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AUDIO-VISUAL EDUCATION IN NEW SOUTH WALES

A COMPREHENSIVE SERVICE

MILLIONS of words have been written to emphasise the importance of visual aids in education, but John Amos Comenius, early in the 17th Century, stated the case in one sentence: "He who has once seen a rhinoceros (even in a picture) can remember it more easily than if it has been described to him six hundred times". With the invention of projectors for moving and still films a communications revolution began and has continued ever since. To-day the student has, almost literally, the whole of the earth and the sky and the ocean depths within easy reach—and, as well as informing and educating him formally, the contemplation of other countries, other cultures, other problems and other people's lives contribute to his inner growth.

These were some of the considerations which, in 1948, led to the decision to establish the Burwood Visual Education Centre for the New South Wales Department of Education. There had, prior to this, been some provision within the Department for lending films to schools, but the move to Burwood marked the introduction of a new and vigorous policy.

The primary aim of the Centre was to be not only the provision of films to supplement courses of studies in use in schools, but the enrichment of school life generally by bringing new ideas and a wider horizon to every classroom. From a small beginning there has grown a film service which is, as far as can be ascertained, the largest in the British Commonwealth.

The organization includes a photography unit, a film-strip branch, a motion picture lending library, a distribution centre and a department for testing and demonstrating equipment.

Film Strips

Each year approximately 90,000 film strips are issued free of charge to public schools in New South Wales. Most of them are printed from master negatives prepared at Burwood, the rest are printed from negatives obtained by purchase or exchange.

Five editors are engaged in the production of film-strips and each may have up to twelve titles in course of preparation at one time. The process is, with modifications to suit cases, as follows:

An idea may originate with a curriculum need, a suggestion by a teacher or some other source. The editor to whom it is allotted starts research to develop the idea. In this the editor is assisted by the Centre's librarian, who has organized a library of books, films, tapes, catalogues from film-strip producers, pictures, maps, posters and information in various forms on topics likely to be made into films. There are 3,000 film-strips in the library and 13,000 pictures.

The editor prepares an outline of the way in which a theme might be presented pictorially. This will usually include a list of the photographs, diagrams and maps which will be required. Although film strips from overseas often have as many as sixty frames, the average in New South Wales is about thirty. The shorter strip is considered a more effective teaching unit.

Filmstrip Editor checking the sequence of pictures for a film-strip.

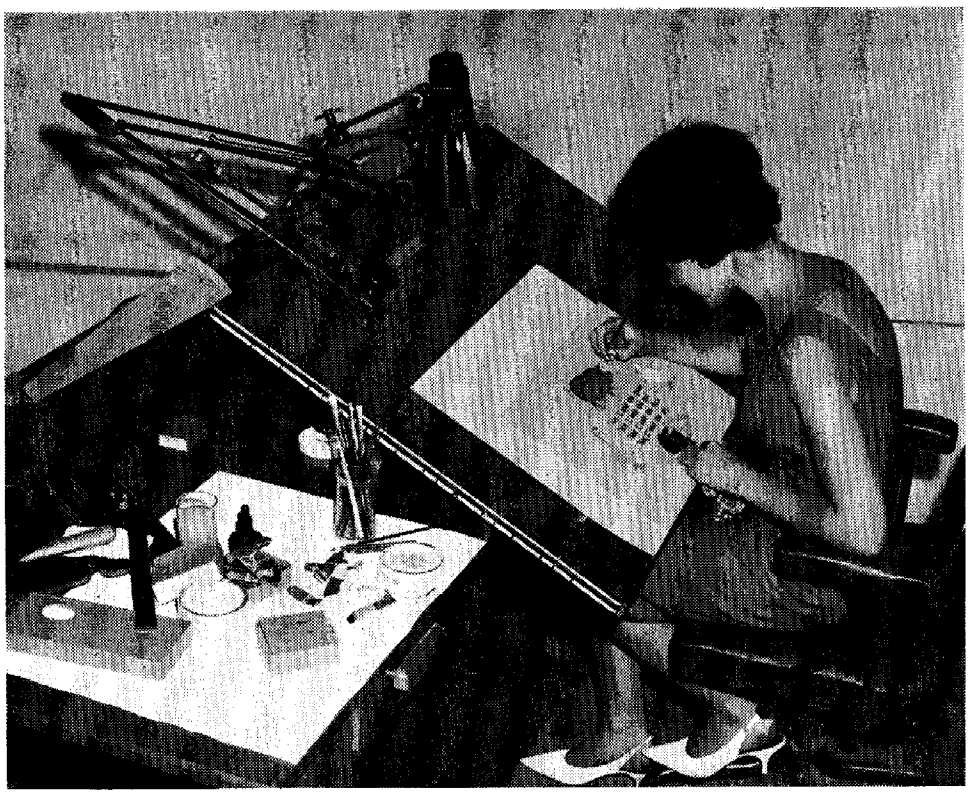
The second step is to seek any permissions which may be necessary, and to organize scenes, materials, actors and properties. When these are ready one of the Department's photographers takes the required photographs from a variety of angles and presents proof-prints.

