Changing Values in College. An exploratory study of the impact of college teaching. Philip E. Jacob. Harper, New York, 1957. 174 pp. \$3.50.

This book grew out of attempts to plan research on the changes in attitudes or "values" of students which result from taking social science courses. The author has discovered a varied array of data on the broad question reflected in the title. He provides an extremely useful bibliography on such topics as general and special surveys of values of college students, studies of values of college graduates, studies of changes in values and attitudes while in college, and beforeafter studies on the effects of particular teachers or courses or methods of teaching.

The author also chooses to view the current situation with alarm. On the basis of a selection of data from studies of varying quality we are given a "profile" of American college students. Among other things, these students are "remarkably homogeneous" in values, "gloriously contented" about the present and future; "unabashedly self-centered," they are dutifully responsive towards government but don't initiate service in a clear loud voice; they set great stock by college mainly for purposes of vocational advancement. College education does not liberalize the student as much as it socializes him for a place in the ranks of American college alumni. He is more opposed to "welfare economics" than are most citizens. Students are more alike in attitude as seniors than they were as freshmen. Massive changes of student values do not result from concentrating in social science, from taking particular courses, or from taking courses with particular instructors. A few institutions appear to have the ability to really develop student values, and the author tries to tell us why.

Such a summary raises troublesome questions regarding the basic aims and achievements of American education. We think that we do much more than merely beget the social kind, from generation to generation, in such a way that the niches and roles of our society are somewhat adequately filled. This book presents us with a flat challenge on this score and requests that we clarify what the "more" is that we are after. This is a good service.

Validity of the data as presented is at best a moot point. Jacob rests much of his argument on proportions of answers to questionnaires, which are notoriously prone to change with even minor rewording of the specific questions used. Further, some behavioral scientists would assume, to begin with, that basic values are set down firmly in students long before the college years and would see Jacob's alarm as due to naivete with re-

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gard to "values" and how they grow. Others would argue that the failure of social science courses to change students' values is merely a sign of the maturity of social science in its move from a normative to a descriptive base.

The book ends with some suggestions for further research, which lack the boldness of the book's main challenge. I would prefer to see a sharper use of present research tools, a more refined analysis of some of the present data, a further development of theory and measurement of values, and then a head-on research analysis of the impact and outcomes of American education. May this book stimulate the production of better ones.

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The Administrative State. An introduction to bureaucracy. Fritz Morstein Marx. University of Chicago Press, Chicago, 1957. x + 202 pp. \$4.

This is a book about bureaucracy. It has been only six years since "the bureaucracy" was made to play the villain in one of the most popular yet tragic farces of the decade-the McCarthy hearings. To many students of government these hearings will always mark the time we allowed ourselves the expensive indulgence of holding the notion that bureaucracy is an inherent evil in all governments; more particularly, that it personifies the evil behind things we do not agree with. What capital the misguided Senator could have made out of a man with the name Marx who denies this premise!

To Morstein Marx, eminent student, respected teacher, and proven practitioner of bureaucracy, the bureaucracy is a powerful resource, of the order of gun powder, uranium, or ideology. It can be managed either wisely or unwisely and is, accordingly, either a benefit or a malignancy. Our problem is that we have more to learn about managing it. "First we must ask whether technological developments will significantly modify . . . the structure and workings of [bureaucracy]. Will machine-controlled rationality . . . supersede dayby-day supervisory authority? Is the citizen being choked by merciless 'processes'? . . . we should give some thought to the possibility of coming to a more satisfactory interlocking of political responsibility and administrative responsibility. . . ." And, finally, he says that "the basic effectiveness of the constitutional state is linked today in constantly increasing scope with both the productivity and the integrity of the administrative system-and perhaps these two are essentially the same. It is in this vast realm that modern government performs the host of activities which in their detail hardly meet the eye but which extend in a thousand ways throughout the economic and social order." From his intimate knowledge of the Prussian, French, Swiss, British, and American bureaucracies, Marx presents a scholarly diagnosis embodying a prescription appropriate to the treatment of the national fever for which the unfortunate Mr. McCarthy has now become the symbol.

