Usdowski classifies dolomite formation in sediments as early or late diagenetic, both mechanisms reacting on a previously formed $CaCO_3$. Experimental compaction of natural carbonate sediments (Ebhardt) and a classification of stylolites by Park and Schot illustrate other schools of European investigation. About the only major investigative field not included is that of isotopes.

The volume makes no attempt to be exhaustive, but it lives up to the title as an interesting progress report.

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Human Adaptability Project

Human Biology. A Guide to Field Methods. J. S. WEINER and J. A. LOURIE, Eds. Published for the International Biological Programme by Davis, Philadelphia, 1969. xxxvi + 624 pp., illus. Paper, $17.50. IBP Handbook No. 9.

This book is the second volume in the handbook series of the International Biological Programme to be concerned with the Human Adaptability Project of the program. In Handbook No. 1, also edited by Weiner and first published in 1965 (second edition, Davis, 1969, $3), the goals of the Human Adaptability Project were described and the general method was justified. In the present book the specific techniques to be used in the Project components are described.

The 50 separate procedures described in the book cover seven topical areas appropriate to research on human adaptability. These are: growth and physique, genetic constitution, work capacity and pulmonary function, climatic tolerance, nutrition, medical and metabolic studies, demography and related sociocultural factors, and finally environmental description. As stated in the introduction to this volume, a primary consideration in the selection of each procedure was its suitability for field conditions. Weiner and Lourie also state that the procedures are the distillate of the efforts of over 100 contributors and have been subjected to evaluation and testing by a series of working parties and conferences. The results of these various working parties and conferences have also been published in various other pamphlets and books which provide valuable supplements to the present volume.

The descriptions of techniques vary considerably in detail and depth. Techniques for assessing physiology, growth, and some genetic systems are described in sufficient detail that any human biologist with modest training could carry out the prescribed tests. In other subjects, particularly in the medical and sociocultural areas, the sections provide at best a framework for the development of appropriate methods. Certainly the variation in quality suggests that both the interests of the original planners of the Human Adaptability Project and the effort devoted to field testing strongly affected the quality of the resulting technique descriptions.

Judging by the original time table of the International Biological Programme this book has appeared decidedly too late to serve its avowed purpose of providing techniques for IBP researchers. The IBP finished its planning stage in 1967 and is scheduled to finish the research program in 1972. However, it has been clear from the beginning that the human adaptability proposals called in essence for a whole new scientific discipline. Plagued by a worldwide shortage of funds for research, the program has been slow to progress. Nevertheless, the pilot projects have been highly productive, and it appears that a new concept of human biological research will emerge from the program. For those who are interested in a preview of what this discipline will contain, Handbook No. 1 and the present one are highly recommended.

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Steroids and Gonadotropins

The Gonads. KENNETH W. MCKERNS, Ed. Appleton-Century-Crofts, New York, 1969. xviii + 794 pp., illus. $45. Biochemical Endocrinology, vol. 2.

This volume consists of papers originally presented at a symposium on gonadal function. It is not, therefore, an integrated presentation of gonadal endocrinology in general. Rather, authors were chosen whose work represents important contributions over a wide range of our current knowledge. The interplay of various views is brought out by the inclusion of portions of the accompanying discussion. According to the editor "the guiding principle was not only the presentation of the latest research but also a comprehensive approach to the basic problems in the field of the investigator's interest with a survey of the development of the ideas leading to his current concepts and plans for future research." The more general goals have been met in widely different degrees by the different authors. The papers vary from brief introductory paragraphs followed by presentation of the author's work in the usual symposium form to accounts that truly integrate the author's results with the field as a whole.

The various experimental techniques used in the study of steroid biosynthesis in the ovaries and its control by gonadotropins are well represented, as is evidence for different views of the mechanisms of gonadotropic action. The reader therefore has an opportunity to evaluate the conclusions reached. The mechanisms by which gonadotropic levels are controlled are not considered, however.

The broad range of approaches and their current uses are illustrated by the inclusion of two chapters on luteolysis, another by Channing presenting a summary of her studies on cultures of different types of ovarian cells, and one by Christensen and Gillim dealing with the ultramicroscopic structure of the steroid-secreting cells of the ovary and testis. Christensen and Gillim's chapter also constitutes an admirable general review of the relation of various organelles to function and forecasts future developments.

The portion of the volume discussing the testis is more limited than that devoted to the ovary but, again, both in vivo and in vitro methods of study are well represented. This section contains, in addition to papers on androgen biosynthesis and its control, a chapter on fluid dynamics in the testis, and the Steinbergers contribute an excellent chapter on spermatogenesis. One wishes that papers on the physiology of fertilization had been included.

In summary, this book will bring the reader in touch with some of the best current work on gonadal function. It is not comprehensive; some leading workers and their contributions are not represented. It is, however, a valuable source of knowledge, and scientists whose work impinges on this field will find it a valuable addition to their libraries.

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