

far more. I feel, in short, that the complete picture cannot rest in Easter Island alone and hope that in one of the coming volumes the authors will provide a more integrated and digested analysis of these problems, perhaps coupled with a more sympathetic use of the rapidly growing evidence from other parts of the Pacific.

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<sup>1</sup> Suggs, R. C., *The Archaeology of Nuku Hiva, Marquesas Islands, French Polynesia* (New York, 1961).

## EASTERN PAPUAN POLITICS

### Politics of the Kula Ring

An Analysis of the Findings of Bronislaw Malinowski. By J. P. Singh Uberoi. Pp. xv + 162. (Manchester: The University Press; New York: Humanities Press, Inc., 1962.) 25s. net.

THIS book is a digest of some of the literature on the islanders of the Eastern Division of Papua for the period 1900–30 considered from the point of view of political economy. The 'Kula' is one name of the area for exchanges of shell currencies or ornaments and other goods between trade friends of different local residences. Uberoi's point that trade has a political side to it is an axiom which he takes to mean that trade relationships between individuals covered wider areas than their homes. He gives no digest of figures of trade between Papua and Australia, Great Britain, Japan and Germany to exemplify his point.

A common view of Malinowski's works on the Trobriand Islanders of 1914–18 is that they discuss the 'Kula', among other things, but not world trade or Neolithic society. In mentioning Neolithic society in the Trobriands, Malinowski fabricated evidence about the number of the wives, the extent of the sphere of influence and the amount of the wealth of the eighteenth- and nineteenth-century predecessors of one chief among several he met during 1914–18. The domains of chiefs and of their home groups of about thirty men and their wives and children are not wide in area. They are areas of about a thousand acres, nine hundred of which are lying fallow in secondary growth in every season and which are cultivated by slash and burn agriculture. Malinowski wrote without much knowledge about agriculture and agricultural economics. One of the economic questions is whether the importing of chemical fertilizers can be made to pay or not, and he does not discuss this question or offer evidence pertinent to it.

There is much that is unknown about the history of these islanders, but they plant the yam and taro, which have not grown in the wild-type in north-east Africa or in south-west Asia since the late Miocene. They speak languages which are proto-Semitic in family and they very possibly have sailed from south-west to south-east Asia to Papua since the dates of the origin of agriculture in south-west and in south-east Asia. In the territory of New Guinea, stone pestles and mortars have been found resembling those excavated at Jericho by Miss Kathleen Kenyon from a seventh millennium B.C. site. A technique of making portrait skulls in plaster on bone from early Jericho is paralleled by a technique for making portrait skulls in baked clay on bone in nineteenth-century New Guinea. Clay spindle whorls from early Jericho have no analogues in New Guinea.

Uberoi's essay does not treat Goodenough, Ferguson and Normanby Islands adequately, or treat agri-

cultural economics. It is written in disagreement with Malinowski on disputable and sometimes fabricated evidence or opinion about the chiefs of north Boyowa Island and in discussion of some of the trade of the area.

R. F. FORTUNE

## ANNUAL ENCYCLOPÆDIA OF SCIENCE

McGraw-Hill Yearbook of Science and Technology 1961 Review/1962 Preview. Compiled by the Staff of the *McGraw-Hill Encyclopedia of Science and Technology*. Pp. 558. (New York: McGraw-Hill Book Company, Inc.; London: McGraw-Hill Publishing Company, Ltd., 1962.) 175s.

IT has been said—many times—that we live in an age when the man in the street knows less and less about more and more, while the specialist knows more and more about less and less. This is a book intended to help the scientific worker to know more about more and to inform him of recent work in all fields of scientific and technical activity. It is the first of a series of supplementary volumes produced to keep the *McGraw-Hill Encyclopedia of Science and Technology* abreast of the times.

The subjects treated are arranged alphabetically and bibliographies are supplied with most of them. There are many cross-references. Most articles deal with very specialized matters and so valuable criticism of them could only come from experts in these fields, but there are quite a number which will have a much wider appeal and which describe in outline how problems of general interest are being tackled. Among these are articles on such varied topics as nuclear explosion detection, land subsidence, warning systems for tidal waves, tenderizing of meat, oil and gas pipelines, vertical take-off aircraft and space travel. Few people will not have given thought to some of these.

The alphabetical section is preceded by a "Preview of 1962" which consists of five feature-length articles on subjects of widespread interest written by "the spokesmen of their fields". These are, in the main, good. "Man in Space" and "Man and the Sea" combine interesting records of past achievement with speculations as to future progress. The records impress with the success achieved in face of the very complicated problems which have been faced. The speculations are the sober judgments of responsible experts in their respective fields and are by no means to be judged as science fiction. "The Mind of Man" includes interesting accounts of experiments about animal learning and the information they provide for the psychologist. "Basic Research" reviews the planning and financing of scientific work in the United States. These are all well illustrated. However, the article about computers is less successful. We have heard many times of the wonderful things that machines can now be made to do: discussion of these occupies most of the space. It would have been more interesting to have had an explanation of the working of a computer of a very simple type and an indication of how it 'learns' and 'remembers'. The photographs of large rooms filled with meters and consoles are not instructive and could well have been omitted. They are, in fact, illustrations of computers but might equally well be accepted as refrigerators or filing cabinets.