

# Letters

tected as man's silent ancient companion in evolution. Only by defending a biological equilibrium, and not by manipulations of our genotypes or technological constructions of "better" environments, can a self-enlightened humanity give valid evolutionary directions to the changing of man.

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## A Plea for Man and Nature

While Dobzhansky's humanism is to be admired ("Changing man," 27 Jan., p. 411), his "evolutionary optimism" is incongruous, not because man cannot change, but because of long life-span and genetic limitations he cannot change fast enough! Today, technological effects are so enormous and rapid that man soon will live in a radically changed environment where his heredity will be out of phase with the natural forces that shaped it. Thus, evolutionary optimism is ill-founded. Anyone driving from New York to Washington or from Palo Alto to San Francisco can see, not a better world, but a natureless ecological nightmare. Can man function here as a well-adapted human? Will selection to "higher" evolutionary levels really occur? Dobzhansky seems blind to the technological impact on a highly vulnerable nature, especially in the tropics. As highly evolved as we are, our core of biological adaptations are still programmed to the *natural* environment and not to the big cities. Is it sensible to suggest that natural or even rural environments are of no value to man, that "we must certainly prefer an adaptedness to the present environments, not to those long defunct?" In effect, has there been, or will there soon be sufficient selection by polluted metropolitan environments to erase man's unspoken needs for open spaces, wild mountains, clean lakes, or small towns? Does Dobzhansky mean it is desirable to permit (let alone encourage) adaptation to New York-type cities, their bleak lifeless canyons of stone crawling with humanity, their noisy sunless streets and overcrowded subways? He sounds like so many of our big city students who brag of dislike for nature; who glory in technological sophistication, but are blind to flowers or songbirds in the spring. Yet without nature they, as members of the human species, are unadapted and meaningless. Dobzhansky decries

the prophets of doom. Yet their emphasis on the interrelatedness within the web of life, of man's dependence on living nature, is quite realistic! That "evolution may some day be directed by man" independent of nature, which presumably by then will have gone the way of all Dodo's, seems more absurd.

Recently, in San Francisco, I heard two symphonies, Roger Sessions' cacophonics followed by Beethoven's melodies. And why did I prefer Beethoven? Because it is like a sunny day on Cape Cod compared with downtown New York. I don't know whether Dobzhansky has forgotten what it was like to walk the dunes in solitude or to swim in the ocean, but to most humans, as products of natural selection, it is pleasanter than basking in 5 p.m. traffic on Fifth Avenue. Man will never become genetically adapted to technological society and remain human. Even if he could adjust genetically to this disbiological change, a biological and cultural absurdity would result.

Blind faith in the ecological good sense of man has dug graves for many human societies. Long before the problems which geneticists fear become realities, the population explosion will have destroyed those very qualities of nature to which we, as vertebrates, mammals, and finally as humans, have become adapted through 200 million years of natural selection. The most precious values of man, the enjoyment of life and of living, will then cease to have meaning for *Homo post-sapiens*. He will end as a species which has devoured its evolutionary mother, with a culture which has lost its biologic roots. Beethoven and Shakespeare, like flowers and hummingbirds, wild geese, and the free human spirit, will be incomprehensible curiosities.

Let us realize that future human evolution can develop only within contexts of diverse environments which are at least partly untamed in a nature pro-

## Political Arena at Berkeley

I enjoyed Langer's excellent article on Berkeley's political problems ("Report from California," 10 Mar., p. 1220), but I cannot get too anguished about them. Any institution which wishes to keep politics outside itself must keep itself outside of politics. Obviously the administrators, faculty, and students have the right to enter politics as individuals and this seldom causes problems. But when these individuals band together in organizations, identified with the institution, and make political matters the prime function of these organizations, when they seem to have an affinity for unpopular causes, and when they frequently gain national publicity by conducting political forays outside the institution, then they have brought politics into the institution—first by becoming politicians themselves, and second, by inviting retaliation by their political foes. There are no privileged sanctuaries in politics. If you enter the arena, the bulls will try to gore you. The picture of the students demonstrating on the steps of the State Capitol should be a warning to all who have the interests of higher education at heart. As long as such pictures are possible, then politics are in higher education.

