Letters

An Ecologist Looks at the Record

Lest the article by Carter ("National Academy of Sciences: Unrest among the ecologists," 19 Jan., p. 287), create the impression of a sour-grape syndrome among ecologists, I venture the following:

In 1953 a committee on the Present Needs for Research on the Use and Care of Natural Resources was set up by the National Academy of Sciences–National Research Council. Six professional ecologists were members or consultants. Of the remaining 12, the majority were well qualified by experience to understand their assignment.

Their report, NAS-NRC publication No. 288, includes a recommendation for an Institute of Applied Ecology, strong statements on the need for a population policy, recommendations with respect to biological and mineral resources, and the importance of better communication. Chiefly missing in the light of present experience is more than brief mention of pollution. Nor did urban problems then command the attention they are now receiving after more than 40 million people have been added to our population and traditional rural life has become an economic anachronism. This report is now out of print. . . . Meanwhile, we hear the charge of ineffectiveness and even timidity on the part of ecologists. . . . It has variously been ascribed to temperament, preoccupation, and lack of recognition within the field of science.

The late C. C. Adams saw clearly the vital role that ecology should play in public policy, urging with a vigor worthy of his friend, Theodore Roosevelt, that the gap between that field and the social sciences be bridged. After his death, the Ecological Society of America appointed a study committee. So far as it reached a consensus, this was on the critical need of better public understanding of the nature and role of ecology. As a direct aftermath of its discussion *Where There Is Life* [P. B. Sears (Dell, New York, 1962)] was prepared under the auspices of Science Service. . . .

It should be noted that professional groups, such as ESA, enjoy a tax-free status which inhibits political activity. They must, instead, rely largely on the informed action of their individual members as citizens. If the record be examined, it will show that, both as individuals and public servants, ecologists have been far from passive and that, so far as restrictions permit, their society is steadily expanding its effectiveness.

One of the greatest handicaps under which ecology labors is the fact that much of its material cannot be applied for immediate financial profit, but must be used for the less appealing, long-term benefit of society. Nor do its problems lend themselves readily to the precise and satisfying experimental control so productive in genetics, biochemistry, and similar fields.

Unfortunately, too, the brilliant success and obvious utility of the experimental sciences have crowded ecology into the background so far as a great deal of the teaching of future citizens is concerned. It is not so important that it be included as a rubric in the curriculum as that the point of view which it represents be infused into the many fields of knowledge upon which it draws and to which it should contribute.

As this point of view is now developing, it must involve the organism that has become dominant on earth. But unlike human anatomy and physiology, this does not fit neatly into existing academic systems. I should add that, great as the need for further ecological research may be, many of the difficulties faced by our civilization are due to the failure to apply what is already known.

Sheer necessity has led to the establishment of splendid institutes and programs dealing with various aspects of the environment such as atmosphere and ocean. Yet a strong case can be made for developing an institute of ecology, urged long since by Adams, noted in 1953 in an NAS–NRC report, and now a major concern of the Ecological Society of America.

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Student Unrest

In the discussions about student participation in the administration of institutions of higher education ("Student unrest," 27 Oct., and Letters, 12 Jan.), two considerations seem to have been overlooked.

The first is that students are only temporary participants in the affairs of the institutions and, having no permanent connection with them, have no right to participate in decisions affecting the long-term program of such colleges and universities. No business could last long if it had to pay much attention to the complaints or the demands of temporary employees. Neither will institutions of higher education, especially since students as such are not responsible for their financial solvency.

The second point is that professors, deans, and presidents are supposed to know more about the requirements of education and the process of acquiring it than students. If they do not, the institution better find some who do, quick.

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Moral Engagement of the Scientist

Julian Steward's response (Letters, 12 Jan.) to Eric Wolf's review of *Contemporary Change in Traditional Societies* expresses a view which I find unacceptable. Steward argues for neutrality as a necessary point of vantage in anthropology, and for that matter in all the social, natural, and physical sciences. It is only from such a vantage point, he claims, that the social sciences can attain that predictive competence which is their major function.

