Behaviour and Physique. An introduction to practical and applied somatometry. R. W. Parnell. Arnold, London, 1958 (order from Williams and Wilkins, Baltimore, Md.). viii + 134 pp. $7.

In line with the author's emphasis, expressed in the subtitle of his book, I shall limit this review to consideration of Parnell's technique for classifying body build. Parnell's master is W. H. Sheldon, author of an influential work on human taxonomy [*Varieties of Human Physique* (Harper, 1940)] based on considerations of body shape and aimed at describing physiques and the possible relationship of body type and behavior. Sheldon's "components" of physique (endomorphy, mesomorphy, ectomorphy), defining the somatotype, are complex concepts. Thus, *endomorphy,* a term usually used to describe roundness of physique and the capacity of the body to store fat, according to Sheldon's definition covers a good many other morphological characteristics (short limbs, small hands and feet, chest wide at the base, head almost spherical, genitalia tending to be hypoplastic). These morphological features are thought to be discernible even when exercise, nutrition, age, or disease change the "padding."

Parnell retains the main architecture of Sheldon's system but makes two important modifications. (i) Physical anthropometry is used systematically in conjunction with, or instead of, inspection of standard photographs. (ii) Although Parnell undertook to approach closely Sheldon's estimate of somatotypes, he labeled the components of physique *fat, muscularity,* and *linearity* in place of Sheldon's *endomorphy, mesomorphy,* and *ectomorphy.* A similar system of classification, differing only in that ratings of fat and muscularity were derived from photographs rather than from body measurements, was developed in the late 1940's by E. A. Hooton and his associates at Harvard University.

It is unfortunate that Parnell retains a definition of *linearity* (heir to Sheldon's *ectomorphy*) based on the height/$\sqrt[3]{\text{weight}}$ index. This is a poor concept because weight includes both fat and muscle, and Parnell had already used these to define his first two components of physique.

In the interest of making the body-build classifications for adult individuals of different ages comparable, the author provides four separate age scales for evaluating "total fat" (the sum of three skin folds); three age scales for correcting the contribution of subcutaneous fat to the appraisal of muscularity; and six scales for determining the ponderal index—a criterion of linearity. These age corrections, especially those for the fat component, are based on samples that are too small.

Strangely enough, the principle of equivalent percentiles, accepted for identifying physiques differing on account of age, is not applied to the differences associated with sex. Small wonder that an overwhelming majority of women students from the universities of Oxford and Birmingham turn out to be endomorphs—*F*'s (for *fat*) in Parnell's notation!

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Gmelins Handbuch der Anorganischen Chemie. System No. 5, supplement: *Fluorine.* xviii + 258 pp. 1959. $36. System No. 15, part C: *Silicon.* xii + 501 pp. 1958. $67.44. System No. 59, supplement 2, part D: *Iron. Magnetic Materials, Magnetic and Electrical Properties.* xxxviii + 580 pp. 1959. $78.24. Verlag Chemie, Weinheim, Germany. Illus.

The supplementary volume on fluorine, three times the size of the main volume published in 1926, contains the information gained in this rapidly growing field during the subsequent quarter of a century. The material covers the occurrence of fluorine; its preparation, physical properties, electrochemical behavior, chemical reactions, toxicity, detection, and determination; and the compounds of fluorine with hydrogen, deuterium, oxygen, and nitrogen. The enlargement in the scope of the presentation indicates the increase in interest in fluorine that has occurred since 1926.

Part C of the volume on silicon is devoted to the chemistry of the nonmineral compounds of silicon, usually referred to as organosilicon compounds. The major part of the volume contains information on the preparation and properties of silicon-hydrocarbon compounds. These are grouped as follows: tetraalkylsilanes, alkylhydrogensilanes, alkylhalogensilanes, alkylalkoxysilanes, alkylsilanoles, alkylsilicic esters, alkylsiloxanes, alkylthiosilanes, alkylaminosilanes, and alkylsilazane. More than 3000 compounds are described, either separately or through listing of their characteristics in tables.

In addition, the subject of silicones is treated in detail; the discussion includes the more significant applications of silicone oils, pastes, greases, and resins, as well as the uses of silicone rubbers.

The special volume on the magnetic and electrical properties of magnetic materials constitutes a supplement not only to the volume on iron but also to those on cobalt, nickel, manganese, and chromium. Since ferromagnetic materials were covered in earlier volumes [*Iron,* part A (1934); *Iron,* part D, with supplement No. 1 (1937); *Cobalt* (1931); *Platinum,* part A; *Gold; Aluminum,* part A; and *Magnesium,* part A], the supplementary volume contains only the data for the period subsequent to publication of the volumes cited. Twenty-six pages are devoted to iron, 121 to alloys of iron, 11 to cobalt, 13 to alloys of cobalt, 63 to nickel, 42 to alloys of nickel, 22 to alloys of manganese, two to alloys of chromium, and 121 to ferromagnetic semiconductors.

The volume on silicon contains a subject index to compounds, while that on the magnetic materials features a 66-page section on patents, in addition to an index of alloys. Each of the volumes that appeared in 1959 includes a bilingual table of contents, and all three volumes have marginal headings in English. This feature is of great help to non-German scientists and, in addition, supplies them with a valuable glossary.

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The North Alaskan Eskimo. A study in ecology and society. Bureau of American Ethnology Bulletin 171. Robert F. Spencer. Smithsonian Institution, Washington, D.C., 1959 (order from Government Printing Office, Washington, D.C.). 490 pp. Illus. Paper, $2.50.

