



Figure 2. The gasoline-powered drill used to collect 1,185 rock cores at Innhovde, Austhovde, Vesthovde, Skarvsnes, East Ongul, and West Ongul (regionally located in Lutzow Holm Bay) provides a scale for one of the spectacular boudinage structures in the high-grade metamorphic terrain of East Ongul.

evolution of a diverse group of individuals into a versatile and cohesive unit. A nucleus of professional NIPR personnel, responsible for scientific and logistical leadership and a source of experience, provided the impetus. From the time of arrival at Syowa Station (located at 69°00'S and 39°35'E in the Lutzow Holm Bay region of East Antarctica), all members of the JARE 25, the scientists, technical support, doctor, cook, the press, and the American scientist worked together. Foundations were dug, cement poured, and plumbing and wiring completed. Fuel barrels, which had been off loaded from helicopters, were rolled up a reasonable but strenuous incline to a storage area. Outdoor barbecues and evening parties were well attended. Each individual contributed to preparing the station for the winter and thereby became aware of the body of the station, including the heartbeat—that is, the new power plant installed and put into operation by JARE 25 in the building constructed by members of JARE 24. New and useful skills were learned by all, confidence levels were raised, and a spirit of cooperation and unity emerged. This was a pleasant experience for me; I was glad to have the opportunity to be a part of this.

Smithsonian Magazine coverage of Antarctica

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I am a free-lance writer who undertook an assignment in 1983 to research and write a wide-ranging article about Antarctica for *Smithsonian Magazine*. To gather information for my article, I made two trips to the Antarctic during the 1983–1984 field season, the austral summer.

My first trip to Antarctica began on 15 November 1983 in conjunction with the annual press tour, which also included Malcolm Browne of *Discover Magazine*, Ellen Hale of Gannett

Since the focus of the summer field operations was the ice-breaker *Shirase*, similar comraderie developed between the *Shirase* crew and the expedition team at all levels.

Using the helicopters from *Shirase*, we visited Innhovde, Austhovde, Vesthovde, and Skarvsnes for 4–5 days of field camping at each site to accomplish geological reconnaissance, rock core drilling, and surveying. At these sites and the East (site of Syowa Station) and West Ongul Islands, we drilled 1,185 cores (about 90 percent oriented) which provide the most detailed paleomagnetic sampling available from the Lutzow Holm Bay region. One of the primary reasons for the NASA participation was to extend the crustal magnetization studies being conducted at Goddard Space Flight Center to the antarctic continent. The Lutzow Holm Bay region is primarily granulite grade metamorphic terrain, at one time part of the lower reaches of the crust. We expect a detailed paleomagnetic study of the Lutzow Holm Bay region, including structural and cooling history information, to emerge from the extensive sample array. We have tried to sample all lithologies present at each of the visited sites and, coupled with the geological information and laboratory measurements, we expect to develop a crustal magnetization model for the region. This should contribute to our understanding of the development of large-scale magnetization contrasts in the continental crust. The research will be conducted cooperatively with the NIPR in Tokyo and the NASA-Goddard Space Flight Center.

Upon completion of the summer field work and the Syowa Station supply and support, the *Shirase* moved to Breid Bay to engage in the establishment of a preliminary antarctic base with appropriate shelter, food, fuel, and vehicles. These were set in place for future summer field season activity pending decisions to be made by NIPR. Prior to leaving the established camp, a geological reconnaissance in the Sør Rondane Mountains was completed. Syowa Station accommodates 30–40 civilian personnel during the winter. The science at Syowa is primarily set up for auroral, ionospheric, biological, and meteorological research. Sophisticated equipment used for each area of research is computer interfaced, and satellite links exist for meteorological research and communications and are established during field surveys for geodetic positioning.

News Service, and Robert Cooke of the *Boston Globe*. Together, we visited McMurdo Station (which this year boasted a new camp at The Strand Moraines and a new aquarium); we viewed the dry valleys (totally ice- and snow-free areas, almost like deserts on an otherwise snow-covered continent); and we toured Amundsen-Scott South Pole Station (named to honor the Norwegian and the Englishman who in 1911 raced one another across Antarctica to be the first to set foot on the South Pole). On 23 November, Browne, Hale, and Cooke left.

