

The Kinematograph in Education.*

AN account of what has been called "The Middlesex Experiment", carried out with sound films by a joint committee on which various educational authorities in the county were represented, has recently been published. The experiment was made possible by the generous offer of the Western Electric Company to provide, free of charge, sound film equipment and the services of competent operators. Sixteen films were used, divided into four groups; six had geographical value, four dealt with biology or nature study, and the other six were of general interest. These were lent by British Instructional Films and British Movietone News.

The value of the films to the children (3600, in fifteen schools) was tested in the first instance by questions set on each film, easier questions in some cases for the junior pupils and more difficult questions for the senior pupils, with an essay in special cases. A questionnaire on the value of each film was answered by a teacher in each school. Final conclusions were drawn from an examination of these sources of information, control classes taught in the usual way without films being considered too cumbersome.

It may be said at once that, if the opinions of teachers are worth anything, a case is made out for the use of films in educational work in schools. There is, indeed, plenty of criticism; one of the facts that emerged is that even the best film material available for use in schools is unsatisfactory in numerous respects. But it is also stated that "even the least satisfactory among the films used in the experiment had a certain value as instruments of education; the better films were frequently stated to be of very considerable value". The films created a liveliness of mind and desire for further learning that is not taken account of in any assessment of answers to questions on the scenes exhibited.

It is curious, however, that while the title of the volume is "Sound Films in Schools", and while, in fact, sound films were used, the emphasis seems to be laid not so much on the sound film as compared with the silent film or with the ordinary lesson, but on results of using the sound film with pupils of different grades of intelligence. We are not impressed by the evidence that the sound film is "superior" to the silent film. There is, indeed, the statement that "the

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general consensus of opinion on the part of teachers consulted is that they [the sound films] are preferable to silent films for educational purposes", but the statement comes as a shock to the reader. Practically no evidence, statistical or other, is adduced to support the statement in this extreme form. So far as can be gathered, there were no control experiments with adequately captioned films, and it is certainly interesting to note that one of the most common criticisms of the films was that there were too few captions.

On the other hand, there are many solid results of the investigation and suggestions for further inquiry. The children were divided into those of average ability and those described as backward, and probably the most striking result of the experiment was the value of the film to the backward pupils; it is, indeed, in the case of the backward pupils that the value of the sound film is most clearly demonstrated. Another very striking result, though it is rather belittled in the text, is that the lesson should follow the film—not precede it. The evidence for this (as given in Table xviii.) is overwhelming. The result is as important as it is striking. It implies that, under the conditions of the experiment, the picture was *not* an illustration but the raw material.

The experiment, in fact, marks another advance in our knowledge of how to use films in school. The criticisms of teachers have led to the formulation of definite requirements that such films must fulfil. The committee of the Geographical Association, which has been investigating silent films, has come to almost identical conclusions. It may, therefore, be taken for granted that all school teaching films, sound or silent, must have the following qualifications:

- (1) The film must be coherently planned.
- (2) It should be short and aim at conveying one main idea.
- (3) All essentials to the main theme must be included and irrelevances ruthlessly excluded.
- (4) The commentary should be in simple language and should anticipate the picture.
- (5) Talking down and cheaply humorous touches must be avoided.
- (6) The repetition of essential action is recommended.
- (7) Films should be correlated with recognised courses of study.
- (8) Only such subjects should be shown in film form as cannot be more effectively dealt with through another medium.

Pit-Dwellings in Arizona.

FOR several seasons past Dr. Frank H. H. Roberts, Jr., has been engaged on behalf of the Bureau of American Ethnology, Smithsonian Institution, Washington, D.C., in the investigation of archaeological sites in Arizona and Colorado, with the view of tracing the development of the culture of the 'Basketmakers', the prehistoric inhabitants of the arid areas of the south-western United States, and its relation to that of the early Pueblo Indians. The following is a report of the field-work in the summer of 1931, which has revealed what would appear to be a hitherto unsuspected phase in the development of the multi-cellular dwelling characteristic of later Pueblo culture.

During the summer field season of 1931 investigations were carried out at a site three and a half miles south of Allantown, Arizona. When the work

was brought to a close at the end of September the subterranean portions of fourteen pit-houses had been cleared of the debris which accumulated in them during the centuries which have passed since their abandonment. Several of the dwellings had been destroyed by fire, and the charred remnants of timbers lying on the floors demonstrated clearly the methods of roof construction. This evidence, together with the nature of the pits which remain, makes possible the drawing of an accurate picture of the type of dwelling in vogue during the early stages in the occupation of the site.

The semi-subterranean houses were rather crude. They had consisted of a circular, oval, or rectangular excavation roofed over with a pole, brush, bark, and plaster superstructure. The earth walls of the pits were covered with plaster made from adobe mud in