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COVER: The north polar cap of Mars, which has been found to consist primarily of frozen water, not frozen carbon dioxide. In this view by Viking 2, at midsummer on Mars, the melting cap has receded to its smallest size. The solid white area is the ice; the dark bands are regions devoid of ice. The north pole itself is on the horizon at top right. See p. 212. Another album of Mars photos is on p. 216. (Photo: NASA/Viking 2)

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LETTERS

Animal experimentation

On Friday, Sept. 17, NBC-TV reviewed animal experimentation at the American Museum of Natural History in New York City. Views of noisy and fervent objectors were balanced by the outlook of the experimenters. Objections to the experiments center on what is regarded as cruel and purposeless imposition on the animals. Newscasters and the science editor presented the situation as a "controversy" that would bear further investigation. *What controversy?* Could anyone find even 5 percent of genuine scientists who do not know and appreciate the place of ethically conducted animal experimentation in advancing science and promoting human welfare? The word "controversy" is propagandistic in that it suggests two equal sides. Does the informed staff of NBC-TV—particularly the science editor—really believe there are two equal sides in this matter deserving equal consideration? If the station was apprehensive about antagonizing fanatical opposition, it would have been far better simply to avoid the topic.

Mary Catherine Tyson, M.D.
Robert Tyson, Ph.D.
New York, N.Y.

Caveat on archaeoastronomy

I strongly doubt that anyone viewed the A.D. 1006 supernova in the constellation Lupus (SN: 9/11/76, p. 169) as a portent of the end of the world. In the first place the "millenium" meant nothing to the most advanced astronomers of the time, practically none of whom hailed from Christendom. But even for Christian observers mostly in Europe (that is, 40°N or even farther north), Lupus is below the horizon for most observers and for most of the year. It would seem that a celestial "portent" would have to be seen clearly by the population of a culture for an extended period in order to be effective.

Given the many exciting possibilities opened up in archaeoastronomy in recent years, there may be a strong tendency to jump to ethnocentric conclusions in matters such as this. Our intuitive models of the heavens remain crude and static, a far cry from what we know intellectually about celestial motion. Every alleged "portent" needs to be examined in terms of where it was theoretically visible, when it was visi-

ble, for how long, and above all, to whom.

I suggest as a rule of thumb in archaeoastronomy that extreme caution be used in interpreting any evidence from Cerro Tololo or other recently constructed observatories in the Southern Hemisphere. The southern skies are not only poorly known to us relative to the northern skies, they were almost unknown to the majority of astronomically minded ancient and medieval civilizations, due to the geographical positions of those cultures.

Ronald W. Davis
Department of History
Western Michigan University
Kalamazoo, Mich.

Ott's lighting experiments

Because of the severe economic crisis faced by the Chicago school system, I feel I must write concerning your report of "a federal grant of \$10 million for classroom construction and *controlled experiments* in classroom lighting" in Chicago in which John Ott "will serve as consultant." (SN: 8/14/76, p. 104). This grant obviously grew from a similar experiment set up by Mr. Ott at Michael Reese Medical Center in Chicago, and apparently the results from that experiment inspired the present grant.

If the new schoolroom experiment is equally convincing, it will spur a complete replacement of present lighting systems which may prove to be completely unnecessary because of a missing and very critical control in Mr. Ott's experiments. My contention is that the therapeutic calming effects on hyperactive children have been achieved by an accidental side effect not accounted for in Mr. Ott's experimental "controls." This side effect is the accidental creation of an atmospheric electron plasma due to photoelectric effect acting on the wire grid placed over Mr. Ott's lights which ostensibly functioned "to ground radio waves." Similar effects on hyperactive children can be achieved with present fluorescent lighting by simply placing an ungrounded wire grid over existing lights and applying a minute negative (electron donor) charge. If the charge is increased, the "tranquillizing" effect increases until it actually becomes rather oppressive. If Mr. Ott's experiments are not controlled with this factor treated separately, our schools may buy an unnecessary and expensive lighting system that may actually cause lethargy in normal or less hyperactive children.

Since you previously published a two-page article on Mr. Ott's theories, I feel it is obligatory that you publish this contrary opinion so others will not make the mistake about to be repeated here in Chicago.

John Chipura
Park Ridge, Ill.

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