond on the radio unit. Programming for community library training originated in a Juneau studio where we could both receive and transmit audio and video.

The small villages selected as sites by NASA did not closely correspond to our targeted training sites: approximately 66% of our students came from communities either outside the footprint or, even if inside, from villages not selected by NASA. Of those students, about half had access to video-cassette equipment in their areas; the others received simple audio cassettes. This meant that 33% of our total students received the audio track only. So we had an interesting potential for comparison!

Process evaluation was employed throughout the project, and it greatly influenced our design for video programming and our workshop format. In addition, Dr. Gerald Brong of Washington State functioned as the Institute's external evaluator. His findings are based upon his own observations, student interviews, site visits, and information from project staff.

When asked how they felt about the correspondence course, students were generally neutral. However, it seemed that the further students had progressed in the lessons, the more value they saw in the course. The problems, we were told, centered on getting needed materials through inter-library loan, the amount of writing and reading required, and in some cases the relevancy of the course to a student's situation. One student said she hadn't been in school for 35 years and it was hard for her to answer the question, even though she knew the answer was in all the reading. And we heard that it is almost impossible to get materials sometimes, especially for all the sample magazines that were required to complete the assignment on periodicals. "There's very little in the course to help us get a new library started in Alaska," one student remarked.

So, like every correspondence course, we experienced our share of drop-outs. Positive comments really outweighed the negative though. Meeting their instructor at the first workshop and having his encouragement and remarks on their assignments certainly served as stimulation throughout the course. Many students liked the style and format of the small library project booklets used with the course, though they recognized that many of them were outdated. The workshops allowed time to look at new materials and learn about the services of the Alaska State Library. They also provided a chance to work with others, to exchange ideas, and a time to just relax.

We asked the participants, What has been the impact on the local library of combining these three training elements? Happily, students have given us numerous examples, ranging from writing their very first policy statement to experimenting with children's programs to trying new approaches to city councils and library trustees. Even though we learned that it's not the way to provide course materials, participants' confidence and use of inter-library loan increased measurably. Librarians told us they understood more fully the role of the State Library coordinators. Using the Loyola correspondence course seemed only moderately successful for Alaska's immediate needs. In Tanana a student reported that she missed only one of the satellite broadcasts yet she didn't complete a single correspondence lesson. Students interested in further independent training have asked for shorter "minicourses" and for self-paced learning packages.

The low cost and wide availability of audio cassettes must be taken into consideration, but again in this project we didn't include documented research for a comparison of the two forms. Although we approached the use of library broadcast without any experience, and we probably did not make full use of the ATS-6 capabilities, in the opinion of our evaluator,

> As a first use of video satellite technology for library-related continuing education, the experience gained can be viewed as nothing but positive.

The results are taking us one step closer to our goal of quality library service for all Alaskans and certainly Alaska is grateful to the Office of Education for funding the training experiment. Library training is a continual need and a continued opportunity in this vast state all Alaskans call "The Great Land."

Richard Engen: Thank you, Sheila.

The previous speakers have been librarians, but we also reach outside the library field. The next person I am going to introduce is not a librarian. She has had experience in the Bush and has taught art in Barrow. Last year she was in charge of the bilingual cultural program in Nulato and worked on the first satellite experiment in Alaska, the ATS-1. The reason she is here today is because she served the Alaska Library Association as Director of the Alaska Native Oral Literature Project. Karen McPherson is here to tell us about it.

SERVICE THROUGH NATIVE LANGUAGES

Karen McPherson:

It seems appropriate to give you an example by playing a short excerpt from a tape.

Karen speaks over a background of a Native woman speaking in her own language.

This is a tape of Jennie Huntington of Galena. The language is Koyokon Athabaskan. She is telling the story about the old grandma who wanted to cross the river and about a porcupine sitting along the river, crying. You see, old grandma herself was a porcupine. She is sitting across the river, playing around with her teapot, and along comes a mink and she says, "Hey Mr. Mink, can I have a ride across the river? I'm needing to get to the other side." He replies, "Sure, Grandma, hop along and get on my tail, and I'll take you across the river." And she says, "Your tail is like a stove poker. I can't get on that!"

And along comes an otter. Same exchange. "Your tail is like a stove poker. I can't ride on that!" He goes away. This goes on and on. To simplify the story, along comes a beaver and she says, "Ah great, Mr. Beaver. Can I have a ride across the river on your tail, your nice broad tail?" And the beaver says, "Sure, Grandma, get on my tail." So they are half-way across the river and she gets out her teapot, some sticks of wood, and she makes a fire and gets it going good and is boiling up her tea. The beaver looks around and asks, "What's going on to my tail?" And then goes the Grandma into the river.

Now there are two versions to this story that I know of. The first leaves Grandma in the river, but in the second Grandma gets across the river and climbs up into a tree. (Remember, Grandma is a porcupine.) She hears this tremendous noise in the background. It's a bear. She says, "I wonder what Brother Bear can be doing this afternoon." The bear stops and says, "What is that insulting Me?" Grandma sticks up her tail and throws her quills into the bear. The bear says, "Tough for you, Grandma" and eats her.

What the Alaska Native Oral Literature Project did, beginning in July of 1972, was to attempt in a short time and with limited resources to record and document as much as it could of a disappearing art form in this state—the oral literature of the Alaska Native peoples.

We have 20 languages in this state. Aleut was the only one appearing in a written form before this century. The first date of any written materials in the Cyrillic alphabet in Aleut was 1834. Even now linguists are working on orthographies for Alaska Native languages. Their tradition is oral rather than literary. It requires the passing on, the retelling, for the reinforcement of the tales and stories. These tales, as you know, are important devices in any society, including our own, for indoctrination of information; for the passing on of cultural attitudes, beliefs, psychological feelings; the reinforcement of how you feel; or the ability to laugh at something that's deviant. But with television and formal education and as communities become settled, there is less use of the traditional stories for amusement, for validation, for educational purposes. There is less time, less interest. As a consequence the tradition is really disappearing. Most of the practitioners are over 60 years of age. The woman on this tape is an exception; she's in her late 50s. A few of the people who were recorded for this project were over 100. Since the end of this program a remarkable number of people have died. I think we were extremely lucky to have recorded them.

Manpower Development Training Act funds were secured from the Alaska Federation of Natives (AFN) to begin what was originally a four-month project to collect 100 stories. In that time it became apparent that the project should continue. There was a great deal of interest in

what was going on. People were really happy to cooperate. After the AFN funds ran out, Tanana Chiefs picked up the project, which then became restricted to the Interior villages. Before that time work had extended as far south as Anchorage.

Most of the collection is in the 11 Athabaskan languages. Of those 11 Athabaskan languages, we have recordings in maybe six. We also have recordings in Aleut and Eyak. As many of you know, there are only two or three living Eyak speakers and one of them was recorded during the project. The Alaska Native Language Center also contributed funds, and toward the end of the project the University of Alaska Press and the State Council on the Arts became involved in a forthcoming publication of about 17 of these stories, which were collected in both translation and in transcription.

