How to do it

Use an overhead projector

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Many teaching departments now own overhead projectors, which is not surprising because many teachers consider them to be the most useful of the projected visual aids, their ease of use being one of their undoubted advantages. During a lecture the overhead projector may be used to replace or supplement the blackboard. It is clean, provides the teacher with an almost limitless surface area, and allows him to face his audience. The room does not need to be darkened and the flow of presentation is therefore uninterrupted. The lecturer is responsible for his own transparencies and can control the order and timing of the material. He can also add to or alter the material during presentation.

The large surface area is provided by clipping an acetate roll to the projector, thus providing 50 feet of blackboard. The best results on the acetate roll are obtained by using a technical pen with special ink that can be either water-soluble or spirit-based. When the page of acetate has been filled, the roll is wound on to reveal a clean surface. Later, if required, the roll can be wound back and used to recap on the session.

The screen should be mounted as high as possible so that the audience has a clear view. There are two common positions for the projector—either in the centre with the screen directly facing the audience, or with the screen placed obliquely in a corner with the projector in a corresponding position. On a vertical screen a tilted beam of light produces an image that is wider at the top than the bottom (keystone distortion). This effect is prevented by tilting the upper edge of the screen forwards.

Preparation of transparencies

Transparencies can be prepared at short notice (when the production of slides would be impossible)—an undoubted advantage when preparation time is limited. Many doctors do not have access to audiovisual departments for producing slides, but can prepare transparencies themselves with minimal materials and reach an acceptable standard if a number of basic rules are observed.

If the transparencies are to form part of a permanent teaching package it is best to buy a box of acetate sheets. Cellofilm, which is cheaper, can also be used but it is flimsy and tends to curl when exposed to heat and moisture. X-ray film which has been developed can also be used and the simplest method of cleaning

is to leave the sheets soaking in soap and water overnight. If none of these materials are available, polyethylene may be used.

When using acetate sheets it is necessary to use special pens, which can have either a spirit base or a water base. These are of various thicknesses, but all are easy to use. Ordinary pens are unsuitable on acetate but can be used on cellofilm. The Rotring pen produces professional looking transparencies, and stencils have been produced for use with these. Normal typewriter type is too small to produce a satisfactory visual image for transparencies. Even if the height of the letter is increased, type which is 10-12 characters to the inch will appear too crowded. The solution centres on increasing the size of the projected image and typewriters are now available which are modified to provide a large character, at a frequency of around six to the inch. Golf-ball typewriters with special heads can produce the large character.

The transparencies are mounted in cardboard, thus aiding storage and preventing damage. The mounts must not interfere with the visual content and at least 15 mm should be left between the inside of the frame and the outer limit of the content. Mounts also aid handling during presentation, and the registration pegs on the projector allow adequate positioning.

The most important aspect of any visual aid is communication with the audience and the material must be easily understood and legible. The transparencies may be used to introduce, illustrate, or consolidate a lecture. They can reinforce the important headings. Information must be restricted to eight words to a line and eight lines to a transparency. Letraset produce self-adhesive transfer letters if you are unhappy about printing, and self-adhesive material is also available in roll form. Letrafilm is a self-adhesive colour film and this helps to emphasise points and give variety. Anatomical drawings can be traced directly on to acetates by using an episcope, which can reduce or enlarge the size of the drawing by projecting the image. If this equipment is not available, the drawing may be enlarged using the overhead projector itself. Trace the drawing by using cellofilm, project, and then trace directly on to acetate.

Specific techniques

Masking is used for uncovering information at various stages in a lecture. By using an ordinary sheet of plain white paper the lecturer can mask the whole transparency and reclaim the full attention of the class. By moving the paper, he reveals the teaching points one by one. He can read the text through the paper, and is thus in complete control of the presentation and can lead the discussion to a particular point before projecting the next line of notes.

A pen may point out on the transparency a specific part, word, or sentence to emphasise something that the lecturer thinks is important. But he must not wave the pen about, as this can be distracting.

Silhouetting can be produced by laying objects on the stage

and this often leads to better understanding—for example, of the position of a prosthetic valve during a lecture on cardiac surgery. Perspex models may also be used to illustrate difficult teaching points—for example, the actions of the intrinsic muscles of the larynx.

Overlays are a simple technique for adding to the versatility of the overhead projector. An overlay is a separate sheet which carries additional information, and which is added to the main drawing or diagram. It is usually hinged down one side with adhesive tape and when required is turned over to lie flat on the stage—blood vessels, for example, can be placed over a diagram of a limb, and this could be followed by the peripheral nerve supply. Several different commercially prepared transparencies are now available in all medical subjects and the overlay technique allows you to explain complex diagrams.

The illusion of movement—blood flow, for example—can be

achieved by using a special attachment which fits over the projector working surface. This calls for special materials and relies on the movement of one transparent film relative to another.

Many radiographs can be projected successfully with an overhead projector. For this purpose, the room has to be darkened and as much of the radiograph as possible masked off, so that there are no bright patches of light beyond the area of interest.

The overhead projector is a valuable, versatile visual aid—usually for lectures. It can be used in a well-lit room with the lecturer facing his audience and completely controlling his presentation. It can also be used to focus discussion in small-group teaching, or to provide information with results in a group problem-solving exercise. It is a useful substitute for the blackboard, but with proper use is much more versatile.

MATERIA NON MEDICA

French deficiency

Each year I get a feeling of "French deficiency," a need to go to France just for a short time, to smell it, to taste it, and to hear it spoken.

