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Jonathan Roy Gration, Douglas Alexander Cawthorne

Hidden but not lost; Exploring the Great Hall at Boughton House

This paper describes preliminary doctoral research on the creation of high resolution, textured digital reconstructions and novel visualisations of several historical phases of the Great Hall of Boughton House in England.

Boughton House (1538-1910) is a sprawling country house built around 7 courtyards with twelve entrances, 52 chimney stacks and 365 windows. Its nickname “The English Versailles” is understandable. The focus of this paper is the Great Hall, which has been the central space of the house since its first establishment as a manor house on this site. The most eye catching element of the Great Hall is undoubtedly the wonderfully painted ceiling by Louis Chéron of 1705 depicting the Apotheosis of Hercules. The wainscoting panels appear to be of the same date, but are in fact additions of a restoration campaign in 1911. The panelling replaced a series of Corinthian pilasters of the same period as the painting by Chéron. The painted barrel vaulted ceiling however hides an earlier phase of this space, the Tudor Great Hall. The Tudor ceiling with its carved wind braces and quatrefoil patterns is still in a remarkable state of preservation although hidden behind its painted plaster successor. An original doorway dating to this period has also remained in situ. In addition there exist detailed inventories of furnishings many of which can be traced and there is also a valuable art collection which adorned the space and is still retained by the family.

Using these sources and a conservation level examination of the extant fabric including laser scanning, photogrammetry and HDR texture capturing it is possible to reconstruct the earlier phases of the architectural features of the Great Hall, its contents and furnishings. The paper examines the challenges of doing so, the creation of digital reconstructions of the phases in the history of the Great Hall and issues of diminishing levels of certainty achievable the further back in time one goes. It also examines comparisons of various forms of evidence that inform and influence the end result. The need to exercise balanced evaluation is examined when combining physical evidence and remains, such as tangible objects and textures that are preserved in situ and elements of which only intangible archival evidence remains. In order to create authenticated and trusted 3D digital reconstructions, particular research methodologies from the digital humanities have been combined with the practice based methodology of heritage conservation and restoration. Applying the rigorous standards of physical conservation and restoration to digital reconstructions is presented as a quality control measure that ensures all elements of the reconstructed 3D models can be authenticated, avoiding the temptation of modelling for effect instead of fact.

This ongoing project is presented as a specific example of the work that the Digital Building Heritage Group at De Montfort University undertakes, making the past of architectural heritage accessible through the creation of engaging digital reconstructions based on thorough academic research.