



CONSTGLASS



Data sheet for pilot objects



Object: CAN S.XXVIII South West Transept C1

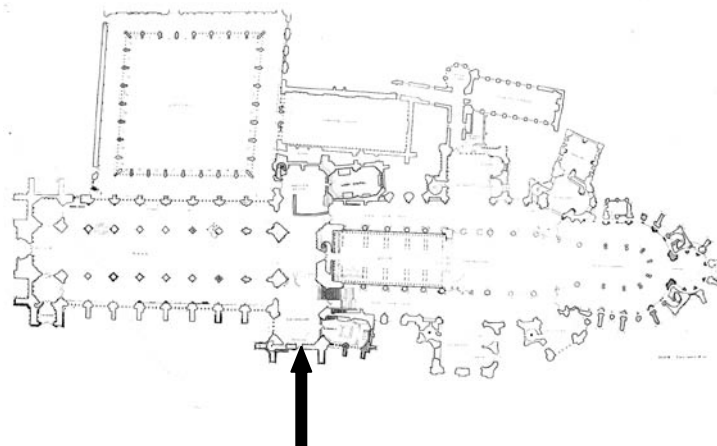
Date: 03/12/09




OBJECT IDENTIFICATION



Site Canterbury, UK




Building Canterbury Cathedral

Location and orientation of the window
Plan of the building






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Description of the window opening (dimensions, number of lights; photo, test panel marked)		SXXVIII Total h.15.86 metres x w.7.32 metres 
Date	Mostly 12 th Century with 13 th , 15 th , 19 th and 20 th century inclusions	
Short description of the window (identification of subject, artist, workshop)	SXXVIII is one of the largest in the cathedral and contains some of the oldest panels. The window contains 22 of the surviving Ancestors of Christ in the main lights, which were moved from their original locations in the quire clerestory and from the Trinity chapel in the 18 th Century. Only the heads/canopies and 3 tracery panels originally belong to this window. The figure panels originate from the 12 th Century with 15 th Century heraldry while the tracery has an assembly of 12 th , 13 th , 19 th and 20 th century glass.	
Owner	Canterbury Cathedral	
Person(s) in charge	The Cathedral Studios	
Investigated panel (inventory number CVMA number, size)	SXXVIII C1	

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Manufacturing technique	unpainted glazing		<input type="checkbox"/>
	painted glazing		<input checked="" type="checkbox"/>
		oxide paint / grisaille paint inside	<input checked="" type="checkbox"/>
		oxide paint / grisaille paint outside	<input type="checkbox"/>
		silver stain inside	<input type="checkbox"/>
		silver stain outside	<input type="checkbox"/>
		transparent enamel inside	<input type="checkbox"/>
		transparent enamel outside	<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
	<i>Further information:</i>		

ENVIRONMENT IN SITU / IN STORAGE			
Protective glazing	no protective glazing		<input type="checkbox"/>
	protective glazing		<input checked="" type="checkbox"/>
		installed in the original position of the ancient panels	<input checked="" type="checkbox"/>
		mounted to the outside (ancient panels stay in their original position)	<input type="checkbox"/>
		no ventilation	<input type="checkbox"/>
		internal ventilation	<input type="checkbox"/>

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	external ventilation	<input checked="" type="checkbox"/>
	size of interspace between ancient panel and protective glazing	19mm
	ventilation slot at the top (size)	
	ventilation slot at the bottom (size)	Yes.
	date of installation	1975- 8

Material protective glazing	
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Surround materials and construction related materials	<p>The original stained glass tracery panels sit in the groove and the protective glazing panels are installed to the outside, attached to the stained glass with lead brackets. All tracery panels were pointed with lime mortar.</p>
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Museal exposition / Storage	Room	<input type="checkbox"/>
	Cabinet	<input type="checkbox"/>
	Store	<input checked="" type="checkbox"/>
	<p>Since the panel was removed from the window it has been stored in metal racks with coroplast sheets in between each panel in the Cathedral Studios strong room. This room has a relatively stable average RH of 60% with rare extremes of 45% up to 75%.</p>	



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Objects exposed to	partial sunlight	<input checked="" type="checkbox"/>
	daylight, but no direct sunlight	<input type="checkbox"/>
	artificial warmlight	<input type="checkbox"/>
	artificial coldlight	<input type="checkbox"/>
	mixed warm-/coldlight	<input type="checkbox"/>

