

The Reynolds Research Project: The Hunterian's Portraits by Sir Joshua Reynolds under examination

Team: Dr Erma Hermens, Dr Mark Richter, Dr Margaret Smith, Peter Chung (all ArtTA), and Dr Alisdair Clark (RAEng Research Fellow, Biomedical Engineering Research Division School of Engineering, University of Glasgow)



Sir Joshua Reynolds, Nelly O'Brien, ca. 1763-67, oil on canvas, 125.1 x 100.1 cm, Hunterian Art Gallery

Sir Joshua Reynolds (Plympton, 1723 – London, 1792) portrait of *Nelly O'Brien* (c. 1763-69, Hunterian Art Gallery), is the first portrait in this project to be examined. Despite Reynolds's great artistic influence, his painting techniques have frequently been a subject of controversy, even among his contemporaries. Many of his works, in particular his portraits, have always been notorious for their tendency to crack and fade, phenomena often associated with his choice of materials such as fugitive colorants ('carmine') and extensive experimenting with paint media. Although aware of the occurrence of fading in his portraits, his comments on the use of more stable alternatives were scathing, even though he was aware of the changes in appearance of these works during his lifetime.

The Nelly O'Brien portrait also displays these traits with significant cracking and fading in various areas. The striking complexity of the paint layer structures found in this work, including very thin intermediate layers, provides clear indications for Reynolds's method of reworking, his employment of assistants for drapery and other less conspicuous parts, and his subsequent application of finishing touches.

To study Reynolds's complex multi-layered technique on this particular portrait in more detail, it was crucial to employ advanced analytical techniques including spatially resolved methods for the localization and identification of colorants (organic and inorganic), fillers, binding media as well as other paint constituents. Analytical work was carried out employing optical microscopy, fluorescent staining, SEM-EDX and Surface Enhanced Raman Scattering (SERS). Fluorescent staining was valuable for determining layers with proteinaceous binding media within the paint build-up, especially when thin layers are involved. SERS was successful in identifying very small amounts of organic colorants present in minute samples.

The results will shed new light on Reynolds's practice and will be set against contemporary testimonies on his methods and materials, his own statements, and his views on longevity of artwork and the artist's original intent in particular.



On the left a detail of Nelly's skirt showing the faded pink tone and the remnants of a faded and abraded red glaze layer. On the right the severe cracking in the sleeve on the right.

The Nelly O'Brien portrait will go on loan to the Reynolds exhibition in 2015 at the Wallace Collection for which many portraits on show will also be technically examined by researchers from the National Gallery London in collaboration with the Wallace Collection.

The Hunterian also owns two more portraits by Reynolds: Lady Maynard, and William Hunter, which will be examined later in 2014.

A paper with the first results: 'The truth is for many years I was extremely fond of a very treacherous colour called Carmine...': Sir Joshua Reynolds and his painting technique: fading, cracking and longevity', was presented by Dr Erma Hermens, at the International Symposium, *Painting Techniques, History Materials and Studio Practice*, Rijksmuseum Amsterdam, 18,19, and 20 September 2013.

Contact:

Erma.Hermens@glasgow.ac.uk