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COVER: The electron microscope plus increasingly sophisticated techniques are allowing scientists to examine muscle contraction at the molecular level. See p. 394. (Photo: an electron microscope shot of muscle sliced horizontally by H. E. Huxley, Cambridge University)

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films OF THE WEEK

AN ADDED SENSE: THE DETECTION OF NUCLEAR RADIATION. 16mm, color, sound, 24 min. To harness the power of the atom effectively, the technology to control nuclear energy and safeguard its use must be assured. Consequently, the key to practical application of atomic energy is instrumentation. Through animation, the film presents concepts associated with detector technology such as: the various forms of nuclear radiation, gas ionization chambers and their design, proportional and scintillation counters, and several unique methods including thermoluminescence. To demonstrate the use and application of nuclear detectors, various research activities at the AEC's Lawrence Livermore Laboratory are shown. Audience: university electronic engineering classes, technical-professional groups, senior high-school science classes. Purchase information from Sales Branch, National Audiovisual Center, Washington, D.C. 20409 or free loan information from U.S. AEC Film Library-TIC, Dept. SN, P.O. Box 62, Oak Ridge, Tenn. 37830.

CHICANO. 16mm, color, sound, 27 min. Chicanos, Mexican Americans living primarily in the Southwest, are awakening to a new sense of pride in themselves and their heritage. This documentary explores the concerns voiced by several of the Chicanos: A young poet speaks of his cultural heritage; a social worker describes his own sad plight in schools and prisons; and organizers for Huelga, the famous California grape strike, point up the situation of the migrant workers. Audience: high school. Purchase \$350 or rental \$29 from McGraw-Hill Films, Dept. SN, 330 W. 42nd St., New York, N.Y. 10036.

DARWIN'S BULLDOG. 16mm, color, sound, 50 min. A dramatic reenactment of the great debate between Victorian scientists and theologists over Darwin's theory of evolution. Modern audiences may be unaware that the clash represented a turning point for science, establishing its right to research and present fact unimpeded by popular prejudice. Employing biographical scenes, period drawings, photographs and quotations, the film traces the development of the controversy that culminated in the great debate. Religion's champion was Samuel Wilberforce, Bishop of Oxford, sent into battle by Sir Richard Owen, leader of the anti-Darwinists. Science was represented by Professor T. H. Huxley, progenitor of Aldous and Sir Julian, zoologist, agnostic, "Darwin's Bulldog." They faced each other before the 1860 meeting of the British Association for the Advancement of Science. The Oxford setting was recreated for the film. Audience: high school, college, general. Purchase \$500 or rental \$50 from Time-Life Films, Dept. SN, 43 West 16th St., New York, N.Y. 10011.

FLARE—(FLORIDA AQUANAUT RESEARCH EXPEDITION). 16mm, color, sound, 14 min. Filmed almost entirely underwater, the film shows how teams of scientists, using a mobile habitat, remained underwater for about five days each to study the

coral reef environment off the Florida coast near Miami. Each team had a specific scientific objective. The missions included studies of the health, geology and the plants and animals of the reef. An artificial reef made up of 600 rubber tires was also studied. Audience: oceanographers, general. Purchase and loan information from Chief, Motion Picture Service, National Oceanographic and Atmospheric Administration, Dept. SN, 12231 Wilkins Ave., Rockville, Md. 20852.

A LINE IS A LINE IS A LINE. 16mm, b&w, sound, 5½ min. Uses white lines to create a wide and rapidly changing variety of pictures. Lines change to distort the drawings and transform them into representations of other things. Meanings and associations fluctuate as a line curves, twists and straightens, creating different images while remaining essentially the same—a line. The simple line drawings have the impact of ideographs so that their constant transformation causes juxtapositions of concepts and the emergence of new meanings. Audience: general. Purchase \$50 or rental \$5 from International Film Bureau, Dept. SN, 332 S. Michigan Ave., Chicago, Ill. 60604.

THE PERFECT RACE. 16mm, color, sound, 20 min. Far into the future, or maybe not so far, the film takes us to the hypothetical Institute of Sociogenic Research. Under the supervision of 2 doctors, 12 volunteers of different ethnic origins are being tested for aggressive tendencies. It is the hope of these doctors to create a race of identical people who could live together in peace. This perfect race would replace the hostile races of man who now inhabit the earth. At the research center, gene samples have been taken. Two blacks, two whites, and two Spanish-speaking persons are confronting each other in the control room. Hate levels are high and prejudice is talked out. The hurt of discrimination is evident. Such hate levels drop as the subjects discuss and accept their differences. A new pride is emerging and resolution is near. But the go-ahead for experimentation has been given. Is it too late to preserve the races? A decision is promised within the hour. Audience: race studies, behavioral and social sciences, general. Purchase \$260 or rental \$20 from Pyramid Films, Dept. SN, Box 1048, Santa Monica, Calif. 90406.

TRANSPORTATION: A FIRST FILM ON THE AIRPORT. 16mm, color, sound, 11 min. How does an airport affect the people in the city it serves? Viewers have an opportunity to examine the advantages and disadvantages derived by the community from a big city airport. They see the planes roaring over schools and houses, the traffic jams at terminals and the empty buildings at the fringe of the airfield. They also see hundreds of people working at many kinds of jobs, freight being moved and passengers coming and going. Audience: primary, elementary. Purchase \$140 or rental \$8.50 from BFA Educational Media, Dept. SN, 2211 Michigan Ave., Santa Monica, Calif. 90404.

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.

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