As a contributor to the work in question, and as an anthropologist centrally concerned with the question of the meaning of anthropology, I must state that I believe neither in the notion of neutrality nor in that of dissociated prediction. So far as the former is concerned, we all work with assumptions, that is to say, every science has a metaphysical basis, in Collingwood's sense. In anthropology, in particular, we are direct descendents of the western European enlightenment and have inherited its view of civilization. Anthropology is a symptom of civilization; its only justification is a greater understanding of

our own aspect of the human condition.

With reference to prediction, prediction by a supposedly disengaged observer is not only impossible, but if possible, would be repellent. It is impossible because to the degree that persons refuse to act historically in any positive sense, let us say in behalf of their so-called predictions, they are making their predictions less probable. It is increasingly obvious that in the modern situation, whether we engage or disengage, whether we speak or keep our mouths shut, we are nonetheless making decisions which will affect the outcome of the species.

The perspective that Steward adopts is not new; it is the perspective of the alienated professional, the specialist, the expert, no matter what his field. If anthropologists lay claim to any greater insight into alternative chains of events, then they have the responsibility to help actualize that sequence which is most conducive to the cultural development and survival of the species. If it were possible to predict, and at the same time not to act, then one must consider *that* both "scientifically" self-defeating and morally unjustifiable. If anthropology is a science, it is a moral science.

I find it peculiarly interesting that after at least a generation of nihilistic ruminations about the complexity of modern society, the autonomy of culture, and the irrelevance of individual behavior or of "values," the weaponry of modern war, including the means involved, and the activating decisions, are now in the hands of a few people. That is to say, fewer and fewer people can make decisions that have broader and broader consequences. This is one of the absolutely critical conditions of our time, and I think that it is about time that we all frankly admit that such decisions imply judgment, which, in fact, is ultimately moral in character. Man in the 20th century has been casual about, and contemptuous of, moral inquiry, and we scientists share a large part of the responsibility for that unconcern. But the wheel has come full circle and it is now rather clear that, whether we recognize it or not, we create, or destroy, the world in which we live.

It is clear then that I disaffiliate myself from Steward's value-free concept of modernization. On the other hand, Wolf's review would have been fairer to the contributors had he examined more carefully the premises and assumptions of each. My own contribution, for example, was clearly a protest

against the obliterating consequences of a certain type of modernization. Rousseau, our *bête noir*, shows us that it is very hard to have the anthropological consciousness without having one's heart broken, but that is no excuse for a paralysis of the will.

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True Genius Kindles

The announcement (8 Dec., p. 1345) of an AAAS symposium on Michael Faraday uses the phrase, "Despite his lack of formal education. . . ."

This is the sad fate of pioneers. Heinrich Hertz had no formal courses in electromagnetic theory, nor did James Clerk Maxwell. Lord Rayleigh was exposed to few courses in acoustics. Jacques Yves Cousteau never had formal education in undersea exploration.

Who are the followers and who the leaders—teachers or students?

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Doctors, Patients, and Malingerers

Dutton can't believe that people ever *want* to be hospitalized (Letters, 29 Dec.). Ho! Ho! Ho! I don't know where he works, but I'd wager it is not in the area of patient care. Sooner or later, every hospital and every physician makes the acquaintance of a person who *likes* hospital life. If you can afford it, and you are not very sick, it has its enticements: sympathetic people dedicated to taking care of you, and a routine which functions without any effort on your part (hot water bottles and fruit juice on request, meals served in bed with no dishes to wash, backrubs, and clean sheets and housecleaning done by someone else). This actually appeals, if only temporarily, to the lonely and the tired—ask any mother of small children! The real malingerers will put up with the inconveniences and pain to carry out their deception.

Furthermore, it is not rare to find the malingerer not stopping with symptoms that require only x-rays or aspirin. Some submit willingly not only to having blood drawn (which is not really all that traumatic), but to spinal taps, cystoscopy, orthopedic braces, and even