In a year's time the project collected approximately 700 stories, songs, and pieces of historical information. Project staff consisted of a director, many translators, a production assistant, and a large number of field assistants. About 85% of the tapes are recorded in the Native language of the storyteller. In order to do this, either you have to be a fantastic listener or you have to be able to speak the language of the person you're recording. All but two of the field assistants were fluent in the language of the areas they were visiting. Since the field assistants were not media people, workshops were conducted periodically to train them in the use of the tape recorders and in field techniques and recording technology. We did not use cassettes or Wollensaks; we used Nagras and they are beautiful pieces of machinery. They're also expensive, but the fidelity and tone production are unbeatable; you can pick up all the inflection, all the feeling of the event you're recording.

We recorded on Ampex 434 Low Noise tape at seven and one-half inches per second. We had, as far as possible, a professional quality master. From these masters cassette banks were made and deposited at the State Library in Juneau, the Consortium Library in Anchorage, the Fairbanks North Star Borough Library, and the Nome Library.

Using a catalog of the songs and legends, people can order duplicates of these tapes. Anyone who wants a copy can simply send in a blank tape. It has been estimated that in the Rasmuson Library archives, where the master tapes are stored, 10 to 15 people per month come in to use the tapes. They're being used for scholarly purposes, linguistic purposes, for enjoyment, and for creating curriculum. The only restriction is that the use must be of a non-profit nature. One of the most recent uses of the tapes was in Anchorage when a group called the Learning Tree put together a multi-media packet for high school students on the Alaska Native Land Claims Settlement Act. The kit includes 14 tapes from the Oral Literature Project. To me that's one of the neat things about the tapes, they can be used in a lot of different ways.

The informants themselves were paid for their time, by the story or by the hour, depending upon what they wanted and upon the situation at the time. They signed releases to the Alaska Library Association so that there are legal rights to use the material without infringements.

I'd like to read a quote by Hallowell in a 1947 article on myth, culture, and personality in the *American Anthropologist*:

> So far as anthropologists are concerned, I believe it is fair to say that, while it has been customary over a long period to collect a representative sample of the oral narratives of the people they happen to be studying, it is an open secret that, once recorded, very little subsequent use may be made of such material. Indeed, these archival collections, once published, often molder on our shelves waiting for the professional folklorist or someone else to make use of them in the dim and uncertain future.

These tapes *are* being used and continue to be used, in spite of Hallowell's dire predictions—perhaps because the project was done by librarians and not anthropologists!

Before the Oral Literature Project began there was a program called the Village Circle Story Hour broadcast, from the Fairbanks North Star Borough Library. Patsy Gaven Willey would get on the radio once a week and talk to people in the villages, maybe have a storyteller, and people would exchange stories. Now two mornings and two evenings a month, 22 villages on the satellite network can hear our tapes on the radio.

Once I brought in a group of kids to one of these broadcasts. The broadcast turned out to be in the Kutchin language instead of Koyokon, so they couldn't understand a thing. But they were still fascinated because if there is a good storyteller who's an artist, it doesn't matter if you understand a word of what they're saying. The inflection, the excitement of the moment can really get you. I've spent many hours recording people I did not understand at all, and still felt that I could tell that story perfectly at the end of the time.

I'm not aware of future directions for this project, other than the publication and continuing to distribute the cassettes. These tapes represent maybe one-fourth of the material that was collected, the rest of it can only be obtained from the archives. If anyone here is interested in continuing such a project in their own location, please do so, and use cassettes if that's what you have. It really needs doing. Thank you.

Richard Engen: Twelve years ago Isabelle Mudd came up to Alaska—for a year. She's still here. Either she doesn't know how to read a calendar or this really is The Great Land! Isabelle has had experience as a children's librarian, as a university serials cataloger, in running a school library service in Bethel, and now as the military base librarian at Fort Wainwright. To explain school library services in Alaska, it is my pleasure to present Isabelle Mudd.

SERVICE TO SCHOOLS

Isabelle Mudd, Base Librarian, Fort Wainwright:

Many librarians choose librarianship after they have tried other fields such as teaching, philosophy, psychology, history, or science, to name a few. I decided to become a librarian at the tender age of 14, and I have spent the rest of my life trying to decide what kind of library work I prefer. After all, each aspect of librarianship can be an exciting challenge, be it in a large university library cataloging serials or providing media services to isolated Alaskan village schools. The common denominator is service to people.

In a school library the people served are students, teachers, and administrators. Basically, a school library collection must support the school curriculum, the professional needs of the teachers, and the recreational needs of the students. Because educators are constantly trying to improve the educational system, school libraries have undergone many changes and must continue to be flexible. In fact, in the United States, school libraries are now known as media centers.

What is the difference? The term library, to most people, implies a collection of books or only the print media. A good school library, I mean media center, houses books, film strips, study prints, audio tapes, video tapes, films, charts, maps, super 8mm film loops, games, hardware, or equipment—every imaginable type of material on which information can be stored and the equipment necessary to retrieve that information. The specialist setting up a school media center is guided by standards established by a joint committee made up of members from two national organizations, the American Association of School Librarians of the American Library Association and the Association for Educational Communications and Technology. These standards were published in a 1975 book, *Media Programs, District and School*, which is available from the American Library Association.

So our topic really is school media centers or media services to schools in Alaska. As in all libraries, a media center requires three main ingredients: a collection, the space to house it, and a staff to provide service. These ingredients are affected by the budget, the school administrator's view of the role of the media center in the total program of his school, and the ability of the librarian, or media specialist, to communicate media center needs in a manner meaningful to the administrator.

School media centers began as high school libraries. Then about 35 years ago educators began to realize the value of placing libraries in elementary schools as well. I have often wondered if perhaps we should have placed libraries in elementary schools first and worked our way up rather than starting at the top and working down.

We always knew that experience is the best teacher, so when we developed the capability of providing experiences to the learner through the medium of film, there was a gradual change. Schools, when they could afford it, began to develop audio-visual departments with specialists to handle the new media. It was some time before educators saw the relationship between the school library and the audio-visual department. And librarians were reluctant to accept more responsibility.

Things began to change in the 1960s, and the concept of one unified media center combining the school library and the audio-visual department became accepted. Interestingly, the elementary library has been the first to accept the new role, and, although the profession has advocated the media center concept, one still finds many schools with separate libraries and audio-visual departments.

In Alaska we find the same pattern of development as elsewhere in the United States. After all, in the beginning, Alaskan educators came from the "lower 48." There is a wide variation in the quality of media services within the state. Most of the urban school districts have been aware of the need to have their secondary programs accredited and have developed their high school libraries accordingly.

In most of our high school libraries, the emphasis is still on the print media and that is why I refer to them as libraries rather than media centers. It is more difficult for the secondary library to become a media center because it was already established as a library with a book collection and a budget hardly adequate to maintain that. Each of our urban areas seems to have followed a different pattern in developing school media program

The Greater Anchorage Borough School District has set a fine example by developing media centers in all its schools and by staffing these centers with professionals. They have been fortunate in having a director of media services who can communicate media center needs to administrators and who can cope with budget cuts and still work toward the goals. The Fairbanks North Star Borough School District has placed professional librarians in its high school and junior high libraries, but elementary media centers are staffed with clerical people who are trained and supervised by a professional. Juneau has made great progress in the last five years in developing its school media program.

