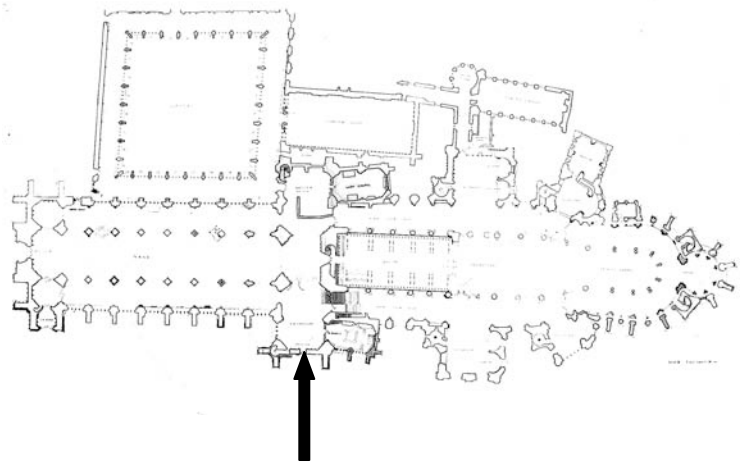
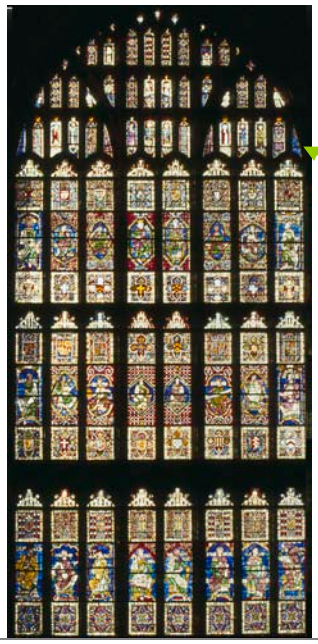
	CONSTGLASS	
	Data sheet for pilot objects	

Object:	**CAN S.XXVIII South West Transept A16**	**Date:**	**03/12/09**

OBJECT IDENTIFICATION	
Site	Canterbury, UK
Building	Canterbury Cathedral
Location and orientation of the window **Plan of the building**	

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 12th Century with 13th, 15th, 19th and 20th 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 18th Century. Only the heads/canopies and 3 tracery panels originally belong to this window. The figure panels originate from the 12th Century with 15th Century heraldry while the tracery has an assembly of 12th, 13th, 19th and 20th century glass.	
Owner	Canterbury Cathedral	
Person(s) in charge	The Cathedral Studios	
Investigated panel (inventory number CVMA number, size)	SXXVIII A16	

Manufacturing technique	unpainted glazing		☐
	painted glazing		☑

		oxide paint / grisaille paint inside	☑
		oxide paint / grisaille paint outside	☐
		silver stain inside	☐
		silver stain outside	☐
		transparent enamel inside	☐
		transparent enamel outside	☐
		.....	☐
		.....	☐
	Further information:		

ENVIRONMENT IN SITU / IN STORAGE			
Protective glazing	no protective glazing		☐
	protective glazing		☑
		installed in the original position of the ancient panels	☑
		mounted to the outside (ancient panels stay in their original position)	☐
		no ventilation	☐
		internal ventilation	☐
		external ventilation	☑
		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	

Surround materials and construction related materials	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.

Museal exposition / Storage	Room	☐
	Cabinet	☐
	Store	☑
	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%.	

Objects exposed to	partial sunlight	☑
	daylight, but no direct sunlight	☐
	artificial warmlight	☐
	artificial coldlight	☐
	mixed warm-/coldlight	☐

	Note: specify artificial light, if possible with product name.

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

Further information / observations:

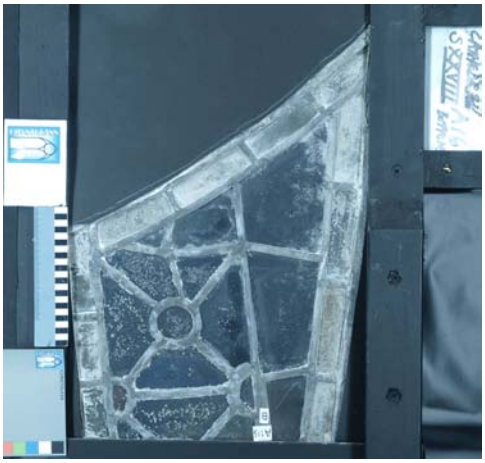
INSPECTION OF THE SITE BEFORE REMOVAL (WITH PICTURES)	
Requirements for a safe removal in respect of minimal intervention	Handling with gloves, the panel was kept upright at all times and transported from the cathedral to the workshop in wooden frails
Environmental causes for damage	Since the protective glazing was installed in 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 and saddle bars removed.
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 either side with Coroplast® in the Cathedral Studios' strong room.

