evinces a certain modernity in that the majority of the papers are written by women. The book is divided into two parts. The first consists of five quite different papers with an editorial comment containing the following summation of their content: "We have been told how a body of fieldwork developed (by VanStone), how fieldwork by cooperating subdisciplines was done (Ackerman), how evidence was interpreted to show tradition in nonmaterial culture rather than the material segment of culture to which archaeologists apply the concept of 'tradition' (Townsend), and how ethnohistoric evidence was interpreted to show a cultural style, in this case a style of local oral history (McClellan)."

The collecting of these papers came about because of a symposium, and some of them were apparently produced by demand. The quality is uneven, as is usual in such cases. James VanStone's methodological perspective is especially deserving of attention, however, and Catharine McClellan's "Indian stories about the first whites in America" represents an approach to the historical tales of preliterate peoples that is novel and should not be missed.

The second and larger part of the volume consists of a study of the social system of the Aleut as it existed from 1750 to 1810 insofar as data can be derived from the early historical sources. "Aleut," as some readers may not remember, is the name of the aboriginal inhabitants of the Alaska Peninsula, which stretches out southwesterly toward Asia for approximately a thousand miles. The tragic history of the Aleut provides one more example of the destruction of an aboriginal people suddenly brought into contact with aliens of superior power bent on material enrichment. Margaret Lantis has analyzed the published sources to provide a long-needed and very readable summary of the social culture of these extraordinary and historically significant native Americans. It is only intended as praise to regret that a comparable summary of the records concerning the material culture and religion of these people could not have been included to provide a complete reconstruction of Aleut ethnography.

CORNELIUS OSGOOD
Peabody Museum,
Yale University,
New Haven, Connecticut

The Question of Additives

Metabolic Aspects of Food Safety. Based on the Second Nuffield Conference, 1969. FRANCIS J. C. ROE, Ed. Academic Press, New York, 1971. xxiv, 612 pp., illus. $22.

Many people have long been concerned with the possible adverse effects on human health of the many substances used for preservation, texture, color, and flavor of processed foods. Color, texture, and flavor may not be nutritionally important, but without some means of food preservation it would be difficult to provide adequate protein, fats, and calories to large populations living in crowded areas and impossible to provide the wide choice of foods found in modern chain stores and supermarkets. At present, more than 2500 substances have been declared reasonably safe as food additions for a variety of purposes; some are derived from basic foodstuffs and some are of synthetic origin.

Suspicion that not all additives may be safe in terms of health has not been confined to food faddists or "health food" addicts. It also occurred to the Food Safety Committee of the Nuffield Foundation, which in 1960, upon deciding that there was a basic need for new and more relevant methods for testing food constituents, additives, and contaminants for toxicity and a need for research workers trained in multiple disciplines to develop such tests, undertook a program to fill those needs.

The proceedings of the Foundation's first food safety conference resulted in an excellent book, *Pathology of Laboratory Rats and Mice* (E. Cotchin and F. J. C. Roe, Eds., Blackwell, 1967), which provided a basis for assessing normal variations in tissues. The present volume contains the proceedings of the second conference. In it, 20 papers are presented and discussed by 48 participants, from universities, government, and industry, of whom 10 came from countries other than Great Britain. Many disciplines are represented, including biochemistry, toxicology, pathology, microbiology, pharmacology, physiology, medicine, and oncology.

There are five chapters on the gastrointestinal tract, two on renal function, four on tumors and carcinogens, and three on the liver. The remainder deal with such aspects of the subject as metabolic pathways, enzyme induction, age, protein metabolism, and organ weights. The problem is carefully and thoughtfully outlined by the late Alastair Frazer, to whom the book is dedicated.

There are a great many useful and interesting data, and one is given much to think about. Some contributors tend to stray a bit from the subject by discussing drugs, pesticides, and known toxicants or by offering rather nonspecific tests which do not distinguish toxicity from disease. The ideas that food additives could react with food adversely, be converted into toxic metabolites, alter or destroy micronutrients, or modify responses to other environmental contaminants or toxicants, such as drugs, are advanced and considered.

In general, food additives as presently tested and used were cleared of suspicion by the participants. As J. M. Barnes put it, "every time any interesting toxic effect was mentioned, the agent concerned was a drug or pesticide and not a food additive." He hopes it will be seen that "food additives do not constitute a very serious toxic hazard because of the way in which they are selected and tested."

This book should be a valuable addition to the libraries of both applied and basic scientists interested in toxicology, in food preservation and processing, or in the possible toxicity of additives. As usual in conferences such as this, more questions are asked than answered.

HENRY A. SCHROEDER
Dartmouth Medical School
Trace Element Laboratory,
Brattleboro, Vermont

Soluble Bacterial Antigens

Microbial Toxins. SAMUEL J. AJL, SOLOMON KADIS, and THOMAS C. MONTIE, Eds. Vols. 1, 2A, and 3, Bacterial Protein Toxins. Vol. 1, xxii, 522 pp., illus., $23. Vol. 2A, xx, 412 pp., illus., $22. Vol. 3, xx, 548 pp., illus., $27. Academic Press, New York, 1970–71.

These three volumes are to be followed by three more volumes, two on bacterial endotoxins and one on algal and fungal toxins. The names of the editors are rotated in the first three volumes, all of which deal with bacterial protein toxins.

To summarize briefly: The list of crystalline protein toxins is enlarging.