a stiff large hog-hair brush and pick off obstinate hairs with a needle. Pour some benzine on the slide and drain it off. Immediately the moisture will reveal half-a-dozen more points of dust sticking up. These, if in a place where the paint is thin, will show on the screen, and they must therefore be removed with needle and brush,and the paint mended, if damaged. Finally, when you have removed every atom of dust, pour on the varnish, and, when the whole slide is covered, pour it off again at one corner. However great the care you take, you will find that a point or two of dust has escaped your notice. If these occur in a transparent part of the slide, it is best to wash off the varnish with benzine and remove them; but if they are where the paint is thick, leave them, for they will not show. Now lean the slide against something to drain, face inwards, of course. My place is against the wall on a mantelpiece, with a strip of three or four thicknesses of paper underneath, to absorb the varnish. Leave the slide thus for a few hours. It must then be dried by heat. This is quite necessary, for if allowed to dry naturally the turpentine in the varnish never quite dries out and the heat of the lantern, when the slide is used, will cause turpentine vapour to form over the surface of the picture and render it foggy. This spoils the slide, until it has been re-varnished. A gentle regular heat of some hours' duration is what is required. A good plan is to place the slide before an ordinary gas-stove when you go to bed. The stove is turned low, and the slide put a foot or eighteen inches away; a temperature of about 140°F is thus maintained. When you get up in the morning the slide is ready for covering.

If not dried enough, the turpentine vapour before-mentioned will probably appear some time when you are giving an exhibition. If over-heated, the varnish will dry in wrinkles; but if it cracks like crackled china this does not matter, unless the cracks are coarse enough to show on the screen. If the varnish be wrinkled, or the slide damaged in any other way, the varnish may be removed by soaking the slide in benzine, and another coat put on.

When covering the slide, be careful to brush all dust from the varnish with a very soft large paint-brush,and not to let the cover glass touch it. A little bit of card as thick as a visiting card placed at each corner of the slide and fastened by gum will, with the ordinary mask, keep the cover from touching the varnish. If it touches, the two glasses will stick together, and the varnish will frizzle up and become opaque in such places as the cover touches it. All traces of varnish or turpentine on the back of the slide must be carefully cleaned off, or the binding paper will not stick.

Now as to *paints*. I have tried very nearly every transparent or semi-transparent colour in Winsor and Newton's list. Colours do not behave in quite the same way under varnish on glass as they do on paper. Several that are fairly permanent on paper fade quickly on glass and *vice versa*. I cannot mention all, and if there are any colours not favourably spoken of here, they are probably useless for some reason or other. This is my list, and I always use sixpenny tubes:

Lamp-black – This is good; ivory black is useless, because it is too gummy. Lamp-black, when put on thin enough to be grey, is transparent.

Payne's Grey – This is the nicest colour in the whole paint-box to work with. It is perfect in every respect, and will mix with everything.

BROWNS – *Sepia* – Transparent; neccesary, but not nice, because it is gummy.

Vandyke Brown – A very nice transparent colour.

Raw Umber – Very good and workable, but a weak colour. Burnt umber I have not used.

Burnt Sienna – A good colour, but only semi-transparent. Therefore it must be used with great care, for if put on too thickly the picture will appear much darker on the screen than you think for.

YELLOWS – There is no really nice yellow available. *Raw sienna* has to do, because there is nothing else: it is only semi-transparent, like burnt sienna. Indian yellow and Chinese orange are lovely colours, but quite useless, because they fade in six weeks after the slide is finished. *Gamboge* is the only bright yellow; but it is a resinous colour, and so washes out immediately the varnish touches the slide. A little gum mixed with the water prevents this; but then it is very difficult, almost impossible, to 'stipple' it. But it is the only colour for grass. I use it thus: The grass, &c., is, as one may say, indicated, by a very thin coat of raw sienna, and shaded with Payne's grey, in order that you may see how you are going on whilst the slide is being painted; but, if possible, I do not touch the picture with the gamboge until the very last thing, when the slide is otherwise finished. Breathing on the slide to stipple the other colours makes any previously-painted gamboge shrink up into clots. Then, just before varnishing, I brighten up the grass with gamboge and Prussian blue mixed with gum-water. Gamboge is an ugly colour on paper but a pretty tint on glass.

BLUES – *Prussian blue.* This is one's sheet-anchor for blues, and it is a pleasant tint on glass. It is beautifully transparent. It is apparently permanent when used by itself, or when mixed with black, Payne's grey, crimson lake, or Vandyke brown. Curiously enough, it fades in six weeks when mixed with raw sienna, or with that new colour, alizarin crimson. This is very tiresome, for mixed with raw sienna it makes a lovely tint of green. *New blue* works well; but it is not a very nice tint, and when mixed with raw sienna for green, although it does not fade, it becomes opaque.

