the "Bronze Age," is marked by the arrival of a new Tungusic group from Manchuria, the "Ye-Maek," whose cultural affiliation, according to Jung-bae Kim, is to be sought in the Karasuk culture on the Upper Yenisei valley. Later prehistory of Korea, leading to the formation of native states, was not covered by the conference.

What Pearson describes as the situation in which "the Western reader has virtually nowhere to turn to find a summary of recent accomplishments or an outline of what problems preoccupy field workers" (p. 1) has been remedied to some extent by the recent publication of "Tongsamdon: A Contribution to Korean Neolithic Culture History" by L. L. Sample (*Arctic Anthropology* **11**, No. 2 [1974]). Nevertheless, the three key articles of this volume, written by Korean scholars themselves, present useful information on the state of prehistoric research in Korea, with respect not only to the impressive results of recent years, but also to stated and unstated research goals and assumptions. Illustrations would have made it easier to follow the Korean contributors' arguments. Comments by Kwang-chih Chang and three Japanese scholars provide comparative perspectives, and the thoughtful introduction by Richard Pearson makes useful reading in itself.

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Photosynthesis

Proceedings of the Third International Congress on Photosynthesis. Rehovot, Israel, Sept. 1974. MORDHAY AVRON, Ed. Elsevier, New York, 1975. Three volumes. xx, 2194 pp., illus. $133.50.

These three volumes provide short summary papers on photosynthetic work from laboratories throughout the world as well as references to more detailed research papers. Participation in these conferences is always related to their location, and this one is no exception. By my count there were 155 participants from Europe, 42 from the United States, 65 from Israel (site of the Congress), and only 11 from countries outside these regions, the most notable absence being that of researchers from Russia.

Volume 1 contains 106 papers on photochemistry and electron transport in the photosynthetic apparatus. Progress in this area of photosynthetic research, while steady, is not proceeding at the rapid rate that characterized the 1950's and early 1960's. Those remarkable years gave us photosynthetic phosphorylation, enhancement, the two light reactions, cytochromes, plastocyanin, ferredoxin, P700, variable fluorescence, and the Mitchell hypothesis. Present work is largely an extension of these discoveries and models.

Volume 2 presents recent work on photosynthetic phosphorylation and carbon metabolism. Work on the latter phenomenon has received considerable new impetus from studies on C_4 plants (plants in which the first product of photosynthesis is a C_4 acid) and from a renewed interest in photorespiration. The phenomenon of photorespiration is of particular practical importance because a large portion of the carbon fixed by almost all C_3 plants (plants in which the first product of photosynthesis is phosphoglycerate) is subsequently lost by photorespiration. The papers by W. A. Laing, W. L. Ogren, and R. A. Hageman, by R. G. Jensen and J. T. Bahr, and by M. R. Budger, T. J. Andrews, and C. B. Osmund all develop the original observation of Ogren and G. Bowes (*Nature New Biology* **230**, 159 [1971]) that the enzyme ribulose diphosphate carboxylase is also an oxygenase, producing 3-phosphoglycerate and phosphoglycolate from ribulose diphosphate. These observations provide us with a valuable clue to the mechanism of oxygen inhibition of photosynthesis, as well as with a possible means of understanding photorespiration. In addition, a new question concerning the real quantum requirement of photosynthesis is opened. If we assume that the normally accepted value of 8 to 10 quanta per molecule of CO_2 fixed was determined in plants carrying out photorespiration, then the real quantum requirement should be considerably lower than the accepted value. Such a result would be in conflict with the quantum requirement of 10 predicted by the two light-reaction scheme as it is usually formulated. Perhaps these researches will soon challenge this cherished model.

Volume 3 presents recent work on the composition and development of the photosynthetic apparatus in higher plants, algae, and bacteria. These studies are characterized by observations on the sequential appearance of membrane peptides, lipids, and photochemical activities during greening, the function of stacked as compared with unstacked membranes, and the isolation of fractions enriched in one or the other photochemical reaction.

This valuable and beautifully bound collection of papers, while financially beyond the reach of many students, is an essential acquisition for biology research libraries.

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Books Received

Abnormal Haemoglobins and Thalassaemia. Diagnostic Aspects. Proceedings of two workshops, Istanbul, Aug. 1974, and Jerusalem, Sept. 1974. R. M. Schmidt, Ed. Academic Press, New York, 1975. lvi, 372 pp., illus. $19.50.

Adult Fitness and Cardiac Rehabilitation. Proceedings of a symposium, La Crosse, Wis., 1974. Philip K. Wilson, Ed. University Park Press, Baltimore, 1975. xx, 408 pp., illus. $19.50.

Advanced Fluid Mechanics. An Introduction. A. J. Raudkivi and R. A. Callander. Halsted (Wiley), New York, 1975. xii, 326 pp., illus. $27.50.

Advances in Experimental Social Psychology. Vol. 8. Leonard Berkowitz, Ed. Academic Press, New York, 1975. xii, 340 pp. $19.50.

Advances in Liquid Crystals. Vol. 1. Glenn H. Brown, Ed. Academic Press, New York, 1975. xii, 320 pp., illus. $31.50.

Algal Cultures and Phytoplankton Ecology. G. E. Fogg. University of Wisconsin Press, Madison, ed. 2, 1975. xvi, 176 pp., illus. $12.50.

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The Analysis of Detergents and Detergent Products. G. F. Longman. Wiley-Interscience, New York, 1975. xvi, 588 pp., illus. + appendices. Paper, $33.

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Atlas of Optical Transforms. G. Harburn, C. A. Taylor, and T. R. Welberry. Cornell University Press, Ithaca, N.Y., 1975. vi, 34 pp. + plates. $15.

Atmospheres of Earth and the Planets. Proceedings of an institute, Liege, Belgium, July 1974. B. M. McCormac, Ed. Reidel, Boston, 1975. viii, 456 pp., illus. $65. Astrophysics and Space Science Library, vol. 51.

Atomic Absorption Spectroscopy. James W. Robinson. Dekker, New York, ed. 2, 1975. xii, 184 pp., illus. $14.75.

Behavior Therapy with Children. Vol. 2. Anthony M. Graziano, Ed. Aldine, Chicago, 1975. xiv, 640 pp., illus. $19.95.

Biochemical Fluorescence. Concepts. Vol. 1. Raymond F. Chen and Harold Edelhoch, Eds. Dekker, New York, 1975. xiv, 408 pp., illus. $29.50.

Biophysical Chemistry. Physical Chemistry in the Biological Sciences. Readings from *Scientific American.* Victor A. Bloomfield and Rodney E. Harrington, Eds. Freeman, San Francisco, 1975. viii, 232 pp., illus. Cloth, $12; paper, $6.95.

Brain Mechanisms and the Control of Behav-

(Continued on page 210)