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ABSTRACT

Film is a powerful tool, if used properly, to facilitate learning about our internal and external environments. These candid reviews of environment films have as a central theme the affective use of film as a medium. As a former science teacher, the author has been repeatedly disappointed in discovering upon preview that films described in non-commital terms and ordered for class use on the basis of content could be so dull. Because what we think we perceive is based on our individual prior experiences, the author's views may be substantially different from those of other viewers. This basic subjectivity has been tempered by the use of these criteria against which each film has been judged: (1) Is film as a communications medium used to its best advantage in presenting the content? (2) Is the presentation entertaining? (3) Is the subject appropriate to environmental education? (4) Is the information conveyed biased or balanced? The author's opinion of each film follows its title, running time, producer, date, series, distribution and price, or as much of the foregoing data as possible. (Other Institute materials are available as LI 004 469, 004 470, and 004 471.) (Author/SJ)

ENVIRO-FILMS;

candid reviews of 16mm. films about natural resources and our environment

by

Diane D. Worden

Western Michigan University
Kalamazoo, Michigan
1973

Prepared for the Institute on Environmental Information Programs for Public Libraries held at Western Michigan University, May 7-13, 1972, pursuant to Grant no. OEG-0-71-8533 (319) from the Bureau of Libraries and Learning Resources, Office of Education, U.S. Department of Health, Education, and Welfare, and funded under Title II-B of the Higher Education Act of 1965, P.L. 89-329, as amended.

PREFACE

Environmental education includes more than just education in the conservation of natural resources. The goal of this education now also includes direct involvement in the physical, biological, psychological and socio-economic surroundings (i.e., the environment) of each individual from young pre-schooler to elderly mature citizen. Film is a powerful tool, if used properly, to facilitate learning about our internal and external environments. These candid reviews of environment films have as a central theme the affective use of film as a medium.

As a former science teacher I have been repeatedly disappointed in discovering upon preview that films described in non-commital terms and ordered for class use on the basis of content could be so dull. Accordingly, I do not intend to mislead others with neutral or bland phrases. Because what we think we perceive is based on our individual prior experiences, my views may be substantially different from those of other viewers. This basic subjectivity has been tempered by the use of these criteria against which each film has been judged:

1. Is film as a communications medium used to its best advantage in presenting the content?

2. Is the presentation entertaining?

3. Is the subject appropriate to environmental education?

4. Is the information conveyed biased or balanced?

The criteria are listed above in decreasing importance since my experience in the classroom has led me to believe that content alone, no matter how accurate or balanced it may be, does not make a good film. The crucial questions are whether the material can be presented better in any other form and whether the presentation holds the viewer's interest. That is why technique and interest rate higher than content.

My opinion of each film follows its underlined title, running time, producer, date, (series), distribution and price, or as much of the foregoing data as possible. When two prices for one title are separated by a semi-colon (e.g., $125; $12.50), the first amount is the purchase price and the smaller amount is the rental price. If only one price appears, it is the purchase price unless followed by a small case r (e.g., $3.00r), indicating a rental price. The large number of free films included work to the advantage of the public library's film program as a special event as well as to the teacher or club program chairman in search of available and appropriate material.

In many instances, the name of the distributor does not follow the date or series. In these cases, the producer preceding the date is also the distributor. Sources of film data used in addition to filmed credits and direct mailings from distributors to make each citation as complete as it appears are listed in Appendix A. Appendix B gives addresses of the producer/distributors from whom the reviewed films are available, and a general subject guide to the films follows as Appendix C. Most films have been assigned at least two subject headings, and most of them are appropriate for junior high through adult viewers. Exceptions are noted under each title. An asterisk in the margin indicates a recommended film.

Total responsibility for the content and opinions herein expressed rest with the author.

Diane D. Worden
Kalamazoo Nature Center
March 1973

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* Adventures of Junior Raindrop. 10 min. Color. U.S. Forest Service, 1948. John Hall Film Service. Free.

Partially animated, this film is most appropriate for elementary schoolchildren. A huge cumulus cloud, addressed as "Pop," sometimes appears to be cast as God as he admonishes his seemingly malevolent offspring. Raindrops are visually portrayed as villians although "Pop" explains away their misbehavior as that of delinquent boys, who could really be good boys if only Mother Earth had sufficient cooperation from people in the United States. This film has impact even though the sound track on the review copy skips a lot.

* After the Whale. 30 min. Color. Time-Life, 1970. (Life Around Us Series) $300; $30.

Opening with an intriguing introductory question (what does a yellow field of flowers have in common with whales?), several kinds of whales, i.e. blue, sperm, killer, are treated both artistically and historically. The flowers and whales share oil as a component, and the remainder of the film contrasts the traditional hunt by Eskimos with modern technology. A more subtle contrast is shown between the gigantic size of the whale and the bits and scraps from butchering operations through which research is conducted by the International Whaling Commission in an attempt to monitor the population of declining species. Pre-conditioned to this decline, the reviewer thought before preview that the title inferred a time when whales no longer exist, but the title is intended to mean, instead, the business of hunting them. It soon may mean the former.

* All the Difference. 21 min. Color. Eastman Kodak Co., 1970. MTPS, Detroit. Free.

From many distinguished American poets comes the connecting narrative for this gorgeously photographed treatise on America the Beautiful and America the Increasingly Ugly. The ugliness is off-set by the tragicomic patter of Mike Nichols and Elaine May, but juxtaposed against Emerson and Whitman, the viewer initially feels very much like stifling a laugh during a worship service.

The point in time of the narrative switches from what our country is in our literature to what our country is someplaces in the present and will be in the future. Whether or not acceptance of increasing air and water pollution becomes so thoroughly a part of our way of life in the future depends on which road America takes now -- the common path or the one less traveled by; that will make "all the difference."

This film requires at least high school or older audiences to appreciate the long sections of poetry and the sharp wit of Nichols and May.

* The Answer is Clear. 18 min. Color. G.M. Diesel Motor Division, 1972. MTPS, Detroit. Free.

Wally Cox portrays the friendly, accommodating and instructive city bus driver who calmly accepts the stings of

busybody passengers. He counters in a saintly manner by reasonably explaining away their criticisms, thoroughly convincing them, so it is they who verbally jump on a new passenger who complains that diesels pollute.

His explanation includes definitions of smog and air pollution. He points out the lower cost of diesels vs. gasoline engines, and that since there is no carbon monoxide in diesel exhaust, it is not harmful. Cox details research from 1954-1967 that resulted in significantly reducing the amount of smoke in exhaust. The dense black exhaust from diesels the reviewer has seen is apparently not the fault of the engine because diesels are shown to be smokeless if properly maintained. General Motors puts the burden on the owner, not the manufacturer.

Bighorn of Death Valley. 20 min. Color. California Department of Conservation, 1950(?). Eastern New Mexico University. Free.

Alternative title on film can: Desert Bignorn Sheep.

No background music aids the dry introductory lecture by a desk-man, presumably a conservation officer. Early in the outdoor footage, narrated by the researcher who has observed bighorn behavior for 10 years, the statement is made that parts of Death Valley hold quantities of water near the surface which support certain shallow-rooted plant life, but later it is stated that lack of water often results in one out of 10 lambs surviving the summer. A long sequence shows the jousting of rams, but the viewer is left to wonder who is the winner and how the winner is determined. There is no connection between the introductory speaker and the rest of the film, and it would seem that 10 years of research ought to have resulted in a better film.

Birth of a Red Kangaroo. 20 min. Color. Australian Embassy, 1968. Free.

Although mating behavior is very detailed, the emphasis of this film is the events which occur in the female kangaroo's reproductive system. With its bifurcated uterus, the kangaroo produces an egg from each ovary simultaneously. After fertilization, which is shown with animated diagrams, in the uterus and some early development of the embryo, the pinto bean-sized young exit from the uro-genital opening and climb over the female's belly fur which points to the midline that serves as a tactile trail to the pouch. Both natural and anesthetized births are shown. Since the young's hind legs are totally undeveloped at birth, only the front limbs are used in crawling into the pouch. This documentation firmly dispels the myth that kangaroo young grow from teats, as the early sailor-explorers thought, but much teat-sucking is shown. It is noted that non-mated females can suckle young if the young are transferred 33 days after the beginning of oestrus.