I stayed on through 8 December interviewing research teams, support personnel from ITT/Antarctic Services, Inc., and members of the U.S. Navy Support Force. My journalistic needs were incorporated into the hectic but surprisingly smooth logistical operations without a hitch; all those with whom I talked were cooperative and helpful. I participated in a survival school and took a brief but invigorating swim in Lake Vanda. I had not expected to cover sports in Antarctica, but on Thanksgiving Day I found myself shooting photos of the Thanksgiving Day "Penguin Bowl" football game, and later the Vanda immersion became a short article in *Sports Illustrated*.

On 7 February 1984, I returned to McMurdo Station then went on to Amundsen-Scott South Pole Station to cover the transition of that station from summer to winter operations. I conducted more interviews trying to learn as much as I could about communications, station operation, medical conditions, and ongoing scientific studies. Back at McMurdo, I conducted more interviews. I was interested in the details of specific studies and operations and also in what they could predict about both the scientific and political future of Antarctica.

I left McMurdo Station on 16 February on board the USCGC *Polar Sea*. From its deck, I observed the first helicopter and boat landings on Siple Island off the coast of Marie Byrd Land.

When the *Polar Sea* reached Palmer Station, I disembarked and boarded the R/V *Hero* (see figure). On board the *Hero*, I observed research projects designed to study krill, shrimp-like creatures that are sometimes found in huge "superswarms" in the southern oceans. I disembarked at Teniente Marsh Base on King George Island and stayed there from 29 March to 8 April interviewing Chilean families and personnel from both Chile's Marsh Base and the Soviet Union's Bellingshausen Base. The R/V *Hero* returned, and on 12 April, I accompanied the *Hero's* crew to Argentina's Almirante Brown Base to document the fire that had destroyed that base and the successful evacuation of its personnel. The R/V *Hero* made ports of call at Argentina's Jubany Base and Poland's Arctowski Base.

To complement the information gathered in Antarctica, I went to Tokyo, Japan from 21 to 31 May to cover—from the outside—the informal mineral-rights negotiations meetings conducted by the Antarctic Treaty Consultative Nations. Although the meetings were closed to the press, I conducted interviews with many of the delegates there to get a grasp on



The R/V *Hero*, which is based at Palmer Station, is a research vessel owned by the National Science Foundation. I conducted interviews on board the *Hero* and at its ports of call during my second trip to the Antarctic.

the complexities of the Antarctic Treaty system.

My article is scheduled to be published in *Smithsonian Magazine* in two parts in October and November 1984.

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Antarctic Marine Geology Research Facility and Core Library, 1983-1984

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The role of the Florida State University's (FSU) Antarctic Marine Geology Research Facility and Core Library within that of the U.S. Antarctic Research Program (USARP) is largely one of service in response to a demand by scientists throughout the world for samples from the collections stored at the facility and for information pertaining to these collections. Services provided for the year 1 June 1983 to 31 May 1984 include, in addition to the distribution of samples, the receiving and processing of new materials, describing cores, and performing miscellaneous tasks associated with visitor needs.

Samples were distributed from the more than 16,000 meters of piston, trigger, Phleger, and drill cores, and from dredged, trawled, and grabbed sediments comprising the USARP collection. The following specifies sample sources.

Eltanin: FSU distributed 5,236 samples from 111 piston cores collected aboard 24 of the 47 coring cruises; eight samples were removed from two trigger cores of two cruises and four samples from four Phleger cores of one cruise. FSU also distributed 141 samples from 109 Blake and Menzies trawls, Campbell and Petersen grabs, and rock dredges from 23 cruises.

Islas Orcadas: Researchers sampled 41 piston cores and 63 trigger cores for 258 and 101 samples, respectively. Cores sampled represent each of the five coring cruises of this vessel.

International Weddell Sea Oceanographic Expedition (IWSOE): Laboratory scientists took 144 piston core and 32 Phleger core samples from four piston and four Phleger cores retrieved aboard the 1968 and 1970 IWSOE cruises of USCGC *Glacier*.

Operation Deep Freeze 1979 (USCGC Glacier): FSU distributed 127 samples from four piston cores and one sample from a Dietz-LaFond grab, recovered off the Adélie and George V coasts.

Operation Deep Freeze 1982 (USCGC Glacier): Researchers removed 48 samples from 12 piston cores and 67 samples from 63 Dietz-LaFond grabs, all retrieved off the coast of the northern Antarctic Peninsula.

Dry Valley Drilling Project (DVDP): FSU distributed 12 samples from one drill hole (DVDP 4, Lake Vanda).

Distribution of these 6,179 samples, which were taken from 422 different cores, dredges, trawls, and bottom grabs recovered aboard 43 cruises of three vessels, and from one drill