THE ILLUSTRATION OF EXCAVATED WINDOW GLASS, SUGGESTIONS FOR METHODS AND MATERIALS

ASSOCIATION OF ARCHAEOLOGICAL ILLUSTRATORS & SURVEYORS

TECHNICAL PAPER NO. 10. 1990
THE ILLUSTRATION OF EXCAVATED WINDOW GLASS, SUGGESTIONS FOR METHODS AND MATERIALS

By SUSAN WHITE & DAVID KING

ASSOCIATION OF ARCHAEOLOGICAL ILLUSTRATORS & SURVEYORS

NORTHAMPTON 1990.

Cover Illustration: Stained glass panel, 1340-1360, Tottington.
The Association of Archaeological Illustrators and Surveyors is a professional body, formed in 1978 to encourage through its activities a high standard of archaeological illustration and surveying, and to establish a Code of Professional Conduct. For information about the Association contact:

A.A.I.&.S.
c/o The Trust for Wessex Archaeology,
Portway House,
South Portway Estate,
Old Sarum,
SALISBURY,
Wiltshire SP4 6ED
The illustration of excavated window glass. Suggestions for methods and materials.

Susan White and David King.

The illustration of excavated window glass involves difficulties not normally encountered in the drawing of finds for publication. One of the main causes is the range of different techniques employed in the decoration of the glass, all of which need to be shown in forms clearly different from each other, yet still keeping the tones and visual effects intended. The poor and fragmentary condition in which most of the glass is found adds to the problems, as after burial much of the glass is no longer translucent but rendered opaque and often black. In such cases the painted designs can often only be visible if the surface of the glass is viewed at various angles to the light source.

It is better if the glass is drawn prior to any conservation which affects the surface of the glass, e.g. the application of any coating or film. Advice on the handling and care of the glass should be sought from the conservator, archaeologist or specialist concerned. Often it is necessary to immerse excavated glass in water as a first aid measure prior to conservation, so preventing the drying out of the glass which can result in its disintegration. Clearly it is important when drawing such glass that it be kept damp at all times and returned as soon as possible to water.

Thin acetate film is useful for making tracings of the fine detail (a light box will be useful if the glass is at all translucent). When working on acetate or polyester drafting films it is important that your pens should contain a make of ink designed for such surfaces. Rotring type ‘F’ ink is suitable for most types of film. If the painted designs on the glass are well defined it is possible to trace the main details straight on to drafting film. Some of the fine or faint details may not show well enough to be traced straight on to drafting film or acetate and have to be measured in with dividers and added to the tracing of the stronger elements separately. The tracing is then enlarged to 2:1 for a 50% reduction to 1:1, or if the glass is to be reproduced at 1:2, the drawings remain at 1:1 for a 50% reduction. These working drawings are transferred either to drafting film or, with the aid of a light box or strongly lit window, traced on to CS 10 line paper, for the finished illustration.

Before finally inking in the illustration it is important that you know which way up the piece of glass will appear on the finished page layout, as it will affect the direction in which the areas of line tone are applied to the illustration. The type of rub down tone suggested was found to have several advantages over the adhesive sheet type as there is no risk of it shrinking or bubbling and details can be drawn on top of it. If when the rub down tone is applied it runs over the required area, it can be simply scraped off with a scalpel. To protect the finished illustrations, it is worth spraying them with a protective coating such as Mecanorma “Let-Fix” Matt.

Conventions for the illustration of Excavated Window Glass

SCALE: The published size of the illustrated glass should be 1:1 where possible or 1:2 as the maximum reduction: any greater reduction would cause loss of detail. A line scale should be drawn on the page and the scale also stated in the caption.

SECTIONS: Sections to show the thickness of glass are not usually required, as the average thickness is noted in the text.

ORIGINAL EDGES: To show the most common variation of original edge the following conventions are suggested. In all cases the outline should reflect the irregularity of the glass edge and be drawn with a 0.50 pen. Where large amounts of opaque painting (shown as solid black) are present around the edge of a piece, the line thickness will not be visible (Fig 2), in these cases the text will have to be consulted as to the completeness of the piece. (Figs. 2, 3, 5, 7, 8 and 9).

Muffed Edges: The use of an uncut edge, from the side of a sheet of glass as manufactured, is indicated by placing a small ‘m’ either side of its length (Fig. 1).

Grozed Edges: Those formed by chipping the edge of the glass to shape. The irregularity of the outline will in itself distinguish this type of edge from the others. If the reverse of a piece of glass with a grozed edge is to be drawn, the extent of the chipped area should be outlined
1. Muff edge 0.50 pen

2. Reconstructed outline 0.25 pen

3. Line of break with chipped surface showing use of convention, 0.25 pen. Also used to show badly corroded areas.

4. Rub down tone reduced 50%

- Letraset Instantex 21 for abraded flashed glass used vertical for Rudy glass and horizontal for Blue
- Letraset Instantex 12 for flat matt wash or Mecanorma Normatex 3101
- Mecanorma Normatex 3110 or even toned hand stipple can be used to show flat stipple shading
with a 0.25 pen line and the chips shown in a
diagrammatic style (Figs. 3 and 5).

Post-Med. Cut Edges Indicated by placing a ‘V’
either end of its length.

BROKEN EDGES: Where an original edge is
known to have continued, a short dash should
be used to indicate the direction in which it is
thought to have continued. These should be
drawn with a 0.50 pen (Figs. 2, 3, 5, 7, 8 and 9).

Where the outer edge is not original, it
should be drawn with a 0.25 pen. (Fig. 1 and
most other Figs.)

