

# All That Glitters: Treatment and Technical Study of an Ormolu *Surtout de Table* at the Cooper Hewitt Smithsonian Design Museum

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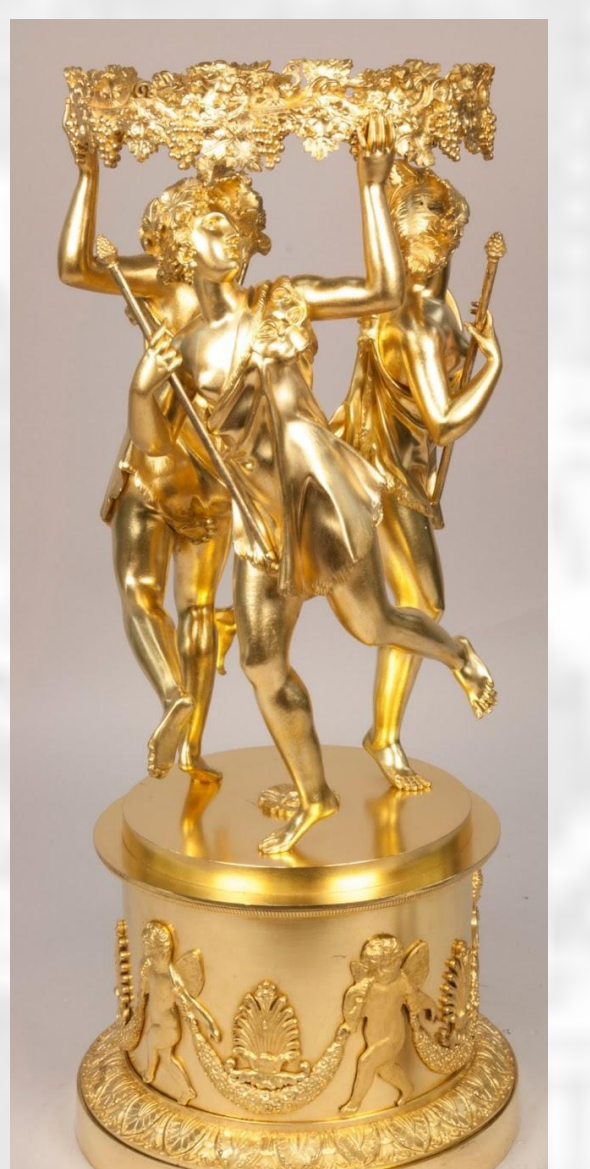
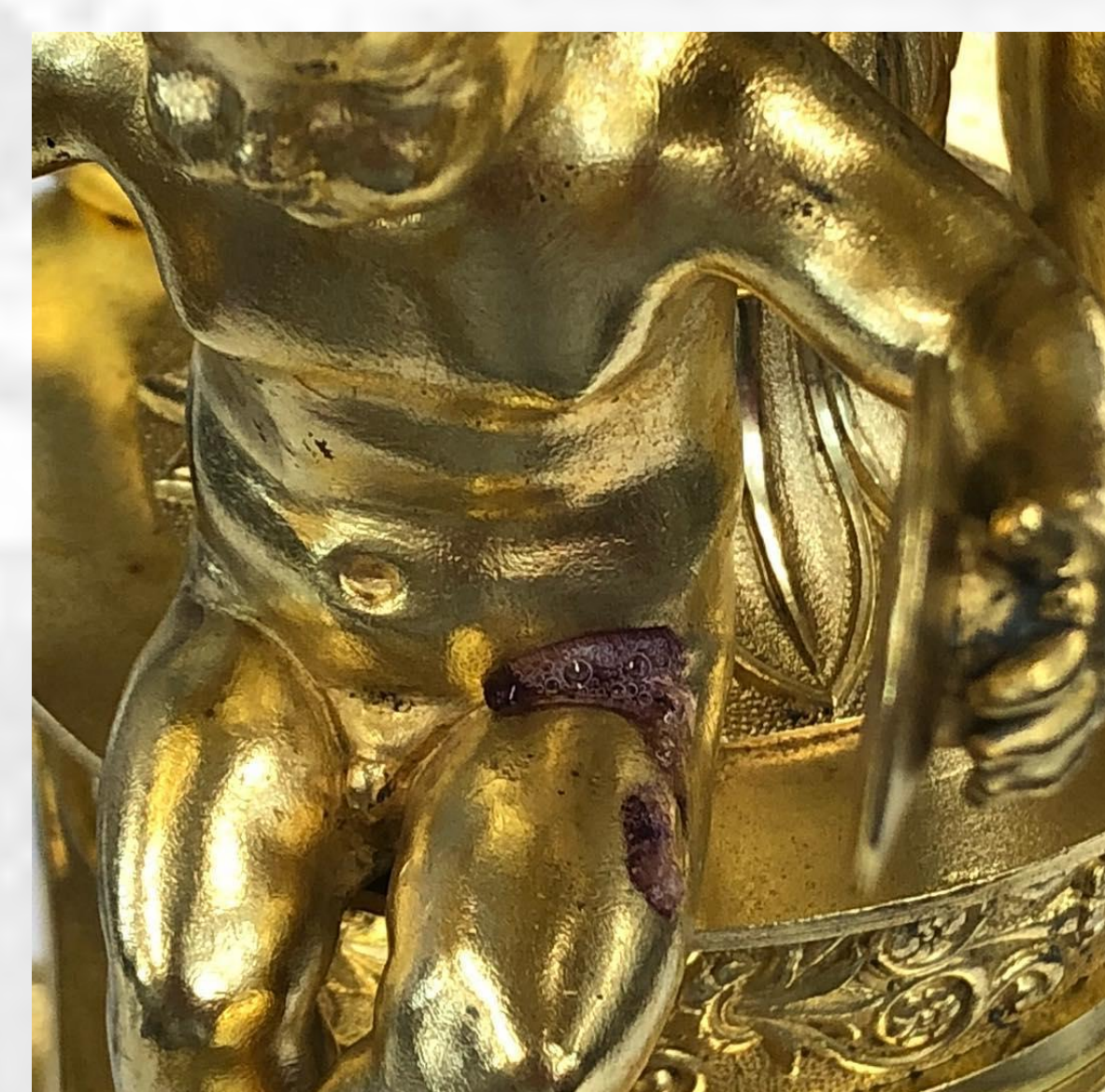


