Scott Polar Research Institute Review 2004

78th Annual Report of the
Scott Polar Research Institute
University of Cambridge, UK

Scott Polar Research Institute
University of Cambridge

UNIVERSITY OF CAMBRIDGE

Contents

Director's Introduction

This year has seen considerable successes for the Institute and its staff in both academic research and our role in projecting the history and environmental significance of the polar regions more widely. In the physical and social sciences, and in our library, archival and museum activities, we have secured a wide range of external grants. The acquisition of significant external funding for research in the social sciences and humanities, and for museum activities, represents an important addition to our continuing strong portfolio of competitively won research council grants relating to high-latitude environmental change. Institute staff hold grants of almost £2.5 million, and it is this external funding that has supported polar field programmes in both the natural and social sciences during 2004 in Antarctica, Greenland, Svalbard and the Russian Far East. The information collected, using methods ranging from airborne lasers deployed over glaciers to informal discussions with native Siberian reindeer herders, will provide the basis for a number of forthcoming publications in academic journals and books accessible to a wider readership.

The year has also been a notable one for our heritage and public outreach activities. First, we achieved the full registration of our polar museum under the national scheme operated by the Museum, Libraries and Archives Council. This provides formal recognition that we operate at the appropriate national standards for access, display and curatorial care of our very significant polar collections. Registration will also allow us to apply to new sources of funding in support of our heritage and outreach activities. Secondly, a major new exhibition, 'Shackleton: the Hidden Collections', was opened in May by the Hon. Alexandra Shackleton, Sir Ernest's grand-daughter. The event was celebrated with a reception for about 100 guests. The exhibition included Shackleton's personal diaries from each of his four Antarctic expeditions, together with much other material being displayed publicly for the first time. Thirdly, the Institute was awarded a grant of £530,000 from the Heritage Lottery Fund to enable the purchase of Herbert Ponting's photographic collection of over 1,100 large-format glass-plate negatives of Scott's last and fateful Antarctic expedition. This is a very important acquisition for both the picture library and for the Institute as a whole – the photographs were very influential in forming early perceptions of Antarctica in the public mind.

The Institute has hosted a number of major international meetings, workshops and seminars over the year. Topics ranged broadly, reflecting the wide interests of our staff. Examples include Antarctic environmental variability, the possibility of using the Northeast Passage above Siberia as a commercial sea route in a warming world, the interactions between northern native peoples and their physical environment, and the economic development of the Canadian North. Such events have brought several hundred international scholars to the Institute, and most have also visited our polar library and museum.

The whole polar community was saddened by the untimely death of William Mills, Librarian and Keeper of Collections, 1989–2004. As a mark of William's achievements in the polar world, the UK Antarctic Place-Names Committee named the Mills Glacier after him and the US National Science Foundation presented a posthumous award. Two former Directors of the Institute, Colin Bertram and Gordon Robin, also died during the year. Both had made outstanding contributions to the Institute over long and fruitful careers.

The Institute's Appeal, for £5 million, is aimed at securing and enhancing our museum, archival and library activities, and increasing our public outreach work, relating to both the contemporary environmental and historical significance of the Arctic and Antarctic. I thank those who have contributed so generously to the Appeal this year. The continuing support of the Friends of the Scott Polar Research Institute, chaired by Dr David Wilson, is also acknowledged. A special fund, The William Mills Memorial Fund, has been established by the Friends in support of acquisitions for our polar library. We have also benefited from the generous donation of a number of items to the polar museum and archives. This is clear evidence that the Institute is seen as a major international centre for the curation and exhibition of polar artifacts, manuscripts and works of art.

Professor Julian Dowdeswell, Director, in Antarctica

I should also like to note and acknowledge several other Institute activities. Our academic staff and students work hard to project the research of the Institute at many national and international meetings, and members of our senior academic staff continue to play important roles in setting the agenda for polar research through their participation on international committees and working groups. The work of the Institute in general also benefits greatly from the excellent assistance that our academic staff and students have received from the support staff of the Institute – in particular our administrative and maintenance teams. The staff of our library also made outstanding contributions to keep the library and information Services running effectively over an extensive interregnum. It is a pleasure to welcome Heather Lane, appointed from November, as our new Librarian.

We look forward to new programmes of field data acquisition over the coming year in the polar regions, and to several major events in Cambridge. From May, the museum will host an exhibition of oil paintings of Antarctica by Edward Seago, kindly loaned from the private collection of HRH The Duke of Edinburgh, Chancellor of the University. Later in the year, following conservation of the glass negatives, the Antarctic photographs of Herbert Ponting will be put on public display.

Professor Julian Dowdeswell

Institute Staff

Senior Academic and Related Staff

Professor Julian Dowdeswell	Director and Professor of Physical Geography
Dr Neil Arnold	University Lecturer
Dr Michael Bravo	University Lecturer
Mr Robert Headland	Archivist and Curator
Mrs Heather Lane	Librarian
Mr William Mills †	Librarian
Professor Elizabeth Morris, OBE	NERC Arctic Science Advisor (seconded from BAS)
Dr Gareth Rees	University Senior Lecturer
Dr Beau Riffenburgh	Editor, *Polar Record*
Dr Andrew Shepherd	University Lecturer
Dr Piers Vitebsky	Assistant Director of Research
Dr Ian Willis	University Senior Lecturer

†Deceased

Research Staff

Mr Toby Benham	Research Associate
Dr Zhijun Du	Research Associate
Dr Jeff Evans	Research Associate
Dr Colm Ó Cofaigh	Research Associate
Dr Florian Stammler	Research Associate
Ms Catharine Ward	Research Associate

Library Staff

Ms Sharon Banks	Library Assistant
Ms Naomi Boneham	Assistant Archivist
Ms Caroline Gunn	Archives Assistant
Ms Lucy Martin	Manager, Picture Library
Mr Jonathan Pinhey	Nordic Bibliographer
Ms Shirley Sawtell	Information Assistant
Ms Rebecca Stancombe	Library Assistant
Ms Hilary Shibata	Antarctic Bibliographer
Mrs Isabella Warren	Russian Bibliographer

Support Staff

Ms Bryony Amesbury	Administrator
Ms Alpona Begum	Receptionist/Secretary
Mrs Liz Crilley	Director's Assistant
Ms Francesca Franco	Shop Manager
Mrs Judy Heath	Chief Accounts Clerk
Mr Martin Lucas-Smith	Web Manager
Mr Simon Virr	Administrator
Mr Stanley Chapman	Maintenance
Mr Brian Smith	Maintenance

Research Students

Mr John Ash
Ms Liz Beiswenger
Ms Fiona Danks
Mr Mark Dwyer
Ms Daniela Flocco
Ms Janne Flora
Ms Stephanie Irlbacher Fox
Ms Susanna Grant
Ms. Kelly Hogan
Ms Mari Ishizuka
Mr Huw Lewis-Jones
Mr John Lin
Mr Sean Maher
Ms Dinah Thompson Molloy
Ms Ruth Mugford
Ms Anna Nelson
Mr Richard Powell
Mr Hugo Reinert
Mrs Lena Khlinovskaya Rockhill
Mr Steven Sawhill
Mr Niobe Thompson
Ms Olga Ulturgasheva
Mr Sam Van Vactor
Ms Elana Wilson
Mr Kostas Zorbas