Recommended for audiences accustomed to natural animal behavior, and probably no earlier than late high school.

Boomsville. 11 min. Color. Learning Corporation of America, 1969. $150; $15.

Animated American history in a nutshell, this linear exposition needs (and has) no narration. It shows the settling of the U.S., the expansion of population and use of territory including Indian wars, the railroad age, world wars, baby boom, urban congestion and demolition, hi-rise accommodations for people and cars, development of ticky-tacky houses and marinas, world-wide population explosion, and similar reproduction on planetary bodies by space creatures. Fast-paced with good drawings, but still dull.

Canyon Country. 18 min. Color. Ford Motor Co., 1950. Eastern New Mexico University. Free.

The script from a 12-year retrospect is cute rather than clever for this travelogue of the Grand Canyon which features a section on boating down the Colorado River. The narrator is Time who hangs out in the Grand Canyon, but the cars and clothing date the film so terribly that the scenic beauties of the landscape would be lost especially to young viewers. If that were not enough, the faded color of the film print would keep tourists at home.

Cave Ecology. 13 min. Color. Centron, 1970. (Basic Ecology) $175.

Very good live photography plus animation for third grade through high school makes this a possible purchase, but it may be too simplistic for sophisticated naturalists.

* Cement and Timber: research on materials used in constructions. 16 min. Color. Australian Embassy, 1968. Free.

There will be no illusions as to where the raw materials for cement come from after this good film. It shows the use of natural resources for modern buildings, and the analytical care that is given to them to produce the most useful materials from a given lot of raw materials.

The City That Waits to Die. 55 min. Black and white and color. Horizon Film (BBC-TV), 1971. Time-Life. $600; $50.

Here is a story of San Franciscans who have chosen to not prepare for the inevitable earthquake that is predicted for the San Andreas fault. They have built schools, police stations, civil emergency facilities and hospitals directly on the fault line. Economic pressure for expansion and jobs is given as the reason why building codes have not been changed to relocate this kind of construction.

Evidence of San Franciscans refusal to be more than nominally concerned about imminent disaster is said to be suppression of the real reason for the San Francisco fire of 1906. Documentary footage of the major disaster at that time shows an extremely severe earthquake, but people are encouraged to think of it as the fire of 1906. Meanwhile the analysis of the 1906 quake is being used to prevent the expected, even more severe

shock. Experiments are being conducted and current movements of mountains are being recorded. It is believed that if the quake does not occur by 1976, scientists will be able to predict it exactly to allow adequate time for evacuation.

* Cosmic Zoom. 10 min. Color. National Film Board of Canada, 1970. McGraw-Hill. $115; $12.50.

Based on a book by Kees Boeke, this is a look at an instant in time which lasts an incredibly fast 10 minutes. Beginning from a macroscopic view of a boy and his dog in a boat, the camera zooms continually upward and outward past the Milky Way. It zooms back again at a faster rate, with the harp music of the outward journey also played backwards and faster so that it sounds like a moog synthesizer. Returning to the boy, it zooms into a mosquito on his arm, and furtner inward through blood cells, macroproteins, molecules and atoms. From there the camera zooms outward again, allowing the boy in the boat to continue his journey across the lake.

Cry of the Marsh. 13 min. Color. Snyder, 1971. $155.

This nauseating, but effective, film shows one effect of channelization as the advance of a set fire slowly cremates a nest of ducklings. No narration accompanies this clear visual statement that technology is a villain who causes needless destruction as the by-product of reclaiming soil for increased agricultural production. The real villain, over-reproduced man, is not identified.

Death Be Not Loud. 26 min. Color. ABC News, 1971. McGraw-Hill. $340; $28.

Not being devoted to television, this viewer was not impressed with this ABC News documentary led by Jules Bergman who gives the distinct impression of executing a "put-on."

Here technology is the good guy that can eliminate noise pollution. With lengthy footage of decibel meters, a few graphics and interviews in noisy surroundings, we see that police horses can be trained to withstand noise, but we learn that we cannot do as much for people. Our reaction to noise is physiological, and whether or not we condition ourselves to accept noise, our bodies involuntarily react by producing high blood pressure. We are led to believe this is not also true for horses. It may be that no one is sufficiently concerned over the health of police horses who appear to be a vanishing breed anyway.

Bergman sidewalk interviews an Ohio congressman who proposes to spend $25 million for a federal noise abatement program to prevent a nation of deaf citizens by the year 2000. Meanwhile, noise pollution is good for business (sound-proofing equipment) and for encouraging employers to hire the handicapped (deaf persons process checks in a bank's computer room).

Desert Bighorn Sheep.

See Bignorn of Death Valley.

* Dunes. 7 min. Color. Pyramid, 1968. $100; $8.

This is an outstanding example of choosing the most appropriate medium and making the most of its potential to convey an intellectual idea.

A blood-red and yellow sun begins this film in a small confined square that gradually becomes larger and larger, finally filling the screen. With the sound of unhindered wind and classical music in the background, the camera tracks the sun, sand, scorpion, beetle, spider, lizard, snakes, mouse and grasses. No animal is shown eating another; only the mouse is shown eating grass. It also shows protective devices to shelter these organisms from the wind. In the absence of narration it is finally the viewer who demands, "How do all these animals survive?" Suddenly, the interrelationships become clear, and it is the viewer who supplies his own verbal statement. The film ends with the sun enclosed in smaller and smaller squares, disappearing like still frames connected by a dissolve unit.

No words by the producer are used to show the interrelationships between living things and their physical environment, but classical nature was orchestrating what we know as ecology long before man developed speech.

Ecology of Ponds. 7½ min. Color. Oxford, 1972. (Ecology of the U.S. Series) $95; $10.

Best of the films previewed from this series, this film is intended for children through junior high age, but it should also be recommended for contemplative adults. It simply shows some of the wide variety of life forms that depends on the pond. Although it includes some short-sighted statements, e.g. "Life [of the pond] consists of microscopic plankton to full-sized animals" (plankton, however small, is full-sized for its kind), it does show balance in an ecological system.

The narrator's voice may be recognized as Leonard Nimroy's of Star Trek and Mission Impossible by young people to add interest, but this identification is not crucial to the enjoyment of the natural history of commonly known and unusual species.

Ecology of the Plateau. 8 min. Color. Oxford, 1972. (Ecology of the U.S. Series) $95; $10.

Caesar Romero tells of the squirrels and golden eagles on the Kaibab plateau, and how overpopulation results when predators are eliminated. He asks how the interrelationships on the plateau will be affected if golden eagles become extinct. Intended for children through junior high, the best word for this film is "Blah."

Ecology of the Swamp. 8 min. Color. Oxford, 1972. (Palisades Nature Series; Ecology of the U.S. Series) $95; $10.

A redeeming feature of this whole series is the unanswered, open questions that end each film. This film includes a sequence

of an Everglades kite feeding on snails which happen to be its only food. Snails die without water which may be drained for farming purposes. Marshall Thompson asks the lower elementary school audience, "What will happen to the kite when there is no more water in the swamp?" There is nice footage of snakes, alligators, and miscellaneous birds. Everything together makes this film O.K., but not exceptional.

The End of One. 10 min. Color. Learning Corporation of America, 1970. $100; $15.

The blurb attached to the inside of the film can suggests that this film may be an allegory on greed, a parody on life or a death knell for our environment. These are all over-statements. They are similar to the euphoric importance many attach to Jonathan Living Seagull.

This film features a gull who does not compete for the choice morsels spread by a bulldozer at a garbage dump. It walks away jerkily, falls to the ground, tries pathetically to get up. Regularity of heart beat falters, and the cameraman has a field day with its blinking eye. Finally, it rolls over dead to the "Taps" of a jet whine, and is gradually lifted by the incoming tide.

The film can blurb also suggests this film be used as an introduction to ecology (a possibility for dynamic teachers), to emphasize interrelationships of all living things (which the film does subtly), and to promote visual literacy and creative expression. Of the intended uses, the last one mentioned has the best chance for success.