Usually where there is a high school, there will be a library. The quality of service provided by this library is dependent upon the three ingredients I mentioned earlier—budget, administrative support, and the personality of the librarian or media specialist in that school.

Now, what about rural Alaska? During the last decade several regional high schools have been built in rural Alaska and more are in the planning. Before this, students living in Alaskan villages had to travel some distance from home to attend high school. Students living in villages served by the U.S. Bureau of Indian Affairs traveled to Mt. Edgecumbe to a boarding school or to boarding schools in Oregon or Oklahoma. The State of Alaska also ran boarding home programs in Fairbanks and Anchorage where village students lived with families in these cities and attended high school.

Library service to rural elementary schools consisted of a rather tired, small collection of books in each classroom. The teachers could use the mail-order service of the Alaska State Library, and many did; it saved the day for some! The State Library's collection was not geared to meet the needs of an elementary school curriculum or the professional needs of the educator, however. Federal funds were used to set up a statewide film library which was and is heavily used by rural schools. It is located in Anchorage and has become a part of the Alaska State Library network.

This is an interesting time for educators concerned with the education system in rural Alaska. A law was passed in 1975 that divided the state into school districts. Prior to this there was one school district for rural Alaska which was operated by the Bureau of Indian Affairs for villages that had no state-operated school.

In February 1976, these new school districts elected their school boards and are now in the process of learning how to run their own schools. Schools previously operated by the State of Alaska are now a part of the school district in their area. Bureau of Indian Affairs schools located in a district may become part of

the new system or may continue to be operated by the Bureau of Indian Affairs, the decision is left to the people in that village.

From December 1970 to March 1976, my husband and I worked for the Education Branch of the Bethel Agency, Bureau of Indian Affairs. Our task was to provide total media services to the day schools in the Bethel Agency located in southwestern Alaska. We served 32 schools with 125 classrooms, with each school averaging about four classrooms. The largest school, Hooper Bay, had a staff of 11 and the smallest one had 1 teacher with 10 students. Students in these schools ranged from kindergarten through ninth grade.

Bethel itself is a Native city with a population of about 3,000. It has a regional high school to serve the area. The Bethel Agency serves a population of 13,802 according to the 1970 census. Of these, 12,425 are Alaskan Natives, mostly Yupik Eskimos. Incidentally, the Bethel Agency encompasses an area nearly four times the size of Denmark.

The villages in the Bethel Agency are located mainly on rivers, and the rivers are used for transportation. There are no roads, so access from Bethel is mainly by air. Some villages are still isolated from the outside world during freeze-up in the fall and break-up in the spring. Planes can land on the rivers on skis in winter and on floats in the summer. There have been many new airfields constructed but often these become muddy during break-up and are unsuitable for landing. Usually, villagers can travel to a nearby village if necessary to get transportation. The Bureau of Indian Affairs maintains ham radio contact with all of its schools and teachers can call daily.

Our main objective was to provide complete school media services to schools located in this remote region in Alaska. We felt that the children in these villages needed access to a larger quantity and wider variety of quality materials than the average child due to their isolation. Textbooks used in these schools are the same as those used elsewhere in the United States, and these children need vicarious experiences in order to understand many of the ideas presented in these standard texts.

Another objective was to set up a delivery system for media services workable under the harsh environmental conditions found in that area of Alaska.

We purchased the complete collection of media listed in the *Elementary School Library Collection* (*ESLC*) catalog, a standard selection tool for elementary media centers. Since it is a computer-produced list, it can easily be up-dated; a new edition or supplement is published annually. *ESLC* became the official catalog for our media center. Each year we purchased the new edition and added the new titles to our collection. The first year of operation we furnished each school with a copy of the catalog; the second year we put a copy in every classroom. Since then we have alternated between a single new edition for each school and complete new catalogs for each classroom.

We did purchase items not listed in the catalog to meet the special needs of our students. For example, teachers found the silent super 8mm film loops, which present a single concept, to be an excellent learning tool for the bilingual child who was having difficulty learning in English. Supplemental lists of these additional items were issued.

Each teacher or classroom had catalogs from which they could order from the Library/Media Center. Orders were sent to us by mail and shipments were sent by mail—airmail naturally, since there was no surface transportation for mail. People who live in remote areas of the United States are acquainted with the Sears, Roebuck catalog and readily adapt to using a catalog for ordering library materials. This was the only way we could furnish our patrons with a sophisticated catalog and still have funds to purchase the collection.

Through this catalog, both students and teachers had access to over 10,000 titles. At our last inventory, our collection was about 40,000 items. We had about 21,000 books and 19,000 non-print items. We were fortunate that our budget allowed us to purchase both print and non-print materials. We found that the average cost of the non-print item (excluding the expensive video cassettes and films) was still about three to four times the cost of a book.

Other services were also provided. Recreational materials were sent automatically to each teacher upon receipt of a completed form from the teacher indicating the number of students, grades, and reading levels. They also told us what subjects they liked so we could further tailor the shipment to that class.

We purchased professional books in addition to those listed in *ESLC* and subscribed to about 75 professional journals. Copies of the tables of contents of these journals were distributed and journals circulated upon request. We also subscribed to the McNaughton Plan which provided us with 200 current adult books. Each month we received 20 new books and returned 20 to the company. Lists were sent to each school as books came in, and this proved to be a popular service with both teachers and other adults in the village. Some of the Eskimo teacher aides were heavy users of both that collection and our video cassettes.

Our schools were all equipped with a variety of hardware or equipment necessary to use the various kinds of media. Each school had 16mm film projectors (usually more than one), film strip projectors, film loop projectors, audio-cassette recorders, record players, overhead projectors, carousel slide projectors, and video-cassette players with monitors.

And like all equipment it broke down! The Library/Media Center had a supply of loaners. Teachers could let us know which piece of equipment had broken down (remember, they had radio contact) and we would ship them a loaner even before we received their projector or player to repair. Some of the repair was done at the Center and some was sent to Anchorage for service.

Although space for the Library/Media Center program was not adequate, my husband did set up a complete color television studio. In fact, the local public broadcasting station, KYUK, occasionally borrowed equipment from us and used to come out to edit some of their video tapes on our equipment.

Last winter one of the teachers in the Agency developed a series of lessons on graph reading. Students seem to have trouble with this skill when taking the standardized tests. She made a series of video tapes teaching these skills on several levels and developed work sheets to accompany her lessons.

Space was constantly a problem. Bill and I divided our responsibilities so that he handled the equipment and the production end. He had one large room which served as a television production studio, service repair area, and his office. He almost had two darkrooms, but lost one when an apartment was made larger for an employee with a big family. The darkroom was so small that the process camera had to be moved outside the door when he was processing film.

The library part of the operation consisted of acquiring, processing, and circulating the software. We also handled the circulation of equipment. As the collection grew, our space doubled and then doubled again. However, it was on two floors which made extra work for the staff.

Staffing the operation was also a constant problem. We had a heavy turn-over and the usual run of employees. At the time I left, the library portion of the operation had a library technician and four library aides. The library technician and one aide had worked there nearly three years. Two of the other aides were quite new and were a joy to work with. They were both mothers of fairly large families and had decided to go to work. Both were anxious to learn and had become proficient at running the television cameras as well as the library routines. I still hear from the library technician at times and am very proud of the way they have continued the operation without, as yet, a professional to direct them.

