The translation, obviously a work of care and intelligence, is excellent. This would be a truly international volume that could and should be used anywhere, if it were not for the few historical accounts in which all work in geodesy, past and present, is described as entirely Russian.

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Body Composition

The Body Cell Mass and Its Supporting Environment. Body composition in health and disease. Francis D. Moore, Knud H. Olesen, James D. McMurrey, H. Victor Parker, Margaret R. Ball, and Caryl Magnus Boyden. Saunders, Philadelphia, 1963. xxvi + 535 pp. Illus. $23.

This monograph presents data related to body composition which have been collected from normal subjects and patients. It is, furthermore, an exposition of the utilization of biophysical techniques in which isotopes are employed to systematically investigate the volumes and the compositions of the fluids found in the several compartments of the body. The authors and their colleagues have been among the pioneers in the development and use of these techniques, and it is fitting and useful that they should now bring together their material. The book is divided into two major sections. The first includes a discussion of materials, methods, and values; the second part presents the data obtained from a group of patients that included some of the common clinical, surgical, and medical problems seen in hospital practice.

In the first portion of the monograph there is a detailed account of the methods, interpretations, and calculations; an exposition of the statistical techniques employed; and a presentation of the values for normal adults. In their calculations and presentations the authors employ a variety of ratios aimed toward formulating the image of the average man in health. This has certain statistical qualities that recommend the approach in that it permits a basis for comparison. However, when the mean average datum for some parameter found among normal subjects is, in the clinical section, compared with that observed in a patient, one sometimes wonders whether this might not be misleading in the context of the specific problem of the particular patient.

A more thorough and critical analysis of this problem, explicitly stated, would be helpful. Nevertheless, the data are exceedingly valuable and will be useful to many. A section at the end of the book presents some of the methodology in greater detail and thereby enriches the first part of the monograph.

The second portion deals with analyses of the distortion in body composition among patients with chronic wasting disease, acute injury and infection, hemorrhage, anemia, hypo- and hypernatremia, heart disease, renal and hepatic failure, and obesity. A "summary without conclusions" is then presented, which, in fact, summarizes the monograph in a systematic and sequential fashion. It is here, perhaps, that a searching critique of the potential pitfalls in the applications of this particular approach would have been appropriate.

The bibliography is concerned primarily with literature specifically related to the examination of body composition, and to this extent it obviously will be quite useful. However, since the authors attempt to correlate the distortions in body composition in disease with pathophysiologic mechanisms, it would be helpful if the bibliography included considerably more of the accumulated literature of this field. This is made all the more pertinent since the discussion of the pathophysiology is not always precise or complete.

This monograph will be helpful to all those who are interested in the volumes and the composition of the body fluids in health and the distortions thereof that may be observed among patients with a variety of disorders. The data, in both the normal and the diseased group, are obviously useful, and it is a great aid to have these collected in one volume. The book would have been strengthened if the authors had been more explicit with respect to some of the limitations of the techniques employed, and if a more complete and more elegant discussion of the pathophysiology of the disordered states had accompanied the account of alterations in body composition.

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On Science Communication

How to Know a Fly. Vincent G. Dethier. Holden-Day, San Francisco, Calif., 1962. 127 pp. Illus. $3.75.

This little book at once takes its place as a minor classic, somewhere between George Gamow's *Mr. Thompkins in Wonderland* and Jean Henri Fabre's immortal accounts of the lives of insects. However, the strong breeze of wit and rationality that blows through these pages makes dear old Fabre appear verbose and sentimental. The difference is more than the difference between two men, though it is that. It represents a measure of the intellectual distance between the science of the late 19th century and that of the mid-20th century. The reader will find here not only a robust humor lacking in the more ponderous writing of the past but also a far greater critical acumen and a more penetrating imagination. Perhaps the increased sweep and surness of modern knowledge permits a lighter touch.

The author, an outstanding experimentalist at the University of Pennsylvania, writes largely but by no means exclusively from his own work. In many places the account becomes anecdotal but never trivial. Every story —the tale of the fly who reported on the tardy charwoman or the story of the carrousel for flies—carries a point. The topics range from the biological clock within each fly to the changing food cravings of pregnant lady flies (if an egg-laden dipteran may be termed pregnant). The approach is generally neurophysiological, with emphasis on sensory responses. At the same time we are never permitted to forget the role of these processes in the life of the whole fly. Thus, it is entirely appropriate that a leading ethologist, Tinbergen, has provided an introduction.

The book is embellished with comic illustrations. The chapter headings are excerpts from Don Marquis, Lewis Carroll, and Edward Lear. These are amusing but often not very informative about the contents of the chapter. In conclusion, one is glad to admit that Dethier has made great strides in overcoming the language barrier which, for so many centuries, was almost the only effective barrier separating man and fly.

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