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Incorporating Science News Letter

COVER: Although humans do not like to think of themselves as resembling rodents, or any other animals for that matter, most scientists agree that animal experiments, properly conducted, are valid predictors of which chemicals will cause cancer in humans. See p. 12. (Photo: National Cancer Institute)

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LETTERS

Coal-caused superinterglacial

One of the questions that comes to mind about the great rise in atmospheric carbon dioxide expected from more coal burning (SN: 6/4/77, p. 356) is what would be the effect on plant life? Would temperature rise with lowering of photosynthetic radiation or would plant growth increase on these factors? Would water circulation (rainfall) increase or decrease? Greenhouse research has already suggested that increases in CO_2 alone would increase plant growth. Would we have tropical jungles?

I have asked questions without answers. The whole question is very complicated, even as to what trace elements might be put into the rain. I may not be here for the answers.

Clement D. Vellaire
Kalamazoo, Mich.

The article on Wallace Broecker's "Superinterglacial" is a case of an anthropogenic climate change that can be worked around. The temperature rise man giveth, man can taketh away by orbiting large sheets of aluminized plastic to reflect solar heat away from the earth's atmosphere.

Far out? Wait until the consequences of the atmospheric heating manifest themselves. . . . This might be a justification for the Space Shuttle having a full fleet. I can see it now: "Operation parasol". . . .

Paul R. Burnett
Temple Hills, Md.

With tongue in cheek may I say that Broecker really has nothing to worry about.

Some environmentalists have been complaining about the clouds of pollutants spewing out from our factories, utilities and cars. If they are even fractionally right, all we would have to do is remove all emission controls and the ensuing clouds of pollutants would shield the earth and cool it down again just as when Krakatoa erupted!

Alvin P. Fenton
Oostburg, Wis.

Variable stars: Volunteers' role

I enjoyed Dietrick E. Thomsen's article on the recent developments in extreme ultraviolet (EUV) astronomy (SN: 6/4/77, p. 364). However, he failed to mention a most interesting aspect of Bowyer's Apollo-Soyuz mounted experiment. This was the close cooperation that took place between the scientists involved and the American Association of Variable Star Observers (AAVSO), a worldwide organization of volunteers who monitor some of the thousands of known variable stars on a continuing basis. Its membership comes from all walks of life, including farmers, businessmen and students, as well as professional astronomers.

In the AAVSO annual report for that period, its director, Janet Mattei, described our role in the experiment:

"Dr. B. Margon . . . invited us to participate in the Apollo-Soyuz EUV experiments where [nine variable stars] were to be observed. We were requested to monitor these optically and alert them if any had outbursts. About 200 alerts were sent to observers worldwide, and there was a most enthusiastic and excellent coverage and a real contribution to this pioneering experiment. The day the EUV observations started, SS Cygni had an outburst! We immediately alerted Margon who was in Houston monitoring the experiments. Upon our call, in order to observe SS Cygni at this opportune time, the crew changed their observing schedule and concentrated on SS Cygni much more than planned."

Today, when modern science is seemingly placed on an ivory pinnacle, inaccessible to the common man, it is unfortunate that the contributions made by organizations like the AAVSO, which for decades have bridged the gap between science and society, are not more duly recognized.

Daniel Costanzo
Arlington, Va.

Corrections:

- *In "20 Billion Year Universe" (April 2), the correct figure for the half-life of carbon 14 is 5,730 years.*
- *In "The Thing in the Middle of the Galaxy" (June 4), the phrase explaining 200 astronomical units should have read "200 times the radius [not diameter] of the earth's orbit."*

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