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Theory of Ice Ages, not 'global warming,' predicts melting of Antarctic ice shelf

by Laurence Hecht

The appearance of a 40-mile-wide crack in the northern tip of Antarctica's Larsen ice shelf earlier this year has provided fresh grist for the propaganda mill of the advocates of "global warming." The unfounded assertion that the burning of fossil fuels is leading irrevocably to a "global warming" has been repeated so many times that even those who don't wish to, often find themselves wondering if there isn't some truth to it. And what better example could one find of this alleged warming than the apparent melting of a piece of the world's largest ice sheet?

But the truth is otherwise. And the irony is that the warming of the far southern waters, which may have aided the ice shelf fracture, is a simple and unsurprising consequence of the scientific theory of climate change which predicts as its major conclusion that the Earth is moving into a new Ice Age!

First, a few facts about "global warming." The theory was first put into circulation in international scientific circles in the 1970s, through the offices of Britain's Sir Crispin Tickell, who introduced it into the deliberations of a NATO scientific panel. If lacking in scientific worth, it has enjoyed the enthusiastic backing of the House of Windsor and the British scientific establishment. The Royal Consort, Prince Philip, who may be best known for his desire to be "reincarnated as a deadly virus," apparently recognized in the theory a good argument for his desire to reduce the world's population (of all but royalty). Since a belief in global warming leads to the conclusion that we must drastically reduce the burning of fossil fuels, which presently provide the major part of the world's energy supply, its advocacy is no more than a thinly disguised argument for global deindustrialization and hence drastic reduction in population. An editorial in the March 16, 1995 edition of *Nature*, the publication of the British scientific establishment, asserts that "the onus of proof has now shifted from those who advocate global warming as a threat to those who hold that it may not be."[1]

Greenhouse model doesn't work

Yet the scientific foundation for global warming is as thin as spring ice. It is premised on a mechanism, the *greenhouse effect,* which is simple, but deceptive when applied to global climate: A greenhouse helps plants grow during the cold months, because its glass panels are transparent to the incoming visible rays of the Sun, while relatively opaque to the lower frequency, infrared radiation which the Sun's light produces on contact with Earthly objects. In interacting with the plants and structural material of the interior of the greenhouse, the Sun's rays experience a downshift in frequency producing the infrared radiation which we experience as "heat." The heat cannot pass back through the greenhouse glass so easily as the light entered, and thus the greenhouse warms up. That is the so-called greenhouse effect.

Carbon dioxide, a by-product of the burning of fossil fuels (hydrocarbons), is a "greenhouse gas." This means that when mixed into the Earth's atmosphere, it causes the atmosphere to act like the glass panels of the greenhouse, allowing in sunlight but preventing the escape of heat. Or so the theory goes. What actually happens is not so simple. For example, water vapor, which is far more prevalent than carbon dioxide, is also a greenhouse gas when mixed into the atmosphere. But when formed into the colloidal suspension of water droplets popularly known as a cloud, it has a very different and well-known effect. It blocks sunlight and therefore cools the Earth. Air polluted by volcanic dust or man-made waste can also cause cooling.

Because of such reverse effects and others, computerized climate models designed to demonstrate the greenhouse effect of carbon dioxide have never been able to make accurate predictions. The Earth's carbon cycle is also not fully understood. It is possible that geological processes, and not human activity, exert the dominant control over the amount of carbon dioxide in the atmosphere. The theory of global warming should not be considered as anything more than a conjecture.

There is, in fact, no conclusive proof that adding carbon dioxide to the atmosphere causes any warming of the climate. There are periods in the Earth's climatic history when there exists a correlation between increasing carbon dioxide levels and warming. But scientists have also shown periods when the carbon dioxide level increased as much as four- to ten-fold without any temperature rise.[2] If early measurements are correct—and that is in doubt—the carbon dioxide content of the atmosphere is estimated to have increased by about 25% since 1800.

