Population, Resources, and Technology: A Colloquium in General Anthropology

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Abstract
This is a summary of Population, Resources, and Technology: A Colloquium in General Anthropology, an academic conference which took place on March 11-14, 1970 in Philadelphia.

Disciplines
Anthropology | Social and Behavioral Sciences

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Urgent Anthropology is an intricate problem. It is easy to decide what is urgent in other disciplines—e.g., food supply for the increasing world population, control of epidemics, the use of narcotics, etc., not to mention keeping the peace. But what is urgent for anthropology? To strengthen the “image” of anthropology—and this is the key for moral and financial support—it would be useful to have the encouragement and recommendation of the most influential worldwide organizations, particularly UNESCO. As for the detailing of programs, Vidyarthi’s article (CA 10:378-79) gives some good examples.

(3 F, I, P Germany)

The arguments of both sides are fairly clear and have been repeated time and time again. With the Editor, I stand for a pluralistic science of man. A dogmatic approach which would ban “urgent anthropology” as “butterfly-collecting” assumes that present theories and knowledge are God’s Truth. Those who assert that we should abandon obscure theoretical problems for the more fashionable problems of development and revolution should have the humility to recognize that one can sometimes hit the bullseye without aiming. Even though I do not care to work in the area of such problems as the study of hunting peoples, such work is of sufficient importance to gain support, whatever the short-run limitations imposed by various governments. Let us beware of dictating research to each other.

(3 M U.S.A.)

The rescue of data on races, ethnic groups, and cultures facing extinction is certainly most urgent, for once they have disappeared there will be no possibility of obtaining these data. I think that the term “urgent” is ill-chosen, however. Substitution of some such term as “emergency” would be preferable and would perhaps help to reduce the emotionality of the controversy.

(1 Czechoslovakia)

I think one must be free to choose one’s own research projects. Those who think that research on remnant populations is not worth doing are in my opinion as wrong as those who see it as more important than the study of problems of progress and change. In science, every scholarly question is worth studying. Our anthropology has two tasks: collecting data that tomorrow will be history and studying so-called culture change.

(3, 4 F Germany)

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**Conferences**

- Sponsored by the Near East Center, the University Museum, and the Department of Anthropology of the University of Pennsylvania, in association with the Wenner-Gren Foundation for Anthropological Research
- Organized by Brian Spooner

**Participants and their papers:**

- ROBERT McC. ADAMS, University of Chicago, Chicago, Ill., U.S.A.
- ESTER BORERUP, Copenhagen, Denmark
- BENNET BRONSON, University of Pennsylvania, Philadelphia, Pa., U.S.A.: Farm Work and Agricultural Evolution
- ROBERT L. CARNEIRO, American Museum of Natural History, New York, N.Y., U.S.A.: A Formula for Calculating the Interval of Time from the Onset of the Neolithic to the Beginning of State Formation
- NICHOLAS DAVID, University of Pennsylvania, Philadelphia, Pa., U.S.A.
- DON E. DUMOND, University of Oregon, Eugene, Ore., U.S.A.: Population Growth and Political Centralization; Prehistoric Population Growth and Subsistence Change in Eskimo Alaska
- JOHN DURAND, University of Pennsylvania, Philadelphia, Pa., U.S.A.
- ROBERT B. EKVAL, University of Washington, Pullman, Wash., U.S.A.: Demographic Aspects of Tibetan Nomadic Pastoralism
- WARD H. GOODENOUGH, University of Pennsylvania, Philadelphia, Pa., U.S.A.
- ALFRED HARRIS, University of Rochester, Rochester, N.Y., U.S.A.: Some Aspects of Agriculture in Taita
- MICHAEL JAMESON, University of Pennsylvania, Philadelphia, Pa., U.S.A.
- SOLOMON H. KATZ, University of Pennsylvania, Philadelphia, Pa., U.S.A.: Biological Factors in Population Control and their Relations to Social and Technological Change
- RICHARD B. LEE, Rutgers University, New Brunswick, N.J., U.S.A.: Population Growth and the Beginnings of Sedentary Life among the !Kung Bushmen; Social Intensification and the Madness of Crowds Among the !Kung Bushmen
- DAVID O’CONNOR, University of Pennsylvania, Philadelphia, Pa., U.S.A.: A Regional Population in Egypt; Prehistoric Times to circa 500 B.C.
- JOHN E. PFEIFFER, New Hope, Pa., U.S.A.
- PHILIP E. L. SMITH, University of Montreal, Montreal, Que., Canada: (with T. Cuyler Young) The Evolution of Early Agriculture and Culture in Greater Mesoamerica
- T. CUYLER YOUNG, JR., Royal Ontario Museum, Toronto, Ont., Canada: (with Philip E. L. Smith—see above)

**Discussion:**

The purpose of the colloquium was to provide a forum for the discussion of the implications for general anthropology of a model of technological and cultural change built on population growth as an independent variable. The model, which has its theoretical base in economics, is that propounded by Ester Borerup in her book, *The Conditions of Agricultural Growth: the Economics of Agrarian Change under Population Pressure* (Chicago: Aldine, 1965). Though pregnant with implications for many problems with which anthropologists have to deal, the book had received scant attention from the discipline. Moved by the inherent interest of these implications, two prehistorians specializing in the Near East, P. E. L. Smith and T. Cuyler Young, Jr., sought to rearrange the available archaeological data from an area of the
and therefore have adaptational implications—which require a certain crop of the diffusion of certain major cultural engineering as different forms of investment and the interaction of cultural and non-cultural factors in various environments; the significance of different types of data and then fitting them into one unitary theoretical framework. Our discussions benefited greatly from the active participation of a professional demographer, John Durand; and without the presence of Ester Boserup, who both patiently and continually repropounded the details of her hypothesis and acted as economic control in our anthropological speculations, the whole would have been a much less valuable experience.