WALTER F. ZELTMANN

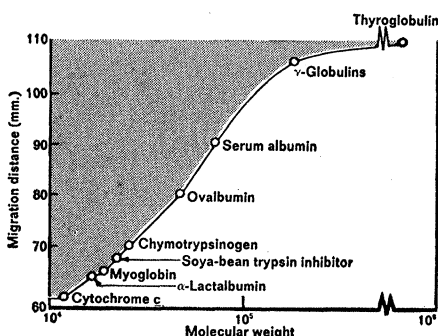
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I am highly indignant at the completely unwarranted statements about Governor Ronald Reagan of California. I believe the Governor *is* in full sympathy with the values and priorities of the state's educational institutions and has no intention of dragging education into politics. Nothing in the succeeding paragraphs of Langer's article supports these initial statements and nothing in the general press does either. For an impartial and scientific magazine and a spokesman for the scientific

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community to print such biased partisan propaganda as this brings serious discredit upon it. . . . I view Reagan as a breath of fresh air and common sense in a country gone tragically awry. You should be thankful that we can still produce such men and recognize them by placing them in positions of authority. It's dirty business to print such snide distortions of the facts as you have in this article. . . .

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Langer is an excellent reporter, although I don't always agree with her judgments, but she performs an important journalistic service for those of us who live here. Our newspapers are so bad that I have to wait until *Science* arrives in order to learn what our local situation actually is.

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I am very distressed about the implication that we here at the University of Southern California have been unresponsive to the problems at the University of California. The following excerpts from a resolution of the Academic Senate of USC, approved and passed on 15 February, truly reflect the feeling of the faculty here. The delay in this resolution was due to the fact that this was the first university senate meeting after the events at the University of California.

The University Senate of the University of Southern California wishes to thank Clark Kerr for his contributions to higher education in California and the United States.

The University Senate of the University of Southern California conveys to the Universities of California support in their fight for academic freedom and excellence in education.

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Langer's report implied that Governor Reagan's ill-advised attack on higher education in general and the University of California in particular somehow originated, was motivated, or at least, was condoned by the University of Southern California. This, of course, is totally untrue (I know because I earned my Ph.D. there). The "local cogno-

scienti" quoted in her article, whoever they may be (although I can't help but think that they are from UCLA), are obviously attempting to find someone to blame for a situation which has been generated in part by the total lack of attention to undergraduates at UCLA (I know because I earned my B.S. there).

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## Humanitarianism and CBW

The three letters (10 Mar.) defending chemical and biological (and, by implication, nuclear) warfare employ essentially similar justifications. Alpert confesses "this issue" [of university research on CBW] "is muddy in my mind"; I find all the authors' logic likewise. Their viewpoints are egocentric or narrowly nationalistic based on the unwritten premise of the right of American intervention in Vietnamese affairs.

First, they ignore the fact that, in contrast to all previous wars, warfare today is no longer a question of the extermination of a clan, a walled town, a religious group, or a nation, but involves the existence of the entire human race. The ultimate escalation could occur with explosive suddenness. It should be obvious that we must take every reasonable step to avoid the experiment of finding out whether 50, 10, or zero percent of humanity can survive an all-out war. The first step would be not to make wars on nations far or near but to negotiate the peaceful end of those now in progress.

Second, the writers of the aforementioned letters justify CBW by reference to the legitimate needs of defense. But defense today is a word that includes aggression! Is it really necessary to destroy the ecology of Vietnam in order to protect American lives—lives of people who do not have to be there anyway—and to defend the faraway folk in America? It may, of course, be difficult to understand the immorality of ruining a "rich biological area" and starving its population when the individual himself, or his son, is an actual or potential combatant. But there are those who are able to transcend this subjective view and, fortunately, some who act accordingly.

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