

to the editor

Nitrate in cigarettes

Sir:

"Effects of Nitrate in Cigarettes" (SN: 7/13, p. 36) mentions a hitherto unmentioned hazard of cigarette smoking, namely the fire hazard of sodium nitrate as an additive.

Additives such as sodium nitrate, by insuring enhanced combustion, and sure, continued burning, whether a cigarette is puffed or not, are largely responsible for the well-known hazards of cigarettes. Cigarette smokers know how difficult it is to snuff out a discarded stub, even with under-heel efforts. Put a lighted cigarette in an ash-tray and it will burn rapidly even without the added oxygen supply provided by puffing.

Contrarywise, cigars and pipes require somewhat constant puffing to maintain combustion, so they present much less fire hazard. Even roll-your-own cigarettes refuse to stay lit when not puffed.

Until I read your report, I only suspected that packaged cigarettes contained some sort of sure-burning additive. I think the sodium nitrate additive is used to increase sales by making cigarettes easier to smoke without having to relight, and not for health reasons. I think by using sodium nitrate, cigarette manufacturers are callously disregarding the great loss of property, forests, and even life itself, for bed smokers, caused by cigarettes.

Congress should outlaw such additives for this reason, as well as for the biochemical hazards mentioned in your report.

*Benjamin F. Miessner
Miessner Inventions, Inc.
Miami Shores, Fla.*

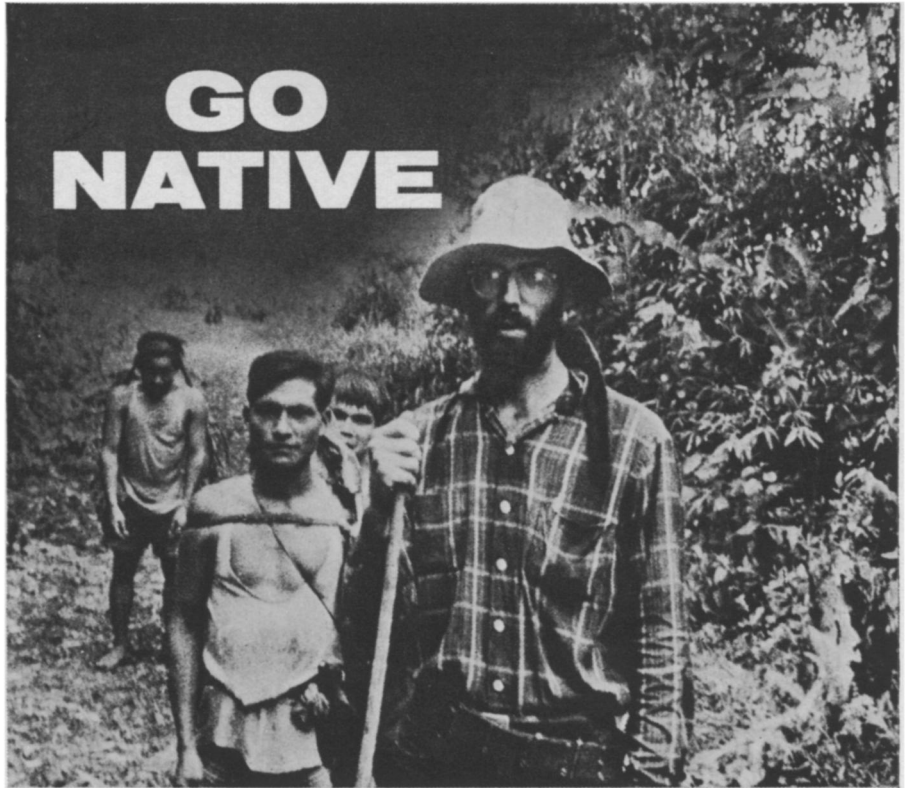
A moral issue

Sir:

I have read with interest the discussion between Dr. Paul Ramsey and Dr. Bent Böving (SN: 9/14, p. 254) regarding possibilities of defining the beginnings of human life. Such discussions can, in my opinion, only be beneficial.

I do have certain misgivings about Dr. Böving's statement that "contraception . . . promotes their most probable natural fate, which is to perish," referring here to the sperm and the ovum. While in factual agreement with the statement, I would like to express the opinion that one should not assume on

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Michael Harner did. For two years, he lived with the Jivaro Indians of the Ecuadorian Amazon, a witchcraft-haunted people who regard normal waking life as an illusion.

The Jivaros enter the "real" world through hallucinogenic drugs.



Mike's recent firsthand report on these natives is typical of the kind of articles which appear every month in NATURAL HISTORY, the horizon-expanding magazine published by The American Museum of Natural History.