†Deceased

Institute Associates

Dr Valerie Alia
Dr Lawson Brigham
Dr Hugh Brody
Dr Liz Cruwys
Dr Debra J. Enzenbacher
Mr Michael Gorman
Dr Colin Harris
Dr John Heap
Mr Keith Hill
Dr Neil Kent
Mr Harry King
Mr Oliver Merrington
Professor Mark Nuttall
Dr Simon Ommanney
Dr Philip Pugh
Dr Gordon de Q. Robin†
Dr Clive Smallman
Mr Peter Speak
Dr Bernard Stonehouse
Dr Charles Swithinbank
Dr John Tichotsky
Dr Janet West
Professor Peter Williams
Dr Emma Wilson

M.Phil. Students

Ms Eavan O'Dochartaiagh
Mr Jean de Pomereu

Other organisations based at SPRI

World Data Centre for Glaciology, Cambridge

Mr Rick Frolich	Manager

International Glaciological Society

Dr Magnus Magnusson	Secretary General
Mrs Linda Gorman	Assistant to the Secretary General

Scientific Committee on Antarctic Research

Dr Colin Summerhayes	Executive Director
Dr Peter Clarkson	Executive Secretary
Mrs Mandy Dalton	Senior Clerk

NW Iceland near Isafjordur

Polar Research

Research Group Structure

The research work of the Institute continues to focus around several research groups, each of which has a mix of senior academic staff, post-doctoral researchers and postgraduate students. The work of the groups is supported by a series of research grants, which are listed below. The groups are:

- Glaciology and Climate Change
- Glacier-Influenced Marine Sedimentary Environments
- Polar Landscapes and Remote Sensing
- Polar Social Science and Humanities

In addition, the Institute contributes to the NERC Centre for Polar Observation and Modelling (in collaboration with UCL and Bristol).

Institute staff organise seminar series in both polar physical sciences and social science and humanities. Speakers from universities and research centres in the UK and overseas, together with Cambridge colleagues, have contributed during the year. The seminars are well attended by staff and research students from a number of Cambridge departments and from, for example, the British Antarctic Survey. A selection of the physical and social science research projects in which we are currently engaged is outlined briefly below.

Polar Physical Science

Warm ocean triggers ice drawdown from the West Antarctic Ice Sheet

The response of the West Antarctic Ice Sheet to global warming is of great concern because, if it were to melt completely, it would raise sea level by approximately 7 m. Such massive melting is unlikely to occur soon; nevertheless, there is still the potential for a marked increase in the rate of sea level rise due to accelerated ice loss. The great majority of the ice lost today from West Antarctica flows to the sea as ice streams, of which that of Pine Island Glacier is the most important. Pine Island Glacier, and the floating ice shelves at its terminus in Pine Island Bay, have thinned significantly over the past 3 decades. Satellite altimetry has been used to document how the floating ice shelves have thinned, and thinning is attributed to melting caused by the action of ocean currents that are about 0.5°C warmer than freezing. The hypothesis that changes in the grounded glaciers up to 200 km upstream were triggered by this ocean disturbance was then tested using a numerical ice-flow model. The results demonstrate how thinning of coastal ice shelves is transmitted rapidly to the grounded ice streams above, revealing a close coupling between the ice sheet interior and the surrounding ocean. Together, the work shows that recent ocean temperature increases in Pine Island Bay have caused a massive ice drawdown in West Antarctica that constitutes the greatest contribution to present day sea level rise of all Earth's cryosphere. This work is collaborative with Tony Payne of Bristol Glaciology Centre.

Andy Shepherd

Morphology and sedimentary processes on the continental slope off Pine Island Bay, Amundsen Sea, West Antarctica

The nature of the continental slope and shelf break in the isolated Amundsen Sea sector of the Antarctic margin, south of the Pacific Ocean, was examined during a recent cruise of the RRS *James Clark Ross*. Marine-geophysical methods were used to investigate a 750 km-long section of this margin between 100° and 115° W, beyond the wide continental shelf forming Pine Island Bay. About 300,000 km^2 of the modern West Antarctic Ice Sheet drains into this bay, mainly through two major ice streams named Pine Island and Thwaites glaciers. Morphological evidence, in the form of large-scale streamlined sedimentary bedforms, suggests that fast-flowing ice streams extended to the outer shelf edge under full-glacial conditions about 18,000 years ago and have retreated about 350–400 km since then. Networks of gullies and channels dominate the slope adjacent to Pine Island Bay and act as conduits for coarse-grained sediment transfer. Sandy turbidites interbedded with hemipelagic muds occur on the continental rise and adjacent deep-ocean basin. Submarine channels on the upper slope continue into the abyssal plain as far north as about 67°S. They are separated by sediment drifts and sediment waves resulting from the interaction between downslope turbidity-current processes and along-slope bottom currents. Similar deep-sea sedimentary processes operate along much of the West Antarctic and the western side of the Antarctic Peninsula. The work is collaborative with Prof. J.B. Anderson of Rice University, Houston, Texas.

Julian Dowdeswell, Jeff Evans and Colm Ó Cofaigh

Spatial interpolation of digital elevation models of terrestrial ice masses

Digital Elevation Models (DEMs) of glaciers, ice caps and ice sheets are needed for many purposes. The most obvious is as a means of assessing the mass balance of a glacier through comparison of DEMs acquired at different times. Topographic data suitable for incoroporation into DEMs can be obtained from a variety of techniques including field survey, laser profiling, radar altimetry, and the analysis of aerial photography, visible-wavelength and radar remote sensing data. These techniques have different sampling characteristics which introduces the problem of resampling the data to a common grid. The aim of this project is to carry out a rigorous analysis of the behaviour of different approaches to spatial interpolation, relating this behaviour to the geostatistical properties of glacier surface topography. Once these relationships are properly understood, it will be possible to reanalyse previously obtained topographic datasets in a consistent manner to obtain volume estimates of known accuracy. This will greatly enhance our ability to assess mass balance changes.

Gareth Rees and John Lin

Two Hummock Island in Gerlache Strait, Antarctica

High resolution topographic mapping of an Arctic glacier

This project represents the current phase of a long-term investigation of the energy and mass balance of the glacier Midre Lovénbreen in Svalbard. Airborne LiDAR were acquired from the glacier in 2003, using the University of Cambridge Unit for Landscape Modelling's Optech LiDAR flown on the NERC Airborne Remote Sensing Facility's aircraft. The data have enabled us to construct the most accurate digital elevation model (DEM) ever produced for this glacier, with a horizontal resolution of 2 m and a vertical accuracy of 5 to 10 cm. In addition to the general morphology of the glacier, the DEM reveals many subtle features on the surface, including active and relic meltwater drainage channels, and crevasses. Many potential applications follow from the ability to map the surface of the glacier in such high detail. These include the possibility of using surface features as markers that can be tracked over time to determine the flow of the glacier, and the ability to infer the physical state of the glacier surface in conjunction with radar imagery, as well as the ability to monitor mass balance. The high resolution DEM is also allows investigation of the role of very small-scale topographic variations on glacier energy and mass balance, partly due to self-shading of the surface at the low solar angles typical of the Arctic, but also because of the anisotropic reflectance of ice and snow at low solar angles, which makes the local variation in solar incidence angle to the surface an important determinant of the surface albedo.