A major theoretical problem to emerge from the papers presented and from the discussions was “What is a legitimate unit of study, and on the basis of what criteria should such a unit be defined?” Little explicit attention has been paid in anthropology to what is in fact an extremely important theoretical question: the definition of a relevant ethnographic universe for the investigation of any particular problem.

Other problems that received close attention in so far as they related to the central theme were the various technologies involved in the exploitation of different types of environment; the range of variables to be borne in mind in the measurement of agricultural efficiency; what started the Neolithic; the rise of the state; cultural and non-cultural factors that play a part in determining the size of local groups in different subsistence systems and environments; the significance of different types of investment in the environment; possible demographic factors in various religious, ritual, and political processes; and the interaction of cultural and biological factors in fertility and mortality.

Discussion was still gathering momentum when time ran out. Among the questions that were posed but not treated in any detail were how to deal with the special case of tree crops—date, breadfruit, rambutan, olive, and other nuts and fruit—within this framework; the relationship between knowledge and engineering as different forms of investment in an environment; the significance of the diffusion of certain major cultural values—such as bread-eating, rice-eating—which require a certain crop and therefore have adaptational implications; and, finally, the concept of “overload” and the nonecological and even noncultural factors that play a role in determining the size of local groups: the forces that make for clustering versus dispersal and vice versa.

We have, of course, only made a small beginning in the investigation of an important set of related problems, but at the very least we may claim to have drawn attention to the importance of a major noncultural factor in cultural change and evolution. The central theme of these papers and discussions (as expressed by Smith at one point) is that population growth is not the prime mover in history and society, but an ever present force—sometimes gentle, sometimes compelling.

**Publication:**
The volume now being prepared from the proceedings starts with a survey of the development of the theoretical context within anthropology and then proceeds through investigations based on the different types of anthropological data—archaeological, ethnographic, and physical—in the Near East, Mesopotamia, ancient Egypt, East and West Africa, Tibet, Alaska, and among the Bushmen, treating on the way the questions of technological, political, social, demographic, religious and ritual, and physical adaptation to population growth. Certain recurrent themes of discussion have had to be omitted from the volume because of difficulties of publication (either they could not be usefully written up in time, or they were already promised for publication elsewhere); these concerned details of the technology of swiddening in different ecological areas, the rise of the state in relation to population growth and the development of irrigation technology, and the work Adams has in progress in southern Mesopotamia, in which he also explores the usefulness of the principles of locational analysis.

*Reported by Brian Spooner*

### Institutions

- **The Council on Anthropology and Education** has been organized in order to associate its members in study and in efforts to advance the coordination of anthropological data, theories, methods, and insights with educational problems, practices, and institutions. Membership dues for the year 1970 have been fixed at U.S. $3.00 and will bring to the member two issues of a newsletter, as well as other membership privileges. Dues should be sent to the 1970 Chairman of the Council, Murray L. Wax, Department of Anthropology, University of Kansas, Lawrence, Kans. 66044, U.S.A.; the membership applicant should also attach a note indicating the standing committees, listed below, with which he would like to be affiliated. Individuals who would like to participate in the Council but who cannot afford the dues should write the Chairman indicating their interest and briefly describing their situation, and, to the extent that it can, the Council will subsidize their participation. Conversely, those persons who can afford the expense are asked to contribute to the speedy growth of the Council by assessing themselves with dues at double the normal rate ($6.00 instead of $3.00). A small grant from the Wenner-Gren Foundation for Anthropological Research has enabled the Council to initiate activity at a higher level than it will be able to maintain unless dues and contributions are forthcoming in adequate amounts.

  - The Editor of the CAE Newsletter is John Singleton, International and Development Education Program, University of Pittsburgh, Pittsburgh, Pa. 15213, U.S.A. The other officers of the Council for 1970 include Vice-Chairman, Harry F. Wolcott, Center for Advanced Study in Education Administration, University of Oregon; Secretary, Ernestine Kyle, State University of New York at Buffalo; and Treasurer, Harry M. Lindquist, Department of Anthropology, University of Kansas. The elected members of the Steering Committee include (besides Wax and Singleton) Nancie S. Gonzalez, Department of Anthropology, University of Iowa; Lambros Conitas, Teachers College, Columbia University; and Edward Dozier, Department of Ethnic Studies, University of Minnesota. When Paul J. Bohannon (Department of Anthropology, Northeastern University) resigned from the Steering Committee (in order to assume the editorship of the *American Anthropologist*), his place was temporarily filled by the appointment of Fred O. Gearing, Department of Anthropology, State University of New York at Buffalo.

  - The Council is composed of standing committees devoted to particular areas of educational research and development. These committees and their chairmen are as follows:
    - Anthropological Studies of School and Community: Jacquetta H. Burnett, Bureau of Educational Research, University of Illinois.
    - Cognitive and Linguistic Studies: Nancy Modiano, Education Study Center, Washington, D.C.
    - Selection and Training of Anthropologists and Educational Anthropologists: Gwen Neville, University of Florida, Gainesville.

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