Climate of the building	Climate in the interior of the south west transept over 12 months			
		Minimum	Maximum	Average
	Relative Humidity (%)	34.6	66.6	51.4
	Air temperature (°C)	12.3	24.5	18
	.External climate over 12 months			
		Minimum	Maximum	Average
	Relative Humidity (%)	35	93	71
	Air temperature (°C)	7.3	28	15.4
	.			
	<i>Further information / observations:</i>			

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INSPECTION OF THE SITE BEFORE REMOVAL (WITH PICTURES)

Requirements for a safe removal in respect of minimal intervention	Handling with gloves, the panel was kept upright at all times and transported from the cathedral to the workshop in wooden frailis
Environmental causes for damage	Since the protective glazing was installed in the 1978 dust has accumulated on the surface
Short report of removal	Handling with gloves, the panel was carefully removed. The lime mortar was scraped from the grooves.
Short report of transport	The panel was carried vertically back to the studio inside a wooden frail lowered from the scaffold by hoist. It is stored vertically in a metal rack protected on both sides with coroplast in the Cathedral Studios' strong room.

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CONSERVATION MATERIAL

Conservation material (producer, product name, characterization, data, etc.)	Unknown polymer. Possibly Viacryl? Coating on areas of trace lines on the inside surface and total surface coverage on the back. The glass is possibly re-used, acid stched (?) and re-painted (?) to resemble medieval glass	
Purpose of use	consolidation of paint layer / paint pigments	<input checked="" type="checkbox"/>
	coating / lamination	<input checked="" type="checkbox"/>
	edge bonding	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
Application technique	application with brush	<input checked="" type="checkbox"/>
	application with spray	<input type="checkbox"/>
	single application	<input type="checkbox"/>
	repeated application	Unknown
	concentration	%
	mixing ratio	Unknown
	
	
	<i>Further information :</i>	
Date of application	1975-8	

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Documentation of this treatment	photographs (colour transparencies, b&w prints, colour prints, digital images)	<input checked="" type="checkbox"/>	
	written records	<input type="checkbox"/>	
	diagrams	<input checked="" type="checkbox"/>	
	data-files	<input type="checkbox"/>	
	<input type="checkbox"/>	
	<input type="checkbox"/>	
	<i>Further information:</i>		
Do you think this documentation is	exact	<input type="checkbox"/>	
	more or less reliable	<input checked="" type="checkbox"/>	
Previous restorations (data, treatments, material)	<p>A brief report on the condition of the window and the treatment carried out in the 1970's. Information was also obtained from conservators previously and currently employed by the studio who worked on the panels.</p> <p>The application of any surface coatings was not documented. Viacryl® was available in the workshop at the time of the last conservation of the glass in the 1970's. Its use on this window was discussed, but was not officially adopted. It is, however, possible that it was used undocumented.</p>		
	Do you think the information is	exact	<input type="checkbox"/>
		more or less reliable	<input checked="" type="checkbox"/>
		hearsay	<input type="checkbox"/>



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CONDITION REPORT / DOCUMENTATION IN THE WORKSHOP

Pictures of panel / glass in transmitted light



C1 Internal

Pictures of panel / glass in reflecting and raking light, internal and external surface