Neil Arnold and Gareth Rees

Topographic controls on glacier mass and energy balance

Solar radiation is generally the most important source of energy for melting glaciers and ice sheets. Calculating the amount of solar radiation available at any point on a glacier surface requires that the height of the sun and its azimuth (direction) in the sky is known, along with the local slope and azimuth of the ice surface and shading of the glacier surface by any surrounding mountain topography. At high latitudes, these topographic controls are especially important, as they can greatly alter the local incidence angle of solar radiation (and hence the energy available at the surface), due to the low solar angles. This is made more important by the anisotropic reflectance properties of ice and snow, which increase the surface albedo at very shallow incidence angles. We have developed a distributed surface energy balance model to calculate these effects.

Neil Arnold

Interactions between snow cover, climate and vegetation

Snow cover, climate and vegetation distribution are tightly linked in the polar regions. Recent research has demonstrated significant trends in the vigour of circum-Arctic vegetation, which is in general increasing although with major spatial variations. These trends are likely to be associated with changes in global climate. One of the mechanisms through which climate affects circumpolar vegetation is through alteration of the duration of snow cover but, until recently, it has been difficult to obtain accurate snow cover data at sufficiently high spatial resolution and over a long enough span of time to investigate the strength of this link. The aim of this project is to generate such a dataset for the Russian North, using archived data from many meteorological stations from the early 1960s to 1990. The data were transcribed manually and contain numerous errors, so quality control of the dataset has been a major issue. However, the data have now been filtered to produce a reliable, internally consistent time-series for the whole of the Russian mainland north of 60°. The next task is to investigate spatiotemporal correlations between this dataset and time series of vegetation index (derived from satellite data) and temperature. The work is being undertaken in collaboration with Michael Balshi, a former M. Phil. student of the Scott Polar Research Institute now based at the University of Alaska at Fairbanks.

Gareth Rees

Validation measurements for the Cryosat radar altimeter

In preparation for the launch of the Cryosat satellite in 2005 we participated in an international campaign to validate data collected by the new radar altimeter to be carried by Cryosat. A two-person team traversed the Greenland Ice Sheet, measuring snow density profiles in spring and autumn. Colleagues from AWI used an airborne version of the radar altimeter and a laser altimeter to collect elevation data over the traverse line during the two field seasons. Any differences in the results from the two airborne instruments will be interpreted in terms of the ground-based density profiles. A new light-weight automatic profiling system for measurement of snow and ice density using neutron

scattering was developed in conjunction with a small UK firm (Geovista) in preparation for the Greenland traverse. This proved very successful and it was possible to measure densification over the summer months in the upper snow layer in detail for the first time. Such changes in snow structure are important as they may influence radar altimeter returns. Theoretical work on neutron scattering in snow to support detailed analysis of the density profiles has continued during the year.

Liz Morris

Climate, mass balance, dynamics and hydrology of New Zealand glaciers

This work is based at Franz Josef Glacier and Brewster Glacier, New Zealand. Unlike many glacierised regions of the world, New Zealand has never had a long-term mass-balance monitoring programme, although several glaciers have been observed from the air at the end of each summer since the 1970s to enable their end of summer snowline position to be determined. The overall aim of this project is to monitor the climate, summer and winter mass balance and surface velocity field of two glaciers and to use these data to drive and test a 1-D glacier mass-balance and ice-flow model. The model should be able to reconstruct past glacier mass balance (using the end of summer snow line data as verification) and predict mass balance under future scenarios of climate change. Fieldwork so far has involved: measuring climate variations on the glaciers (using automatic weather stations); monitoring glacier mass balance (using glaciological and geodetic techniques) and monitoring surface velocity variations at a variety of timescales (hourly to yearly). In addition, the hydrology of Brewster Glacier is being studied using surface and bed topography data and GIS techniques to identify the structure of the subglacial drainage system, and dye tracing experiments to investigate the morphology of individual drainage pathways. The work is in collaboration with Andrew Mackintosh and Brian Anderson (Victoria University, Wellington), Wendy Lawson and Becky Goodsell (Canterbury University, Christchurch) and Sean Fitzsimmons (Otago University, Dunedin) all in New Zealand.

Ian Willis

Sediment deformation beneath Icelandic glaciers

Sedimentological techniques are being used to study sediments exposed on recently deglaciated forefields at nine surging and non-surging glaciers in Iceland. The techniques are being used to identify the relative importance of sliding and sediment deformation beneath the glaciers, the styles (ductile vs. brittle) and pervasiveness (depth) of deformation, and whether these vary in space and time. Macro-scale evidence includes particle-size distribution and individual clast shape, angularity and fabric. Micro-scale evidence involves the identification of rotational structures, fold structures and unistrial plasmic fabric (evidence for ductile deformation) and alignment of grains, shear lines and crushed grains (evidence for brittle deformation) in thin sections viewed under a microscope. Provisional results from the surge-type Brúarjökull imply that a lower till unit underwent limited brittle shear at low pore-water pressures during an early surge advance, ice-bed de-coupling was common at the height of the surge due to high pore-water pressures, and the deposition and deformation of an upper till unit occurred at moderate pore-water pressures during the waning stages of the surge and subsequently. This work is being undertaken in collaboration with Colm Ó Cofaigh and Anna Nelson.

Ian Willis

Assemblages of submarine landforms produced by surging tidewater glaciers

In order to interpret the geological record of past glacier and ice-sheet advances, it is important to distinguish between sediments and landforms relating to dynamic behaviour internal to glaciers, surges, and those linked to external climatic factors. The suite of landforms characteristic of past glacier surges is an important inferential tool in this regard. High-resolution swath bathymetry from the marine margins of several Svalbard glaciers shows an assemblage of submarine landforms that appears characteristic of surging glaciers. These landforms are essentially unmodified since their initial deposition over the past hundred years or so because they have not been subjected to subaerial erosion or periglacial activity. A simple descriptive landsystem model for tidewater glaciers of surge-type is derived from these observations. It is the assemblage of landforms in this model that is of diagnostic significance, and individual landform elements, found in isolation in the geological record, are not necessarily indicative of former surge activity. This work is being undertaken in collaboration with Dag Ottesen of the Geological Survey of Norway.

Julian Dowdeswell

Polar Social Science and Humanities

Cambridge Canadian Studies Initiative

Michael Bravo, in collaboration with several other university departments and museums, launched the Cambridge Canadian Studies Initiative, based at the Scott Polar Research Institute. Its purpose is to promote research and teaching in Cambridge about Canada. This cements SPRI's longstanding and close international ties with Canada. Funding from the Foundation for Canadian Studies and the Government of Canada has enabled us to support postgraduate travelling scholarships and begin a new series of annual public lectures. The first lecture, "The Idea of Canada in the 21st Century" was delivered by Thomas Berger, retired Chief Justice of the Supreme Court of British Columbia and former Chair of the Mackenzie Valley Pipeline Enquiry (1973–1975). He began by recalling the 1973 Calder Case, which recognised the place of Aboriginal rights in Canadian law. He developed this theme around the 1982 Charter of Rights and Canadian Constitution, and argued that the diversity that defines Canada today, defies a single idea of nationhood – a price, he concluded, well worth paying for lasting social justice.

