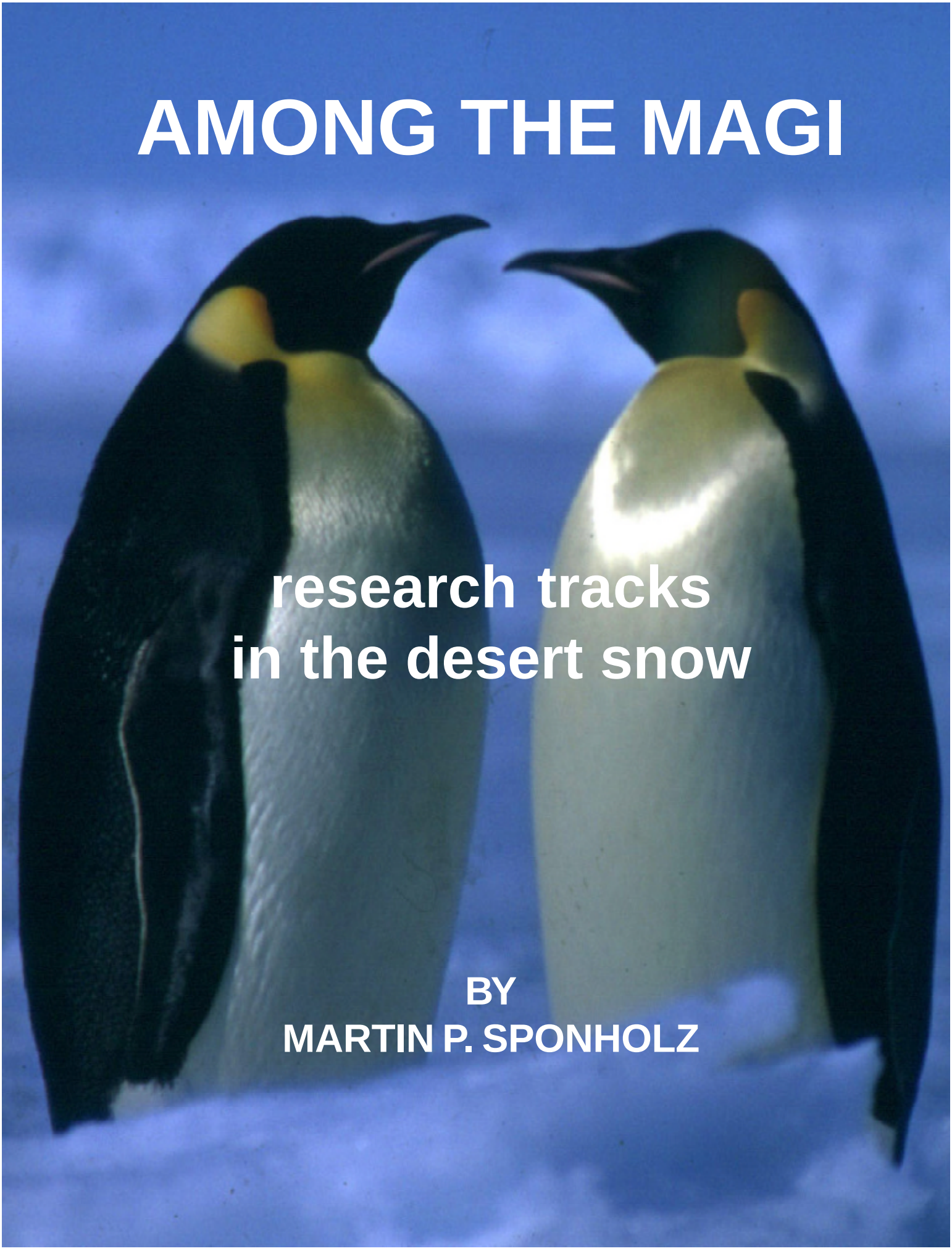
AMONG THE MAGI



research tracks in the desert snow

BY

MARTIN P. SPONHOLZ

This book was originally written for my family (1994). Then, while cruising the internet for sites on Antarctica I ran into *The New South Polar Times* and found there an invitation for Antarctic contributions for Virginia's K-12 public school children. I submitted to Katie Wallet, founder and editor of *The New South Polar Times*, a digital copy of *Among the Magi* which she published on-line the descriptive text in its entirety (1997).

Editing for the on-line version of *Among the Magi* removed several inserts from *The Pentagon Papers*, (1971) which probably gave no contribution to the Antarctic experience. However, the shock to me as a wintering over scientist at a time of complete isolation from politics and news, T*he Pentagon Papers* did show what was happening while I sat on the ice.