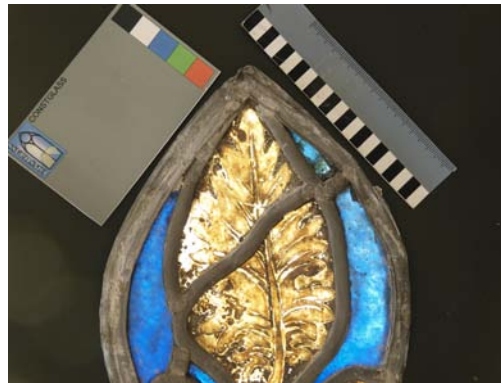
C1 Internal



C1 External



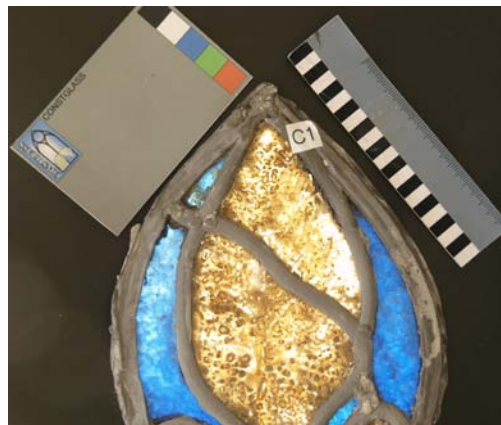
Examination of the object



Internal, transmitted light



Internal, reflected light



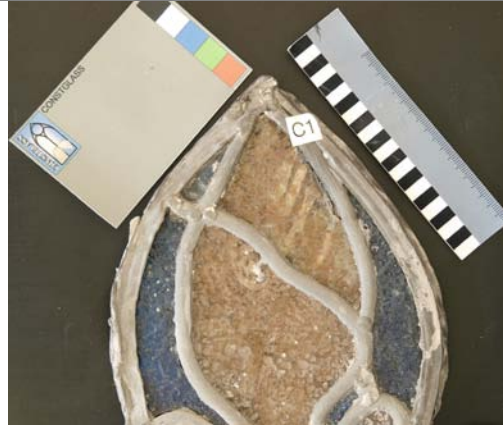
External, transmitted light



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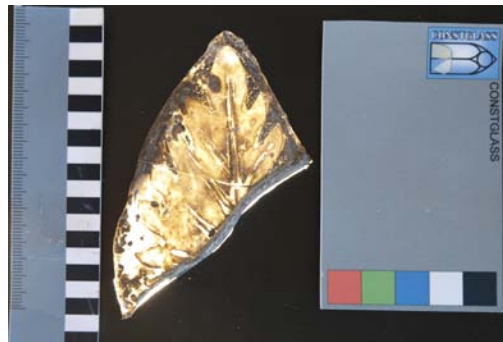


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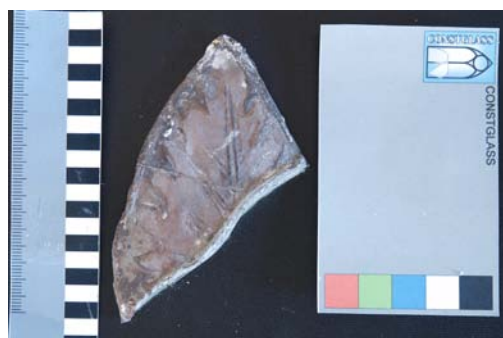


External, reflected light

Selected damages



Fragment internal T/L



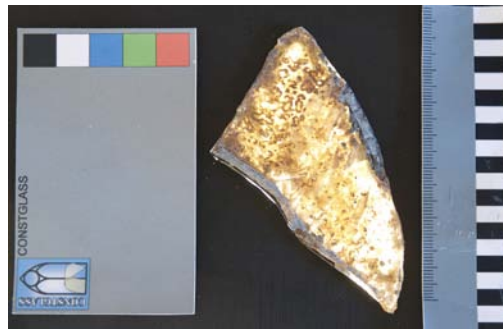
Fragment internal R/L



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Fragment external T/L



Fragment external R/L



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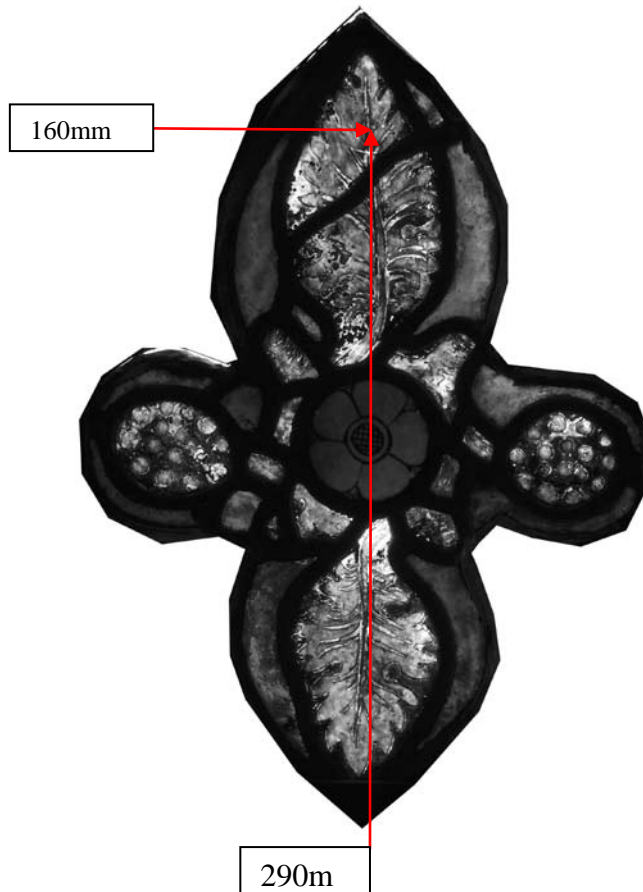