Michael Bravo

Environmental history of the polar oceans

In the Arctic, the phenomenon of "improvement" was no less important in transforming the maritime world than the terrestrial. A capital-intensive whaling industry (1780–1820) quickly decimated the population of bowhead whales in the seas around Greenland, while it also contributed important new scientific discoveries about the natural history of the oceans. The attempts of missionaries to impose agrarian improvement on the Inuit of Greenland also illustrate this point clearly. In "Mission Gardens: Natural History and Global Expansion", Bravo demonstrates that when the Moravian missionaries arrived in 1733, they were forced to adapt their agrarian way of life to the dominant local fishing economy, while still attributing symbolic value to tending gardens at their settlements. This research was undertaken during tenure of a Huntingdon Library Howard Kemble Fellowship.

Michael Bravo

Social processes and the formation of local identities among settler populations in the Russian Far North

This research aims to address the imbalance in the anthropology of this region, which has traditionally focused on indigenous peoples. Following Elena Khlinovskaya Rockhill's recent doctoral thesis on childhood and family dynamics in Magadan, Niobe Thompson spent a year in Chukotka (Chukchi Autonomous Okrug), studying the process by which Russians and other transient migrants develop rooted northern identities. He worked in both the regional capital Andyr and remote settlements, and also spent a further two months interviewing former residents of Chukotka resettled in the southern regions of Russia under a World Bank programme. The extreme conditions of Chukotka have allowed him to distinguish three phases of identity formation. During the Soviet period, the northern settler formed a distinct and superior class in the Soviet hierarchy of privilege, based on a combination of transience and colonial agency. With the post-Soviet economic collapse of the 1990s, Chukotka suffered an exceptional crisis of governance, in which local administrative elites employed their patronage powers to enrich their own departure from the North. Yet, despite high out-migration, those who were unable or unwilling to leave developed a deeper local identity. Abramovich's election as governor in 2000 brought a massive campaign of investment and modernisation, yet this was met by many with resentment. Thompson shows for the first time why this is so, by analysing the social distance between local settlers and newly imported "experts" who challenged the legitimacy of the settler in local domains. His research reveals a social texture of "two solitudes", in which old settlers and new technocrats define their mutual boundaries to reinforce their separate identities. His research reveals how white settlers in the Arctic may appropriate a position traditionally occupied by indigenous populations and make claims through discourses and practices of rootedness.

Piers Vitebsky

Reindeer at Hornsund, Spitsbergen

Time and social suffering in indigenous self-government negotiations in Canada

Stephanie Irlbacher Fox analysed attempts in Canada over the past 30 years to reconcile Aboriginal rights and title with Canadian sovereignty. Using case studies from her own experience as a negotiator, she examined relations between indigenous and federal levels of government and the nuances of both structure and process within such negotations. Canada's aboriginal policies often interpret symptoms of suffering as signs of a "dysfunction" arising internally among indigenous peoples, rather than as a consequence of the country's social, political and economic order. Developing Veena Das' idea that the state makes and unmakes the meaning of suffering, thereby perpetuating its own reproduction of social inequality, she shows how the diagnosis of dysfunction - the "dysfunction theodicy" - constitutes a denial of history, particularly of history as systemic injustice. She argues that the pathogenic element in this situation lies not within indigenous society itself, but in the absence of any space for the acknowledgement and expression of this injustice, and thus for a practical attempt at reparation.

Piers Vitebsky

Reindeer migration and nomadic sacred space

The interplay between the repeated annual migration of reindeer and the sense of space among the herders who accompany them has been studied in the Russian Far East. Reindeer movement is tied particularly to the bottlenecks of spring calving grounds and winter pastures containing lichens, but the animals' instinct towards cyclical repetition is also tempered by their subtle responses to changes in the environment such as weather variability, predator populations and human politics. Among the Eveny of northeastern Siberia, studies of cases in which animals and herders are transferred for administrative or personal reasons between herds and landscapes, show parallel processes of confusion and adaptation among both animals and humans, as newcomers are socialised into the group and the opportunities and limitations of an unfamiliar environment are explored. The experiential nature of the herders' indigenous knowledge is seen to resemble the behaviour of the reindeer themselves, in being characterised not simply by detailed knowledge of a specific terrain, but also by a flexibility which can be applied to new locations. This openness is reflected in the nomadic sacralisation of space as part of the process of knowing it. Each place becomes habitable for a few days through the act of pitching a tent, lighting a fire, and making an offering to the local spirit. In contrast to sedentary societies, which build permanent temples or cathedrals to draw pilgrims and worshippers to a central point, reindeer herders progress around an unending succession of places, taking the potential for knowing places and perceiving sacredness wherever they go. There is no focal destination and their intense involvement with each place fades as the pressure of the animals' onward migration forces them to move on.

Piers Vitebsky

The Russian settlement of Barentsburg, Spitsbergen

Management of environmental risk in the Arctic

The Alaskan Arctic Ocean coast is the location of rich deposits of oil and gas. The development of these resources has mainly been through the extraction of oil from onshore installations at Prudhoe Bay. The development of commercially viable reservoirs occurs from pads constructed from locally mined gravel. These pads insulate the heat generated by the industrial activity from the permafrost that underlies the meagre surface covering of the Arctic wetland, preventing settling and other thermal damage. Arctic gravel roads may be used to link production pads to the existing road network, or for linking pads together in local field developments. They are structures that have the potential to bring about significant damage to the terrestrial and biological environment, and remediation is both expensive, and problematic. However, alternative forms of transport, such as aircraft, tundra vehicles, hovercraft and barges all have shortcomings and environmental impacts of their own. By contrast, roads can be used in all but the most extreme Arctic weather, and this is important when unlikely but potentially catastrophic risks require management; events such as blowouts, fires, and emergency medical evacuation. The aim of this project is to determine from the perceptions of various stakeholders the comparative environmental risks of developing oil prospects on the North Slope of Alaska with either gravel roads, or with alternative communication methods such as ice roads, aircraft, barges or tundra vehicles. The study is an attempt to understand the relationship between risk perception and the decision-making process, chiefly as it is conducted in the environmental impact assessment and government permitting systems.

John Ash

Current Research Grants

Institute staff hold competitively won grants of almost £2.5 million, £1.5 million of which is from the UK Research Councils.

Grants from UK Research Councils

Marine geological processes and sediments beneath floating ice shelves in Greenland and Antarctica: investigations using the Autosub AUV
Source: Natural Environment Research Council, Grant NER/T/S/2000/00986.
£369,062 (2001–2006).

Ice–rafted debris on the Antarctic continental margin and the dynamics of the Antarctic Ice Sheet
Source: Natural Environment Research Council, Grant NER/G/S/2000/00603.
£181,043 (2001–2004).

Glacial–interglacial changes in the lost drainage basin of the West Antarctic
Source: Natural Environment Research Council, Grant NER/G/S/2002/00192.
£84,932 (2004–2007).

Centre for Polar Observation and Modelling – Earth Observation Centres of Excellence Initiative
Source: Natural Environment Research Council
£213,850 (2000–2005).

Slope stability on Europe's passive continental margins.
Source: Natural Environment Research Council, Ocean Margins Link Programme, Grant NER/T/S/2003/00318
£121,322 (2004–2007).