Also edited out of the original book were the equations. This is also accepted considering the audience of *The New South Polar Times* was K-12 and the travelog, polar life, and science methods are the greatest value of this account. The mathematical work is documented in the list of published works at the end of *Among the Magi* and by today has become dated as scientific discovery and reinterpretation has moved on.

Some graphics were also lost, perhaps because of the limits of desktop publishing at the time of the original establishment of *The New South Polar Times*. Whereas some of the complex mathematical models were left out, some of the original graphics along with a small number of equations have been restored in this new-old edition of the on-line book.

Whereas the negative copy on the war in Vietnam may be politically incorrect, the inserts of *Pentagon Papers* reflect the denial of "victory" at the highest government levels. They add to my personal struggle of how one supports our men and women in uniform willing to sacrifice their very lives and at the same time be critical, as required of voters in a democracy, of the actions of our government? Several military personnel did make that supreme sacrifice in Antarctica for me, for the scientific effort they did not always understand, and for their country's presence in Antarctica. In the news vacuum of isolation on the ice these inserts also display a lost time and explain the confusion of those of us who wintered over. These inserts are restored in this edition.

Special thanks will always be granted to Katie Wallet and *The New South Polar Times* having provided a world wide exposure to *Among the Magi*. The full text of my experiences with polar research remained on the New South Polar Times from 1997 to 2007 as posted by Katie Wallet.

Among the Magi, related 35 mm slides taken at Plateau Station and with the Japanese Antarctic Research Expedition and reports by Martin P. Sponholz have been given to the Byrd Polar Research Center Archival Program in Columbus, Ohio currently under the care of Laura J. Kissel, Polar Curator, <kissel.4@osu.edu> <http://library.osu.edu/sites/archives/polar/staff.php>.

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MARTY SPONHOLZ ON PLATEAU AND BEYOND. The New South Polar Times website [http://205.174.118.254/nspt/home.htm] has its first-ever on-line book, AMONG THE MAGI: RESEARCH TRACKS IN THE DESERT SNOW, one by a former colleague of mine, Marty Sponholz, who wintered over as the first meteorologist at Plateau Station in 1966.

I don't think the book was ever published in either hard-back or paper back, a loss. But at least it is available on line and many of our members, namely Rob Flint, Tom Frostman, Mike Kuhn, Walt Seelig, Phil Smith, Charlie Bentley, Chuck Stearns, and perhaps one or two others creep into the book. Marty wears his heart on his sleeve, and was outspoken, and let the chips fall where they may, even though you may not agree with him. No holds are barred, as he even dissects the shirt worn by one of the chief Antarctic scientists. He seemed to be successful in his scientific career, although at the same time he always seemed to be reaching for something he could not obtain. When push came to shove, he passed up a promising career as a research meteorologist to seek personal satisfaction and happiness while serving the Lord as a secondary school teacher.

Marty was a graduate student in the German-rich University of Wisconsin Meteorology Department, featuring such well known professors as Heinz Lettau and Wemer Schwerdtfeger, under whom Marty studied, and Eberhard Wahl and John Kutzbach. Also on campus was Kirby Hanson who was the meteorologist-in-charge at the South Pole in 1958. Kirby was instrumental in talking Marty into applying for an Antarctic assignment, and Lettau the Elder threw his weight behind Marty's application. This was tantamount to his being on a plane to the ice, as Washington always listened to Lettau. Out of the blue one day, Marty was told by Kirby, "One last thing, comb your hair, and wear a suit!" Besides his two backing professors and Kirby, a senior meteorologist from Washington by the name of Mort Rubin who had wintered over with the Russians at Mirny, and I were there. It was *fait accompli* and for the rest of us it was more a celebration of finding another red-hot body for the ice. But for Marty, he thought he was being interviewed!

Marty was to be serving two masters, conducting a program in radiometry for my office, the Quartermaster Corps Research and Development Laboratory, and also being the station meteorologist under the United States Weather Bureau. And indirectly, he was also working for our current Society president, John Spiettstoesser, who was an administrator at the Institute of Polar Studies at The Ohio State University. The only way I could get NSF money was to have it laundered through Ohio State, who bought the instrumentation that Marty was to use. Confusing, maybe, but it worked. So I saw Marty several times in conjunction with our program. He was young, looked even younger, was still wet behind the ears, and worried about why his instrumentation was still at our office. I had an ace up my sleeve in Lee Stroschein, who was an expert on instrumentation and recording systems, and he was going to Plateau Station for three consecutive summers!