Mr. Mudd's section of the Center had only himself and one electronic technician. All of the Center's staff except ourselves were Native Americans, either Alaska Eskimos or Indians.

During the winter of 1975 we began to consider getting an outside evaluation of the Library/Media Center. The central office of the Bureau of Indian Affairs assisted us in locating a research team to set up tools for evaluating the effectiveness of the service and the collection from the user's side, and the impact of this service on the learning of the students.

Fortunately, for the purpose of this evaluation, we had kept more than the usual circulation statistics. We knew that we had circulated 20,000 items our first year and 50,000 in 1974/75. We also knew that most of our orders came

from teachers because we kept a record of orders received by village and whether from teachers or students. One of our goals was for the students to make more use of their Library/Media Center by ordering materials themselves. We reasoned that since there were 2,500 students and only 125 teachers, we should receive more orders from students than we did teachers. Slowly we were beginning to convince reluctant teachers to teach the children how to use the catalog. For example, we recorded student orders from 19 different schools in 1974/75. At the time I left in March 1976, we had recorded student orders from 24 different schools. It takes time.

This gives you an idea of the type of statistics which were kept and which proved highly valuable to the researchers. They developed a teacher background information questionnaire and a Library/Media Center use questionnaire designed to determine the quality of the services. These questionnaires were sent to every teacher and associate teacher. The responses were sent directly to the researchers.

The records of library use by school proved invaluable in assessing learning outcomes. Schools were divided into high users and low users, and students in 12 schools were involved in this portion of the data gathering. Also available to the team were the Metropolitan Achievement Test scores for 1971/72 and 1974/75 which were used in the study.

The researchers were able to actually visit the 12 schools mentioned above. They were assisted by three Alaskans in visits to seven. Marilyn Scott, Director of Media Services for the Greater Anchorage Borough School District; Richard Luther, State Department of Education; and Teddy Winterstein, Librarian at Bethel Regional High School spent a week in Bethel enjoying the unique thrill of bush flying. They visited two schools a day when they were traveling.

The results of the evaluation have been published in a 235-page report [U. S. Bureau of Indian Affairs, Bethel Agency Office. 1976. *An Evaluation of the Bethel Regional Library/Media Center.* Bethel, Alaska]. You may be interested in the conclusions given on page 213:

- It is clear, both from teachers' perceptions of the quality of the Regional Library/Media Center resources, and from measures of student learning outcomes, that the Regional Library/Media Center plays an important educational role in many classrooms in the Bethel Agency. It is also evident that its role could be qualitatively strengthened in other classrooms to the educational advantage of the students.
- More than any other single resource available to all the children in this region of Alaska, the Library/Media Center can offer extensive high quality resources in a variety of modes, from books to videotaped lessons in many subject areas.
- In those schools where the resources have been well-exploited, the students have obviously benefited. The teachers who plan and implement curricular integration of the library/media materials have made it clear that the Bethel Regional Library/Media Center is an invaluable resource.

In their recommendations, the evaluators decided that the basic purchasing and delivery systems were sound and should be continued as established and implemented. They stated that

> these systems have made possible the efficient and thorough distribution of thousands of valuable resources throughout 32 widely scattered and remote schools.

The teachers themselves expressed satisfaction with the services they received. Apparently our goal of shipping an order with 24 hours of the receipt of the order cards, although not always met, was a good one in keeping staff aware of the need to ship items as soon as possible.

The question now is, What happens next? Your guess is as good as mine. It was our hope that in setting up the Library/Media Center in Bethel we would perhaps show that good media services are possible in a remote region. We also found that it costs money. Close to a million dollars were spent during those five years in developing the Bethel Regional Library/Media Center. With increasing costs of media, a $250,000 annual budget could easily be necessary in maintaining the effort. It certainly would be needed if the space needs and staff increase recommended in the evaluation were met. In fact, it might not be sufficient.

I hope that the project in Bethel has provided people in rural Alaska with a pattern for school media services which they can follow. The new school districts are much smaller than the area we served, and may be too small to set up such a center. It would seem that there should be at least 1,000 students in an area before such an operation would be practical.

Whatever the effect, it was an exciting experience and the findings in the final evaluation did show that there were significant differences in learning outcomes between the high-use schools and the low-use ones. We realize that many other factors affect learning outcomes, but the differences were of such significance to be meaningful in evaluating the impact of the library/media services.

Richard Engen: Thank you, Isabelle.

We keep referring to the State Library activities. If we don't do much, at least we find the people who know how to do things and pass on the information to us so it can be shared in all parts of the state. I think that is an important role for us to play. Mary Matthews, our next speaker, has been on leave for a year. She actually doesn't return until September 1. But she is a very nice person and has agreed to share with us today her views on what has happened in regional library development in Alaska. Mary.

REGIONAL SERVICES

Mary Matthews:

I'd like to spend just a few minutes on regional and community library services, especially those in the Northern Region.

I guess I'll follow the pattern of the other speakers and brag a little more about Alaska's size. As Dick has said, Alaska covers 586,000 square miles, is more than twice the size of Texas, almost twice the size of Alberta, and 10 times larger than the United Kingdom. The Northern Region alone covers 300,030 square miles and has a population of only 83,000 people, not quite four square miles per person. Most of the 70 communities north of the Alaska Range are Indian or Eskimo. Most are accessible only by bush plane and are under 300 in population.

There are three designated service regions in the state plan: the Northern Region, the Southeastern Region, and the Westcentral or Southcentral Region as we are calling it. The regional system is designed to build on existing strengths. Thus the Fairbanks North Star Borough Library, through state support, becomes the resource center for the entire Northern Region. In some ways, the resource center in Fairbanks has acted as a service center by providing cassette banks of audio or oral literature cassettes, by sending regular shipments of books and other materials to remote villages, by assisting with workshops, and by acting as an inter-library loan and reference center for the region.

These examples are mostly short-term demonstration projects and represent small inroads into our goal of total regional service. What is meant by total regional service is still being defined, but we hope we are moving toward the time when the resource center will provide a full range of service to all communities and residents in northern Alaska. Most services currently offered come from state offices in Juneau. Building the facility which Marvin described to you is certainly one giant step forward towards realizing this goal.

Regional service can take place on a subregional level as well, as with the Bethel services. Another outstanding example of this takes place on the Seward Peninsula. Three years ago the Kegoayah Kozga Library Association in Nome submitted a proposal for federal money to service the 12 communities on the Seward Peninsula, two communities on St. Lawrence Island, Little Diomede Island, and Nome itself. The objective of the project was to help alleviate the educational disparity between rural minority children and those raised in urban settings. This was to be accomplished by providing educational, cultural, and informational resource materials.

It is a difficult objective to evaluate for effectiveness. But we do know that last year, in less than nine months, 26,000 items including books, tapes, cassettes, catalogs, film loops, prints, educational kits, and vocational and career materials were circulated from the regional center in Nome to the service area. Circulation prior to the project was near zero in Nome itself

and non-existent to the villages. Examples of communities served are Savoonga and Council. Savoonga, on St. Lawrence Island, was the largest community with 364 people. Its library is located in the school and is open 14 hours a day, five days a week. Last year they circulated 1,600 items. Council, the smallest village with a total population of 20 people, checked out a thousand items between September and May. The teacher wrote his appreciation to Bill Carp, the project director, and said if there's a school in Council next year, the service will be used.

