

Suess is speaker at the national meeting of the American Geophysical Union at UCLA. (Man heating earth enough to cause glaciers melting)

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The next few years could see the answer to whether man is heating up the earth enough to cause melting of the glaciers, says Hans E. Suess, Professor of Geochemistry, University of California, San Diego.

Speaking at the national meeting of the American Geophysical Union at the University of California, Los Angeles today, Suess said that the resumption of atmospheric nuclear testing has hindered his own researches into the problem but that other research being conducted at the University's Scripps Institution of Oceanography may eventually settle the debated scientific question.

Some scientists believe that by burning fossil fuels (coal and petroleum) men are increasing the amount of carbon dioxide in the air enough to cause the atmosphere to be steadily warmed. This would happen because the carbon dioxide in the atmosphere traps a part of the re-radiation of heat from the earth to space-- the so-called 'greenhouse effect.'

However, it is known that a considerable portion of the carbon dioxide that goes into the atmosphere is absorbed in the sea. Suess has been using naturally occurring radioactive carbon (carbon 14) to study the amounts so absorbed.

"We do not yet know accurately what percentage of the carbon dioxide is taken up by the ocean. A way of estimating this percentage consists in measuring the natural radiocarbon (carbon 14) distribution in the ocean and in the atmosphere and its change since the time when industrial coal-burning started. These measurements, however, are incomplete, and the further continuation of them is complicated by the large amounts of artificial radiocarbon now being generated by nuclear testing."

"On the other hand," Suess says, "the direct measurement of the amounts of carbon dioxide in the air and their fluctuations is very promising. Such measurement in the past were not accurate enough to allow us to draw final conclusions," he says, "but since the International Geophysical Year of 1957-58 C. D. Keeling of Scripps has been making measurements that are precise enough so that within the next few years we should be able to answer the question of how fast the carbon dioxide concentration in the atmosphere is increasing.

"All we can say at the moment is that a considerable fraction, certainly more than 50 percent, of the carbon dioxide released by fossil fuel combustion is currently absorbed by the ocean. It may be that the ocean can absorb enough for the 'green-house effect' to be negligible so far as influencing the earth's climate is concerned."