



Rejected Rainbow

➤ EXCEPT for man and some of his nearest relatives among the primates, most mammals seem to be color-blind. Birds, on the contrary, are clearly able to distinguish between colors. Principal exceptions are nocturnal birds such as owls, and crepuscular or twilight birds like whippoorwills; these distinguish colors either badly or not at all.

Not only are most birds able to tell colors apart, but they will hesitate to take food if it is of the "wrong" color. This was first noticed years ago when an effort was made to control the numbers of English sparrows by scattering poisoned grain. The birds would not pick up grain that had been soaked in Paris green or London purple, seemingly because it just didn't look right.

Now this reluctance to eat "off-color" grain is being used in reverse, to save useful song and game birds from being killed by poisoned grain baits intended for prairie dogs, ground squirrels and other rodent pests. The method was worked out by a biologist of the U. S. Fish and Wildlife Service, E. R. Kalmbach, at the field laboratory in Denver.

After the grain has been impregnated with poison it is dyed bright green,

saffron yellow, staring purple or flaming red. A spoonful is dropped at the mouth of each rodent burrow, and in 24 hours it is usually all cleaned up. But birds very rarely touch it.

Mr. Kalmbach has run scores of tests, offering grain (unpoisoned, of course) in its natural color and in rainbow hues to a wide variety of birds, from barnyard fowl to sparrows and doves. The birds regularly pick up the natural-colored grain and let the dyed grain lie, even when the choice means rejecting perfectly wholesome though strange-colored food. Rats and other grain-eating rodents, on the contrary,

pay no attention to color but pick up all the grain indiscriminately.

There is one partial exception to the birds' rule of rejecting colored grain. Ducks and other water-fowl will sometimes eat at least a little of it, though even they show a preference for natural-colored food. Mr. Kalmbach thinks it possible that this may be connected with the fact that water-fowl do a good deal of their feeding under water, where the food is either obscured by turbidity or even actually buried in the mud, and hence found by touch rather than by sight.

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Books of the Week

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CENTRIFUGAL AND AXIAL FLOW PUMPS:

Theory, Design and Application—A. J. Stepanoff—Wiley, 428 p., illus., \$7.50.

FUNDAMENTALS OF PHOTOGRAPHIC THEORY—

T. H. James and George C. Higgins—Wiley, 286 p., illus., \$3.50. A technical book presupposing basic knowledge of physics and chemistry.

KLYSTRONS AND MICROWAVE TRIODES—

Donald R. Hamilton, Julian K. Knipp and J. B. Horner Kuper—McGraw-Hill, 533 p., illus., \$7.50. Covering the principles underlying the operation of the tubes known as klystron and planar-grid, basic to radar.

LORAN: Long Range Navigation—

J. A. Pierce, A. A. McKenzie and R. H. Woodward, Eds.—McGraw-Hill, 476 p., illus., \$6.00. A technical book on the Loran all-weather navigation system for ships and airplanes.

MICROWAVE DUPLEXERS—

Louis D. Smullin and Carol G. Montgomery—McGraw-Hill, 437 p., illus., \$6.50. Dealing with the use of a single antenna for both receiving and transmitting as in radar.

MICROWAVE RECEIVERS—

S. N. Van Voorhis—McGraw-Hill, 618 p., illus., \$8.00. Discussing the receivers used in radar systems but including material applicable elsewhere.

PLANTS OF THE HOLY SCRIPTURES—

Eleanor King—New York Botanical Garden, rev. ed., 23 p., illus., paper, 25 cents. Background information on bible plants in the light of modern scientific knowledge.

PRESERVATION OF GRAINS IN STORAGE—

Stephen S. Easter, Ed.—Food and Agriculture Organization, (Columbia University Press), 174 p., illus., paper, \$1.50. Papers presented at the International Meeting on Infestation of Foodstuffs, Aug. 5-12, 1947.

PRINCIPLES OF FOOD FREEZING—

Willis A. Gortner, Frederick S. Erdman and Nancy K. Masterman—Wiley, 281 p., illus.,

\$3.75. Covering all aspects of this new type of food preservation from the preparation of the food to the transportation and cooking.

PRINCIPLES OF JET PROPULSION AND GAS TURBINES—

M. J. Zucrow—Wiley, 563 p., illus., \$6.50. The facts necessary for understanding this new field of engineering with a review of general principles.

RADIANT HEATING—

Richard Woolsey Shoemaker—McGraw-Hill, 306 p., illus., \$4.00. Practical information intended not only for architects and engineers but also for home builders.

RADIO NEWS WRITING—

William F. Brooks—McGraw-Hill, 200 p., \$2.75. Based on a course given by Columbia University Extension in cooperation with the NBC.

RUSSIAN ARCHITECTURE: Trends in Nationalism and Modernism—

Arthur Voyce—Philosophical Library, 282 p., \$5.75. Tracing in text and a large number of photographs the history of architecture in Russia.

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- A TREASURY OF SCIENCE FICTION—Groff Conklin, Ed.—*Crown*, 517 p., \$3.00. A collection of 30 stories for those fans who like to escape from this scientific world by voyaging into the strange realm of fantastic fiction.
- UGARITIC MYTHOLOGY—A Study of Its Leading Motifs—Julian Obermann—*Yale University Press*, 110 p., \$2.75. From recently deciphered literature of a people who flourished in northern Syria some fifteen centuries before the beginning of our era.
- VACUUM TUBES—Karl R. Spangenberg—*McGraw-Hill*, 860 p., illus., \$7.50. For engineers and physicists.
- YOUR FARMHOUSE: PLANNING THE BATHROOM—Mildred Stenswick and others—*Govt. Printing Office*, 16 p., illus., paper, 10 cents. An aid to those planning a new house or just remodeling.

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POPULATION

Americans Will Be Older, More Conservative in 1975

➤ AMERICANS of 1975 will be more conservative and less willing to make political and economic changes, a scientist predicted.

Dr. Warren S. Thompson, director of the Scripps Foundation for Population Studies at Miami University, Oxford, Ohio, explained that there will be more older people in the population of the United States than there are now.

Dr. Thompson discussed the future population of the nation as a guest of Watson Davis, director of Science Service, on *Adventures in Science*, heard over the Columbia network. The authority on population trends was guest at the first broadcast of the program which on March 27 marked its eighteenth anniversary on the air.

Comparing forecasts of future population made in 1930 with those of today, Dr. Thompson declared that neither World War II nor the depression had greatly changed our outlook.

By 1975, he predicted, there will be twice as many Americans aged 65 or over as there are today. There will be more middle-aged persons, but fewer youngsters. And this change in population may have important effects on life in the U. S. 27 years from now.

"We'll probably become more conservative as we become an older people—we'll be more reluctant to make adjust-

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ments in our political and economic institutions," Dr. Thompson forecast.

"More of the important positions in politics and in our economy will be in the hands of older men.

"And more business will actually be owned by older people.

"And these older people will resist changes that will weaken their power and appear likely to make their economic position less secure."

One possible danger from this change in population ages is the threat of economic stagnation, the scientist warned.

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Science Service Radio

➤ LISTEN in to a discussion on jet engines on "Adventures in Science" over the Columbia Broadcasting System at 3:15 p.m. EST Saturday, April 10. Mr. Reinout Kroon, engineering manager of the Westinghouse Aviation Gas Turbine Division and Mr. Winston New, manager, will be guests of Mr. Watson Davis, director of Science Service. The principles of jet propulsion will be discussed.

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