The editor makes a selection, arranges the illustrations in the first draft of the "story" and decides upon any maps or diagrams which will be required.

Enlargements of the selected photographs are sent to the Art Department for retouching. The art staff also make maps, diagrams and captions. The three artists concentrate on one editor's work at a time for one week in every five.

Adjustments are made following discussion of the "lay-out" and the editor proceeds to write notes, illustrated with photographs, to accompany the film-strips. Technicians using an electric 35-mm. copying camera with automatic focus adjustment produce a negative which is sent to a commercial laboratory for printing.

About sixty new titles are made each year and thirty master prints are purchased. The number of prints required varies with each film according to its suitability for infants, primary or secondary pupils, but as there are nearly 4,000 film-strips projectors in use in schools of this State, the order is always large.



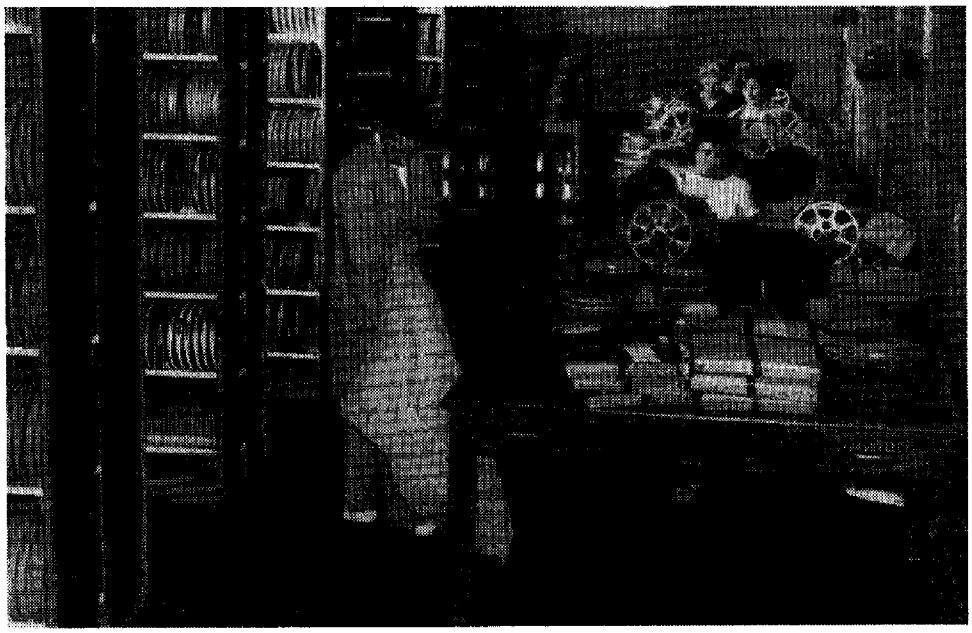
Filmstrip Artist at work.

The next stage in the making of a film strip is a vital one. All the photographs, diagrams, maps and captions are laid out on a long table in the Director's office. The whole editorial staff meets to study the sequence and make any criticisms of content, presentation, or literary and technical qualities.

In 1963, for example, 91,861 black-and-white film-strips were issued to public schools, and 3,071 film-strips were purchased from the Centre by non-Departmental schools. Colour film strips are not free. They are sold practically at cost—1,484 were purchased by schools in 1963.

A " lay-out " to check filmstrip content before final photography.

Photographing the master negative for a filmstrip.



A section of the motion picture library.

The new science curriculum has caused an increased demand for motion pictures and film-strips. It was interesting to watch one of the editors putting the final touches to material for a strip on the Theory of the Cathode ray tube. Having made her research and decided on a plan for presentation the editor sketched the first draft of diagrams she proposed to use. Her sketches were taken to a valve manufacturing company to be checked by an expert. One of the Centre's artists made drawings which were again checked by the expert, and revised by the artist. Some photographs were borrowed from the valve company and the sequence was ready for the photographer. Teaching they say is the art of making the difficult appear simple; if that is so, the film strip editor needs to be a great teacher.

