

CLIMATIC CONDITIONS OF THE GHENT ALTARPIECE (BY DAIDALOS PEUTZ*)

CREATIVE INGENUITY FOR A MEDIEVAL MASTERPIECE

The new display case designed for the Mystic Lamb has been created to provide a robust climate chamber for the polyptych. The display new case, measuring 6 m high by 100 m³, will be located in the Sacrament Chapel. This is the largest, most easterly chapel in St Bavo's ambulatory and forms part of the new route designed for its new visitor centre. The altarpiece in its display case will be positioned above an altar and will hang from a pneumatically controlled steel supporting frame, to allow unincumbered movement of the side panels, thus avoiding the need of vergers to physically access the display case. Every morning and evening, the polyptych will be gently opened and closed to visitors. A magical sight, that in medieval times, was infrequently permitted for public viewing. Large security doors have been installed to enable the easy evacuation of the wooden panels, in the event of emergency.

Deciding on the final design was a lengthy multi-disciplinary process with consideration towards finding a good balance between an optimal visitor experience, climatic requirements, aspects of heritage, religious context, and the requirements of designers and builders. The Council for the Flemish Masterpieces oversees all conservation conditions of Flemish masterpieces and imposed stringent climate conditions for the conservation of the Mystic Lamb. The climate in the cathedral is not comparable with conditions found in an art museum at all: the indoor temperature in the unheated cathedral drops to 2 °C in wintertime, and the Sacrament Chapel also experiences brilliant sunlight via its beautifully coloured, stained glass windows. To meet the strict climate requirements needed for the polyptych, was a challenging to say the least.

To address the issue of the dazzling brilliance of natural light into the Sacrament Chapel, screening curtains will be introduced to ensure visitors are able to view the many details that this masterpiece has to offer. To provide the optimal temperature required, the display case contains high-security translucent glazing with excellent colour rendering properties. The same glazing also heats the case, to provide the optimal climatic temperature. The high colour rendering of the LED artificial lighting also enhances the impressive experience the vivid, original colours of the masterpiece, in the sanctity of the cathedral. An innovative passive temperature and moisture buffering system has been installed in the display case, which addresses climate fluctuations, particularly in the case of an accidental failure of the active climate system.

***Diadiao Peutz** is an independent consultancy in the field of building physics, based in Leuven, Flanders. They provided the necessary advice and assistance to ensure that the correct storage conditions imposed by the Council of the Flemish Masterpieces, were fulfilled in terms of air, light and temperature for the Ghent Altarpiece.