Sediment transfer from the Antarctic continent to deep ocean: a shelf–slope–basin system investigated using the ISIS Remotely Operated Vehicle.
Source: Natural Environment Research Council, Grant NE/C506372/1
£143,632 (2004–2007).

Validation and provision of Cryosat measurements of fluctuations in the Earth's land and marine ice fluxes
Source: Natural Environment Research Council
£371,003 (2004–2009)

Trans–sectoral partnerships, sustainability research and the oil and gas industry in Russia
Source: Economic and Social Research Council, Grant RES–451–26–0166
£14,916 (2004–2005)

Grants from Other Sources

Spaceborne measurements of Arctic glaciers and implications for sea level.
Source: European Union, Framework 5, Grant EVK2–2002–00152
£113,171 (2002–2005).

Environmental change in the Barents Region
Source: European Union, Framework 5, Grant EVK2–2002–00169
£140,797 (2002–2005)

Inferometric evaluation of glacier rheology and alterations
Source: European Union, Framework 6, Grant SST3–CT–2003–502845
£95,634 (2004–2007)

BOREAS – Histories from the North: environments, movements, narratives
Source: European Science Foundation
£10,488 (2004–2005)

Reconstructing the 19th century climate of the Northwest Passage from historical meteorological records
Source: Comer Science and Education Fund
£26,302 (2003–2004)

Virtual Shackleton
Source: Gladys Krieble Delmas Fund
£31,517 (2002–2004)

Developing the Archives Hub
Source: Joint Information Systems Committee – Committee for Content Services
£25,528 (2003–2004)

The Herbert Ponting Archive of Antarctic Photographic Negatives
Source: Heritage Lottery Fund
£533,000 (2004–2006)

Publications by Institute Staff

Books

Riffenburgh, B., 2004. *Nimrod: the extraordinary story of Ernest Shackleton and the 1907–09 British Antarctic Expedition*. London, Bloomsbury, 358 pp.

Riffenburgh, B., Cruwys, L. and Arnold, H.J.P., 2004. *With Scott to the Pole: the photographs of Herbert Ponting*. London, Bloomsbury, 240 pp.

Papers in Peer–Reviewed Journals

Arnold, N.S. and **Rees, W.G.**, 2004. Self–similarity in glacier surface characteristics. *Journal of Glaciology*, v. 49, p. 547–554.

Bamber, J.L., Krabill, W.B., Raper, V. and **Dowdeswell, J.A.**, 2004. Anomalous growth of part of a large Arctic ice cap: Austfonna, Svalbard. *Geophysical Research Letters*, v. 31, L12402, doi.10.1029/2004Gl019667.

Dowdeswell, J.A. and Evans, S., 2004. Investigations of the form and flow of ice sheets and glaciers using radio–echo sounding. *Reports on Progress in Physics*, v. 67, p. 1821–1861.

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Iceberg in Dallman Bay, Antarctica

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Polar Information and Historic Archives

Library and Information Service

Academic staff, research and undergraduate students from the University, as well as visiting scholars from around the world, continue to make good use of the Institute's renowned polar library. During the year the library received over 300 visits from external readers. Staff and volunteers carried out a stock check during the summer, which has led to a greater consistency of approach to the classification of open shelf material. A new edition of the "Universal Decimal Classification for use in polar libraries" is also being planned.

A total of 1574 items were added to the library, including 883 books and other monographic materials. By the end of the period covered, SPRILIB held 168,252 records, with 2,752 records added during the year. Three issues of *Polar and Glaciological Abstracts* were published by Cambridge University Press and records sent for two updates of the *Arctic and Antarctic Regions* CD–ROM published by the National Information Services Corporation. Funding from the British Antarctic Survey enabled us to continue our input to the *Antarctic Bibliography* at AGI. Approximately 500 items were contributed during the year. The Antarctic Bibliography is now searchable at www.coldregions.org/dbtw–wpd/antinfo.

During the final illness of William Mills, Librarian of the Institute since 1989, and until the new Librarian, Heather Lane, took up office in November, the library office staff and bibliographers shared responsibility for maintaining the library service. It is tribute to their hard work that the library continued to run so efficiently over this difficult period. Shirley Sawtell, the library's Information Assistant, presented a paper at the International Polar Libraries Colloquy, entitled 'Polar research – let us share: the contribution of the Scott Polar Library over the last decade, with special reference to the work of William Mills, Keeper of the Collections.' Hilary Shibata, the library's Antarctic bibliographer, attended the 30th Annual Conference of the International Association of Aquatic and Marine Science Libraries and Information Centres (IAMSLIC) in Hobart in September, which included the first Southern Hemisphere session of the Polar Libraries Colloquy.

Towards the end of the year, Helen McLagan joined the library for six weeks from the National Library of Australia and helped to analyse the coverage of international indexing and abstracting services for the periodical titles in the SPRI collection. Percy Hammond and Jean Cruttwell produced a comprehensive report on the map collection, and continued work on the map catalogue.

In addition to support for specific projects (listed under Research Grants), external funding for general polar information and library services during the year has come through generous support from:

Ministry of Defence grant in aid (DSNOM)	£35,000
NERC British Antarctic Survey	£20,000
Royal Society grant in aid (for WDC–C)	£11,000
The Friends of the Scott Polar Research Institute	£10,000
Jephcott Charitable Trust	£10,000
Foreign and Commonwealth Office (Polar Regions)	£ 5,000
Thriplow Charitable Trust	£ 5,000