This brings me to the subject of service at the community level. The state plan states that this is the first and most important level of service. The community library is the place to which the individual goes to meet their most immediate library needs. The villages on the Seward Peninsula have made impressive progress toward local support of libraries, thanks to the regional project in Nome. For many of our northern Alaska communities the odds against success seem overwhelming. There is little state support for on-going library programs at the small community level. These communities are too small to generate their own revenue. They're isolated, making sharing of materials difficult. Culturally, libraries are foreign institutions in many of our Native communities.

But what some communities can and do pull together for a community library service is impressive. Let me tell you about one. Eagle is an historic community on the Yukon River near the Canadian border. The last time that I was there the winter population was around 36. I think it's larger now. You can drive to Eagle on a gravel road in the summer. In the winter there is a mail plane once or twice a week. Saturday night is library night in Eagle. Everyone comes to watch the movie, eat popcorn, and check out books and records. Each of the 12 active volunteers takes a month of Saturday-night duty. The city contributes by providing enough wood in the winter for the potbellied stove. The State Library keeps hearing from Eagle, for these people want the best possible service for their community. Recently, an application for construction money was sent to Juneau. Eagle wants a log library for their community and they're on their way to getting it. So we see that one of our smallest and most isolated communities in northern Alaska is today providing one of the best community library services in the state.

A combination of community services, in the spirit of Eagle, and a strong regional service backed by the state will bring us closer to that goal of library service for all Alaskans.

A slide-tape presentation on services that the State Library provides for small community libraries ended the session.

Richard Engen:

When they put this program together, they told me I was just supposed to tie up the loose ends. The loose ends really amount to this: in Alaska we care about people and we care about service. We'll use any form we possibly can to get the materials out, and the key word in library activity in the state is *cooperation*. Thank you very much.

THIRD SESSION:
Specialized Libraries in the North

Tuesday, July 13, 1976, 9:00 A.M. to 11:30 A.M.

Bill Smith, Rasmuson Library:

This part of our program is about specialized libraries in the North. We have a panel which will discuss specialized libraries in Anchorage. The moderator of the panel is Joan Zenan who has been librarian of the University of Alaska's Arctic Environmental Information and Data Center (AEIDC), since sometime in 1974. She is their first librarian and I will turn the panel discussion over to her.

Joan Zenan, Librarian, Arctic Environmental Information and Data Center:

Thank you, Bill. Our topic this morning is specialized libraries of the North, but we will concentrate on Anchorage. We have three panelists this morning: Patty Brommelsiek from AEIDC, Pat Yenney from the Alaska Health Sciences Information Center, and Martha Shepard from the Alaska Resources Library. We will talk about these three special libraries in Anchorage and tell you a little bit about who created them, who they serve, what unique services are offered, and the differences between them and other libraries in the state.

Before we begin I would like to mention a few of the smaller specialized libraries in Anchorage. One is the **Anchorage Historical and Fine Arts Museum**, which has a small collection on the history and ethnology of Alaska, as well as an outstanding collection of photographs, diaries, scrapbooks, maps, and other items dating from the early 1900s. They provide interlibrary loan and photocopying services. They are very happy to help you if you write to them with a problem.

The **Alaska State Court System Law Library** is the major law collection in the state and has a full-time librarian. Nothing may be checked out but they do answer questions on state and federal law, mostly for practicing attorneys and judges, though anyone is welcome to come in.

The **Alaska District Corps of Engineers Library** is located at Elmendorf Air Force Base. This library concentrates on the Cold Regions Research and Engineering reports on coastal engineering, as well as on research publications on waterways, construction and engineering. It includes U.S. Geological Service bulletins, as well as all materials on standards and specifications for building.

The **Federal Aviation Administration Library** has a collection consisting of books, technical reports, periodicals, motion pictures, and microform on aeronautical engineering, management, and electronics. They offer interlibrary loan as well as in-library use.

The **U.S. Geological Service** (USGS) has a public information office—not exactly a library—that provides a wealth of information. Martha Irving is the librarian in charge and can get you the information you are looking for. They have all of the USGS publications and information on water resources. They also sell topographic and geologic maps, especially of Alaska.

The most prominent small special libraries are the petroleum libraries. Most of the petroleum companies in Anchorage have their own private librarian. Sometimes you can call them up and they will either give you information over the phone or send things to you. Pat Yenny and I have a good relationship with the BP Alaska Library. We help each other.

Our first panelist is Pat Yenney from the Alaska Health Sciences Information Center. Pat is a technical information specialist in the medical area.

Pat Yenney, Alaska Health Sciences Information Center:

I'm very happy to be here this morning to talk about my favorite subject, the Health Sci-

ences Library. As has been mentioned, we are located in Anchorage and we bring biomedical information to approximately 3,000 or so Alaska health care providers—physicians, nurses, occupational therapists, dental hygienists—all health care providers. Even lawyers, legislators, or researchers who need information from our Library are able to come to us for service. If you visualize the map of Alaska, whether a person is in Barrow up on the top, in Kotzebue on the western coast, way down in Adak, in Ketchikan in Southeastern, or over in Tok in the Interior, we are able to provide up-to-date information in the health sciences. Health care providers need this kind of information to give proper care to their patients and also to keep abreast of what is going on in the health care field.

First a little bit of history. In 1967 our Library was established in Anchorage at the U.S. Public Health Service Hospital, which is called the Alaska Native Medical Center. The U.S. Public Health Service in Alaska is responsible for giving health care to the state's Native peoples: the Eskimos, Aleuts, and Indians. Because there weren't any or at least very few health information services available in Alaska, the Alaska Native Health Service allowed our Library from the time it began to give services to health care providers who weren't part of the U.S. Public Health Service system. From 1968 to 1972 the federal government provided a grant through the regional medical program that allowed us to expand our Library to give services to all health care providers in Alaska. In 1972 when the federal grant ceased, the State of Alaska was able to take over that portion of the grant providing service to non-affiliated health care providers in the state. In Alaska there are many small hospitals. Seventy-one percent of them have fewer than 100 beds, and 60% have fewer than 50 beds. So you can see it was not economically feasible for these hospitals to have their own professional library services, or even to go to any kind of consortium arrangement because most are quite isolated. There are also many small isolated clinics throughout the state, as well as isolated health workers such as the Public Health nurses who are often itinerant, traveling around from village to village. This is why our Library was developed as a single, central health sciences library.

Obviously we don't have all the books and journals that the health care providers need, so we depend on the National Bio-Medical Information Network, which funds libraries in 11 geographic areas of the United States. Our principal library is the Pacific Northwest Regional Health Sciences Library at the University of Washington in Seattle. If they don't have the book, we can get it from other libraries in the region or from the National Library of Medicine in Bethesda, Maryland. The latter has international inter-library loan privileges; we have even gotten articles from England. So you can see why we tell our health care providers, You don't have to be next to a university medical school; you can be anywhere in the state and still have access to the world's literature through the inter-library loan system.

