

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.

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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 Helio-lithic 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.

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**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 psychology—more 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.

*The Taylor Series.* An introduction to the theory of functions of a complex variable. P. Dienes. Dover, New York, 1957 (unabridged and unaltered ed. 1 with errata incorporated in the text). 562 pp. Paper, \$2.75.

*Safety Techniques for Radioactive Tracers.* J. C. Bournsell. Cambridge University Press, New York, 1958. \$1.75.

*Radioisotopes.* A new tool for industry. Sidney Jefferson. Philosophical Library, New York, 1958. 118 pp. \$4.75.

*The Philosophy of Humanism.* Corliss Lamont. Philosophical Library, New York, ed. 4, 1958. 254 pp. \$2.75.

*Methods in Medical Research.* vol. 7. James V. Warren, Ed. Year Book, Chicago. 237 pp. \$7.50.

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### Astronomy

*Astronomical Optics and Related Subjects.* Z. Kopal, Ed. (North-Holland; Interscience), 29 Nov. 1957, 1122

*Galactic Nebulae and Interstellar Matter.* J. Dufay (Philosophical Library), 20 Sept. 1957, 565

*The Galactic Novae.* C. Payne-Gaposchkin (North-Holland; Interscience), 27 Dec. 1957, 1350

*The Making of a Moon.* A. C. Clarke (Harper), 22 Nov. 1957, 1070

*Man Among the Stars.* W. D. Miller (Criterion), 29 Nov. 1957, 1120

*The Milky Way.* B. J. Bok and P. F. Bok, ed. 3 (Harvard Univ. Press), 26 Apr. 1957, 829

*Morphological Astronomy.* F. Zwicky (Springer), 14 Feb. 1958, 343

*Radioastronomie.* R. Coutrez (Observatoire Royal de Belgique), 17 Jan. 1958, 153

*The Stars Above Us.* E. Zinner (Scribner's), 31 Jan. 1958, 243

*The Sun.* G. Abetti (Macmillan), 26 Apr. 1957, 828

### Biochemistry and Microbiology

*Advances in Enzymology and Related Subjects of Biochemistry.* vol. 18, F. F. Nord, Ed. (Interscience), 15 Nov. 1957, 1023

*Biochemical Individuality.* R. J. Williams (Wiley; Chapman & Hall), 10 May 1957, 940

*Biochemical Problems of Lipids.* G. Popják and E. Le Breton, Eds. (Interscience), 13 Sept. 1957, 515

*Biochemistry and Human Metabolism.* B. S. Walker, W. C. Boyd, I. Asimov (Williams & Wilkins), 21 Mar. 1958, 641

*The Biochemistry of Vitamin B<sub>12</sub>.* R. T. Williams, Ed. (Cambridge Univ. Press), 31 May 1957, 1094

*Bioenergetics.* A. Szent-Györgyi (Academic Press), 27 Sept. 1957, 615

*Colorimetric Analysis.* vol. I, N. L. Allport and J. W. Keyser (Chapman & Hall), 10 Jan. 1958, 89

*Dictionary of Microbiology.* M. B. Jacobs, M. J. Geestein, W. G. Walter (Van Nostrand), 25 Oct. 1957, 847

*The Life of Bacteria.* K. V. Thimann (Macmillan), 6 Sept. 1957, 455

*Methods of Biochemical Analysis.* vol. 4, D. Glick, Ed. (Interscience), 30 Aug. 1957, 407

*Methods in Enzymology.* vol. 3, S. P. Colowick and N. O. Kaplan (Academic Press), 21 June 1957, 1251

*Plant Virus Serology.* R. E. F. Matthews (Cambridge Univ. Press), 27 Sept. 1957, 616

*Recent Progress in Hormone Research.* vol. 13, G. Pincus, Ed. (Academic Press), 14 Feb. 1958, 344

*Some Principles of Energetics in Biochemical Reactions.* I. M. Klotz (Academic Press), 23 Aug. 1957, 364

*Synthetic Polypeptides.* C. H. Bamford, A. Elliott, W. E. Hanby (Academic Press), 26 July 1957, 172

*Trophoblastic Growths.* J. Smalbraak (Elsevier), 14 Mar. 1958, 597

*Ultrastructure and Cellular Chemistry of Neural Tissue.* H. Waelsch, Ed. (Hoeber-Harper), 24 Jan. 1958, 195

### Biological Sciences

*Actions Chimiques et Biologiques des Radiations.* vol. 2, M. Haissinsky, Ed. (Masson), 6 Sept. 1957, 455

*Advances in Genetics.* vol. VIII, M. Demerec, Ed. (Academic Press), 10 May 1957, 941

*Biogeography.* P. Dansereau (Ronald Press), 23 Aug. 1957, 361

*Craig and Faust's Clinical Parasitology.* E. C. Faust, P. F. Russell, D. R. Lincicome (Lea & Febiger), 20 Dec. 1957, 1297

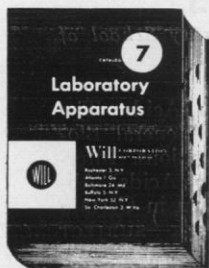


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