Letters

Political Protest on the Campus

I am grateful for Escalona's letter (4 Mar., p. 1034) because it provides an occasion to reopen the neglected distinctions which scientists and scholars will have to pursue with discrimination if they intend to reconcile their academic freedoms with their political liberties. Escalona admits that "demonstrations, acts of civil disobedience, and the like are not academic functions" and "tend to disrupt the primary business of teaching, learning, and research." On the other hand, she equates the university campus with "streets, factories, and public accommodations," and she apparently invites the academic, in employing these premises politically, to "make the same choices and confront . . . the same hazards, as do citizens whose livelihood depend on other institutions." Escalona bridges this paradox between inappropriate political action at the university and justification for act-and-take-the-consequences by distinguishing the campus as a physical location from the academic community as a social organization.

I accept this distinction for analytical purposes; it is, in fact, implicit throughout my article. But there are two answers to Escalona's argument. First, the academic's actual choices of conduct may not only be hazardous to himself, but may endanger the very existence of the university as an intellectual center vital for the preservation of the academic freedom and political liberty he is anxious to preserve. The professor's special responsibility in this regard derives from his status as teacher and presumably as sage—a status which may entitle him to claim to be representing the intellectual community but which does not entitle him to utilize the university as he sees fit.

Second, the American campus is a more integral and sensitive part of the university as an institution than are the premises or facilities of other institutions or organizations. To maintain the *intellectual* character of the university as a *physical* location is obviously difficult, but exactly this is going to become the technical issue and legal challenge we shall have to face. It is for this reason that my article refers specifically to the possible analogy between the university campus and the medical center. There is a bond here between the sane and the sanitized society to which we may yet have to appeal in the political rough-and-tumble which lies ahead.

From a strictly scientific point of view, on the other hand, it may be quite justifiable for Escalona to question my appeal to nuances of rational conduct among intellectuals which cannot be readily objectified. She seems to be asking for a "yes or no" answer to questions involving professional and political conduct, while I am appealing to the scholar's judgment about how far to go in one direction or another. If I fail to offer a clear alternative here and instead ask the scholar to exercise normative choices, it is first because these kinds of issues call for relative rather than absolute answers, and second because scientists and academics sometimes fail to distinguish between themselves as members of a profession or community, whose personal political rights should not be curtailed one iota, and the university as an academic organization or societal institution, whose facilities and premises should not be diverted or disrupted for political purposes.

When I tried to draw this distinction for application to some of our recent situations at our universities, I was told by colleagues, "They will be too hard to administer." Certainly they are not easy. But they are perfectly amenable to rational and discriminating analysis. And they are, I think, highly applicable to the circumstances we now face as scientists and scholars and as citizens and teachers.

ALBERT LEPAWSKY
Department of Political Science, University of California, Berkeley

Draft, Not Draft—or a Better Way

Donald A. Windsor ("The draft: Why not Ph.D. candidates?" Letters, 29 April) in his rebuttal to Robert A. Gross ("Drafting of Ph.D. candidates," Letters, 18 March) shares with the person he censures a propensity for abandoning the scientific method. As I believe this practice is the major bar to progress in the application of advances in the social sciences to practical affairs, I am writing not to discuss the substance of either argument, but to point out the clarity with which these two letters illustrate the universality with which disputants accept that one of two recognized alternatives must be adopted and then base their choice on emotional intensity, not recognizing what every arbitrator realizes—there must be a better way.

If there is a way in which the best interests of all will be served under the draft it will not be discovered by emotionally advocating currently recognized policy choices.

CLIFFORD J. MALONEY
6021 Landon Lane, Bethesda, Maryland 20034

Fish Flour and Fluoride

The article by Jane Ayres on fish flour (News and Comment, 6 May, p. 738) indicates that approval of this product by the FDA for general use is likely. As Ayres stated, fish flour is about 80 percent protein of high biological value, and the remaining 20 percent consists largely of minerals. One of the minerals present in high amounts is fluoride.