The Endless Chain. 30 min. Color. Association-Sterling, 1971. U. S. Atomic Energy Commission. Free.

It seems as if two diabolically opposed co-directors comprised their film-making efforts by splicing their footage. Consequently, this film deserves its mixed reception. Beginning with an exciting and creative photographic essay on the transfer of energy from the blinding sun thru a predator-prey relationship in which the viewer mentally urges the rabbit to escape with the same empathy shown with the Parisian boy and his red balloon, the seemingly unrelated second half is an AEC documentary about its sanctuary for arid land ecology. If only the first superb presentation of the unifying element in life and death were separate from the factual latter half, audiences of all ages could better appreciate each part.

Energy and Living Things. 10½ min. Color. Centron, 1971. (Basic Ecology) $145.

Intended for young children, this film is a very elementary treatise which lacks any challenge for bright youngsters. It probably should not be used above the second grade.

Environmental Enrichment - What You Can Do About It. 21 min. Color. Centron, 1972. $280; $28.

The title is very misleading. Most of the film is on-the-scene reporting of a middle school or junior high classroom discussion in which an old-fashioned teacher in the form of a young man manipulates his charges to improve the immediate environment (i.e., the playground) around their school. He asks direct questions requiring an answer which he already has in mind rather than attempting to let the improvement issue be chosen by individuals who value it. What is needed is some teaching as a subversive activity.

Kids and their parents are involved in formulating the improvement plan which they help execute. A garden, play area, amphitheater and rock wall are included. Tree roots are shown totally exposed to the elements in the tree-planting sequence. The total effect after the project is completed begs for additional esthetic input, although undoubtedly everyone's hearts were in the right places.

This film is not recommended except for possible use akin to videotapes during teacher training. Watching it, the viewer must resolve to do differently and, hopefully, better.

** Environment. 29 min. Color. BFC Educational Media, 1971. $370; $25.

No other film in this assembled collection of annotations has provoked so much controversy among the librarians with whom this viewer has previewed it. Those who dislike it point to the high emotional involvement it generates and to the propaganda techniques used to convey its message. Those who like it point to the apparently not well-accepted maxim of using a medium that best communicates an idea by invoking a suitable response. Either way, film is an affective medium, and this particular film produces vocal response and debate.

No documentary, this dramatization begins with night arrests in ruthless Gestapo tradition by a bad-guy prosecutor who is pudgy and always wears dark glasses. He brings to trial an upright power company manager, an honest but simple farmer, a callous land developer, a sarcastic housewife, and a bitter black man. Their defense attorney is slight of build, and although kind and rational, he carries the aura of resignation. Enter the judge who, with black eye patch, rivals Torquemada. The trial is set in an abandoned theater whose empty seats comprise the jury. In reality, whoever watches this film occupies the jurybox. It is ruled that none is guilty individually, but all are guilty collectively. The defendants are watching the drama from the balcony. As their final judgment, they see their stage counterparts and courtroom disappear, hoping it was all a dream but fearing the righteous demands of the prosecutor.

For classroom use, this is worth two showings -- before and after determined discussion.

* Estuarine Heritage. 26 min. Color. NOAA, 1969. Motion Picture Service, Rockville, Md. Free.

A pleasant narrative voice defines estuary, gives some synonyms, and complements a map showing continental estuaries of the United States including Alaska. The economic and recreational values are described: seafood and seafood products, hunting, fishing, and tourism. Interdependence of the land, estuary, and ocean is explained, and research efforts are shown.

It is stated that in spite of its value an estuary is mostly treated as a garbage dump with attendant fish kills due to pesticides, thermal pollution, oil spillage, dredging for industrial and residential development, and damming. The importance of regional planning and cooperation between agencies and among private businesses is stressed.

The predominantly no-nonsense approach of this film is occasionally marred by saccharine sequences of Everyman loving the pleasures of our water resources.

Foresters. 14 min. Color. National Film Board of Canada, 1972. Centron, $200.

With another misleading title, this film emphasizes new uses of forests as renewable resources. Contrasting modern lumbering where machines can clear in one week what men did previously in fifty years and traditional paper-making with the use of even farmer's woodlots to produce materials for women's fashions, a lilting folksong melody (similiar to that used in Rise and Fall of the Great Lakes) makes this a somewhat interesting short that you might expect to view in an airport terminal lounge. Teen-aged boys who previewed this film were favorably impressed by the striking models who "owe their dresses to trees," tra la.

Fury of the Winds. 15 min. Color. Bethlehem Steel, 1959. MTPS, Detroit. Free.

Pedagogical in nature, this film uses some animation and smoke machines to describe hurricane formation and how steel is used to reinforce buildings and bridges that can withstand the force and varying patterns of the wind. Repeatedly stressed is the fact that hurricane safety is a combination of proper design with suitable materials and adequate forewarning of impending storms. The film previewed was streaked and somewhat off-color.

The Gifts. 28 min. Color. U.S. Federal Water Quality Administration, 1970. MTPS, Detroit. Free.

Lorne Greene delivers a pontifical narration about the sacrilege men and machines are perpetrating on our natural resources. He alludes to and quotes from Sandburg, Auden, Thoreau and Emerson. A little bit of all our sins are shown with emphasis on water pollution due to varying kinds of despoilation. There is an attempt to update in color the USDA's black and white 1937 classic The River by similar, but not as effective, poetic recitation of the names of our nation's rivers, but the color of the open sewers is as obscene as our callous misuse. Despite laws and billions of dollars, he says, we are losing the battle

due to lack of prior wastewater treatment before dumping into waterways.

Unintelligible folk-rock accompanies the concluding footage. All things considered, The Gifts is a very non-direct, affective call for change and clean-up. The viewer is left feeling like praying for deliverance. Contrast this film with The Race Is Losing (see p. 17).

Grasslands Ecology - Habitats and Change. 13 min. Color Centron, 1971. $175; $17.50

The term "grasslands" is used here to mean prairies which are identified as the best lands for growing food plants. Change in the prairie habitat has been due to burning, plowing and grazing, and in the U.S., former prairies are now largely sagebrush country because of over-grazing. Ponds created by bison depressions also helped change the prairie habitat.

Although prairies differ from one another and have different areas within each as well, whatever attempt was made to show these differences is unsuccessful. Despite this failing, and the non-dramatic nature of the film as a whole, this film exploits the mystique of the American bison to hold the viewer's attention.

The Greatest Good. 10 min. Color. U.S. Forest Service, 1950. John Hall Film Service. Free.

In the beginning the narrator assumes the identity of the national forests, "I am your forest, every part of me." He asks how they came to be dedicated to the greatest good for the greatest number, and answers by following an unnamed woodsman who chronicles forest misuse, takes his case to appropriate government authorities and convinces them that conservation is America's greatest problem. Today, because of prominent environmental controversy by the Sierra Club and Save-the-Redwoods League, the viewer expects the bearded woodsman to be identified as John Muir, but surprisingly the very last frames reveal him to be Gifford Pinchot. This mild shock to one's ego is the only redeeming feature of an otherwise rather dull film.

Iceberg of Steel; a Man-made Rig for Drilling. 10 min. Color. Shell Oil Company. Free.

Bluewater No. 2 is the name given to a technology which Shell uses for open-ocean petroleum exploration that is more stable for drilling them than is a ship. Water is pumped into its four corner ballasts to sink the floating island of steel, and when the drilling rig is needed elsewhere, water is pumped out of them prior to towing to another location. The procedure for stabilizing and positioning the rig in the right place is shown as are details of its automatic innards. An attempt to provide human interest focuses on care of the workmen, who are brought to and from the rig by helicopter for 7-day shifts, instead mars the over-all effect of the film.

In a Box. 5 min. Black and white. National Film Board of Canada, 1968. Learning Corporation of America. $75; $10.

This dramatization depicts a man's forced alienation from Nature using totally animated line drawings. It begins with a man in a box being taken by his dog for a walk in the fields. Whereupon, the box dissolves and the man is free to gambol among the wildflowers. His wife calls. The box reappears around him, and his dog takes him home.

Whether or not the main character is an urban man, or merely a hen-pecked excuse for one, is for each viewer to decide, but in either case Women's Lib should denounce the villainous stereotype of his spouse. If "man" has gone to the dogs, no one's to blame except nimself.

