

these local populations are disappearing, quite as has happened elsewhere in the world, under necessities imposed by central planning for standardizing livestock for purposes of greater production. Thus local gene pools, adapted to local conditions of environment or human culture, are being lost, as are a wealth of localized beliefs and practices of management. Someday people will be interested in recovering this information, and Epstein's book may be the only source they will have for some of it. Even here, except for information on toy dogs (information which the Chinese already have), there is not much on the history of selection leading to varietal specialization. Probably little of this information was ever recorded, and thus it was not available to Epstein.

The pig, with more than 100 recorded varieties, easily earns its popular place as China's most important domestic mammal. Considering that Chinese pigs, from Inner Mongolia south, seem to function in major part as ambulatory fat reservoirs, the wide distribution and great popularity of fat-tailed sheep is surprising; however, these sheep do not occur in the southern third of China, where the pig is ubiquitous, and do have their major distribution in the drier areas of northern China where pig raising (although often accomplished) is not so easy as in the semitropical south.

With regard to histological details and qualities of fleece of sheep, cashmere goats, camels, and reindeer (these last limited in China to a small part of the northeastern Inner Mongolia), Epstein often tells us more than most of us are going to want to know. I suspect that wool in particular and fleeces in general are favorite subjects with him. His enthusiasm for the pilose even extends to pig bristles, which obviously are still an important by-product of pig raising.

Although the book is essentially a practical compendium on cattle, yaks, buffalo, sheep, goats, reindeer, camels, pigs, horses, asses, mules, and dogs, many bits of quaint and otherwise forgotten lore are included. One not mentioned, however, comes to mind by the omission. The only human use for yak tails listed is as fly-whisks. How have the mighty fallen to lowly functions? When Genghis Khan was the scourge of the world his standard consisted of nine yak tails; when the yak tails were raised and the kettledrums roared, for-

ward swept the horsemen and empires fell. That is the proper function of a yak tail!

CHARLES A. REED

*Department of Anthropology,
University of Illinois at Chicago Circle,
Chicago*

East European Neuroscience

Neurobiology of Invertebrates. Proceedings of a symposium, Tihany, Hungary, Sept. 1967. J. SALÁNKI, Ed. Plenum, New York, 1968. 504 pp., illus. \$27.50.

Although only a few of the 34 papers in this volume do more than present recent research, the book is interesting because about two-thirds of the articles are from laboratories in Eastern Europe. Their standard of research is high in the fields of neuroanatomy and biophysics. Papers such as those on cephalopod statocysts (Vinnikov *et al.*, Leningrad), structural changes in photoreceptors of arthropods caused by light (Röhlich, Budapest), and the influence of ionic environment on the activity in giant neurons of mollusks (Kostyuk, Kiev) show that there is no noticeable difference with the best research in the Western part of the world. In the field of integrative neurophysiology the Eastern research still clearly suffers from the mysticism and authoritative inheritance that have characterized neurophysiology, especially Russian, for many decades.

It should be pointed out that the title of the book may be slightly misleading, for mollusks have by far the most pages devoted to them, with arthropods a poor second and other phyla having few or none. Though mollusks have come very much in the limelight because of their identifiable cell bodies, such a distribution reflects more the interest in the Eastern countries than that on a global scale. One paper, illustrating an important use of the features of molluscan nerve cells, may be especially mentioned. Glaizner (Southampton) studied systematically the effect of four potential transmitting substances on a good-sized population of identified cells in the garden snail, *Helix aspersa*. It was found that even neighboring cells, though reacting identically in different specimens, showed a wide variation in their reactions to the four substances—a beautiful proof of the diversity in properties of central nervous elements.

In some of the Eastern articles, the language barrier is still present, so that it is difficult to understand what the author really means, but this is here less pronounced than one has come to expect. Figures and general editing are of good quality, but a definite drawback is the absence of an index, which would have been useful even if it only included the names of chemical substances and species. In general, this book illustrates again that, at least in invertebrates, the innate properties of nerve cells are of great diversity and that one should not neglect these properties when networks based on interconnectivity are modeled to represent central nervous functions.

C. A. G. WIERSMA

*Division of Biology,
California Institute of Technology,
Pasadena*

A Primate Group

The Chimpanzee. Vol. 1, Anatomy, Behavior, and Diseases of Chimpanzees. G. H. BOURNE, Ed. Karger, Basel, and University Park Press, Baltimore, 1969. xii + 468 pp., illus. \$28.50; by subscription, \$25.

This book, the first volume of a proposed multivolume series, is in effect an account of the anatomy of the head and brain of the chimpanzee. Chapters on the growth changes in the skull, face, jaws, and teeth, on the larynx, and on the brain constitute 70 percent of the text. Apart from Schultz's general review of the skeleton, the anatomy of the chimpanzee ends at the neck.

The behavior section is composed of two short chapters, one on comparative nesting patterns of the great apes and one on research on home-raised chimpanzees. The section on disease is equally condensed, there being two shortish chapters, one on malaria and one on intestinal infections. Although not flagged in the subtitle the first two chapters, by W. C. Osman Hill on the discovery, geographic distribution, and history of the chimpanzee, are satisfyingly learned, well-written, and informative.

The book, I am afraid, is a thorough hotchpotch, unbalanced, uninspiring, and unrepresentative. The problem facing a reviewer of multi-authored volumes is to differentiate between the worth of the individual contributions and that of the total concept. There is