For the past two years we have set off for Boulogne from Charing Cross Station heading for the coast through the apple fields of Kent to Dover and the fantastic hovercraft. It approaches like something out of Jules Verne, its rumbling engines reminiscent in the distance of the V2 flying bombs, and, out of the spray it produces, the monster emerges to climb from the water on to its landing pad and its engines are silenced. This lets out the pressure of air which supports it under its skirt, and it settles down like a chicken on its eggs to brood while its cars and passengers disembark and a new lot drive on and troop aboard. The French call it the *aeroglisneur*, perhaps a more evocative name.

Once aboard, France is 35 minutes away. A bus from the outskirts of Boulogne, where it lands, takes you to the central terminus and it is from there but a short walk to the hotels. A car is unnecessary.

For Francophiles this is the easiest and cheapest way for a quick weekend in France, and if one avoids the high season and cafés and restaurants advertising "English spoken" and "Watney's Red Barrel" replacement therapy for those with "French deficiency" is painless, very pleasant and effective.—G S CROCKETT (physician, Kettering).

Monte Baldo

It should have been a summer stroll among the flowers. Tourists on Lake Garda spare few glances for the long snout of Monte Baldo jutting into the Italian plain. Its height is a mere 7500 feet; furthermore, its chain of summit crags is hidden from the lakeside by a false skyline. My companion and I had been enjoying the glaciers of the Adamello Alps, but severe summer storms had forced us down to the fleshpots of Malchesine on the lake. We had a day to spare and felt terribly fit, hence Monte Baldo.

A cable car plies to the ridge, but we perversely decided to warm up on foot. We set out in light attire without equipment, and our only map was a vague handout from the tourist office. Those were our first three mistakes. The initial climb was 6000 feet and took all morning. The weather closed in and caught us on the bare Baldo with lashing rain and a frightening electric storm. What followed was as exhilarating as the Cuillins—a scramble from peak to peak, each followed by a col, and each col flanked by a cwym. Among the clouds every cwym looked alike and we lost count, which was another mistake, because the route off the range led from the sixth col. We plunged into the wrong snow basin, whence clearly the only exit was a vertical drop into a ravine leading nowhere.

Painfully we regained the ridge and took stock. It was too late to turn back. Mist thickened and drizzle turned to snow, and in the murk the next peak looked unmanageable. So we traversed it on an exposed north face. The rock was poor and in the steep gullies fresh snow lay uneasily on winter ice. Suddenly we were on another col, the mists were blowing apart, and here at last was our way down. We could see

the sweep of Lake Garda, the hill villages on the far shore, the high Alps beyond. But as we slapped each other on the back there was only one snag. Malchesine was 7000 feet below us. Seldom had either of us gone down 7000 feet in a single day and never at 5 pm, wet through and hungry. Snow and scree, miles of boulders hidden in long grass, dense bush that swept coniferous leaves into our eyes and down our necks, then hanging woods barricaded by fallen trees. At last the blessing of a forest path, as sunset blazed over the lake through dying thunderclouds. In the last dark hour, above the shrieking of my knees I could hear the chime of church bells, which never seemed to come any closer.

Two tired old men crept into a bar at 10 pm. Relaxed over litres of beer, we could look back on 13 hours of golden achievement, but we could not erase the shame of all our mistakes. After a lifetime among the hills I had still to relearn the very first unforgiving rule; never underestimate a mountain.—R D MONTGOMERY (consultant physician, Birmingham).

Cuckoos

I must confess to a feeling of apprehension if May progresses and I have not heard the early morning calling of the cuckoo. To me the repeated musical sound, penetrating through the dawn mist, gives a sound picture of spring more evocative than that from any other bird. There is a thrill in seeing the bubbling hen watching for nest building by the small bird species it must select to foster its eggs and by which it was itself reared. Some cuckoos frequent the moors and return to lay in the nests of meadow pipits; others from the reed beds specialise in reed warblers, and those from bushy country seek out dunnocks.

Cuckoos fascinated John Hunter, for he asked the countryman Edward Jenner to obtain him a cuckoo's nest. Of course, it had long been known that cuckoos make no nest and Shakespeare's Fool in *King Lear* recounts how, "The hedge-sparrow fed the cuckoo so long . . ." and Pompey in *Antony and Cleopatra* says "But since the cuckoo builds not for himself . . ."

Apart from its parasitic behaviour there are many other aspects of interest in cuckoo lives. Sometimes in spring a cuckoo will spread its wings, making them broad and then fly rather like a sparrowhawk. Such activity upsets and agitates the local small birds, even more than when in its usual flight: normally the slender-tailed cuckoo flies rapidly on thin, pointed wings.

Young cuckoos do not suffer from lack of attention; their begging calls often divert food-carrying birds, which hand over their morsels, this being quite distinct from items brought by their diligent foster parents. There is more enchantment when the young cuckoo becomes independent and seeks food for itself. Last July I was surprised at the efficiency with which a juvenile seized a 7-8 cm hairy brown caterpillar from a heather clump, carried it and beat it confidently on a rock, then swallowed it entire. Clearly, big caterpillar meals are needed to give the bird enough nourishment to sustain it on that unguided journey to Africa. Hopefully it will return to the same area in Britain in spring to call or bubble over its breeding territory, no doubt delighting some people even if some small birds are necessarily exploited.—A P RADFORD (general practitioner, Brentry, Bristol).