

Producing large pictures painlessly

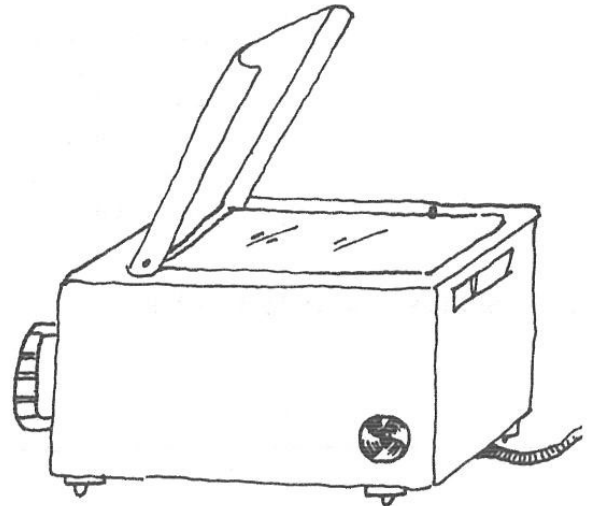
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So you want a set of large pictures quickly, but you can't draw? You have many little pictures in your textbook, but you can't prevent your students reading the text before they are ready, or looking ahead to the next, possibly more interesting, lesson? You've got some excellent pictures from magazines, but they are too small to be used in front of the whole class? You want to make cut-out figurines to use with your flannelboard or magnetboard, but the effort of drawing realistic people, places and objects defeats you?

The answer to all these requirements is a simple machine called an episcoper (identical in principle to the older epidiastroscope, which because of its weight and bulk is perhaps still collecting dust in the far corner of your school store-room. Go and blow the dust off it – it is still useful!).

The principle of the episcoper is that a bright light is reflected from an opaque original, and the image of your book or magazine picture is projected via a mirror and a lens onto a screen. The original is pressed against a glass plate which is usually about 6 inches x 6 inches. This may be rather small for some of the pictures you want to enlarge, but you can enlarge a bigger one by projecting it progressively, piece by piece. The most flexible episcoper is one that has the glass plate in its base, so that the whole machine can be moved around on top of the original however large or small the latter may be.

The episcoper, naturally, can be used by all teachers for projecting visuals onto a screen, especially the geographer, historian, art teacher and science teacher. It should



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therefore be a normal piece of school equipment. The language teacher may himself use it for projecting pictures for direct teaching to a class – but he will need a relatively dark room, and a darkened classroom is a Pandora's Box for some students! I am here, however, concerned with the use of the episcopes by the teacher for producing visual aids.

Instead of a screen, pin a piece of paper to the wall or blackboard. Put your original on or under the machine. Position the image suitably on the paper, or move the paper to suit the image. Focus it as definitely as possible. Now take a pencil, or a black felt-pen, or a set of coloured felt-pens or crayons, and draw round the image, copying more or less exactly what you see. Keep out of your own shadow, though, and don't trip over the cable in the dark! You can omit what you don't like from the original picture, such as distracting detail or background, and you can add colour to a colourless original. If you only have five minutes, you can give a quick impression; if you have fifteen, you can make a reasonably exact reproduction.

If you want to make figurines, stick a sheet of thin card behind the paper after you have made the enlargement, and then cut out the figures one by one. By detaching the figures from the original picture you can make them very nearly come alive on the flannelboard (with sandpaper stuck on the back of the figurines) or on the magnetboard (with small magnets sellotaped or glued to the back of the figurines).

Cost? This depends on the degree of sophistication you want. As a small boy, I made an episcopes out of a petrol tin, two electric-light bulbs, a self-designed hinged lid, and a cheap magnifying glass for a lens! You can buy one with a simple plastic body, with a 4 x 4 inch base and no electric fan, for use at home ("Show your holiday snaps to your friends!") for about £12, or you can order more sophisticated precision-made machines designed to withstand classroom handling from about £60 from most suppliers of educational aids.

So now you can carry out the kind of teaching you want to do: you can offer purely oral presentations, oral practice, story-telling and oral composition, leading up to dramatisation, reading and writing; you can motivate your students positively by your colourful and realistic portrayal of people, scenes and objects; and you can dazzle your colleagues with your artistic achievements – but don't show them this article, unless you are hoping to persuade them to buy an episcopes for the school!