## Terra Antarctica

Looking into the emptiest Continent

## W.L.Fox

December 22 - 28, 2009

Isotropic. This is one of the key words of the book. It means of course 'the same in all directions'. Antarctica is an empty land in which the Ice reigns supreme. It is the only continent innocent of natural human habitation, in fact no humans set their foot on it until the end of the 19th century. It is literally the last place on earth, the last to be properly mapped. In fact complete maps of the Moon and Mars were made before Antarctica. It is a strange place, as out of another planet, planted on Earth, hence accessible by plane and cruise ship alike.

It is an empty place, but not one entirely empty of life. On its fringes there are of course penguins and seals, and whales still ply its waters. Further inland there are strange creatures, most of them small not to say microscopic. From fishes with antifreeze, insects down to various mites and one-cellular organisms, braving the most hostile of environments in order to display life. But its interior provides a strange landscape that is overly unfamiliar with a dearth of recognizable clues. It takes time to read it and depict it. While most landscapes have experienced recent overhauls, most of them within the last ten thousand years, you can find in the Antarctica features which have been unchanged for millions of years. It is a dry landscape on which very little snow falls but one which is ready to patiently accumulate for eons. It builds up, the glacial ice that flows being a mile thick or two. There are valleys such as the Dry Valley where there is no snow at all. This means that there has not been any precipitation for two million years.

The author has been flown into Antarctica courtesy of the NSF in order to be a resident artist. The artistic depiction of Antarctica has a pedigree as long as human exploration of the continent. The first who came were landscape artists trained in the English and especially Dutch tradition of regular representation, not the southern Italian one of interpretation and dramatization. What was needed were factual paintings which showed it as it was, whatever that meant. One thing it could mean, and actually meant, was to entail an accuracy so good as to support measurements. Soon painting was supplanted and eventually almost usurped by photography, a supposedly far more objective and scientific medium. Also far more efficient, while paintings and water colors and sketches may count in the hundreds, the photographer could literally produce thousands, nay tens of thousand images. But photography is not art but mechanical representation, thus it presents to the untutored mind a difficulty maybe akin to that of interpreting a map. When we scan our 3-dimensional surroundings we change our scale depending on the importance of the object we are seeing. Our scanning of a flat pictorial representation is different, we go up and down, from one side to another, our eyes forming staccato movements; but we never go back and forth, we do not penetrate. Thus a distant mountain that looms large because we know it is huge and distant, will look rather dwarfed and insignificant on the photo.

The landscape painter knew that, he or she would instinctively emphasize largeness not only by straightforward exaggeration of scale, but also by framing, by setting up objects of comparisons, by stimulating the reconstructive imagination of the spectator.

By the discovery of Antarctica the heroic age of exploration came to an end. Three names stand out in the first two decades of the 20th century wrapping it up. Scott, Shackleton and Amundsen. They led small, closely knit expeditions, using a minimum of high-technology and instead relying on simple, almost primitive tools. They put their lives on line, they had no support teams, no long-distance monitoring, they had to be self-sufficient or perish. Their feats thus had an athletic element of individual excellence, may the best man win. And indeed there was a race, and the race was run by Scott and Amundsen. The former failed not only miserably but grandiosely, while the triumph of the latter was seen as almost cheating in its machinelike effectiveness. Scott was a romantic and a bumbler, who wrote high-minded prose and captured the imagination. He also perished and thus made himself invulnerable to defeat. Amundsen knew what he was doing. Instead of envisioning an heroic quest he made it into one, not by exploded rhetoric but by superior and unsentimental planning and prior knowledge. He used dogs, while Scott and his men hauled their cargo by themselves. His objective was simple and to the point, get to the pole and then the hell out it as soon as possible. Not be distracted by scientific exploration. Consequently when it was all done, he a naturally tacitum man with no natural charm, had very little to tell. Scott the bumbler was retroactively made into the hero. But maybe the greatest hero of them all was Shackleton, who previously had come within a mere hundred miles of the geographical pole. He turned around and saved the lives of his expeditionary force. In fact Shackleton never ever lost a single man, except himself as he succumbed to a heart-attack at the age of forty-eight. He combined the efficiency of an Amundsen (if not to the same unsentimental degree) with the literary flair of a Scott. He was also more democratic, or rather egalitarian than the hiearchially set navy man Scott. By the advent of the First World War it was all, as referred to above, ready to be wrapped up.

After the initial explorers, whose huts and other paraphernalia are to a large degree still preserved in the frosty environment of the Antarctic, there were the ones with the machines. The planes made it, and to a smaller degree motorized ground-based vehicles. Then there was the International Geophysical Year of 1957-58, the year that saw the Sputnik. That meant the first permanent settlement on the last continent. An international agreement as to the proper use of Antarctica was set up as late as 1961. It stipulated scientific objectives, not national nor military, although military interests surely motivated the big players, at least initially. Now because of the pristine state of the land (or should I wrote ice) and its remoteness from human disturbance, it provides the scene for unique scientific exploration, from the drilling of ice-cores to read climatological history to the detection of neutrinos and minute fluctuations of background radiation. All of that is dutifully reported by the author.

The author is a reporter, he needs to report on how life is lived down there in isolation. The Americans maintain a big base on McMurdo at the edge of the Ross Ice-field and within view of Mt Erebus, a still active volcano. You get a sense of the mess and lack of aesthetics in a make-shift community. You get to meet the scientists, the engineers, the

stray artist and the guide. They all seem alike. Life in such forbidding circumstances take on a semblance of normality by importing the trivia of western life-style. There is rock music, iPods, films captured on dvd running on laptops. In a way this is of course not that different from the amusements brought to the land by the late 19th century explorers, although of course I suspect that the tastes of late Victorians were a bit more developed and sophisticated, at least retroactively assessed. Then local newspapers were printed with contributions from all and saundry, I doubt that something similar would appeal to people nowadays tuned to e-mails and facebooks. There are also excursions into the surrounding wilderness. Being flown by helicopters to remote and hard-to-get spots, along with exploratory hikes. There is cold, a pervasive cold, although at the high summer in early January, the temperature can rise to 10 degree Celsius or so. There is also wind and storm being weathered on the slopes of Mt Erebus, not your ordinary storm but a veritable hurricane testing the limits of tents only to break them.

But it is all isotropic with few, if spectacular exceptions. It means that it is very hard to orient yourself, the mind ever greedy for familiar sights out of which to extrapolate needs to make them up, a desperate exercise liable to end in catastrophe. Antarctica is of course unforgiving, shelter is paramount and without it death will soon follow quickly. The author survives of course, danger being skirted but never truly embraced.

 ${\tt December~28,~2009~Ulf~Persson:}~{\tt Prof.em,Chalmers~U.of~Tech.,G\"{o}teborg~Sweden\,ulfp@chalmers.se}$