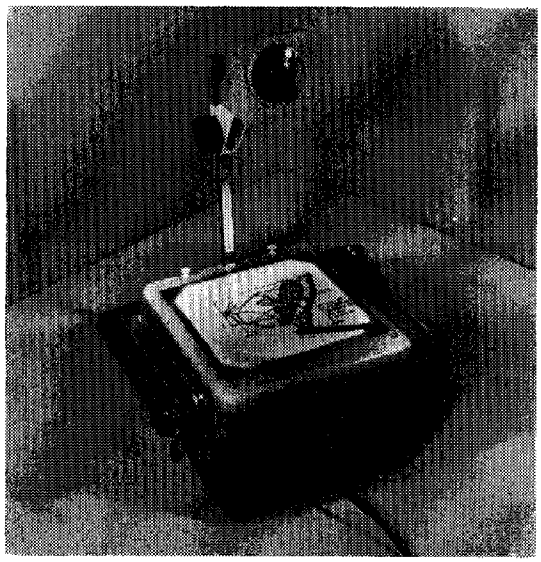
Motion Picture Films

The growing use of motion picture films is reflected in the statistics of borrowing from the Visual Education Centre Library. The number of 16-mm. films borrowed in 1960 was 74,000, by 1963 the figure had increased to 95,000. This year it may reach 100,000. There are 23,592 units (a unit is 400 feet) available for borrowing; 1,622 of these were added in the past twelve months.

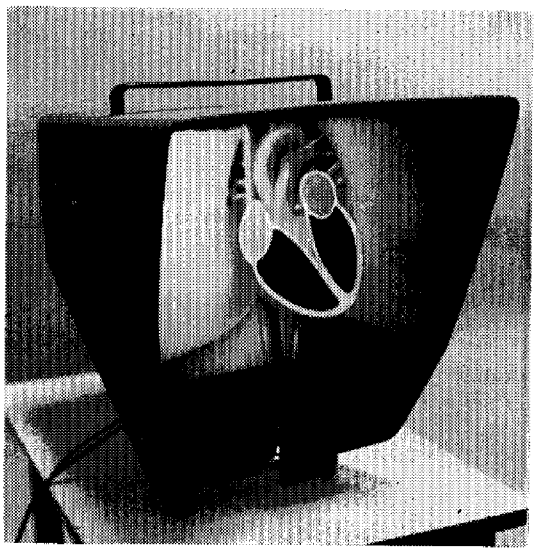
Most of the motion picture films are purchased from overseas or through local agents. Appraisal committees view the sample film and if they approve up to twenty-four copies may be purchased for the library.

Even with twenty or more copies of some films the demand cannot always be satisfied. Since the introduction of the new science curriculum, applications are received from almost every secondary school in the State for films on astronomy and biology. Before the end of February this year, such titles as *The Solar System* and *The Sun's Family* were booked out for the first term.

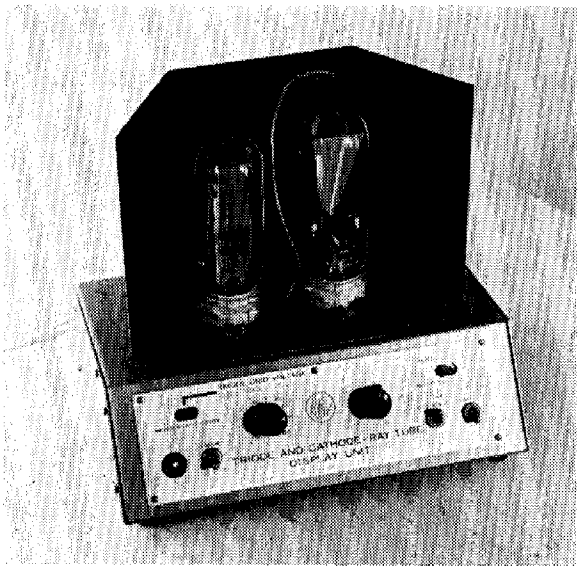
Two films on Australian Painters, William Dobell and Russell Drysdale, produced by QANTAS, are in such demand that twenty copies of each are in constant circulation. Geography films which deal with subjects no book could treat quite as graphically are among the most popular. *Underground Water,* produced by the Belgian Education Department, gives the viewer an illusion of accompanying speliologists on an expedition along a subterranean river. An experience which appeared to this viewer to be much more desirable to enjoy vicariously than in reality. *Pygmies of Africa, Arctic Outpost, Abo-*



An overhead projector.