Marty touches base on another interesting deal involving me. I had hired a red-blooded Mexican mathematician by the name of George de la Borbolla. My original selection was washed out by the head shrinks at the last minute, and George had been recommended by another government agency. But he and the Navy clashed wickedly, and every time the micromet system would get up and running, the Navy would foul up the generators so George would not get any good data. After the season, George demanded a hearing at NSF, and a bunch of us were called to Washington. The head of the Office of Polar Programs was a nice guy, but rather naive, who was in over his head, (Louie Quam), and he innocently came to the meeting and said that he never realized that there ever had been any problems between the Navy and the civilians. Anyway, Marty wrote about this Hearing in his book. In retrospect, I think it may have been the first stepping stone towards civilian contractors replacing Navy as support in the Antarctic.

There are many great sentences in Marty's book. One is a dandy — "I know many of the modern taverns where new scientific ideas were derived." Several things bothered Marty, such as the power struggles going on. He mentioned that Uwe Radok and the University of Melbourne wanted to confiscate his data. Radok, who later worked for a while in the Office of Polar Programs, made a move on me at the end of our first year at Plateau to take over our whole program. After two years involvement, I was not ready for an intruder from the Outback to take over. Marty also felt another power struggle between Washington and the University of Wisconsin. I think any of us who have been on the ice can sympathize with Marty's feelings, as who wants to devote a year of their life to turn over their data to another? This all led up to his deep-rooted feelings about his religion. He wrote "I was stunned at the almost complete lack of interest in religion of any kind by so many of these scientists who now were my friends by virtue of the camaraderie established through frost bite, risk, and survival." We hope you read this book, appearing on the South Polar Times Website in its entirety, as it has a lot of good stuff which you will never find elsewhere, and it is *INTERESTIN*G.

A book review by Dr. Paul C. Dalrymple,
The Antarctican Society Newsletter,
April 2003, pp. 4-5.

A PRELUDE
by Robert B. Flint, Jr.

When I was very young, my parents sent me for piano lessons to the organist at our church. While I have never become very proficient at the piano, I generally enjoyed the lessons because of the personality of my teacher, Mr. Paul Terry. He was an energetic, humorous and inspiring white-haired old gentleman, who knew well about how to deal with kids, because he also had the job of shaping a bunch of unruly boys into a boy's choir of which I was later a member. But, like all kids sent for music lessons, there were days when my attention and interest decidedly flagged, and on a couple of these occasions, Mr. Terry would get out the set of photos taken by his son-in-law when the latter was an inspector for the International Whaling Commission aboard a whaling fleet in the seas surrounding Antarctica. These photos of whales, icebergs, and dark seas were my first contact with a part of the world that would later become an important part of my life.

I had not thought of the whaling photos until I was in graduate school at Stanford University, and once again my interest was flagging, this time in the pursuit of a graduate degree in electrical engineering. Then, on a bulletin board in the electrical engineering department, I saw a notice which read, "Wanted: electrical engineers with extensive experience in the design and maintenance of complex electromechanical systems to spend the winter in Antarctica maintaining equipment used in geophysical and geomagnetic research." Having not much experience in *anything*, especially "complex electromechanical systems," but with the brashness of youth, I presented myself to the associate professor of electrical engineering, John Katsufrakis, who was responsible for hiring engineers to run Stanford's geophysical program in Antarctica. I am still not sure what John was thinking when he hired me, but his decision was a pivotal turning point in my life. I was hired along with another engineer, Ron Sefton, to operate the "whistler recorders" and other research equipment at Byrd Station, Antarctica during the austral winter of 1964. Ron had spent the austral winter of 1962 at Byrd Station and was therefore an "Old Antarctic Explorer" (an "OAE" is defined as one who has spent at least one microsecond more than you have in Antarctica). He was also an active radio ham: it was a great comfort to me to have a colleague who was not only experienced in Antarctica, but also knew his way around practical electronics, which I, at that time, did not.

The prospect of being physically cut off from the outside world for nine months was scary, but, in fact, the entire experience turned out to be a very positive one. Byrd Station had been set on the surface of the Antarctic ice sheet during 1958 as part of the International Geophysical Year. However, being set in a windy place, it quickly became buried by drifting snow and was replaced in 1962 with a new station, intentionally buried to minimize drifting. This station was quite spacious: at one time the Navy had planned to install a small nuclear power plant as an energy source; energy efficiency was not a high priority. But more important than physical comfort at a small isolated situation is the station morale. The station military leader was also the station doctor, who had a low key leadership style and an able enlisted crew. All of us on the civilian side got along very well. The result was a harmonious and productive year. Ron and I became good friends and collected mountains of data which contributed to knowledge of the dynamics of the earth's magnetosphere - it's area of magnetic influence.