In a recent article [*J. Pediat.* **65**, 782 (1964)], I reported that a sample of fish flour produced by the VioBin Corporation of Monticello, Illinois, for human consumption abroad contained 169 parts of fluoride per million. Similar results were reported for fish flour produced in South Africa [G. M. Dreosti, *S. Afr. Med. J.* **38**, 631 (1964)]. The high amounts of fluoride in fish flour result from the inclusion of fish bones in the preparation of the product.

From some trials in groups of children in underdeveloped countries, it was reported that the most common intake of fish flour among them was between 10 and 20 grams daily. On this basis, and by using fish flour containing 169 ppm of fluoride, the daily

fluoride intake would be between 1.69 and 3.39 milligrams. The consumption of such high amounts of fluoride during the period of tooth development would undoubtedly influence the prevalence of dental caries and may also produce some mottling of the teeth.

I urge that studies be undertaken regarding the effect of fish-flour ingestion on the prevalence of dental caries and the degree of mottled-enamel development among children. Particular attention should be given to the consumption of fish flour by children in areas where considerable amounts of fluoride are also ingested daily from other sources, such as water and crude sea salt.

D. M. HADJIMARKOS
Department of Public Health, University of Oregon Dental School, Portland

More on Conservation

I write in reply to some of the letters (8 Apr., p. 152) commenting on my article "Geology and the new conservation movement" (28 Jan., p. 409).

H. E. Weaver accuses me of wanting to tear down the Alamo to build a shopping center. I want to go on record here and now as in favor of preserving the Alamo, Lincoln's home, the Acropolis, Mount Vernon, and Independence Hall solely because of their historical value. (I might note, however, that all of Weaver's examples are important economic assets, attracting thousands of tourists yearly.) I believe that, no matter how values are assigned, the cost of preservation must be considered. Perhaps a classic facade might be preserved as an architectural monument if the building can be made to serve a useful purpose. As I said, "The question is—what is the price of preservation and can we afford to pay it? In some cases we can and should pay the price; in others, the price is too high." The price must be set by the community. I do go along with Weaver in giving architects and historians a free hand in selecting the buildings to be preserved. There is more involved than architecture and history. Decisions on preservation should be informed community decisions based on consideration of all the many factors involved. In the case of buildings, I would not ask for a geological opinion, but I certainly would want an economist, an engineer, a planner, and a business representative on the team with the architect and historian. . . . I do not quarrel with Weaver's view that plant ecologists, taxonomists, landscape architects, and park planners can contribute to evaluation of woodland glades; I argue for inclusion of geologists in groups making land-use decisions. There are many woodland glades and, in fact, woodland glades can be planted and nurtured. On the other hand, mineral deposits cannot be planted. They are relatively rare, and they do not grow back.

I must take exception to Chester B. Beaty's limited concept of multiple use. I think the concept offers more value as a guide for land-use policy if it includes sequential multiple use as well as simultaneous or contemporaneous multiple use. Although extraction of minerals from wells or shafts is compatible with other surface uses such as agriculture, strip or open-pit mining is an exclusive surface use for the duration of the extractive process. The whole purpose of reclamation is to permit other uses following the harvesting of minerals. To anyone viewing land use in terms of generations of users, this is multiple use.

R. C. Clement's letter challenged my statement (incompletely quoted in the letter) that "Although conservation is frequently defined as effecting a harmony or balance between man and his environment, such a goal can never be achieved in an industrial society because an industrial society by its very nature consumes and changes its environment." Clement's argument indicates a lack of agreement on what constitutes harmony or balance. More is implied than disfigurement of the landscape. With the powerful tools and immense energy resources of an industrial society, man modifies natural earth processes, reshapes the land, transports vast quantities of earth materials from place to place, and changes the chemical composition of the water and soil. He does this in utilizing earth resources and in constructing and maintaining complex engineering systems. In my opinion, no balance in an ecologic sense can be achieved. There are too many irreversible actions.

Robert R. Curry argues that "Conservationists are rightly protesting the very recent forms of exploitation based on the use of large, modern, earth-moving equipment." To me this