

INTER-OFFICE CORRESPONDENCE

FROM: MB

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TO:

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HHS	MAR -8 '49	HHS
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COMMENTS:

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Population

SUBJECT: The Biology of Human Populations

Object

To interpret human population problems in biological terms.

Method

The first step should be a survey of the extent and kind of research that is now being carried out in the United States on population problems in both the social and biological fields. This should involve an appraisal both of the institutions and of the individuals: of their resources, orientation; of their goals, and some estimate of their methods and progress in attaining those goals.

Such a survey will, in some respects, be easier in the field of the social sciences than in the biological field, since the people and institutions working directly on human population problems form a fairly clearly defined group who, in part at least, think of themselves as "populationists"; while students of the corresponding biological problems are widely scattered and hardly aware of their community of interest. The sheer bulk of the work under social or demographic auspices and the complexity of motives for such work, however, will tend to make any evaluation or summary difficult.

In the biological sciences it would hardly be possible in advance to define the areas of work that should be explored, and one of the prime results of the survey itself should be a clearer indication of the fields of work that are liable to contribute facts or ideas useful in the study of purely human problems. The applicability of much ecological work is obvious: work on the types of factors serving to control the status of natural populations, and on the results of interference with such factors; work on the various relations that exist among populations and communities of organisms and environmental factors. The applicability of general studies of fertility and mortality is also obvious, and such studies have been undertaken from widely divergent points of view,

sometimes under ecological auspices, but perhaps more often under fields of physiology and medicine. Some exploration of the fields of anthropology and ethnology would also seem to be indicated, in the hope of finding the possible sorts of information that might be available on the behavior of human populations under "natural" conditions.

The study of any population problem must involve both the organism and the environment in which it lives. In the case of man, the description and analysis of the environment is made peculiarly difficult because of the extent to which man himself exerts a modifying influence on his surroundings. The interpretation of human organism-environment relationships in biological terms, however, would necessarily be a basic part of a project like that suggested here, and work on purely environmental problems such as "natural resources" would have to form an important part of the survey.

Such a survey would cover, then, institutions, individuals and literature. It could not be exhaustive and still be practical. Perhaps reconnaissance would be a better word than survey, and the object would be to provide a sketch that might serve for the orientation of more detailed studies.

#### Possible value and results

There is a constant need, in the progress of science, for synthesis. The natural tendency in investigative work seems to be toward divergence, specialization, toward greater mastery of narrower fields. To counter this, to relate the diverging fields, seems to require a more or less conscious effort on the part of institutions and individuals. The most immediate and foreseeable value of a study of the type proposed here might be the stimulation of a tendency toward synthesis in the area surveyed. Ecologists working on population balance might be encouraged to summarize their results in a form available to social scientists; and the investigator conducting the survey might gradually come to perform a useful function in cross-fertilization by telling the demographer about ecological work or vice versa.

Such a survey should, in the second place, indicate particular lines of investigation that appear to warrant greater emphasis or support than they are at present receiving.

The ultimate objective, of course, should be to provide an intelligent basis for action which might tend to modify human population trends in ways resulting in maximum advantage for the species. Since we have in many ways deliberately interfered with the environment, creating a new situation with a speed that seems not to allow for compensating trends in evolutionary processes, some deliberate compensating action may be necessary. But any such action would require the marshalling of all of the information that might be made available through the scientific method, and would involve, certainly, an overhaul of the biological sciences from this point of view.

*MB*  
M. B.