

to the editor from the editor

Those little figures

I have been a reader of your magazine for quite some time now and still find it to be the best publication around for getting concise and accurate reports of the progress being made in many and diverse areas of science.

I feel, though, that you could convey this information to your readers with quite a bit more accuracy at little additional space expense by including, at least parenthetically, some of those statistical parameters referred to as "those little figures that usually aren't there" by Huff Darrell in his somewhat classic book, *How to Lie With Statistics*. The figures that he is referring to include, mainly, levels of significance, (correlation) coefficients of determination, sample sizes (which you do occasionally include), etc.

An example in point is your article "Learning and Memory Transfer . . ." (SN: 11/6/71, p. 308), where you report that the investigators "have analyzed their results statistically and that the behavior of recipients is not chance." In this same issue you have also an article "Dropping Out of School . . ." in which you state that "the researchers found . . . that there is a substantial difference between those who dropped out and those who stayed."

Now I'm sure that in both these cases, the experimenters knew exactly what their significance levels were. And your passing them along in your write-ups would certainly help your readers nail down these latest findings—along with their precision.

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Speaking out

Your commentary on secrecy with space cameras (SN: 11/27/71, p. 354) mentions "Scientists . . . who have not felt free to speak out." Let me. Years ago I proposed a particular orbiting astronomical camera. It is described in my article "An all-reflection Schmidt telescope for space research" in the April 1967 SKY AND TELESCOPE. To this day, NASA has not proceeded to develop the camera or any equivalent astronomical system. A month ago I met my old boss, now working for Lockheed, Palo Alto. He congratulated me. Why? Unbeknown to me, the camera has proven itself in orbit. The U.S. Air Force was using the astronomical camera for reconnaissance.

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The eruption of concern

The appearance of ESQUIRE magazine's annual year-end Dubious Achievements issue reminds us of a not-so-dubious achievement of ours during the past year: being selected (along with such as the Sunday New York Times and the NEW YORKER) as one of the eight weekly publications recommended by ESQUIRE in its at least semi-serious guide to the periodical press (see May ESQUIRE, p. 121). Although we're prejudiced, we go along with ESQUIRE's advice to follow in the pages of SCIENCE NEWS "the eruption of Concern in the formerly most mandarin culture of all" but hope the "five or six new things" the ESQUIRE editors say they find to worry about each week in SCIENCE NEWS don't spoil the fun they have writing those brash and irreverent article titles we enjoy so much. To A.G. and the gang at ESQUIRE, we at SCIENCE NEWS say thanks. You're right up there on our list of favorite monthly magazines.—K.F.

films OF THE WEEK

ENERGY AND MODELS. 16mm, color, sound, 28 min. Science Curriculum Improvement Study teacher education film. Fifth-grade children explore rotoplane systems in an Energy Sources classroom. A teacher uses a paper airplane and a simple propeller as he explores the concepts of energy source, energy receiver, and energy transfer. The sequence concludes with an example of a discovery lesson—the exuberant ice-melting race. Sixth-grade children studying the models unit build energy sources for electric circuits, and test materials to find which will complete a circuit. Audience: teachers. Purchase \$100 from Extension Media Center, Dept. SN, 2223 Fulton St., Berkeley, Calif. 94720.

FOOTNOTE TO GENESIS. 16mm, color, sound, 25 min. In 1912, a young, vigorous American backpacked his way over bear trails into a hidden valley in British Columbia, and homesteaded a farm on the banks of Loesome Lake. That same year, Audubon Society naturalists despaired of saving the trumpeter swan from extinction—the flocks had been reduced to a few dozn. That this cycle has been reversed is almost entirely due to the American, Ralph Edwards, and his wife Ethel. How they labored through the winters to save the swans makes an inspiring story of man's determination to live at peace with his environment. Audience: grades 5-6 and up. Purchase \$300 from Carousel Films, Dept. SN, 1501 Broadway, Suite 1503, New York, N.Y. 10036.

THE LIFE CYCLE OF A FLOWERING PLANT. Three 16mm or three Super 8 cartridges, color, sound, 29 min. Three chronologically arranged films examine (1) the cell, genes, DNA, and male and female flower parts, (2) meiosis and (3) mitosis. The apple tree, a plant familiar to all, is the model. Sexual and

asexual reproduction are discussed. Photomicrography, time-lapse motion pictures of the process, then color animation illustrate each process. Each visual approach is accompanied by narrative explanation. Audience: high school and college biology. Purchase for 16mm \$350 or Super 8mm \$250, rental for 16mm \$35 or for Super 8mm \$25 from Warrent Schloat Production; Dept. SN, Pleasantville, N.Y. 10570.

NERVOUS SYSTEMS IN ANIMALS. 16mm, color, sound, 17 min. Begins by showing the response of a paramecium, a euglena, an amoeba, hydra, and planaria to stimuli. The structure of the nervous systems in hydra, planaria, earthworms and grasshoppers is shown by using drawings and dissected specimens. The spinal cord, spinal nerves and parts of the brain are pointed out in a freshly dissected pig. A comparison is made between the parts of the brain in frogs, birds, cats and humans. The basic elements of the neuron and the pathway of the nerve impulse during a reflex arc are shown through still and animated drawings. Sale \$210 or rental \$8 from Audio-Visual Center, Dept. SN, Indiana University, Bloomington, Ind. 47401.

THE POISONED PLANET. 16mm, color, sound, 19 min. Examines the pros and cons of the use of chemical pesticides, herbicides, fungicides, and insecticides, ABC News Editor Jules Bergman hosts and narrates this study of whether we can continue to use chemical substances whose long-term effects are not understood, or discontinue their use and risk a reduction in food supply. Audience: high school, adult civic groups, general. Purchase McGraw-Hill Films, Dept. SN, 330 West 42nd St., New York, N.Y. 10036.

RESPIRATORY SYSTEMS IN ANIMALS. 16mm, color, sound, 14 min. Opening scenes show the movement of oxygen and carbon dioxide across a moist permeable membrane in paramecia. An earthworm is used to demonstrate the evolution of transport systems for movement of materials in larger animals. The spiracles and tracheal system of grasshoppers are shown, followed by scenes showing the gills of the axolotl, clam, crayfish, and fish. Exchange of gases in frogs is explained by showing the moist skin, lungs, and blood vessels of the lungs. Replacing oxygen with nitrogen in mammalian lungs causes a change in the coloration. A dissected fetal pig is used to show the channeling of air to the lungs followed by X-ray photography of the breathing movements of the rib cage and diaphragm in a human. Audience: secondary, college. Purchase \$210 or rental \$8 from Audio-Visual Center, Dept. SN, Indiana University, Bloomington, Ind. 47401.

SO YOU WANT TO BE A HOME APPLIANCE SERVICE TECHNICIAN. 16mm, color, sound, 11 min. The film concerns itself with Tom, a young trainee with whom the audience may identify, and George, an experienced and well-trained service technician. We follow them on several house calls as they correct "sick" appliances, and then, go with Tom into the shop where he gains experience solving more complicated problems. The film ends with Tom making his first house call on his own. Suggests the importance of the role of the home appliance technician, sets forth entry requirements, reveals the opportunities for advancement, and shows the responsibility, respect, status and income which accompany this career. Audience: high school, general. Purchase \$130 or rental \$3 from Vocational Films, Dept. SN, 111 Euclid Ave., Park Ridge, Ill. 60068.

Listing is for readers' information of new 16mm and 8mm films on science, engineering, medicine and agriculture for professional, student and general audiences. For further information on purchase, rental or free loan, write to distributor.