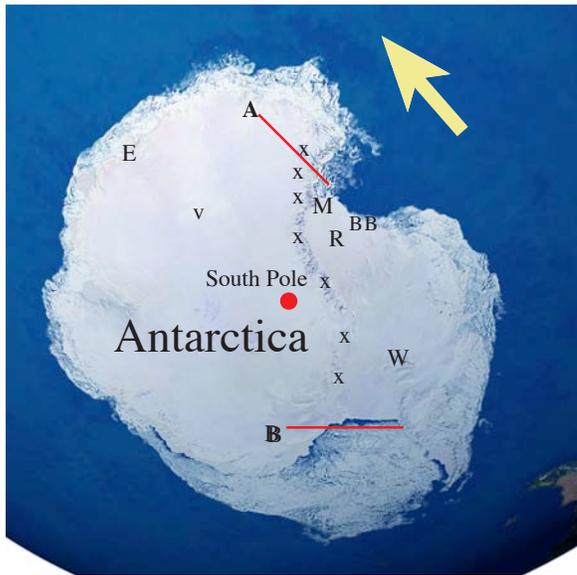
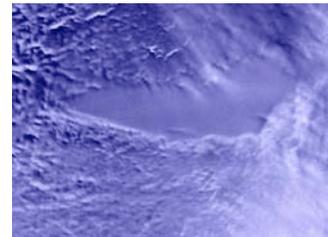


On the basis of discoveries in ancient sea layers drilled within the last 20 years from the ice sheets of Greenland, geologists and geochemists concluded that the end of the last glacial era, almost 10,000 years ago, did not occur through centuries as previously assumed, but that dramatic changes probably happened in less than a human lifetime; perhaps less than a decade.

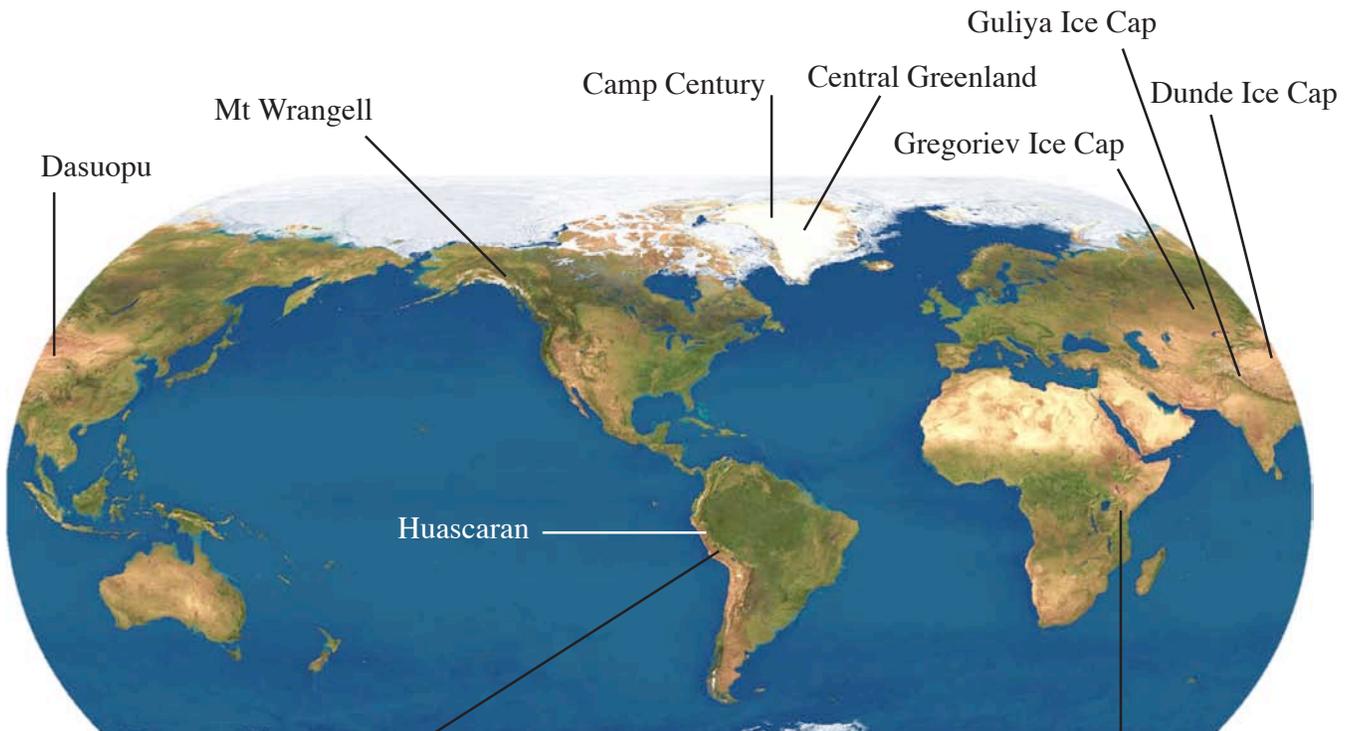
The accumulated ice of the South Pole seems thousands of miles from us. But, according to both professors A. Brown and C. Hapgood, each time that one or two polar icecaps grow to maturity, a recurrent event in global history elapses. We are not talking anymore about one little civilization here or there in history. We mean global history. Brown and Hapgood, speak of changes on a large-scale global basis--a lot of cold ice. The southern hemisphere is dominated by a continent of ice larger than Europe: Antarctica. This ice sits atop and extends beyond the point of land it rests on.