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The Teaching of Hygiene and Public Health in Europe. A review of trends in undergraduate and postgraduate education in nineteen countries. F. Grundy and J. M. Mackintosh. WHO Monograph Series No. 34. World Health Organization, Geneva, 1957 (order from Columbia University Press, New York), 254 pp. \$5.

The phenomenal advances in the basic medical sciences during the past seventyfive years have made it necessary to undertake sweeping reappraisals of the teaching of medicine. This monograph reports trends in thinking and in the practice of teaching one aspect of medicine in the schools of 19 European countries. For some time it has been recognized that progress in the field of health was dependent to a large extent on the level of the studies for the preparation of both specialized health administrators and medical practitioners. In the period following World War I, schools of hygiene and national institutes of hygiene were created in many European centers. In the main, these institutions have fulfilled their functions with a fair degree of success. In recent years there has been an increasing dissatisfaction with the training given to medical students in the field of preventive and social medicine. It has become clear that the protection of health exclusively from the hygienic and sanitary points of view, without reference to social and economic conditions, cannot be fully effective.

In this report brief accounts of the facilities available and the teaching methods used in the individual countries are recorded, but the major portion of the monograph is devoted to a review of the history and philosophy that underlie the teaching of preventive medicine and public health.

The authors of this review possess high technical qualifications and long experience in the teaching and practice of public health in Great Britain. Their report is well documented and presents many interesting details on teaching methods. More important, it opens new perspectives not only on training but also on public health practice.

Though this study is limited in scope to the European scene, it should be read by all concerned with the training of undergraduate and postgraduate students in the health field in other parts of the world.

An excellent introduction to this volume is provided by Jacques Parisot, distinguished pioneer in social medicine at the University of Nancy.

HUGH H. SMITH

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The Eye Goddess. O. G. S. Crawford. Macmillan, New York, 1957. 168 pp. Illus. \$10.

The wanderings of a pair of bulging eyes, capped by arching brows that meet over the nose, is the subject of *The Eye Goddess*, by the late O. G. S. Crawford, who, at the time of his death in November 1957, was editor of the distinguished archeological journal *Antiquity*. First identified by Max Mallowan in his excavations of the Eye Temple at Brak, Syria, the eyes are found on many figurines made around 3000 B.C., during the Jemdet Nasr period, before the pyramids had been built.

Mallowan identified the eyes as the most outstanding feature of the portrait statuettes of the goddess Inanna, alias Ishtar and, later, Aphrodite. She begins as a Neolithic goddess of fertility. Her essential symbol, the eyes and brows, was carried westward through the Mediterranean to the Atlantic, north to the British Isles, and south to the Canaries. It also migrated southwestward into Ethiopia.

When his editorial duties permitted, Crawford traced the wanderings of his favorite orbs, both by personal travel and in the literature. The product is a model study of the oft-challenged principle of diffusion, as sound as it is entertaining. Readers expecting a new Heliolithic cult or Lost Land of Mu are warned to stay away.

The cult of the popping eye has survived in Syria until today in the form of eye-charms hung inside the cabs of trucks and taxis, obscuring vision while giving assurance of safety to the drivers. They are comparable to the pairs of baby shoes dangling in front of many American windshields.

With the eyes traveled other designs, such as axes and daggers and the figures of obscenely fat women. None of these, however, follows as consistent an itinerary as does the ocular motif. As this moved outward from its source during two or more millenia, the artistic renderings of the subject became decreasingly realistic until, in Ireland, the eye motif was thrown completely out of focus. The end product was a set of symbols resembling a field of croquet wickets after an earthquake.

