



CONSTGLASS



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1-Pilot object

Pilot object:

Princess Cecily, Burrell Collection, Glasgow

Pictures



Identification of the panel:

Burrell Collection, Glasgow.

Registration number: 45.75.

Dimensions: 39.4cm x 29.8cm. Currently (May 2010) in storage.

Treatment:

In the mid-1970's, this panel was dismantled, stop-gaps of extraneous glass removed, edge-to-edge bonding of broken fragments and gap-filling undertaken, and the panel re-leaded. Araldite® AY103/HY951 epoxy resin was used for bonding and filling. Where relevant, the resin was coloured to match the blue and aubergine glass and the yellow stain. In addition, white insoluble weathering products were mechanically removed from pits using fine tools.



Photographs (transmitted & reflected light):
May 2010



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2-Results

sample reference:	Princess Cecily
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Questions	Techniques	Answers
Morphology 	Visual Inspection Photograph: May 2010	The panel was inspected in conjunction with other resin-bonded items in the Burrell Collection. The epoxy resin in this panel has experienced a total of 35 years' aging; approximately half that period in dark storage and the remaining time (1984-2003) in the strong illumination of the Burrell Collection artificially-lit gallery during opening hours. The polymer appearance has been well-maintained. There has been minimal yellowing of the clear resin used for bonding or filling and the colorants used to match the yellow stain and coloured glass have shown good light-fastness. The degree of yellowing is judged to be "just perceptible". The results of this natural aging of Araldite AY103/HY951 are superior to those predicted by accelerated aging (see Norman H Tennent, "Clear and Pigmented Epoxy Resins for Stained Glass Conservation: Light Ageing Studies", <i>Studies in Conservation</i> , 1979, 24, 153-164).
	Optical Microscope	
	SEM	
	Desktop tomography	
	Phase-contrast tomography on Synchrotron	
Chemical Composition	SEM/EDX	



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Organic component composition	FTIR	
	RAMAN	<p>Raman spectroscopy was undertaken using a PerkinElmer IdentiCheck spectrometer with a fibre-optic probe, focusing on an area of clear resin fill. The spectrum is consistent with a standard spectrum of Araldite AY103/HY951.</p>
Microbiology	Molecular biology ATP measurements	
Reversibility	Test studies Elimination	
Re-treatability	Test studies Re- treatability	