The joints between broken pieces of glass
clean and a good fit should not usually be
drawn, as the extra lines break up and confuse
the schemes of decoration. The small areas
of decoration removed by the line of the break
should be left blank. Where there are larger
areas missing the convention for showing a
chipped surface should be used. (Figs. 3, 5 and
10).

The reconstruction of the original outline or
decoration on a broken piece of glass should be
indicated by a dashed line, drawn with a 0.25
pen. (Fig. 2).

Chipped and Badly Corroded Surface Where
the original surface and decoration have been
lost, the area of loss should be outlined with a
0.25 pen and filled with the symbol shown.
(Figs. 3, 5 and 10).

COLOUR:

Coloured Pot Metals The body colour of glass
will be indicated in the text, though a key letter
could be placed near the illustration (e.g.
B=Blue).

Yellow Stain As yellow stain is applied almost
always to the reverse side of the glass, it is
necessary to draw both sides of pieces of glass
where it occurs, to show the exact area covered
by the yellow stain, without it being obscured
by the decoration applied to the front of the
glass.

When drawing the front view, the yellow
stain is still shown even when it is applied to the
reverse side, so that the visual effect intended is
not lost by complete separation of the two
elements of the design.

The area of the yellow stain is shown by
diagonal lines running from top right to
bottom left with a 0.25 pen, without an
enclosing outline, as this may become confused
with linear decoration (Fig. 3).

Abridged Flashed Glass Red (Ruby) glass and
occasionally other colours are made with a layer
of white (clear) and coloured glass together.
The coloured layer can then be abraded to
reveal the white glass. In such cases, for the
design to show and, at the same time allowing
the painted opaque outlines of the design to
stand out, an even medium tone needs to be
used.

Letraset Instantex vertical line transfer screen
No. 21 is suggested for Flashed Ruby (Fig. 4).
The same screen can be turned to form
horizontal lines for Flashed Blue.

PAINTING AND SHADING:

Painted Outlines All shades of opaque outlines
should be drawn as solid black. Where glass is
back-painted to add emphasis or contrast to the
design on the front, both sides of the glass
should be drawn, the front view incorporating
both front and back painting to show the visual
effect intended. (Fig. 5 and all other Figs)

Flat Matt Wash As with the abraded flashed
coloured glass and flat stipple shading, an even
medium tone needs to be used, so that designs
picked out through the matt wash will appear
white and the painted opaque outlines drawn in
black also show clearly against the tone used to
show the areas of matt wash (Fig. 6).

A regular spaced stipple transfer screen such
as Mecanorma “Normatex” No. 3101 or Letraset
Instantex 12 are suggested. (Fig. 4).

Smear Shading and Contour Washes Smear
shading and contour washes are both the use of
a matt wash. The direction of application and
variation of tone are best represented by fine
liner shading. The use of a mapping pen gives
the best result (Fig. 7).

Stipple Shading The use of irregular dot stippling
in illustrating excavated window glass should be
limited to showing forms of stipple shading.

Large areas of flat stipple shading can be
shown by irregular but even-toned hand stipple
(Fig. 8) or the use of a transfer screen such as
Mecanorma “Normatex” No. 3110 (Fig. 4).

Graduated forms of stipple shading will require
hand stippling with a 0.35 or 0.50 pen (Fig. 10).

As mentioned above, this form of shading,
like that of the flat matt wash, often has designs
scratched into it; these designs should not be
given outlines, as they could be taken as
representing opaque painting lines on the glass
(Fig. 9). If there is no other way to make the
relieved design readable other than resorting to
an outline, the text should make this point clear.

GENERAL NOTES ON PREPARATION FOR
PUBLICATION

Layout and Mounting Make sure that you know
the page area required for the report in which
the illustrations are to be published, and find
out if this includes the height of the caption.
This area is then enlarged to twice size and
marked out in light blue pencil, which will not
reproduce on the printed page.

Coy Gum or Magic tape can be used to
mount the drawings on to A2 cartridge paper or
thin card.

Lettering All the lettering on the page will also
have to be able to take a 50% reduction.

The lettering used on the illustrations in this
paper are 18pt and 24pt Times New Roman.

Reduction The reduction factor for the printer
must be clearly marked outside the area of the
illustrations e.g. “Reduce to 50%”. 
Opaque back painting

Flat matt wash with opaque painting

Method for showing smear shading.

Flat stipple shading, hand stippled for publication with 0.50 pen.

Opaque painting and stipple shading with relieved design through both.

Graduated stipple shading with opaque painting.
Additional Notes by Lesley Collett

(i) It is now common practice to use a convention of a thinner broken line to depict broken edges of glass, with a thicker solid line to indicate a grozed edge, in line with English Heritage directives:

(ii) It is of course more usual for glass to be drawn in a graphics program such as Adobe Illustrator nowadays, and a variety of patterns and brushes can be utilised rather than the rub-down tone advocated in this publication. In some cases it is possible to draw directly from a photograph of the material, though care should be taken with scale.

(iii) Some illustrators expend much time depicting grozed edges on the reverse of painted glass with the care they would expend on worked flint. This is unnecessary, and the reverse side of the glass need only be shown if some other feature such as reverse painting is present.

(iv) Painted decoration on window glass can become very difficult to see as the glass dries after excavation, so it should be stressed that ideally the material should be drawn as soon as possible after lifting, having been kept damp (as recommended on page 1); the illustrator may be advised to visit the site if quantities of window glass are appearing.

LC 2022