There is even less proof that the Earth's climate is really warming. To understand this one has to recognize that climate trends must be measured over long time scales. The

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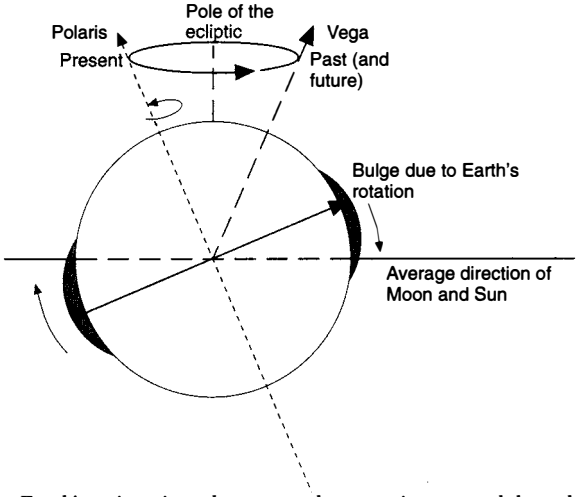
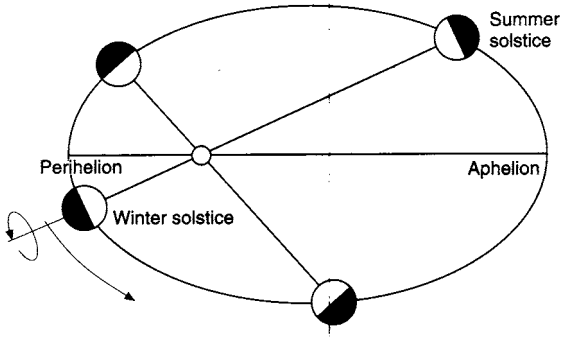
FIGURE 1
Precession and change of pole star



The Earth's spin axis makes a complete rotation around the pole of the ecliptic in a cycle of approximately 26,000 years. The pole star is now Polaris, but about 13,000 years ago it was Vega.

FIGURE 2
Precession and location of the solstice



The precession cycle changes the location on the ellipse where the winter and summer solstices occur. The approximate positions on the ellipse are shown for the solstices today.

New England weather may warm up for three days in November, but only a fool would believe that winter is not on its way. The same goes, on a longer time scale, for global climate trends. Global warming advocates point to a slight increase in the global mean temperature of surface air (about 0.9°F over the last century) as proof of their conjecture. They neglect to point out that the Earth had just come out of a 400-year cooling, known as the Little Ice Age (c. 1430-1850), when this alleged warming trend began. It would take another 0.9°F of warming just to reach the estimated average global temperature which prevailed in 1000 A.D., the period known as the Medieval Climatic Optimum. Nor was that the highest temperature experienced by *Homo sapiens*. The high point of the present interglacial period came about 6,000 years ago, when global mean temperatures averaged 1.8 to 3.6°F warmer than at present.[3]

What causes Ice Ages?

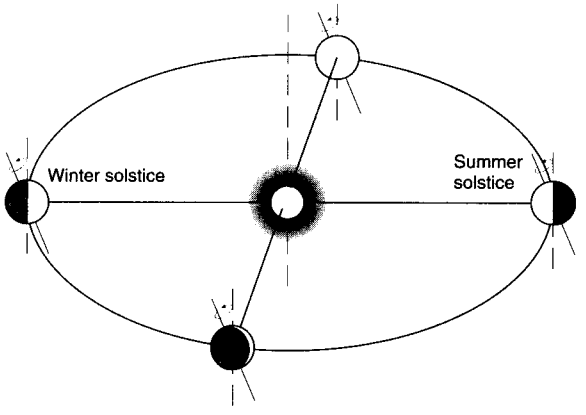
For about the past 2 million years, the Earth has been in an Ice Age. The poles remain covered with caps of ice, while nearby, in regions such as Greenland and northern Canada, and in high mountainous regions closer to the Equator, creeping masses of snow and ice, known as glaciers, prevail. The present Ice Age, also known as the Pleistocene Glaciation, has been characterized by some 17 glacial cycles of roughly 100,000 years duration each. In the most recent cycles, a prolonged cooling stage of about 90,000 years has been followed by an abrupt warming to the interglacial stage, which has typically lasted about 10,000 years. We are presently in an interglacial stage which began about 10,700 years ago, and are thus overdue for a new stage of glacial advance.