Islands of Green. 24 min. Color. U.S. Forest Service and National Audubon Society, 1965. John Hall Film Service. Free.

Pinchot, Muir and Teddy Roosevelt are cited by narrator John Daly for providing leadership to insure that our national forests be retained as "islands of green" for timber harvesting, recreation and wildlife. Our public lands were dedicated 100 years ago for the use and enjoyment of "all the people forever," but now there are too many people. Space just for housing, for instance, uses up thousands of acres every day. To supplement our national public lands, the National Audubon Society is ready to help communities establish nature centers as local "islands of green."

Nature centers are shown as outdoor classroom laboratories that include trained staff naturalists who instruct. Contrasting characteristics of Virginia creeper, poison ivy and Oriental bittersweet is used as an example of instruction by staff. Daly also specifies what nature centers are not. They are not parks, zoos or museums, but some of them have interpretive buildings. Hopefully, Daly gives all of these limitations popular definitions, since elements of each of them can be part of an effective interpretative center's total educational program.

The background music succeeds in coordinating its mood and tempo with the movements of photographed birds and mammals.

The narrative is somewhat saccharine, and it ends with a direct appeal to contact the Audubon Society, Nature Centers Division, New York, N.Y. for concrete help in your community. Does anyone remember Gregory Peck for the March of Dimes?

It's the Maine Sardine. 19 min. Color. USDI, Bureau of Commercial Fisheries, 1948. (Commercial Fisheries Series, No.5) Motion Picture Service, Rockville, Md. Free.

Did your mother ever pack sardine sandwiches for your school lunch box? If so, you must have been a happy child, the product of good nutrition like the kids that open and close this film which traces the sardine from sea to sandwich.

Sardines are young herring, and there are three methods used to net them -- near-shore weirs, quiet cove seines or deep-sea purse seines. At sea, a power winch draws the lower end

of the net, while the upper half of the net suspended from cork floats is hauled in manually. 200 pounds of salt per ton of fish is applied as the herring are transferred to the hold.

Inspection at the packing plant is first done by a state officer. The fish are brined, racked, steamed in a pre-cooker for 15 minutes and dried. Then they are hand-packed in cans; salad oil is added; and, the cans are sealed. Random cans are picked for quality control. All sealed cans are washed to remove excess oil, and final cooking takes place in live steam for an hour at 230° in a pressure cooker. After cooling several hours, another random quality control is conducted. The cans may be wrapped and different brand names are applied to the same batch.

Sometime between pre-cooking and hand-packing, the fish are beheaded and gutted. This is not shown; neither is the disposal of any cannery waste.

Lakes - Aging and Pollution. 15 min. Color. Centron, 1971. (Basic Ecology) $195.

McGraw-Hill has produced a film on a similar subject that is deadly dull; why a prestitious company bothered to film a stationary lecturer instead of making the most of the possibilities inherent in cinematography might be attributed to its basic print orientation. This Centron production has used the medium to better advantage.

Explanations of different types and parts of lakes are enhanced by clear graphics. To the viewer who is familiar with aquatic microorganisms only thru textbook line-drawings and non-living preserved specimens, the live photography of classic laboratory study organisms, such as Hydra and Vorticella, is most exciting.

A contemplative guitar is used in the rather slow beginning, and it would seem the title is somewhat misleading since the emphasis is primarily general limnology, but these factors do not detract appreciably from an interesting presentation.

Life in a Tropical Forest. 30 min. Color. Time-Life, 1972. (Life Around Us Series)

This film is slowly paced from beginning to end; in fact, the sounds of the howler monkey which precede the opening credits seem to go on forever, causing the viewer to wonder if somehow the title et al had been cut off in the process of splicing on a new leader. Once begun, however, the film details current research on Barro Colorado Island, Panama. In trying to be both literary and scientific, some generalizations are made which are not universally accepted, e.g. that man originated in tropical forests.

Natural history of the Island is the stated and actual subject of the film. The lush vegetation on poor soil is attributed to shallow root systems and very efficient fungi.

Despoilation of tropical forests is potentially more dangerous to the Earth's ecosphere than the receding acreage of temperate deciduous forests which environmental groups are trying to preserve for aesthetic and recreational purposes as well as for watershed protection. In a tropical forest, oxygen is produced all year around to replenish the global supply.

The emphasis is on tropical birds and insects with secondary treatment for a few reptiles and mammals. Spiders are shown which are able to distinguish between moths and grasshoppers, and iguanas are shown swimming to and from the Island for breeding purposes. Camouflage, predation, interrelationships and competition for food and space are explored. Coexistence of species is responsible for the wide variety of life, and it is believed that this variety is a necessity for the condition of life rather than merely a spice that makes life more interesting.

* Little Man, Big City. 10 min. Color. U.N. World Health Organization, 1969. Free. Purchase from CMC $120; $12.

Accompanied by the volume of urban noise to which we have become accustomed, the main character in this totally animated production is always one among many. Assaulted by sources of air and water pollution, our hero becomes ill. His problem is diagnosed by a prestigious committee which works to eliminate the causative factors, and because of its efforts, the man's health improves.

Only music and sound effects comprise the background until, at the very end, a narrator concludes, "People all over the world are working to make living more pleasant, but you, too, must do your share." The simplicity of this presentation is redeemed by finally placing definite responsibility on each individual.

L.P. Gas: the Clean Air Fuel. 15 min. Color. National L.P. Gas Association. MTPS, Detroit. Free.

Bennett Cerf prefaces and concludes this film with comments on success, suggesting that the L.P. Gas Association has been on the path to success in environmental pollution control for many years. Although it initially chronicles a wide array of environmental pollution, the film is mostly an ad for L.P. gas.

Gasoline and L.P. gas powered engines are compared and examples of the later are shown in municipal bus fleet conversion, the 1970 entries in the Clean Air Car Race which already exceed the 1975 federal emission standards, on farms, and used in incinerators, cars and lift trucks. Impling endorsement of the California Board of Air Resources, the film intends to show that use of L.P. gas is one way man can have technology that harmonizes with nature and does not pollute.

Magnificent Canada Goose. 10 Min. Color. USDI, 1954. Eastern New Mexico University. Free.

With no title frame, an irritating vertical white streak present during the first minute or two, and many skips in narration

from numerous old splices, the copy viewed of this film was in fairly poor condition.

Good wildlife maps showing the four major flyways and hundreds of refuges are not sufficient to overcome this poorly organized plea that the only way to conserve geese is to obey game laws and to cooperate with state and federal conservation departments. Included is an inexplicable section on the nesting habits of the bald eagle followed by a sequence of does alerted to the presence of a fox which precedes discussion of the gander as sentry. A gander protecting a brood against a dog is shown as well as other goose behavior. The total effect does not convey any magnificence as the title leads the viewer to expect.

Multiply and Subdue. 75 min. (2 reels) Color. NET, 1969. Indiana University $450; $18.50 or Carnegie Film Library: Free.

Ian McHarg holds these two reels together with his fast-paced brogue. Both reels explore Western man's view of nature as a source of profit rather than as the primeval nuturer of man. The first reel lays the historical background for the former view. It is contrasted with the view of the New Mexican Taos Pueblos Indians who want their land back as a religious shrine, and Indian desecration of Christian churches is rationalized as tit for tat because the white man has desecreted their mountains.

The statements made initially that overcrowded rats exhibit deviant behavior and that 25% of Manhattan, N.Y., residents are mental cases provide the basis for devoting most of the film to the pressure for growth and development of land resources. The ecological planning principle to preserve those lands which are best suited for natural use is illustrated by a short exposition on the ecology of the seashore and man's error in building homes in the wrong places. The dunes form a natural barrier that protects the mainland from sea gales and should not be subjected to home building.

Limiting growth and development around Lake Tahoe is one project of California Tomorrow. This subject is introduced in the first reel by its president Alfred Heller. The second reel features a chorus dance sequence, presumably at Lake Tahoe, while the narrator drones on about state zoning. It is pointed out that only Hawaii has a state land use plan to prevent development of subdivisions and to preserve scenic beauty. Anxious to effect such a plan is his own state, Heller explains California's head-in-the-sand attitude about its fault geology as being justified by the realities of political life and the push for economic development.

