Book Reviews

The Beginnings of Chinese Civilization. Three Lectures Illustrated with Finds at Anyang. Li Chi. Foreword by M. Rogers. University of Washington Press, Seattle, 1957. xvii + 123 pp. Plates. $6.50.

In the '30's of the present century, systematic excavations at the capital of the Shang Kingdom (circa 15th to 11th centuries B.C.) revealed a wealth of information about the beginnings of Chinese culture, parallel with the greatest discoveries at Troy, Knossos, or elsewhere. Li Chi, who is justly compared by the editor of this little book with Heinrich Schliemann, was in charge of these excavations in the North China plain for a number of years and today is universally honored as one of the greatest living Chinese archeologists. No reader interested in such a subject will regret the cost of this book, illustrated as it is with so many plates, some quite new.

The first chapter gives a general authoritative account of the paleolithic and neolithic times in China, showing how the organization of the first state power was marked by decisive new developments—an outstanding bronze metallurgy, the formation of the first system of Chinese script (the oracle-bone characters), the introduction of chariots, an advanced stone-carving art, *terre pisé* buildings, elaborate royal burials, and new kinds of ceramics, involving kaolin and glaze. In the second chapter Li describes the greatly increased use of animals, both wild and domestic, including the buffalo, which distinguished the Shang people from their neolithic predecessors. Traces of similarities with western Asia now appear, such as phallic jar covers, and a "hero-and-beast" motif which recalls the Gilgamesh Epic of the Fertile Crescent; Amerindian totem poles are suggested by certain Shang carvings.

Opinions may differ about the convincingness of these parallels, but they are more acceptable than the suggestion made earlier of a connection between certain ancient Chinese "hairy man" legends and the descendants of the Old Man of the Chou-Kou-Tien Upper Cave —a paleolithic person. Li also seems to smile upon the identification of certain faces on Shang bronzes as being those of Negroes or Negritos; I am open to conviction but not yet convinced. More immediate agreement is won by the finding that the rectangular bronzes of the Shang derive from wooden forerunners, while the round ones derive from pottery predecessors.

Perhaps Li's most important disclosure in this book is that concerning the analyses of Shang bronzes carried out by the chemists of Academia Sinica. Differences between contemporary objects thus demonstrate that the Shang people knew the differences in properties brought about by varying the percentages of copper and tin (and lead) in their bronze. The knowledge expressed in a famous text of the third century B.C. is thus clearly exhibited 1000 years earlier.

The book ends with a discussion of the typology of bronze knives, vessels, and dagger-axes. The only criticism which could be voiced concerns the publisher and editor rather than the author; the Chinese characters inserted in the text are microscopically small, and their insertion is not systematic. It was a pity to "spoil the ship for a ha'pennyworth of tar."

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Nonparametric Methods in Statistics. D. A. S. Fraser. Wiley, New York; Chapman & Hall, London, 1957. 299 pp. Illus. $8.50.

One area of statistical research that has received increased attention in recent years is the area of nonparametric statistics. Historically, the development of statistical inference was concentrated in the area of parametric statistics—in techniques which made many assumptions about the universe from which the observations were drawn. These assumptions are generally in the form of the parameters or population values that characterize the population. The most famous of these populations has been, of course, the normal population.

In the development of nonparametric statistics, fewer assumptions are made about the universe from which the sample observations are drawn. In fact, then, these nonparametric methods deal with statistical inference on a more general level than do parametric methods.

In this volume the author sets himself the task of collecting the developments in the field of nonparametric methods that have taken place in recent years. His approach is not merely to collect and present a set of techniques. His approach has been a more general one—"to restate the standard problems in quite general terms and then look for adequate statistical procedures." Among the standard problems he discusses are single-sample problems (the problems of fit, location, and symmetry), randomness problems, and randomized blocks and other experimental designs.

The first two chapters offer an excellent review of the general techniques of estimation and hypothesis testing, which forms the basis for the subsequent discussion of nonparametric methods. The volume constitutes a welcome addition to the statistics library and will reward anyone paying it the careful attention it deserves.

IRVING ROSHWALB
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Biochemical Disorders in Human Disease. R. H. S. Thompson and E. J. King, Eds. Academic Press, New York, 1957. 843 pp. $12.60.

This book consists of a series of essays on 20 different types of diseases, written by 31 authors of whom about one-third are from American, and two-thirds from British, laboratories. The editors are both chemical pathologists.

The orientation of the authors is for the most part that of pathologists; they have, generally, written about the diseases in question in a traditional manner with, however, the realization that biochemistry is of vital and growing importance and must be brought into the discussion. It is 50 years since what was presumably the first book entitled *Chemical Pathology* was published. In spite of the growing emphasis on biochemistry, the present volume cannot be said to be biochemically oriented to a high degree. This is illustrated by the fact that among the topics which are, in most cases, omitted in the index and which do not enter into any serious discussions in the text are adaptive enzymes, biochemical genetics, coenzyme A, cytochromes, disease susceptibility, flavoprotein enzymes, gene mutations, the genetotrophic concept, pantothenic acid, pyridoxin, pyrimidines, riboflavin, templates, and viruses. As the editors state in the preface, no separate chapters deal with diseases of the skin, infectious diseases, gerontology, or cancer.

In spite of limitations stated or implied, this is a valuable volume and con-