hydrolysis of proteins. It is to be expected, therefore, that d-amino acid oxidase will liberate small amounts of nitrogen from both normal and malignant tissues after such hydrolysis. If the amount of nitrogen liberated from these amino acids is of the same order of magnitude as that preexisting in the partly racemized glutamic acid reported by Kögl and others[3] to exist in malignant tissue proteins, then the d-amino acid oxidase method would seem to be unsuitable for the detection of such glutamic acid. Suppose, as an example, that 100 g of malignant tissue protein is assumed to have a nitrogen content of 15 g. If it is assumed that 5 g of glutamic acid are present in the hydrolysate of this protein, the glutamic acid nitrogen present will be 0.476 g. Even if this glutamic acid is completely racemized, the amount of d(−)glutamic acid present will be only 0.238 g, or 1.6 per cent. of the total protein nitrogen. This is of the same order of magnitude as the percentages of nitrogen liberated from normal and malignant tissues by d-amino acid oxidase; indeed, the nitrogen liberated from a carcinoma of the breast was found to be 3.7 per cent.

(2) In view of the recent report of Kögl, Erxleben, and Akkerman,[4] there seems to be little doubt that d(−)glutamic acid actually exists in acid hydrolysates of malignant tissue proteins. These authors have isolated, by two different methods, chemically pure d(−)glutamic acid from such hydrolysates.

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THE PEACE RESOLUTION OF THE AMERICAN ASSOCIATION OF SCIENTIFIC WORKERS

IMMEDIATELY after the outbreak of the European war in September, 1939, the members of the American Association of Scientific Workers attempted to crystallize their attitudes toward the conflict. This was done by discussions at membership meetings of the various branches, by communication between the branches and in discussion at two national committee meetings. From these discussions there resulted the following statement, which represents the attitude of a large majority of the members of the association.

Science is creative, not wasteful or destructive. Yet the same scientific advances which have contributed so immensely to the well-being of humanity are made to serve also in increasing the horrors of war. The present conflict in Europe focuses attention on this perversion of science.

The futility of war is especially clear to scientists, for war, as a method of solving human problems, is out of harmony with the rational spirit and objective methods of science. Wherever objective analysis is permitted, the great advantages of peaceful procedure in the adjustment of conflict become obvious. Scientists deplore the fact that the fruits of their efforts are exploited for the ends of death and destruction and look to the future when science will be employed only in the one struggle worthy of it—in man's never-ending contest with nature.

Scientists know that democracy and freedom of thought, which are precious to us both as citizens and as men of science, are endangered in the emotional turmoil which accompanies war. The continuance of progress now largely depends upon the scientists of the neutral nations. American scientists can best fulfill their share of this responsibility if the United States remains at peace.

We, the undersigned workers in science (including members of the American Association of Scientific Workers and other American scientists), therefore recommend to our fellow-citizens the wholehearted and unceasing support of all reasonable programs which seek a better undestanding of the causes of war, and which will preserve peace for the United States and bring peace to the world.

This statement, accompanied by a letter of explanation from Professor Arthur H. Compton, of the University of Chicago, chairman of the Mid-west Branch, is being mailed to many non-member scientists asking for their approval. When the signatures have been collected, it is planned to present the statement and the signatures to the President of the United States. Professor Compton's letter reads in part as follows:

May I ask your attention to the enclosed *Peace Resolution* adopted by the American Association of Scientific Workers, and if you approve it, please sign the resolution and return it. . . .

It is our desire to bring this resolution to the attention of the American public as expressing the earnest concern of American men of science in the maintenance of peace. The more nearly unanimous the responses to this request become, the more truly can we consider that this resolution represents the attitude of American scientists. . . .

Because of limited funds it has been impossible for the AASW to reach more than a small cross-section of the large numbers of American scientists. Others who approve the statement can signify their approval by writing Professor Compton.

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SCIENTIFIC BOOKS

THE STONE AGE OF MOUNT CARMEL

The Stone Age of Mount Carmel. Vol. II. By THEODORE D. MCCOWN and SIR ARTHUR KEITH. 390 pp., 88 tables, 247 illustrations, 28 plates. Appendix, bibliography and index. Oxford University Press, 1939. $20.00.

[3] See bibliography given in the paper of Lipmann *et al.*

[4] *Z. physiol. Chem.*, 261: 141, 1939.