This study is based upon two summers of research at Point Barrow, Alaska (1952 and 1953). It is a thoroughly professional and detailed account of the customs, beliefs, and behavior of the largest single group of Eskimos in northern Alaska, as these were reconstructed through reminiscences of the elders in the village.

Point Barrow became a base for whalers after 1850, and thus there has

been very considerable alteration in the whole pattern of life for the native Eskimo during the past century. It is always difficult to make a valid reconstruction of a native culture after such a period of white contact, particularly of those beliefs and ideas which are the mainsprings of society as a going concern. Nevertheless, with his training and experience, Spencer was able to do a thoughtful and penetrating job.

Earlier studies such as those of John Murdoch (about 1885) have emphasized the material culture and archeology of the native group, as have most studies of the Eskimo. This report is the first detailed account of the social and intellectual culture, and for that reason it will be much more useful to the social anthropologist. There are excellent sections on the family and kinship, and on the supernatural, for example.

The report of the investigations at Point Barrow is supplemented by more general comments on North Alaska as a whole, and in this section Spencer gives a clear account of the significant differences in the life of inland and coastal Eskimos, a summary of theories about the history of the people, and some conclusions about cultural change resulting from the impact of white civilization.

The book makes good reading for anyone interested in the arctic, and also for the student of northern peoples.

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Ancient Landscapes. Studies in field archaeology. Bell, London, 1957. xvii + 297 pp. Illus. 84s.

This fine volume is based on lectures given by Bradford at Oxford University, over the last 10 years, on his yearly field trips in Europe and the Mediterranean regions and on his experience as an Army officer working with air photography during World War II. Bradford is at present university demonstrator and lecturer at the Pitt Rivers Museum, Oxford.

The book, which is written in a pleasantly informal style, may be divided into two parts: chapter 1, on method, and chapters 2 to 5, on applications and results. Chapter 1 is a detailed explication in which Bradford gives examples from the Old and New worlds of the use of air photography for archeological study of various kinds of sites. Bradford discusses the types of evidence most often revealed by air photographs (soil marks, crop marks, shadow sites) and deals with the origins, significance, and possible pitfalls encountered in the use of each type of evidence.

He also discusses the necessary photographic apparatus itself and the actual taking of various kinds of archeological air photographs. He continually emphasizes the need for a cooperative program that combines reconnaissance from the air with *sondages* and excavations on the ground. Bradford feels (and successfully demonstrates in this book) that air archeology can make valuable contributions toward realization of the ultimate aim of all archeology, the reconstruction of societies as "going concerns"—that is, the presentation of a site or of a group of sites, or even of a region, as a functioning entity. Reconnaissance from the air is uniquely able to provide detailed topographic data towards this end.

Chapter 2 clearly illustrates the principles and techniques discussed in chapter 1 through a detailed presentation of methods and results in a study begun in 1945 on the Foggia Plain in Apulia, in southeast Italy. Bradford and his equally enthusiastic comrade, Peter Williams-Hunt, succeeded in delineating and mapping a very large group of Neolithic settlements whose existence was previously practically unknown to Italian archeology, since "no trace of any surface earthworks, of bank or ditch, survived above ground."

The rest of the book (chapters 3 to 5) is a fascinating consideration of certain other kinds of "ancient landscapes," as revealed by archeology from the air: Etrurian cemeteries in Italy; centuriated Roman landscapes in Europe and North Africa; Greek, Roman, and medieval towns in southern Europe, North Africa, and the Aegean.

Not the least attractive feature of Bradford's book is the inclusion of many bibliographic references to detailed articles on various aspects of air photography and to key publications on the archeology of the various areas he uses as examples.

In sum, Bradford's volume is a valuable addition to the literature on archeological method, and to our knowledge of certain aspects of life in Neolithic, classical, and medieval times in Europe and the Mediterranean world.

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Medicine and Anthropology. *Lectures to the Laity,* No. 21. Iago Galdston, Ed. International Universities Press, New York, 1959. 165 pp. Illus. $3.

The six lectures in this volume constitute a series organized by the New York Academy of Medicine around the general thesis that anthropology, as "the science of man and his works," can play an important part in helping medicine to recover the humanistic and historical perspectives it has left behind in its phenomenally rapid development as a discipline that is focused on the causation, prevention, and treatment of disease.

The lectures by Paul Fejos, "Man, magic and medicine," and by F. S. C. Northrop, "Cultural mentalities and medical science," stress the need to understand health and illness from the cultural standpoint of the patient if medical practice is to be effective. Marston Bates' "The ecology of health" provides a biological perspective for consideration of the relations between culture and health. The chapter by Alexander H. Leighton, "Mental illness and acculturation," develops the theme that acculturation, when rapid and extensive, has a damaging effect on mental health. The essay by John W. Dodds, "The humanist looks at the doctor," is a wise and witty discussion of the consequences of overmechanization and narrow specialization in medicine; Dodds makes a plea for inclusion in the medical curriculum of courses in social science and the humanities—if the doctor is ever to view and treat the patient as a whole person. The final chapter, by Raymond Firth, "Acculturation in relation to concepts of health and disease," views medicine, including concepts of health and disease, as part of a social and cultural system and examines the ways in which sociocultural contexts affect receptivity and resistance to the acculturative forces of Western medicine.

Anthropologists, as well as other social scientists, are being called upon in increasing numbers to undertake research in medical fields; this book affords some glimpses into the contributions that have been made thus far. Although intended primarily for a lay audience, these lectures should make interesting and worthwhile reading for physicians and social scientists as well.

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