

Comments and Communications

Color Standards for Biologists

There is a movement on foot to prepare a modern color chart, adequately standardized, and comprehensive enough to meet the requirements of all biologists, horticulturists, and technical agriculturists.

The subject was discussed last autumn by a group of biologists at the University of Toronto, who asked the National Research Council of Canada to set up a special committee to find out what Canadian biologists thought about color standards. The committee met on December 15, 1948, and drafted a questionnaire, which was later sent out to approximately 200 biologists and workers in related fields, mostly in Canada, but also a few in the United States, England, and France. One hundred and forty-one replies were received, a proportion which in itself demonstrates a lively interest in the subject.

The answers showed that Ridgway is the chart most familiar to the biologists and most used by them, followed by the Royal Horticultural Society's charts, and the *Munsell Book of Color*, in that order. The committee was not at all surprised at this result.

The question whether the worker would use a standard chart if it were available was answered in the negative by only 14 workers, mostly in the fields where color is not a major problem. As to the desirable form for such a publication, there was naturally a great diversity of opinion, reflecting the special interests of those who replied. A very large range of colors would undoubtedly be required, and in the interests of economy some loose-leaf or similar method of presentation would be essential, so that each worker might purchase only the range of colors

useful in his specialty. A format suitable for field use was generally desired. There was almost unanimous agreement that each color must have a name, and so it appears that the numerical specification of color, familiar to physicists, is not yet acceptable to biological workers. The committee found it interesting to speculate on what the present state of descriptive biology might be, if the I.C.I. colorimetric system had been available to Linnaeus.

The final question referred to the permanence of color charts. Of those who answered, 35 were sure that their charts were changing significantly with the passage of time, 17 thought that they were not, and 8 were doubtful.

Discussing all these replies, the committee felt the results of this small survey showed clearly that many biologists are interested in a color standard prepared especially for their use. One excellent reason for the preparation of such a standard was suggested in one of the replies, which referred to the Plant Patents Act and the desirability of having some standard color reference for legal purposes.

A report on this questionnaire was presented to the Inter-Society Color Council at its New York meeting on March 9. The matter was referred to the Problems Committee of the I.S.C.C. for further study. Several members expressed the hope that some national organization of biologists would apply for membership in the I.S.C.C. and take an active interest in the project.

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Scientific Book Register

- ANDRONOW, A. A., and CHAIKIN, C. E. (Solomon Lefschetz, Ed.) *Theory of oscillations*. Princeton, N. J.: Princeton Univ. Press, 1949. Pp. ix + 358. (Illustrated.) \$6.00.
- BEYER, ROBERT T. (Ed.). *Foundations of nuclear physics: facsimiles of thirteen original studies*. New York 19, N. Y.: Dover Publ., 1949. Pp. 272. (Illustrated.) \$2.95.
- CAMERON, EDWARD A., and BROWNE, EDWARD T. *College algebra*. New York: Henry Holt, 1949. Pp. iii + 406. \$3.00.
- CARTER, HERBERT E. (Ed.) *Biochemical preparations*. (Vol. 1.) New York: John Wiley; London: Chapman & Hall, 1949. Pp. xi + 76. \$2.50.
- CASE, EARL C., and BERGSMARK, DANIEL R. *College geography*. (3rd ed.) New York: John Wiley, 1949. Pp. x + 790. (Illustrated.) \$5.00.
- HODGES, MARGARET B. (Ed.) *Social work year book 1949: a description of organized activities in social work and in related fields*. (10th issue.) New York: Russell Sage Foundation, 1949. Pp. 714. \$4.50.
- LEFSCHETZ, SOLOMON. *Introduction to topology*. Princeton, N. J.: Princeton Univ. Press, 1949. Pp. viii + 218. (Illustrated.) \$4.00.
- MILNE, E. A. *Kinematic relativity: a sequel to relativity, gravitation and world structure*. New York: Oxford Univ. Press; Oxford, Engl.: Clarendon Press, 1948. Pp. vi + 238. \$6.50.
- PACE, EDGARDO. *Le vitamine: la chimica, la tecnica farmaceutica, l'azione biologica, i metodi di ostrazione e di sintesi*. Milan, Italy: Ulrico Hoepli, 1949. Pp. xii + 422. (Illustrated.) 2,000 lire.
- ROSSELAND, SVEIN. *The pulsation theory of variable stars*. New York: Oxford Univ. Press, 1949. Pp. viii + 152. (Illustrated.) \$5.00.
- SISAM, CHARLES H. *Analytic geometry*. (Rev. ed.) New York: Henry Holt, 1949. Pp. xvi + 304. \$2.40.