Close-up map of the South Pole itself. Antarctica is draped in perpetual ice and lies at the bottom of the world.



Lake Vostok



Quelccaya Ice Cap

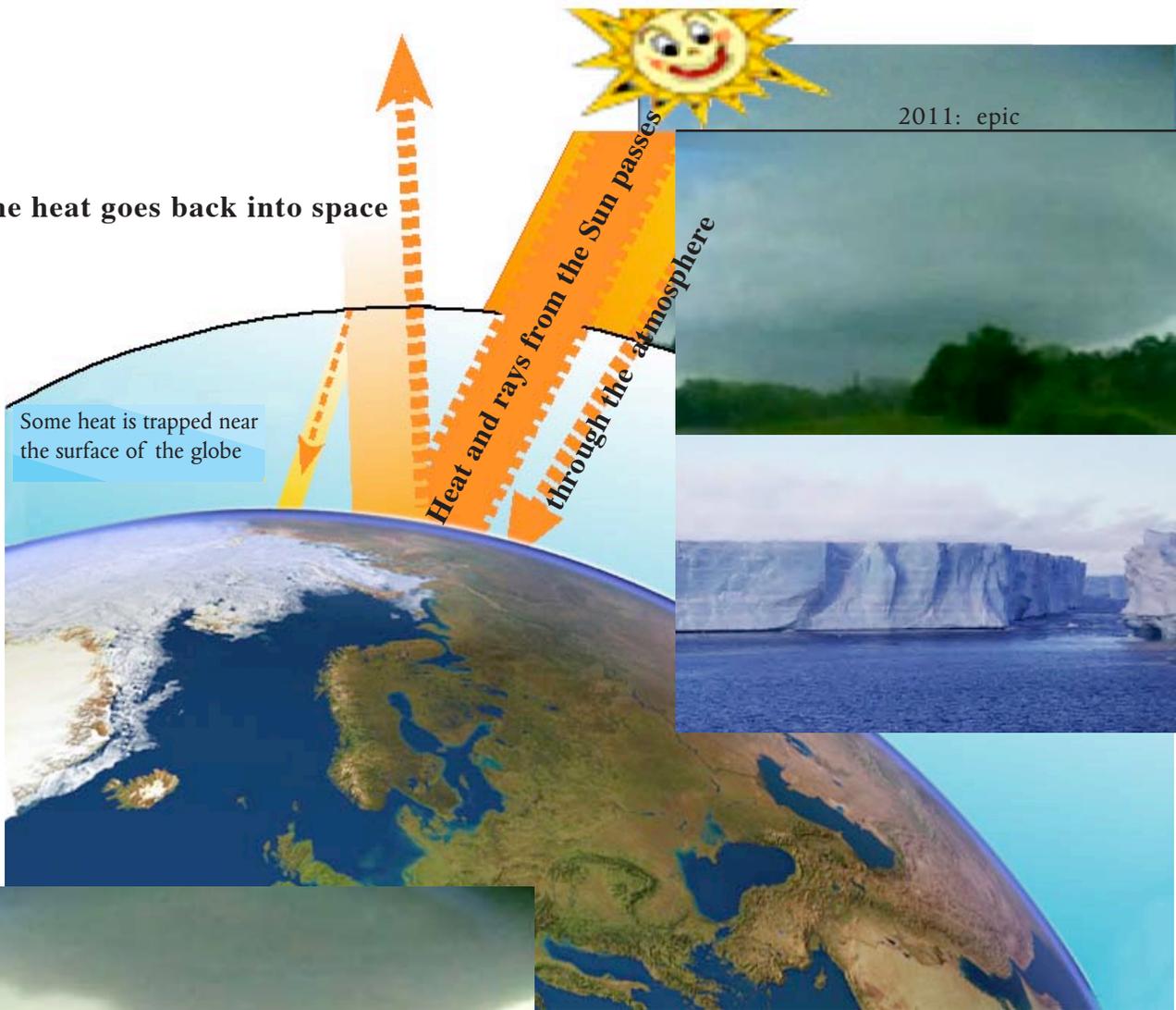
Places where ice is drastically melting

Mt. Kilimanjaro

Some heat goes back into space

Some heat is trapped near the surface of the globe

Heat and rays from the Sun passes through the atmosphere



Pulverized church in Springfield, Massachusetts after a tornado in 2011.

In the timescale of 120,000 to 140,000 years, glacial climate changes appear at different times. What this brings to mind is the aspect of interglacial periods, a smaller window of time when scientists normally do not observe big scale oscillations. The extent of the receding glaciers has been documented, see page 302. This book is not here to scare you but to inform you. However, we are headed for a difficult period. Before 2004, ideas of tornadoes in cities were readily swept away, but since then they have been constant, breaking up lives in Atlanta, Georgia, Birmingham, Alabama, Chicago, Illinois, New York, Springfield, Massachusetts, Minneapolis, Minnesota, St Louis, Missouri, Houston, Fort Worth, Texas, for example. In one night of April, 2011, cities, towns and hamlets were hit by 165 twisters. Unrelenting in the deep South was the word by mid November of 2011 when as of Nov 18, 553 deadly tornadoes was a yearly total. V represents the mysterious Lake Vostok, a freshwater lake as long as Lake Ontario, page 168. Only discovered in 1996, no one knows how this lake stays liquid in a region that plummets  $-132^{\circ}\text{F}$ . This fossil lake is one million years old, two miles below. Astonishing, but what keeps it liquid? On the South Pole map: from anyplace on the lower R. corner to the upper L. part is approximately 3,700 miles; roughly the distance from Chicago to Liverpool, UK. How's that for scale? E represents East Antarctica. W: the West. The top arrow points to Australia. Argentina is at the opposite direction. R represents the Ross Ice Shelf. The x's are my feeble attempt at showing the Transantarctic Mtns. A represents the highest peak at 16,067 ft., Vinson Massif. B represents Mt. Erebus at 12,448 ft. BB represents the area where Iceberg B-15 was located; in March of 2000 it broke away from R. The April 1, 2000, issue of *Science News* made no April Fool's joke when it stated it as the largest icebreaking event of the century-roughly the size of Connecticut. Check out the December 2001 issue of *National Geographic*. M represents McMurdo, a US base and scientific hub.