Our inter-library loans from other libraries totaled approximately 7,500 from 1967 to 1975. Our Library provided about 63,000 books and journal articles to health care providers and libraries in 1975. Our budget is funded with approximately 45% coming from the State of Alaska, a very small percentage—about $10,000 —comes from our regional library and helps fund one position, and the remainder is from the U.S. Public Health Service. We also have occasional private contributions. So far, our services are free to our users.

What kind of services do we have? Well, there is a real flow of loaned books and single photocopies of articles. We also are the only library in Alaska with access to the Medline system, which is a computerized database in Bethesda, Maryland. We access it through a terminal in the Library, and most of our research is done on this. We can sit down with printouts for our patrons to choose what articles they would like. We also provide current awareness services, and I think these are rather unique to Alaska. One of them is called the current table of contents service. We provide a list of journals that we have, and the patrons select not more than 20 titles for which they want to see the table of contents. When the latest issues of their chosen journals are received, we send them the table of con-

tents from each one, they circle the articles they want, send it back to us, and we send them the articles. Certainly many health care providers cannot subscribe to all the journals that have articles of interest to them. Those journals that they read cover to cover are the titles we encourage them to subscribe to. We have close to 600 people using the table of contents service.

Another way to keep current is with our computerized service. The database allows us to query the newest month's information every month. We have about 100 subjects that we search to obtain the latest information. For example, we have a Child Abuse Board in Anchorage. Every month I ask the database for what's new on child abuse. April's list contained 16 citations. I xeroxed this list and sent it to the board. They will circle which items they want and return it. Again, this is a way for them to stay aware of what's currently going on in their field.

Most of the health care providers who use our services do not come into the Library. As they are usually very busy working long hours, most of our reference is done by mail or phone. An exception to this is the Health Sciences Student Center at Alaska Methodist University. Most of the students in the nursing baccalaureate program, the associate degree program, the practical nursing program, and dental hygiene program do come into the library and use our services.

Not surprisingly our problems are space and finances. We are working toward and looking toward moving into the Consortium Library. As far as finances, we are trying to establish an audio-visual collection for which we will need more personnel. We will also need more personnel as we try to reach out to all health care providers in the state.

To sum up, we are a single, central library that serves a large area of Alaska with scattered populations. We are funded by the state and federal governments, and we provide services not just to public health and state agencies but to all health care providers. When our patrons leave Alaska they practically get down on their hands and knees and beg us to continue our services to them. Thank you.

Martha Shepard, Librarian, Alaska Resources Library:

Good morning. I am new to many of you, as I've only been here for six months. I'm the librarian at the Alaska Resources Library, which is a U.S. Department of Interior field library in Alaska. This statement tells you quite a bit because the library was originally under the U.S. Bureau of Land Management. To say that we are now a departmental library means we receive quite a bit more money and support than in the past because we now serve all Department of Interior agencies in Alaska. The Library was originally set up in 1972 to provide reference assistance to Alaska Natives. When the Alaska Native Land Claims Settlement was implemented in 1971 it was discovered that the Natives had no real resources with which to choose and enumerate their lands, so the Alaska Resources Library was set up by the Bureau of Land Management to help the Natives collect resources and help them choose their lands. This is still one of our prime reasons for existence; we still provide Natives with information about their lands.

We have enlarged our scope to serve not only all Department of Interior agencies, but also state agencies and the general public. I don't know whether it has ever been made official, but anybody who wants to use our Library is welcome. This is possible because our Library has such a specialized focus on natural resources; as far as I know the privilege has never been abused.

We serve the same people that the University's Arctic Environmental Information and Data Center serves: Native corporations, state government, federal agencies, and the University of Alaska.

Our collection consists of approximately 65,000 monographs, probably about a fifth of which are on microfiche; about 350 periodical subscriptions; and about 2,000 maps. The CRREL (Cold Regions Research and Engineering Laboratory) bibliography service from the Library of Congress allows us to receive on microfiche every book, almost everything that is contained in the bibliography. I try to purchase items from NTIS (National Technical Information Service) to fill in the items that CRREL cannot provide. This collection is used a great deal.

We are the depository for everything that is done by the Joint Federal-State Land Use Planning Commission for Alaska. We are also a depository for the U.S. Geological Survey's (USGS) of Alaska. We have between 850 and 900 quad maps for the state. We call them quad maps because they are made up of four USGS quadrangle maps for each area of Alaska. For each quad map we have from 20 to 25 overlay maps. The overlays describe water resources, fisheries, and so on. The maps are an extremely valuable and much used resource.

We have also inherited from the Bureau of Land office an excellent, large U.S. Bureau of Mines Collection and an excellent USGS collection. I haven't lost anything yet, but we circulate almost everything. Our Bureau of Mines and USGS items circulate because we need them in the field.

At the moment we employ a librarian, a cataloger, two library technicians, and students. We have approximately 100 linear feet of double-wide shelving for our maps. The Library has 900 square feet of space, which is approximately half the size of this room I imagine. This is one of our problems: we do not have adequate space. Other problems relate to the collection. I'm sure you are aware how difficult it is to retrieve published or unpublished reports on Alaska. It's primarily through word of mouth, gift, accident....

Transcriber's Note: The remainder of this tape was garbled.

Joan Zenan: Thank you, Martha. I will now introduce Patti Brommelsiek.

Patti Brommelsiek, Arctic Environmental Information and Data Center:

Good morning. AEIDC was established in 1972 by the Alaska legislature as a research institute affiliated with the University of Alaska, Fairbanks, but located physically in Anchorage. That's just the beginning of the confusion! It's not an institute that engages in basic or primary research. Its main purpose is to disseminate existing information on the environment of Alaska, specifically the physical environment: the biologic resources, the climate, the oceanography of the seas bordering our shores—anything that floats, or swims, or breaths, I guess! So far we have especially concentrated on providing biological resources. We exclude applied technology, although we are getting more into that recently. What I mean by "applied" would be construction in the North, that kind of thing.

What we try to do is make information available and find out what research has already been done on specific subjects. For instance, if we had a patron who was interested in all the musk ox research that had been done, we would gather that information. Without knowledge of existing studies, researchers have to begin from scratch. Often you know the research has already been done somewhere and what you need to do is to get to it.

We are located in Anchorage and the original goal for us was to plan a wonderful computer system through which we could instantly access and disseminate this vast wealth of information that we know is available. Well, there is a lot of information available but it isn't often available by computer. That really is the dream, and sometimes the nightmare. We have made some efforts but to this point it has not worked well.

The goals of AEIDC are perhaps best illustrated by our regional profile series. Most of you are probably familiar with them. To create the series, we took existing knowledge from the Federal-State Joint Land Use Planning Commission and from other resources and presented it graphically with easily understood text. In effect, we summarized, both visually and in words, the information available on Alaska's various regions. Within each region, we covered specific subject areas.

The data we used to create the profiles are being organized into the Library. In approximately two years we have gone from one catalog drawer with about 35 inches of cards to 27 drawers which are absolutely full. I'm not sure of the exact numbers of items we have added to the collection but we have cataloged quite a lot!

We concentrate on the obscure, unpublished, or difficult-to-obtain reports on the Alaska environment. These could be reports from the institutes at the University; reports from federal, state, or local government agencies which are

residing in somebody's desk drawer; or just any kind of thing which is rumored about or difficult to obtain. Here in Alaska, difficult to obtain can mean many things, one of which is that you have to get it from Outside!

