

person other than the one previously condemned for it, surely requires greater elucidation. To an American it seems at least peculiar that members of a great English college would not generally assume that any damage done to the reputation of an institution rests more on the attitude of the institution in its treatment of individual offenses and on its defense of academic freedom and justice than on the circumstance, which now and then must occur in the best-ordered families, that a black sheep has turned up. To an American, also, the great desirability of the mastership of a Cambridge college seems an incongruously weak motive for a Nobel prize winner in physics, a man with dozens of international honors as well as knighthood and complete security in his university professorship. Yet undoubtedly people are like that, made of mixed, incongruous, unsuspectedly complex motives—and if Snow leaves some elements unexplained, that fact may well be covered by the device of a first-person narrative, since what person understands fully all of the reasons for his fellows' actions?

I cannot agree with certain other reviewers who have seen in this novel a reflection of Snow's preoccupation with the "Two Cultures," with the inability of men of science to communicate with those of the humanities, and vice versa, even about matters of great import in their respective fields. This cleavage is present, but remains strictly in the background of "the affair." Here everything centers upon the simple struggle for justice to a man who is disliked and virtually friendless, but who has been the victim of a miscarriage of justice. Youth versus seniority, the sciences versus the humanities, liberalism versus conservatism alike fade into minor significance in the struggle that develops. The chief defenders of justice are young Tom Orbell in English, Skeffington, a physicist, Francis Getliffe, also a physicist, and of course Lewis Eliot, who as legal adviser and ex-fellow of the college, plays a major role in securing the reconsideration by the Court of Seniors.

As a novel of science, or a novel about scientists *qua* scientists, *The Affair* might be compared with Eleazar Lipsky's recent novel *The Scientists*. Both novels deal with scientific fraud and its effects upon the lives of the accused, their friends, their families, and their enemies. In certain respects each novel bests the other. Where Snow's

story excels is in its subtle delineation of character and in the portrayal of the intricate internal politics of an English college. It is somehow comforting to know that all the offenses against academic freedom and justice, and all the campus intrigue and scandal, are not limited to our side of the water. And how characteristic that when justice is done, it is done reluctantly and in less than full measure.

BENTLEY GLASS

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Handbook of Research Methods in Child Development. Paul H. Mussen, Ed. Wiley, New York, 1960. 1061 pp. Illus. \$15.25.

Twenty-two chapters prepared by authorities survey the techniques that have been used to study the child from infancy to adolescence. Studies of behavior predominate, but physical growth, chemical and physiological growth, and the anthropological perspective receive one chapter each. The typical chapter offers a historical sketch of old and new methods, abstracts of studies illustrating methodological variations, and some caveats regarding shortcomings of the prominent techniques. The beginning graduate student will find here a veritable museum display of ways to gather and codify data. More than that, he is coached in the tactical lore that rarely gets into print: how to obtain permission to use a child as subject, for example. The handbook will undoubtedly become a standard source in graduate training.

To the established professional, it offers less. He can obtain an overview of current methods in a field outside his experience, but will rarely find a new perspective on the field he knows. Among those chapters which merit attention from well-trained workers, that of Eleanor Gibson and Vivian Olum on studies of perception stands out for its sympathetically critical presentation of little-known work, and that of W. W. Lambert stands out for its provocative questions about the strategy of research and the interplay between theory and choice of method.

A handbook such as this is a labor of love for its authors and editor, and one hesitates to be adversely critical when the volume is serviceable and sound. Yet a reviewer must speak of

excessive duplication between chapters, occasional breathless cataloging, and space misspent on truisms and worse. ("Compared with the living child, the child cadaver has methodologic advantages from being more rigid, more amenable to anatomic study, and more permanent . . . [but it] cannot be regarded as a source for longitudinal records.")

The troubles of this volume arise chiefly because there are no "research methods in child development." The methods are neither more nor less than the methods of half a dozen sciences, and hence not adequately to be treated in one volume. The unique aspect of research on children is the methods one is prohibited from using: the pure-strain subjects he cannot purchase, the complex directions he cannot communicate, the shocks he cannot administer, and so on. In this volume, it is easier to see why developmental research has disappointed the hopes of a generation ago than to see wherein it will find unity and direction.

LEE J. CRONBACH

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The Golden Age of American Anthropology. Margaret Mead and Ruth L. Bunzel, Eds. Braziller, New York, 1960. x + 630 pp. \$10.

This large book consists almost entirely of reprints of published articles written by the founders and masters of American anthropology, epitomizing the development of American thought on that science. With the exception of some of the earliest sources and of two Russian anthropologists whose field was northeastern Siberia, all of the authors are—or were—American citizens who wrote on the American Indian, and almost exclusively on those living north of Mexico. The 45 authors of the 65 selections include, of course, all the great names and a number of little-known ones, such as John Bachman and Manasseh Cutler; however, one misses a few men, such as B. L. Whorf, who made major contributions to anthropological theory. All of the articles are of course short; generally they are excerpts from larger works, often not the author's best-known one, but they are always characteristic. The book is an excellent compendium.

While the "Golden Age" is defined

as the period from 1880 to 1920, the selections span a much longer time—from Bernal Diaz, Sahagun, and Jefferson to Spier. These are divided chronologically into six periods, from "Exploring the New World" to "New Horizons," and the intermediate periods are given such terms as "Gaining Understanding of the Indians." The authors are furthermore grouped under such titles as "Dedicated Amateurs" and "The United States National Museum."