The timing mechanism of these glacial cycles, which began to be understood in the first decades of this century, involves certain cyclical changes in the orbital relationship of the Earth to the Sun. The most important of these, for present considerations, is the phenomenon known as *precession of the equinox*. As the Earth revolves around the Sun, it also wobbles a bit around its axis, like a top or gyroscope which is winding down. This wobble, known as precession, is recognizable to astronomers, because it changes the position of the north celestial pole (the direction to which the Earth's axis points). Thus, every 26,000 years, the north pole of the Earth makes a circle in the heavens roughly 23° in radius (**Figure 1**). Owing to the countervailing effect of a second phenomenon, known as *advance of the perihelion*, the net effect of the cycle on the climate is felt roughly every 21,000 years.

Precession affects the climate by changing the point in the Earth's elliptical orbit at which the seasons occur (**Figure 2**). As Johannes Kepler discovered about 1610, the planets move about the Sun in an elliptical path, with the Sun at one focus. Each year, there are thus two unique positions, *perihelion* and *aphelion*, at which the Earth is, respectively, closest and farthest from the Sun. The change of seasons has nothing to do with the distance of the Earth from the Sun. Rather, the inclination of the Earth's rotational axis to the plane of the ecliptic causes the rays of the Sun to fall more directly on the hemisphere tilting toward the Sun (summer), and more obliquely on the other (winter) (**Figure 3**).

What the precessional cycle does is to cause the seasons to be cooler or warmer. Presently, Northern Hemisphere winter is occurring quite near the point of closest approach to the Sun, known as perihelion, while summer occurs near the point of greatest distance, or aphelion. Our summers are thus milder now than they were 10,000 years ago, when the

FIGURE 3
Seasonal change



Seasonal change results from the combined effect of the orbital inclination and the yearly revolution of the Earth around the ellipse. When the Earth's spin axis is pointed away from the pole of the ecliptic, the Northern Hemisphere has its shortest day (winter solstice), while the Southern Hemisphere has its longest day (summer solstice).

huge glaciers began to melt.

It is mild summers that are most important for the onset of glaciation. Glaciers grow every winter with the buildup of snow and ice, and then melt back in the summer. Since it is nearly always below freezing in glacial regions during the winter months, whether there is a net growth in the glacier depends more on a mild summer than a cold winter. This is precisely the condition we have experienced in the Northern Hemisphere for the past thousand years or so and will continue to experience for some time. Unless something changes this cycle, we can expect another cycle of glaciation to set in some time in the next millennium or so, if it hasn't already. The Little Ice Age of 1430-1850 was one signal that the glacial side of the cycle is trying to reassert itself. In the last glaciation, ice sheets covered the northern United States and Europe, and spread down from mountainous regions at lower latitudes, like the Alps and the Rocky Mountains.[4]

The slight warming trend of the last century may have no effect at all on stopping the march of glaciation. Most of the warming that has occurred has been in the winter months, not the summer, when it might contribute to glacial melt. Measurements show that most Northern Hemisphere glaciers are expanding. Since 1981, average Arctic air temperatures have declined by about 0.7°F, almost as much as the whole increase for the century in the global average.

Why Antarctica should get warmer

The same astronomical phenomena that cause the Northern Hemisphere to receive a lower intensity of solar radiation cause the opposite effect in the south. Winter in the Southern Hemisphere has been occurring very near the point of closest approach to the Sun for over a millennium. That means a long-term warming trend for the Antarctic continent. It should thus come as no surprise if a large chunk of protruding ice should break away from the continental ice shelf. There may be other causes, such as the active volcanoes on the nearby ocean floor. But the spectacular creation of the world's largest iceberg should be seen as confirmation of the modern scientific theory of climate change based on astronomical cycles, rather than grist for the mill of global warming propagandists.

Before Sir Crispin Tickell's odd conjecture of global warming, it was generally recognized by trained geophysicists that the Earth was heading, sometime soon, into a new Ice Age. Nothing has changed in the astronomical orientations of Earth and Sun, and not even a royal decree is likely to make it otherwise.

Notes

1. "Berlin and Global Warming Policy," *Nature*, Vol. 374, March 16, 1995, p. 199.
2. Dr. Sallie Baliunas, "The Global Warming Experiment" (Washington, D.C.: George C. Marshall Institute, 1995) pp. 11-15.
3. Dr. Hugh Ellsaesser, "Science, Not Politics, Should Determine Climate Policy," *21st Century Science & Technology*, Summer 1995, p. 58.
4. Laurence Hecht, "The Coming (or Present) Ice Age," *21st Century Science & Technology*, Winter 1994, p. 22.

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