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Selection and documentation of samples to be analysed




Questions to the scientists





Sample was taken from the area show by the arrows.

Question:

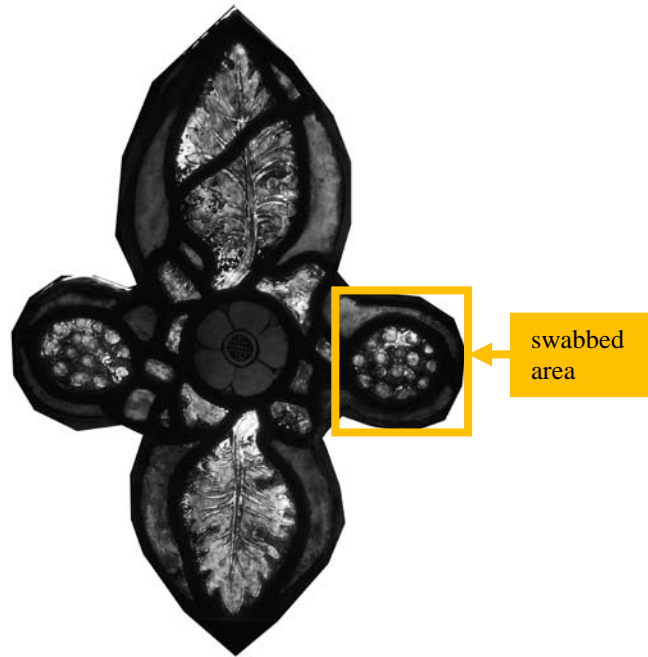
Identification of coating.

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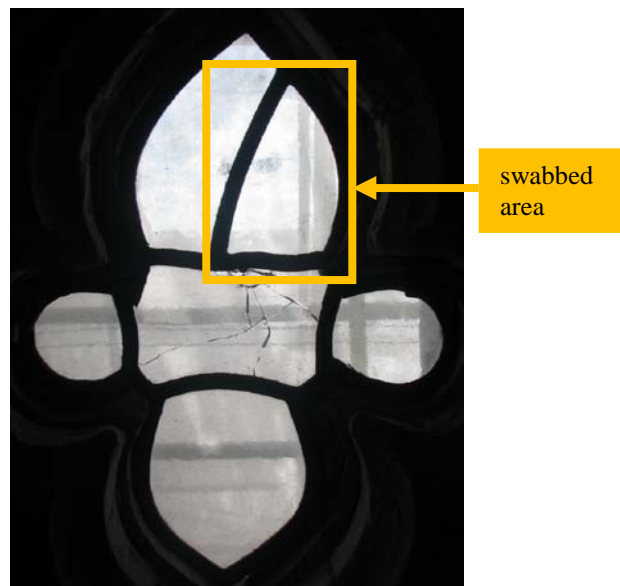
<p>Examination of the object (protective glazing swab test)</p>	 <p>C1 protective glazing panel</p>
	 <p>taking swab from protective glazing panel</p>
<p>Selected damages</p>	<p>A sterile cotton bud was used to take a swab from the surface of one piece of glass on the stained glass panel, and one on the corresponding protective glazing panel, to be sent off for analysis.</p>



Selection and documentation of samples to be analysed
Questions to the scientists






S.XXVIII C1 Stained glass panel



S.XXVIII C1 protective glazing panel

The swabs were taken from the areas shown.

Is there / has there been any microbial activity on the glass? Page 15 of 16

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RESPONSIBLE CONSERVATORS (name, phone, e-mail)

Person 1	Grace Ayson 01227 865266 cathedralstudios@canterbury-cathedral.org
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Person 3	Alison Eaton 01227 865266 cathedralstudios@canterbury-cathedral.org