GREENS – There are no transparent greens which can be used. You must make up green as well as you can with Prussian blue and Vandyke brown, new blue and raw sienna, and Prussian blue and gamboge.

REDS – *Alizarin crimson* is a splendid colour by itself; but it is too gummy to work well, and it has the fatal defect of causing Prussian blue to fade when mixed to form purple. *Crimson lake* is a much nicer colour in every way. It is transparent, works well, and will mix with anything. Not being exposed to light (in lantern slides), it is, as far as I know, permanent. Slides painted with it several years ago have not faded in the least. A fairly good scarlet can be obtained by mixing it with burnt sienna. The same mixture, but in different proportions, and laid on thinly, is the best flesh colour. There is no good orange, and lake and burnt sienna is a brighter scarlet than lake and gamboge. It makes good violets and purples, mixed with Payne's grey and Prussian blue, and for shadows of flesh tints it should be mixed with Payne's grey and Vandyke brown, or with black, and not with sepia.

I may add a few words in conclusion. Some photographic friend may ask you whether this process of painting is worth the trouble. That depends. The man who can paint always looks down on the photographer a little, and I do not pretend that I do not think photographs rather '*infra dig*'. A good photograph is better than a bad painting, but it is generally allowed that a good painting is greatly superior to a good photograph; and painted lantern slides have just the same kind of superiority over photographic ones, and no more. So I think that it is worth while to paint these pictures.

As for scientific lectures, many illustrations cannot be photographed direct from the object, but must be photographed from pictures or drawings. It is much less trouble, and the results are much superior, when you make the drawing directly on the slide. With the microscope, again, a drawing is much more effective, and, in most things, more accurate than a photograph.

Of course photography has its province, and within this, painting cannot touch it; just as in other things, photography can make no approach to the excellence of painting.

In painting pictures you must be careful to make up your mind first as to how you are going to treat your subject and paint your picture. Any doubt or hesitation is fatal to the success of the slide; and if you have an idea that you can leave your outline undecided, and then 'knock it into shape' when you come to the colour, you may be quite sure that when your picture appears on the screen, it will look quite different from what you expect, and will be dirty, dull, and confused. But a well-painted picture, with all its tints properly graduated, so that it is really brilliant, and not crude and garish in colour, will look brighter on the screen when shown with an ordinary blow-through jet, than a photograph shown with a mixed-gas jet, or even ethoxo-lime-light.

WHAT A LONG TIME * BUT THEN * WHAT A NICE SLIDE!

Guleesh and the King of France's Daughter: a magic lantern fairy tale.

Retold by Neil Philip; illustrated by Henry Underhill. London: Collins, 1986. (25)p. £4.95.
ISBN 0 00 18159 3

This is the companion volume to *Drakestail*, described in the January 1987 edition of the *Journal*, and is based on a further set of 3¼" x 3¼" lantern slides painted by H.M.J. Underhill – whose account of his slide painting technique appears in the adjacent columns. The set contains twenty three slides, twelve of which are reproduced in the book.

Underhill took this story from Joseph Jacob's *Celtic Fairy Tales*, a collection which appeared in 1892. He started work on the slides in October of that year (also the year of his article) and continued until March 1894. The length of time involved is partly explained by a break in production, which is recorded in a note on slide 22: 'Began 20 May 1893. Interrupted. Finished 7 Feb 1894', but is also accounted for by the length of time taken by Underhill's elaborate painting methods, as described in his article. However, the six to eighteen hours per slide that he mentions there, became something more like six to eighteen *days* in this later work. As with the *Drakestail* set, he has helpfully dated most of the slides, giving also the period over which each was painted. For example, slide 13 (1) is recorded as having been painted between 22 February and 7 March 1893.

1

A possible further explanation for the length of this process is that Underhill was also obliged to work on original drawings as preliminaries to the slides – no direct sources, perhaps, being available. Jacobs's *Guleesh* had only three illustrations (by John D. Batten), two of which Underhill used, one of these (2) providing the starting point for his version of Guleesh crossing the Channel (1).

2

In addition to his use of Jacob, Underhill also returned to the original source of the story – Douglas Hyde's *Beside the Fire* – from which he took an incident (omitted in the later version) involving a visit by Guleesh to Rome, that allowed him to introduce a pair of dissolving views to the set. These sides, representing the high point of Underhill's technique and imagination (Hyde's book was unillustrated and gave him no visual starting point whatsoever), are, alas, not reproduced in the book – which lacks therefore, for us, something which could have added considerably to its *lantern* interest.