McHarg discusses examples in Baltimore and St. Paul/ Minneapolis. The members of the Metropolitan Council for Land Use Planning look bored to death as the ecology of the area is being explained to them. McHarg places the blame for loss of agricultural land and natural beauty on local governments

which determine zoning and land use laws. Not all open space is suited for parks; some is needed for protection. He repeatedly stresses the necessity for state zoning. A grand plan to create an ecologically balanced environment of choice is envisioned to use the land more sensibly in North America where currently 80% of the people live on 2% of the land. McHarg's closing remarks are obscured by the intricacy and volume of a baroque flute.

No Deposit, No Return. 10 min. Color. Centron, 1970. $150.

The review copy did not have a title frame, but if it had, it would have been misleading. This film is not about the solid waste problem created by non-returnable beverage containers. A little bit of many pollution problems is shown. The camera often fades and zooms, emphasizing esthetics.

Opening with a folk singer who cannot be understood during the first verse, the narration is heavy on the poetry of Mark Van Doren. The poetry is too sophiscated for the junior high or high school student. Despite interesting photographic techniques, the total effect, according to a tenth grader, is "...boring; there's nothing there to look at."

No Turning Back. 25 min. Color. U.S. AEC, Chicago, 1971. Inspirational Film Service. Free.

The purpose of this film is to show that the Atomic Energy Commission cooperates with nature. It emphasizes the combination of technology and knowledge. Narrated by Lorne Greene, it features ecology research being done at the AEC Centers in St. Louis, Oak Ridge, the Pacific northwest (both the Columbia River and the arid lands of SE Washington state), Chicago, Brookhaven, and on the Savannah River. It is rather long and somewhat dull.

Noise Pollution. (Sound Wave Pollution?) 16 min. Color. Learning Corporation of America, 1971. $225; $20.

The physics of sound are explained. An experiment is conducted in which the populace is the target for an educational campaign on the harmful effects of unwanted noise. It is ironic that the populace has seemingly adjusted to quite common noise violations and no longer hears them. Man-made noise and pleasant natural sounds are contrasted.

* Nuclear Power and the Environment. 14 min. Color. U.S. AEC, Technical Information Center (Oak Ridge), 1969. Free.

With some of the same footage used in other government energy films, i.e. Power for a nation and No turning back, this film states that in order to have electricity for everyone, we must plan now to manage nuclear power just as we do other sources of power. Its effects on the environment must be studied. A study of thermal discharge, for example, has shown no change in the ecology of the area. This result is difficult to believe when the water temperature is increased 18°, but the facts leading to this conclusion are not stated. The proposed storage of spent reactor fuel in salt mines is also discussed.

Oil From Beneath the Sea. 13 min. Color. Shell Oil Company. Free.

A short history of ocean exploration for oil is shown under the varied limitations imposed by tides, depth and low temperatures. The use of divers and robots to connect pipelines to well-heads is explained as is the transport of oil from well to shore through pipelines at different depths.

Cook Inlet, Alaska, is the location of a dramatic storm sequence during the construction and immersion of a pipeline; however, the narrative conclusion is somewhat pompous, "Oil men have proved problems posed by the sea can be conquered."

* Once Upon a Prime Time. 30 min. Black and white. National Film Board of Canada, 1966. Canadian Consulate, Detroit. Free.

Although not ostensibly concerned about ecology and the environment, this bit of outward fluff is excellent entertainment that illucidates an attitude toward the despoilation of the environment. It can be interpreted either positively or negatively.

Basically a fantasy about a housewife ("Nobody listens to me") who loses her husband to a television set, a western hero rids her home of nutty monsters and she rides off into the sunset with him. Moral: if you can't beat 'em, join 'em. This film could be an unusual vehicle to lively discussion.

Our Vanishing Wilderness: Prudhoe Bay or Bust. 30 min. Color. NET, 1972. WMU. $400.

The trans-Alaska pipeline occupies acres and acres of stacked pipes at the time of photographing this heart-rending treatment which promotes industry's concern for conservation. Much citizen scepticism toward this view is also shown. A pastoral combination of harp and piano contribute to this emotional film.

* Pass Creek. 10 min. Color. A.V. Instruction. Corvallis, 1968. $300.

Of equal interest to sportsmen, conservationists and businessmen, this film documents the shared use of the Umquah River and its watershed by steelhead trout and by a logging operation. From land owned by the U.S. Dept. of the Interior, timber was harvested in just two years by the clear-cutting method which deprived the steelhead of shade, making the creek too warm for them. The Bureau of Land Management is admonished for its pragmatic solution to harvesting the timber. Each year more streams feeding into the Umquah grow warmer due to careless logging. In addition, clear-cutting also results in tons of silt being washed into the river. It is noted that retaining a 200 ft. strip of uncut trees on either side of the stream could have also kept it useable for the trout.

In the event that efforts fail to have clear-cutting in this situation discontinued, fishermen will know who to blame when they, like the trout, have no place left to go.

Pennsylvania and Its Natural Resources. 27 min. Color. Audio, 1972. U.S. Bureau of Mines, Pittsburgh. Free.

Pollution-conscious Americans don't have many kind words for mines and mills, but this film should do something to temper them. Literary and historic sites are included in this travelogue that features the scenic beauties of the state.

The Persistent Seed. 15 min. Color. National Film Board of Canada, 1963. Henk Newenhouse. $150; $15.

No narration disrupts the natural sounds in this low-key presentation about the effects of urbanization on the mute organisms with whom man co-habits the Earth.

Pesticides. 20 min. Color. WOOD-TV, 1971. (Our Poisoned World Series) Time-Life. $300; $30.

The low amounts of DDT and other chlorinated hydrocarbons in the waters of Lake Michigan are concentrated upwards in the food chain so that Lake Michigan fishes, including commercial catches, have high levels of pesticide residues. In birds' eggs the lessening of shell thickness was observed as early as 1947 at the intercontinental level. Danger is cited from long term sub-lethal effects of pesticides.

A Place to Live. 20 min. Color. Swedish Institute of Cultural Relations. MTPS, Detroit. Free.

A deceptively excellent introduction features the melting snow and ice with the explanation that nature and climate determine where and how houses are built in the varied ecosystems of Sweden. An inane man-woman dialogue follows the unceremonious birth of a pig in a barnyard (included perhaps to heighten the realization that Swedes are close to nature) from life in rural Sweden to life in urban areas. Ugly and disharmonious buildings are contrasted with examples of good architecture with roof-top recreation areas, and the point is made that city planning and architecture must harmonize people, places and the environment.

Populations. 15½min. Color. Centron, 1972. (Basic Ecology) $210; $21.

Beginning with the rapid multiplication of dots before the title frame, this film defines specific animal populations and treats their organization into social orders. Frequent examples of plant populations are given. There are good explanations of growth curves and limiting factors. Predators, parasites, cannibalism and introduced species are also defined.

Junior high students and up should find this quite interesting.

Power For a Nation. 25 min. Color. U.S. Department of the Interior, 1965. Free.

The role of the federal government in power production is narrated by Frederick March who cites Zola's prediction of the lavish use of electricity. He reminds us of Teddy Roosevelt and Gifford Pinchot who urged the government to use the nation's water resources to effect both conservation and provision of electricity to rural areas not served by city steam plants. In part, because of their efforts, FDR led the 1930s into dam projects, the Rural Electrification Act and development of ocean power technology through the use of Maine tides.

Although three-fourths of U.S. power is privately owned, the government insists on cooperation to provide low cost power. Competition with the U.S.S.R. for supremacy in power production is shown with footage from Russian film, but with martial music and interesting use of graphics, the U.S. triumphs.

This film is generally dull.

* The Race Is Losing. 20 min. Color. WOOD-TV, 1971. (Our Poisoned World Series) Time-Life. $300; $30.

Accompanied by somber orchestration, a sun rise is interrupted by increasingly frequent squibs of industrial stack pollution whose roar overcomes all else. Kent County, Michigan, is the focus for much of the subsequent narration, but the visuals of pollution in its various forms are national in scope.

