to be hereditary, and the diagnostic differentiation from hysteria must have been most uncertain at that time and place.

Next Ferembach examines possible racial relationships and origins. She rejects my hypothesis that the Afalou series represents a hybrid population, involved in a process of genotypical homogenization, of which the Taforalt series possibly represents a later stage. On the contrary, she argues that both are representatives of a single, uniform, racial subtype, but that, as each population was an isolate, certain minor divergent characteristics were developed in each locality. This argument turns in part on the implied assumption that the two series were fairly closely contemporaneous—but no level at Afalou has yet been dated. It turns also on a painstaking analysis of the statistical validity of differences between representatives of my postulated ancestral types, although the small numbers involved invalidate all such analyses.

A comparison of the Taforalt means with those of my Northwest African Mesolithic total series, which includes practically all the other known specimens from both "Iberomaurusian" and Upper Capsian sites, reveals an extraordinarily close general correspondence. My total series is much more variable of course, while Afalou occupies an intermediate position in this respect. These facts, together with my visual impression of the Taforalt material, which Ferembach very kindly showed me, lead me to think that I am right. But the real truth of the matter is that we simply do not have enough material available to justify definite conclusions. Have Ferembach and I gone too far in piling up hypotheses? Only further discoveries can tell, and it is possible that they may answer in the affirmative. In any case, Ferembach has given us a most admirable description of the biggest African Mesolithic series yet discovered, and she has given us also much food for profitable thought, not to mention a remarkable multilingual bibliography.

In dealing with the pathological aspects of the Taforalt skeletons, Dastugue points out that on the whole they seem to have been very healthy. He found no traces of rickets, osteomyelitis, skeletal tuberculosis, or cancer and almost no congenital defects aside from the frequent sacral anomalies already mentioned. Fractures too were exceptionally rare by prehistoric standards; only two individuals had serious head wounds, and one of them had survived long enough to heal satisfactorily. Osteoarthritis, however, and particularly hypertrophic spondylitis, were very common, but this was so in many other prehistoric populations. Two partially healed parietal lesions are interpreted by Dastugue as scars of trephining, and at least one obviously is. One is reminded of the curious symmetrically paired scars on the Gambetta skull (Balout and Briggs, 1949; Briggs, 1955). One woman with multiple injuries that must have practically immobilized her survived until after her broken bones had healed completely, which shows that care of the hopelessly infirm was not unknown. One wonders why such seemingly healthy people leading a sheltered sedentary life should die so young in general and so often shortly after birth, but, as Dastugue points out explicitly, there is no way of knowing with only bones as evidence.

Poitrat-Targowla's description and discussion of the dental pathology is both detailed and very interesting. Evulsion of one or both upper central incisors was universal. Out of 677 other teeth examined, 66 showed hypoplastic pitting. In one case an apparently nonsyphilitic, "mulberry"-like, hypoplastic condition characterized the second molars of both jaws. These phenomena, caused probably by severe fever during early childhood, fit well with the high rate of infant mortality. The author is inclined to attribute them primarily to the nutritional stress of weaning, but I fail to see any particular reason for this assumption. Only 40 teeth were carious, but others had undoubtedly been lost before death. Of the jaws with teeth still in place, 28.7 percent had periodontal or alveolar (periapical) abcesses, the latter often caused by caries that penetrated the pulp cavity. Generalized marginal periodontitis was a more serious problem, for it seems to have affected nearly 60 percent of the population. In short, the people of Taforalt had a lot of trouble with their mouths and teeth.

In closing I must say that even where I disagree with the authors' propositions, I still think that they deserve thoughtful consideration. Everyone engaged in the study of prehistoric human remains would do well to read this monograph.

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Cultural History

Myth and Cult Among Primitive Peoples. Adolph H. Jensen. Translated by Marianna Tax Choldin and Wolfgang Weissleder. University of Chicago Press, Chicago, 1963. x + 349 pp. Illus. $8.75.

This translation of Jensen's *Myth and Cult among Primitive Peoples,* originally published in 1951 and now available in English translation with a new author's preface, makes more accessible to American readers the current thinking of the so-called Viennese school of anthropology on the subject of primitive religion. The Viennese school carries on the traditional German and central European emphasis on culture history as the preeminent problem of ethnology. Concern, therefore, is directed at the historical explanation of contemporary phenomena rather than at psychological or structural-functional explanations. This tradition was, in its early days, dominated by the *Kulturkreislehre,* a school of thought that envisaged culture history as a temporal succession of globally distributed culture types. One of the tenets of many workers in this tradition was *Urmonotheismus*—the primitive and pristine divine revelation of God's word to early man, of which later pagan religions were degenerate descendants, and which was rehabilitated in the words and deeds of Jesus.

The newer historical school, which Jensen represents, no longer adheres to the *Kulturkreis* dogma and does not take a doctrinaire position on primitive Christianity and *Urmonotheismus.* In many ways, Jensen's viewpoint strikes a sympathetic chord to the American ear; he asks for recognition of primitive man's humanity, his rationality, and his psychological continuity with modern man. And he develops the interesting thesis, echoing Oswald Spengler in sophisticated fashion, that authentic, spontaneous, genuine religion, which is produced by a human group in intuitive response to its reality, degenerates over time into selfish and utilitarian application of the cultural forms (myth and ritual) which once were alive and vibrant expressions of wonder, mystery, and awe.

But the scientifically inclined reader is also disturbed by a mystical theme whose influence on the development of the argument may have been considerable. Jensen believes that magic is

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-