Upon my return to Stanford in 1965, I was asked to consult, as someone who had wintered in

Antarctica, on the design of a proposed small portable research station that was to be built in air-transportable modules. The Navy, which at that time had overall logistic responsibility for the U. S. effort in Antarctica, would contract for the building of the station with the ATCO Company in Calgary, Alberta. The plan was to place the station at a site on the high plateau of the interior of Antarctica, occupy it for a couple of years, then move it to another site. This station would be manned by a total of eight people, including four scientific personnel and four support people and would be known as Plateau Station. And thus I found myself sent to Calgary to discuss this proposed station. (One of my contributions to the design of the station was to request extra-length bunks. I know that several of my shorter colleagues, including the author of the present book, later wished that they could have traded a little of the extra bunk length for more closet space!) When I returned to Stanford from Calgary, my boss John Katsufrakis asked if I would like to be the Stanford engineer at the new station. Somehow, I had never thought of going back to Antarctica, but I guess that, having been involved in its design, I was curious to see how this proposed station was actually going to work. Also, my previous year in Antarctica HAD been rewarding. Thirdly, it seemed a great opportunity to be on the edge of new scientific and geographic exploration. (Finally, I suppose, it was an opportunity to avoid real life for a while longer, and besides which, having wintered at an inland station, I still hadn't seen a penguin!) And so I surprised my parents, friends, and myself by agreeing to spend a second year in Antarctica. My Byrd colleague, Ron Sefton was just then agreeing to go back to Byrd for his third winter.

Thus it was that at the tender age of twenty-five I found myself as Station Scientific Leader at perhaps the most remote outpost in the world. In addition to Marty and myself, there were two others in the scientific complement: Bob Geissel was to collect geomagnetic data for the U. S. Coast and Geodetic Survey, and Hugh Muir was to collect data on the aurora for the Arctic Institute of North America. For support, the Navy assigned a doctor, a mechanic, a radio operator, and a cook. The reader will meet all these people in this book. Reading this book and in looking back at my own life, what most amazes me is with how much we, as very young and naive adults, were *entrusted*. In our hands was not only an extremely expensive small experimental scientific facility, but also a great investment in thought, hopes, and faith of the scientific community who conceived and designed the experiments that we were to carry out, and who would analyze the data that we gathered. Over the years many papers using Plateau Station data have been published, and it always gives me pride to be reminded of our contribution to science.

Meteorological science was one of our chief objectives. Although over the course of our year there, Marty explained much of the research that he was doing, it is not until I read this book that I realized the depth of his own background and what a *qualified* scientist that he is. The scientific community and the country were fortunate in having him pioneer the meteorological program at Plateau Station.

It is impossible to spend the winter in isolation without being personally affected: the fellowship that comes from sharing a great deal of time and the rigors of an extreme climate with a small group of people is like no other fellowship. The year at Plateau was not so harmonious as my previous year at Byrd, nor as a later year I spent with the Russians at Vostok Station. The station doctor was clearly unprepared for the psychological challenges of isolated living. But we managed, and the personal relationships that came from the year at Plateau are among the most important and lasting of my life. Bob's general good humor and contributions to late night bull sessions are among my favorite memories. Hugh shared a lab with me, wrote a paper with me later at Stanford, and he and his wife Hillary have become lifelong friends, though we live on opposite sides of the Atlantic. Marty was my roommate and my counselor, and he and his wife Nancy are likewise lifelong friends. I am delighted that he has undertaken to write this book for his children about our year. It will serve as an inspiration not only to them, but to my own family and, indeed, to all who are given opportunities and are faced with scientific and personal challenges.

The late T.O. Jones, former head of the Department of Polar Programs of the National Science Foundation, used to begin his annual speech to those who would be working in Antarctica during the succeeding season by saying "The Antarctic is a strange mistress..." He was describing the fascination that took so many of us away from family, friends, and the comforts of civilization. Indeed, many of us were drawn time and time again. The seventh continent did and does have a great pull: the exotic climate, the opportunities for discovery, the purity of the air and terrain, the physical beauty of the mountains and sky, the simplicity of life, of politics, the fellowship and comradeship, the physical and intellectual challenges... In this book my good friend Martin P. Sponholz has eloquently elicited the fascination of that "strange mistress."