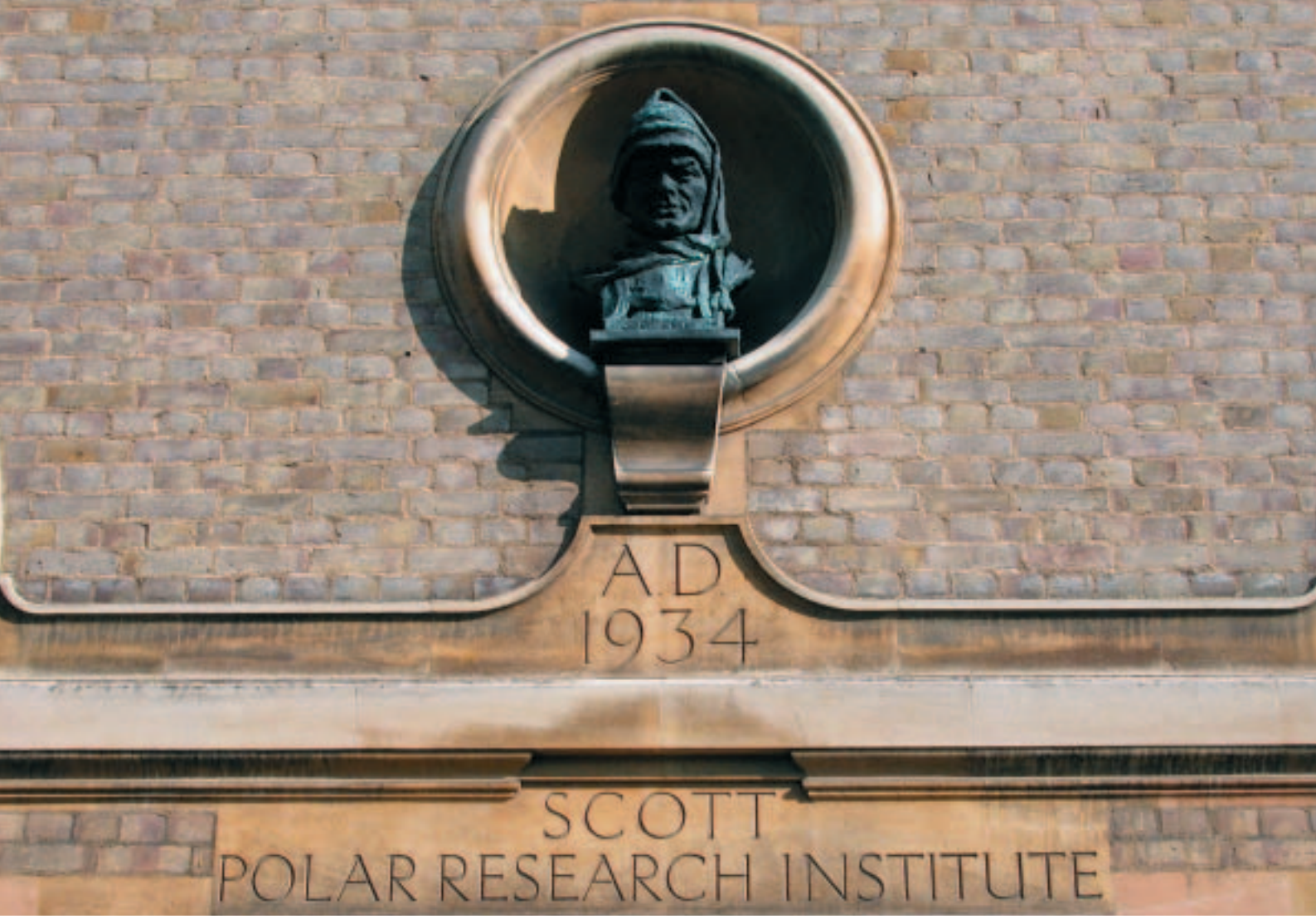
Visiting scholars using library facilities for extended periods during the year included: Professor Sudhir Chopra (University of the West Indies); Ms Carine Ayele Durand (Université de Nice); Judy Hall (Canadian Museum of Civilization, Ottawa); David Neufeld (Parks Canada); Prof. Larry Rockhill (University of Alaska); Dr Hiroko Takakura (Tohoku University); Bernadette Hince (Australian National University, Canberra); Patricia Anne Elwood; Karin Andreassen (University of Tromsø); Jessica Shadian; Meredith Hooper; Prof. William Barr (University of Calgary, Arctic Institute of North America).

Heather Lane

World Data Centre for Glaciology, Cambridge

The World Data Centre for Glaciology continues to play an important role within the Institute's Library and Information Service with Rick Frolich as manager. The post of website manager, held by Oliver Merrington, was discontinued in March. We thank Oliver for his service over many years. Website responsibilities are now shared between SPRI webmaster Martin Lucas–Smith and Rick Frolich. The WDCGC website http://wdcgc.spri.cam.ac.uk/ received hits from over 100 countries in 2004. The Directory of European Glaciology http://wdcgc.spri.cam.ac.uk/directory/ has also been maintained, receiving many thousands of hits from over 60 countries in the past year.

Software upgrades have allowed more sophisticated use of the vast amount of information contained in the SPRI database, enhanced the quality control on disseminated products, supported a stock check of the Library's valuable glaciological collection and simplified many recurrent tasks.



Bust of Captain R.F. Scott on the facade of the Institute's historic building

Acquisition and cataloguing continued during 2004. Fully abstracted and indexed records for 70 monographs and 500 articles acquired were added to the in–house database, SPRILIB. Records were contributed to *Polar and Glaciological Abstracts* and to two updates of the CD–ROM *Arctic and Antarctic Regions* (published by National Information Services Corporation). A 50–page bibliography with explanatory text was provided and the SPRI Library/WDCGC facilities made available to all attending the meeting 'Antarctic Peninsula Climate Variability: History, Causes and Impacts', held at the Scott Polar Research Institute in September 2004.

Relevant SPRILIB records continue to be made available freely via the online database ICE AND SNOW (www.spri.cam.ac.uk/resources/sprilib/icesnow/). New material and a reassessment of selection criteria have allowed expansion to over 48,000 entries. SPRILIB ICE AND SNOW receives around 18,000 requests annually. Requests from the wider public have covered such subjects as the world's oldest ice, the history of glaciology and presenting glaciology to children.

Rick Frolich

Picture Library

A highlight of the year has been the successful bid to the Heritage Lottery Fund for £530,000 to enable the purchase of Herbert Ponting's collection of over 1,100 large–format glass–plate negatives and their original storage boxes. The photographs were taken by Ponting whilst on Scott's British Antarctic Expedition, 1910–13. This is a very important acquisition for both the Picture Library and for the Institute as a whole. An exhibition of Ponting's photographs is planned for the second half of 2005.

More generally, the Picture Library continues to assist many visitors from all over the world with their research of photographic material for use in a variety of publications, television programmes, lectures and museum exhibitions. Examples this year include the supply of material for an exhibition at the Museum of New Zealand, Te Papa, our own exhibition *Shackleton: The Hidden Collections* and the book *Scott's Antarctic Diary* published in South Korea. The TV programme *Made for the Masses*, shown on ITV,

incorporated both still photographs and film footage from the British Graham Land Expedition, 1934–37. Photographic material has also been supplied for the books *With Scott to the Pole*, a collaborative publication with the Royal Geographical Society, *Nimrod* by Beau Riffenburgh and *The Antarctic Journals of Reginald Skelton* by his grand–daughter Judy Skelton.

The preventive conservation programme continues with the addition of a Plan Chest in the Picture Library store. This has provided storage for all the very large photographs in the collection. The generosity of the Friends of SPRI has enabled the purchase of a quantity of conservation–quality polyester sleeves in which these large photographs are housed. As part of the Institute's commitment to continuing professional training, the Picture Library Manager also attended a course, "Preservation of Photographic Negatives", run by the Photographic Materials Conservation Group in London.

The Picture Library would like to acknowledge the invaluable help given by the team of volunteers: Angela Haines, Jennifer Hirsh, Ailsa McQueen, Sally Stonehouse and Winifred Ware.

Lucy Martin

Archives

The archival collections of the Institute, housed in a purpose–built temperature and humidity controlled environment, continue to be an internationally renowned resource for scholars of the polar regions. The Institute continues to receive more requests for access than can be accommodated given current staffing levels, and a streamlined system including online booking is being discussed for introduction in the coming year. Electronic access to parts of the Institute's archival collections has been made possible through the 'Archives Hub' project, on which Naomi Boheham was supported by a grant from the Joint Information Systems Committee. We intend to seek further funds to pursue this work.

As usual, our readers had a wide variety of polar interests, but biographies were a strong theme. Publication of those on Captain Robert Falcon Scott, by Sir Ranulph Fiennes, and on Sir James Wordie, by Michael Smith, occurred during the year. The Transit of Venus on 8 June 2004 caused much interest in the historical observations made on several of the peri–Antarctic islands. Information was provided from the many publications, including some fascinating extracts from *The Illustrated London News*.

