

Auditioning AudioVisuals

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Stop or go: an experiment in genetics. 16 mm, color; 30 min. 1968. NET Science; distributed by Audio-Visual Center, Indiana University, Bloomington.

The film depicts an experiment in molecular genetics by a team led by Norton D. Zinder, of Rockefeller University. The experiment involves a mutant strain of a virus that infects *E. coli*. In the reproduction of the virus its RNA contains instructions for the synthesis of three proteins including its coat protein. The mutant strain's RNA contains instructions for only a small portion of the coat protein. The team investigates the difference between the mutant RNA and the normal, or wild, RNA. The photography is well done and the experiment is a good one. A variety of techniques are employed, and the viewer observes techniques and apparatus he might not otherwise see. There are several sequences of the research team discussing the experiment and its design. Unfortunately it is very difficult to follow the discussion, and this may detract from, rather than add to, understanding. The experimentation is complex for the average high school student, and there are times (particularly near the end) when it is difficult to follow precisely what is being done and why. The film is possibly too advanced for the average high school student but is excellent for able high school students and for college students. Few, if any, high school or first-year college students are exposed directly to molecular genetics, and this film is a good substitute for direct experiment.

Harper Follansbee
Phillips Academy
Andover, Mass.

The nature of science: forming hypotheses. 16 mm, color; 16 min. 1970. Coronet Films.

A biologist, a physicist, a chemist, and a paleontologist are shown at home and at work as they informally present their views concerning science and their methods for forming hypotheses. The film probably would promote discussion concerning the differences in the personalities of scientists and their approaches to the solution of problems. However, the statements of the scientists are considerably more important

than the visuals in what should be primarily a visual medium. At times, the visuals even interfere with the concentration on the sound, which is the more interesting and informative of the two. Perhaps a recording supplemented by an occasional slide of the scientists would permit more concentration on the important oral portion of the presentation.

George Vuke

Spirogyra: structure and life functions. 16 mm, color; 13½ min. 1970. Coronet Films.

The outstanding features of this film are the excellent time-lapse sequences of the fusion of the gametes of *Spirogyra* and the division of cells. Other sequences show the nucleus, chloroplasts, and pyrenoids; the use of a micrometer scale to measure the dimensions of a cell; and experiments that demonstrate the necessity of light and nutrients for the growth of *Spirogyra*. The closing music seems pointless and is quite distracting. If an 8-mm loop were made of the time-lapse sequences, it probably would have considerable use.

George Vuke

Many of the hundreds of environmental films cover similar topics but differ in purpose, content, and intended audience. This is illustrated by the following three films on refuse disposal:

The stuff we throw away. 16 mm, color; 22 min. 1970, Stuart Finley, Inc., Fall Church, Va.

"Effective solid waste management is essential in this complicated 20th-century urban civilization" is the film's theme but is not represented by the content. Instead, over-simplified solutions are given to the highly complicated problem of solid-waste disposal. The film acknowledges our tremendous garbage problem and the need for effective disposal measures, but it suggests effective control measures within technology and the creation of new machines, many used with sanitary landfills. Sanitary landfills are presented as "simple and efficient systems" that allow for the total protection of the environment. However, many scientists do not accept sanitary landfills as solutions to refuse problems. In fact, the landfills

may create even greater environmental problems. More emphasis should have been on recycling, packaging methods, and consumer purchasing rather than on glorifying machinery. Three government agencies were involved in the production of this film; this may account for its ineffectiveness.

Tom Held

The litter monster. 16 mm, color; 16½ min. 1970. Alfred Higgins, Los Angeles.

This film shows how children can organize to eliminate littering by undertaking antilitter campaigns in their communities. Children are encouraged to clean up littered areas around lakes, vacant lots, and roadsides. The effects of litter, ugliness, and sanitary dangers are presented. The intended audience is grades 1 to 6. This is one of the few environmental films produced for young children. Despite the faults in the music, lyrics, mediocre script, and too many obviously contrived shots, the film is useful.

Tom Held

The garbage explosion. 16 mm, color, sound; 15 min. 1970, Encyclopaedia Britannica Education Corp., Chicago.

This film presents the extent of the garbage disposal problem in the United States and some of the methods of attacking the problem. It illustrates three methods presently used: sanitary landfills, incineration, and recycling. This film is recommended as an objective and concise overview of the problem of waste disposal in this country.

Tom Held

Our vanishing wilderness. A series of eight films: 16 mm, color; 30 min. 1970. National Educational Television; distributed by Audio-Visual Center, Indiana University, Bloomington.

These films, which are based on the book *Our Vanishing Wilderness* by Shelly and Mary Grossman and John Hamlet, have the following titles: *Of Broccoli and Pelicans and Celery and Seals; Prudhoe Bay or Bust; Slow Death of Desert Water; Will the Gator Glades Survive?; Santa Barbara—Everybody's Mistake; The Water Is So Clear That a Blind Man Could See; The Chain of Life; and The Prairie Killers.*