CONSERVATION MATERIAL		
Conservation material (producer, product name, characterization, data, etc.)	Unknown polymer. Possibly Viacryl? Coating remains on the inside of the pits on the external face of the glass. The glass is medieval.	
Purpose of use	consolidation of paint layer / paint pigments	☑
	coating / lamination	☑
	edge bonding	☐
	……	☐
	……	☐
	……	☐
Application technique	application with brush	☑
	application with spray	☐
	single application	☐
	repeated application	Unknown
	concentration	%
	mixing ratio	Unknown
	.....	
	.....	
	Further information :	

Date of application	1975-8		
Documentation of this treatment	photographs (colour transparences, b&w prints, colour prints, digital images)		☑
	written records		☐
	diagrams		☑
	data-files		☐
	.....		☐
	.....		☐
	Further information:		
	Do you think this documentation is	exact	☐
		more or less reliable	☑
Previous restorations (data, treatments, material)	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. 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.		
	Do you think the information is	exact	☐
		more or less reliable	☑
		hearsay	☐

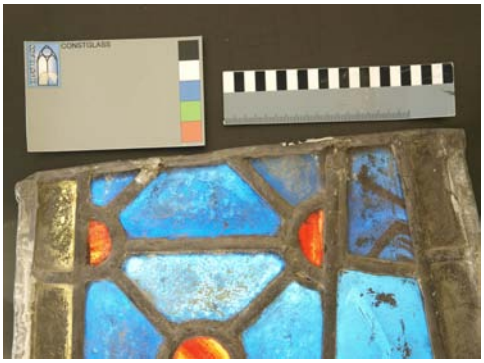
CONDITION REPORT / DOCUMENTATION IN THE WORKSHOP

Pictures of panel / glass in transmitted light	 A16 Internal
Pictures of panel / glass in reflecting and raking light, internal and external surface	 A16 Internal



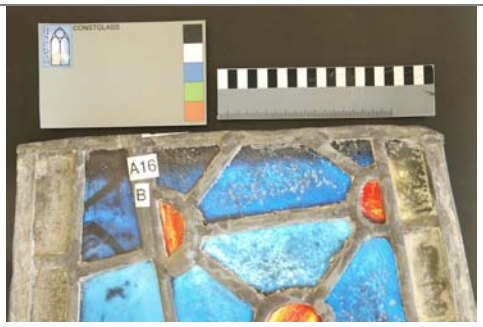
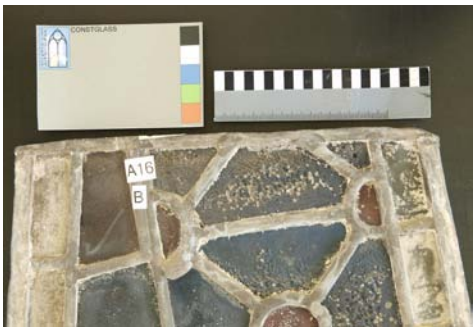
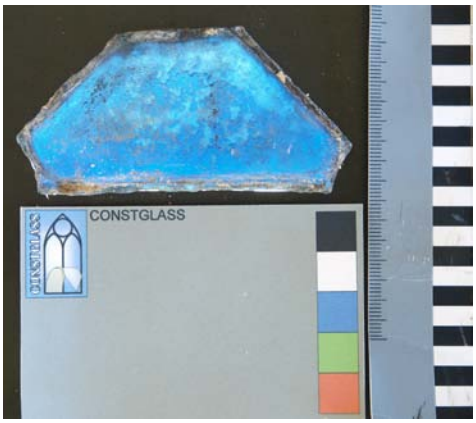
A16 External