THIS monumental work is an invaluable addition to our knowledge of those Stone Age forms of man that immediately preceded our own species upon the Old World time scale. The book deals with the human remains recovered from caves on the slopes of Mount Carmel in Palestine. It is confined, however, to those specimens recovered from cultural levels indicated as Levalloiso-Mousterian, and approximating in date the Riss-Wurm interglacial. The post-Pleistocene Natufian skeletal material is reserved for a later monograph. The present work is entirely osteological in nature, the cultural material and associated fauna having been described in Volume I of this series, published in 1937 and authored by Dorothy Garrod and Dorothea Bate. The two volumes together constitute the final report of the expeditions to Palestine supported by the American School of Prehistoric Research, the British School of Archaeology, in Jerusalem, and the Royal College of Surgeons through the years 1929 to 1934.

Because of lay interest in the spectacular *Sinanthropus* finds near Peking, the Skhūl and Tabūn peoples have tended to escape notice. Actually the latter propound new problems to the student of human evolution, as well as carry back into pre-Wurmian time the dating for a human type approaching *sapiens* in several diagnostic particulars. The finds were unusual, not alone in the amazing degree of individual variation represented, but in the presence of delicate skeletal parts such as the bones of the hands and feet, which provided an exceptional opportunity for extended anatomical analysis not usually afforded the student of Pleistocene man. Two human types were found: the Skhūl people, represented by several individuals of both sexes, and—from another cave—two Neandertaloid specimens referred to as "Tabūn." The Tabūn individuals are clearly assignable to *neandertalensis,* and may be assumed to be roughly contemporaneous, geologically and culturally, with the Skhūl remains, or, at best, slightly earlier.

The Skhūl people, on the other hand, present problems to specific classification. They are characterized by a variable mixture of both paleoanthropic and neanthropic characteristics which reveal possible affinities with the Cro-Magnon stock and also with the Neandertal strain—a people, in short, somewhat intermediate in character between the two. The brain is well up in the modern range and essentially *sapiens* in type; adaptation to bipedal locomotion is perfect. After some hesitation and weighing of characters, however, the authors assign the Skhūl people to those forms of humanity showing a dominance of Neandertaloid traits. Hybridism as the result of contact between an early *sapiens* type and *neandertalensis* can not be ignored as a possible explanation of this mosaic of advanced and primitive features, although it is not the explanation favored by the authors. They incline to the view that "the abundance of neanthropic characters in Mount Carmel man is an indication . . . that he broke away from the stem of mankind emerging in western Asia during early Pleistocene times, at a date later than did the ancestral stock of the Neandertals of western Europe. Being later in his separation, Mount Carmel man has thereby come to have a larger degree of Neanthropic characters of the stock which ultimately produced the Cro-Magnon. . . ."

This interpretation projects our search for the earliest *Homo sapiens* farther into the East, and introduces a view which the authors foresee may prove unacceptable to Dr. Hrdlička. The latter would, in all probability, view the Skhūl intermediates as simple evidence of the active evolution of the Palestinian Neandertals into the *sapiens* type. The authors of the present volume, however, are good-naturedly tolerant of interpretations other than their own, and lay no claim to infallibility. They have succeeded in producing a work which, in outlook and erudition, marks another milestone in our search for human origins.

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SOKOLNIKOFF'S ADVANCED CALCULUS

Advanced Calculus. By I. S. SOKOLNIKOFF. 446 pp. New York: McGraw-Hill Book Company. 1939.

THIS text is designed to follow one year's work in the calculus. In marked contrast to the familiar pattern of drill in technique and of numerous interesting applications to geometry and physics, this course provides special emphasis upon rigorous concepts of real variable analysis. In a well-coordinated, self-contained development the student is encouraged to acquire a critical attitude with regard to the existence of derivatives and integrals and the legitimacy of elementary operations in the calculus. The problem material is particularly well chosen to hint the wealth of possible later analytic developments. Much of what is often left to a graduate course is here made available in a substantial but not excessive program for one year's undergraduate work. Included are chapters devoted, respectively, to line integrals, applications of power series, Fourier series and implicit functions. The instructor must decide whether this solid unspiced fare, so well-prepared (patterned after selections from Goursat, Knopp and de la Vallée-Poussin), seems the best for the fleeting undergraduate semesters. In laying a solid foundation for the future analyst, the book affords little comfort to the technical problem-solver. This "advanced calculus" must in any case be followed