In the printed matter the senior editor, Margaret Mead, contributed only the main introduction, but the introductions to each of the six parts and the many and full biographical accounts of the authors as well as the historical backgrounds of their periods, by Ruth Bunzel, are delightfully written, with insight, empathy, and knowledge, based on her long experience in the field and her acquaintance with most of the later contributors.

The only mistake that I found is a trivial one (page 155): Bulletin 30 of the Bureau of American Ethnology is the great *Handbook of American Indians*, not that of American Indian Languages. And it is not—though generally believed by others—Mormon creed that our Indians are descendants of the lost tribes of Israel.

J. ALDEN MASON

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The Orion Book of Evolution. Jean Rostand (translated from *L'Évolution* by Rebecca Abramson). Orion Press, New York, 1961. 105 pp. Illus. \$6.95.

In this publication two quite separate small books have been shuffled and bound together: an essay on evolution and an album of pictures. Any relationship between the two is not merely coincidental; it is nonexistent.

Rostand's background in French literature and philosophy gives his essay some freshness and interest for American readers, but unfortunately the essay cannot otherwise be highly recommended. The first section, on the history of evolutionary theories, repeats some tired clichés and misapprehensions and does not reflect recent historical scholarship. In next discussing the present status of evolutionary theory Rostand gives a grossly oversimplified and part-

ly mistaken statement of the "neo-Darwinist" (synthetic) position and then has no difficulty in maintaining that his version of that theory is inadequate. As supplement or corrective he offers only vague speculation and largely irrelevant philosophy. In a brief final section (about five text pages) he gives his views about man's evolutionary future, opinions already treated better and at greater length in another of his books (*Can Man Be Modified?*) where they should be read, if at all.

The awkwardness and errors stem in part from bad translation of the French original. The subject of the essay is regularly called "transformism," a Gallicism absent from proper English, and in other respects as well the translator reveals ignorance of the subject and fails to produce idiomatic literary English.

No connection whatever is made between the pictures and the text or the supposed subject of the book. The picture captions are highly inadequate. Some are incorrect: an engraving of "Armadillos and lizards" features a pangolin or scaly anteater; an "embryo" is really a larva. Others are almost humorously vague: "Unicellular form," "Fish." The few that are more precise still are not very enlightening for an average reader: "*Campylognathus Zitteli*. Fossil remains"; "*Membracid hemipteran* (true insect)." Citations of original sources are rarely given for the numerous reproductions of historic illustrations.

The binding is unattractive and that of the review copy, at least, is so poor that the book went to pieces as soon as it was opened.

It is a relief finally to be able to bestow some wholehearted praise: the pictures are magnificent. There are 41 photographs, 5 in color, and 30 reproductions of old engravings and paintings, 7 in color. Most of them are superb works of art excellently reproduced. Almost all are of animals, with great range of subject and technique: a color photomicrograph of a paramecium in cross-polarized light (that technique of course not specified); an x-ray photograph of a stingray; an 18th century colored engraving of a butterfly fish and an "*Ican Suangi*" (whatever that may be); a painting on vellum of sea turtles by Claude Aubriet (one of very few artists named); a terrific enlarged head of an Australian lizard; a color photograph of 56 jewel-like (but unidentified) beetles; a Persian minia-

ture of a "feline" (a leopard, as it happens)—and many others. Simple contemplation of these pictures is an exciting esthetic experience. Their publication without Rostand's text, with adequate captions, and in a good binding would have been a triumph of artistic and scientific bookmaking.

G. G. SIMPSON

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Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

Aletsch Glacier as of September 1957. Sheet 3. Topographical survey of Switzerland and section of hydrology. Federal Inst. of Technology, Zurich, Switzerland, 1960. F. 10. This series, a Swiss contribution to the IGY, is planned to present a detailed map of the Great Aletsch glacier and its drainage basin. Scale 1:10,000. This sheet covers the main glacier tongue from Marjelen Lake to the snout plus the adjoining watershed within the drainage basin. Four maps are planned.

Aspects of Public Health Nursing. Public Health Paper No. 4. Glete de Alcántara *et al.* World Health Organization, Geneva, Switzerland, 1961. 185 pp. \$1.75.

Belgian Advisory Council for Scientific Policy. Annual Report, 1960. The Council, Brussels, Belgium, 1960. 132 pp. The advisory council was created on 16 September 1959. The first part of the report surveys "the future defining fundamental attitudes to problems of scientific policy in Belgium and also in the international sphere"; the second surveys the council's operations.

Clef des Cyprinidés ou Ménés du Québec. *Les Poissons d'Eau Douce*. vol. 2 of Vianney Legendre. Le Jeune Naturaliste, Joliette, Canada, 1960. 35 pp.

Financial Management in the Federal Government. Prepared by the Staff of the Committee on Government Operations, U.S. Senate. Government Printing Office, Washington, D.C., 1961. 375 pp. An analysis of existing and proposed legislation relating to the financial management of the federal government, including a history of improvements made prior to the 80th Congress, recommendations of the first and second Hoover commissions on budget and accounting and the implementation of these recommendations, legislation enacted in the area by 80th–86th Congresses, financial management improvement made by departments and agencies on a government-wide basis under specific acts, and the history of major budgeting and accounting legislation proposed.

Instrumentation and High-Speed Photography. Papers reprinted from *J. Soc. Motion Picture Television Engrs.* vol. 1, series 11. Society of Motion Picture and Television Engineers, New York, 1960. 185 pp.