This documentary names names. It identifies Allied Paper Co. as the source of the opaque effluent dumped into Portage Creek which five miles upstream is clear as it runs through Kalamazoo's Milham Park.

Dr. Harlan Hatcher defines pollution as the result of millions of private individual decisions. He gives the call for control through regional standards and communication between disciplines. The question is not, he says, whether we will pay the price, but how we will pay it. He suggests two steps: (1) pass and enforce laws; and, (2) plan for the future.

The concluding visuals are accompanied by an understandable folk song, and the overall effect is positive. Audiences should feel that all is not lost and that something can be done. This film motivates action rather than despair.

* Rise and Fall of the Great Lakes. 16 min. Color. National Film Board of Canada, 1968. $200; $15.

Some animation is used to show the formation of the Great Lakes, but it is the trick photography and music that make this superb entertainment as well as instructional. The camera follows a bearded canoeist from pre-glacier times to the polluted present, a journey that is unforgettable.

* The River. 31 min. Black and white. USDA, 1937. Carnegie Film Library. Free.

With music by Virgil Thompson, this classic documents the Mississippi and its tributaries, carrying cotton, lumber, iron and coal that "built a hundred cities and a thousand towns, but at what a cost!" The plain recitation of the tributaries becomes poetry. In using the rivers for immediate economic gain, we planted with no regard for the future and wasted our most valuable resource, soil. The hope to conserve both soil and people was born with development of the TVA as an example of harnessing the river for everyone's benefit.

** The River Must Live. 20 min. Color. Shell Film Library, 1968. Free.

The opening credits are superimposed on a polluted river. Glacial melt then alternates with a horse in action as the British narrator begins, "Water is life..parts of blood and bone and wastes." This is followed by microphotography of blood cells streaming through a vessel and gross photography of the horse urinating. The latter is not objectionable.

Using a European locale, it is explained that absorbing waste is the river's natural role. Problems develop, however, with the growth of industry whose universal raw material is water.

Man must find a way of keeping his water clean, even though in nature water is never clean. It picks up minerals and soil particles, and there is excellent microphotography of fungi decomposing a submerged leaf. It shows bacteria, aquatic protozoa (Volvox, Vorticella, paramecia), Spirogyra and fish. Too much pollution in too short a time kills these organisms. Rivers which have become open sewers empty into the sea where the water is renewed by evaporation. As it is renewed, so is man's chance to use it wisely.

Several methods of sewage treatment are shown that give the river a better chance of fulfilling its natural function of absorbing waste.

* River, Where Do You Come From? 10 min. Color. Learning Corporation of America, 1970. $125; $10.

Suited for even primary grades, this is very well done as it shows evaporation from the ocean, clouds, snow, trickles, streams, lakes and rivers. The film presents both use and misuse of this resource.

The Satiric Eye. 13 min. Black and white and color.. Learning Corporation of America. $185; $20.

These four animated shorts were made in Hungary and Germany. Although each episode has a socio-political meaning, each of them can be used as a parable for environmental issues as well.

The ribbon-cutting ceremony to open a new bridge in "Inauguration" is hampered when the ribbon refuses to be cut; a lion tamer loses his head in "Success;" during "Funeral," the corpse begins to laugh; and in "Either/Or," a man finds he cannot be friends with each of two dogs.

* Seashore. 7 min. Color. Pyramid, 1971. $125; $10.
A brief spoken introduction from Loren Eisley's Immense Journey is all the narration there is, "If there is magic in the world, it is in water...Look now before what follows is only a record of what once was." What follows is shorelife in abundance and black silhouettes in slow motion superimposed on rolling waves. Classical music provides the background.

* The Seals of Macquarie Island. 12 min. Color Australian Embassy, Free.
One hundred years ago the fur seals of the Island were all but exterminated, but a population has now returned and is growing. Elephant seals are still being harvested for oil. Filmed on the wildlife sanctuary, the natural history of seals is shown. Pups are branded for research, bulls fight and they all molt.

* Shelter: Almost Anyone Can Build a House. 15 min. Color. Learning Corporation of America. $195; $15.
An animated caveman and his wife introduce the parallel construction of a children's tree-house and a split-level home. The simplistic methods of the children in the woods are contrasted with the complicated extraction and use of many natural resources (sand, gravel, timber, metals, etc.) used in the suburban model.

Shrimp Tips From New Orleans. 24 min. Color. USDI, Bureau of Commercial Fisheries, 1948. (Commercial Fisheries Series, No. 12). Motion Picture Service, Rockville, Md. Free.
A few New Orleans landmarks and too brief a treat of dixieland preface preparation of five stereotyped ethnic recipes featuring shrimp--gumbo, pizza, jambalya, almondine and oriental. Without the visuals, this might be mistaken for a radio cooking show, "¼ teaspoon of pepper, ½ cupful of chopped onions," etc., but with them, it is an affront to each ethnic group. A recipe booklet accompanies the film, and the narrator gives directions on how to receive the booklet from the Superintendent of Documents.

A Slice of Bread. 12 min. Color. Country Beautiful, 1970. Sterling. $165.
A young black boy, with whom primary schoolchildren will readily identify, and his relationship to the environment are featured in this easy-going presentation of how things grow. Living things are discussed generally. The child as a part of Nature is included in a personally meaningful example of a simple food chain from soil to wheat and bread.

Smoke in the Hollow. 25 min. Color. U.S. Forest Service, 1960. John Hall Film Service. Free.
Volunteer firemen are not in any great hurry to put out a reported fire. All of the action is slow, and the narration

is overly pedantic. Two points are made: (1) burned timber areas do not yield quality lumber; and (2) everybody loses after a forest fire. This film need not have been made.

Snow How. 25 min. Color. Life Su port Technology. $275.
The plot of this safety film on snowmobiling centers around the care of a bleeding fractured leg in a two-day mountain emergency situation, although many plugs for the thrills of snowmobiling on Forest Service trails are included. Noise from the vehicle is considered a joyful signal that help is coming.

* So Little Time. 27 min. Color. U.S. Bureau of Sport Fisheries and Wildlife. Free.
The message of Roger Tory Peterson as he instructs a young boy about birds is that drainage of wetlands for agricultural or residential development brings irrevocable loss; therefore, we must heed the Rex Gibson ballad, "So little time to see and hear the world of the whistling wings." Along with quotes from Thoreau and Aldo Leopold come slow motion photography of geese, prairie potholes and large maps of principal migration routes.
Canvasback ducks, whistling swans, western grebes, diving and dabbling ducks and other wetland species are shown. It is easy to see that field identification under hunting conditions is difficult. The extinction of the passenger pigeon and loss of other birds and some mammals is explained with the conclusion that waterfowl management is really people management.

Sound Wave Pollution.
see Noise Pollution

* Sparkle. 11 min. Color. Life Support Technology, 1970. $120.
Photographed in the Columbia Gorge, the opening poem is the only voice in this concert of natural sounds and images which leads from the primeval source of our water supply to contact with man.
"I am snow-,rain-,fog-,dew-,sweat-,tears-,stream-," is accompanied by a classical guitar that parallels the water dripping on trees, flowers and rocks. It flows with bubbly streams over falls and into pools. The concluding minute or two shows an increasing amount of submerged and banked litter while the guitar mocks, "O, how a rose ere bloometh." The rush of water into a cement tunnel terminates the journey.

Special Performance. 20 min. Color. Bethlehem Steel. MTPS, Detroit. Free.
Imagine that the asymmetrical rectangles of a Mondrian canvas are filled with different moving images so that one section shows a gross operation and other sections depict close-ups and different views of that operation. Cinematic Mondrians introduce and close this film which details how alloy steels are custom blended to satisfy specific requirements.
The processes of removing minerals from the ground and extracting their elements to manufacture an alloy are not shown,

although the natural beauty of rocks and crystals is glamorized by showing them rotating into the camera from black space. All of the subsequent action takes place within a steel plant where a computer is used first to manufacture alloys in an oxygen furnace and later to monitor the samples taken before the furnace is tapped. Special photography shows how metals react in a vacuum during de-gassing which results in a "cleaner" steel.