**Abstract:** The Cooper Hewitt Smithsonian Design Museum (CHSDM) recently conserved a spectacular ormolu *surtout de table* (ca. 1805) by Pierre-Philippe Thomire (1751-1843), chaser-engraver to Napoleon (ciseleur de l'Empereur). This elaborate dining-table centerpiece consists of five mirrored trays with detailed ormolu frames, and over 50 gilt-brass elements that sit atop. Treatment focused on reducing copper oxides and soiling in order to better unify uneven surface tonalities. Technical study, including 3D blue light scanning and Reflectance Transformation Imaging (RTI), allowed for a greater understanding of the sculptural elements and provided innovative content for a digital didactic in the gallery.



*Surtout de Table 1991-31-1-a/ww; Photo: Matt Flynn© Cooper Hewitt, Smithsonian Design Museum*

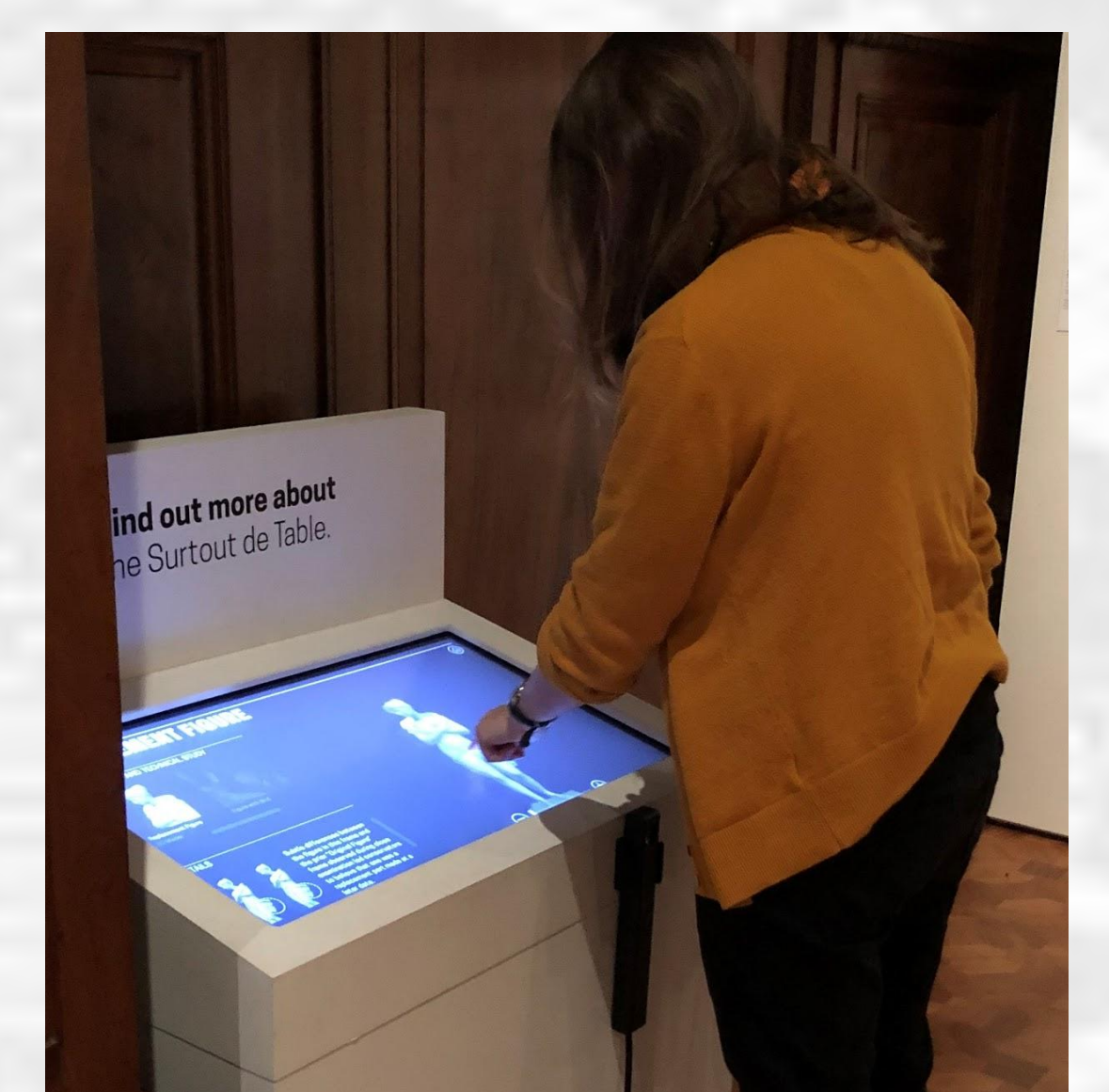
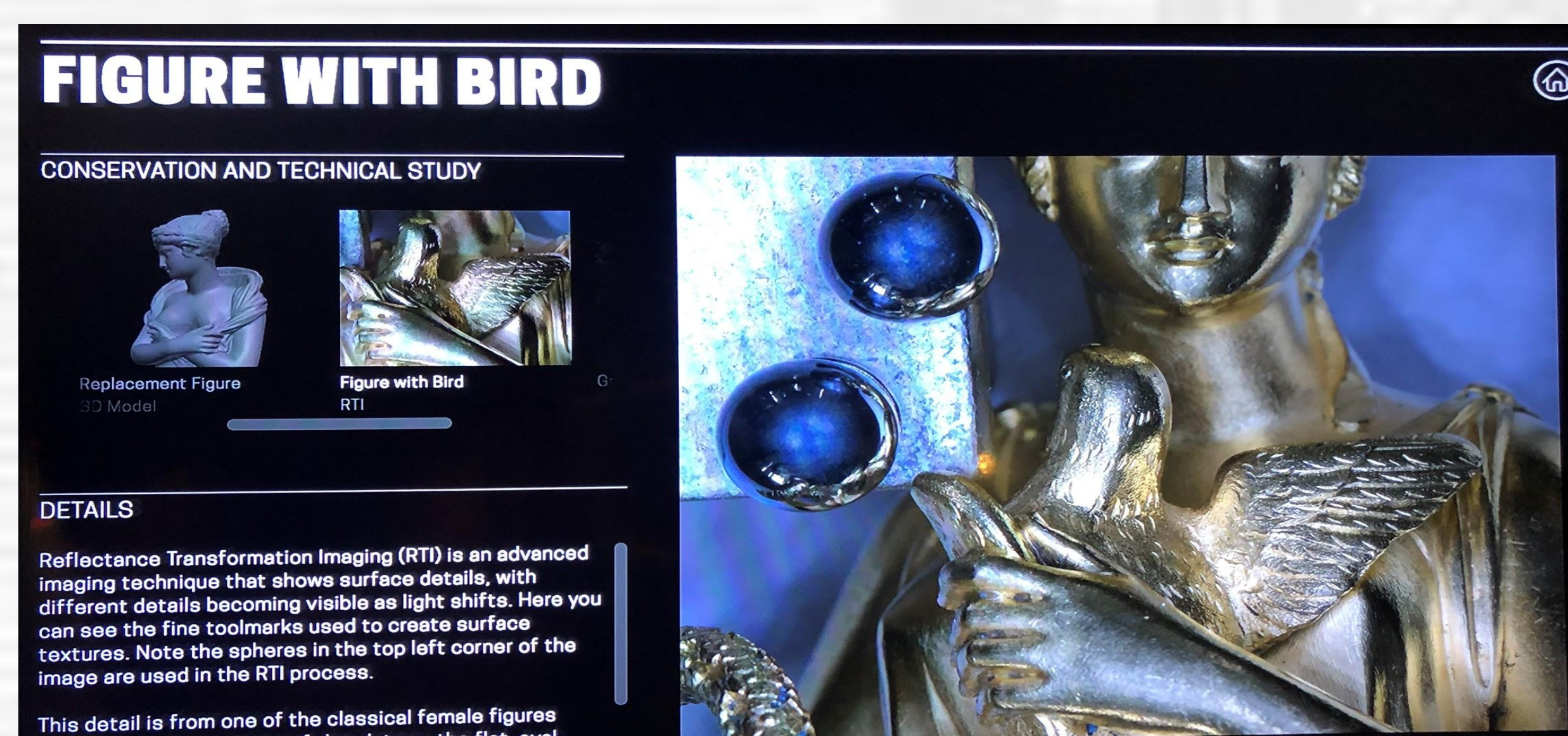
**Condition and Treatment:** While stable overall, uneven surface oxidation and soiling created unintended surface patterning and masked subtle contrasts of matte and burnished surfaces. Extensive testing confirmed that two different chelating gels, based on EDTA and bichinchonic acid respectively, would safely improve the appearance of the pieces. A xanthan gum gelling agent ensured ease of clearance with steam and acetone.