Through the good offices of Mrs Angie Butler, Mrs June Rowbothan, of Johannesburg, gave a detailed set of papers from her relative Frank Wild, a key man on Shackleton's expeditions, who finished his days in South Africa. Miss Quar kindly gave a series of photographs, documents, and items from Leslie Quar who was one of those tragically killed during the Norwegian–British–Swedish Expedition to Antarctica (1949–52).

The Archivist gave lectures at a number of venues, including the National Maritime Museum, Natural History Museum, the Brecon Festival of Exploration, Southampton Oceanography Centre, Shell Petroleum and the University of Helsinki.

R.K. Headland

NERC Arctic Science Adviser

Professor Liz Morris (the NERC Arctic Science Adviser) continues to be based at the Institute, on secondment from the British Antarctic Survey. Her role is to help develop and facilitate new Earth System Science initiatives which require Arctic expertise and to provide a focal point for UK research activities in the Arctic. Considerable work has been done concerning UK plans for the Arctic research component of the forthcoming International Polar Year in 2007. Liz Morris, Julian Dowdeswell and Michael Bravo are all members of the UK International Polar Year Committee. Field programmes on the Greenland Ice Sheet have also been undertaken, with research centred on observations of the characteristics of the ice–sheet surface related to the calibration of the CryoSat satellite and funded by NERC.

Liz Morris

Polar Record

Four issues of *Polar Record* were published by Cambridge University Press during 2004. The journal continued under the editor, Dr Beau Riffenburgh, and the assistant editor, Dr Liz Cruwys, as an internationally–refereed journal of polar research for the sciences, social sciences, and humanities. Dr Peter Clarkson and Mrs Ailsa MacQueen also made valuable contributions to the journal during the year.

Beau Riffenburgh

Cape Renard, entrance to Lemaire Channel, Antarctica

Teaching, Learning and Understanding

University Teaching

Academic members of the Institute's staff coordinate and participate regularly in undergraduate lecture courses in the departments of Geography, Physics and Social Anthropology. This year a new third year course, 'The Human Geography of Arctic Regions' has been taught for the first time by Michael Bravo and Piers Vitebsky. Undergraduate supervisions are provided to students in many colleges. Members of our staff are Fellows of Christ's, Churchill, Darwin, Downing, Jesus, St. Catherine's, St. John's and Wolfson colleges. Our M.Phil. course in Polar Studies has academic strands in Physical Sciences and in Social Science and Humanities, and staff also contribute to other M.Phil. programmes taught in the Department of Geography. We have twenty or so doctoral students, registered to study topics which range from glacial processes and environmental change to the economic development of the Canadian North and the reindeer herding peoples of Siberia. Each student is nested within one of our research groups, providing a strong and integrated research culture.

Julian Dowdeswell

SPRI Polar Museum

The Museum continues to introduce the polar regions to the general public and to parties from schools, and is also an excellent venue for regularly–held events such as book launches and receptions. This year has seen the important acquisition of Full Registration of the Museum under the national scheme operated by the Museum, Libraries and Archives Council (MLA). This is a very significant achievement, and recognizes formally that we operate at the appropriate national standards for, for example, access, display and curatorial care of our very significant polar collections.

An exhibition, 'Shackleton: the Hidden Collections', was a major event this year. The exhibition, which included Shackleton's diaries from each of his four Antarctic expeditions, was formally opened on 5 May by the Hon. Alexandra Shackleton, and the event was celebrated with a reception for about 100 guests. Much of the material was being displayed for the first time. We are grateful to members of the Shackleton family for their gifts to the Institute. The extensive preparations for the exhibition and the accompanying 'Virtual Shackleton' web site, produced by Caroline Gunn, were funded through generous support from the Gladys Krieble Delmas Fund and the UK Arts and Humanities Research Board. The exhibition has been visited by many people over the subsequent months. The clock presented to Shackleton at the beginning of the *Quest* expedition, and inscribed 'To the Boss from the Boys', was repaired at the expense of the Friends of the Institute and formed part of the exhibition.

Several other acquisitions were made during the year, including an interesting collection of indigenous artifacts from Devon Island, Arctic Canada. Joe McDowell gave a collection of artifacts he used in the Antarctic during the International Geophysical Year (1957–58) expedition. An unusual gift was a transverse section of mammoth tusk collected during the *Vega* expedition (1878–80) and made into a drink coaster. We are grateful for the donations of polar artifacts to the Museum, which enhance its reputation as a comprehensive collection from the 'Heroic Era' of polar exploration in particular. Jennifer Hirsh's continuing work with the museum records is also acknowledged and Tony Billingshurst, Larry Rockhill and Deirdre Hanna provided assistance in the Museum.

R.K. Headland

Projecting the Significance of the Polar Regions

Institute staff have continued to give considerable time to stimulating public interest in the Arctic and Antarctic through, for example, media work, public lectures and visits by schools to our polar museum. Appearances were made by staff on a number of radio and television programmes, including the BBC, ITV and Channel 4 news. Views and quotations on polar topics, many of which include an emphasis on high–latitude environmental change issues, have also appeared in newspapers and journals, including *The Times*, *The Independent* and *The Guardian*. The acquisition, with the support of the Heritage Lottery Fund, of Herbert Ponting's glass plate negatives of Scott's Last Expedition was featured in *The Guardian*, *The Daily Telegraph* and in both television and radio broadcasts. We have also been working with the BBC Natural History Unit on a forthcoming programme on icebergs. Several staff have given external talks at primary and secondary schools, in addition to academic seminars at British and foreign universities. Our regular series of Saturday Evening Public Lectures also attracts audiences of between 80 and 100.

Expedition Support: Gino Watkins and Edward Wilson Funds

The Gino Watkins Memorial Fund, under the joint trusteeship of the University of Cambridge and the Royal Geographical Society, gives grants towards expeditions that meet its objectives of guiding and inspiring enterprising people towards scientific research and exploration in the polar regions. The Edward Wilson Fund also supports these aims, emphasizing investigations of fauna and flora, especially polar avifauna. No award was made from the Wilson Fund this year.