We receive a number of uncopyrighted items on inter-library loan through the Pacific Northwest Bibliographic Center and make photocopies. If a photocopy is sent to us, we catalog it and enter it into our collection. So, AEIDC specializes in these unpublished reports, while the Alaska Resources Library (ARL) collection focuses on published information and maps. We do have a small map collection but I send people to ARL long before I go through ours. The plan is for ARL to have the basic resources and periodical subscriptions and for AEIDC to have the items that fit in the holes. Our collections are very complementary and very cooperative. Everyone in Anchorage knows that no one has a box full of tricks and that we all have to cooperate. We all do cooperate, and we send people from one place to another as necessary.

Climate information is another important part of our collection. We have the largest collection of climatological data on Alaska in Alaska. The National Weather Service sends all their Alaska information back to North Carolina. You can call there and get a response, but it normally takes about six weeks. We retain weather records on first- and second-order stations, and on some discontinued stations. We also have a large collection of summarized data created by the climatologists on our staff that is heavily used. Whether they are from government agencies or lawyers working on plane accident cases or people who want to know what the weather is like in June because relatives are coming to visit, we have constant calls for weather information!

We have a collection of technical reports, which fills about 15 feet of shelf space, and several drawers of microfiche. We do our own microfilming in-house and create our own microfiche. We are able to duplicate to microfiche or to paper copy. If we had a report that you or one of your users needed, we could either make a paper copy from it—which is rather expensive—or we could microfiche the report on to a master, make you a microfiche copy from the master, and mail it out. This part of our service has been heavily used.

Our collection is classified by the Library of Congress system, and we add a geographic index or geographic locator to everything we catalog. Patrons often want information concerning a specific area. By adding additional geographic locators to the index we can help them out. This activity has been incredibly useful. We also have a reprint file whose contents are briefly cataloged in our in-house bibliographic style. They also receive subject, title, and geographic headings so that they are interfiled with all the other reports and are located just by using the catalog.

So we have three different forms at AEIDC: paper copies of reports, microfiche, and the reprint file. We have found that the microfiche collection and reprint file are used considerably, and obviously anyone can use paper copies. People have asked whether our patrons do use the microfiche, because a good deal of our collection is in that format. Most people are delighted that the information is available in whatever form and don't mind at all that it is on microfiche because at least it is there. Now this may be different from the experience in your library, but we find that most people prefer paper copy if it is a bulky report, but if it is a small report and they can sit down and read it in 15 or 20 minutes they don't seem to mind using microfiche; they are so excited to find the information at all that it's worth it to them to put up with having this machine humming in their ears. It's working out quite well.

Acquisitions is a problem because the way we learn of material is all word-of-mouth, by hearing that so-and-so finished a report, and then tracking it down. But that's sort of the fun of it all. Sometimes! We try to cooperate with all the other libraries in Anchorage to keep each other aware of what is coming out about Alaska. We have found through limited experience with computer searching that not much information about or specific to Alaska is included in the national databases. If you are interested in a particular species of fish, you might be able to retrieve quantities of information on that species but whether any of it would be pertinent to Alaska

is another question. In Alaska, we have problems with computer searches. You cannot depend on them to keep you up-to-date with publications in the natural sciences. They seem to run quite far behind. It's too bad because we need all the help we can get in keeping up with information on Alaska. We are always grateful to hear of a new report, and we don't mind hearing about it two or three times because otherwise we might not hear about it at all.

We run the Library for our Institute staff—that's our first obligation—and secondly to serve state agencies since the state legislature established us to provide information on the Alaskan environment. We serve the federal agencies and municipalities to some degree, although not as much as we could if they were aware of our existence; consulting firms by the armload; and the occasional student. Most students and the general public don't have the background needed to use the information that we have because it's not at a basic or introductory level. We have the auxiliary or supplementary information. This means that if you don't know anything at all about a subject, we are not the place to begin. But if you have more advanced research needs, then we would have useful reports.

Generally we serve our patrons by phone and letter and in person. We also prepare specific bibliographies on request or by contract. One we most recently finished was a two-page bibliography on marine minerals of the Alaska continental shelf. We received wonderful help from everyone we visited in preparing the bibliography, including Jean Mattson at the Bureau of Mines in Juneau, the people at Rasmuson Library, and the Institute of Marine Sciences. You have to scrounge in Alaska, that's all there is to it. If you want to find all the information that exists about a subject, you have to travel. You have to knock on doors. We are very grateful for the help we have received.

This marks the end of the usable portion of the transcription of the Sixth Northern Libraries Colloquy.

Program of the Northern Libraries Colloquy, 1976

SUNDAY, July 11, 1976

6-9 P.M. Registration; reception at the Chancellor's home.

MONDAY, July 12, 1976

8-10 A.M. Registration

9-12 A.M. Opening Session: *Introduction to Campus Libraries*. Wood Center Ballroom.
H. Theodore Ryberg, moderator.
Welcome to Campus. Chancellor Howard A. Cutler.
Welcome to the Fairbanks North Star Borough. Phil Younker.
Welcome from the Alaska Library Association. Marilynn Scott.
General Remarks Describing State-wide University Library Services.
A Description of the Elmer E. Rasmuson Library and the Services it Provides.
H. Theodore Ryberg.
Break
The Anchorage Higher Education Consortium Library. Jack O'Bar.
Libraries on Campus not Part of Rasmuson System. Dwight Ittner.

Lunch Movies produced by the Rasmuson Library's Media Services Department will be shown throughout the week on a rotating basis during the lunch break for those who wish to view them.

1:30-4:30 P.M. Second Session: *Public Libraries in Alaska*. Wood Center Ballroom.
Margie Thomas, moderator.
Introduction.
Over-all State Plan. Richard Engen.
Service through Facilities. Marvin Smith.
Service through Training: Satellites. Sheila Furer.
Service through Native Languages. Karen McPherson.
Break
Service to Schools. Isabelle Mudd.
Regional services. Mary Matthews.

4:30-6 P.M. A special showing: *At the Time of Whaling* and *On the Spring Ice*. Schaible Auditorium.
Two award-winning films from the 17th and 18th American Film Festival made by University of Alaska film makers Sarah Elder and Leonard Kamerling.

Evening Cruise on the Riverboat *Discovery* with a catered Alaskan buffet.

TUESDAY, July 13, 1976

9-11:30 A.M. Third Session: *Specialized Libraries in the North*. Wood Center Ballroom.
William Smith, moderator.
An Examination of the Role and Function of Specialized Libraries in the North. Panel of Anchorage librarians Joan Zenan, Patti Brommelsiek, Pat Yenney, and Martha Shepard.
Break
Library Services in the Yukon Territory. Garth Graham.

Lunch

12:30-4:30 P.M. Tour of the Fairbanks Area.
The tour will include the University of Alaska Muskox Farm, the CRREL ice tunnel, the Gilmore Tracking Station, a pipeline pump station, and the Pedro Monument.

4:30-6 P.M. Informative showing of pictures of past colloquies by those who wish to participate, to be held in the Wood Center Pub.

Evening Supper in individual homes in the Fairbanks area.