There is some low-key advertising for Bethlehem Steel and the snowmobiles which incorporate its special alloys, but the music is good, and this film could logically follow Steelmaking Today in an interesting program.

* Steelmaking Today. 30 min. Color. U.S. Bureau of Mines, Pittsburgh, Pa. Free.

Made with the cooperation of Inland Steel Corporation (Chicago), jazz music accompanies a well-paced narration as the actual mining of each of steel's raw materials (coal, limestone, iron) is shown. Low-grade ore is then converted by beneficiation into high-grade iron pellets. Two tons of raw materials and four tons of air yield one ton of pig iron. The fate of the five tons of resulting waste products is not shown, or explained, but it may not be nice to watch or to ask about it.

Excellent graphics conceptualize several phases of the steelmaking process. The oxygen furnace is eight times as productive as the older open hearth method, and is beautifully compatible with automation. Molten metal is tapped only after quality control analysis of each batch. The electric furnace is another method used to produce alloys. Ingots are currently being rolled into a wide variety of mill products, but this may be replaced by continuous casting in the future.

* Tell Me If Anything Was Ever Done. 55 min. Color. BBC-TV. Time-Life.

The psychology of TV drama is the operative introduction of this film. Instead of the usual commercial which ordinarily follows station identification, the viewer becomes unexpectedly absorbed by the compelling summons of a cathedral organ and by a grotesque sequence of eerie medieval figures. He is then hooked. Commercials to follow or not, he'll stay to watch this wierd show. He will be treated to an intense hour with Dr. Jacob Bronowski who discourses on Leonardo DaVinci as an artist, an engineer, an anatomist, a city planner, but most of all, as a man -- creating, producing, questioning.

DaVinci was devoted to the way Nature does it. A dove in flight is a repeated motif leading to DaVinci's flying machine. Engineering was pursued as a mode of understanding. Believing that no result in nature is without cause, he

studied the rise of blades of grass as art in nature and how nature works in art. He found that the action of nature is expressed by the structure of that which acts, and stressed, "Know the cause."

Water was treated as a symbol of despair. To DaVinci, natural resources were too much for man. He saw that time consumes all things and that Nature was going to dominate man. In the end, he wondered if all his science was worthwhile, and wrote in the margin of his last notebook, "Tell me if anything was ever done."

This viewer unreservedly recommends this film for academic and public libraries and for ages as young as 11 or 12.

The Thunderstorm. 9 min. Color. Learning Corporation of America. $125; $15.

Maybe this film was intended as an art film for primary grades or as a non-narrative alternative to "Lassie Come Home." The story is about a boy and his dog who lose each other during a storm and who are reunited afterwards. It is the photography that is worth remembering and hard to forget, especially the closeups of the impact of raindrops on plants, animals and soil.

* Tidal Power: a New Source of Energy. 22 min. Color. U.S. Army Corps of Engineers (New England Division), 1957. Free.

A recurring idea of the 11th, 13th and 20th centuries is the use of tides as an alternative source of power in view of the limitations imposed by the more familar non-renewable power resources. An international joint commission (U.S. and Canada) was created in 1935 to make the idea a reality using Cobscom and Passamaquoddy Bays as two great pools with a series of dams between their islands. A six-year construction plan was begun but the project was dropped short of its goal when the U.S. Congress appropriated less than one-fifth of its alloted share of the funds. The side effect, for good or ill, would have been a system of highways above the dams to connect all the islands with the mainland.

Tilt. 19 min. Color. Animated. National Film Board of Canada, 1972. MMU. $4.00

The message is not clear in this production. Ostensibily it explores the economic, political and military alternatives to distribution of natural resources. What is shown is the inadequacy of all these alternatives, but the viewer must work very hard to provide whatever connective threads are woven into this piece.

Time Is. 30 min. Black and white and color. Contemporary Films, 1964. (History of Science Series) McGraw-Hill.

Produced in Britain with music by Ravi Shankar and narrated by a woman, this film is very fast-paced and intellectually

challenging. There is time-lapse photography in addition to speeded-up and slow motion of plants, animals, men and machines. There is cinephotographic analogy of electrons, positrons, matter, anti-matter and 2-dimensional time. Past, present and future are measures of time which man invented, but does time really exist, does man understand it, and is it true that when man creates an abstract idea, he creates a monster?

Water. 20 min. Color. WOOD-TV, 1971. (Our Poisoned World Series) Time-Life. $300; $30.

Lake Michigan is the topic for just the introductory and concluding sequences. Most of this TV documentary deals with pollution of Muskegon Lake and, secondarily, with the Kalamazoo and Grand Rivers. Being limited by both industry and local governments, the Michigan Water Resources Commission is presented as perhaps the ineffectual body it is. Citizen action is required before any corrective action is begun. Campers and the Save Our Lake Association of the Muskegon Yacht Club are credited for bringing increased water pollution to the attention of state authorities.

It is intimated that one reason we are still being plagued by water pollution is because the new plan developed by Dr. Robert Ball of Michigan State University to remove pollutants is not being used, but that plan is not explained or is it shown why it is different from current efforts. Another reason rests with the federal government which has withheld matching funds for a bond issue passed by Michigan voters in 1962. That money is worth 50% less now than it was then.

Since Michigan is over half water, the citizens of the Winter Water Wonderland can hardly afford to be as contemplative as the closing folk-song.

* Wealth of the Wasteland. 27 min. Color. U.S. Bureau of Mines, 196[illegible]. Pittsburgh, Pa. Free.

Junk cars and mine tailings are the subjects of this jazzy treatment of the Bureau of Mines' conviction that it must show industry that recycling will not only contribute positively to the economy but that one day it will be absolutely necessary.

The Bureau is researching new ways to off-set a change in the technology of steelmaking that has reduced the value of recycled junk cars. The amount of residual copper (the less the better) determines whether a product is good enough to reuse in new steel. Iron and aluminum from non-magnetic taconite and the red mud tailings from aluminum ore are also being reclaimed. Means are also being investigated to reduce both air and water pollution associated with these waste products of current technology.

What Ecologists Do. 15½ min. Color. Centron, 1971. (Basic Ecology) $210; $21.

Slowly paced and quite dull, a subtly redeeming feature of this film is its consciousness-raising value to black children. Black as well as Caucasian scientists are shown at work.

Tracing DDT through a food chain results in a long look at unhatched eagle's eggs. Ecology is defined and methods of studying ecosystems are presented.

What is Ecology? 11 min. Color. Encyclopedia Britannica Educational Corporation, 1962. $135; $8.

Given a term flashed on the screen, a resonant definition of it by a faceless phantom, some footage of the phenomenon in nature and you have the unimaginative method of this film well in mind. The relationship of ecology to conservation is discussed and the following terms are defined: environment, populations, social organization, aggregation, predation, parasitism, community, energy, matter, herbivores, carnivores, succession, biome, climax vegetation.

What on Earth. 10 min. Color. Animated. National Film Board of Canada, 1966. McGraw-Hill. $145; $14.50.

Satire operates as the authoritative National Film Board of Mars documents discovery of intelligent life (automobiles) on Earth. If anything impedes an auto's progress, it is removed with dispatch. Mature individuals reproduce asexually; i.e., beat-up junkers are transformed by recycling. Problems posed by parasites (people, cats, dogs) are being erased by the working class (steam shovels and bulldozers) who attack the root of the problem by eliminating their dwelling places. You might expect to see this on Cartoon Carnival, but it holds the attention of adults too.

The Whooping Crane. 15 min. Color. U.S. Bureau of Sport Fisheries and Wildlife, Twin Cities, Minn. Free.

Introduced by a slow motion sequence of birds in flight, this undistinguished effort to depict the crane as "a monument to man's effort at preservation" is monumentally bleak.

The Wilderness Trail. 16 min. Color. U.S. Forest Service, 1961. John Hall Film Service. Free.

It is interesting to learn that no logging or commerce is allowed in the protected wilderness areas of the National Forests. The featured area here is Bridger National Wilderness in Wyoming, and we are treated to some of Alfred Jacob Miller's 19th century landscape paintings of the area. Bridger Wilderness has a variety of alpine wildflowers and is the source of water for a large part of the west. From here, however, the film vies with the downhill racer in its speed of descent from the mountain top.

