## Anatomy

**Atlas of Human Anatomy**. vols. 1–3. vol. 1, *Osteology, Arthrology and Syndesmology, Myology* (317 pp.); vol. 2, *Splanchnology, Ductless Glands, Heart* (229 pp.); and vol. 3, *Nervous System, Angiology, Sense Organs* (326 pp.). Ferenc Kiss and János Szentágothai. Pergamon, London; Macmillan, New York, ed. 17, 1964. Illus. $17.50.

This atlas, by Ferenc Kiss and János Szentágothai, professor emeritus of anatomy and professor of anatomy, respectively, at the University of Budapest, consists of three attractive cloth-bound volumes which are boxed together. A glossy, high-quality paper is used, and most of the figures are in color. In most cases the terminology is based on the *Nomina Anatomica* (Paris, 1955) with modifications adopted at the International Anatomical Congress (New York, 1960). The figure labels are in Latin, but the legends are in both Latin and English. The figures are good; the lead lines for the labels are easy to follow, and their termination is clearly indicated. Furthermore, they do not interfere with a study of the figure. In some cases the labels are numbered with the key at the bottom of the page. Each volume has two indexes, one for anatomical terms and another for figure legends.

Previous editions of the atlas have been published in Hungarian (five editions), German (four editions), Russian and Bulgarian (one edition), Russian (three editions), and one edition each in Chinese, English, Spanish, and Czech.

In volume 1 the authors consider osteology (149 figures), arthrology and syndesmology (64 figures), myology (104 figures), and muscle origins and insertions (25 figures).

Volume 2 covers the digestive system (81 figures), the respiratory system (40 figures), the urogenital system (66 figures), the ductless glands (7 figures), and the heart (29 figures). Colored cutaway figures are used to show detailed structure of the intestinal wall and villi, the villi, the liver, the spleen, and the kidney. There are also colored figures of injection-corrosion preparations showing the portobiliary lobes of the liver, the hepatic veins, the renal blood vessels, the hypophyseal circulation, and the cardiac vessels. Details of the glomeruli and their associated vessels are shown in photographs of corrosion preparations. There are several figures of the peritoneum and structures within the mesentaries.

Volume 3 is devoted to the central nervous system (94 figures), the peripheral nervous system and blood vessels (91 figures), the autonomic nervous system (6 figures), the lymphatic system (23 figures), the sense organs (47 figures), and the skin and appendages (5 figures). Detailed gross structure of the brain is given in 56 figures; craniocerebral topography in 4 figures, and cranial meninges in 7 figures. The brachial plexus is shown in relation to the scaleni muscles, the axillary artery, and the pectoral girdle.

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## Introductory Abstract Algebra

**Principles of Modern Algebra**. J. Eldon Whitesitt. Addison-Wesley, Reading, Mass., 1964. viii + 262 pp. Illus. $7.50.

This book, which was designed as an introductory abstract algebra text for training teachers of secondary mathematics, follows an outline recommended by the Committee on the Undergraduate Program in Mathematics (CUPM) of the Mathematical Association of America. It is also intended to introduce, in a modest but sufficiently substantial manner, modern algebra to the not too sophisticated sophomore mathematics major. It might well also serve as a textbook for a fifth year of high school mathematics.

The first chapter treats sets, relations, functions, binary operations, and logic; the second is a small but useful zoo of algebraic systems—the integers as old friends (but with a beginning exposure of structural bones), the integers mod 7 and mod 6, permutations, and 2-by-2 matrices. In chapter 3 an adequate but not inspired treatment of mathematical induction precedes a rigorous discussion of the integers as equivalence classes (of ordered pairs of natural numbers) that form an integral domain having certain essential factoring and division properties. The field of rationals is then described, starting from equivalence classes of fractions; representing the rationals on the number line and by decimals leads to defining the positive reals by positive decimals but without pressing on to addition and multiplication. Thus unconstructed, the reals are taken to be what is asserted to be the essentially unique complete ordered field. The complex numbers follow the usual blue print.

The second half is abstract but with a variety of examples—groups (permutations, rigid plane motions, cyclic subgroups), rings, and fields, including some mention of ideals and extensions. The final chapter defines a polynomial over an integral domain D as a finitely nonzero infinite sequence in D, develops the integral domain of these polynomials, relates it to the polynomials with which the high school student is familiar, and ends by discussing divisibility and factoring.

The development from the familiar to the abstract is appropriately staged, and the exercises are well chosen and well grouped. Although the mathematical style could at times be a little lighter and more direct, and there is some muddiness of phrasing (for example, "Thus subtraction and division are usually not defined for the set" of natural numbers) and occasional vocabulary slips (see pages 25 and 150), this is a serious, hardworking, and successful attempt to carry out the intent of the CUPM outline, and it should serve its purposes.

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## Introductory Textbook

**Introduction to Molecular Biology**. G. H. Haggis, D. Michie, A. R. Muir, K. B. Roberts, and P. M. B. Walker. Wiley, New York, 1964. xii + 401 pp. Illus. $7.50.

The authors of this volume set out to present an introduction to molecular biology intended for students in biological and medical science in their second and third undergraduate years or in their early research years. They also expect that the volume will be useful to physics and chemistry students contemplating work in molecular biology.

To encompass the wide and rapidly growing field of molecular biology and ultrastructural studies, the survey must