Examination of the object

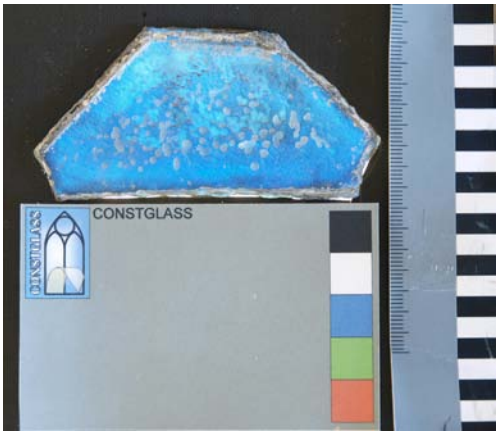


Internal T/L

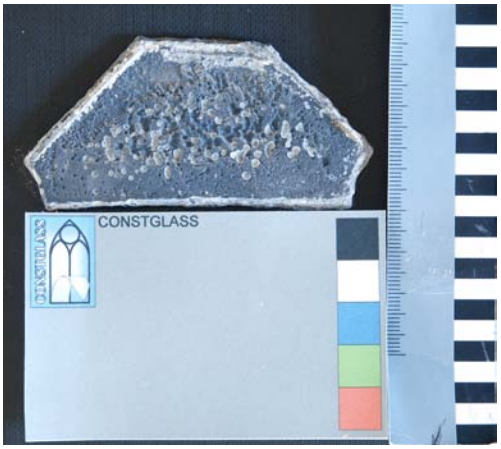
Internal R/L

	 External T/L  External R/L
Selected damages	 Internal T/L

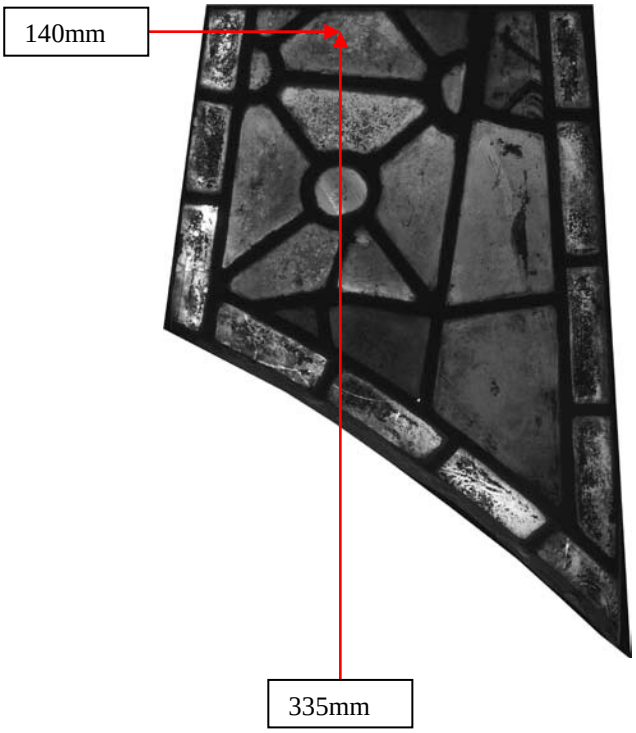
Internal R/L



External T/L



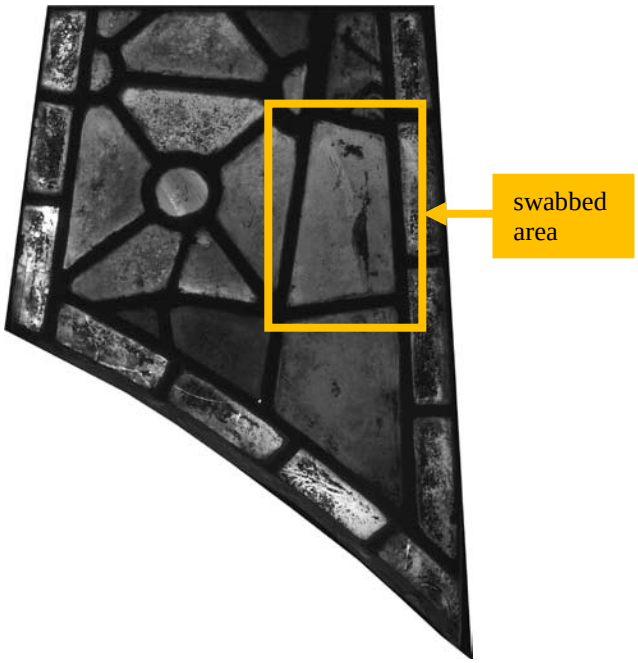
External R/L

Selection and documentation of samples to be analysed **Questions to the scientists**	 An entire piece of glass with coating in typical condition for this panel was chosen from the edge of the panel. The glass sample was taken from the area show by the arrows. Questions: Identification of the coating material.

Examination of the object **(protective glazing swab test)**	 A16 protective glazing panel  Taking swab from protective glazing panel
Selected damages	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.

Selection and documentation of samples to be analysed

Questions to the scientists



A16 stained glass panel

A16 protective glazing panel

The swabs were taken from the areas shown.

Is there / has there been any microbial activity on the glass?

Selection and documentation of areas for reversibility tests or reactivation tests	

RESPONSIBLE CONSERVATORS (name, phone, e-mail)	
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