What Crawford's pet subject has done for archeology is to remove discussion of the diffusion-of-art motifs from the realm of speculation and set it up in the grassy fields of science. He has further shown that a motif can move farther afield than its original interpretation or function. His study is also of use in the mapping of the sea routes of the Mediterranean and Atlantic during the Neolithic and Bronze ages. The book is written in a lively style and is beautifully, even extravagantly (for these days), illustrated. CARLETON S. COON

University Museum, University of Pennsylvania

An Introduction to Method in Psychology. W. M. O'Neil. Melbourne University Press, Melbourne, Australia, 1957 (order from Cambridge University Press, New York). ix + 155 pp. \$4.50.

O'Neil, McCaughey professor of psychology at the University of Sidney, has written a lucid introduction to the method and logic of science as it applies to psychology. To start with he assumes, first, "... that things exist independently of our knowledge of them, . . . second . . . that there can be no duality of the rational and empirical, of the universal and the particular, ... and ... third ... that logic is an empirical study whose principles are determined by things themselves." The tone is, however, positivistic, and O'Neil acknowledges a debt to discussions with Professor Herbert Feigl. The second assumption leads him into views which he recognizes are somewhat idiosyncratic, and he carefully calls the reader's attention to the contemporary dominance of other approaches. All major illustrations are from problems of psychology, including the explanation of the moon illusion, factor analysis, duplicity of visual receptors, inheritance of intelligence, and so on. Case study and survey methods are discussed, although the emphasis is upon experimental methods.

The approach is quite elementary, starting with syllogistic reasoning and immediate inference and going on to scaling, measurement, and functional relationships. O'Neil has a gift of saying simply and clearly what he means—as an example, on the ultimate weakness of refined methods of introspection, he states, "Now all that it seems possible to make of this is that observers can see almost anything they want if they try hard enough or are worked on hard enough—a point that is always worth remembering." As another example he points out how *a posteriori* alteration of assumptions can make scientific inquiry degenerate into "hypothesis-saving instead of hypothesis-testing."

Generally speaking, I have only two quarrels with the book: first, a syllogistic approach in scientific reasoning, although not outmoded, tends to lead to the postulation of elements and the like, a device of limited value in psychologymore emphasis should be given relationship, function, and dependence; and second, the view that a formal (syllogistic) proposition is a metaphor, while correct in the sense that all models represent analogies, can lead only to chaos if the metaphor notion intrudes into the logical manipulations. The book is an interesting, pleasant introduction to the logic of psychology, which should make clear to readers from other scientific fields that psychologists use essentially the same approach found in the other empirical sciences.

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New Books

Malaya: A Political and Economic Appraisal. Lennox A. Mills. University of Minnesota Press, Minneapolis, 1958. 245 pp. \$4.75.

The Grassland and Fodder Resources of India. R. O. Whyte. Indian Council of Agricultural Research, New Delhi, 1957. 442 pp. \$5.

Mathematical Excursions. Side trips along paths not generally traveled in elementary courses in mathematics. Helen Abbott Merrill. Dover, New York, 1957 (unabridged and unaltered republication of ed. 1). 156 pp. Paper, \$1.

The Golden Bough. A study in magic and religion. Sir James George Frazer. Macmillan, New York, 1958 (reissue of one-volume abridged edition). \$3.95.

Scientific Societies in the United States. Ralph S. Bates. Technology Press and Columbia University Press, New York, ed. 2, 1958. 308 pp. \$6.50.

TV and Our School Crisis. Charles A. Siepmann. Dodd, Mead, New York, 1958. 198 pp. \$3.50.

Exploring the Distant Stars. Thrilling adventures in our galaxy and beyond. Clyde B. Clason. Putnam's, New York, 1958. 384 pp. \$5.

A Treasury of Superstitions. Claudia De Lys. Philosophical Library, New York, 1957. 315 pp. \$4.75.

Social Perspectives on Behavior. A reader in social science for social work and related professions. Herman D. Stein and Richard A. Cloward, Eds. Free Press, Glencoe, Ill., 1958. 685 pp. \$7.50.