real—"*There can be no doubt that man actually possesses such abilities.* The possibility that suggestion can influence the course of events would alone make it certain that psychic concentration can operate in the absence of direct physical action" (p. 230). Furthermore, he believes that the scholar can accept knowledge whose validity is attested only by the intensity of his own wish to believe—". . . when we go by our own experience, it matters little how often accident confirms prophecies and visions; decisive is a *sense of the self-evident* which inheres in certain psychic experiences" (p. 230).

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African Prehistory

African Ecology and Human Evolution. F. Clark Howell and Francois Bourlière, Eds. Aldine, Chicago, Ill., 1964. x + 666 pp. Illus. $12.50.

"The winds of change," Harold MacMillan's famous phrase, descriptive of the political climate pervading Africa, may be borrowed and projected into the compass of prehistory. "Change"—in temperament and temperature, in physical environment and human adaptation, in migratory patterns and isolation—has been the selective keystone for the flexible directions of hominid evolution in Africa for over two million years. The geometrically increasing discoveries—paleontological, archeological, and geochronological—of the past 40 years have emphasized the truism attributed to Aristotle: *Ex Africa semper aliquid novi.* Research workers from almost every continent are converging to join scientists from within the Dark Continent in attempts to unscramble the omelette of human prehistory, which is set in bone and stone. The earlier (and sporadically current) trends to apply European cultural tradition and evolutionary and chronological sequences to Africa compounded the confusion of French, English, South African, and other workers. However, new major discoveries are compelling reassessments of the "conclusions" reached earlier, even of those reached only one year ago.

An awareness of the need to attempt correlations of information flowing from scattered parts of Africa resulted in a symposium, African Ecology and Human Evolution, which was sponsored by the Wenner-Gren Foundation for Anthropological Research at its European conference headquarters in Austria. This volume comprises the background papers (some of which were prepared after the meeting) and a summary of the discussions.

Of the 19 papers, five deal explicitly with North Africa, and a few others, concerned with the sub-Saharan regions, include North Africa in their reviews. The rather thorough coverage by Arambourg, Monod, Biberson, and others is one of the outstanding contributions of this volume, especially to those prehistorians who are not familiar with the French publications. Many references are cited in the various articles—for example, Monod's overlong paper (113 pages) contains a 16-page bibliography.

The other papers deal regionally or conjointly with central, eastern, and South Africa: some titles, to indicate the breadth and scope of the volume, are: "The distribution of tropical African birds as an indicator of past climatic changes" (R. E. Moreau); "Observations on the ecology of some large African mammals" (F. Bourlière); "The later Tertiary and Pleistocene in eastern Equatorial Africa" (W. W. Bishop); "Brief remarks on the vegetation of the mountainous regions of East Congo" (L. Liben); "Baboon ecology and human evolution" (I. DeVore and S. L. Washburn); "Adaptive radiation in the Australopithecines and the origin of man" (J. T. Robinson); "Acheulian hunter-gatherers of sub-Saharan Africa" (F. C. Howell and J. D. Clark); and "Some ecological factors affecting human populations in sub-Saharan Africa" (J. Hiernaux).

The majority of the papers were distributed to the symposiasts prior to the conference. Although I realize that it was important for each paper to contain a fairly thorough review of the topic being presented, I do not understand why data that have often been published were not pruned down for publication after the symposium. This volume would then have been just as useful but much slimmer. One *has* to read so much these days without being subjected to a copious rehash of information. Students of African prehistory, who will undoubtedly use this volume, will in any event have to refer to the more detailed papers noted in the bibliographies.

The background papers occupy 546 pages, while the 18 discussion sessions (which extended over 12 days) are recorded in 100 pages. It is annoying that the papers are not grouped in any specific sequence (region, geology, mammalogy, primatology, or similar topics). The minutes of the discussions, at the end of the book, fail to indicate clearly which of the papers were under consideration at the various sessions. A fair amount is a repetition of statements in the background papers. I do not consider it my lot "to bury Caesar," but the nonexpert students for whom this volume seems intended will have to do a lot of homework to gather correlated information from the discussions. Even if a summary of "conclusions" or "objects attained" was not possible at the symposium, this would have been very helpful and most welcome to readers of this volume.

It is not possible to review here the individual papers, but two major issues should be indicated:

1) Hiernaux's stimulating compilation seems lost in a plethora of papers on geology, birds, mammal biomass, and the like. Recent studies (cultural and biological) on modern primitive populations abound in examples available for possible extrapolations into "fossil" populations. I suspect that discussion on the behavior and adaptive patterns of primitive human populations (which must be considered anachronistic relics of the pattern of survival for the large part of Man's evolution) would contribute rather more to our understanding of ecology and human evolution than the reports on the behavior of baboons and the mountain gorilla, interesting though these may be in themselves.

2) It is considered undesirable and not paleontologic for a symposiast, in tabulating the incidence and variety of mammalian fossils reported by others at numerous sites, to simply shuffle and alter species and generic names without explanation (as Cooke does in "Pleistocene mammal faunas of Africa, with particular reference to Southern Africa"). In any event, the elaborate tables presented have little or no comparative value in the light of our present knowledge, unless they are dealt with statistically. For example, of the 75 species of Bovidae, recorded by Cooke, from all of the East and the South African sites, only five are represented in both these regions and then these are *extant* forms.

