in all laboratories. The 2nd edition is reasonably priced and will be a valuable addition to the histopathology laboratory for both the student and advanced worker.

F. A. PUTT

JAUNDICE DURING PREGNANCY. By Urs Peter Haemmerli. New York, Springer-Verlag, Inc., 1967. 111 pp. $3.80, paperbound.

Jaundice During Pregnancy is an excellent monograph which should be read by all internists, obstetricians, and pediatricians, and which should be available in all medical libraries for ready reference. The author concisely summarizes the known minor alterations of the liver and its functioning during normal pregnancy, but points out that abnormal serum transaminases and prothrombin are always indicative of a pathological situation. The author then classifies and masterfully reviews the diseases that cause jaundice during pregnancy. These include viral hepatitis (41% of all cases), cirrhosis, drug hepatitis, biliary tract disease, pyelonephritis (especially when treated with large doses of intravenous tetracycline), toxemia, and the fatty infiltration of the liver. The way in which pregnancy may modify the course of these diseases (and vice versa) is thoroughly discussed. The author marshals evidence that tends to demolish the widely held belief that gall stone disease is caused and exacerbated by pregnancy. A sensible discussion of the indications for interrupting pregnancy in the presence of jaundice is given. The author concludes that interruption is probably only justified in acute fatty infiltration of the liver. The major portion of this monograph is devoted to the review of 132 cases of recurrent jaundice during pregnancy culled from the literature. Only 18 were documented by a liver biopsy, and it is on the basis of these 18 cases that the author discusses the problem and defines the syndrome. The author stresses that this is a benign condition and that the most annoying symptom, pruritis, can now be alleviated by the use of cholestyramine. Perhaps the author's greatest contribution is his insistence on a liver biopsy showing intrahepatic cholestasis coupled with a recurrence of the same syndrome during successive pregnancies as necessary for the diagnosis of intrahepatic cholestasis of pregnancy, since recurrent jaundice during pregnancy may be due to different diseases in successive gestations.

The author is to be commended for bringing together a large body of knowledge. Minor criticisms include the absence of a discussion concerning the relationship of recurrent jaundice during pregnancy to the cholestatic hepatitis which occurs following estrogen and/or progesterone therapy. No discussion of the placental origin of the serum alkaline phosphatase that becomes elevated during pregnancy is given.

ROBERT L. SCHEIG

HISTONES. Their Role in the Transfer of Genetic Information. Ciba Foundation Study Group No. 24. Edited by A. V. S. de Reuck and Julie Knight. Boston, Little, Brown and Co., 1966. 115 pp. $3.50.

This little book presents the papers and accompanying discussion of a meeting held in December, 1965 on the role of the histones. It is attractively
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printed and bound and is pocket sized. In contrast to many symposia proceedings, the lag between the time of presentation and publication was rather brief. Not only are the appearance and timing of the book attractive, but the contents make it well worth its modest price.

The format for the meeting was the presentation of an invited paper followed by an open discussion. The book begins with an introduction by the chairman, A. E. Mirsky, which was followed by a paper on the complexity and specificity of histones by J. A. V. Buttner. He reported on the striking similarity of the histones of trout liver and calf thymus and on the suitability of counter-current distribution for further resolution of histone fractions but its unsuitability for fractionating whole histone. This was followed by a discussion on the fractionation of histones.

The histones as specific repressors of chromosomal RNA synthesis was considered by J. Bonner and R. C. C. Huang. They reported, among other things, that the histone molecules in the histone-RNA complex are apparently held together by hydrogen bonds and that the RNA is not attached directly to the histone but is bound to a non-histone protein that is acid soluble when associated with histone, but is not itself acid soluble. This paper was followed by a discussion on the presence of RNA in histone preparations, on the molecular weight of histones, on the aggregation of histones, and on their specificity.

A paper on the metabolic behavior of chromatin was given by V. G. Allfrey and associates. They reported on their studies of acetylation of histones, including acetylation in polytene chromosomes, avian erythrocytes, and in human lymphocytes "transformed" by phytohemagglutinin. They interpret their data as indicating a functional correlation between histone acetylation and the RNA-synthetic capacity of the chromatin. The discussion of their paper centered on the nature and function of nuclear thiol groups and on the methylation and acetylation of histone.

A consideration of the histones and reliable control of protein synthesis was presented by B. C. Goodwin. He considered theoretically the degree of specificity of interaction required between DNA and regulator molecules for the control of genetic activity in higher organisms and concluded that a low specificity may be the case and that the low specificity of histones is compatible with the argument that histones can function as primary genetic regulators. A discussion followed on the amount of genetic material and on the regulatory function of histone fractions.

The last paper by G. V. Sherbert, concerned with the effects of histones and other inhibitors on embryonic development. Sherbert observed that actinomycin, histones and poly-L-lysine caused a complete inhibition of the development of the chick embryo at the primitive streak stage and he suggested that the histones site of action was in the cytoplasm, while the other two agents acted directly on the DNA. The mode of action of histones was then discussed.

The volume ends with a rather lengthy general discussion of the histones, interesting not only for the range of the topics considered but also for the insights it affords into the laboratories of many of the participants of the
study group. The Ciba Foundation is to be congratulated for the high quality of the meeting and of the publication that resulted from it.

WILLIAM F. SHERIDAN

The Culture of Vertebrate Embryos. By D. A. T. New. New York and London, Academic Press, 1966. 245 pp. $14.00.

The purpose of this book, as set forth in the introduction, is to describe available methods for the culture of vertebrate embryos and to note some experiments that have been performed on such embryos. It is intended to benefit both the research scientist and the biology teacher; the use of live material for teaching purposes is emphasized. The first chapter deals with the equipment, media, instruments, and general facilities employed in culture procedures. Since most suppliers of equipment and living animals mentioned are in England, portions of this chapter are of limited use to scientists in this country. Each following chapter deals with a separate vertebrate class: mammals, birds, reptiles, amphibia, and fish. The author presents some detailed research experiments and data and also some of the methods employed in the study of these embryos—or of embryonic tissue. Fundamental but space-consuming details of histological processing, the importance of turning chicken eggs during incubation, methods for the measurement of CO₂ and O₂, the effect of temperature and humidity on the hatchability of chicken eggs, the importance of the size of a piece of meat to feed amphibia, etc. vie with the presentation of results dealing with the culture methods used for these embryos. More critical organization of the text might also have led to condensation of the book by the elimination of repetitive passages; repetition is particularly noticeable in the chapter dealing with amphibia. Each chapter ends with a description of the "stages of normal development" of the organisms discussed. Although these tables may serve some purpose by being collected into one text, their critical usefulness for the research scientist is limited, since many are presented in abbreviated form; taken together, however, they occupy 75 pages of the book. Most likely, therefore, this book will be useful to the teacher of biology in schools having limited libraries. For the research scientist, elimination of the many trite facets of research, a critical evaluation of vertebrate embryo cultures, and discussion of the factors bearing on the success and failure of the current methods would have made the book more stimulating and valuable.

WILLIAM E. KOCH

Social Communication Among Primates. Edited by Stuart A. Altmann. Chicago, The University of Chicago Press, 1967. xiv, 392 pp. $15.00.

During the annual meeting of the American Association for the Advancement of Science in Montreal in December, 1964, a symposium was held on Communication and Social Interaction in Primates, and the results are presented in this book. As usual in this type of meeting, there was a central theme which in this case was monkeys and social relations, and a variety