Most people consider exploration of the planet Earth to be complete. To share in the thrill of beholding new landscapes they assume that we can only turn to the moon, Mars and even more distant bodies of the Solar System. Extraordinary feats of space technology -- and, in some cases, personal courage -- have enabled us to see at close hand the airless surface of the moon, ~~xxxxxxxxxxxxxxxxxxxxxx~~ with its bleak, rolling hills under a black sky, or the barren, rubbly surface of Mars.

But there is another "world" on our own planet still only partially explored, where no space suits are required -- only garments that are especially warm. Unlike those celestial realms it is far from lifeless. Yet its landscapes are so alien to those to which we are accustomed that only the cloud formations of the sky seem familiar.

Antarctica is a land of superb beauty. ~~Unlike~~ Whereas the Arctic, ~~which~~ is an ocean surrounded by great populated land masses -- Europe, Asia and North America -- ~~it~~ Antarctica is a continent surrounded by the great oceans of the Southern Hemisphere. It ~~is~~ lies beyond the

ken of most people because ~~our~~ efforts to display (On a flat surface, a map of our spherical planet usually show the Antarctic -- if at all -- as an irregular ribbon of land ~~at~~ (in) the extreme south.

Some of the ancient Greeks who recognized that the earth is spherical assumed that there must be a continent far to the south to balance the land masses of the north. Early explorers who saw Tierra del Fuego or such islands as those of New Zealand thought they were the northern extremities of ~~such~~ a (great) continent. It was Captain James Cook, in his memorable circumnavigation of the southern seas in the 1870's, who showed that no part of Antarctica reached (s) into temperate latitudes. If anyone ever penetrates the ~~ice~~ drifting ice floes to its coast, he said, "I make bold to declare that the world will derive no benefit from it."

Today, with some ~~[illegible]~~ thirty-five year-around stations being maintained by eleven countries on the continent or its offshore islands, it is clear that the world is, in fact, deriving much benefit from ~~such activity~~ (those stations.) Most of it (is) in ~~the such areas as~~ (the form of knowledge, such as a) broadened understanding of the world's weather, (observation, determination) of ~~the ways in which~~ (how) life can adapt to extreme conditions, and of ~~the~~ (the) factors controlling ice ages and (the) radical changes in (worldwide) sea levels that may occur when large sections of Antarctic ice slip into the sea.

Also looming on the horizon is the possibility that Antarctica may prove an important source of fuel, food and minerals. For many years lead ore has been profitably extracted from East Greenland under conditions comparable to those of Antarctica. It was to some extent the quest for another resource -- the fur seals -- that led to the first sightings of the continent. Three countries have claimed that their nationals were in the forefront, in this regard. The American contender was Nathaniel Palmer, commander of the Hero, a small sealing vessel out of Stonington, Connecticut. On November 17, 1820, when he was less than 21 years of age, Palmer set forth from Deception Island to seek fresh seal rookeries to the south. The remarkable nature of Deception Island -- a periodically active volcano -- is vividly illustrated in this book. Palmer may have been the first to see the mainland of the Antarctic Peninsula, but the British contend that Edward Bransfield aboard the brig Williams did so ten months before Palmer did so. Bransfield was seeking to establish a British foothold on the south side of Drake Passage, linking the Atlantic and Pacific. The Russian contender as discoverer of the continent was Admiral Thaddeus von Bellingshausen with the ships Vostok and Mirny on an exploratory venture for the Czar. In 1821 he encountered the Hero and young Nat Palmer was invited aboard. The research ship on which Eliot Porter spent much time in preparation of this book was named for that memorable little, forty-five-ton sloop.

While the fur seals were being slaughtered by American and British hunters, several expeditions probed toward the main body of Antarctica including the American one under Lieutenant Charles Wilkes, a French venture led by Dumont D'Urville and that of Britain's James Clark Ross. It was Ross who, by following the International Date Line south of New Zealand, in 1841 entered the largely ice-free sea that bears his name -- the most southerly extension of the world oceans. He sighted the seemingly endless cliffs of the Ross Ice Shelf, barring a sea route to the South Pole and hence called the Barrier. And he discovered the mighty volcano at McMurdo Sound which he named for one of his ships: Mount Erebus.

For a half century there was little interest in further exploration, but in 1895 the Sixth International Geographical Congress designated Antarctica the chief remaining challenge to explorers and there ensued the "heroic era" The South Pole was achieved by Norway's Roald Amundsen a month before Robert Falcon Scott did so, already weakened (probably by scurvy). His five Britons all died on the return journey. Ernest Shackleton tried to cross from the Weddell Sea to the Ross Sea but his ship Endurance was crushed in the ice, setting the stage for one of the most remarkable feats of survival in modern exploration.

Admiral Richard E. Byrd, Sir Hubert Wilkins and Lincoln Ellsworth introduced the airplane to Antarctica

in the 1920's and 1930's, leading to a succession of ~~[illegible]~~ American expeitions, several of them led by Byrd. It was, however, the International Geophysical Year of 1957-58 that gave birth to the permanent occupation of Antarctica -- as it did to the start of the space age. The bases now there are direct -- or indirect -- descendents of those set up for that great international effort to understand our planet and its space environment. One was airlifted to the South Pole itself. Others were hauled deep into the interior by Soviet and American tractor trains.

Today the United States spends some $50 million a year to operate its Antarctic bases and support scientists seeking to extract the tantalizing secrets of that land. It was appropriate that the National Science Foundation should turn to one of the great documenters of glorious landscapes and their inhabitants -- Glen Canyon, the Adirondacks, Baja California and the like -- to record how -- and where -- that money is being spent. Eliot Porter follows in a nobel tradition of Antarctic photography, inaugurated with extraordinary skill and artistry by Herbert G. Ponting, who accompanied Scott's last expedition (though not on the ill-fated trek to the Pole in 1911-12).

Porter has provided new, glittering perspectives on the continent at the bottom of the world at a time, as he points out, when critical decisions must be made that will determine its future must be made.