

The basic procedures for retouching fillings in the four different types of ceramics discussed above can be summarized as follows.

Unglazed objects

- 1 Test and sealing coats: clear gloss medium with or without pigment.
- 2 Background colour (possibly several coats): clear gloss medium + pigment + additives to give texture if necessary.
- 3 Polishing or burnishing to give correct surface finish.

Objects with a clear or tinted transparent glaze overlying the body or a slip

- 1 Test and sealing coats: clear gloss medium with or without pigment.
- 2 Background colour (possibly several coats): clear gloss medium + pigment.
- 3 Glaze (possibly several coats): clear gloss medium + pigment where necessary.
- 4 Polishing where necessary to give correct surface finish.

Objects with an opaque glaze

- 1 Test and sealing coats: clear gloss medium with or without pigment.
- 2 Background colour (possibly several coats): clear gloss medium + pigment.
- 3 Optional gloss coat: clear gloss medium.
- 4 Polishing where necessary to give correct surface finish.

Objects with semi-transparent glaze

- 1 Test and sealing coats: clear gloss medium with or without pigment.
- 2 Background colour: several coats of clear gloss medium + pigment with the proportion of pigment, especially white pigment, decreasing with each layer.
- 3 Optional gloss coat: clear gloss medium.
- 4 Polishing where necessary to give correct surface finish.

These procedures are based on the use of a clear gloss medium as opposed to a premixed paint. Additives to provide texture can be included when applying background or glaze coats.

Preparation

The importance of cleanliness throughout the retouching process cannot be too strongly emphasized. Amongst other things, dust and dirt can prevent proper adhesion of the paint, clog brushes and airbrushes, and disrupt an otherwise smooth finish.

Some restorers like to use a separate room for all retouching, so that dust and dirt generated by procedures such as cleaning, removal of old restorations and rubbing down fillings are kept well away. If an airbrush is to be used, a separate room or booth is highly desirable so that adequate fume extraction and ventilation can be provided. The conditions of temperature and humidity should be within the ranges specified by the manufacturer for use of the medium.

Before commencing, hands should be cleaned and the brushes or the airbrush checked for dust or particles of cured medium. Any equipment such as palette knives, spatulas and mixing surfaces should be degreased with acetone or industrial methylated spirits. All equipment and materials to be used should be placed so that they are easily accessible.

The medium that is to be used may also need preparation. If it is a two-part medium the two parts must be weighed or measured out and carefully mixed. Small glass vials with closures are useful for mixing and storing small quantities of medium. Even if the medium does not need mixing, a small quantity, sufficient for the job in hand, should be decanted from the main supply and the medium used from here rather than direct from the can or bottle, in order to avoid unnecessary contamination or exposure to the air of the main supply.

Sealing and testing the filling

Generally the first stage in retouching is to seal the filling if it is at all porous and to make sure that the surface is absolutely smooth and that there are no lumps or ridges at the joint between the filler and the surrounding surface. Plaster of Paris fillings may be sealed with shellac or Paraloid B-72 (Acryloid B-72). When a clear gloss retouching medium plus pigments is to be used to cover fillings, the fillings are sealed with an initial coat of gloss medium to which a high proportion of white pigment is commonly added. There are two reasons for adding the white pigment. Firstly it gives bulk to the coat and enables it to be used to fill minor discrepancies in the filling. Secondly it helps even out the colour of the filling if it appears patchy; for example where Fine Surface Polyfilla has been used to fill small flaws in an epoxy putty or Polyfilla (interior grade).

The series of Figures 12.1 a–e shows the sequence for applying these coats in cases where it is acceptable to overlap the surrounding ceramic by a small amount. When an 'invisible' retouch is not being aimed for, and in cases where even a slight overlap is not acceptable, the procedure is the same but each coat must finish at the edge of the filling. It is much more difficult to achieve an 'invisible' retouch without

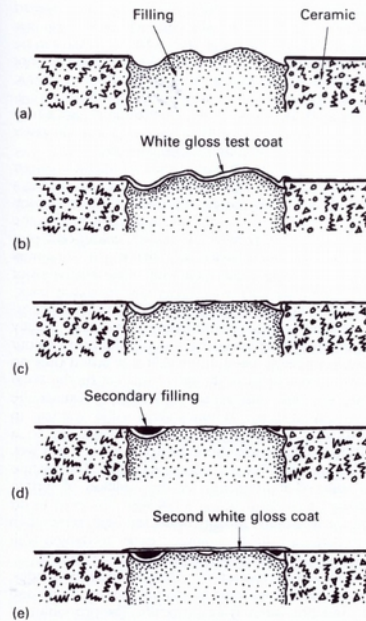


Figure 12.1 Preparation of a filling for retouching. (a) Cross-section through filling. Although the surface may appear to be smooth after cutting back, there will usually be a certain amount of unevenness. (b) First coat of gloss white paint has been applied. (c) Gloss white coat has been smoothed with fine abrasive paper, and has been rubbed through on the high points of the filling, but remains unabraded and glossy on the low spots. (d) Further filler has been applied to the low spots and smoothed with abrasive paper. (e) A second coat of gloss white paint has been applied.

having some overlap. Figure 12.1 a shows how the medium is brushed or sprayed evenly over the surface of the filling so that it just overlaps the joints between the filling and the surrounding surface. When working around the edges of a filling using a hand-held paintbrush it is best to use strokes at an angle to the edge of the filling rather than parallel to it in order to avoid producing a ridge accentuating the edge. The medium is allowed to cure and then the painted surface is carefully observed. The smooth glossy coating will highlight any unevenness in the filling and these will become even more apparent if the surface of the

medium is very gently abraded using a fine silicon carbide or aluminium oxide paper. The white coating will be rubbed through on high spots and low spots will stand out as remaining glossy (Figure 12.1c). If they are small, any such flaws can be smoothed out using abrasive papers or filled using blobs of heavily pigmented retouching medium or retouching medium mixed with pigment and talc. A suitable filler such as Fine Surface Polyfilla may be used if they are larger (Figure 12.1d). If much rubbing down or filling has to be done it is then followed by a second white coat to again check the finish and even up the colour (Figures 12.1e, 12.2).

Background colours

As stated in the introduction, the background colour in the case of an unglazed ceramic is that of the body, as it is in the case of an object with a transparent or semi-transparent glaze. If the object has a slip over the body it is the colour of this slip. If the object has an opaque glaze it is the colour of this glaze. When an area has been filled with a non-colour-matched opaque filler the first stage in retouching is to match its surface colour to that of the background colour (Figure 12.3). Reproduction of overglaze enamel decoration, gilding or in-glaze stains will be carried out on top of this layer. Even underglaze painting is usually reproduced by first creating a smooth background colour and then painting over it, although in this case further application of background colour may be applied after the decoration has been painted in order to achieve a blurred effect.

Applying a well matched background colour which fades imperceptibly into the surrounding surface is



Figure 12.2 Filling in rim of Chinese plate: the final coat of gloss white paint has been applied to create an even base on which to apply the background colour.