The main character is a cattle rancher who offers summer escape to urban trail riding groups. His wife, an Eastern girl taken by the rugged life, dutifully handles the camp's cooking chores. Choreographed to what must be a soundtrack from a Roy Rogers movie, they squint into the distance, brush the brims of their hats, and ride on. The multiple uses of our forests are mentioned, but they are emphasized as America's playgrounds.

Wonders in Your Own Backyard. 10 min. Color. Churchill, 1949.

A pig-tailed girl and her brother find worms, spiders, sowbugs, snails and pill bugs in their yard. It is doubtful whether this film can hold the attention of its intended primary school-aged audience. Better that they discover these animals in their schoolyard, and touch them themselves.

IV. APPENDIX A: Extra Sources of Film Data

Film evaluation guide, 1946-1964.

Educational film guide, 1953-1953.

LC catalog: Motion pictures and filmstrips, 1959-1962.

NU catalog: Motion pictures and filmstrips, 1963-1967.

LC catalog: motion pictures and filmstrips, 1968-1972.

Landers film reviews, 1966-1972.

Guide to government loan film 1969-1970.

U.S. government films, 196 -1971.

Guide to films (16 mm) about ecology, adaptation and pollution, 1971.

Index to ecology (multimedia), 1971.

Environment film review, 1972.

V. APPENDIX B: Directory of Producers and or Distributors

Audiovisual Instruction
Division of Continuing Education
Corvallis, Oregon 97331

Australian Embassy
Office of the Counsellor (Scientific)
1601 Massachusetts Avenue, N.W.
Washington, D.C. 20036

BFC Educational Media
2211 Michigan Avenue
Santa Monica, California 90404

Canadian Consulate
1920 First Federal Building
1001 Woodward Avenue
Detroit, Michigan 48226

Carnegie Film Library
4400 Forbes Ave.
Pittsburgh, Pa. 15231

Centron Educational Films
1621 9th Street
Lawrence, Kansas 66044

Churchill Films
662 N. Robertson Blvd.
Los Angeles, Calif. 90069

CMC Films Inc
866 Third Avenue
New York, New York 10022

Eastern New Mexico University
Film Library
Portales, New Mexico 88130

EBE
Encyclopedia Britannica Educational Corporation
425 N. Michigan Ave.
Chicago, Ill. 60611

Henk Newenhouse
1225 Willow Rd.
Northfield, Ill. 60093

Indiana University
Audiovisual Center
Bloomington, Indiana 47401

Inspirational Film Service
P.O. Box 632
220 S. Bluff Avenue
LaGrange, Illinois 60525

John Hall Film Service
1923 N. Atkinson Avenue
Milwaukee, Wisconsin 53206

Learning Corporation of America
711 Fifth Avenue
New York, N.Y. 10022

Life Support Technology Inc.
4320 S.W. Lloyd Avenue
Beaverton, Oregon 97005

McGraw-Hill
Film Preview Library
Highstown, New Jersey 08520

Motion Picture Service
Department of Commerce - NOAA
12231 Wilkins Avenue
Rockville, Maryland 20852

MTPS, Detroit
Modern Talking Picture Service
15921 West 8 Mile Road
Detroit, Michigan 48235

National Film Board of Canada
680 Fifth Ave., Suite 819
New York, N.Y. 10019

Oxford Films
1136 N. Las Palmas Avenue
Hollywood, California 90038

Pan American Health Organization
525 Twenty-third St., N.W.
Washington, D.C. 20037

Pyramid Films
Box 1048
Santa Monica, California 90406

Shell Film Library
450 N. Meridian St.
Indianapolis, Inc. 46204

Snyder Films
Fargo, North Dakota

Time-Life
1271 Avenue of the Americas
New York, New York

U.S. Army Corps of Engineers
New England Division
424 Trapelo Road
Waltham, Mass. 02154
Attn. W.F. Mackie, Chief

U.S. AEC
Technical Information Center
Film Library
P.O. Box 62
Oak Ridge, Tenn. 37830

U.S. Bureau of Mines
4800 Forbes Avenue
Pittsburgh, Pa.

U.S. Bureau of Sport Fisheries and Wildlife
Federal Building
Fort Snelling
Twin Cities, Minnesota 55111

U.S. Forest Service Films
633 West Wisconsin Avenue
Milwaukee, Wisconsin 53203

U.S. Dept. of the Interior
Office of Library Services
Washington, D.C. 20240

Western Michigan University
Audio-visual Center
Waldo Library
Kalamazoo, Michigan 49007

VI. APPENDIX C: General Subject Guide to Films

AIR

Air pollution & plant life
All the difference
The answer is clear
Environment
Little man, big city
No deposit, no return
No turning back
The race is losing

ANIMALS

After the whale
Bighorn of Death Valley
Birth of the red kangaroo
Cave ecology
Cry of the marsh
Dunes
The dynamic chain
Ecology of the plateau
Ecology of ponds
Ecology of the swamp
The end of one
Energy and living things
Grasslands ecology
It's the Maine sardine
Lakes -- aging & pollution
Life in a tropical forest
Magnificent Canada geese
Our vanishing wilderness: Prudhoe Bay or bust
Pass Creek
Populations
The river must live
Seashore
The seals of Macquarie Island
Shrimp tips from New Orleans
So little time
Tell me if anything was ever done
The thunderstorm
What ecologists do
The whooping crane
Wonders in your own backyard

ENERGY

The dynamic chain
Energy and living things
Environment
Fury of the winds
L.P. gas: the clean air fuel
No turning back
Nuclear power and the environment
Power for a nation
The river
A slice of bread
Tidal power

Cosmic zoom
Environmental enrichment: what you can do about it
Islands of green
Time is
What ecologists do
What is ecology

MINERALS
Cement and timber
The gifts
Iceberg of steel
Oil from beneath the sea
Our vanishing wilderness: Prudhoe Bay or bust
Pennsylvania and its natural resources
Shelter: almost anyone can build a house
Special performance
Steelmaking today
Wealth of the wasteland

MISCELLANEOUS
Once upon prime time
The satiric eye
Snow how
Tilt

PESTICIDES
Environment
Estuarine heritage
Pesticides
The race is losing

PLANTS
Air pollution & plant life
Cement and timber
Cry of the marsh
Energy and living things
Environment
Foresters
Grasslands ecology
The greatest good
Islands of green
Lakes -- aging & pollution
Life in a tropical forest
No turning back
Pass Creek
The persistent seed
Populations
The river must live
Shelter: almost anyone can build a house
A slice of bread
Smoke in the hollow
Tell me if anything was ever done
The thunderstorm

POPUL TION
Boomsville
The city that waits to die
Environment
Estuarine heritage
In a box
Little man, big city
Multiply and subdue
No deposit, no return
The persistent seed
A place to live
Populations
The race is losing
The river
Shelter: almost anyone can build a house
So little time
Tilt
What on Earth?

RECLAMATION
Cry of the marsh
The dynamic chain
Ecology of the swamp
Estuarine heritage
No turning back
The river
So little time
Wealth of the wasteland

SOLID WASTE
The gifts
No deposit, no return
The race is losing
Sparkle
Wealth of the wasteland

SOUND
Death be not loud
Noise pollution

WATER
Adventures of Junior raindrop
All the difference
Ecology of ponds
Ecology of the swamp
Environment
Estuarine heritage
The gifts
Lakes --aging and pollution
Little man, big city
No turning back
Nuclear power and the environment
Pass creek
The race is losing
Rise and fall of the Great Lakes
The river
The river must live
River, where do you come from?

WATER, cont'd.

Seashore
Smoke in the hollow
Sparkle
Tell me if anything ever was done
The thunderstorm
Tidal power
Water

WILDERNESS

American trail
Canyon country
Dunes
Ecology of the plateau
Estuarine heritage
The greatest good
In a box
Islands of green
Multiply and subdue
Our vanishing wilderness: Prudhoe Bay or bust
Pennsylvania and its natural resources
Rise and fall of the Great Lakes
Seashore
So little time
Sparkle
The wilderness trail