The Committee of Managers of the Fund would like to thank the Augustine Courtauld Trust for their generous contribution of £7000. The members of the Committee who served during the year were: Mr D Fordham, (Chairman), Dr I Campbell, Mr R Crabtree, Dr L Craig, Professor J A Dowdeswell, Dr P F Friend, Dr J A Heap, Professor M Lea, Mr J Lowther, Mr J Muston, Professor R C Schroter, Dr B Stonehouse and Mr N Winser. The Committee made the following awards for 2004:

Gino Watkins Fund
(*including £200 from the **Arctic Club**)

Greenland Challenge (inc. £200 Ann & Jim Simpson Award)	£1400
West Lancashire Scouts East Greenland Expedition	£1600
Greenland Kayak Expedition – Return of the Kayak 2004	£ 800
Imperial College Trans-Greenland Expedition*	£1400
Greenland White Sea Expedition	£ 800
Iceland Expedition	£ 700
The British 2004 Torssukatak Fjord Expedition	£ 900
Going For Cold: Greenland 2004	£ 900
2005 British Antarctic Expedition	£1200

Canadian Inuit soapstone carvings from the Institute's Gimpel Collection

Kangerdlussuaq Fjord, East Greenland

External Contributions to Polar Activities

National and International Roles of Staff

Members of the Institute are active in many roles relating to national and international committees and advisory groups involving the polar regions, and are members of the editorial boards of a number of international journals. These include:

- President, International Glaciological Society
- Head of the Glaciers and Ice Sheets Division of the International Commission for Snow and Ice (ICSI)
- Chair of the UK National Committee on Antarctic Research
- UK Alternate Delegate to the Council of the Scientific Committee on Antarctic Research (SCAR)
- UK Delegate to the Council of the International Arctic Science Committee (IASC)
- Member of the NERC Peer Review College and Chair of Grants Committee Panel C
- Chair of the NERC Review Committee for the Challenger Division of Southampton Oceanography Centre
- Chair of the Marine Studies Group, Geological Society of London
- Member of Hadley Centre Scientific Steering Group
- Member of the UK Antarctic Place–Names Committee
- Three members of the UK International Polar Year Committee
- UK representative on the International Arctic Science Committee (IASC) working group on Arctic Glaciers.
- UK Delegate to the International Science Initiative for the Russian Arctic.
- Member of the international steering group for the Tundra–Taiga Initiative.
- Co–ordinating Principal Investigator, European Space Agency Vectra synthetic–aperture radar interferometry consortium.
- Permanent UK representative of the Association of Marine Mammal Hunters of Chukotka.
- Editorial Board member: *Geology, Earth Surface Processes and Landforms, Transactions of the Royal Society of Edinburgh, Annals of Glaciology.*

International Glaciological Society

The International Glaciological Society (IGS) is based at the Institute. Its aim is to serve the worldwide community of glaciologists by publishing activities, organization of symposia and actively promoting the exchange of information and ideas on all aspects of snow and ice. In 2004, new staff member Ali Woollatt brought the total number of staff members at the IGS headquarters up to six. The production procedures of the IGS journals were all overhauled and the new systems were implemented at the end of the year. This should speed up production considerably.

During 2004, the IGS published four issues of the *Journal of Glaciology*, three issues of *ICE*, its news bulletin, and one volume of the *Annals of Glaciology*. The Society organized two symposia, the International Symposium on Ice and Water Interactions and the International Symposium on Arctic Glaciology. Julian Dowdeswell and Ian Willis are the Co–Chief Editors of the Arctic Glaciology issue of the *Annals of Glaciology*, which is based on papers given at the recent Geilo symposium. Details on the IGS and its activities are available from its website (http://www.igsoc), hosted by the SPRI.

Magnús Már Magnússon (Secretary General)

Scientific Committee on Antarctic Research (SCAR)

The Scientific Committee on Antarctic Research (SCAR) of the International Council for Science (ICSU) is housed within the Institute. Dr P D Clarkson and Mrs A J Dalton continued as Executive Secretary and Senior Clerk, respectively. In April 2004 Dr C P Summerhayes took up his appointment as the new Executive Director of SCAR. SCAR continues to initiate, promote, and coordinate scientific research in the Antarctic and to provide scientific advice to the Antarctic Treaty System. Four issues of *SCAR Bulletin* (nos 151–154) were published within *Polar Record* and as separates during the year, with the assistance of Polar Publications.

SCAR has been actively engaged in developing plans for the proposed International Polar Year (IPY) 2007–2008, with the Executive Director designate attending the IPY Open Forum in Paris. SCAR also signed a Memorandum of Understanding with the World Climate Research Programme (WCRP) that made SCAR a co–sponsor of the WCRP's Climate and Cryosphere Programme (CliC), the Southern Ocean Implementation panel, and the International Programme for Antarctic Buoys. During July 2004, the first SCAR Open Science Conference was held in Bremen, Germany. It was very successful, with over 1000 people attending. The Executive Director and the Executive Secretary attended the conference and the associated meetings of the SCAR Standing Scientific Groups. The scientific community refined its plans for the future, and the SCAR Executive refined its new Strategic Plan.

Colin Summerhayes (Executive Director)

Iceberg and sea ice, Amundsen Sea, Antarctica

Fundraising and the SPRI Appeal

Friends of the Scott Polar Research Institute

2004 was a challenging year for the Friends. The death of William Mills, the Librarian, Keeper of Collections and a popular member of the Friends, was a particular loss. In response, the Friends launched a £50,000 appeal, in William's honour. The William Mills Library Acquisitions Fund will meet a part of the objectives of the main Library and Archives Appeal through setting up an endowment fund for the purchase of library books and periodicals. The Fund currently stands at a figure of £29,380. Very many thanks indeed to those who have contributed.

Whilst rising to such challenges, our 503 members also enjoyed numerous activities in support of the Institute throughout 2004. The Friends Public Lecture, were well attended; thanks are due to William Mills and to Bob Headland for organising these. The Summer Lunch and Autumn Buffet were particularly successful this year, the Summer Lunch seeing the launch of a hugely popular Polar Book Den.

The Friends donated £12,729 to support the work of the Institute to the year ended July 2004. This means that the Friends have raised £130,000 for the Institute over the last ten years, not including legacies or spending in the shop. We were delighted to contribute a further £15,000 in December, to the exciting purchase of Herbert Ponting's original glass plate negatives of Scott's last expedition.

Thanks are due to all the Friends for their support throughout 2004 and in particular to those volunteers who serve on the Committee, assist at Friends events and those who work in the Archives, Library and Picture Library.

Dr David M. Wilson
(Chair, Friends of the Scott Polar Research Institute)

Appeal for the SPRI Archives, Museum and Library

The Scott Polar Research Institute is home to unrivalled resources of polar information and expertise, housing the world's largest polar library, Britain's only polar museum, and a national repository for polar archives that records some of the most memorable episodes in exploration of the Arctic and Antarctic. The Institute's Archives, Museum and Library provide members of the general public, as well as scientists, government bodies, industry and polar inhabitants with important information on a variety of polar topics, including climate change, management of natural resources and historical polar expeditions. In this way, the Institute helps to educate a worldwide audience about the polar regions. In order to ensure that the Institute's resources continue to be widely accessible and to promote the understanding and responsible use of the polar regions, the Institute is seeking £5.2 million through our Appeal.

Funding is being sought to secure the future of the Institute's Archives, Museum and Library and to promote their further development. Our plans involve, first, establishing a new post of Museum and Education Officer, in order to maximise the educational benefits of the Museum, which will also be redesigned and refurbished as part of the Appeal. Secondly, we wish to provide permanent security for the important post of Institute Archivist, which has until now been supported by a series of short–term grants – an inherently unstable position. Thirdly, we wish to underpin the posts of three half–time Area Specialists within the Library, whose roles are essential to maintain the comprehensive polar acquisitions and translation programmes that we operate for Antarctica, the Russian North and Scandinavia.

A number of events have been held during the year which relate to our Appeal, and particular thanks are due to Sir Humphry Wakefield and Rossie Ogilvie (University Development Office) for their support.

Further information on the Appeal is available from Professor Julian Dowdeswell, the Director (jd16@cam.ac.uk; 01223–336541).

A watercolour "Antarctic Sledging" by E.A. Wilson for the Institute's collection

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