There are an irritatingly large num-

ber of typographical and other errors (for example, incorrectly capitalized species names and misspelled proper names) in the text.

These criticisms should not detract from this volume's indisputable usefulness as a major reference work on African prehistory. The wide variety of topics, the tables that summarize current opinions on stratigraphic chronology, the maps that outline climates, distribution of mammals, vegetation and fossil sites, the informal (and occasionally unfortunate) comments of respected field workers on the relative values of data presented, the difficulties inherent in problems yet to be solved, the obvious transition to a biological approach in human paleontological and archeological thinking and techniques —these are the things that will make this volume a sought-after reference by students of African prehistory, and of human evolution in general.

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Experimental Studies

Bargaining Behavior. Lawrence E. Fouraker and Sidney Siegel. McGraw-Hill, New York, 1963. x + 309 pp. Illus. $8.95.

This volume represents the fruits of an unusually productive collaboration between an economist (Lawrence Fouraker) and a psychologist (the late Sidney Siegel). It reports on a series of laboratory experiments designed to test the empirical implications of several economic models concerned with bargaining outcomes in two- and three-party transactions. The experiments are neatly done, reflecting the laboratory skills of the experimental social psychologist, and they throw light on several models of economic conflict, reflecting the theoretical sophistication of the economist.

The first series of experiments is concerned with bilateral monopoly. Here, the basic experimental format involves two college students who are told that they are participating in a study of economic decisions. The students are in separate cubicles, and they are told that they will not get to know each other during or after the experiment. One student is assigned the role of "seller"; he selects a *price* which is announced to the other student, "the buyer," who then selects a *quantity* to buy. Each student is given a table (the row headings are "prices," the column headings are "quantities") which specifies the profit or the loss that results from the selection of a given price by the seller and a given quantity by the buyer. In one experimental treatment, called "Incomplete Information," the table given to the student contains information only about his own profit or loss; in another, called "Complete Information," the table contains information about the other's as well as his own profit or loss. A second experimental variation is concerned with whether the buyer-seller transaction was limited to a single transaction or was repeated. A third variation has the "prominent solution" of equal profits to both parties favor either the Bowley equilibrium solution or the Paretian optima solution. The Bowley solution assumes that each player is motivated to maximize his individual profit without regard to whether it helps or harms the other and that each realizes that the other's motivations are purely self-centered; the Paretian optima assumes that the players are out to maximize joint profit. The results, not surprisingly, support the Bowley solution, indicating that when subjects have little or no basis for social motives toward one another, they will act on the basis of immediate self-interest.

The second series of experiments is concerned with economic conflict among two or three sellers. In one set of experiments, each of the subjects (all of whom are "sellers") has to decide what quantity to produce, his profits or losses being determined by two factors—how much he produces and how much the other sellers produce. In another set, each subject has to decide at what price to sell his merchandise, his profit or loss being determined by the relation of his price to the other sellers' prices. Several economic models are compared: the Cournot and Bertrand models, which assume that the subjects act as individual maximizers; the Paretian optima model, which assumes that they act cooperatively; and a rivalistic model, which assumes that they try to outdo one another. The results indicate clearly that the economic models are incomplete: subjects will act individualistically, cooperatively, *or* competitively depending upon the experimental variations to which they are exposed. Man is not inflexibly self-centered, cooperative, or antagonistic; differing circumstances elicit different responses.

The major flaw in this book is its title, which promises more than a research monograph. The title suggests a discussion of the varied aspects of bargaining behavior and an adequate review of other related research, but the book contains none of these. It is a report of some fine experimental studies of bargaining which merit serious attention.

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Sociology's Flexner Report

The Education of Sociologists in the United States. Elbridge Sibley. Russell Sage Foundation, New York, 1963. 218 pp. $3.50.

Elbridge Sibley, like Flexner, Conant, and other critics of American education, undoubtedly intended to stir up the lions, and, judging from the roars one hears among sociologists, he has succeeded quite well. However, the reader of his Charles Addams-like portrait of American graduate education in sociology should approach the report properly armed with Bernard Berelson's observation that criticism is endemic in the world of graduate education and that a fairly high level of dissatisfaction is, and ought to be, expected, no matter what is being done. He should also be prepared to discount Sibley's conclusions in the light of the standard perceptual error by which we upgrade our predecessors, downgrade our contemporaries, and view our successors as taking the discipline canineward.

Sibley paints a dismal, funereal picture, indeed. The average caliber of the nation's graduate students of sociology, he reports, is unimpressive. Standards in graduate departments of sociology are generally lax. The objectives of graduate programs are ambiguous. Admission standards are too low. The process of professional socialization is often slow and difficult. There is an exceptionally great disparity between what is taught as sociology in most colleges and what is required of a professional sociologist. There is a low level of theoretical sophistication and lack of necessary competence in mathematics. Statistical