WEDNESDAY, July 14, 1976

9-12 A.M. Fourth Session: *Research in Alaska*. Geophysical Institute Auditorium.
Sharon West, moderator.

Research conducted in Alaska and the publications generated by this research. Discussion of research and publications, along with publication displays, by the following agencies and institutes:

Geophysical Institute. Keith Mather.
Institute of Arctic Biology. George West.
Institute of Marine Science. John Goering.
Alaska Cooperative Park Studies Unit. Fred Dean.
Wildlife Research Unit. David Klein.
Institute of Water Resources. Robert Carlson.
Sea Grant Program. Donald Rosenberg.
Mineral Industry Research Laboratory. Nils Johansen.
Arctic Environmental Research Laboratory. Richard Latimer.
Institute for Northern Forestry. Ted Dyrness.
Agricultural Experiment Station. James Drew.
Cooperative Extension Service. James Matthews.
Center for Northern Educational Research. Frank Darnell.
Institute of Social, Governmental and Economic Research. Ronald Crowe.
University of Alaska Museum. Lou Rowinski.
Alaska Native Languages Center, Michael Krauss.

Lunch

1-4:30 P.M. Fifth Session: *Regional and International Information Exchange*. Wood Center Ballroom. Marvin Falk, moderator.

Reports and International Updates.

Bibliographic Control over Native Language Publications throughout the North. Michael Krauss.

Cooperative Dissemination of Information on Northern Library Databases: Some Questions. Sharon West.

Break

After the Arctic Bibliography, *What?* Open forum. Peter Anderson, discussion leader.

Evening Banquet

THURSDAY, July 15, 1976

9-12 A.M. Sixth Session: *Business Meeting*. Wood Center Ballroom. H. Theodore Ryberg, moderator.

Report on the Arctic Institute of North America. Business meeting, 1978 site selection, etc. Adjournment.

List of Participants

Sherry Abrahams
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Martha Andrews
Institute of Arctic and Alpine Research
University of Colorado
Boulder, Colorado

Peter J. Anderson
Institute of Polar Studies
Ohio State University
Columbus, Ohio

Nancy D. Beck
Naval Arctic Research Laboratory
University of Alaska
Barrow, Alaska

Barbara J. Berg
Alaska District Library
U.S. Army Corps of Engineers
Anchorage, Alaska

T. Boardman
Fairbanks North Star Borough Library
Fairbanks, Alaska

Patti Brommelsiek
Arctic Environmental Information and Data Center
University of Alaska, Fairbanks
Anchorage, Alaska

Janet G. Burke
Center for Northern Education Research
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Bonnie Cavanaugh
Z. J. Loussac Public Library
Anchorage, Alaska

Louis R. Coatney
Alaska State Library
Juneau, Alaska

Elizabeth Colyer
National Research Council
Ottawa, Canada

G. A. Cooke
Boreal Institute for Northern Studies
Edmonton, Alberta, Canada

Judy Countryman
Fairbanks North Star Borough Library
Fairbanks, Alaska

Jo Dooley
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Richard B. Engen
Division of State Libraries and Museums
Juneau, Alaska

Pat Ercolin
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Reginald A. Emmert
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Helen W. Falk
Fairbanks, Alaska

Marvin W. Falk
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Mary Fong
Arctic Institute of North America
Calgary, Alberta, Canada

Julia Foscue
Ft. Wainwright, Alaska

Sheila Furer
Alaska State Library
Anchorage, Alaska

Ross Goodwin
Arctic Institute of North America
Calgary, Alberta, Canada

Garth Graham
Library Services Branch
Government of Yukon Territory
Whitehorse, Yukon Territory, Canada

David A. Hales
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Janet C. Hayden
U.S. Fish and Wildlife Service Library
Anchorage, Alaska

Catherine Innes-Taylor
Consortium Library
University of Alaska, Anchorage
Anchorage, Alaska

Barbara Ittner
University of Alaska, Fairbanks
Fairbanks, Alaska

Dwight R. Ittner
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Nancy Kelly
Fairbanks School System
Fairbanks, Alaska

Nancy Lesh
Anchorage Higher Education Consortium Library
University of Alaska, Anchorage
Anchorage, Alaska

Mrs. Peter Lofthouse
Department of Indian and Northern Affairs
Yellowknife, Northwest Territories, Canada

Arthur J. Looker
Defence Scientific Information Service
Ottawa, Ontario, Canada

Tina Matiisen
National Museums of Canada
Ottawa, Ontario, Canada

Mary Matthews
Alaska State Library
Fairbanks, Alaska

Jean Mattson
U.S. Bureau of Mines Library
Juneau, Alaska

Paul H. McCarthy
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Colleen Sue McDonald
Z. J. Loussac Library
Anchorage, Alaska

Erma V. Mead
Schoenbar Junior High School Library
Ketchikan, Alaska

Judy Mimken
Geophysical Institute
University of Alaska, Fairbanks
Fairbanks, Alaska

Isabelle Mudd
Ft. Wainwright Post Library
Ft. Wainwright, Alaska

Nora Murchison
Ottawa, Canada

Jack O'Bar
Consortium Library
University of Alaska, Anchorage
Anchorage, Alaska

Kathryn Olson
Sears Elementary Library
Soldotna, Alaska

Leonard Olson
Soldotna, Alaska

Irene Pelli
Oulu University Library
Oulu, Finland

Cynthia Quinn
BiblioSearch, Library and Research Consultants
Anchorage, Alaska

Barbara S. Radke
Fort Richardson
Anchorage, Alaska

Alden M. Rollins
Consortium Library
University of Alaska, Anchorage
Anchorage, Alaska

Kathleen G. Rosier
Alaska State Library
Juneau, Alaska

Paula Russell
Fairbanks, Alaska

H. Theodore Ryberg
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Rochelle Sager
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Eunice V. Salisbury
CRREL
Hanover, New Hampshire

Alan Edward Schorr
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Martha L. Shepard
Alaska Resources Library
Anchorage, Alaska

Cynthia Simonson
North Pole High School
North Pole, Alaska

Patricia L. Smith
Government N.W.T. Library Services
Hay River, Northwest Territories, Canada

Marvin Smith
Fairbanks North Star Borough Library
Fairbanks, Alaska

William H. Smith
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Linda Stanton
Fairbanks North Star Borough Library
Fairbanks, Alaska

Joe L. Storey
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Margie J. Thomas
West Valley High School
Fairbanks, Alaska

Geza T. Thuronyi
Library of Congress
Washington, D. C.

Judie Triplehorn
Institute of Arctic Biology
University of Alaska, Fairbanks
Fairbanks, Alaska

Robert D. Warner
Ketchikan Community College
Ketchikan, Alaska

Hubert Wenger
Center for Arctic Studies
Paris, France

Gene West
University of Alaska, Fairbanks
Fairbanks, Alaska

Sharon M. West
Rasmuson Library
University of Alaska, Fairbanks
Fairbanks, Alaska

Judith A. Whittick
Ocean Engineering Information Centre
Newfoundland, Canada

John Wold
University Library of Trømso
Trømso, Norway

Joan Zenan
Arctic Environmental Information and Data Center
University of Alaska, Fairbanks
Anchorage, Alaska