the method, and a list of literature references. So the treatise serves as a "cookbook," but also provides enough background and literature reference to allow the "cooking" to be done with intelligence and insight. With the exception of a few ASTM methods, however, none of the procedures are intended to be standard or official. The choice of methods was left to the authors, who were selected on the basis of their special knowledge of their subjects. Some chapters, therefore, show bias for certain methods; others provide several methods for a particular measurement, along with enough background information to allow the reader to choose according to his own purpose.

Any attempt to produce such a treatise that is simultaneously comprehensive in scope, definitive in treatment, and uniform in presentation can never be completely successful. In this case, however, it is certainly better to have fallen short in a monumental enterprise than to have succeeded in a mediocre one. The seven years that went into the planning, writing, and editing of the book were well spent—to the benefit of the beginner or casual user who needs a recipe as well as to that of the practitioner who needs a good head start into the literature.

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The New Zealand National Character

At the time of its first appearance (1960), this study, **The Fern and The Tiki: An American View of New Zealand National Character, Social Attitudes, and Race Relations** [Holt, Rinehart, and Winston, New York, 1965 (reprint). 254 pp., $1.95], by David P. Ausubel, aroused considerable interest in that country where a number of readers disagreed with it. I can say that I have seen and heard nearly all that Ausubel reports that he has actually seen and heard.

But agreement on manifest facts is not sufficient for a study of national character. Facts must be tallied and measured, so that observers can agree that they have seen swallows and that they have seen enough swallows to make a summer. Behavior, social roles, and beliefs should preferably be accounted for in historical development as well as in functional maintenance. Reporting must have clear standards of comparison and assessment. Ausubel meets these requirements somewhat better than von Keyserling who completely rejected systematic empirical method, but he is very much behind Gunnar Myrdal who based his work on a vast quantitative foundation. Frequency, quantity, and the precise identity of actions generally elude the reader of *The Fern and the Tiki*, and the ascriptions of meaning are often only half right. But because Ausubel's evidence is not systematically presented, conflicts of judgment must remain unresolved, as they might over the findings of any intelligent journalist who had insufficient time for full scholarly inquiry.

For example, everyone will agree that the country is interested in rugby football. But is there really a Black Monday at the high school when the first team has lost on Saturday? I doubt that most of my school friends knew whether the team had lost or won. Has there been such a change in 40 years? I can only say that I know of some schools where there has not. A better statement is that the country is interested in sports—in soccer, field hockey, cricket, racing, track, golf, fishing, swimming, skiing, and others. But how interested? What are the measures? At least 50 percent, the women, know nothing of rugby, and a majority, men and women, know nothing of racing. In an analysis of national character, the importance of a quiet majority should not be obscured by the flamboyant enthusiasm of the minority.

Historical accounting for values and actions requires attention to beginnings as well as to continuation, and Ausubel was undoubtedly hindered by the fact that New Zealand scholars have written so little on their social history.

Graduation ceremonies in the universities are sometimes occasions for rowdiness, and Ausubel ascribes this to current anti-authority feelings of youth. Perhaps this correctly accounts for the present maintenance of rowdiness, but if placed in historical perspective these feelings must be located in England where the customs arose. They have not come into being just at this moment in order to provide an institutionalized outlet to feelings which Ausubel holds to be both strong and dysfunctional. Such an arbitrary juxtaposition of institutions and individual needs is no advance on the famous hypothesis that linked swaddling and the Russian character.

The best section of the book concerns race relations, an area of national life that had been studied in detail by Beaglehole and his associates at Victoria University who thereby provided a foundation for further research. Society has a need for myths about crucial processes and structures, especially ones where the tensions make for some uncertainty. The New Zealand myth about race relations is a comfortable one, but as Ausubel states, race relations in New Zealand do not assure everyone of dignity and equal opportunity and treatment. From time to time, a society also has a need to review its discrepancies, and this section, a partial and popular version of a fuller study that Ausubel has published, is a useful report that should help in altering either the myth or the reality.

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Textbook and Reference Source

If it is the task of a high-level textbook to present fundamental principles clearly, to fortify these principles with evaluated reports, to identify areas that require additional research, and to inspire the reader to increased efforts in microbiology (or in whatever subject is covered) as a professional pursuit, then this book, **Basic Bacteriology: Its Biological and Chemical Background** (Williams and Wilkins, Baltimore, Md., ed. 3, 1965. 1015 pp., $17.50), by Carl Lamanna and M. Frank Mallette, serves pedagogical ideals well. It is a text for the thinking bacteriologist. It is no mere compendium of ancient and novel information about bacteria, but a philosophical and sophisticated work in which teachability is enhanced by constantly raising proper questions. These questions are subsequently discussed in a penetrating manner which avoids any final word so that the reader's own curiosity is permitted to join the fray. For example, on page 354, the authors make the following statement: "It is an extraordinary fact that the superior merit of the simple device of using logarithms to the base 2 in calculating and plotting growth curve data has been largely ignored though emphasized as recently as 1942 by Monod."

This new edition has retained the