

The Conservation of the *Creation and Expulsion* window of Valentin Bousch

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An initial study of *The Creation and Expulsion* window of Valentin Bousch, completed shortly after its acquisition by the Hill Art Foundation, indicated that the window was in relatively sound condition and generally well-preserved, given its age and size. The most obvious issue was the numerous mending leads that visually disrupted the composition, but to fully evaluate the condition of the window and to develop a conservation program, a panel-by-panel examination was undertaken. The Hill Art Foundation engaged Timothy Husband, Curator Emeritus of Medieval Art and The Cloisters, and Drew Anderson, Conservator in the Department of Objects Conservation, both Metropolitan Museum of Art, to take on this project.

Each panel was examined, photographed in its pre-restoration state, and charted to identify the following:

1. clean breaks in original glass that could be glued
2. clean breaks in original glass poorly adjoined or detached requiring regluing
3. grozed breaks with mending leads (the edges of the glass that have been nipped away or grozed to accommodate the width of the lead)
4. Stopgaps (old glass, related or unrelated, used to fill a void)
5. Original glass from any of the other windows in Saint-Firmin reused herean
6. Restorations, distinguishing, in so far as possible, the earlier from the more recent conservation/restoration campaigns

In many instances, these conditions, particularly grozed breaks, could only be identified when the glass was removed from its leads. While this step was avoided where possible, in reality most panels had to be largely, if not entirely, dismantled. If, for example, a piece in the center of a panel required treatment, all the pieces between it and the nearest edge would have to be removed.

Clean breaks of original glass were glued with XTAL NYL-1 epoxy. As the hand-blown glass is never of uniform thickness or entirely in plane, the pieces had to be carefully

manipulated for the breaks to be perfectly aligned. Each piece was dry fitted on a light table to ensure correct alignment. A low-adhesive tape was used to hold the break lines together and small drops of HXTAL adhesive were placed along the top of each break line and allowed to wick into the crack. Grozed breaks in the original glass were filled with HXTAL NYL-1 epoxy resin tinted with a combination of Orasol® dyes to match the color of the glass. Small stopgaps were generally filled with the same HXTAL NYL-1 tinted epoxy resins. Larger stopgaps were either reused or replaced with modern glass, on a case-by-case basis, depending on which option was the least visually disruptive.

In the course of examination, it was observed that in the clouds below the dove of the Holy Spirit, the lettering of the donor's motto, and the right leg and foot of Adam in the *Expulsion*, to name three instances, losses had been replaced, not with restorations, but with original glass from elsewhere in the glazing program, detectable by the nature of the glass and the manner and technique of paint application. The *Creation and Expulsion* window was mirrored on the south side of the choir by another three-lancet window assuredly of like architectural framing including a predella with inscription panels. All the other windows in the choir were single lancets and had at their base ornamental consoles on damascened, or arabesque patterns in black on colored grounds, incorporating monograms and other personal identifiers of both the commissioner and the artist, rather than inscription panels. Therefore, at least the fragments of inscriptions, if not all the pieces of original glass used in this early restoration, must have come from the opposite window.

In large part, the restorations seemed to date to the first two decades of the twentieth century, probably repairs undertaken after the window had been removed from the choir of Saint-Firmin at Flavigny-sur-Moselle and/or prior to its shipment from the firm of Jacques Seligmann & Cie. in Paris to its branch in New York. The bottom panels and the headers have suffered the most damage, resulting in numerous breaks, losses, and subsequent restorations. The figural panels, on the other hand, have fared far better and the few restorations were largely confined to architectural elements, the sky, the ground, and drapery. There are natural breaks in the torsos of Adam and Eve, caused by impact, torque or pressure against a fault in the glass, but these have been glued/bonded and are visible only upon scrutiny. The few restorations in the figures are relatively insignificant — with the notable exception of the head of Eve in the

Expulsion scene. This appears to be an early restoration, the high quality of which, in both painting and technique, is aesthetically compatible with the original. This and other early interventions were retained because they are not unduly disturbing and modern replacements would not have significantly improved the appearance of the window. Additionally, they have been in place long enough to be considered part of the history of the window and, therefore, have been retained, conforming to the conservation guidelines of the *Corpus Vitrearum*, an international organization of stained glass scholars and conservators.

After breaks were glued and infills painted, where necessary, the panels were releded. Lead comes of 1 cm width were used to indicate original lead lines. Original glass and adjacent stopgaps, restored glass or modern inserts were joined with copper foil or, in cases where the mend needed to be more substantial, with a lead came trimmed down to a minimal width, .5 cm or less. Finally, post-restoration photographs were taken.

Valentin Bousch devised his compositions to minimize the visual intrusion of the lead matrices by relegating the supportive leads to the peripheries of each color field, thereby seemingly reducing them to a graphic element that outlines forms, rather than a structural one holding pieces together. To achieve this, he reduced the number of colors in his palette—as every change of color would require a lead—while he increased the sizes of individual pieces of glass. The vaults in the headers, for example, were each originally one exceptionally large piece of glass. The upper portion of the Creator's purple tunic is, likewise, an unusually large piece of glass as are those that form the torsos of Adam and Eve. The limited colors and the out sized pieces of glass frequently required complex and daring cuts that posed an unprecedented challenge to the glazier at the bench and pressed the medium to its limits. The torso of Eve and the cutout to accommodate the fig leaf is a notable example, as is the cutting of the elongated and irregularly shaped cloud under the dove of the Holy Ghost. Only if a piece of glass were deemed at risk of breakage because of its excessive size or precarious shape would Valentin have resorted to interior leads.

The delineation and modeling of forms was achieved by the painterly application of mattes in tones ranging from dense black to pale flesh tones that were subtly worked in fine gradations from shadowy depths to bright highlights. In the deep, billowing folds of the Creator's mantle Valentin used such dark mattes that the paint and the outlining leads merge. In modeling

and delineating the figures of Adam and Eve he used a limited range of pale brown flesh tones in delicately worked gradations from opaque density to near transparent tones blended into the soft highlights. To expand his palette, he also used varying hues of mattes as well as silver stain on, for one example, pale blue glass to achieve the brown, yellow and green tones of the ground and plants on a single piece of glass. In contrast to his most esteemed contemporaries, Valentin approached the art of stained glass more as a panel painter than as a painter on glass.

With a clearer idea of Valentin's artistic methodology in mind, the excessive number of mending leads was particularly disturbing and prompted a close examination. Some breaks were natural, but most appeared to be deliberate cuts that did not conform to natural break lines. This anomaly is explained by the fact that nineteenth-century stained-glass restorers, in the tradition of medieval glaziers, were paid piece meal, applying their identifying mark to each piece of glass they leaded up. The restorers of the *Creation and Expulsion* window were thus incentivized to deliberately break pieces of glass to increase their pay. This practice, which also fulfilled the general expectation at the time that all authentic early stained glass would have a web of lead lines, continued into the early twentieth century and has been documented both by archival research and by internal evidence in the *Creation and Expulsion* window. The greatest challenge of this conservation campaign was therefore to undo the deleterious effects of this unfortunate practice and to return, in so far as possible, the original lead lines of this window and thereby restoring its appearance to reflect more accurately Valentin Bousch's artistic intentions.