

the engineer and the cost and value of a college education are provocative, although the teacher using the book as a textbook will do well to check the data presented, which change quite rapidly. Other stimulating chapters are those on "Oral and written reports," "Engineering drawings and graphs," and "Numbers, symbols, and mathematical tools."

On the whole this book, while it might be improved by certain rearrangements of material, is a valuable addition to the growing literature on the orientation of prospective engineers.

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**The American Experiences of Swedish Students.** Retrospect and aftermath. Franklin D. Scott. University of Minnesota Press, Minneapolis, 1956. 129 pp. \$3.

Every year more than 30,000 foreign students come to the United States to spend some time in American institutions of higher education. The Social Science Research Council has launched a research program "that might lead to better understanding of the complex processes involved in cross-cultural education." The study reported in this book is part of this SSRC program. Franklin Scott has visited Sweden studying Swedes who have visited the United States.

Scott is an alert and sympathetic observer of Americans and Swedes, and his book is full of insights. One is a little disappointed, however, that the author has not utilized social-science methods more efficiently so as to bring his insights beyond the impressionistic stage. It is surprising to hear a social scientist say that "the study trip abroad is essentially an individual phenomenon which defies classification" and that "the simplest way to present the results would be through a series of biographical analyses." This would be to reject the challenge of science.

Fortunately, the reader is *not* presented with a series of unrelated case histories. Despite the quoted declaration, Scott does indeed set out to generalize as best he can, on the basis of impressions gained from extensive interviewing and reading.

Thus the Swedes are reported to be annoyed at the American university system, which does not allow the students the same degree of independence as do Swedish universities. (But even so, Swedish educational reforms are much influenced by American practices.) The Swedes are also indignantly commenting upon sex relations in America, which they characterize as "prime example of

American immorality and hypocrisy"; while Sweden "emphasizes the inevitability and naturalness of sex."

Comparing interpersonal relations more generally, the United States comes out best: "The Swedes . . . are accustomed to a frigid correctness of manners; the cheerfulness and easy friendliness of Americans show them a new way of meeting people, and make a universal appeal." Visiting Swedes are also impressed by American ability to work in groups; the following example illustrates the point almost too well: "In one Swedish community two research institutions exist almost side by side: one is dominated by an academic dictator and rent by bitterness; the other is led in cooperative spirit by a scholar who had participative experience in two of the best American research institutes, and its atmosphere is happy, its work effective."

These illustrations will have to suffice to indicate the flavor of the report. Although this may not be social science at its most advanced stage, it is interesting and suggestive reading.

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**Engineering Mathematics.** Kenneth S. Miller. Rinehart, New York, 1956. 417 pp. Illus. \$6.50.

In this book the author has not tried to be encyclopedic but has made a coherent and useful selection from the possible topics. Apparently intended mainly for electrical engineers, the book meets the current standards of mathematical rigor for courses with a similar title at the junior, senior, and graduate levels. Thus, heuristic arguments are emphasized, and physical applications are often used to guide the mathematics. Certain mathematical niceties are included in the appendices. The major portion of the book is concerned with methods for the solution of linear ordinary and partial differential equations. The chapters on networks and random functions will doubtless be attractive features when the major emphasis in such a course is on linear equations. The book seems to be a sound and teachable treatment.

The chapter titles and comment thereon are as follows: "Determinants and matrices"; "Integrals. Introduction of special functions"; "Linear differential equations. Includes Green's function and series solutions"; "Fourier series and integrals"; "Laplace transform"; "Network theory"; and "Random functions."

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## New Books

*Advances in Cancer Research.* vol. 4. Jesse P. Greenstein and Alexander Haddow. Academic Press, New York, 1956. 416 pp. \$10.

*Metallurgy and Fuels.* Series V, *Progress in Nuclear Energy.* H. M. Finnieston and J. P. Howe. McGraw-Hill, New York; Pergamon, London, 1956. 805 pp. \$21.

*A World Geography of Forest Resources.* Edited for the American Geographical Society by Stephen Haden-Guest, John K. Wright, Eileen M. Teclaff. Ronald Press, New York, 1956. 736 pp. \$12.50.

*The Liassic Therapsid Oligokyphus.* Walter G. Kuhne. British Museum (Natural History), London, 1956. 149 pp. £4.

*The Great Chain of Life.* Joseph W. Krutch. Houghton Mifflin, Boston, 1957. 227 pp. \$3.75.

*Natural History of Birds.* A guide to ornithology. Leonard W. Wing. Ronald Press, New York, 1956. 539 pp. \$6.75.

*Heredity and Your Life.* An account of everyday human inheritance. A. M. Winchester. Vantage Press, New York, 1956. 333 pp. \$5.

*Pharmacognosy.* Edward P. Claus, Ed. Lea & Febiger, Philadelphia, ed. 3, 1956. 731 pp. \$12.50.

*Intercrossing among Pink Calla, White-Spotted Calla and Yellow Calla.* Ryohitsu Shibuya. The author, 1430 Grant Rd., Mountain View, Calif., 1956. 62 pp.

*Electronic Computers, Principles and Applications.* T. E. Ivall. Iliffe, London; Philosophical Library, New York, 1956. 167 pp. \$10.

*Straight to the Heart.* A personal account of thoughts and feelings while undergoing heart surgery. George Lawton. International Universities Press, New York, 1956. 347 pp. \$5.

*Mind and the World-Order.* Clarence I. Lewis. Dover, New York, 1956 (unabridged republication of ed. 1). 446 pp. Paper, \$1.95.

## Miscellaneous Publications

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

*Systematics of the Suborder Tubulifera (Thysanoptera) in California.* Publ. in Entomology, vol. 13. H. Edwin Cott. University of California Press, Berkeley, 1956. 216 pp. \$3.50.

*Mammals of the Anglo-Egyptian Sudan.* No. 3377. Proc. of the U.S. National Museum, vol. 106. Henry W. Setzer. Smithsonian Institution, Washington, 1956. 141 pp.

*Rabbits.* A subject bibliography. Special Bibliography No. 3. Laura I. Makepeace. Bibliographical Center for Research, Denver Public Library, Denver, Colo. 1956. 81 pp. \$2.

*Resources for the Future, Annual Report.* For the year ending 30 Sept. 1956. Resources for the Future, 1145 19 St., NW, Washington, 1956. 85 pp.