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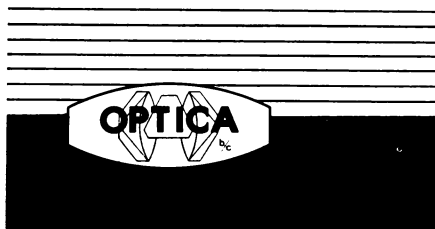
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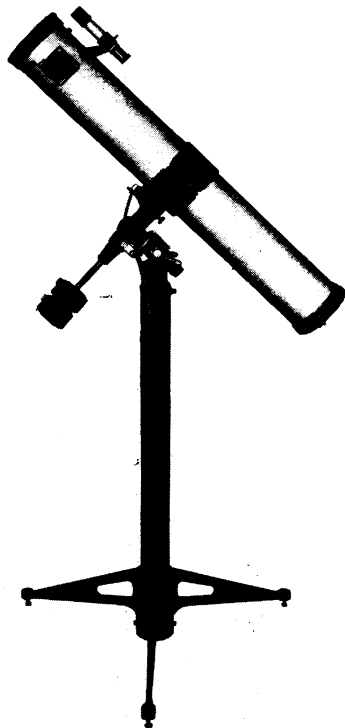
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films OF THE WEEK

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CRYSTAL GROWTH. 16mm, b&w kinescope, sound, 30 min. Guides the viewer from the beginnings of crystallography to modern studies of crystal defects, and discusses the importance of developing new and improved methods for growing single crystals in the laboratory. Audience: industry, professional groups, high school teachers. Rental \$6.10 or purchase \$100 from Audio-Visual Services, The Pennsylvania State University, University Park, Pa. 16802 (video tape version also available, prices on request).

INSECT PARASITISM: THE ALDER WOOD-WASP AND ITS ENEMIES. 16mm, color and b&w, sound, 18 min. Illustrates the life cycle of the woodwasp and the four parasites that prey upon it. Audience: high school. Purchase b&w \$119 or color \$232.50 from Encyclopaedia Britannica Educational Corporation, 425 North Michigan Ave., Chicago, Ill. 60611.

PERIODICITY I. 16 mm, b&w, sound, 20 min. In order to represent numerical data by means of a conventional graph, it must be possible to organize data into ordered pairs. Discussed in this film are the linear (straight line) graph and the discrete (consists of isolated points only) graph. Also dealt with are different examples of periodic functions, and it builds up the idea of a time graph of such a function. Audience: high school, college. Rental \$12 or purchase \$120 from Peter M. Roebeck and Co., 230 Park Ave., New York, N. Y. 10017 (BBC-TV Production).

PERIODICITY II. 16mm, b&w, sound, 20 min. The tides offer a useful example for the study of periodicity. This film illustrates that the function which describes the tides is not merely a superimposition of linear segments, but is a new function altogether, call the sine function, and explains how the new function is arrived at, as well as its connection with trigonometrical tables. Simple harmonic motion is briefly introduced. Audience: high school, college. Rental \$12 or purchase \$120 from Peter M. Roebeck and Co., 230 Park Ave., New York, N. Y. 10017 (BBC-TV Production).

THE TRANSURANIUM ELEMENTS. 16 mm, b&w kinescope, sound, Part I 58 min. and Part II 70 1/2 min. This two-part professional level lecture by Dr. Glenn T. Seaborg, Nobel Laureate and Chairman of the U. S. Atomic Energy Commission, was produced from a TV tape recorded at the Tenth Anniversary Summer Science School at the University of Sydney, Australia. Dr. Seaborg describes the work leading to the discovery of the known transuranium elements—from element 93 through element 104. The lectures are illustrated with slides explaining the production of the man-made elements. Some practical applications of transuranium elements and the possibility of making even newer, very heavy elements are also discussed. Audience: high school, college, professional. Free loan from AEC film libraries or Audio-Visual Branch, Division of Public Information, Atomic Energy Commission, Washington, D. C. 20545.

TRIO FOR THREE ANGLES. 16mm, color, sound, 7 min. Animated. Presents the triangle as the intersection of three angles, an approach which differs from the usual presentation of a plane figure with three sides. Uses the movement of free-swinging angles, synchronized with music, to help make the student aware of the relationships of the triangle's different components. Audience: elementary, junior high. Purchase \$100 from International Film Bureau, 332 South Michigan Ave., Chicago, Ill. 60604.

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the basis of this particular statement that the action proposed is necessarily moral. The promotion of a most probable natural biological fate, dear to the heart of French moralists who coin the term "renforcement de la nature" can, in logic, lead to extraordinary conclusions. Since it is the probable natural fate of all men to die it might lead to the conclusion that to "promote" this most probable natural fate might be moral, which is at least questionable. The fundamental question remains to what degree, and at point in its development, the fertilized ovum is to be afforded the same dignity as is afforded to other forms of human biological life.

Andre E. Hellegers, M.D.
Professor of Obstetrics
and Gynecology
Georgetown University
Washington, D. C.

Plant drugs defended

Sir:

In the article on "Folklore to Pharmacy" by Barbara J. Culliton (SN: 6/8, p. 558): the discovery of peruvoside, (credited to Dr. Seshadri) was by my old student and my present colleague, Prof. S. Rangaswami. In the article there is undue emphasis on the opinion held by some. There are, no doubt, many scientists in India who express lack of faith in the study of vegetable drugs, but there are many more who hold the opposite view. I could, for example, draw your attention to the opinion of the president of the Indian Pharmaceutical Association published recently in the INDIAN JOURNAL OF PHARMACY, 1968 Aug., p. 178. I may point out that peruvoside is an important discovery and the discovery itself did not cost more than a few thousand dollars. But our chief difficulty in India is the lack of tradition for development and exploitation. Certainly we could seek the help of others more experi-

(see Letters p. 308)

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