

Update to the Case Study: A Practical Approach to the Conservation & Restoration of a Pair of Large Diameter English Globes

ABSTRACT

Historic globes are fragile objects, casualties of curious viewers and probing fingers. Few survive without damage to the varied materials used in their fabrication, including structural damage, discoloration of the varnish, or loss of paper and design media. While an improvement in condition is the primary focus of treatment and the foundation of an improvement in appearance, attention directed specifically at the legibility of a globe is equally legitimate. When designing a conservation treatment, it is critical to compare how a particular globe could appear relative to its individual condition, and how that globe should appear relative to other examples of the same edition. This vision must then be married with the desires and budget of the client and custodian.

The large format globes produced in mid-nineteenth century Britain were extraordinary works of cartography, instrumentation, and the decorative arts. The thirty-six inch diameter pair of celestial and terrestrial globes, dated 1845 and 1851 respectively, were the largest productions available from the Malby and Co. and mirror on a larger scale the general methods of fabrication that were developed in the early sixteenth century on smaller diameter globes. The complex construction incorporates fabric and papier-mâché, plaster, intaglio printing on paper, hand coloring, coatings, engraved brass, glass, wood, and faux finishes. The conservation of these complex artifacts required an interdisciplinary approach and the collaboration of paper, furniture and horology specialists.

The Malby globes, produced using intaglio printing and hand coloring, held great visual and textural appeal. The desire for complete restoration of large areas of design losses

propelled the exploration of the most innovative options for image reproduction via digital photography, image manipulation, and archival printing, and their viability for effective integration into a work of cartography. With the development of commercial pigment-based ink jet printing, digital reproduction in conservation practice became viable. This technique reproduced the graphic quality of the original media with the requisite light, moisture, and solvent stability. However, the tone and density of ink jet lines vary substantially from intaglio printed ink lines. As a result, finessing of contrasts and colors was required to simulate the original.

Studio practices have now evolved to the use of lithographic polyester plate printing to generate reproductions of lost design. Commercial polyester films such as Pronto-Plate 5000® offer an efficient option for direct-to-plate printing in smaller offset printing applications. The image to be reproduced is printed directly onto the polyester film with either a laser printer or photocopier. The polymer plate is then inked with a brayer just as a traditional lithographic stone would be, yielding the same range of tone and values as a lithographic stone or metal plate. This technique employs traditional printers' ink, handmade in small batches from carbon black pigments in linseed oil, and is therefore visually comparable to the original medium while being stable to light, moisture and solvents. This method of printing allows for a wide variety of papers to be used. In general, we select a lightweight handmade paper, such as Ruscombe Mills conservation papers.

The conservation and restoration of this pair of Malby & Co. globes serves as a case study of the methodology for designing a conservation treatment, the coordination of interdisciplinary experts and state-of-the-art methods for image reproduction.

The talk presented at the Book and Paper Group Session, AIC's 43rd Annual Meeting, May 13–16, 2015, Miami, Florida was a summary of the article *Case Study: A Practical Approach to the Conservation & Restoration of a Pair of Large Diameter English Globes* by TK McClintock, et al., and included an update to the studio treatment practices that have evolved since the completion of the original 2007 treatment (McClintock 2015).

REFERENCES

McClintock, T.K., L. Bigrigg, and D. LaCamera, 2015.
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