Automatic 8 mm projector showing a colour film of the action of the human heart.



Triode and cathode Display unit.

rigines of the Sea Coast and similar titles are other examples of films which are widely used by geography teachers.

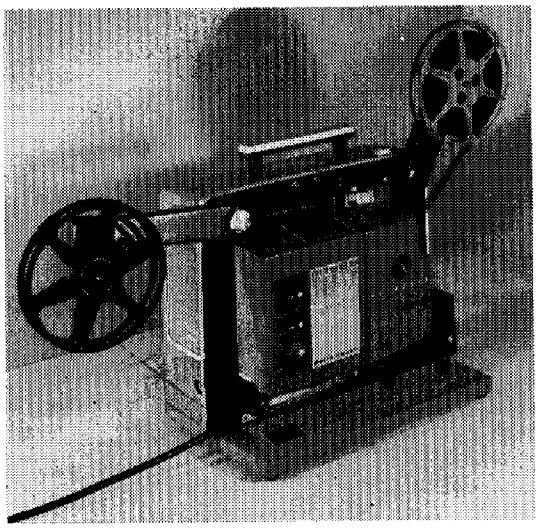
It is quite possible to grow up in Australia without seeing much of this continent's fascinating wild life. That probably accounts for the heavy bookings for *Wild Life Wonderland*, which deals with Central Australia; *Mallee Fowl, Brolga, Penguins of Macquarie Island*, and other bird films, *Kangaroo, Art of the Hunter* and numerous others, which treat Australian fauna or primitive people.

For teachers of English literature there are 16-mm. versions of several great films of Shakespeare, notably *Julius Caesar* and *Romeo and Juliet*; and some of Dickens and Robert Louis Stevenson—but not all are for seniors, one of the most appreciated is a classic for infants entitled *Mother Hen's Family*.

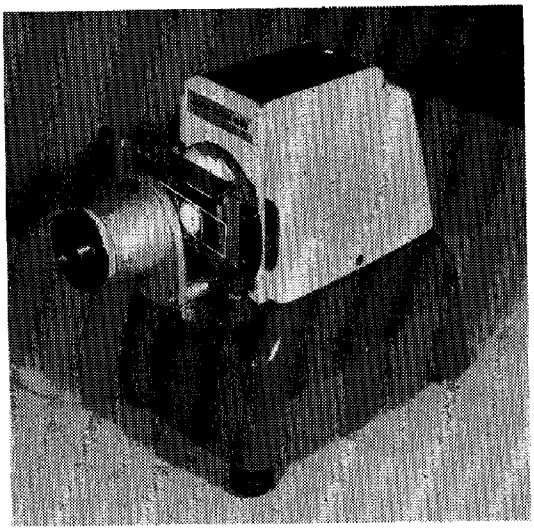
It is as difficult to estimate the educational impact of such a library, as it is to avoid cliches like "a window on the world" or "bringing the world to the classroom"—which are trite but very true. Practically every subject is provided for and each year more schools use the service. Last year, 1963, Parents and Citizens' Associations, assisted by the subsidy of the Department of Education, purchased 83 sound motion picture projectors bringing the total in use to 1,309.

Demonstration of Equipment

One of the functions of Burwood Centre is to test modern equipment for audio-visual education and advise teachers on its use. As this is being written the following apparatus is being demonstrated:



Automatic threading 16 mm motion picture projector with in-built speaker.



A micro attachment fitted to a filmstrip projector.

A Triode and Cathode Ray Tube Display Unit which provides a visible demonstration by means of a working model of a triode valve and a cathode ray tube. The model was constructed by Amalgamated Wireless Australia, to meet the requirements of science teachers in the New South Wales Education Department.

An overhead projector which permits a teacher to write or draw on to the table in front of him and have the notes on a map or explanations of a diagram projected on to a screen.

A micro-projector which magnifies a microscope slide to the size of a film screen. A strip of film made from micro-slides. Various types of tape recorder.

A 16-mm. projector which, when the end of the film is inserted in a slot, threads automatically.

An automatic 8-mm. projector into which film is inserted in a cassette. The projector requires no further attention and is simple enough for a small child to operate. Its possibilities as a teaching machine are immense.

In the three hundred years since Comenius wrote *Orbis Sensualium Pictus*, a great deal has been learned about teaching with pictures and models. The subject is by no means exhausted yet; with new tools, like those demonstrated, and television with its limitless potential a most exciting prospect is ahead.

Sydney: V. C. N. Blight, Government Printer—1964