*Photo Captions (left to right):* Before treatment of the frame on the left, after on the right; Bichinchonic acid gel turning purple in the presence of copper ions; During treatment; Before and after treatment images of the central bacchanal figures.

**Technical Study and Exhibition:** Observations suggested that one of the figural pairs that inserts into the frame consisted of an original cast plus a later addition. X-ray fluorescence confirmed that the cast in question had not been mercury gilt, but likely electro-plated. 3D blue light scanning, performed at New York University's LaGuardia studio, highlighted the significant differences in the two casts, with the later piece lacking the refined form of the original. RTI of these pieces and others allowed for deeper study of Thomire's virtuoso use of chasing tools to create surface texture. In order to feature this conservation story in the exhibition, CHSDM's digital team created a touch screen digital table that adapted the RTI and 3D files into an interactive user experience.

**Project Summary and Future Directions:** Study of the *surtout* continues. Excitement over the conservation-focused didactic created a strong foundation for future collaborations between CHSDM's conservators and digital media specialists. CHSDM's objects conservation department remains committed to raising awareness of our field through public-facing initiatives.



## A Special Thank You to:

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## References:

For more information on chelating gel recipes for cleaning gilt metals, see

Thackray, Andrew, 2014. A Methodology for the Conservation of Furniture Mounts. *Victoria and Albert Museum Conservation Journal* 62, Autumn. <http://www.vam.ac.uk/content/journals/conservation-journal/autumn-2014-issue-62/a-methodology-for-the-conservation-of-furniture-mounts/>.

For historical context of Pierre-Phillipe Thomire and metalworking of the period, see

Baulez, Christian and Charlotte Vignon, 2016. *Pierre Gouthiere: Virtuoso Gilder at the French Court*, New York: The Frick Collection.

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